

# U.S. Army Corps of Engineers New England Division

NO FURTHER ACTION DECISION UNDER CERCLA AREA REQUIRING ENVIRONMENTAL EVALUATION 63BQ

DEVENS RESERVE FORCES TRAINING AREA DEVENS, MASSACHUSETTS

CONTRACT DACA31-94-D-0061 DELIVERY ORDER NO. 0007

U.S. ARMY CORPS OF ENGINEERS NEW ENGLAND DIVISION WALTHAM, MASSACHUSETTS

AUGUST 1997

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# DEVENS RESERVE FORCES TRAINING AREA DEVENS, MASSACHUSETTS

# Prepared for:

U.S. Army Corps of Engineers New England Division Waltham, Massachusetts

Contract DACA31-94-D-0061

Prepared by:

ABB Environmental Services, Inc.
Portland, Maine
Project No. 8740-03

**AUGUST 1997** 

# **DEVENS, MASSACHUSETTS**

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#### **EXECUTIVE SUMMARY**

This decision document has been prepared to support a no further action decision at Area Requiring Environmental Evaluation (AREE) 63BQ, the site of a previously removed underground storage tank (UST) in the vicinity of Building 2527, at the Devens Reserve Forces Training Area (RFTA) (formerly Fort Devens), Devens, Massachusetts.

Fort Devens was identified for cessation of operations and closure under Public Law 101-510, the Defense Base Realignment and Closure Act of 1990, and was officially closed in September 1996. Portions of the property formerly occupied by Fort Devens were retained by the Army for reserve forces training and renamed the Devens Reserve Forces Training Area. Areas not retained as part of the Devens RFTA were, or are in the process of being, transferred to new owners for reuse and redevelopment. AREE 63BQ is located within Lease Parcel A-14, which is currently leased to the Massachusetts Government Land Bank. The Army plans to transfer ownership of Lease Parcel A-14 to the Massachusetts Government Land Bank in 1997 for commercial development.

AREE 63BQ is the site of a previously-removed 1,000 gallon UST in the vicinity of Building 2527 located on the southern side of the former Main Post at Fort Devens. Building 2527, now abandoned, was one of a group of former enlisted men's barracks located near Patton Road. The UST was located on the northern side of Building 2527.

The Fort Devens Environmental Management Office identified an abandoned UST in an open area between Buildings 2527 and 2526 in 1995. The UST, and associated contaminated soil, was removed by OHM Remediation Services Corporation (OHM) under contract to the U.S. Army Corps of Engineers-New England Division (USACE-NED). The removal was conducted as a Limited Removal Action (LRA) under the Massachusetts Contingency Plan (MCP). Elevated headspace readings taken during the UST removal triggered a 72-hour notification requirement and Immediate Response Action (IRA) under the MCP. OHM removed approximately 500 cubic yards of petroleum contaminated soil under the IRA. As part of the IRA, OHM completed 17 test pits to determine the distribution of the soil contamination. Field screening sample results obtained from the test pitting program, indicated that the residual soil contamination extended from the UST grave south and east to Buildings 2527 and 2526. Due to the extent of the soil contamination and the potential for groundwater contamination, the

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Army discontinued the IRA and completed the removal action under the Superfund program in accordance with Section 2.9 of the Federal Facility Agreement. An IRA Completion Report, and required documentation, was completed by OHM and submitted to the Massachusetts Department of Environmental Protection (MADEP), documenting the transfer of the site from the MCP to CERCLA. In addition, ABB Environmental Services, Inc. (ABB-ES) completed an Action Memorandum for a time-critical removal Action under CERCLA for the site.

An additional 2,041 cubic yards of soil was removed from AREE 63BO by OHM in an effort to remediate the soil contamination detected under the IRA. Confirmatory soil samples were collected from the bottom and three sidewalls of the excavation for field screening and off-site laboratory analysis. These samples were collected to determine if the cleanup goal of 500 micrograms per gram (µg/g) of total petroleum hydrocarbons (TPH) had been obtained. The results from the field screening samples collected from the northern, eastern, and western sidewalls of the excavation indicated that the 500 µg/g cleanup goal had been achieved at these locations. However, the field screening results from soil samples collected from the southern sidewall adjacent to Building 2527 indicated that the TPH concentration was above 500 µg/g; therefore, a confirmatory soil sample was not collected from this sidewall. Because the contamination was apparently beneath Building 2527, and was greater than 3 feet below ground surface, the cleanup goal was increased to 2,500 µg/g; which is consistant with the S-2 soil standard under the MCP. The results of the field screening sample collected from the southern sidwall were below the new cleanup goal. Based on this information, and the results from the other confirmatory laboratory samples, OHM backfilled the excavation.

To assess the presence of groundwater contamination, OHM installed four groundwater monitoring wells in 1996. One monitoring well was installed in an apparent upgradient location, and the remaining three were installed at apparent downgradient locations. OHM collected one round of groundwater samples from each monitoring well in April 1996 and submitted each sample for off-site laboratory analysis consisting of MADEP's volatile petroleum hydrocarbons and extractable petroleum hydrocarbons (VPH/EPH) analysis. The results of the Round 1 groundwater sample indicated that no detectable concentrations of VPH or EPH were present in the samples. A second round of groundwater samples were collected from each of the monitoring wells by ABB-ES in November 1996 and also submitted to an off-site laboratory for VPH/EPH analysis. The

results of the Round 2 groundwater sampling also showed no detectable concentrations of VPH or EPH.

Based upon the results of the soil removal and the subsequent groundwater sampling, the site requires no further action in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) 120 (h)(3).

Signature of this decision document by the U.S. Army, U.S. Environmental Protection Agency, and MADEP will remove AREE 63BQ from further consideration under the U.S. Army Installation Restoration Program and CERCLA. No further response action under CERCLA will be required of the Army at AREE 63BQ.

#### 1.0 INTRODUCTION

This decision document was prepared to support a no further action decision at Area Requiring Environmental Evaluation (AREE) 63BQ the site of a former underground storage tank (UST) located in the vicinity of Building 2527 at the Devens Reserve Forces Training Area (Devens RFTA), Devens, Massachusetts. It was prepared by ABB Environmental Services, Inc. (ABB-ES) as a component of Task Order 007 of Contract DACA31-94-D-0061 under the direction of the U.S. Army Corps of Engineers, New England Division (USACE-NED).

Fort Devens was identified for cessation of operations and closure under Public Law 101-510, the Defense Base Realignment and Closure (BRAC) Act of 1990, and officially closed in September 1996. Portions of the property formerly occupied by Fort Devens were retained by the Army for reserve forces training and renamed the Devens RFTA. Areas not retained as part of the Devens RFTA were, or are in the process of being, transferred to new owners for reuse and redevelopment. AREE 63BQ is located within Lease Parcel A-14, which is currently leased to the Massachusetts Government Land Bank (MGLB). The Army plans to transfer ownership of Lease Parcel A-14 to the MGLB in early 1997 for commercial development.

Fort Devens was placed on the National Priority List (NPL) on December 21, 1989, under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) as amended by the Superfund Amendments and Reauthorization Act (SARA). In conjunction with the U.S. Army Installation Restoration Program, the U.S. Army Environmental Center (USAEC) developed a Master Environmental Plan (MEP) for Fort Devens in 1992. The MEP consisted of assessments of the environmental status of study areas, specified necessary investigations, and provided recommendations for response actions with the objective of identifying priorities for environmental restoration at Fort Devens. AREEs and Study Areas (SAs) were identified, and investigations were initiated to determine where removal actions were necessary.

#### 2.0 BACKGROUND AND PHYSICAL SETTING

#### 2.1 DEVENS RESERVE FORCES TRAINING AREA BACKGROUND

The Devens RFTA is located within the towns of Ayer and Shirley (Middlesex County) and Harvard and Lancaster (Worcester County), approximately 35 miles northwest of Boston, Massachusetts (Figure 2-1). It was created in 1996, coincident with the closure of Fort Devens, to provide facilities for the training of reserve forces in central New England. The Devens RFTA includes portions of the former North Post and Main Post, and the entire South Post. It lies within the Ayer, Shirley, and Clinton map quadrangles (7½-minute series).

Fort Devens was established in 1917 as Camp Devens, a temporary training camp for soldiers from the New England area. In 1931, the camp became a permanent installation and was redesignated as Fort Devens. Throughout its history, Fort Devens served as a training and induction center for military personnel and a unit mobilization and demobilization site. All or portions of this function occurred during World Wars I and II, the Korean and Vietnam conflicts, and operations Desert Shield and Desert Storm.

Over 3,000 acres at Fort Devens were developed for housing, buildings, and other facilities; and the installation was reported as the largest undeveloped land holding under a single owner in north-central Massachusetts (U.S. Fish and Wildlife Service [USFWS], 1992). The North Post consisted primarily of the Moore Army Airfield and the site of the installation's wastewater treatment facility. The Main Post was the site of numerous buildings, including tracked and wheeled vehicle maintenance facilities, training and administrative buildings, barracks and other military housing, and recreational facilities. The South Post, largely undeveloped, is located south of Massachusetts Route 2 and was used for field training exercises.

Public Law 101-510, BRAC 1990, identified Fort Devens for closure. A portion of Fort Devens was retained by the Army as the Devens RFTA, while other portions were identified as reuse areas. AREE 63BQ is among the areas designated for commercial/industrial development in the Devens Reuse Plan (Vanasse Hangen Brustlin, Inc., 1994).

#### 2.2 REGIONAL GEOLOGY

The Devens RFTA is near the western boundary of the Seaboard Lowland Section of the New England-Maritime Physiographic province (Jahns, 1953). It is adjacent to the Worcester County Plateau of the Central Uplands province and lies partly within the province (Koteff, 1966). The land surface is almost completely covered with unconsolidated glacial outwash deposits, resulting in few bedrock outcrops. The surficial deposits are underlain by a highly complex assemblage of intensely folded and faulted metasedimentary rocks with occasional igneous intrusions. The geomorphology of the region is dominated by glacial features such as outwash plains, kames, kame terraces, drumlins, and eskers.

#### 2.3 REGIONAL HYDROGEOLOGY

Groundwater at the Devens RFTA occurs largely in the permeable glacial-deltaic outwash deposits of sand, gravel, and boulders. Well yields within these sediments are dependent upon the hydraulic characteristics of the aquifer and can range from 2 to over 300 gallons per minute (gpm). Small amounts of groundwater can be obtained from fractured bedrock with yields ranging from 2 to 10 gpm. Minor amounts of groundwater may be found in thin, permeable glacial lenses elsewhere on the installation. The primary hydrogeologic feature at Devens RFTA is the Nashua River, which flows through the facility in a south to north direction, with an average discharge rate of 55 cubic feet per second. In addition to the Nashua River, the terrain is dissected by numerous brooks attendant wetlands. There are also several kettle ponds and one kettle lake.

#### 2.4 SITE DESCRIPTION AND HISTORY

AREE 63BQ is the site of a previously-removed 1,000 gallon UST which was located in the vicinity of Building 2527. The site is located on the southern side of the former Main Post at Fort Devens (Figure 2-2). Building 2527, now abandoned, was one of a group of former enlisted men's barracks located on an unnamed access road near Patton Road. The UST was identified by the former Fort Devens Environmental Management Office (EMO) as abandoned in 1995. The UST did not appear to be associated with the buildings in its vicinity.

### ABB Environmental Services, Inc.

### 3.0 ACTIVITIES AND INVESTIGATIONS

This section summarizes the results of soil remedial activities performed at AREE 63BQ. These investigations included the following:

- UST Removal (including a Limited Removal Action [LRA] and Immediate Response Action [IRA] under the Massachusetts Contingency Plan [MCP])
- Additional Soil Removal under CERCLA

#### 3.1 UST REMOVAL

The abandoned 1,000-gallon UST, and associated contaminated soil, was removed on June 14,1995 by OHM Remediation Services Corporation (OHM) under contract to the USACE-NED. The removal was conducted as a LRA under the Massachusetts Contingency Plan (MCP) and in accordance with the Final UST Removal Protocol, Fort Devens, Massachusetts (USAEC, 1993). Headspace sample readings taken on soil samples collected from below the UST, exceeded 100 parts per million (ppm). These measurements indicated that possible product had been released, and triggered a 72-hour notification requirement under the MCP. The Army notified the (MADEP) of the release and continued to remove soil as an IRA under the MCP. The MADEP verbally authorized the removal of an additional 500 cubic yards of soil and assigned Release Tracking Number 2-10823 to the removal. 500 cubic yards of soil was removed by OHM and screened for total petroleum hydrocarbons (TPH) in the field using OHM's modified Method 418.1. A total of 53 soil samples were collected from the excavation and field screened. A summary of the IRA field screening results is presented in Table 3-1. A complete summary of the data is presented in OHM's Closure Report presented in Appendix A of this report.

Based on the results of the IRA, and discussions between OHM's Licensed Site Professional (LSP) and MADEP personnel, the Army directed OHM to complete a test pit program to determine the feasibility of continuing the removal. A total of 17 test pits (TP-1 through TP-17) were completed (Figure 3-1). Field screening samples were analyzed for TPH using OHM's modification of Method 418.1. Field screening sample results

obtained from the test pitting program indicated that the residual soil contamination extended from the UST grave south and east to Buildings 2527 and 2526 (see Table 3-1 and Figure 3-1). Due to the extent of the soil contamination and the potential for groundwater contamination, the Army discontinued the IRA and completed the action under the Superfund program in accordance with Section 2.9 of the Federal Facility Agreement. An IRA Completion Report (date August 1995), and required documentation, was completed by OHM and submitted to the MADEP, documenting the transfer of the site from the MCP to CERCLA. A summary of the test pitting program, the Release Notification Form, and IRA Completion Statement are included as Appendices A and B of OHM's Closure Report (see Appendix A).

#### 3.2 Additional Soil Removal Under CERCLA

ABB-ES prepared an Action Memorandum for additional soil removal at AREE 63BQ in accordance with requirements for removal actions under CERCLA (ABB-ES, 1995). OHM continued soil excavation activities on October 3, 1995. Soil samples were collected continually from the sidewalls and the bottom of the excavation, and screened in the field for TPH using OHM's modification of Method 418.1 (Figure 3-2). OHM collected a total of 145 soil samples for field screening. The results are presented in Table 3-2. A complete summary of the field screening results is presented in Appendix A of the OHM Closure Report (see Appendix A).

An additional 2,041 cubic yards of soil were removed from AREE 63BQ by OHM in an effort to remediate the soil contamination detected under the IRA. OHM removed a concrete pad and telephone pole in order to continue the soil removal southward toward Building 2527 (see Figure 3-2). Dewatering of the excavation was conducted to facilitate the removal of the contaminated soil. The water removed during this phase of the soil removal program was processed through a temporary water treatment system located at Building 2613 at Devens.

A total of eight confirmatory soil samples, and two duplicates, were collected from the bottom and three sidewalls of the excavation on December 1,1995 to determine if the cleanup goal of 500 micrograms per gram ( $\mu g/g$ ) of TPH, had been obtained (Figure 3-3). OHM collected four composite samples (plus one duplicate), and four grab samples (plus one duplicate) (Table 3-3). The composite soil samples were submitted to an off-site

laboratory for analysis of TPH and semi-volatile organic compounds (SVOCs), while the grab samples were analyzed only for volatile organic compounds (VOCs). The TPH field screening results for the composite soil samples indicated that three of the four samples were below the 500  $\mu$ g/g cleanup goal. These samples were submitted for off-site laboratory analysis. However, the field screening result for the composite soil sample collected from the southern sidewall was 1,580  $\mu$ g/g (see Table 3-2). Because of this result, the southern sidewall composite soil sample was not submitted for off-site laboratory analysis.

The results of the off-site laboratory analyses showed no residual VOCs were present in the grab samples. The results for the composite soil samples indicated that residual TPH was present in the bottom soil sample (SB2527BC) at  $110~\mu g/g$ . TPH was not detected in any of the other composite soil samples. Several SVOCs were also detected in sample SB2527BC; however, none of the detected concentrations exceeded the MCP S-1 GW-1 soil standards (see Table 3-3). A complete summary of the off-site soil sample results is presented in Appendix C of OHM's Closure Report (see Appendix A).

Five soil samples were collected from the stockpiled soil removed from the excavation. Each of the soil samples was submitted for off-site laboratory analysis consisting of Toxicity Characteristic Leaching Procedure (TCLP), Resource Conservation and Recovery Act (RCRA) hazardous characteristics, TPH, VOCs, SVOCs, and polychlorinated biphenyls (PCBs). These analyses were chosen to determine the appropriate disposal alternative for the stockpiled soil. The results of the off-site laboratory analyses indicated that the soil did not have to be disposed of as a hazardous waste. A complete summary of the waste characterization data is presented in Appendix D of the Closure Report (see Appendix A). Based on these results, OHM, under direction of the Army, transported approximately 2,541 cubic yards of soil to Cell A of the temporary storage facility located adjacent to Building 202. The Material Shipping Record used by OHM to document transportation of the soil to the temporary storage facility is presented in Appendix E of OHM's Closure Report (see Appendix A). Concrete debris was transported to a storage area adjacent to the former Fort Devens Defense Reuse and Marketing Office (DRMO) yard, and the UST was transported to a certified tank yard in Lawance, Massachusetts for disposal.

To assess the potential for groundwater contamination, OHM installed four groundwater monitoring wells in 1996. One monitoring well was installed in an apparent upgradient

location and the remaining three were installed at apparent downgradient locations (Figure 3-4). OHM collected one round of groundwater samples from each monitoring well in April 1996 and submitted the samples for off-site laboratory analysis consisting of MADEP's volatile petroleum hydrocarbons and extractable petroleum hydrocarbons (VPH/EPH). A second round of groundwater samples was collected by ABB-ES in November 1996 and also submitted to an off-site laboratory for VPH/EPH analysis. The results of the VPH/EPH analysis for both rounds showed no detectable concentrations of VPH or EPH (Table 3-4). A complete presentation of the Round 1 VPH/EPH results can be found in Appendix G of the OHM Closure Report (see Appendix A). Round 2 results are presented in Appendix B of this Decision Document.

Each of the monitoring wells was surveyed and a topographic survey was completed of AREE 63BQ. Water level measurements were collected from the four monitoring wells on January 15, 1997, so that water table groundwater flow could be established (Table 3-5). Based on these water level measurements, the inferred groundwater flow direction is to the south-southwest (Figure 3-4). Survey results are presented in Appendix C.

#### 4.0 CONTAMINATION ASSESSMENT

This contamination assessment is based on interpretation of available data, including the results of OHM's field activities reported in the Closure Report (OHM, 1996) and the Round 2 groundwater sampling event completed by ABB-ES.

#### 4.1 SOIL

The results from the field screening completed at the end of the CERCLA soil removal at AREE 63BQ, indicated that residual soil contamination was limited to the soil beneath Building 2527. The off-site laboratory confirmatory soil samples indicated that the 500  $\mu$ g/g cleanup goal had been achieved for soil on the northeast, northwest, and southeast sidewalls, and at the bottom of the exavation (see Table 3-3). However, field screening results from the confirmatory composite soil sample collected from the southern sidewall, adjacent to Building 2527, indicated that the TPH concentration was 1,580  $\mu$ g/g (see Table 3-2 and Figure 3-4). This concentration was above the cleanup goal of 500  $\mu$ g/g. Therefore, an off-site laboratory confirmatory soil sample was not submitted for this sidewall. Consistant with the MCP S-2 soil standard, the Army applied a 2,500  $\mu$ g/g cleanup goal to this sidewall due to the fact that the residual contamination was beneath Building 2527, and was also greater than 3 feet bgs. By increasing the cleanup goal to 2,500  $\mu$ g/g, the elevated TPH concentration detected in the southwestern sidewall of the excavation was below the cleanup goal. Using this information and the results from the other confirmatory soil samples, OHM backfilled the excavation.

#### 4.2 GROUNDWATER

The results of the Round 1 and Round 2 groundwater samples indicated that no detectable concentrations of VPH or EPH were present in the samples (see Table 3-4). Based on this data, it appears that the groundwater quality downgradient of the former UST has not been adversely impacted by the releases associated with AREE 63BQ.

#### 5.0 HUMAN HEALTH PRELIMINARY RISK EVALUATION

A human health preliminary risk evaluation (PRE) was performed as part of this Decision Document to evaluate whether contaminants detected at AREE 63BQ pose potential risks to human receptors based on current and future commercial/industrial land use scenarios. Exposure to both soil and groundwater was evaluated. The off-site laboratory results for the confirmatory soil samples and the VPH/EPH data generated by the off-site laboratory for the two groundwater sampling rounds, were used to assess the potential human health risk. Tables 5-1 and 5-2 presents summary statistics and human health soil and groundwater standards used for the AREE 63BQ PRE.

#### 5.1 SOIL

Based on the Contamination Assessment of Subsection 4.1, confirmatory laboratory sample results showed TPH concentrations of up to 110  $\mu$ g/g exist at the bottom of the final UST excavation at AREE 63BQ. In addition, field screening results from the southern sidewall indicated that TPH is present beneath Building 2527 at 1,580  $\mu$ g/g. The maximum concentration of TPH (1,580 mg/g) exceeds the MCP S-1 standard; however, the average concentration (338  $\mu$ g/g) is below the MCP S-1 standard. Additionally, these concentrations are less than the applicable MCP S-2 standard of 2,500  $\mu$ g/g (see Table 5-1). Several SVOCs were detected in confirmatory soil sample SB2527BC; however, the concentration of each compound was below the MCP S-2 standard (see Table 5-1). Because of this, an unacceptable human health risk from direct contact exposure is not expected.

#### 5.2 GROUNDWATER

The groundwater PRE for this Decision Document consisted of comparing the Round 1 and 2 VPH/EPH groundwater data sets to the screening values shown in Table 5-2. All data are from off-site laboratory analysis. As shown in Table 5-2, there were no detectable concentrations of VPH or EPH in either round of groundwater sampling.

Based on these findings, it is concluded that groundwater upgradient and downgradient of the UST at AREE 63BQ would not pose an unacceptable risk to human health due to the release of the petroleum at AREE 63BQ.

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### 6.0 ECOLOGICAL PRELIMINARY RISK EVALUATION

Potential ecological exposure pathways were not identified at AREE 63BQ because contaminants associated with releases from the abandoned UST were confined to subsurface soil and, therefore, not available to ecological receptors. Potential ecological risks were assumed to be negligible, and an ecological PRE was not performed.

# 7.0 CONCLUSIONS

Upon consideration of the completed soil removal actions, the lack of groundwater contamination, and planned commercial reuse of the site, no further action is required of the Army at AREE 63BQ.

#### 8.0 DECISION

Upon consideration of the completed soil removal actions, the lack of groundwater contamination, and planned commercial reuse of the site, no further action is required of the Army at AREE 63BQ. In accordance with CERCLA 120 (h)(3), the U.S. Army has taken all remedial actions currently required at AREE 63BQ. Signature below by the U.S. Environmental Protection Agency (USEPA) and MADEP constitutes concurrence with the same.

U.S. DEPARTMENT OF THE ARMY

James C Chamber	7 Aug 97
JAMES C. CHAMBERS	Date
BRAC Environmental Coordinator	34
Devens Reserve Forces Training Area	
Devens, Massachusetts	
U.S. ENVIRONMENTAL PROTECTION AGENCY	
T Physical	0/1/97
JAMES P. BYRNE	Date
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D. LYNNE WELSH	Date
Section Chief, Federal Facilities - CERO	
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ABB Environmental Services, Inc	

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### GLOSSARY OF ACRONYMS AND ABBREVIATIONS

ABB-ES ABB Environmental Services, Inc.

AREE Area Requiring Environmental Evaluation

BRAC Base Realignment and Closure

CERCLA Comprehensive Environmental Response, Compensation, and

Liability Act

DRMO Defense Reuse and Marketing Office

EPH extractable petroleum hydrocarbons
EMO Environmental Management Office

gpm gallons per minute

IRA Immediate Response Action

LSP Licensed Site Professional

MADEP Massachusetts Department of Environmental Protection

MCP Massachusetts Contingency Plan

MEP Master Environmental Plan

NPL National Priority List

OHM Remediation Servcies Corporation

PCB polychlorinated biphenyl

ppm part per million

PRE Preliminary Risk Evaluation

RCRA Resource Conservation and Recovery Act

RFTA Reserve Forces Training Area

SA study area

### ABB Environmental Services, Inc.

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### GLOSSARY OF ACRONYMS AND ABBREVIATIONS

SARA Superfund Amendments and Reauthorization Act

SVOC semivolatile organic compound

TCLP Toxicity Characteristic Leaching Procedure

TPH total petroleum hydrocarbons

USACE-NED U.S. Army Corps of Engineers, New England Division

USAEC U.S. Army Environmental Center

USEPA U.S. Environmental Protection Agency

USFWS U.S. Fish and Wildlife Service UST underground storage tank

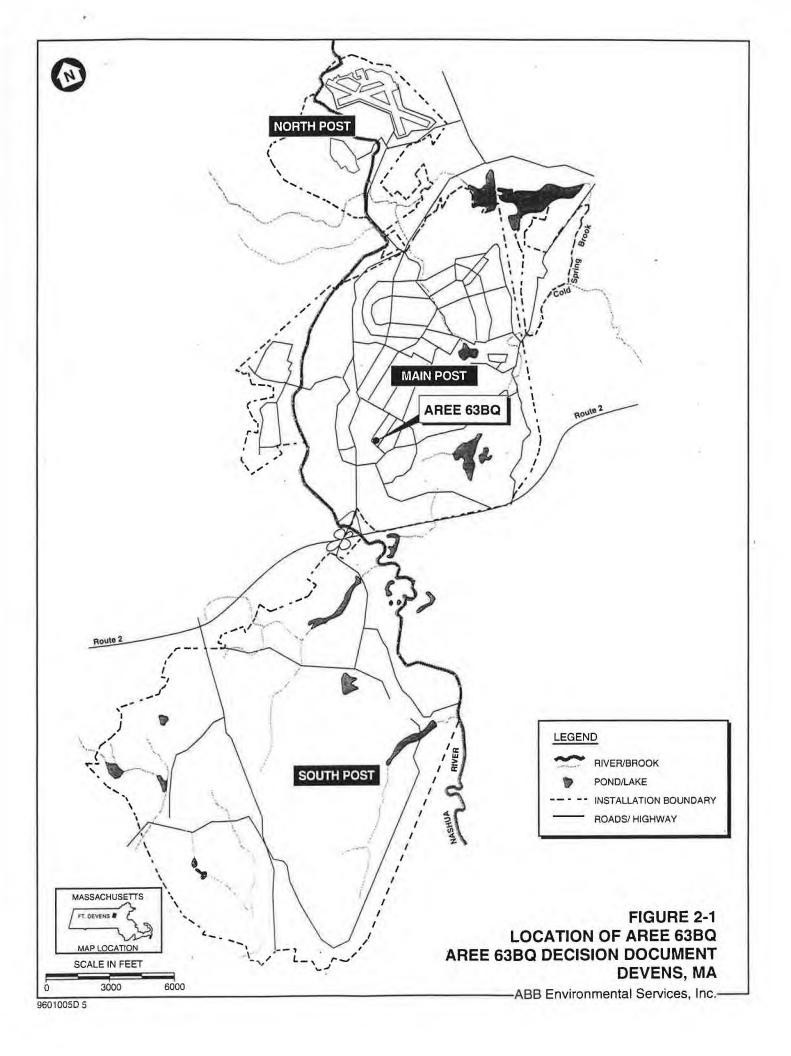
μg/g micrograms per gram

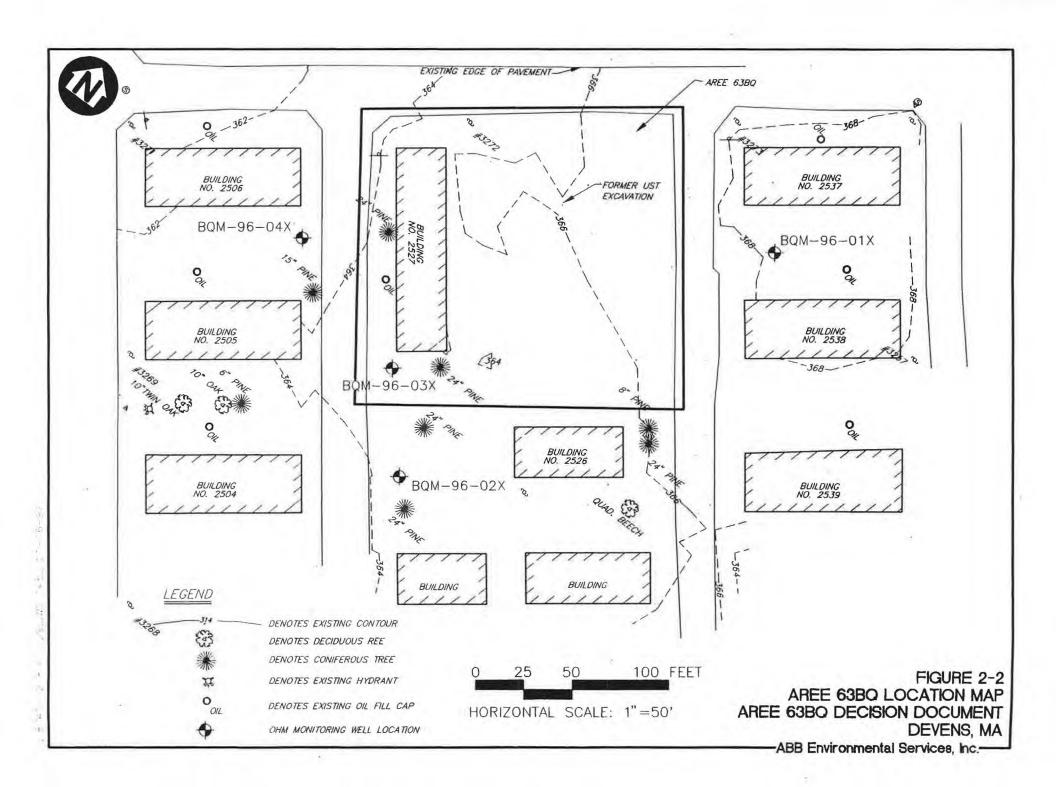
VOC volatile organic compound

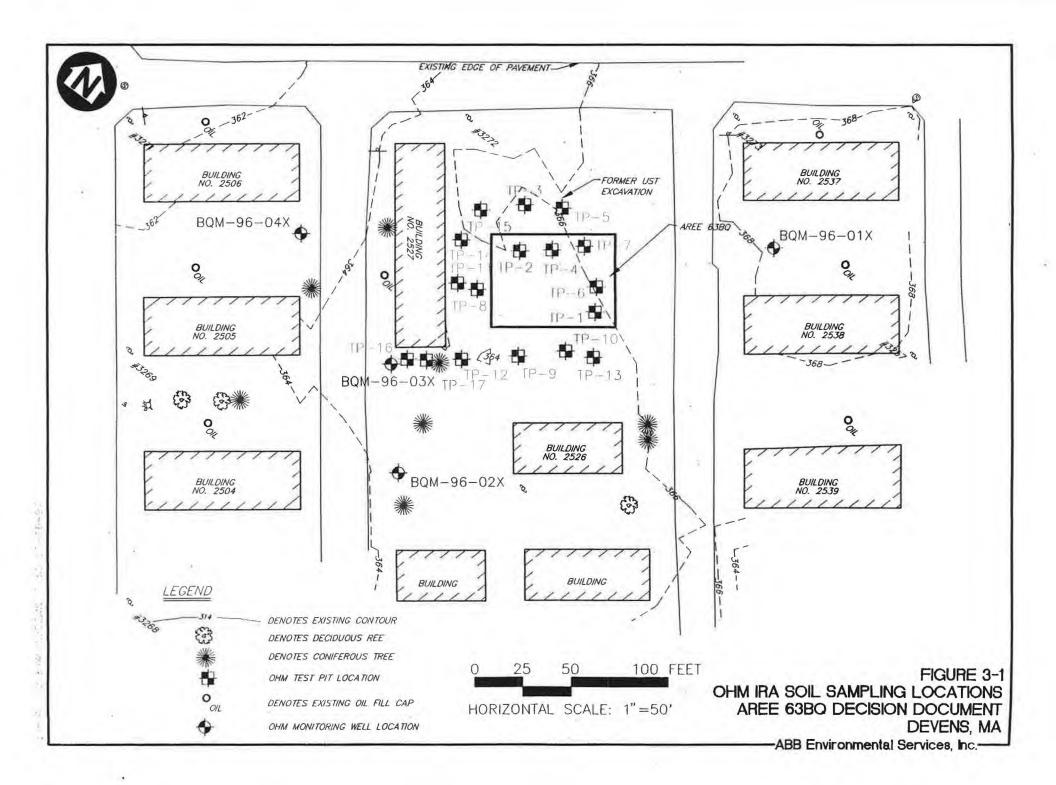
VPH volatile petroleum hydrocarbons

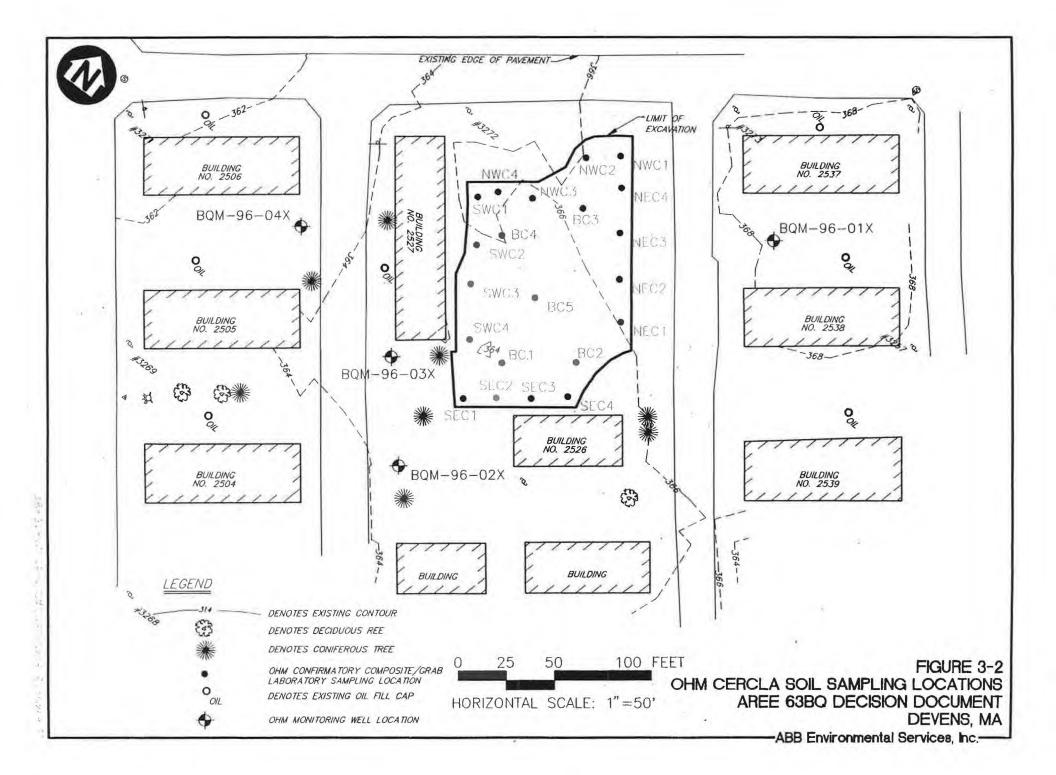
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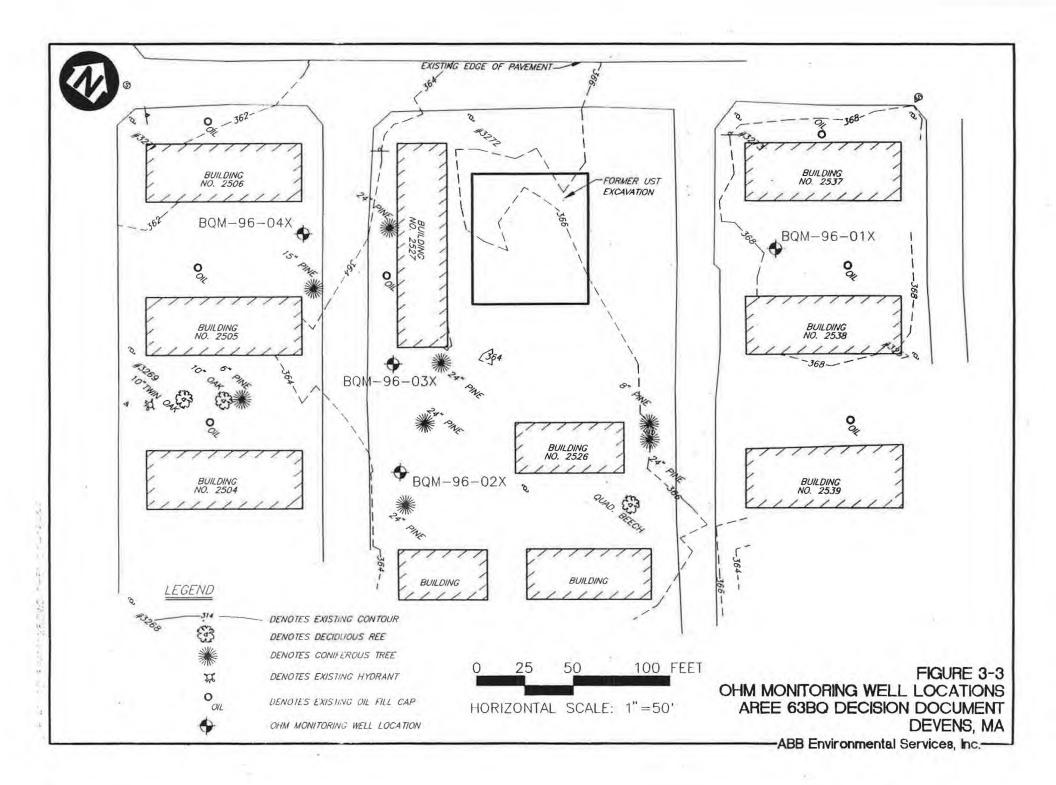
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### TABLE 3-1 IRA FIELD SCREENING RESULTS

# AREE 63BQ DECISION DOCUMENT DEVENS, MASSACHUSETTS

Sample ID	Sample Location	Sample Date	Sample Depth (ft)	TPH Result (mg/kg)
SB2527W1	southwest sidewall	06/14/95	5.3	1861
SB2527W2	southwest sidewall	06/14/95	4.6	4259
SB2527W3	southeast sidewall	06/14/95	3.7	668
SB2527W4	southeast sidewall	06/14/95	3.8	459
SB2527W5	northeast sidewall	06/14/95	3.4	5792
SB2527W6	northeast sidewall	06/14/95	3.4	453
SB2527W7	northwest sidewall	06/14/95	3.8	5242
SB2527W8	northwest sidewall	06/14/95	3.9	14505
SB2527B1	bottom of excavation	06/14/95	5.5	4934
SB2527B2	bottom of excavation	06/14/95	5.6	4222
SB2527W9	northeast sidewall	06/16/95	1.2	10 J
SB2528W10	northeast sidewall	06/16/95	0.8	25 J
SB2527W11	northwest sidewall	06/16/95	2.4	84
SB2527W12	northwest sidewall	06/16/95	0.8	31325
SB2527W13	southwest sidewall	06/16/95	1.2	50
SB2527W14	southwest sidewall	06/16/95	2.3	16 J
SB2527W15	southeast sidewall	06/16/95	1.8	2448
SB2527W16	southeast sidewall	06/16/95	0.8	1502
SB2527B3	bottom of excavation	06/16/95	6.5	1304
SB2527B4	bottom of excavation	06/16/95	9.5	ND
SB2527W17	northeast sidewall	06/19/95	2.8	7J
SB2527W18	northeast sidewall	06/19/95	3	ND
SB2527W19	northeast sidewall	06/19/95	3.3	ND
SB2527W20	northeast sidewall	06/19/95	4	2847
SB2527W21	southeast sidewall	06/19/95	3	ND
SB2527W22	southwest sidewall	06/19/95	3	ND

# TABLE 3-1 IRA FIELD SCREENING RESULTS

# AREE 63BQ DECISION DOCUMENT DEVENS, MASSACHUSETTS

Sample ID	Sample Location	Sample Date	Sample Depth (ft)	TPH Result (mg/kg)
SB2527W23	northwest sidewall	06/19/95	3	318
EX2527A	clean pile sample	06/21/95	2	63
SB2527W24	southwest sidewall	06/21/95	7.1	1060
SB2527W25	southwest sidewall	06/21/95	6.5	2516
SB2527W26	southwest sidewall	06/21/95	7.3	6411
SB2527W27	northwest sidewall	06/21/95	6.4	1372
SB2527W28	northwest sidewall	06/21/95	6.5	2479
SB2527W29	northeast sidewall	06/21/95	6.7	3193
SB2527W30	northeast sidewall	06/21/95	6.8	6429
SB2527W31	northeast sidewall	06/21/95	7.2	3663
SB2527W32	southeast sidewall	06/21/95	6	1843
SB2527W33	southeast sidewall	06/21/95	6.4	725
SB2527B5	bottom of excavation	06/21/95	8	2684
SB2527B6	bottom of excavation	06/21/95	8	23 J
SB2527B7	test pit off southwest sidewall	06/22/95	4 - 5	374
SB2527W34	test pit off southwest sidewall	06/22/95	8 - 9	3644
SB2527B8	test pit off south corner	06/23/95	5 - 6	3282
SB2527B9	test pit off east corner	06/23/95	5 - 6	14 J
SB2527B10	test pit off north corner	06/23/95	5 - 6	13 J
SB2527B11	test pit off north corner	06/23/95	7	11 J
SB2527W35	southwest sidewall	06/23/95	7.8	824
SB2527W36	northwest sidewall	06/23/95	7.5	4434
SB2527W37	northwest sidewall	06/23/95	7.7	3000
SB2527W38	northwest sidewall	06/23/95	6.8	3141
SB2527W39	northwest sidewall	06/23/95	5.8	1020
SB2527B12	bottom of excavation	06/23/95	9.3	205

### TABLE 3-1 IRA FIELD SCREENING RESULTS

# AREE 63BQ DECISION DOCUMENT DEVENS, MASSACHUSETTS

Sample ID	Sample Location	Sample Date	Sample Depth (ft)	TPH Result (mg/kg)
SB2527B13	bottom of excavation	06/23/95	9.3	19 J
SB2527TP1A	test pit #1	06/27/95	8	14 J
SB2527TP1B	test pit #1	06/27/95	10	ND
SB2527TP2A	test pit #2	06/27/95	6.5	ND
SB2527TP2B	test pit #2	06/27/95	8	693
SB2527TP2C	test pit #2	06/27/95	10	412
SB2527TP3A	test pit #3	06/27/95	8	11 J
SB2527TP3B	test pit #3	06/27/95	10	12 J
SB2527TP4A	test pit #4	06/2/95	6	3718
SB2527TP4B	test pit #4	06/27/95	8	2314
SB2527TP4C	test pit #4	06/27/95	10	466
SB2527TP4D	test pit #4	06/27/95	11	378
SB2527TP5A	test pit #5	06/27/95	8	15 J
SB2527TP5B	test pit #5	06/27/95	10	12 J
SB2527TP6A	test pit #6	06/28/95	7	ND
SB2527TP6B	test pit #6	06/28/95	10	ND
SB2527TP7A	test pit #7	06/28/95	8	ND
SB2527TP7B	test pit #7	06/28/95	10	18 J
SB2527TP8A	test pit #8	06/28/95	7	6651
SB2527TP8B	test pit #8	06/28/95	8.5	748
SB2527TP8C	test pit #8	06/28/95	10.5	788
SB2527TP9A	test pit #9	06/28/95	8	1979
SB2527TP9B	test pit #9	06/28/95	10.5	343
SB2527TP10A	test pit #10	06/28/95	7	3453
SB2527TP10B	test pit #10	06/28/95	10	5086
SB2527TP11A	test pit #11	06/29/95	8.5	2666

# TABLE 3-1 IRA FIELD SCREENING RESULTS

# AREE 63BQ DECISION DOCUMENT DEVENS, MASSACHUSETTS

Sample ID	Sample Location	Sample Date	Sample Depth (ft)	TPH Result (mg/kg)
SB2527TP11B	test pit #11	06/29/95	10.5	2074
SB2527TP12A	test pit #12	06/29/95	1	31
SB2527TP12B	test pit #12	06/29/95	6	7 J
SB2527TP12C	test pit #12	06/29/95	6.5	3749
SB2527TP12D	test pit #12	06/29/95	8	128
SB2527TP12E	test pit #12	06/29/95	10	1014
SB2527TP13A	test pit #13	06/30/95	6	19 J
SB2527TP13B	test pit #13	06/30/95	10	ND
SB2527TP14A	test pit #14	06/30/95	8	ND
SB2527TP14B	test pit #14	06/30/95	10	ND
SB2527TP15A	test pit #15	07/05/95	7	12 J
SB2527TP15B	test pit #15	07/05/95	9.5	ND
SB2527TP16A	test pit #16	07/05/95	8	ND
SB2527TP16B	test pit #16	07/05/95	10.5	ND
SB2527TP17A	test pit #17	07/05/95	10	ND

#### NOTES:

ND = Indicates TPH was not detected at specified detection limit.

J = Qualifier indicating estimated concentration below practical quantitation limit.

mg/kg = milligrams per kilogram.

### TABLE 3-2 CERCLA REMOVAL ACTION FIELD SCREENING RESULTS

# AREE 63BQ DECISION DOCUMENT DEVENS, MASSACHUSETTS

Sample ID	Sample Location	Sample Date	Sample Depth (ft)	TPH Result (mg/kg)
SB2527B14	excavation bottom	03-Oct-95	8.3	ND (42)
SB2527B15	excavation bottom	03-Oct-95	11.2	596
SB2527B16	excavation bottom	03-Oct-95	9.8	371
SB2527B17	excavation bottom	03-Oct-95	9.9	64
SB2527B18	excavation bottom	03-Oct-95	9.6	19 J
SB2527B19	excavation bottom	03-Oct-95	8.9	282
SB2527B20	excavation bottom	03-Oct-95	8.8	2,988
SB2527W40	southwest sidewall	03-Oct-95	8.8	ND (42)
SB2527W41	southwest sidewall	03-Oct-95	8.2	2,521
SB2527W42	southwest sidewall	03-Oct-95	8.2	3,736
SB2527W43	southeast sidewall	03-Oct-95	8.5	18,362
SB2527W44	southeast sidewall	03-Oct-95	8.5	4,654
SB2527W45	southeast sidewall	03-Oct-95	8.6	1,298
SB2527W46	northwest sidewall	03-Oct-95	8.6	3,702
SB2527W47	northwest sidewall	03-Oct-95	8.8	563
SB2527W48	northwest sidewall	03-Oct-95	7.5	3,705
SB2527W49	northwest sidewall	03-Oct-95	8.8	1,211
SB2527W50	northwest sidewall	03-Oct-95	7.6	3,477
SB2527W51	northwest sidewall	03-Oct-95	8.6	516

# AREE 63BQ DECISION DOCUMENT DEVENS, MASSACHUSETTS

Sample ID	Sample Location	Sample Date	Sample Depth (ft)	TPH Result (mg/kg)
SB2527W52	northwest sidewall	03-Oct-95	8.3	1,878
SB2527W53	southwest sidewall	18-Oct-95	7 - 9	2,455
SB2527W54	southwest sidewall	18-Oct-95	7-9	1,222
SB2527W55	southwest sidewall	18-Oct-95	7-9	222
SB2527W56	southwest sidewall	18-Oct-95	7-9	386
SB2527W57	northwest sidewall	18-Oct-95	7 - 9	ND (42)
SB2527W58	northwest sidewall	18-Oct-95	7 - 9	ND (42)
SB2527W59	northwest sidewall	18-Oct-95	7-9	ND (42)
SB2527W60	northwest sidewall	18-Oct-95	7 - 9	32 J
SB2527B21	excavation bottom	18-Oct-95	8 - 10	ND (42)
SB2527B22	excavation bottom	18-Oct-95	8 - 10	ND (42)
SB2527B23	excavation bottom	18-Oct-95	8 - 10	ND (42)
SB2527B24	excavation bottom	18-Oct-95	8 - 10	ND (42)
SB2527W61	northwest sidewall	19-Oct-95	7 - 9	5 J
SB2527W62	northwest sidewall	19-Oct-95	7 - 9	ND (42)
SB2527W63	northwest sidewall	19-Oct-95	7 - 9	22 J
SB2527W64	northwest sidewall	19-Oct-95	7 - 9	ND (42)
SB2527W65	northwest sidewall	19-Oct-95	7 - 9	804
SB2527W66	northeast sidewall	19-Oct-95	7 - 9	404
SB2527B25	excavation bottom	19-Oct-95	8 - 10	ND (42)
SB2527B26	excavation bottom	19-Oct-95	8 - 10	ND (42)
SB2527B27	excavation bottom	19-Oct-95	8 - 10	11 J
SB2527B28	excavation bottom	19-Oct-95	8 - 10	ND (42)
SB2527W67	north corner sidewall	24-Oct-95	7-9	1,880

# AREE 63BQ DECISION DOCUMENT DEVENS, MASSACHUSETTS

Sample ID	Sample Location	Sample Date	Sample Depth (ft)	TPH Result (mg/kg)
SB2527W68	north corner sidewall	24-Oct-95	7-9	1,410
SB2527W69	north corner sidewall	24-Oct-95	7 - 9	6,633 -
SB2527W70	north corner sidewall	24-Oct-95	7-9	ND (42)
SB2527W71	north corner sidewall	24-Oct-95	7-9	1,291
SB2527W72	north corner sidewall	24-Oct-95	7 - 9	3,118
SB2527B29	north corner bottom	24-Oct-95	8 - 10	21 J
SB2527W73	south corner sidewall	24-Oct-95	7 - 9	ND (42)
SB2527W74	south corner sidewall	24-Oct-95	7 - 9	ND (42)
SB2527W75	south corner sidewall	24-Oct-95	7-9	ND (42)
SB2527W76	south corner sidewall	24-Oct-95	7-9	ND (42)
SB2527B30	south corner bottom	24-Oct-95	8 - 10	ND (42)
SB2527B31	south corner bottom	24-Oct-95	8 - 10	339
SB2527W77	northeast sidewall	24-Oct-95	7 - 9	ND (42)
SB2527W78	northeast sidewall	24-Oct-95	7-9	10 J
SB2527W79	northeast sidewall	24-Oct-95	7 - 9	ND (42)
SB2527W80	northeast sidewall	25-Oct-95	7 - 9	ND (42)
SB2527B32	northeast bottom	25-Oct-95	8 - 10	ND (42)
SB2527W81	northeast sidewall	25-Oct-95	7 - 9	ND (42)
SB2527B33	northeast bottom	25-Oct-95	8 - 10	ND (42)
SB2527W82	northeast sidewall	25-Oct-95	7 - 9	ND (42)
SB2527W83	northeast sidewall	25-Oct-95	7 - 9	ND (42)
SB2527B34	northeast bottom	25-Oct-95	8 - 10	ND (42)
SB2527W84	southeast sidewall	25-Oct-95	7 - 9	ND (42)
SB2527B35	northeast bottom	25-Oct-95	8 - 10	8 J

### AREE 63BQ DECISION DOCUMENT DEVENS, MASSACHUSETTS

Sample ID	Sample Location	Sample Date	Sample Depth (ft)	TPH Result (mg/kg)
SB2527W85	southeast sidewall	25-Oct-95	7-9	97
SB2527W86	southeast sidewall	25-Oct-95	7-9	1,754
SB2527W87	southeast sidewall	25-Oct-95	7 - 9	401
SB2527B36	south corner bottom	25-Oct-95	8 - 10	ND (42)
SB2527B37	south corner bottom	25-Oct-95	8 - 10	ND (42)
SB2527W88	southeast sidewall	25-Oct-95	7 - 9	892
SB2527W89	southeast sidewall	25-Oct-95	7-9	2,017
SB2527W90	southwest sidewall	25-Oct-95	7 - 9	14 J
SB2527B38	south corner bottom	25-Oct-95	8 - 10	ND (42)
SB2527W91	32527W91 southeast sidewall		7 - 9	2,627
SB2527W92	southeast sidewall	25-Oct-95	7 - 9	985
SB2527W93	southwest sidewall	25-Oct-95	7-9	7.J
SB2527W94	southwest sidewall	25-Oct-95	7 - 9	ND (42)
SB2527W95	east corner sidewall	27-Oct-95	7 - 9	1,990
SB2527W96	east corner sidewall	27-Oct-95	7 - 9	385
SB2527W97	east corner sidewall	27-Oct-95	7 - 9	64
SB2527W98	east corner sidewall	27-Oct-95	7 - 9	38 J
SB2527W99	east corner sidewall	27-Oct-95	7-9	9,108
SB2527W100	east corner sidewall	27-Oct-95	7 - 9	14 J
SB2527W101	east corner sidewall	27-Oct-95	7-9	11 J
SB2527W102	east corner sidewall	27-Oct-95	7-9	5,692
SB2527W103	east corner sidewall	27-Oct-95	7 - 9	840
SB2527W104	southeast sidewall	27-Oct-95	7 - 9	6,251
SB2527W105	southeast sidewall	27-Oct-95	7-9	3,461

# AREE 63BQ DECISION DOCUMENT DEVENS, MASSACHUSETTS

Sample ID	Sample Location	Sample Date	Sample Depth (ft)	TPH Result (mg/kg)
SB2527W106	southeast sidewall	27-Oct-95	7 - 9	ND (42)
SB2527W107	southeast sidewall	27-Oct-95	7 - 9	ND (42)
SB2527W108	southeast sidewall	27-Oct-95	7 - 9	ND (42)
SB2527B39	east corner bottom	27-Oct-95	8 - 10	1,596
SB2527B40	east corner bottom	27-Oct-95	8 - 10	106
SB2527B41	east corner bottom	27-Oct-95	8 - 10	710
SB2527B42	east corner bottom	27-Oct-95	8 - 10	195
SB2527B43	southeast bottom	27-Oct-95	8 - 10	1,232
SB2527W110	south corner sidewall	27-Nov-95	5.5	5 J
SB2527W111	south corner sidewall	27-Nov-95	5.5	5 J
SB2527W112	south corner sidewall	27-Nov-95	5.5	ND (42)
SB2527B44	excavation bottom	27-Nov-95	7.5	ND (42)
SB2527B45	excavation bottom	27-Nov-95	8	ND (42)
SB2527B46	excavation bottom	27-Nov-95	7.5	ND (42)
SB2527B47	excavation bottom	27-Nov-95	5.5	1,782
SB2527B48	excavation bottom	27-Nov-95	5.5	1,291
SB2527B49	excavation bottom	27-Nov-95	5.5	1,101
SB2527B50	excavation bottom	27-Nov-95	5.5	2,642
SB2527B51	excavation bottom	27-Nov-95	5.5	1,722
SB2527B52	excavation bottom	27-Nov-95	5.5	2,126
SB2527W113	northeast sidewall	27-Nov-95	7.5	29 J
SB2527W114	northeast sidewall	27-Nov-95	7.5	3,356
SB2527W115	northeast sidewall	27-Nov-95	7.5	1,465
SB2527W116	northeast sidewall	- 27-Nov-95	7.5	804

# AREE 63BQ DECISION DOCUMENT DEVENS, MASSACHUSETTS

Sample ID	Sample Location	Sample Date	Sample Depth (ft)	TPH Result (mg/kg)
SB2527W117	northeast sidewall	27-Nov-95	7.5	795
SB2527W118	northeast sidewall	27-Nov-95	7.5	2,657
SB2527B53	east corner bottom	28-Nov-95	8	ND (42)
SB2527B54	east corner bottom	28-Nov-95	8.7	ND (42)
SB2527B55	east corner bottom	28-Nov-95	8.5	2,438
SB2527B56	east corner bottom	28-Nov-95	8.3	113
SB2527B57	east corner bottom	28-Nov-95	8	ND (42)
SB2527W119	east corner sidewall	28-Nov-95	7.3	ND (42)
SB2527W120	east corner sidewall	28-Nov-95	7.3	ND (42)
SB2527W121	east corner sidewall	28-Nov-95	7.1	61
SB2527W122	east corner sidewall	28-Nov-95	7.4	1,998
SB2527W123	east corner sidewall	28-Nov-95	7.4	84
SB2527B58	east corner bottom	29-Nov-95	8.2	6 J
SB2527B59	east corner bottom	29-Nov-95	8.3	ND (42)
SB2527B60	east corner bottom	29-Nov-95	8	ND (42)
SB2527B61	east corner bottom	29-Nov-95	8.3	106
SB2527W124	east corner sidewall	29-Nov-95	7.3	58
SB2527W125	east corner sidewall	29-Nov-95	7	ND (42)
SB2527W126	east corner sidewall	29-Nov-95	7.2	51
SB2527W127	east corner sidewall	29-Nov-95	7.1	ND (42)
SB2527W128	east corner sidewall	29-Nov-95	7.5	20 J
SB2527W129	northeast sidewall	30-Nov-95	6.5	15 J
SB2527W130	northeast sidewall	30-Nov-95	6.5	ND (42)
SB2527W131	northeast sidewall	30-Nov-95	6.5	ND (42)

# AREE 63BQ DECISION DOCUMENT DEVENS, MASSACHUSETTS

Sample ID	Sample Location	Sample Date	Sample Depth (ft)	TPH Result (mg/kg)
SB2527B62	south corner bottom	30-Nov-95	6	3,732
SB2527B63	south corner bottom	30-Nov-95	7	ND (42)
SB2527B64	south corner bottom	30-Nov-95	7.1	9 J
SB2527B65	south corner bottom	30-Nov-95	7.5	7 J
SB2527W132	south corner sidewall	30-Nov-95	7.2	17 J
SB2527W133	south corner sidewall	30-Nov-95	6.9	736
SB2527SWC	southwest corner	01-Dec-95	6.0	1,580

NOTES: ND () = indicates TPH was not detected at specified detection limit J = Qualifier indicating estimated concentration below practical quantitation limit mg/kg = milligrams per kilogram

#### TABLE 3-3 CERCLA OFF-SITE CONFIRMATORY SOIL SAMPLE RESULTS

# AREE 63BQ DECISION DOCUMENT DEVENS, MASSACHUSETTS

Sample ID	Sample Location	Sample Date	Total VOCs (ug/g)	Total BNA (ug/g)	TPH Result (ug/g)
SB2527BC	Bottom composite	01-Dec-95	N/A	1.592	110
SB2527NEC	NE sidewall composite	01-Dec-95	N/A	0.040 J	ND (17)
SB2527NWC	NW sidewall composite	01-Dec-95	N/A	0.053 J	ND (18)
SB2527SEC	SE sidewall composite	01-Dec-95	N/A	ND	ND (18)
SB2527DUPC	SE sidewall duplicate	01-Dec-95	N/A	0.150 J	ND (23)
SB2527BG	Bottom grab	01-Dec-95	ND	N/A	N/A
SB2527NEG	NE sidewall grab	01-Dec-95	ND	N/A	N/A
SB2527NWG	NW sidewall grab	01-Dec-95	ND	N/A	N/A
SB2527SEG	SE sidewall grab	01-Dec-95	ND	N/A	N/A
SB2527DUPG	SE sidewall duplicate	01-Dec-95	ND	N/A	N/A

#### NOTES:

 $\mu g/g$  = micrograms per gram

ND = indicates that no target chemicals were detected in sample

J = indicates estimated concentration below practical quantitation limit

N/A = Not applicable (grab samples were analyzed for volatiles and composites were analyzed for TPH and

BNAs)

# TABLE 3-4 OFF-SITE LABORATORY GROUNDWATER RESULTS

# AREE 63BQ DECISION DOCUMENT DEVENS, MASSACHUSETTS

			ROU	UND 1			ROUI	ND 2	
	WELL NO.	MW-1	MW-2	MW-3	MW-4	MW-1	MW-2	MW-3	MW-4
ANALYTE	SAMPLE DATE	APRIL 1996	APRIL 1996	APRIL 1996	APRIL 1996	OCTOBER 1996	OCTOBER 1996	OCTOBER 1996	OCTOBER 1996
VOLATILES (u	g/L)								
n-C 5 to n-C 8	3 Aliphatics	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
n-C9 to n-C1	2 Aliphatics	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
n-C9 to n-C1	0 Aromatics	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
SEMIVOLATILE	ES (ug/L)								
n-C9 to n-C1	8 Aliphatics	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
n-C 19 to n-C	36 Aliphatics	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL
n-C 10 to n-C	22 Aromatics	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL

NOTES:

VPH = MADEP's volatile petroleum hydrocarbons

EPH = MADEP's extractable petroleum hydrocarbons

BRL = Below Reporting Limit

### TABLE 3-5 SUMMARY OF WATER TABLE ELEVATION DATA

## AREE 63BQ DECISION DOCUMENT DEVENS, MASSACHUSETTS

WELL IDENTIFICATION	SOIL DRILLING METHOD	BEDROCK DRILLING MEHTOD	MEDIA SCREENED	DEPTH TO WATER (Feet bgs)	WATER TABLE ELEVATION (Feet NGVD)	COMPLETION DEPTH (Feet bgs)	CONSTRUCTION MATERIAL
BQM-96-01X	HOLLOW STEM AUGER	NA	SOIL	7.76	362.7	17.8	4" ID PVC
BQM-96-02X	HOLLOW STEM AUGER	NA	SOIL	6.03	361,5	17.8	4" ID PVC
BQM-96-03X	HOLLOW STEM AUGER	NA	SOIL	6.10	360.7	17.1	4" ID PVC
BQM-96-04X	HOLLOW STEM AUGER	NA	SOIL	6.68	359.6	19.9	4" ID PVC

Notes: bgs = below ground surface

NGVD = National geodetic vertical datum Water levels measured on January 15, 1997.

BQTAB35.WK1

28-Jan-97

10:34 AM

### TABLE 5-1 HUMAN HEALTH PRELIMINARY RISK EVALUATION OF SOIL

### AREE 63BQ DECISION DOCUMENT DEVENS, MASSACHUSETTS

ANALYTE	CONCENTR	ATION [a]	FREQUENCY	USEPA		MCP	MAXIMUM
+	AVERAGE (ug/g)	MAXIMUM (ug/g)	OF DETECTION	STANDARD/GUIDEL (ug/g)	INE	S-1 SOIL STANDARD (ug/g)	EXCEEDS STANDARD/GUIDELINE?
SEMIVOLATILE (ug/g)							
2-methylnaphthalene	0.660	0.660	1/5	NA		0.7	No
2,4-dinitrotoluene	0.150	0.150	1/5	NA NA		NA	NA
acenaphthalene	0.097	0.097	1/5	NA		20	No
bis(2-ethylhexyl)phthalate	0.047	0.047	1/5	NA		100	No
dibenzofuran	0.059	0.059	1/5	NA		NA	NA
fluorene	0.150	0.150	1/5	NA		400	No
phenanthrene	0.320	0.320	1/5	NA		700	No
PETROLEUM HYDROCARBONS (ug/g)							
Total Petroleum Hydrocarbons	338	1,580	2/5			1,000	Yes

#### Notes

[a] Based on field and off-site analytical data from confirmatory soil samples collected by OHM (and their duplicates).

### TABLE 5-2 HUMAN HEALTH PRELIMINARY RISK EVALUATION OF GROUNDWATER

### AREE 63BQ DECISION DOCUMENT DEVENS, MASSACHUSETTS

ANALYTE	CONCENTRATION [a]		FREQUENCY	DRINKING WATER	MCP	MAXIMUM
	AVERAGE (ug/L)	MAXIMUM (ug/L)	OF DETECTION	STANDARD/GUIDELINE [b] (ug/L)	GROUND WATER STANDARD [c] (ug/L)	EXCEEDS STANDARD/GUIDELINE?
VOLATILES (ug/L)						
n-C5 to n-C8 Aliphatics	0	0	0/8	NA	400	No
n-C9 to n-C12 Aliphatics	0	0	0/8	NA	4,000	No
n-C9 to n-C10 Aromatics	0	0	0/8	NA	200	No
SEMIVOLATILE (ug/L)				· ·		
n-C9 to n-C18 Aliphatics	0	0	0/8	NA	4,000	No
n-C19 to n-C36 Aliphatics	0	0	0/8	NA	40,000	No
n-C10 to n-C22 Aromatics	0	0	0/8	NA	200	No

#### Notes

[a] Based on analytical data from Well No. MW-1 to MW-4 (and their duplicates).

[c] Includes the lowest of the GW-1, GW-2, or GW-3 standards.

<sup>[</sup>b] Includes the lowest of either the EPA or MA drinking water standards or guidelines, or if no federal or state standard or guideline is available, the USEPA Region III tap water concentration.

<sup>\* =</sup> Toati equivalent TPHC concentrations are calculated through the addition of the equivalent VPH and the equivalent EPH concentrations.

**OHM CLOSURE REPORT** 

W019716.doc 8740-03



# CLOSURE REPORT AREE 63BQ FORT DEVENS, MASSACHUSETTS

### Prepared for:

U.S. Army Corps of Engineers
New England Division
Waltham, Massachusetts
Contract Number DACW45-89-D-0506

Prepared by:

OHM Remediation Services Corp. Hopkinton, Massachusetts

Kevin Mack Project Manager

December 3, 1996 OHM Job 16208

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#### LIST OF APPENDICES

	Title
*	On-site Laboratory Documentation
	IRA Submittal Forms
	AENI Analytical Report - Confirmation Samples
	AENI Analytical Report - Waste Characterization Samples
	Transportation and Disposal Documentation
	Well Boring and Construction Logs
	Commonwealth Analytical Report - Groundwater Samples

### LIST OF ACRONYMS AND ABBREVIATIONS

ABB Environmental Services, Inc.

AENI American Environmental Network, Inc.

AREE Area Requiring Environmental Evaluation

BGS Below Ground Surface

CERCLA Comprehensive Environmental Response, Compensation, and Liability Act

EMO Fort Devens Environmental Management Office

EPH Extractable Petroleum Hydrocarbons

IR Infrared Spectroscopy

NPL National Priority List

MADEP Massachusetts Department of Environmental Protection

MCP Massachusetts Contingency Plan

MSR Material Shipping Record

NED US Army Corps of Engineers New England Division

NPDES National Pollutant Discharge Elimination System

OHM Remediation Services Corporation

PAHs Polynuclear Aromatic Hydrocarbons

PCB Polychlorinated Biphenyls

PID Photoionization Detector

QA/QC Quality Assurance/Quality Control

RCRA Resource Conservation and Recovery Act

SARA Superfund Amendments and Reauthorization Act

SVOC Semivolatile Organic Compounds

TCLP Toxicity Characteristic Leachate Procedure

TPH Total Petroleum Hydrocarbons

### LIST OF ACRONYMS AND ABBREVIATIONS

(continued)

USAEC U.S. Army Environmental Center

USACE United States Army Corps of Engineers

UST Underground Storage Tank

VOC Volatile Organic Compounds

VPH Volatile Petroleum Hydrocarbons



REPLY TO

#### DEPARTMENT OF THE ARMY

HEADQUARTERS FORT DEVENS FORT DEVENS, MASSACHUSETTS

01433-5100

September 14, 1995



Environmental Management Office

Lynn Welsh, Section Chief Site Management Branch Massachusetts Department of Environmental Protection Central Regional Office 75 Grove Street Worcester, Massachusetts 01605

RE: Submission of RNF and IRAC Tank Release @ Building #2527

Fort Devens, MA RTN # 2-10823

Dear Ms. Welsh:

Please find attached completed MADEP-BWSC Forms #103 and #105, together with supporting materials, relative to the above referenced RTN. I trust the attached will prove sufficient in your management and evaluation of this matter. Should you have any questions or require additional information, please contact the undersigned.

Sincerely,

Installation Environmental Management Officer

Copies Furnished:

MHO TSAA





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### **EXECUTIVE SUMMARY**

Fort Devens was placed on the National Priority List (NPL) on December 21, 1989, under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, Superfund Act) as amended by the Superfund Amendments and Reauthorization Act (SARA). Subsequently, under Public Law 101-510, the Defense Base Realignment and Closure Act of 1990, Fort Devens was selected for cessation of operations and closure. In accordance with these acts, numerous investigations were conducted at Areas Requiring Environmental Evaluation (AREEs), which were identified as potential sites of contamination. AREE 63BQ was established when a release was discovered from an abandoned underground storage tank (UST) in the vicinity Building 2527, located in the southern portion of the Main Post. The Fort Devens Environmental Management Office (EMO) requested the New England Division (NED) of the United States Army Corps of Engineers (USACE) to remove the 1,000 gallon UST after discovering that the tank was abandoned and that the potential of a release was high. This Closure Report summarizes the activities conducted at AREE 63BQ.

The NED contracted OHM Remediation Services Corporation (OHM) to remove the UST and associated petroleum-contaminated soil as a Limited Removal Action (LRA) under the Massachusetts Contingency Plan (MCP). Elevated soil headspace measurements taken during tank removal triggered a 72-hour notification requirement and Immediate Response Action (IRA) under the MCP. OHM removed approximately 500 cubic yards (cy) of petroleum-contaminated soil under the IRA prior to conducting a test pit investigation to determine the lateral extent of contamination. During the course of the test pit investigation, a total of 17 test pits were dug in the area surrounding the excavation. Field screening samples collected from the test pits indicated that petroleum contamination extended from the existing excavation to Buildings 2526 and 2527. Due to the extent of soil contamination, and the potential for groundwater contamination, the Army decided to close out the IRA and continue remedial activities under the Superfund program in accordance with section 2.9 of the Federal Facility Agreement. A Summary Report, dated 08/04/95, was prepared by OHM and submitted to the MADEP with the appropriate regulatory forms to document completion of the IRA. ABB Environmental Services, Inc. (ABB) prepared an Action Memorandum for the site at this time (dated October, 1995).

An additional 2,041 cy of soil were removed under CERCLA in an attempt to address the remaining petroleum contaminated soil. Confirmation soil samples were collected from the bottom and three sidewalls of the excavation to determine if the 500 ug/g cleanup goal for total petroleum hydrocarbons (TPH) had been attained. Field screening results of samples collected from the sidewall adjacent to Building 2527 indicated TPH concentrations above the 500 ug/g clean up goal, therefore a confirmation sample was not collected from this sidewall. However, since the contamination extended under the building and was at a depth greater than three feet, a clean up goal of 2,500 ug/g was selected for this area. Field screening during confirmation sampling indicated that the 2,500 ug/g clean up goal had been attained.

OHM backfilled the excavation and installed four groundwater monitoring wells to determine presence and extent of groundwater contamination in the area. The results of one round of groundwater sampling does not indicate evidence of any impact to the groundwater in the area. Based on the activities described herein, no further action is recommended at this site.

# SECTION 1.0 INTRODUCTION

Fort Devens was placed on the National Priority List (NPL) on December 21, 1989, under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, Superfund Act) as amended by the Superfund Amendments and Reauthorization Act (SARA). Subsequently, under Public Law 101-510, the Defense Base Realignment and Closure Act of 1990, Fort Devens was selected for cessation of operations and closure. In accordance with these acts, numerous investigations were conducted at Areas Requiring Environmental Evaluation (AREEs), which were identified as potential sites of contamination. AREE 63BQ was established when a release was discovered from an abandoned underground storage tank (UST) in the vicinity Building 2527.

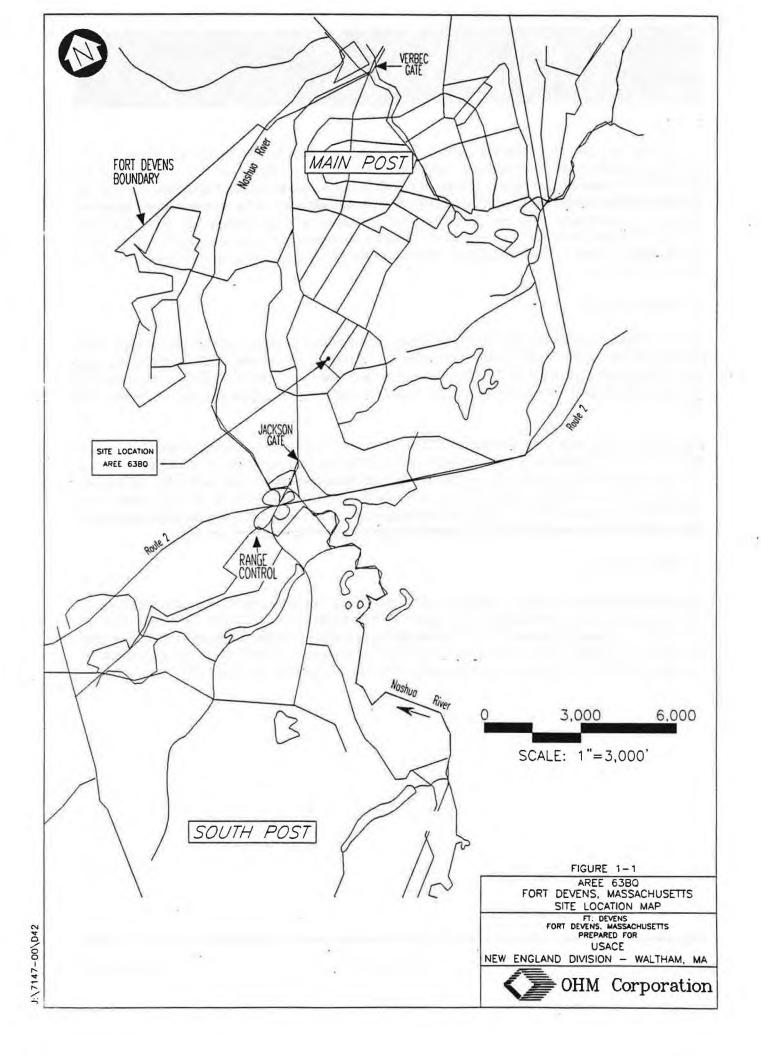
#### 1.1 Site Background

The New England Division (NED) of the United States Army Corps of Engineers (USACE) contracted OHM Remediation Services Corporation (OHM) to remove a 1,000 gallon UST located in the vicinity of Building 2527, in the southern portion of the Main Post (Refer to Figure 1-1). The Fort Devens Environmental Management Office (EMO) discovered that the tank was abandoned and that the potential of a release was high.

The removal was conducted as an Immediate Response Action (IRA) under the Massachusetts Contingency Plan (MCP) after it became evident that petroleum had been released to the subsurface soil. OHM contracted a Licensed Site Professional (LSP) to oversee the IRA and ensure compliance with the MCP. The site was transferred from an IRA to a CERCLA Removal Action after removing 500 cubic yards (cy) of petroleum-contaminated soil under the IRA, based on screening results which indicated that a significant amount of contaminated soil still remained, and the potential for groundwater contamination was high.

#### 1.2 Site Conditions

The area in which AREE 63BQ is located is largely blanketed by unconsolidated surficial deposits of glacial and post glacial origin. Groundwater is approximately 5-7 feet below ground surface (BGS) in the area of the former UST. Local groundwater flow is in a southernly direction across the site based on water level data gathered from the four newly installed wells. Shallow soil in the area of the UST was likely artificial fill associated with the UST, whereas the deeper material shows characteristics of glacial till.



# SECTION 2.0 PETROLEUM-CONTAMINATED SOIL REMOVAL

OHM was contracted by the USACE NED to remove the 1,000 gallon UST at AREE 63BQ, excavate associated petroleum-contaminated soil, backfill and seed the site. OHM contracted Todd S. Alving, an LSP, to oversee the removal action and ensure compliance with the MCP, until the site was transferred to CERCLA.

#### 2.1 Site Preparation Activities

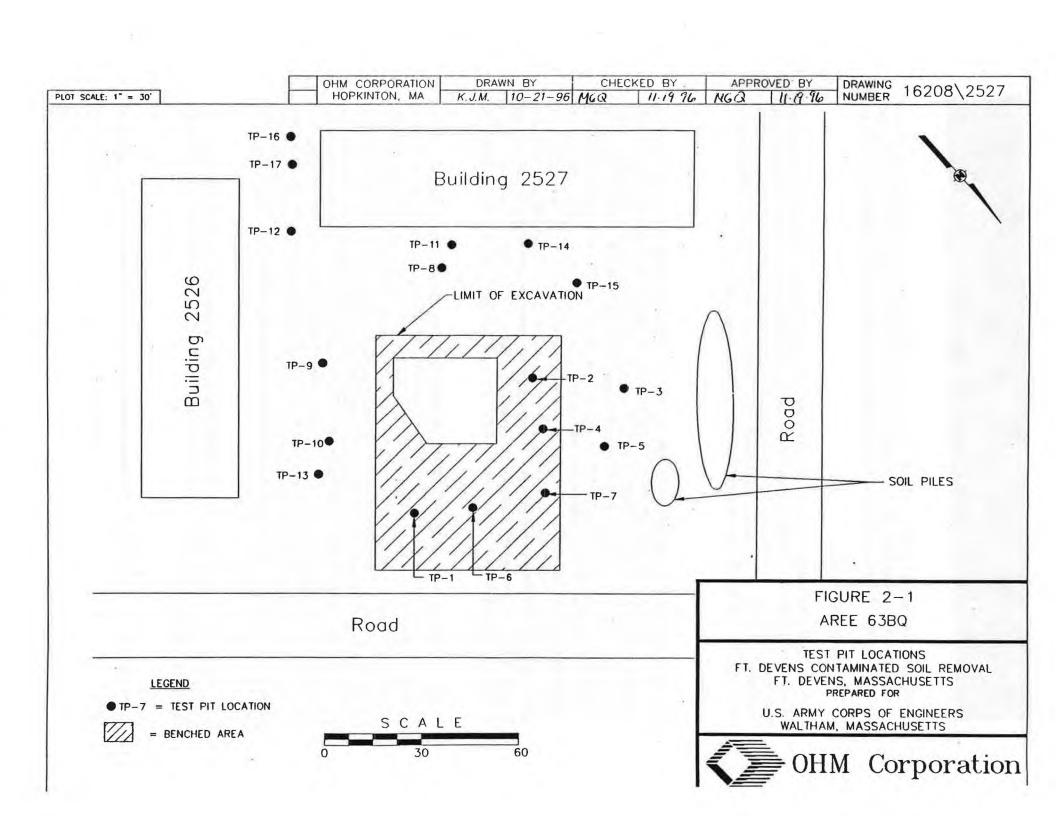
OHM conducted pre-excavation activities at AREE 63BQ to ensure that contaminants would be contained at the site and to prevent the general population from coming into contact with contaminants exposed through excavation activities. An exclusion zone was established using orange fencing, and staging cells were constructed for temporary storage of contaminated soils. Sand berms were constructed at the perimeter of each staging cell and the cells were double lined with 8 ml polyethylene sheeting.

#### 2.2 IRA Activities

The UST at Building 2527 was removed on June 14, 1995, as a Limited Removal Action (LRA) under the MCP, and in accordance with the Final UST Removal Protocol, Fort Devens, Massachusetts (USAEC 1993). Headspace sample results exceeding 100 ppm were measured from soils beneath the UST, indicating a release of product, and triggering a 72-hour release notification requirement under the MCP. The Army notified the Massachusetts Department of Environmental Protection (MADEP) of the release in accordance with MCP guidelines, and continued removing contaminated soil as an Immediate Response Action (IRA). The MADEP verbally authorized the removal of up to 500 cubic yards of soil and assigned Release Tracking Number (RNT) 2-10823 to this release. Petroleum-contaminated soil was excavated based on screening samples analyzed on site for TPH via a modified EPA method 418.1. Screening sample results are summarized in Table 2-1, and all related analytical documentation is included as Appendix A. Clean soil from shallow depths was removed in layers and staged separately from contaminated soil. Once the 500 cubic yards (cy) was stockpiled, the excavation ceased.

Based on discussions with the LSP and MADEP personnel, the Army directed OHM to conduct a test pit investigation in order to determine the feasibility of continuing the removal. A total of 17 test pits were excavated in the area surrounding the excavation. Refer to Figure 2-1 for the test pit locations. Samples collected from the test pits and screened on site indicated that petroleum contamination extended from the existing excavation to Buildings 2526 and 2527. Screening samples collected from test pits TP-2 and TP-4, located to the northwest of the existing excavation, also showed elevated TPH concentrations. However, test pits TP-3 and TP-5, located about 25 feet further from the excavation, beyond TP-2 and TP-4 respectively, were clean. TP-1, TP-6, and TP-7, located northeast and north of the excavation, did not contain elevated concentrations of TPH. The test pit sampling defined the lateral extent of contamination in the area of Building 2527. Due to the extent of soil contamination and the potential for groundwater contamination, the Army decided to close out the IRA and continue remedial activities under the Superfund program in accordance with section 2.9 of the Federal Facility Agreement.

OHM prepared an IRA Summary Report, dated August 1994, for submittal to the MADEP with the appropriate regulatory forms. Refer to Appendix B for copies of the Release Notification Form (RNF) and IRA Completion Statement.





# Table 2-1 TPH Screening Results - Soil Samples IRA Activities AREE 63BQ

Sample ID	Sample Location	Sample Date	Sample Depth (ft)	TPH Result (mg/kg)
SB2527W1	southwest sidewall	06/14/95	5.3	1861
SB2527W2	southwest sidewall	06/14/95	4.6	4259
SB2527W3	southeast sidewall	06/14/95	3.7	668
SB2527W4	southeast sidewall	06/14/95	3.8	459
SB2527W5	northeast sidewall	06/14/95	3.4	5792
SB2527W6	northeast sidewall	06/14/95	3.4	453
SB2527W7	northwest sidewall	06/14/95	3.8	5242
SB2527W8	northwest sidewall	06/14/95	3.9	14505
SB2527B1	bottom of excavation	06/14/95	5.5	4934
SB2527B2	bottom of excavation	06/14/95	5.6	4222
SB2527W9	northeast sidewall	06/16/95	1.2	10 J
SB2528W10	northeast sidewall	06/16/95	0.8	25 J
SB2527W11	northwest sidewall	06/16/95	2.4	84
SB2527W12	northwest sidewall	06/16/95	0.8	31325
SB2527W13	southwest sidewall	06/16/95	1.2	50
SB2527W14	southwest sidewall	06/16/95	2.3	16 J
SB2527W15	southeast sidewall	06/16/95	1.8	2448
SB2527W16	southeast sidewall	06/16/95	0.8	1502
SB2527B3	bottom of excavation	06/16/95	6.5	1304
SB2527B4	bottom of excavation	06/16/95	9.5	ND
SB2527W17	northeast sidewall	06/19/95	2.8	<b>7</b> J
SB2527W18	northeast sidewall	06/19/95	3	ND
SB2527W19	northeast sidewall	06/19/95	3.3	ND
SB2527W20	northeast sidewall	06/19/95	4	2847



Sample ID	Sample Location	Sample Date	Sample Depth (ft)	TPH Result (mg/kg)
SB2527W21	southeast sidewall	06/19/95	3	ND
SB2527W22	southwest sidewall	06/19/95	3	ND
SB2527W23	northwest sidewall	06/19/95	3	318
EX2527A	clean pile sample	06/21/95	2	63
SB2527W24	southwest sidewall	06/21/95	7.1	1060
SB2527W25	southwest sidewall	06/21/95	6.5	2516
SB2527W26	southwest sidewall	06/21/95	7.3	6411
SB2527W27	northwest sidewall	06/21/95	6.4	1372
SB2527W28	northwest sidewall	06/21/95	6.5	2479
SB2527W29	northeast sidewall	06/21/95	6.7	3193
SB2527W30	northeast sidewall	06/21/95	6.8	6429
SB2527W31	northeast sidewall	06/21/95	7.2	3663
SB2527W32	southeast sidewall	06/21/95	6	1843
SB2527W33	southeast sidewall	06/21/95	6.4	725
SB2527B5	bottom of excavation	06/21/95	8	2684
SB2527B6	bottom of excavation	06/21/95	8	23 J
SB2527B7	test pit off southwest sidewall	06/22/95	4 - 5	374
SB2527W34	test pit off southwest sidewall	06/22/95	8 - 9	3644
SB2527B8	test pit off south corner	06/23/95	5 - 6	3282
SB2527B9	test pit off east corner	06/23/95	5 - 6	14 J
SB2527B10	test pit off north corner	06/23/95	5 - 6	13 J
SB2527B11	test pit off north corner	06/23/95	7	11 J
SB2527W35	southwest sidewall	06/23/95	7.8	824
SB2527W36	northwest sidewall	06/23/95	7.5	4434

16208



Sample ID	Sample Location	Sample Date	Sample Depth (ft)	TPH Result (mg/kg)
SB2527W37	northwest sidewall	06/23/95	7.7	3000
SB2527W38	northwest sidewall	06/23/95	6.8	3141
SB2527W39	northwest sidewall	06/23/95	5.8	1020
SB2527B12	bottom of excavation	06/23/95	9.3	205
SB2527B13	bottom of excavation	06/23/95	9.3	19 J
SB2527TP1A	test pit #1	06/27/95	8	14 J
SB2527TP1B	test pit #1	06/27/95	10	ND
SB2527TP2A	test pit #2	06/27/95	6.5	ND
SB2527TP2B	test pit #2	06/27/95	8	693
SB2527TP2C	test pit #2	06/27/95	10	412
SB2527TP3A	test pit #3	06/27/95	8	11 J
SB2527TP3B	test pit #3	06/27/95	10	12 J
SB2527TP4A	test pit #4	06/2/95	6	3718
SB2527TP4B	test pit #4	06/27/95	8	2314
SB2527TP4C	test pit #4	06/27/95	10	466
SB2527TP4D	test pit #4	06/27/95	11	378
SB2527TP5A	test pit #5	06/27/95	8	15 J
SB2527TP5B	test pit #5	06/27/95	10	12 J
SB2527TP6A	test pit #6	06/28/95	7	ND
SB2527TP6B	test pit #6	06/28/95	10	ND
SB2527TP7A	test pit #7	06/28/95	8	ND
SB2527TP7B	test pit #7	06/28/95	10	18 J
SB2527TP8A	test pit #8	06/28/95	7	6651



Sample ID	Sample Location	Sample Date	Sample Depth (ft)	TPH Result (mg/kg)
SB2527TP8B	test pit #8	06/28/95	8.5	748
SB2527TP8C	test pit #8	06/28/95	10.5	788
SB2527TP9A	test pit #9	06/28/95	8	1979
SB2527TP9B	test pit #9	06/28/95	10.5	343
SB2527TP10A	test pit #10	06/28/95	7	3453
SB2527TP10B	test pit #10	06/28/95	10	5086
SB2527TP11A	test pit #11	06/29/95	8.5	2666
SB2527TP11B	test pit #11	06/29/95	10.5	2074
SB2527TP12A	test pit #12	06/29/95	1	31
SB2527TP12B	test pit #12	06/29/95	6	7 J
SB2527TP12C	test pit #12	06/29/95	6.5	3749
SB2527TP12D	test pit #12	06/29/95	8	128
SB2527TP12E	test pit #12	06/29/95	10	1014
SB2527TP13A	test pit #13	06/30/95	6	19 J
SB2527TP13B	test pit #13	06/30/95	10	ND
SB2527TP14A	test pit #14	06/30/95	8	ND
SB2527TP14B	test pit #14	06/30/95	10	ND
SB2527TP15A	test pit #15	07/05/95	7	12 J
SB2527TP15B	test pit #15	07/05/95	9.5	ND
SB2527TP16A	test pit #16	07/05/95	8	ND
SB2527TP16B	test pit #16	07/05/95	10.5	ND
SB2527TP17A	test pit #17	07/05/95	10	ND

NOTES:

ND () = indicates TPH was not detected at specified detection limit

J = Qualifier indicating estimated concentration below practical quantitation limit

mg/kg = milligrams per kilogram



#### 2.3 CERCLA Activities

ABB-ES prepared an Action Memorandum for AREE 63BQ, dated October 1995, in accordance with requirements for removal actions under CERCLA. Excavation of petroleum-contaminated soils continued under CERCLA on October 3, 1996. Screen samples were routinely collected and analyzed for TPH on site in order to guide excavation activities. On-site laboratory documentation is included in Appendix A and TPH screening results are summarized in Table 2-2. Excavation continued until the 500 ppm action level for TPH had been attained or until the location of Building 2527 prevented the continued removal of additional contaminated soil. An additional 2,041 cy of petroleum-contaminated soil were removed under CERCLA.

Table 2-2
TPH Screening Results - Soil Samples
CERCLA Activities
AREE 63BQ

Sample ID	Sample Location	Sample Date	Sample Depth (ft)	TPH Result (mg/kg)
SB2527B14	excavation bottom	03-Oct-95	8.3	ND (42)
SB2527B15	excavation bottom	03-Oct-95	11.2	596
SB2527B16	excavation bottom	03-Oct-95	9.8	371
SB2527B17	excavation bottom	03-Oct-95	9.9	64
SB2527B18	excavation bottom	03-Oct-95	9.6	19 J
SB2527B19	excavation bottom	03-Oct-95	8.9	282
SB2527B20	excavation bottom	03-Oct-95	8.8	2,988
SB2527W40	southwest sidewall	03-Oct-95	8.8	ND (42)
SB2527W41	southwest sidewall	03-Oct-95	8.2	2,521
SB2527W42	southwest sidewall	03-Oct-95	8.2	3,736
SB2527W43	southeast sidewall	03-Oct-95	8.5	18,362
SB2527W44	southeast sidewall	03-Oct-95	8.5	4,654
SB2527W45	southeast sidewall	03-Oct-95	8.6	1,298
SB2527W46	northwest sidewall	03-Oct-95	8.6	3,702
SB2527W47	northwest sidewall	03-Oct-95	8.8	563
SB2527W48	northwest sidewall	03-Oct-95	7.5	3,705
SB2527W49	northwest sidewall	03-Oct-95	8.8	1,211
SB2527W50	northwest sidewall	03-Oct-95	7.6	3,477
SB2527W51	northwest sidewall	03-Oct-95	8.6	516



Sample ID	Sample Location	Sample Date	Sample Depth (ft)	TPH Result (mg/kg)
SB2527W52	northwest sidewall	03-Oct-95	8.3	1,878
SB2527W53	southwest sidewall	18-Oct-95	7 - 9	2,455
SB2527W54	southwest sidewall	18-Oct-95	7 - 9	1,222
SB2527W55	southwest sidewall	18-Oct-95	7 - 9	222
SB2527W56	southwest sidewall	18-Oct-95	7 - 9	386
SB2527W57	northwest sidewall	18-Oct-95	7 - 9	ND (42)
SB2527W58	northwest sidewall	18-Oct-95	7 - 9	ND (42)
SB2527W59	northwest sidewall	18-Oct-95	7 - 9	ND (42)
SB2527W60	northwest sidewall	18-Oct-95	7 - 9	32 J
SB2527B21	excavation bottom	18-Oct-95	8 - 10	ND (42)
SB2527B22	excavation bottom	18-Oct-95	8 - 10	ND (42)
SB2527B23	excavation bottom	18-Oct-95	8 - 10	ND (42)
SB2527B24	excavation bottom	18-Oct-95	8 - 10	ND (42)
SB2527W61	northwest sidewall	19-Oct-95	7-9	5 J
SB2527W62	northwest sidewall	19-Oct-95	7 - 9	ND (42)
SB2527W63	northwest sidewall	19-Oct-95	7 - 9	22 J
SB2527W64	northwest sidewall	19-Oct-95	7 - 9	ND (42)
SB2527W65	northwest sidewall	19-Oct-95	7-9	804
SB2527W66	northeast sidewall	19-Oct-95	7-9	404
SB2527B25	excavation bottom	19-Oct-95	8 - 10	ND (42)
SB2527B26	excavation bottom	19-Oct-95	8 - 10	ND (42)
SB2527B27	excavation bottom	19-Oct-95	8 - 10	11 J
SB2527B28	excavation bottom	19-Oct-95	8 - 10	ND (42)
SB2527W67	north corner sidewall	24-Oct-95	7-9	1,880



Sample ID	Sample Location	Sample Date	Sample Depth (ft)	TPH Result (mg/kg)
SB2527W68	north corner sidewall	24-Oct-95	7 - 9	1,410
SB2527W69	north corner sidewall	24-Oct-95	7-9	6,633 -
SB2527W70	north corner sidewall	24-Oct-95	7 - 9	ND (42)
SB2527W71	north corner sidewall	24-Oct-95	7-9	1,291
SB2527W72	north corner sidewall	24-Oct-95	7-9	3,118
SB2527B29	north corner bottom	24-Oct-95	8 - 10	21 J
SB2527W73	south corner sidewall	24-Oct-95	7 - 9	ND (42)
SB2527W74	south corner sidewall	24-Oct-95	7-9	ND (42)
SB2527W75	south corner sidewall	24-Oct-95	7-9	ND (42)
SB2527W76	south corner sidewall	24-Oct-95	7-9	ND (42)
SB2527B30	south corner bottom	24-Oct-95	8 - 10	ND (42)
SB2527B31	south corner bottom	24-Oct-95	8 - 10	339
SB2527W77	northeast sidewall	24-Oct-95	7-9	ND (42)
SB2527W78	northeast sidewall	24-Oct-95	7 - 9	10 J
SB2527W79	northeast sidewall	24-Oct-95	7 - 9	ND (42)
SB2527W80	northeast sidewall	25-Oct-95	7 - 9	ND (42)
SB2527B32	northeast bottom	25-Oct-95	8 - 10	ND (42)
SB2527W81	northeast sidewall	25-Oct-95	7 - 9	ND (42)
SB2527B33	northeast bottom	25-Oct-95	8 - 10	ND (42)
SB2527W82	northeast sidewall	25-Oct-95	7-9	ND (42)
SB2527W83	northeast sidewall	25-Oct-95	7-9	ND (42)
SB2527B34	northeast bottom	25-Oct-95	8 - 10	ND (42)
SB2527W84	southeast sidewall	25-Oct-95	7-9	ND (42)
SB2527B35	northeast bottom	25-Oct-95	8 - 10	8 J



Sample ID	Sample Location	Sample Date	Sample Depth (ft)	TPH Result (mg/kg)
SB2527W85	southeast sidewall	25-Oct-95	7 - 9	97
SB2527W86	southeast sidewall	25-Oct-95	7-9	1,754
SB2527W87	southeast sidewall	25-Oct-95	7 - 9	401
SB2527B36	south corner bottom	25-Oct-95	.8 - 10	ND (42)
SB2527B37	south corner bottom	25-Oct-95	8 - 10	ND (42)
SB2527W88	southeast sidewall	25-Oct-95	7-9	892
SB2527W89	southeast sidewall	25-Oct-95	7 - 9	2,017
SB2527W90	southwest sidewall	25-Oct-95	7 - 9	14 J
SB2527B38	south corner bottom	25-Oct-95	8 - 10	ND (42)
SB2527W91	southeast sidewall	25-Oct-95	7-9	2,627
SB2527W92	southeast sidewall	25-Oct-95	7 - 9	985
SB2527W93	southwest sidewall	25-Oct-95	7 - 9	7 J
SB2527W94	southwest sidewall	25-Oct-95	7 - 9	ND (42)
SB2527W95	east corner sidewall	27-Oct-95	7 - 9	1,990
SB2527W96	east corner sidewall	27-Oct-95	7 - 9	385
SB2527W97	east corner sidewall	27-Oct-95	7 - 9	64
SB2527W98	east corner sidewall	27-Oct-95	7 - 9	38 J
SB2527W99	east corner sidewall	27-Oct-95	7 - 9	9,108
SB2527W100	east corner sidewall	27-Oct-95	7 - 9	14 J
SB2527W101	east corner sidewall	27-Oct-95	7 - 9	11 J
SB2527W102	east corner sidewall	27-Oct-95	7 - 9	5,692
SB2527W103	east corner sidewall	27-Oct-95	7 - 9	840
SB2527W104	southeast sidewall	27-Oct-95	7 - 9	6,251
SB2527W105	southeast sidewall	27-Oct-95	7-9	3,461



Sample ID	Sample Location	Sample Date	Sample Depth (ft)	TPH Result (mg/kg)
SB2527W106	southeast sidewall	27-Oct-95	7 - 9	ND (42)
SB2527W107	southeast sidewall	27-Oct-95	7 - 9	ND (42)
SB2527W108	southeast sidewall	27-Oct-95	7 - 9	ND (42)
SB2527B39	east corner bottom	27-Oct-95	8 - 10	1,596
SB2527B40	east corner bottom	27-Oct-95	8 - 10	106
SB2527B41	east corner bottom	27-Oct-95	8 - 10	710
SB2527B42	east corner bottom	27-Oct-95	8 - 10	195
SB2527B43	southeast bottom	27-Oct-95	8 - 10	1,232
SB2527W110	south corner sidewall	27-Nov-95	5.5	5 J
SB2527W111	south corner sidewall	27-Nov-95	5.5	5 J
SB2527W112	south corner sidewall	27-Nov-95	5.5	ND (42)
SB2527B44	excavation bottom	27-Nov-95	7.5	ND (42)
SB2527B45	excavation bottom	27-Nov-95	8	ND (42)
SB2527B46	excavation bottom	27-Nov-95	7.5	ND (42)
SB2527B47	excavation bottom	27-Nov-95	5.5	1,782
SB2527B48	excavation bottom	27-Nov-95	5.5	1,291
SB2527B49	excavation bottom	27-Nov-95	5.5	1,101
SB2527B50	excavation bottom	27-Nov-95	5.5	2,642
SB2527B51	excavation bottom	27-Nov-95	5.5	1,722
SB2527B52	excavation bottom	27-Nov-95	5.5	2,126
SB2527W113	northeast sidewall	27-Nov-95	7.5	29 J
SB2527W114	northeast sidewall	27-Nov-95	7.5	3,356
SB2527W115	northeast sidewall	27-Nov-95	7.5	1,465
SB2527W116	northeast sidewall	27-Nov-95	7.5	804



Sample ID	Sample Location	Sample Date	Sample Depth (ft)	TPH Result (mg/kg)
SB2527W117	northeast sidewall	27-Nov-95	7.5	795
SB2527W118	northeast sidewall	27-Nov-95	7.5	2,657
SB2527B53	east corner bottom	28-Nov-95	8	ND (42)
SB2527B54	east corner bottom	28-Nov-95	8.7	ND (42)
SB2527B55	east corner bottom	28-Nov-95	8.5	2,438
SB2527B56	east corner bottom	28-Nov-95	8.3	113
SB2527B57	east corner bottom	28-Nov-95	8	ND (42)
SB2527W119	east corner sidewall	28-Nov-95	7.3	ND (42)
SB2527W120	east corner sidewall	28-Nov-95	7.3	ND (42)
SB2527W121	east corner sidewall	28-Nov-95	7.1	61
SB2527W122	east corner sidewall	28-Nov-95	7.4	1,998
SB2527W123	east corner sidewall	28-Nov-95	7.4	84
SB2527B58	east corner bottom	29-Nov-95	8.2	6 J
SB2527B59	east corner bottom	29-Nov-95	8.3	ND (42)
SB2527B60	east corner bottom	29-Nov-95	8	ND (42)
SB2527B61	east corner bottom	29-Nov-95	8.3	106
SB2527W124	east corner sidewall	29-Nov-95	7.3	58
SB2527W125	east corner sidewall	29-Nov-95	7	ND (42)
SB2527W126	east corner sidewall	29-Nov-95	7.2	51
SB2527W127	east corner sidewall	29-Nov-95	7.1	ND (42)
SB2527W128	east corner sidewall	29-Nov-95	7.5	20 J
SB2527W129	northeast sidewall	30-Nov-95	6.5	15 J
SB2527W130	northeast sidewall	30-Nov-95	6.5	ND (42)
SB2527W131	northeast sidewall	30-Nov-95	6.5	ND (42)



Sample ID	Sample Location	Sample Date	Sample Depth (ft)	TPH Result (mg/kg)
SB2527B62	south corner bottom	30-Nov-95	6	3,732
SB2527B63	south corner bottom	30-Nov-95	7	ND (42)
SB2527B64	south corner bottom	30-Nov-95	7.1	9 J
SB2527B65	south corner bottom	30-Nov-95	7.5	7 J
SB2527W132	south corner sidewall	30-Nov-95	7.2	17 J
SB2527W133	south corner sidewall	30-Nov-95	6.9	736

NOTES:

ND () = indicates TPH was not detected at specified detection limit

J = Qualifier indicating estimated concentration below practical quantitation limit

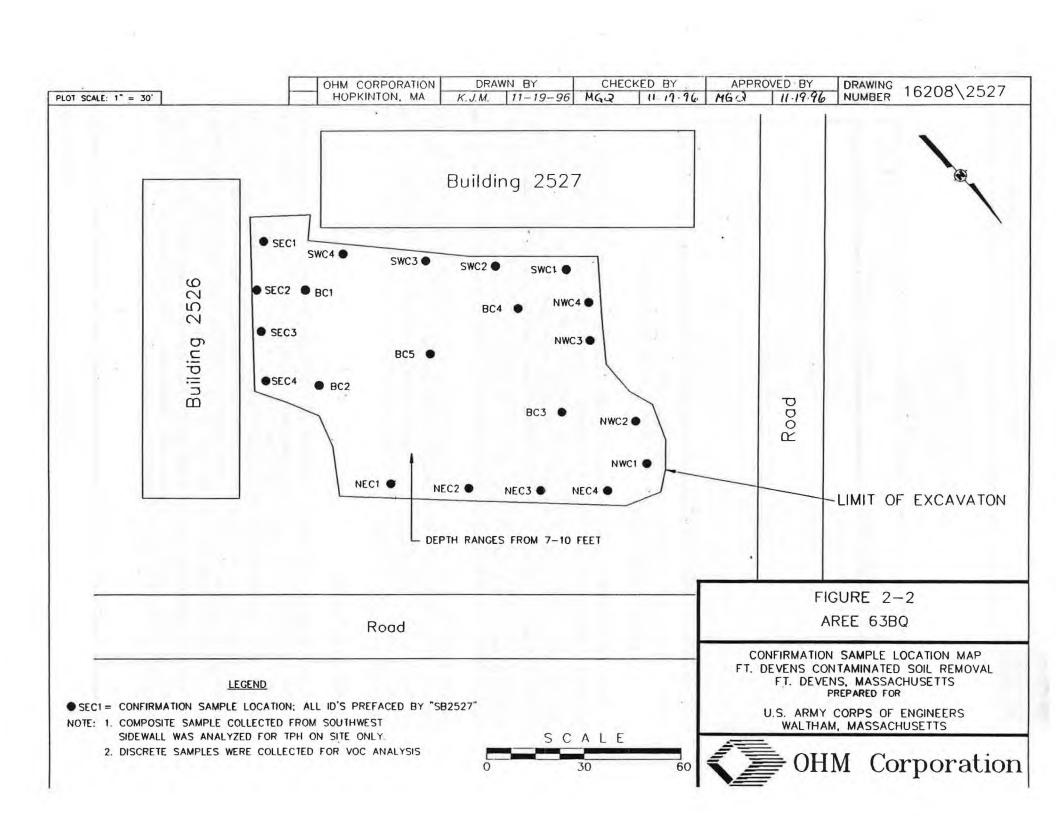
mg/kg = milligrams per kilogram

A concrete pad and telephone pole were removed in order to continue the excavation toward Building 2527. Dewatering of the excavation was conducted as necessary to facilitate the removal of contaminated soil. All water removed from the excavation was processed through OHM's on-site water treatment system prior to discharge. The treatment system consisted of a 12,000 gallon influent pool, a sand filter unit, a carbon unit and two 12,000 gallon effluent pools. Analytical testing was performed on each batch of treated water prior to discharge in accordance with the EPA NPDES exclusion permit issued for the site. Effluent samples were collected and submitted to the subcontract laboratory for analysis of benzene, toluene, ethylbenzene, xylenes; lead; and TPH. Any water that did not meet discharge criteria was returned to the influent pool and retreated.

A leaking 8 inch sewer line was discovered during the course of the excavation. The leak was at one of the pipe joints and was evidently a result of a blockage somewhere else in the line. The Army was notified as the contractor (Earth Tech) responsible for drainage and sewage at the base. The pressure in the line was reduced and OHM repaired the pipe. The blockage in the sewer line was removed at a later date and final repairs were made to the sewer line.

#### 2.4 Confirmation Sampling

Confirmation soil samples were collected on December 01, 1996 to document attainment of cleanup goals and to indicate the location of residual petroleum-contamination remaining in the UST excavation. Samples were collected from the bottom and each sidewall of the excavation (Figure 2-2). The bottom and three of the sidewall samples were submitted to an American Environmental Network, Inc. (AENI) for analysis of TPH, volatile organic compounds (VOCs) and semivolatile organic compounds (SVOCs). The composite sample collected from the southwest sidewall was not submitted to the off-site laboratory because on-site screening results indicated a TPH concentration of 1,580 ug/g. A 2,500 ug/g clean up goal was applied to this sidewall due to the fact that contamination extended beneath Building 2527, and was at a depth greater than 3 feet below ground surface (BGS). The results of the confirmation sample analyses are summarized in Table 2-3 and the AENI analytical report is included as Appendix C.





No TPH, VOCs or SVOCs were detected in the confirmation samples at concentrations above applicable MCP S-1, GW-1 standards. TPH was detected in the bottom sample (SB2527BC) at a concentration of 110 ug/g. In addition, the SVOCs 2-methylnaphthalene (660ug/kg), acenaphthene (97ug/kg), dibenzofuran (59ug/kg), 2,4-dinitrotoluene (170ug/kg), fluorene (150ug/kg), phenanthrene (320ug/kg) and bis (2-ethylhexyl)phthalate (47ug/kg) were detected in sample SB2527BC at concentrations below applicable MCP guidance values. Bis (2-ethylhexyl)phthalate, a common laboratory artifact, was the only SVOC compound detected in the samples collected from the northeast and northwest sidewalls, and the duplicate collected from the southeast sidewall.

Table 2-3 Confirmation Soil Sample Results AREE 63BO

Sample ID	Sample Location	Sample Date	Total VOCs (ug/g)	Total BNA (ug/g)	TPH Result (ug/g)
SB2527BC	Bottom composite	01-Dec-95	N/A	1.592	110
SB2527NEC	NE sidewall composite	01-Dec-95	N/A	0.040 J	ND (17)
SB2527NWC	NW sidewall composite	01-Dec-95	N/A	0.053 J	ND (18)
SB2527SEC	SE sidewall composite	01-Dec-95	N/A	ND	ND (18)
SB2527DUPC	SE sidewall duplicate	01-Dec-95	N/A	0.150 J	ND (23)
SB2527BG	Bottom grab	01-Dec-95	ND	N/A	N/A
SB2527NEG	NE sidewall grab	01-Dec-95	ND	N/A	N/A
SB2527NWG	NW sidewall grab	01-Dec-95	ND	N/A	N/A
SB2527SEG	SE sidewall grab	01-Dec-95	ND	N/A	N/A
SB2527DUPG	SE sidewall duplicate	01-Dec-95	ND	N/A	N/A

NOTES:

ug/g = micrograms per gram

ND = indicates that no target chemicals were detected in sample

J = indicates estimated concentration below practical quantitation limit

N/A = Not applicable (grab samples were analyzed for volatiles and composites were analyzed for TPH and BNAs)

#### 2.5 Waste Characterization

Five samples (composite and grab) were collected from the stockpiled soils removed from the UST excavation and submitted to AENI laboratory to characterize the material for disposal. Samples were analyzed for Full TCLP and RCRA characteristics to verify that the material was not hazardous. In addition, samples were analyzed for TPH, RCRA metals, VOCs, PAHs and PCBs to determine if the soil could be used as daily cover in lined landfills in Massachusetts. TCLP results were all well within regulatory guidelines and RCRA characteristic parameters were all negative, with the exception of reactive sulfide which was detected in several samples at a concentration of 48 mg/kg which is well below the regulatory guideline of 500 mg/kg. The



results indicated that the soil could be used as daily cover in lined landfills in Massachusetts. Refer to Appendix D for the AENI Analytical Report for waste characterization sample results.

The contaminated soil (approximately 2,541) removed during excavation is currently stockpiled in Cell A at a temporary storage facility located adjacent to Building 202 in the northeast portion of the Main Post. Refer to Appendix E for the Material Shipping Record (MSR) used to document transportation of the soils to the temporary storage facility.

Concrete pad debris removed during excavation was transported across the Base for storage behind the DRMO. The UST was taken to the Tombarello and Sons certified tank yard, in Lawrence, Massachusetts. Refer to Appendix E for all transportation and disposal documentation.

#### 2.6 Backfill and Site Restoration

Backfilling of the excavation was initiated in December 1995 using clean soils removed during excavation, and completed in February, 1996 using clean soils from a barrow source in the North Post. The material was tested prior to use to verify that it could be used as backfill. OHM repaired a broken sewer line that had been discovered during excavation. No additional restoration work was necessary at this site.

#### 2.7 Groundwater Investigation

OHM contracted Geologic, Inc. of Hopkinton, MA to install four water table monitoring wells to assess groundwater conditions upgradient and downgradient of the former UST. The wells were installed and developed under the direction of a qualified OHM hydrogeologist from 22 through 26 February 1995. At the direction of the USACE, three wells were placed downgradient of the former UST location, and one was located upgradient. Figure 2-3 shows the approximate limits of excavation and the monitoring well locations.

All monitoring wells were installed using standard hollow stem auger drilling techniques. Continuous split spoon sampling was conducted to the top of groundwater at each location and at 5-foot intervals thereafter in order to describe the lithology and screen for potential vadose zone contamination. Each well was constructed of 4-inch diameter Schedule-40 PVC with 10 feet of 0.010 inch slotted well screen. All wells were developed using a combination of pumping and surging. Soil boring and well construction logs are contained in Appendix F.

The lithology generally consisted of fine-to-medium grained silty sand and sandy silt with many small pebbles and rock fragments. Till was encountered at depths ranging from 9 to 11 feet BGS. Groundwater, which appears to be perched on the top of the till, was noted at depths ranging from approximately 6 to 9 feet BGS during drilling. Due to the fine-grained lithology, groundwater recharge during well development was very slow. Wells were pumped dry from 4 to 6 time each until returns were clear and suitable for groundwater sampling. Volumes of groundwater recovered varied from 33 to 100 gallons during development. No indications of contamination were noted during drilling or well development.

The monitoring wells were sampled on 19 April 1996. Groundwater samples were submitted to Commonwealth Analytical Laboratory for analysis of volatile petroleum hydrocarbons (VPH) and extractable petroleum hydrocarbons (EPH). VPH and EPH are draft analytical methods developed by MADEP to facilitate the chemical and toxicological characterization of petroleum-contaminated media. The sample results indicated no detectable levels of VPH or EPH. Appendix G contains the Commonwealth Analytical Report.



The relative elevation of each well head to the nearest hundredth of a foot was established on 14 November 1996 using a builders transit and stadia rod. These data, along with depth to water measurements collected during the groundwater sampling event, were used to construct a depth to groundwater map. This map is presented as Figure 2-3. Groundwater flow is to the south at a gradient of approximately 0.01. Due to recharge problems, groundwater levels measured in monitoring well MW-4 are not probably not representative of actual conditions, and this well was not used to construct the top of groundwater map.

#### 2.8 Quality Assurance/Quality Control

Appropriate quality assurance/quality control measures were taken to ensure the collection of representative soil samples and the generation of accurate and reproducible analytical data.

#### 2.8.1 Sample Collection Quality Control

Soil samples were collected using either a stainless steel trowel or disposable polyethylene scoops. The sampling equipment was decontaminated using the following procedure:

- 1) non-phosphate soap & water rinse;
- 2) tap water rinse;
- 3) distilled water rinse;
- 4) 10% nitric acid rinse;
- 5) distilled water rinse;
- 6) methanol rinse; and
- distilled water rinse.

Sample integrity was also maintained by changing gloves between each sample location.

All samples collected on-site were entered on a chain of custody and documented on a sample collection log and a permanent logbook. Samples sent off site were properly preserved, packaged, and overnight shipped to the appropriate laboratory.

#### 2.8.2 Laboratory Quality Control

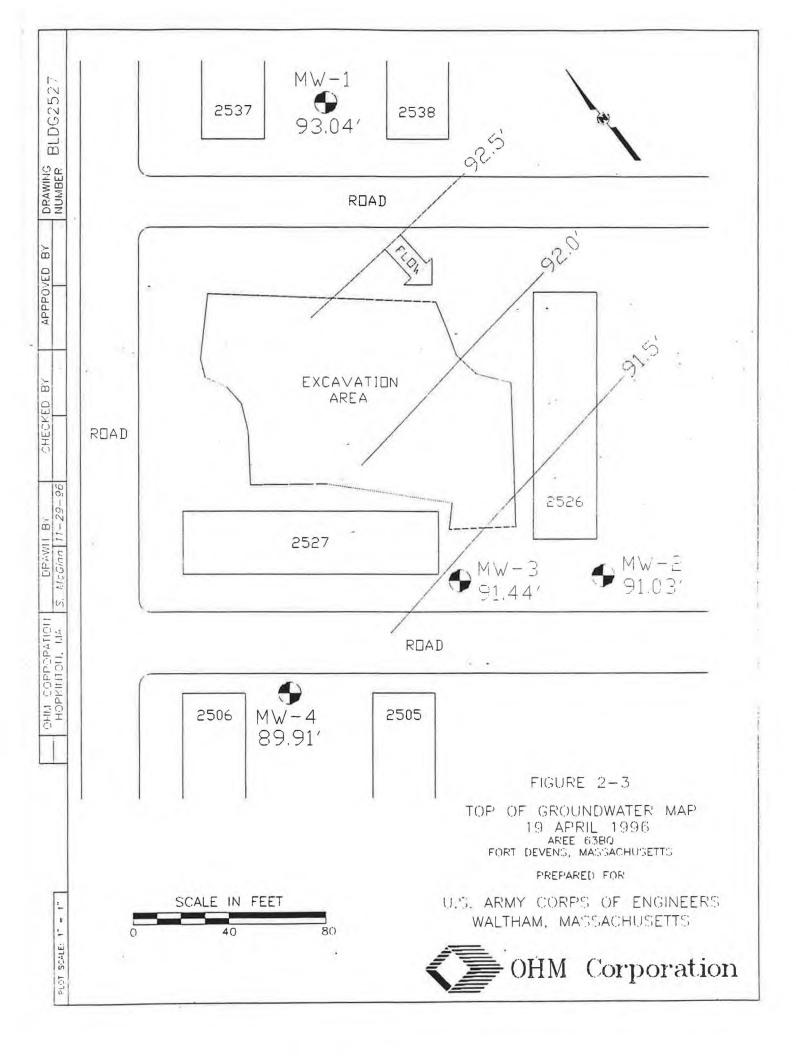
Quality control measures were taken in the on-site laboratory to ensure the accuracy and precision of the analytical data. TPH concentrations were determined using an infrared spectophotometer. A four-point calibration curve was developed prior to the start up of sampling activities, to establish detection limits and document linearity of the detector response. A single calibration point was run in triplicate to demonstrate measurement precision. Continuing calibrations were also performed on a daily basis thereafter to provide a check on instrument response.

Samples sent off-site were analyzed within holding times and QC sample data were within method advisory limits. A comparison of the on-site TPH screening results with AENI's results indicate a good correlation between the two laboratories.

Some of the spike data associated with the EPH analysis on groundwater samples were outside the proposed 60-140% quality control limits provided in the Draft Methods. It is important to note that the MADEP had set these limits at a time when little to no "real-world" data was available. At a recent (early 1996) Lab Association Meeting the MADEP announced that based on comments from environmental laboratories using



the draft methods, the DEP proposed limits would be changed to laboratory-defined limits. Despite the spike recovery problems and with consideration to the low detection limits for the method, there is conclusive evidence supporting the absence of petroleum contamination in these samples.





# SECTION 3.0 CONCLUSIONS

The Fort Devens EMO requested the NED to remove a 1,000 gallon fuel oil UST in the vicinity of Building 2527, in the southern portion of the Main Post. The NED contracted OHM to remove the UST in accordance with the MCP and the Fort Devens UST removal protocol.

OHM discovered a release to the soil surrounding the UST during removal of the tank, which triggered an IRA under the MCP. The MADEP verbally authorized the Army to remove 500 cy of petroleum-contaminated soil under the direction of a LSP. Persistent contamination after the removal of 500 cy of material prompted the Army to request a lateral delineation of contamination. Due to the extent of contamination discovered through the test pit investigation, the Army decided to close out the IRA and continue removal activities at the site under the Superfund program in accordance with section 2.9 of the Federal Facility Agreement.

An additional 2,041 cy of petroleum-contaminated soil was removed under CERCLA before collecting confirmation samples from the bottom and three sidewalls of the excavation. Excavation activities were guided using on-site screening for TPH. Field screening results of samples collected from the sidewall adjacent to Building 2527 (southwest sidewall) indicated TPH concentrations above the 500 ug/g clean up goal, therefore a confirmation sample was not collected from this sidewall. However, since the contamination extended under the building and was at a depth greater than three feet, a clean up goal of 2,500 ug/g was selected for this area. Field screening during confirmation sampling indicated that the 2,500 ug/g clean up goal for the southwest sidewall had been attained.

Samples were collected from the excavated soil in order to characterize the material for disposal. Characterization results indicated that the material was not hazardous and could be reused as daily cover in lined landfills in Massachusetts. The soil is currently stockpiled at a temporary storage facility adjacent to Building 202 in the northeast portion of the Main Post.

Subsequent to completion of backfilling, four water table monitoring wells were installed to assess potential impact of the release on groundwater. Sample results did not indicate the presence of residual petroleum contamination in the groundwater. Based on the results of the confirmation soil and groundwater samples, and considering that remaining contamination is limited to beneath the building foundation at a depth greater than 3 feet and a concentration less than 2,500 ug/g, no further remediation is recommended at this site.

#### T. S. ALVING & ASSOCIATES

166 Winter Street Hopkinton, MA 01748 (617) 894-5920 (508) 435-3679

21 August 1995

CF: J.CHAMBERS 8124198 RJO

Mr. Ronald J. Ostrowski
Installation Environmental Management Officer
U.S. ARMY - FORT DEVENS
AFZD-EM Box 19
Fort Devens, MA 01433

RE: Release Notification Form (RNF) and

Immediate Response Action Completion Statement (IRAC) Submittals

Tank Release @ Building #2527

Fort Devens, MA RTN #2-10823

Dear Mr. Ostrowski:

T.S. Alving and Associates (TSAA) is pleased to provide the U.S. Army - Fort Devens (the "Client") with the following Release Notification Form (RNF) and Immediate Response Action Completion Statement (IRAC) and supporting documentation relative to the above referenced release. This document will be submitted by you to the Massachusetts Department of Environmental Protection - Central Regional Office (MADEP-CERO), in accordance with the Massachusetts Contingency Plan (310 CMR 40.0000, the "MCP").

BWSC Forms #103 and #105 are attached for filing purposes.

In accordance with 310 CMR 40.0427, the following documentation of the IRA action is provided:

#### SUMMARY OF IRA

On 14 June 1994, OHM Remediation Corporation encountered 72-hour reportable conditions during the removal of a 1,000-gallon UST, located in the vicinity of Building #2527 on the main post at Fort Devens. Total headspace volatile organic compounds (TVOCs) at levels greater than 100 ppm were measured in soils located beneath the UST at 2:30 PM. Based on our discussions with Mike Quinlan of OHM and Gail Miller of EMO, TSAA recommended that MADEP be verbally notified of conditions within 72 hours of the elevated TVOCs reading. Ms. Miller verbally notified Bill Phillips of MADEP on 15 June 1995. A release tracking number of 2-10823 was assigned to the release at this time.

On 15 June 1995, Mr. Todd S. Alving of TSAA discussed the nature of conditions with Dave

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Salvador of MADEP. At this time, MADEP provided a verbal approval to conduct an Immediate Response Action (IRA), involving the excavation and stockpiling of up to 200-cubic yards of soil. Soil removal, dewatering, and soil screening by OHM performed during the IRA conformed with the Final UST Removal Protocol, Fort Devens, Massachusetts (USAEC 1993).

On 16 June 1995, OHM, initiated the IRA. Between this date and 23 June 1995, OHM completed the following tasks relative to this IRA:

- 1. Instituted site control for health and safety and work plan procedures.
- Installed decontamination area for equipment.
- Conducted continuous air monitoring during excavation activities.
- 4. Collected grab samples of sidewall and base of excavation soil samples for TPH screening at OHM's on-site analytical laboratory. Utilized results of TPH screening, together with field observations (visual, olfactory) in directing excavation of residual #2 fuel oil contamination in soils.
- 5. Conducted de-watering of excavation as necessary during excavation and utility repair activities. All de-watering conducted in accordance with NPDES Exclusion Permital already in place for Contractor's concurrent work at Fort Devens (DACW45-89-D050c.)

During this period, EMO obtained verbal authorization to increase the total volume of solution, which could be managed under this IRA to 500 cubic yards. Mr. Salvador of MAPES authorized this IRA modification.

During the period of 27 June 1995 and 5 July 1995, OHM conducted a test pit assessment of perimeter soil conditions. Soil samples from these test pits, selected on the basis of field observations, screening, and conditions in the soil excavation area (depth of contamination) were screened on site by OHM for TPH on site. Collectively, results of TPH screening in excavation sidewalls and in test pits in directions to the northwest, west, and south of the excavation indicate that contamination above the target clean up level of 500 ppm in soil remains.

Due to the extent of contamination, the Army has determined that the IRA action should be terminated. Future responses to this release will continue under the Superfund program in accordance with Section 2.9 of the Federal Facility Agreement.

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All above tasks are documented on OHM's "IRA Summary Report, UST 2527, Fort Devens, Massachusetts," dated 4 August 1995. This report, inclusive of field records, sampling and screening logs, and analytical laboratory analysis resultant sheets is attached to this transmittal for reference purposes.

#### CONCLUSIONS AND RECOMMENDATIONS

TSAA makes the following conclusions and recommendations regarding MGL Chapter 21E issues at this site:

1. An evaluation of Chapter 21E issues has been prepared for this site, relative to the outcome of a Immediate Response Action (IRA). Based on results of final sampling of soils within the former UST excavation and test pits positioned in perimeter areas, levels of total petroleum hydrocarbons in excess of the current clean up goal of 500 ppm remain.

On this basis, TSAA concludes that "significant risk" to health, public welfare, safety, or the environment may exist at the release site. This site will be adequately regulated pursuant to 310 CMR 40.0110-0114 under the CERCLA Program. This determination has been indicated on BWSC Form #105. No RAO is appropriate for closure of this release at this time.

Should additional information regarding environmental concerns at or proximate to this release site become available, the opinions and conclusions expressed in this report may require modification.

This report has been prepared by T.S. Alving and Associates on behalf of, and for the sole use of The U.S. Army - Fort Devens for use as an environmental evaluation of the site, and is meant to reflect site conditions and factual information relative to environmental concerns at this location at the time of report preparation, to the extent of the scope of the investigation. This report and the findings contained herein shall not, in whole or in part, be disseminated or conveyed to any other party, or used by any other party in whole or in part, without the prior written consent of TSAA. This report has been prepared in accordance with the Terms and Conditions set forth in our agreement with OHM Remediation Corporation, dated 18 July 1994, and the attached standard General Terms and Conditions and Limitation, applicable to all work performed by TSAA. No other warranties are expressed or implied.

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As this report will be made part of submittal to the Massachusetts Department of Environmental Protection (MADEP). TSAA reminds the client that its contents and the contents of any and all other submittals may be audited.

Respectfully,

Todd S. Alving, LSP #4026

Engineering Geologist

enc:

BWSC Form #103

BWSC Form #105

attachments

cc:

file

M. Quinlan, OHM

J. Pierce, U.S. Army

M. Applebee, U.S. Army

TSA/tsa

wp/wpfiles/ohmfdtr



**BWSC-103** 

Release Tracking Number

### **RELEASE NOTIFICATION & NOTIFICATION RETRACTION**

FORM Pursuant to 310 CMR 40.0335 and 310 CMR 40.0371 (Subpart C)

2	-	10823
		signed by DEP

A. RELEASE ON THREAT OF RELE				40.5	il a sa	il .	
Street: BUDG \$ 2527 OFF	LULUI -	CAOS	Locati	on Aid	2500	O" AREA	
CITY/TOWN: FORT DEVENS,			ZIP C	ode: _	01433		
B. THIS FORM IS BEING USED TO:	(check one)						
Submit a Release Notification (cor	mpiete all sectio	ns of this form).					
Submit a Retraction of a Previous form). You MUST attach the supporting					of Release (comp	olete Sections A,	B, E, F and G of this
C. INFORMATION DESCRIBING TH	E RELEASE	OR THREAT O	F RELEAS	E (TC	R):		
Date and time you obtained knowledge of the	Release or TO	R. Date: 6-14	1.95	Time:	2:30	Specify:	AM M PM
The date you obtained knowledge is alwa	ys required. 1	The time you obta	ined knowle	dge is	not required if	reporting only	120 Day Conditions.
IF KNOWN, record date and time release or	TOR occurred.	Date:		Time:	, y 602, w	Specify	AM PM
Check here if you previously provided an							
Provide date and time of Oral Notificatio							d
Provide date and time of Oral Notification	n. Date:	21.2.75		i ime:	10,00	Specify:	M AM I PM
Check all Notification Thresholds that apply to	o the Release o	r Threat of Releas	e: (for m	ore info	ormation see 310	CMR 40.0310 -	40.0315)
2 HOUR REPOSTING CONDITIONS	72 HOUR R	EPORTING CON	DITIONS	120	DAY REPORTIN	G CONDITIONS	
Sudden Release		face Non-Aqueous				rdous Material(s)	
Threat of Sudden Release	1/2 Inch	NAPL) Equal to or	Greater than		Concentration(s)		ne
Oil Sheen on Surface Water	✓ Underg Release	round Storage Tar	nk (UST)			Soil Exceeding f	Reportable ore than 2 Cubic
Poses Imminent Hazard	Threat	of UST Release			Yards	and modeling in	
Could Pose Imminent Hazard		OI OOI Nelease					ceeding Reportable
Release Detected in Private Well	Release Water	e to Groundwater r Supply	near		Concentration(s)		
Release to Storm Drain		e to Groundwater r	near			-Aqueous Phase ter than 1/8 Inch	Liquid (NAPL) and Less than 1/2
Sanitary Sewer Release (Imminent Hazard Only)		or Residence	1		Inch		
List below the Oils or Hazardous Materials the If necessary, attach a list of additional Oil and	at exceed their if Hazardous Ma	Reportable Concer aterial substances	ntration or Rep subject to rep	portabl orting.	e Quantity by the	greatest amount	2
Name and Quantities of Oils (O) and Hazard			4.000			Reportable	e Concentrations
O or HM Released	O HM (check one)	CAS # (if known)	Amount	77.00	Units		ed, if Applicable 2, RCGW-1, RCGW-2)
TOTAL HEADSPACE VOLATILES		***************************************	>100		PPM.	310cm2	40.0313 (2)
100000000000000000000000000000000000000							
				=			
D. ADDITIONAL INVOLVED PARTIE			25-24-5		A Maria Indiana	S 20 10 1 17 -	
Check here if attaching names and addr submitting this Release Notification (req	esses of owner uired).	rs of properties affe	ected by the R	Release	or Threat of Rei	ease, other than	an owner who is
Check here if attaching Licensed Site P	rofessional (LS	P) name and addre	ess (optional).	(SE	FORM BW	ا ١٥٤ مح	
		d addresses on t					



BWSC-103

Release Tracking Kumber

2 -110823

### **RELEASE NOTIFICATION & NOTIFICATION RETRACTION**

FORM Pursuant to 310 CMR 40.0335 and 310 CMR 40.0371 (Subpart C)

If assigned by DEP

Name of Contact: RONALD J. OSTROL	JSK I	Title: INSTA	LATION ENVIRONMENTAL
Street: AF2D-EM BOX 19		MANAGE	IMENT OFFICER
CHYTOWN: FORT DEVENS.	-	State: MA	ZIP Code: 01433
Telephone: (508) 794 - 3665	Ext.:	FAX: (optional) _	
F. RELATIONSHIP OF PERSON REQUIRED TO	O NOTIFY TO RELEAS	SE OR THREAT	OF RELEASE: (check one)
RP or PRP Specify: Owner Operator	Generator O Tra	insporter Other R	P or PRP:
Fiduciary, Secured Lender or Municipality with Exem	pt Status (as defined by M.	G.L. c. 21E, s. 2)	
Agency or Public Utility on a Right of Way (as define	d by M.G.L. c. 21E, s. 5(j))		
Any Person Otherwise Required to Notify Specify	Relationship:		
G. CERTIFICATION OF PERSON REQUIRED T	O NOTIFY:		
familiar with the information contained in this submittal, incof those individuals immediately responsible for obtaining knowledge and belief, true, accurate and complete, and (lifthis submittal. In this person or entity on whose behalf this possible fines and imprisonment, for willfully submitting falls.  By: Ramy FORT Raws (print name of person or entity recorded in Section E.)	cluding any and all documenthe information, the materia i) that I am fully authorized is submittal is made am/is awalse, inaccurate, or incompletic.	nts accompanying t I information contai to make this attesta are that there are s ete information.	his transmittal form, (ii) that, based on my inquiry ned in this submittal is, to the best of my tion on behalf of the entity legally responsible for gnificant penalties, including, but not limited to,
File address of the second anniding and Gasties if diffe	rent from address recorded	in Section E:	
Enter address of the person providing certification, if diffe			
Street:			
		State:	ZIP Code:
Street:	Ext.:	State:FAX: (optional) _	



**BWSC-105** 

IMMEDIATE RESPONSE ACTION (IRA) TRANSMITTAL FORM Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

	Release Tracking Num	ber
tate	Program (21C Facilities	)
ited:		
ng c	Taken to Address an	
] z	Sediments Soil Zone 2 Residence	
) 7	DURING	

Street: Locati	on Aid:
City/Town: FORT DEVENS ZIPC	
Check here if a Tier Classification Submittal has been provided to DEP for this Release	Tracking Number.
Check here if this location is Adequately Regulated, pursuant to 310 CMR 40.0110-011  Specify Program: CERCLA HSWA Corrective Action Solid Waste	4.  Management RCRA State Program (21C Facilities)
THIS FORM IS BEING USED TO: (check all that apply)	-
Submit an IRA Plan (complete Sections A, B, C, D, E, H, I, J and K).	
Check here if this IRA Plan is an update or modification of a previously approved v	written IRA Plan. Date Submitted:
Submit an Imminent Hazard Evaluation (complete Sections A, B, C, F, H, I, J and K)	
Supmit an IRA Status Report (complete Sections A, B, C, E, H, I, J and K).	
Submit a Request to Terminate an Active Remedial System and/or Terminate a Commitment Hazard (complete Sections A, B, C, D, E, H, I, J and K).	Continuing Response Action(s) Taken to Address an
Submit an IRA Completion Statement (complete Sections A, B, C, D, E, G, H, I, J an	d K).
You must attach all supporting documentation required for each us any Legal Notices and Notices to Public Officials req	
Wetland Storm Drain Paved Surface Private Well School Unknown Other Specify:	Public Water Supply Zone 2 Residence
School Unknown Other Specify:  dentify Conditions That Require IRA, Pursuant to 310 CMR 40.0412: (check all that apply 72 Hour Reporting Condition(s) Substantial Release Migration  Describe: Total Headspace, Volumes Greates SCREENING OF Soils Greates Than 2.0 Be	2 Hour Reporting Condition(s)  Other Condition(s)  THAN 100 PPM DURINS
School Unknown Other Specify:  dentify Conditions That Require IRA, Pursuant to 310 CMR 40.0412: (check all that apply 72 Hour Reporting Condition(s) Substantial Release Migration  Describe: Total Headspace, Volumes Greates SCREENING OF Soils Greates Than 2.0 Be	2 Hour Reporting Condition(s)  Other Condition(s)  THAN 100 PPM DURING  G. LIESS THAN 10.0' Firm UST
School Unknown Other Specify:  dentify Conditions That Require IRA, Pursuant to 310 CMR 40.0412: (check all that apply  72 Hour Reporting Condition(s) Substantial Release Migration  Describe: Total Headspace, Volumes Greenes  Screenes Of Soils Greenes Than 2.0 Bedentify Oils and Hazardous Materials Released: (check all that apply) V Oils  Others Specify:	2 Hour Reporting Condition(s)  Other Condition(s)  THAN 100 PPM DURING  G. LIESS THAN 10.0' Firm UST
School Unknown Other Specify:  dentify Conditions That Require IRA, Pursuant to 310 CMR 40.0412: (check all that apply  72 Hour Reporting Condition(s) Substantial Release Migration  Describe: Total Headspace, Volumes Greates  Screening Of Soils Greates  dentify Oils and Hazardous Materials Released: (check all that apply)  Others Specify:	2 Hour Reporting Condition(s)  Other Condition(s)  THAN 100 PPM DURING  G. LIESS THAN 10.0' Firm UST
School Unknown Other Specify:  dentify Conditions That Require IRA, Pursuant to 310 CMR 40.0412: (check all that apply  72 Hour Reporting Condition(s) Substantial Release Migration  Describe: TOTAL HEADSPACE, VOLCTUE'S GREATES  SCREENING OF SOILS GREATES  dentify Oils and Hazardous Materials Released: (check all that apply) Oils  Others Specify:  DESCRIPTION OF RESPONSE ACTIONS: (check all that apply)  Assessment and/or Monitoring Only	2 Hour Reporting Condition(s)  Other Condition(s)  THAN 100 PPM DURING  G, LIESS THAN 10.0' Firm UST  Chlorinated Solvents Heavy Metals
School Unknown Other Specify:  dentify Conditions That Require IRA, Pursuant to 310 CMR 40.0412: (check all that apply  72 Hour Reporting Condition(s) Substantial Release Migration  Describe: Total Headspace Volumes Greates  Screening Of Soils Greates  dentify Oils and Hazardous Materials Released: (check all that apply) Oils  Others Specify:  DESCRIPTION OF RESPONSE ACTIONS: (check all that apply)  Assessment and/or Monitoring Only	2 Hour Reporting Condition(s)  Other Condition(s)  THAN 100 PPM DURING  G. LIESS THAN 10.0' Firm UST  Chlorinated Solvents Heavy Metals  Deployment of Absorbent or Containment Materials
School Unknown Other Specify:  dentify Conditions That Require IRA, Pursuant to 310 CMR 40.0412: (check all that apply  72 Hour Reporting Condition(s) Substantial Release Migration  Describe: Total Headspace, Volumes Gleaner  Screening Of Soils Gleaner  dentify Oils and Hazardous Materials Released: (check all that apply) Vills  Others Specify:  DESCRIPTION OF RESPONSE ACTIONS: (check all that apply)  Assessment and/or Monitoring Only  Excavation of Contaminated Soils	2 Hour Reporting Condition(s)   Other Condition(s)   THAN 100 PPM DURING   CHOSS THAN 10.0 Firm UST   Chlorinated Solvents
School Unknown Other Specify:  dentify Conditions That Require IRA, Pursuant to 310 CMR 40.0412: (check all that apply  72 Hour Reporting Condition(s) Substantial Release Migration  Describe: Total Headspace, Volumes Greates  Screening Of Soils Of Check all that apply)  dentify Oils and Hazardous Materials Released: (check all that apply)  Others Specify:  DESCRIPTION OF RESPONSE ACTIONS: (check all that apply)  Assessment and/or Monitoring Only  Excavation of Contaminated Soils  Re-use, Recycling or Treatment	2 Hour Reporting Condition(s)  Other Condition(s)  THAN 100 PPM DURING  G. LIESS THAN 10.0 From UST  Chlorinated Solvents Heavy Metals  Deployment of Absorbent or Containment Materials  Temporary Covers or Caps  Bioremediation
School Unknown Other Specify:  dentify Conditions That Require IRA, Pursuant to 310 CMR 40.0412: (check all that apply 72 Hour Reporting Condition(s) Substantial Release Migration  Describe: Total Headspace. Volumes Greates  Creeding Of Soils Of Check all that apply)  dentify Oils and Hazardous Materials Released: (check all that apply)  Others Specify:  Others Specify:  Assessment and/or Monitoring Only  Excavation of Contaminated Soils  Re-use, Recycling or Treatment  On Site Off Site Est. Vol.:  cubic yards	Deployment of Absorbent or Containment Materials  Temporary Covers or Caps  Bioremediation  Soil Vapor Extraction
School Unknown Other Specify:	2 Hour Reporting Condition(s)   Other Condition(s)   Other Condition(s)   THAN 100 PPM DURING   Cless THAN 10.0 Firm UST   Chlorinated Solvents
School Unknown Other Specify:	Deployment of Absorbent or Containment Materials Temporary Covers or Caps Bioremediation Soil Vapor Extraction Structure Venting System Product or NAPL Recovery



BWSC-105

IMMEDIATE RESPONSE ACTION (IRA)
TRANSMITTAL FORM Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

Release Tracking Number

2 - 10823

D. DES	ESCRIPTION OF RESPONSE ACTIONS (continued):		
Re	ternoval of Other Contaminated Media		Temporary Evacuation or Relocation of Residents
Spe	pecify Type and Volume:	_ 0	Fencing and Sign Posting
Ott	Other Response Actions Describe:		
	theck here if this IRA involves the use of Innovative Technologies (DEP is inter echnologies Clearinghouse).	rested in using	this information to aid in creating an Innovative
De	Describe Technologies:		
E. TRA	RANSPORT OF REMEDIATION WASTE: (If Remediation Waste has	been sent to a	n off-site facility, answer the following questions)
Name of	of Facility:	-	
Town ar	and State:		
Quantity	ity of Remediation Waste Transported to Date:		
F. IMN	MINENT HAZARD EVALUATION SUMMARY: (check one of the	fallowing)	
□ Ва	Based upon an evaluation, an Imminent Hazard exists in connection with this R	lelease or Threa	at of Release.
Ba	Based upon an evaluation, an Imminent Hazard does not exist in connection wi	th this Release	or Threat of Release.
	Based upon an evaluation, it is unknown whether an Imminent Hazard exists in assessment activities will be undertaken.	connection with	h this Release or Threat of Release, and further
	Based upon an evaluation, it is unknown whether an Imminent Hazard exists in esponse actions will address those conditions that could pose an Imminent Ha		h this Release or Threat of Release. However,
G. IRA	RA COMPLETION STATEMENT:		
for de: oc:	Check here if future response actions addressing this Release or Threat of Rel or a Site that has already been Tier Classified under a different Release Track described in 310 CMR 40.0600 (i. e., a Transition Site, which includes Sites wi occur according to the deadlines applicable to the earlier Release Tracking Nur	ing Number, or ith approved Wi mber (i. e., Site	a Site that is identified on the Transition List as aivers). These additional response actions must ID Number).
Sta	State Release Tracking Number (i. e., Site ID Number) of Tier Classified Site of	or Transition Site	
If a	f any Remediation Waste will be stored, treated, managed, recycled or n atement, you must submit either a Release Abatement Measure (RAM) F appropriate transmittal form, as an attachmen	eused at the s	ite following submission of the IRA Completion e IV Remedy implementation Plan, along with the

#### H. LSP OPINION:

Lattest under the pains and penalties of perjury that I have personally examined and am familiar with this transmittal form, including any and all documents accompanying this submittal. In my professional opinion and judgment based upon application of (i) the standard of care in 309 CMR 4.02(1), (ii) the applicable provisions of 309 CMR 4.02(2) and (3), and (iii) the provisions of 309 CMR 4.03(5), to the best of my knowledge, information and belief,

- if Section B of this form indicates that an Immediate Response Action Plan is being submitted, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) complies(y) with the identified provisions of all orders, permits, and approvals identified in this submittal;
- if Section B of this form indicates that an Imminent Hazard Evaluation is being submitted, this Imminent Hazard Evaluation was developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40,0000, and all assessment activities(y) undertaken to support this Imminent Hazard Evaluation complies(y) with the applicable provisions of M.G.L. c. 21E and 310 CMR 40,0000;
- if Section B of this form indicates that an Immediate Response Status Report is being submitted, the response action(s) that is (are) the subject of this submittal (i) is (are) being implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40,0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40,0000 and (iii) complies(y) with the identified provisions of all orders, permits, and approvals identified in this submittal;
- if Section B of this form indicates that an Immediate Response Action Completion Statement or a Request to Terminate an Active Remedial System and/or Terminate a Continuing Response Action(s) Taken to Address an Imminent Hazard is being submitted, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed and implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) complies(y) with the identified provisions of all orders, permits, and approvals identified in this submittal.

SECTION H IS CONTINUED ON THE NEXT PAGE.



BWSC-105

Release Tracking Number

release Tracking Number

### IMMEDIATE RESPONSE ACTION (IRA) TRANSMITTAL FORM Pursuant to 310 CMR 40 0424

2 - 10823

H. LSP Opinion (continued):	(topas)
I am aware that significant penalties may result, including, but not limited to, pos inaccurate or materially incomplete.	sible fines and imprisonment, if I submit information which I know to be Talas
Check here if the Response Action(s) on which this opinion is based, if any DEP or EPA. If the box is checked, you MUST attach a statement identify	y, are (were) subject to any order(s), permit(s) and/or approval(s) issued by ing the applicable provisions the second subject to any order(s), permit(s) and/or approval(s) issued by
SP Name: TOD S. AWING LSP#: 4021	Stamp: Stamp:
elephone: 508-435-3679 Ext.:	TODD E
AX: (optional) 508 - 435 0051	y, are (were) subject to any order(s), permit(s) and/or approval(s) issued by ing the applicable provisions the standard or approval(s) issued by TODD  S. ALVING No. 4026
Signature:	COSTE PROFESSION
Date: 8.16.95	SITE PROFESSO
PERSON UNDERTAKING IRA:	7,111
lame of Organization: U.S. ARMY - FORT DEVENS	
ame of Contact: RONAD J. OSTROWSKI	
treet: AFZD-EM BOX 19	management officer
ity/Town: FORT DEVELS	
elephone: (508) 396-3665 Ext.:	
Check here if there has been a change in the person undertaking the IRA.	
Agency or Public Utility on a Right of Way (as defined by M.G.L. c. 21E, s  Any Other Person Undertaking IRA Specify Relationship:	1 TO
amiliar with the information contained in this submittal, including any and all doo of those individuals immediately responsible for obtaining the information, the m knowledge and belief, true, accurate and complete, and (iii) that I am fully author his submittal. If the person or entity on whose behalf this submittal is made any possible fines and imprisonment, for willfully submitting false, inaccurate, or including	raterial information contained in this submittal is, to the best of my rized to make this attestation on behalf of the entity legally responsible for is aware that there are significant penalties, including, but not limited to,
Enter address of the person providing certification, if different from address rec Street:	corded in Section I:
City/Town:	State: ZIP Code:
Telephone:Ext.:	
	THIS FORM OR DEP MAY RETURN THE DOCUMENT AS E FORM, YOU MAY BE PENALIZED FOR MISSING DEADLINE.





#### DEPARTMENT OF THE ARMY

HEADQUARTERS FORT DEVENS FORT DEVENS, MASSACHUSETTS



REPLY TO ATTENTION OF

October 27, 1995

Environmental Management Office

Lynn Welsh, Section Chief MADEP-CERO Site Management Branch #75 Grove Street Worcester, MA 01605

RE: Re-Submission of BWSC Forms

Various Releases Fort Devens, MA

Dear Ms. Welsh:

Please find the attached completed sections of MADEP-BWSC Forms relative to various releases at the above referenced site. These forms were originally submitted to MADEP-CERO by the U.S. Army - Fort Devens Environmental Management Office on 14 September 1995. We understand that you received these submittals on 15 September 1995. Pursuant to our discussions, OHM and their LSP, Todd S. Alving, (#4026) have completed revisions to the forms in accordance with the Department's comments.

Please note that Section K of BWSC Form #105, IRA Plan for Release #2-10848, was originally signed by Ronald J. Ostrowski, who is no longer with EMO. I trust the attached will prove sufficient in your management and evaluation of this matter. Should you have any questions or require additional information, please contact the undersigned.

Respectfully,

Joseph F. Pierce

Chief, Environmental Division Directorate of Public Works

cc: file

OHM

TSAA

DPW



**BWSC-105** 

IMMEDIATE RESPONSE ACTION (IRA)
TRANSMITTAL FORM Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

Release	Tracking	Number
---------	----------	--------

2 - 10848

A. RELEASE OR THREAT OF RELEASE LOCATION:	2242128
Release Name: (optional) <u>UST REJEASE - SHEBOKEN WELL</u> Street: SITEX IDAN ROAD Loc	
T. a = c.icit	ation Aid: ( MIR, COF LAICE ACCESS
	Code: 01433
Check here if a Tier Classification Submittal has been provided to DEP for this Relea	20 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -
Check here if this location is Adequately Regulated, pursuant to 310 CMR 40.0110-0  Specify Program: CERCLA HSWA Corrective Action Solid Was	ste Management RCRA State Program (21C Facilities)
Specify Program: CERCLA HSWA Corrective Action Solid Was Related Release Tracking Numbers That This IRA Addresses:	RCION State Program (210 Facilities)
B. THIS FORM IS BEING USED TO: (check all that apply)	
Submit an IRA Plan (complete Sections A, B, C, D, E, H, I, J and K).	
Check here if this IRA Plan is an update or modification of a previously approve	d written IRA Plan. Date Submitted:
Submit an Imminent Hazard Evaluation (complete Sections A, B, C, F, H, I, J and	
Submit an IRA Status Report (complete Sections A. B. C. E. H. I. J and K).	
Submit a Request to Terminate an Active Remedial System and/or Terminate a	Continuing Response Action(s) Taken to Address an
Imminent Hazard (complete Sections A, B, C, D, E, H, I, J and K).	Community (1255)
Submit an IRA Completion Statement (complete Sections A, B, C, D, E, G, H, I, J	and K).
You must attach all supporting documentation required for each any Legal Notices and Notices to Public Officials re	
C. RELEASE OR THREAT OF RELEASE CONDITIONS THAT WARRANT	
Identify Media and Receptors Affected: (check all that apply)	water Surface Water Sediments V Soil
Wetland Storm Drain Paved Surface Private Well	Public Water Supply Zone 2 Residence
School Unknown V Other Specify: POTENTIAL IMP	PART TO GW IN ZONE I
Identify Conditions That Require IRA, Pursuant to 310 CMR 40.0412: (check all that app	oly) 2 Hour Reporting Condition(s)
72 Hour Reporting Condition(s) Substantial Release Migration	Other Condition(s)
Describe: AZEATER THAN 100 PPM TVOCS, R	ESULT ON SOILS PREATER
THAN 2.0' BSG, WITHIN 10.0' OF FOR	emer ust Position
Identify Oils and Hazardous Materials Released: (check all that apply)	Chlorinated Solvents Heavy Metals
Others Specify:	
D. DESCRIPTION OF RESPONSE ACTIONS: (check all that apply)	
Assessment and/or Monitoring Only	Deployment of Absorbent or Containment Materials
Excavation of Contaminated Soils	Temporary Covers or Caps
Re-use, Recycling or Treatment	Bioremediation
On Site O Off Site Est. Vol.: 1,300 cubic yards	Soil Vapor Extraction
Describe: (1000 TO DATE, 300 PROJECTED ADD'L)	Structure Venting System
Store On Site Off Site Est. Vol.: cubic yards	Product or NAPL Recovery
Landfill Cover Disposal Est. Vol.: cubic yards	Groundwater Treatment Systems
Removal of Drums, Tanks or Containers	Air Sparging
	Temporary Water Supplies
Describe: SECTION D IS CONTINUED ON THE	



**BWSC-105** 

IMMEDIATE RESPONSE ACTION (IRA)

Release Tracking Number

TRANSMITTAL FORM Pursuant to 310 0	CMR 40.0424 - 40.0427 (Subpart D)
D. DESCRIPTION OF RESPONSE ACTIONS (continued):	
Removal of Other Contaminated Media	Temporary Evacuation or Relocation of Residents
Specify Type and Volume:	Fencing and Sign Posting
▼ Other Response Actions Describe: COMPLETION OF SEC	SPROBES BOXINGS (4.0")
Check here if this IRA involves the use of Innovative Technologies (DEP is in Technologies Cleaninghouse).	맛이 된 것이 하면 어떻게 하는 것이 없었다면 하는 것이 없는데 그렇게 했다.
Describe Technologies:	
E. TRANSPORT OF REMEDIATION WASTE: (if Remediation Waste	has been sent to an off-site facility, answer the following questions)
Name of Facility: LINKNOWN @ THIS TIME	
Town and State:	10.5
Quantity of Remediation Waste Transported to Date: 1000 Cu. 145	TO TEMPORALY STORAGE MEGA (\$4-69A)
F. IMMINENT HAZARD EVALUATION SUMMARY: (check one of	
Based upon an evaluation, an Imminent Hazard exists in connection with this	s Release or Threat of Release.
Based upon an evaluation, an Imminent Hazard does not exist in connection	with this Release or Threat of Release.
Based upon an evaluation, it is unknown whether an Imminent Hazard exists assessment activities will be undertaken.	s in connection with this Release or Threat of Release, and further
Based upon an evaluation, it is unknown whether an Imminent Hazard exists response actions will address those conditions that could pose an Imminent	
G. IRA COMPLETION STATEMENT:	
Check here if future response actions addressing this Release or Threat of for a Site that has already been Tier Classified under a different Release Tradescribed in 310 CMR 40.0600 (i. e., a Transition Site, which includes Sites occur according to the deadlines applicable to the earlier Release Tracking I	acking Number, or a Site that is identified on the Transition List as with approved Waivers). These additional response actions must
State Release Tracking Number (i. e., Site ID Number) of Tier Classified Sit	e or Transition Site:
If any Remediation Waste will be stored, treated, managed, recycled o Statement, you must submit either a Release Abatement Measure (RAN appropriate transmittal form, as an attachm	Plan or a Phase IV Remedy Implementation Plan, along with the
H. LSP OPINION:	8 - 1 - 2
i attest under the pains and penalties of perjury that I have personally examined a documents accompanying this submittal. In my professional opinion and judgmes 4.02(1), (ii) the applicable provisions of 309 CMR 4.02(2) and (3), and (iii) the proinformation and belief,	nt based upon application of (i) the standard of care in 309 CMF:
<ul> <li>if Section B of this form indicates that an Immediate Response Action Plans this submittal (i) has (have) been developed in accordance with the applicable pro appropriate and reasonable to accomplish the purposes of such response action( CMR 40.0000 and (iii) complies(y) with the identified provisions of all orders, perr</li> </ul>	ovisions of M.G.L. c. 21E and 310 CMR 40.0000, (iii) is (are) (s) as set forth in the applicable provisions of M.G.L. c. 21E and 310
• if Section B of this form indicates that an Imminent Hazard Evaluation is being accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.000 Imminent Hazard Evaluation complies(y) with the applicable provisions of M.G.L.	00, and all assessment activities(y) undertaken to support this
· if Section B of this form indicates that an Immediate Response Status Repo	rt is being submitted, the response action(s) that is (are) the subject

of this submittal (i) is (are) being implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) complies(y) with the identified provisions of all orders, permits, and approvals identified in this submittal;

• if Section B of this form indicates that an Immediate Response Action Completion Statement or a Request to Terminate an Active Remedial

- if Section B of this form indicates that an Immediate Response Action Completion Statement or a Request to Terminate an Active Remedial System and/or Terminate a Continuing Response Action(s) Taken to Address an Imminent Hazard is being submitted, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed and implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) complies(y) with the identified provisions of all orders, permits, and approvals identified in this submittal.

SECTION H IS CONTINUED ON THE NEXT PAGE.



1314800135

IMMEDIATE RESPONSE ACTION (IRA)
TRANSMITTAL FORM Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

Release Tracking Number

2 - 10848

the second secon		
I am aware that significant penalties may result, including, inaccurate or materially incomplete.	but not limited to, possible	e fines and imprisonment, if I submit information which I know to be false
Check here if the Response Action(s) on which this on DEP or EPA. If the box is checked, you MUST attact	ppinion is based, if any, ar h a statement identifying t	e (were) subject to any order partial and a approval(s) issued by the applicable provisions to the applicable provision to the applicable provision to the applicable provision to the applica
LSP Name: ODD S. ALVING	_ LSP#: 4076	Stamp: TODD
Telephone: 506-435-3679	Ext.:	S. ALVING No. 4026
FAX: (optional) 502-435-0051		4 6 PEC - 06 3 1
Signature:		STE PROFES
Date: 10.27.95		
. PERSON UNDERTAKING IRA:	TATE OF THE	
Name of Organization: U.S. ARMY - FOR	IT DEVENS	
Name of Contact: TOE PIERCE Ja Sep	in Pierce	TITLE: MANAGEMENT OFFICER
Street: AFZD - Em, BOX 19.		Chief, Environmental Division, DPie
City/Town: FORT DEVENS		State: MA ZIP Code: 01433 - 5150
Telephone: (505) 796-3665	Ext.:	FAX: (optional)
Check here if there has been a change in the person	undertaking the IRA.	
Fiduciary, Secured Lender or Municipality with Exemp	ot Status (as defined by N	M.G.L. c. 21E, s. 2)
Agency or Public Utility on a Right of Way (as defined	d by M.G.L. c. 21E, s. 5(j)	
Agency or Public Utility on a Right of Way (as defined Any Other Person Undertaking IRA Specify Relation	d by M.G.L. c. 21E, s. 5(j)	
Agency or Public Utility on a Right of Way (as defined Any Other Person Undertaking IRA Specify Relation C. CERTIFICATION OF PERSON UNDERTAKING TO SEE A PROPERSON UNDERTAKING TO SEE A PR	nship:  NG IRA:  , attest under the pains a luding any and all documents information, the material that I am fully authorized submittal is made am/is and am	and penalties of perjury (i) that I have personally examined and aments accompanying this transmittal form, (ii) that, based on my inquiry all information contained in this submittal is, to the best of my it to make this attestation on behalf of the entity legally responsible for ware that there are significant penalties, including, but not belief to
Agency or Public Utility on a Right of Way (as defined Any Other Person Undertaking IRA Specify Relation K. CERTIFICATION OF PERSON UNDERTAKING TO SEE Procedure of the Information contained in this submittal, including the Individuals immediately responsible for obtaining the Individuals immediately responsible for o	nship:  NG IRA:  , attest under the pains a luding any and all documents information, the material that I am fully authorized submittal is made am/is and am	and penalties of perjury (i) that I have personally examined and aments accompanying this transmittal form, (ii) that, based on my inquiry all information contained in this submittal is, to the best of my it to make this attestation on behalf of the entity legally responsible forware that there are significant penalties, including, but not a wifed to
Agency or Public Utility on a Right of Way (as defined Any Other Person Undertaking IRA Specify Relation K. CERTIFICATION OF PERSON UNDERTAKING To see the Prescription of the property of those individuals immediately responsible for obtaining the knowledge and belief, true, accurate and complete, and (iii) this submittal. In the person or entity on whose behalf this spossible fines and imprisonment, for willfully submitting false.	nship:  NG IRA:  , attest under the pains a luding any and all documents information, the material that I am fully authorized submittal is made am/is and am	and penalties of perjury (i) that I have personally examined and aments accompanying this transmittal form, (ii) that, based on my inquiry all information contained in this submittal is, to the best of my it to make this attestation on behalf of the entity legally responsible for ware that there are significant penalties, including, but not pried to lete information.
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Agency or Public Utility on a Right of Way (as defined Any Other Person Undertaking IRA Specify Relation K. CERTIFICATION OF PERSON UNDERTAKING To see the Prescential Prescential Incomplete and Information contained in this submittal, including the Information on tained in this submittal, including the Information contained in this submittal, including the Information contained in this submittal, including the Information of the Information contained in this submittal, including the Information of Information of Information Containing the Information of I	nship:  NG IRA:  , attest under the pains a luding any and all documents information, the material that I am fully authorized submittal is made am/is and am	and penalties of perjury (i) that I have personally examined and am ents accompanying this transmittal form, (ii) that, based on my inquiry all information contained in this submittal is, to the best of my it to make this attestation on behalf of the entity legally responsible forware that there are significant penalties, including, but not pried to lete information.
Agency or Public Utility on a Right of Way (as defined Any Other Person Undertaking IRA Specify Relation K. CERTIFICATION OF PERSON UNDERTAKING To see the Prescent P	d by M.G.L. c. 21E, s. 5(j) inship:  NG IRA:  , attest under the pains a luding any and all docum- the information, the materi ) that I am fully authorized submittal is made am/is av se, inaccurate, or incomp	and penalties of perjury (i) that I have personally examined and am ents accompanying this transmittal form, (ii) that, based on my inquiry all information contained in this submittal is, to the best of my it to make this attestation on behalf of the entity legally responsible for ware that there are significant penalties, including, but not solved to lete information.  Title:  Title:  Chief, Environment I Division, DPUI  Date: 10/27/95
Agency or Public Utility on a Right of Way (as defined Any Other Person Undertaking IRA Specify Relation K. CERTIFICATION OF PERSON UNDERTAKING TO SEE TO PRESON UNDERTAKING IT TO SEE TO	d by M.G.L. c. 21E, s. 5(j) nship: NG IRA: , attest under the pains a luding any and all docum- he information, the materi ) that I am fully authorized submittal is made am/is as se, inaccurate, or incomp	and penalties of perjury (i) that I have personally examined and am ents accompanying this transmittal form, (ii) that, based on my inquiry all information contained in this submittal is, to the best of my to make this attestation on behalf of the entity legally responsible for ware that there are significant penalties, including, but not invited to lete information.  Title:  Title:  Chief, Environment I Division, DPUI  Date: 10/27/95
Agency or Public Utility on a Right of Way (as defined Any Other Person Undertaking IRA Specify Relation K. CERTIFICATION OF PERSON UNDERTAKING The Second Person Undertaking IRA Specify Relation III. The Second Person Undertaking III. The Second Person Undertaking III. It is submittal, including the specific and person or entity on whose behalf this spossible fines and imprisonment, for willfully submitting false by:  (signature)  For U.S. ARMY - FOLT DEVENS (print name of person or entity recorded in Section I)  Enter address of the person providing certification, if different in the section of the person providing certification, if different in the section III.	d by M.G.L. c. 21E, s. 5(j) inship:  NG IRA: , attest under the pains a duding any and all docume he information, the materi ) that I am fully authorized submittal is made anv/is as se, inaccurate, or incomp	and penalties of perjury (i) that I have personally examined and am ents accompanying this transmittal form, (ii) that, based on my inquiry all information contained in this submittal is, to the best of my to make this attestation on behalf of the entity legally responsible for ware that there are significant penalties, including, but not belief to lete information.  Title:  Title:  Title:  Title:  This Transmitted to the entity legally responsible for the entity leg



**BWSC-105** 

IMMEDIATE RESPONSE ACTION (IRA)
TRANSMITTAL FORM Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

2-10615

Release Trackin	g Number
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A. RELEASE OR THREAT OF RELEASE LOCATION:						
Release Name: (optional)						
Street: AREE GIR-BUILDING #202, CARIST Location Aid: @ ST. MILLIET STILET						
City/Town: FORT DEVENS ZIP Code: 01433						
Check here if a Tier Classification Submittal has been provided to DEP for this Release	Fracking Number.					
Check here if this location is Adequately Regulated, pursuant to 310 CMR 40.0110-0114						
Specify Program: CERCLA HSWA Corrective Action Solid Waste M	Management RCRA State Program (21C Facilities)					
Related Release Tracking Numbers That This IRA Addresses:						
B. THIS FORM IS BEING USED TO: (check all that apply)						
Submit an IRA Plan (complete Sections A, B, C, D, E, H, J, J and K).						
Check here if this IRA Plan is an update or modification of a previously approved wr	ritten IRA Plan. Date Submitted:					
Submit an Imminent Hazard Evaluation (complete Sections A, B, C, F, H, I, J and K).						
Submit an IRA Status Report (complete Sections A, B, C, E, H, I, J and K).						
Submit a Request to Terminate an Active Remedial System and/or Terminate a Commitment Hazard (complete Sections A, B, C, D, E, H, I, J and K).	ontinuing Response Action(s) Taken to Address an					
Submit an IRA Completion Statement (complete Sections A, B, C, D, E, G, H, I, J and	к).					
You must attach all supporting documentation required for each use any Legal Notices and Notices to Public Officials requi	# TAIL TO A TO A TO A TAIL AND A TAIL TO A TAIL AND A TAIL TO A TAIL					
C. RELEASE OR THREAT OF RELEASE CONDITIONS THAT WARRANT IRA	A:					
Identify Media and Receptors Affected: (check all that apply)  Air  Groundwate	er Surface Water Sediments V Soil					
Wetland Storm Drain Paved Surface Private Well	Public Water Supply					
School Unknown Other Specify;						
Identify Conditions That Require IRA, Pursuant to 310 CMR 40.0412: (check all that apply)	2 Hour Reporting Condition(s)					
72 Hour Reporting Condition(s) Substantial Release Migration	Other Condition(s)					
Describe: REPORTABLE CONC. OF TPH IN SOIL	SURREMADING A					
DRY WELL						
Identify Oils and Hazardous Materials Released: (check all that apply)	Chlorinated Solvents Heavy Metals					
Others Specify:	in the second of					
D. DESCRIPTION OF RESPONSE ACTIONS: (check all that apply)						
Assessment and/or Monitoring Only	Deployment of Absorbent or Containment Materials					
Excavation of Contaminated Soils	Temporary Covers or Caps					
Re-use, Recycling or Treatment	Bioremediation					
The bas, responsing at the same of						
0 0	Soil Vapor Extraction					
Describe: PLOPOSED COVER MARSGIAZION-SITE LAWRICE	Structure Venting System					
Store On Site Off Site Est. Vol.: cubic yards	Product or NAPL Recovery					
Landfill Cover Disposal Est. Vol.: cubic yards	Groundwater Treatment Systems					
Removal of Drums, Tanks or Containers	Air Sparging					
Describe: Temporary Water Supplies						
SECTION D IS CONTINUED ON THE NE	EXT PAGE.					



BWSC-105

(Cicas	e tracking numbe
2 -	10615

IMMEDIATE RESPONSE ACTION (IRA) TRANSMITTAL FORM Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

DESCRIPTION OF RESPONSE ACTIONS (continued):	
Removal of Other Contaminated Media	s
Specify Type and Volume: Fencing and Sign Posting	
Other Response Actions Describe:	
Check here if this IRA involves the use of Innovative Technologies (DEP is interested in using this information to aid in creating an Innovative Technologies Clearinghouse).	
Describe Technologies:	
TRANSPORT OF REMEDIATION WASTE: (if Remediation Waste has been sent to an off-site facility, answer the following questions) ame of Facility: TO BE DETERMINED	
own and State:	_
uantity of Remediation Waste Transported to Date: NONC	
IMMINENT HAZARD EVALUATION SUMMARY: (check one of the following)	
Based upon an evaluation, an Imminent Hazard exists in connection with this Release or Threat of Release.	
Based upon an evaluation, an Imminent Hazard does not exist in connection with this Release or Threat of Release.	
Based upon an evaluation, it is unknown whether an Imminent Hazard exists in connection with this Release or Threat of Release, and further assessment activities will be undertaken.	
Based upon an evaluation, it is unknown whether an Imminent Hazard exists in connection with this Release or Threat of Release. However, response actions will address those conditions that could pose an Imminent Hazard.	
. JRA COMPLETION STATEMENT:	
Check here if future response actions addressing this Release or Threat of Release will be conducted as part of the Response Actions planned for a Site that has already been Tier Classified under a different Release Tracking Number, or a Site that is identified on the Transition List as described in 310 CMR 40.0600 (i. e., a Transition Site, which includes Sites with approved Waivers). These additional response actions must occur according to the deadlines applicable to the earlier Release Tracking Number (i. e., Site ID Number).	
State Release Tracking Number (i. e., Site ID Number) of Tier Classified Site or Transition Site: # 2-0662	_
If any Remediation Waste will be stored, treated, managed, recycled or reused at the site following submission of the IRA Completic Statement, you must submit either a Release Abatement Measure (RAM) Plan or a Phase IV Remedy Implementation Plan, along with appropriate transmittal form, as an attachment to the IRA Completion Statement.	
I CD ODINION.	

Lattest under the pains and penalties of periury that I have personally examined and am familiar with this transmittal form, including any and all documents accompanying this submittal. In my professional opinion and judgment based upon application of (i) the standard of care in 305 CMR 4.02(1), (ii) the applicable provisions of 309 CMR 4.02(2) and (3), and (iii) the provisions of 309 CMR 4.03(5), to the best of my knowledge, information and belief.

- · if Section B of this form indicates that an immediate Response Action Plan is being submitted, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40,0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40,0000 and (iii) complies(y) with the identified provisions of all orders, permits, and approvals identified in this submittal;
- if Section B of this form indicates that an Imminent Hazard Evaluation is being submitted, this Imminent Hazard Evaluation was developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and all assessment activities(y) undertaken to support this Imminent Hazard Evaluation complies(y) with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000;
- . if Section B of this form indicates that an Immediate Response Status Report is being submitted, the response action(s) that is (are) the subject of this submittal (i) is (are) being implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) complies(y) with the identified provisions of all orders, permits, and approvals identified in this submittal:
- if Section B of this form indicates that an Immediate Response Action Completion Statement or a Request to Terminate an Active Remedial System and/or Terminate a Continuing Response Action(s) Taken to Address an Imminent Hazard is being submitted, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed and implemented in accordance with the applicable provisions of M.G.L. c. 21É and 310 CMR 40,0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) complies(y) with the identified provisions of all orders, permits, and approvals identified in this submittal

SECTION H IS CONTINUED ON THE NEXT PAGE.



**BWSC-105** 

IMMEDIATE RESPONSE ACTION (IRA)
TRANSMITTAL FORM Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

Release Tracking Number

2-10813

	1 40.0424 - 40.0427 (Obopan D)
A. RELEASE OR THREAT OF RELEASE LOCATION:  Release Name: (optional) BUILDING #2527	*
Street:	Landing Aid:
City/Town: FORT DEVENS	ZIP Code: 01433
Check here if a Tier Classification Submittal has been provided to DEP for this R	
Check here if this location is Adequately Regulated, pursuant to 310 CMR 40.01	and the state of t
	Waste Management RCRA State Program (21C Facilities)
Related Release Tracking Numbers That This IRA Addresses:	
B. THIS FORM IS BEING USED TO: (check all that apply)	
Submit an IRA Plan (complete Sections A, B, C, D, E, H, I, J and K).	
Check here if this IRA Plan is an update or modification of a previously app	proved written IRA Plan. Date Submitted:
Submit an Imminent Hazard Evaluation (complete Sections A, B, C, F, H, I, J	and K).
Submit an IRA Status Report (complete Sections A, B, C, E, H, I, J and K).	
Submit a Request to Terminate an Active Remedial System and/or Termin Imminent Hazard (complete Sections A, B, C, D, E, H, I, J and K).	ate a Continuing Response Action(s) Taken to Address an
Submit an IRA Completion Statement (complete Sections A, B, C, D, E, G, H,	I, J and K).
You must attach all supporting documentation required for e any Legal Notices and Notices to Public Officia	
C. RELEASE OR THREAT OF RELEASE CONDITIONS THAT WARRA	NT IRA:
Identify Media and Receptors Affected: (check all that apply)	oundwater Surface Water Sediments V Soil
Wetland Storm Drain Paved Surface Private Well	Public Water Supply Zone 2 Residence
School Unknown Other Specify:	
Identify Conditions That Require IRA, Pursuant to 310 CMR 40.0412: (check all that	at apply) 2 Hour Reporting Condition(s)
72 Hour Reporting Condition(s) Substantial Release Migration	n Other Condition(s)
Describe: TVOCS GREATER THAN 100	PPM DURING SCREENING
OF Soils GREATER THAN 2.0' B	SS, LESS THAN 10.0' FRM UST.
Identify Oils and Hazardous Materials Released: (check all that apply)	Dils Chlorinated Solvents Heavy Metals
Others Specify:	
D. DESCRIPTION OF RESPONSE ACTIONS: (check all that apply)	
Assessment and/or Monitoring Only	Deployment of Absorbent or Containment Materials
Excavation of Contaminated Soils	Temporary Covers or Caps
Re-use, Recycling or Treatment	Bioremediation
On Site Off Site Est. Vol.: 1000 cubic yo	ards Soil Vapor Extraction
Describe:	Structure Venting System
Store On Site Off Site Est. Vol.: cubic yo	ards Product or NAPL Recovery
Landfill Cover Disposal Est. Vol.: cubic ye	
Removal of Drums, Tanks or Containers	Air Sparging
Describe:	Temporary Water Supplies
SECTION D IS CONTINUED ON	

BWSC-105

Release Tracking Number

7	
	110875

IMMEDIATE RESPONSE ACTION (IRA)
TRANSMITTAL FORM Pursuant to 310 CMR 40 0424 - 40 0427 (Subpart D)

l attest under the pains and penalties of perjury that I have personally examined and am familiar with this transmittal form, including any and all documents accompanying this submittal. In my professional opinion and judgment based upon application of (i) the standard of care in 309 CMR 4.02(1), (ii) the applicable provisions of 309 CMR 4.02(2) and (3), and (iii) the provisions of 309 CMR 4.03(5), to the best of my knowledge, information and belief.

- if Section B of this form indicates that an Immediate Response Action Plan is being submitted, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) complies(y) with the identified provisions of all orders, permits, and approvals identified in this submittal;
- if Section B of this form indicates that an Imminent Hazard Evaluation is being submitted, this Imminent Hazard Evaluation was developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and all assessment activities(y) undertaken to support this Imminent Hazard Evaluation complies(y) with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000;
- if Section B of this form indicates that an Immediate Response Status Report is being submitted, the response action(s) that is (are) the subject of this submittal (i) is (are) being implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) complies(y) with the identified provisions of all orders, permits, and approvals identified in this submittal;
- if Section B of this form indicates that an Immediate Response Action Completion Statement or a Request to Terminate an Active Remedial System and/or Terminate a Continuing Response Action(s) Taken to Address an Imminent Hazard is being submitted, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed and implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40,0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40,0000 and (iii) complies(y) with the identified provisions of all orders, permits, and approvals identified in this submittal.

SECTION H IS CONTINUED ON THE NEXT PAGE.

### Appendix A

On-site Laboratory Documentation

#### Soil Sample Collection Log Fort Devens - Project #16208

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Pa 1	(1)
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Date: 6/16/95

Site Name: Bilg 2527

Weather Sunny

Samplers: BD/GG

Sample ID Number	Time	Comp/ Grab	Sample Depth (ft)	Coord Ref. Pt,⊂		Sample Description	# of Bottles
53 2527°n9	०१३३	G	1'2"	209"	22'9"	Gold sand w/cobble	1240-
מואי	0232		9"	348"	26'6"	Gold sind w/=obbt	
2011	८८२९		2'5"	≥6'5"	33'8"	Gold sand	
wia	0831		9"	29'+"	344"	Black chy-like soil	
WIZ	0834		1'2"	27'0"	34 '	bear sand wherey couble	ĺ.
المزيام	0837		24"	シリン	32'3"	Gold san) w/cobole	\$ 5 1
1×15	0540		1'9"	16'11"	24'3*	Brown sand w/cobble	
W16	0843	1	9"	14'1'	20'9"	God/Brown sand W/cobble	4

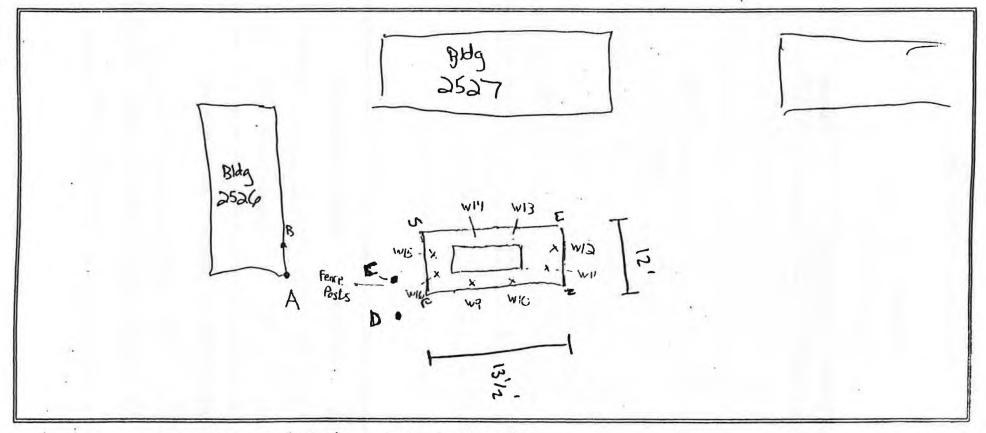
Ref. Pt. C: Tole marked on map Coe	e MAP 1
Ref. Pt. D :	
Map Attached: Yes No	
Sample Type: Screening Confirmation Di	sposal/Characterization
Laboratory Destination: Onsite Lab AEN - coo	# USACE- coc #
Duplicate Taken: Yes No	Rinsate Taken: Yes No
On-site Laboratory Chain of Custody/	Request for Analysis
Requested Testing: (TPH) BTEX Other_	
Requested Testing: (TPH) BTEX OF SCHOOL OF SCH	Received by (dd/tt): 2001 (en 0930
Relinquished by(dd/tt):	Received by (dd/tt):

#### Sample Location Map Fort Devens - Project #16208

Date: 6/16/95

Site Name: Bldq 2527

Pg. 2012



Comments/Observations: A>B 62" along Bldg 2526 wall

\* Fixed Points A > C 53'8" \* Sample locations B > C 52'10"

B→D 53'3"

Prepared by: Grea Guimond

# TPH Results On-site Laboratory - Modified Method 418.1 Fort Devens - Project #16208

Pg.\_of\_

Date: 16 June 1995

Site(s): Bldg 2527, 3770, ust 3825

Analyst MRB/GG

Sample ID # TPH (ppm) TPH (ppm)		Calibration Adjusted TPH (ppm)	Sample Weight (g)	Extract Vol. (ml)	Dilution	Final Result TPH(ppm)	Qaulifie
SB3770HA1	84	55	19.9	20.2	1	56	
SB3770HA2	20	12	19.8	20.3	1	13	J
EX3825A	31	20	20.1	22.5	1	22	i J
EX3825B	24	15	20.2	21.1	1	16	j
EX3826A	61	40	19.6	22.2	1	45	J
EX3826B	190	126	20.1	20.4	1	128	
EX3827A	213	141 -	20.1	18.8	1	132	
EX3827B	238	158	19.8	20.6	1	164	
SB2527B3	538	358	6.2	22.6	1	1304	
SB2527B4	ND	-1	20.0	21.3	1	ND	
SB2527W9	16	10	20.1	21.0	1	10	J
SB2527W10	37	24	20.1	21.0	1	25	J
SB2527W11	126	83	20.1	20.4	1	84	
SB2527W12	1185	789	3.3	26.2	5	31325	1
SB2527W13	76	50	20.2	20.3	1	50	
SB2527W14	24	15	19.7	21.4	1	16	1
SB2527W15	694	462	19.9	21.1	5	2448	
SB2527W16	443	294	19.9	20.3	5	1502	

TPH - Total Petroluem Hydrocarbons

ND - Indicates non detect

J - Indicates estimated concentration below practical quantitation limit

## Soil Sample Collection Log Fort Devens - Project #16208

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Pg.	1	ni	7
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Date:

06,16-95

Site Name: BLDGZ5Z7 EMO

Weather. Sunny

Samplers: BD,66

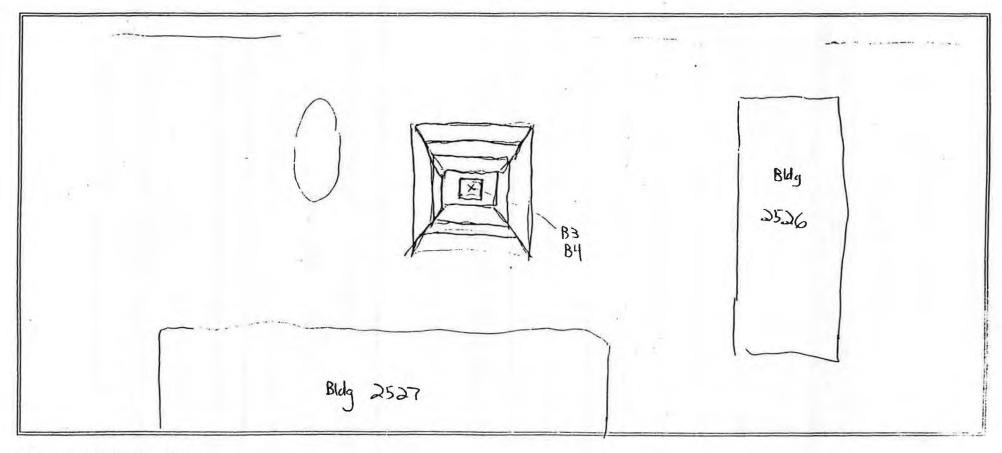
100 11	-	Comp/			dinates	Sample	# of
ID Number		Grab	Depth (ft)	Ref. Pt.	Ref. Pt.	Description	Bottles
SB 2527B3	1405	G	66			Backgrey clay, distinct TPH odor	WA
58252784	1418	G	9'6"			Tan day w/ It given tint	VOA
						ne distinct odor	
			0.2				
		-				*	
Ref. Pt:		N/41	Taken f	rom bu	cket at t	he bottom of the excavation	
Ref. Pt: Map Attach	ed: (Y	es	No	onfirmation		he bottom of the excavation  osal/Characterization	- Autoria
Ref. Pt: Map Attache Sample Typ	ed: (Y	es	No g Co	onfirmatio	on Disp		-131520
Ref. Pt: Map Attache Sample Typ	ed: (Y	creenin	No g Co Onsite La	onfirmation A	on Disp EN - coc #	osal/Characterization	-131(20)
Ref. Pt: Map Attache Sample Typ	ed: Y  ee:   Destina	creenin ation:	No Onsite La	onfirmation A	on Disp EN - coc # Rii	osal/Characterization  USACE- coc #	
Ref. Pt: Map Attache Sample Typ	ed: Y Destina Duplic	creenin ation: ate Tak	Onsite La	onfirmation All No	on Disp EN - coc # Rii custody/Re	osal/Characterization  USACE- coc #  nsate Taken: Yes No	
Ref. Pt: Map Attache Sample Typ Laboratory I	ed: Y Destina Duplic On-si	es creenin ation: ate Take	Onsite La	onfirmation All No	en Disp EN - coc # Ristody/Res	osal/Characterization  USACE- coc #  nsate Taken: Yes No	6.6

#### Sample Location Map Fort Devens - Project #16208

Date: 6/16/95

Site Name: Bulg 2527

Pg. 2 of 2



#### Comments/Observations:

x Sample location (taken by the bucket)
-samples labelled with prefix 502527

Prepared by: Grea Gumond

# TPH Results On-site Laboratory - Modified Method 418.1 Fort Devens - Project #16208

=g.\_\_of\_\_

Date: 16 June 1995

Site(s): Bldg 2527, 3770, ust 3825

Analyst MRB/GG

Sample ID #	Instrument Response TPH (ppm)	Calibration Adjusted . TPH (ppm)	Sample Weight (g)	Extract Vol. (ml)	Dilution	Final Result TPH(ppm)	Qaulifie
SB3770HA1	84	55	19.9	20.2	1	56	
SB3770HA2	20	12	19.8	20.3	1	13	J
EX3825A	31	20	20.1	22.5	1	22	J
EX3825B	24	15	20.2	21.1	1	16	J
EX3826A	61	40	19.6	. 22.2	1	45	J
EX3826B	190	126	20.1	20,4	1	128	
EX3827A	213	141	20.1	18.8	1	132	
EX38278	238	158	19.8	20.6	1	164	
SB2527B3	538	358	6.2	22.6	1	1304	
SB2527B4	ND	-1	20.0	21.3	1	ND	
SB2527W9	16	10	20.1	21.0	1	10	J
SB2527W10	37	24	20.1	21.0	1	25	J
SB2527W11	126	83	20.1	20.4	1	84	
SB2527W12	1185	789	3.3	26.2	5	31325	
SB2527W13	76	50	20.2	20.3	1	50	
SB2527W14	24	15	19.7	21.4	1	16	1 .
SB2527W15	694	462	19.9	21.1	5	2448	
SB2527W16	443	294	19.9	20.3	5	1502	

TPH - Total Petroluem Hydrocarbons

ND - Indicates non detect

J - Indicates estimated concentration below practical quantitation limit

#### Soil Sample Collection Log Fort Devens - Project #16208

Date: 6-19-95

Sample

Site Name: Bidg 2527

Weather Sunny, Hot

ID Number Time

Comp/ Sample

Samplers: BD, GG

Coordinates

Grab Depth (ft)Ref. Pt\_Ref. Pt.N

D	-	1	a	1
Г	Q.	1	CI	2
				,

# of

**Bottles** 

Sample

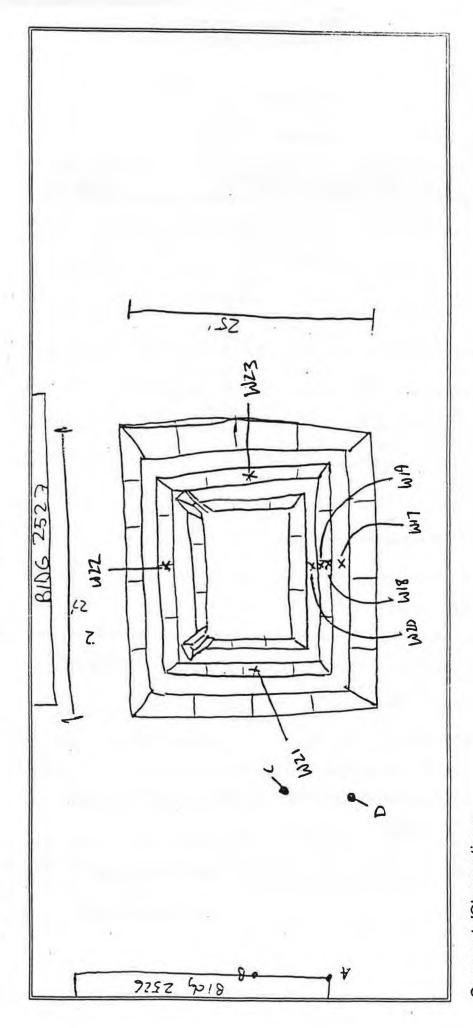
Description

FIMESESS	1100	G	2'9"	232"	237"	Brown sendy soil	りないと
MIB	1162		3'	333	24'	TAN SAUNY'SOIL	11
PIM	1104		3'3"	73.3,	244.	Grey Bis-nilay	
v-xc	1106		4	23'6"	244	Grey Black clay	
164	1108		3'B"	27	20'5"	Bion for sad	
حذا	1110		3'6"	267"	34 16	Reddishearse send	1
· ~>3	1113 -	1	3'0"	35'4'	36	Brown Fine dease soul	· V
	÷						
Sample Typ	e: S	creenin	g) co	onfirmation	n Disp	osal/Characterization	
Laboratory I	Destina	ition: (	Onsite La	b AE	N - coc #	USACE- coo#	
•			en: Yes			nsate Taken: Yes (No )	
	On-si	te Labo	ratory Ch	iain of Cu	ustody/Re	quest for Analysis	
Requested	Testing	: TP	H) B	TEX	Other		······································
Relinquishe	ed by(do	d/tt):	A. June	Se 6-19	995 ilyo	eceived by (dd/tt):	101-11
Relinquishe	ed by(do	d/tt):		r-v	R	eceived by (dd/tt):	
			^				

Fort Devens - Project #16208 Sample Location Map

Date: 06-19-95

Site Name: 8LDG 2527



Comments/Observations:

@ Fixed points A+B 6'2" alone, 31dy 2526 Wall

53 ... 52 10 H-+D \* Sample lowhers A - +C

Prepared by: Bill Dak - all sumpleshave the atlached prefix 581527

#### **TPH Results** On-site Laboratory - Modified Method 418.1 Fort Devens - Project #16208

Date: 19 June 1995

Site(s): Bldg 2527 & 3654

Analyst MRB/ BD/GG

Sample ID #	Instrument Response TPH (ppm)	Calibration Adjusted TPH (ppm)	Sample Weight (g)	Extract Vol. (ml)	Dilution	Final Result TPH(ppm)	Qaulifie
SB3654W1	ND				1	ND	
SB3654W2	NO				1	ND	
SB3654W3	ND				1	ND .	
SB3654W4	11	6	20.1	21.0	1	7	J
\$B3654W5	ND				1	ND ·	
SB3654W6	ND				1	ND	
SB3654W7	ND	*	-		1	ND	
SB3654W8	ND .				1	ND	
SB3654W9	315	209	19.9	20.4	1	214	
SB3654W10	729	485	18.0	19.6	1	528	
SB3654W11	371	246	18.7	20.3	1	268	
SB3654W12	ND				1	ND	
SB3654W13	ND				1	ND	
SB3654W14	ND				1	ND	
SB3654W15	ND				1	ND	, .
SB3654W16	ND				1	ND	
SB3654I1	ND				1	ND	

TPH - Total Petroluem Hydrocarbons

ND - Indicates non detect

J - Indicates estimated concentration below practical quantitation limit

Pg.2012

Date: 19 June 1995

Site(s): Bldg 2527 & 3654

Analyst, MRB/ BD/GG

Sample ID #	Instrument Response TPH (ppm)	Calibration Adjusted TPH (ppm)	Sample Weight (g)	Extract Vol. (ml)	Dilution	Final Result TPH(ppm)	Qaulifie
SB2527W17	11	7	19.7	20.7	1	7	J
SB2527W18	ND				1	ND	
SB2527W19	ND				1	ND	
SB2527W20	1065	709	6.5	26.1	1	2847	
SB2527W21	ND	4			4	ND	
SB2527W22	ND				1	ND	į
SB2527W23	427	284	20.3	22.7	1	318	
							1

TPH - Total Petroluem Hydrocarbons

ND - Indicates non detect

J - Indicates estimated concentration below practical quantitation limit

Date: 6-21-95

Site Name:

Bldg 2527

Pg. \_\_of\_\_

Weather Sany

Samplers:

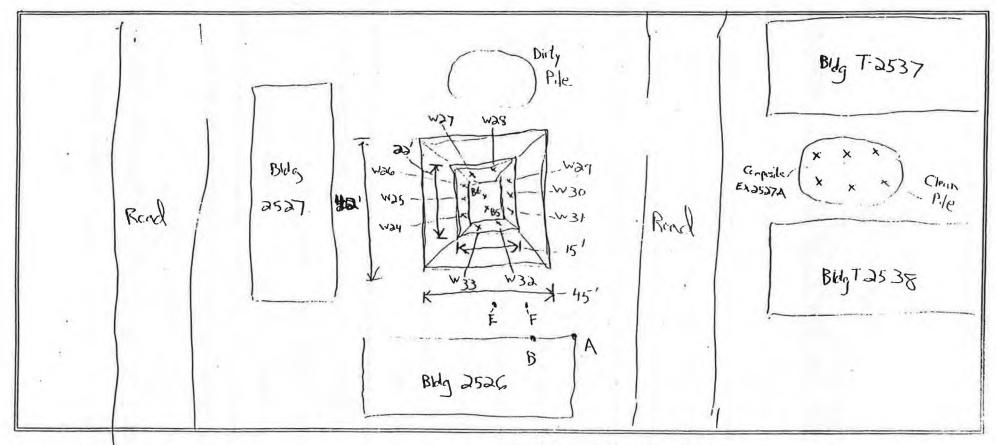
BD/CE

Sample		Comp/			dinates	Sample	# of
ID Number	Time	Grab	Depth (ft)	Ref. Pt.	Ref. Pt.	Description	Bottles
EX 3527A	1145	<u></u>	2			Brinn Sandy Seil W/cubble	1×40mL VCA
		-					
							R O H
							1
						*	
*							1
Map Attach			No g Co	onfirmati	on Dispo	osal/Characterization	enteronie en ara e
Laboratory I	Destina	ation: (	Onsite La	b) A	EN - coc #_	USACE- coc #	<u> </u>
	Duplic	ate Tak	en: Yes	No	Rin	sate Taken: Yes No	
	On-s	ite Labo	ratory Ch	ain of C	Custody/Re	quest for Analysis	-
Requested		_	у II. В		Other	11/0/	( 2 . /
Relinquishe	ed by(de	d/tt):	7 Hum	4 X 6	-21-15 Re	ceived by (dd/tt):	- 6-21-4
Relinquishe	ed by(de	d/tt):		1 :0;	Re	ceived by (dd/tt):	

Date: 6-21-95

Site Name: Bldg 2527

Pg. 2 of 2



Comments/Observations:

· - Fixed Point

x- Sample location

A->F: 38'8'

A->B: 62"

A > E; 42'2' B > F; 38'3" B > E; 40'

Prepared by: Gren Guimon

Pg. 1012

Date: 21 June 1995

Site(s): Bldg 3759,

Bldg 2527, & Bldg 3654

Analyst BD,GG

Sample ID#	Instrument Response TPH (ppm)	Calibration Adjusted TPH (ppm)	Sample Weight (g)	Extract Vol. (ml)	Dilution	Final Result TPH(ppm)	Qaulifier
SB3759W1	ND	ND			1	ND	
SB3759W2	ND	ND			1	ND	
SB3759W3	ND.	ND			1	ND	
SB3759W4	ND	ND			1	ND	
SB3759W5	27	17	20.0	20.3	1	17	J
SB3759W6	ND	ND			1	ND	
SB3759W7	171	113	19.8	20.1	1	115	
SB3759W8	ND	ND			1	ND	
SB3759W9	ND ND	ND			1	ND	
SB3759W10	ND	ND			1	ND	
SB3759W11	ND	ND			1	ND	
SB3759W12	ND	ND			1	ND	
SB3759B1	ND	ND			1	ND .	
SB3759B2	ND	ND			1	ND	
SB3759B3	ND	ND			1	ND	
SB3759B4	27	17	20.1	22.3	1	19	J
SB3654W17	ND	ND			1	ND	
SB3654W18	ND	ND			1	ND	
SB2527W24	823	548	10.9	21.1	1	1060	
SB2527W25	438	291	11.8	20.4	5	2516	

TPH - Total Petroluem Hydrocarbons

ND - Indicates non detect

J - Indicates estimated concentration below practical quantitation limit

Pg. 1012

Date: 21 June 1995

Site(s): Bldg 3759,

Bidg 2527, &Bidg 3654

Analyst BD,GG

Sample ID#	Instrument Response TPH (ppm)	Calibration Adjusted TPH (ppm)	Sample Weight (g)	Extract Vol. (ml)	Dilution	Final Result TPH(ppm)	Qaulifie
SB2527W26	905	602	10.9	23.2	5	6411	
SB2527W27	379	252	20.0	21.8	5	1372	
SB2527W28	404	268	11.1	20.5	5	2479	
SB2527W29	840	559	19.7	22.5	5	3193	
SB2527W30	906	603	19.7	21.0	10	6429	
SB2527W31	952	634	18.6	21.5	5	3663	
SB2527W32	500	332	19.3	21.4	5	1843	1
SB2527W33	1029	685	19.1	20.2	1	725	-
SB2527B5	756	503	19.4	20.7	5	2684	
SB2527B6	33	21	18.8	21.3	1	23	J
EX2527A	85	56	20.6	23.2	1	63	-
		-					
						1	
	161						

TPH - Total Petroluem Hydrocarbons

ND - Indicates non detect

J - Indicates estimated concentration below practical quantitation limit

Pg. 1 of 3

Date: 6:31-95

Site Name: Bug 2527

Weather. Sanny

Samplers: BD/GG

Sample ID Number	Time	Comp/ Grab	Sample Depth (ft)		inates Ref. Pt.F	Sample Description	# of Bottles	
562557W24	1202	G	7'1"	30'5	347"	green gray clay	1x40mL VCA	
W25	790 H		66"	3510	395"			
MZÚ	1206		7'3"	42'16"	46	4		
war	1208		65	45 3"	47 (, 1	green day		
N38	1210		66	44':0"	43"	green day / some black		
トル	1312	1	68"	4à i"	422	1		
W 30	1214	1	6'1C.	3610"	37 2			
16W	1216	Ψ	73	33	33'16"	- V	1 1	

Ref. Pt. =: See Mkp	
Ref. Pt. F :	
Map Attached: Yes No	
Sample Type: Screening Confirmation D	Disposal/Characterization
Laboratory Destination: Onsite Lab AEN - coo	C#USACE- coc#
Duplicate Taken: Yes No	Rinsate Taken: Yes
On-site Laboratory Chain of Custody	Request for Analysis
Requested Testing: TPH BTEX Other	
Relinquished by(dd/tt): A Human G-21-95	Received by (dd/tt): 1-21-95 32
Relinquished by(dd/tt):	Received by (dd/tt):

Date: G/31/95

Site Name: Bldg 2527

Weather. Sunny

Samplers: BD/GG

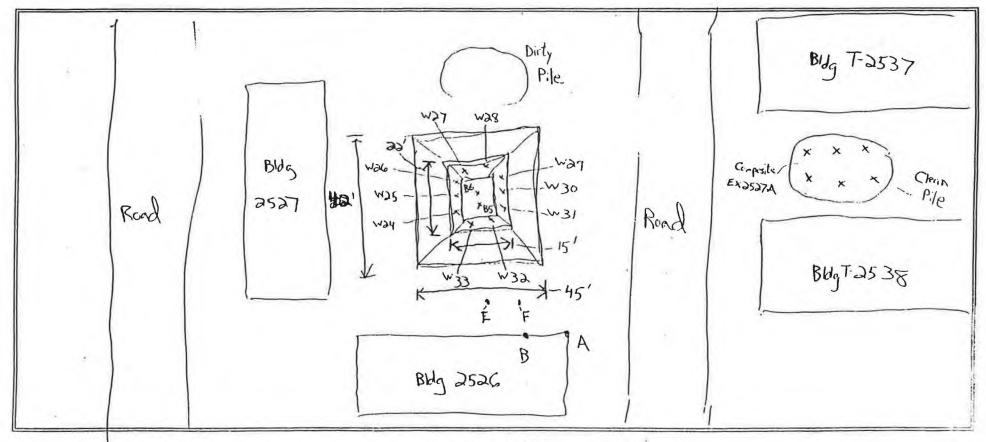
Pg.2013

ID Number	Time	Grab	Depth (ft)	Ref. Pt.	Ref. Pt.		scription	Bottles
W32	1218	6	6'	2010	28'6	Gree	nciay	1x4CmL VCA
W33	1990	1	65"	27'5"	30'9"	9(0	n day	
85	1927		8,	1	344"	brown s	Sc.	
56	1224	V	8'	39'9"	42	promu s	sci (	1 1
~								э.
				30				
				*				
Ref. Pt. F:  Map Attache  Sample Typ	e: (§	Screenin		onfirmatio		osal/Character		
_aboratory (			$\sim$	S NO		nsate Taken:	Yes (No)	>#
	On-s	ite Labo	oratory C	hain of Cu	ustody/Re	quest for Ana	ılysis	
Requested	Testing	g: (TF	H) B	TEX	Other		. 11 14	
Relinquishe	d by(de	d/tt):	4 Hum	الم		eceived by (dd	/tt):	- 6-21-9
Relinquishe	d by(d	d/tt):			R	eceived by (dd	/tt):	

Date: 6-21-95

Site Name: Bldg 2527

Pg. 3 of 3



Comments/Observations:

· - Fixed Point

x- Sample location

A→F; 388"

A>E: 42'2"

A-B: 6'2"

B→F: 38'2"

B → E: 40'

Prepared by: Grea Guimono

Pg. 10f 2

Date: 21 June 1995

Site(s): Bldg 3759,

Bldg 2527, & Bldg 3654

Analyst BD,GG

Sample ID #	Instrument Response TPH (ppm)	Calibration Adjusted TPH (ppm)	Sample Weight (g)	Extract Vol. (ml)	Dilution	Final Result TPH(ppm)	Qaulifie
SB3759W1	ND	ND			1	ND	
SB3759W2	ND	ND			1	ND	
SB3759W3	ND	ND			1	ND	
SB3759W4	ND	. ND	ži.	-	1	ND	
SB3759W5	27	17	20.0	20.3	1	17	J
SB3759W6	ND	ND			1	ND	
SB3759W7	171	113	19.8	20.1	1	115	
SB3759W8	ND	ND			1	ND	
SB3759W9	ND	ND -			1	ND	
SB3759W10	ND	ND			1	ND	
SB3759W11	ND	ND			1	ND	
SB3759W12	ND	ND			1	ND	
SB3759B1	ND .	ND			1	ND	
SB3759B2	ND	- ND			1	ND	
SB3759B3	ND	ND			1	ND	
SB3759B4	27	17	20.1	22.3	1	19	J
SB3654W17	ND	ND			1	ND	
SB3654W18	ND	ND			1	ND	
SB2527W24	823	548	10.9	21.1	1	1060	
SB2527W25	438	291	11.8	20.4	5	2516	

TPH - Total Petroluem Hydrocarbons

ND - Indicates non detect

J - Indicates estimated concentration below practical quantitation limit

Pg. 1012

Date: 21 June 1995

Site(s): Bldg 3759, Bldg 2527, &Bldg 3654 Analyst BD,GG

Sample ID #	Instrument Response TPH (ppm)	Calibration Adjusted TPH (ppm)	Sample Weight (g)	Extract Vol. (ml)	Dilution	Final Result TPH(ppm)	Qaulifie
Completio ii	17.17(19)	Tr (T) pp.iii	Troight (g/	400 (IIII)	Dilugotti	11 11(4-4-11)	Gacini
SB2527W26	905	602	10.9	23.2	5	6411	1
SB2527W27	379	252	20.0	21.8	5	1372	
SB2527W28	404	268	11,1	20.5	5	2479	
SB2527W29	840	559	19.7	22.5	5	3193	
SB2527W30	906	603	19.7	21.0	10	6429	
SB2527W31	952	634	18.6	21.5	5	3663	
SB2527W32	500	332	19.3	21.4	5	1843	
SB2527W33	1029	685	19,1	20.2	1	725	
SB2527B5	756	503	19.4	20.7	5	2684	
SB2527B6	33	21	18.8	21.3	1	23	J
EX2527A	85	56	20.6	23.2	1	63	
						*	
11/2							
							4-

TPH - Total Petroluem Hydrocarbons

ND - Indicates non detect

J - Indicates estimated concentration below practical quantitation limit

Pg. 1 01 2

# of

Sample

Date: 6-22-95

Sample

Site Name: Bidg 2527

Weather Sunny

|Comp/ |Sample

Samplers: BD/GG

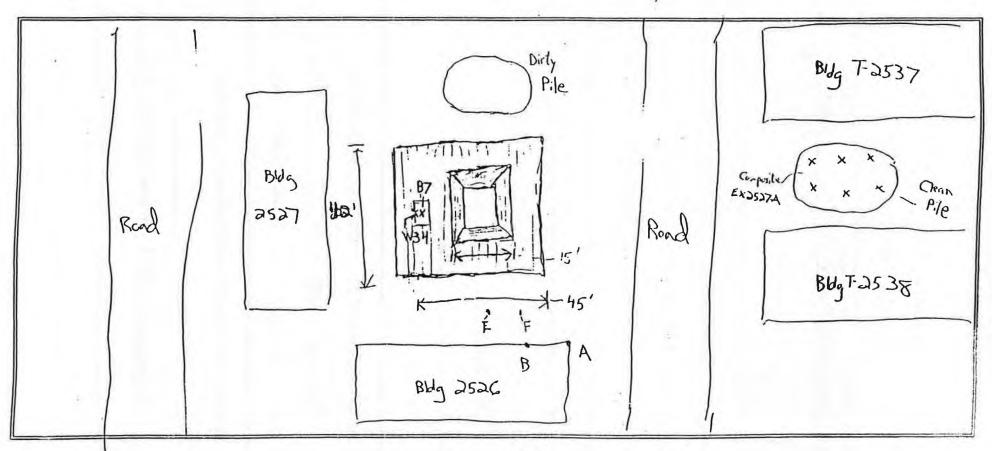
Coordinates

ID Number	Time	Grab	Depth (ft)	Ref. Pt.	Ref. Pt.F	Des	criptio	n	Bottles
\$353787		G	4-5'	43'	1-50	Grey/Black			1×40m-
	1511	G	453		1	14		14	1×40mL VOA
					İ	¥		94	
						*			
	the same of	7			1			4	
					1				
	1								
	İ								
Map Attach			No Co	onfirmatio	on Disp	osal/Characteriz	ation		
Laboratory	Destina	tion: <	Onsite La	A di	EN - coc #		US	ACE- coc #_	
	Duplic	ate Tak	en: Yes	(No.)	Ri	nsate Taken:	Yes	No	
	On-si	te Lab	oratory Ch	nain of C	custody/Re	quest for Analy	ysis		10.00
Requested	Testing	: (TF	ЭН В	TEX	Other				·····
Relinquishe	ed by(do	d/tt):	4 Au	mond (	5-2295 R	eceived by (dd/tl	): <u>\\ \</u>	lie De 15	30 6-22
Relinquishe	ed by(do	d/tt):			R	eceived by (dd/tf	t):		

Pg. 2012

Date: 6-2295

Site Name: Bldg 2527



Comments/Observations:

e - Fixed Point

x- Sample location

A->F: 38'8'

A>E: 42'2"

8 → F: 38'2"

8 →E: 40'

A→B: 6'2"

Prepared by: Greg Guimon

Pg. 1 of 2

Date: 22 June 1995

Bldg 2527, Bldg3770, Bldg 3654, & Bldg 3759

Analyst BD

Sample ID #	Instrument Response TPH (ppm)	Calibration Adjusted TPH (ppm)	Sample Weight (g)	Extract Vol. (ml)	Dilution	Final Result TPH(ppm)	Qaulifie
SB3654W3A	ND	ND			1	ND -	
SB3654W7A	ND -	ND			1	ND	
SB3654W15A	ND	ND			1 1	ND	
SB3654W18A	ND	ND -			1	ND	į
SB3654W17A	ND	ND			1	ND	İ
SB3654W5A	ND	ND			1	ND	i i
SB3654W13A	ND .	ND			1	ND	1.
SB3759DUPC	32	20	19.8	20.3	1	21	J
SB3759B1A	ND	ND			1	ND	İ
SB3759B4A	38	24	19.7	20.4	1	25	J
SB3759TRPB	342	227	20.4	20.4	1	227	
SB3759TRPA	ND	ND .			1	ND	-
SB3759TRPC	ND	ND			1	ND	f = -
SB3759B3A	ND	ND			1	ND	
SB3759DUPB	250	166	20.1	20.9	1	172	
SB3759DUPA	ND	ND			1	ND	
SB3759W11A	20	13	19.7	21.1	1	13	1.
SB3759W7A	341 -	226	20.0	21.3	1	241	
SB3759W6A	ND	ND			1	ND	
SB3770W9	ND	ND			1	ND	

TPH - Total Petroluem Hydrocarbons

ND - Indicates non detect

J - Indicates estimated concentration below practical quantitation limit

20. ci

Date: 22 June 1995

Bidg 2527, Bidg 3770, Bidg 3654, & Bidg 3759 Analyst BD

Sample ID #	Instrument Response TPH (ppm)	Calibration Adjusted TPH (ppm)	Sample Weight (g)	Extract Vol. (ml)	Dilution	Final Result TPH(ppm)	Qaulifie
SB3770W9	ND	ND			1	ND	
SB3770W10	ND	ND			1	ND	
SB3770B5	ND	ND			1.	ND *	
SB3770B6	ND	ND		•	1	ND	
SB3770B4	737	490	20.3	20.6	1	498 .	
SB2527B7	418	278	17.9	24.1	1	374	
SB2527W34	532	354	10.0	20.6	5	3644	
						*	
				-			
							1
		14					

TPH - Total Petroluem Hydrocarbons

ND - Indicates non detect

J - Indicates estimated concentration below practical quantitation limit

Date: 6-23-95
Weather: Sumy

Site Name: Bldg. 2527

Comp/ Sample

Sample

\$2/66 Samplers:

Coordinates

Pg. 1 of 2

# of

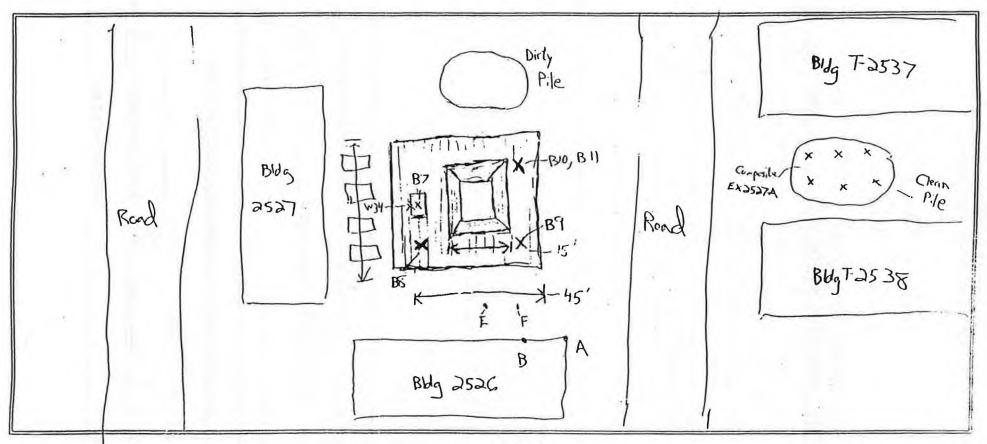
Sample

ID Number   Time	Grab	Depth (ft)	101.11	1 1011 1 111	Des	cription	Bottles
SB2527B8 0827	G	5-4	214"	29'41	3bck/grey clay	, distinct TPH oder	1×40=1
SB2527B9 0834		5-6'	27'9'	20'6"	Brown cla	ly, no odor some a	ible
SB2527B10 0540		5-6'	503	47'5"		+	
582527BII 0844	1.	7-8-11	50'3°	47'5"			1
		-					
Ref. Pt. <u>E</u> : Ref. Pt. <u>F</u> : Map Attached: (Ye				d on map		(Samples the	s taken ! bucket
Ref. Pt. F:  Map Attached: Ye  Sample Type:	creenin	yo Co	nfirmation	n Dispo	sal/Characteriz	the	- C- LACKAE M
Ref. Pt. F:  Map Attached: Ye  Sample Type: S  Laboratory Destina	creenin	No Co	nfirmation	n Dispo	sal/Characteriz	zation USACE- coc #_	- C- LACKAE M
Ref. Pt. F:  Map Attached: Ye  Sample Type: S  Laboratory Destina	creenin tion:	yo Co Onsite Lal	nfirmation AE	n Dispo :N - coc # _ Rin:	sal/Characteriz	zation  USACE- coc #_ Yes No	- C- LACKAE M
Ref. Pt. F:  Map Attached: Ye  Sample Type: S  Laboratory Destina	creenin tion: ate Take	Onsite Lalen: Yes	nfirmation AE No ain of Cu	n Dispo  N - coc # _  Rins  ustody/Req  Other	sal/Characteriz	zation  USACE- coc #_ Yes No	- C- LACKAE M
Ref. Pt. F:  Map Attached: Ye  Sample Type: S  Laboratory Destina  Duplica  On-sir	creenin tion: ate Take	Onsite Lalen: Yes	nfirmation AE No ain of Cu	n Dispo  N - coc # _  Rin:  ustody/Req  Other_  4940	sal/Characteriz	zation  USACE- coc #_ Yes No	- C- LACKAE M

Pg. 2 of 2

Date: 6-23.95

Sile Name: Bldg 2527



Comments/Observations:

o-Fixed Point x-Sample location A-F: 388

A>E: 42'2"

A→B: 6'2"

B →F: 38'2"

B → E: 40'

Prepared by: Greg Guimond

Pg.iofi

Date: 23 June 1995

Site(s): Bldg 2527

Analyst GG

Sample ID #	Instrument Response TPH (ppm)	Calibration Adjusted TPH (ppm)	Sample Weight (g)	Extract Vol. (ml)	Dilution	Final Result TPH(ppm)	Qaulifie	
SB2527B8	869	578	19.3	21.9	5	3282		
SB2527B9	. 21	13	19.5	21.4	1	14	J	
SB2527B10	19	12	19.3	21.3	1	13	i j	
SB2527B11	18	11	20.5	20.8	1	11	j	
'n							1	
				3.				
							1	
		*					1	
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		a a						
		,						
							+	
						¥.		
							-	

TPH - Total Petroluem Hydrocarbons

ND - Indicates non detect

J - Indicates estimated concentration below practical quantitation limit

Pg. 1 of 2

Date: 6-23-45

Site Name: 3/062527

Weather: Sunny

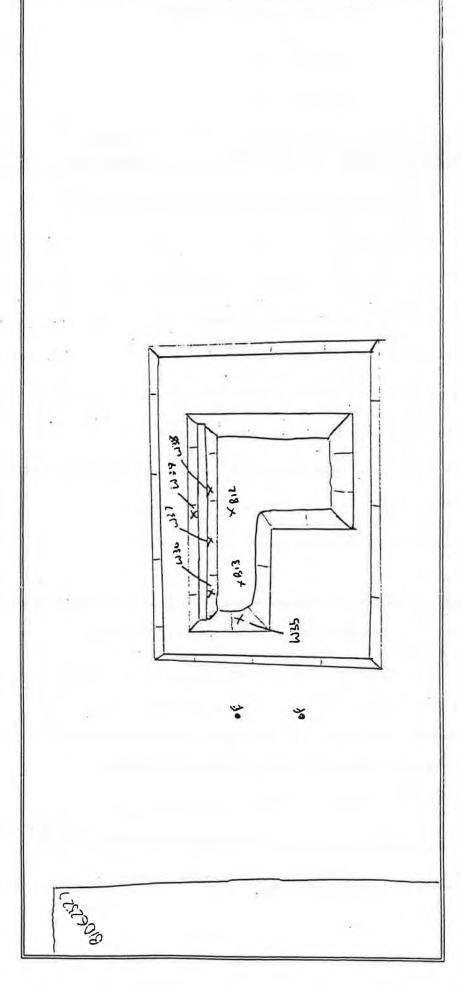
Samplers: 30,66

Sample IĎ Number	Time	Comp/ Grab			dinates Ref. Pt.€		Sample Description	# of Bottles
182527W35	1400	G	7'10"	293"	1970"	Hard DH (	Grey Silty sand	1140 ml
W36	1405	G	76"	36 4 "	26"11"			1×40
W57	1409-	6	78"	414"	334"			1×40 2,
MSI	1416	6	6'10"	45 7	37'4"	J		1X40 m1
wi39	1427	6	5'9"	45'9"	3711"	Light an	ey sind	LON
B12	1427	16	73"	363	29'2"	B120/6-	22.51	1×43 m1
B13	1433	6	19'4"	33 3"	216"	Brash / Gree		ا برواده ا

Ref. Pt. E: foic as miled on mig
Ref. Pt. F: Pole as now used on man
Map Attached: Yes No
Sample Type: Screening Confirmation Disposal/Characterization
Laboratory Destination: Onsite Lab AEN - coc # USACE- coc #
Duplicate Taken: Yes No Rinsate Taken: Yes No
On-site Laboratory Chain of Custody/Request for Analysis
Requested Testing: TPH BTEX Other
Relinquished by(dd/tt): William Dal 06-23-95 1515 Received by (dd/tt): William C6-23-95 1515
Relinquished by(dd/tt): Received by (dd/tt):

Date: 06 23-45

Site Name: Bib6 2527



# Comments/Observations:

· Fixed point × Somple location

- all sumples have the attotched petia sparza

Prepared by: Bill Dule

129.2012

Date: 23 June 1995

Site(s): Bldg 2527, 3617, 3619

Analyst: GG

Sample ID #	Instrument Response TPH (ppm)	Calibration Adjusted TPH (ppm)	Sample Weight (g)	Extract Vol. (ml)	Dilution	Final Result TPH(ppm)	Qaulifie
SB2527B12	161	106	10.9	21.0	1	205	
SB2527B13	24	15	16.6	21.5	1	19	J
SB2527W35	631	420	10.7	21.0	1	824	
SB2527W36	682	454	10.9	21.3	5	4434	1
SB2527W37	597	397	13.9	21.0	5	3000	
SB2527W38	586	390	13.4	21.6	5	3141	
SB2527W39	. 976	650	13.5	21.2	1	1020	
EX3617A	168	111	20.2	21.6	11	119	
EX3619A	697	464	20.3	20.4	1	466	
				1			1
							-
							4-
							-
_ G							-

TPH - Total Petroluem Hydrocarbons

ND - Indicates non detect

J - Indicates estimated concentration below practical quantitation limit

Date: 6/27/95

ID Number Time

SB2527TPIA 1055

SB25277 PIB 1103

SBASATTPZA 1128

Relinquished by(dd/tt):\_

Site Name: Bldg 2527

20

70.

61

Weather. Sunny

Sample

Comp/

Grab

G

6

6

10'

66"

Samplers: BD/GG

Sample Coordinates
Depth (ft)Ref. Pt. Ref. Pt. F

286

286"

56'

Pg. 1 of 2

# of

Bottles 1x4umL

VCA IXHUML

YOA. 1x40m4

VOA

Sample

Description

It. Brown soil w/ slight udor

Grey/tan fine sand, no oder

Damp, brown green cky, no odor

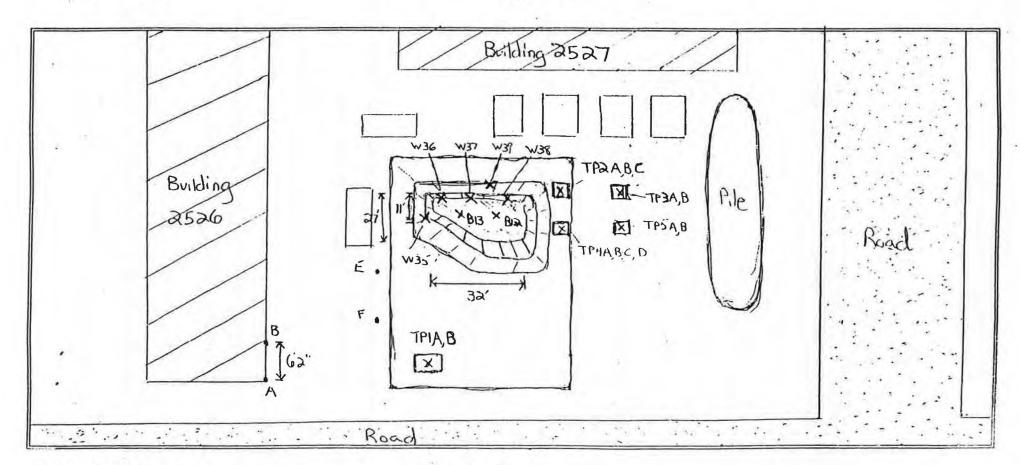
A.4	G 8'	56'	61'	Grey/clay tan sand, distill wet grey clay/soil , s	1	1×40 m L - VCA 1×40 m L VOA VOA
562527782 1139 5825277830		56	61	wet grey clay/soil , s	ome ador	VOA
SBZ=ZFEZB	E14					Vad.
						1
			+			
	1		İ		1	
Ref. Pt. <u>£</u> :	Force No.	ct as m	- Lod-	1		
				may		
Ref. Pt. <u>F</u> :	XX	1.		*		
Man Attached: (Va	s) No					
Map Attached: (Ye	5/ 110					
Sample Type: (Sc	creening	Confirmation	n Dis	posal/Characterization		
Sample Type: So	Jeering	201 IIII Matioi	I Dis	DOSal/Crial acterization		
Laboratory Destinati	on: Onsite L	ab AE	N - coc #	USACE	- coc #	
Dunlica	te Taken: Vo	s (No)	D	insate Taken: Yes (N	(0)	
Duplica	te rakeri.	13 (140)		ilisate rakell. Tes (I	90	

Received by (dd/tt):\_

Date: 6/27/95

Site Name: Bldg 2527

Pg. 2 of 2



#### Comments/Observations:

X. Sample Location

Water

A->F 38'8"

B->1= : 38' 2"

A -> E: "12'2"

B -> E: 40'

Samples are given the Prefix SB2527

6. Fixed Points

Prepared by: Greg Guimor.a

Pg. Lof\_

Date: 27 June 1995

Site(s): Bldg 2527

Analyst MRB/BD

Sample ID #	Instrument Response TPH (ppm)	Calibration Adjusted TPH (ppm)	Sample Weight (g)	Extract Vol. (ml)	Dilution	Final Result TPH(ppm)	Qaulifie
SB2527TP1A	22	14	19.6	20.3	1	14	J
SB2527TP1B	ND	+			1	ND	
S82527TP2A	ND				1	ND	
SB2527TP2B	321	213	7.1	23,1	1	693	l
SB2527TP2C	198	131	8.2	25.8	1	412	
SB2527TP3A	16	10	18.2	21.1	1	11	J
SB2527TP3B	17	10	18.3	21.3	1	12	J
SB2527TP4A	966	643	17.9	20.7	5	3718	
SB25Z7TP4B	481	320	14.3	20.7	5	2314	
SB2527TP4C	676	450	20.0	20.7	1	466	
SB2527TP4D	582	387	20.2	19.7	1	378	
SB2527TP5A	25	16	20.0	19.4	1	15	J
SB2527TP5B	18	11	19.6	21.5	1	12	J

TPH - Total Petroluem Hydrocarbons

ND - Indicates non detect

J - Indicates estimated concentration below practical quantitation limit

Pg. J of 2

Date: 6/27/72

Site Name: Blug 2527

Weather: Sunny

Ref. Pt. E: Fence Post as marked on mass

Ref. Pt. F : \_\_\_\_\_\_\_\_

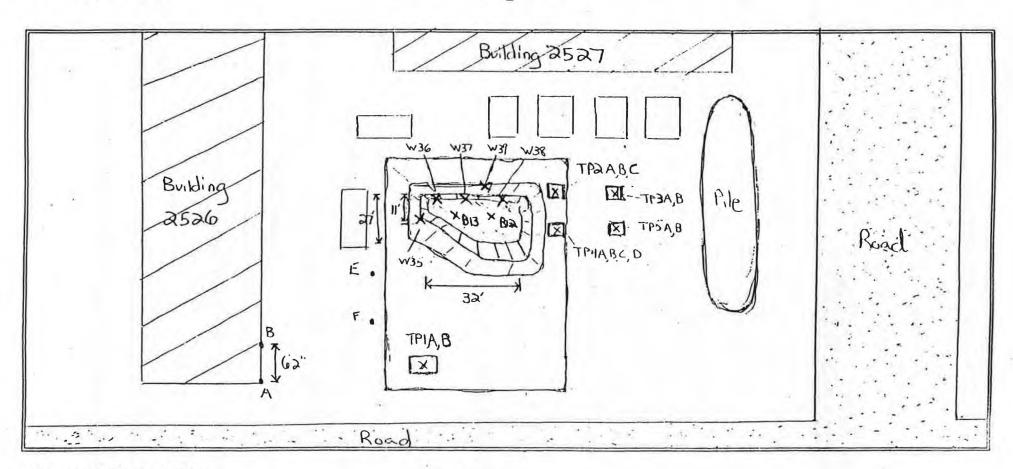
Samplers: 85/66

Sample ID Number	Time	Comp/ Grab	Sample Depth (ft)		inates Ref. Pt.r	Sample Description	# of Bottles
SBASZITERA	131	G	इस	82'G"	856	Brown soil w/ creen ting no odor	1×40~L
532527 TP33	1315	G	10'	826	85'6"	1 r. '	1740-L
582527TP4A	1343	G	6'	56.0	58'0"	grey/green clay some ados	1×40mL VOA
TP4B	1350	G	. 8,	26.0"	586"	brown soil/clay, distinct ador	1xyomi Vod
TP4C	1355	6	10'	560	580"	brown/ green same. TFH code-	1x40mL VCA
TP4D	1400	6	11,100	56'0"	530"	brown/green sand, some edict	INHOWL
TP5/A	1502	G	8'14	750	760	brown Sand/clay, no odor	1×40mL VOA
TP5B	1507	6	1096	750		born soul/day, no odor	1240 AL VOA

Map Attached: Yes No	
Sample Type: Screening Confirmation D	pisposal/Characterization
Laboratory Destination: Onsite Lab AEN - coo	# USACE- coc #
Duplicate Taken: Yes No	Rinsate Taken: Yes No
On-site Laboratory Chain of Custody	
Requested Testing: (TPH) BTEX Other  Relinquished by(dd/tt): 1520  Ci 27/72	Received by (dd/tt): 5 61 31 = 6.2795
Relinquished by(dd/tt):	Received by (dd/tt):

Date: 6/27/95

Site Name: Bldg 2527



#### Comments/Observations:

X- Sample Location

1 - water

B→1= 38,8,

A -> E: 42'2"

B → E: 40'

Samples are given the Prefix SB2527

6. Fixed Points

Prepared by: Greg Guimond

Pg. Lof\_

Date: 27 June 1995

Site(s): Bldg 2527

Analyst MRB/BD

Sample ID #	Instrument Response TPH (ppm)	Calibration Adjusted TPH (ppm)	Sample Weight (g)	Extract Vol. (ml)	Dilution	Final Result TPH(ppm)	Qaulifier
SB2527TP1A	22	14	19.6	20.3	1	14	١
SB2527TP1B	ND				1	ND	
SB2527TP2A	ND				1	ND	
SB2527TP2B	321	213	7.1 -	23.1	1	693	
SB2527TP2C	198	131	8.2	25.8	1	412	
SB2527TP3A	16	10	18.2	21.1	1	11	i J
SB2527TP3B	17	10	18.3	21.3	1	12	j
SB2527TP4A	966	643	17.9	20.7	5	3718	İ
SB2527TP4B	481	320	14.3	20.7	5	2314	
SB2527TP4C	676	450	20.0	20.7	1	466	
SB2527TP4D	582	387	20.2	19.7	1	378	
SB2527TP5A	25	16	20.0	19.4	1	15	J
SB2527TP5B	18	11	19.6	21.5	1	12	J
		Pi					

TPH - Total Petroluem Hydrocarbons

ND - Indicates non detect

J - Indicates estimated concentration below practical quantitation limit

Pg. 1 of 2

Date: w/25/95

Site Name: Bldg 2527

Weather. Sunny

Samplers: BD/GG

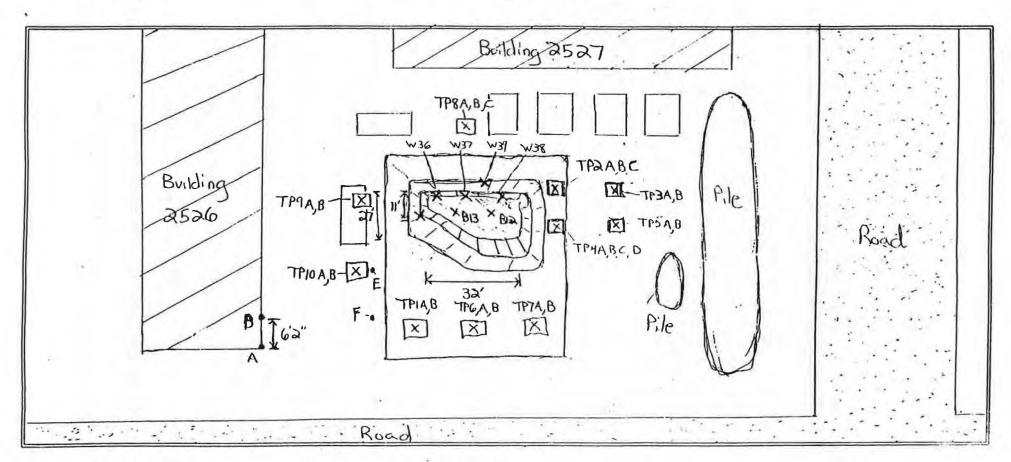
Sample IĎ Number	Time	Comp/ Grab	Sample Depth (ft)	Coord Ref. Pt.k	inates Ref. Pt.,	Sample Description	# of Bottles
SA2527TPGA	0856	6	76"	4069	357	Brown Fine sand/clay No sear	1240mL
SB 277 PGB	0925	G	10'0"	1987 TH	3577 14	Brown Fine sand/clay w/cooble No abor	1x4cmL Vaa
TP7A	C935	G	80"	39'4" XX	352	Brand/Grey fine sand/clay ive solot	1×40~L VOA
TP7B	6941	G	964	374 44	57° /14 35° Z	Brown/Grey Finesand/day No solot	1240mL VOA
TP8A	1033	G	70"	Go'1"	70101	Grey Gran clay U/dishot PH	1x40.21
TP8B	1041	6	8'6"	(661"	7010"	Stock/Gieen day w/distinct TPH ader	1x46mil V=1
TP8C	1100	G	10.6"	60'1"	70'10'	Block/Gre, clay w/distinct oder	ilx4CmL Vi2
	-						

Ref. Pt. E: Yence Post as Shown C	in map
Ref. Pt. F: 11 1- 1-	
Map Attached: Yes No	
Sample Type: Screening Confirmation	Disposal/Characterization
Laboratory Destination: Onsite Lab AEN - co	oc#USACE- coc#
Duplicate Taken: Yes (No)	Rinsate Taken: Yes No
On-site Laboratory Chain of Custod	y/Request for Analysis
Requested Testing: TPH BTEX Other	er
o ( ) ( )	Received by (dd/tt): 2 Cl Blen 1210
Relinquished by(dd/tt):	Received by (dd/tt):

Date: 6/28/95

Site Name: Bldg 2527

Pg. 2 of 2



#### Comments/Observations:

X. Sample Location

1897 - Water

A→F 38'8"

B->1= . 38,5"

A -> E: 42'2"

B-> E. 40'

Samples are given the Prefor 32507

6. Fixel Points

Prepared by: Greg Gulmond

Pg. 1 of 1

Date: 28 June 1995

Site(s): Bldg 2527

Analyst GG,BD

Sample ID #	Instrument Response TPH (ppm)	Calibration Adjusted TPH (ppm)	Sample Weight (g)	Extract Vol. (ml)	Dilution	Final Result TPH(ppm)	Qaulifie
SB2527TP6A	ND	ND			1	ND	
SB2527TP6B	ND	ND			1	ND	1
SB2527TP7A	ND	ND			1	ND	İ
SB2527TP7B	26	16	19.6	21.1	1	18	1 1
SB2527TP8A	969	645	19.4	20.0	10	6651	1
SB2527TP8B	933	621	16.7	20.1	1	748	-E
SB2527TP8C	1138	758	19.8	20.6	1	788	÷
SB2527TP9A	542	360	19.4	21.3	5	1979	100
SB2527TP9B	466	310	18.6	20.6	1	343	1
SB2527TP10A	992	660	19.7	20.6	5	3453	i
SB2527TP10B	738	491	19.6	20.3	10	5086	1
							1
							-
							-

TPH - Total Petroluem Hydrocarbons

ND - Indicates non detect

J - Indicates estimated concentration below practical quantitation limit

Date:

Sample

6/28/95

1319

Comp/

Grab

6

G

Sample Coordinates
Depth (ft)Ref. Pt. F Ref. Pt. F

2610

26'16"

80"

106"

Site Name: Bly 2527

Sample

Description

Green/Grey Moist Clay, TPHodor

Weather. Sunny

ID Number Time

5B252779A 13C5

Samplers: BD/66

378"

37'8"

Pg.	of	2
9.7		Y

# of

**Bottles** 1x. 40mL

> VOA 1×40 mL

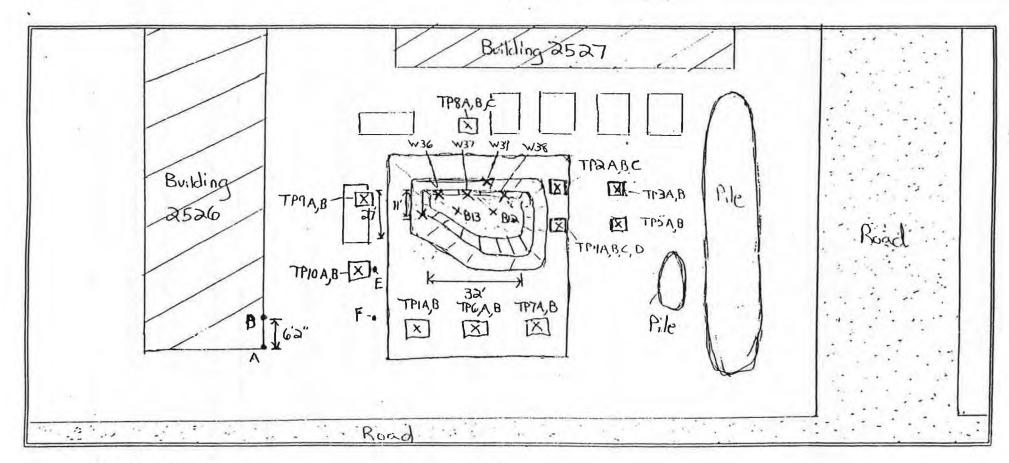
TMB	1319	G	106"	96,1C.	37'8"	Green Brown Soil, slight Tot	iden VOA
JPICA	1355	G	70"	10'2"	150	Grey/Green Clay, TPH odor	1×40mi VJA
TP10B	1427	G	10'	10'2"	15°0"	Green/Grey Clay, TPH odor	YOU
a la		•				1 1/2	
Map Attach Sample Typ		creening	No	onfirmation	n Disp	osal/Characterization	CONTRACT OF STATE
Laboratory		_		ab) AE	N - coc #	USACE- coc	#
			en: Yes	_		nsate Taken: Yes No	
	On-si	te Labo	oratory C	hain of Cu	ustody/Re	quest for Analysis	
Requested		_		ŢEX	Other		
Relinquishe	ed by(do	d/tt):	A. Au	men) (a)	128/45 Re	eceived by (dd/tt): 20 CC Bt	2. 6. 25. 91
Relinquishe	ed by(do	d/tt):			Re	eceived by (dd/tt):	

Date: 6/28/95

, .,

Site Name: Bldg 2527

Pg. 2 of 2



#### Comments/Observations:

X. Sample Location

| water

A→F 388"

B->1 33 5"

A-) E1 42'3"

B → E. 40'

Samples are given the Pretix SB2527

6 . Fixal Points

Prepared by: Greg Guimond

Pg. 1 of 1

Date: 28 June 1995

Site(s): Bldg 2527

Analyst GG,BD

Sample ID #	Instrument Response TPH (ppm)	Calibration Adjusted TPH (ppm)	Sample Weight (g)	Extract Vol. (ml)	Dilution	Final Result TPH(ppm)	Qaulifie
SB2527TP6A	ND	ND			1	ND	
SB2527TP6B	ND .	ND			1	ND	
SB2527TP7A	ND	ND			11	ND	
SB2527TP7B	26	16	19.6	21.1	1	18	J
SB2527TP8A	969	645	19.4	20.0	10	6651	İ
SB2527TP8B	933	621	16.7	20.1	1 1	748	
SB2527TP8C	1138	758	19.8	20.6	1, 1	788	
SB2527TP9A	542	, 360	19.4	. 21.3	5	1979	
SB2527TP9B	466	310	18.6	20.6	1	343	
SB2527TP10A	992	660	19.7	20.6	5	3453	
SB2527TP10B	738	491	19.6	20.3	10	5086	
						-	1

TPH - Total Petroluem Hydrocarbons

ND - Indicates non detect

J - Indicates estimated concentration below practical quantitation limit

Pg. 1 of 2

Date: 6/29/95

Site Name: Big 2527

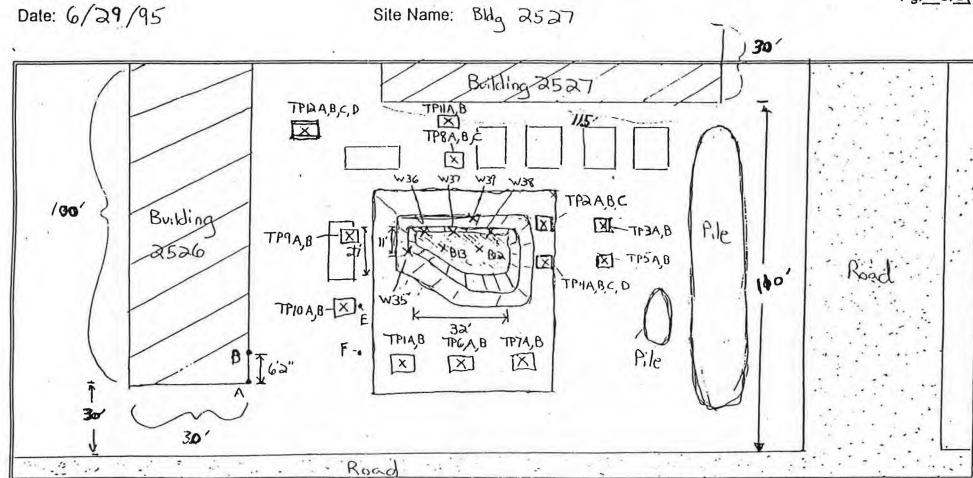
Weather: Sunny

Samplers: BD/G6

Sample ID Number	Time	Comp/ Grab	Sample Depth (ft)		finates Ref. Pt.F	Sample Description	# of Bottles
SBASATTPIIA	0940	G	86"	:68"	77'5"	Grey clay, distinct TPH oder	/xyomL VOA
582527 TP11B	0944	6	10'6"	66'8"	77'5'	Grey/Black clay, distinct Titlede	1×40 mL
SENSITIENNA	1013	G	1'6"	64	72'10'	Black soil, no odor	1×40mL VCA
532627TAZA	1058	G	60	614	72'10'	Dark brown wet soil, no distinct oder	VC+A VC+A
TPIX	1102	G	66.	6141	72'10"	Grey clay, distinct TPHoder	1×46mL VCA
TPIAD	1115	G	8'c*	614"	72'10"	Grey/tan clay. Slight TPH oder	MACH
TPIAE	164	G	10:0"	61'4"	172'10"	3'ack/tan clay/soil slight ocles	1240.mL VC+1
				4			

Ref. Pt. F: Fence post as marked	d on map
Map Attached: Yes No	
Sample Type: Screening Confirmation  Laboratory Destination: Onsite Lab AER	Disposal/Characterization  N - coc # USACE- coc #
Duplicate Taken: Yes No	Rinsate Taken: Yes No
On-site Laboratory Chain of Cu	
Requested Testing: (TPH) BTEX  //5  Relinquished by(dd/tt): // / / / / / / / / / / / / / / / / /	Other 9/95 Received by (dd/tt):
Relinquished by(dd/tt):	Received by (dd/tt):

Pg. 2012



#### Comments/Observations:

X. Sample Location .

- water

A→F 38'8

B-11. 33' 2"

A -> E. 42'2"

B -> E. 40'

Samples are given the Perix 582527

5. Fixed Points

Prepared by: Greg Guimond

Pg.1 of 1

Date: 29 June 1995

Site(s): Bldg 2527

Analyst: MRB

Sample ID #	Instrument Response TPH (ppm)	Calibration Adjusted TPH (ppm)	Sample Weight (g)	Extract Vol. (ml)	Dilution	Final Result TPH(ppm)	Qaulifie
SB2527TP11A	793	528	19.4	19.6	5	2666	į
SB2527TP11B	554	368	19.1	21.5	5	2074	1
SB2527TP12A	45	28	19.2	21,4	1	31	Ì
SB2527TP12B	10	6	19.3	21.0	1 1	7	J
SB2527TP12C	1055	702	19.3	20.6	5	3749	1
SB2527TP12D	185	122	19.9	20.8	1 1	128	
SB2527TP12E	-485	322	9.0	28.3	11	1014	1
							1
							İ
							Î
							i i
		140					
							1

TPH - Total Petroluem Hydrocarbons

ND - Indicates non detect

J - Indicates estimated concentration below practical quantitation limit

Pg. <u>/ of </u>

Date: 6/30/95

Site Name: Bldg 2527

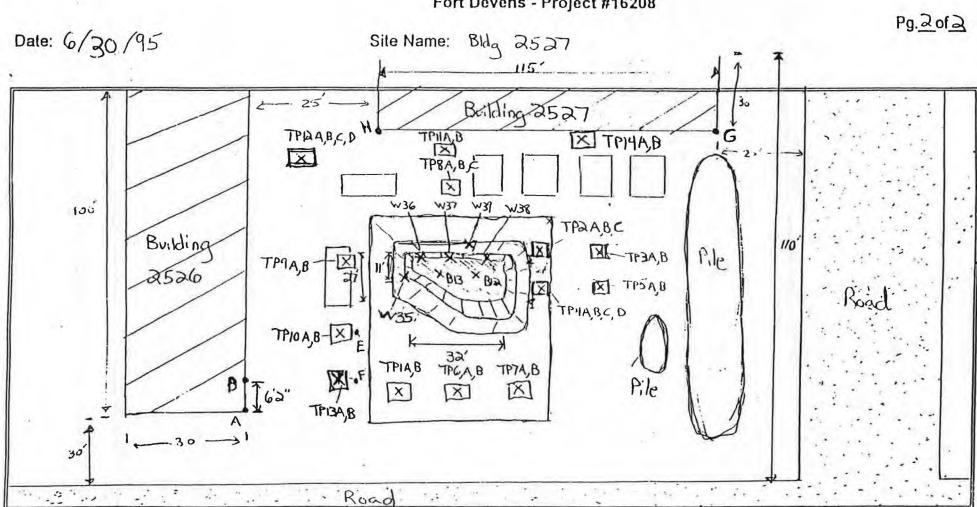
Weather Sunny, some doucks

Samplers: BD/GG

Sample ID Number	Time	Comp/ Grab	Sample Depth (ft)		inates Ref. Pt.B	Sample Description	# of Bottles
5825277ABA	1020	G	60"	2510"	24'9'	Brown/Grey clay, no odor	140mL VOA
TP 13B	1030	G	10'0"	25'10"	24'9"	Brown/Grey sand/day, wet, no odor	1×40mL VOX
TP14A	1140	G	80"	G 462'	H 663	Brown maist clay, no order	1x4cml VOA
TP14B	1,50	G	100"	5 462"	H 60'3"	Brown moist clay, no odor	1x40ml AGV
	-						
		*					

Ref. Pt. <u>E</u> :	
Ref. Pt. <u>F</u> :	
Aap Attached: Yes No	
Sample Type: Screening Confirmation D	isposal/Characterization
aboratory Destination: Onsite Lab AEN - coo	# USACE- coc #
Duplicate Taken: Yes No	Rinsate Taken: Yes No
On-site Laboratory Chain of Custody	Request for Analysis
equested Testing: TPH BTEX Other	.7.00
elinquished by(dd/tt): A human 6/30/95	Received by (dd/tt): 200 Received by (dd/tt):
elinquished by(dd/tt):	

#### Sample Location Map Fort Devens - Project #16208



#### Comments/Observations:

,4,

X. Sample Location

Mater

A→F 38'8

B-717, 38' 2"

A → E: 42'2"

B → E: 40'

Samples are given the Parix SB2527

6 . Fixed Points

Prepared by: Greg Guimond

Pg. 1 of \_

Date: 30 June 1995

Site(s): Bldg 2527 , Queenstown Spill

Analyst MRB

Sample ID #	Instrument Response TPH (ppm)	Calibration Adjusted TPH (ppm)	Sample Weight (g)	Extract Vol. (ml)	Dilution	Final Result TPH(ppm)	Qaulifie
SBQUEENB1	18	11	20.1	20.4	1	11	J
SBQUEENB2	46	30	20.2	20.9	1	31	J
SBQUEENB3	ND				1	ND	
SBQUEENB4	10	. 6	20.3	20.5	1	6	j
SBQUEENW1	ND	,			1	ND .	1
SBQUEENW2	18	11	20.0	20.5	1	11	ال
SBQUEENW3	13	В	20.3	20.4	1	8	
SBQUEENW4	ND		İ		1	ND	
SBQUEENW5	ND			-	11	NO	
SBQUEENW6	21	13	20.3	20.8	1	13	J
SBQUEENW7	23	14	20.2	20.3	1	15	J
SBQUEENW8	55	36	20.0	22.8	1	41	J
SBQUEENW9	16	10	20.4	21.1	11	10	J
SBQUEENW10	57	37	20.0	21.3	1	40	J
SB2527TP13A	29	18	20.2	21.0	1	19	J
SB2527TP13B	ND				1	ND	
SB2527TP14A	ND				1	ND	
SB2527TP14B	ND				1	ND	

TPH - Total Petroluem Hydrocarbons

ND - Indicates non detect

J - Indicates estimated concentration below practical quantitation limit

Pg. 1 of 2

Date: 7/5/95

Site Name: Bldg 2527

Weather. Cloudy, some sun

Samplers: BD/GE

Sample ID Number	Time	Comp/ Grab	Sample Depth (ft)		finates Ref. Pt.H	Sample Description	# of Bottles
5B25>7TP15A	0925	G	7'	50'G"	1 67'10'	Brown Clay	1×40mL VOA
TP15B	0931	6	9.6	50'6"	H 67'10"	Brown Clay	1×4CmL VOA
TPIGA	1117	G	8"	I 10'5"	H 30'6"	Brown clay	INOM-
TP16B	1123	G	10'6"	I 16,2,	H30'6"	Brown/grey Clay	NOY!
Ŷ		18.					
						8	

	1
Ref. Pt:	
Map Attached: Yes No	
Sample Type: Screening Confirmation Dispo	sal/Characterization
Laboratory Destination: Onsite Lab AEN - coc #_	USACE- coc #
Duplicate Taken: Yes (No.) Rin	sate Taken: Yes No
On-site Laboratory Chain of Custody/Red	quest for Analysis
Requested Testing: TPH BTEX Other  Relinquished by(dd/tt): 4 4 4 7 5 7 5 7 8 Re	1130
Relinquished by(dd/tt): 4 Jumes 7/5/95 Re	ceived by (dd/tt): 7.5.9
Relinquished by(dd/tt): Re	ceived by (dd/tt):

g.\_of\_

Date: 05 July 1995

Site(s): Bldg 2527 , T203

Analyst MRB/GG

Sample ID #	Instrument Response TPH (ppm)	Calibration Adjusted TPH (ppm)	Sample Weight (g)	Extract Vol. (ml)	Dilution	Final Result TPH(ppm)	Qaulifie
SB2527TP15A	19	12	20.3	19.9	1	12	J
SB2527TP15B	ND				1, 1	ND	1
SB2527TP16A	ND		Ì		1,	ND	1
SB2527TP16B	ND				11	ND	Ì
*32527TP17A	ND	7-	į		1 1	ND	Í
SB203I1	432	287	3.2	28.6	5	12830	1
	1		1		1 1		İ
14.		* (* ) * (* ) * (* ) * (* )	1				i
		1	i				į,
			1				1
							İ
			ļ		1 1		1
					1 1		
			1				
					1		

TPH - Total Petroluem Hydrocarbons

ND - Indicates non detect

J - Indicates estimated concentration below practical quantitation limit

Pg. 1 of

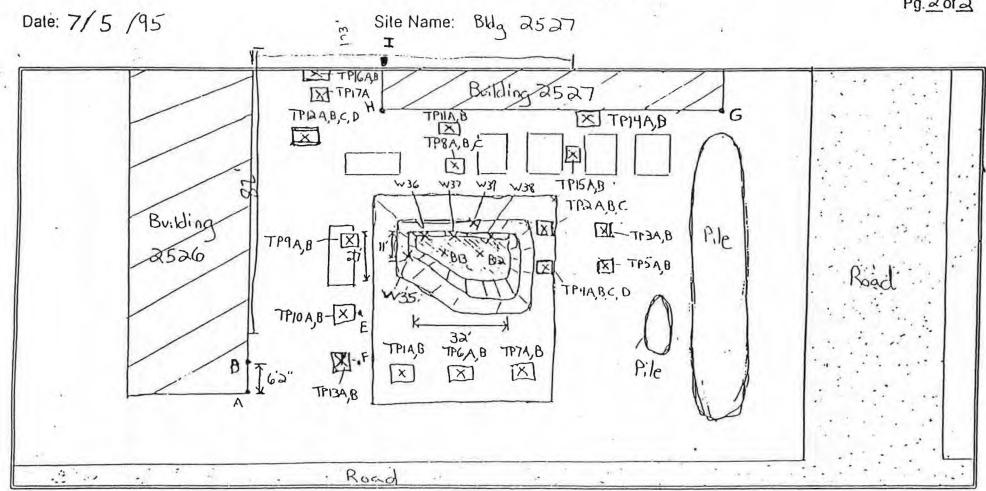
Date: 7/5/95

Site Name: Bldq 2527

Weather: Svany

Samplers: BD/66

ID Number			Sample Coordinates Depth (ft)Ref. Pt.I Ref. Pt.H			Sample	# of
	Time		1				Bottles
3353777174	1340	G	10'	19'0"	246"	grey/brown clay, no odo	VOV Y
						1	
						*	
						****	
						17	
				*			1
Ref. Pt:	-	~					
	ed: کم	es)	No .	onfirmatio		sal/Characterization	
Ref. Pt:  Map Attache  ample Typ	ed: 👌	es) Screenin	No Co		on Dispo	sal/Characterization	oc#
Ref. Pt:  Map Attache  ample Typ	ed: ੴ	Screening	No Onsite La	AE	on Dispo EN - coc # _	sal/Characterization  USACE- c	
Map Attache	ed: ੴ	Screening	No Onsite La	AE	on Dispo EN - coc # _	sal/Characterization	
Ref. Pt: Map Attache lample Typ	ed: (3)	Screenination:	No Onsite La	AE	on Dispo EN - coc # _ Rin	sal/Characterization  USACE- consiste Taken: Yes No	
Ref. Pt:  Map Attache  ample Typ	ed: (3)	Screenination:	No Onsite La	AE	on Dispo EN - coc # _ Rin	sal/Characterization  USACE- c	
Ref. Pt:  Map Attache  lample Typ	ed: (*) Destina Duplic On-s	Screenination:	Onsite La	AE	on Dispo EN - coc # _ Rin	sal/Characterization  USACE- consiste Taken: Yes No	
Ref. Pt: Map Attache lample Typ aboratory I	ed: of Destination	Screening ation: cate Take ite Laborate Take ite	Onsite La	AE NO	Disposition Disposition Disposition Ringer Disposition Disposition Ringer Disposition Rin	sal/Characterization  USACE- consiste Taken: Yes No	



#### Comments/Observations:

150

X. Sarike Location

Mill - water

A -> E 40,2.

B -> E 40'

Samples are given the Prefix SB2527

6. Fixal Points

Prepared by: Greg Guimond

Pg. 22014

Date: 10-3-95

Site Name: 2527

Weather: Sunny, 78

Relinquished by(dd/tt):\_

Samplers: MJ 1MB

Sample Com ID Number Time Gra	np/ Sample nb Depth (ft)	Coordinates Ref. Pt.A Ref. Pt.B	Sample Description	# of Bottles
SB2527W41 1053 G	8'2"	21, 8,, 38,6,,	Rocky , Wet clay woily ador	1×40m
W42 1055	8'2"	17' 2" 43' 7"		
N43. 1058	8'6"	15'6" 47'1"		
W44 1059		15' 6" 48'5"	9	
W45 1104	8'7"	17'4" 49'1"		
W46 1103	8'7"	29'3" 31'4"		
MITHM	8' 10"	30' 2" 30' 9"		
W48:1430 V	7'6"	33'10" 335"	1	4
Ref. Pt. B:docr	0+ blag No	See attache	d Map	
Sample Type: Screen	ning Co	onfirmation Disp	osal/Characterization	1200
Laboratory Destination:	Onsite La	AEN - coc #	USACE- coc #_	
Duplicate T	aken: Yes	(No) Rin	nsate Taken: Yes No	•
On-site La	boratory Ch	ain of Custody/Re	quest for Analysis	
Requested Testing:	TPH B	ΓEX Other		
Relinquished by(dd/tt):	tatthe	Manes 1620 Re	eceived by (dd/tt):	
The second secon		V		

Received by (dd/tt):\_\_\_

12g. 1 of 4

Date: 10-3-95

Duplicate Taken:

Yes (No

Site Name: 2527

Sample ID Number		Sample Coordinates Depth (ft)Ref. Pt.A Ref. Pt.	Sample Description	# of Bottle
SB2527814	1100 G	8'3" 24'5" 477	Rocky Clay Soil Woily	1240
BIS	1105	11'2" 27'4" 42'10"		1
816	1420	9'10" 30'8" 40'8"		
BIT	1423	9'11" 35'1" 42'6"		1
Bis	1425	9'7" 40'4" 46'4		
Big	1428	8'11" 44'8" 50'7"		
820	1431	8'10" 49'7" 514'		
M40		8'10" 25'5" 35'1"	4	1
	Door of	of bildg See attack Bildg. See attache No	•	

## On-site Laboratory Chain of Custody/Request for Analysis Requested Testing: Received by (dd/tt):\_\_\_ Relinquished by(dd/tt): 1620 Received by (dd/tt):\_ Relinquished by(dd/tt):\_

Rinsate Taken:

Yes

_	-		1
Pg.	4	01	T

Date: 10.3.95

Site Name: 2527

Weather: Sunny , 78°

Relinquished by(dd/tt):\_

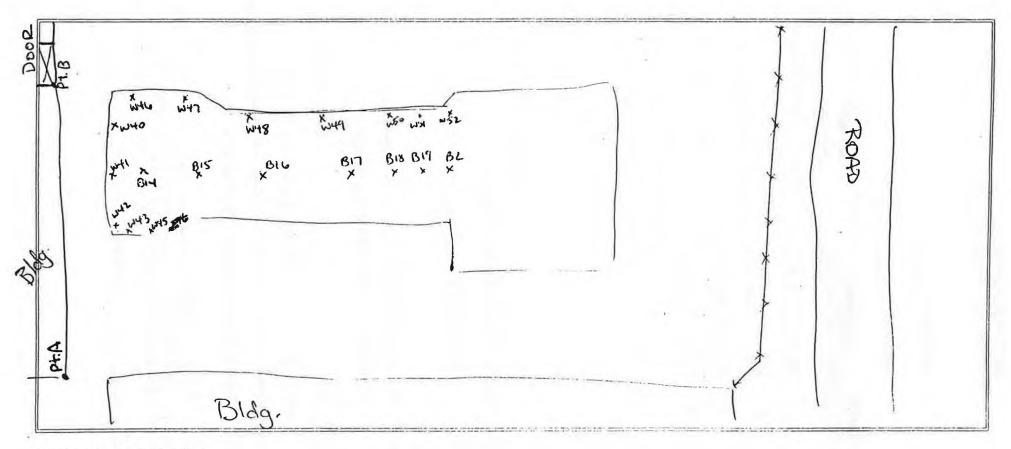
Samplers: MJ MR BD

Clay Soil w/ oily ador	1 × 40m
8	
8	
8	
erization	
Yes No	
alysis	
	erization  USACE- coc #_  Yes No

Received by (dd/tt):\_\_\_\_

Date: 10-3-95

Site Name: 2527



#### Comments/Observations:

e- Fixed point X- Sample location

Prepared by Matintones

Pg. 1 of 1

Date: 3 October 1995

Site(s): Bldg 2527

Analyst: MRB

Sample ID #	Instrument Response TPH (ppm)	Calibration Adjusted TPH (ppm)	Sample Weight (g)	Extract Vol. (ml)	Dilution	Final Result TPH(ppm)	Qualifie
					the in		
SB2527B14	ND	ND	19.4	20.8	1	ND	
SB2527B15	770	567	19.8	20.8	1	596	
SB2527B16	474	348	19.9	21.2	1	371	
SB2527B17	85	60	19.9	21.3	1	64	4
SB2527B18	28	18	20.2	21.3	1	19	J
SB2527B19	403	296	20.4	19.5	1	282	
SB2527B20	395	290	18.9	19.5	10	2988	
SB2527W40	ND	ND	19.8	20.8	1	ND	
SB2527W41	341	250	19.9	20.1	10	2521	
SB2527W42	96	68	18.6	20.4	50	3736	
SB2527W43	253	184	11.5	22.9	50	18362	
SB2527W44	392	287	6.7	21.7	5	4654	
SB2527W45	245	178	15.2	22.1	5	1298	
SB2527W46	198	144	19.5	20.1	25	3702	
SB2527W47	735	541	20.0	20.8	1	563	
SB2527W48	415	304	18.9	23.0	10	3705	
SB2527W49	1275	941	17.1	22.0	1	1211	
SB2527W50	428	314	19.6	21.7	10	3477	
SB2527W51	670	493	19.4	20.3	1	516	
SB2527W52	255	186	19.7	19.9	10	1878	

TPH - Total Petroluem Hydrocarbons

ND - Indicates non detect

J - Indicates estimated concentration below practical quantitation limit

Pg. 1 of 1

Date: 3 October 1995

Site(s): Bldg 2527

Analyst MRB

	Instrument Response	Calibration Adjusted	Sample	Extract		Final Result	
Sample ID #	TPH (ppm)	TPH (ppm)	Weight (g)	Vol. (ml)	Dilution	TPH(ppm)	Qualifie
SB2527B14	ND	ND	19.4	20.8	1	ND	
SB2527B15 -	770	567	19.8	20.8	1	596	
SB2527B16	474	348	19.9	21.2	1	371	i
SB2527B17	85	60	19.9	21.3	1	64	
SB2527B18	28	18	20.2	21.3	1	19	J
SB2527B19	403	296	20.4	19.5	1	282	
SB2527B20	395	290	18.9	19.5	10	2988	1
SB2527W40	ND	ND -	19.8	20.8	1	ND	1
SB2527W41	341	250	19.9	20.1	10	2521	
SB2527W42	96	68	18.6	20.4	50	3736	1
SB2527W43	253	184	11.5	22.9	50	18362	
SB2527W44	392	287	6.7	21.7	5	4654	
SB2527W45	245	178	15.2	22.1	5	1298	1
SB2527W46	198	144	19.5	20.1	25	3702	
SB2527W47	735	541	20.0	20.8	1	563	
SB2527W48	415	304	18.9	23.0	10	3705	
SB2527W49	1275	941	17.1	22.0	1	1211	
SB2527W50	428	314	19.6	21.7	10	3477	
SB2527W51	670	493	19.4	20.3	1	516	
SB2527W52	255	186	19.7	19.9	10	1878	1

TPH - Total Petroluem Hydrocarbons

ND - Indicates non detect

J - Indicates estimated concentration below practical quantitation limit

Pg. lof 3

Date: 10|18|95

Site Name: 2527

Weather: Sunny, 60°

Samolers: MJ

Sample		Comp/			rdinates		Sample	# of
ID Number	Time	Grab	1	Ref. Pt.	Ref. Pt.		Description '	Bottles
5B2527W53	1328	G	16	1	i	Wet, C	ily clay soi	1 1.240
W54	1 331		<u> </u>		}			4
W55	1335				1			
W56	1338	1			11 0	1		3
WS7	1342				1 '	Wet,	clay soil, Ros	ky /
W58	1346	i						
W59	1350							
W60	1353	V					V	7
Ref. Pt:		X					-	
Map Attache	ed: Ye	es	No					
Comple Tun	. 6	creenin	- C	onfirmation	on Disc	acal/Charac	etorization	-
Sample Type						osal/Charac		
Laboratory D	estina	tion:	Unsite La	D A	EN - COC#		USACE- co	G#
	Duplica	ate Tak	en: Yes	No	Ri	nsate Taken	: Yes No	
	On-eli	e Labo	ratory Ch	ain of C	ustody/P4	equest for A	nalvsis	
					ALL	equest for A	nalysis	
Requested 1	Γesting	TP		TEX 10(1	Other			. [ 10/
	Γesting	TP		TEX 10(1	Other		dd/tt):Д. Ди	min 10/

Pg. 2 of 3

Date: 10|18|95

Site Name: 2527

Weather Sunny, 60°

Samplers: MJ

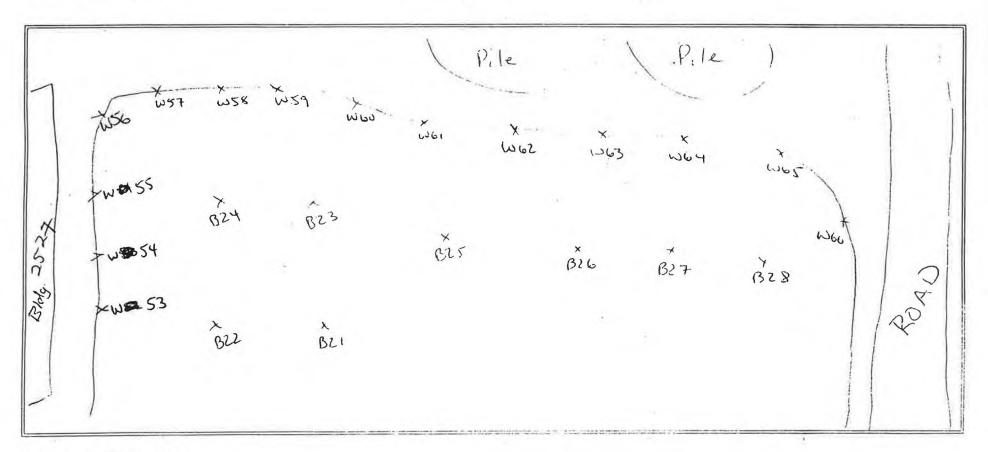
ID Alicenter	4	Comp/	Sample	Coor	dinates	S	ample ·	# of
D Number	Time	Grab	Depth (ft)	Ref. Pt.	Ref. Pt.	De	scription	Bottles
8252782	1353	- G				Wet S	sil, Rocky	1×40m
B22	1328							
	1359							
B24	1302							2
							4	
					÷			1
			+			1		1
	i i					İ		¥ Ţ
Map Attach			No g) Co	onfirmation	on Disp	osal/Character	ization	
Sample Typ		_						
	Destina	tion:	Onsite La	b Al	EN - coc #		USACE- c	oc#
Sample Typ Laboratory i						nsate Taken:	USACE- co	oc#
	Duplica	ate Take	en: Yes	No	Ri		Yes No	oc#
Laboratory i	Duplica On-sit	ate Take	en: Yes	No nain of C	Ri ustody/Re	nsate Taken:	Yes No	
	On-si	te Labo	en: Yes	No nain of C	Other	nsate Taken:	Yes No	10/18/9 1600

#### Sample Location Map Fort Devens - Project #16208

Pg. 30f ?

Date: 10(18 195

Site Name: 2527



Comments/Observations:

x - inducates location of gues samples

Prepared by: Marin Jones

Pg. 1 of 1

Date: Oct-18-1995

Site(s): Bldg 2527

Analyst: MJ

Sample ID #	Instrument Response TPH (ppm)	Calibration Adjusted TPH (ppm)	Sample Weight (g)	Extract Vol. (ml)	Dilution	Final Result TPH(ppm)	Qualifie
SB2527W53	801	562	5.2	22.7	1	2455	
SB2527W54	450	315	5.7	22.1	1	1222	
SB2527W55	330	231	21.3	20.5	1	222	
SB2527W56	533	374	21.1	21.8	1	386	
SB2527W57	ND	ND	21.9	22.4	1	ND	
SB2527W58	ND	ND	20.9	21.4	1	ND	
SB2527W59	ND	ND	21.0	22.1	1	ND	
SB2527W60	48 -	32	21.0	21.0	1	32	J
SB2527B21	ND	ND	20.7	21.1	1	ND	
SB2527B22	ND	ND	19.4	20.8	1	ND	
SB2527B23	ND	ND	19.6	21.2	1	ND	
SB2527B24	ND	ND	20.8	21.1	1	ND	
							+
						-	
				-			
						,,	

TPH - Total Petroluem Hydrocarbons

ND - Indicates non detect

J - Indicates estimated concentration below practical quantitation limit

Date:	.0	19	195
Date:	10	117	(12

Site Name: 2527

Weather: Sunny, 60°

Samplers: MJ

Sample ID Number	Time	Comp/ Grab	Sample Depth (ff)	And the second s	rdinates _Ref. Pt.		Sample Description	# of Bottles
582527W61		G	Jopan (10)		1		ky Soil	1 ×40m
W62	0853							1
W63	0822			(				1
W64	0857						*	
W650	2090					a+,	w/ Cily odor	
Web	0904						w/ City oder w/Oily oder	
B25	090P							
B26	0910	4				1	r	4
Map Attache Sample Type Laboratory [	e: (S	creenin		onfirmati b A		oosal/Charact		rava e de la companya
*	Duplica	ate Take	en: Yes	No	R	insate Taken:	Yes No	
	On-si	te Labo	ratory Ch	ain of C	Custody/R	equest for Ar	nalysis	
Requested 7	Testing		/ .	TEX (C	Other		1.1	10/19/9
Relinquished	d by(dd	/tt): <u>\</u>	thes'	Jours	1000 R	eceived by (d	d/tt): M. Gumon	2 1000
				U				

Pg. 1 of 3

Date:	101	19	195
Date.	101	1 1	1 1 3

Site Name: 2527

Pg. 2 of \_

Weather: Sunny, 60°

Samplers: MJ

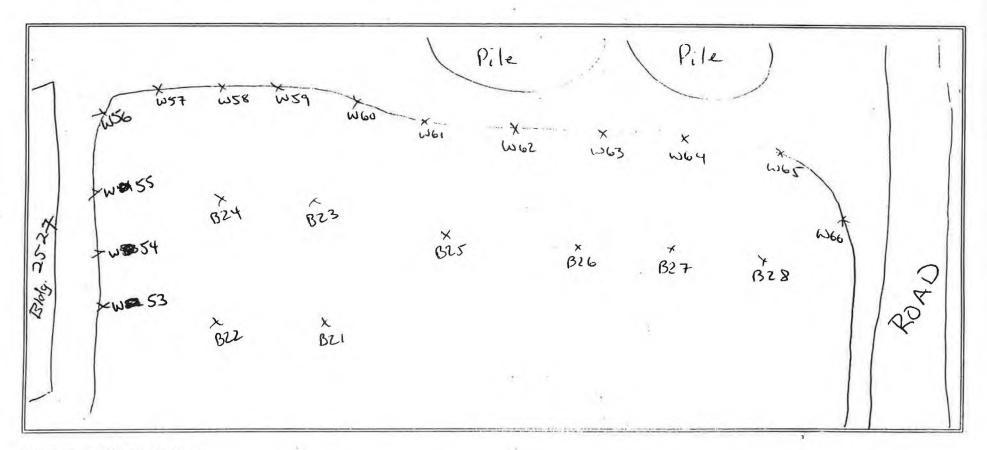
Sample		Comp/	Sample	Cool	rdinates	5	Sample	# of
ID Number	Time	Grab	Depth (ft)	Ref. Pt.	Ref. Pt.	De	escription	Bottle
53252740	70915	G	#					
1328		A. 1						
W2.3	0917	G						1
								1
					1	1		
_			1 -	i i		1		
	1				d.			+
Ref. Pt:	-	es	No					
Sample Typ	ne: (8	Screenin	) c	onfirmati	on Dis	oosal/Characte	rization	
Laboratory I	Destina	etion: (	Onsite La	ab A	EN - coc #		USACE	- coc #
Laboratory							_ 00/102	
	Duplic	ate Tak	en: Yes	(N)	R	insate Taken:	Yes (7	9)
_								
	On-s	ite Labo	oratory Ch	nain of C	Custody/R	equest for Ana	alysis	
Requested	Testing	I TP	<b>В</b>	TEX	Other_			
Relinquishe	d by(de	1/th): Ut	attheir	nole	0119195 01000F	eceived by (dd	/tt): A.J	Juman 10/19/
				1				The state of the s
Relinquishe	ed by(de	d/tt):				eceived by (dd	/π):	

#### Sample Location Map Fort Devens - Project #16208

Pg. 30f 3

Date: 10/19 195

Site Name: 2527



Comments/Observations:

x - indicates location of glab samples

Prepared by: Math Jones

pate: 10-24-95	Site Name: 252	.7	Pg. 1 of 2
Weather: Sunny 70°	Samplers: MJ		
Sample   Comp/ Sa ID Number Time Grab Dep	mple Coordinates pth (ft)Ref. Pt. Ref. Pt.	Sample Description	# of Bottles
5B25270301430 G		Wet, every Soil	1x40ml
B31 1435			
- W73 1440	į.		
W74 (443			
W75 1452			
W76 1457			v
W77 1501			
W78 1505 J W79 1510 Ref. Pt	per(kin m next) ⊆)	<u></u>	
Ref. Pt			
Map Attached: Yes No			
Sample Type Screening	Confirmation Di	sposal/Characterization	
_aboratory Destination: On	site Lab AEN - coc	#USA	ACE- coc #
Duplicate Taken:	Yes (No	Rinsate Taken: Yes	NO
On-site Laborate	ory Chain of Custody/	Request for Analysis	
Requested Testing: TPH	BTEX Other_		
Relinquished by(dd/tt): No. 5	10-2495 Character (1542)	Received by (dd/tt):	

Received by (dd/tt):\_

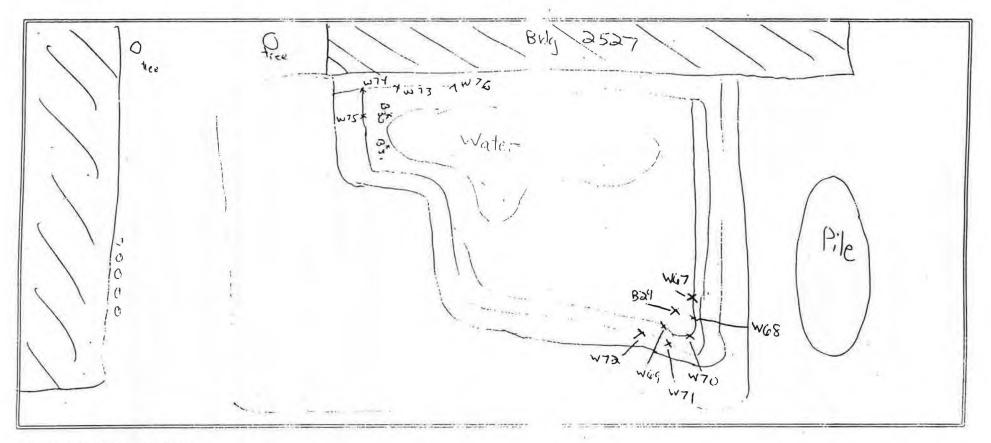
Relinquished by(dd/tt):\_

#### Sample Location Map Fort Devens - Project #16208

Pg. 2 of 2

Date: 10-24-95

Site Name: Bldg 2527 Excavation



Comments/Observations:

X- discrete sample location

Prepared by Grea Guir on

Pg 1 of 1

Date: Oct-24-1995.

Site(s): Bldg 2527

Analyst: MJ

	Instrument Response		Sample	Extract		Final Result	
Sample ID #	TPH (ppm)	TPH (ppm)	Weight (g)	Vol. (ml)	Dilution	TPH(ppm)	Qualifie
SB2527B30	ND	ND	21.0	20.3	1	ND	1-
SB2527B31	505	354	21.3	20.4	1	339	
SB2527W73	ND	ND	20.2	20.5	1 1	ND	
SB2527W74	ND	ND.	195	21.6	. 1. 1	ND	
SB2527W75	ND	ND	19 1_	21 4	1 1 1	, ND	4
SB2527W76	, ND	ND	21.2	21.0	1 1	ND	
SB2527W77	ND	ND .	199	20.8	. 1	ND	
SB2527W78	16	10	193	21 0	, 1 ;	10	
SB2527W79	ND	ND	21 0	20 4	1 1	ŅD	
	<u> </u>		1	1 .			
			1			*	
			1				
		1					
		4		Į.			
				1			
				1			
		1		1			*
······································	1		1	***************************************			
	†				1		99

TPH - Total Petroluem Hydrocarbons

ND - Indicates non detect

J - Indicates estimated concentration below practical quantitation limit

	omp/ Sample Coordinates  Grab Depth (ft) Ref. Pt. Ref. Pt.	Sample Description	# of Bottles
SB2527W80 1519	G	Cues 90[2 52m]	(xyou)
B32 1521		moist gold soul	- 1
W8/ 1524		wet gold site clay we peoples	
B 33 1526	(-1 - F	wet gold sal	
W82 1527		gold sadupebbles	
W83:1528	1	wet gold clay	
B34 1531		gold claxer são	
W84 1533		moist gold da	
Ref. Pt.			
Ret Pt			
	No.		
	No		manifest and a
Map Attached: Yes		posal/Characterization	PORT (SEE 25 ST 24 SEE
Map Attached Yes	reening Confirmation Dis	posal/Characterization  # USACE- coc #	ran ran (A. Ar i e )
Map Attached: Yes  Sample Type: Scr  Laboratory Destination	ceening Confirmation Dis	State of the second sec	marina (S. Ariza)
Map Attached: Yes  Sample Type: Scr  Laboratory Destination  Duplicate	ceening Confirmation Discon: Onsite Lab AEN - coc #	USACE- coc #	rent rent 25 er 24 er
Map Attached: Yes  Sample Type: Scr  Laboratory Destination  Duplicate	ceening Confirmation Dis	USACE- coc #	TOTAL CONTRACTOR
Laboratory Destination	Confirmation Discon: Onsite Lab AEN - coc #  Taken: Yes No R  Laboratory Chain of Custody/R	USACE- coc #	
Map Attached: Yes  Sample Type: Scr  Laboratory Destination  Duplicate  On-site  Requested Testing:	Confirmation Discon: Onsite Lab AEN - coc # Taken: Yes No R  Laboratory Chain of Custody/R  TPH BTEX Other_	USACE- coc #	(6) (c)

Sample ID Number	Comp/ Sample Coordinates Time Grab Depth (ft) Ref. Pt. Ref. Pt	Sample Description	# of Bottles
SB 2527 B 35		gold clay w pelables	(X CLOIN
W 85	1	gold szd, TPHodon	
W86	1541	goed cizyeysza	
W87	1544	w persons, TPH on	
B36	1545	9000 clay u pelables	
337	1518	gold silty sze	
688		522 u pebbby TPHOOD	
W89		moist gold sal, TPH	
Ref. Pt.			
Ref. Pt	ad: (Ves) No		
Ref. Pt	ed: (Yes) No	ni h plus	
		Disposal/Characterization	
Ref. Pt  Map Attache  Sample Type	e: Screening Confirmation D	Disposal/Characterization	
Ref. Pt Map Attache Sample Type Laboratory D	e: Screening Confirmation D	To proceed the control of the contro	
Ref. Pt Map Attache Sample Type Laboratory D	e: Screening Confirmation D  Destination: Onsite Lab AEN - coo	#USACE- coc #	
Ref. Pt Map Attache Sample Type Laboratory D	e: Screening Confirmation D  Destination: Onsite Lab AEN - coo	C#USACE- coc #_ Rinsate Taken: Yes No	
Ref. Pt  Map Attache  Sample Type  Laboratory D	e: Screening Confirmation Doestination: Onsite Lab AEN - coordinate Taken: Yes No  On-site Laboratory Chain of Custody	C#USACE- coc #_ Rinsate Taken: Yes No	
Ref. Pt  Map Attache  Sample Type  Laboratory D	e: Screening Confirmation Doestination: Onsite Lab AEN - coordinate Taken: Yes No  On-site Laboratory Chain of Custody	Rinsate Taken: Yes No  /Request for Analysis	3le

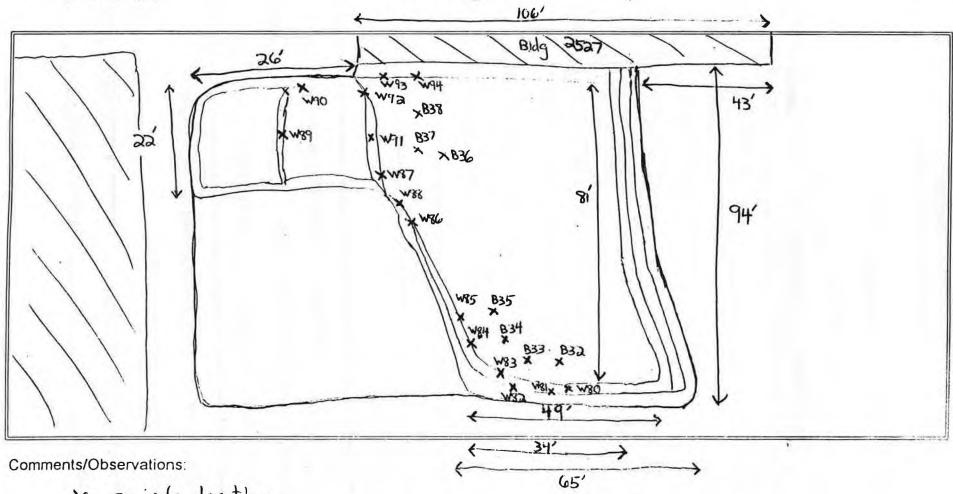
Sample	Time		Sample		dinates		mple	1 2	f of
BZ527	-		Depth (ft)	Ref. Pt.	Ref. Pt.		cription I u pelobles	IX	ottles
	1556					goldis	a sano	1	cA
W91						donle well	-g TPH odon		
W9Z	100					wed gra	Jalo sad,		
	1604				40.	perples	60 S 200 m		
W94						wer gold	s 2~8 obles		,
					-				1
			1				W		
Ref. Pt									
Ref. Pt.			Lagla						
Map Attach	ed: Y	es	No						
									_
Sample Typ	e: (S	Screenin	g Co	onfirmatio	on Dis	posal/Characteriz	ation		
Laboratory	Destina	ition:	Onsite La	b Al	EN - coc #		USACE- coc #_		
	Dunlic	ate Tak	en: Yes	(No)	R	insate Taken:	Yes (No)		

Requested Testing:	TPH	BTEX	Other	
Relinquished by(dd/tt)	:		Received by (dd/tt):	( <u>a</u> 10.25.95
Relinquished by(dd/tt)	:		Received by (dd/tt):	

Pg. 4 of 4

Date: 10-25-95

Site Name: Bldg 2527



X- sample location

- samples denoted with prefix SB2527

Prepared by: Greg Guimond

Pg 1 11 7

Date: Oct-25-1995

Site(s): 2527

Analyst: MJ/MRB

Sample ID#	Instrument Response TPH (ppm)	Calibration Adjusted TPH (ppm)	Sample Weight (g)	Extract Vol. (ml)	Dilution	Final Result TPH(ppm)	Qualifier
SB2527W80	ND	ND	20.2	20.2	1	ND	
SB2527W81	ND	ND	22.0	20.5	1	ND	
SB2527W82	ND	ND	19.8	21.0	1 1	ND	Ì
SB2527W83	ND	ND	20.7	20.3	1	ND	1
SB2527W84	. ND	ND	20.0	20.5	1	ND	
SB2527W85	129	89	19,5	21.2	1	97	
SB2527W86	1034	726	9.4	22.7	1	1754	
SB2527W87	340	238	13.0	21,9	1	401	
SB2527W88	1250	879	19.3	19.6	1	892	
SB2527W89	1230	865	9,3	21.7	1 !	2017	
SB2527W90	21	13	18.8	20.0	. 1	14	i J
SB2527W91	939	660	6.0	23.9 1		2627	
SB2527W92	184	128	3.0	23.1	1	985	
SB2527W93	12	7	20.3	20.0	1	7	J
SB2527W94	ND	ND	20 0	213 1		ND	
SB2527B32	ND	ND	17.6	20.3	1	ND	
SB2527B33	ND	ND	17.5	21.6	1	ND	
SB2527B34	ND	ND	18.8	20.8	1	ND	
780527835	12	7	10.4	2.3	. 1	8	1
SB2527B36	ND	ND	22.0	20.4	1	ND	

TPH - Total Petroluem Hydrocarbons

ND - Indicates non detect

J - Indicates estimated concentration below practical quantitation limit

Pg 2 of 2

Date: Oct-25-1995

Site(s): 2527

Analyst: MJ/MRB

Sample ID #	Instrument Response TPH (ppm)	Calibration Adjusted TPH (ppm)	Sample Weight (g)	Extract Vol. (ml)	Dilution	Final Result TPH(ppm)	Qualifie
SB2527B37 ND		ND	19.3	21.0	1	ND	
SB2527B38	ND	ND	20.7	20.9	1	ND	
		2				+ +	į
	1						
	1.7						
	-						
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-di			1				-1-
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	1	1					
	1	*					İ
	5						

TPH - Total Petroluem Hydrocarbons

ND - Indicates non detect

J - Indicates estimated concentration below practical quantitation limit

Pg. 1 of

Sample ID Number	Time	Comp/ Grab	The state of the s		dinates Ref. Pt.	4	Sample escription	# of Bottle
582527 Wag	1020	G				Tan/Grey	clay, moist	Jx40m VOA
<b>W</b> 96	1023						1	
W97	1026							
W98	1029		7					
W99	1032		. )		180 14041 14			80.74
MIOC	1035				-			+
WIOI	1038				S-1			Per sylvania
wloz	1041	$\downarrow$		1			$\downarrow$	V
Ref. Pt:								
Ref. Pt								
Map Attach	ed: (	es)	No					
Sample Tur	0: 6	Screenin		onfirmatio	on Disr	oosal/Characte	eization	
Sample Typ								. #
Laboratory			$\overline{}$					, 17
	Duplic	ate rak	en: Yes		K	nsate Taken:	Yes (No)	
	On-s	ite Labo	oratory Ch	nain of C	custody/Re	equest for An	alysis	
Requested	Testing	g: (TP	В	TEX	Other			
Relinquishe	ed by(de	d/tt):/	4 Juinon	10-3	000 17-95 R	eceived by (do	i/tt):	
Polinguishe	d by/d	d/#/·			R	eceived by (do	1/tt)-	

Fg. 2014

Date: 10-27-95

Site Name: Bldg 2527

Weather: Sunny, 68'F

Samplers: GG

ID Number	Sample		Sample		dinates	Sample		# of	
	Time	Grab	Depth (ft)	Ref. Pt.	Ref. Pt.	Description		Bottles	
5B2527W103	1044	G				Tan/Grey clay,	maist	1x40ml	
widt	1047						A	_	
W105	1051				T				
W106	1055			:		and the said			
WIOT	1059				and a time of a	FREE PER 1921			
wiss	1104			*			4		
1339	1109				)				
B40	1114	. 🗸				Ψ		$\checkmark$	
Ref. Pt									
Ref. Pt.									
			No						
Man Attach	<b>.</b>	9							
Map Attach									
	oe: (S	Screenin	o co	onfirmati	on Dispo	sal/Characterization			
Map Attach Sample Typ Laboratory	_	$\overline{}$				sal/Characterization USA	\CE- coc #		
Sample Typ	Destina	ation:		A C	EN - coc # _		No		
Sample Typ	Destina Duplic	ation: cate Tak	Onsite La	A No	EN - coc # _ Rins	USA			
Sample Typ	Destina  Duplic  On-s	ation: cate Tak	Onsite La	No nain of C	EN - coc # _ Rins Custody/Req Other	USA sate Taken: Yes	No ·		
Sample Typ	Destina  Duplic  On-s  Testing	ation: cate Tak ite Labo	Onsite La	No No TEX	EN - coc # Rin: Custody/Req Other	USA sate Taken: Yes uest for Analysis	No .		

Date:	10-27-95

Site Name: Bly 2527

Pg. 3 of 4

Weather: Sunny, 68 F

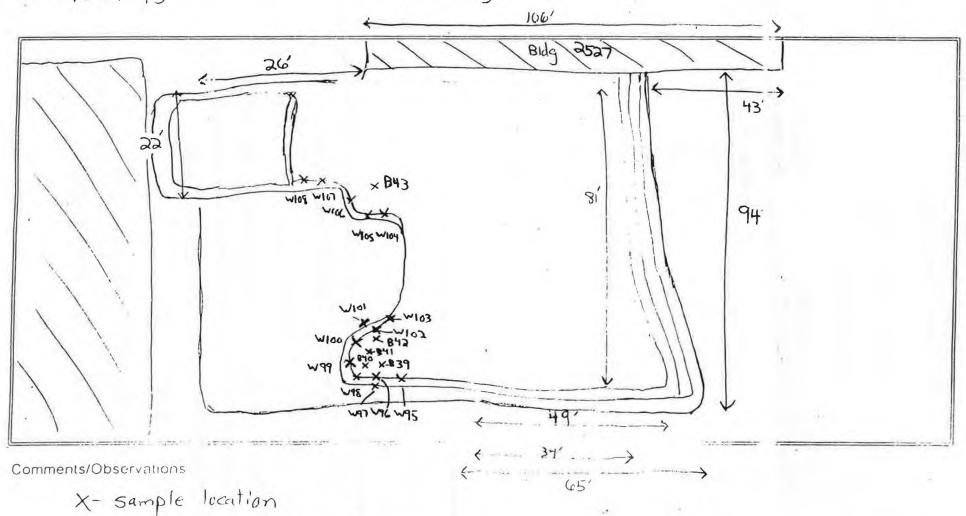
Samplers: GG

ID Number	Time		Sample Depth (ft)	Coordinates Ref. Pt. Ref. Pt.	Sample Description	# of Bottles
5825278HI					Tan/Grey clay,	12400
BHZ	1123		į		i	
B43	1128	1			<b>V</b>	<b>V</b>
	DATE: 1					
	er e 115 /			न रेट्ट १ हरणकारण । ता	·	1-4
			*F(4)) (44)	· · · · · · · · · · · · · · · · · · ·	744 B 37 (V S 44 ) ii 4 (	
			the state of the s			
		****			en erasan serbanesa su	1-
Ref. Pt						
20021						
Ref. Pt.					•	
		(45)	No			
		es)	No			
Map Attach	ed: 🎸			onfirmation Dis	posal/Characterization	
Map Attach Sample Typ	ed: 🐔	Screenin	D Co			CE- coc#
Map Attach Sample Typ	ed: 🖔	Screenin	© Co	D AEN - coc #	USA	
Ref. Pt Map Attach Sample Typ Laboratory	ed: 🖔	Screenin	© Co	D AEN - coc #	USA	CE- coc #
Map Attach Sample Typ	ed: 🞸 Destina	Screenin ation: cate Tak	onsite La	AEN - coc #	insate Taken: Yes	
Map Attach Sample Typ Laboratory	ed: Your Constitution	Screenin ation: cate Take	onsite La	AEN - coc #	USA insate Taken: Yes equest for Analysis	<b>1</b>
Map Attach Sample Typ Laboratory Requested	ed: Your Section of the Constitution of the Co	Screenination: cate Take	onsite La	AEN - coc #	USA insate Taken: Yes equest for Analysis	<b>™</b>
Map Attach Sample Typ	ed: Your Section of the Constitution of the Co	Screenination: cate Take	onsite La	AEN - coc #	USA insate Taken: Yes equest for Analysis	<b>™</b>

Pg. 4 of 4

Date: 10-27-95

Site Name: Bldg 2527



- samples denoted with profix SB2527

Preparectory Grea Guimond

Pg 1 of 1

Date: Oct-27-1995

Site(s): 2527

Analyst: MJ/MRB

Sample ID #	Instrument Response	Calibration Adjusted	Sample	Extract	Dilution	Final Result	0
Sample ID #	TPH (ppm)	TPH (ppm)	Weight (g)	Vol. (ml)	Dilution	TPH(ppm)	Qualifie
SB2527B39	1320	928	11.8	20.3	1	1596	
SB2527B40	86	59	12,1	21.8	1	106	
SB2527B41	395	276	8.6	22.1	1	710	
SB2527B42	200	139	15.9	22.3	1	195	
SB2527B43	599	420	7.5	22.0	1	1232	1
SB2527W95	1396	981	10.7	21.7	1	1990	
SB2527W96	456	319	18.1	21.8	1	385	
SB2527W97	59	40	13.6	21.7	1	64	
SB2527W98	36	24	13.7	22.1	1	38	J
SB2527W99	1221	858	10.6	22.5	5	9108	
SB2527W100	14	8	12.9	22.2	1	14	J
SB2527W101	13	7	16.2	23.3	1	11	J
SB2527W102	692	486	9.3	21.8	5	5692	
SB2527W103	626	439	10.2	19.5	1	840	
SB2527W104	908	638	10.1	19.8	5	6251	
SB2527W105	457	320	10.5	22.7	5	3461	
SB2527W106	ND	ND	12.3	22.1	1	ดด	
SB2527W107	ND	ND	15.1	21.7	1	ND	
SB2527W108	ND	ND	16.2	22.5	1	ND	

TPH - Total Petroluem Hydrocarbons

ND - Indicates non detect

J - Indicates estimated concentration below practical quantitation limit

Pg. 1 of

Date: 10-27-95

Site(s): Bldg 2527

Analyst: GG

Sample ID #	Instrument Response TPH (ppm)	Calibration Adjusted TPH (ppm)	Sample Weight (g)	Extract Vol. (ml)	Dilution	Final Result TPH(ppm)	Qualifier
S82527 B39	1320		11.8	20.3			
840	86 -		12.1	31.8			4
841	395		8.6	22./			
842	300		15,9	22.3			
внз	599		7,5	22.0			
W95	1396		10.7	דווג			
W96	456		18.1	21,8			
- W97	59		13.6	21.7			
498	36		13,7	22.1			
W99	1221		10.6	22.5	5		į.
WICO	14		12.9	22.2			
WICI	13		16.2	23.3			1
MIOZ	692		9.3	त्राष्ट	5		
W/K3	626		10.2	19.5			
WIOH	908	¥-	10.1	19.8	5		
W105	457		10,5	7. دد	5		
w106	ND		12.3	22,1			
W107	dn		15.1	קוב			
wlos	ND		16.2	22.5			

TPH - Total Petroluem Hydrocarbons

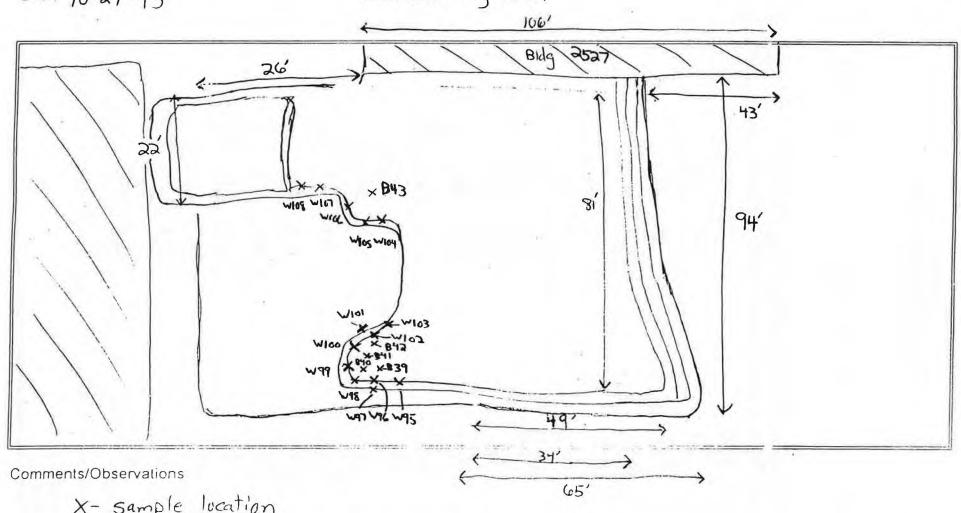
ND - Indicates non detect

J - Indicates estimated concentration below practical quantitation limit

Pg. 4 of 4

Date: 10-27-95

Site Name: Bldg 2527



X- sample location

- samples denoted with prefix SB2527

Prepared by Grea Gilmond

Sample ID Number	Time	Comp/ Grab	Sample Depth (ft)		linates Ref. Pt.()	Sample Description	# of Bottles
5B 2527	1013	G	5'69	43'5"	64'3"	wet ovage clay, some come said public	1X youl
will	1015		516	37'3"	57'0"	Coarse orage sect	
W112	1016		5'6"	117/5	73'2"	relimination clay w	
B44	1022	1	7'6"	38'7"	561"	wet orange clay	
BYJ	1018		8'0"	3414	53'0"	brown send later pepples	
1346	1020	1	7'6"	33'7"	521"	mad browning lax in persone	
Ref. Pt. D		4	Coman No	J	Seco	Dwillow of Bldg:	5258
Sample Typ	Destina	Screenin etion:	Onsite La	onfirmation b AE	N - coc #	osal/Characterization  USACE- coc # nsate Taken: Yes No	
	On-si	te Labo	ratory Ch	ain of Cu	ıstody/Re	quest for Analysis	
Requested	Testing	: TP	H ) B	TEX [1.	Other_ 2745	> 01	11.2
Relinquishe	ed by(do	1/tt):	11/5/7	1030	Re	eceived by (dd/tt):	- 10
		11	//				

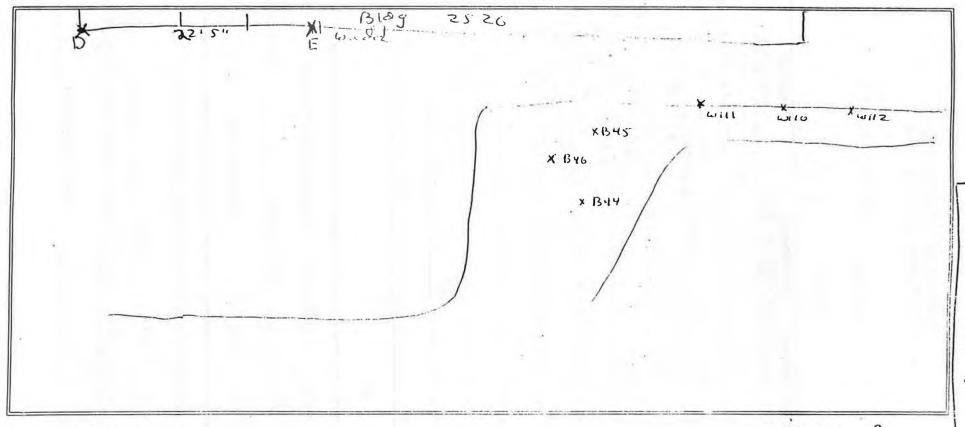
Pg. Zof Z

Date: 11. 27. 95

Site Name:

Bldg

57.51



Comments/Observations:

Not To scale

Prepared by: MRB

Blag 2

Pg. 1 of 1

Date: 27 November 1995

Site(s): Bldg 2628, Sheboken Well

Analyst MRB

Bldg 2527

Sample ID #	instrument Response TPH (ppm)	Calibration Adjusted TPH (ppm)	Sample Weight (g)	Extract Vol. (ml)	Dilution	Final Result TPH(ppm)	Qualifie
SHEBW30	ND	ND	21.3	18.9	1	ND	
SHEBW31	ND	ND	20.4	18.2	1	ND	
SHEBW32	ND	ND	20.6	18.5	1	ND	
SHEBB31	41	27	20.9	19.0	1	25	j
SHEBB32	12	7	20.2	18.8	1	6	J
SB2527W110	- 10	5	20.1	18.4	1	5	J
SB2527W111	10	5	19.8	17.7	1	5	j
SB2527W112	ND .	ND	19.9	18.7	1	ND	
SB2527B44	ND	ND	20.1	19.0	1	ND	
SB2527B45	ND	ND	20.6	20.0	1	ND	
SB2527B46	ND	ND	20.3	19.8	1	ND	
SB2527B47	1401	985	10.5	19.0	1	1782	
SB2527B48	525	368	5.7	20.0	1	1291	
SB2527B49	492	345	6.2	19.8	1	1101	
SB2527B50	1029	723	5.2	19.0	1	2642	
SB2527B51	1106	777	8.8	19.5	1	1722	
SB2527B52	1126	791	6.7	18.0	1	2126	
SB2527W113	42	28	17.9	18.3	1	29	J
SB2527W114	458	321	8.7	18.2	5	3356	
SB2527W115	703	493	6.7	19.9	1	1465	

TPH - Total Petroluem Hydrocarbons

ND - Indicates non detect

J - Indicates estimated concentration below practical quantitation limit

Pg. 2 of

Date: 27 November 1995

Site(s): Bldg 2527

Analyst MRB

Sample ID #	Instrument Response TPH (ppm)	Calibration Adjusted TPH (ppm)	Sample Weight (g)	Extract Vol. (ml)	Dilution	Final Result TPH(ppm)	Qualifie
SB2527W116	457	320	8.4	21.1	1	804	
SB2527W117	656	460	9.9	17.1	1	795	
SB2527W118	1070	752	5.8	20.5	1	2657	
			A N	i.			
	*.						
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9							-
1							

TPH - Total Petroluem Hydrocarbons

ND - Indicates non detect

Pg. 1 of 1

Date: 27 November 1995

Site(s): Bldg 2628, Shebaken Well

Analyst MRB

Bldg 2527

Sample ID #	Instrument Response TPH (ppm)	Calibration Adjusted TPH (ppm)	Sample Weight (g)	Extract Vol. (ml)	Dilution	Final Result TPH(ppm)	Qualifie
SHEBW30	ND	ND	21.3	18.9	1	ND	
SHEBW31	ND	ND	20.4	18.2	1	ND	
SHEBW32	ND	ND	20.6	18.5	1	ND	
SHEBB31	41	- 27	20.9	19.0	1	25	J
SHEBB32	12	7	20.2	18.8	1	6	J
SB2527W110	10	5	20.1	18.4	1	5	J
SB2527W111	10	5	19.8	17.7	1	5	J
SB2527W112	ŇD	ND	19.9	18.7	1	ND	
SB2527B44	ND ND	ND	20.1	19.0	1	ND	
SB2527B45	ND	ND	20.6	20.0	1	ND	
SB2527B46	ND	ND	20.3	19.8	1	ND	
SB2527B47	1401	985	10.5	19.0	1	1782	
SB2527B48	525	368	5.7	20.0	1	1291	
SB2527B49	492	345	6.2	19.8	1	1101	
SB2527B50	1029	723	5.2	19.0	1	2642	
SB2527B51	1106	777	8.8	19.5	1	1722	
SB2527B52	1126	791	6.7	18.0	1	2126	
SB2527W113	42	28	17.9	18.3	1	29	J
SB2527W114	458	321	8.7	18.2	5	3356	
SB2527W115	703	493	6.7	19.9	1	1465	

TPH - Total Petroluem Hydrocarbons

ND - Indicates non detect

J - Indicates estimated concentration below practical quantitation limit

Pg. 2 of

Date: 27 November 1995

Site(s): Bldg 2527

Analyst MRB

Sample ID #	instrument Response TPH (ppm)	Calibration Adjusted TPH (ppm)	Sample Weight (g)	Extract Vol. (ml)	Dilution	Final Result TPH(ppm)	Qualifie
SB2527W116	457	320	8.4	21.1	1	804	
SB2527W117	656	460	9.9	17.1	1	795	
SB2527W118	1070	752	5.8	20.5	1	2657	
ly .							
(*)							
*						(4)	
							-
							-

TPH - Total Petroluem Hydrocarbons

ND - Indicates non detect

Date: 11-27-95

Site Name:

Blag 2527 JB

Pg. 1 of 2

Weather: overcast

Samplers:

Sample ID Number	Time	Comp/ Grab	Sample Depth (ft)	Coord Ref. Pt.		Sample Description	# of Bottles
SB 25-27 B47	B 58	C-	56"	41'5"	56'z"	Wet Lt Brown 52-84 C/21 is pelobles TPHO	1x40m
1348	No. of the last of		5'64	42'6"	5531	gree & vellor clay 4 man,	
B49	1403		5'6"	415"	47'9"	net greycley, TPH	
BID	14 Da		5 64	42'5"	5/10"	grey and yellow c'ax	
B51	1708		5'6"	tiù	45'2"	wetgrey system do	4
B52	1410		5'6"	70'4	42'6"	wet grey sixelan clay	
6113	1356		7'6"	366"	49'0	yellow clay, TPHODOR	
W/14	1401	1	7'6"	401411	4917"	40/15wagreys= Dycley	
Ref. Pt. <u>E</u> : Ref. Pt. <u>D</u> : Map Attache		ff c	one one No	1	1	25-26 I willow of Blog	5250
Sample Typ Laboratory I	Destina	Screenin ation:	Onsite La	onfirmation b AE	N - coc #	osal/Characterization  USACE- coc #_ nsate Taken: Yes (No)	

#### On-site Laboratory Chain of Custody/Request for Analysis

Requested Testing: TPH BTEX 11.27.95	
	Received by (dd/tt): 27-95
Relinquished by(dd/tt):	Received by (dd/tt):

Sample ID Number	Time	Comp/ Grab	Sample Depth (ft)	Coord Ref. Pt.		Sample Description	# of Bottles
B 2527	1404	G	7'64	39'5"	466	Guercier, TPHodo	
4116	1406		7'6"	39'11"			ion /
6117	1409		7'6"	39'0"	413"		
WILS	1712	V	7'6"	40'7"	38'1"	xellow 5 2 strong	
		1-					
		-		l d	ч		
			1				
				ì			Ē
Ref. Pt. E:	_	es	No	eg-	2~	2 map	SOLATA S. V.
Sample Typ	e: 6	Screenin	g ) Co	onfirmation		osal/Characterization	
	Destina	ition:	Onsite La	b AE	N - coc #	USACE- coc	#
Laboratory I					-	nsate Taken: Yes No	
Laboratory I	Duplio	ate Tak	en: Yes	(No)	RI	Totale Tallonia Tee Stee	
Laboratory I	On-si	te Labo	oratory Ch			equest for Analysis	
Laboratory l Requested Relinquishe	On-si	ite Labo	eratory Ch	nain of Cu	ustody/Re		3(»~

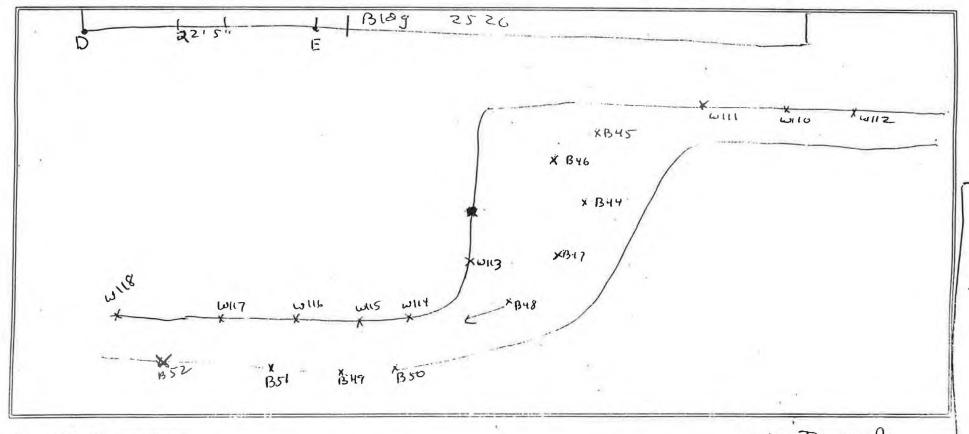
#### Sample Location Map Fort Devens - Project #16208

Date: 11. 27. 95

Site Name:

Bldg 2527

 $Pg. \overline{\underline{3}} of \underline{\underline{3}}$ 



Comments/Observations:

Not To scale

Prepared by: MRB

Pg. 1 of i

Date: 27 November 1995

Site(s): Bldg 2628, Sheboken Well

Analyst MRB

Bldg 2527

Sample ID #	Instrument Response TPH (ppm)	Calibration Adjusted TPH (ppm)	Sample Weight (g)	Extract Vol. (ml)	Dilution	Final Result TPH(ppm)	Qualifie
SHEBW30	ND	ND	21.3	18.9	1	ND	
SHEBW31	ND	ND	20.4	18.2	1	ND	
SHEBW32	ND	ND	20.6	18.5	1	ND	
SHEBB31	41	27	20.9	19.0	1	25	J
SHEBB32	12	7	20.2	18.8	1	6	J
SB2527W110	10	5	20.1	18.4	1	5	J
SB2527W111	10	5	19.8	17.7	1	. 5	J
SB2527W112	ND	ND	19.9	18.7	1	ND	
SB2527B44	ND	ND	20.1	19.0	1	ND	
SB2527B45	ND	ND	20.6	20.0	1	ND	
SB2527B46	ND	ND	20.3	19.8	1	ND	
SB2527B47	1401	985	10.5	19.0	1	1782	
SB2527B48	525	368	5.7	20.0	1	1291	
SB2527B49	492	345	6.2	19.8	1	1101	
SB2527B50	1029	723	5.2	19.0	1	2642	
SB2527B51	1106	777	8.8	19.5	1	1722	
SB2527B52	1126	791	6.7	18.0	1	2126	
SB2527W113	42	28	17.9	18.3	1	29	J
SB2527W114	458	321	8.7	18.2	5	3356	
SB2527W115	703	493	6.7	19.9	1	1465	

TPH - Total Petroluem Hydrocarbons

ND - Indicates non detect

J - Indicates estimated concentration below practical quantitation limit

Pg. 2 of

Date: 27 November 1995

Site(s): Bldg 2527

Analyst: MRB

457 656 1070	320 460 752	8.4 9.9 5.8	21.1 17.1 20.5	1 1	804 795 2657	
1070			20.5			
	752	5.8		1	2657	
- A - 1						
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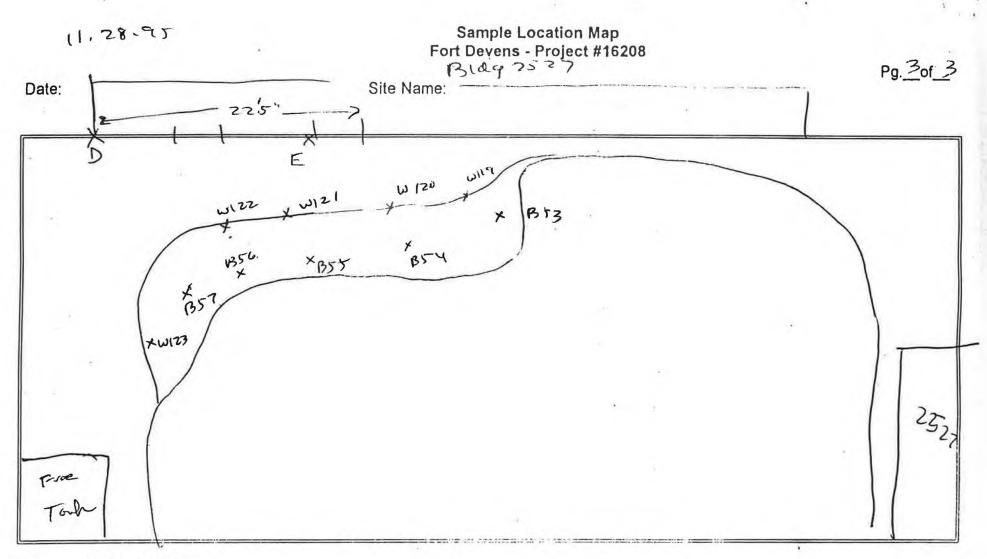
TPH - Total Petroluem Hydrocarbons

ND - Indicates non detect

ID Number	Time	Comp/ Grab	Sample Depth (ft)	Control of the Contro	linates Ref. PtE	D	Sample escription			of tles
5B2527 B53	1245	C	5 100	47'6"	33'0"	wet yes	llen s	and a clay.	lx	4000
B54	1247	1	8'8"	426	79'6"	moist al	000 cl	2 y w		
B55	1250		8'6"	38'6"	32'0"	wet 9	rey ch	×'		
B56	1253	Ale	8'3"	371"		wer xol	-0.	uder day		
B57	1255		8'0	371911	36'z"	well wolf	در سر	rdy clay		
W120	n 1246		7/3	45'64	28'5"	water wo	المنسعة	en yelay		
W120	1249		44	38/ 34	26'6"	-L P.	م کامن	I clail		
6119	1251				27'9"	grey s	المحادة	-124, peldu	ري	,
Ref. Pt. <u> </u>	1	es I	ol ?	of	Soc	L. w.m.	on s	Soft of	15 dg	, 25
Sample Typ	e: (s	creenin	g C	onfirmation	n Disp	osal/Characte	erization			-*E-21
Laboratory I	 Destina	tion:	Onsite La	b AE	N - coc #		USA	CE- coc #_		
7 1077		ate Take				nsate Taken:	Yes	No		
	_		52.	-160	unto du /Da	equest for An	alizata.			
	On-si	te Labo	ratory Ch	iain of CL	ISLOUV/KE	SUUCSLIOI MII	aivsis			

Pg. 201 3

	Sample ID Number	haya bi	Comp/ Grab	A CONTRACTOR OF THE PARTY OF TH	Coor	dinates Ref. PtE	Sample Description	m # of Bottles
Ref. Pt:  Ref. Pt:  Map Attached: Yes No  Sample Type: Screening Confirmation Disposal/Characterization  Laboratory Destination: Onsite Lab AEN - coc # USACE- coc #	n 2527	0.79.3					es voreis tem	12 12 1x wal
Ref. Pt:  Ref. Pt:  Map Attached: Yes No  Sample Type: Screening Confirmation Disposal/Characterization  Laboratory Destination: Onsite Lab AEN - coc # USACE- coc #		-	1.				of pelibles of	12000 100
Ref. Pt:  Map Attached: Yes No  Sample Type: Screening Confirmation Disposal/Characterization  Laboratory Destination: Onsite Lab AEN - coc # USACE- coc #	W123	1257	V	75"	36'	39'3"	TPHOden	Led belong
Ref. Pt:  Map Attached: Yes No  Sample Type: Screening Confirmation Disposal/Characterization  Laboratory Destination: Onsite Lab AEN - coc # USACE- coc #						4 4		
Ref. Pt:		- ×			4			
Ref. Pt:  Map Attached: Yes No  Sample Type: Screening Confirmation Disposal/Characterization  Laboratory Destination: Onsite Lab AEN - coc # USACE- coc #		13					8	1 1
Ref. Pt:  Map Attached: Yes No  Sample Type: Screening Confirmation Disposal/Characterization  Laboratory Destination: Onsite Lab AEN - coc # USACE- coc #	1 2							
Ref. Pt:  Map Attached: Yes No  Sample Type: Screening Confirmation Disposal/Characterization  Laboratory Destination: Onsite Lab AEN - coc # USACE- coc #			(*)	-				
Ref. Pt:  Map Attached: Yes No  Sample Type: Screening Confirmation Disposal/Characterization  Laboratory Destination: Onsite Lab AEN - coc # USACE- coc #				1				
Ref. Pt:  Map Attached: Yes No  Sample Type: Screening Confirmation Disposal/Characterization  Laboratory Destination: Onsite Lab AEN - coc # USACE- coc #		ì	1	1	i	·		İ
Map Attached: Yes No  Sample Type: Screening Confirmation Disposal/Characterization  Laboratory Destination: Onsite Lab AEN - coc # USACE- coc #	Ref. Pt							
Sample Type: Screening Confirmation Disposal/Characterization  _aboratory Destination: Onsite Lab AEN - coc # USACE- coc #								
Sample Type: Screening Confirmation Disposal/Characterization  _aboratory Destination: Onsite Lab AEN - coc # USACE- coc #	Ref. Pt			No				
_aboratory Destination: Ønsite Lab AEN - coc# USACE- coc#		ed. V	20					
Laboratory Destination: Ønsite Lab AEN - coc# USACE- coc#		ed: Y	es					The second secon
	Map Attach			_	onfirmatio	on Disp	osal/Characterization	1
Duplicate Taken: Yes (No) Rinsate Taken: Yes (No)	Map Attach	pe: E	creenin	ng) co				ACE- car #
	Map Attach	De: &	creenin	ng Co	ab Al	EN - coc #	US	
	Map Attach	Destina	screenir ation: ate Tak	onsite La	Al No	EN - coc#	US	
On-site Laboratory Chain of Custody/Request for Analysis	Map Attach	Destina	screenir ation: ate Tak	onsite La	Al No	EN - coc#	US	
Requested Testing: (TPH) RTEX Other	Map Attach Sample Typ Laboratory	Destina Duplic On-si	ation:	ong Composite Landers Yes	All No	EN - coc # Ri ustody/Re	US nsate Taken: Yes equest for Analysis	<u>√No</u>
Requested Testing: (TPH) RTEX Other	Map Attach Sample Typ Laboratory	Destina Duplic On-si	ation:	ong Composite Landers Yes	All No	EN - coc # Ri ustody/Re	US nsate Taken: Yes equest for Analysis	<u>√No</u>
	Map Attach Sample Typ Laboratory Requested Relinquishe	Destination  Duplication  On-signed by(decomplete)	ation: ate Tak ate Laboration:	onsite Later Yes	nain of C	EN - coc # Ri ustody/Re Other	US  nsate Taken: Yes  equest for Analysis  eceived by (dd/tt):	Surs L"



Comments/Observations:

Prepared by: MUB

Pg 1 of 1

Date: Nov-28-1995

Site(s): Bldg 3628, Sheboken Well

Bldg 2527

Analyst MRB

Sample ID #	Instrument Response TPH (ppm)	Calibration Adjusted TPH (ppm)	Sample Weight (g)	Extract Vol. (ml)	Dilution	Final Result TPH(ppm)	Qualifie
SB2527B53	ND	ND	20.4	19.7	1	ND	
SB2527B54	ND	ND	19.8	20.6	1	ND	
SB2527B55	708	497	4.3	21.1	1	2438	
SB2527B56	60	41	7.3	20.4	1	113	J
SB2527B57	ND	ND -	20.1	19.5	1	ND	
SB2527W119	ND	ND	20.3	19.7	1	ND	
SB2527W120	ND	ND	20.2	19.6	1	ND	
SB2527W121	43	29	9.6	20.4	1	61	J
SB2527W122	120	83	19.9	19.2	25	1998	
SB2527W123	136	94	24.5	21.9	1	84	
SB3628BC2	54	36	19.5	18.3	1	34	j
SB3628EC2	ND	ND	19.6	17.8	1	ND	V
SB3628NC	ND	ND	20.2	18.7	1	ND	
SB3628SC2	ND	ND	19.6	19.0	1	ND	
SB3628WC2	21	13	20.1	20.3	1	13	J
SB3628DUPC	ND	ND	20.0	19.4	1	ND	
SB3628TRPC	12	7	19.9	20.6	1	7	J

TPH - Total Petroluem Hydrocarbons

ND - Indicates non detect

J - Indicates estimated concentration below practical quantitation limit

Sample D Number	Time	Comp/ Grab	Sample Depth (ft)	Coord Ref. Pt.p		Sample Description	# of Bottles
B 2527	1423	5	8'2"	43'5"	295"	wet grey & gold silly	الدين
B 2527			8'3"	37'7"	26'3"	wet gold clay w polotices	
	1432		8'2"	34'0"	28 6"	moist glaclaru peintes	
1361	1435		8'3"	340"	33'8"	maist gold clay	
W124	1424		7'4"	35'6"	24'5"	moist golders,	
W125	1		7'0"	28'2"	27'4"	moist gold day	
6126			7'2"	27'5"	25'7"	Buin sand les	A Company
W127	1433	V	7'/"	29'0"	29'3"	Brown sawy clay	
Ref. Pt. <u>E</u>	F	~ le	li si	de of	Blag Z	526 cara from Blin	2227
Ref. Pt.	: _le	pt s		V	,	willing on left B	
Map Attach	/	1	No	V		V	
Sample Typ	oe: /S	Screenin	g ) Co	onfirmation	n Disp	osal/Characterization	
aboratory	Destina	tion:	Onsite La	ab , AE	N - coc#	USACE- coc #_	
	Dunlio	ate Tak	en: Yes	No	Di	nsate Taken: Yes No	

11.29.55-1479Received by (dd/tt):\_ Relinquished by(dd/tt):\_ Received by (dd/tt):\_ Relinquished by(dd/tt):

Date: 11-29-95

Site Name: Blog 2524 Samplers: MRB/AW

Weather overest, cold

Sample	Timo	Comp/	Sample		linates		Sample	# of
1D Number 50 2527 W128	1438		7 '5"	327"	34'6"	brown	pelolly soul	Bottles (XWH
	J					1-		
1 14							4	
			-					
4					-			
								1
Map Attach Sample Typ Laboratory	pe:	Screenin	No Consite La	onfirmatio		osal/Characte	erization USACE- coc #_	Contract of the
•		ate Tak		S (No		10 KK 70 KK	Yes No	
	On-s	ite Labo	oratory Cl	hain of Ci	ustody/Re	quest for An	alysis	
Requested	Testing	g: TP	н в	TEX	Other			
Relinquishe	ed by(d	d/tt):			Re	ceived by (do	i/tt):	
		J#4\-		-1	Pe	ceived by (de	1/tt):	

**Sample Location Map** Fort Devens - Project #16208 11.29.95 Pg. <u>3</u> of <u>3</u> Blag 2527 Site Name: Date: 15lag 2526 22'5" 10/24 423 MB Comments/Observations:

Prepared by:

Sample D Number	Time	Comp/ Grab	Sample Depth (ft)		dinates Ref. Pt	Sample Description	# of Bottles
590527W67		G				Grey/Black maist	1,40-1
W68						1/ 1	
W69	1117					1	1
W70	llal					Grey clay	
w7)						Grey / Block moist cla	iy, odor
w72	i1265					+	/
829	1132	V				<b>₹</b>	•
						Brown clay-like mat	erial
Ref. Pt: Ref. Pt: Map Attache		es)	No				
Sample Typ	_		_	nfirmatio		sal/Characterization USACE-	- coc #
			en: Yes			sate Taken: Yes No	4

1135

Relinquished by(dd/tt):

Relinquished by(dd/tt):\_

1/365
1/24-93 Received by (dd/tt): SUSIA

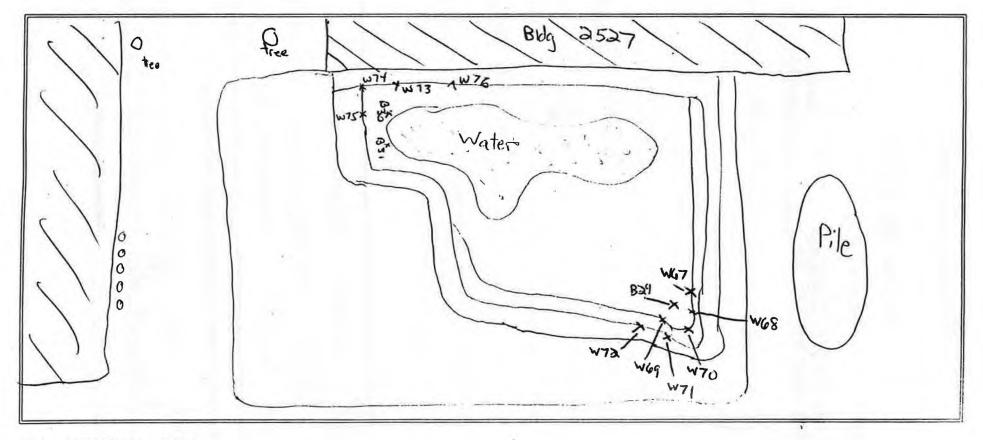
Received by (dd/tt):\_

#### Sample Location Map Fort Devens - Project #16208

Date: 10-24-95

Site Name: Bldg 2527 Excavation

Pg.2012



Comments/Observations:

x- discrete sample location

Prepared by: Grea Guimon

Pg. 1 01 2

Date: 10-24-95

Site Name: 2527

Weather: Sunny 70°

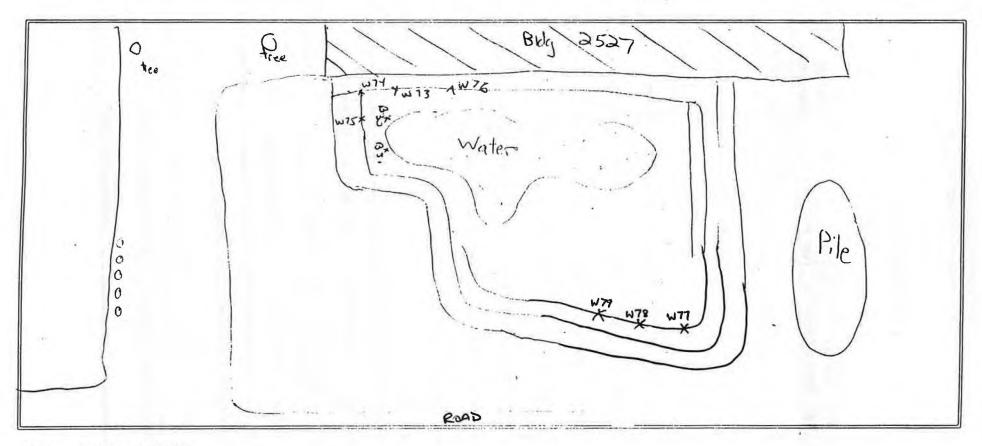
Samplers: MJ

Sample	Time		Sample		dinates	4	Sample		# (	
ID Number		_	Depth (ft)	Rei. Pt.	Rei. Pt.	Wet, Rock	scription		Bott	
BS2527630	1430	G				WEITER	,q,		140	tOm
B31	1435									
W73	1440							~		
W74	1443									
W75	1452	W *		-						
W76	1457								1	
ררש	1501						k/			
W18	1505	1			1					
	1510					1			4	,
Map Attache Sample Typ Laboratory I	e: (§	Screening	_	nfirmatio		osal/Characte		ACE- coc#_		
		oto Toke	n. Yes	(No)	Ri	nsate Taken:	Yes	No		
	Duplic	ate rake	. 103				. 55	100		
				$\overline{}$		equest for An				
	On-si	te Labo	ratory Ch	ain of C	ustody/Re					
Requested Relinquishe	On-si	te Labo	ratory Ch	ain of C	Other_		alysis			

#### Sample Location Map Fort Devens - Project #16208

Site Name: 2527

Pg. 2 of 2



Comments/Observations:

Date: 10.24.95

x-discrete sample location

Pg. 1 of 1

Date: Oct-24-1995

Site(s): Bldg 2527

Analyst GG

Sample ID #	Instrument Response TPH (ppm)	Calibration Adjusted TPH (ppm)	Sample Weight (g)	Extract Vol. (ml)	Dilution	Final Result TPH(ppm)	Qualifie
SB2527W67	1083	761	8.3	20.5	1	1880	
SB2527W68	871	612	9.2	21.2	1	1410	
SB2527W69	636	446	7.4	22.0	5	6633	
SB2527W70	ND	ND	18.5	20.1	-1	ND	
SB2527W71	649	455	6.7	19.0	1	1291	
SB2527W72	505	354	10.5	18.5	5	3118	
SB2527B29	32	21	18.0	18.5	1	21	J
						i.	
							-
							+

TPH - Total Petroluem Hydrocarbons

ND - Indicates non detect

Pg. 1 of 1

Date: Oct-24-1995

Site(s): Bldg 2527

Analyst: MJ

Sample ID #	Instrument Response TPH (ppm)	Calibration Adjusted TPH (ppm)	Sample Weight (g)	Extract Vol. (ml)	Dilution	Final Result TPH(ppm)	Qualifie
SB2527B30	ND	ND	21.0	20.3	1	ND	
SB2527B31	505	354	21.3	20.4	1	339	I I
SB2527W73	ND	ND	20.2	20.5	1	ND	ţ
SB2527W74	ND	. ND	19.5	21.6	1	ND	1
SB2527.W75	ND	ND	19.1	21.4	1	ND	
SB2527W76	ND	ND	21.2	21.0	1	ND	7
SB2527W77	ND	ND	19.9	20.8	1 1	ND	
SB2527W78	16	10	19.3	21.0	1	10	i J
SB2527W79	·- ND	ND	21.0	20.4	1	ND	
			4				1
							1
							i
						•	
		Ì					

TPH - Total Petroluem Hydrocarbons

ND - Indicates non detect

Pg. 1 of 1

Date: Oct-24-1995

Site(s): Bldg 2527

Analyst GG

Sample ID #	Instrument Response TPH (ppm)	Calibration Adjusted TPH (ppm)	Sample Weight (g)	Extract Vol. (ml)	Dilution	Final Result TPH(ppm)	Qualifie
SB2527W67	1083	761	8.3	20.5	1	1880	1
SB2527W68	871	612	9.2	21.2	1 .	1410	
SB2527W69	636	446	7.4	22.0	5	6633	
SB2527W70	ND-	ND	18.5	20.1	1	ND .	-
SB2527W71	649	455	6.7	19.0	1	1291	-
SB2527W72	505	354	10.5	18.5	5	3118	
SB2527B29	32	21	18.0	18.5	1	21	J
6							
						g.	
			4.0				
9							
							,
	N.						1,1-
				1 4			

TPH - Total Petroluem Hydrocarbons

ND - Indicates non detect

Pg. Lof2

pate: 10-24-95

Site Name: Bbg 2527

Weather: Sunny, 72°F

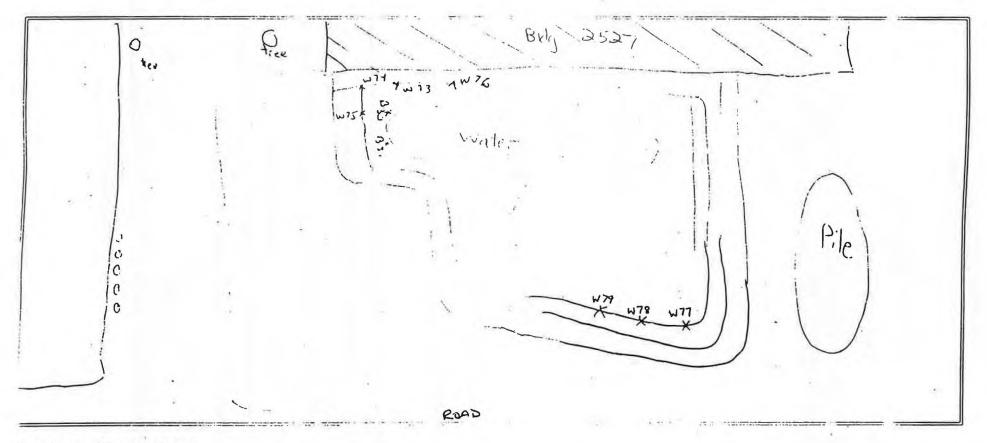
Samplers: GG

Sample		Comp/	Sample	Coor	dinates	Sample	# of
D Number	Time	Grab	Depth (ft)	Ref. Pt.	Ref. Pt.	Description	Bottles
590527W67	1108	G				Grey/Black moist clay, a	der Ven
W68	1113			132 - 144		1	
w69	11)7			. 6.	<u>.</u>	1	
W70	1121		,	7.	*	Grey clay	
W71	1125	-10.		at .		Grey / Block menst clay, ode	or
wra	1126	_			i.		1
829	1132	V				<b>*</b>	~
	i				4	Brown clay-like material	
of the last of the	ALC: THE RESERVE OF	ned w					
Ref. Pt.	er amme 10	## # II					
Ref. Pt		## * II					
Ref. Pt			No				
		(es)	No				
Ref. Pt Map Attach	ed: (Y		<u> </u>	onfirmati	on Dis	posal/Characterization	a superfluid a
Ref. Pt	ed: (Y	Screening	19 C			posal/Characterization  USACE- coc	#
Ref. Pt Map Attach Sample Typ	ed: (Y	Screenir	19 C	A de	EN - coc #		#
Ref. Pt Map Attach Sample Typ	ed: (You	Screenination: (	Onsite La	A No	EN - coc #	USACE- coc	#
Ref. Pt Map Attach Sample Typ	ed: (Your Destination Duplice On-s	Screening ation: (cate Take	Onsite Later Yes	A No	EN - coc # R Custody/R Other_	USACE- coc	
Ref. Pt Map Attach Sample Typ Laboratory	ed: You	Screening ation: (cate Take take take take take take take take t	Onsite Later Yes	No A	EN - coc #  R  Custody/R  Other_  1145	USACE- coc	114

19.2 of 2

Date: 10.24.95

Site Name: 2527



Comments/Observations

x-discrete sample location

Prepared by M. Jones | G Guimond

Date:

113095

Site Name:

Blog 2527 mul 13

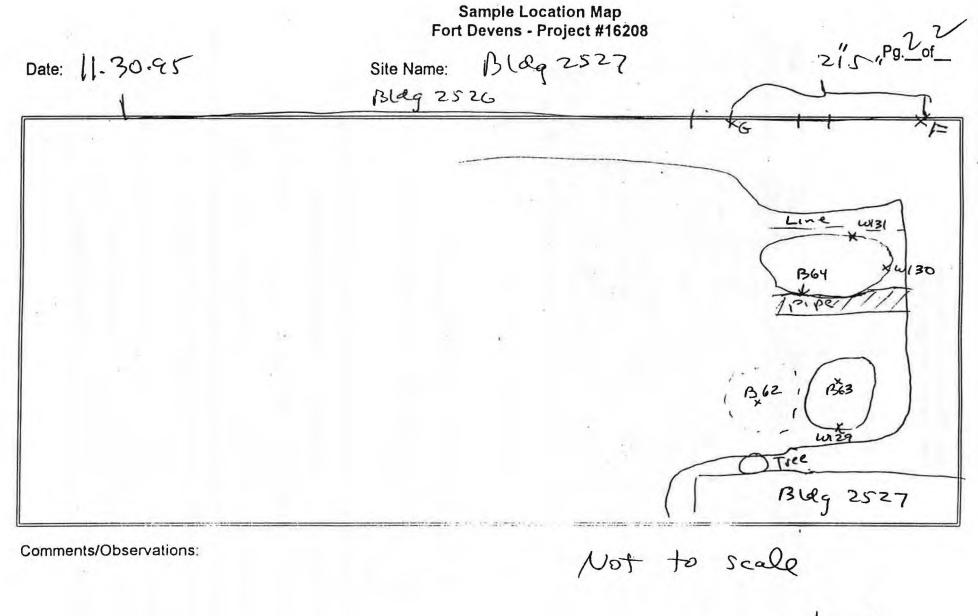
Pg. ( of \_ Z

Weather sunny, cold

Samplers:

Sample ID Number	Time	Comp/ Grab	Sample Depth (ft)		Ref. Pt	Sample Description	# of Bottles
5132527	0820	G	6'6"	25'1"	2510"	wet sody silt	exyort
5172527 W130	0828		6'64	14'5"	20'2	west coarse brown	
W131	0831		6'64	14311	16'2"	wet brown sixly	
B62	0825		60"	2644	246"	Black Stained Serol Strong TPH wan	
1363	D 853		7'0"	216"	22'8"	moist soupy sit,	
B64	0333	L	7'1"	2014"	18'5	coarses all from when	pe l
			7.47				

Ref. Pt. F: rt front con	ner of Bldg 2526
Ref. Pt. G: nt bottom con	rend second window on ut of Bu
Map Attached: Yes No	
Sample Type: Screening Confi	rmation Disposal/Characterization
Laboratory Destination: Onsite Lab	AEN - coc # USACE- coc #
Duplicate Taken: Yes	No Rinsate Taken: Yes (No)
On-site Laboratory Chair	n of Custody/Request for Analysis
Requested Testing: TPH BTE	X Other
Requested Testing: TPH BTE	Received by (dd/tt):
Relinquished by(dd/tt):	Received by (dd/tt):



Prepared by: MICO

Pg.	lof	2
0		

11.30.95 Date:

Site Name:

Blog 2527

Weather. Sunny, cold

Samplers: mRB/AW

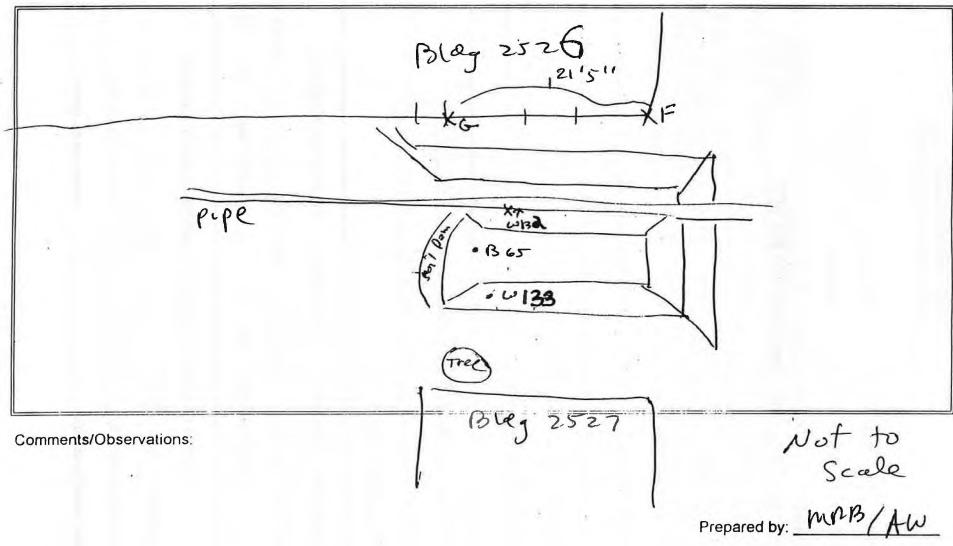
	Time	Comp/ Grab	Sample		linates Ref. Pt.	Sample Description	# of Bottles
C.0	1527		3 G		26'0"	wefg ver clay wheble	e (x youl
	1533	G	7'2"	22'0"	18'0"	longer 5 wall pelopolts	
W133 /	535	6	61/0"		26'2"		1 × 40%
	:	14 6			-	<b>y</b>	
		*	-1				
				-9			
						i	
		•					
Man Attach	ed: (Ye	es f					
Sample Typ				1		osal/Characterization  USACE- coc #	
Sample Typ	Destina	tion: (	Onsite La	AE	N - coc#	USACE- coc #	o, An
Sample Typ	Destina	tion: (		AE	N - coc#		
Sample Typ	Destina	tion: (	Onsite La	AE No	N - coc#	USACE- coc #	
Sample Typ	Destinate Duplicate On-site	tion: (	Onsite La en: Yes ratory Ch	AE No	N - coc#	USACE- coc #_	
Sample Typ	Destinate Duplicate On-site	tion: ( ate Take te Labo	Onsite La en: Yes ratory Ch	No AE	Rir stody/Re	USACE- coc #_	

Pg. 2 of 2

Date: 11.30.95

Site Name:

Bldg 2527



Pg i of 1

Date: Nov-30-1995

Site(s): Bldg 2527

Analyst MRB

Sample ID #	Instrument Response TPH (ppm)	Calibration Adjusted TPH (ppm)	Sample Weight (g)	Extract Vol. (ml)	Dilution	Final Result TPH(ppm)	Qualifie
Gampie ID #	тт при	Terr (ppin)	vveignt (g)	VOI. (IIII)	Dilduoti	TPH(ppin)	Qualite
SB2527W129	25	16	21.8	21.1	1	15	J
SB2527W130	ND	ND	20.8	20.1	1	ND	
SB2527W131	ND	ND	21.6	20.4	1	ND	
SB2527B62	644	452	3.5	28.9	1	3732	
SB2527B63	ND	ND	20.3	20.6	1	ND	
SB2527B64	15	9	20.9	20.1	1	9	J
SB2527B58	12	7	21.4	19.3	1	6	J
SB2527B59	ND	ND	20.7	21.0	1	ND	
SB2527B60	ND	ND	20.9	18.8	1	ND	
SB2527B61	160	111	20.1	19.2	1	106	
SB2527W124	76	52	16.7	18.7	1	58	
SB2527W125	ND	ND	20.4	19.7	1	ND	
SB2527W126	44	29	11.3	19.6	1	51	
SB2527W127	ND	ND	20.5	18.5	1	ND	
SB2527W128	32	21	20.0	19.3	1	20	J
SB2527W133	437	306	8.4	20.2	1	736	
SB2527W132	30	19	21.4	18.7	1	17	J
SB2527B65	14	8	22.1	17.8	1	7	J
	*						

TPH - Total Petroluem Hydrocarbons

ND - Indicates non detect

J - Indicates estimated concentration below practical quantitation limit

01-03-1997 14:15

Relinquished by(dd/tt):

508 435 8841

P.02

### Soli Sample Collection Log Fort Devene - Project #16208

Sample ID Number	Time	Comp/ Grab	Sample Depth (ft)		Ref. Pt	Sample Description	# of Bottles
6134	0834	G	6'0'	27'94	26'74	wet block standalay,	IX 4°
كرواب	0838		6'41	26 14 11	27'7"	TOTAL NO.	
W136	0839		6'4"	25:31	26'6"	Grey clay, Rusty 520	V/=
W137	0845		5/1111	250"	2711	buown soul	
- 10							
					1000		
		1.1	C	\		0 0310	-
Ref. Pt. <u>F</u>		ht-	hon	A cox	nan e	1 1312 2526	,
Ref. PLG	r	ght	bo t	tou	non o	of second winds	ر مر
Ref. Pt Ref. Pt Wap Attach	r	ght	bo t	tem tod	nan e	1 13129 2526 2 0/ Second winds	ره سر
Nep Attach	ed: (Y	94	bo to	tow t of	وها ه	2726	ره سر
Nap Attach	e: (S	es I	b. t	t od	Conna Co (Sign	eal/Characterization	, , , ,
Aep Attach	e: S	es l	No Co	onfirmation	Dispo	2726	, a.

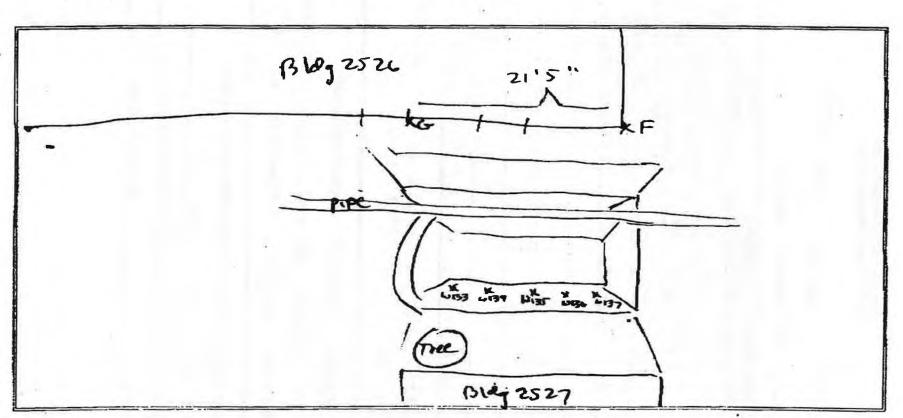
Received by (dd/tt):

#### Sample Location Map Fort Devens - Project #16208

Date: 12-1.95

Site Name:

Blag 2527



Comments/Observations:

Not to sul

mRB Prepared by: \_

DHM

### Soil Sample Collection Log Fort Devens - Project #16208

Sample		Comp/		Coordinates	Sample	# 01
ID Number	Time		Depth (ft)	er. Pt. Ref. Pt.	Description	Bottle
NEC	1146	C	0	es de	WET ROSKY CLAY	1×40
532527	11-10		10	1	The same of the sa	
	1158		1/10	of the	MOIST RUCKY CLAY	
5 15.C	1241		81	color	WENT BRUN SMUY CLAYRICA	5
500 3727 5 WC	1220		2	+ 1	GRAY RECKY, TPH COOK	+
B 2527	1307		- (		BROWNER, HANY CARY, ROCKES	127
5 13 2 527 Durc	1241		sy		Dup of Story 75EC	RS.
18 TEPE	1241	4	)		CIBAT BROWN SANDY CLAY, RO	AS T
Ref. Pt. D Ref. Pt. E Map Attach	ed: Y	et 5		69 2526 P	soe ment page	lapt.
Sample Typ	Destina		-	AEN - coo f	posal/Characterization  USACE- coc #_ Rineste Taken: Yes No	Met Viet
Requested		/	7.		BNH (TCL) VOC (	P) )
10.00					Received by (dd/tt):	
		7.000				
	0.20 2.25	Section 1			Received by (dd/tt):	

Date: 12.1.95

Relinquished by(dd/tt);\_

Site Name: 5/3 2527

Sample	-	Comp/	Sample	Coon	dinates	Sample	*	-
D Number		Grab C-	Depth (ft)	Ref. Pt.	Ref. Pt.	Description	I X	10
NEUG- 55,2527 SEG-						RUSTY BRAY! GRANGE CLAY		Ť
5B2527 SWG-					2	WET BROWN SANYCLEY FOR O	POR	
BG-	1250			4		GRAY CLAY , LOTE OF ROCKS		
5 B 25 27	1237		(	P		RUSTY GRAY! ORANGE CLA	r	
SB2527 TRPG	談	V				RUSTY GRAY! DRAW 66 CLAY		
Ref. Pt. <u>G</u> Ref. Pt. <u>H</u> Map Attach	:	est St	sile o silo	of door	merced m BU	+ 5 00 of Blog 2527 epal Lant comen by 2527	0	2
Ref. Pt. B Ref. Pt. H Map Attach Sample Typ Laboratory	Deetina	tion:		onfirmation Af	Die	Posel/Characterization  157182 USACE-coc#_  tineate Taken: Yes No	0	2
Sample Typ	Destina Duplic	tion: ate Take	Oneite La	onfirmation As	Die	posal/Characterization  1 157187 USACE-coc#_ tineate Taken: Yes No equeet for Analysis	o	

Received by (dd/tt):\_

### Sample Collection Log Supplemental Form Composite Sample Data Weston - Project #17836

Mess Pg. 3 or y

12.1.95

Blag 2527 Sampler

Composite	Discrete	Sample		linates	
Sample ID	Sample ID	Depth (ft)		Ref. Pt. B	Sample Description
	1 Gran	1	13/2	D - 30'0"	Brown = lay
	2	8'5"	6821"	97/1"	Rocky Brow Clay
NEC					
	3	9 '9"	55140	91'9"	wed to rown clay
	Υ	¥'M"	44 19 11	8915"	wet Brown clay
	1 60	8'2"	32'0"	761/0"	Realty Browning
	2	80"	17'8"	56174	Rocky Brown clay
NWC	3	8'04	12'4"	37'2"	Rocky Brown clay , was
-0	Ч	8'0"	25'14	21'10"	med sandy clas a rocks
<del>                                      </del>	1 Ga				wet low, mcz ) day, gray A 6
SWC	2				Black struck energlas
SWC					Strong 19th san
	3				must meleyday
	4				Rust rucky xollow cla
		-	E	D	
	1 Great	6'10"	51104	7219"	Rudy quer o oroge clay
SEC	2	6'11"	44114	65'6"	wat readeles a realer
	3	6194	72'9"	53170	L+ Brown clay in rocks
	9	6' 10"	25 12"	4416"	Rusty aver clay w viel
	1 600				wet rall - a signer clay i
BC	2		1.0		hight brown clay
	3				wat a Dan class which
					streethe & vostes
	4				hoper and land a mon
	1=		1		black Stains Avocits

7 508 435 9641

OHM

225 Prepared by: ms 40,5 to 34 BI 3,98 Sample Location Map Fort Devens - Project #16208 B5 Site Name: 132 B3 X Comments/Observations: 1281 #2'0 " Date: 12-1.95 91'0"

01-03-1997 14:18

508 435 9841

OHM

P. 08

# TPH Results On-allo Laboratory - Modified Method 418.1 Fort Devens - Project \$16208

Pg 1 of 1

Date: Dec-01-1905

Bite(s): Bidg 2527

Analyst: MRB

8 di siame8	Instrument Response TPH (ppm)	Celibration Adjusted TPH (ppm)	Sample Weight (g)	Extract Vol. (ml)	Dikation	Finel Result TPH(ppm)	Qualifie
88252780	320	224	20.1	10.0	1	821	a
8825278WC	455	321	20.2	10.0	8	1880	
882827NEC	. ND	ND	19.9	18.3	1	ND	
892527NWC	ND	ND	20.6	20.3	1	ND	
8B25278EC	ND	ND	19.9	10.2	1	ND	
SB2S27DUPC	ND	NO	19.3	18.9	1	ND	
882827TRPC	ND	ND	10.0	10.0	1	ND	
882527W134	461	310	4.5	25.8	1	1797	
8B2527W135	500	350	4,3	27.4	1	2233	
882927136	ND	NO	20,0	20.7	1	ND	
8B2527W137	ND	ND	20.7	20.0	1	NO	-
- 3 <sup>2</sup>							
······································							
							-
				**			
					*		

TPH - Total Patroluem Hydrocerbens

ND - Indicates non detect

J - Indicates setimated concentration below precises quantitation limit

Appendix B

IRA Submittal Forms

# Appendix C

AENI Analytical Report - Confirmation Samples



# **CHAIN-OF-CUSTODY RECORD**

Field Technical Services
157182
Rev. 06/89

9512015

0.	H. MATERIALS	CORP			P.C	D. BOX 551	<ul> <li>FINDLAY, OH 45839-055</li> </ul>		41	9-42	3-3526			
PROJ	ECT NAME  T Deve  NO. PROJECT  L 2 03  VTS REPRESENTATIV  L S /	M -	John ,	e'	Bla	PROJECT MAN	PROJECT TELEPHONE NO.  (508) 772-5109  AGERVSUPERVISOR  KONIN MELL	NUMBER	(164)	IALYS DICATI PARATI NTAIN	E	RED		
ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB		SAMPLE DESCRIPTION INCLUDE MATRIX AND POINT OF SAMPLE)	9		/	99	4	///	REMARKS
1	SB 2527BC	12.1	1307	1		Brown.	greeclas a vooles	124	oz 1	7				- 001
2	D 2527NEC		1146	1		week by	romnocky clay	IXY	oz J	1	11			- <del>002</del>
3	B2527NUC		1158	V		moret	brown rocky clay	114	02]	V	1			-œ3
4	132775EC	1	124	M		Lyie	Brown sandy clay	1144	2 1	~				rocu
5	B 252704PC		1241	1		L+ Bv	- sau, clare	1240	2 1					-408
6	132527BG		1250		/	wet ye		2 X4	0		1			-006
	132527 NEG		1135		U	Corné	· Brown wet clay	inl inl			1			-007
8	132527NW	-	1150		1	Rocky		2×4			1	1		-008
9	B2527SEC	-	1227	9.	1	Rusty	grey and ways clay	200			4			7009
10	B252704P(	1	1227		/	Rust,	veral or englicies	2 x4			1			-010
TRANSFER	ITEM NUMBER				IANSI	FERS SHED BY	TRANSFERS ACCEPTED BY	DATE	TIME	RE	MARKS	3	ردل	, TAT .
	150	+	T	50	i	Blen	379 3962 051	12.1	1530				temp	block included
	ı						3 Mundl	95	10:0	3		1	res	eved to
	ı							3,-						
										SAM	PLER'S S	GNATUE	"MR	len

#### AMERICAN ENVIRONMENTAL NETWORK, IRC.

9151 RUMSEY ROAD COLUMBIA, MD. 21045 (410) 730-8525

Project Number: 9512-015

Client Name: O.H. Materials Project Title: Fort Devens

Five soil samples were analyzed for the volatile organic compounds in the Priority Pollutant list plus Xylenes, by method 8240. Five soil samples were analyzed for the semivolatile organic compounds in the TCL list by method 8270.

All analyses followed the standard AENI QA/QC and holding time

requirements.

This package consists of the tabulated results of the samples and the method blanks, along with the QC forms II, III and IV.

Data Released

Minh-Thuy L. Nguyen/ GC/MS Lab Manager

#### VOLATILES Section:

Client	AENI		Date	Date	Date
ID	ID	Matrix	Sampled	Received	Analyzed
SB2527BG	015-006	Soil	12/01/95	12/04/95	12/05/95
SB2527NEG	015-007	Soil	12/01/95	12/04/95	12/05/95
SB2527NWG	015-008	Soil	12/01/95	12/04/95	12/05/95
SB2527SEG	015-009	Soil	12/01/95	12/04/95	12/05/95
SB2527DUPG	015-010	Soil	12/01/95	12/04/95	12/05/95

#### Form I (Tabulated Results)

All analyses were performed within the holding time requirement. The results were reported on the basis of dry weight.

#### Form II (Surrogate Recoveries)

The surrogate recoveries for all method blank, QC and sample analyses were within the method specified limits.

#### Form III (MS Recoveries)

The MS analysis was performed on sample SB2527DUPG. All spike recoveries were within the method advisory limits.

#### Form IV (Method Blank Summary)

The method blank was free of target analytes.

#### SEMIVOLATILES Section:

Client ID	AENI ID	Matrix	Date Sampled	Date Received	Date Extracted	Date Analyzed
					========	
SB2527BC	015-001	Soil	12/01/95	12/04/95	12/05/95	12/06/95
SB2527NEC	015-002	Soil	12/01/95	12/04/95	12/05/95	12/06/95
SB2527MWC	015-003	Soil	12/01/95	12/04/95	12/05/95	12/08/95
SB2527SEC	015-004	Soil	12/01/95	12/04/95	12/05/95	12/08/95
SB2527DUPC	015-005	Soil	12/01/95	12/04/95	12/05/95	12/08/95

#### Form I (Tabulated Results)

All analyses were performed within the holding time requirement. The results were reported on the basis of dry weight.

#### Form II (Surrogate Recoveries)

The surrogate recoveries for all sample, QC and method blank analyses were within the method specified limits.

### Form III (BS Recoveries)

A BS analysis was reported. All spike recoveries were within the method advisory limits.

#### Form IV (Method Blank Summary)

The method blank was free of target analytes.

PP VOA Analysis

SOIL FOLK LICE OLD I EM MONTONING	COM	COMP	UFPOAFI

Project No.: OHM45 Site: Location: Group:

Contract: 9512015

Level: (low/med) LOW

**AENI** 

Lab Name:

	SAMPLE NO.	SMC1 (DCE) #	SMC2 (TOL) #	SMC3 (BFB) #	OTHER #	TOT OUT
01	VBLK01	108	107	111		
02	SB2527BG	92	105	110		
03	SB2527NEG	104	109	106		
04	SB2527NWG	105	106	113		
05	SB2527SEG	99	111	117		
190	SB2527DUPG	99	108	114		
17	SB2527DUPGMS	108	113	118		
180						
19						
10						
11						
12						
13						
14						
15	)					
16						
17						
18						
19			7			
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

QC LIMITS

SMC1 (DCE) - 1,2-Dichloroethane-d4

(70-121)

SMC2 (TOL) - Toluene-d8

(81-117)

SMC3 (BFB) - Bromofluorobenzene

(74-121)

# Column to be used to flag recovery values

- Values outside of contract required QC limits
- D System Monitoring Compound diluted out

#### 3B

# SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:	AENI		Contract: 9512015		
Project No.:	OHM45	Site:	Location:	Group:	
Matrix Spike	- Sample No.:	SB2527DUPG	Level: (low/med) LOW		

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	#	QC. Limits Rec.
1,1-Dichloroethene	57	0	71	125		(59-172)
Trichloroethene	57	0	50	88		(62-137)
Benzene	57	0	57	100		(66-142)
Toluene -	57	0	52	92		(59-139)
Chlorobenzene	57	0	51	90		(60-133)

Values outside of QC limits

Comments:		

**VOLATILE METHOD BLANK SUMMARY** 

SAMPLE NO.

15	D.	L	h	4
A	1	.h	u	

Lab Name: AENI		Contract:	9512015		AETKOJ	
Project No.: OHM45	Site:		Location:		Group:	
Lab File ID: FL94.0				Lab Sample ID:	951205FS	
Date Analyzed: 12/5/95				Time Analyzed:	1601	
GC Column: CAP	ID:	0.53 (mm)		Heated Purge:	(Y/N) Y	

Instrument ID: F7200

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
SB2527BG	#006	FL97.D	12/5/95
SB2527NEG	#007	FL98.D	12/5/95
SB2527NWG	#008	FL99.D	12/5/95
SB2527SEG	#009	FL100.D	12/5/95
SB2527DUPG	#010	FL101.D	12/5/95
SB2527DUPGMS	#010MS	FL102.D	12/5/95
			1
		1	

COMMENTS:				
		_		_

SAMPLE RO. SB252700

Lab Name: AENI		Contract: 9	512015	SUZSZIEG
Project No.: OHM45	Site:	Location:		Group:
Matrix: (soil/water)	SOIL		Lab Sample ID: #0	106
Sample wt/vol:			Lab File ID: FL	97.D
Leval: (low/med)	LOW		Date Received:	12/4/95
% Moisture: not dec.	10		Date Analyzed:	12/5/95
GC Column: <u>CAP</u>	ID: <u>0.53</u> (	mm)	Dilution Factor:	1.0
Sail Extract Valume:	1 (a)		Soil Alienat Volumer	1 641

#### Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg) ug/Kg	0
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	5.6	U
107-13-1	Acrylonitrile	110	U
107-2-8	Acrolein	110	U
75-69-4	Trichlorofluoromethane	5.6	U
75-35-4	1,1-Dichloroethene	5.6	U
75-34-4	1,1-Dichloroethane	5.6	U
156-60-5	trans-1,2-Dichloroethene	5.6	U
67-66-3	Chloroform	5.6	U
107-06-2	1,2-Dichloroethane	5.6	U
71-55-6	1,1,1-Trichloroethane	5.6	U
56-23-5	Carbon Tetrachloride	5.6	U
75-27-4	Bromodichloromethane	5.6	U
78-87-5	1,2-Dichloropropane	5.6	U
10061-01-5	cis-1,3-Dichloropropene	5.6	U
79-01-6	Trichloroethene	5.6	U
71-43-2	Benzene	5.6	U
124-48-1	Dibromochloromethane	5.6	U
10061-02-6	trans-1,3-Dichloropropene	5.6	U
79-00-5	1,1,2-Trichloroethane	5.6	U
110-75-8	2-Chloroethylvinylether	11	U
75-25-2	Bromoform	5.6	U
127-18-4	Tetrachloroethene	5.6	U
79-34-5	1,1,2,2-Tetrachloroethane	5.6	U
108-88-3	Taluene	5.6	U
108-90-7	Chlarobenzene	5.6	U
100-41-4	Ethylbenzene	5.6	U
108-38-3	m + p-Xylene	5.6	U
95-47-6	o-Xylene	5.6	U
541-73-1	1,3-Dichlorobenzene	5.6	U

SAMPLE NO.

Lab Name:	: AENI		Contract: 9	512015	SE25	271E
Project No	.: OHM45	Site:	Location:		Group:	
Matrix: (s	oil/water)	SOIL		Lab Sample ID:	<b>F</b> 006	
Sample w	t/vol:		G	Lab File ID:	FL97.D	
Level: (I	ow/med)	LOW		Date Received:	12/4/95	
% Moistur	re: not dec.	10		Date Analyzed:	12/5/95	
GC Colum	n: CAP	ID: 0	).53 (mm)	Dilution Factor:	1.0	
Soil Extra	ct Volume:	1 (uL)		Soil Aliquot Volume:	1	(uL)
			Concentratio	n Units:		
	CAS No.	Compound	(ug/L or ug/Kg)	_ug/Kg	α	
-	106-46-7	1,4-Dichlorobenzene		5.6	Ü	
19	95-50-1	1,2-Dichlorobenzene		5.6	U	4
+						
t	- p -					
+						
- 1						
-						
-						
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-						
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1						
1						
-						
-	_	-				
- 1						
-						

SAMPLE NO.

ab Name:	AENI		Contract:	9512015	\$625	271616
Project No.:	OHM45	Site:	Location:		Group:	
Matrix: (soil)	(water)	SOIL		Lab Sample ID:	<b>7</b> 007	
Sample wt/v	ol:		_	Lab File ID: 1	FL98.D	
evel: (low	/med)	LOW		Date Received:	12/4/95	
Moisture:	not dec.	8	á	Date Analyzed:	12/5/95	
iC Column:	CAP	10: 0.53	(mm)	Dilution Factor:	1.0	
oil Extract \	Volume:	1_(uL)		Soil Aliquot Volume:	1	(uL)
CA	S No.	Compound	Concentrati (ug/L or ug/Kg)	ion Units: ug/Kg	a	
74	87-3	Chloromethane	4	11	U	
	-83-9	Bromomethane		11	U	
75-	01-4	Vinyl Chloride		11	U	
75-	-00-3	Chloroethane		11	U	
	-09-2	Methylene Chloride		5.4	U	
10	7-13-1	Acrylonitrile		110	U	
10	7-2-8	Acrolein		110	Ü	
75	69-4	Trichlorofluoromethane		5.4	U	
75	35-4	1,1-Dichloroethene		5.4	U	
75-	34-4	1,1-Dichloroethane		5.4	U	
15	6-60-5	trans-1,2-Dichloroethene		5.4	U	
67	-66-3	Chloroform		5.4	U	
10	7-06-2	1,2-Dichloroethane		5.4	U	
71-	-55-6	1,1,1-Trichloroethane		5.4	U	
56	-23-5	Carbon Tetrachloride		5.4	U	
75	27-4	Bromodichloromethane		5.4	U	
78	87-5	1,2-Dichloropropane		5.4	U	
10	061-01-5	cis-1,3-Dichloropropene		5.4	U	
79	-01-6	Trichloroethene		5.4	U	
71	43-2	Benzene		5.4	U	
12	4-48-1	Dibromochloromethane		5.4	U	
	061-02-6	trans-1,3-Dichloropropene		5.4	U	
79	-00-5	1,1,2-Trichloroethane		5.4	U	
11	0-75-8	2-Chloroethylvinylether		11	U	
75	-25-2	Bromoform		5.4	U	
	7-18-4	Tetrachloroethene		5.4	U	
79	-34-5	1,1,2,2-Tetrachloroethane		5.4	U	

108-88-3

108-90-7

100-41-4

108-38-3

95-47-6

541-73-1

Toluene

Chlorobenzene

Ethylbenzene

m + p-Xylene

1,3-Dichlorobenzene

o-Xylene

5.4

5.4

5.4

5.4 5.4

5.4

U

U

U

U

U

SAMPLE NO. SB2527HEG

ab Name: AENI		Contract:9512	2015	SE252	271166
roject No.: OHM45	Site:	Location:		Group:	
Matrix: (soil/water)	SOIL		Lab Sample ID:	#007	
ample wt/vol:		<u>.                                    </u>	Lab File ID:	FL98.D	
evel: (low/med)	LOW		Date Received:	12/4/95	
Moisture: not dec.	8		Date Analyzed:	12/5/95	
C Column: CAP	ID: 0.	53 (mm)	Dilution Factor:		
oil Extract Volume:	1 (uL)		- _il Aliquot Volume:		(uL)
		Concentration U			
CAS No.	Compound	(ug/L or ug/Kg)	ug/Kg	a	
106-46-7	1,4-Dichlorobenzene		5.4	U	
95-50-1	1,2-Dichlorobenzene		5.4	U	
	-				
	Y II				
-					
-					
				-	
			-		

SAMPLE NO.

Lab Name:	AENI	*	Contract:	9512015	SB252	7KW
Project No.:	0HM45	Site:	Location:		Group:	
Matrix: (soi	l/water)	SOIL		Lab Sample ID:	#008	0
Sample wt/v	rol:		_	Lab File ID:	FL99.D	
Level: (lov	w/med)	LOW		Date Received:	12/4/95	
% Moisture:	not dec.	10		Date Analyzed:	12/5/95	
GC Column:	CAP	ID: 0.53	_(mm)	Dilution Factor:	1.0	
Soil Extract	Volume:	1 (uL)		Soil Aliquot Volume:	1	(uL)
			Concentra	ation Units:		
CA	AS No.	Compound	(ug/L or ug/Kg)	_ug/Kg	Q	
74	-87-3	Chloromethane		11	U	
74	-83-9	Bromomethane			U	
75	i-01-4	Vinyl Chloride		11	U	
75	5-00-3	Chloroethane		- 11	U	
75	-09-2	Methylene Chloride	7	- 5.6	Ü	
10	7-13-1	Acrylonitrile		110	U	
10	7-2-8	Acrolein		110	U	
75	-69-4	Trichlorofluoromethane		5.6	U	
75	-35-4	1,1-Dichloroethene	3 1	5.6	U	
75	-34-4	1,1-Dichloroethane		5.6	U	
15	6-60-5	trans-1,2-Dichloroethene		5.6	U	
67	-66-3	Chloroform		5.6	U	
10	7-06-2	1,2-Dichloroethane		5.6	U	
71	-55-6	1,1,1-Trichloroethane		5.6	U	
56	3-23-5	Carbon Tetrachloride		5.6	U	
75	-27-4	Bromodichloromethane		5.6	U	
78	3-87-5	1,2-Dichloropropane		5.6	U	
10	061-01-5	cis-1,3-Dichloropropene	10	5.6	U	
79	9-01-6	Trichloroethene		5.6	U	
	-43-2	Benzene		5.6	U	
	24-48-1	Dibromochloromethane		5.6	U	
	061-02-6	trans-1,3-Dichloropropene		5.6	U	
	-00-5	1,1,2-Trichloroethane		5.6	U	
	0-75-8	2-Chloroethylvinylether		11	U	
	-25-2	Bromoform		5.6	U	
	27-18-4	Tetrachloroethene		5.6	U	

79-34-5

108-88-3

108-90-7

100-41-4

108-38-3

95-47-6

541-73-1

5.6

5.6

5.6

5.6

5.6

5.6

5.6

1,1,2,2-Tetrachloroethane

Toluene

Chlorobenzene

Ethylbenzene

m + p-Xylene

1,3-Dichlorobenzene

o-Xylene

U

U

U

U

U

U

SAMPLE NO.
SB2527KWG

Lab Name: AENI		Contract:	9512015	<b>SB</b> Z52	27686
Project No.: OHM45	Site:	Location:		Group:	
Matrix: (soil/water)	SOIL		Lab Sample ID:	#008	
Sample wt/vol:		G	Lab File ID:	FL99.D	
Level: (low/med)	LOW		Date Received:	12/4/95	
% Moisture: not dec.	10		Date Analyzed:	12/5/95	
GC Column: <u>CAP</u>	ID:	0.53 (mm)	Dilution Factor:	1.0	
Soil Extract Volume:	1_(uL)		Soil Aliquot Volume:	1	(uL)
*		Concentra	etion Units:		
CAS No.	Compound	(ug/L or ug/Kg)		a	1.3
106-46-7	1,4-Dichlorobenzene		-5.6	U	
95-50-1	1,2-Dichlorobenzene		5.6	U	
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SAMPLE NO. SE**25**27 SEG

Lab Name:	AENI				Contract:	9512015	2043	2/308
Project No.:	OHM45	_	Site:		Location:		Group:	
Matrix: (soil/	water)	SOIL				Lab Sample ID:	1009	
Sample wt/vo	ol;	(g	lmL)	G		Lab File ID: 1	FL100.D	
Level: (low	(med)	LOW				Date Received:	12/4/95	
% Moisture:	not dec.					Date Analyzed:	12/5/95	
GC Column:	CAP		ID:	0.53	(mm)	Dilution Factor:	1.0	
Soil Extract \	/olume:	1 (u	L)			Soil Aliquot Volume:	1	(uL)

#### **Concentration Units:**

CAS No.	Compound	(ug/L or ug/Kg) ug/Kg	a
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	5.6	U
107-13-1	Acrylonitrile	110	U
107-2-8	Acrolein	110	U
75-69-4	Trichlorofluoromethane	5.6	U
75-35-4	1,1-Dichloroethene	5.6	U
75-34-4	1,1-Dichloroethane	5.6	U
156-60-5	trans-1,2-Dichloroethene	5.6	U
67-66-3	Chloroform	5.6	U
107-06-2	1,2-Dichloroethane	5.6	U
71-55-6	1,1,1-Trichloroethane	5.6	U
56-23-5	Carbon Tetrachloride	5.6	U
75-27-4	Bromodichloromethane	5.6	U
78-87-5	1,2-Dichloropropane	5.6	U
10061-01-5	cis-1,3-Dichloropropene	5.6	U
79-01-6	Trichloroethene	5.6	U
71-43-2	Benzene	5.6	U
124-48-1	Dibromochloromethane	5.6	U
10061-02-6	trans-1,3-Dichloropropene	5.6	U
79-00-5	1,1,2-Trichloroethane	5.6	U
110-75-8	2-Chloroethylvinylether	11	U
75-25-2	Bromoform	5.6	U
127-18-4	Tetrachloroethene	5.6	U
79-34-5	1,1,2,2-Tetrachloroethane	5.6	U
108-88-3	Toluene	5.6	U
108-90-7	Chlorobenzene	5.6	U
100-41-4	Ethylbenzene	5.6	U
108-38-3	m + p-Xylene	5.6	U
95-47-6	o-Xylene	5.6	U
541-73-1	1,3-Dichlorobenzene	5.6	U

SAMPLE NO. 8**0252**78EG

Project No.:   OHM45	
Sample wt/vol:   5.0 (g/mL)   6	
Level: (low/med)   LOW   Date Received: 12/4/95	
Moisture: not dec.	
Concentration Units:   CAS No.   Compound   Cap/L or ug/Kg   Ug/Kg   Ug/Sol	_
Soil Extract Volume:  Concentration Units:  CAS No. Compound (ug/L or ug/Kg) ug/Kg Q  106-46-7 1,4-Dichlorobenzene 5.6 U  95-50-1 1,2-Dichlorobenzene 5.6 U	
CAS No. Compound (ug/L or ug/Kg) ug/Kg Q  106-46-7 1,4-Dichlorobenzene 5.6 U  95-50-1 1,2-Dichlorobenzene 5.6 U	<u>1</u> (uL)
CAS No.         Compound         (ug/L or ug/Kg)         ug/Kg         Q           106-46-7         1,4-Dichlorobenzene         5.6         U           95-50-1         1,2-Dichlorobenzene         5.6         U	
106-46-7 1,4-Dichlorobenzene 5.6 U 95-50-1 1,2-Dichlorobenzene 5.6 U	
95-50-1 1,2-Dichlorobenzene 5.6 U	
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SAMPLE NO.
SB2527PUPG

Lab Name: AE	NI		Contract:	9512015		
Project No.: OF	1M45	Site:	Location:		Group: _	
Matrix: (soil/wat	ter) SOIL			Lab Sample ID:	<b>7</b> 010	
Sample wt/vol:	5.0	(g/mL)G		Lab File ID: 1	FL101.D	
Level: (low/me	d) LOW			Date Received:	12/4/95	
% Moisture: no	t dec. 12			Date Analyzed:	12/5/95	
GC Column: C/	AP .	ID: 0.53	mm)	Dilution Factor:	1.0	
Soil Extract Volu	me:	1 (uL)		Soil Aliquot Volume:	1	(uL)

#### Concentration Units:

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	a
27.55	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		1
74-87-3	Chloromethane		U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	· U
75-09-2	Methylene Chloride	5.7	U
107-13-1	Acrylonitrile	110	U
107-2-8	Acrolein	110	U
75-69-4	Trichlorofluoromethane	5.7	U
75-35-4	1,1-Dichloroethene	5.7	U
75-34-4	1,1-Dichloroethane	5.7	U
156-60-5	trans-1,2-Dichloroethene	5.7	U
67-66-3	Chloroform	5.7	U
107-06-2	1,2-Dichloroethane	5.7	U
71-55-6	1,1,1-Trichloroethane	5.7	U
56-23-5	Carbon Tetrachloride	5.7	U
75-27-4	Bromodichloromethane	5.7	U
78-87-5	1,2-Dichloropropane	5.7	U
10061-01-5	cis-1,3-Dichloropropene	5.7	U
79-01-6	Trichloroethene	5.7	U
71-43-2	Benzene	5.7	U
124-48-1	Dibromochloromethane	5.7	U
10061-02-6	trans-1,3-Dichloropropene	5.7	U
79-00-5	1,1,2-Trichloroethane	5.7	U
110-75-8	2-Chloroethylvinylether	11	U
75-25-2	Bromoform	5.7	U
127-18-4	Tetrachloroethene	5.7	U
79-34-5	1,1,2,2-Tetrachloroethane	5.7	U
108-88-3	Toluene	5.7	U
108-90-7	Chlorobenzene	5.7	U
100-41-4	Ethylbenzene	5.7	U
108-38-3	m + p-Xylene	5.7	U
95-47-6	o-Xylene	5.7	U
541-73-1	1,3-Dichlorobenzene	5.7	U

SAMPLE NO.

Lab Name:	: AENI		VOLATILE	UNGAN	_ Contract: _	9512015	S6252	760PG
Project No	.: OHM45	_	Site		Location:		Group:	
Matrix: (s	oil/water)	SOIL				Lab Sample ID:	#010	
Sample w	t/vol:	5.0	(g/mL)	G		Lab File ID:	FL101.D	
Level: (I	ow/med)	LOW				Date Received:	12/4/95	
% Moistur	e: not dec.	12				Date Analyzed:	12/5/95	
GC Colum	n: CAP		ID:	0.53	(mm)	Dilution Factor:	1.0	
Soil Extra	t Volume:	1	(uL)			Soil Aliquot Volume:	1	(uL)
					Concentrat			
100	CAS No.	Compound			(ug/L or ug/Kg)	ug/Kg	Q	
-	106-46-7	1,4-Dichloro				5.7	U	
	95-50-1	1,2-Dichloro	IDGIIZEIIE			5.7	U	
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SAMPLE NO.
VBEKDI

Lab Name: AENI		Contract: 9512015	VBLKU1
Project No.: OHM45	Site:	Location:	Group:
Matrix: (soil/water)	SOIL	Lab Sample II	D: 951205FS
Sample wt/vol:		Lab File II	D: <u>FL94.D</u>
Level: (low/med)	LOW	Date Receive	d:
% Moisture: not dec.	0	Date Analyze	d: 12/5/95
GC Column: CAP	ID: <u>0.53</u>	(mm) Dilution Facto	or: <u>1.0</u>
Soil Extract Volume:	1 (uL)	Soil Aliquot Volum	e: 1 (uL)

#### Concentration Unite-

CAS No.	Concentration Units: Compound (ug/L or ug/Kg) ug/Kg							
			0					
74-87-3	Chloromethane	10	U					
74-83-9	Bromomethane	10	U					
75-01-4	Vinyl Chloride	10	U					
75-00-3	Chloroethane	10	U					
75-09-2	Methylene Chloride	5	U					
107-13-1	Acrylonitrile	100	U					
107-2-8	Acrolein	100	U					
75-69-4	Trichlorofluoromethane	5	U					
75-35-4	1,1-Dichloroethene	5	U					
75-34-4	1,1-Dichloroethane	5	U					
156-60-5	trans-1,2-Dichloroethene	5	U					
67-66-3	Chloroform	5	U					
107-06-2	1,2-Dichloroethane	5	U					
71-55-6	1,1,1-Trichloroethane	5	U					
56-23-5	Carbon Tetrachloride	5	U					
75-27-4	Bromodichloromethane	5	U					
78-87-5	1,2-Dichloropropane	5	U					
10061-01-5	cis-1,3-Dichloropropene	5	U					
79-01-6	Trichloroethene	5	U					
71-43-2	Benzene	5	U					
124-48-1	Dibromochloromethane	5	U					
10061-02-6	trans-1,3-Dichloropropene	5	U					
79-00-5	1,1,2-Trichloroethane	5	U					
110-75-8	2-Chloroethylvinylether	10	U					
75-25-2	Bromoform	5	U					
127-18-4	Tetrachloroethene	5	U					
79-34-5	1,1,2,2-Tetrachloroethane	5	U					
108-88-3	Toluene	5	U					
108-90-7	Chlorobenzene	5	U					
100-41-4	Ethylbenzene	5	U					
108-38-3	m + p-Xylene	5	U					
95-47-6	o-Xylene	5	U					
541-73-1	1,3-Dichlorobenzene	5	U					

SAMPLE NO.

b Name: AENI		Contract: 9512015	VBLK01
roject No.: OHM45	Site:	Location:	Group:
atrix: (soil/water)	SOIL	Lab Sample	ID: <u>951205FS</u>
ample wt/vol:		G Lab File	ID: <u>FL94.D</u>
wel: (low/med)	LOW	Date Receive	ed:
Moisture: not dec.	0	Date Analyz	ed: 12/5/95
C Column: CAP	ID:0	0.53 (mm) Dilution Fact	or: <u>1.0</u>
oil Extract Volume:	1 (uL)	Soil Aliquot Volum	ne:1 (uL
	•	Concentration Units:	
CAS No.	Compound	(ug/L or ug/Kg) ug/Kg	a
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	. 5	U
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TCL BNA Analysis

# SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: AENI			Contract: 9512015	
Project No.:	OHM45	Site:	Location:	Group:
Level: (low/m	ned) LOW			

	SAMPLE NO.	S1 (2FP) #	S2 (PHL) #	S3 (NBZ) #	S4 (FBP)	S5 (TBP)	S6 (TPH) #	# OU
01	SBLK01	79	86	79	89	81	84	
02	SBLK01MS	70	69	69	77	59	74	11
03	SB2527BC	70	67	69	64	46	67	
14	SB2527NEC	70	68	64	70	47	69	
15	SB2527NWC	44	63	64	73	70	76	
16	SB2527SEC	60	90	92	102	113	107	
17	SB2527DUPC	64	95	90	102	116	106	
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19								
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3			131					
4								
5					W. 1			
6								-
7								
8		1						
9							0.7	
0								
1								
2								
23								
4								
5								
6								
27								
8		100						
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	QC LIMIT:
S1 (2FP) - 2-Fluorophenol	(25-121)
S2 (PHL) - Phenol-d5	(24-113)
S3 (NBZ) - Nitrobenzane-d5	(23-120)
S4 (FBP) - 2-Fluorobiphenyl	(30-115)
S5 (TBP) = 2,4,6-Tribromophenal	(19-122)
S6 (TPH) - Terphenyl-d14	(18-137)

# Column to be used to flag recovery values

<sup>\*</sup> Values outside of contract required QC limits

D Surrogate diluted out

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### SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:	Name: AENI		Contract: 9512015		
Project No.:	OHM45	Site:	Location:	Group:	
Matrix Snike	. Samola No ·	951205RR	Level- (low/med) LOW		

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC. #	QC. LIMITS REC.
Phenol	6700	0	4500	67	(26-90)
2-Chlorophenoi	6700	0	4300	64	(25-102)
1,4-Dichlorobenzene	3300	0	2300	70	(28-104)
N-Nitroso-di-n-propylamine	3300	0	2400	73	(41-126)
1,2,4-Trichlorobenzene	3300	0	2500	76	(38-107)
4-Chloro-3-methylphenol	6700	0	5100	76	(26-103)
Acenaphthene	3300	0	2500	76	(31-137)
2,4-Dinitrotoluene	3300	0	2300	70	(28-89)
4-Nitrophenol	6700	0	4700	70	(11-114)
Pantachlorophenol	6700	-0	3200	48	(17-109)
Pyrene	3300	0	2300	70	(35-142)

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC L	IMITS
Phenol	-	i egingi			35	(26-90)
2-Chlorophenol					50	(25-102)
1,4-Dichlorobenzene					27	(28-104)
N-Nitroso-di-n-propylamine			-		38	(41-126)
1,2,4-Trichlorobenzene					23	(38-107)
4-Chloro-3-methylphenol			1/400001		33	(26-103)
Acenaphthene					19	(31-137)
2,4-Dinitrotoluene					47	(28-89)
4-Nitrophenol					50	(11-114)
Pentachlorophenol					47	(17-109)
Pyrene					36	(35-142)

Value	e nu	teida	of	nr	limits	

mments:			

### SEMIVOLATILE METHOD BLANK SUMMARY

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SAMPLE NO.

ab Name:	AENI			Contract:	9512015		SBLKOT	
Project No.:	OHM4	5	Site:		Location:		Group:	
ab File ID:	DL047	ם				Lab Sample ID:	951205RB	
nstrument IC	):	MSD 1/MSD 2				Date Extracted:	12/5/95	
Matrix: (soil/	water)	SOIL				Date Analyzed:	12/6/95	
.svel: (low/m	ed)	LOW		njer.		Time Analyzed:	1611	

### THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
SBLK01MS	951205BS	DL048.D	12/06/95
SB2527BC	#001	DL052.D	12/06/95
SB2527NEC	#002	DL053.D	12/06/95
SB2527NWC	#003	CL049.D	12/08/95
SB2527SEC	#004	CL050.D	12/08/95
SB2527DUPC	#005	CL051.D	12/08/95
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COMMENTS:			
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SAMPLE NO.

SB2527EC

Lab Name:	AENI			Contract:	9512015	<b>582927</b> EC
Project No.:	OHM45		Site:	Location:		Group:
Matrix: (soil/v	water)	SOIL			Lab Sample ID:	#001
Sample wt/vol	: <u> </u>	31.1	(g/mL) G		Lab File ID:	DL052.D
Level: (low/	med)	LOW			Date Received:	12/4/95
% Moisture:	12		decanted: (Y/N)	:N	Date Extracted:	12/5/95
Concentrated	Extract Volume:		_1000_(uL)		Date Analyzed:	12/6/95
Injection Volum	me:	1.0	(uL)		Dilution Factor:	1.0
GPC Cleanup:	(Y/N)	N	_ pH	:		

#### Concentration Units:

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	a
111-44-4	bis(2-Chloroethyl)ether	370	U
108-95-2	Phenol	370	U
95-57-8	2-Chlorophenol	370	U
541-73-1	1,3-Dichlorobenzene	370	U
106-46-7	1,4-Dichlorobenzene	370	U
95-50-1	1,2-Dichlorobenzene	370	U
108-60-1	bis(2-chloroisopropyl)ether	370	U
95-48-7	2-Methylphenol	370	U
67-72-1	Hexachloroethane	370	U
621-64-7	N-Nitroso-di-n-propylamine	370	U
106-44-5	4-Methylphenol	370	U
98-95-3	Nitrobenzene	370	U
78-59-1	Isophorone	370	U
88-75-5	2-Nitrophenol	370	U
105-67-9	2,4-Dimethylphenol	370	U
111-91-1	bis(2-Chloroethoxy)methane	370	U
120-83-2	2,4-Dichlorophenol	370	U
120-82-1	1,2,4-Trichlorobenzene	370	U
91-20-3	Naphthalene	89	J
106-47-8	4-Chloroaniline	370	U
87-68-3	Hexachlorobutadiene	370	U
59-50-7	4-Chloro-3-methylphenol	370	U
91-57-6	2-Methylnaphthalene	660	
77-47-4	Hexachlorocyclopentadiene	370	U
88-06-2	2,4,6-Trichlorophenol	370	U
95-95-4	2,4,5-Trichlorophenol	910	U
91-58-7	2-Chloronaphthalene	370	U
88-74-4	2-Nitroaniline	910	U
208-96-8	Acenaphthylene	370	U
131-11-3	Dimethylphthalate	370	U
606-20-2	2,6-Dinitrotoluene	370	U
83-32-9	Acenaphthene	97	J
99-09-2	3-Nitroaniline	910	U

SAMPLE NO.

Lab Name:	AENI			Contract:	9512015	\$ <b>9252</b> 760
Project No.:	0HM45		Site:	Location:		Group:
Matrix: (soil/	water)	SOIL			Lab Sample ID:	#001
Sample wt/vo	l:	31.1	(g/mL) G		Lab File ID:	DL052.D
Level: (low)	(med)	LOW			Date Received:	12/4/95
% Moisture:	12		decanted: (Y/N):	N	Date Extracted:	12/5/95
Concentrated	Extract Volu	me:	1000 (uL)		Date Analyzed:	12/6/95
Injection Volu	me:	1.0	_(uL)		Dilution Factor:	1.0
GPC Cleanup:	(Y/N)	N	pH:			

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Pana	antratia	n Units:
Lunc	anu auv	n umis:

121-14-2 100-02-7	2,4-Dinitrophenol Dibenzofuran	910	U
132-64-9 121-14-2 100-02-7 86-73-7	Dibenzofuran	20	100
100-02-7		59	J
	2,4-Dinitrotoluene	170	J
86-73-7	4-Nitrophenol	910	1 0
00.70.7	Fluorene	150	J
7005-72-3	4-Chlorophenyl-phenylether	370	U
84-66-2	Diethylphthalate	370	U
100-01-6	4-Nitroaniline	910	U
534-52-1	4,6-Dinitro-2-methylphenol	910	U
86-30-6	n-Nitrosodiphenylamine	370	U
101-55-3	4-Bromophenyl-phenylether	370	U
118-74-1	Hexachlorobenzene	370	U
87-86-5	Pentachlorophenol	910	U
85-01-8	Phenanthrene	320	J
120-12-7	Anthracene	370	U
84-74-2	Di-n-butylphthalate	370	U
86-74-8	Carbazole	370	U
206-44-0	Fluoranthene	370	U
129-00-0	Pyrene	370	U
85-68-7	Butylbenzylphthalate	370	U
91-94-1	3,3'-Dichlorobenzidine	370	U
56-55-3	Benzo(a)anthracene	370	U
218-01-9	Chrysene	370	U
117-81-7	bis(2-Ethylhexyl)phthalate	47	J
117-84-0	Di-n-octylphthalate	370	U
205-99-2	Benzo[b]fluoranthene	370	U
207-08-9	Benzo(k)fluoranthene	370	U
50-32-8	Benzo(a)pyrene	370	U
193-39-5	Indeno[1,2,3-cd]pyrene	370	U
53-70-3	Dibenz(a,h)anthracene	370	U
191-24-2	Benzo(g,h,i)perylene	370	U

SAMPLE NO.

SE2527131 C

Lab Name:	AENI			Contract:	9512015	OBE SETTLE
Project No.:	OHM45		Site:	Location:		Growh:
Matrix: (soil)	water)	SOIL			Lab Sample ID:	#002
Sample wt/vo	ol;	30.7	(g)mL) G		Lab File ID:	DL053.D
Level: (low	/med)	LOW	2		Date Received:	12/4/95
% Moisture:	12		decanted: (Y/N):	N	Date Extracted:	12/5/95
Concentrated	Extract Volu	me:	1000 (uL)		Date Analyzed:	12/6/95
Injection Volu	me:	1.0	_(uL)		Dilution Factor:	1.0
CPC Cleanus	- CVINI	N	all.			

#### Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg)ug/Kg	0
111-44-4	bis(2-Chloroethyl)ether	370	U
108-95-2	Phenol	370	U
95-57-8	2-Chlorophenol	370	U
541-73-1	1,3-Dichlorobenzene	370	U
106-46-7	1,4-Dichlorobenzene	370	U
95-50-1	1,2-Dichlorobenzene	370	U
108-60-1	bis(2-chloroisopropyl)ether	370	U
95-48-7	2-Methylphenol	370	U
67-72-1	· Hexachlorosthane	370	U
621-64-7	N-Nitroso-di-n-propylamine	370	U
106-44-5	4-Methylphenol	370	U
98-95-3	Nitrobenzene	370	U
78-59-1	tsophorone	370	U
88-75-5	2-Nitrophenol	370	U
105-67-9	2,4-Dimethylphenol	370	U
111-91-1	bis(2-Chloroethoxy)methane	370	U
120-83-2	2,4-Dichlorophenol	370	U
120-82-1	1,2,4-Trichlorobenzene	370	U
91-20-3	Naphthalene	370	U
106-47-8	4-Chloroaniline	370	U
87-68-3	Hexachlorobutadiene	370	U
59-50-7	4-Chloro-3-methylphenol	370	U
91-57-6	2-Methylnaphthalene	370	U
77-47-4	Hexachlorocyclopentadiene	370	U
88-06-2	2,4,6-Trichlorophenol	370	U
95-95-4	2,4,5-Trichlorophenol	920	U
91-58-7	2-Chloronaphthalene	370	U
88-74-4	2-Nitroaniline	920	U
208-96-8	Acenaphthylene	370	U
131-11-3	Dimethylphthalate	370	U
606-20-2	2,6-Dinitrotoluene	370	U
83-32-9	Acenaphthene	370	U
99-09-2	3-Nitroaniline	920	U

# $\begin{array}{c} \textbf{1B} & \overset{\mathfrak{R}_{0}}{\longleftrightarrow} \\ \textbf{SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET} \end{array}$

SAMPLE NO.

SB25271CEC	

ab Nan	ne: AENI		Contract: 9512015	SB2V27KEG
Project I	No.: OHM45	Site:	Location:	Group:
Matrix:	(soil/water)	SOIL	Lab S	ample ID: #002
Sample	wt/vol:	30.7 (g/mL) G	U	ab File ID: DL053.D
.avel:	(low/med)	LOW	Date	Received: 12/4/95
% Moist	ure: 12	decanted: (Y/N)	:N Date F	extracted: 12/5/95
Concent	rated Extract Vo	lume: <u>1000</u> (uL)	Date	Analyzed: 12/6/95
njection	Volume:	1.0(uL)	Dilutio	on Factor: 1.0
GPC Cle	anup: (Y/N)	NpH	l:	
	CAS No.	Compound	Concentration Units: (ug/L or ug/Kg)	ng/Kg Q
	**************************************	110.00	No transfer to the second	
	51-28-5	2,4-Dinitrophenol	920	U
00	132-64-9	Dibenzofuran	370	U
	121-14-2	2,4-Dinitrotoluene	370	U
	100-02-7	4-Nitrophenol	920	U
	86-73-7	Fluorene	370	U
	7005-72-3	4-Chlorophenyl-phenylether	370	U
	84-66-2	Diethylphthalate	370	U
	100-01-6	4-Nitroaniline	920	U
	534-52-1	4,6-Dinitro-2-methylphenol	920	U
	86-30-6	n-Nitrosodiphenylamine	370	U
	101-55-3	4-Bromophenyl-phenylether	370	U
	118-74-1	Hexachlorobenzene	370	U
	87-86-5	Pentachlorophenol	920	U
	85-01-8	Phenanthrene	370	U
	120-12-7	Anthracene	370	U
	84-74-2	Di-n-butylphthalate	370	U
	86-74-8	Carbazole	370	U
	206-44-0	Fluoranthene	370	U
	129-00-0	Pyrene	370	U
	85-68-7	Butyibenzyiphthalate	370	U
	91-94-1	3,3'-Dichlorobenzidine	370	U
	56-55-3	Benzo[a]anthracene	370	U
	218-01-9	Chrysene	370	U
	117-81-7	bis(2-Ethylhexyl)phthalate	40	J
	117-84-0	Di-n-octylphthalate	370	U
	205-99-2	Benzo(b)fluoranthene	370	U
	207-08-9	Benzo[k]fluoranthene	370	U
	50-32-8	Benzo[a]pyrene	370	U
				u
	193-39-5	Indeno[1,2,3-cd]pyrene	370	The state of the s
	53-70-3	Dibenz[a,h]anthracene	370	U
	191-24-2	Benzo(g,h,i)perylene	370	U

# 1B SEMIVOI ATHE ORGANICS ANALYSIS DATA SUEET

MARIA

SAMPLE NO.

Lab Name:	AENI	91	EMITOLATILE UNDA		12015	SB2527RVVC	
Project No.:	0HM45	_	Site:	Location:		Group:	
Matrix: (soi	l/water)	SOIL	444		Lab Sample ID:	<b>/</b> 003	
Sample with	rol:	30.2	(g/mL) G		Lab File ID:	CL049.D	
Level: (lov	w/med)	LOW			Date Received:	12/4/95	
% Moisture:	12	_	decanted: (Y)	N): N	Date Extracted:	12/5/95	
Concentrate	d Extract Vo	lume:	1000 (uL)		Date Analyzed:	12/8/95	
Injection Vol	lume:	1.0	(uL)		Dilution Factor:	1.0	
GPC Cleanu	p: (Y/N)	N		pH:			
				Concentration	on Units:		
C	AS No.	Compound		(ug/L or ug/Kg)	ug/Kg	0	
11	11-44-4	bis(2-Chlore	oethyl)ether		380	U	
10	08-95-2	Phenol			380	U	
9	5-57-8	2-Chloroph	enol		380	U	
54	41-73-1	1,3-Dichlor	obenzene		. 380	U	
10	06-46-7	1,4-Dichlor	obenzene		380	U	
9!	5-50-1	1,2-Dichlor	obenzene	11 6	380	U	

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	а
111-44-4	bis(2-Chloroethyl)ether	380	T U
108-95-2	Phenoi	380	U
95-57-8	2-Chlorophenol	380	U
541-73-1	1,3-Dichlorobenzene	380	U
106-46-7	1,4-Dichlorobenzene	380	U
95-50-1	1,2-Dichlorobenzene	380	U
108-60-1	bis(2-chloroisopropyl)ether	380	U
95-48-7	2-Methylphenol	380	U
67-72-1	Hexachloroethane	380	U
621-64-7	N-Nitroso-di-n-propylamine	380	U
106-44-5	4-Methylphenol	380	U
98-95-3	Nitrobenzene	380	U
78-59-1	Isophorone	380	U
88-75-5	2-Nitrophenol	380	U
105-67-9	2,4-Dimethylphenol	380	U
111-91-1	bis(2-Chloroethoxy)methane	380	U
120-83-2	2,4-Dichlorophenol	380	U
120-82-1	1,2,4-Trichlorobenzene	380	U
91-20-3	Naphthalene	380	U
106-47-8	4-Chloroaniline	380	U
87-68-3	Hexachlorobutadiene	380	U
59-50-7	4-Chloro-3-methylphenol	380	U
91-57-6	2-Methylnaphthalene	380	U
77-47-4	Hexachlorocyclopentadiene	380	U
88-06-2	2,4,6-Trichlorophenol	380	U
95-95-4	2,4,5-Trichlorophenol	940	U
91-58-7	2-Chloronaphthalene	380	U
88-74-4	2-Nitroaniline	940	U
208-96-8	Acenaphthylene	380	U
131-11-3	Dimethylphthalate	380	U
606-20-2	2,6-Dinitrotoluene	380	U
83-32-9	Acenaphthene	380	U
99-09-2	3-Nitroaniline	940	U

SAMPLE NO.

					SB2527NWC
Lab Name	: AENI		Contract: 95	12015	
Project No	0. OHM45	Site:	Location:		Group:
Matrix: (s	soil/water)	SOIL		Lab Sample ID:	F003
Sample w	t/vol:	30.2 (g/mL) G		Lab File ID: 1	CL049.D
Level: (	low/med)	LOW		Date Received:	12/4/95
% Moistu	re: 12	decanted: (Y/A	V):N	Date Extracted:	12/5/95
Concentra	ated Extract Vo	lume: 1000 (uL)		Date Analyzed:	12/8/95
Injection \	/olume:	1.0 (uL)		Dilution Factor:	1.0
GPC Clear	nup: (Y/N)	N pi	Н:	St. St. St.	
			Concentration	n Units:	
	CAS No.	Compound	(ug/L or ug/Kg)	ug/Kg	a
	51-28-5	2,4-Dinitrophenol		940	U
	132-64-9	Dibenzofuran		380	U
- 1	121-14-2	2,4-Dinitrotoluene	18	380	U
- 1	100-02-7	4-Nitrophenol		940	U
- 1	86-73-7	Fluorene		380	U
	7005-72-3	4-Chlorophenyl-phenylether		380	U
- 1	84-66-2	Diethylphthalate		380	U
1	100-01-6	4-Nitroaniline		940	U
- 1	534-52-1	4,6-Dinitro-2-methylphenol		940	U
- 1	86-30-6	n-Nitrosodiphenylamine		380	U
	101-55-3	4-Bromophenyl-phenylether		380	U
	118-74-1	Hexachlorobenzene		380	U
	87-86-5	Pentachiorophenol		940	U
	85-01-8	Phenanthrene		380	U
	120-12-7	Anthracene		380	U
	84-74-2	Di-n-butylphthalate		380	U
	86-74-8	Carbazole		380	U
	206-44-0	Fluoranthene		380	U
1	129-00-0	Pyrene		380	U
	85-68-7	Butylbenzylphthalate		380	U
	91-94-1	3,3'-Dichlorobenzidine		380	U
	56-55-3	Benzo(a)anthracene		380	U
	218-01-9	Chrysene		380	U
	117-81-7	bis(2-Ethylhexyl)phthalate		53	J
	117-84-0	Di-n-octylphthalate		380	U
	205-99-2	Benzo[b]fluoranthene		380	U
	207-08-9	Benzo(k)fluoranthene		380	U
	50-32-8	Benzo(a)pyrene		380	U
	193-39-5	Indeno[1,2,3-cd]pyrene		380	U
	53.70.3	Dihenzia hianthracene		380	n i

191-24-2

Benzo[g,h,i]perylene

U

380

HAT THE ME

SAMPLE NO.
SB2527SEC

Lab Name:	AENI		Contract: 9	9512015	SB2527SEC
Project No	.: OHM45	Site:	Location:		Group:
Matrix: (s	oil/water)	SOIL	-	Lab Sample ID:	<b>1</b> 004
Sample w	t/vol:	30.7 (g/mL) G		Lab File ID:	CL050.D
Level: (1	ow/med)	LOW		Date Received:	12/4/95
% Moistur	re: <u>13</u>	decanted: (Y/N):	N_	Date Extracted:	12/5/95
Concentra	ted Extract Vol	ume: 1000 (uL)		Date Analyzed:	12/8/95
Injection V	/olume:	1.0 (uL)		Dilution Factor:	1.0
GPC Clean	nup: (Y/N)	N pH:			
	CAS No.			ntion Units: ug/Kg	a
	111-44-4	bis(2-Chieroethyl)ether		370	U
	108-95-2	Phenol		370	U
	95-57-8	2-Chlorophenol	1	370	U
	541-73-1	1,3-Dichlorobenzene		370	U
	106-46-7	1,4-Dichlorobenzene		370	U.
	95-50-1	1,2-Dichlorobenzene		370	U
	108-60-1	bis(2-chloroisopropyl)ether		370	U
	95-48-7	2-Methylphenol		370	U
	67-72-1	Hexachloroethane		370	U
	621-64-7	N-Nitroso-di-n-propylamine		370	U
	106-44-5	4-Methylphenol		370	U
	98-95-3	Nitrobenzene		370	U
	78-59-1	Isophorone		370	U
	88-75-5	2-Nitrophenol		370	U
	105-67-9	2,4-Dimethylphenol		370	U
	111-91-1	bis(2-Chloroethoxy)methane		370	U
	120-83-2 120-82-1	2,4-Dichlorophenol 1,2,4-Trichlorobenzene	-	370 370	U
	91-20-3	Naphthalene	_	370	U
	106-47-8	4-Chloroaniline		370	U
	87-68-3	Hexachlorobutadiene	_	370	U
	59-50-7	4-Chloro-3-methylphenol		370	Ü
	91-57-6	2-Methylnaphthalene		370	U
	77-47-4	Hexachlorocyclopentadiene		370	U
,	88-06-2	2,4,6-Trichlorophenol		370	U
	95-95-4	2,4,5-Trichlorophenol		940	U
	91-58-7	2-Chloronaphthalene		370	U
	88-74-4	2-Nitroaniline		940	U
	208-96-8	Acenaphthylene		370	U
	131-11-3	Dimethylphthalate		370	U
	606-20-2	2,6-Dinitrotoluene		370	U

83-32-9

99-09-2

Acenaphthene

3-Nitroaniline

370

940

U

SAMPLE RO.

SB2527SEC

Lab Name:	AENI	Contract:	9512015
			_

Site: Project No.: OHM45 Location: Group:

SOIL Matrix: (soil/water) Lab Sample ID: #004

Sample wt/vol: 30.7 (g/mL) G Lab File ID: CL050.D

LOW Level: (low/med) Date Received: 12/4/95

% Moistura: 13 Date Extracted: decanted: (Y/N): 12/5/95

**Concentrated Extract Volume:** 1000 (uL) Date Analyzed: 12/8/95

Injection Volume: 1.0 (uL) **Dilution Factor:** 1.0

GPC Cleanup: (Y/N) N ph:

#### Concentration Units:

CAS No.	Compound	(ug/L or ug/Kg) ug/Kg	a
51-28-5	2,4-Dinitrophenol	940	U
132-64-9	Dibenzofuran	370	U
121-14-2	2,4-Dinitrotoluene	370	U
100-02-7	4-Nitrophenol	940	U
86-73-7	Fluorene	370	U
7005-72-3	4-Chlorophenyl-phenylether	370	U
84-66-2	Diethylphthalate	370	U
100-01-6	4-Nitroaniline	940	U
534-52-1	4,6-Dinitro-2-methylphenol	940	U
86-30-6	n-Nitrosodiphenylamine	370	U
101-55-3	4-Bromophenyl-phenylether	370	U
118-74-1	Hexachlorobenzene	370	U
87-86-5	Pentachlorophenol	940	U
85-01-8	Phenanthrene	370	U
120-12-7	Anthracene	370	U
84-74-2	Di-n-butylphthalate	370	U
86-74-8	Carbazole	370	U
206-44-0	Fluoranthene	370	U
129-00-0	Pyrene	370	U
85-68-7	Butylbenzylphthalate	370	U
91-94-1	3,3'-Dichlorobenzidine	370	U
56-55-3	Benzo(a)anthracene	370	U
218-01-9	Chrysene	370	U
117-81-7	bis(2-Ethylhexyl)phthalate	370	U
117-84-0	Di-n-octylphthalate	370	U
205-99-2	Benzo(b)fluoranthene	370	U
207-08-9	Benzo[k]fluoranthene	370	U
50-32-8	Benzo[a]pyrene	370	U
193-39-5	Indeno[1,2,3-cd]pyrene	370	U
53-70-3	Dibenz(a,h)anthracene	370	U
191-24-2	Benzo(g,h,i)perylene	370	U

SAMPLE NO.

Lab Name: AENI	DO STATE	Contract: 9512015	SB2527DUFC
Project No.: OHM45	Site:	Location:	Group:
Matrix: (soil/water)	SOIL	Lab Sample ID:	<b>#005</b>
Sample wt/vol:	30.2 (g/mL) G	Lab File ID:	CL051.D
Level: (low/med)	LOW	Date Received:	12/4/95
% Moisture: 32	decanted: (Y/	N): N Date Extracted:	12/5/95
Concentrated Extract Vo	olume: <u>1000</u> (uL)	Date Analyzed:	12/8/95
Injection Volume:	1.0(uL)	Dilution Factor:	1.0
GPC Cleanup: (Y/N)	N p	oH:	
CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	a
111-44-4	bis(2-Chloroethyl)ether	490	U
108-95-2	Phenol	490	U
95-57-8	2-Chlorophenol	490	U
541-73-1	1,3-Dichlorobenzene	490	U
106-46-7	1,4-Dichlorobenzene	490	U
95-50-1	1,2-Dichlorobenzene	490	U
108-60-1	bis(2-chloroisopropyl)ether	490	U
95-48-7	2-Methylphenol	490	U
67-72-1	Hexachloroethane	490	U
621-64-7	N-Nitroso-di-n-propylamine	490	U
106-44-5	4-Methylphenol	490	U
98-95-3	Nitrobenzene	490	U
78-59-1	Isophorone	490	U
88-75-5	2-Nitrophenol	490	U
105-67-9	2,4-Dimethylphenol	490	U
111-91-1	bis(2-Chloroethoxy)methane	490	U
120-83-2	2,4-Dichlorophenol	490	U
120-82-1	1,2,4-Trichlorobenzene	490	U
91-20-3	Naphthalene	490	U
106-47-8	4-Chloroaniline	490	U
87-68-3	Hexachlorobutadiene	490	U
59-50-7	4-Chloro-3-methylphenol	490	U
91-57-6	2-Methylnaphthalene	490	U
77-47-4	Hexachlorocyclopentadiene	490	U
88-06-2	2,4,6-Trichlorophenol	490	U
95-95-4	2,4,5-Trichlorophenol	1200	U
91-58-7	2-Chloronaphthalene	490	U
88-74-4	2-Nitroaniline	1200	0
208-96-8	Acenaphthylene	490	U
131-11-3	Dimethylphthalate	490	U
606-20-2	2,6-Dinitrotoluene	490	U

83-32-9

99-09-2

Acenaphthene

3-Nitroaniline

490

1200

# 1B SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Sample Ro.

Lab Name: AEI	VI.	Contract: 9512015	582527DUPC
Project No.: OH	M45 Site:	Location:	Group:
Matrix: (soil/wate	r) SOIL	Lab Sample ID:	<b>/</b> 005
Sample wt/vol:	30.2 (g/mL) G	Lab File ID:	CL051.D
Level: (low/med	LOW	Date Received:	12/4/95
% Moisture:	32 decanted: (1	(IN): N Date Extracted:	12/5/95
Concentrated Extr	act Volume: 1000 (uL)	Date Analyzed:	12/8/95
Injection Volums:	(uL)	Dilution Factor:	1.0
GPC Cleanup: (Y/N	NN	pH:	
		Concentration Units:	
CAS No	Compound	(ug/L or ug/Kg) ug/Kg	0
51-28-5	2,4-Dinitrophenol	1200	U
132-64	9 Dibenzofuran	490	U
121-14-	2 2,4-Dinitrotoluene	490	U
100-02-	7 4-Nitrophenol	1200	U
86-73-7	Fluorene	490	U
7005-72	2-3 4-Chlorophenyl-phenylether	490	U
84-66-2	Diethylphthalate	490	U
100-01-	6 4-Nitroaniline	1200	U
534-52-	1 4,6-Dinitro-2-methylphenol	1200	U
86-30-6	n-Nitrosodiphanylamine	490	U
101-55-	3 4-Bromophenyl-phenylether	490	U
118-74-	1 Hexachlorobenzene	490	U
87-86-5	Pentachlorophenol	1200	U
85-01-8	Phenanthrana	490	U
120-12-	7 Anthracene	490	U
84-74-2	Di-n-butylphthalate	490	U
86-74-8	Carbazole	490	U
206-44-	O Fluoranthene	490	U
129-00-	O Pyrene	490	U
85-68-7	Butylbenzylphthalate	490	U
91-94-1	3,3'-Dichlorobenzidina	490	U
56-55-3	Benzo(a)anthracene	490	U
218-01-	9 Chrysene	490	U
117-81-	7 bis(2-Ethylhexyl)phthalate	150	J
117-84-	O Di-n-octylphthalate	490	U
205-99-	2 Benzo(b)fluoranthene	490	U
207-08-	9 Benzo(k)fluoranthene	490	U
50-32-8	Benzo[a]pyrene	490	U
193-39-	5 Indeno[1,2,3-cd]pyrene	490	U
53-70-3	Dibenz(a,h)anthracene	490	U

191-24-2

Benzo[g,h,i]perylene

490

U

#### 18 SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

4 8 3 35%

Hexachlorobutadiene

2-Methylnaphthalene

2,4,6-Trichlorophenol

2,4,5-Trichlorophenol

2-Chloronaphthalene

2-Nitroaniline

Acenaphthylene

Dimethylphthalate

2,6-Dinitrotoluene

Acenaphthene

3-Nitroaniline

4-Chloro-3-methylphenoi

Hexachlorocyclopentadiene

SAMPLE NO.

Lab Name:	AENI			_ Contract:	9512015	SBLKO1
Project No.:	OHM45		Site:	Location:		Group:
Matrix: (soil/v	vater)	SOIL			Lab Sample ID:	951205RB
		***				7.0 6.00
Sample wt/vol	:	30.0	g/mL) 6	4.0	Lab File ID:	ULU47.U
Level: (low/	med)	LOW			Date Received:	
% Moisture:	0		decanted: (Y	7N): N	Date Extracted:	12/5/95
Concentrated	Extract Vol	ume:	1000 (uL)		Date Analyzed:	12/6/95
Injection Volum	ne:	1.0	uL)		Dilution Factor:	1.0
GPC Cleanup:	(Y/N)	N		pH:		
					ration Units:	
CAS	No.	Compound		(ug/L or ug/Kg		a
22.23	44-4	bis(2-Chloroet	thyllether	1-9/9/9	330	u 1
	-95-2	Phenoi	пуровы	_	330	U
95-5		2-Chlorophen	nl		330	Ü
-	-73-1	1,3-Dichlorob			330	U
	-46-7	1,4-Dichlorob			330	U.
95-5		1,2-Dichlorob		7	330	U
	-60-1	bis(2-chlorois			330	U
95-4		2-Methylphen		1101	330	U
67-7		Hexachloroet			330	U
	-64-7	N-Nitroso-di-n	-propylamine		330	U
	44-5	4-Methylphen		1 72	330	U
98-9		Nitrobenzene			330	U
78-5		Isophorone			330	U
88-7	75-5	2-Nitrophenol	ò.		330	U
	-67-9	2,4-Dimethyl			330	U
1	-91-1		thoxy)methane		330	U
	-83-2	2,4-Dichlorop			330	U
	-82-1	1,2,4-Trichlo			330	U
	20-3	Naphthalene			330	U
	47-8	4-Chloroanilir	10		330	U

87-68-3

59-50-7

91-57-6

77-47-4

88-06-2

95-95-4

91-58-7

88-74-4

208-96-8

131-11-3

606-20-2

83-32-9

99-09-2

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# 1B SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE HO.

lame: AENI		Contract: 9512015	SBLKO
ct No.: OHM45	Site:	Location:	Group:
ix: (soil/water)	SOIL	Lab Sa	mple ID: 951205RB
ile wt/vol:	30.0 (g/mL) G		File ID: DL047.D
: (low/med)	LOW		eceived:
pisture: 0	decanted: (Y/N):		tracted: 12/5/95
entrated Extract Vo			nalyzad: 12/6/95
tion Volume:	(uL)		Factor: 1.0
Cleanup: (Y/N)	N pH:		
		<b>Concentration Units:</b>	
CAS No.	Compound	ug/L or ug/Kg) ug	/Kg a
51-28-5	2,4-Dinitrophenol	830	U
132-64-9	Dibenzofuran	330	U
121-14-2	2,4-Dinitrotoluena	330	U
100-02-7	4-Nitrophenol	. 830	U
86-73-7	Fluorene	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
84-66-2	Diethylphthalate	330	U
100-01-6	4-Nitroaniline	830	U
534-52-1	4,6-Dinitro-2-methylphenol	830	U
86-30-6	n-Nitrosodiphenylamine	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	830	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
84-74-2	Di-n-butylphthalate	330	U
86-74-8	Carbazole	330	U
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	330	U
56-55-3	Benzo[a]anthracene	330	U
218-01-9	Chrysene	330	U
117-81-7	bis(2-Ethylhexyl)phthalate	330	U
117-84-0	Di-n-octylphthalate	330	U
205-99-2	Benzo[b]fluoranthene	330	U
207-08-9	Benzo[k]fluoranthene	330	U
50-32-8	Benzo[a]pyrene	330	U
193-39-5	Indeno[1,2,3-cd]pyrene	330	U
53-70-3	Dibenz(a,h)anthracene	330	U
191-24-2	Benzo(g,h,i)perylene	330	U

9151 Rumsey Road Suite 150, Columbia, MD 21045-1992 (410) 730-8525 Fax (410) 997-2586

10% 王明前2

Report Number:

9512015

Report To:

OHM Corporation

Project:

Ft. Devens

Date:

December 12, 1995

Analysis:

Total Petroleum Hydrocarbons, EPA 418.1M

Client ID	AENI ID	Date Sampled	Date Received
SB2527BC	9512015-001	12/01/95	12/04/95
SB2527NEC	9512015-002	12/01/95	12/04/95
SB2527NWC	9512015-003	12/01/95	12/04/95
SB2527SEC	9512015-004	12/01/95	12/04/95
SB2527DUPC	9512015-005	12/01/95	12/04/95

Five soil samples were received and analyzed for Total Petroleum Hydrocarbons. The samples were extracted on 12/04/95 and analyzed on 12/05/95.

All quality control met standard laboratory criteria.

This report consists specifically of tabulated sample results.

Report Released By:

Rhonda Green-Barron

General Chemistry Laboratory Manager

9151 Rumsey Road Suite 150, Columbia, MD 21045-1992 (410) 730-8525 Fax (410) 997-2586

Report Number:

9512015

Report To:

OHM Corporation

Project:

Ft. Devens

Date:

December 12, 1995

Analysis:

Total Petroleum Hydrocarbons, EPA 418.1M

Client ID	AENI ID	%Solids	Result, mg/Kg
SB2527BC	9512015-001	87.7	110
SB2527NEC	9512015-002	87.7	<17
SB2527NWC	9512015-003	87.8	<18
SB2527SEC	9512015-004	86.6	<18
SB2527DUPC	9512015-005	68.4	<23
	Method Blank	100	<15

<sup>(1)</sup> Results reported on a dry weight basis.

## Appendix D

AENI Analytical Report - Waste Characterization Samples

November 9, 1955

Client: OHM CORPORATION

Case: 9510310

Project: FORT DEVENS

Analysis: TCLP Pesticides by SW-846 Method 8080

Client ID	AENI#	Date Sampled	Date Received	Date Extracted	Date Analyzed
EX2527DP1	9510310-013	10/27/95	10/30/95	11/06/95	11/09/95
EX2527DP2	9510310-014	10/27/95	10/30/95	11/06/95	11/09/95
EX2527DP3	9510310-015	10/27/95	10/30/95	11/06/95	11/09/95
EX2527DP4	9510310-016	10/27/95	10/30/95	11/06/95	11/09/95
EX2527DP5	9510310-017	10/27/95	10/30/95	11/06/95	11/09/95
EX2527DP-DUP	9510310-018	10/27/95	10/30/95	11/06/95	11/09/95

Six soil samples were leached in accordance with 40 CFR 261, Appendix II. The leachates were analyzed for pesticides by SW-846 method 8080.

The enclosed package consists specifically of tabulated results (Form I), surrogate spike recoveries (Form II), and matrix spike recoveries (Form III).

#### Form I (Tabulated Results)

The qualifier "U" indicates that a compound was analyzed for but not detected above the reporting limit. The samples were prepared and analyzed within method specified holding time.

#### Form II (Surrogate Spike Recoveries)

Nineteen out of thirty-six surrogate recoveries were within EPA CLP advisory limits (60-150%). The other seventeen recoveries were below criteria. The moderate nature of the failures coupled with acceptable blank spike recovery indicates no problem with the sample preparation process.

#### Form III (Matrix Spike Recoveries)

A blank spike (BS) was extracted with this sample set. All BS recoveries were within specified criteria (see Form III).

Data Released By

GC/LC Acting Lab Manager

## Organic Analysis Data Sheet

#### TCLP PESTICIDES

9510310 Case No.:-Semple Rumber Account #:-- OHM45 D025270P1 - OHM CORPORATION Client Name:-AENI # 9510310-013 Concentration:-Date Sampled: 10/27/95 Date Received: 10/30/96 GPC Cleanup Date Ext Prepared:- 11/6/95 Seperatory Funnel Extraction Continuous Liquid - Liquid Extration Date Analyzed: 11/9/95 Conc/DN Factor:--- 1 Percent Moisture NA

Matric:

LEACH

Method: ---- 8080

CAS Number	Compound	Concentration ug/L	Detection Limit	Qualifier
58-89-9	gamma-BHC (Lindane)		0.20	U
75-44-8	Heptachior		0.10	U
1024-57-3	Heptachlor epoxide		0.10	U
72-20-8	Endrin		0.20	U
72-43-5	Methoxychlor		1.0	U
5103-71-9	alpha-Chlordane		0.10	U
5103-74-2	gamma-Chlordane		0.10	U
8001-35-2	Toxaphene		10	U

### Organic Analysis Deta Sheet

#### TCLP PESTICIDES

Case No.: 9510310		Sample Rumber	
Account #: OHM45		EX2527DP2	
Client Name: OHM CORPORATION			
		AENI # 9510310-0	14
Concentration: Low			
Date Sampled: 10/27/95		200	
Date Received: 10/30/95	GPC Cleanup	Yes	X No
Date Ext Prepared: 11/6/95	Seperatory Fu	nnel Extraction	X Yes
Date Analyzed: 11/9/95	Continuous Li	quid - Liquid Extration	Yes
Conc/Dil Factor:—— 1	Percent Moist	ure N/A	
44 4 4 4	44.44.0	1=1011	

CAS Number	Compound	Concentration ug/L	Detection Limit	Qualifier
58-89-9	gamma-BHC (Lindane)		0.20	υ
75-44-8	Heptachior		0.10	U
1024-57-3	Heptachlor epoxide		0.10	U
72-20-8	Endrin		0.20	U
72-43-5	Methoxychlor		1.0	U
5103-71-9	alpha-Chlordane		0.10	U
5103-74-2	gamma-Chlordane		0.10	U
8001-35-2	Toxaphene		10	U

VI - Volume of extract injected (ul)	1
Vs - Volume of Water extracted (ml)	500
Ws - Weight of sample extracted (g) -	N/A
Vt - Volume of total extract (ul) -	10,000

## Organic Analysis Data Sheet TCLP PESTICIDES

Case No.:	9510310		Semple Kumber		
Account #:	OHM45		EX2527DP3		
Client Name:	OHM CORPORATION				
•			AENI # 9510310-0	15	
Concentration:	Low				
Date Sampled:	10/27/96		100.00		
Date Received:	10/30/95	GPC Cleanup	Yes	×	No
Date Ext Prepared:-	11/6/95	Seperatory Funnel	Extraction	x	Yes
Date Analyzed:	11/9/95	 Continuous Liquid	- Liquid Extration	-	Yes
Conc/Dil Factor:	1	Percent Moisture	NA		
Method:	8080	Matric	LEACH		

CAS Number	Compound	Concentration ug/L	Detection Limit	Qualifler
58-89-9	gamma-BHC (Lindane)		0.20	U
75-44-8	Heptachlor		0.10	U
1024-57-3	Heptachlor epoxide		0.10	U
72-20-8	Endrin		0.20	U
72-43-5	Methoxychlor		1.0	U
5103-71-9	alpha-Chlordane		0.10	U
5103-74-2	gamma-Chlordane		0.10	υ
8001-35-2	Toxaphene		10	U

VI - Volume of extract injected (ul)	1
Vs - Volume of Water extracted (ml) -	500
Ws - Weight of sample extracted (g)	N/A
Vt - Volume of total extract (uf) -	10.000

## Organic Analysis Data Sheet TCLP PESTICIDES

				-
Case No.: 9510310			Sample Humber	
Account #: OHM45			D02527DP4	
Client Name: OHM CORPORATION			*	
		*	AENI # 9510310-0	16
Concentration: Low				*
Date Sampled:—— 10/27/95				
Date Received: 10/30/95		GPC Cleanup	Yee	X No
Date Ext Prepared:— 11/6/95		Seperatory Funnel I	Extraction	X Yes
Date Analyzed: 11/9/95		Continuous Liquid	Liquid Extration	Yes
Conc/ il Factor 1	-	Percent Moisture	NA	
Method: 8080		Matric	LEACH	

CAS Number	Compound	Concentration ug/L	Detection Limit	Qualifier
58-89-9	gamma-BHC (Lindane)		0.20	U
75-44-8	Heptachlor		0.10	U
1024-57-3	Heptachlor epoxide		0.10	U
72-20-8	Endrin		0.20	U
72-43-5	Methoxychlor		1.0	U
5103-71-9	alpha-Chiordane		0.10	U
5103-74-2	gamma-Chlordane		0.10	U
8001-35-2	Toxaphene		10	U

VI - Volume of extract injected (ul)	1
Vs - Volume of Water extracted (ml)	500
Ws - Weight of sample extracted (g)	NA
Vt - Volume of total extract (ul) -	10,000

## Organio Analysis Data Sheet

#### TCLP PESTICIDES

Case No.:	9510310		8	lemple literation		
Account #:	OHM45			E02527DP5		
Client Name:	OHM CORPORATION		-			
	*			AENI # 9510310-01	17	
Concentration:-	Low					
Date Sampled:	10/27/95					
Date Received:	10/30/95		GPC Cleanup	Yes	×	No
Date Ext Prepared:-	11/6/95		Seperatory Funnel E	odraction	×	Yee
Date Analyzed:	11/9/95	1.0	Continuous Liquid -	Liquid Extration	1	Yee
Conc/Dil Factor:	1		Percent Moisture	N/A		
Method:	8080		Matrix:	LEACH		

CAS Number	Compound	Concentration ug/L	Detection Limit	Qualifier
58-89-9	gamme-BHC (Lindane)		0.20	U
75-44-8	Heptachlor		0.10	U
1024-57-3	Heptachlor epoxide		0.10	U
72-20-8	Endrin		0.20	U
72-43-5	Methoxychlor		1.0	U
5103-71-9	alpha-Chlordane		0.10	U
5103-74-2	gamma-Chlordane		0.10	U
8001-35-2	Toxaphene		10	U

VI - Volume of extract injected (ui)	1
Vs - Volume of Water extracted (mil)	500
Ws - Weight of sample extracted (g)	N/A
Vt - Volume of total extract (ul) -	10,000

## Organic Analysis Data Sheet TCLP PESTICIDES

		-	
Case No.: 9510310	8	emple Rember	
Account #: OHM45		02527DI-DUP	
Client Name: OHM CORPORATION			
		AENI # 9510310-0	18
Concentration:—— Low			
Date Sampled: 10/27/95			
Date Received: 10/30/95	GPC Cleanup	Yee	X No
Date Ext Prepared:— 11/6/95	Seperatory Funnel E	xtraction	X Yes
Date Analyzed:—— 11/9/95	Continuous Liquid -	Liquid Extration	Yes
Conc/Dil Factor:—— 1	Percent Moisture	NA	
Methods 9000	A.P. andrews	LEACH	

Compound	Concentration ug/L	Detection Limit	Qualifier
gamme-BHC (Lindane)		0.20	U
Heptachlor		0.10	U
Heptachlor epoxide		0.10	U
Endrin		0.20	U
Methoxychlor		1.0	U
alpha-Chlordane		0.10	U
gamma-Chlordane		0.10	υ
Toxaphene		10	U
	gamma-BHC (Lindane)  Heptachlor Heptachlor epoxide  Endrin Methoxychlor alpha-Chlordane gamma-Chlordane	ug/L  gamma-BHC (Lindane)  Heptachlor  Heptachlor epoxide  Endrin  Methoxychlor  alpha-Chlordane  gamma-Chlordane	ug/L Limit  gamma-BHC (Lindane) 0.20  Heptachlor 0.10  Heptachlor epoxide 0.10  Endrin 0.20  Methoxychlor 1.0  alpha-Chlordane 0.10  gamma-Chlordane 0.10

VI - Volume of extract injected (ul) -	1
Vs - Volume of Water extracted (mil) -	500
Wa - Weight of sample extracted (g)	NA
Vt - Volume of total extract (ul) -	10,000

## Organic Analysis Data Shoot

#### TCLP PESTICIDES

Case No.: 9510310	Sample Number	
Account #: OHM45	PBLX01	
Client Name: OHM CORPORATION		
	AENI # BLK9511	OSPIB
Concentration:—— Low		
Date Sampled:—— N/A		
Date Received:—— N/A	GPC Cleanup Yes	X No
Date Ext Prepared:— 11/6/95	Seperatory Funnel Extraction	X Yes
Date Analyzed: 11/8/95	Continuous Liquid - Liquid Extration	Yes
Conc/Dil Factor:—— 1	Percent Moisture N	A
Method: 8080	Metric LEAC	н

CAS Number	Compound	Concentration ug/L	Detection Limit	Qualifier
58-89-9	gamma-BHC (Lindane)		0.10	U
75-44-8	Heptachlor		0.050	U
1024-57-3	Heptachior epoxide		0.060	U
72-20-8	Endrin		0.10	U
72-43-5	Methoxychlor		0.50	U
5103-71-9	alpha-Chlordane		0.050	U
5103-74-2	gamma-Chlordane		0.050	U
8001-35-2	Toxaphene		5.0	U

Vi - Volume of extract injected (ui)	1
Ve - Volume of Water extracted (ml)	1000
Ws - Weight of sample extracted (g) -	N/A
Vt - Volume of total extract (uh -	10,000

## Organio Analysis Data Sheet

#### TCLP PESTICIDES

		CAPTAIN TO THE PARTY OF THE PAR	
Case No.: 9510310	Sec.	mple Rusiber	
Account #: CHM45		TBLX01	
Client Name: — OHM CORPORATION			
		VENI # TCLPBUG	51106PB
Concentration: Low			
Date Sampled: N/A		2.4	V-Y
Date Received:—— N/A	GPC Cleanup	Yes	X No
Date Ext Prepared: 11/6/95	Separatory Funnel Ex	traction	X Yee
Date Analyzed: 11/9/95	Continuous Liquid - Li	iquid Extration	Yes
Conc/Dil Fector:—— 1	Percent Moisture	N/A	

Matrb:

LEACH

- 8080

Method:

CAS Number	Compound	Concentration ug/L	Detection Limit	Qualifier
58-89-9	gamma-BHC (Lindane)		0.20	U
75-44-8	Heptachlor		0.10	U
1024-57-3	Heptachior epoxide		0.10	U
72-20-8	Endrin		0.20	U
72-43-5	Methoxychlor		1.0	U
5103-71-9	alpha-Chlordane		0.10	U
5103-74-2	gamma-Chlordane		0.10	U
8001-35-2	Toxaphene		10	U

Vi - Volume of extract injected (ut)	1
Vs - Volume of Water extracted (mil)	500
Ws - Weight of sample extracted (g)	NA
Vt - Volume of total extract (ul) -	10,000

## Organic Analysis Data Sheet

#### TCLP PESTICIDES

Case No.: 9510310	Sample Number	
Account #: OHM45	88	
Client Name: OHM CORPORATION		
	AEN # TCLP	BS951106RB
Concentration: Low		
Date Sampled: N/A		3.5
Date Received: N/A	GPC Cleanup Yes	X No
Date Ext Prepared:— 11/6/95	Seperatory Funnel Extraction	X Yes
Date Analyzed: 11/9/95	Continuous Liquid - Liquid Extratio	n Yes
Conc/Dil Factor:—— 1	Percent Moisture	N/A
Method: 8080	Matric: LE	ACH

CAS Number	Compound	Concentration ug/L	Detection Limit	Qualifier
58-89-9	gamma-BHC (Lindane)	0.24	0.20	
75-44-8	Heptachlor	0.24	0.10	
1024-57-3	Heptachlor epoxide		0.10	U
72-20-8	Endrin	0.81	0.20	
72-43-5	Methanychlor		1.0	U
5103-71-9	alpha-Chlordane		0.10	U
5103-74-2	gamma-Chlordane		0.10	U
8001-35-2	Toxaphene		10	U

Vi - Volume of extract injected (ul)	1
Vs - Volume of Water extracted (mil) -	500
Ws - Weight of sample extracted (g)	N/A
Vt - Volume of total extract (uf) -	10,000

## WATER PESTICIDE SURROGATE RECOVERY

Lab Name: American Environmental Network, Inc. Lab Code: NA Case No.:

Instrument 10:

Contract: 8510310 BAS No.: NA

GC-F DB-5

6080

D: 0.53 mm GC Column(2):

GC Column(1): Dates of Analyses:

11/8/95 11/9/95

DB 608 D: 0.53 mm

Method:

%REC		TCMX 2 % REC		DCS 1 %REC	0	DCB 2 %REC	1	TOTAL
107	Т	95	П	76	Т	67	П	0
74	Т	91	Г	71	Т	56	1-1	1
58	10	89		57	1.	41	1.1	3
77	T	85	Г	64		55	1-1	1
38	•	43	•	55	1.	46	1-1	4
53	1.	86		62	T	48	1.	2
40	•	45	•	66		60	П	2
31	•	55	۰	38	10	28	1-1	4
72	I	67	L	73	Ţ	67	П	0
					‡			
	+		+		+			
	107 74 58 77 38 53 40 31 72	107 74 58 ° 77 38 ° 53 ° 40 ° 31 ° 72	107 96 74 91 58 9 69 77 82 38 9 43 53 9 86 40 9 45 31 9 55 72 67	107 95 74 91 58 ° 69 77 82 38 ° 43 ° 53 ° 86 40 ° 45 ° 55 ° 72 67	107 96 76  74 91 71  58 90 57  77 82 64  38 43 55  53 86 62  40 45 66  31 55 73  72 67 73	107 95 76  74 91 71  58 90 57 9  77 82 64  38 43 55 6  53 86 62  40 45 66  31 55 73  72 67 73	107 95 76 67  74 91 71 56  58 90 57 941  77 82 64 55  38 43 55 946  53 66 62 48  40 45 66 60  31 55 9 38 9 28  72 67 73 67	107 96 75 67  74 91 71 56 °  58 ° 69 57 ° 41 °  77 82 64 55 °  38 ° 43 ° 55 ° 46 °  53 ° 86 62 48 °  40 ° 45 ° 66 60  31 ° 55 ° 38 ° 28 °  72 67 73 67

ADVISORY OC LIMITS

TCMX= Tetrachioro-m-xylene

(60-150)

DCB= Decachlorobiphenyl

(60-150)

- COLUMN TO BE USED TO FLAG RECOVERY VALUES
  - VALUES OUTSIDE OF QC LIMITS
- SURROGATE DILUTED OUT D

FORM I PEST-1

page 1 of 1

## WATER BLANK SPIKE RECOVERY

NA

Lab Name: American Environmental Network, Inc.

Contract: \$810510

Lab Code: NA

Case No.:

TCLP8S951106RB

SAS No.:

Matrix Spike - EPA Sample No.: Method:

8080

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	BS CONCENTRATION (ug/L)	BS % REC	QC LIMITS REC.
gamma-BHC (Lindane)	0.40	0.0	0.24	60	56 - 123
Heptachlor	0.40	0.0	0.24	60	40 - 131
Aldrin	0.40	0.0	0.28	70	40 - 120
Dieldrin	1.0	0.0	0.75	75	52 - 128
Endrin	1.0	0.0	0.81	81	56 - 121
4,4'-DOT	1.0	0.0	0.70	70	38 - 127

# Column to be used to flag recovery values with an asterisk

Spike Recovery: 0 out of 6 outside limite.

FORM IN PEST-1

<sup>\*</sup> Values outside of QC limits

November 11, 1995

Client: OHM CORPORATION

Case: 9510310

Project: FORT DEVENS

Analysis: TCLP Herbicides by Method 8150

Client ID	AENI#	Date Sampled	Date Received	Date Extracted	Date Analyzed
EX2527DP1	9510310-013	10/27/95	10/30/95	11/08/95	11/10/95
EX2527DP2	9510310-014	10/27/95	10/30/95	11/08/95	11/10/95
EX2527DP3	9510310-015	10/27/95	10/30/95	11/08/95	11/10/95
EX2527DP4	9510310-016	10/27/95	10/30/95	11/08/95	11/10/95
EX2527DP5	9510310-017	10/27/95	10/30/95	11/08/95	11/10/95
EX2527DP-DUP	9510310-018	10/27/95	10/30/95	11/08/95	11/10/95

Six soil samples were leached according to 40 CFR 261, Appendix II. The leachates were analyzed for 2,4-D and Silvex using SW-846 Method 8150.

The enclosed package consists specifically of tabulated results (Form I), surrogate spike recoveries (Form II), and matrix spike recoveries (Form III).

#### Form I (Tabulated Results)

The qualifier "U" indicates that a compound was analyzed for but not detected above the reporting limit. The samples were prepared and analyzed within method specified holding time.

#### Form II (Surrogate Spike Recoveries)

All surrogate recoveries were within specified criteria (50-150%).

#### Form III (Matrix Spike Recoveries)

A blank spike (BS) was prepared with this sample delivery group. BS recoveries were within laboratory criteria.

Data Released By

Noble Nemieboka GC/LC Acting Lab Manager

Case No.:	9510310	Sample Number EX2527DP1	
Client Name:	OHM CORPORATION		
Project Name:	OHM46	AENI # 9510310-013	
Concentration:	Low	GPC Cleanup	No
Date Sampled:	10/27/95	Separatory Funnel Ext.:	Yes
Date Received:	10/30/95	Continuous Liq-Liq Ext.:	No
Date Edract Prepared:	11/8/95	Percent Moisture (decanted)	NA
Date Analyzed:	11/10/95		
Conc/Dil Factor:	1		
Madde	LEACH		

Compound	Concentration ug/L	Reporting Limit	Qualifier
2,4 D		0.50	U
SILVEX	*	0.50	U

 VI - Volume of extract injected (ut)\_\_\_\_\_1
 1

 Vs - Volume of water extracted (mi)\_\_\_\_\_\_500
 500

 Ws - Mass of soil extracted (g)\_\_\_\_\_\_\_ N/A
 Vt- Volume of total extract (ut)\_\_\_\_\_\_\_ 5000

Case No.:	9510310	Sample Number EX2527DP2	
Client Name:	OHM CORPORATION		
Project Name:	OHM45	AENI # 9510310-014	
Concentration:	Low	GPC Cleanup I	No
Date Sampled:	10/27/95	Separatory Funnel Ext.:	Y00
Date Received:	10/30/96	Continuous Liq-Liq Ext.:	No
Date Extract Prepared:	11/6/95	Percent Moleture (decanted)_	NA
Date Analyzed:	11/10/96		
Conc/Dil Factor:	1		
Matrix	LEACH		

Compound	Concentration ug/L	Reporting Limit	Qualifier
2,4 D		0.50	U
SILVEX	*	0.50	U -

VI - Volume of extract injected (ul)	1
Vs - Volume of water extracted (ml)_	_
Ws - Mass of soil extracted (g)	NA
Vt- Volume of total extract (uf)	5000

FORM!

Case No.:	9510310	EX2527DP3	
Client Name:	OHM CORPORATION		
Project Name:	CHM46	AENI # 9510310-015	
Concentration:	Low	GPC Cleanup	No
Date Sampled:	10/27/96	Separatory Funnel Ext.:	Yes
Date Received:	10/30/95	Continuous Liq-Liq Ext.:	No
Date Extract Prepared:	11/8/95	Percent Moisture (decanted)_	NA
Dete Analyzed:	11/10/95	200000000000000000000000000000000000000	
Conc/Dil Factor:	1		
Bankin	ICACU		

Compound	Concentration ug/L	Reporting Limit	Qualifier
2,4 D		0.50	U
SILVEX		. 0.50	U

 VI - Volume of extract injected (ul)\_\_\_\_1

 Ve - Volume of water extracted (ml)\_\_\_\_500

 We - Mass of soil extracted (g)\_\_\_\_\_\_ N/A

 VI- Volume of total extract (ul)\_\_\_\_\_\_ 5000

Case No.:	9510310	Sample Number EX2527DP4	
Client Name:	OHM CORPORATION	11-11-11-11-11-11-11-11-11-11-11-11-11-	
Project Name:	OHM45	AENI # 9510310-016	
Concentration:	Low	GPC Cleanup	No
Date Sampled:	10/27/95	Separatory Funnel Ext.:	Yes
Date Received:	10/30/95	Continuous Liq-Liq Ext.:	No
Date Extract Prepared:	11/6/95	Percent Moisture (decanted)_	NA
Dete Analyzed:	11/10/95		
Cong/Dil Factor:	_1		
Matrix	LEACH		

Compound	Concentration ug/L	Reporting Limit	Qualifier
2,4 D		0.50	U
SILVEX -		0.50	U

Vi - Volume of extract injected (ul) \_\_\_ 1
Vs - Volume of water extracted (ml) \_\_ 500
Ws - Mass of soil extracted (g) \_\_\_\_ N/A
Vt- Volume of total extract (ul) \_\_\_\_ 5000

FORM!

Case No.:	9510310	Sample Number EX2527DP5	
Client Name:	OHM CORPORATION		
Project Name:	OHM45	AENI # 9510310-017	
Concentration:	Low	GPC Cleanup No	0
Date Sampled:	10/27/95	Separatory Funnel Ext.: Ye	10
Date Received:	10/30/96	Continuous Liq-Liq Ext.: No	0
Date Extract Prepared:	11/8/95	Percent Moisture (decanted) N	A
Date Analyzed:	11/10/95		
Conc/Dil Factor:	1		
Matrix	LEACH		

Compound	Concentration ug/L	Reporting Limit	Qualifier
2,4 0		0.50	U
SILVEX		0.50	U

VI - Volume of extract injected (ul) 1
Vs - Volume of water extracted (ml) 500
Ws - Mass of soil extracted (g) N/A
Vt- Volume of total extract (ul) 5000

Case No.:	9510310	Sample Number EX2527DP-DUP	
Client Name:	OHM CORPORATION		
Project Name:	OHM45	AENI # 9510310-018	
Concentration:	Low	GPC Cleanup N	0
Date Sampled:	10/27/96	Separatory Funnel Ext.: Y	100
Date Received:	10/30/95	Continuous Liq-Liq Ext.: N	0
Date Extract Prepared:	11/8/95	Percent Moisture (decanted) N	/A
Date Analyzed:	11/10/95	The second secon	
Conc/Dil Factor:	1		
Matrix	LEACH		

Compound	Concentration ug/L	Reporting Limit.	Qualifier
2,4 D		0.50	U
SILVEX		0.50	U

VI - Volume of extract injected (ul) 1
Vs - Volume of water extracted (ml) 500
Ws - Mass of soil extracted (g) N/A
Vt- Volume of total extract (ul) 5000

Case No.:	9610310	Sample Number SBLI01	
Client Name:	OHM CORPORATION		
Project Name:	OHM45	AENI # BLK961108JA	
Concentration:	Low	GPC Cleanup	No
Date Sampled:	NA	Separatory Funnel Ext.:	Yes
Date Received:	NA	Continuous Liq-Liq Ext.:	No
Date Extract Prepared:	11/0/95	Percent Moisture (decarted)_	NA
Date Analyzed:	11/10/96		
Conc/Dil Factor:	1		
Metrix	WATER		

Compound	Concentration ug/L	Reporting Limit	Qualifier
2,4 D		0.25	U
SILVEX		0.25	U

VI - Volume of extract injected (ul)\_\_\_\_ 1
Vs - Volume of water extracted (ml)\_\_\_ 1000
Ws - Mass of soil extracted (g)\_\_\_\_ N/A
VI- Volume of total extract (ul)\_\_\_\_ 5000

Case No.:	9510310	Sample Number TBLK01
Client Name:	OHM CORPORATION	
Project Name:	OHM45	AENI # TCLPBLK961108JA
Concentration:	Low	GPC Cleanup No
Date Sampled:	N/A	Separatory Funnel Ext.: Ye
Date Received:	NA	Continuoue Liq-Liq Ext.: N
Date Extract Prepared:	11/8/95	Percent Moisture (decanted) N
Date Analyzed:	11/10/95	
Conc/Dil Factor:	1	
Matrix	LEACH	

Compound	Concentration ug/L	Reporting Limit	Qualifier
2,40		0.50	U
SILVEX		0.50	U -

VI - Volume of extract injected (ul) 1
Vs - Volume of water extracted (ml) 500
Ws - Mass of soil extracted (g) N/A
Vt- Volume of total extract (ul) 5000

Case No.:	9510310	Sample Number BS
Client Name:	OHM CORPORATION OHM45	AENI # TCLPBS951108JA
Concentration:	Low	GPC Cleanup No
Date Sampled:	NA	Separatory Funnel Ext.: Yes
Date Received:	N/A	Continuous Liq-Liq Ext.: No
Date Extract Prepared:	11/8/95	Percent Moleture (decanted) N/A
Date Analyzed:	11/10/96	
Conc/Dil Factor:	1	
Matrix	LEACH	

Compound	Concentration ug/L	Reporting Limit	Qualifier
2,40	4.0	0.25	
SILVEX	3.6	- 0.25	

 VI - Volume of extract injected (ui)\_\_\_\_\_1

 Ve - Volume of water extracted (ml)\_\_\_\_\_1000

 We - Mass of soil extracted (g)\_\_\_\_\_\_\_ N/A

 Vt- Volume of total extract (ui)\_\_\_\_\_\_\_ 5000

#### WATER SURROGATE PERCENT RECOVERY SUMMARY

Laboratory Name: American Environmental Network Inc.

Client ID	AEN ID	DCAA DB-5	DCAA D8-608 72 94	
SBUKOI	BLK951106JA	53		
TBLICOI	TCLPBLK961108JA	102		
88	TCLP8S951108JA	98	117	
D02527DP1	9510310-013	86	103	
D025270P2	9510310-014	89	96	
EX2527DP3	9510310-015	90	91	
D02527DP4	9510310-016	99	95	
EC2527DP5	9510310-017	86	100	
EX2527DP-DUP	9510310-018	125	99	
	+			

* - Values are outside	of contract required QC limits.
M-Matrix interference.	D-Surrogate diluted out.

18

# AMERICAN ENVIRONMENTAL NETWORK, INC. HERBICIDE MATRIX SPIKE RECOVERIES

Case No.:

9510310

Client Sample ID: TCLPBS951106JA

Client Name:

OHM CORPORATION

Date of Analysis:

11/10/95

Project Name:

OHM45

Instrument ID:

GC-H

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	BS CONC (ug/L)	BS % REC	BSD CONC (ug/L)	BSD % REC	QC LIMITS REC
2,4-0	5.03	0.0	4.04	80	N/A	N/A	50-150
Silvex	5.29	0.0	3.62	68	NA	N/A	50-150

Spike Recovery:

0 out of 2

outside QC limits.

9151 Rumsey Road Suite 150, Columbia, MD 21045-1992 (410) 730-8525 Fax (410) 997-2586

November 8, 1995

Client:

OHM Corporation

Project: Ft. Devens

Case:

9510310

Analysis: RCRA Metals, TCLP Metals

Client ID	AENI ID	Date Sampled	Date Received	Date <u>Analyzed</u>
EX2527DP1	9510310-001	10/27/95	10/30/95	11/01,06/95
EX2527DP2	9510310-003	10/27/95	10/30/95	11/01,06/95
EX2527DP3	9510310-005	10/27/95	10/30/95	11/01,06/95
EX2527DP4	9510310-007	10/27/95	10/30/95	11/01,06/95
EX2527DP5	9510310-009	10/27/95	10/30/95	11/01,06/95
EX2527DP-DUP	9510310-011	10/27/95	10/30/95	11/01,06/95
EX2527DP1	9510310-013	10/27/95	10/30/95	11/03/95
EX2527DP2	9510310-014	10/27/95	10/30/95	11/03/95
EX2527DP3	9510310-015	10/27/95	10/30/95	11/03/95
EX2527DP4	9510310-016	10/27/95	10/30/95	11/03/95
EX2527DP5	9510310-017	10/27/95	10/30/95	11/03/95
EX2527DP-DUP	9510310-018	10/27/95	10/30/95	11/03/95

Six soil samples were received and analyzed for RCRA Metals per SW846 methodology. Results are reported in units of mg/Kg dry Six soil samples were received and analyzed for TCLP Metals per SW846 methodology. Results are reported in units of ug/L in the leachate.

All QC data were within normal control limits. This report consists specifically of tabulated sample and QC results.

Report Released By

Christopher Baggett

Metals Laboratory Manager

#### AMERICAN ENVIRONMENTAL NETWORK OF MARYLAND METALS DATA ANALYSIS

CLIENT:

OHM Corporation

DATE: 07-Nov-95

ARNI ID #:	9510310-00	01				
SAMPLE ID #:	EX2527DP1	* SOLIDS:	91.1		UNITS: mg/kg DRY WEIGHT	
**********	*********	************	***********	**********	**********	*******
	ANALYTE	METHOD	REPORTING	SAMPLE		
		ř.	LINIT	RESULT		
	ARSENIC	6010	1.1	14		
	BARIUM	6010	22	27		
	CADMIUM	6010	0.44	< 0.44		
	CADMION	6010	0.44	C 0.44		
	CHRONIUN	6010	1.1	. 17		
	LEAD	6010	1.1	9.1		
					1.2	
	MERCURY	7471	0.1	0.13		
	SELENIUM	6010	0.55	< 0.55		
	SILVER	6010	1.1	< 1.1		

#### AMERICAN ENVIRONMENTAL NETWORK OF MARYLAND HETALS DATA ANALYSIS

CLIENT:

OHM Corporation

DATE: 07-Nov-95

ABNI ID #:

9510310-003

SAMPLE ID #:	EX2527DP2	• SOLIDS:	90.6	UNIT	3: mg/Kg DRY WEIGHT
***********	AMALYTE	METHOD	REPORTING LIMIT	Sample Result	***************************************
	ARSENIC	6010	1.1	15	
	BARIUN	6010	22	25	1
	CADMIUM	6010	0.44	< 0.44	
	CHRONIUN	6010	1.1	16	
1.3	LEAD	6010	1.1	36	
F.	MERCURY	7471	0.1	< 0.1	٧
	SELENIUM	6010	0.55	< 0.55	
	SILVER	6010	1.1	< 1.1	

## AMERICAN ENVIRONMENTAL NETWORK OF HARYLAND METALS DATA ANALYSIS

CLIENT:

ARNI ID #:

OHM Corporation

9510310-005

SAMPLE ID #: EX2527DP3

\* SOLIDS: 89.7

DATE: 08-Nov-95

UNITS: mg/Kg DRY WEIGHT

	ANALYTE	METHOD	REPORTING	. 8	AMPLE	
			LINIT		ESULT	
	arsenic	6010	1.1		13	
1	BARIUM	6010	22		25	
	CADMIUN	6010	0.45	<	0.45	
	CHRONIUM	6010	1.1		16	
1	LEAD	6010	1.1	14)	10	
 1	MERCURY	7471	0.09	<	0.09	
	SRLENIUM	6010	0.56	<	0.56	
	SILVER	6010	1.1	<	1.1	

# AMERICAN ENVIRONMENTAL NETWORK OF MARYLAND METALS DATA ANALYSIS

91.4

CLIENT:

ONM Corporation

DATE: 08-Nov-95

ABNI ID #:

9510310-007

SAMPLE ID #: EX2527DP4 % SOLIDS:

UNITS: mg/Kg DRY WEIGHT

ANALYTE	HETHOD	REPORTING LINIT	RESULT			
 ARSENIC	6010	1.1	15			
BARIUN	6010	22	28			
CADNIUN	6010	0.44	< 0.44			
CHRONIUM	6010	1.1	15			
LEAD	6010	1.1	9.0			
MERCURY	7471	0.11	0.11			
SELENIUM	6010	0.55	< 0.55		4	
SILVER	6010	1.1	< 1.1	- 2		

#### AMERICAN ENVIRONMENTAL NETWORK OF MARYLAND METALS DATA ANALYSIS

OHM Corporation

DATE: 08-Nov-95

AMNI ID #:

9510310-009

SAMPLE ID #:	EX2527DP5	% SOLIDS:	90.2		UNITS:	mg/Kg DRY	WEIGHT	
	ANALITE	METHOD (4.2)	Peporting Limit	SAMPLI RESULT				
	ARSENIC	6010	1.1	15				
	BARIUM	6010	22	< 22				
	CADMIUM	6010	0.44	< 0.44				
	CHRONIUM	6010	1.1	11				
0.,	LEAD	6010	1.1	10	ì			4
,	MERCURY	7471	0.09	< 0.09			•.	
	SELENIUM	6010	0.55	< 0.5				
	SILVER	6010	1.1	< 1.:	in .			

# AMERICAN ENVIRONMENTAL NETWORK OF MARYLAND METALS DATA AMALYSIS

Endline Agent and a second and a second and a second and a second and a second and a second and a second and a

SOLIDS:

CLIENT:

OHM Corporation

DATE: 08-Nov-95

ABNI ID #:

9510310-011

SAMPLE ID #: EX2527DP-DOP

89.6

UNITS: mg/Kg DRY WEIGHT

ANALYTE	METHOD	REPORTING	S	ample	
		LINIT	R	esult	
ARSENIC	6010	1.1		12	
BARIUN	6010	22		23	
CADMIUM	6010	0.45	<	0.45	
CHRONIUN	6010	1.1		14	
LEAD	6010	1.1	-	10	
HERCURY	7471	0.06	<	0.06	
SELENIUM	6010	0.56	<	0.56	•
SILVER	6010	1.1	<	1.1	

# AMERICAN ENVIRONMENTAL METMORK OF MARYLAND METHOD BLANK / LCS & RECOVERY

CLIENT: OHM Corporation

DATE: 07-Nov-9

UNITS: mg/kg DRY WEIGHT

******	*********	*******	******	*******	************	**************
	ANALYTE	METHOD	≥ MI	THOO	* RECOVERY	4 **
			1 1	BLANK	LCS	
	ARSENIC	6010	<	1	88	
		C01.0		20	102	
	BARIUM	6010	<	20	102	
	CADMIUM	6010	<	0.4	96	
	CHRONIUM	6010	<	1	101	
	LEAD	6010	<	1	98	
				7 9		
	MERCURY	7471	<	0.1	105	
150		2				
	SELENIUM	6010	<	0.5	85	
	SILVER	6010	<	1	93	

#### AMERICAN ENVIRONMENTAL NETWORK OF MARYLAND

# HETALS DATA ANALYSIS

DUPLICATES -----

CLIENT:

OHM Corporation

DATE: 07-Nov-95

ARNI ID #:

9511017-001(ICP)/9510304-006(Hg)

SAMPLE ID #:

ARNI

UNITS: mg/Kg DRY WEIGHT

ANALYTE	results	DUPLICATE RESULTS	RPD	
 ARSENIC	2.4	3	NA	
BARIUN	57	62	NA	
CADMIUM	< 0.45	0.52	NA	
CHRONIUN	16	16	1	
LEAD	255	210	19	
 MERCURY	0.55	0.52	NA	
SELENIUM	< 0.56	< 0.56	NA	
SILVER	< 1.1	< 1.1	NA	

OC - PERCENT REPRODUCIBILITY EXCEEDS 20%

NA = NOT APPLICABLE BECAUSE SAMPLE OR DUPLICATE CONCENTRATION < 5 x REPORT LIMIT

# AMERICAN ENVIRONMENTAL NETWORK OF MARYLAND METALS DATA ANALYSIS SPIKED SAMPLE RECOVERY

.....

CLIENT:

OHM Corporation

9511017-001(ICP)/9510304-006(Hg)

DATE: 08-Nov-95

ABNI ID #: SAMPLE ID #:

ARNT

UNITS: mg/kg DRY WEIGHT

SWEETE ID #:	AMAIL .			Outra: mg/kg	DKI WELGHI
*********	***********	************	*************	***********	***********
	ANALYTE	SAMPLE	SPIKED	SPIKE	<b>PRECOVERY</b>
		RESULT	RESULTS	ADDED	
	ärsenic	2.4	11.35	11.02	81
	BARIUM	57	262.66	220.35	93
	CADMIUM	< 0.45	5.40	5.51	98
	CHRONIUM	16	33.60	22.03	79
	LEAD	255	250.32	55.09	NA
	MERCURY	0.55	1.57	1.12	92
	SELENIUM	< 0.56	8.37	11.02	76
	SILVER	< 1.1	9.70	11.16	87

NA = NOT APPLICABLE BECAUSE SAMPLE CONCENTRATION > 4 TIMES SPIKE LEVEL OC = OUT OF CONTROL LIMTS OF 75-125\*

#### AMERICAN ENVIRONMENTAL NETWORK OF MARYLAND METALS DATA ANALYSIS SPIKED SAMPLE RECOVERY

DATE:

08-Nov-95

CLIENT: OHN Corporation

AENI ID #: 9511017-001(ICP)/9510304-002(Hg)MSD

SAMPLE ID #: AENI UNITS: mg/kg DRY WEIGHT

	ANALYTE	Sample Result	SPIKED RESULTS	SPIKE ADDED	*RECOVERY
	ARSENIC	2.4	10.85	10.74	76
	BARIUM	57	262.21	214.84	96
	CADMIUM	< 0.45	5.16	5.37	96
	CHRONIUM	16	32.55	21.48	76
*	LEAD	255	233.31	53.71	NA .
	MERCURY	0.55	1.53	1.12	. 88
	SELENIUM	< 0.56	8.27	10.74	77
	SILVER	< . 1.1	9.45	11.16	85

NA = NOT APPLICABLE BECAUSE SAMPLE CONCENTRATION > 4 TIMES SPIKE LEVEL

OC - OUT OF CONTROL LIMTS OF 75-125%

CLIENT:

OHM Corporation

AENI SAMPLE #: 9510310-013

CLIENT SAMPLE #: EX2527DP1

DATE: 06-Nov-95

UNITS: ug/L in LEACHATE

****	****	****	****	*************	*****
	ANALYTE	METHOD	REPORT	SAMPLE	
			LIMIT	RESULT	
8-11-11-11-11					
	ARSENIC	6010	500	<500	
	-2-2-2-2-2-2	10.0	1000		
	BARIUM	6010	1,000	<1000	
	CADHIUM	6010	40	<40	
		••••			
	CHROMIUM	6010	100	<100	
		4040	400	400	
1 1	LEAD	6010	100	<100	
	MERCURY	7470	1	<1	
et .					
	SELENIUM	6010	250	<250	
	SILVER	6010	500	<500	

.......

CLIENT:

OHM Corporation

AENI SAMPLE #: 9510310-014

CLIENT SAMPLE #: EX2527DP2

DATE: 06-Nov-95

UNITS: Ug/L in LEACHATE

*******	*******	******	*********	***********	*******
	ANALYTE	METHOD	REPORT	SAMPLE	
			LIMIT	RESULT	
	ARSENIC	6010	500	<500	······································
	BARIUM	6010	1,000	<1000	
	CADHIUM	6010	40	<40	
	CHROMIUM	6010	100	<100	
	LEAD	6010	100	<100	
	MERCURY	7470	1	<1	-
	SELENIUM	6010	250	<250	
	SILVER	6010	500	<500	

------

CLIENT:

OHM Corporation

AENI SAMPLE #: 9510310-015

CLIENT SAMPLE #: EX2527DP3

DATE: 06-Nov-95

UNITS: ug/L in LEACHATE

	ANALYTE	METHOD	REPORT	SAMPLE	
			LIMIT	RESULT	
	ARSENIC	6010	500	<500	
ā	BARIUM	6010	1,000	<1000	
	CADHIUM	6010	40	<40	
	CHROMIUM	6010	100	<100	-
4	LEAD	6010	100	<100	
	MERCURY	7470	1	<1	
	SELENIUM	6010 -	250	<250	
	SILVER	6010	500	<500	

CLIENT:

OHM Corporation

AENI SAMPLE #: 9510310-016

CLIENT SAMPLE #: EX2527DP4

DATE: 06-Nov-95

UNITS: ug/L in LEACHATE

*******	********	*****	******	******************
	ANALYTE	METHOD	REPORT	SAMPLE
			LIMIT	RESULT
,		•••••		
	ARSENIC	6010	500	<500
	BARIUM	6010	1,000	<1000
	CADHIUN	6010	40	<40
	CHROMIUM	6010	100	<100
	LEAD	6010	100	, <100
	MERCURY	7470	1	∢1
	SELENIUM	6010	250	<250
	SILVER	6010 -	500	<500

CLIENT:

OHM Corporation

AENI SAMPLE #: 9510310-017 CLIENT SAMPLE #: EX2527DP5 DATE: 06-Nov-95

LE #: 9510310-017

UNITS: Ug/L in LEACHATE

*****	******	***	***	******	*******	******
	*** **	ANALYTE	METHOD	REPORT	SAMPLE	
				LIMIT	RESULT	
		ARSENIC	6010	500	<500	
		BARIUM	6010	1,000	<1000	
		CADMIUM	6010	40	<40	
		CHRONIUM	6010	100	<100	9
		LEAD	6010	100	<100	
		MERCURY	7470	1	<1	
•		SELENIUM	6010	250	<250	
		SILVER	6010	500	<500	

CLIENT:

OHM Corporation

DATE: 06-Nov-95

AENI SAMPLE #: 9510310-018

CLIENT SAMPLE #:	EX2527DP-DUP			UNITS: Ug/L in LEACHATE
***************************************	ANALYTE	METHOD	REPORT LIMIT	SAMPLE RESULT
	ARSENIC	6010	500	<500
	BARIUM	6010	1,000	<1000
	CADHIUN	6010	40	<40
*	CHRONIUM	6010	100	<100
	LEAD	6010	100	<100
1	MERCURY	7470	1	4
	- SELENIUM	6010	250	<250
	SILVER	6010	500	<500

#### AMERICAN ENVIRONMENTAL HETWORK OF MARYLAND METHOD BLANK AND TRECOVERY LCS

CLIENT:

OHM Corporation

DATE:

LIMIT	TS:	ug/L	TM	LEA	CHATE

			********	UNITS: Ug/L IN LEACHATE	
***************************************	ANALYTE	METHOD	METHOD BLANK	% RECOVERY LABORATORY CONTROL SAMPLE	
	ARSENIC	6010	<500	89	••
	BARIUM	6010	<1000	107	
	CADMIUM	6010	<40	95	
	CHRONIUM	6010	<100	101	
	LEAD	6010	<100	102	
	MERCURY	7470	<1.0	103	
	SELENIUM	6010	<250	93	
	SILVER	6010	<500	106	

# AMERICAN ENVIRONMENTAL NETWORK OF MARYLAND METALS DATA ANALYSIS

# MATRIX SPIKE / MATRIX SPIKE DUPLICATE RESULTS

CLIENT:

OHM Corporation

DATE: 06-Nov-95

AENI SAMPLE #:

:

9511020(ICP)/9511006(Hg)

CLIENT SAMPLE #: AENI

UNITS: Ug/L IN LEACHATE

****	****	********	****	*****	******	*****	*****
ANALYTE	SAMPLE	SPIKED	DUPLICATE	SPIKE	ZRECOVERY	XRECOVERY	RPD
	RESULT	SAMPLE	SPIKED	ADDED	SPIKE	DUPLICATE	MS/MSD
		RESULT	RESULTS			SPIKE	
ARSENIC	<500	2570	2600	2500	102	104	1.16
BARIUM	<1000	5060	5030	5000	101	101	0.59
CADHIUM	<40	521	549	500	104	110	5.23
CHROMIUM	<100	2520	2540	2500	101	102	0.79
LEAD	3980	9060	9360	5000	101	108	3.26
MERCURY	<1	2.12	2.07	2	106	104	2.39
SELENIUM	<250	1350	1380	1250	108	110	2.20
SILVER	<500	2460	2380	2500	98	95	3.31

NA = NOT APPLICABLE BECAUSE SAMPLE CONCENTRATION > 4 TIMES SPIKE LEVEL

PAGE UZ

#### AMERICAN ENVIRONMENTAL NETWORK INC.

9151 Rumsey Road Suite 150, Columbia, MD 21045-1992 (410) 730-5525 Fax (410) 997-2586

Report Number:

9510310

Report To:

OHM Corporation

Project:

Ft. Devens

Date:

November 09, 1995

Analysis:

General Chemistry Parameters

Client ID	AENI ID	Date Sampled	Date Received
EX2527DP1	9510310-001	10/27/95	10/30/95
EX2527DP2	9510310-003	10/27/95	10/30/95
EX2527DP3	9510310-005	10/27/95	10/30/95
EX2527DP4	9510310-007	10/27/95	10/30/95
EX2527DP5	9510310-009	10/27/95	10/30/95
EX2527DP-DUP	9510310-011	10/27/95	10/30/95

Six soil samples were received and analyzed for General Chemistry Parameters.

The samples were extracted for Total Petroleum Hydrocarbons on 11/03/95 and analyzed on 11/05/95.

All quality control met standard laboratory criteria.

This report consists specifically of tabulated sample results.

Report Released By:

Rhonda Green Barron

General Chemistry Laboratory Manager

9151 Rumsey Road Suite 150, Columbia, MD 21045-1992 (410) 730-8525 Fax (410) 997-2586

Report Number:

9510310

Report To:

OHM Corporation

Project:

Ft. Devens

Date:

November 09, 1995

Sample ID:

EX2527DP1, dated 10/27/95

Parameter	Method	Result	Date Analyzed
Corrosivity (as pH)	SW846 9045	7.2	11/08/95
Flashpoint, °F	SW846 1010	>203	11/07/95
Reactive Cyanide, mg/Kg	(1)	<2	11/08/95
Reactive Sulfide, mg/Kg	(2)	48	11/07/95
Total Petroleum Hydrocarbons, mg/Kg (3)	EPA 418.1M	92	11/05/95

<sup>(1)</sup> 

<sup>(2)</sup> 

SW846 Chapter 7.3.3 SW846 Chapter 7.3.4 Total Petroleum Hydrocarbon results reported as mg/Kg on a dry weight (3) basis.

9151 Rumsey Road Suite 150, Columbia, MD 21045-1992 (410) 730-8525 Fax (410) 997-2586

Report Number:

9510310

Report To:

OHM Corporation

Project:

Ft. Devens

Date:

November 09, 1995

Sample ID:

EX2527DP2, dated 10/27/95

Parameter	Method	Result	Date Analyzed
Corrosivity (as pH)	SW846 9045	6.4	11/08/95
Flashpoint, °F	SW846 1010	>203	11/07/95
Reactive Cyanide, mg/Kg	(1)	<2	11/08/95
Reactive Sulfide, mg/Kg	(2)	<40	11/07/95
Total Petroleum Hydrocarbons, mg/Kg (3)	EPA 418.1M	1100	11/05/95

<sup>(1)</sup> SW846 Chapter 7.3.3

<sup>(2)</sup> SW846 Chapter 7.3.4

<sup>(3)</sup> Total Petroleum Hydrocarbon results reported as mg/Kg on a dry weight basis.

9151 Rumsey Road Suite 150, Columbia, MD 21045-1992 (410) 730-8525 Fax (410) 997-2586

Report Number:

9510310

Report To:

OHM Corporation

Project:

Ft. Devens

Date:

November 09, 1995

Sample ID:

EX2527DP3, dated 10/27/95

Parameter	Method	Result	Date Analyzed
Corrosivity (as pH)	SW846 9045	6.7	11/08/95
Flashpoint, °F	SW846 1010	>203	11/07/95
Reactive Cyanide, mg/Kg	(1)	<2	11/08/95
Reactive Sulfide, mg/Kg	(2)	48	11/07/95
Total Petroleum Hydrocarbons, mg/Kg (3)	EPA 418.1M	280	11/05/95

SW846 Chapter 7.3.3 SW846 Chapter 7.3.4 (1)

<sup>(2)</sup> 

<sup>(3)</sup> Total Petroleum Hydrocarbon results reported as mg/Kg on a dry weight basis.

9151 Rumsey Road Suite 150, Columbia, MD 21045-1992 (410) 730-8525 Fax (410) 997-2586

Report Number:

9510310

Report To:

OHM Corporation

Project:

Ft. Devens

Date:

November 09, 1995

Sample ID:

EX2527DP4, dated 10/27/95

Parameter	Method	Result	Date Analyzed
Corrosivity (as pH)	SW846 9045	6.9	11/08/95
Flashpoint, °F	SW846 1010	>203	11/08/95
Reactive Cyanide, mg/Kg	(1)	<2	11/08/95
Reactive Sulfide, mg/Kg	(2)	48	11/07/95
Total Petroleum Hydrocarbons, mg/Kg (3)	EPA 418.1M	170	11/05/95

SW846 Chapter 7.3.3 (1)

<sup>(2)</sup> 

SW846 Chapter 7.3.4
Total Petroleum Hydrocarbon results reported as mg/Kg on a dry weight (3) basis.

9151 Rumsey Road Suite 150, Columbia, MD 21045-1992 (410) 730-8525 Fax (410) 997-2586

Report Number:

9510310

Report To:

OHM Corporation

Project:

Ft. Devens

Date:

November 09, 1995

Sample ID:

EX2527DP5, dated 10/27/95

Parameter	Method	Result	Date Analyzed
Corrosivity (as pH)	SW846 9045	7.0	11/08/95
Flashpoint, °F	SW846 1010	>203	11/08/95
Reactive Cyanide, mg/Kg	(1)	<2	11/08/95
Reactive Sulfide, mg/Kg	(2)	48	11/07/95
Total Petroleum Hydrocarbons, mg/Kg (3)	EPA 418.1M	320	11/05/95

<sup>(1)</sup> SW846 Chapter 7.3.3

<sup>(2)</sup> SW846 Chapter 7.3.4

<sup>(3)</sup> Total Petroleum Hydrocarbon results reported as mg/Kg on a dry weight basis.

9151 Rumsey Road Suite 150, Columbia, MD 21045-1992 (410) 730-8525 Fax (410) 997-2586

Report Number:

9510310

Report To:

OHM Corporation

Project:

Ft. Devens

Date:

November 09, 1995

Sample ID:

EX2527DP-DUP, dated 10/27/95

Parameter	Method	Result	Date Analyzed
Corrosivity (as pH)	SW846 9045	7.1	11/08/95
Flashpoint, °F	SW846 1010	>203	11/08/95
Reactive Cyanide, mg/Kg	(1)	<2	11/08/95
Reactive Sulfide, mg/Kg	(2)	<40	11/07/95
Total Petroleum Hydrocarbons, mg/Kg (3)	EPA 418.1M	380 -	11/05/95

<sup>(1)</sup> SW846 Chapter 7.3.3

<sup>(2)</sup> SW846 Chapter 7.3.4

<sup>(3)</sup> Total Petroleum Hydrocarbon results reported as mg/Kg on a dry weight basis.

9151 Rumsey Road Suite 150, Columbia, MD 21045-1992 (410) 730-8525 Fax (410) 997-2586

Report Number:

9510310

Report To:

OHM Corporation

Project:

Ft. Devens

Date:

November 09, 1995

Sample ID:

Method Blank

Parameter	Method	Result	Date Analyzed
Reactive Cyanide, mg/L	(1)	<0.02	11/08/95
Reactive Sulfide, mg/L	(2)	<1	11/07/95
Total Petroleum Hydrocarbons, mg/Kg (3)	EPA 418.1M	<16	11/05/95

<sup>(1)</sup> SW846 Chapter 7.3.3

<sup>(2)</sup> SW846 Chapter 7.3.4

<sup>(3)</sup> Total Petroleum Hydrocarbon results reported as mg/Kg on a dry weight basis.

# **CHAIN-OF-CUSTODY RECORD**

Field Technical Services
Pev. 08/89 158389

9510310

O.H. N	MATERIALS	CORP	٠. •		P.0	PRQJECT LO	FINDLAY, OH 45839- DOCATION	0551 •		19-42		7.20		7	_	
1)5		CT CONT	ACT Qu	nle	u	PROJECT M	PROJECT TELEPHONE NO. (508) 772-2019 ANAGERYSUPERVISOR  Jin Mack	NUMBER	(IN SE CC	NALYS IDICATE PARATE INTAINE	E E	/	/	1	\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	307
2	SAMPLE NUMBER	DATE	TIME	COMP	GRAB		SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	8		20%	3	200	w	3		REMARKS
1	527DP1	10.27	1015	X		Brown K	'acky so: I w Clay	1×1- 3×80	2 >	X	X	X	X	X		-001, -013
EX2	527DPIA	1027	1017		X	Brown Ro	cky Soil wil day	214	and						X	-002
EX2	527DP2	10.27	1000	X		Brown Ro	cky Soil wil clay	1 1 3 1 3	L X	X	X	X	X	X		-003, -014
	L727DP2A	95	1022		X	Brown R	ocky Soil W/ Clay	2 x4	and						X	
EX	252TDP3	1927	1024	X		Brown P	ocky Soil WI clay	1 x1 3	2 >	X	X	X	X	X		-05,-015
EX	527DP3A	10.27	1026	m	X	Brown Ros	sky Soil -/ clay	2 2 440			rii				X	-006
EX2	527DP4	10.27	1027	X		Brown	ocky Soil Ul Clay	111	1 X	X	X	X	X	X		-007, -016
EX2	527DP4A	10.27	1029		X	Brown	locky Sail W/ clay	24				M		H	X	-00%,
EX2	527DP5	10.27	1032	X	119	Brown R	ocky Soil wiclay	1×1-		X	X	X	X	X		-009,-017
EX2	527DPSF	10.27	1035		X	Brown P	acky soil wildow	5×40	200						X	-010
TRANSFER	ITEM NUMBER				IANSF	ERS HED BY	TRANSFERS ACCEPTED BY	DATE	TIME		AARK	.5	T	Day	YTA	AT.
1.	1-10	1	ltate	wa.	H	and	Fed Br. A. 1. 14# 316 8975 265	10-27	1590							de meludad
2						1	3 munch	10/3n/ 115			-	40	ese	ervi	ed o	d 4°C
š															~	100 × 1 × 100 × 10
4										SM		W SIGN			1	ows



### **CHAIN-OF-CUSTODY RECORD**

Field Technical Services
158390 Rev. 08/89

9510310 O.H. MATERIALS CORP. P.O. BOX 551 FINDLAY, OH 45839-0551 419-423-3526 PROJECT NAME PROJECT LOCATION ANALYSIS DESIRED Ft. Devens INDICATE NUMBER PROJECT TELEPHONE NO. PROJECT CONTACT PROJ. NO. SEPARATE PROJECT MANAGER/SUPERVISOR 16208 Mike Winlan CLIENT'S REPRESENTATIVE CONTAINERS TEM NO. COMP GRAB SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE) SAMPLE DATE TIME REMARKS 95 1032 Brown Rocky Soil 3280Z -011, -018 EX2527DP 7801 5501 EX252TDP--012 2×40×1 32900 EX2527 DP 10-C1 10-65 8 9 10 REMARKS ITEM TRANSFERS TRANSFERS -5 day TAT -Temp. blank included NUMBER RELINQUISHED BY ACCEPTED BY DATE 10.27 1 1-2 95 - Preserved at 4°C. 10/30 2 3 Munell 95 3

9151 RUMSEY ROAD COLUMBIA, MD. 21045 (410) 730-8525

Project Number: 9510-310

Client Name: OHM Corporation Project Title: Fort Devens

Ayer, MA

Six soil samples were analyzed for the volatile organic compounds in the priority pollutant list, by method 8240.

Six soil samples were analyzed for the polynuclear aromatic (PAH)

compounds by method 8270.

Six soil samples were TCLP leached according to the SW846 guidelines, and analyzed for the volatile and semivolatile organic compounds in the list of Toxic Characteristic Constituents, by methods 8240 and 8270, respectively.

The analyses followed the standard AENI QA/QC and holding time

requirements.

This package consists of tabulated results of the samples and the method blanks, along with the QC forms II, III and IV.

Data Released

GC/MS Lab Manager

#### **VOLATILES Section:**

Client	AENI		Date	Date	Date TCLP	Date
ID	ID	Matrix	Sampled	Received	Leached	Analyzed
PP Analysis:				========	********	EE5664:2
EX2527DP1A	310-002	Soil	10/27/95	10/30/95	N.A.	11/10/95
		Soil			2007	
EX2527DP2A	310-004		10/27/95	10/30/95	N.A.	11/10/95
EX2527DP3A	310-006	Soil	10/27/95	10/30/95	N.A.	11/10/95
EX2527DP4A	310-008	Soil	10/27/95	10/30/95	N.A.	11/10/95
EX2527DP5A	310-010	Soil	10/27/95	10/30/95	N.A.	11/10/95
EX2527DP-DUPA	310-012	Soil	10/27/95	10/30/95	N.A.	11/10/95
TCLP Analysis:						
EX2527DP1	310-013	Soil	10/27/95	10/30/95	11/01/95	11/15/95
EX2527DP2	310-014	Soil	10/27/95	10/30/95	11/01/95	11/15/95
EX2527DP3	310-015	Soil	10/27/95	10/30/95	11/01/95	11/15/95
EX2527DP4	310-016	Soil	10/27/95	10/30/95	11/01/95	11/15/95
EX2527DP5	310-017	Soil	10/27/95	10/30/95	11/01/95	11/15/95
EX2527DP-DUP	310-018	Soil	10/27/95	10/30/95	11/01/95	11/15/95

#### Form I (Tabulated Results)

All sample preparation and analyses were performed within the holding time requirement.

The results of the PP analyses were reported on the basis of dry weight.

The leachates were analyzed at a 1:10 dilution to minimize background interference.

#### Form II (Surrogate Recoveries)

The surrogate recoveries for the samples and the method blanks were within the method specified criteria.

#### Form III (MS/MSD Recoveries)

PP Analysis: A batch MS/MSD analysis was reported. All spike recoveries and all %RPD were within the method advisory limits.

TCLP Analysis: A batch MS analysis was reported. All spike recommends were within the method advisory limits.

#### Form IV (Method Blank Summary)

The method blanks were free of target analytes. However methylene chloride detected in the PP analysis could be viewed as lab contamination.

#### SEMIVOLATILES Section:

Client	AENI	Matrix	Date	Date	Date Ex	tracted	Date
ID	ID :		Sampl.	Recevd	TCLP	BNA	Amal z
PAH Analysis:		*********		.======	*======	BENSELLE	at the tree
EX2527DP1	310-001	Soil	10/27	10/30	N.A.	11/08	11/11
EX2527DP2	310-003	Soil	10/27	10/30	N.A.	11/08	11/11
EX2527DP3	310-005	Soil	10/27	10/30	N.A.	11/08	11/11
EX2527DP4	310-007	Soil	10/27	10/30	N.A.	11/08	11/11
EX2527DP5	310-009	Soil	10/27	10/30	N.A.	11/08	11/11
EX2527DP-DUP	310-011	Soil	10/27	10/30	N.A.	11/08	11/11
TCLP Analysis:							
EX2527DP1	310-013	Soil	10/27	10/30	11/03	11/06	11/10
EX2527DP2	310-014	Soil	10/27	10/30	11/03	11/06	11/10
EX2527DP3	310-015	Soil	10/27	10/30	11/03	11/06	11/10
EX2527DP4	310-016	Soil	10/27	10/30	11/03	11/06	11/11
EX2527DP5	310-017	Soil	10/27	10/30	11/03	11/06	11/11
EX2527DP-DUP	310-018	Soil	10/27	10/30	11/03	11/06	11/11

### Form I (Tabulated Results)

All sample preparation and analyses were performed within the holding time requirement.

The PAH results were reported on the basis of dry weight.

The leachates were analyzed at a 1:2 dilution to minimize background interference.

#### Form II (Surrogate Recoveries)

The surrogate recoveries for all samples, method blanks and QC were within criteria. Note that the TCLP analysis was flagged with 'D' due to the dilution.

#### Form III (BS Recoveries)

PAH Analysis: A BS analysis was included. All recoveries were within limits.

TCLP Analysis: A TCLP BLK LCS analysis was reported. All recoveries were within criteria.

#### Form IV (Method Blank Summary)

The method blanks were free of target analytes.

# SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name:	AENI		Contract: 951031	0	
Project No.:	0HM45	Site:	Location:	Group:	

Level: (low/med)

LOW

-	SAMPLE NO.	SMC1 (DCE) #	SMC2 (TOL) #	SMC3 (BFB) #	OTHER #	ror our
01	VBLK01	109	104	106		-
02	EX252DP1A	117	113	118		
03	EX252DP2A	118	91	89		
04	EX252DP3A	107	104	105		
05	EX252DP4A	98	96	98		
06	EX252DP5A	116	97	107		
07	EX252DP-DUPA	98	109	106		
08						
09						
10						
11						
12						
13	41					
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

**QC LIMITS** 

 SMC1 (DCE) = 1,2-Dichloroethane-d4
 (70-121)

 SMC2 (TOL) = Toluene-d8
 (81-117)

 SMC3 (BFB) = Bromofluorobenzene
 (74-121)

# Column to be used to flag recovery values

- \* Values outside of contract required QC limits
- D System Monitoring Compound diluted out

### SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:	AENI		Contract: 9510310		
Project No.:	OHM45	Site:	Location:	Group:	
Matrix Soike	- Samole No.:	9510031-008	Level: (low/med) LOW		

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC. LIMITS # REC.
1,1-Dichloroethene	50	0	83	166	(59-172)
Trichloroethene	50	0	63	126	(62-137)
Benzene	50	0	68	136	(66-142)
Toluene	50	0	66	132	(59-139)
Chlorobenzene	50	0	66	132	(60-133)

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MS % REC #	% RPD #	OC L	IMITS   REC.
1,1-Dichloroethene	50	80	160	4	22	(59-172)
Trichloroethene	50	60	120	5	24	(62-137)
Benzene	50	69	138	1	21	(66-142)
Toluene	50	66	132	0	21	(59-139)
Chlorobenzene	50	62	124	6	21	(60-133)

# Column to be used to flag recovery and RPD values with an asterisk

Values	outside	of OC	limits

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

Comments:	

### 4A VOLATILE METHOD BLANK SUMMARY

SAMPLE NO.

Lab Name:	AENI		C	ontract:	9510310		VBLKOT	
Project No.:	OHM45	Site:		_	Location:		Group:	
Lab File ID:	FK183.D					Lab Sample ID:	951110FS	
Date Analyze	d: <u>11/10/95</u>					Time Analyzed:	1424	
GC Column:	CAP.	ID:_	0.53	(mm)		Heated Purge:	Y (MIY)	
	. 57200							

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
EX252DP1A	#002	FK191.D	11/10/95
EX252DP2A	#004	FK192.D	11/10/95
EX252DP3A	#006	FK193.D	11/10/95
EX252DP4A	#008	FK194.D	11/10/95
EX252DP5A	#010	FK195.D	11/10/95
EX252DP-DUPA	#012	FK196.D	11/10/95
	*		

COMMENTS:			

SAMPLE NO. EX2527DP1A

Lab Name: AENI		Contract:	9510310	
Project No.: OHM45	Site:	Location:		Group:
Matrix: (soil/water)	SOIL		Lab Sample ID:	<b>#002</b>
Sample wt/vol:	5.0(g/mL)	G	Lab File ID: 1	FK191.D
Level: (low/med)	LOW		Date Received:	10/30/95
% Moisture: not dec.	9		Date Analyzed: _	11/10/95
GC Column: CAP.	ID:	0.53 (mm)	Dilution Factor:	1.0
Soil Extract Volume:	1 (uL)		Soil Aliquot Volume:	1 (uL)

C	11-1-
Concentration	HUITS.

		Concentration Units:	
CAS No.	Compound	(ug/L or ug/Kg) ug/Kg	Q
74-87-3	Chloromethane	11 .	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	5.1	JB
107-13-1	Acrylonitrile	110	U
107-2-8	Acrolein	110	U
75-69-4	Trichlorofluoromethane	5.5	U
75-35-4	1,1-Dichloroethene	5.5	U
75-34-4	1,1-Dichloroethane	5.5	U
156-60-5	trans-1,2-Dichloroethene	5.5	U
67-66-3	Chloroform	5.5	U
107-06-2	1,2-Dichloroethane	5.5	U
71-55-6	1,1,1-Trichloroethane	5.5	U
56-23-5	Carbon Tetrachloride	5.5	U
75-27-4	Bromodichloromethane	5.5	U
78-87-5	1,2-Dichloropropane	5.5	U
10061-01-5	cis-1,3-Dichloropropene	5.5	U
79-01-6	Trichloroethene	5.5	U
71-43-2	Benzene	5.5	U
124-48-1	Dibromochloromethane	5.5	U
10061-02-6	trans-1,3-Dichloropropene	5.5	U
79-00-5	1,1,2-Trichloroethane	5.5	U
110-75-8	2-Chloroethylvinylether	11	U
75-25-2	Bromoform	5.5	U
127-18-4	Tetrachloroethene	5.5	U
79-34-5	1,1,2,2-Tetrachioroethane	5.5	U
108-88-3	Toluene	5.5	U
108-90-7	Chlorobenzene	5.5	U
100-41-4	Ethylbenzene	5.5	U
541-73-1	1,3-Dichlorobenzene	5.5	U
106-46-7	1,4-Dichlorobenzene	5.5	U
95-50-1	1,2-Dichlorobenzene	5.5	U

SP, This Endis

SAMPLE NO.

Lab Name:	AENI					_ 1	Contract:	9510310		Tel Civ
Project No.:	OHM45			Site:			Location:		Group:	
Matrix: (soil/	water)	SOIL	_					Lab Sample ID:	#004	
Sample wt/vo	t:	5.0	_(g/mL)	l .	G	3.1		Lab File ID:	FK192.D	
Level: (low)	(med)	LOW						Date Received:	10/30/95	
% Moisture:	not dec.	11				4		Date Analyzed:	11/10/95	
GC Column:	CAP.			ID:_	0.53	_ (mm)		Dilution Factor:	1.0	
Soil Extract V	olume:	1	_(uL)					Soil Aliquot Volume:	1	(uL)

#### Concentration Units:

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	a
74-87-3	Chloromethane	11 .	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	12	В
107-13-1	Acrylonitrile	110	U
107-2-8	Acrolein	110	U
75-69-4	Trichlorofluoromethane	5.6	U
75-35-4	1,1-Dichloroethene	5.6	U
75-34-4	1,1-Dichloroethane	5.6	U
156-60-5	trans-1,2-Dichloroethene	5.6	U
67-66-3	Chloroform	5.6	U
107-06-2	1,2-Dichloroethane	5.6	U
71-55-6	1,1,1-Trichloroethane	5.6	U
56-23-5	Carbon Tetrachloride	5.6	U
75-27-4	Bromodichloromethane	5.6	U
78-87-5	1,2-Dichloropropane	5.6	U
10061-01-5	cis-1,3-Dichloropropene	5.6	U
79-01-6	Trichloroethene	4.5	J
71-43-2	Benzene	5.6	U
124-48-1	Dibromochloromethane	5.6	U
10061-02-6	trans-1,3-Dichloropropene	5.6	U
79-00-5	1;1,2-Trichloroethane	5.6	U
110-75-8	2-Chloroethylvinylether	11	U
75-25-2	Bromoform	5.6	U
127-18-4	Tetrachloroethene	5.2	J
79-34-5	1,1,2,2-Tetrachloroethane	5.6	U
108-88-3	Toluene	5.6	U
108-90-7	Chlorobenzene	5.6	U
100-41-4	Ethylbenzene	5.6	U
541-73-1	1,3-Dichlorobenzene	5.6	U
106-46-7	1,4-Dichlorobenzene	5.6	U
95-50-1	1,2-Dichlorobenzene	5.6	U

SAMPLE NO. EX2527013/k

Lab Name: AENI		Contract: 9510310	
Project No.: OHM45	Site:	Location:	Group:
Matrix: (soil/water)	SOIL	Lab Sample	ID: #006
Sample wt/vol:		_ Lab File	ID: FK193.D
Level: (low/med)	LOW	Date Receiv	ved: 10/30/95
% Moisture: not dec.	10	Date Analys	zed: 11/10/95
GC Column: <u>CAP.</u>	10: 0.53	_(mm) Dilution Fac	tor: 1.0
Soil Extract Volume:	1 (uL)	Soil Aliquot Volu	me: 1 (uL)

#### Concentration Units

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg)	ug/Kg	Q
74-87-3	Chloromethane	11		U
74-83-9	Bromomethane	11		Ü
75-01-4	Vinyl Chloride	11		U
75-00-3	Chloroethane	11		U
75-09-2	Methylene Chloride	11.		В
107-13-1	Acrylonitrile	110		U
107-2-8	Acrolein	110		U
75-69-4	Trichlorofluoromethane	5.6		U
75-35-4	1,1-Dichloroethene	5.6		U
75-34-4	1,1-Dichloroethane	5.6		U
156-60-5	trans-1,2-Dichloroethene	5.6		U
67-66-3	Chloroform	5.6		U
107-06-2	1,2-Dichloroethane	5.6		U
71-55-6	1,1,1-Trichloroethane	5.6		U
56-23-5	Carbon Tetrachloride	5.6		U
75-27-4	Bromodichloromethane	5.6		U
78-87-5	1,2-Dichloropropane	5.6		U
10061-01-5	cis-1,3-Dichloropropene	5.6		U
79-01-6	Trichloroethene	5.6		U
71-43-2	Benzene	5.6		U
124-48-1	Dibromochloromethane	5.6		U
10061-02-6	trans-1,3-Dichloropropene	5.6		U
79-00-5	1,1,2-Trichloroethane	5.6		U
110-75-8	2-Chloroethylvinylether	11	-	U
75-25-2	Bromoform	5.6		U
127-18-4	Tetrachloroethene	5.6		U
79-34-5	1,1,2,2-Tetrachloroethane	5.6		U
108-88-3	Toluene	5.6		U
108-90-7	Chlorobenzene	5.6		U
100-41-4	Ethylbenzene	5.6		U
541-73-1	1,3-Dichlorobenzene	5.6		U
106-46-7	1,4-Dichlorobenzene	5.6		U
95-50-1	1,2-Dichlorobenzene	5.6		U

ANY PROPERTY.

SAMPLE NO.

FX2527DFa

Lab Name:	AENI				Contract:	9510310	EAZOZ	IP-4A
Project No.:	OHM45		S	ite:	Location:		Group: _	
Matrix: (soil/	water)	SOIL				Lab Sample ID:	#008	
Sampie wt/vo	l:	5.0	_(g/mL)	G	_	Lab File ID:	FK194.D	
Levei: (low)	(med)	LOW	_			Date Received:	10/30/85	
% Moisture:	not dec.	_ 9				Date Analyzed:	11/10/95	
GC Column:	CAP.			ID: 0.53	(mm)	Dilution Factor:	1.0	
Soil Extract V	olume:		(uL)			Soil Aliquot Volume:	1	(uL)

C-	ncent		_ 11_	
La	ncent	rano	n ur	IIIS.

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg)	ıg/Kg a
74-87-3	Chloromethane	11	· U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	7	В
107-13-1	Acrylonitrile	110	U
107-2-8	Acrolein	110	U
75-69-4	Trichlorofluoromethane	5.5	U
75-35-4	1,1-Dichloroethene	5.5	U
75-34-4	1,1-Dichloroethane	5.5	U
156-60-5	trans-1,2-Dichloroethene	5.5	U
67-66-3	Chioroform	5.5	U
107-06-2	1,2-Dichloroethane	5.5	U
71-55-6	1,1,1-Trichloroethane	5.5	U
56-23-5	Carbon Tetrachloride	5.5	U
75-27-4	Bromodichloromethane	5.5	U
78-87-5	1,2-Dichloropropane	5.5	U
10061-01-5	cis-1,3-Dichloropropene	5.5	U
79-01-6	Trichloroethene	5.5	U
71-43-2	Benzene	5.5	U
124-48-1	Dibromochloromethane	5.5	U
10061-02-6	trans-1,3-Dichloropropene	5.5	U
79-00-5	1,1,2-Trichloroethane	5.5	U
110-75-8	2-Chloroethylvinylether	11	U
75-25-2	Bromoform	5.5	U
127-18-4	Tetrachloroethene	5.5	U
79-34-5	1,1,2,2-Tetrachloroethane	5.5	U
108-88-3	Toluene	5.5	U
108-90-7	Chlorobenzene	5.5	U
100-41-4	Ethylbenzene	5.5	U
541-73-1	1,3-Dichlorobenzene	5.5	U
106-46-7	1,4-Dichlorobenzene	5.5	U
95-50-1	1,2-Dichlorobenzene	5.5	U

The MARKET

Soil Extract Volume:

1 (uL)

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Soil Aliquot Volume:

SAMPLE NO.

1 (uL)

EX2527015A Contract: 9510310 Lab Name: **AENI** Project No.: OHM45 Site: Location: Group: Lab Sample ID: #010 SOIL Matrix: (soil/water) 5.0 Sample wt/vol: Lab File ID: FK195.D (g/mL) G LOW Level: (low/med) Date Received: 10/30/95 9 % Moisture: not dec. Date Analyzed: 11/10/95 GC Column: CAP. ID: 0.53 (mm) **Dilution Factor:** 1.0

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg)ug/Kg	0
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	5.4	JB
107-13-1	Acrylonitrile	110	U
107-2-8	Acrolein	110	U
75-69-4	Trichlorofluoromethane	5.5	U
75-35-4	1,1-Dichloroethene	5.5	U
75-34-4	1,1-Dichloroethane	5.5	U
156-60-5	trans-1,2-Dichloroethene	5.5	U
67-66-3	Chloroform	5.5	U
107-06-2	1,2-Dichloroethane	5.5	U
71-55-6	1,1,1-Trichloroethane	5.5	U
56-23-5	Carbon Tetrachloride	5.5	U
75-27-4	Bromodichloromethane	5.5	U
78-87-5	1,2-Dichloropropane	5.5	U
10061-01-5	cis-1,3-Dichloropropene	5.5	U
79-01-6	Trichloroethene	5.5	U
71-43-2	Benzene	5.5	U
124-48-1	Dibromochloromethane	5.5	U
10061-02-6	trans-1,3-Dichloropropene	5.5	U
79-00-5	1,1,2-Trichloroethane	5.5	U
110-75-8	2-Chloroethylvinylether	11	U
75-25-2	Bromoform	5.5	U
127-18-4	Tetrachloroethene	5.5	U
79-34-5	1,1,2,2-Tetrachloroethane	5.5	U
108-88-3	Toluene	5.5	U
108-90-7	Chlorobenzene	5.5	U
100-41-4	Ethylbenzene	5.5	U
541-73-1	1,3-Dichlorobenzene	5.5	U
106-46-7	1,4-Dichlorobenzene	5.5	U
95-50-1	1,2-Dichlorobenzene	5.5	U

SAMPLE NO. EX2527DPatBP%

Lab Name: AENI			Contract: 9510310	LALBETTA WOLK
Project No.: OHM	45	Site:	Location:	Group:
Matrix: (soil/water)	SOIL		Lab Sample ID	1: #012
Sample wt/vol:	(g/	nL) <u>G</u>	Lab File ID	D: FK196.D
Level: (low/med)	LOW		Date Received	l: 10/30/95
% Moisture: not de	c. <u>8</u>		Date Analyzed	l:11/10/95
GC Column: CAP.		ID: <u>0.53</u> (mr	n) Dilution Factor	1.0
Soil Extract Volume:	1 (uL		Soil Aliquot Volume	: 1 (uL)

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1.0	ncen	サアコヤ	100	(In	16.

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	a
74-87-3	Chloromethane	• 11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	9.9	В
107-13-1	Acrylonitrile	110	U
107-2-8	Acrolein	110	U
75-69-4	Trichlorofluoromethane	5.4	U
75-35-4	1,1-Dichloroethene	5.4	U
75-34-4	1,1-Dichloroethane	5.4	U
156-60-5	trans-1,2-Dichloroethene	5.4	U
67-66-3	Chloroform	5.4	U
107-06-2	1,2-Dichloroethane	5.4	U
71-55-6	1,1,1-Trichloroethane	5.4	U
56-23-5	Carbon Tetrachloride	5.4	U
75-27-4	Bromodichloromethane	5.4	U
78-87-5	1,2-Dichloropropane	5.4	U
10061-01-5	cis-1,3-Dichloropropene	5.4	U
79-01-6	Trichloroethene	5.4	U
71-43-2	Benzene	5.4	U
124-48-1	Dibromochloromethane	5.4	U
10061-02-6	trans-1,3-Dichloropropene	5.4	U
79-00-5	1,1,2-Trichloroethane	5.4	U
110-75-8	2-Chloroethylvinylether	11	U
75-25-2	Bromoform	5.4	U
127-18-4	Tetrachloroethene	5.4	U
79-34-5	1,1,2,2-Tetrachioroethane	5.4	U
108-88-3	Toluene	5.4	U
108-90-7	Chlorobenzene	5.4	U
100-41-4	Ethylbenzene	5.4	U
541-73-1	1,3-Dichlorobenzene	5.4	U
106-46-7	1,4-Dichlorobenzene	5.4	U
95-50-1	1,2-Dichlorobenzene	5.4	U

SAMPLE NO. VBLKO1

Lab Name:	AENI					Contract:	9510310		
Project No.:	OHM45			Site:_		Location:		Group:	
Matrix: (soil)	(water)	SOIL					Lab Sample ID:	951110FS	(*)
Sample wt/vo	ol:	5.0	_(g/mL)		G		Lab File ID:	FK183.D	
Level: (low	/med)	LOW					Date Received:		
% Moisture:	not dec.	0				0	Date Analyzed:	11/10/95	
GC Column:	CAP.			ID:	0.53	_(mm)	Dilution Factor:	1.0	
Soil Extract \	/olume:		(uL)				Soil Aliquot Volume:	1	(uL)

## **Concentration Units:**

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	۵
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	. 10	U
75-09-2	Methylene Chloride	3.7	J
107-13-1	Acrylonitrile	100	u
107-2-8	Acrolein	100	U
75-69-4	Trichlorofluoromethane	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-4	1,1-Dichloroethane	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
71-43-2	Benzene	5	U
124-48-1	Dibromochloromethane	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
110-75-8	2-Chloroethylvinylether	10	U
75-25-2	Bromoform	5	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U

## WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Project No.:	0HM45	Site:	Location:	Group:	

Contract: 9510310

	SAMPLE NO.	SMC1 (DCE) #	SMC2 (TOL) #	SMC3 (BFB) #	OTHER #	TOT OUT
01	VBLK02	89	93	94		7
02	TBLK01	95	99	89		41
03	EX2527DP1	95	97	90		
04	EX2527DP2	90	98	87		
05	EX2527DP3	94	95	84		
06	EX2527DP4	92	98	87		
07	EX2527DP5	96	97	87		
08	EX2527DP-DUP	90	94	82		
09						
10						
11						
12						
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22						
23						
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25						
26						
27						
28						
29						
30					-	

**QC LIMITS** 

SMC1 (DCE) - 1,2-Dichloroethane-d4

(76-114)

SMC2 (TOL) - Toluene-d8

(88-110)

SMC3 (BFB) - Bromofluorobenzene

(86-115)

- # Column to be used to flag recovery values
- Values outside of contract required QC limits
- D System Monitoring Compound diluted out

Lab Name:

AENI

# 3A WATER VOLATILE MATRIX SPIKE RECOVERY

.ab Name:	AENI		Contract: 9510310	X	
Project No.:	OHM45	Site:	Location:	Group:	
Matrix Spike	- Sample No.:	9511116-002			

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	50	0	37	74	(61-145)
Trichloroethene	50	0	38	76	(71-120)
Benzene	50	0	42	84	(76-127)
Toluene	- 50	0	47	94	(76-125)
Chlorobenzene	50	0	41	82	(75-130)

Values outside of QC limits

Comments:	

SAMPLE NO. **VOLATILE METHOD BLANK SUMMARY** 

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Lab Name:	AENI		Contra	ct: <u>9510310</u>		
Project No.:	0HM45	Site: _		Location:		Group:
Lab File ID:	FK256.D				Lab Sample ID: 5	951115FW
Date Analyzed	d: <u>11/15/95</u>				Time Analyzed:	1158
GC Column:	CAP.	ID:	0.53 (mr	n)	Heated Purge:	(Y/N) N

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

F7200

Instrument ID:

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
TBLK01	951110TCLP	FK266.D	11/15/95
EX2527DP1	#013	FK267.D	11/15/95
EX2527DP2	#014	FK268.D	11/15/95
EX2527DP3	#015	FK269.D	11/15/95
EX2527DP4	#016	FK270.D	11/15/95
EX2527DP5	#017	FK271.D	11/15/95
EX2527DP-DUP	#018	FK272.D	11/15/95
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COMMENTS:				
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EX2527011

Lab Name:	AENI			Contract:	9510310	LAZO	701 1
Project No.:	0HM45	_	Site:	Location:		Group:	
Matrix: (soil	l/water)	LEACH			Lab Sample	ID: #013	
Sample wt/v	ol:	5.0	(g/mL) ML	2.1	Lab File	ID: FK267.D	
wol) :leve.	v/med)				Date Receiv	ed:10/30/95_	
% Moisture:	not dec.				Date Analyz	ed: 11/15/95	
GC Calumn:	CAP.		ID: 0.53	_(mm)	Dilution Fact	tor: 10.0	
Soil Extract	Volume:		(uL)		Soil Aliquot Volu	ne:	(uL)
C.A	AS No.	Compound			ation Units:		
LA	is no.	Compound		(ug/L or ug/Kg)	ug/L	. 0	,
75	i-01-4	Vinyl Chlorid	e.		100	UD	
75	-35-4	1,1-Dichloro	ethene		50	UD	
67	-66-3	Chloroform			50	UD	
10	7-06-2	1,2-Dichloro	ethane		50	סט	
78	-93-3	2-Butanone			1000	UD	
56	-23-5	Carbon Tetra	achloride		50	QU	
79	-01-6	Trichloroeth	ene		50	UD	
71	43-2	Benzene			50	UD	
12	27-18-4	Tetrachioroe	thene		50	QU	
10	18-90-7	Chlorobenze	ne		50	UD	
				T V			
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EX25270P2

ab Name:	AENI		Contract:	9510310		
roject No.:	0HM45	Site:	Location:		Group:	
Matrix: (soi	il/water)	LEACH		Lab Sample ID:	#014	
Sample wt/	val:	5.0 (g/mL) N	<u>IL</u>	Lab File ID:	FK268.D	
evel: (lov	w/med)			Date Received:	10/30/95	
6 Moisture:	not dec.			Date Analyzed:	11/15/95	
C Column:	CAP.	ID: 0.	53_ (mm)	Dilution Factor:	10.0	
oil Extract	Volume:	(uL)		Soil Aliquot Volume:		(uL)
			Concentr	ation Units:		
C	AS No.	Compound	(ug/L or ug/Kg)		O	
75	5-01-4	Vinyl Chloride		100	UD	
75	5-35-4	1,1-Dichloroethene		50	UD	
67	7-66-3	Chloroform		50	UD	
10	07-06-2	1,2-Dichloroethane		50	UD	
78	3-93-3	2-Butanone		1000	UD	
56	5-23-5	Carbon Tetrachloride		50	UD	
79	3-01-6	Trichloroethene		50	QU	
71	1-43-2	Benzene		50	UD	
12	27-18-4	Tetrachloroethene		50	UD	
	08-90-7	Chlorobenzene		50	UD	
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SAMPLE RO.

EX2527013

.ab Name:	AENI		Contract:	9510310	LACE	21010
Project No.:	0HM45	Site:	Location:		Group:	
Matrix: (soil	/water)	LEACH		Lab Sample ID:	#015	
Sample wt/v	ol:		ML	Lab File ID:	FK269.D	
evel: (low	v/med)			Date Received:	10/30/95	
Moisture:	not dec.			Date Analyzed:	11/15/95	
GC Column:	CAP.	ID:	0.53 (mm)	Dilution Factor:	10.0	
Soil Extract	Volume:	(UL)		Soil Aliquot Volume:		(uL)
			Concentra	tion Units:		
CA	S No.	Compound	(ug/L or ug/Kg)		a	
75	-01-4	Vinyl Chloride		. 100	UD	
	-35-4	1,1-Dichloroethene		. 50	UD	
67	-66-3	Chloroform		50	UD	
10	7-06-2	1,2-Dichloroethane		50	UD	
78	-93-3	2-Butanone		1000	QU	
56	-23-5	Carbon Tetrachloride		50	UD	
79	-01-6	Trichloroethene		50	UD	
71	-43-2	Benzene		50	UD	
12	7-18-4	Tetrachloroethene		- 50	UD	
10	8-90-7	Chlorobenzene		50	UD	
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Lab Name:	AENI				Contract:	9510310	LINE	
Project No.:	0HM45		Site:		Location:		Group:	
Matrix: (soil	(water)	LEACH				Lab Sample ID:	#016	-
Sample wt/v	ol:	5.0	(g/mL)	ML		Lab File ID:	FK270.D	4
Level: (low	v/med)					Date Received:	10/30/95	
% Moisture:	not dec.	_				Date Analyzed:	11/15/95	
GC Column:	CAP.		ID:	0.53	mm)	Dilution Factor:	10.0	
Soil Extract	Volume:		(uL)			Soil Aliquot Volume:		(uL)
					Concenti	ration Units:		
CA	S No.	Compound			(ug/L or ug/Kg		۵	
75	-01-4	Vinyl Chloric	ie			100	UD	1
75	-35-4	1,1-Dichloro	ethene			50	QU	-
	-66-3	Chloroform				50	UD	
	7-06-2	1,2-Dichloro	ethane			50	UD	1
	-93-3	2-Butanone				1000	UD	
	-23-5	Carbon Tetr				50	UD	
	-01-6	Trichloroeth	ene			50	UD	-
	-43-2	Benzene	4			50	UD	-
	7-18-4 8-90-7	Tetrachloro			-	50	UD	1
100	8-90-7	Chlorobenze	ne	_	-	50	UD	1
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JAMES STREET

Lab Name:	AENI				Contract:	9510310	unce e
Project No.:	0HM45		Site		Location:		Group:
Matrix: (soil	(water)	LEACH	_			Lab Sample ID:	#017
Sample wt/v	rol:	5.0	_(g/mL)	ML	_	Lab File ID:	FK271.D
Level: (lov	v/med)					Date Received:	10/30/95
% Moisture:	not dec.					Date Analyzed:	11/15/95
GC Column:	CAP.		10	: 0.53	_(mm)	Dilution Factor:	10.0
Soil Extract	Volume:		_(uL)			Soil Aliquot Volume:	
					Concentr	ation Units:	
CA	AS No.	Compound			(ug/L or ug/Kg)		a
75	i-01-4	Vinyl Chlor	ride			100	UD
	-35-4	1,1-Dichlor				50	UD
_	-66-3	Chloroform	1			50	UD
10	7-06-2	1,2-Dichlor	roethane			50	UD
78	1-93-3	2-Butanon	e			1000	UD
56	5-23-5	Carbon Te	trachloride			50	UD
79	-01-6	Trichloroet	thene			50	UD
- 71	-43-2	Benzene				50	UD
12	7-18-4	Tetrachlor	oethene			50	UD
10	18-90-7	Chlorobena	zene			50	UD
-							
-						*	
-							
_							

SAMPLE NO. EX252701-007

Name:	AENI	*			_ Contract:	9510310		EKZUZ	ret wer
ject No.:	0HM45		Site:		Location:			Group:	
rix: (soil)	(water)	LEACH				La	b Sample ID:	#018	
nple wt/vo	ol:	5.0	(g/mL)	ML			Lab File ID:	FK272.D	
el: (low	r/med)					Da	te Received:	10/30/95	
Moisture:	not dec.					Da	te Analyzed:	11/15/95	-
Column:	CAP.		ID:	0.53	_ (mm)	Dile	ution Factor:	10.0	
Extract \	Volume:		(uL)			Soil Alic	quot Volume:		(uL)
		4.5				ation Units:			
CA	S No.	Compound			(ug/L or ug/Kg)		ug/L	Q	
75-	01-4	Vinyl Chlori	de			100		UD	
	35-4	1,1-Dichlore				50		UD	
67-	-66-3	Chioroform				50		UD	
	7-06-2	1,2-Dichlor				50		UD	
	93-3	2-Butanone				1000		UD	
	23-5	Carbon Tet				50		UD	
	-01-6	Trichloroet	rene			50		UD	
	43-2 -	Benzene				50		UD	
	7-18-4	Tetrachloro	ethene	- 16		50		UD	
	8-90-7	Chlorobenz	ene			50		UD	
-					-				7 11
-									1
									-
									1

Lab Name:	AENI			Contract:	9510310		
Project No.:	OHM45	_	Site:	Location:		Group:	
Matrix: (soil	l/water)	WATER			Lab Sample ID:	951115FW	
Sample wt/v	rol:	(g/m	L) ML		Lab File ID:	FK256.D	
Level: (lov	v/med)				Date Received:		
% Moisture:	not dec.				Date Analyzed:	11/15/95	
GC Column:	CAP.		ID: 0.53	(mm)	Dilution Factor:	1.0	
Soil Extract	Volume:	(uL)			Soil Aliquot Volume:	0	(uL)
	,			Concentra	ation Units:		
CA	AS No.	Compound		(ug/L or ug/Kg)	ug/L	a	
75	i-01-4	Vinyl Chloride			10	U	
	-35-4	1,1-Dichloroethe	ne.		5	U	
	-66-3	Chloroform			5	U	
	7-06-2	1,2-Dichloroetha	ne		5	U	
	3-93-3	2-Butanone			100	U	
	3-23-5	Carbon Tetrachi	oride		5	U	
	-01-6	Trichloroethene			5	U	
	-43-2	Benzene			5	U	
	27-18-4	Tetrachloroether	10		5	U	
	18-90-7	Chlorobenzene			5	U	
-							
					1.5		
7.0							

ab Name: A	NENI		Contract:	9510310	1811	.01
roject No.: 0	HM45	Site:	Location:		Group:	
latrix: (soil/wa	ater) LEA	СН		Lab Sample ID: 9	951110TCLP	
ample wt/vol:	5.	.0 (g/mL)!	ML	Lab File ID: <u>I</u>	K266.D	
vel: (low/m	ed)			Date Received:		
Moisture: no	ot dec.		+	Date Analyzed:	11/15/95	
C Column: C	CAP.	ID:	.53 (mm)	Dilution Factor:	10.0	
oil Extract Vol	ume:	(uL)		Soil Aliquot Volume:		(uL)
			Concentrat	tion Units:		
CAS	No. Compo	ound	(ug/L or ug/Kg)	ug/L	0	v.
75-01	-4 Vinyl (	Chloride		100	UD	
75-35		chloroethene		50	UD	
67-66				50	UD	2
107-0		chloroethane		50	UD	
78-93	-3 2-Buta	anone		1000	UD	
56-23	-5 Carbo	n Tetrachloride		50	UD	
79-01	-6 Trichle	oroethene		50	UD	
71-43		ne		50	UD	
127-1		chloroethene		50	UD	
108-9		benzene		50	UD	

2D

## **SOIL SEMIVOLATILE SURROGATE RECOVERY**

Lab Name:	AENI		Contract: 9510310	
Project No.:	OHM45	Site:	Location:	Group:
Level: (low/m	ned) LOW			

	SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	#	#	,	#	#	TUO TUO
01	SBLK02	63	66	89						
02	SBLK02MS	75	71	82						
03	EX2527DP1	64	62	86	14,					
04	EX2527DP2	81	86	72						
05	EX2527DP3	65	63	91						
06	EX2527DP4	64	72	87					3_4	
07	EX2527DP5	76	70	90						
08	EX2527DP-DUP	69	69	89						
09										
10										
11										
12										8.
13		-								
14					5					
15										
16										
17			•							
18										(0)
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										

QC LIMITS (23-120) (30-115)

(18-137)

S1 (NBZ) - Nitrobenzene-d5 S2 (FBP) - 2-Fluorobiphenyl S3 (TPH) - Terphenyl-d14

# Column to be used to flag recovery values

Values outside of contract required QC limits

D Surrogate diluted out

## 3D SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:	AENI		Contract: 9510310	
Project No.:	OHM45	Site:	Location:	Group:
Matrix Snika	. Samole No .	951108VR	Level: flow/med) LOW	

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
1,4-Dichlorobenzene	3300	0	2400	73	(28-104)
N-Nitroso-di-n-propylamine	3300	0	2900	88	(41-126)
1,2,4-Trichlorobenzene	3300	0	2300	70	(41-126)
Acenaphthene	3300	0	2300	70	(31-137)
2,4-Dinitrotoluene	3300	0	2600	79	(28-89)
Pyrene	- 3300	0	2500	76	(35-142)

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC L	IMITS REC.
	(ug/kg/	lugikyi	ILC #	111 11 #	27	(28-104)
1,4-Dichlorobenzene			-			_
N-Nitroso-di-n-propylamine		_			38	(41-126)
1,2,4-Trichlorobenzene					38	(41-126)
Acenaphthene					19	(31-137)
2,4-Dinitrotoluene					47	(28-89)
Pyrene					36	(35-142)
			119			

Va	Hec	outside	nf	nc	limits
¥ a	IUC3	Outside	u	uu	111111173

Comments:				
	T = -			

SEMIVOLATILE METHOD BLANK SUMMARY

SAMPLE NO.

5	Fe I			m	6
6.		. 7	•	"	7

Lab Name:	AENI	7		Contract:	9510310		SELKO	ž,
Project No.:	OHM4	5	Site:		Location:		Group:	
Lab File ID:	DK180	1.D				Lab Sample ID:	951108VB	
Instrument ID	):	MSD 1				Date Extracted:	11/8/95	
Matrix: (soil/v	water)	SOIL				Date Analyzed:	11/11/95	
Level: (low/m	ed)	LOW	- 0			Time Analyzed:	1741	

## THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
SBLK02MS	951108BS	DK181.D	11/11/95
2 EX2527DP1	#001	DK182.D	11/11/95
3 EX2527DP2	#003	DK183.D	11/11/95
4 EX2527DP3	#005	DK184.D	11/11/95
EX2527DP4	#007	DK185.D	11/11/95
EX2527DP5	#009	DK186.D	11/11/95
EX2527DP-DUP	#011	DK187.D	11/11/95
3			
9			
1			
2			
3			
4			
5			
6			
7			
8			
9			
0			
1			
2			
3			
4			
5			
6			
7		4	
8			
9			
0			

COMMENTS:		

E**X25**27**0**11

SAMPLE NO.

Lab Name:	AENI			Contract:	9510310	EXCECTOR
Project No.:	OHM45		Site:	Location:		Group:
Matrix: (soil/	water)	SOIL			Lab Sample ID:	#001
Sample wt/vo	ol:	30.0	_(g/mL) G		Lab File ID:	DK182.D
Level: (low	/med)	LOW			Date Received:	10/30/95
% Moisture:	9		decanted: (Y/N):	N	Date Extracted:	11/8/95
Concentrated	Extract Volume:		1000 (uL)		Date Analyzed:	11/11/95
Injection Volu	me:	1.0	(uL)		Dilution Factor:	1.0
GPC Cleanup:	: (Y/N)	N	pH:			

### Concentration Units

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/K	g Q
91-20-3	Naphthaiene	370	U
91-57-6	2-Methylnaphthalene	370	U
91-58-7	2-Chloronaphthalene	370	U
208-96-8	Acenaphthylene	370	U
83-32-9	Acenaphthene	370	U
132-64-9	Dibenzofuran	370	U
86-73-7	Fluorene	42	J
85-01-8	Phenanthrene	71	J
120-12-7	Anthracene	370	U
206-44-0	Fluoranthene	370	U
129-00-0	Pyrene	370	U
56-55-3	Benzo[a]anthracene	370	U
218-01-9	Chrysene	370	U
205-99-2	Benzo(b)fluoranthene	370	U
207-08-9	Benzo(k)fluoranthene	370	U
50-32-8	Benzo(a)pyrene	370	U
193-39-5	Indeno[1,2,3-cd]pyrene	370	U
53-70-3	Dibenz(a,h)anthracene	370	U
191-24-2	Benzo(g,h,i)perylene	370	U

1B SEMIVOLATILE ORGANICS ANALYSIS DA

SAMPLE NO.

			CHITODATILE UND	MINICO MINETON	DATA SHEET	EX2527DP2
.ab Name:	AENI			_ Contract:	9510310	
Project No.:	OHM45		Site:	Location:		Group:
Matrix: (soil/	water)	SOIL	_		Lab Samp	ele ID: #003
Sample wt/ve	ni-	30.6	(niml.) G		lah F	ile ID- DK183 D

LOW Date Received: 10/30/95 Level: (low/med) decanted: (Y/N): % Moisture: Date Extracted: 11/8/95

1000 (uL) Date Analyzed: 11/11/95 **Concentrated Extract Volume:** 

Dilution Factor: Injection Volume: 1.0 (uL) 1.0

GPC Cleanup: (Y/N) N pH:\_

(ug/L or ug/Kg) ug/Kg  360  ne 360  ne 42  360  360  360  360  360  360  360  36	U U U U U U U U U U U U U U U U U U U
ne 360 ne 42 360 360 360 360 360 360 360 360 360 360	7 7 7 7 8
18 42 360 360 360 360 360 360 360 360 360 64	0 0 0 0
360 360 360 360 360 360 360 64	U U U U
360 360 360 360 360 360 64	U U U
360 360 360 360 360 64	U U U
360 360 360 360 64	U
360 360 360 64	U
360 360 64	U
360 64	
64	U
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000	J
e 360	U
360	U
ne 360	U
ne 360	U
360	U
rene 360	U
ene 360	U
e 360	U

SAMPLE RO.

Lab Name: AENI			Contract:	9510310	
Project No.: OHM45		Site:	Location:		Group:
Matrix: (soil/water)	SOIL			Lab Sample ID:	#005
Sample wt/vol:	30.1	_(g/mL) G		Lab File ID:	DK184.D
Level: (low/med)	LOW			Date Received:	10/30/95
% Moisture: 10		decanted; (Y/N):	N	Date Extracted:	11/8/95
Concentrated Extract Volu	me:	1000 (uL)		Date Analyzed:	11/11/95
Injection Volume:	1.0	_(uL)		Dilution Factor:	1.0
GPC Cleanup: (Y/N)	N	_ pH:			

-		
Concen	A4:	11-14-
Loncon	rratinn	LIMITS

		Concentration Units:								
CAS No.	Compound	(ug/L or ug/Kg) ug/Kg	0							
91-20-3	Naphthalene	370	U							
91-57-6	2-Methylnaphthalene	63	J							
91-58-7	2-Chloronaphthalene	370	U							
208-96-8	Acenaphthylene	370	U							
83-32-9	Acenaphthene	370	U							
132-64-9	Dibenzofuran	370	U							
86-73-7	Fluorene	130	J							
85-01-8	Phenanthrene	240	J							
120-12-7	Anthracene	370	U							
206-44-0	Fluoranthene	370	U							
129-00-0	Pyrene	40	J							
56-55-3	Benzo(a)anthracene	370	U							
218-01-9	Chrysene	370	U							
205-99-2	Benzo(b)fluoranthene	370	U							
207-08-9	Benzo(k)fluoranthene	370	U							
50-32-8	Benzo[a]pyrene	370	U							
193-39-5	Indeno[1,2,3-cd]pyrene	370	U							
53-70-3	Dibenz(a,h)anthracene	370	U							
191-24-2	Benzo(g,h,i)perylene	370	U							

SAMPLE NO.

Lab Sample ID: #007

Lab Name:	AENI		Contract: 9510310	EX2527014
Draiget No .	DHMAS	Cito:	Location	Group

30.4 Sample wt/vol: (g/mL) 6 Lab File ID: DK185.D Level: (low/med) LOW Date Received: 10/30/95

decanted: (Y/N): % Moisture: Date Extracted: 11/8/95

1000 (uL) **Concentrated Extract Volume:** Date Analyzed: 11/11/95

Injection Volume: 1.0 (uL) **Dilution Factor:** 1.0

N GPC Cleanup: (Y/N) pH:

SOIL

Matrix: (soil/water)

		Concentration Units:						
CAS No.	Compound	(ug/L or ug/Kg) ug/Kg	0					
91-20-3	Naphthalene	360	U					
91-57-6	2-Methylnaphthalene	41	7					
91-58-7	2-Chloronaphthalene	360	U					
208-96-8	Acenaphthylene	360	U					
83-32-9	Acenaphthene	360	U					
132-64-9	Dibenzofuran	360	U					
86-73-7	Fluorene	160	J					
85-01-8	Phenanthrene	410						
120-12-7	Anthracene	360	U					
206-44-0	Fluoranthene	360	U					
129-00-0	Pyrene	360	U					
56-55-3	Benzo(a)anthracene	360	U					
218-01-9	Chrysene	360	U					
205-99-2	Benzo(b)fluoranthene	360	U					
207-08-9	Benzo(k)fluoranthene	360	U					
50-32-8	Benzo(a)pyrene	360	U					
193-39-5	Indena[1,2,3-cd]pyrene	360	U					
53-70-3	Dibenz(a,h)anthracene	360	U					
191-24-2	Benzo(g,h,i)perylene	360	U					
	AL.							

Lab Name:	AENI		Contract: 9510310	EX2527
Project No.:	OHM45	Site:	Location:	Group:
Matrix: (soil	/water)	SOIL	Lab Sample ID:	TALK TO STATE
Sample wt/v	ol:	30.6 (g/mil.) G	Lab File ID:	DK186.D
Level: (low	/med)	LOW	Date Received:	10/30/95
% Moisture:	10	decanted: (Y/N):	Date Extracted:	11/8/95
Concentrated	d Extract Vo	ume: 1000 (uL)	Date Analyzed:	11/11/95
Injection Volu	ume:	1.0(uL)	Dilution Factor:	1.0
GPC Cleanup	: (Y/N)	N pH:		
CA	S No.	Compound (	Concentration Units: lug/L or ug/Kg) ug/Kg	a
91	-20-3	Naphthalene	360	U
	-57-6	2-Methylnaphthalene	81	J
	-58-7	2-Chloronaphthalene	46	J
20	8-96-8	Acenaphthylene	360	U
83	-32-9	Acenaphthene	360	U
13	2-64-9	Dibenzofuran	180	J
86	-73-7	Fluorene	280	J
85	-01-8	Phenanthrene	770	
	0-12-7	Anthracene	360	U
	6-44-0	Fluoranthene	360	U
	9-00-0	Pyrene	360	U
_	-55-3	Benzo(a)anthracene	360	U
_	8-01-9	Chrysene	360	U
_	5-99-2	Benzo(b)fluoranthene	360	U
-	7-08-9 -32-8	Benzo[k]fluoranthene	360 360	U
	3-39-5	Benzo[a]pyrene Indeno[1,2,3-cd]pyrene	360	U
	-70-3	Dibenz[a,h]anthracene	360	U
	1-24-2	Benzo[g,h,i]perylene	360	U
		A.		

DW TOWN

Name: AENI		Contract:	9510310	EX252
ject No.: OHM45	Site:	Location:		Group:
trix: (soil/water)	SOIL		Lab Sample ID:	
mple wt/vol:	30.2 (g/mL) G		Lab File ID:	DK187.D
rel: (low/med)	LOW		Date Received:	10/30/95
Moisture: 10	decanted: (Y/	N): N	Date Extracted:	11/8/95
ncentrated Extract V	olume: 1000 (uL)		Date Analyzed:	11/11/95
ction Volume:	1.0 (uL)		Dilution Factor:	1.0
C Cleanup: (Y/N)	N	oH:		
		Concenti	ration Units:	
CAS No.	Compound	(ug/L or ug/Kg)	ug/Kg	Q
91-20-3	Naphthaiene		370	U
91-57-6	2-Methylnaphthalene		. 160	J
91-58-7	2-Chloronaphthalene		42	J
208-96-8	Acenaphthylene		370	U
83-32-9	Acenaphthene		370	U
132-64-9	Dibenzofuran		170	J
86-73-7	Fluorene		260	J
85-01-8	Phenanthrene		790	
120-12-7	Anthracene		370	U
206-44-0	Fluoranthene		370	U
129-00-0	Pyrene		370	U
56-55-3	Benzo(a)anthracene		370	U
218-01-9	Chrysene		370	U
205-99-2	Benzo(b)fluoranthene		370	U
207-08-9	Benzo[k]fluoranthene		370	U
50-32-8	Benzo(a)pyrene		370	U
193-39-5	Indeno[1,2,3-cd]pyrene		370	U
53-70-3	Dibenz(a,h)anthracene		370	U
191-24-2	Benzo(g,h,i)perylene	4	370	U

b Name: AENI		Contract: 9510	310	
ject No.: OHM45	Site:	Location:		Group:
trix: (soil/water)	SOIL		Lab Sample ID:	951108VB
nple wt/vol:	30.0 (g/mL) G		Lab File ID:	DK180.D
el: (low/med)	LOW		Date Received:	
Moisture: 0	decanted: (Y/	N): N	Date Extracted:	11/8/95
ncentrated Extract V	olume: 1000 (uL)		Date Analyzed:	
ction Volume:	1.0 (uL)		Dilution Factor:	1.0
C Cleanup: (Y/N)	N :	oH:	A contract of	
		Concentration	Units:	
CAS No.	Compound	(ug/L or ug/Kg)	ug/Kg	a
91-20-3	Naphthalene		330	U
91-57-6	2-Methylnaphthalene		330	U
91-58-7	2-Chloronaphthaiene		330	υ
208-96-8	Acenaphthylene		330	U
83-32-9	Acenaphthene		330	U
132-64-9	Dibenzofuran		330	U
86-73-7	Fluorene		330	U
85-01-8	Phenanthrene		330	U
120-12-7	Anthracene		330	U
206-44-0	Fluoranthene	- 1	330	U
129-00-0	Pyrene		330	U
56-55-3	Benzo(a)anthracene		330	U
218-01-9	Chrysene		330	U
205-99-2	Benzo(b)fluoranthene	-	330	U
207-08-9	Benzo(k)fluoranthene		330	U
50-32-8	Benzo(a)pyrene		330	Ü
193-39-5	Indeno[1,2,3-cd]pyrene		330	U
53-70-3	Dibenz(a,h)anthracene		330	υ
191-24-2	Benzo(g,h,i)perylene		330	U
101242	Denzelghi, iber hene		000	
		1		

2C

## Am Done . WATER SEMIVOLATILE SURROGATE RECOVERY

.ab Name:	AENI		Contract: 9510310	
roject No.:	OHM45	Site:	Location:	Group:

	SAMPLE NO.	S1 (2FP)	#	S2 (PHL)	#	S3 (NBZ)	#	S4 (FBP)	#	S5 (TBP) #	S6 (TPH)	#	#	#	TOT OUT
01	SBLK01	48		72	H	81		72		78	85				
02	TCLPBLK	52		77		80		65		73	74				
03	TCLPBLKMS	57		44	3	109		70		75	71				
04	EX2527DP1	67	D	85	D	85	D	91	D	84 D	102	D			
05	EX2527DP2	66	D	72	D	79	D	86	0	83 D	99	0			
06	EX2527DP3	55	D	70	D	86	D	83	D	77 D	97	D			
07	EX2527DP4 .	63	D	67	D	82	D	89	D	74 D	107	D			I.I
08	EX2527DP5	64	D	69	0	79	D	86	D	76 D	100	D			
09	EX2527DP-DUP	63	D	74	D	83	D	86	0	78 D	103	0			
10															
11															
12	- 8														
13															
14		1					-								
15								· Or							
16															
17															
18	*		0												
19															
20															
21															
22															
23															
24					+1										
25															
26															
27															
28															
29															
30															

QC LIMITS S1 (2FP) - 2-Fluorophenol (21-100) S2 (PHL) - Phenol-d5 (10-94) S3 (NBZ) - Nitrobenzene-d5 S4 (FBP) - 2-Fluorobiphenyl (34-114) (43-116) S5 (TBP) - 2,4,6-Tribromophenol S6 (TPH) - Terphenyl-d14 (10-123) (33-141)

# Column to be used to flag recovery values

- \* Values outside of contract required QC limits
- D Surrogate diluted out

## 3C WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: AENI		Contract: 9510310		
Project No.:	OHM45	Site:	Location:	Group:
Matrix Spike	· Sample No.:	TCLPBLK		

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION - (ug/L)	MS % REC	QC. LIMITS REC.
Phenol	200	0	28	14	(12-89)
2-Chiorophenol	200	0	106	53	(27-123)
1,4-Dichlorobenzene	100	0	84	84	(36-97)
N-Nitroso-di-n-propylamine	100	0	101	101	(41-116)
1,2,4-Trichlorobenzene	100	0	90	90	(39-98)
4-Chloro-3-methylphenol	200	0	160	80	(23-97)
Acenaphthene	100	0	78	78	(46-118)
2,4-Dinitrotoluene	100	0	87	87	(24-96)
4-Nitrophenol	200	0	150	75	(10-80)
Pentachlorophenol	200	0	140	70	(9-103)
Pyrene	100	0	63	63	(26-127)

COMPOUND	SPIKE ADDED (ug/L)	MSD - CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC L	IMITS
Phenol	(og/L)	logici	THEO H	1110 #	42	(12-89)
2-Chlorophenoi					40	(27-123)
1,4-Dichlorobenzene					28	(36-97)
N-Nitroso-di-n-propylamine					38	(41-116)
1,2,4-Trichlorobenzene			With the		28	(39-98)
4-Chloro-3-methylphenol					42	(23-97)
Acenaphthene					31	(46-118)
2,4-Dinitrotoluene				100	38	(24-96)
4-Nitrophenol					50	(10-80)
Pentachlorophenol					50	(9-103)
Pyrene					31	(2G-127)

<sup>(1)</sup> N-Nitroso-di-n-propylamine

Values outside of QC limits

Comments:	

## **4B** SEMIVOLATILE METHOD BLANK SUMMARY

SAMPLE NO.

.ab Name:	AENI			Contract:	9510310		SBLKU1	
Project No.:	ОНМ4	5	Site:		Location:		Group:	
ab File ID:	DK15	1.0				Lab Sample ID:	951106JA	
nstrument IC	):	MSD 1				Date Extracted:	11/6/95	
Matrix: (soil/	water)	WATER				Date Analyzed:	11/10/95	
.evel: {low/m	ed)		6.	ž.		Time Analyzed:	1331	

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
TCLPBLK	1103TBLK	DK153.D	11/10/95
TCLPBLKMS	1103BS	DK154.D	11/10/95
EX2527DP1	#013	DK155.D	11/10/95
EX2527DP2	#014	DK156.D	11/10/95
EX2527DP3	#015	DK157.D	11/10/95
EX2527DP4	#016	DK177.D	11/11/95
EX2527DP5	#017	DK178.D	11/11/95
EX2527DP-DUP	#018	DK179.D	11/11/95
		4	
	1,11		

COMMENTS:	-			

Lab Name:	AENI		Contract: 9510310	The control of
Project No.:	OHM45	Site:	Location:	Group:
Matrix: (soil	(water)	LEACH	Lab Sample I	D: #013
Sample wt/v	ol:	500.0 (g/mL) ML	Lab File I	D: DK155.D
Level: (lov	v/med)			od: 10/30/95
% Moisture:				id: 11/6/95
		decanted: (*		A CONTRACTOR
Concentrate	d Extract Vo	lume: 1000 (uL)	Date Analyze	od: 11/10/95
Injection Vol	ume:	1.0(uL)	Dilution Factor	or: 2.0
GPC Cleanup	o: (Y/N)	N	pH:	
			Concentration Units:	
CA	IS No.	Compound	(ug/L or ug/Kg) ug/L	Q
11	0-86-1	Pyridine	40	UD
	6-46-7	1,4-Dichlorobenzene	40	UD
95	-48-7	2-Methylphenol	40	UD
10	8-39-4	3-Methylphenol	40	UD ·
67	-72-1	Hexachloroethane	40	UD
10	6-44-5	4-Methylphenol	40	UD
98	-95-3	Nitrobenzene	40	UD
87	-68-3	Hexachlorobutadiene	40	מט
88	-06-2	2,4,6-Trichlorophenol	40	UD
95	-95-4	2,4,5-Trichlorophenol	200	UD
12	1-14-2	2,4-Dinitrotoluene	40	UD
11	8-74-1	Hexachlorobenzene	40	UD
87	-86-5	Pentachiorophenol	200	UD
		- ^ -		
3				

ab Na	me: AENI		Contract: 9510310	_
roject	No. OHM45	5 Site:	Location:	Group:
latrix	(soil/water)	LEACH	Lab Sample	D: #014
ample	wt/vol:	500.0 (g/mL) ML	Lab File	ID: <u>DK156.D</u>
evel:	(low/med)		Date Recei	ved: 10/30/95
Moi	sture:	decanted: (1	(/N): N Date Extrac	ted: 11/6/95
oncer	ntrated Extract			zed: 11/10/95
	on Volume:	1.0 (uL)	Dilution Fa	
	leanup: (Y/N)	N	рН:	
- 6	icanap. (1)14)	-	Concentration Units:	
	CAS No.	Compound	(ug/L or ug/Kg) ug/L	Q
		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
	110-86-1	Pyridine	40	UD
	106-46-7	1,4-Dichlorobenzene	40	UD
	95-48-7	2-Methylphenol	40	UD
-	108-39-4	3-Methylphenol	40	UD
	67-72-1	Hexachloroethane	40	UD
	106-44-5	4-Methylphenol	40	UD
	98-95-3	Nitrobenzene	40	UD
	87-68-3	- Hexachlorobutadiene	40	UD
	88-06-2	2,4,6-Trichlorophenol	40	UD
	95-95-4	2,4,5-Trichlorophenol	200	UD
	121-14-2	2,4-Dinitrotaluene	40	UD
	118-74-1	Hexachiorobenzene	40	UD
	87-86-5	Pentachlorophenol	200	UD
	0			

SAMPLE NO. EX2527UP3

b Name: AENI		Contract: 9510310	
oject No.: OHM45	Site:	Location:	Group:
trix: (soil/water)	LEACH	Lab Sample II	D: #015
mple wt/vol:	500.0 (g/mL) ML	Lab File II	D: DK157.D
rel: (low/med)		Date Receive	d: 10/30/95
Moisture:	decanted: (	(Y/N): N Date Extracte	d: 11/6/95
ncentrated Extract V	olume: 1000 (uL)	Data Analyza	d: 11/10/95
ction Volume:	1.0 (uL)	Dilution Facto	
Cleanup: (Y/N)	N	pH:	
CAS No.	Compound	Concentration Units:  (ug/L or ug/Kg) ug/L	Q
110-86-1	Pyridine	40	UD
106-46-7	1,4-Dichlorobenzene	40	UD
95-48-7	2-Methylphenol	40	UD
108-39-4	3-Methylphenol	40	UD
67-72-1	Hexachloroethane	40	UD
106-44-5	4-Methylphenol	40	UD
98-95-3	Nitrobenzene	. 40	UD
87-68-3	Hexachlorobutadiene	40	UD
88-06-2	2,4,6-Trichlorophenol	40	UD
95-95-4	2,4,5-Trichlorophenol	200	UD
121-14-2	2,4-Dinitrotoluene	40	UD
118-74-1	Hexachlorobenzene	40	UD
87-86-5	Pentachlorophenol	200	UD

SAMPLE NO. EX25270P4

ab Name:	AENI		Contract:	9510310		
roject No.:	0HM45	Site:	Location:		Group:	
Matrix: (soil	(water)	LEACH		Lab Sample ID:	#016	
Sample wt/v	ol:	500.0 (g/mL) ML		Lab File ID:	DK177.D	
evel: (low	//med)			Date Received:	10/30/95	
Moisture:		decante	ad: (Y/N): N	Date Extracted:	11/6/95	
Concentrate	d Extract Vol	ume: 1000 (uL)	-	Date Analyzed:	11/11/95	
njection Vol	ume:	1.0 (uL)		Dilution Factor:	2.0	
SPC Cleanup	: (Y/N)	N	pH:			
				ration Units:		
CA	S No.	Compound	(ug/L or ug/Kg	ug/L	a	Ŷ
11	0-86-1	Pyridine		40	UD	
10	6-46-7	1,4-Dichlorobenzene		40	UD	
95	-48-7	2-Methylphenol		40	UD	
10	8-39-4	3-Methylphenol		40	UD	
67	-72-1	Hexachloroethane		40	UD	
10	6-44-5	4-Methylphenol		40	UD	
98	-95-3	Nitrobenzene		40	UD	
87	-68-3	Hexachlorobutadiene		40	UD	
88	-06-2	2,4,6-Trichlorophenal		40	UD	
95	-95-4	2,4,5-Trichlorophenol		200	UD .	
12	1-14-2	2,4-Dinitrotoluene		40	UD	
11	8-74-1	Hexachlorobenzene		40	UD	
87	-86-5	Pentachlorophenol		200	UD	
1/5						
-						
-						
-						
_						
_						
_						
_						

Alta Filipia

Exemple ID: #017  Lab File ID: DK178.D  te Received: 10/30/95  te Extracted: 11/6/95  te Analyzed: 11/11/95  ution Factor: 2.0
Lab File ID: DK178.D  te Received: 10/30/95  te Extracted: 11/6/95  te Analyzed: 11/11/95  ution Factor: 2.0
te Received: 10/30/95 te Extracted: 11/6/95 te Analyzed: 11/11/95 ution Factor: 2.0
te Analyzed: 11/11/95 ution Factor: 2.0
te Analyzed: 11/11/95 ution Factor: 2.0
ution Factor: 2.0
unli O
- ug/L
UD
UD
UD

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET SAMPLE NO. **C):252**7 bt - bUt

b Name:	AENI		Contract:	9510310	
ject No.:	OHM45	Site:	Location:		Group:
trix: (soil	(water)	LEACH		Lab Sample ID:	#018
pie wt/v	ol:	500.0 (g/mL) ML		Lab File ID:	DK179.D
el: (low	v/med)			Date Received:	10/30/95
Aoisture:		decanted: (Y/N)	:N	Date Extracted:	11/6/95
centrate	d Extract Vol	ume: 1000 (uL)		Date Analyzed:	11/11/95
tion Vol	ume:	1.0(uL)		Dilution Factor:	2.0
Cleanup	ı: (Y/N)	N pH			
			Concentra	ation Units:	
CA	IS No.	Compound	(ug/L or ug/Kg)	ug/L	Q
11	0-86-1	Pyridine		40	UD
10	6-46-7	1,4-Dichlorobenzene		40	UD
95	48-7	2-Methylphenol	4	40	UD
10	8-39-4	3-Methylphenol		40	UD
67	-72-1	Hexachloroethane		40	UD
10	6-44-5	4-Methylphenol		40	UD
	-95-3	Nitrobenzene		40	UD
	-68-3	Hexachlorobutadiene		40	UD
	-06-2	2,4,6-Trichlorophenol		- 40	UD
	-95-4	2,4,5-Trichlorophenol		200	UD
	1-14-2	2,4-Dinitrotoluene		40	UD
	8-74-1	Hexachlorobenzene	10	40	UD
	-86-5	Pentachlorophenol		200	UD
1					
					1

Name: AENI		Contract: 951	0310	881
ect No.: OHM4	5 Site:	Location:		Group:
rix: (soil/water)	LEACH		Lab Sample ID:	951106JA
ple wt/vol:	1000.0 (g/mL) ML		Lab File (D:	DK151.D
i: (low/med)			Date Received:	
loisture:	decanted: (Y	/N): N	Date Extracted:	11/6/95
centrated Extrac	t Volume: 1000 (uL)		Date Analyzed:	11/10/95
tion Volume:	1.0(uL)		Dilution Factor:	1.0
Cleanup: (Y/N)	N	pH:		
		Concentration	Units:	
CAS No.	Compound	(ug/L or ug/Kg)	ug/L_	a
110-86-1	Pyridine	-	10	U
106-46-7	1,4-Dichlorobenzene		10	U
95-48-7	2-Methylphenol		10	U
108-39-4	3-Methylphenol		10	U
67-72-1	Hexachioroethane		10	U
106-44-5	4-Methylphenol		10	U
98-95-3	Nitrobenzene		10	U
87-68-3	Hexachlorobutadiene		10	U
88-06-2	2,4,6-Trichlorophenol		10	U
95-95-4	2,4,5-Trichlorophenol		50	U
121-14-2	2,4-Dinitrotoluene		10	U
118-74-1	Hexachlorobenzene		10	U
87-86-5	Pentachlorophenol		50	U
1				

Name: AENI		Contract: 951	0310	
ject No.: OHM45	Site:	Location:		Group:
rix: (soil/water)	LEACH		Lab Sample ID:	1103TBLK
nple wt/voi:			Lab File ID:	DK153.D
el: (low/med)			Date Received:	
Moisture:	decanted: (Y/N):	<u> </u>	Date Extracted:	11/6/95
centrated Extract Vo	lume: 1000 (uL)		Date Analyzed:	11/10/95
ction Volume:	1.0 (uL)		Dilution Factor:	1.0
Cleanup: (Y/N)	NpH:			
0.01	•	Concentration		
CAS No.	Compound (	ug/L or ug/Kg)	ug/L	a
110-86-1	Pyridine		20	U
106-46-7	1,4-Dichlorobenzene		20	U
95-48-7	2-Methylphenol		20	U
108-39-4	3-Methylphenol		20	U
67-72-1	Hexachloroethane		20	U
106-44-5	4-Methylphenol		20	U
98-95-3	Nitrobenzene		20	U
87-68-3	Hexachlorobutadiene		20	U
88-06-2	2,4,6-Trichlorophenol		20	U
95-95-4	2,4,5-Trichlorophenol		100	U
121-14-2	2,4-Dinitrotoluene		20	U
118-74-1	Hexachlorobenzene		20	U
87-86-5	Pentachlorophenol		100	U
-				
		2		

## AMERICAN ENVIRONMENTAL NETWORK, INC.

November 2, 1995

Client: OHM CORPORATION

Case: 9510310

Project: FORT DEVENS

Analysis: PCBs by SW-846 Method 8080

Client ID	AENI#	Date Sampled	Date Received	Date Extracted	Date Analyzed
EX2527DP1	9510310-001	10/27/95	10/30/95	11/01/95	11/01/95
EX2527DP2	9510310-003	10/27/95	10/30/95	11/01/95	11/01/95
EX2527DP3	9510310-005	10/27/95	10/30/95	11/01/95	11/01/95
EX2527DP4	9510310-007	10/27/95	10/30/95	11/01/95	11/02/95
EX2527DP5	9510310-009	10/27/95	10/30/95	11/01/95	11/02/95

Five soil samples were extracted and analyzed for PCB's by SW-846 method 8080.

The enclosed package consists specifically of tabulated results (Form I), surrogate spike recoveries (Form II), and lab control sample recovery (Form III).

## Form I (Tabulated Results)

The qualifier "U" indicates that a compound was analyzed for but not detected at or above the detection limit. The samples were extracted and analyzed within the method recommended holding time.

## Form II (Surrogate Spike Recoveries)

All recoveries are based on a single column analysis.

All surrogate recoveries were within EPA CLP criteria (60-150%).

## Form III (Matrix Spike Recoveries)

A blank spike (BS) was prepared with this sample delivery group. BS recovery was within SW-846 method 8080 criteria (29-131%).

Data Released By Nobelfengel

Noble Wemieboka

GC/LC Acting Laboratory Manager

## AMERICAN ENVIRONMENTAL METWOOK, INC. ORGANIC ANALYSIS DATA SKEET

PCBs BY 808

Contract Number:951031	PC8s 8Y 8080	***************************************	
Client Name:OHM CO	RPORATION	CLIENT NUMBER: EX2527DP1	
Project:FORT D	EVENS	***************************************	
		AENI #: 9510310-001	
Concentration	: Low		
Date Sampled	10/27/95	GPC Cleanup: Yes[] No[X]	
Date Received	:10/30/95	Sonication Ext: DC	
Date Extract	Prepared :11/01/95	Soxhlett Ext: []	
Date Analyzed	11/01/95	MetrixSOIL	
Conc/Dil Facto	or: 1	Percent Moisture: 0	

	ug/l	Kg	1.
COMPOUND	CONCENTRATION	DETECTION LIMIT	QUALIFIER
AR1016		20	U
AR1221		20	U
AR1232		20	U
AR1242		20	U
AR1248		20	U
AR1254		39	U
AR1260	1	39	U

U-Indicates that a compound was analyzed for but not detected at or above the detection limit.

Vi - Volume of extract injected (ul) - \_\_\_\_\_1

Vs - Volume of water extracted (ml) - \_\_\_\_\_N/A

Vs - Nass of soil extracted (g) - \_\_\_\_\_30.43

Vt - Volume of total extract (ul) - \_\_\_\_\_10000

## AMERICAN ENVIRONMENTAL BETWORK, INC. ORGANIC AMALYSIS DATA SHEET

Contract Number	-:9510310	PCBs BY 8080			****
Client Name:	OHM CORPORATION		CLIENT NUMBER	R: EX2527DP2	1
Project:	FORT DEVENS				
			AENI #:	9510310-003	
(	Concentration: Low				
- 0	Date Sampled :10/27	7/95	GPC Cleanup:	Yes[] No[X]	
	Date Received :10/30	1/95	Soni	cation Ext: D()	
	Date Extract Prepared :11/01	/95	Sox	hlett Ext: []	
	Date Analyzed:11/01	/95	Metrix	SOIL	
	Constil Contains 4		Bassana Mais		

	ug/Kg		1
COMPOUND	CONCENTRATION	DETECTION LINIT	QUALIFIER
AR1016		20	U
AR1221		20	U
AR1232		20	U
AR1242		20	U
AR1248		20	U
AR 1254		39	U
AR1260		39	U

U-Indicates that a compound was analyzed for but not detected at or above the detection limit.

Vi - Volume of extract injected (ul)	1
Vs - Volume of water extracted (ml)	H/A
Ws - Mass of soil extracted (g)	30.61
Vt - Volume of total extract (ul)	10000

#### AMERICAN ENVIRONMENTAL NETWORK, INC. ORGANIC ANALYSIS DATA SHEET

Contract Number:9510310	PCBs BY 8080	***************************************	**********************
Client Hame: OHM CORP	ORATION	CLIENT MUMBER:	EX2527DP3
Project:FORT DEV	ENS		
		AENI #:	9510310-005
Concentration:	Low		
Date Sampled :_	10/27/95	GPC Cleanup:	Yes[] No[X]
Date Received :	10/30/95	Sonica	tion Ext: [X]
Date Extract Pr	epered :11/01/95	Soxh	ett Ext: []
Date Analyzed:_	11/01/95	Metrix	SOIL
Come Mil Englan		Dancent Maint	

20022100022288	ug/l	(g	1
COMPOUND	CONCENTRATION	DETECTION LIMIT	QUALIFIER
AR1016		. 20	U
AR1221		20	U
AR 1232		20	U
AR1242		20	U
AR1248		20	U
AR1254		. 40	U
AR1260		40	U

U-Indicates that a compound was analyzed for but not detected at or above the detection limit.

Vi - Volume of extract injected (ul)	1
Vs - Volume of water extracted (ml)	N/A
Ws - Mass of soil extracted (g)	30.00
Vt - Volume of total extract (ul) -	1000

#### AMERICAN ENVIRONMENTAL NETWORK, INC. ORGANIC AMALYSIS DATA SHEET

Contract Number:9510310	PCBs BY 8080	***************************************	• • • • • • • • • • • • • • • • • • • •	
Client Name:OHM CORPO	DRATION	CLIENT NUMB	ER: EX2527DP4	1
Project:FORT DEVI	ENS	***********		
		AENI #:	9510310-007	
Concentration:	Low			
Date Sampled :_	10/27/95	GPC Cleanup	: Yes[] NoDX]	
Date Received :	10/30/95	Son	ication Ext: [X]	
Date Extract Pr	epered :11/01/95	So	xhlett Ext: []	
Date Analyzed:_	11/02/95	Matrix	SOIL	
Conc/Dil Factor		Percent Mai		

	ug/l	(g	1
COMPOUND	CONCENTRATION	DETECTION LIMIT	QUALIFIER
AR1016		19	U
AR1221		19	U
AR1232		19	U
AR1242		19	U
AR1248		19	U
AR1254		39	U
AR1260		39	U

U-Indicates that a compound was analyzed for but not detected at or above the detection limit.

> Vi - Volume of extract injected (ul) - \_\_\_\_1 Vs - Volume of water extracted (ml) - \_\_\_\_N/A We - Mass of soil extracted (g) - \_\_\_\_\_30.87 Vt - Volume of total extract (ul) - \_\_\_\_\_10000

### AMERICAN ENVIRONMENTAL NETWORK, INC. ORGANIC AMALYSIS DATA SHEET

PCRe BY ROSO

Contract Nu	mber:9510310	PCBs BY 8080		
Client Name	:OHN CORPORAT	ION	CLIENT NUMBER: EX2527DP5	1
Project:	FORT DEVENS			-
-			AENI #: 9510310-009	
	Concentration: Los	i.		
	Date Sampled :	10/27/95	GPC Cleanup: Yes[] No[X]	
	Date Received :	10/30/95	Sonication Ext: [X]	
	Date Extract Prepare	ed :11/01/95	Soxhiett Ext: []	
	Date Analyzed:	11/02/95	MatrixSOIL	
	Conc/Dil Factor:		Percent Moisture:0	

	ug/	(g	1
COMPOUND	CONCENTRATION	DETECTION LIMIT	QUALIFIER
AR1016		19	U
AR1221		19	U
AR1232		19	U
AR1242		19	U
AR1248		19	U
AR1254		39	U
AR1260		39	U

U-Indicates that a compound was analyzed for but not detected at or above the detection limit.

Vi	•	Volume of extract injected (ul)	1
٧s		Volume of water extracted (ml)	N/A
Ws	-	Mass of soil extracted (g) -	31.05
Vt		Volume of total extract (ul) -	10000

#### AMERICAN ENVIRONMENTAL NETWORK, INC. ORGANIC ANALYSIS DATA SHEET PCBs BY 8080

Contract Number:\_\_\_\_9510310 Client Name: \_\_\_OHM CORPORATION FORT DEVENS Project:\_\_ Concentration: Low

1	CLIENT	MUMBER:	PBLK01
	ACMI		BI KOS1101VA

Date Sampled :\_\_\_\_ Date Received : N/A

Date Extract Prepared :11/01/95 11/02/95

Date Analyzed: Conc/Dil Factor: GPC Cleanup: Yes[] No[X] Sonication Ext: D()

Soxhlett Ext: []

SOIL

Percent Moisture: 0

	ug/l	(g	1.
COMPOUND	CONCENTRATION	DETECTION LIMIT	QUALIFIER
AR1016		20	U
AR1221		20	U
AR1232		20	U
AR1242		20	U
AR1248		20	U
AR1254		40	U
AR1260		40	U

U-Indicates that a compound was analyzed for but not detected at or above the detection limit.

Vi - Volume of extract injected (ul) - \_\_\_\_1

Vs - Volume of water extracted (ml) - \_\_\_\_N/A

Ws - Mass of soil extracted (g) - \_\_\_\_\_30

Vt - Volume of total extract (ul) - \_\_\_\_\_10000

#### AMERICAN ENVIRONMENTAL NETWORK, INC. ORGANIC AMALYSIS DATA SHEET

Contract Humber: \_\_\_\_9510310 PCBs BY 8080 Client Name:\_\_\_ OHM CORPORATION CLIENT HUMBER: BS Project:\_\_ FORT DEVENS AENI #: 85951101VA Concentration: Low GPC Cleanup: Yes[] No DC Date Sampled : M/A Date Received : W/A Sonication Ext: DO Date Extract Prepared :11/01/95 Soxhlett Ext: [] Matrix SOIL Date Analyzed: 11/02/95 Conc/Dil Factor:\_\_\_ Percent Moisture:

	ug/1	g	1
COMPOUND	CONCENTRATION	DETECTION LIMIT	QUALIFIER
AR1016		20	U
AR1221		20	U.
AR1232	The state of the s	20	U
AR1242		20	U
AR1248		20	υ
AR1254	150	40	
AR1260		40	U

U-Indicates that a compound was analyzed for but not detected at or above the detection limit.

Vi - Volume of extract injected (ul) - \_\_\_\_\_1

Vs - Volume of water extracted (ml) - \_\_\_\_\_N/A

Ws - Mass of soil extracted (g) - \_\_\_\_\_30

Vt - Volume of total extract (ul) - \_\_\_\_\_10000

## SOIL SURROGATE PERCENT RECOVERY PCB'S BY SW-846 METHOD 8080

Case no: 9510310

Laboratory: American Environmental Network, Inc.

Client ID	AEN ID	% Rec DCB (60-150)
PBLK01	BLK951101VA	104
BS	BS951101VA	108
EX2527DP1	9510310-001	118
EX2527DP2	9510310-003	137
EX2527DP3	9510310-005	133
EX2527DP4	9510310-007	133
EX2527DP5	9510310-009	141

DCB - Decachlorobiphenyl

\* - Surrogate outside control limits.

D - Surrogate diluted out.

M - Surrogate masked by interfering peaks

## ORGANIC ANALYSIS DATA SHEET AMERICAN ENVIRONMENTAL NETWORK, Inc.

Case Number:	9510310
Method:	PC8 8080
Matrix:	Soil
Analysis Date:	11/2/95

#### Units of AR 1254 in ug/kg

CLIENT ID.	AENI ID.	Spike Added	Sample Results	Conc. BS	% Rec
BS	BS951101VA	170	0	150	88

#### AMERICAN ENVIRONMENTAL NETWORK, INC.

November 16, 1995

Client:

OHM CORPORATION

Case:

9510310

Project: FORT DEVENS

Analysis: PCBs by SW-846 Nethod 8080

Date

Date

Date

Date

Client ID

AENI#

Sampled

Received Extracted Analyzed

EX2527DP-DUP

9510310-011

10/27/95 10/30/95 11/14/95 11/15/95

One soil sample was extracted and analyzed for PCB's by SW-846 method 8080.

The enclosed package consists specifically of tabulated results (Form I), surrogate spike recoveries (Form II), and lab control sample recovery (Form III).

#### Form I (Tabulated Results)

The qualifier "U" indicates that a compound was analyzed for but not detected at or above the detection limit. The sample was extracted outside of holding time.

#### Form II (Surrogate Spike Recoveries)

All recoveries are based on a single column analysis.

All surrogate recoveries were within EPA CLP advisory criteria (60-150%).

#### Form III (Matrix Spike Recoveries)

A blank spike (BS) was prepared with this sample delivery group. BS recovery was within SW-846 method 8080 criteria (29-131%).

Data Released By

Noble Nemiesoka

GC/LC Acting Laboratory Manager

#### AMERICAN ENVIRONMENTAL NETWORK, INC. ORGANIC AMALYSIS DATA SHEET

Contract Num	ber:9510310	PCBs BY 8080	***************************************
Client Hame:	ONN CORPORATION		CLIENT MANGER: EX25270P-DUP
Project:	FORT DEVENS		
			AENI #: 9510310-011
	Concentration: Low		
	Date Sampled :1	0/27/95	GPC Clearup: Yes [ ] No [X]
	Date Received :1	0/30/95	Senication Ext: D()
	Date Extract Prepared :1	1/14/95	Southlett Ext: []
	Date Analyzed:1	1/15/95	Metrix901L
	Conc/Dil Factor:1		Percent Noisture:10

	ug/i	Kg	1
COMPOUND	CONCENTRATION	DETECTION	QUALIFIER
AR1016		22	U
AR1221		22	U
AR1232		22	U
AR1242		22	U
AR1248		22	U
AR1254		44	U
AR1260		44	U

U-Indicates that a compound was analyzed for but not d at or above the detection limit.	etected
Vi - Volume of extract injected (ul) -	_1
Vs - Volume of water extracted (ml) -	_W/A
We - Mass of soil extracted (g) -	_30.39
Vt - Volume of total extract (ul) -	_10000

#### AMERICAN ENVIRONMENTAL NETWORK, INC. ORGANIC AMALYSIS DATA SHEET PCBs BY 8080

Contract Number:\_ OHM CORPORATION Client Name:\_\_ FORT DEVENS Project:\_ Concentration: Low Date Sampled :\_ Date Received :\_\_ M/A Date Extract Prepared :11/14/95 Date Analyzed:\_ 11/15/95 Conc/Dil Factor:\_

9510310

***************************************
CLIENT MUNGER: POLKO1
***************************************
AENT #: BLK951114LC
OPC Cleanup: Yes[] No[X]
Sonication Ext: DXJ
Southlatt Ext: []
Hetrix SOIL

Percent Heisture:\_

	ug/	Kg .	
COMPOUND	CONCENTRATION	DETECTION LIMIT	QUALIFIER
AR1016		20	U
AR1221		20	U
AR1232		20	U
AR1242		20	U
AR1248		20	U
AR1254		40	U
AR1260		40	U

U-Indicates that a compound was analyzed for but not detected at or above the detection limit.

> Vi - Volume of extract injected (ul) - \_\_\_\_1 Vs - Volume of water extracted (ml) - \_\_\_\_N/A Ws - Mess of soil extracted (g) - \_\_\_\_\_30

Vt - Volume of total extract (ul) - \_\_\_\_\_10000

#### AMERICAN ENVIRONMENTAL NETWORK, INC. ORGANIC ANALYSIS DATA SMEET

PCRA BY ROSO

COULLECT MITTELS.	PC88 BT 6030	***************************************	-
Client Name:ONN CORP	ORATION	CLIENT MUMBER: BS	1
Project:FORT DEV	ENS	***************************************	
V-3		AEM1 #: 85951114LC	
Concentration:	Low		
Date Sampled :_	N/A	epc Clearup: Yes[] No DC]	
Date Received :	M/A	Senication Ext: DO	
Date Extract Pr	spared :11/14/95	Soxhlett Ext: [ ]	
Date Analyzed:	11/15/95	MetrixSOIL	
Conc/Dil Fector	:1	Percent Moisture: 0	

	ug/	Kg .	1
COMPOUND	CONCENTRATION	BETECTION LIMIT	QUALIFIER
AR1016		20	U
AR1221		20	U
AR1232		20	U
AR1242		20	U
AR1248		20	U
AR1254	110	40	
AR1260		40	U

U-Indicates that a compound was analyzed for but not d at or above the detection limit.	letected
Vi - Volume of extract injected (ul)	_1
Vs - Volume of water extracted (ml) -	N/A
We - Ness of soil extracted (g)	_30
Vt - Volume of total extract (ul) -	10000

## SOIL SURROGATE PERCENT RECOVERY PCB'S BY SW-846 METHOD 8080

Case no: 9510310

Laboratory: American Environmental Network, Inc.

Client ID	AEN ID	% Rec DCB (60-150)
PBLK01	BLK951114LC	71
BS	BS951114LC	91
EX2527DP-DUP	9510310-011	105
	-	
		112
		-

DCB - Decachlorobiphenyl

D - Surrogate diluted out.

M - Surrogate masked by interfering peaks

<sup>\* -</sup> Surrogate outside control limits.

## ORGANIC ANALYSIS DATA SHEET AMERICAN ENVIRONMENTAL NETWORK, Inc.

Case Number:	9510310	
Method:	PC8 8080	
Metroc	Soll	
Analysis Date:	11/15/95	

#### Units of AR 1254 in ug/kg

CLIENT ID.	AENI ID.	Spike Added	Sample Results	Conc. BS	% Rec
BS	BS951114LC	170	0	110	65
	W.				

### Appendix E

Transportation and Disposal Documentation

- MSR Temporary Soil StorageUST Disposal



Bureau of Waste Prevention

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Material Shipping Record & Log
For the shipment of contaminated soil, urban fill, and dredge materials not subject to

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

IPORTANT: his form is NOT 1. be used for the upment of mediation ustes subject to unagement ider section 310 AR 40.0035 of 1 Massachu-Its Contingency in nor is it to be ed in lieu of a zardous waste unifest for zardous waste 3. recyclable iterials subject the Massachuts Hazardous iste Regulans 310 CMR .000.

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road off of Patton Road, near	the n	ew Golf	Course	Club	House
Fort Devens	Lacatan MA		1433		
City/Town	State		Tip code		
Date/Period of generation:	5. List add	itional tracking	documents as	sociated v	with this
6/14/95 11-30-95	docume	The second secon			
From To					
U.S. EPA ID number					
	_				
MA7210025154					
1E release	-				
/ <b>2</b>					
yes 🗖 no					
	BRAC	Enviro	nmental	offi	cer
James C. Chambers	BRAC	Enviro	nmental	Offi	cer
James C. Chambers		Enviro	nmental	Offi	cer
James C. Chambers Contact name AFZD-BEO-Box 1 Street Motors	The			Offi	cer
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James C. Chambers  OFFICIAL DEFENSION TO THE PROPERTY OF THE P	ne MA	0	1433	Offi	cer
James C. Chambers Contact name AFZD-BEO-Box 1 Street aboves: Fort Devens City/Town (508) 796-3114	ne MA	0	1433	Offi	cer
James C. Chambers Contact name    AFZD-BEO-Box 1 Street address    Fort Devens Chyllown    (508) 796-3114  Geographic and edersion	MA State	0	1433	Offi	cer
James C. Chambers  Contact name  AFZD-BEO-Box 1  Great accress  Fort Devens  Chyllown  (508) 796-3114	MA State	0	1433	Offic	cer
James C. Chambers  ordad name  AFZD-BEO-Box 1  and approximation  (508) 796-3114  desprore number and edension	MA State	0	1433	Offi	cer
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James C. Chambers  ontainme  AFZD-BEO-Box 1  There aboves:  Fort Devens  Uty/Town  (508) 796-3114  Meapons number and edension  Owner and/or Operator Information  If the owner and/or operator is different from the generator	MA State	0	1433 Zu coox		
James C. Chambers  Contact name  AFZD-BEO-Box 1  Street actoress  Fort Devens  City/Town  (508) 796-3114  Telephone number and edension  If the owner and/or Operator Information  If the owner and/or operator is different from the generator  Check applicable: □ owner □ operator	MA State	0	1433 Zu coox		
James C. Chambers  Contact name  AFZD-BEO-Box 1  Street address  Fort Devens  City/Town  (508) 796-3114  Identified number and education  Owner and/or Operator Information  If the owner and/or operator is different from the generator	MA State	O In Section B, pr	1 4 3 3 Zo acce	wing into	rmation:
AFZD-BEO-Box 1  Street actoress Fort Devens  City/Town (508) 796-3114  Telephone number and extension  If the owner and/or Operator Information  If the owner and/or operator is different from the generator  Check applicable: □ owner □ operator  U.S. Army - Fort Devens	MA State	0	1 4 3 3 Zo acce	wing into	rmation:

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Telephore number and edension:

Fort Devens

(508) 796-3114



Bureau of Waste Prevention

**Material Shipping Record & Log** 

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Tracking Rumber

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

### Transporter/Common Carrier Information

P.J. Keating Company	N/A	N/A
Transporter/Common carrier mane Mark Nikitas	Hazardous washe ficures number (II applicable)	Licensing state (II applicable)
Contact purson 998 Reservoir Road	Title	
Sned Lunenberg	MA	01462
(508) 582-9931	See	Zip code
Telephone number and adversion		
Receiving Facility Information  Provide the following information on the receiving fa		
U.S. Army - Fort Deve	ns - Building 202	
Operator Facility name  James C. Chambers	BRAC Environm	ental Officer
Contact person	The DIVITORIN	dental Officer
AFZD-BEO-Box 1		1433
(508) 796-3114	State Zio co	de .
Type of facility:  asphalt batch/cold mix asphalt batch/hot Mix  Stother:	ndfil/disposal   thermal pro ndfil/daily cover   landfil/stru	
Type of facility:  asphalt batch/cold mix asphalt batch/hot Mix asphalt batch/hot Mix asphalt batch/hot Mix asphalt batch/hot Mix asphalt batch/hot Mix	ndfil/daily cover   landfii/stru	
Type of facility:    asphalt batch/cold mix	ndfil/daily cover   landfii/stru	
Type of facility:    asphalt batch/cold mix   batch/cold	ndfil/daily cover   landfii/stru	
Type of facility:    asphalt batch/cold mix   batch/cold	ndfil/daily cover   landfii/stru	
Type of facility:    asphalt batch/cold mix	a. gasoline did not struct to the structure of solutions of the structure	iesel fuel 🗹 12 oil 🗆 14 oil
Type of facility:    asphalt batch/cold mix	a. gasoline did not struct to the structure of solutions of the structure	iesel fuel 🗹 12 oil 🗆 14 oil
Type of facility:    asphalt batch/cold mix	3. Type of contamination  a.   gasoline   di   h6 oil   waste	iesel fuel 🗹 12 oil 🗆 14 oil
Type of facility:    asphalt batch/cold mix	3. Type of contamination  a.   gasoline   di   h6 oil   waste	iesel fuel 1 12 oil   #4 oil e oil   kerosene   jet fue



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Bureau of Waste Prevention

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Material Shipping Record & Log

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management made section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

### Property Description of Material (cont.)

4.	Constituents of concern (check all that apply):	7.	Estimated volume of materials:
	MAS C CO CO PE WHO NE POBS		2541
	☐ HVOCs ☐ PATH ☐ VOCs ☐ PAHS ☐ BNAs ☐ TPH ☐ Other:		Cable Yards 38 11.5
	Same in		lans
	describe		Other
5.	Analyses performed (check all that apply):	8.	Contaminant source (check one/specify):
	MAS M Cd M Cr M PB W Hg □ Na M PCBS □ HVOCs □ PATH W VOCs □ PAHS □ BNAs M TPH □ TCLP (inorganic) □ TCLP (organic)		□ transportation accident 🗹 ust 🗆 other
	PCRA CHAK. PHIFP REAC	10	describe
	assate	9.	Indicate which waste characterization support documentation is attached
6	Screening performed		site history information
	Type		☐ sampling and analytical methods/procedure. ☐ laboratory data ☐ field screening data
	Instrum ~ Used		If supporting documentation is not appended, provide an attachment stating the date and in connection with what
	Constituents		document such information was previously submitted to the facility.

### Qualified Environmental Professional Opinion

T.S. Alving & Associates

\*\*Autre of organization\*\*
Todd Alving Licensed Site Professional

\*\*Autre of professional\*\*
(508) 435-3679

Telephone number and extension

It 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."

10.20.95

Dec

License numoer

Saal

TODD
S.
ALVING
No. 4026



Material Shipping Record & Log

Tracking Rumber

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

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."

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41			
	91	191	191

Name (print)

Acknowledgment of Receipt by Receiving Facility

U.S. Army - Fort Devens - Bldg 202

Receiving Facility

James C. Chambers

PROFESSION IN (prim)

BRAC Environmental Officer

1/24/9

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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

Load Information	
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Bldg 202- Soil Staging Area, Cell A	Bulg 202 - Soil Staging Area Cell A
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11/09/95	11/09/95
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MA 12363	Inculació marino:
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11/09/95	11/09/95
1110	1115
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11/09/95	11/09/95 Date of this order
7.77	
MA C34867	MA 22685
nucl/inscor registration	Inct/Incor reparation
MA 102.67	MA 47499
53840 lbs/26.9 a	59680 Up/ 29.84 tons
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Log Sheet Volume Information	
226,700 Ms/ 113.35 Jons	Page 1 01 38
al lourne his page (acide jarantors)	

113.35 tons



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Tracking Kumasa

7-1001

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management makes section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

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MA 12363
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52380 lb/26,19 tons
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11/09/95
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Time received Inc. Inc.
11/09/95
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MA 21421
52800 Ms/26,4 tons

Log Sheet Volume Information

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Page 2 of 38

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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

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Staging Area, Cell A
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Us/26.79 tons
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Λ /
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K Log Sheet Volume Information

219,720 Us/ 169.86 tons

1001 OUTE PIS DUX (OUX POSTOS)

439 540 Us/ 219.77 tons

1001 OUTE PIS DUX (OUX POSTOS)

(59 260 Us/ 329.63 tons

Page 3 01 38

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Material Shipping Record & Log

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For the shipment of contaminated soil, urban fill, and dredge materials not subject to management not section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Load Information	334.
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natura di bansporei	Stormer a presponer
31dy 202-Soil Staging Area, Cell A	Bldg 202-Soit Staging Area, Cell 4
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MA 12363	
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1001 carried Divisit and the pack (DICK PRISONS)

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**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

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## **Material Shipping Record & Log**

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For the shipment of contaminated soil, urban fill, and dredge materials not subject to management uncersection 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Load Information	
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1 106,380 lbs/ 553 19 ton	٢

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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

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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

ion 310 CMR 40.0035 nor manifesting under 310  Load Information	
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DAD 1: G 1/2	LOAD O: AT A
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11-10.95	11.10.95
Date of shipment	Die of stromen
nie is lamper	the it shutter
MAE40038	MAC34867
nat/act mastrom	INCOUNTED MOST MOT
MA 12363	MA 10207
17,620 165/23.8 tow	61500/bs/32.5-found
and size (auto: hreshors)	low at look buttered
	2 72 52
LOAD 1: 697	LOAD 1: 6 ES
(1)001	$\subset \mathcal{I}$
DAYO	- Twe
Blag 20250il storage they	with Bldg 202 soil stage Age
Receiving tacking /	Recenting body
11.10.85	11.10.97
Date raceived ( O 14	1033
n-version.	First received
11.10.95	11,10,95
Dire of shipmen	One of stripment
Time of shariners	Time of shipment
MAB44609	NH 4252 AP
Inut/Inuto nostrator	Inca/Incornostrator
M # 21421	NH 7208 J1
61,260 165/30,6 tow	61,720/bs/30.9 pas
LOUD ED (COST) 700 (COST)	LOU BY LOUGH PROTECTION
400000 4000 4000 100	4 CO 12 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

Log Sheet Volume Information

232100 165/116.1 tows

1001 HOUTE PILS PAGE 8 01 38

1440, 220 165/720,1 tows

1001 brief overlight present of 1836, 2 tows

1001 brief overlight poetace present

additional s of this as necesJ

Tracking Rumi .

2527

# 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

Load Information	
OAD 4: 700 -	LOAD 0: 701
700	WAU TO
111111111111	1/11/1000
prave of transporer	Stommer of European
Blog 202 Soil Strage Area all's	1 Bldg 202 S. 1 Strage live
ECHANGIELING	חובשו מחייוש שר
11,10.95	11. (0.9)
	Date received
1042	1044
im reserved	Pine ricered
11110.95	
be of sharen	One of stripment
line of shipmeni	Time of sharment
12 A E 40038	MA 634807
nac/racio registreor	Inculnate negative
MA12363	MH10207
TOTAL PROPERTY OF THE PROPERTY	las en registration
64,050 165/31.6100	59820 165/29.5 tos
out se (aloc nectors)	Los sa iglos matos;
Signature of transpore:  Sharp 202 50 il Starry 60, calibb  President of transport  Incarred  In	Supranum of transcores  Bleffer 707501 Starry Cong Cong Fredering toolth  11.10.95  Time neared  11.10.95  Time neared  11.10.95  Time of streamen  NH 4252AP  Tinex/Tracer reportation  H 72085T
Trailer moistration	Train registration
62360 lbs / 30,7 too	72,140 lbs/36.1 tos
Load stall (cubic   partitions)	for the fact lattice.

K Log Sheet Volume Information	
258,400 lbs / 129.2 tous	Page 9 0138
1,672,300 lbs /836.2 tago	P191 01
1001 at al prist (CO /9/5 4	
Total critical private and the prox (conc. price/ors)	



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Make additional copies of this page as necesBureau of Waste Prevention

**Material Shipping Record & Log** 

Tracking Number

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 CMP 20 000 section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

LOAD 4: 705 /
Michael
Signature of transporter
Bldg 202 Sol Starios (ol
Pacathing tacility (1,10.95
Date received
11 · 1 b · 95
Date of shipment
Time of shipment  MAEU0038
Truck/Tractor registration
m # 12363
Trailer registratory, 68, 500 / bs / 34. 3 ton
Load size (Cubic yents/fors)
LOAD 0:
Blag zon Soil Stan Cher Coll
Receiving tacility
Delte received
Time nazived
Date of shipmant
Time of stepment
Inex/Tractor registration
Tarley and the same of the sam
Trailer registration
Load size (cubic parts/tors)



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page as necessary.

Bureau of Waste Prevention

# laterial Shipping Record & Log ARISES 64 A-1

16-1601

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

Load Information LOAD #: Signature of transporer Receiving tacilly Date received Time received Date of shipment Time of snipment Time of shipment MA 27685 Truck/Tractor registration Truck/Tractor registration Trailer registration Load size (cubic yeas/tons) LOAD #: LOAD #: MANAGE A DESQUEE: Receiving tackity Receiving tadilly Date received Date received Time received Time racelved One of strigment Date of shipment Time of shipman Time of shipmen Truck/Tractor registration Truck/Tractor registration Trailer registration Trailer registration Load size (cubic yerds/lons) Lord size (cubic yests/tons) Log Sheet Volume Information 620 165 Total carried bound (cubic parts/lors)

Total carried torward and this page (cubic yents/lons)



Bureau of Waste Prevention

**Material Shipping Record & Log** 

Note: Make additional copies of this page as necessary.

Load Information The MAN	709
OAD 0: 705 MAN	Michael
brane d transports	Bldg 202 Soil Stermore
acathling lacility	Aucenting tacility
1154	Date marked / Z 1 4
in maked () ( 0 , C(5	Term recorded 11. 10.95
ale of shipment	Doe of shipment
ine of shipmenth ABULL609	Time of shipment  MHF H 0038
IN A 21421	Inuclinator reposterion M 17 12363
57,680/65/28.8 tows	Trailer negistration  68 02016x /34.0 tz.  Load size (cubic years/hors)
	5.4
OAD 4: 710	LOAD 0: //
unature of trasquie:	where is restricted
13 low 202 Soil storage and colly	Bloom 202 Soil Stamp are
13 log 202, So. Starry area COM	Dee monthed 11.10.95
ine received 1217	Time nazelved /225
ele of shipment	Date of shipmans
line of shipment	Time of shipment
MAC34867	Inact/Tractor registration  MAY 74 G G
MA 10207  GB, ZZO Ibs/301 tone	Trains molecular (31.9 Tons)
and size (cubic varishors)	Load size (cubic particulons)

249620 lbs /124,8 town	Page (2 of 38
7 069, 400 lbs / 1034.7tous	Page 100 of 30
Total carried proved (autic participos) 23/7620 (bs / 1/58,8 tous	
Total carried boward and this page (cubic yeros/lors)	



Bureau of Waste Prevention

Shipping Record & Log

2-10000

Tracking Kumber

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

Load Information 7527 LOAD 4: 712 Signature of transporte Signature of transport BULY 200 Receiving Lacifity Receiving tadility Time received 11-10.95 Date of shipmen Time of snioment B44609 NHUDT Truck/Tractor registration Truct/Tractor registration 21421 57540/bs 760/65/ Load size (cubic yerds/tons) Signature di transporter Receiving tadility Time received Time received 10.95 Date of shipment Time of shipment MA ZZ685 425ZAP Truck/Tractor registration Inct/Tractor registration

Note: Make additional copies of this page as necessary.

K	Log	Sheet	Volume	Info	rmation
					/

202120 165/101.6

Total volume this page (bubic parts/tons) 2317,600 165/1858,8 tomo

Total carried boward (cubic yards/logs) 519 740

Total carried toward and this page (cubic partis/oris)

Page 12/01 38



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**Material Shipping Record & Log** 

Tracking Kumba

2-1086

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management unbar section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Load Information	25.57
LOAD 4: 716	LOAD 4: 71.7
Wichard	Nat Dors
Signature of transporter	Signature of transporter
ely 202 Soil Storage and CellA	Blog 202 So. 1 Struggther Call
Reciping tadity	Receiving tacility
Date received	Dee novind
1323	1325
11. 10 (9)	Time acceled / 1 1 0 0 0
Date of stripment	Dee of shipment
Time at striament	Date of chicagon.
MA/=40038	Time of shipment MAC 34867
Inual Tracks registration M. H. 12363	Incolaración registration MAIOZOT
Trailer registration	Torse materials
57,740 lbs / 28 9 hows	1-13 60 183 / 28-3 1800
Load size (culoic frantishoris)	Load size (cubic yards/lons)
LOAD 4: 7 L 8	LOAD 4: 719
LUAU V: TI	LUAD 4: 1
1760	
Bld, 202 Scil stan, come colly	Ble 202 sol Stangonsa Bl
Receiving Hadkiny	Receiving tacility
11.10.95	11.19.95
Date received 1326	Date received 13 79
Time received	Time nacived
11.10.55	11/10/95
Date of shipment	Owle bi-shipment
Time of shipment	Time of shipmen
mAB44609	
Truck/Truckr registration	Truck/factor registration
Trailor mostration	Train receive silver
59660/29.8 tons	
Load size (cubic yards/lons)	Load star (cubic yards/lons)

Log Sheet Volume Information Page 4 of 38 740 lbs/1260,41 Total carried boward (autic yards/fors) 693660 Total carded boward and this page (cubic parts/lors)



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2-10823 Tracking Kumber

**Material Shipping Record & Log** 

2527

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

Load Information	
LOAD 0: 719 Dogues	LOAD 4: 739
Signajum of transporter	Stommer of transporter
Hag 201 Soit storage own 600 M	Blog 202 Soil Shows and all
incerving Laculty	Receiving techny
11, 13.95	11.13.95
ste received	Date received
817	6833
me received	Time received
11.13-95	11.13.9+
ale of stripment	Date of stripment
me gishpries 4 C 3 4 8 6 3	Time of shipment
11(11 0) 1007	Truck/Trackor registration 2 6 85
LOCATION Registration	
MA 10207	M 347499
56,820 165/28.4 tow	Trains moderation 9 coc/Ls /30 ctors
and size (cubic participants)	3/100/03/31.0/010
and size (curic yards/rors)	Load size (cubic <sup>(</sup> parts/fons)
OAD 1: 72 Myichaul	LOAD 0: 722 / 105
onaura a mispore:	September of Easterners
Bldg 202 Soil stage over with	15th 202 Set Stagerores col
ceiving tackity	Receiving tackly
11.13.55	11.13.55
late received	Date received
0835	0 9 44
Ime received	Time received
11.13.51	11.13.95
we of shipment	Dute of shipment
ine of shipment	Time of shipment
MHE40038	MAC 34867
nuck/Tractic registration	Treat track represents
MA12363	MA10207
railer moistration	Trails assertation
56, 480 (bs/ 28.2 trus	62,400 lbs/31.2 tes
and star (clock yards/tons)	Lond size (cubic yards.Aons)
	the off the same same same

K Log Sheet Volume Information Paga 15 of 38 Total volume this page (cubic yards/tors) 2693660/65/13468 tens 929260165 Total carried larvard and this page (cutic parts/lors)



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**Material Shipping Record & Log** 

2-10515

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management access section 310 CMR 40.0035 nor manifesting under 310 CMR 30.000

Load Information

LOAD 0: 723	LOAD 4: 724
mike	
Signature di transporter	Signature of transporter
Bldg 202 Storage area cellt	Blag 202
	Parahing tacifity
Dee nearbed 1005	Dee received
Tree received	Time received
Date of shipment	Date of shipment
Time of shipment	Time of shipment
MAE 40038	mA 2
motificator registration 1412363	Truck/Tractor registration
18 200 165/29,1 tous	Trailer mossration
oad size (cutoit yards/horis)	Load size (cubic parts/fors)
LOAD 1: 725 Lager	LOAD #: 72 G
Blog Zasol Shires our cell A	Bleg Zez
Receiving facility  11-13.5	/ Lucianing Desiry
Date received (0/2	Date received
Time received  [	Time mice/ved
Date of shipment	Date of shipment
Time of shipment A C 3 4867	Time of shipment
Truck/Tractor registration MY 10207	Tract/Tractor registration  A A
Training registration 60800/65/25-4 tons	Trailer registration
Load star (cubic yeroshons)	Load size (cubic parts/fore

LOAD #: 72	24
LUAD V: V	- I Rock
	THE
Signature of transport	
Bles	on soil stanger and collet
Receiving tacfity	cor soil stangeausa colle
	1.13.5)
Date received	
	1006
Time received	
1	1.13.95
Date of shipment	
Time of shipment	
mx	155021
Truck/Tractor registra	
MI	4 4749
Trailer mossimon	
	160 lbs/29 6 tous
Lord size (cubic par	transit
LOAD #: _Z	26,
	Michael
	11/1Chief
	E 70 - 1
13 kg 2	oz for Stange use, Coli VI
Receiving Bidley	,
	1.13.95
Date received	
	044
Time nicelved	
1	1:13.95
Date of shipment	
Time of shipment	A -
M	AE 40038
Inct/Inctr nost	
M	A 12363
Trailer moistration	
LI /	17 . 11 - 1 20 2 4

Log Sheet Volume Information

214	720	165/	107.4	tons
Total volume this page	(autoc paras/tons,			
2,929	, 760	165/	464.6	ekns
Total carried toward (			1500	
Total carried soward a		perastoral /	5/2	_tons

Page 10 at 38



Bureau of Waste Prevention

**Material Shipping Record & Log** 

2-1000

Treckino Rumber

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 Load Information

	LOAD #: 161	
	31	ě
de:	Signature of transporter	_

Make additional copies of this page as necessary.

LOAD 0: 727	LOAD 0: 728
Signature of transporter	Signature of transporter
B zez Soil Staging once all A	Bizoz Soil Staying area cellis
Receiving lacility	Receiving tacility
[1.13.9)	11.13.91
1053	Date received
Time received	Time received
11.13.55	11:13:95
Date of stripment	Date of shipment
Time of shipment A 22685	Time of shipment A < 34867
Industractor registration MA47499	Inuclation indistribution MA 16 207
Training inglistration, 420/65/3: 2 town	Trailer massimon 178: 165/27.4 tens
Load size (cubic yards/lons)	Load size (cubic yeros/kons)
Michael	LOAD 1: 730 JACCE
Spielate di sasporei	Square disables
BZOZ Soil Staniace Will A	Bzen soil Stage once all
Receiving facility	Receiving tadility
11.13.55	
Date received	Data received
Time received	Time raceived
11.135	11:13:95
Date of shipment	Date of stripment
Time of shipment MAFE40038	Time of statement A 22685
Inuclifractor impostation MA 12363	Track/Tracker registration In 19 47 499
Trailer moistration	Traties registration
44,3601bx/22.2 tons	54,360 /bs/27.2 hours
Load size (cubic fards/lons)	Lord star (cubic yards/tons)

K	Inn	Sheet	Volume	Information
	LUY	SHEEL	Volume	miormation

213,820 145/ 106.9	400
Total volume this page (cubic yards/tors)	Page
3,143,980 lbs 15.7 20 tons	
Total carried lowerd (cubic plants/fors)	
3,35/ 800 165 / 16/8,9 tous	
Total carried toward and this page (cubic parts/lors)	

1701 38



Bureau of Waste Prevention

2-10823

Tracking Number

2527

al 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

Load Information LOAD #: \_73( LOAD #: Receiving tacility Time received Date of shipmen Date of shipmen Time of shipment 40038 Inucl/Iractor maistration Inct/Inch/ reported Trailer registration Trailer registration 600 Load size (Qualc parastons) LOAD #: B 202 Receiving taditity Receiving tadilly Date received Date received Time received Date of shipmen Date of stripment Time of sharpert A 1= 40038 Time of shipmen Inct/Inct/ noistate Trailer registration

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Rev. 3/94

Note:

K	og S	Sheet	Volume	Information
---	------	-------	--------	-------------

Load size (cubic yards/lons)

232900 165/ 116.5	tons
Total volume this page (cubic yards/tors)	
3 357,800 lbs/1678-9	toms
Total carlied browned (cubic participons) 3;590,800 Ns/ 1795.4	
Total carried toward and this page (cubic yents/lons)	

Page 18 of 38

Load size (cubic parts/lons)



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

Note: Make additional copies of this page as necessary.

Load Information	
LOAD 9: 735	LOAD 4: 736 M
Standare of transporter	Ta Just
n	B 202 Soil Storage oran allet
Receiving Leadily	PRICEMING SECTION CON DEPT
11,13,95	11 12 9 1
Date account of	Date received
1308	1335
Time received	Time received
11:13:95	11.13.95
Date of shipment	Date of shipment
Time of shipment 4 (34867	Time of shipmery MAC34867
Valt 10207	Truck/Tracky registration W A 107 07
Trailer registration	Trailer majstration
1.0 260 /6c/3: 1 tous	58.780/Lc/ 29.7 toos
Load size (cutoic yerds/hors)	Load size (cubic paras/sons)
LOAD 0: 737	LOAD #: 738
	All h
Michel	Val loques
SANTAIDE IN MACHINET	DO 1
B 20 2 Sol stage area cell	Bzoz Sc. 1 Storage area cell to
Receiving tacility	Receiving badility
1113,95	11,13.95
Date received 1345	Data received 1415'
Time received	Time received
11.13.95	
Date of stylpment	Dute of stripment
Time of shipment	Time of shipment
MA E 40038	MAC 34867
Truck/Tractor registration	Truck/Tractor registration
mx 17363	MA 10207
Traffer modestation	Trailer registration
61,100/hs/30.6 too	58 000 1605 /2700 tr-0
Load size (cubic yards/lons)	Lord star (cubic yards/fors)

K Log Sheet Volume Information

235.140 lbs/ 119.1 tons	. 19 . 38
Total volume this page (cubic fants/tons)	Page 17 of 38
3,590,800/los/17954 tous	
Total carried borrard (cubic parts/tons)	
3,828940 lbs/1914.5 toms	
Total carried toniand and this page (cubic parts/fors)	



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Tracking itemper

**Material Shipping Record & Log** For the shipment of contaminated soil, urban fill, and dredge materials not subject to management throat section 310 CMR 40 0035 per manifesting under 310 CMR 20 000

Load Information	
OAD 1: 739 Michael	LOAD 6: 740
instru d tarsone	Samuel disease
BZOZ Soil Starge May call M	B 202 Soil Stanfeas cell
ecelving tacility	Recording tadility
1 4 20	Determination (3.5%)
the movined	Time received
11.13-95	11.13.90
ale of shipment	Date of shipment
me of shipment MAE 40038	Time of shipment
MH 12363	Truck/Trucky registration
NN H 12363	
61,900 lbs/31.0 tons	Trailer registration
and size (cubic yerts/lors)	Load sze (cubic yerds/lors)
OAD 4: 741	LOAD 1: 742
ASTAIRE IN EAGURE.	Descrização.
BZEZ Scil Store : one celly	RZBZ Soil Starage organical
tre nealved	Dee noised
ime nazived	Time raceived
time of shipment	Date of shipmank
ine of shipment	Time of shipment
nuck/Tractor registration	Inct/Inctr noisheld
indian moistration	Trailer registration
oad star (cubic yards/lons)	Land size (cubic yards/tons)
Log Sheet Volume Information	
61,900 lbs/31.0 to	200
	raya DEL of
3,828 940 lbs / 1914.5	tons
001 carrido privad (cubic fartisfors) 3.890840 165/ 1945.5	10 03
3 890840 110/ 1945	- L



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## 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

Load Information	
LOAD 0: 749	LOAD 0: 14/
Spraine of transporter	Signature of transporter
B202 Soit Storage orea collet	Bzozsel stongeron, cell 1
1.14.95	11.19.95
0 8 0 0	0817
I'm received	
Date of stripment	Date of stripment
Inne a specially C34867	MAJE 40038
modification indication 10207	MA 12363
49,940165/25.0 time	50 12c //s/ 25.1
and star (autor yeros/tons)	Lord S.r. (CUDIC pros/fors)
LOAD 11 747	LOAD 1: 743
Managhar 17	745
PRODUMING DOLLY	According body
0819	08257
11.14.95 L	11.14.95
Dire of shipment	Dee of shipment
Time of shipment  MA325-85	Time of shipment A 22685
Truck/Tracky registration M. A. 2.7426	Inculação Aprilion 47499
179,590 165/24,8 toxs	59, 950/Ls/30 = 10m
Load star (cubic yarts/lors)	(orc se (apic pressors)

Log Sheet Volume Information

209630 165 / 104.8 tons

Page 21 of 38

Tool carried toward (addit fartischers)

4 100, 470 165 / 2050.2 tons

Tool carried toward and this page (addit partischers)

1000 carried toward and this page (addit partischers)



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**Material Shipping Record & Log** 

2-10:57 5 Tracking Rumbar

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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

/4 4	2
AD AT T	LOAD 1: 775
19 110 July	Michael
naturi di transporei	Storatum of transporter
3 202 Soit Storage area colle	BZOZSON Stange cree (ce)
11.14.95	
6845	0857
11-14.85	THE RESIDED 11.14.95
e d shipmeni	Dire or shipment
M A C 3 4 8 6 7	Time of shipment
MA 10207	MA E 40038
ct/Tractor mg/stratori	Inuclianto reportation MA12363
(ler migistration	Trailer registration
49960/h5 / 25 0 tows	Trailer mogetation 820/165/275 tomo
U SEE (COOL FRIENDS)	Load size (quoic yards/tons)
DAD - 716 A	LOAD 4: 747
11 11 11 11 11 11 11	77 0 4
interference i conten	Wel Boglish
	7
celling tadility	Percent of tabley
3 202 Soil stange are celled	BZEZ Scil Strange and cel
11.14.95	71.14.85
Te received 690 7	Time received 6 Gld
et of shipment	Date of shipmant
11.14.95	11.14,505
MA E 40078 32588	Inne of shipment  MA (3486)
uct/Tractor registration	Truct/Tractor registration
MA 12363 27020	MA10207
5 4, 030 lbs/ 27.0 hus	50,840/65/25.4 tow
nad size (cubic yardsikons)	Load star (cubic profutions)
1 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Log Sheet Volume Information	
209 850 Ks/ 104.9 h	N Page 22 01 38
al volume his page (arbic yards/lons)	Pagaof
4 100,470165/2050. 2 tone	2
4 310 320 165 / 2155.2	<b>L</b>



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Material Shipping Record & Log

Tracking Kumber

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

749
LOAD 0: + C
A Bly 202 Soil Stray was a
Recording tacility
Date received 09 42
Proce sections 1/1/14/95
Deer of shipment
Time of shipment  M. A. 3.2.5-8.8
Truck/Incider industration /4 27620
100 St. 490 lbs/25.2 tons
Lord sim (cubic year/lors)
LOAD #: 751 Mich
M Bleg Zezseil stonger ou cott
Received ring facility / 1 · 1 7 · 9 5
Delta received / O ( ~ )
Time received
Date of shipment
MA F40038
Inch/Index negatiation M. A. 17363
52,740165/264 hom
Load star (cubic yards/tons)
tows Page 22 of 38
tons Page 27 of 38

4,514,090 1651 Total carried boward and this page (cubic parts/loris)



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2-1087.3 Tracking Number

Material Shipping Record & Log

2527

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

Load Information	
DAD 0: 252	LOAD 0: 75 B Nopre
Blag 202 So I Shorms ones will	Sprane otrasporar  A Blag 202 Soil Storage acre coll
1 1 4 95	Receiving tecitity /
line received	Date received
IL.14.95	Deer of shipment
me of shipment M 14 32588	Time of shipment  NAC34867
modifiación mostadon MAZ7020	Truct/Tractor registration  M H 102 07
51,530 lbs / 25.8 tens	Trailer registration 56,040 ( los / 28.0 tous
and size (cubic yards/horis)	Load size (cubic yards/lors)
Michael	LOAD #: 755 Carces
Bleg 202 Soil Storagaser COCH	Blackong seeling
I O Y	Date received
11.14.95 Ime received	71.14.5
we of shipment	Date of shipment
Time of shipment E 4 0038	11.14.55 Three of shipment 14.325-88
MA 4323	Inex/Inext registration  MAZZCZ
Trailer registration 7,040 165/28.5 bel	54, 750/bs /27.4 tous
Load size (cubic yerds/kons)	Load stat (cubic yarts/fores)
Log Sheet Volume Information	
219,360 lbs / 109	17 tens Page 24 of 38
1514 090 165 / 22	57 0 tous
Continued the contract of the first of the contract of the con	
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2-10823

Tracking Number

2527

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

Load Information LOAD #: Date of shipment Time of shipmen Date of shorten (34867 E 40038 Truck/Tractor registration Truck/Tractor registration 2363 Trailer registration Trailer registration Load size (cubic yeros/tors) Lord size (outic years/ors) LOAD-4 P 12 Receiving that by 4.95 Date raceived Date received Three received Date of shipment Date of shipmen Time of stepment Time of shipment Inci/Incid registrator Truck/Tractor registration 27020 Lord size (cubic parts/lors) Log Sheet Volume Information 106,7 Page 25 of 38 Total volume this page (cubic fores/lors) 2366,7 tows

Total carried servant and this page (cubic pents/tons)



Bureau of Waste Prevention

HOIL OF ENTRUMBENTAL PROTECTION

2-10323

Tracking Number

**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 Load Information

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2-10823

Tracking Number

2527

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

Load Information Signature of transporte BZOZ Receiving Lacility Receiving tacility Time monived Date of shipment Date of shipmen Time of shipment MA Truck/Tractor registration Truck/Tractor registration vu it > 7020 in 14 Trailer registration 54020 145/27.0 Load size (cubic yards/lons) Load size (cubic parts/lons) LOAD 1: 1667 Receiving taciffry Date of shipment Date of shipment 34867 Time of shipment Time of shipment Truck/Tractor moistration Track/Tracky registration Land star (cubic yards fons) Load size (cubic yards/lons) Log Sheet Volume Information Page 7.7 38 8700 165 Total volume this page (cubic yards/lons) 160,780 Toda carried boward (outic parts/tons)

2689.7 tomo

Total carried boward and this page (outric pentishors)



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2-10823

Tracking Number

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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

Load Information LOAD #: Receiving tacility Receiving bedily Date of shipment Date of shipman Time of shipment Time of shipment Truck/Tractor registration Truck/Tractor registration Load size (cubic yards.fors) LOAD #: Receiving taditiv Receiving badility Date received Time received Time received Date of stripment Date of shipment Time of shipment Time of stipment Truck/Tracks registration Truck/Tractor registration Trailer registration Load stat (cubic yards/tors) Lord star (cubic yards/tons) Log Sheet Volume Information 433 430 lbs 116.7 Page 28 of 38 Total volume this page (cubic yests/tons)

279 480 lbs/2689.7. tono 612,910 1Ls/ 2806.5 tows Total carried boward and this page (cubic pants/lors)



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**Material Shipping Record & Log** 

2-10823

Tracking Number

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

Load Information	111
100:77 Mappe	LOAD 4: 7273///
value of transporer	Signature of transporter
Bldg 202 Soit Strayearea (Och	0 - 1   - 1
11.14-95	Aucumming technique   1.14.95
marked 1359	Date months / 4. 0
1114.95	11.14.9 J
of shigment	Date of shipment
od snapmeni M MC 34867	Time of shipment M M 375-88
VI 10767	Inchinator mostation PLIA 27026
4 9 720 165/ 24.9 fa	Today marketing
size (cubic yards/hors)	Load size (cubic parts/fors)
AD 0: 774	LOAD #: 775- Michael
3 logzez coil stage oran cell	Seminar and A
11.14.95	Receiving tacking 11.14.95
nicelved 1424	Date received
11.14.95	Time received
of shipment	Dee of stripment
MA 2268 T	Time of shipment M 17 1= 4003.8
trinctor registration M. A. L. 1749	Truck/Tractor registration A 12363
	Trailer registration
50,760 /bs/25.4 tons	50,440 lbs/25 2te

208690 165/	104.3 tons
Total volume this page (curbic particulous) 5 6 12 9 10 145 / 280	
Tool carried privated labox participons) 145/	
7 8 216 00 1051	cito. 8 tows

Page 29 of 38



Bureau of Waste Prevention

**Material Shipping Record & Log** 

Tracking Number

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

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Load Information	1.00
LOAD 0: 59	LOAD #: SO
Storature of transferred	Stanstum of talespoons
Bzoz sta starage / class	B 202 Coll Storage cellA
Receiving laddly	AucasMing badility
11.27.55	11-27-54
Date received	Date most-ed
Time received	Time received
11.27-95	11.27-95
Date of shipment	Date of shipmant
Time of shipmont	Time of shipment
MA77685	m A 22685
Indiffractor highs ration	MW 47499
Indian moistation	Trailer mosstraton
43,080 lhs/21.6 tow	65-880 /bs/32.9 day
and size (cubic professions)	Lord size (autic pross/ors)
LOAD 1: \$ 03	LOAD 4: 80 71 8
mafine Com	and the second
Receiving tadility	Receiving Edity
11.27-55	11.27.95
Date received	Date ricalved
Time received	Time received
11-27-95	11.27-95
Date of shipment	Date of shipment
Time of shipment  M. A. 22685	Time of shipment  NA 22685
Inch/Inch registration WAY7499	Industrial industrial on 1499
Trailer majoration	Taller moistraton
71,320 lbs/ 35.6for	5 4 820 lbs/ 27.4 fax
Lord star (cubic prosshors)	Lord da (cubic partitions)

K Log Sheet Volume Information

235 100 lbs/ 117.6 tan	30,38
Total volume this pace (autoid parts/fors)	hada 7 01 20
5,821,600 /6 / 2919,8 too	
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10,056,700 165/ 3028, 4 tons	
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aterial Shipping Record & Log

2-10323 Tracking Number

Bleg 2527

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

Load Information LOAD #: Stonature of transporter Signature of barys Receiving Laddly Receiving tacility 1.28. Time received Date of shipmen Date of SNIPTH Time of shipment Time of shipment m 4 22685 Truck/Tractor makes Incollector reportation 25- 9 dows 28. 60 Load size (audic yards/lons) LOS SE (CHOIC PETENOS) LOAD 1: 5 LOAD #: Receiving HANN Date received Time racelved Time received - 28 - 95 Doe of stigm Date of shipment Time of shipment 55682 Truct/Tractor registration

Log Sheet Volume Information 7 28160/60

Load star (outok parasitoris)

Page 3/01 38

Lord sta (outle prostorts)

6,056

,860/ Total carried librard and this pace (cubic pares/ore)



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Bureau of Waste Prevention

6-10065

**Material Shipping Record & Log** 

Tracking Number 12527

For the shipment of contaminated soil, urban fill, and dredge materials not subject to management under

Load Information	/ 2
AD 1: 869	LOAD 0: 810 / O
7.1/25	-115
nature of transporter	Sporture of baropoint
B202 Soil Stone colly	B Zozsoil stone coll
atting ladility	Historing Distry
11-28.85	
received	Date most-red
ne received	The expired
11.28.95	11. 25. 95
e of shipment	Date of stripment
ne of shipmeni	Time of shipment
4 4 52 685	m 19 2 > (-8)
d/rador registration ハ み リフィ マタ	MAY 749
(in moistration	Trailer moustation
66,720 ILS/33.7 to	
ed size (cubic yeros/lors)	Load size (cubic yesteriors)
911	012
DAD 4: 810	LOAD 1: 8 (
1/-/>	47>
Narch nanne	CA BZOZ SON Starage, O
BZ=ZSoil Storage, CO	
11-28.55	Receiving bodily
re received	Deer received
11.28-55	11-28-57
ne of shigment	Due of stripment
	_
Inte of shipment	Three of substances PM A 22685
nucl/Indox registration	Inact/Inactr reportings, I/I
MA 47499	47499
rather mobilization	Traffer registration
81,660165/426	too 69 380 /bs/34.75
oad star (cubic yards/kors)	Load star (cubic partis/lons)
Log Sheet Volume Information	
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1 17 0 0 0 1 170 5	tous Paga 3201 38

Total carried boward and this page (quoic yents/lors)



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### Material Shipping Record & Log

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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

Note: Make additional copies of this page as necessary.

Load Information	200000000000000000000000000000000000000
LOAD 4: 813 1 P 3	LOAD 4: 8/4/PS
Signature of transporter	Storarum of trafesporar
B202 Soil Storage, color	Blog Zoz Soil stonge cally
Paceholog Lacility	Receiving tectory
11-30-91	11.30.20
Date received	Diete received
	0-0-0
11.30-97	11.30.25
Date of shipment	Dee of shipment
	Time of shipment
Time of shipment	11 10
Indiffractor registration	Incot/Indoor registration
	m 17 47 49
Trailor registration	
39300/bs/19-7 tous	4398016/220/20
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LOAD 4: 815 PS	LOAD #: 814 AS
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Blog ZOZ Soil storms coll	Blay 202, Soil Storage, call
Receiving tadility	Aucuting bodily
11.30-75	_11.30.97
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Time received	Time nazived
11.30.95	11.30.25
Date of striament	One of shipment
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m H 47499	MA22685
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	M H 47499
Trailer moistration	Traffer moderation
45960/65/220 tous	42300 (65/21.2 torus
Lord star (cubic yards/ons)	Lord sta (autic partitions)
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K Log Sheet Volume Information

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Page 33 of 38



Material Shipping Record & Log

Tracking Kumber
Bldy 2527

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

J Load Information

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Luau miormanion	816 5
LOAD #: 817	LOAD 0: 518 PS
Signature of transports	Signature of banspon(r
Brong of Storage of	Broz Soil Storage Cell H
Receiving Lacility	Recalling badley
11.30.95	11-30.95
Date received	Det model
Time received	Time received
11.3095	11.30.95
Date of shipment	Date of shipment
Time of shipment	Time of shipment
Indiffractor inglistration	Incollector ingestation
A H 47499	m A 47499
Trailer moistration	Trailer moistration
44, 300 lbs/ 22.2 tous	42 320 /bs/21. 2ton
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LOAD 0: 819	LOAD #:
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12 2 x 2 Soil storage well A	*
Recalling tackly	AucaHAng bad lity
Date received	Date received
Time received	Time received
Date of shipment	Date of stripment
Time of shipment M V7 22685	Time of shipment
Inucl/Indoor registration	Truck/Trucky registration
MH47499	
Traffer registration 480/65/22.2 tous	Trafler registration
Lord star (quote prossfors)	Lord star (cubic partis/tons)
ACT 10 CO. 1 CO. 10 CO.	A CONTRACTOR OF THE STATE OF TH

Log Sheet Volume Information	
131,100 165/ 65.6 tous	Page 34 of 38
6,736,200 (65/3368.1 town	
6,867 300 lbs / 3433 7 tows	



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2-10823

Material Shipping Record & Log

Tracking Number

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

Load Information 820 Date of shipmen Time of shipment Time of shipmen Truck/Tractor mostration Trailer registration Load size (audic varas/lons) Date received Time received 2-6.95 Date of shipmer 32588 MA32583 Truck/Tractor registration

K Log Sheet Volume Information

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Total contract participates

7.107630 165/3553.8 to us

Total carried private (disc) participates)

7.339270 165/3669.6 to us

Total carried private and the page (capic participates)

Page 35 of 38



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2-10823

Tracking Number

**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 B G 2527

Load Information	
LOAD 4: 824	LOAD 0: 8 3 A
11	MIT VICE IN
Signature of transporter	Storature of transporter
BZOZ Soil storage area call	Bzoz Soil stango and all H
Aucoholing bacility	Receiving tacility
12: G-9 T	Determined
1012	(023
Time received	Time received
Date of shipment	Date of shipmani
12-6-51	12-6-95
Time of shipment M 4325-83	Time of shipment
Truck/Tractor registration	Inuck/nactor reported on
12 V7 61635	MW 27020
Trailer registration	Total to maintenance
60,680 lbs/30.3 tows	53, 000 /hs/ 26.5 tous
LOAD 4: 826	BZOZ SON Stange as well
Registing tadity	Receiving tacility
12.6-95	12.6.95
Date received Fo y 7	Data received
Time received	Time received
12.6.95	12.6.95
Date of shipment	Date of shipment
Time of shipment	Time of shipment
m 432583	MA325-85
Individual registration  N. A. C., 1635	Industractor industration  M LA 27020
Trailer registration	58,530 /65/29.3 tos
68, 120/65/34.1 tows	Lord star (cubic Pards fore)
	- I - I - I - I - I - I - I - I - I - I

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aterial Shipping Record & Log

2-10823 Tracking Number

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

879

LO	ad Information
LOAD #	: 823
AO Y.	The Salva
Cinnatum	d transporter
	202 Sot Storago CallA
Receiving I	
	12-6-95
Date receiv	1121
Time receiv	12.6.95
Date of ship	anet!
Time of shi	
I HINE CH SAR	N 432583
	or registration
- 1-7	MH 61635
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o e de la com	64,840 (65/32.4 tons
ORU SLAT (C	inc yaranus)
	836 \
LOAD #	: Alx) \
	1/4 CD
/	
	13202/soilstorage all
Receiving I	ZORIY /
	12.6 075
Date receiv	1157
Time recei	ref
	12-6-95
Date of shi	pment
Time of sh	m # 325-83
Truck/Trac	to registration Wh. A. G. L. G. 3.5
Trailer regi	70,600/bs/25.3 tous
Load star i	(abic variations)

M. Marrow
Signature of transporter
Speaking to the second Collins of
Date received 1133
12.6.97
Date of stripment
Time at shipment
Truck/Tracker Impostration
MA77020
Tradier registration  MAZZOZO  Tradier registration  55,610/45/27-8/2013  Load size (cubic pards/hors)
Load size (cubic yards/lons)
LOAD & 31 Mary Now
19 202 30, 1 Starage, collA
Perceiving bodily / 2. 6 . 7.5
LIMI /ICAIYED
Time received
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marinate most aton M27020
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K Log Sheet Volume Information

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Total carried	590	(.50	165	379	5.3	for

Paga 37 of 38



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Material Shipping Record & Log

£100L Tracking Number

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

Load Information LOAD #: \_\_ Signature of transporter Receiving Lacifly Receiving tacility 300 Time received Date of shipment Dee of snigment Time of shipment in A Time of shipmen! Truck/Tractor maistration Truct/Tractor registration Trailer registration 380/65/ Load size (audic parasitons) LONG DE (CLOIC PERS/LOTS) LOAD #:\_ LOAD #: \_ Receiving tacility Receiving tadility Date received Dam received Time received Time received Date of stripment Date of shipment Time of shipment Time of shipment Inct/Incor reportation Truck/Tractor registration Trailer registration Trailer registration Load star (cubic yards.Aons) Load star (cubic parts/lons) Log Sheet Volume Information 32,380 1 Page 38 of 38 Total volume this page (cubic parts/lors) 590,650 lbs / 3795.3 tons

3811.5 tous

,623,030/bs/

Total carried boward and this page (cubic partis/ors)



### JOHN C. TOMBARELLO & SONS, Inc. 207 MARSTON STREET . LAWRENCE, MASS, 01841

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BUYERS AND PROCESSORS OF FERROUS AND NON-FERROUS METALS PRECIOUS METALS AND ELECTRONIC SCRAP

WE ALSO SELL NEW AND USED STRUCTURAL STEEL

JUN 1 9 1995 OHM CURP SOLD TO DATE BOUGHT FROM **ADDRESS** ARTICLES RATE PRICE QUAN. ant dissing to:1149501120 4501121 9501122 2 1000 Sul 9501123 9501124 9511125 Devens tort Virm Site T 3654 T 3618 T 3601 T2527 3770 -GIEVE W611 Trout, and 1423

BRADY BUSINESS FORMS INC. 188935-80



Appendix F

Well Boring & Construction Logs

A	BT	9

## OHM

PAGE_		F_/
BORE HO	IE NO	1

PARIT								
JOB NO.	16208			I IAI		BORE	HOLE NO.	1
PROJECT	F. DEVE.	NS		LOCATION	UST-25	27 5	ITE	
DRILLING CO	ONTRACTOR	SEOLOGIA	c	DRILLING E	QUIPMENT	MOBIL	E 657	
HYDROGEO	OGIST 5 A	1661NN		DRILLER 2	AY EASTON	1/TIM	TUCKER TO	M GALVI
DATE STAR	46 ME 0754	DATE FINIS	96 0955 1PE 4" PVC	ELEVATION		7 10	TAL DEPTH	7.0'
WELL/CASIN	16 4"PVC	LENGTH	10'	SL	07 /0			
	GROUNI	WATER			CASING	CORE	SAMPLER	TUBE
DATE	TIME	DEPTH	WEATHER	TYPE			55	
			ALT: 17	DIAMETER			2"	
				HAMMER WEIGHT			300#	
				FALL			30"	
REMARKS				•				

EP TH	14	N Z B	0 >	BORE HOLE LOG		BRAPHI
DEP	NA.	BLOW COUN	HE C	LITHOLOGIC DESCRIPTION	REMARKS	rog
	1-1	4/5 5/7	1.01	U.4' BLK-BRN F-C SILTY SAND W/MANY PEBBLES, MOIST  U.6' RED-BRN F-C SILTY SAND W/MANY PEBBLES & RX FRAGS; RX FRAG IN NOSE	NO 000R/57741N	
	1-2	7/8	Ø.3'	0.3' LT GREY F-M SAND W/SILT, MANY PEBBLES; RX FRAG BLOCKING TUBE DRY - SL. MUIST	NO ODER/ST4IN	
	1-3	5/5	1.8'	0.5' BRN M SAND W/SOME SILT & SMALL DEBBLES; MOIST - V. MUIST  1,3' GREY SANDY SILT W/MANY SMALL PEBBLES, MOIST		
	14	7/9	/,3'	0.2' BRN M SILTY SAND W/PEBBLES  WET  0.1' GREY SANDY SILT W/MANY SMALL PEBBLES; THIN OXIDIZED HORIZONS  1.0' OLIVE GREEN SANDY SILT W/PEBBLES		
	,			AUGER TO 15.51 - TOP OF TILL AT 10-11, VERY SLOW PENETRATION; REACH 15.5' AT 0955, PRED TO SPOON - F. SILTY SAND W/MANY PERBLES	NO OBOR/ STAIN	
	1-5	20/23 130 FOR 6	1.2'	0.8' OLIVE GREEN SILT W/SOME F. SAND { MANY SMALL PEBBLESSRX FRAGS 0.41 RX FRAGS - FRACTURED PIECES OF RX (PHYLLITE?) SUSPECTED BED ROCK -RX WEATHERED AT TOP, FRESH AT BASE	NO ODER STAIN MOIST - V. MOIST W/FEW WET ZONES BOB = 17 BGS	5

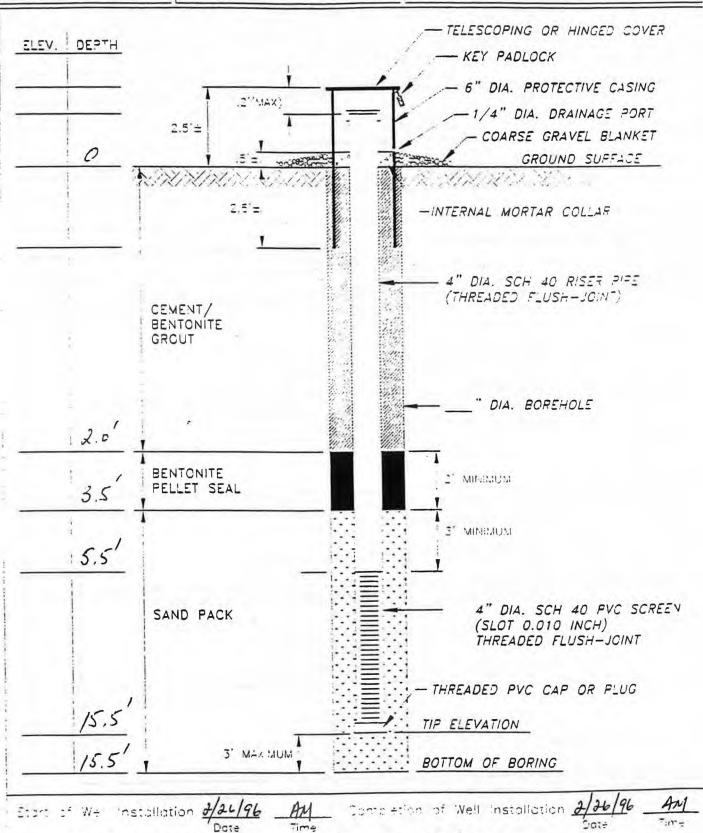


MONITORING WELL INSTALLATION DETAIL (UNCONSOLIDATED)

Project Number 16208

Project Name FT. DEVENS - 2527

Monitorina Well Number 1



SS SAZIPLE 15.5-17.5'; REFUSAL AT 17.0' ON SUSPECTED BEDRUCK

DA	RT	1	

PAGE\_/ OF\_2

BORE HOLE NO. 2

PROJECT	5	DEVENS
	111	20,0100

JOB NO. 16208

LOCATION UST-2527 SITE

DRILLING CONTRACTOR GEOLOGIC

DRILLING EQUIPMENT MOBILE 657

SURFACE TOTAL DEPTH 17.5

HYDROGEOLOGIST S. MCGINN DRILLER RAY EASTON DATE STARTITIME 1425 DATE FINISHITIME 1030 ELEVATION WELL CASING 4"PVC SCREEN TYPE 4"PVC LENGTH 10"

SLOT /0

	GROUN	D WATER			CASING	CORE	SAMPLER	TUBE
DATE	TIME	DEPTH	WEATHER	TYPE	CASING	-	55	
				DIAMETER			2"	
	L			MAMMER WEIGHT			300*	
				FALL			30"	

REMARKS

EP TH	0	N N	0 >	BORE HOLE LOG		BRAPHI
NEP	Z	COUNT PER 6	HEC -EH	LITHOLOGIC DESCRIPTION	REMARKS	LOG
2	- 1	5/3 <del>1</del> /1	1.81	0.91 BLK SILTY F-M CRG-RICH SAND W/FELL PEBBLES, MOIST  0.91 RED-BRN MED SAND W/FELL PEBBLES  AND SOME SILT, SL. MOIST	20 0002/51412	
	- 1	1/1 2/7	1.1	0.9' SAME AS ABOVE (SAA)  0.2' GREY SANDY SILT W/FEW SMALL PEBBLES, SL. MOIST	NO ODUR/STAIN	
111111111111111111111111111111111111111	- 1	5/10 14/16		6.2' SAA 1.7' GREY-BRN SILTY SAND W/MANY SMALL PEBBLES AND I LARGE OTZ FRAG.; MOIST THROUGHOUT	NO ODER/STAIN	
=		8/8		1.7' GREY W/BROWN MOTTLING, F. SANDY SILT W/MANY V. SMALL PEBBLES MOIST TO V. MOIST	NO ODOR/ST41N	
3	1-5	4/16	16	0.8' GREY & BEN SANDY SILT W/MANY V. SMAIL ANGULAR PEBBLES & RX FRAGS 0.1' RX FRAG 0.9' GREY & BRN SANDY SILT W/MANY SMALL ANGULAR PEBBLES & RX FRAGS, DENSE	NO ODOR/574,N MOIST - V. MOIST	
milion				AUGER TO 10', END OF DAY  2/23/96, 0753 - TOR OF WATER AT  7.1' BGS IN AUGERS  AUGER TO 15.5', PREP TO SPOON	NO ODOR/574/N	

PART 2

## OHM

PAGE 2 OF 2 BORE HOLE NO. 2

JOB NO 16208 PROJECT FT. DEVENS

LOCATION UST-2527 SITE

REMARKS

DEPTH	SAMPLE NO.	BLOW COUNT PER 8	RECOV - ERY	LITHOLOGIC DESCRIPTION	REMARKS	LOG
Manilon				IEMY SLOW PENETRATION THROUGH DENSE SECTION, ENCOUNTERED LARGE ROCK AT ~/2.5'BGS, REACH 15.5' BGS AT 0920	-	
	2-6	17/32 31/42	2.0'		NO ODER/STAIN	
olon handan handada				30B = 17.5'BGS		

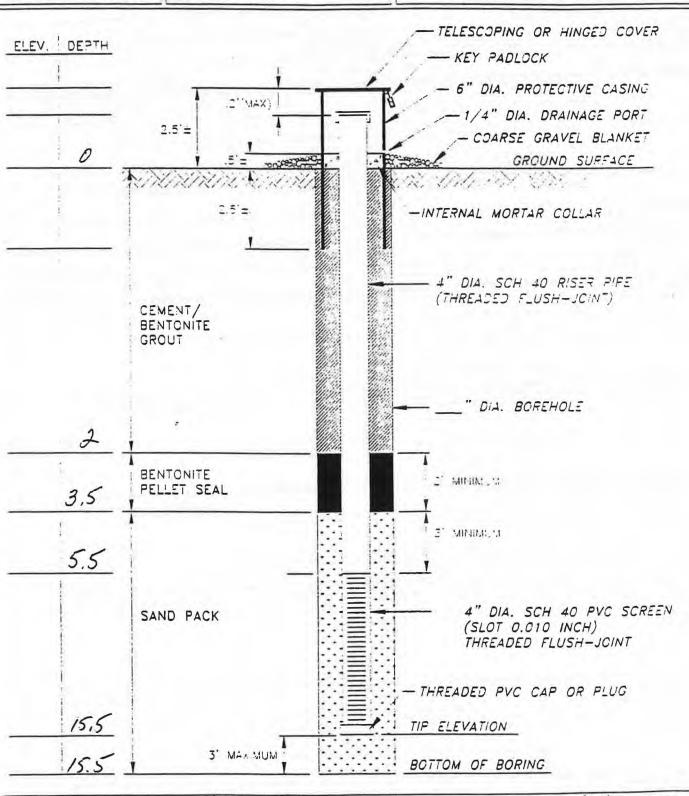


# MONITORING WELL INSTALLATION DETAIL (UNCONSOLIDATED)

Project Number 16208

Project Name Fr. Dev ENS - 2527

Monitoring Well Number 2



Start of Well Installation \$\frac{1}{23}\left| \frac{AM}{Date} \quad \text{Time} \quad \text{Completion of Well Installation \frac{1}{23}\left| \frac{AM}{Date} \quad \text{Time} \quad \text{Total Solid So

PART 1				MF		PAGE.	OF_	2
	16208			IIAI	18	BORE	HOLE NO.	.3
PROJECT	FT. DEVE	=al<		LOCATION	UST-25			
DRILLING C	ONTRACTOR	GEOLOGIA	_	DRILLING E	CHICATORY	MOBILE		
HYDRO GEO	LOGIST	MCGINN		DRILLER	AY FASTO	1/-47	11/20 H	/
DATE STAR	TITIME 0825		HITIME 1245	SURFACE		TOT	NCKER TO	181
WELL CASI	NG 4" PV	SCREEN TY	PE 4" PVC	LENGTH	10'	SLO	T 10	
	GROU	ND WATER			CASING	CORE	SAMPLER	TUBE
DATE	TIME	DEPTH	WEATHER	TYPE		_	55	
				DIAMETER			2"	
				HAMMER WEIGHT			300+	
				FALL			30"	
REMARKS	COLD, WET,	RAIN DURING	DAY, HIGH	HUMIDITY			1	
E   E	Z 6 0 >		80	DRE HOLE LO	G			GRAPI
SAMPLE NO.	COUN PER 8 TECON	LITH	OLOGIC DESC	RIPTION		RE	MARKS	LOG
3-2 5 4 = 3-2 5	3/3   3/7   1.8'   7/8	DIG BRN A PEBBLE  O.6 BRN F PEBBLE  DENSE GREY  O.2 CAVE  1.2 BRN V.  1.1 RX FRA  O.3 RD-BRN	S, DRY F-C SILTY FS & RX FRA SILT W/PE SILTY F. SA	SAND W/SHE	MARY NOSE FREBBLE	alo end	2/ STAIN	
3-4	5/8 1.7'	1.7' GREY V. PEBBLES	MOIST SILTY F-C S & RX FLA	: SAND W/. 65, MOIST	MANY		DOR/574	
3-5	/	0.9 SAA, V. 0.8' TILL - F-M SA FRAGS, BASE	MOIST - W GREY 54M IND W/MAN WET AT T	Y PEBBLE	55 RX	NO OD TOW	28-9'	, 20
Till III		AUGER TO 1 V, SILTY F- & RX FRAGS PREP TO SPO	M SAND W	IMANY PEC	TRATION 3BLES	NO OD	OR / STAI.	٠ له

PART 2

BORE HOLE NO.

JOB NO 16208 PROJECT FT. DEJENS

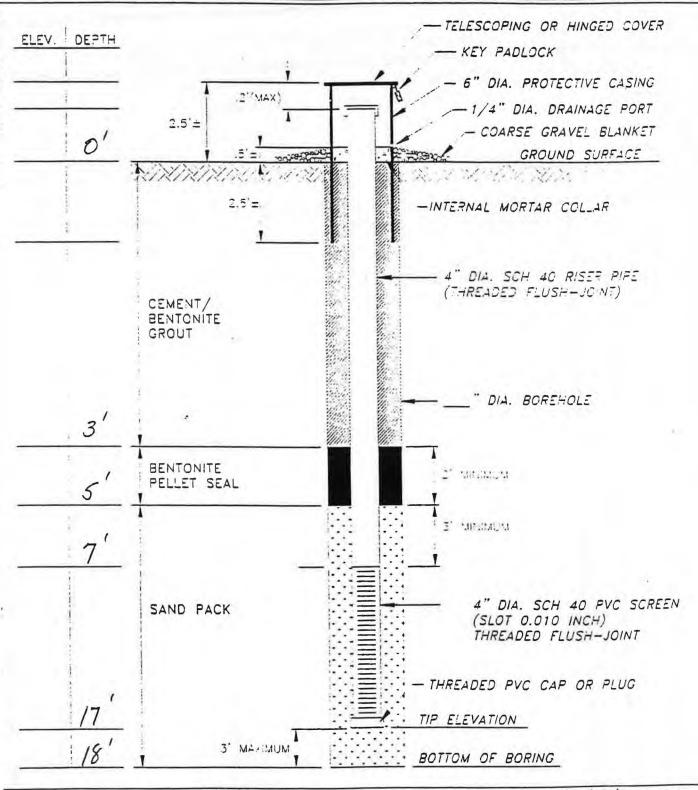
LOCATION UST-2527 SITE

	SAMPLE NO.	BLOW COUNT PER 6	RECOV - ERY		1 2200200	ЗПАРН
	SA	8 0 8	ae	LITHOLOGIC DESCRIPTION	REMARKS	LOG
		23/38	2.0	2.0' GREY SILT W/CLAY AND MANY VI SMALL PEBBLES - DRY, DENSE, HARD	NO ODUR/STAIN	
=	3-6	46/50		VI VMAIL PEBBLES - DRY, DERISE, HARD		
	н				-	
						+
=				BOB=18' BGS		
=						
=						
				*		
=						
=						
-						
3						



MONITORING WELL INSTALLATION DETAIL (UNCONSOLIDATED)

Project Number\_ Project Name FT. DEVENS - 2527 Monitoring Well Number\_



Start of New Installation 2/22/96 Completion of Well installation 🕹

2	۸	DT	4	

OHM

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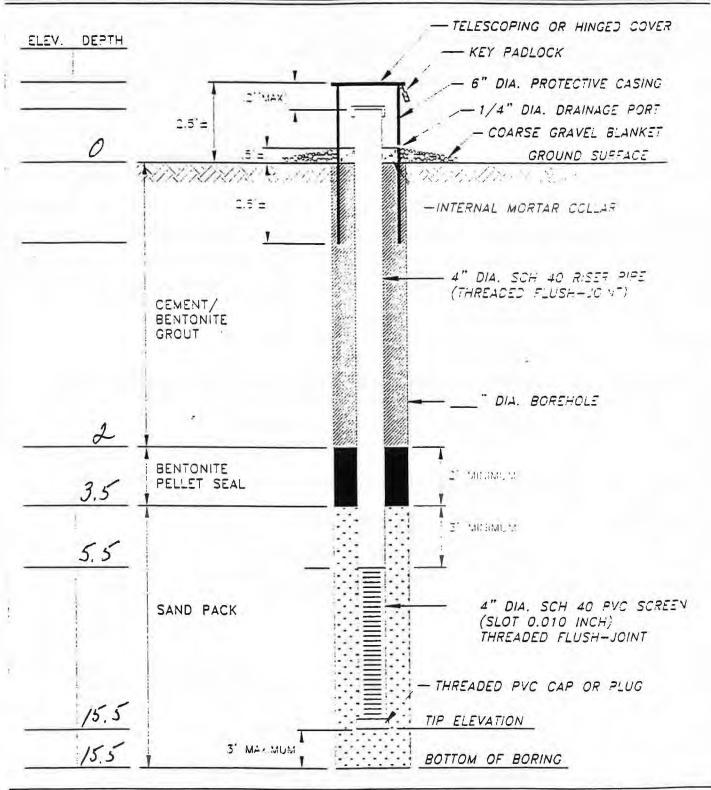
JOB NO.	16208				BORE	HOLE NO.	4			
PROJECT	FT. DEVEN	VS		LOCATION UST-2527 SITE						
DRILLING CONTRACTOR SEOLOGIC				DRILLING EQUIPMENT MOBILE 657						
HYDRO GEO	HYDROGEOLOGIST 5 MCGINN				DRILLER RAY EASTON / TIM TUCKER From how In					
DATE STARTITIME IIIS DATE FINISHITIME			SURPACE TOTAL DEPTH 17.5				7.5'			
WELL CASIN	ig 4"PIC	SCREEN T	YPE 4" PVC	LENGTH /0' SLOT /0		5 A				
GROUND WATER					CASING	CORE	SAMPLER	TUBE		
DATE	TIME	DEPTH	WEATHER	TYPE			55			
				DIAMETER			2"			
				HAMMER WEIGHT			300 #			
				FALL			30"			
BEMARKS										

DEP TH	9	NO TO	17	BORE HOLE LOG					
	2 Z	COL	HEC	LITHOLOGIC DESCRIPTION	REMARKS	LOG			
4-1 3 3-1-4-1		3/3 3/3	1.6'	0.4' SOIL BLK ORG-RICH F-M SILTY SAND 0.5' BRN ORG-RICH F-M SILTY SAND 0.7' RED F-M SAND W/SILT & FEW SMITHLE PEBBLES CORE WET AT TOO MOIST AT BASE	NO FDER/STAIN				
	4-2	3/2	1.1'	1.1' SAA W/SEVERAL LG, DEBBLES & RX FRAGS, MOIST TO SLIGHTLY MOIST	NO ODER/STAIN				
	4-3	1	1.8'	0.3' SAA, MOIST  0.6' YEL-BRN SANDY SILT W/MANY SMALL PEBBLES, MOIST  0.9' YEL-TAN F. SILTY SAND W/MANY PEBBLES \$RX FRAGS, MOIST - V. MOIST	NO 050R/5TAIN				
-	4-4	9/7			NO ODOR/STAIN TOW = 7-8				
Autout II				AVGER TO 15.5', PREP TO SPOON 15.5' TO 17.5' B45  F-M SAND WISILT &MANY PERBLES &  RX FRAGS; RX 12-13', 14-15'; SATURATED  RETURNS' 11-15 5' B45	NO ODOR/STAIN				
2111111		38/42 47/49		2.0' DR GREY SANDY SILT W/MANY SMALL ANGULAR PERGLES & RX FRAGS; SL. MOIST  BOB = 17.5' BGS	NO ODOR/STAIN				



## MONITORING WELL INSTALLATION DETAIL (UNCONSOLIDATED)

Project Number 16208
Project Name FT. DEVENS - 2527
Monitoring Well Number 4



Start of Well Installation 2/23/96 PM Sampletion of Well Installation 2/23/96 PM

Date Time Sole Time

Vittes: AVGER TO 15.5' BGS , SPOON 15.5-17.5' BGS



### **COMPUTATION SHEET**

Form No. 0048 Midwest Tech. Servs. Rev. 08/89

Proj. No. 16208	Client	USACE	Location FT	DEVENS	Subjec	Page/	7 SITE
Preparer's Initials	M	Date 2/29/96	Reviewer's Initials	Date	Approver		Date
	APPA	POXIMATE  SEST  LEST	Sond Rond	2 mg mg mg mg mg mg mg mg mg mg mg mg mg	RoAn	405P 505P	EXISTING WELL AXM-95-09X

### Appendix G

Commonwealth Analytical Report - Groundwater Samples

#### Fort Devens Monitoring Well Data Sheet Project # 16208

Well/Sample ID #: MW-I /130				Samplers:	Samplers: Bill Dale #7630, Greg Guimond #7379, Jon Nichols #7				
Sample Date/Time:	4/19/9	16							
Well Diameter: Depth to Water: Floaters: Depth to Bottom: Sinkers:	0.33 7-24 No 18,1	ft ft ft ft			Water Column: Well Volume: Volume Purged: HNU PID: LEL/O2	10.86 38.36 85.08	ft gal gal ppm %		
Condition of Well:	Good		-						
	)		Fie	ld Measure	ments	W. A. (a.)			
I. Purge Data						II. Sample Data			
Parameter	Start	Volume 1	Volume 2	Volume 3		Parameters			
pH: Temperature: Conductivity:  Note: Please indicate	6.6 9.7 0.314	****	nple Conta	6.9 9.8 0.349	vative Informat	pH: Temperature: Conductivity: Dissolved Oxygen: Turbidity: eH:	6.8 9.8 0.39 - -		
Petroleum Hydrocarbons by VPH & EPH	-	3x 40 ml VO 1x 1 liter	)A		None	-	_ N		
			Add	itional Info	rmation				
Purging Device: Ba	ailer Sub	mersible pump	>	Other:			*		
Sample Bailer Type:	Pol	yethylene		Teflon					
Equipment Decon Proce  Comments:	dure: is dedicated to	the well.	Pump is wash	ned with liquing	ox and thoroughly	rinsed with DI water. A	I other sampling equipment		

# Fort Devens Monitoring Well Data Sheet Project # 16208

Well/Sample ID #:	MW-2		Samplers:	Bill Dale #7630, 0	Greg Guimond #7379, J	on Nichols #7860
Sample Date/Time:	4/19/96	1215				
Well Diameter: Depth to Water: Floaters: Depth to Bottom: Sinkers:	0.35 f 5.35 f N f 2c.5 f			Water Column: Well Volume: Volume Purged: HNU PID: LEL/O2	15.75 39.83 119.46	ft gal gal ppm %
Condition of Well:	Good					
		Fie	ld Measure	ments	Marine Color	
I. Purge Data					II. Sample Data	
Parameter	Start	Volume 1 Volume 2	Volume 3		Parameters	
pH: Temperature: Conductivity:  Note: Please indicate  Parameters Petroleum Hydrocarbons by VPH & EPH			7.98 9.3 0.397	vative Informate Preservative HCI pH<2 None	pH: Temperature: Conductivity: Dissolved Oxygen: Turbidity: eH:	6.0 9.3 6.306 ————————————————————————————————————
				-	-	
		Ado	litional Info	rmation		
Purging Device: Ba	ailer Subn	nersible pump	Other			
Sample Bailer Type:	Poly	ethylene	Teflon			
Equipment Decon Proce	dure: is dedicated to		hed with liquir	ox and thoroughly	rinsed with DI water. A	All other sampling equipment
Comments	BIDG 3501	7				
					11 1	

# Fort Devens Monitoring Well Data Sheet Project # 16208

Well/Sample ID #:	MW-3	3		Samplers	Bill Dale #7630 (	Greg Guimond #7379, J	on Nichole #7860
Sample Date/Time:	4/19/9		40	oampicio.	Jiii Dale ii 1000,	oreg cumona wyors, o	017 (10.10.10 #7.000
Well Diameter: Depth to Water: Floaters: Depth to Bottom: Sinkers:	0.33 4.98 N 16.4 N	ft ft ft ft			Water Column: Well Volume: Volume Purged: HNU PID: LEL/O2	13 -12 35.04 105.12 -1 -	ft gal gal ppm %
Condition of Well:	600d						
			Fie	ld Measure	ments		
I. Purge Data						II. Sample Data	
Parameter	Start	Volume 1	Volume 2	Volume 3		Parameters	
pH: Temperature: Conductivity: Note: Please indicate	7.03 8.7 0.117	6.48 8.6 ○.313	7.36 9.0 0.350	7.35 9.1 0.333		pH: Temperature: Conductivity: Dissolved Oxygen: Turbidity: eH:	7.17 9.9 
Parameters Petroleum Hydrocarbons by VPH & EPH	*	Sar Container type 3x 40 ml VO 1x 1 liter			vative Informative Preservative HCL pH-2 None	ion	Filtered (Y/N)
						-	_
			Addi	tional Info	rmation		
Purging Device: Bai	ler Sut	omersible pump		Other			H
Sample Bailer Type:	Po	yethylene		Teflon			
	ure: is dedicated t	o the well.	Pump is wash	ed with liquin	ox and thoroughly	rinsed with DI water. A	Il other sampling equipment

# Fort Devens Monitoring Well Data Sheet Project # 16208

Well/Sample ID #:	MW-4			Samplers:	Bill Dale #7630, 0	Greg Guimond #7379, J	on Nichols #7860
Sample Date/Time:	4/19/96	1300					
Well Diameter: Depth to Water: Floaters: Depth to Bottom: Sinkers:	0.33 f				Water Column: Well Volume: Volume Purged: HNU PID: LEL/O2	11.9 31.09 10.36	ft gal gal ppm %
Condition of Well:	Good	-					
025002771			Fiel	d Measure	ments		
I. Purge Data						II. Sample Data	
Parameter	Start	Volume 1 V	olume 2	Volume 3		Parameters	
pH: Temperature: Conductivity:  Note: Please indica  Parameters Petroleum Hydrocarbor by VPH & EPH	ns (	measuremen		7. 10 8.9 0.3/9	vative Informate Preservative HGI pH<2 None	pH: Temperature: Conductivity: Dissolved Oxygen: Turbidity: eH:	6.97 9.6 0.300 Filtered (Y/N)
						4	
			Add	Itional Info	rmation		
Purging Device:	Bailer Subn	nersible pump		Other			v .
Sample Bailer Type:		ethylene		Teflon			
Equipment Decon Prod	is dedicated to	the well.	imp is wash	ed with liquin	ox and thoroughly	rinsed with DI water. A	NI other sampling equipment



### **MEMORANDUM**

TO: Mike Quinlan, Project Manager, OHM Corp. FROM: Stephen Knollmeyer, Laboratory Director

DATE: June 7, 1996

RE: VPH/EPH Analytical Data

Fort Devens Project CA Workorder #9604324

Attached are the spike data for the above-mentioned analytical results. As I mentioned in our conversation, the recoveries for the aliphatics were generally low and the surrogates were also low, therefore, we estimated all the detection limits as we did not detect any analytes. The spike data for the aromatics was much better with only 3 of 10 %R values outside the control limits of 60-140%. The two samples that did have the O-Terphenyl surrogate outside the limits were estimated for the aromatics. Unfortunately, not all the individual PAHs received the J flag and we are enclosing herein the revised copies. (Originals will be sent via overnight mail).

Please note the DEP has set many of the control limits in this method at 60-140% because little or no "real-world" data was available when the method was written. At a recent Lab Association Meeting, the DEP announced that based on comments from labs using the draft method, these limits would be changed to lab-defined limits. The bottom line is that these recoveries may be acceptable when the QC limits are better defined. Consequently, we did not feel it was necessary to reject these data based on the surrogate and spike recovery data and we are informing all data users that this method is a draft method that is still undergoing review.

View or of the do

#### 3B WATER EPH-AROMATIC METHOD SPIKE/METHOD SPIKE DUPLICATE RECOVERY

Lab Name: COMMONWEALTH ANALYTICAL Contract: NA

Project No.: NA Site: NA Location: FORT DEVENS Group: 9604324

Matrix Spike - Sample No.: METHOD SPIKE Level: (low/med) LOW

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC	#	QC. LIMITS REC.
NAPHTHALENE	25	0	13.2	53	*	60-140
ACENAPHTHENE	25	0	13.2	53	*	60-140
ANTHRACENE	25	0	20.2	81		60-140
PYRENE	25	0	21.4	86		60-140
CHRYSENE	25	0	18.8	75		60-140

Matrix Spike - Sample No.: METHOD SPIKE DUPLICATE

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MS % REC #	% RPD #	QC L	IMITS REC.
NAPHTHALENE	25	14.6	58 *	10	40	60-140
ACENAPHTHENE	25	16.3	65	21	40	60-140
ANTHRACENE	25	22.3	89	10	40	60-140
PYRENE	25	22.3	89	4	40	60-140
CHRYSENE	25	18.1	72	4	40	60-140

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

Spike recovery: 3 out of 10 outside QC limits

RPD: 0 out of 5 outside QC limits

Comments: RPD limits are temporary until method limits are established.

# 3B WATER EPH-ALIPHATIC METHOD SPIKE/METHOD SPIKE DUPLICATE RECOVERY

Lab Name: COMMONWEALTH ANALYTICAL Contract: NA

Project No.: NA Site: NA Location: FORT DEVENS Group: 9604324

Matrix Spike - Sample No.: METHOD SPIKE Level: (low/med) LOW

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC	#	QC. LIMITS REC.
C9 - ALIPHATIC	25	0	5.2	20	•	60-140
C14 - ALIPHATIC	25	0	9.8	39	*	60-140
C19 - ALIPHATIC	25	0	12.9	52	*	60-140
C20 - ALIPHATIC	25	0	16.5	66	-	60-140
C28 - ALIPHATIC	25	0	16.5	66		60-140

Matrix Spike - Sample No.: METHOD SPIKE DUPLICATE

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MS % REC #	% RPD	#	QC L	IMITS REC.
C9 - ALIPHATIC	25	6.6	26 *	24		40	60-140
C14 - ALIPHATIC	25	9.3	37 *	5		40	60-140
C19 - ALIPHATIC	25	1.3	5 *	160	*	40	60-140
C20 - ALIPHATIC	25	14.1	56 *	16		40	60-140
C28 - ALIPHATIC	25	11.4	45 *	37		40	60-140

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

Spike recovery: 8 out of 10 outside QC limits

RPD: 1 out of 5 outside QC limits

Comments: RPD limits are temporary until method limits are established.

---- Bused Total Tetroleum Hydrocarbon (TPH) Parameter

Workorder #: 9604324-05 Matrix: Aqueous Sample ID: MW-SW1

Collection Date: 04/19/96

Extractable Petroleum Hydrocarbons (EPH)

ANALYTE	EXTRACTION DATE	ANALYSIS DATE	DILUTION FACTOR	RESULT (mg/L)	DETECTION LIMIT
C <sub>9</sub> - C <sub>18</sub> aliphatic	04/25/96	05/26/96	1	NDJ	0.3
C <sub>19</sub> - C <sub>36</sub> aliphatic	04/25/96	05/26/96	1	NDJ	0.1
C <sub>9</sub> - C <sub>22</sub> aromatic	04/25/96	05/25/96	1	NDJ	0.2
Naphthalene	04/25/96	05/25/96	1	NDJ	0.01
2-Methylnaphthalene	04/25/96	05/25/96	1	NDJ	0.01
Acenaphthylene	04/25/96	05/25/96	1	NDJ	0.01
Acenaphthene	04/25/96	05/25/96	1	NDJ	0.01
Fluorene	04/25/96	05/25/96	1	NDJ	0.01
Phenanthrene	04/25/96	05/25/96	1	NDJ	0.01
Anthracene	04/25/96	05/25/96	1	NDJ	0.01
Fluoranthene	04/25/96	05/25/96	1	NDJ	0.01
Pyrene	04/25/96	05/25/96	1	NDJ	0.01
Benzo(a)Anthracene	04/25/96	05/25/96	1	NDJ	0.01
Chrysene	04/25/96	05/25/96	1	NDJ	0.01
Benzo(b)Fluoranthene	04/25/96	05/25/96	1	NDJ	0.02
Benzo(k)Fluoranthene	04/25/96	05/25/96	1	NDJ	0.02
Benzo(a)pyrene	04/25/96	05/25/96	1	NDJ	0.02
Indeno(1,2,3-cd)Pyrene	04/25/96	05/25/96	1	NDJ	0.02
Dibenzo(a,h)anthracene	04/25/96	05/25/96	1	NDJ	0.02
Benzo(g,h,i)Perylene	04/25/96	05/25/96	1	NDJ	0.02

ND = Not detected

J = Estimated

#### SURROGATE RECOVERY

Surrogate	Percent Recovery	Control Limits
Chloro-octadecane (COD)	2*	60-140
Ortho-terphenyl	55*	60-140

\*Outside QC limits

Method Reference: Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), MADEP ORS, August 1995.

Collection Date: 04/19/96

Workorder #: 9604324-07

Sample ID: SKP-93-01A

Matrix: Aqueoua

# Extractable Petroleum Hydrocarbons (EPH)

ANALYTE	EXTRACTION DATE	ANALYSIS DATE	DILUTION FACTOR	RESULT (mg/L)	DETECTION LIMIT
C <sub>9</sub> - C <sub>18</sub> aliphatic	04/25/96	05/26/96	1	NDJ	0.3
C <sub>19</sub> - C <sub>36</sub> aliphatic	04/25/96	05/26/96	1	NDJ	0.1
C <sub>9</sub> - C <sub>22</sub> aromatic	04/25/96	05/25/96	1	NDJ	0.2
Naphthalene	04/25/96	05/25/96	1	NDJ	0.01
2-Methylnaphthalene	04/25/96	05/25/96	1	NDJ	0.01
Acenaphthylene	04/25/96	05/25/96	1	NDJ	0.01
Acenaphthene	04/25/96	05/25/96	1	NDJ	0.01
Fluorene	04/25/96	05/25/96	1	NDJ	0.01
Phenanthrene	04/25/96	05/25/96	1	NDJ	0.01
Anthracene	04/25/96	05/25/96	1	NDJ	0.01
Fluoranthene	04/25/96	05/25/96	1	NDJ	0.01
Pyrene	04/25/96	05/25/96	1	NDJ	0.01
Benzo(a)Anthracene	04/25/96	05/25/96	1	NDJ	0.01
Chrysene	04/25/96	05/25/96	1	NDJ	0.01
Benzo(b)Fluoranthene	04/25/96	05/25/96	1	NDJ	0.02
Benzo(k)Fluoranthene	04/25/96	05/25/96	1	NDJ	0.02
Benzo(a)pyrene	04/25/96	05/25/96	1	NDJ	0.02
Indeno(1,2,3-cd)Pyrene	04/25/96	05/25/96	1	NDJ	0.02
Dibenzo(a,h)anthracene	04/25/96	05/25/96	1	NDJ	0.02
Benzo(g,h,i)Perylene	04/25/96	05/25/96	1	NDJ	0.02

ND = Not detected

J = Estimated

#### SURROGATE RECOVERY

Surrogate	Percent Recovery	Control Limits
Chloro-octadecane (COD)	13*	60-140
Ortho-terphenyl	55*	60-140

\*Outside QC limits

injethod Reference: Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), MADEP ORS, August 1995.



# O.H. MATERIALS CORPORATION 2613 LAKE GEORGE STREET AYER, MA 01433

Attention: MIKE QUINLAN

Work ID: FORT DEVENS - AYER, MA Project # 400096\_4\_50

Workorder # 9604324

Authorized Signature

Stephen L. Knollmeyer

Massachusetts Certificate MA014
Connecticut Certificate PH-0494
New Hampshire DES 253993 - A + C
New Jersey DEP Certificate 59845
New York Department of Health 10843
Rhode Island Department of Health 57
North Carolina Certificate 408
US Army Corps of Engineers

Page 1 June 5, 1996

Laboratory Results Prepared For:

O.H. MATERIALS CORPORATION

2613 LAKE GEORGE STREET

AYER, MA 01433

Company: O.H. MATERIALS CORPORATION

Facility: FINDLAY, OHIO 45839-0551

Contact : CFR

Attention: MIKE QUINLAN

Laboratory Results Prepared By:

Commonwealth Analytical 53 Southampton Rd.

Westfield, MA 01085

Attention: Stephen L. Knollmeyer

(413) 572-3200

Work ID: FORT DEVENS - AYER, MA

Taken: 04/19/96 Transported: FED X

Type: WASTEWATER PO #: LP 42122

6596 CAR

Certified by

#### Workorder Comments

The VPH & EPH methods are draft methods released by the MADEP in August 1995. Because inter-laboratory studies have not been completed and QC parameters have not been fully established, the data should be used with due consideration.

DOMINION I DUFFI

Client: OHM Remediation Services Corp.				
Client Sample ID Number (s):	MW-1			
Laboratory ID Numbers (s):	96-04-324-01			

# SAMPLE INFORMATION

Sample Matrix	✓ Aqueous □ Soil	□ Sediment □ Other:	
Analysis Performed	✓ VPH ✓ EPH	□ VPH & EPH (E-TPH Duplicate)	
Condition of Containers	✓ Satisfactory □Broken	□Leaking □ Other:	
Sample Preservative	Aqueous	√N/A □ pH≤2 □ pH≥2	
	Soil/Sediment (VPH only)	□N/A □Samples received in Methanol	
•		☐ Methanol added by Laboratory	
Sample Temperature	✓ Received on Ice	☐ Received at 4°C ☐ Other:	

Parameter	Results	Units
Volatile Petroleum Hydrocarbons (VPH)	ND	mg/L
Extractable Petroleum Hydrocarbons (EPH)	. ND	mg/L

<sup>\*</sup> Results do  $\underline{not}$  reflect toxicologically-weighted values.

Clien::	OHM Remediation Services Corp	
Client Sample ID Number (s):	MW-2	
Laboratory ID Numbers (s):	96-04-324-02	

# SAMPLE INFORMATION

Sample Matrix	✓ Aqueous □ Soil	☐ Sediment ☐ Other:	
Analysis Performed	✓ VPH ✓ EPH	□ VPH & EPH (E-TPH Duplicate)	
Condition of Containers	✓ Satisfactory □Broken	□Leaking □ Other:	
Sample Preservative	Aqueous	√N/A □ pH≤2 □ pH≥2	
	Soil/Sediment (VPH only)	□N/A □Samples received in Methanol	
***************************************		☐ Methanol added by Laboratory	
Sample Temperature	✓ Received on Ice	☐ Received at 4°C ☐ Other:	

Parameter	Results	Units
Volatile Petroleum Hydrocarbons (VPH)	ND	mg/L
Extractable Petroleum Hydrocarbons (EPH)	ND	mg/L

<sup>\*</sup> Results do not reflect toxicologically-weighted values.

Client:	OHM Remediation Services Corp	
Client Sample ID Number (s):	MW-3	
Laboratory ID Numbers (s):	96-04-324-03	

# SAMPLE INFORMATION

Sample Matrix	✓ Aqueous □ Soil	☐ Sediment ☐ Other:
Analysis Performed	✓ VPH ✓ EPH	□ VPH & EPH (E-TPH Duplicate)
Condition of Containers	✓ Satisfactory □Broken	□ Leaking □ Other:
	Aqueous	✓N/A □ pH ≤2 □ pH ≥2
Sample Preservative	Soil/Sediment	□N/A □Samples received in Methanol
	(VPH only)	☐ Methanol added by Laboratory
Sample Temperature	✓ Received on Ice	☐ Received at 4°C ☐ Other:

Parameter	Results	Units
Volatile Petroleum Hydrocarbons (VPH)	ND	mg/L
Extractable Petroleum Hydrocarbons (EPH)	ND	mg/L

<sup>\*</sup> Results do not reflect toxicologically-weighted values.

Client:	OHM Remediation Service Corp	
Client Sample ID Number (s):	MW-4	
Laboratory ID Numbers (s):	9604324-04	

# SAMPLE INFORMATION

Sample Matrix	✓ Aqueous □ Soil	☐ Sediment ☐ Other:	
Analysis Performed	✓ VPH ✓ EPH	□ VPH & EPH (E-TPH Duplicate)	
Condition of Containers	✓ Satisfactory □Broken	☐ Leaking ☐ Other:	
	Aqueous	√N/A □ pH≤2 □ pH≥2	
Sample Preservative Soil/Sediment (VPH only)		□N/A □Samples received in Methanol	
	(VPH only)	☐ Methanol added by Laboratory	
Sample Temperature	✓ Received on Ice	☐ Received at 4°C ☐ Other:	

Parameter	Results	Units
Volatile Petroleum Hydrocarbons (VPH)	ND	mg/L
Extractable Petroleum Hydrocarbons (EPH)	ND	mg/L

<sup>\*</sup> Results do not reflect toxicologically-weighted values.

Client: OHM Remediation Service Corp

Client Sample ID Number (s): MW-SW1

Laboratory ID Numbers (s): 96-04-324-05

# SAMPLE INFORMATION

Sample Matrix	✓ Aqueous □ Soil	☐ Sediment ☐ Other:	
Analysis Performed	✓ VPH ✓ EPH	□ VPH & EPH (E-TPH Duplicate)	
Condition of Containers	✓ Satisfactory □Broken	□Leaking □ Other:	
Sample Preservative Soil/Sediment (VPH only)	Aqueous	✓N/A □ pH ≤2 □ pH ≥2	
		□N/A □Samples received in Methanol	
	☐ Methanol added by Laboratory		
Sample Temperature	✓ Received on Ice	☐ Received at 4°C ☐ Other:	

Parameter	Results	Units
Volatile Petroleum Hydrocarbons (VPH)	ND	mg/L
Extractable Petroleum Hydrocarbons (EPH)	ND	mg/L

<sup>\*</sup> Results do not reflect toxicologically-weighted values.

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Client:	OHM Remediation Services Corp	
Client Sample ID Number (s):	SKP-93-02A	
Laboratory ID Numbers (s):	9604324-06	

# SAMPLE INFORMATION

Sample Matrix	✓ Aqueous □ Soil	☐ Sediment ☐ Other:	
Analysis Performed	✓ VPH ✓ EPH	□ VPH & EPH (E-TPH Duplicate)	
Condition of Containers	✓ Satisfactory □Broken	□Leaking □ Other:	
Sample Preservative Soil/Sediment (VPH only)	Aqueous	✓N/A □ pH ≤2 □ pH ≥2	
		□N/A □Samples received in Methanol	
	☐ Methanol added by Laboratory		
Sample Temperature	✓ Received on Ice	☐ Received at 4°C ☐ Other:	

Parameter	Results	Units
Volatile Petroleum Hydrocarbons (VPH)	ND	mg/L
Extractable Petroleum Hydrocarbons (EPH)	ND	mg/L

<sup>\*</sup> Results do not reflect toxicologically-weighted values.

Client:	OHM Remediation Services Corp	
Client Sample ID Number (s):	SKP-93-01A	
Laboratory ID Numbers (s):	96-04-324-07	

# SAMPLE INFORMATION

Sample Matrix	✓ Aqueous  ☐ Soil	☐ Sediment ☐ Other:	
Analysis Performed	✓ VPH ✓ EPH	□ VPH & EPH (E-TPH Duplicate)	
Condition of Containers	✓ Satisfactory □Broken	☐ Leaking ☐ Other:	
Sample Preservative Soil/Sediment (VPH only)	Aqueous	√N/A □ pH≤2 □ pH≥2	
		□N/A □Samples received in Methanol	
	☐ Methanol added by Laboratory		
Sample Temperature	✓ Received on Ice	☐ Received at 4°C ☐ Other:	

Parameter	Results	Units
Volatile Petroleum Hydrocarbons (VPH)	ND	mg/L
Extractable Petroleum Hydrocarbons (EPH)	ND	mg/L

<sup>\*</sup> Results do not reflect toxicologically-weighted values.

Client:	OHM Remediation Services Corp	
Client Sample ID Number (s):	ERO41996	
Laboratory ID Numbers (s):	96-04-324-08	

# SAMPLE INFORMATION

Sample Matrix	✓ Aqueous □ Soil	☐ Sediment ☐ Other:	
Analysis Performed	✓ VPH ✓ EPH	□ VPH & EPH (E-TPH Duplicate)	
Condition of Containers	✓ Satisfactory □Broken	□Leaking □ Other:	
Sample Preservative	Aqueous	√N/A □ pH≤2 □ pH≥2	
	Soil/Sediment (VPH only)	□N/A □Samples received in Methanol	
		☐ Methanol added by Laboratory	
Sample Temperature	✓ Received on Ice	☐ Received at 4°C ☐ Other:	

Parameter	Results	Units	
Volatile Petroleum Hydrocarbons (VPH)	0.012	mg/L	
Extractable Petroleum Hydrocarbons (EPH)	ND	mg/L	

<sup>\*</sup> Results do  $\underline{not}$  reflect toxicologically-weighted values.

Client:	OHM Remediation Services Corp	
Client Sample ID Number (s):	MW-SW2	
Laboratory ID Numbers (s):	96-04-324-09	

#### SAMPLE INFORMATION

Sample Matrix	✓ Aqueous □ Soil	☐ Sediment ☐ Other:	
Analysis Performed	✓ VPH ✓ EPH	□ VPH & EPH (E-TPH Duplicate)	
Condition of Containers	✓ Satisfactory □Broken	☐ Leaking ☐ Other:	
Sample Preservative	Aqueous	√N/A □ pH≤2 □ pH≥2	
	Soil/Sediment (VPH only)	□N/A □Samples received in Methanol	
		☐ Methanol added by Laboratory	
Sample Temperature	✓ Received on Ice	☐ Received at 4°C ☐ Other:	

Parameter	Results	Units
Volatile Petroleum Hydrocarbons (VPH)	ND	mg/L
Extractable Petroleum Hydrocarbons (EPH)	ND	mg/L

<sup>\*</sup> Results do not reflect toxicologically-weighted values.

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# Organic Results for MW-1

Matrix:(	GROUNDWATER			Collected on 04/19/96 11:30:00
	Analyte	Result	Units	Test Date Analyst
01A 01B	Extractable hydrocarbons Volatile hydrocarbons	•	mg/kg mg/kg	
Matrix:(	GROUNDWATER	Organic Results for M	W-2	Collected on 04/19/96 12:15:00
	Analyte	Result	Units	Test Date Analyst
02A 02B	Extractable hydrocarbons Volatile hydrocarbons	*	mg/kg mg/kg	
Matrix:(	GROUNDWATER	Organic Results for M	W-3	Collected on 04/19/96 12:40:00
	Analyte	Result	Units	Test Date Analyst
03A 03B	Extractable hydrocarbons Volatile hydrocarbons	*	mg/kg mg/kg	
Matrix:(	GROUNDWATER	Organic Results for M	W-4	Collected on 04/19/96 13:00:00
	Analyte	Result	Units	Test Date Analyst
04A 04B	Extractable hydrocarbons Volatile hydrocarbons	•	mg/kg mg/kg	
Matrix:	GROUNDWATER	Organic Results for MV	7-SW1	Collected on 04/19/96 14:20:00
	Analyte	Result	Units	Test Date Analyst
05A 05B	Extractable hydrocarbons Volatile hydrocarbons		mg/kg mg/kg	
Matrix:	GROUNDWATER	Organic Results for SKP-	-93-02A	Collected on 04/19/96 14:35:00
	Analyte	Result	Units	Test Date Analyst
06A 06B	Extractable hydrocarbons Volatile hydrocarbons	:	mg/kg mg/kg	
Matrix:	GROUNDWATER	Organic Results for SKP-	-93-01A	Collected on 04/19/96 15:00:00
	Analyte	Result	Units	Test Date Analyst
07A 07E)	Extractable hydrocarbons Volatile hydrocarbons	:	mg/kg mg/kg	

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Organic	Demilte	£	DDO	11006
Organic	Vezairz	101	CKU	トレンプロ

ROUNDWATER			Collected on	04/19/96 15:15:00
Analyte	Result	Units	Test Date	Analyst
Extractable hydrocarbons		mg/kg		
Volatile hydrocarbons	.*.	mg/kg		
ROUNDWATER	Organic Results for MV	V-SW2	Collected on	04/19/96 15:20:00
Analyte	Result	Units	Test Date	Analyst
Extractable hydrocarbons		mg/kg		
Volatile hydrocarbons	•	mg/kg		
AB_WATER	Organic Results for TRIP	BLANK	Collected on	04/18/96 13:00:00
Analyte	Result	Units	Test Date	Analyst
Volatile hydrocarbons	•	mg/kg		
	Extractable hydrocarbons Volatile hydrocarbons  ROUNDWATER  Analyte  Extractable hydrocarbons Volatile hydrocarbons  AB_WATER  Analyte	Analyte Result  Extractable hydrocarbons Volatile hydrocarbons  Organic Results for MV  ROUNDWATER  Analyte Result  Extractable hydrocarbons Volatile hydrocarbons Volatile hydrocarbons  Organic Results for TRIP  AB_WATER  Analyte Result	Analyte Result Units  Extractable hydrocarbons * mg/kg Volatile hydrocarbons * mg/kg  **  **  **  **  **  **  **  **  **	Analyte Result Units Test Date  Extractable hydrocarbons

Workorder #: 96-04-324 Matrix: Aqueous Sample ID: MW-1

Collection Date: 04/19/96

# Extractable Petroleum Hydrocarbons (EPH)

ANALYTE	EXTRACTION DATE	ANALYSIS DATE	DILUTION FACTOR	RESULT (mg/L)	DETECTION LIMIT
C <sub>9</sub> - C <sub>18</sub> aliphatic	04/25/96	05/26/96	1	NDJ	0.3
C <sub>19</sub> - C <sub>36</sub> aliphatiç	04/25/96	05/26/96	1	NDJ	0.1
C <sub>9</sub> - C <sub>22</sub> aromatic	04/25/96	05/23/96	1	ND	0.2
Naphthalene	04/25/96	05/23/96	1	ND	0.01
2-Methylnaphthalene	04/25/96	05/23/96	1	ND	0.01
Acenaphthylene	04/25/96	05/23/96	1	ND	0.01
Acenaphthene	04/25/96	05/23/96	1	ND	0.01
Fluorene	04/25/96	05/23/96	1	ND	0.01
Phenanthrene	04/25/96	05/23/96	1	ND	0.01
Anthracene	04/25/96	05/23/96	1	ND	0.01
Fluoranthene	04/25/96	05/23/96	1	ND	0.01
Pyrene	04/25/96	05/23/96	1	ND	0.01
Benzo(a)Anthracene	04/25/96	05/23/96	1	ND	0.01
Chrysene	04/25/96	05/23/96	1	ND	0.01
Benzo(b)Fluoranthene	04/25/96	05/23/96	1	ND	0.02
Benzo(k)Fluoranthene	04/25/96	05/23/96	1	ND	0.02
Benzo(a)pyrene	04/25/96	05/23/96	1	ND	0.02
Indeno(1,2,3-cd)Pyrene	04/25/96	05/23/96	1	ND	0.02
Dibenzo(a,h)anthracene	04/25/96	05/23/96	1	ND	0.02
Benzo(g,h,i)Perylene	04/25/96	05/23/96	1	ND	0.02

ND = Not detected

J = Estimate

#### SURROGATE RECOVERY

Surrogate	Percent Recovery	Control Limits
Chloro-octadecane (COD)	56*	60-140
Ortho-terphenyl	65	60-140

<sup>\*</sup> Outside QC limits

Method Reference: Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), MADEP ORS, August 1995.

Workorder #: 96-04-324-01

Sample ID: MW-1

Collection Date: 04/19/96

Matrix: Aqueous

#### Volatile Petroleum Hydrocarbons (VPH)

ANALYTE	EXTRACTION DATE	ANALYSIS DATE	DILUTION FACTOR	RESULT (mg/L)	DETECTION LIMIT
C5 - C8 aliphatic	NA	05/03/96	1	ND	0.005
C9 - C10 aromatic	NA	05/03/96	1	ND	0.005
C9 - C12 aliphatic	NA	05/03/96	1	ND	0.005
Benzene	NA	05/03/96	1	ND	0.005
Ethylbenzene	NA	05/03/96	1	ND	0.005
Toluene	NA	05/03/96	1	ND	0.005
Xylenes	NA	05/03/96	1	ND	0.005

### SURROGATE RECOVERY

Surrogate	Percent Recovery	Control Limits
Bromofluorobenzene	110	60-140

Method Reference: Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), MADEP ORS, August 1995.

Workorder #: 96-04-324-02

Sample ID: MW-2

Matrix: Aqueous

Collection Date:04/19/96

# Extractable Petroleum Hydrocarbons (EPH)

ANALYTE	EXTRACTION DATE	ANALYSIS DATE	DILUTION FACTOR	RESULT (mg/L)	DETECTION LIMIT
C <sub>9</sub> - C <sub>18</sub> aliphatic	04/25/96	05/26/96	1	NDJ	0.3
C <sub>19</sub> - C <sub>36</sub> aliphatic	04/25/96	05/26/96	1	NDJ	0.1
C <sub>9</sub> - C <sub>22</sub> aromatic	04/25/96	05/23/96	1	ND	0.2
Naphthalene	04/25/96	05/23/96	1	ND	0.01
2-Methylnaphthalene	04/25/96	05/23/96	1)	ND	0.01
Acenaphthylene	04/25/96	05/23/96	1	ND	0.01
Acenaphthene	04/25/96	05/23/96	1	ND	0.01
Fluorene	04/25/96	05/23/96	1	ND	0.01
Phenanthrene	04/25/96	05/23/96	1	ND	0.01
Anthracene	04/25/96	05/23/96	1	ND	0.01
Fluoranthene	04/25/96	05/23/96	.1	ND	0.01
Pyrene	04/25/96	05/23/96	1	ND	0.01
Benzo(a)Anthracene	04/25/96	05/23/96	.1	ND	0.01
Chrysene	04/25/96	05/23/96	1	ND	0.01
Benzo(b)Fluoranthene	04/25/96	05/23/96	1	ND	0.02
Benzo(k)Fluoranthene	04/25/96	05/23/96	1	ND	0.02
Benzo(a)pyrene	04/25/96	05/23/96	1	ND	0.02
Indeno(1,2,3-cd)Pyrene	04/25/96	05/23/96	1	ND	0.02
Dibenzo(a,h)anthracene	04/25/96	05/23/96	1	ND	0.02
Benzo(g,h,i)Perylene	04/25/96	05/23/96	1	ND	0.02

ND = Not detected

J = Estimated

#### SURROGATE RECOVERY

Surrogate	Percent Recovery	Control Limits
Chloro-octadecane (COD)	57*	60-140
Ortho-terphenyl	68	60-140

<sup>\*</sup> Outside QC limits

Wethod Reference: Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), MADEP ORS, August 1995.

Workorder #: 96-04-324-02

Sample ID: MW-2

Collection Date: 04/19/96

Matrix: Aqueous

# Volatile Petroleum Hydrocarbons (VPH)

ANALYTE	EXTRACTION DATE	ANALYSIS DATE	DILUTION FACTOR	RESULT (mg/L)	DETECTION LIMIT
C5 - C8 aliphatic	NA	05/03/96	1	ND	0.005
C9 - C10 aromatic	NA	05/03/96	1	ND	0.005
C9 - C12 aliphatic	NA	05/03/96	1	ND	0.005
Benzene	NA	05/03/96	1	ND	0.005
Ethylbenzene	NA	05/03/96	1	ND	0.005
Toluene	NA	05/03/96	1	ND	0.005
Xylenes	NA	05/03/96	1	ND	0.005

#### SURROGATE RECOVERY

Surrogate	Percent Recovery	Control Limits
Bromofluorobenzene	103	60-140

Method Reference: Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), MADEP ORS, August 1995.

Workorder #: 9604324-03 Matrix: Aqueous Sample ID: MW-3

Collection Date:04/19/96

# Extractable Petroleum Hydrocarbons (EPH)

ANALYTE	EXTRACTION DATE	ANALYSIS DATE	DILUTION FACTOR	RESULT (mg/L)	DETECTION LIMIT
C <sub>9</sub> - C <sub>18</sub> aliphatic	04/25/96	05/26/96	1	NDJ	0.3
C <sub>19</sub> - C <sub>36</sub> aliphatic	04/25/96	05/26/96	1.	NDJ	0.1
C <sub>9</sub> - C <sub>22</sub> aromatic	04/25/96	05/23/96	.1	ND	0.2
Naphthalene	04/25/96	05/23/96	1	ND	0.01
2-Methylnaphthalene	04/25/96	05/23/96	1	ND	0.01
Acenaphthylene	04/25/96	05/23/96	1	ND	0.01
Acenaphthene	04/25/96	05/23/96	1	ND	0.01
Fluorene	04/25/96	05/23/96	1	ND	0.01
Phenanthrene	04/25/96	05/23/96	1	ND	0.01
Anthracene	04/25/96	05/23/96	1	ND	0.01
Fluoranthene	04/25/96	05/23/96	1	ND	0.01
Pyrene	04/25/96	05/23/96	1	ND	0.01
Benzo(a)Anthracene	04/25/96	05/23/96	1	ND	0.01
Chrysene	04/25/96	05/23/96	1	ND	0.01
Benzo(b)Fluoranthene	04/25/96	05/23/96	1	ND	0.02
Benzo(k)Fluoranthene	04/25/96	05/23/96	1	ND	0.02
Benzo(a)pyrene	04/25/96	05/23/96	1	ND	0.02
Indeno(1,2,3-cd)Pyrene	04/25/96	05/23/96	1	ND	0.02
Dibenzo(a,h)anthracene	04/25/96	05/23/96	1	ND	0.02
Benzo(g,h,i)Perylene	04/25/96	05/23/96	1	ND	0.02

ND = Not detected

J = Estimated

#### SURROGATE RECOVERY

Surrogate	Percent Recovery	Control Limits
Chloro-octadecane (COD)	52*	60-140
Ortho-terphenyl	61	60-140

<sup>\*</sup> Outside QC limits

Method Reference: Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), MADEP ORS, August 1995.

Workorder #: 9604324-03

Sample ID:MW-3

Collection Date:04/19/96

Matrix: Aqueous

# Volatile Petroleum Hydrocarbons (VPH)

ANALYTE	EXTRACTION DATE	ANALYSIS DATE	DILUTION FACTOR	RESULT (mg/L)	DETECTION LIMIT
C5 - C8 aliphatic	NA	05/03/96	1	ND	0.005
C9 - C10 aromatic	NA	05/03/96	1	ND	0.005
C9 - C12 aliphatic	NA	05/03/96	1	ND	0.005
Benzene	NA	05/03/96	1	ND	0.005
Ethylbenzene	NA	05/03/96	1	ND	0.005
Toluene	NA	05/03/96	i	ND	0.005
Xylenes	NA	05/03/96	1.	ND	0.005

#### SURROGATE RECOVERY

Surrogate	Percent Recovery	Control Limits
Bromofluorobenzene	95	60-140

Method Reference: Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), MADEP ORS, August 1995.

Workorder #: 9604324-04 Matrix: Aqueous Sample ID:MW-4

Collection Date:04/19/96

# Extractable Petroleum Hydrocarbons (EPH)

ANALYTE	EXTRACTION DATE	ANALYSIS DATE	DILUTION FACTOR	RESULT (mg/L)	DETECTION LIMIT
C <sub>9</sub> - C <sub>18</sub> aliphatic	04/25/96	05/26/96	1	NDJ	0.3
C <sub>19</sub> - C <sub>36</sub> aliphatic	04/25/96	05/26/96	1	NDJ	0.1
C <sub>9</sub> - C <sub>22</sub> aromatic	04/25/96	05/25/96	1	ND	0.2
Naphthalene	04/25/96	05/25/96	1	ND	0.01
2-Methylnaphthalene	04/25/96	05/25/96	1	ND	0.01
Acenaphthylene	04/25/96	05/25/96	1	ND	0.01
Acenaphthene	04/25/96	05/25/96	1	ND	0.01
Fluorene	04/25/96	05/25/96	1	ND	0.01
Phenanthrene	04/25/96	05/25/96	1	ND	0.01
Anthracene	04/25/96	05/25/96	1	ND	0.01
Fluoranthene	04/25/96	05/25/96	1	ND	0.01
Pyrene	04/25/96	05/25/96	1	ND	0.01
Benzo(a)Anthracene	04/25/96	05/25/96	1	ND	0.01
Chrysene	04/25/96	05/25/96	1	ND	0.01
Benzo(b)Fluoranthene	04/25/96	05/25/96	1	ND	0.02
Benzo(k)Fluoranthene	04/25/96	05/25/96	1	ND	0.02
Benzo(a)pyrene	04/25/96	05/25/96	1	ND	0.02
Indeno(1,2,3-cd)Pyrene	04/25/96	05/25/96	1	ND	0.02
Dibenzo(a,h)anthracene	04/25/96	05/25/96	1	ND	0.02
Benzo(g,h,i)Perylene	04/25/96	05/25/96	1	ND	0.02

ND = Not detected

J = Estimated

#### SURROGATE RECOVERY

Surrogate	Percent Recovery	Control Limits
Chloro-octadecane (COD)	56*	60-140
Ortho-terphenyl	65	60-140

\*Outside QC limits

Method Reference: Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), MADEP ORS, August 1995.

Workorder #: 9604324-04

Sample ID: MW-4

Collection Date: 04/19/96

Matrix: Aqueous

#### Volatile Petroleum Hydrocarbons (VPH)

ANALYTE	EXTRACTION DATE	ANALYSIS DATE	DILUTION FACTOR	RESULT (mg/L)	DETECTION LIMIT
C5 - C8 aliphatic	NA	05/03/96	1	ND	0.005
C9 - C10 aromatic	NA	05/03/96	1	ND	0.005
C9 - C12 aliphatic	NA	05/03/96	1	ND	0.005
Benzene	NA	05/03/96	1	ND	0.005
Ethylbenzene	NA	05/03/96	1	ND	0.005
Toluene	NA	05/03/96	1	ND	0.005
Xylenes	NA	05/03/96	1	ND	0.005

#### SURROGATE RECOVERY

Surrogate	Percent Recovery	Control Limits
Bromofluorobenzene	- 86	60-140

Method Reference: Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), MADEP ORS, August 1995.

11. 2. Itemin Basec Tom Ten ofenin Hydrocarbon (IFA) Parameter

Workorder #: 9604324-05 Matrix: Aqueous Sample ID: MW-SW1

Collection Date: 04/19/96

# Extractable Petroleum Hydrocarbons (EPH)

ANALYTE	EXTRACTION DATE	ANALYSIS DATE	DILUTION FACTOR	RESULT (mg/L)	DETECTION LIMIT
C <sub>9</sub> - C <sub>18</sub> aliphatic	04/25/96	05/26/96	1	NDJ	0.3
C <sub>19</sub> - C <sub>36</sub> aliphatic	04/25/96	05/26/96	1	NDJ	0.1
C <sub>9</sub> - C <sub>22</sub> aromatic	04/25/96	05/25/96	1	ND	0.2
Naphthalene	04/25/96	05/25/96	1	ND	0.01
2-Methylnaphthalene	04/25/96	05/25/96	1.	ND	0.01
Acenaphthylene	04/25/96	05/25/96	1	ND	0.01
Acenaphthene	04/25/96	05/25/96	1	ND	0.01
Fluorene	04/25/96	05/25/96	1	ND	0.01
Phenanthrene	04/25/96	05/25/96	1	ND	0.01
Anthracene	04/25/96	05/25/96	1	ND	0.01
Fluoranthene	04/25/96	05/25/96	1	ND	0.01
Pyrene	04/25/96	05/25/96	1	ND	0.01
Benzo(a)Anthracene	04/25/96	05/25/96	1	ND	0.01
Chrysene	04/25/96	05/25/96	1	ND	0.01
Benzo(b)Fluoranthene	04/25/96	05/25/96	1	ND	0.02
Benzo(k)Fluoranthene	04/25/96	05/25/96	1	ND	0.02
Benzo(a)pyrene	04/25/96	05/25/96	1	ND	0.02
Indeno(1,2,3-cd)Pyrene	04/25/96	05/25/96	1	ND	0.02
Dibenzo(a,h)anthracene	04/25/96	05/25/96	1	ND	0.02
Benzo(g,h,i)Perylene	04/25/96	05/25/96	1	ND	0.02

ND = Not detected

J = Estimated

### SURROGATE RECOVERY

Surrogate	Percent Recovery	Control Limits
Chloro-octadecane (COD)	2*	60-140
Ortho-terphenyl	55*	60-140

\*Outside QC limits

Method Reference: Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), MADEP ORS, August 1995.

.... Di italii-bascu iotal fettoleulli flyufocarbon (IFA) Farameter

Workorder #: 9604324-05 Matrix: Aqueous Sample ID:MW-SW1

Collection Date:04/19/96

Volatile Petroleum Hydrocarbons (VPH)

ANALYTE	EXTRACTION DATE	ANALYSIS DATE	DILUTION FACTOR	RESULT (mg/L)	DETECTION LIMIT
C5 - C8 aliphatic	NA	05/03/96	1	ND	0.005
C9 - C10 aromatic	NA	05/03/96	1	ND	0.005
C9 - C12 aliphatic	NA	05/03/96	1	ND	0.005
Benzene	NA	05/03/96	1	ND	0.005
Ethylbenzene	NA	05/03/96	1	ND	0.005
Toluene	NA	05/03/96	1	ND	0.005
Xylenes	NA	05/03/96	1	ND	0.005

#### SURROGATE RECOVERY

Surrogate	Percent Recovery	Control Limits
Bromofluorobenzene	94	60-140

Method Reference: Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), MADEP ORS, August 1995.

Training based Total Tetroleum Hydrocal boll (1111) Tarameter

Collection Date: 04/19/96

Workorder #:9604324-06 Matrix: Aqueous Sample ID: SKP-93-02A

Extractable Petroleum Hydrocarbons (EPH)

ANALYTE	EXTRACTION DATE	ANALYSIS DATE	DILUTION FACTOR	RESULT (mg/L)	DETECTION LIMIT
C <sub>9</sub> - C <sub>18</sub> aliphatic	04/25/96	05/26/96	1	NDJ	0.3
C <sub>19</sub> - C <sub>36</sub> aliphatic	04/25/96	05/26/96	1	NDJ	0.1
C <sub>9</sub> - C <sub>22</sub> aromatic	04/25/96	05/24/96	1	ND	0.2
Naphthalene	04/25/96	05/24/96	1	ND	0.01
2-Methylnaphthalene	04/25/96	05/24/96	1	ND	0.01
Acenaphthylene	04/25/96	05/24/96	1	ND	0.01
Acenaphthene	04/25/96	05/24/96	1	ND	0.01
Fluorene	04/25/96	05/24/96	1	ND	0.01
Phenanthrene	04/25/96	05/24/96	1	ND	0.01
Anthracene	04/25/96	05/24/96	1	ND	0.01
Fluoranthene	04/25/96	05/24/96	1	ND	0.01
Pyrene	04/25/96	05/24/96	1	ND	0.01
Benzo(a)Anthracene	04/25/96	05/24/96	1	ND	0.01
Chrysene	04/25/96	05/24/96	1	ND	0.01
Benzo(b)Fluoranthene	04/25/96	05/24/96	1	ND	0.02
Benzo(k)Fluoranthene	04/25/96	05/24/96	1	ND	0.02
Benzo(a)pyrene	04/25/96	05/24/96	1	ND	0.02
Indeno(1,2,3-cd)Pyrene	04/25/96	05/24/96	1	ND	0.02
Dibenzo(a,h)anthracene	04/25/96	05/24/96	1	ND	0.02
Benzo(g,h,i)Perylene	04/25/96	05/24/96	1	ND	0.02

ND = Not detected

J = Estimated

### SURROGATE RECOVERY

Surrogate	Percent Recovery	Control Limits
Chloro-octadecane (COD)	39*	60-140
Ortho-terphenyl	75	60-140

<sup>\*</sup> Outside QC limits

Method Reference: Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), MADEP ORS, August 1995.

---- Incum based rotal retroleum nyurocarbon (IPH) Parameter

Workorder #: 9604324-06 Matrix: Aqueous Sample ID: SKP-93-02A

Collection Date: 04/19/96

Volatile Petroleum Hydrocarbons (VPH)

ANALYTE	EXTRACTION DATE	ANALYSIS DATE	DILUTION FACTOR	RESULT (mg/L)	DETECTION LIMIT
C5 - C8 aliphatic	NA	05/03/96	1	ND	0.005
C9 - C10 aromatic	NA	05/03/96	1	ND	0.005
C9 - C12 aliphatic	NA	05/03/96	1	ND	0.005
Benzene	NA	05/03/96	1	ND	0.005
Ethylbenzene	NA	05/03/96	1	ND	0.005
Toluene	NA	05/03/96	1	ND	0.005
Xylenes	NA	05/03/96	1	ND	0.005

#### SURROGATE RECOVERY

Surrogate	Percent Recovery	Control Limits
Bromofluorobenzene	98	60-140

Method Reference: Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), MADEP ORS, August 1995.

Collection Date: 04/19/96

Workorder #: 9604324-07

Sample ID: SKP-93-01A

Matrix: Aqueoua

# Extractable Petroleum Hydrocarbons (EPH)

ANALYTE	EXTRACTION DATE	ANALYSIS DATE	DILUTION FACTOR	RESULT (mg/L)	DETECTION LIMIT
C <sub>9</sub> - C <sub>18</sub> aliphatic	04/25/96	05/26/96	1	NDJ	0.3
C <sub>19</sub> - C <sub>36</sub> aliphatic	04/25/96	05/26/96	1	NDJ	0.1
C <sub>9</sub> - C <sub>22</sub> aromatic	04/25/96	05/25/96	1	NDJ	0.2
Naphthalene	04/25/96	05/25/96	1	NDJ	0.01
2-Methylnaphthalene	04/25/96	05/25/96	1	ND	0.01
Acenaphthylene	04/25/96	05/25/96	1	ND	0.01
Acenaphthene	04/25/96	05/25/96	1	ND	0.01
Fluorene	04/25/96	05/25/96	1	ND	0.01
Phenanthrene	04/25/96	05/25/96	1	ND	0.01
Anthracene	04/25/96	05/25/96	1	ND	0.01
Fluoranthene	04/25/96	05/25/96	1	ND	0.01
Pyrene	04/25/96	05/25/96	1	ND	0.01
Benzo(a)Anthracene	04/25/96	05/25/96	- 1	ND	0.01
Chrysene	04/25/96	05/25/96	1	ND	0.01
Benzo(b)Fluoranthene	04/25/96	05/25/96	1	ND	0.02
Benzo(k)Fluoranthene	04/25/96	05/25/96	1	ND	0.02
Benzo(a)pyrene	04/25/96	05/25/96	1	ND	0.02
Indeno(1,2,3-cd)Pyrene	04/25/96	05/25/96	1	ND	0.02
Dibenzo(a,h)anthracene	04/25/96	05/25/96	1	ND	0.02
Benzo(g,h,i)Perylene	04/25/96	05/25/96	1	ND	0.02

ND = Not detected

J = Estimated

#### SURROGATE RECOVERY

Surrogate	Percent Recovery	Control Limits	
Chloro-octadecane (COD)	13*	60-140	
Ortho-terphenyl	55*	60-140	

\*Outside QC limits

Method Reference: Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), MADEP ORS, August 1995.

COMMONWEALTH ANALYTICAL

Workorder #: 9604324-07 Matrix: Aqueous Sample ID:SKP-93-01A

Collection Date: 04/19/96

# Volatile Petroleum Hydrocarbons (VPH)

ANALYTE	EXTRACTION DATE	ANALYSIS DATE	DILUTION FACTOR	RESULT (mg/L)	DETECTION LIMIT
C5 - C8 aliphatic	NA	05/03/96	1	ND	0.005
C9 - C10 aromatic	NA	05/03/96	1	ND	0.005
C9 - C12 aliphatic	NA	05/03/96	1	ND	0.005
Benzene	NA	05/03/96	1	ND	0.005
Ethylbenzene	NA	05/03/96	1	ND	0.005
Toluene	NA	05/03/96	1	ND	0.005
Xylenes	NA	05/03/96	1	ND	0.005

#### SURROGATE RECOVERY

Surrogate	Percent Recovery	Control Limits
Bromofluorobenzene	92	60-140

Method Reference: Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), MADEP ORS, August 1995.

Workorder #: 9604324-08

Sample ID: ERO41996

Matrix: Aqueous

Collection Date: 04/19/96

# Extractable Petroleum Hydrocarbons (EPH)

ANALYTE	EXTRACTION DATE	ANALYSIS DATE	DILUTION FACTOR	RESULT (mg/L)	DETECTION LIMIT
C <sub>9</sub> - C <sub>18</sub> aliphatic	04/25/96	05/26/96	1	NDJ	0.3
C <sub>19</sub> - C <sub>36</sub> aliphatic	04/25/96	05/26/96	1	NDJ	0.1
C <sub>9</sub> - C <sub>22</sub> aromatic	04/25/96	05/24/96	1	ND	0.2
Naphthalene	04/25/96	05/24/96	1	ND	0.01
2-Methylnaphthalene	04/25/96	05/24/96	1	ND	0.01
Acenaphthylene	04/25/96	05/24/96	1	ND	0.01
Acenaphthene	04/25/96	05/24/96	1	ND	0.01
Fluorene	04/25/96	05/24/96	1	ND	0.01
Phenanthrene	04/25/96	05/24/96	1	ND	0.01
Anthracene	04/25/96	05/24/96	1	ND	0.01
Fluoranthene	04/25/96	05/24/96	1	ND	0.01
Pyrene	04/25/96	05/24/96	1	ND	0.01
Benzo(a)Anthracene	04/25/96	05/24/96	1	ND	0.01
Chrysene	04/25/96	05/24/96	1	ND	0.01
Benzo(b)Fluoranthene	04/25/96	05/24/96	1	ND	0.02
Benzo(k)Fluoranthene	04/25/96	05/24/96	1	ND	0.02
Benzo(a)pyrene	04/25/96	05/24/96	1	ND	0.02
Indeno(1,2,3-cd)Pyrene	04/25/96	05/24/96	1	ND	0.02
Dibenzo(a,h)anthracene	04/25/96	05/24/96	1	ND	0.02
Benzo(g,h,i)Perylene	04/25/96	05/24/96	1	ND	0.02

ND = Not detected

J = Estimated

### SURROGATE RECOVERY

Surrogate	Percent Recovery	Control Limits
Chloro-octadecane (COD)	54*	60-140
Ortho-terphenyl	76	60-140

\*Outside QC limits

Method Reference: Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), MADEP ORS, August 1995.

Workorder #: 9604324-08

Sample ID:ERO41996

Collection Date:04/19/96

Matrix: Aqueous

### Volatile Petroleum Hydrocarbons (VPH)

ANALYTE	EXTRACTION DATE	ANALYSIS DATE	DILUTION FACTOR	RESULT (mg/L)	DETECTION LIMIT
C5 - C8 aliphatic	NA	05/03/96	1	0.012	0.005
C9 - C10 aromatic	NA	05/03/96	1	ND	0.005
C9 - C12 aliphatic	NA	05/03/96	1	ND	0.005
Benzene	NA	05/03/96	1	ND	0.005
Ethylbenzene	NA	05/03/96	1	ND	0.005
Toluene	NA	05/03/96	1	ND	0.005
Xylenes	NA	05/03/96	1	ND	0.005

#### SURROGATE RECOVERY

Surrogate	Percent Recovery	Control Limits
Bromofluorobenzene	107	60-140

Method Reference: Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), MADEP ORS, August 1995.

Collection Date: 04/19/96

Workorder #: 9604324-09

Sample ID: MW-SW2

Matrix: Aqueous

### Extractable Petroleum Hydrocarbons (EPH)

ANALYTE	EXTRACTION DATE	ANALYSIS DATE	DILUTION FACTOR	RESULT (mg/L)	DETECTION LIMIT
C <sub>9</sub> - C <sub>18</sub> aliphatic	04/25/96	05/26/96	1	NDJ	0.3
C <sub>19</sub> - C <sub>36</sub> aliphatic	04/25/96	05/26/96	1	NDJ	0.1
C <sub>9</sub> - C <sub>22</sub> aromatic	04/25/96	05/24/96	1	ND	0.2
Naphthalene	04/25/96	05/24/96	1	ND	0.01
2-Methylnaphthalene	04/25/96	05/24/96	1	ND	0.01
Acenaphthylene	04/25/96	05/24/96	1	ND	0.01
Acenaphthene	04/25/96	05/24/96	1	ND	0.01
Fluorene	04/25/96	05/24/96	1	ND	0.01
Phenanthrene	04/25/96	05/24/96	1	ND	0.01
Anthracene	04/25/96	05/24/96	1	ND	0.01
Fluoranthene	04/25/96	05/24/96	1	ND	0.01
Pyrene	04/25/96	05/24/96	1	ND	0.01
Benzo(a)Anthracene	04/25/96	05/24/96	1	ND	0.01
Chrysene	04/25/96	05/24/96	1	ND	0.01
Benzo(b)Fluoranthene	04/25/96	05/24/96	1	ND	0.02
Benzo(k)Fluoranthene	04/25/96	05/24/96	1	ND	0.02
Benzo(a)pyrene	04/25/96	05/24/96	1	ND	0.02
Indeno(1,2,3-cd)Pyrene	04/25/96	05/24/96	1	ND	0.02
Dibenzo(a,h)anthracene	04/25/96	05/24/96	1	ND	0.02
Benzo(g,h,i)Perylene	04/25/96	05/24/96	1	ND	0.02

ND = Not detected

J = Estimated

#### SURROGATE RECOVERY

Surrogate	Percent Recovery	Control Limits	
Chloro-octadecane (COD)	31*	60-140	
Ortho-terphenyl	75	60-140	

\* Outside QC limits

Method Reference: Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), MADEP ORS, August 1995.

Workorder #: 9604324-09

Sample ID:MW-SW2

Collection Date:04/19/96

Matrix: Aqueous

### Volatile Petroleum Hydrocarbons (VPH)

ANALYTE	EXTRACTION DATE	ANALYSIS DATE	DILUTION FACTOR	RESULT (mg/L)	DETECTION LIMIT
C5 - C8 aliphatic	NA	05/03/96	1	ND	0.005
C9 - C10 aromatic	NA	05/03/96	1	ND	0.005
C9 - C12 aliphatic	NA	05/03/96	1	ND	0.005
Benzene	NA	05/03/96	1	ND	0.005
Ethylbenzene	NA	05/03/96	1	ND	0.005
Toluene	NA	05/03/96	1	ND	0.005
Xylenes	NA	05/03/96	1	ND	0.005

### SURROGATE RECOVERY

Surrogate	Percent Recovery	Control Limits
Bromofluorobenzene	103	60-140

Method Reference: Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), MADEP ORS, August 1995.

Workorder #: 9604324-10

Sample ID: TRIP BLANK

Matrix: LAB WATER

### Volatile Petroleum Hydrocarbons (VPH)

ANALYTE	EXTRACTION DATE	ANALYSIS DATE	DILUTION FACTOR	RESULT (mg/L)	DETECTION LIMIT	
C5 - C8 aliphatic	NA	05/03/96	1	ND	0.005	
C9 - C10 aromatic	NA	05/03/96	1	ND	0.005	
C9 - C12 aliphatic	NA	05/03/96	1	ND	0.005	
Benzene	NA	05/03/96	1	ND	0.005	
Ethylbenzene	NA	05/03/96	1	ND	0.005	
Toluene	NA	05/03/96	1	ND	0.005	
Xylenes	NA	05/03/96	1	ND	0.005	

#### SURROGATE RECOVERY

Surrogate	Percent Recovery	Control Limits
Bromofluorobenzene	96	60-140

Method Reference: Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), MADEP ORS, August 1995.

## COOLER RECEIPT FORM

COOLER I	RECEIPT FORM
Workorder # <u>7604 324</u>	MRD Cooler #:
	Number of Coolers: 2
Project Name: Fort Devens, Ayer-MA	Date Received: 4-22-46
USE OTHER SIDE OF THIS FORM TO NOTE	DETAILS CONCERNING CHECK-IN PROBLEMS.
A. PRELIMINARY EXAMINATION PHASE:	2
by (print) Kia Haworkh	(sign) The Haunth
<ol> <li>Did cooler come with a shipping slip (air bill, etc.         If yes, enter carrier name &amp; air bill number here:     </li> </ol>	E.)?
2. Were custody seals on outside of cooler?  How many & where: 2 - Top Front / Top Ba	seal date: 4-19-96 seal name: No Mane
3. Were custody seals unbroken and intact at the da	te and time of arrival?
4. Did you screen samples for radioactivity using th	e Geiger Counter? YES NO
5. Were custody papers sealed in a plastic bag & tag	ped inside to the lid?
6. Were custody papers filled out properly (ink, sig	ned, etc.)?
7. Did you sign custody papers in the appropriate p	lace?XES_NO
If YES, enter project name at the top of this form	
9. If required, was enough ice used? T	ype of ice: Days-dice YES NO *
10. Have designated person initial here to acknowleg	e receipt of cooler: RH (date) 4/32/96
B. LOG-IN PHASE: Date samples were logged-in	
by(print) Ria Hawar Va	(sign) Kin Haworth
11. Describe type of packing in cooler: Felk	Wrapping
12. Were all bottles sealed in separate plastic bags?	(YES) NO
13. Did all bottles arrive unbroken & were labels in	good condition?
14. Were all bottle labels complete (ID, date, time, s	signature, preservative, etc.)?
15. Did all bottle labels agree with custody papers?	<u>FES</u> NO
16. Were correct containers used for the tests indicat	ed?
17. Were correct preservatives added to samples?	YES NO
18. Was a sufficient amount of sample sent for tests	
19. Were bubbles absent in VOA samples? If NO, I	
20. Was the project manager called and status discus If YES, give details on the back of this form.	
21. Who was called? CFR By wh	om? Kin Hauser (date) 4-22 46

## **CHAIN-OF-CUSTODY RECORD**

9604 324

TRANSFERS

Rev. 08/89

Field Technical Services

174)47

O.H. MATERIALS CORP. P.O. BOX 551 FINDLAY, OH 45839-0551 419-423-3526 PROJECT NAME PROJECT LOCATION ANALYSIS DESIRED Tort Devens Ayer (INDICATE PROJECT CONTACT PROJECT TELEPHONE NO. SEPARATE CONTAINERS) 16208 POO 242 4644 Mike Quinlan CLIENT'S REPRESENTATIVE PROJECT MANAGER/SUPERVISOR USACE Viewn Mack ITEM NO. COMP GRAB SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE) SAMPLE NUMBER DATE TIME REMARKS Mondernos well 1119-1 ITIL 4-19 1130 MW-1 3440-1 96 Child Partnersh 1411 4-19 × 2 1315 MW-2 3xyom1 montenes will MW-3 IXIL 4-19 3 MW-3 1240 1 3×40~1 Mondaine well MW-4 HIL 4-14 1300 MW-4 3xyom! Note only VPII is necessary Do not un EDII on Tip Black Tro Blank av40ml 5 Trip Plank 6 9 10 REMARKS ITEM TRANSFERS TRANSFERS \* 3-4 week TAT. TIME RELINQUISHED BY DATE NUMBER ACCEPTED BY \* Note, only run YAll on item 5 Q115036905 4-14 William Dale Frederich Traking # 1 1-5 2 4/22 8.00 3 Building 2527 SAMPLERS SIGNATURE William Dale



## **CHAIN-OF-CUSTODY RECORD**

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TRANSI ER \$

Form 001! Field Technical Servicet Rev. 0878

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	D.H. MATERIALS	COR	· •		P.(	D. BOX 551		1551 •	41	9-423-3526
F PRO	CONTRACTOR DESIGNATION OF THE PROPERTY OF THE		act Dunlan			PROJEC	PROJECT TELEPHONE NO.	NUMBER	aN	NALYSIS DESIRED DICATE PARATE INTAINERS)
ITEM NO.	SAMPLE NUMBER	Time PATE	Dale TIME	COMP	GRAB		SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	Ģ		REMARKS
E (	MW-5W1	11/20			Y		Author was loing well	1×1L		
2	SVP-9300A	1435	4-19		×	1. 1. v.	TKO. 73-02	1x 11 3x 40.	.1 1	
3	SUP-93-01A	1500	4-19		×	eristing	sup-ga-til	1x IL Zyuni	1 4	
4	ER041996	1515	4-19		×	Equ	ipment Pinsule	321/200	. *	
5	MM-SM9	1520	4-19		×	OHATIO	MW-SUY well	1× 2×11 3×40~	L.	
6									-	
7									4	
8										
9										
10									J N	
	NUMBER NUMBER	4	9 1	TE	RANS	FERS SHED BY	TRANSFERS ACCEPTED BY	DATE	TIME	HEMARKS  * 2-4 week TAT
	1 1-3	5	11/10	_ ]	Dal		Scaling of Springs	4 46	19,77	
1	2						Mr. Alexander	4/22/04	8:0	
	3						7.7.7.7.	1		Shrballer LXII + 7, pBink included on cax = 174047 70 - 715 for
	4									SAMPLER'S SIGNATURE

## **ROUND 2 GROUNDWATER RESULTS**

ABB Environmental Services, Inc.

W019716.doc 8740-03

### EPA METHOD 8100 (MA DEP Modified) Extractable Petroleum Hydrocarbons (GC/FID)

Field ID: MDB003X2 Lab ID: 14915-01 Project: Devens/ESPS Taks 7 (DV5)/8740.02 Batch ID: EP-0136-F Client: Sampled: 11-12-96 Cont/Prsv: 1L Glass/H2S04 Cool Received: 11-12-96 Matrix: Aqueous Extracted: 11-19-96 Analyzed: 11-21-96

#### Extractable Petroleum Hydrocarbons

PARAMETER CONCE	NTRATION (ug/L)	TOXICITY MULTIPLIER	EQUIVALENT CONCENTRATION (ug/L)	ADJUSTED REPORTING LIMIT (ug/L)
n-C 9 to n-C 18 Aliphatics n-C 19 to n-C 36 Aliphatics n-C 10 to n-C 22 Aromatics *	BRL BRL BRL	0.05 0.005 1.0	BRL BRL BRL	25 2.5 500
Extractable Petroleum Hydrocar	bons (EPH)		BRL	2.5

#### Targeted Polynuclear Aromatic Hydrocarbon Analytes

PARAMETER		CONCENTR (	RATION (ug/L)	REPORTING LIMIT (ug/L)
Naphthalene 2-Methylnaphthalene Acenaphthylene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a)anthracene Chrysene Benzo(b)fluoranthene Benzo(k)fluoranthene Benzo(a)pyrene Indeno(1,2,3-c,d)pyrene Dibenzo(a,h)anthracene Benzo(g,h,i)perylene			BRL BRL BRL BRL BRL BRL BRL BRL BRL BRL	10 10 10 10 10 10 10 10 10 10 10 10 10
QC SURROGATE COMPOUND	SPIKED	MEASURED	RECOVERY	QC LIMITS
Chloro-octadecane o-Terphenyl	19 19	16 14	82 % 71 %	60 - 140 % 60 - 140 %

BRL = Below Reporting Limit. \* = Reported concentration excludes targeted Polynuclear Aromatic Hydrocarbon analytes. Method Reference: Method 8100 (Modified) - Polynuclear Aromatic Hydrocarbons, Test Methods for Evaluating Solid Waste, US EPA SW-846, Third Edition (1986). Modified in accordance with the Method for the Determination of Extractable Petroleum Hydrocarbons, MA DEP, Public Comment Draft 1.0 (1995).



## EPA METHOD 8100 (MA DEP Modified) Extractable Petroleum Hydrocarbons (GC/FID)

Field ID: Project: Client: Cont/Prsv: Matrix:	MXBQ01X2 Devens/ESPS Taks 7 (DV5)/8740.02 ABB 1L Glass/H2S04 Cool Aqueous		
nacrix.	ndacons	Analyzed:	

## Extractable Petroleum Hydrocarbons

PARAMETER CONC	ENTRATION (ug/L)	TOXICITY MULTIPLIER	EQUIVALENT CONCENTRATION (ug/L)	ADJUSTED REPORTING LIMIT (ug/L)
n-C 9 to n-C 18 Aliphatics n-C 19 to n-C 36 Aliphatics n-C 10 to n-C 22 Aromatics *	BRL BRL BRL	0.05 0.005 1.0	BRL BRL BRL	25 2.5 500
Extractable Petroleum Hydroca	rbons (EPH)	)	BRL	2.5

## Targeted Polynuclear Aromatic Hydrocarbon Analytes

PARAMETER		CONCENTR (	ATION ug/L)	REPORTING LIMIT (ug/L)
Naphthalene 2-Methylnaphthalene Acenaphthylene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a)anthracene Chrysene Benzo(b)fluoranthene Benzo(a)pyrene Indeno(1,2,3-c,d)pyrene Dibenzo(a,h)anthracene Benzo(g,h,i)perylene			BRL BRL BRL BRL BRL BRL BRL BRL BRL BRL	10 10 10 10 10 10 10 10 10 10 10 10 10 1
QC SURROGATE COMPOUND	SPIKED	MEASURED	RECOVERY	QC LIMITS
Chloro-octadecane o-Terphenyl	19 19	16 13	82 % 71 %	60 - 140 % 60 - 140 %

BRL = Below Reporting Limit. \* = Reported concentration excludes targeted Polynuclear Aromatic Hydrocarbon analytes. Method Reference: Method 8100 (Modified) - Polynuclear Aromatic Hydrocarbons, Test Methods for Evaluating Solid Waste, US EPA SW-846, Third Edition (1986). Modified in accordance with the Method for the Determination of Extractable Petroleum Hydrocarbons, MA DEP, Public Comment Oraft 1.0 (1995).

## EPA METHOD 8100 (MA DEP Modified) Extractable Petroleum Hydrocarbons (GC/FID)

Field ID: Project:	MXBQ02X2 Devens/ESPS Taks 7 (DV5)/8740.02	Lab ID: Batch ID:	14915-03 EP-0136-F
Client:	ABB	Sampled:	11-12-96
Cont/Prsv:	1L Glass/H2S04 Cool	Received:	
Matrix:	Aqueous	Extracted:	11-19-96
		Analyzed:	11-22-96

### Extractable Petroleum Hydrocarbons

PARAMETER CONCENT	RATION (ug/L)	TOXICITY MULTIPLIER	EQUIVALENT CONCENTRATION (ug/L)	ADJUSTED REPORTING LIMIT (ug/L)
n-C 9 to n-C 18 Aliphatics n-C 19 to n-C 36 Aliphatics n-C 10 to n-C 22 Aromatics *	BRL BRL BRL	0.05 0.005 1.0	BRL BRL BRL	25 2.5 500
Extractable Petroleum Hydrocarbon	ns (EPH)		BRL	2.5

### Targeted Polynuclear Aromatic Hydrocarbon Analytes

PARAMETER		CONCENTR (	ATION ug/L)	REPORTING LIMIT (ug/L)
Naphthalene 2-Methylnaphthalene Acenaphthylene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a)anthracene Chrysene Benzo(b)fluoranthene Benzo(k)fluoranthene Benzo(a)pyrene Indeno(1,2,3-c,d)pyrene Dibenzo(a,h)anthracene Benzo(g,h,i)perylene			BRL BRL BRL BRL BRL BRL BRL BRL BRL BRL	10 10 10 10 10 10 10 10 10 10 10 10 10
QC SURROGATE COMPOUND	SPIKED	MEASURED	RECOVERY	QC LIMITS
Chloro-octadecane o-Terphenyl	19 19	16 16	83 % 84 %	60 - 140 % 60 - 140 %

BRL = Below Reporting Limit.  $\star$  = Reported concentration excludes targeted Polynuclear Aromatic Hydrocarbon analytes. Method Reference: Method 8100 (Modified) - Polynuclear Aromatic Hydrocarbons, Test Methods for Evaluating Solid Waste, US EPA SW-846, Third Edition (1986). Modified in accordance with the Method for the Determination of Extractable Petroleum Hydrocarbons, MA DEP, Public Comment Draft 1.0 (1995).

# EPA METHOD 8100 (MA DEP Modified) Extractable Petroleum Hydrocarbons (GC/FID)

Field ID:	MXBQ04X2	Lab ID:	14915-04
Project:	Devens/ESPS Taks 7 (DV5)/8740.02	Batch ID:	EP-0136-F
Client:	ABB	Sampled:	11-12-96
Cont/Prsv:	1L Glass/H2S04 Cool	Received:	
Matrix:	Aqueous	Extracted:	
		Analyzed:	11-22-96

### Extractable Petroleum Hydrocarbons

PARAMETER CON	CENTRATION (ug/L)	TOXICITY MULTIPLIER	EQUIVALENT CONCENTRATION (ug/L)	ADJUSTED REPORTING LIMIT (ug/L)
n-C 9 to n-C 18 Aliphatics n-C 19 to n-C 36 Aliphatics n-C 10 to n-C 22 Aromatics *	BRL BRL BRL	0.05 0.005 1.0	BRL BRL BRL	25 2.5 500
Extractable Petroleum Hydroc	arbons (EPH)		BRL	2.5

## Targeted Polynuclear Aromatic Hydrocarbon Analytes

PARAMETER		CONCENTR (	ATION ug/L)	REPORTING LIMIT (ug/L)
Naphthalene 2-Methylnaphthalene Acenaphthylene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a)anthracene Chrysene Benzo(b)fluoranthene Benzo(k)fluoranthene Benzo(a)pyrene Indeno(1,2,3-c,d)pyrene Dibenzo(a,h)anthracene Benzo(g,h,i)perylene			BRL BRL BRL BRL BRL BRL BRL BRL BRL BRL	10 10 10 10 10 10 10 10 10 10 10 10 10
QC SURROGATE COMPOUND	SPIKED	MEASURED	RECOVERY	QC LIMITS
Chloro-octadecane o-Terphenyl	19 19	14 14	75 % 72 %	60 - 140 % 60 - 140 %

BRL = Below Reporting Limit. \* = Reported concentration excludes targeted Polynuclear Aromatic Hydrocarbon analytes. Method Reference: Method 8100 (Modified) - Polynuclear Aromatic Hydrocarbons, Test Methods for Evaluating Solid Waste, US EPA SW-846. Third Edition (1986). Modified in accordance with the Method for the Determination of Extractable Petroleum Hydrocarbons, MA DEP, Public Comment Draft 1.0 (1995).

#### EPA METHOD 8100 (MA DEP Modified) Extractable Petroleum Hydrocarbons (GC/FID)

Field ID:	MXBQ03X2	Lab ID:	14915-05
Project:	Devens/ESPS Taks 7 (DV5)/8740.02	Batch ID:	EP-0136-F
Client:	ABB	Sampled:	11-12-96
Cont/Prsv:	1L Glass/H2SO4 Cool	Received:	11-12-96
Matrix:	Aqueous	Extracted:	11-19-96
	6.140.440.	Analyzed:	11-22-96

#### Extractable Petroleum Hydrocarbons

PARAMETER	CONCENTRATION (ug/L)	TOXICITY MULTIPLIER	EQUIVALENT CONCENTRATION (ug/L)	ADJUSTED REPORTING LIMIT (ug/L)
n-C 9 to n-C 18 Aliphatic: n-C 19 to n-C 36 Aliphatic n-C 10 to n-C 22 Aromatic:	s BRL	0.05 0.005 1.0	BRL BRL BRL	25 2.5 500
Extractable Petroleum Hydr	ocarbons (EPH)		BRL	2.5

#### Targeted Polynuclear Aromatic Hydrocarbon Analytes

PARAMETER		CONCENTR (	ATION ug/L)	REPORTING LIMIT (ug/L)
Naphthalene 2-Methylnaphthalene Acenaphthylene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a)anthracene Chrysene Benzo(b)fluoranthene Benzo(k)fluoranthene Benzo(a)pyrene Indeno(1,2,3-c,d)pyrene Dibenzo(a,h)anthracene Benzo(g,h,i)perylene			BRL BRL BRL BRL BRL BRL BRL BRL BRL BRL	10 10 10 10 10 10 10 10 10 10 10 10
QC SURROGATE COMPOUND	SPIKED	MEASURED	RECOVERY	QC LIMITS
Chloro-octadecane o-Terphenyl	20 20	16 15	80 % 74 %	60 - 140 % 60 - 140 %

BRL = Below Reporting Limit. \* = Reported concentration excludes targeted Polynuclear Aromatic Hydrocarbon analytes. Method Reference: Method 8100 (Modified) - Polynuclear Aromatic Hydrocarbons, Test Methods for Evaluating Solid Waste, US EPA SW-846, Third Edition (1986). Modified in accordance with the Method for the Determination of Extractable Petroleum Hydrocarbons. MA DEP, Public Comment Draft 1.0 (1995).

## EPA METHOD 8015 (MA DEP Modified) Volatile Petroleum Hydrocarbons (GC/PID/FID)

Field ID: MDBQ03X2 Lab ID: 14915-06 Project: Devens/ESPS Task 7 (DV5)/8740.02 Batch ID: VG1-0080-W Client: Sampled: 11-12-96 Cont/Prsv: 40mL VOA Vial/Cool HCl Received: 11-12-96 Matrix: Aqueous Analyzed: 11-22-96

#### Volatile Petroleum Hydrocarbons

PARAMETER CON	CENTRATION (ug/L)	TOXICITY MULTIPLIER	EQUIVALENT CONCENTRATION (ug/L)	ADJUSTED REPORTING LIMIT (ug/L)
n-C 5 to n-C 8 Aliphatics * n-C 9 to n-C 12 Aliphatics n-C 9 to n-C 10 Aromatics	13 BRL BRL	0.5 0.05 1.0	6 BRL BRL	2.5 0.25 5.0
Volatile Petroleum Hydrocarb	ons (VPH)		6	0.25

## Targeted Volatile Organic Analytes

PARAMETER		CONCENTR (	ATION ug/L)	REPORTING LIMIT (ug/L)
Methyl tert-butyl Ether Benzene Toluene Ethylbenzene meta- and para-Xylene ortho-Xylene Naphthalene	BRL BRL BRL BRL BRL BRL BRL		25 5 5 5 5 5 10	
QC SURROGATE COMPOUND	SPIKED	MEASURED	RECOVERY	QC LIMITS
2,5-Dibromotoluene	50	43	85 %	60 - 140 %

## EPA METHOD 8015 (MA DEP Modified) Volatile Petroleum Hydrocarbons (GC/PID/FID)

Field ID: MXBQ01X2 Lab ID: 14915-07 Devens/ESPS Task 7 (DV5)/8740.02 Project: Batch ID: VG1-0080-W Client: Sampled: 11-12-96 Cont/Prsv: 40mL VOA Vial/Cool HC1 Received: 11-12-96 Matrix: Aqueous 11-22-96 Analyzed:

#### Volatile Petroleum Hydrocarbons

PARAMETER CON	CENTRATION (ug/L)	TOXICITY MULTIPLIER	EQUIVALENT CONCENTRATION (ug/L)	ADJUSTED REPORTING LIMIT (ug/L)
n-C 5 to n-C 8 Aliphatics * n-C 9 to n-C 12 Aliphatics n-C 9 to n-C 10 Aromatics	BRL BRL BRL	0.5 0.05 1.0	BRL BRL BRL	2.5 0.25 5.0
Volatile Petroleum Hydrocarb	ons (VPH)		BRL	0.25

### Targeted Volatile Organic Analytes

PARAMETER		CONCENTR (	ATION ug/L)	REPORTING LIMIT (ug/L)
Methyl tert-butyl Ether Benzene Toluene Ethylbenzene meta- and para-Xylene ortho-Xylene Naphthalene	BRL BRL BRL BRL BRL BRL BRL		BRL BRL BRL BRL BRL	25 5 5 5 5 5 10
QC SURROGATE COMPOUND	SPIKED	MEASURED	RECOVERY	QC LIMITS
2,5-Dibromotoluene	50	44	87 %	60 - 140 %

## EPA METHOD 8015 (MA DEP Modified) Volatile Petroleum Hydrocarbons (GC/PID/FID)

Field ID: MXBQ02X2 Lab ID: 14915-08 Devens/ESPS Task 7 (DV5)/8740.02 Project: Batch ID: VG1-0080-W Client: Sampled: 11-12-96 Cont/Prsv: 40mL VOA Vial/Cool HCl Received: 11-12-96 Matrix: Aqueous Analyzed: 11-22-96

### Volatile Petroleum Hydrocarbons

PARAMETER C	ONCENTRATION (ug/L)	TOXICITY MULTIPLIER	EQUIVALENT CONCENTRATION (ug/L)	ADJUSTED REPORTING LIMIT (ug/L)
n-C 5 to n-C 8 Aliphatics n-C 9 to n-C 12 Aliphatics n-C 9 to n-C 10 Aromatics		0.5 0.05 1.0	3 BRL BRL	2.5 0.25 5.0
Volatile Petroleum Hydroca	rbons (VPH)		3	0.25

### Targeted Volatile Organic Analytes

PARAMETER		CONCENTR (	(ATION (ug/L)	REPORTING LIMIT (ug/L)
Methyl tert-butyl Ether Benzene Toluene Ethylbenzene meta- and para-Xylene ortho-Xylene Naphthalene			BRL BRL BRL BRL BRL BRL BRL	25 5 5 5 5 10
QC SURROGATE COMPOUND	SPIKED	MEASURED	RECOVERY	QC LIMITS
2,5-Dibromotoluene	50	45	90 %	60 - 140 %

## EPA METHOD 8015 (MA DEP Modified) Volatile Petroleum Hydrocarbons (GC/PID/FID)

Field ID: MXBQ04X2 Lab ID: 14915-09 Devens/ESPS Task 7 (DV5)/8740.02 Project: Batch ID: VG1-0080-W Client: ABB Sampled: 11-12-96 Cont/Prsv: 40mL VOA Vial/Cool HC1 11-12-96 Received: Matrix: Aqueous Analyzed: 11-22-96

#### Volatile Petroleum Hydrocarbons

PARAMETER CON	CENTRATION (ug/L)	TOXICITY MULTIPLIER	EQUIVALENT CONCENTRATION (ug/L)	ADJUSTED REPORTING LIMIT (ug/L)
n-C 5 to n-C 8 Aliphatics * n-C 9 to n-C 12 Aliphatics n-C 9 to n-C 10 Aromatics	BRL BRL BRL	0.5 0.05 1.0	BRL BRL BRL	2.5 0.25 5.0
Volatile Petroleum Hydrocarb	ons (VPH)		BRL	0.25

### Targeted Volatile Organic Analytes

PARAMETER		CONCENTR (	ATION ug/L)	REPORTING LIMIT (ug/L)
Methyl tert-butyl Ether Benzene Toluene Ethylbenzene meta- and para-Xylene ortho-Xylene Naphthalene	BRL BRL BRL BRL BRL BRL BRL		25 5 5 5 5 10	
QC SURROGATE COMPOUND	SPIKED	MEASURED	RECOVERY	QC LIMITS
2,5-Dibromotoluene	50	44	88 %	60 - 140 %

BRL = Below Reporting Limit.  $\star$  = Reported concentration excludes targeted Volatile Organic analytes. Method Reference: Method 8015 (Modified) - Nonhalogenated Volatile Organics by Gas Chromatography, Test Methods for Evaluating Solid Waste, US EPA SW-846, Third Edition (1986). Modified in accordance with the Method for the Determination of Volatile Petroleum Hydrocarbons, MA DEP, Public Comment Draft 1.0 (1995).

## EPA METHOD 8015 (MA DEP Modified) Volatile Petroleum Hydrocarbons (GC/PID/FID)

Field ID: MXBQO3X2 Project: Devens/ESPS Task 7 (DV5)/8740.02 Client: ABB Cont/Prsv: 40mL VOA Vial/Cool HC1 Matrix: Aqueous	Lab ID: Batch ID: Sampled: Received: Analyzed:	
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### Volatile Petroleum Hydrocarbons

PARAMETER CONCI	ENTRATION (ug/L)	TOXICITY MULTIPLIER	EQUIVALENT CONCENTRATION (ug/L)	ADJUSTED REPORTING LIMIT (ug/L)
n-C 5 to n-C 8 Aliphatics * n-C 9 to n-C 12 Aliphatics n-C 9 to n-C 10 Aromatics	15 BRL BRL	0.5 0.05 1.0	8 BRL BRL	2.5 0.25 5.0
Volatile Petroleum Hydrocarbo	ns (VPH)		8	0.25

## Targeted Volatile Organic Analytes

PARAMETER		CONCENTR (	RATION (ug/L)	REPORTING LIMIT (ug/L)
Methyl tert-butyl Ether Benzene Toluene Ethylbenzene meta- and para-Xylene ortho-Xylene Naphthalene	BRL BRL BRL BRL BRL BRL BRL		25 5 5 5 5 10	
QC SURROGATE COMPOUND	SPIKED	MEASURED	RECOVERY	QC LIMITS
2,5-Dibromotoluene	50	45	90 %	60 - 140 %



## EPA METHOD 8015 (MA DEP Modified) Volatile Petroleum Hydrocarbons (GC/PID/FID)

Field ID: TBK96207 Lab ID: 14915-11 Project: Devens/ESPS Task 7 (DV5)/8740.02 Batch ID: VG1-0080-W Client: Sampled: 11-12-96 Cont/Prsv: 40mL VOA Via1/Cool HC1 Received: 11-12-96 Matrix: Aqueous Analyzed: 11-22-96

#### Volatile Petroleum Hydrocarbons

PARAMETER	CONCENTRATION (ug/L)	TOXICITY MULTIPLIER	EQUIVALENT CONCENTRATION (ug/L)	ADJUSTED REPORTING LIMIT (ug/L)
n-C 5 to n-C 8 Aliphati n-C 9 to n-C 12 Aliphat n-C 9 to n-C 10 Aromati	ics BRL	0.5 0.05 1.0	BRL BRL BRL	2.5 0.25 5.0
Volatile Petroleum Hydr	ocarbons (VPH)		BRL	0.25

#### Targeted Volatile Organic Analytes

PARAMETER		CONCENTRA (1	ATION ug/L)	REPORTING LIMIT (ug/L)
Methyl tert-butyl Ether Benzene Toluene Ethylbenzene meta- and para-Xylene ortho-Xylene Naphthalene		BRL BRL BRL BRL BRL BRL BRL		25 5 5 5 5 10
QC SURROGATE COMPOUND	SPIKED	MEASURED	RECOVERY	QC LIMITS
2,5-Dibromotoluene	50	45	89 %	60 - 140 %



QUALITY ASSURANCE Project Narrative

Project: Devens/ESPS Task 7 (DV5)/8740.02

Client: ABB

Lab ID: 14915 Received: 11-12-96

### A. <u>Physical Condition of Sample(s)</u>

This project was received by the laboratory in satisfactory condition. The sample(s) were received undamaged in appropriate containers with the correct preservation.

#### B. Project Documentation

This project was accompanied by Chain of Custody documentation, with the following amendments or corrections:

- Samples 14915-01 through -05 were received preserved with H2SO4.
- Samples 14915-06 through -11 were received preserved with HCl.

#### C. Analysis of Sample(s)

No analytical anomalies or non-conformances were noted by the laboratory during the processing of these samples. All data contained within this report are released without qualification.

ABB Environmental Services, Inc. JOB: DEVENS CLIENT: ESPS TASK 7 (DV5) PRIJET #

CHAIN OF CUSTODY 8740.62

AB IUMBER	DATE SAMPLED	TIME		FIELD SAMPLE ID	QTY TOTAL	QTY EACH	CONTAINER TYPE	MATRIX	LAB FRACT CODE
	11/12/96	1405	NOC 63BQ	MDBO03X2	5		14915-		
	1000		Ban- 96-0			2	1L-AG - 01	Aqueous	EPH-W
							40mL-AG - 06	Aqueous	VPH-W
	11/12/96	1200	BQM-96-01X	MXBQ01X2	5			33753375	
						2	1L-AG - 02	Aqueous	EPH-W
						3	40mL-AG - 07	Aqueous	VPH-W
	11/12/96	1145	BQM-96-02X	MXBQ02X2	5				
							1L-AG - 03	Aqueous	EPH-W
	and the same of the same					3	40mL-AG - 08	Aqueous	VPH-W
	11/12/96	1415	BQM-96-04X	MXBQ04X2	5				
							1L-AG - 04	Aqueous	EPH-W
	10000000		Carlo de la compansión	Ante-Seale		3	40mL-AG - 09	Aqueous	VPH-W
	11/12/96	1405	BQM-96-03X	MXBQO3X2	5		Care de		
							1L-AG - 05	Aqueous	EPH-W
	21335323	1222		-assistant	1.2		40mL-AG - 10	Aqueous	VPH-W
	11/12/96	1200	TBK-96-207	TBK96207	3		720000000000	40000000	50.000 to
		11				3	40mL-AG il	Aqueous	VPH-W
	/ //	//		_ M			100 1 11		F-11
elinquished by	1	and D	ate: 4/11/2	Time://	Rece	ived	by: alau maddina	te:///2/9/2 Tin	ne: 510'1PA
	100- 000	11	. 11 112 10	7 7.	\vul -		by: Muyer Da	11.12.91	7:30 A
elinquished by:	acay mas	flyans	ate:" /12/9	6 Time: 1.5	Rece	rved	by: Toxicopia Da	te:"//6/14 Tir	ne:/
elinquished by:		D	ate: / /	Time:	Rece	ived	by: Da	te: / / Tir	me:
elinquished by:		D	ate: / /	Time:	Rece	ived	by: Da	te: / / Tir	ne:

11/12/96 Page: 1

QUALITY ASSURANCE QA/QC Program Statement

Groundwater Analytical conducts an active Quality Assurance program to ensure the production of high quality, valid data. This program closely follows the guidance provided by Interim Guidelines and Specifications for Preparing Quality Assurance Project Plans, US EPA QAMS-005/80 (1980), and Test Methods for Evaluating Solid Waste, US EPA SW-846, Third Edition (Revised 1992).

Quality Control protocols include Standard Operating Procedures (SOPs) developed for each analytical method. SOPs are derived from US EPA methodologies and other established references. Equipment and facility maintenance conform to Good Laboratory Practices (GLPs). Standards are prepared from commercially obtained reference materials of certified purity, and documented for traceability.

Quality Assessment protocols for most organic analyses include a minimum of one calibration standard, one method blank, one laboratory control sample, and one matrix spike and one sample duplicate for each sample batch. All samples, standards, blanks, laboratory control samples and matrix spikes are spiked with internal standards and surrogate compounds. GC/MS systems are tuned to BFB ion abundance criteria daily, or for each 12 hour operating period, whichever is more frequent.

Quality Assessment protocols for most inorganic analyses include a minimum of one calibration standard, one method blank, one laboratory control sample, one matrix spike and one sample duplicate for each sample batch. Standard curves are derived from one reagent blank and four concentration levels. Curve validity is verified by standard recoveries within plus or minus ten percent of the curve.

Batches are used as the basic unit for Quality Assessment. A Batch is defined as twenty or fewer samples which are analyzed together with the same method sequence and the same lots of reagents and with the same manipulations common to each sample within the same continuum of time within a 24 hour period.

Method Blanks are used to assess the level of contamination present in the analytical system. Method Blanks consist of reagent water or an aliquot of sodium sulfate. Method Blanks are taken through all the appropriate steps of an analytical method. Sample data reported is not corrected for blank contamination.

Laboratory Control Samples are used to assess the accuracy of the analytical method. A Laboratory Control Sample consists of reagent water or sodium sulfate spiked with a group of target compounds representative of the method analytes. Accuracy is defined as the degree of agreement of a measured value with the true or expected value. Percent Recoveries for the Laboratory Control Sample are calculated to assess accuracy.

Surrogate Compounds are used to assess the effectiveness of the method in dealing with each sample matrix. Surrogate Compounds are organic compounds which are similar to organic analytes of interest in chemical behavior, but which are not normally found in environmental samples. Percent Recoveries are calculated for each Surrogate Compound.



# QUALITY ASSURANCE Laboratory Control Sample Recovery

Category: EPA Method 8100 (MA DEP Modified)
Batch ID: EP-0136-F

Batch ID: EP-0136-Matrix: Aqueous Units: ug/L

### Laboratory Control Sample

ANALYTE	SPIKE ADDED	SPIKED RESULT	PERCENT RECOVERY	QC LIMITS
n-C 9 n-C 14 n-C 19 n-C 20 n-C 28 Naphthalene Acenaphthene Anthracene Pyrene	25 25 25 25 25 25 25 25 25	8 15 19 20 21 13 15 18	33 % 61 % 76 % 79 % 85 % 52 % 61 % 73 %	17-69 33-96 59-105 55-123 60-100 D-113 22-115 62-113 67-119
Anthracene	25	18	73 %	62-



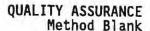
## QUALITY ASSURANCE Laboratory Control Sample Recovery

EPA Method 8015 (MA DEP Modified) VG1-0080-WL Category: Batch ID:

Matrix: Aqueous Units: ug/L

## Laboratory Control Sample

ANALYTE	SPIKE	SPIKED	PERCENT	QC
	ADDED	RESULT	RECOVERY	LIMITS
Methyl tert-Butyl Ether Benzene Toluene Ethylbenzene meta- and para-Xylene ortho-Xylene Naphthalene	50 50 50 100 50 50	58 56 53 58 120 59 51	116 % 112 % 105 % 115 % 116 % 118 % 103 %	80-120 80-120 80-120 80-120 80-120 80-120 80-120





Category:

EPA Method 8100 (MA DEP Modified)

Batch ID: Matrix: EP-0136-F Aqueous

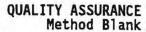
## Extractable Petroleum Hydrocarbons

PARAMETER CONCENTR	RATION ug/L)	TOXICITY MULTIPLIER	EQUIVALENT CONCENTRATION (ug/L)	ADJUSTED REPORTING LIMIT (ug/L)
n-C 9 to n-C 18 Aliphatics n-C 19 to n-C 36 Aliphatics n-C 10 to n-C 22 Aromatics *	BRL BRL BRL	0:05 0.005 1.0	BRL BRL BRL	25 2.5 500
Extractable Petroleum Hydrocarbon	s (EPH)		BRL	2.5

## Targeted Polynuclear Aromatic Hydrocarbon Analytes

PARAMETER		CONCENTR (	RATION (ug/L)	REPORTING LIMIT (ug/L)
Naphthalene Acenaphthylene Acenaphthene Fluorene Phenanthrene Anthracene Fluoranthene Pyrene Benzo(a)anthracene Chrysene Benzo(b)fluoranthene Benzo(k)fluoranthene Benzo(a)pyrene Indeno(1,2,3-c,d)pyrene Dibenzo(a,h)anthracene Benzo(g,h,i)perylene 2-Methylnaphthalene			BRL BRL BRL BRL BRL BRL BRL BRL BRL BRL	10 10 10 10 10 10 10 10 10 10 10 10 10
QC SURROGATE COMPOUND	SPIKED	MEASURED	RECOVERY	QC LIMITS
Chloro-octadecane o-Terphenyl	20 20	17 17	83 % 83 %	60 - 140 % 60 - 140 %

BRL = Below Reporting Limit. \* = Reported concentration excludes targeted Polynuclear Aromatic Hydrocarbon analytes. Method Reference: Method 8100 (Modified) - Polynuclear Aromatic Hydrocarbons, Test Methods for Evaluating Solid Waste, US EPA SW-846, Third Edition (1986). Modified in accordance with the Method for the Determination of Extractable Petroleum Hydrocarbons, MA DEP, Public Comment Draft 1.0 (1995).





Category:

EPA Method 8015 (MA DEP Modified)

Batch ID: Matrix: VG1-0080-W Aqueous

### Volatile Petroleum Hydrocarbons

PARAMETER	CONCENTRATION (ug/L)	TOXICITY MULTIPLIER	EQUIVALENT CONCENTRATION (ug/L)	ADJUSTED REPORTING LIMIT (ug/L)
n-C 5 to n-C 8 Aliphatic n-C 9 to n-C 12 Aliphati n-C 9 to n-C 10 Aromatic	cs BRL	0.5 0.05 1.0	BRL BRL BRL	2.5 0.25 5.0
Volatile Petroleum Hydro	carbons (VPH)		BRL	0.25

## Targeted Volatile Organic Analytes

PARAMETER		CONCENTR (	RATION (ug/L)	REPORTING LIMIT (ug/L)
Methyl tert-butyl Ether Benzene Toluene Ethylbenzene meta- and para-Xylene ortho-Xylene Naphthalene	BRL BRL BRL BRL BRL BRL BRL BRL			25 5 5 5 5 10
QC SURROGATE COMPOUND	SPIKED	MEASURED	RECOVERY	QC LIMITS
2,5-Dibromotoluene	50	44	88 %	60 - 140 %



QUALITY ASSURANCE State Certification

CONNECTICUT
Department of Health Services

Certificate Number PH-0586

Potable Water. Wastewater/Trade Waste. Sewage/Effluent. and Soil: Purgeable Halocarbons, Purgeable Aromatics, Pesticides, Phenols, Oil and Grease, Aluminum, Antimony, Arsenic, Beryllium, Cadmium, Chromium-T, Chromium-VI, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Cyanide, TDS, Ammonia, TKN, Nitrate, Ortho-Phosphate, Alkalinity, Hardness, Chloride, Fluoride, pH, Conductivity

MAINE Department of Human Services Certificate Number

Reciprocal certification in accordance with Massachusetts certification for drinking water parameters.

MASSACHUSETTS
Department of Environmental Protection

Certificate Number MA103

Potable Water: Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Copper, Lead, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Nitrate-N, Fluoride, Cyanide, Calcium, Total Alkalinity, Total Dissolved Solids, pH, Langelier Index, Trihalomethanes, Volatile Organic Compounds, 1,2-Dibromoethane, 1,2-Dibromo-3-chloropropane. Non-Potable Water: Aluminum, Antimony, Arsenic, Beryllium, Cadmium, Chromium, Cobalt, Copper, Iron, Lead, Manganese, Mercury, Molybdenum, Nickel, Selenium, Silver, Strontium, Thallium, Titanium, Vanadium, Zinc, pH, Specific Conductivity, Total Dissolved Solids, Total Hardness, Calcium, Magnesium, Sodium, Potassium, Total Alkalinity, Chloride, Fluoride, Ammonia-N, Nitrate-N, Kjeldahl-N, Orthophosphate, Total Cyanide, Oil and Grease, Total Phenolics, Volatile Halocarbons, Volatile Aromatics, Chlordane, Aldrin, Dieldrin, DDD, DDE, DDT, Heptachlor, Heptachlor Epoxide, Polychlorinated Biphenyls (Water), Polychlorinated Biphenyls (Oil).

MICHIGAN
Department of Public Health

Certificate Number

Drinking Water: Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Copper, Cyanide, Fluoride, Lead, Mercury, Nickel, Nitrate, Nitrite, Selenium, Silver, Sodium, Sulfate, Thallium, Total Trihalomethanes, Regulated and Unregulated Volatile Organic Chemicals.

NEW HAMPSHIRE Department of Environmental Services Certificate Number 202791-A/B

Drinking Water: Lead, Selenium, Silver, Thallium, Trihalomethanes, Volatile Organics, Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Copper, Mercury, Nickel, Fluoride, Total Filterable Residue, Calcium, Alkalinity, pH, Corrosivity, Total Cyanide, Vinyl Chloride, DBCP and EDB. Wastewater: Arsenic, Beryllium, Cadmium, Cobalt, Copper, Iron, Mercury, Manganese, Nickel, Lead, Selenium, Zinc, Antimony, Silver, Thallium, Molybdenum, Strontium, pH, Total Hardness, Calcium, Sodium, Potassium, Total Alkalinity, Chloride, Fluoride, Nitrate-N, TKN, Orthophospates, Total Phenolics, Oil & Grease, PCBs in Oil, Pesticides, Volatile Organics, Titanium, Total Cyanide, PCBs in Water.

RHODE ISLAND Department of Health Certificate Number A54

Potable Water: Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Copper, Lead, Mercury, Nickel, Selenium, Silver, Thallium, Nitrate, Nitrite, Fluoride, Turbidity, Chlorine, Total Filterable Solids, Calcium, pH, Alkalinity, Sodium, Corrosivity, Sulfate, Cyanide, Trihalomethanes, Chlorinated Hydrocarbon Pesticides, PCBs, Herbicides, Volatile Organic Compounds (EPA 524.2 and 504) and PAHs. Non-potable and Waste Waters: Aluminum, Arsenic, Beryllium, Cadmium, Cobalt, Chromium, Copper, Iron, Mercury, Manganese, Nickel, Lead, Selenium, Vanadium, Zinc, Antimony, Silver, Thallium, Molybdenum, Strontium, Titanium, pH, Conductance, TDS, Hardness, Calcium, Magnesium, Sodium, Potassium, Alkalinity, Chloride, Fluoride, Sulfate, Ammonia, Nitrate, Orthophosphate, TKN, Total Phosphorous, Cyanide, Non-filterable solids, Oil and Grease, Total Phenolics, Chlorine, PCBs in Water, PCBs in Oil, Chlorinated Hydrocarbon Pesticides, Volatile Halocarbons, Volatile Aromatics, Acid Extractables and Base/Neutral Extractables.

## SURVEY DATA

W019716.doc 8740-03

## MONITOR WELL LOCATION SUMMARY

WELL IDENTIFICATION	COORDINATES		TOP OF METAL	TOP OF PVC	GROUND
STATION NUMBER	<b>NORTHING</b>	<b>EASTING</b>	<b>WELL CASING</b>	WELL CASING	<b>ELEVATION</b>
BQM-96-01X	557972.4236	566507.1632	371.37	371.14	368.20
BQM-96-02X	557762.6903	566421.6486	367.31	367.11	364.55
BQM-96-03X	557805.2668	566385.0181	367.71	367.25	364.88
BQM-96-04X	557831.3207	566307.2041	366.44	366.14	363.97