FINAL
REMEDIAL INVESTIGATION REPORT
NANTUCKET BEACH, FORMER NANTUCKET ORDNANCE SITE
A.K.A. TOM NEVERS ROCKET PROJECTILE TARGET;
TOM NEVERS AREA, FORMERLY USED DEFENSE SITE
PROJECT NUMBER D01MA045601
MUNITIONS RESPONSE SITE 1
MUNITIONS RESPONSE SITE 2
NANTUCKET, MASSACHUSETTS

MILITARY MUNITIONS RESPONSE PROGRAM

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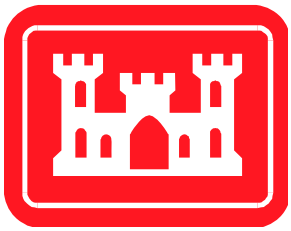

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FINAL

REMEDIAL INVESTIGATION REPORT

NANTUCKET BEACH, FORMER NANTUCKET ORDNANCE SITE A.K.A. TOM NEVERS ROCKET PROJECTILE TARGET; TOM NEVERS AREA, FORMERLY USED DEFENSE SITE PROJECT NUMBER D01MA045601 MUNITIONS RESPONSE SITE 1 MUNITIONS RESPONSE SITE 2 NANTUCKET, MASSACHUSETTS

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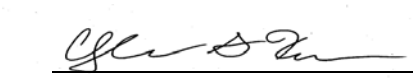

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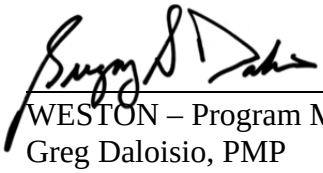
Date



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LIST OF ACRONYMS

ARAR	Applicable or Relevant and Appropriate Requirements
ASR	Archives Search Report
ATSDR	Agency for Toxic Substances and Disease Registry
bgs	below ground surface
CENAE	U.S. Army Corps of Engineer, New England District
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
COPC	chemical of potential concern
COPEC	chemical of potential environmental concern
CSM	Conceptual Site Model
ºC	degrees Celsius
°F	degrees Fahrenheit
DD	Decision Document
DERP	Defense Environmental Restoration Program
DGM	digital geophysical mapping
DMM	discarded military munitions
DoD	Department of Defense
DQOs	data quality objective
EOD	Explosive Ordnance Disposal
EPA	U.S. Environmental Protection Agency
ERA	Ecological Risk Assessment
ERAGS	*Ecological Risk Assessment Guidance for Superfund*
FFARs	forward firing aircraft rocket
FS	feasibility study
ft	feet
FUDS	Formerly Used Defense Site
GIS	Geographic Information System
GPS	Global Positioning System
GSV	Geophysical System Verification
HE	high explosive(s)
HFA	Human Factors Applications, Inc./TerranearPMC, LLC
HHRA	Human Health Risk Assessment

LIST OF ACRONYMS (Continued)

HQ	hazard quotient
HTW	hazardous and toxic waste
HVAR	high velocity aircraft rocket
Hz	hertz
INPR	Inventory Project Report
IS	Incremental Sampling
ISO	industry standard object
ITRC	Interstate Technology & Regulatory Council
IVS	Instrument Verification Strip
LOD	limit of detection
MassDEP	Massachusetts Department of Environmental Protection
MassGIS	Massachusetts Geographic Information System
MC	munitions constituents
MCL	Maximum Contaminant Levels
MCPA	4-chloro-2-methylphenoxyacetic acid
MD	munitions debris
MDAS	material documented as safe
MEC	munitions and explosives of concern
MECHA	*Munitions and Explosives of Concern Hazard Assessment Methodology*
µg/L	micrograms per liter
mg/kg	milligrams per kilogram
mm	millimeter
MMRP	Military Munitions Response Program
MPPEH	material potentially presenting an explosive hazard
MQOs	measurement quality objectives
MRS	munitions response site
mV	millivolts
NAD	North American Datum
Nantucket Beach FUDS	Nantucket Beach, Former Nantucket Ordnance Site, a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site, Project Number D01MA045601, Nantucket, Massachusetts
NCF	Nantucket Conservation Foundation
NCP	National Oil and Hazardous Substances Pollution Contingency Plan

LIST OF ACRONYMS (Continued)

NHESP	Natural Heritage and Endangered Species Program
NMFS	U.S. National Marine Fisheries Service
nT/m	nano-Tesla per meter
OCZM	Office of Coastal Zone Management
ORNL	Oak Ridge National Laboratory
%	percent
PID	photoionization detector
PWS	*Performance Work Statement*
QA	quality assurance
QC	quality control
QSM	Quality Systems Manual
RA	Removal Action
RAGS	*Risk Assessment Guidance for Superfund*
RI	Remedial Investigation
ROE	right of entry
RTK	Real-time Kinematic
SARA	Superfund Amendments and Reauthorization Act of 1986
SCARs	sub-caliber aircraft rocket
SI	Site Inspection
SLERA	Screening-Level Ecological Risk Assessment
SUXOS	Senior UXO Supervisor
TBC	to be considered
TM	Technical Manual
TPP	Technical Project Planning
UCL	upper concentration limit
U.S.	United States
U.S. ft	U.S. Survey Feet
UFP-QAPP	*Uniform Federal Policy for Quality Assurance Project Plan*
USACE	U.S. Army Corps of Engineers
USAEC	U.S. Army Environmental Command
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UTM	Universal Transverse Mercator

LIST OF ACRONYMS
(Concluded)

UXO	unexploded ordnance
UXOQCS	UXO Quality Control Specialist
VRHabilis	VRHabilis, LLC.
VSP	Visual Sample Plan
WAA	Wide Area Assessment
WESTON®	Weston Solutions, Inc.
WOE	weight-of-evidence
Final WP	*Final Work Plan, Nantucket Beach, Former Nantucket Ordnance Site, A.K.A. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site, Project Number D01MA045601, Munitions Response Site 1, Munitions Response Site 2, Nantucket, Massachusetts, Military Munitions Response Program, Remedial Investigation through Decision Document*, issued by Weston Solutions, Inc., 18 May 2012.
WPA	Wellhead Protection Area
XRF	x-ray fluorescence detector

GLOSSARY

Administrative Record – The body of documents that forms the basis for the selection of a particular response at a site. Documents that are included are relevant documents that were relied upon in selecting the response action.

Anomaly – An anomaly is any item that is seen as a subsurface irregularity after geophysical investigation. This irregularity should deviate from the expected subsurface ferrous and nonferrous material at a site (pipes, power lines, etc.).

Anomaly Avoidance – This is a technique employed on property known or suspected to contain unexploded ordnance (UXO), other munitions that may have experienced abnormal environments [e.g., discarded military munitions (DMM)], munitions constituents (MC) in high enough concentrations to pose an explosive hazard, or chemical agents, regardless of configuration, to avoid contact with potential surface or subsurface explosive or chemical agent hazards, to allow entry to the area for the performance of required operations.

Archives Search Report (ASR) – An ASR is a detailed investigation report on past munitions activities conducted on an installation. The principal purpose of the archives search is to assemble historical records and available field data, assess potential ordnance presence, and recommend follow-up actions at a Defense Environmental Restoration Program (DERP) Formerly Used Defense Site (FUDS). There are four general steps in an archives search: records search phase, Site Safety and Health Plan, site survey, and ASR, including risk assessment. The ASR has since been replaced in the Military Munitions Response Program (MMRP) process by the Historical Records Review.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) – Congress enacted CERCLA, commonly known as Superfund, on 11 December 1980. This law created a tax on the chemical and petroleum industries and provided broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. See **SARA** below.

Data Quality Objective (DQO) – The DQOs are project-specific statements that clarify the study objective, define the most appropriate type of data to collect, determine the most appropriate conditions from which to collect the data, and specify tolerable limits on decision errors (used in establishing the quantity and quality of data needed).

Decision Document (DD) – The DD (e.g., record of decision) is a public document that explains which remedial alternatives will be used to clean up a site. The DD is created from information generated during the remedial investigation/feasibility study and feedback received from stakeholders during the remedial process.

Discarded Military Munitions (DMM) – Military munitions that have been abandoned without proper disposal or removed from storage in a military magazine or other storage area for the purpose of disposal.

GLOSSARY
(Continued)

The term does not include UXO, military munitions that are being held for future use or planned disposal, or military munitions that have been properly disposed of, consistent with applicable environmental laws and regulations.

Donor Explosive – An explosive used by EOD and UXO-trained personnel for demolition operations during munitions recoveries/response activities.

Explosive Ordnance Disposal (EOD) personnel – Military personnel who have graduated from the naval School, Explosive Ordnance Disposal; are assigned to a military unit with a service-defined EOD mission; and meet service and assigned unit requirements to perform EOD duties. EOD personnel have received specialized training to address explosive and certain chemical agent hazards during both peacetime and wartime. EOD personnel are trained and equipped to perform render safe procedures on nuclear, biological, chemical, and conventional munitions and on improvised explosive devices.

Explosives Safety – A condition where operational capability and readiness, people, property, and the environment are protected from the unacceptable effects or risks of potential mishaps involving military munitions.

Feasibility Study (FS) – The FS follows the remedial investigation. During the FS, the remedial investigation data are analyzed and remedial alternatives are identified and evaluated. The FS serves as the mechanism for the development, screening, and detailed evaluation of alternative remedial actions.

Formerly Used Defense Site (FUDS) – A FUDS is defined as a project or property that was under the jurisdiction of the Secretary of Defense and owned by, leased to, or otherwise possessed by the United States at the time of actions leading to contamination by hazardous substances. By the DERP policy, the FUDS program is limited to those real properties that were transferred from Department of Defense (DoD) control prior to 17 October 1986. The FUDS properties can be located within the 50 States, District of Columbia, Territories, Commonwealths, and possessions of the United States. ER 200-3-1 (10 May 2004).

Hot rock – "Hot rock" is a term used to describe a rock with enough magnetism to be detected by geophysical instrumentation as an anomaly.

Inert – An inert substance is one that is not generally reactive. This is a synonym for "inactive."

Information Repository – A repository, generally located at libraries or other publicly accessible locations in or near the community affected by an environmental project, which contains accurate and up-to-date documents reflecting the ongoing environmental restoration activities.

GLOSSARY
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Magnetometer Survey & Intrusive Investigation (Mag and Dig) – A mag and dig survey consists of using analog instrumentation for surface and subsurface anomaly detection with real-time follow-on intrusive investigation to confirm the source and nature of detected anomalies.

Material Documented as Safe (MDAS) – Material potentially presenting an explosive hazard that has been assessed and documented as not presenting an explosive hazard and for which the chain of custody has been established and maintained. This material is no longer considered to be MPPEH.

Material Potentially Presenting an Explosive Hazard (MPPEH) – Material owned or controlled by DoD that, prior to determination of its explosives safety status, potentially contains explosives or munitions (e.g., munitions containers and packaging material; munitions debris (MD) remaining after munitions use, demilitarization, or disposal; range-related debris) or potentially contains a high enough concentration of explosives that the material presents an explosive hazard (e.g., equipment, drainage systems, holding tanks, piping, or ventilation ducts that were associated with munitions production, demilitarization, or disposal operations). Excluded from MPPEH are munitions within the DoD-established munitions management system and other items that may present explosion hazards (e.g., gasoline cans and compressed gas cylinders) that are not munitions, and are not intended for use as munitions.

Military Munitions – All ammunition products and components produced for or used by the armed forces for national defense and security, including ammunition products or components under the control of the DoD, the Coast Guard, the Department of Energy, and the National Guard. The term includes confined gaseous, liquid, and solid propellants; explosives, pyrotechnics, chemical and riot control agents, smokes, and incendiaries, including bulk explosives, and chemical warfare agents; chemical munitions, rockets, guided and ballistic missiles, bombs, warheads, mortar rounds, artillery ammunition, small arms ammunition, grenades, mines, torpedoes, depth charges, cluster munitions and dispensers, demolition charges; and devices and components thereof. The term does not include wholly inert items; improvised explosive devices; and nuclear weapons, nuclear devices, and nuclear components, other than nonnuclear components of nuclear devices that are managed under the nuclear weapons program of the Department of Energy after all required sanitization operations under the Atomic Energy Act of 1954 (42 USC 2011 et seq.) have been completed. (10 USC 101(e)(4)(A) through (C)).

Military Munitions Response Program (MMRP) – The United States Congress established the MMRP under the DERP to address UXO, DMM, and MC located on current and former defense sites. MMRP eligible sites include other than operational ranges where UXO, DMM, or MC are known or suspected. Properties classified as operational military ranges, permitted munitions disposal facilities, or operating munitions storage facilities are not eligible for the MMRP.

GLOSSARY
(Continued)

Munitions and Explosives of Concern (MEC) – This term, which distinguishes specific categories of military munitions that may pose unique explosives safety risks, means UXO, DMM, or MC (e.g., explosives) that are present in high enough concentrations to pose an explosive hazard.

Munitions Constituents (MC) – Any material originated from UXO, DMM, or other military munitions, including explosive and non-explosive materials, and emission, degradation, or breakdown elements of ordnance or munitions.

Munitions Debris (MD) – Remnants of munitions (e.g., fragments, penetrators, projectiles, shell casings, links, fins) remaining after munitions use, demilitarization, or disposal.

Munitions Response Action – Response actions, including investigation, removal actions, and remedial actions to address the explosives, human health, or environmental risks presented by UXO, DMM, or MC or to support a determination that no removal or remedial action is required.

Munitions Response Site (MRS) – Any area on a current or former defense site that is known or suspected to contain UXO, DMM, or MC. Examples include former ranges and munitions burial areas.

National Oil and Hazardous Substances Pollution Contingency Plan (NCP) – Revised in 1990, the NCP provides the regulatory framework for responses under CERCLA. The NCP designates the DoD as the removal response authority for explosive hazards associated with military munitions.

Ordnance – Explosives, chemicals, pyrotechnics, and similar stores. Examples of ordnance are bombs, guns and ammunition, flares, smoke, or napalm.

Proposed Plan (PP) – The PP is a supplement of the remedial investigation/feasibility study and provides the public with the remedial actions alternatives considered, the preferred alternative that meets the requirements of CERCLA, and an opportunity for the public to comment on the alternatives and participate in the selection of the remedial action.

Public Involvement Plan (PIP) – The PIP serves as the framework to establish a successful information exchange with the public during the environmental restoration process. Each plan must be tailored to fit the individual site and situation. The PIP is not a static document and should be revised to reflect the development and progress of actions at the project.

Remedial Action – An action consistent with the permanent remedy taken in the event of a release or a threatened release of a hazardous substance into the environment, to prevent or minimize the release of hazardous substances so that they do not migrate to cause substantial danger to present or future public health, welfare, or the environment.

GLOSSARY
(Concluded)

Remedial Investigation – An in-depth study, designed to gather the data necessary to determine the nature and extent of known contamination at a site, assess risk to human health and the environment, and establish criteria for cleaning up the site.

Responsiveness Summary – A formal written summary and response by the lead agency to public questions and comments. A responsiveness summary is prepared following a public meeting and public comment period about a PP. The responsiveness summary may list and respond to each question, or summarize and respond to questions in categories.

Seed items – Seed items are known magnetic sources, such as inert munitions or other metallic items that are used in a quality control program to verify that geophysical instrumentation used for anomaly detection is working properly and accurately.

Superfund Amendments and Reauthorization Act (SARA) – Enacted in 1986, this legislation establishes standards for cleanup activities, requires federal facility compliance with CERCLA, and clarifies public involvement requirements.

Transects – Lines for ecological measurements; a strip of ground along which ecological measurements are made at regular intervals.

Unexploded Ordnance (UXO) – Military munitions that have been primed, fuzed, armed, or otherwise prepared for action; have been fired, dropped, launched, projected, or placed in a manner that constitutes a hazard to operations, installation, personnel, or material; and remain unexploded either by malfunction, design, or any other cause.

UXO-Qualified Personnel – UXO-qualified personnel have performed successfully in military EOD positions or are qualified to perform in the following Department of Labor, Service Contract Act, Directory of Occupations, and contractor positions: UXO Technician II, UXO Technician I II, UXO Safety Officer, UXO Quality Control Specialist, or Senior UXO Supervisor.

UXO Technicians – UXO Technicians are qualified for filling Department of Labor, Service Contract Act, Directory of Occupations, and contractor positions: UXO Technician II, UXO Technician I II, UXO Safety Officer, UXO Quality Control Specialist, or Senior UXO Supervisor.

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

ES.1 INTRODUCTION

This Remedial Investigation (RI) Report documents the activities, results, and conclusions of the RI at Munitions Response Site (MRS) 1 - Burial Pit and MRS 2 - Aerial Rocket Range at the Nantucket Beach Formerly Used Defense Site (FUDS), Project Number D01MA045601, located on Nantucket Island, Massachusetts. This RI Report has been prepared by Weston Solutions, Inc., (WESTON®), under contract to the United States (U.S.) Army Corps of Engineers (USACE), Baltimore District, Multiple Award Military Munitions Services Contract W912DR-09-D-006, Delivery Order 0005, in support of the Department of Defense FUDS Military Munitions Response Program.

The purpose of the RI was to collect data necessary to characterize the nature and extent of munitions and explosives of concern (MEC) and munitions constituents (MC) at MRS 1 and MRS 2 and subsequently determine the potential hazards and risks posed to human health and the environment by MEC and MC. Additionally, MRS 1 was investigated for the potential presence of Hazardous and Toxic Waste (HTW). Information provided in this RI Report will assist in determining if MRS 1 and MRS 2 warrant further response action pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and the National Oil and Hazardous Substances Pollution Contingency Plan and to support the development of remedial alternatives, if any, in a Feasibility Study.

ES.2 SITE BACKGROUND

Existing information and data were included in this RI Report. Information was collected from the Archive Search Report, *Final Site Inspection Report* [Human Factors Applications, Inc./ TerranearPMC, LLC, 2011), reports from Explosive Ordnance Disposal (EOD) responses, and historical aerial imagery. The Nantucket Beach FUDS was leased by the U.S. Government between September 1943 and 30 June 1946, and was used as a practice aerial rocket range. Training ceased on 1 September 1945. This was one of the three ranges on Nantucket Island used by the Navy's Quonset Naval Air Station for training purposes.

MRS 1 is 1.5 acres in size and was thought to be a burial site used to dispose of MEC and/or HTW. MRS 1 is co-located within MRS 2 which is a former aerial rocket range fan complex. MRS 2 is 5,155.4 acres, whereby a total of 3,075.8 acres are located on land and 2,079.6 acres are located in water (Atlantic Ocean). The aerial rocket range fans were designed around three potential ordnance sites (designated Target #1, Target #2, and Target #3) where training may have occurred based on a review of historical photographs and records. Potential Target #1 and Target #3 were depicted on land, and were able to be located by a USACE site visit team in 1996 as physical remnants of the target structures were still present. Target #2 was not able to be located as it was depicted in a location that is underwater due to the significant coastal erosion that has occurred since active use of the FUDS. Historical photographs of the area indicate that Target #2 was evident on land through 1970, but had eroded into the ocean by the time the next available photograph was reviewed from 1978 (USACE, 1997).

Munitions-related material has been historically responded to by EOD and local emergency officials in the vicinity of Target #1. Following two April 2010 responses by EOD, reports were prepared documenting high explosive rockets and projectiles in the ordnance descriptions (EOD, 2010a and 2010b).

No MEC was observed during the Site Inspection (SI) survey activities performed at MRS 1 and around the three potential target areas of MRS 2. Munitions debris (MD) including 3.5-inch Forward Firing Aircraft Rockets, 2.25 Sub-Caliber Aircraft Rockets, and their components were identified on the ground surface in the vicinity of Target #1 in MRS 2. These findings are coincidental with where munitions-related material has been reported and historically responded to by EOD and local emergency officials. Although MD was observed near Target #1, the nature and extent of MEC at both MRS 1 and MRS 2 was not fully understood following the SI. Based on the potential MEC burial scenario and use as a former air-to-ground rocket range, the MEC source would be expected to be found on the ground surface and/or subsurface soils. The MEC source may also have been underwater at Target #2 and along the shoreline spanning MRS 2. It was unknown following the SI if additional potential MEC source areas were present within MRS 2 boundaries.

Portions of the MRSs are owned by island residents (full-time and seasonal), Nantucket Conservation Foundation (NCF), Town of Nantucket, Nantucket Housing Authority, Nantucket Airport Commission, and Nantucket Island Land Bank Commission. Current activities at MRS 1 and MRS 2 include residential, recreational, and maintenance work by NCF and the Town of Nantucket personnel. Residential and maintenance activities may include surface and subsurface soil disturbance. Recreational activities typically involve foot and vehicle traffic. Biota activities at MRS 1 and MRS 2 may include foot traffic and/or burrowing activities. There is no anticipated change in land use at MRS 1 and MRS 2.

During the SI, environmental media sampling indicated the presence of MC in media above the selected screening levels, but did not identify any significant risks to human or ecological receptors. Potentially complete pathways for both MEC and MC were identified in the preliminary Conceptual Site Models (CSM) developed as part of the SI Report. The SI Report recommended that a RI/Feasibility Study be conducted for both MRSs.

ES.3 SUMMARY OF REMEDIAL INVESTIGATION ACTIVITIES

The preliminary CSM, developed as part of the SI Report, for MRS 1 and MRS 2 aided in the development of data needs and data quality objectives (DQOs) as documented in the *Final Work Plan* (WESTON, 2012). In general, the data needs and DQOs for MRS 1 focused on detecting and assessing a potential burial pit that may contain MEC, specifically discarded military munitions (DMM), and/or HTW. The data needs and DQOs for MRS 2 were to detect, delineate, and assess potential MEC, specifically unexploded ordnance (UXO), impact areas associated with air-to-ground rocket training activities formerly conducted by the Navy. All characterization activities to support the data needs and DQOs were used to gather information to evaluate whether there are unacceptable potential risks to human health and the environment associated with MEC and/or MC (and HTW at MRS 1) to determine if further action is required under the CERCLA process.

The initial phase of work involved a Wide Area Assessment (WAA) survey utilizing an airborne vertical magnetic gradient system. The WAA survey encompassed 2,480 acres of land and near shore portions of MRS 1 and MRS 2. The purpose of the WAA survey was to locate areas

exhibiting elevated anomaly densities which are indicative of potential MEC impact areas. Ten areas were identified as anomaly clusters during the WAA survey analysis. One anomaly cluster, AC-01, was determined to require a focused characterization based on the known presence of MD and due to its close proximity to the Target #1 location identified in the preliminary CSM. The remaining nine anomaly clusters (AC-02 through AC-10) were delineated and selected for further ground-based reconnaissance and geophysical investigations to determine if MEC, material potentially presenting an explosive hazard (MPPEH), MD, or other features indicative of military munitions use are present similar to what was found at AC-01. If MEC, MPPEH, MD, or other features indicative of military munitions use are present at the anomaly clusters, further characterization for MEC would be required.

A total of 24.59 acres were surveyed using ground-based geophysical surveys and underwater mag and dig surveys at MRS 1 and MRS 2, resulting in a 1,304 total anomalies that were intrusively investigated. Summaries of AC-02 through AC-10, the underwater mag and dig survey, MRS 1, and AC-01 are provided below.

A total of 16.57 acres of ground-based geophysical surveys (digital EM61-MK2) and underwater mag and dig surveys were conducted, and 241 anomalies were intrusively investigated at anomaly clusters AC-02 through AC-10 and along the MRS 2 shoreline. No MEC, MPPEH, MD, or other features indicative of military munitions use were recovered or observed in these areas. In addition to the geophysical surveys and intrusive investigations, historical aerial photographs were also used to assess each anomaly cluster.

A full coverage 1.5-acre EM31-MK2 geophysical survey was completed at MRS 1 to detect potential burial features. No burial features were detected that required intrusive investigation. Test pitting activities were then biased to surface features such as depressions and sparse vegetation to investigate for HTW. As test pitting was performed, the excavations were visually inspected and field screening, soil sampling, and laboratory analysis was performed. There were no indications of a HTW disposal or release encountered or detected. However, a total of 21 non-clustered, magnetic anomalies detected during the WAA were intrusively investigated throughout the MRS. Eighteen MD items were recovered from the 21 anomalies investigated in MRS 1, which is directly adjacent to Target #1.

To assess the density of potential UXO at AC-01/Target #1, UXO Estimator software was used to develop a comprehensive characterization strategy that included 6.52 acres of digital geophysical mapping (DGM) surveys and the investigation of 1,042 anomalies. No UXO was identified during intrusive activities.

A total of 920 MD items were recovered on the ground surface and in the subsurface to a depth of 8 feet (ft) below grade at MRS 2. Combined with the MD recovered within MRS 1, the total volume of MD recovered during the RI and removed from within the MRS boundaries was 18,140 pounds.

No UXO or DMM was recovered during any RI intrusive investigations. Based on the WAA survey results, DGM surveys, intrusive investigations, distribution of MD, and previous studies performed at the MRSs, the size of the Target #1 footprint area was delineated in lateral extent to 97 acres within MRS 2, inclusive of MRS 1. Within this 97-acre boundary, residual MD is present at densities equal to or greater than 0.1 MD per acre. No MEC or MD was discovered beyond this boundary during the RI.

Due to the high concentration of MD located at AC-01/Target #1, MC sampling was performed even though a MEC source was not detected, to support baseline risk assessment during the RI. The surface soil in five geophysical investigation grids where the highest concentrations of MD was recovered during the RI were sampled according to Incremental Sampling methodology for analysis of metals and explosives. In addition, soil sampling was performed in biased locations within each of these grids where the highest density of subsurface MD was observed using discrete grab samples to profile subsurface soil to 10 ft below ground surface (bgs). Groundwater was also sampled for MC. Groundwater was sampled directly from residential wells located within MRS 1 and MRS 2 that are known drinking water supplies for both full-time and seasonal residents.

ES.4 MUNITIONS AND EXPLOSIVES OF CONCERN HAZARD ASSESSMENT

The *Interim Munitions and Explosives of Concern Hazard Assessment Methodology* (U.S. Environmental Protection Agency, 2008), herein referred to as the MECHA, evaluates the potential explosive hazard associated with MEC present at a particular MRS under a variety of

MRS conditions, including various cleanup scenarios and land-use assumptions. No MEC were identified at MRS 1 or MRS 2 during either the SI or RI field activities and these results have been interpreted to indicate that no MEC source or explosive safety hazard is present at MRS 1 and MRS 2. As a result, the project team (USACE and WESTON) determined that calculation of a MECHA score was not warranted for either MRS.

ES.5 RISK ASSESSMENT

Risk assessment activities considered the following human receptors potentially at risk for MC exposure, if present: trespassers/visitors, residents, employees/volunteers of the NCF and Town of Nantucket, and construction workers hired by residents, NCF, and Town of Nantucket. The ecological receptors (biota) of concern for the MRSs developed for SI Screening-Level Ecological Risk Assessment (SLERA) activities were plants, soil and benthic invertebrates, terrestrial-feeding mammals, and terrestrial-feeding birds and did not change as a result of RI activities. All listed and unlisted species of flora and fauna found in the vicinity of the MRSs on Nantucket Island are potential ecological receptors.

Several metal analytes were positively detected by the laboratory, or were not detected and reported at a limit of detection, above the project risk screening levels. However, no chemicals were found to warrant selection for potential concern to human health or ecological receptors during data evaluation and risk assessment activities. Risk assessment activities concluded with a finding of no significant risk to potential receptors for MC at MRS 1 or MRS 2, or HTW hazards at MRS 1.

ES.6 UPDATED CONCEPTUAL SITE MODEL

The information collected during the RI was used to update the CSM. The purpose of the CSM is to identify all complete, potentially complete, or incomplete source-receptor interactions for reasonably anticipated future land use activities at the MRS. An exposure pathway is the course a MEC item or MC takes from a source to a receptor. Each pathway includes a source, activities, access, and receptor.

Geophysical surveys and intrusive investigations were conducted throughout MRS 1 and MRS 2 to locate potential MEC source areas. Only one potential MEC, specifically UXO, source area was identified at anomaly cluster AC-01/Target #1. A statistical approach was developed to assess the potential UXO density within this area. UXO Estimator was used to develop the appropriate coverage necessary to make high confidence assessments. No UXO was identified on the ground surface or in the subsurface within the 6.52 acres that underwent DGM surveys and the subsequent intrusive investigation of 1,042 anomalies. These results were then re-assessed in UXO Estimator. The statistical upper bound density of MEC was determined to be 0.443 MEC per acre based on the percentage of area surveyed at the MRS and the actual intrusive investigation results. This value was within the DQO maximum target density of 0.5 MEC per acre which means that the investigation was adequate to be 95 percent (%) confident that there is less than 0.443 MEC per acre within AC-01/Target #1. Although the UXO Estimator results indicate that a statistical potential for MEC may remain at the MRS, no UXO or DMM have been found and it is anticipated that no MEC source or explosive safety hazard is present.

Current activities at MRS 1 and MRS 2 include residential, recreational, and maintenance activities. There is no anticipated change in land use at MRS 1 and MRS 2. There are currently no access restrictions for MRS 1 and MRS 2, although there is significant vegetative cover throughout these areas that physically limits access to both surface and subsurface soils beyond established trails. Receptors have full access to any MD at ground surface. Receptors associated with ground disturbance activities would have access to any MD on both the surface and in subsurface soils. Subsurface MD has the potential to readily become accessible at ground surface due to the significant coastal erosion that annually erodes portions of the bluffs away and deposits MD along the beach.

Human receptors identified for MRS 1 and MRS 2 include both current and anticipated future land users. Human receptors may include trespassers/visitors, residents, employees/volunteers of the NCF and Town of Nantucket, and construction workers hired by residents, NCF, and Town of Nantucket. Although a public beach is not located within the FUDS boundaries and use of the beach is not advocated, the beach is accessible to the public via property owned by the NCF.

Recreational use is permitted provided users are responsible and discreet. Local property owners indicate that this portion of Nantucket is occasionally used for recreational fishing. There are no established shell fish beds off this portion of Nantucket Island.

All of MRS 1 and large portions of MRS 2 are undeveloped. The ecological receptors (biota) of concern for the MRSs developed for SI SLERA activities were plants, soil and benthic invertebrates, terrestrial-feeding mammals, and terrestrial-feeding birds and did not change as a result of RI activities. All listed and unlisted species of flora and fauna found in the vicinity of the MRSs on Nantucket Island are potential ecological receptors.

Given that no UXO or DMM sources have been identified to date to provide the basis for an explosive safety risk at MRS 1 or MRS 2, there are no current or future exposure pathways present where a receptor may come into contact with MEC. As a result, the revised CSM for MEC identifies incomplete pathways for surface and subsurface soils for all activities undertaken by receptors having access to the MRSs.

Given the lack of any MEC discoveries during the RI to be a source for MC, and on the findings of no significant risk to all receptors for MRS 1 and MRS 2 from soil and groundwater most likely to be affected by the significant amount of MD characterized within the MRSs, the RI findings infer that the pathway for MC is incomplete for human and ecological receptors. No significant risks were identified for any human health or ecological receptors.

ES.7 UNCERTAINTIES

Even though no UXO or DMM was discovered during the RI, a statistical potential for MEC may remain at the MRS related to the use of UXO Estimator to define the investigation coverage. The results of the RI indicate that a 95% confidence that the MEC density is less than .443 MEC per acre was achieved. However, based on all information collected to date indicating that no UXO or DMM has been found, it is anticipated that no MEC source or explosive safety hazard is present. As the DQOs were met, any remaining uncertainty that MEC is present is low.

Uncertainties associated with risk assessment activities were determined to be low as the methods used for sampling were found to be appropriate for the media and areas being assessed,

including biasing sample locations to confirm the presence/absence of constituents of potential concern. Reference area (i.e., local background) sampling was not conducted and may have provided more confidence in the assessment of observed constituent concentrations in soil and groundwater, but, published background levels available for the State of Massachusetts and federal Agency of Toxic Substance and Disease Registry applicable to constituents observed in excess of selected screening levels were determined to be sufficient for RI assessment. An increase in the frequency of sampling could also increase confidence in the findings of the RI, but, based on the lack of a confirmed MEC source for MC, the sampling conducted was considered sufficient for the RI as the five highest density areas of MD were included in the MC evaluation.

ES.8 SUMMARY AND CONCLUSIONS

The following conclusions can be made for MRS 1 and MRS 2 based on the results of the RI field activities:

- No features indicative of a burial pit were detected in MRS 1.
- Air-to-ground rocket training activities were conducted at one location known as anomaly cluster AC-01/Target #1.
- No UXO or DMM was identified during the SI or RI, and all recovered MD was discovered within AC-01/Target #1.
- The nature and extent of MD has been adequately defined and is located on ground surface and subsurface within the AC-01/Target #1 area encompassing 97 acres.
- The maximum depth of MD recovered during the RI within the highest density of observed MD in the AC-01/Target #1 area was 8 ft bgs.
- An explosive safety hazard is not anticipated to exist at AC-01/Target #1.
- All MEC and MC pathways to potential receptors at MRS 1 and MRS 2 have been determined to be incomplete for lack of a confirmed source.

It has been determined that the DQOs for MRS 1 and MRS 2 have been satisfied and the MRSs have been adequately characterized.

Following the SI conducted in 2010, this FUDS was realigned at the program-level by USACE, but was not delineated into the two MRSs recommended in the final report documenting SI findings. Realignment identified one MRS, known as the 5,517-acre Nantucket Beach Burial Pit and Rocket Range, Identification Number: D01MA045601R01. This decision was based on the pending RI and anticipated need to delineate further based on findings at that stage of the investigation.

Administratively, it is recommended that the MRS be further delineated to reflect the results of the RI as follows, and summarized in Table ES-1:

- Establish a boundary of 97 acres to capture the extent of delineated MD as the Aerial Rocket Range Target #1 MRS.
- Delineate the remaining 5,059.9-acre portion as the Aerial Rocket Range Fan MRS.

Table ES-1

Recommendations for Munitions Response Site Boundary Revisions

Configuration Based on SI Results		Configuration Based on RI Delineation	
Munitions Response Site (MRS) Name	**Area (acres)**	**MRS Name**	**Area (acres)**
MRS 1 – Burial Pit	1.5	MRS 1 – Aerial Rocket Range Target #1	97
MRS 2 – Aerial Rocket Range	5,155.4	MRS 2 – Aerial Rocket Range Fan	5,059.9

Note: Following the SI, this FUDS was realigned by USACE, but was not delineated into two (2) MRS per the SI recommendation. Only one (1) MRS of 5,157 acres was retained for management efficiency prior to the RI phase of investigation.

Additionally, based on the findings of the RI, there is a significant amount of MD within AC-01 in the vicinity of former Target #1. While no UXO or DMM was found during the investigation, some risk management is warranted given that a target footprint area of 97 acres was identified. Property owners will likely continue to encounter intact munitions in the future. Although it is most likely that munitions recovered in the future will be inert, this determination should only be made by trained EOD personnel. Therefore, a Feasibility Study is recommended to address management of future munition recoveries within the 97 acres delineated as the Aerial Rocket Range Target #1 MRS.

A finding of No Further Action, to be documented in a Proposed Plan, is recommended for the remaining 5,059.9 acres delineated as the Aerial Rocket Range Fan MRS as no UXO, DMM or MD have been confirmed within this area.

SECTION 1

INTRODUCTION

1. INTRODUCTION

This Remedial Investigation (RI) Report documents the results of the RI conducted within the Nantucket Beach, Former Nantucket Ordnance Site, a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site (FUDS), Project Number D01MA045601, located on Nantucket Island, Massachusetts. This FUDS will be referred to henceforth as the Nantucket Beach FUDS. The investigation activities, results, and recommendations provided in this report address two munitions response sites (MRS), MRS 1 - Burial Pit and MRS 2 - Aerial Rocket Range at the Nantucket Beach FUDS.

1.1 PROJECT AUTHORIZATION

This RI is being undertaken in support of the Department of Defense (DoD) FUDS Military Munitions Response Program (MMRP). Weston Solutions, Inc., (WESTON®) was authorized to conduct the RI through a firm fixed price, Performance-Based Acquisition under the United States (U.S.) Army Corps of Engineers (USACE), Baltimore District Multiple Award Military Munitions Services Contract W912DR-09-D-006, Delivery Order 0005. The RI was conducted in accordance with the USACE *Performance Work Statement* (*PWS*), dated 12 July 2011, USACE Engineer Regulation 200-3-1 (USACE, 2004), the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP).

1.2 PURPOSE AND SCOPE OF REMEDIAL INVESTIGATION

The purpose of the RI was to collect data to characterize the nature and extent of munitions and explosives of concern (MEC) and munitions constituents (MC) at MRS 1 and MRS 2. This data provided information to assess data gaps, update the Conceptual Site Model (CSM), evaluate potential human health and ecological risks, and update the Munitions Response Site Prioritization Protocol.

Results from the RI were used to support the assessment of explosive hazards and human health and ecological risks, so that if necessary, methods to reduce explosive hazards and risks can be developed and analyzed during a future feasibility study (FS).

1.3 REMEDIAL INVESTIGATION REPORT ORGANIZATION

This RI Report has been prepared in accordance with USACE's Engineer Pamphlet EP 1110-1-18, and to be consistent with the U.S. Army Environmental Command (USAEC) MMRP document, *Final Munitions Response Remedial Investigation/Feasibility Study Guidance* (USAEC, 2009), and the U.S. Environmental Protection Agency (EPA) document *Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA* (EPA, 1988).

The report is organized into the following sections:

- Section 1 – Provides introductory project information including work authorization, scope, and the purpose of RI activities.
- Section 2 – Provides site background information including a description of the environmental settings and land use within the MRS boundaries, the results of previous investigations, and a preliminary identification of Applicable or Relevant and Appropriate Requirements (ARARs) to be considered throughout the RI/FS process.
- Section 3 – Provides a description of the design and implementation of investigation activities conducted to characterize the nature and extent of potential MEC and MC at MRS 1 and MRS 2, and suspect hazardous and toxic waste (HTW) contamination at MRS 1 only.
- Section 4 – Provides the results of investigation activities that form the basis of understanding the hazards and risks present within the MRS boundaries, including the results from geophysical surveys and intrusive activities in addition to analytical sampling performed.
- Section 5 – Provides the results of explosive hazard and risk assessment activities conducted to assess human health and ecological safety.
- Section 6 – Provides a discussion of the fate and transport dynamics affecting contamination identified, if any, during the RI.
- Section 7 – Provides updates to the CSM as needed for both MRS 1 and MRS 2.
- Section 8 – Provides a summary of RI conclusions and makes recommendations for future actions at these MRSs in accordance with the CERCLA process.
- Section 9 – Provides references that support the information presented in the RI Report.

The following appendices are also included with this RI Report to provide supporting documentation from RI field activities.

- Appendix A Technical Memoranda
- Appendix B Daily Reports
- Appendix C Permits
- Appendix D Location Survey Data
- Appendix E Geophysical Data
- Appendix F Photo Log
- Appendix G Target Anomaly Dig List
- Appendix H Munitions Debris Custody Documentation
- Appendix I Laboratory Data Deliverables
- Appendix J Munitions Technical Data Sheets

A Glossary for common terminology used throughout this report describing both the program and regulatory framework, in addition to work activities pertaining to the RI, is provided after the List of Acronyms and Table of Contents preceding this report.

SECTION 2

SITE BACKGROUND

2. SITE BACKGROUND

2.1 PROJECT LOCATION AND SITE DESCRIPTION

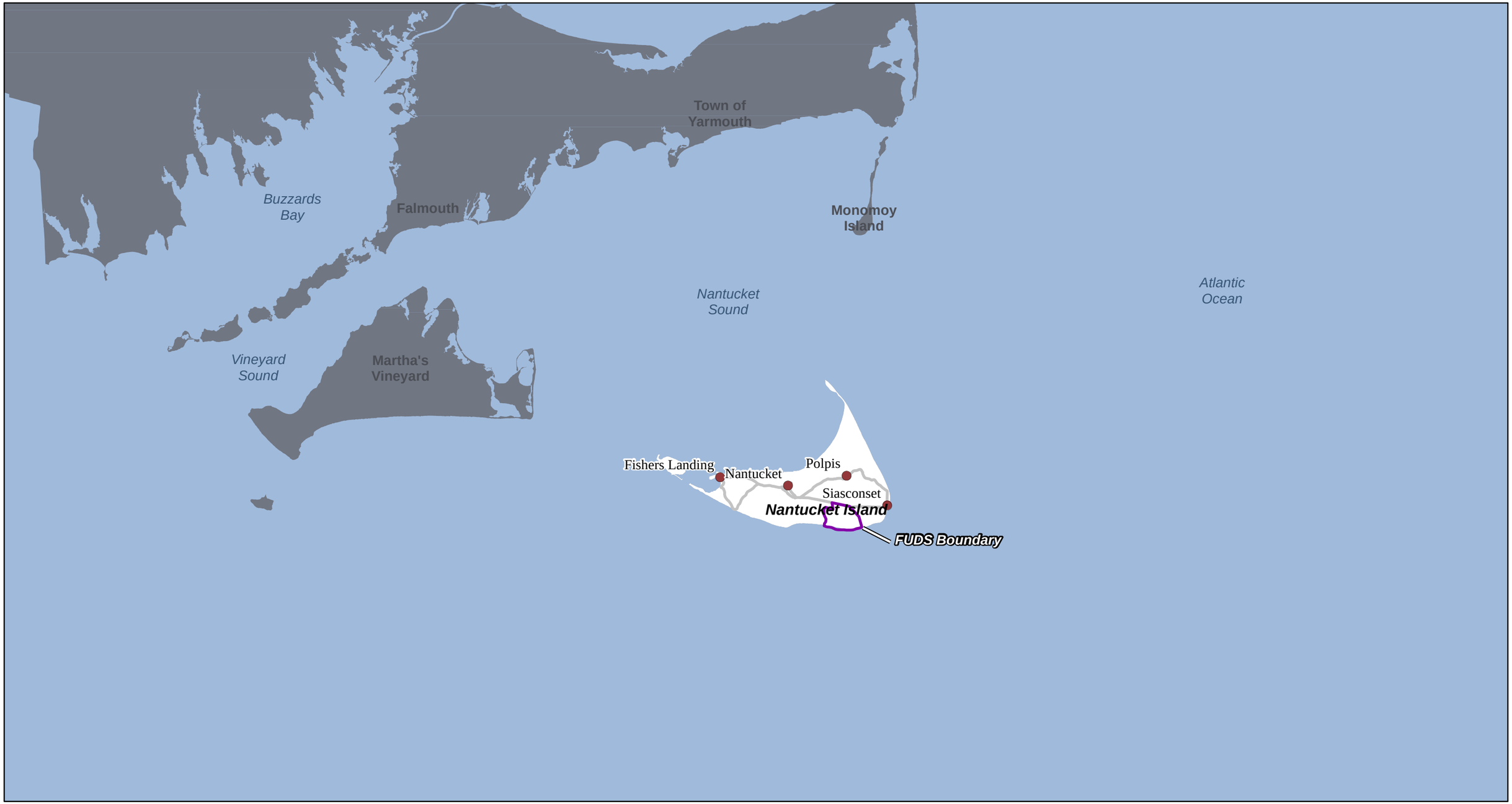
The FUDS property consists of 2,896 acres located on the southeastern side of Nantucket Island in what is referred to as the Tom Nevers area in Nantucket, Nantucket County, Massachusetts as shown in Figure 2-1. The island of Nantucket is approximately 48 square miles and runs 14 miles east to west and 3.5 miles north to south. It can be accessed via ferry and is approximately 45 miles from Hyannis, Massachusetts and 30 miles from Falmouth, Massachusetts.

MRS 1 is 1.5 acres in size and is located within the boundary of MRS 2. MRS 2 is a 5,155.4-acre former aerial rocket range, whereby a total of 3,075.8 acres are located on land and 2,079.6 acres are located in water (Atlantic Ocean). The boundaries of the FUDS and both MRSs are illustrated in Figure 2-2.

2.2 ENVIRONMENTAL SETTING

2.2.1 Climate

MRS 1 and MRS 2 are located on Nantucket Island, which is surrounded by Nantucket Sound to the north and the Atlantic Ocean to the south. Nantucket Island is located southeast of the mainland of Massachusetts, south of Cape Cod. The location of the MRSs on the Atlantic Ocean, the prevailing east to west air masses (causing storms), and low pressure storm systems are the three major influences to the climate at MRS 1 and MRS 2. The temperature is moderate due to the proximity of the MRSs to the Atlantic Ocean, and there is an adequate amount of rain fall due to the low pressure storm systems. The hottest month is July with an average temperature of 73.5 degrees Fahrenheit (°F), and the maximum temperature on record is 102°F in July 1977. The coldest month of the year is January with an average daily temperature of 29.6°F. The minimum temperature on record is -12 °F in January 1957. Local rainfall is distributed throughout the year with the highest precipitation occurring in December (averaging 4.5 inches) and the lowest during June (averaging 2.9 inches). The total annual precipitation in this area averages approximately 43.81 inches (USACE, 1997).





FUDS Boundary

Coordinate System:
UTM, Z19N, NAD83, US Foot

US Army Corps of Engineers

Nantucket Beach
Formerly Used
Defense Site

N

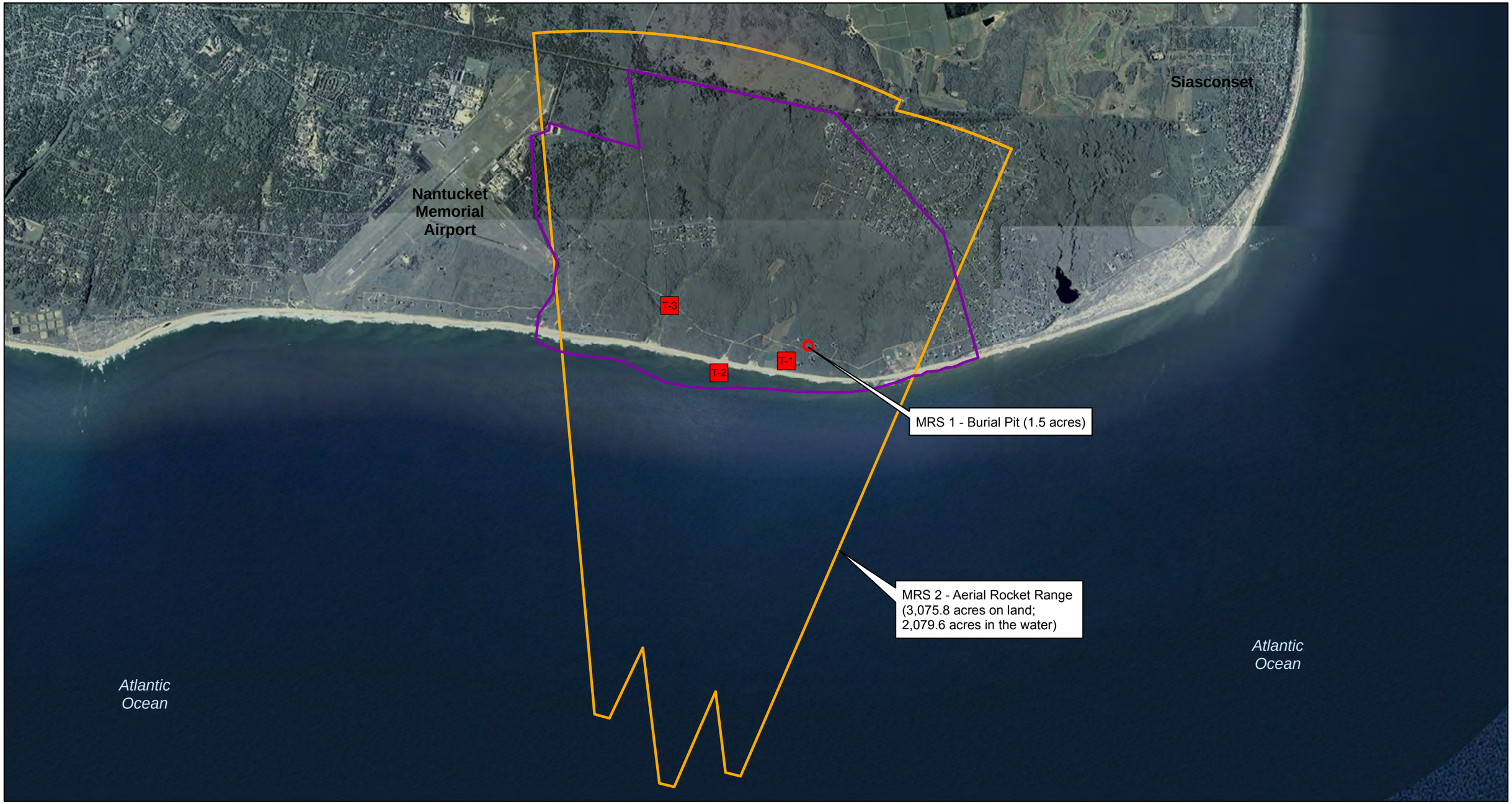
0 4.5 9 18 Kilometers

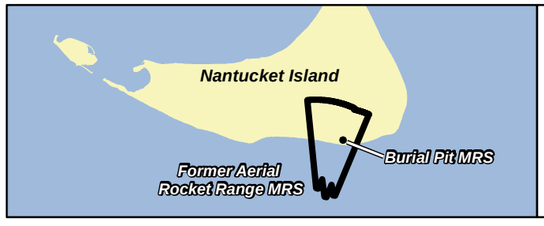
0 2.5 5 10 15 Miles

NOTES:
Base Data: USACE (2004)

FIGURE 2-1
Site Location
Nantucket, MA

10/31/2012	NT_Site_Location
Drawn: johna	PROJ: 03886.551.004





T-X T(Former Target Location)-X(Target No.)

MRS 1 – Burial Pit

MRS 2 – Aerial Rocket Range

FUDS Boundary

Coordinate System: UTM, Z19N, NAD83, US Foot

US Army Corps of Engineers

Nantucket Beach Formerly Used Defense Site

N

0 1,900 3,800 5,700 Feet

0 725 1,450 2,175 Meters

NOTES:
Aerial Data Source: ESRI iCubed Imagery Prime World 2D (2004)
Base Data: USACE (2004)

FIGURE 2-2
FUDS and MRS Boundaries
Nantucket, MA

10/31/2012	NT_FUDS_MRS_2V
Drawn: johna	PROJ: 03886.551.004

2.2.2 Topography and Surface Features

MRS 2 is located on the southern coast of Nantucket Island in Nantucket County, Massachusetts and encompasses both land and water within its MRS boundaries. The elevation of MRS 2 property ranges from approximately 70 feet (ft) above mean sea level in the north and slopes toward sea level at the beach. A steep bluff (ranging from 5 ft to 20 ft tall) exists between the private beach (Madequecham Beach) and the vegetated land boundary due to extensive and ongoing erosion. Based on the property line for the FUDS recorded on a survey map from 1943 (USACE, 1997), the beach has eroded approximately 800 ft between the time of active use and present day.

MRS 1 comprises 1.5 acres of property located within the southeastern land portion of MRS 2, north of the coast, and is generally flat in topography except for a depression approximately 6 ft in width, 4 ft in depth, and 19 ft in length near the center of the MRS. The topography of the land portion of MRS 1 and MRS 2 can be described as gently rolling moorlands with low-lying vegetation (scrub oak) and sandplain grasslands, dunes and beach. A U.S. Geological Survey map contouring topography within the MRS boundaries is provided as Figure 2-3. There are several streams, wetland areas, and ponds located within MRS 2 (none in MRS 1) that are discussed in more detail in Subsection 2.2.5.2.

The majority of MRS 2, and the entirety of MRS 1, is covered with scrub oak (*Quercus ilicifolia*), a native shrub that grows 8 to 10 ft tall, with holly-like leaves [Human Factors Applications, Inc./TerranearPMC, LLC (HFA), 2011]. Scrub oak is an extremely tough and resilient shrub that occurs along the south shore of the island between Nantucket Memorial Airport and the former Tom Nevers Naval Facility [Nantucket Conservation Foundation (NCF), 1999]. Several large grasslands (privately-owned), including a manicured lawn used by a remote controlled airplane flying club, are present north and south of New South Road.



FUDS Boundary

Coordinate System:
UTM, Z19N, NAD83, US Foot

US Army Corps of Engineers

Nantucket Beach Formerly Used Defense Site

N

0 0.25 0.5 1 Kilometers

0 0.125 0.25 0.5 0.75 Miles

NOTES:
Base Data: USACE (2004)

FIGURE 2-3
Site Topography
Nantucket, MA

11/6/2012	NT_Site_Topo
Drawn: johna	PROJ: 03886.551.004

2.2.3 Geology

Nantucket Island, along with other nearby islands and the coastal region of Massachusetts subsumed as Cape Cod, were formed between 23,000 to 18,000 years ago as the last continental ice sheet to cover New England, known as the Laurentide, made its advance and retreat over the region and the rise in sea level that followed. Nantucket Island was formed at the edge of one of the ice sheet's lobes at a point of maximum advancement over the region, as indicated by gravel deposits on the continental shelf and by the outwash plains and moraines observed on the islands of Cape Cod [U.S. Geological Survey (USGS), 2001].

2.2.4 Soils

Soil at the site is comprised of glacial outwash gravelly sands. A U.S. Department of Agriculture soil survey conducted in 1979 mapped soil within the borders of the MRS 2 as either part of the Evesboro or River-head Katama Association. MRS 1 falls within the portion of MRS 2 mapped within the Evesboro Association. Both soil units are described as being nearly level, well, to excessively-drained outwash deposits (U.S. Department of Agriculture, 1979). Previous site reports indicate that the surface soil is brown and yellowish brown sand found to 26 inches below ground surface (bgs). The subsoil layer is found to a depth of 60 inches bgs and is light yellowish brown sand (USACE, 1997).

Observations of soil characteristics made during intrusive investigations conducted to support the RI in both MRSs were consistent with these descriptions. Test pit logs generated during RI activities are provided in Appendix A as attachments to memoranda prepared to detail field investigation and data evaluation for HTW and MC sampling activities. As indicated in the Test Pit Logs, soil characteristics observed during RI subsurface investigations were generally consistent across the study area. A thin layer of dark brown topsoil (silty sand with organics) was observed overlying brown/orangish brown, well-graded sands and gravel of fine to coarse grain size to approximately 4 ft bgs. Clearly defined, well-graded, stratified drift material (yellowish brown medium to coarse gravelly sands with fine black sand) was encountered in bedded layers at depths averaging 4 ft bgs in all excavations. Pockets/bedded layers of highly oxidized medium-grain sized orangish brown sand were observed throughout the study area. No silty sands or clays were observed at depths below the topsoil layer.

2.2.5 Hydrology

2.2.5.1 Groundwater

The principle aquifer underlying the southeastern two-thirds of Nantucket Island consists of thick, shallow sand and gravel sediments of glacial outwash origins. The sediment is permeable and precipitation is absorbed with little or no direct runoff. The depth to the water table is approximately 18 ft with the annual water table fluctuation less than 4 ft (USACE, 1997).

Available well construction data from private residential wells (see Appendix A - Munitions Response Sites 1 and 2 Groundwater Data Evaluation Technical Memorandum) indicates that overburden wells located in close proximity to the former targets in MRS 2, and directly adjacent to MRS 1, had static water level measurements of approximately 25 ft bgs during construction. According to the USGS National Water Information System Mapper, there are 12 groundwater well sites located along the southwestern border of MRS 2. Water level measurements were only collected sporadically from 1961 through 2010 from these wells, but typically indicate local flow direction to be perpendicular with the shoreline and extends from the northern uplands portion of MRS 2 towards the Atlantic Ocean to the south (USGS, 2012). The general groundwater flow direction within the FUDS boundaries is shown in Figure 2-4.

2.2.5.2 Surface Water and Wetlands

There are several streams, wetland areas, and ponds within MRS 2 that drain into the Atlantic Ocean. To determine the potential for wetlands and water resources within the MRSs, the current Massachusetts Geographic Information System (MassGIS) wetland resources and hydrology layers were obtained for the project areas. Figure 2-4 illustrates the wetlands and deep water (i.e., open water) habitats associated with MRS 2. MRS 1, a subunit within MRS 2, is located inland and not within a mapped wetland.

Milestone Rd

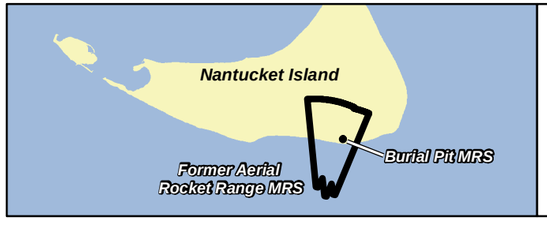
Nantucket Memorial Airport

T-1

T-2

T-3

NOTES:
Aerial Data Source: ESRI iCubed Imagery Prime World 2D (2004) Base Data: USACE (2004); U.S Fish and Wild Services, NWI.
GW Flow Data: USGS (U.S. Geological Survey). 1997. Effects of Simulated Ground-Water Pumping and Recharge on Groundwater Flow in Cape Cod, Martha's Vineyard, and Nantucket Island Basins, Massachusetts, 1997.



T-1 Former Target
DEP Rivers and Streams (1:25,000)
FUDS Boundary
MRS 1 – Burial Pit
MRS 2 – Aerial Rocket Range
Estuarine and Marine Wetland
Freshwater Emergent Wetland
Freshwater Forested/Shrub Wetland
Freshwater Pond
Lake
GW Flow Direction

US Army Corps of Engineers

Nantucket Beach Formerly Used Defense Site

WESTON SOLUTIONS

FIGURE 2-4
Wetlands, Surface Water Bodies and GW Flow in the Vicinity of MRS 1and MRS 2

N

0 925 1,850 2,775 Feet

0 340 680 1,020 Meters

Coordinate System: UTM, Z19N, NAD83, US Foot

6/28/2013 | NT_Wetlands_2V

Drawn: johna | PROJ: 03886.551.004

The excessively drained soils that comprise the majority of Nantucket Island in general and the MRSs in particular result in very few wetlands. According to National Wetlands Inventory maps, wetlands in the vicinity of the MRSs are limited to the area near the shoreline, comprising a few relatively small palustrine or estuarine areas, and a narrow band of generally nonvegetated marine wetlands along the shoreline. The extent of wetlands within MRS 2 comprises less than 0.6 percent (%) of the total area of MRS 2 [U.S. Fish and Wildlife Service (USFWS), 2011]. Table 2-1 provides a description of the wetlands at each MRS.

Table 2-1

Wetlands Mapped Within the Munitions Response Site Boundaries

Munitions Response Site (MRS)	Wetland Type	Estimated Acres
MRS 1	None	
MRS 2	Two estuarine intertidal, broad-leaved, deciduous/emergent, persistent, irregularly-flooded wetlands (E2SS1/EM1P), one located near the shoreline at the western edge of MRS 2, and the other located near the shoreline farther from the western edge of MRS 2	11.3
MRS 2	A palustrine broad-leaved, deciduous/emergent, persistent, seasonally-flooded–tidal wetland (PSS1/EM1R) located upstream of the previously-mentioned wetland	1.3
MRS 2	A palustrine broad-leaved, deciduous/emergent, persistent, seasonally-flooded/saturated wetland (PSS1/EM1E) located near the shoreline near the center of MRS 2	5.6
MRS 2	A marine intertidal, unconsolidated shore, sand, irregularly-flooded wetland (M2US2P) located within the intertidal zone along the beach line	55.8
MRS 2	A marine subtidal, unconsolidated bottom, subtidal wetland (M1UBL) located beyond the intertidal zone seaward of the beach line	not estimated

Note: (USFWS, 2011)

Nantucket Island is affected by semidiurnal tides. The mean tidal heights are 0.14 ft at mean low water and 2.04 ft at mean high water. Typically, ocean currents flow to the south with average speeds of 0.5 knots in the summer and 0.7 knots in the winter. Average sea surface temperatures are 48 to 50°F in the summer and 40°F in the winter (USACE, 1997).

2.2.5.3 Groundwater Use

There is public water service on the island provided by Wannacomet Water Company, however, the residences closest to the former targets use private groundwater wells. The current Numerical Ranking System map for the MRSs depicts the entire former property within a designated EPA sole source aquifer as shown on Figure 2-5 (MassGIS, 2012a). According to the MassGIS website, neither MRS is located within the Wannacomet Massachusetts Zone II Wellhead Protection Area (Mass Zone II WPA), which is delineated to the west of the MRSs, or the Siasconset Mass Zone II WPA located east of the MRSs. There are no interim WPAs within 2 miles of the MRS boundaries. There are three WPAs that are located just west of MRS 1 and 2, within 4 miles of the MRS boundaries as shown on Figure 2-6 (MassGIS, 2012b).

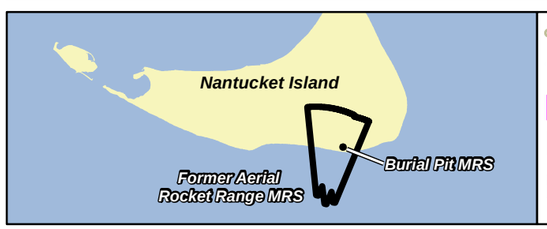
2.2.6 Sensitive Species, Environments, and Environmental Resources

There are several sensitive environments present within MRS 1 and MRS 2. It is located within the Massachusetts Coastal Zone and includes several types of wetlands, including estuarine and marine wetlands and freshwater forested/shrub wetlands. Federally-listed threatened and endangered species, state-listed endangered species, state-listed threatened species, and state-listed special species of concern may be present (HFA, 2011).

Numerous natural resource agencies were contacted and coordinated with through USACE including USFWS, U.S. National Marine Fisheries Service (NMFS), the Massachusetts Division of Fisheries & Wildlife, Natural Heritage and Endangered Species Program (NHESP) stakeholders during RI planning and implementation to identify potential impacted sensitive species. Table 2-2 has been included to provide a list of all sensitive species of concern applicable to these MRSs that were considered during the RI.

Specific species of concern that required monitoring, protection, and impact mitigation, if necessary, included nesting shorebirds (Piping Plovers, Roseate, and Least Terns), nesting Northern Harriers, and the American Burying Beetle. Environmental monitoring conducted during the RI was documented daily in the project Daily Reports provided in Appendix B, and is

Milestone Rd
Milestone Rd
Milestone Rd
Milestone Rd
Milestone Rd
Milestone Rd
Milestone Rd
Milestone Rd
Milestone Rd
Siasconset
Nantucket Memorial Airport



Road
Surface Water Bodies
Approved Wellhead Protection Area (Zone II)
POND
NHESP Estimated Habitat of Rare Wildlife
Potentially Productive High Yield Aquifer
FUDS Boundary
MRS 1 – Burial Pit
MRS 2 – Aerial Rocket Range

Coordinate System: UTM, Z19N, NAD83, US Foot

US Army Corps of Engineers

Nantucket Beach Formerly Used Defense Site

N

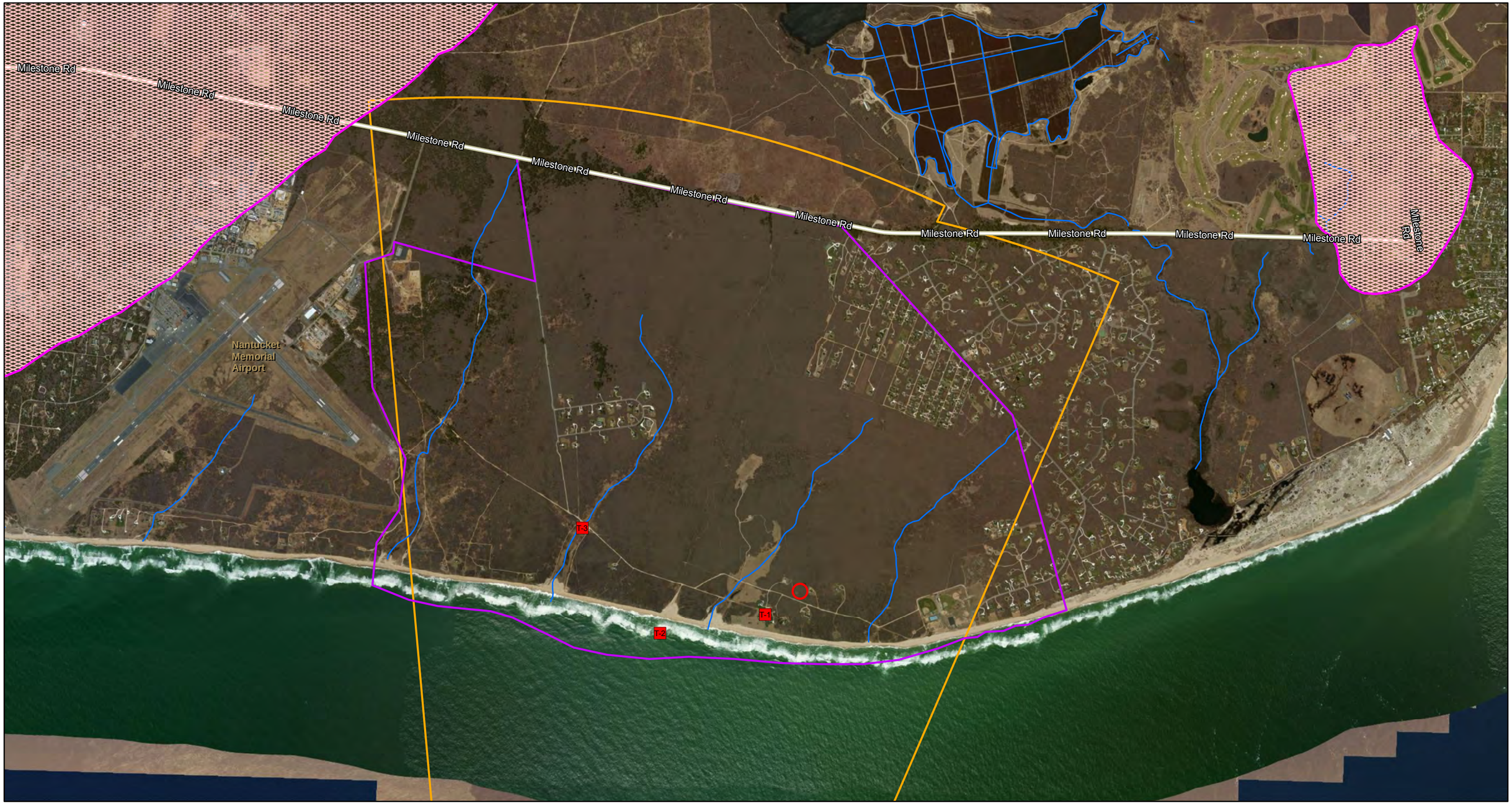
0 1,200 2,400 3,600 Feet

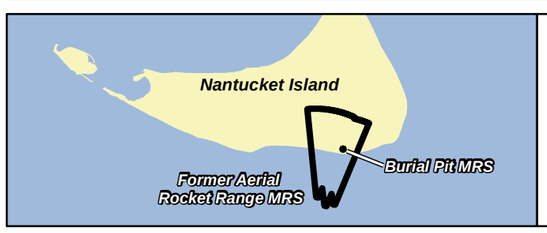
0 460 920 1,380 Meters

NOTES:
Aerial Data Source: ESRI iCubed Imagery Prime World 2D (2004)
Base Data: USACE (2004); U.S Fish and Wild Services, NWI

FIGURE 2-5
Numerical Ranking System Map

11/1/2012	NT_Numerical_Rankingmxd
Drawn: johna	PROJ: 03886.551.004





T-1 Former Target

DEP Rivers and Streams (1:25,000)

DEP Approved Zone IIs

FUDS Boundary

MRS 1 – Burial Pit

MRS 2 – Aerial Rocket Range

Coordinate System: UTM, Z19N, NAD83, US Foot

US Army Corps of Engineers

Nantucket Beach Formerly Used Defense Site

N

0 1,200 2,400 3,600 Feet

0 460 920 1,380 Meters

NOTES:
Aerial Data Source: ESRI iCubed Imagery Prime World 2D (2004)
Base Data: USACE (2004); U.S Fish and Wild Services, NWI

FIGURE 2-6
Massachusetts Zone II Wellhead Protection Area

11/1/2012	NT_Welhead_Protection_2V
Drawn: johna	PROJ: 03886.551.004

Table 2-2

Federal- and State-Listed Endangered and Threatened Animal and Plant Species Found in the Vicinity of MRS 1 and MRS 2

Scientific Name	Common Name	State Protection Status
Mammals		
None		
Birds		
Charadrius melodus	Piping Plover	Federally and State Threatened
Sterna dougallii	Roseate Tern	Federally and State Endangered
Asio flammeus	Short-Eared Owl	State Endangered
Circus cyaneus	Northern Harrier	State Threatened
Sterna antillarum	Least Tern	State Special Concern
Tyto alba	Barn Owl	State Special Concern
Reptile & Amphibians		
Scaphiopus holbrookii	Eastern Spadefoot	State Threatened
Fish		
None		
Invertebrates		
Nicrophorus americanus	American Burying Beetle	Federally and State Endangered
Cicinnus melsheineri	Melsheimer's Sack Bearer	State Threatened
Acronicta albarufa	Barrens Daggermoth	State Threatened
Catocala herodias gerhardi	Gerhard's Underwing Moth	State Special Concern
Zale sp 1 nr lunifera	Pine Barrens Zale	State Special Concern
Hemileuca maia	Barrens Buckmoth	State Special Concern
Bagisara rectifascia	Straight Lined Mallow Muth	State Special Concern
Cingilia catenaria	Chain Dot Geometer	State Special Concern
Metarranthis pilosaria	Coastal Swamp Metarranthis Moth	State Special Concern
Psectraglaea carnosa	Pink Sallow	State Special Concern
Chaetaglaea cerata	Waxed Sallow Moth	State Special Concern
Euchlaena madusaria	Sandplain Euchlaena	State Special Concern

Table 2-2

Federal- and State-Listed Endangered and Threatened Animal and Plant Species Found on in the Vicinity of MRS 1 and MRS 2 (Continued)

Scientific Name	Common Name	State Protection Status
Plants		
Ageratina aromatic	Lesser snakeroot	State Endangered
Agrimonia pubescens	Hairy Agrimony	State Threatened
Amelanchier nantucketensis	Nantucket Shadbush	State Special Concern
Amphicarpum amphicarpon	Annual Peanut-grass	State Endangered
Aristida purpurascens	Purple Needlegrass	State Threatened
Asclepias purpurascens	Purple Milkweed	State Endangered
Carex mitchelliana	Mitchell's Sedge	State Threatened
Carex striata	Walter's Sedge	State Endangered
Corema conradii	Broom Crowberry	State Special Concern
Crataegus bicknellii	Bicknell's Hawthorn	State Endangered
Crocanthemum dumosum	Bushy Cockrose	State Special Concern
Dichanthelium dichhotomum ssp. Mattamuskeetense	Mattamuskeet Panic-grass	State Endangered
Dichanthelium ovale ssp. Pseudopubescens	Common's Panic-grass	State Special Concern
Elatine americana	American Waterwort	State Endangered
Eleocharis tricostata	Three-angled Spike-sedge	State Endangered
Gamochaeta puppurea	Purple Cudweed	State Endangered
Hydrocotyle	Saltpond Pennywort	State Threatened
Hypericum adpressum	Creeping St. John's-wort	State Threatened
Hypericum hypericodes ssp. Multicaule	St. Andrew's Cross	State Endangered
Lechea pulchella var. moniliformis	Bead Pinweed	State Endangered
Leptochloa fusca ssp. Fascicularis	Saltpond Grass	State Threatened
Liatris scariosa var. novae-angliae	New England Blazing Star	State Special Concern
Linum intercursum	Sandplain Flax	State Special Concern
Lobelia siphilitica	Great Blue Lobelia	State Endangered

Table 2-2

Federal- and State-Listed Endangered and Threatened Animal and Plant Species Found on in the Vicinity of MRS 1 and MRS 2 (Concluded)

Scientific Name	Common Name	State Protection Status
Plants (continued)		
Lycopodiella alopecuroides	Foxtail Clubmoss	State Endangered
Lycopus rubellus	Gypsywort	State Endangered
Malaxis bayardi	Bayard's Green Adder's-mouth	State Endangered
Mertensi Maritime	Oysterleaf	State Endangered
Nabalus sepentarius	Lion's Foot	State Endangered
Ophioglossum pusillum	Adder's-tounge Fern	State Threatened
Optunia humifusa	Prickly Pear	State Endangered
Persicaria setacea	Strigose Knotweed	State Threatened
Polygonum glaucum	Sea-beach Knotweed	State Special Concern
Rhynchospora torreyana	Torrey's Beak-sedge	State Endangered
Rumex pallidus	Seabeach Dock	State Threatened
Rumex verticillatus	Swamp Dock	State Threatened
Sabatia campanulata	Slender Marsh Pink	State Endangered
Sabatia kennedyana	Plymouth Gentian	State Special Concern
Sanicula Canadensis	Canadian Sanicle	State Threatened
Scleria pauciflora	Papilose Nut-sedge	State Endangered
Scleria triglomerata	Tall Nut-sedge	State Endangered
Setaria parviflora	Bistly Foxtail	State Special Concern
Sisyrinchium fuscatum	Sandplain Blue-eyed Grass	State Special Concern
Spenopholis pensylvanica	Swamp Oats	State Threatened
Suaeda calceoliformis	American Site-blite	State Special Concern
Symphyrotrichum concolor	Eastern Silvery Aster	State Endangered
Tillea aquatic	Pygmyweed	State Threatened
Triosteum perfoliatum	Braod Tinker's-weed	State Endangered
Tripsacum dactyloides	Northern Gama-grass	State Endangered
Utricularia subulata	Subulate Bladderwort	State Special Concern

Notes: NESHP, 2010

further detailed in Subsection 3.2.3.1 regarding environmental protection measures performed to support the RI, including on-site consultation with local resource agencies/organizations. A summary of species observations and monitoring conducted during the RI is provided in Table 2-3.

During the RI, the on-site environmental monitor did observe Northern Harriers on several occasions, but no nests were observed within the work area and no negative impacts were noted as a result of sightings within the MRS boundaries. The local conservation and resource agency, the NCF, indicated that the beach habitat within MRS 2 is currently not a suitable habitat for nesting shorebirds due to the significant erosion that has occurred and no nests have been observed there for several years. Consistent with this assumption, a Roseate Tern was observed on the beach on 01 June 2012, but no nest was observed and no negative impacts were noted. No Piping Plovers or nests were observed within the MRS boundary during the RI.

No American Burying Beetles were observed during intrusive activities, or any indicators of their presence (i.e., carrion). This observation was consistent with on-site consultation provided by an expert with the Maria Mitchell Association (a local natural resource and education organization) on 27 June 2012, who indicated that work activities were not expected to result in a negative impact based on location within the FUDS as known populations of the beetle are located north of the work area.

A vast percentage of land within the MRS boundaries is inaccessible due to thick vegetation. The NCF provided their inventory of natural community types to aid in the determination of the types of natural communities within the project area. According to NCF, MRS 1 is located almost entirely within a Closed Scrub Oak natural community (NCF, 1999).

Table 2-4 summarizes the terrestrial natural communities present within MRS 2 and their percent coverage of the terrestrial portion of MRS 2. Figure 2-7 depicts the distribution of the terrestrial natural communities present within the MRS boundaries.

Table 2-3
Remedial Investigation Environmental Protection Monitoring Observations

	Northern Harrier			Terns (Roseate/Least)			Piping Plover			American Burying Beetle			Marine Mammals (seals, sharks)		
Date	Monitoring	Species Observed	Nesting	Monitoring	Species Observed	Nesting	Monitoring	Species Observed	Nesting	Monitoring	Species Observed	Nesting	Monitoring	Species Observed	Nesting
5/30/2012	x			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5/31/2012	x			x			x			NA	NA	NA	NA	NA	NA
6/1/2012	x			x	x		x			NA	NA	NA	NA	NA	NA
6/2/2012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/3/2012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/4/2012	x			x			x			NA	NA	NA	NA	NA	NA
6/5/2012	x			x			x			NA	NA	NA	x	x	NA
6/6/2012	x			x			x			NA	NA	NA	x		NA
6/7/2012	x			x			x			NA	NA	NA	x		NA
6/8/2012	x	x		x			x			NA	NA	NA	x		NA
6/9/2012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/10/2012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/11/2012	x			x			x			NA	NA	NA	x	x	NA
6/12/2012	x	x		x			x			NA	NA	NA	x		NA
6/13/2012	x			x			x			NA	NA	NA	x	x	NA
6/14/2012	x			x			x			NA	NA	NA	x		NA
6/15/2012	x	x		x			x			NA	NA	NA	x		NA
6/16/2012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/17/2012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/18/2012	x	x		x			x			NA	NA	NA	x		NA
6/19/2012	x	x		x			x			NA	NA	NA	x		NA
6/20/2012	x	x		x			x			NA	NA	NA	x		NA
6/21/2012	x			x			x			x			x		NA
6/22/2012	x			x			x			x			x		NA
6/23/2012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/24/2012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6/25/2012	x			x			x			x			x		NA
6/26/2012	x			x			x			x			x		NA
6/27/2012	x	x		x			x			x			x		NA
6/28/2012	x			x			x			x			x		NA
6/29/2012	x			x			x			x			x		NA
6/30/2012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7/1/2012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7/2/2012	x	x		x			x			x			x		NA
7/3/2012	x			NA	NA	NA	NA	NA	NA	x			NA	NA	NA
7/4/2012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7/5/2012	x			NA	NA	NA	NA	NA	NA	x			NA	NA	NA
7/6/2012	x			NA	NA	NA	NA	NA	NA	x			NA	NA	NA
7/7/2012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 2-3
Remedial Investigation Environmental Protection Monitoring Observations

Date	Northern Harrier			Terns (Roseate/Least)			Piping Plover			American Burying Beetle			Marine Mammals (seals, sharks)		
	Monitoring	Species Observed	Nesting	Monitoring	Species Observed	Nesting	Monitoring	Species Observed	Nesting	Monitoring	Species Observed	Nesting	Monitoring	Species Observed	Nesting
7/8/2012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7/9/2012	x			NA	NA	NA	NA	NA	NA	x			NA	NA	NA
7/10/2012	x			NA	NA	NA	NA	NA	NA	x			NA	NA	NA
7/11/2012	x			NA	NA	NA	NA	NA	NA	x			NA	NA	NA
7/12/2012	x			NA	NA	NA	NA	NA	NA	x			NA	NA	NA
7/13/2012	x			NA	NA	NA	NA	NA	NA	x			NA	NA	NA
7/14/2012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7/15/2012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7/16/2012	x			NA	NA	NA	NA	NA	NA	x			NA	NA	NA
7/17/2012	x			NA	NA	NA	NA	NA	NA	x			NA	NA	NA
7/18/2012	x			NA	NA	NA	NA	NA	NA	x			NA	NA	NA
7/19/2012	x			NA	NA	NA	NA	NA	NA	x			NA	NA	NA
7/20/2012	x			NA	NA	NA	NA	NA	NA	x			NA	NA	NA
7/21/2012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7/22/2012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7/23/2012	x			NA	NA	NA	NA	NA	NA	x			NA	NA	NA
7/24/2012	x			NA	NA	NA	NA	NA	NA	x			NA	NA	NA
7/25/2012	x			NA	NA	NA	NA	NA	NA	x			NA	NA	NA
7/26/2012	x			NA	NA	NA	NA	NA	NA	x			NA	NA	NA
7/27/2012	x			NA	NA	NA	NA	NA	NA	x			NA	NA	NA
7/28/2012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7/29/2012	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7/30/2012	x			NA	NA	NA	NA	NA	NA	x			NA	NA	NA
7/31/2012	x			NA	NA	NA	NA	NA	NA	x			NA	NA	NA
8/1/2012	x			NA	NA	NA	NA	NA	NA	x			NA	NA	NA
8/2/2012	x			NA	NA	NA	NA	NA	NA	x			NA	NA	NA

Notes:

x = monitoring conducted/species positively observed

Cells left blank indicate that no species/nesting observations were made within the work area that day

NA = not applicable due to work activity locations/no work was conducted

Table 2-4

Terrestrial Habitat Types within the Munitions Response Site Boundaries

Habitat Type	Habitat	Coverage in MRS 2
Coastal	Coastal Beach Strand	<0.1%
	Coastal Dune Community	0.2%
	Sand	0.8%
Sandplain	Mowed Grassland	0.8%
	Sandplain Grassland	0.6%
	Sandplain Heathland	7.6%
	Pitch Pine-Scrub Oak Woodland	7.1%
	Pitch Pine-Mixed Shrub Woodland	0.7%
	Open Scrub Oak Woodland	17.5%
	Closed Scrub Oak Woodland	57.3%
Other Shrub & Forest	Coastal Shrubland	2.6%
Other Wetland	Marsh	0.4%
Other	Developed Land	4.3%

Notes: (NCF, 1999)

Milestone Rd

Nantucket Memorial Airport

T-3

Madequecham Pond

Wigwam Pond

Madequecham Beach

T-1

T-2

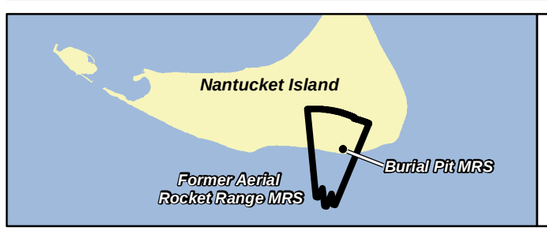
Tom Nevers Pond

Tom Nevers Field

Pebble Beach

Vegetation Categories - within MRS Boundaries

- Coastal Beach Strand
- Coastal Dune Community
- Coastal Shrubland
- Closed Scrub Oak
- Developed Land
- Sandplain Grassland
- Mowed Grassland
- Sandplain Heathland
- Marsh
- Open Scrub Oak
- Water
- Pitch Pine Scrub Oak Woodland
- Pitch Pine Mixed Shrub Woodland
- Sand
- Cranberry Bog
- Unknown



T-1 Former Target

MRS 1 – Burial Pit

MRS 2 – Aerial Rocket Range

Source:
Nantucket Conservation Foundation, Inc., 1999. Nantucket Vegetation Community Types, with accompanying shapefiles. Undated.

Coordinate System: UTM, Z19N, NAD83, US Foot

US Army Corps of Engineers

Nantucket Beach Formerly Used Defense Site

WESTON SOLUTIONS

FIGURE 2-7
Natural Communities
Nantucket, MA

N

0 1,000 2,000 3,000 Feet

0 390 780 1,170 Meters

NOTES:
Aerial Data Source: ESRI iCubed Imagery Prime World 2D (2004)
Base Data: USACE (2004)

3/13/2013	NT_NatCommunities_2V
Drawn: johna	PROJ: 03886.551.004

2.2.6.1 Priority Natural Communities and BioMap2 Resources

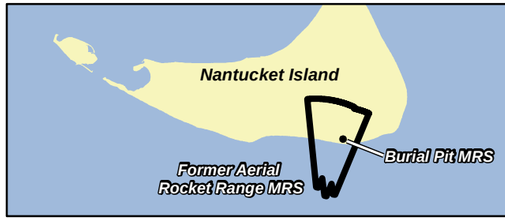
The NHESP tracks the locations of federal- and state-listed species in two datasets available through the MassGIS: NHESP Priority Habitats of Rare Species and NHESP Estimated Habitats of Rare Wildlife. Both of these habitat types occur in MRSs 1 and 2. Figure 2-8 depicts the extents of NHESP Estimated Habitats of Rare Wildlife and Priority Habitats of Rare Species (MassGIS, 2011). The NHESP Priority Habitats of Rare Species is the geographical extent of habitat for all state-listed rare species, both plants and animals, and is codified under the Massachusetts Endangered Species Act.

BioMap2, developed in a partnership between NHESP and The Nature Conservancy, is designed to guide strategic biodiversity conservation in the Commonwealth over the next decade by focusing land protection and stewardship on the areas that are most critical for ensuring the long-term persistence of rare and other native species and their habitats, exemplary natural communities, and a diversity of ecosystems. BioMap2 is also designed to include the habitats and species of conservation concern identified in the State Wildlife Action Plan. Figure 2-9 depicts NHESP BioMap 2 Critical Natural Landscape Blocks, Critical Natural Landscape Tern Foraging Areas, and Core Habitat for Species of Conservation Concern, as provided by the MassGIS (MassGIS, 2011).

2.2.6.2 Coastal Zone Resources

The Commonwealth of Massachusetts Office of Coastal Zone Management (OCZM) administers the Massachusetts Coastal Zone Management Program in partnership with local governments and state and federal agencies. All of Nantucket County is included in the state's coastal zone (OCZM, 2011). Several species of whales and sea turtles listed under the Endangered Species Act can occur seasonally in waters off the coast of Nantucket, in the off-shore marine habitats of the project area (NMFS, 2011). Gray and harbor seals are the most common seals found in the waters of Nantucket and Martha's Vineyard while surf clam habitat exists in the nearshore locations of the project area [Massachusetts Division of Marine Fisheries, 2012]. Two seal sightings were observed during underwater operations and one reported potential shark sighting, but no negative impacts were noted.

Milestone Rd
Milestone Rd
Milestone Rd
Milestone Rd
Milestone Rd
Milestone Rd
Milestone Rd
Milestone Rd
Milestone Rd
Nantucket Memorial Airport
T-3
T-1
T-2



T-1 Former Target
FUDS Boundary
MRS 1 – Burial Pit
MRS 2 – Aerial Rocket Range
NHESP Priority Habitats of Rare Species
NHESP Estimated Habitats of Rare Wildlife

Coordinate System: UTM, Z19N, NAD83, US Foot

US Army Corps of Engineers

Nantucket Beach Formerly Used Defense Site

N

0 940 1,880 2,820 Feet

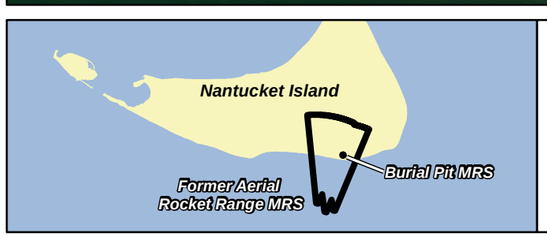
0 350 700 1,050 Meters

NOTES:
Aerial Data Source: ESRI iCubed Imagery Prime World 2D (2004)
Base Data: USACE (2004); MassGIS (2011)

FIGURE 2-8
Estimated Habitats of Rare Wildlife and Priority Habitats of Rare Species

10/31/2012	NT_Rare_Spec_WL_2V
Drawn: johna	PROJ: 03886.551.004





T-1 Former Target
FUDS Boundary
MRS 1 – Burial Pit
MRS 2 – Aerial Rocket Range

Critical Natural Landscape Tern Foraging Areas
Critical Natural Landscape Landscape Blocks
Core Habitat for Species of Conservation Concern

Coordinate System: UTM, Z19N, NAD83, US Foot

US Army Corps of Engineers

Nantucket Beach Formerly Used Defense Site

WESTON SOLUTIONS

N

0 940 1,880 2,820 Feet

0 350 700 1,050 Meters

NOTES:
Aerial Data Source: ESRI iCubed Imagery Prime World 2D (2004)
Base Data: USACE (2004); MassGIS (2011)

FIGURE 2-9
Critical Natural Landscape, Tern Foraging Areas and Species of Conservation Concern

10/31/2012	NT_Bio2_FA_CC_2V
Drawn: johna	PROJ: 03886.551.004

2.2.7 Cultural and Archaeological Resources

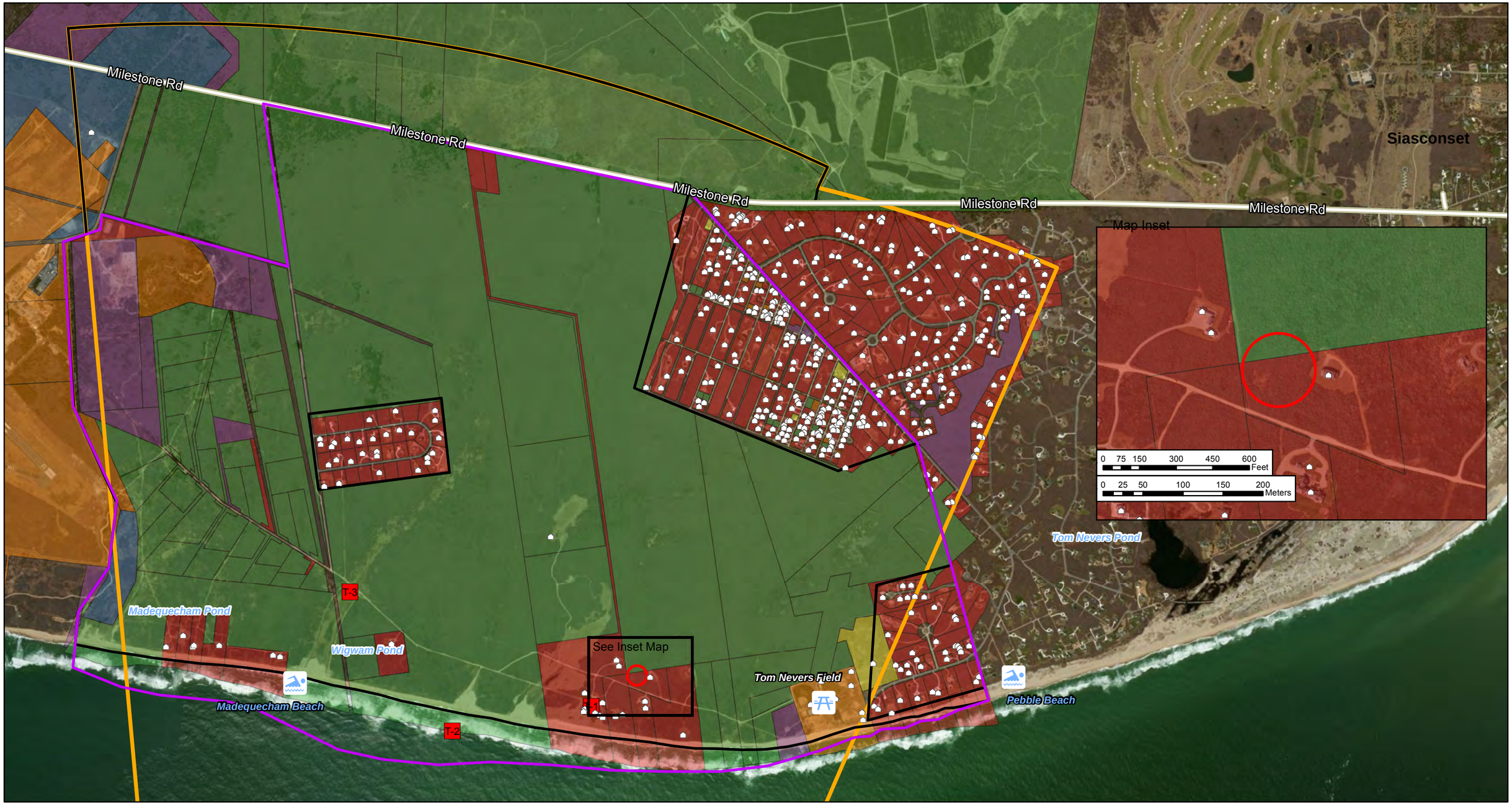
MRS 1 and MRS 2 may contain cultural and archaeological sites. The Massachusetts Historical Commission indicates that the entire Island of Nantucket is listed as a historic district in the National Register of Historic Places and is designated as a National Historic Landmark. The Island of Nantucket is archaeologically-sensitive and likely contains areas of cultural significance to the Wampanoag Tribe. No cultural or archaeologically significant findings have been reported to date from inspections and the RI conducted within the MRS boundaries. A Board of Underwater Archeological Resources permit was obtained for RI field activities (see Appendix C), which included notification to the Wampanoag Tribe. Both a marine archeologist and a cultural resource specialist were retained for on-call services throughout the duration of RI field activities to facilitate with identification and management of culturally significant artifacts had they been discovered either underwater or on land.

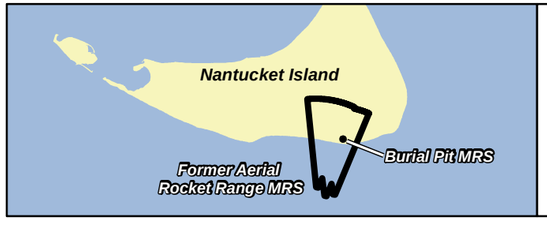
2.2.8 Demographic Profile

Nantucket is a popular tourist destination, known for its abundance, and preservation of rare ecosystems in addition to historical places. The population of Nantucket is around 10,000 year-round residents in the off-season and over 50,000 seasonal residents and tourists in the summer months. Nantucket Island has experienced a 6.8% population increase since 2000. The average number of households is 3,493 with an average occupation size of 2.9 people per household and a median annual income of $68,746 (2009). Approximately 92% of the population has a high school or higher educational degree. The median age is 39.4 years and the racial demographics include: Caucasians (88%), African Americans, American Indians, Asians, and others which comprise the remainder (12%) of the population (U.S. Census Bureau, 2010). Tourism is the major industry of Nantucket County.

2.3 CURRENT AND PROJECTED LAND USE

A properties map for the land area inside the MRS boundaries is included in Figure 2-10.





- Building
- T-1 Former Target
- Airborne Vertical Magnetic Gradient Survey
- FUDS Boundary
- MRS 1 – Burial Pit
- MRS 2 – Aerial Rocket Range
- Nantucket Airport Commission
- Nantucket Conservation Foundation
- Nantucket Island Land Bank
- Nantucket Housing Authority
- Private Residence
- Town of Nantucket

Coordinate System: UTM, Z19N, NAD83, US Foot

US Army Corps of Engineers

Nantucket Beach Formerly Used Defense Site

N

0 940 1,880 2,820 Feet

0 350 700 1,050 Meters

NOTES:
Aerial Data Source: ESRI iCubed Imagery Prime World 2D (2004)
Base Data: USACE (2004)
County of Nantucket (2011)

FIGURE 2-10
Property Lines and Buildings
Nantucket, MA

10/31/2012	NT_PropLns_BldgPts_2V
Drawn: johna	PROJ: 03886.551.004

The property owners for MRS 1 include a private resident and NCF. The property owners for MRS 2 include multiple private residents, NCF, Town of Nantucket, Nantucket Housing Authority, Nantucket Airport Commission, and Nantucket Island Land Bank Commission. The Nantucket Memorial Airport is located adjacent to the western MRS 2 boundary.

Land use within the MRSs includes residential, recreational, and undeveloped land. The former Tom Nevers Naval Facility is included within this area and is now Tom Nevers public recreational area. Portions of NCF property include maintained trails that are open for recreational use by the public and include both bicycle and horseback riders in addition to foot traffic. Deer trails are also present traversing throughout the MRSs, but are very narrow, unmaintained, unmarked, and not likely to be used by humans.

Although a public beach is not located within the MRS boundaries and use of the beach is not advocated, the beach is accessible to the public via property owned by the NCF. Recreational use is permitted provided users are responsible and discreet. Additionally, local property owners indicate that this portion of Nantucket is occasionally used for recreational fishing. The Marine and Coastal Resources Department is responsible for issuing fishing and shell fishing permits on the Island and have indicated that although the coastal environmental is not amendable to most shellfish and there are no established beds for bay scallops, some offshore shell fishing for quahogs or oysters may occur.

Future land use is expected to remain similar to current land use. The NCF has indicated a desire to include fire prevention in their future maintenance activities on their properties, which may involve selective vegetation clearing via burning (HFA, 2011).

2.4 SITE HISTORY AND PREVIOUS INVESTIGATIONS

The FUDS program only applies to properties that transferred from DoD before 1986. The Army is the executive agent for the FUDS program, and USACE is the program's executing agent. USACE must comply with the Defense Environmental Restoration Program (DERP) statute (10 USC 2701 et seq.), CERCLA (42 USC § 9601 *et seq.*), Executive Orders 12580 and 13016, the NCP, and all applicable DoD (e.g., DoD *Management Guidance for the DERP* [28 September 2001]) and Army policies in managing and executing the FUDS program

(USACE, 2004). The FUDS program addresses MEC, including unexploded ordnance (UXO), discarded military munitions (DMM), and MC located on former defense sites under the MMRP, established by the U.S. Congress under DERP.

Both MRS 1 and MRS 2 were first identified via the Archives Search Report (ASR) prepared by USACE in September 1997. Since that time, multiple investigations to identify historical uses and potential residual impacts have been conducted including record searching, anecdotal information collection, the Site Inspection (SI) conducted in 2010, and the current RI completed in 2012.

2.4.1 Historical Information

The Nantucket Beach FUDS was leased by the U.S. Government between September 1943 and 30 June 1946, and was used as a practice aerial rocket range. Training ceased on 1 September 1945. This was one of the three ranges on Nantucket used by the Navy pilots out of the Quonset Naval Air Station for training purposes.

Army documentation issued for this FUDS includes:

- USACE. 1995. Inventory Project Report (INPR) for Nantucket Ordnance Site, DERP-FUDS Site D01MA0456, Nantucket, Massachusetts. July 1995.
- USACE. 1997. ASR Findings for the former Nantucket Ordnance Site (Tom Nevers Area), Project Number D01MA045601, Nantucket Island, Massachusetts. September 1997.
- USACE. 2009. ASR Supplement, Nantucket Beach, 2009.

Investigation documentation completed for the Army for MRS 1 and MRS 2 includes:

- HFA, 2011. *Final Site Inspection Report for Nantucket Beach*. DERP FUDS Project No.: D01MA045601. April 2011.

Other investigation documentation completed by VRHabilis, LLC. (VRHabilis) for private property owner at MRS 2 includes:

- VRHabilis, 2011. *Final Site Specific Final Report* for Southeast Quarter Project, Nantucket, Document No. NA 01-1210C, Nantucket, Massachusetts. May 2011.

2.4.1.1 Munitions Response Site 1

MRS 1 is located within the southwestern land portion of MRS 2 as shown on Figure 2-2. This MRS encompasses 1.5 acres and has been referred to as a potential former burial pit site. There is no evidence, based on historical records review and stakeholder comments, that activities occurring prior to or after DoD use of the area contributed to the burial of DMM. The only indication that this MRS was used as a temporary burial location for recovered munitions was by a local citizen as recorded in the INPR (USACE, 1995). Additionally, no historical evidence has been found that indicated HTW of any kind was buried or used by DoD.

2.4.1.1.1 Site Inspection

During SI activities, numerous subsurface anomalies were identified but no MEC or munitions debris (MD) was observed on the ground surface. HFA conducted a qualitative reconnaissance as part of the SI using a Schonstedt magnetometer but no intrusive investigations were performed. Thirty-one subsurface anomalies were detected at MRS 1, but were not intrusively investigated (HFA, 2011).

At MRS 1, MC sampling was limited to soil and groundwater as no sediment or surface water is present within the MRS boundary. The results from MRS 1 MC sampling detected five metals in surface soil and/or subsurface soil, and perchlorate was detected in groundwater; however, none of the detections exceeded human health or ecological screening criteria except iron in subsurface soil. Only an estimated detection of iron at 6,400 milligrams per kilogram (mg/kg) in one subsurface soil sample exceeded residential screening levels (5,500 mg/kg); therefore, iron was conservatively designated a chemical of potential concern (COPC) for subsurface soil; but, no unacceptable risk was determined based on a weight-of-evidence (WOE) evaluation (i.e., only one sample exceeded the screening level, and iron is not considered a CERCLA hazardous substance). Additionally, 4-amino-2,6-dinitrotoluene was detected in soil, but the concentration was estimated by the laboratory below the quantitation limits of Method 8330. The one groundwater sample collected from MRS 1 yielded non-detect results for all explosives analyzed, but did detect perchlorate at an estimated concentration of 0.02 micrograms per liter (µg/L), two orders of magnitude below the human health screening level of 2 µg/L (HFA, 2011).

The SI recommended RI/FS activities with a focus on MEC for MRS 1 (HFA, 2011). Visual observations collected during the SI noted poor vegetative cover at this area, therefore, the *PWS* (USACE, 2011) issued for this Delivery Order requested further investigation for HTW at MRS 1 only. The SI also recommended establishing the boundary for the suspected Burial Pit at 1.5 acres based on the ASR, and to delineate this portion of the FUDS as MRS 1 separate from the Aerial Rocket Range (HFA, 2011).

It should be noted that following the SI conducted in 2010, this FUDS was realigned at the program-level by USACE, but was not delineated into the two MRSs recommended in the final report documenting SI findings. This decision was based on the pending RI and anticipated need to delineate further based on findings at that stage of the investigation. Realignment identified one MRS, known as the 5,517-acre Nantucket Beach Burial Pit & Rocket Range, Identification Number: D01MA045601R01. However, because the *PWS* and work planning documents generated for the RI addressed the FUDS as two MRSs per the SI recommendations, this terminology has been retained throughout this RI Report.

2.4.1.2 Munitions Response Site 2

During historical training exercises, pilots fired air-to-ground rockets at three potential ordnance sites (designated Target #1, Target #2, and Target #3) located within MRS 2 and identified via historical records and imagery. Historical records regarding range structures and improvements are unclear regarding the total number of targets and their intended purposes (i.e., main firing target, markers, glide indicators, etc.,) during training exercises. Potential Target #1 and Target #3 were depicted on land, and were able to be located by the ASR USACE site visit team in 1996 as physical remnants of the target structures were still present. Target #2 was not able to be located as it was depicted in a location that is underwater due to the significant coastal erosion that has occurred since active use of the FUDS. Historical photographs of the area indicate that Target #2 was evident on land through 1970, but had eroded into the ocean by the time the next available photograph was reviewed from 1978 (USACE, 1997).

During the ASR several historical reports were discovered that document findings of munitions in or around the MRSs, specifically within the vicinity of former Target #1 (see Figure 2-2), and

report that recovered items were found to contain inert fillers or were inconclusive. Only anecdotal and media information was discovered at that time indicating possible presence of high explosives (HE) based on reported live munitions during detonations. Explosive Ordnance Disposal (EOD) teams in addition to State Police have responded to and disposed of these items (USACE, 1997).

Munitions-related material discovered by the public has been historically responded to by EOD and local emergency officials in the vicinity of Target #1 in accordance with USACE recommendation to recognize, retreat, and report to local authorities (a.k.a., the Three R's) any items suspected to be a munition. The SI references two recent EOD incident reports that occurred in April 2010 (EOD, 2010a; and EOD, 2010b). The EOD incident reports from April 2010 state that HE was found. USACE reviewed EOD reports for the FUDS that reported items as MEC. Due to the mission of the EOD to render the items and area safe by detonation, as opposed to perforating the items to first determine whether the items contain explosives, coupled with the large amount of explosives used by the EOD Team, USACE has concluded that it is highly unlikely and extremely difficult to determine if an item was MD or MEC after detonation.

It should be noted that the mission of the EOD detachment is to identify, render safe and dispose of all hazardous explosive ordnance items. This differs from the mission of USACE, which is to investigate the nature and extent of munitions and determine the risks to human health and the environment, during response activities. During demolition of suspect material potentially posing an explosive hazard (MPPEH), EOD personnel use one or more 2.25 pound blocks of C-4 as a donor charge to destroy the munitions item. Based on the EOD Report available for one of the April responses, 10 pounds of C-4 was used as the donor charge to render safe the discovered munitions (EOD, 2010b).

Ordnance identified during the SI and recovered during the RI have all been documented as MD. During the RI, the USACE contractor used 19-gram perforators (shape charges) to make a ¼-inch hole in the case of the warhead. Engineering controls (i.e., sandbags) were used to prevent fragments from escaping the detonation point if the rocket warhead would have detonated. If an ordnance item contained HE, it would have been initiated by the perforator causing a high order detonation. If no HE are present, then the perforator would create only a

hole in the case of the warhead, which would allow for inspection of the filler to determine if it were inert or contained explosives. No munitions recovered contained explosives, as fully detailed in Section 3 of this RI Report.

2.4.1.2.1 Site Inspection

Similar to MRS 1, a qualitative reconnaissance inspection was performed at MRS 2 during the SI, except that a borehole gradiometer was additionally used for underwater applications. A total of 493 subsurface anomalies were recorded on land within MRS 2, and 8 subsurface anomalies were recorded underwater at MRS 2 (HFA, 2011). No subsurface anomalies were intrusively investigated during the SI.

Munitions debris was observed at MRS 2 in the vicinity of Target #1 during the SI field work. The MD included one inert, empty, 3.5-inch rocket warhead, three 3.5-inch rocket heads, and one empty 2.25-inch practice rocket. One cylindrical item (tapered on one end) approximately 2.25 inches in diameter and 35 inches long was also found in addition to four partially-exposed ferrous items that could not be positively identified (HFA, 2011).

As part of the MC sampling conducted during the SI, explosives and metals were detected within soil, but not at hazardous levels. Five metal analytes (aluminum, barium, iron, magnesium and zinc) and nitroglycerin were detected in soil. Only iron was detected in excess of its residential screening level (5,500 mg/kg), at a concentration of 6,700 mg/kg. Zinc was detected at a concentration of 50 mg/kg in one sample, above its interim ecological screening level (46 mg/kg); however, no human health screening levels were exceeded. Nitroglycerin was detected at a concentration of 8.9 mg/kg in one sample, which exceeds all screening levels currently adopted, including its residential screening level of 0.61 mg/kg. Although iron and nitroglycerin were identified as COPCs for MRS 2 subsurface soil, and zinc was determined to be a COPC for surface soil, a WOE evaluation did not identify any unacceptable risks for these constituents (HFA, 2011).

Groundwater samples from MRS 2 during the SI did not detect any explosive compounds. Perchlorate was detected at an estimated concentration of 0.02 µg/L (below laboratory

quantitation limits), which is two orders of magnitude below the human health screening level (HFA, 2011).

All explosive compounds in sediment samples collected from MRS 2 were detected at estimated concentrations below project screening levels. Additionally, all metal analytes were detected in sediment, at concentrations less than human health and ecological screening levels (HFA, 2011).

Similarly, all explosive compounds and metal analytes were detected in surface water collected from MRS 2; but, almost all of the detections were estimated by the laboratory because they were below the quantitation levels employed. The estimated concentrations of aluminum in all three surface water samples (results between 200 and 260 µg/L) exceeded the interim ecological screening level of 87 µg/L, but not the human health level (37,000 µg/L). Only magnesium was detected at non-estimated concentrations between 1,500 and 4,300 µg/L; however, these concentrations are less than its human health and ecological screenings levels. Although zinc was determined to be a chemical of potential environmental concern (COPEC) for surface water, a WOE evaluation did not identify any unacceptable risks were present (HFA, 2011).

The SI recommended proceeding to RI/FS with a focus on MEC, and recommended establishing the boundary for the Aerial Rocket Range at 5,155.4 acres based on the ASR, and to delineate this portion of the FUDS as MRS 2, to separate it from the 1.5-acre identified in the ASR as the suspected Burial Pit (HFA, 2011).

As noted above in Subsection 2.4.1.1.1, following the SI conducted in 2010, this FUDS was realigned at the program-level by USACE, but was not delineated into the two MRSs recommended in the final report documenting SI findings. This decision was based on the pending RI and anticipated need to delineate further based on findings at that stage of the investigation. Realignment identified one MRS, known as the 5,517-acre Nantucket Beach Burial Pit & Rocket Range, Identification Number: D01MA045601R01. However, because the *PWS* and work planning documents generated for the RI addressed the FUDS as two MRSs per the SI recommendations, this terminology has been retained throughout this RI Report.

2.4.1.2.2 Removal Action under Private Contract

VRHabilis performed a Removal Action (RA) under contract with a private owner to identify and remove MPPEH from Parcel No. 90 9 between 1 February 2011 and 16 March 2011. As part of the RA, a total of 6 acres were digitally geophysically mapped, flagged for anomalies, and intrusively investigated. The *Final Site Specific Final Report*, documents completion of the partial RA which includes the removal and disposal of 178 MD items totaling 1,200 pounds, turnover of approximately 1,500 pounds of material documented as safe (MDAS), and 500 pounds of cultural debris. Munitions debris items that were investigated and removed included: 2.25-inch sub-caliber aircraft rockets (SCAR); 5-inch high velocity aircraft rockets (HVAR); 3.5-inch forward firing aircraft rockets (FFAR); 90-millimeter (mm) armor piercing warheads; and a 2.25-inch solid steel warhead (VRHabilis, 2011). It is WESTON's understanding based on VRHabilis acknowledgement that all references to MEC in the *Final Site Specific Final Report* are incorrectly referenced, that no MEC was found, and that all items were found to be inert. All MEC items referenced in the subject report should be correctly referred to as MD.

2.4.2 Preliminary Conceptual Site Model Developed as Part of Site Investigation

The CSM describes the sources of MEC or MC at a MRS, actual or potential pathways, current or proposed use of property, and potential receptors to MC or explosive hazards. The CSM provides a planning tool to integrate site information from a variety of sources, evaluate the information with respect to project objectives and data needs, and respond through an iterative process for further data collection or action. The CSM development should be viewed as a process that reflects the progress of activities at a site from initial assessment through site closeout.

The preliminary CSM diagrams that were used as the basis for the overall RI strategies for MRS 1 and MRS 2 were initially developed following the SI. The preliminary CSMs for each MRS define the source(s), interaction, and receptors for MRS 1 and MRS 2 in addition to providing an overview of complete and potentially complete pathways based on the results of the human and ecological risk screening performed for the SI. The primary source of hazard identified in the preliminary CSMs developed for MRS 1 and MRS 2 was exposure to suspect

MEC at ground surface or in subsurface soil, with a subsequent hazard identified as a release of MC to environmental media from a MEC source. Within MRS 1, the potential for a HTW constituent release from burial and/or unregulated disposal of waste in this area is also identified as a potential release mechanism for contaminant migration into surrounding environmental media with potential receptor exposure.

Current and future potential human receptors identified for MRS 1 and MRS 2 post-SI were expected to be trespassers/visitors, residents, employees, and construction workers. The ecological receptors of concern for the MRSs are plants, soil and benthic invertebrates, terrestrial-feeding mammals, and terrestrial-feeding birds.

As the SI did not identify any UXO, DMM or MD on the ground surface of MRS 1, an incomplete pathway for MEC exposure to all receptors was identified in surface soil in the MRS 1 CSM. Numerous subsurface anomalies were detected via geophysical instrumentation and anecdotal information regarding potential burial in this MRS supported a potentially complete pathway for MEC exposure in subsurface soil.

Munitions debris was confirmed on the ground surface of MRS 2 during the SI. No UXO was observed. However, historical reports of HE items recovered from this MRS supported the identification of a complete pathway for potential MEC exposure to all receptors at ground surface in MRS 2. A potentially complete pathway for MEC was identified for subsurface soil in MRS 2 due to numerous anomalies detected via geophysical instrumentation. Qualitative hazard assessments conducted for MEC identified a low risk at MRS 1 and high risk at MRS 2.

The MC CSMs identified potentially complete pathways for human and ecological receptors in soil for MRS 1 and MRS 2 and in groundwater for human receptors in both MRSs based on the presence of some MC in media; however, no risks were identified. Sediment and surface water evaluated within MRS 2 (media not present in MRS 1) were identified as having potentially complete pathways to potential receptors, but no risks were identified. Additional details regarding the CSM developed based on SI findings and used as the basis for RI/FS activities are provided in Appendix L of the *Final Work Plan (Final WP*) (WESTON, 2012a).

2.5 INSTITUTIONAL ANALYSIS

An Institutional Analysis is generally conducted during the RI/FS process to identify and analyze the institutional framework necessary to support the development of institutional controls. The purpose of this analysis at the RI stage is to gather background information and document which stakeholders have jurisdiction over the subject site and to assess the capability and willingness of these entities to assert institutional controls that would protect the public from explosives hazards potentially present within the limits of the site. An Institutional Analysis Plan will be developed as part of the FS process to provide specific details and requirements for enacting institutional controls as part of a future remedial alternative for either MRS 1 and/or MRS 2, if warranted.

The following stakeholders are capable and willing to assert controls over the site, as needed:

- Massachusetts Department of Environmental Protection (MassDEP) is the lead regulatory agency and is responsible for the environmental protection of the Commonwealth of Massachusetts.
- Public and private land owners (residents, Town of Nantucket, NCF, Nantucket Airport Commission, Nantucket Island Land Bank, Nantucket Housing Authority).

There are no land use controls currently in-place for any portion of MRS 1 or MRS 2. Recreational access to property within the MRSs is allowed by non-residential parcel owners. No change in the current land use patterns (residential or recreational) is anticipated in the future at this time.

2.6 REMEDIAL INVESTIGATION DATA NEEDS AND DATA QUALITY OBJECTIVES

The Data Quality Objectives (DQO) developed for this investigation are presented in the Nantucket Beach FUDS *Final WP* [WESTON, 2012a (see Tables 3-1 through 3-7)]. The DQOs include the overall objective of characterizing nature and extent of MEC and MC at both MRS 1 and MRS 2. Individual DQOs were also established for:

- Anomaly cluster area detection using wide area assessment (WAA) surveys.

- Anomaly cluster area characterization coverage to ensure geophysical and intrusive investigation surveys provide appropriate results to assess nature and extent of MEC to a high level of confidence.
- Ground-based Digital Geophysical Mapping (DGM) metrics to meet MEC detection performance requirements.
- Munitions and explosives of concern intrusive investigations to confirm nature (type) and extent (density and distribution) of potential MEC.
- Underwater mag and dig transects.

Overall, MC DQOs are based on the following problem statement: Existing information on the nature of potential MC and, if present, the nature and extent of contamination is insufficient to evaluate and recommend remedial alternatives. The DQOs included use of a point-by-point comparison screening to identify COPC and COPEC, use of analytical methods adequate to evaluate against selected screening levels, and the ability to collect additional data as needed. Specific analytical DQO requirements for sampling and analytical procedures were established in the *Uniform Federal Policy-Quality Assurance Project Plans* (*UFP-QAPP*) for RI activities.

2.7 TECHNICAL PROJECT PLANNING

Technical Project Planning (TPP) meetings have been, and will continue to be, coordinated during the Nantucket Beach RI/FS process. Prior to the initiation of RI field activities, representatives and stakeholders from USACE, MassDEP, WESTON, and individual property owners/representatives participated in two TPP meetings. TPP 1 was conducted on 27 October 2011. At this meeting, the MRS summary and RI approach, objectives, planning documentation, and field investigation and reporting requirements were discussed.

TPP 2 was conducted on 24 May 2012. The project stakeholders reviewed the *Final WP*, identified and discussed project goals, investigation strategies, and DQOs. Details regarding the implementation of the RI were presented and discussed among the group, including the results of the aerial survey conducted in March 2012 with explanation of how the results were used to focus ground-based investigations. Based on the results of the second meeting, specific details of the investigation approach for MRS 1 and MRS 2, including coverage area, survey type (grid versus transect), and quantities, were determined.

TPP 3 was conducted on 20 June 2013. The project stakeholders received an update on the RI field activities performed in 2012 along with a summary of investigation results, recommendations, conclusions, and path forward.

Concurrently, USACE and WESTON attended and presented at two public meetings held on 27 October 2011 and 23 May 2012, prior to initiating the airborne WAA survey in March 2012 and subsequent ground-based and underwater investigation in June 2012, to update town officials and the general public on RI progress and planned activities. A third public meeting was held on 19 June 2013, to update town officials and the general public on the RI findings, possible remedial alternatives, and schedule moving forward.

2.8 PRELIMINARY IDENTIFICATION OF POTENTIALLY APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

Although the RI is not considered a response action, a preliminary identification of ARARs is typically conducted during RI characterization to facilitate the CERCLA process going forward. The ARARs are used as a "starting point" in determining the protectiveness of a remedy.

During the FS, the list of ARARs will be further refined, particularly as guidance is issued by State and federal agencies. The ARARs will be used as a guide to establish the appropriate extent of cleanup; to aid in scoping, formulating, and selecting proposed treatment technologies; and to govern the implementation and operation of the selected remedial alternative.

Pursuant to Section 300.400(g)(3) of the NCP, a list of ARARs and other to be considered (TBC) benchmarks, advisories, criteria, and guidance is developed for a site or sites to identify the requirements that may apply to a response action. EPA policy, as reflected in CERCLA, as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), and the NCP, provides that the development and evaluation of remedial actions under CERCLA must include remedial alternatives to attain ARARs and ensure protection of public health and the environment.

ARARs are defined as follows:

- Applicable requirements - Those cleanup standards, standards of control, and other substantive environmental protection requirements promulgated under federal or state

environmental law that specifically address a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstance at a CERCLA site.

- Relevant and appropriate requirements - Those cleanup standards, standards of control, and other substantive environmental protection requirements promulgated under federal or state environmental law that, while not applicable to a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstance at a CERCLA site, address problems or situations sufficiently similar to those encountered at a CERCLA site.

It is first determined whether an ARAR is applicable for the site. If it is not applicable, then it is determined whether the ARAR is relevant and appropriate. The procedure for determining whether a requirement is relevant and appropriate is a two-step process. First, to determine relevance, it is evaluated whether the requirement addresses problems or situations sufficiently similar to the circumstances of the proposed response action. Second, for appropriateness, the determination must be made about whether the requirement would also be well-suited to the conditions of the site. In some cases, only a portion of a requirement would be both relevant and appropriate. Once a requirement is deemed relevant and appropriate, it must be attained (or waived). If a requirement is not both relevant and appropriate, it is not an ARAR.

"Applicable requirements" and "relevant and appropriate requirements" are considered to have the same weight under CERCLA. Section 121(d) of CERCLA, as amended by SARA, requires attainment of federal ARARs and of state ARARs in state environmental or facility siting laws where the state requirements are promulgated, more stringent than federal laws, and identified by the state in a timely manner.

CERCLA and the NCP also recognize the TBC category, which includes non-promulgated federal and state criteria, strategies, advisories, and guidance documents. The TBC information do not have the same status as ARARs; but, if no ARAR exists for a substance or particular situation, TBCs may be used to ensure that a remedy is protective. A preliminary identification of potential ARARs and TBCs for MRS 1 and MRS 2 are summarized in Table 2-5.

Table 2-5

Preliminary Identification of Potential Applicable or Relevant and Appropriate Requirements, and To be Considered Information

Standard, Requirement, Criteria, or Limitation	Citation	Description	Potential ARARst
Federal Requirements (Action-Specific)			
Resource Conservation and Recovery Act, Miscellaneous Units	40 CFR 264.601, 264.602, 264.603	Establishes requirements under RCRA 40 CFR 264 subpart X applicable to operators of open burning/open detonation of explosive waste, including military munitions/explosive wastes. Specifically, 40 CFR 264.601, 264.602, and 264.603 require that miscellaneous units be located, designed, constructed, operated, maintained, monitored and closed in a manner that will ensure protection of human health and the environment. Only substantive portions are appropriate.	Appropriate for any future remedial alternatives that address MEC disposal using technologies or disposal means classified as "miscellaneous units" under Subpart X, including consolidated detonation areas.
Federal Requirements (Location-Specific)			
Federal Endangered Species Regulations	16 U.S.C. §1538(a)(1)	With respect to any endangered species of fish or wildlife listed pursuant to Section 1533 of Title 16 (Conservation), it is unlawful for any person subject to the jurisdiction of the U.S. to take any such species within the U.S. or the territorial sea of the U.S.	Appropriate for any future response actions that may impact listed species.

Notes:

RCRA – Resource Conservation and Recovery Act
CFR – Code of Federal Regulation
U.S.C – United Stated Code

SECTION 3

REMEDIAL INVESTIGATION ACTIVITIES

3. REMEDIAL INVESTIGATION ACTIVITIES

This section provides the comprehensive approach, methods, and operational procedures used for the MEC characterization performed at MRS 1 and MRS 2. The RI field activities were conducted between 01 March and 31 August 2012, including all mobilization/demobilization and sampling activities. Schedule durations for specific RI activities are provided below in Table 3-1.

Table 3-1

Nantucket Beach FUDS Schedule of Remedial Investigation Field Activities

RI Field Activity	Duration
WAA Airborne Survey	03/05/12 through 03/30/12
Location Surveying	06/04/12 through 07/03/12
Geophysical Surveys	06/11/12 through 07/18/12
Intrusive Investigations	06/21/12 through 08/01/12
MRS 2 Underwater Investigation	06/06/12 through 06/28/12
MRS 1 HTW Investigation and MC Soil Sampling	06/28/12 through 06/29/12
MRS 2 MC Soil Sampling	07/31/12 through 08/01/12
MRS 1 and MRS 2 Groundwater MC Sampling	08/31/12

Notes:

Work activities for the RI were conducted Monday through Friday except during the WAA Airborne Survey in March 2012, which was performed every day based on amenable weather conditions, and according to flight rules.
WAA = Wide Area Assessment
MRS = munitions response site
HTW = hazardous toxic waste
MC = munitions constituents

3.1 OVERALL REMEDIAL INVESTIGATION APPROACH

The RI activities were conducted in accordance with the approved *Final WP* (WESTON, 2012), and subsequent addendum (see Appendix A) to characterize MEC and MC at MRS 1 and MRS 2. The iterative approach included the following elements:

- A WAA survey of the land and near shore portion of MRS 1 and MRS 2 using an airborne vertical magnetic gradient system to identify anomaly cluster areas requiring further investigation.
- Ground reconnaissance for airborne survey data to confirm the source of anomalies.

- Ground-based DGM surveys over 8.4 acres of MRS 2 using an EM61-MK2 (all-metal detector) in anomaly cluster areas identified via airborne survey data (included clearing approximately 4.6 acres of vegetation to facilitate survey activities).

- Full coverage geophysical survey of MRS 1 using an EM31-MK2 (terrain conductivity and all-metal detector) to assist with identification of a potential bulk burial pit (included clearing 1.5 acres of vegetation to facilitate survey activities).

- Mag and dig surveys along 11.26 miles of transects located in MRS 2 in areas that did not meet altitude quality metrics during the airborne magnetic gradient survey (included clearing approximately 13.65 acres of vegetation to facilitate survey activities).

- Underwater mag and dig surveys in MRS 2 along 1.72 miles of transects varying in length between 140 and 600 ft, spaced laterally along the beach based on historical information about former target locations, and airborne survey data.

- Intrusive investigations at selected geophysical anomalies in MRS 1 and MRS 2; Design and implementation of intrusive investigation for HTW in MRS 1 based on the results of geophysical investigations.

- Design and implementation of MC soil and groundwater sampling plan in both MRSs based on the results of geophysical investigations.

- Restoration of disturbed portions of the MRSs in accordance with planning documents and property owners' requests.

- Demolition of all MPPEH and off-site disposal of MDAS.

3.2 MUNITIONS AND EXPLOSIVES OF CONCERN CHARACTERIZATION FIELD ACTIVITIES

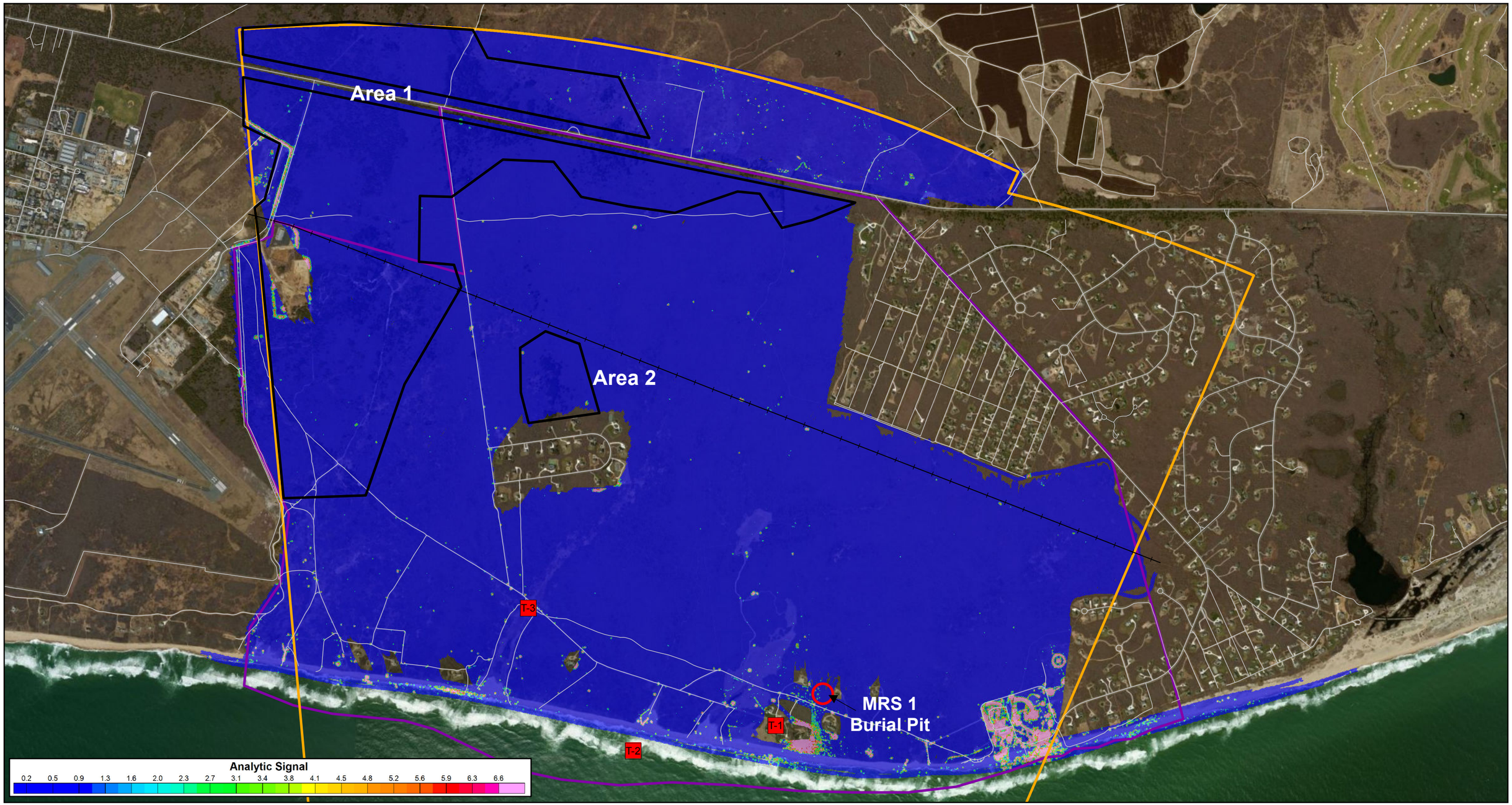
3.2.1 Wide Area Assessment Survey

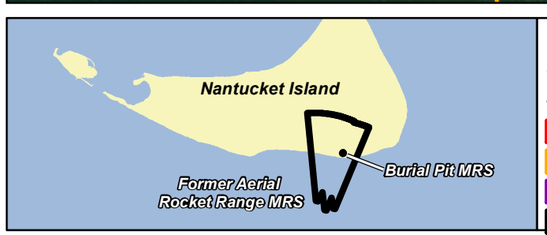
A full coverage airborne vertical magnetic gradient survey was flown across 2,480 acres of land and near shore portions of MRS 1 and MRS 2 to traverse and detect potential target areas that may contain UXO associated with the rocket range, in addition to DMM within MRS 1. The airborne magnetic data was acquired with the VG-22 system, developed and operated by Battelle. This system consists of 11 vertical magnetic gradiometers, each consisting of a pair of cesium magnetometers, vertically offset by 0.5 meters.

The survey was performed while flying into the daily prevailing wind direction, traversing the site in swaths 30 ft wide. The total boom width of the VG-22 array was 40 ft allowing for 10 ft of overlap on all flight lines to mitigate the risk of spatial data gaps in the coverage achieved during the survey. During the airborne survey, vehicular, pedestrian, and bike traffic through the survey areas were controlled for safety while ensuring continuous flight segments to maintain the quality of data being collected. In addition to project stakeholder approval, all activities were coordinated and approved by the Town of Nantucket, the Massachusetts Department of Transportation [for potential access to the state highway within MRS 2 (i.e., Milestone Road)], the Nantucket Airport and Federal Aviation Administration, the local fire department and public works department, and both the state and local police departments. Permits obtained to support RI activities are provided in Appendix C.

Quality control (QC) and quality assurance (QA) checks were performed by Battelle, WESTON, and USACE personnel daily to monitor survey parameters including coverage, altitude, and velocity. Data corrections and analysis including time lag corrections, sensor drop-outs, aircraft magnetic compensation, rotor noise, heading corrections, and analytic signal were performed on all data. In addition, the V22 system was flown over an established test strip constructed with inert munitions items on a daily basis to confirm sensor functionality by detecting each item (see Subsection 3.2.1.1 below). A figure depicting the results of the WAA survey effort illustrated relative to the strength of the analytic signal detected by the VG-22 system is provided as Figure 3-1.

During the course of the survey, locations where abnormalities were observed in the data were subsequently recollected to form a complete and high quality dataset needed for further interpretation. High trees and vegetation over an area of approximately 550 acres in the northwestern portion of MRS 2 prevented achieving the altitude metric of 8 meters. This occurrence was documented in the *Final WP* addendum (see Appendix A) and subsequently addressed by employing ground-based MEC characterization efforts as discussed in Subsection 3.2.8 of this RI Report.





T-1 Former Taget
Road
Railroad
MRS 1 – Burial Pit
MRS 2 – Aerial Rocket Range
FUDS Boundary
Area > 8m Altitude

Coordinate System:
UTM, Z19N, NAD83, US Foot

US Army Corps of Engineers

Nantucket Beach Formerly Used Defense Site

N

0 920 1,840 2,760 Feet

0 340 680 1,020 Meters

NOTES:
Aerial Data Source: ESRI Bing Imagery Service
Base Data: USACE (2004)

FIGURE 3-1
WAA Airborne Vertical Magnetic Gradient Survey Results

12/7/2012	NT_Magnetic_Analytic_Signal
Drawn: johna	PROJ: 03886.551.004

3.2.1.1 VG-22 Cesium-Vapor Magnetometer Array Test Strip

A test strip was constructed at the Nantucket Memorial Airport and initial testing of the VG-22 system was completed on 09 March 2012 and 12 March 2012. The test strip contained the following items selected to represent the type of munitions suspected to be present based on historical records. Seed items were placed linearly on the ground surface and included:

- One 20-foot lag bar
- Two medium industry standard objects (ISOs)
- Two large ISOs
- Two 10 mm projectiles (inert)
- Two 2.75-inch rockets (inert)
- Two 81 mm mortar (inert)
- One 5-inch projectile (inert)

The objective of the test strip was to determine the appropriate metrics to be used for the airborne magnetic gradient survey. Coverage along track, speed, and altitude were evaluated with respect to the ability to detect the seed items. Basic QC metrics for speed, altitude, and coverage were determined.

3.2.2 Anomaly Cluster Area Identification

The complete airborne vertical magnetic gradient dataset was processed to select individual anomalies. A total of 6,579 anomalies were selected from the magnetic survey data using a threshold of 0.3 nano-Tesla per meter (nT/m). The anomaly selection threshold is based on background noise levels, test strip results, and sensitivity to increased altitude. These anomalies were further evaluated with the Visual Sample Plan (VSP) statistical application to develop anomaly density maps.

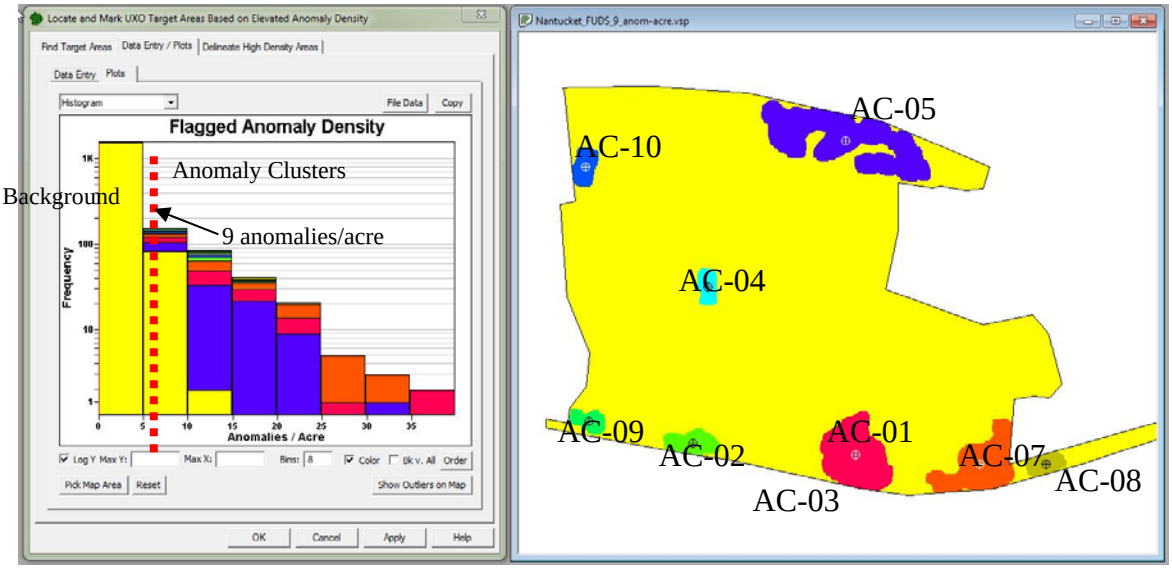
Visual Sample Plan is a widely accepted software program used to analyze geophysical data and design investigation plans, particularly when target locations are unknown at a site, similar to the scenario assessed at MRS 2 during this RI (USAEC, 2009). A useful feature of VSP is its ability to define target areas using a highly refined grid matrix of anomaly densities mapped across a site in relation to background densities (Pacific Northwest National Laboratory, 2011).

To identify targets, VSP "flags" anomaly densities within the site matrix that are greater than a predefined critical density for the site. It is important to note that the critical density for a site is the point where the most rapid transition occurs between background densities and higher densities of anomalies, which are indicative of a former target area. The critical density function is not calculated by the software program, but is entered by the user and is assessed through an iterative approach to select a critical density that best defines former target areas. This process is subjective, but given an understanding of the release mechanism that resulted in potential munitions impacts (e.g., type of historical site use, expected dispersal patterns, etc.,) and the quality of data being analyzed, the software user can identify a critical density that best defines target/anomaly cluster areas from background levels.

The locations of anomalies selected from the airborne vertical magnetic gradient dataset were imported into VSP and plotted within the survey area boundary. Within VSP, anomaly density distribution was calculated using the "Locate and Mark Targets Based on Elevated Anomaly Density" tool. Based on evaluation of the flagged anomaly densities histogram generated in VSP (see Figure 3-2), a critical anomaly density of nine anomalies per acre was determined to be the breakpoint between background (yellow) and increasing anomaly densities (other colors).

Figure 3-2

Wide Area Assessment Survey Visual Sample Plan
Critical Density Histogram

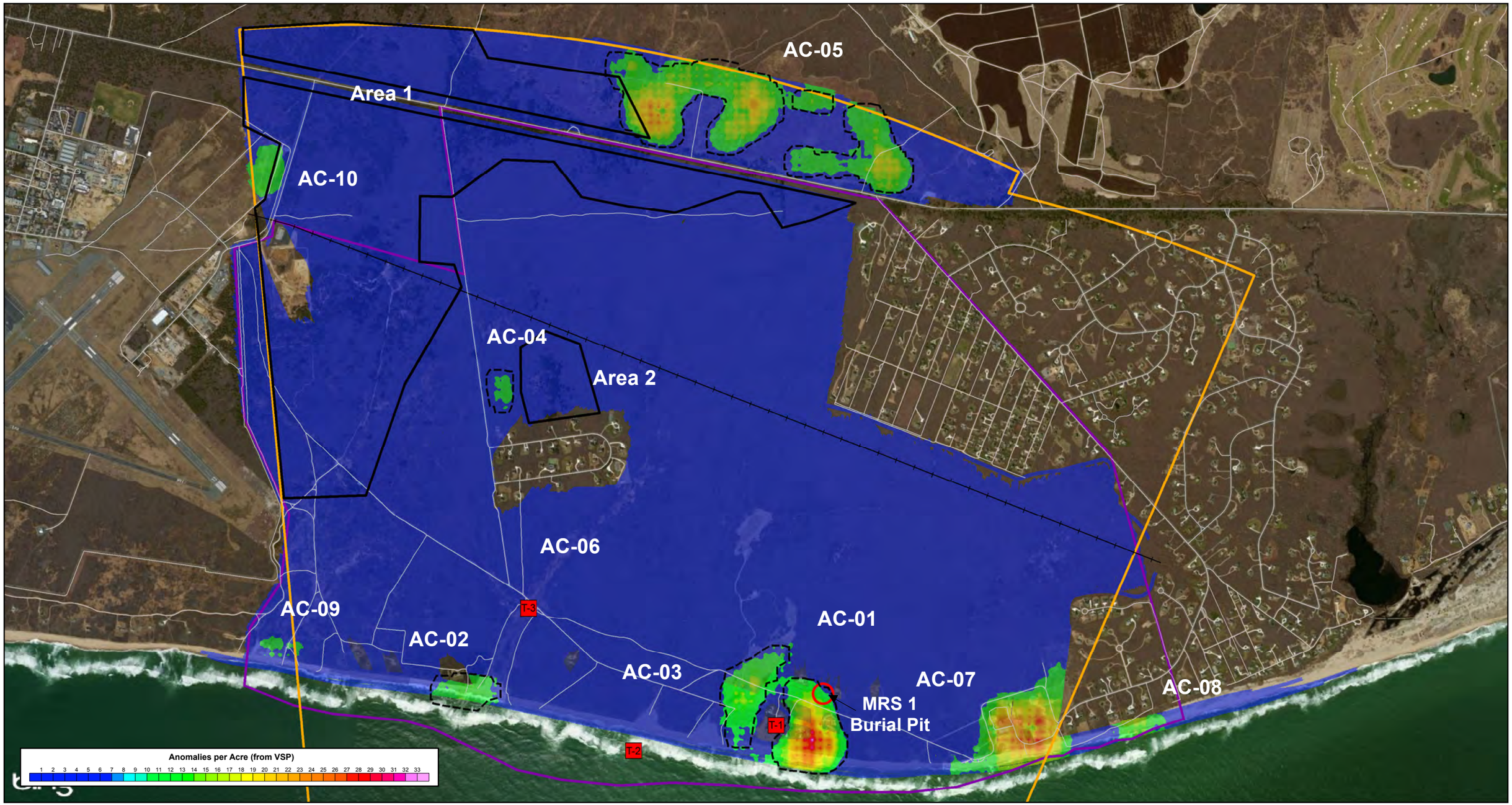


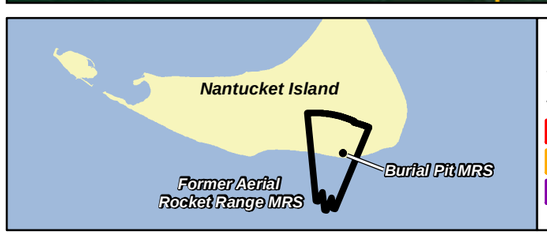
Data processing contemplated variable critical density breakpoints during this process up to 14 anomalies per acre to identify anomaly cluster areas for further investigation before selecting the site-specific breakpoint that best represented the data.

From this critical density data, anomaly cluster areas were delineated using the "Delineate High Density Areas" tool using a 166-ft block size. The overall anomaly density map generated in VSP using the airborne survey data is provided as Figure 3-3 where blue colors represent a low (background) density and wide distribution of anomalies. The green to red portion of the colorimetric depiction represents increasing density and limited/narrow distribution of anomalies. Based on the size of the sliding window used to map anomaly densities across the site, densities lower than the nine anomalies per acre critical density are conservatively captured within the anomaly cluster boundaries.

The cluster area identification process combined with historical information (i.e., documents, records, aerial photos) resulted in the detection of ten (10) anomaly clusters that warranted further investigation (see Figure 3-3). A technical addendum to the *Final WP* was developed by WESTON and submitted for stakeholder approval/concurrence (USACE and MassDEP) to fully detail how the airborne vertical magnetic survey data was processed and used to identify anomaly cluster areas within MRS 1 and MRS 2. The addendum also provides detailed documentation on the design and rational for the subsequent ground-based investigations within each anomaly cluster area, and is provided in Appendix A to supplement to this RI Report.

The draft *Final WP* addendum was presented and discussed at TPP 2 which resulted in modifications to the proposed investigation plan based on the stakeholder input to ensure adequate characterization of suspect anomalies would be achieved, and to address property owners concerns where vegetation cutting would be required and subsequent intrusive activity may be warranted.





T-1 Former Taget
Road
Railroad
MRS 1 – Burial Pit
MRS 2 – Aerial Rocket Range
FUDS Boundary

Anomaly Cluster (From VSP)
Area > 8m Altitude

Coordinate System:
UTM, Z19N, NAD83, US Foot

US Army Corps of Engineers

Nantucket Beach Formerly Used Defense Site

WESTON SOLUTIONS

FIGURE 3-3
WAA Airborne Magnetic Survey VSP Anomaly Density Map

N

0 910 1,820 2,730 Feet

0 340 680 1,020 Meters

NOTES:
Aerial Data Source: ESRI Bing Imagery Service
Base Data: USACE (2004)

6/10/2013	NT_Magnetic_Survey_Fig2
Drawn: johna	PROJ: 03886.551.004

Only minor modifications to the final approach detailed in the final addendum to the *Final WP* were subsequently made during grid/transect surveying activities based on site walks with property owners or their representatives. None of the modifications made to the investigation approach negatively impacted DQOs.

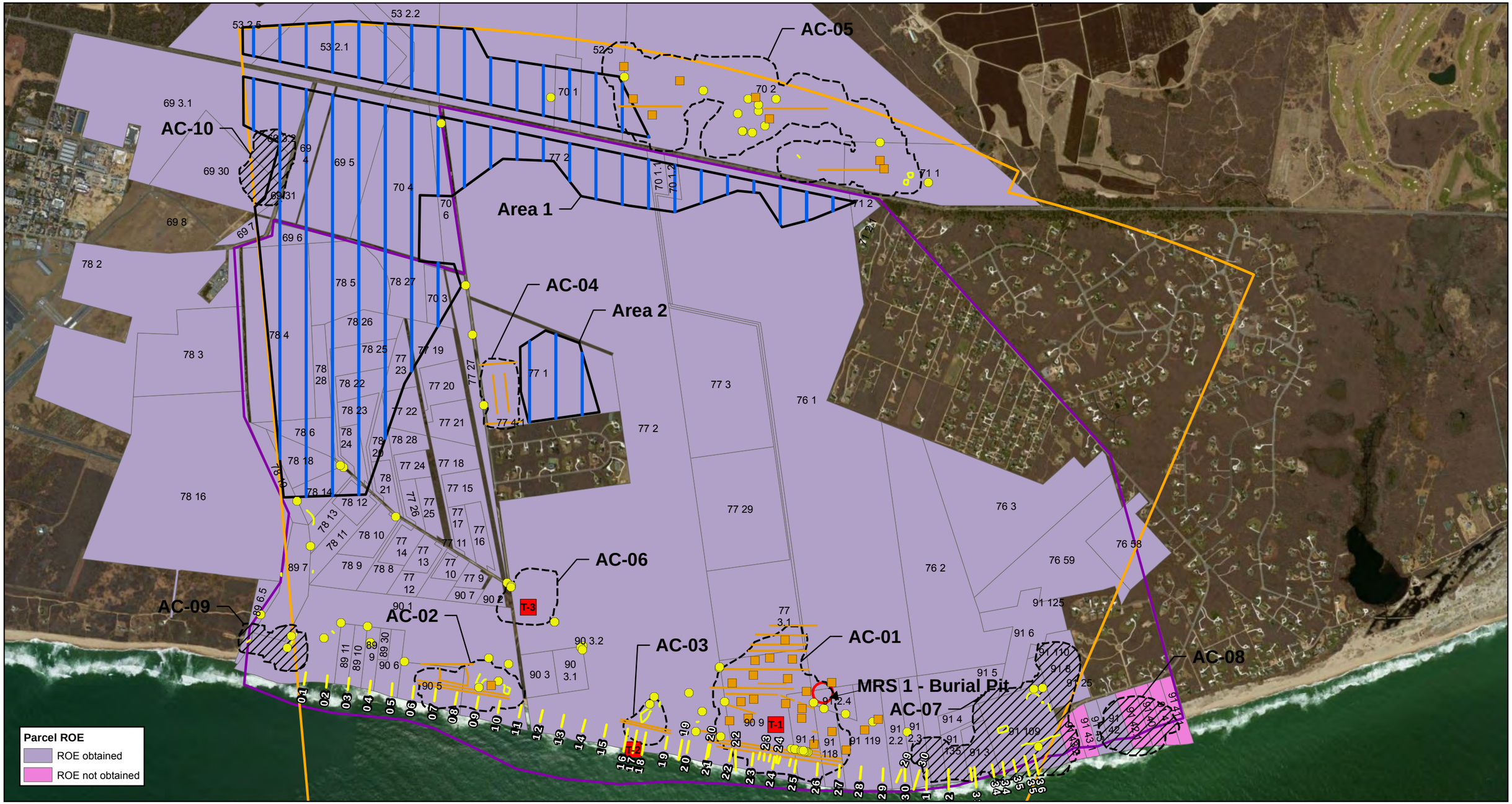
3.2.3 Remedial Investigation Support and Preparation Activities

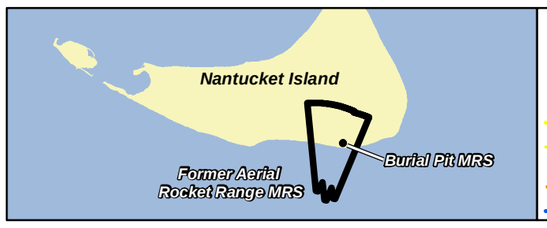
Following development of the detailed investigation strategies that would be used for characterization, the following support activities were completed to prepare for ground-based geophysical surveys and intrusive investigation:

- Establishment of Right-of-Entry (ROE) agreements
- Vegetation clearing
- Establishment of an explosives storage magazine
- Location/land surveying
- Environmental species monitoring
- Anomaly avoidance

The ROE agreements to access MRS 1 and portions of MRS 2, including the beach, were obtained by the U.S. Army Corps of Engineers, New England District (CENAE). Each property owner was contacted by CENAE individually and consulted to develop ROEs that were accepted by the property owner with regard to the duration of time the ROE would be granted, locations of the property that could be accessed, and based on types of activities that would be granted under the ROE. A figure denoting the properties with ROEs in-place with the U.S. Government is provided as Figure 3-4. No investigation activities were conducted on properties without approved ROEs.

Vegetation clearing was conducted by a local subcontractor to provide equipment and personnel access to the grids and transects intended for characterization at locations where the scrub oak prevented access to investigation areas. Clearing was restricted to vegetation less than 4 inches in diameter to facilitate regrowth and to limit clear cutting. Skid steers with front mounted flail mowing decks were utilized to cut debris down to a height of approximately 6 inches or less. In some cases, particularly within Area 1 and Area 2 in MRS 2, additional clearing was conducted for safety purposes beyond the planned grids/transects to facilitate access to and egress from remote portions of the MRS for both personnel and equipment.





T-1 Former Taget
Cultural Source/Field Reconnaissance Location
DGM Grid
Transects- Underwater
Cultural Source/Field Reconnaissance Location
DGM Transect
Mag and Dig Transect

MRS 1 – Burial Pit
MRS 2 – Aerial Rocket Range
FUDS Boundary
Anomaly Cluster (From VSP)
Anomaly Cluster Known Cultural Source
Area > 8m Altitude
Parcels

US Army Corps of Engineers

Nantucket Beach Formerly Used Defense Site

WESTON SOLUTIONS

FIGURE 3-4
Right of Entry Status

N

0 920 1,840 2,760 Feet
0 340 680 1,020 Meters

NOTES:
Aerial Data Source: ESRI Bing Imagery Service
Base Data: USACE (2004)

2/12/2013	NT_Prop_ROE_Obtaine
Drawn: johna	PROJ: 03886.551.004

Vegetation clearing was coordinated with property owners or their representatives on-site ahead of time to ensure that vegetation intended to be cut would not be detrimental to existing conditions on each property. Clearing was performed via mechanical means and did not include any root removal (i.e., grubbing). Cut vegetation was reduced in size and left in-place to biodegrade to facilitate regrowth of native vegetation following RI activities. A total of 18.25 acres were cleared within MRS 2 in addition to the 1.5 acres constituting MRS 1 (for a total of 19.75 acres) to facilitate geophysical investigations.

In accordance with the *Final WP* (WESTON, 2012), an explosive storage magazine was established at the Nantucket Airport through coordination with the airport operations manager. The magazine was grounded and secured with locking chain-link fence once placed within the perimeter security fencing at the Airport. Transportation of donor explosives to the magazine for inventory and explosive management tasks were conducted by the Senior UXO Supervisor (SUXOS).

Location surveying to establish transects and grids was conducted in accordance with the *Final WP*. Services were provided by Nantucket Surveyors, LLC., a Massachusetts-state licensed surveyor. Surveying activities included installing site control points, listed in Table 3-2, relative to North American Datum 1983 (NAD 83) Universal Transverse Mercator (UTM), U.S. Survey Feet (U.S. ft). A tabulated list of location survey data for the RI is provided in Appendix D.

Table 3-2

Site Survey Control Points

Point ID	Description	Easting	Northing
CP-01	Survey Control Point	1359399.92	14980983.16
CP-02	Survey Control Point	1359145.17	14980575.51
CP-03	Survey Control Point	1357619.57	14980358.80
CP-04	Survey Control Point	1359864.74	14979908.82

Note:

Coordinates in NAD 83 UTM, U.S. ft.

During all support activities anomaly avoidance was performed prior to work in accordance with *the Final WP*. *The UXO Technician (Level II or higher) performing anomaly avoidance* activities escorted non-essential personnel during survey, vegetation clearing, and DGM surveys.

3.2.3.1 Environmental Protection Measures

Measures taken prior to and during the RI to ensure environmental protection in accordance with the *Final WP* are summarized below.

- An inspection of the beach was conducted by the lead NCF biologist in advance of RI ground-based activities (May 2012), which did not identify any nesting sites within the work area.
- Prior to the initiation of ground-based RI activities, site-specific training was conducted with the NCF on 29 May 2012, to train site personnel on identification of local sensitive species.
- On-site consultation with both the NCF and Nantucket Conservation Commission was conducted on 06 June 2012, to review work activities and potential impacts to wetlands. No negative impacts were identified during this meeting.
- On-site consultation with local natural resource experts from the Maria Mitchell Association was conducted on 27 June 2012, to ensure that work activities were not expected to impact the American Burying Beetle (letter documenting no negative effects is on file with USACE).
- A USACE-approved biologist was utilized on-site throughout the duration of RI ground-based activities to perform environmental monitoring for sensitive species in accordance with the *Final WP*.
    - The monitor conducted pre-surveys of all areas of the MRSs intended to be cleared of vegetation (11 June to 12 July 2012) to ensure that no sensitive species would be impacted, specifically the Northern Harrier that lives/nests in the uplands portions of the MRSs. Although Harriers were routinely observed flying in the vicinity of the MRSs, no nests were identified or disturbed as a result of RI activities, and only eight sightings of Northern Harriers were recorded within the immediate investigation areas.
    - Monitoring for the presence of carrion, an indicator of the potential presence of the American Burying Beetle, was conducted from 21 June through 02 August 2012 during all intrusive activities. No beetles or indicators of their habitat were observed.

- The beach portion of MRS 2 was visually surveyed by the environmental monitor each day prior to activities in this portion of MRS 2 (31 May through 02 July 2012) due to the potential for nesting shorebirds (i.e., Piping Plovers, Least, and Roseate Terns). A Roseate Tern was observed on the beach on 01 June 2012, but no nest was observed, and no impacts were noted warranting a change in activities as the bird left the area prior to work commencement.

- During the underwater investigation in MRS 2 (05 June to 02 July 2012), marine mammal sightings by the divers were limited to one possible shark (reported on 11 June 2012) and seals (reported on 05 June and 13 June 2012). No sightings along investigation transects were observed warranting a change in approach/work activities except for the possible shark siting, which resulted in the suspension of dive activities on the day of the siting.

No nests or breeding habitats were observed for any sensitive species that warranted a change to the investigation approach or intended work areas. Mitigation measures employed during the RI were limited to avoidance of any observed species (Harriers, terns, and marine mammals) to reduce the potential for negative impacts. Environmental monitoring reports are provided in Appendix B of this RI Report as a subcomponent of the Daily Reports. A summary of monitoring completed and species observations during the RI was previously presented in Subsection 2.2.6 (see Table 2-3).

3.2.4 Ground Reconnaissance

Ground reconnaissance surveys were performed at several anomaly clusters located within MRS 2 to determine if anomalies observed during the airborne vertical magnetic gradient survey are related to cultural debris or the potential presence of MEC, MPPEH, and/or MD. The ground reconnaissance team navigated to each anomaly cluster while making observations of any features that would create a magnetic anomaly. Magnetic anomaly locations were also uploaded into the team's global positioning system (GPS) to aid in the navigation/reacquisition of anomaly locations. Coordinate locations for cultural debris observed during the ground reconnaissance were recorded with the GPS. Each cultural debris item has a unique identifier that correlates the item's description and position with magnetic anomaly locations.

Ground reconnaissance was conducted at anomaly clusters AC-02, AC-04, AC-05, AC-07, AC-08, AC-09, and AC-10. No ground reconnaissance was needed at AC-01 as this anomaly cluster was known to contain MD and would undergo further characterization to determine the

nature and extent of potential UXO. See Subsection 3.2.6 for the AC-01 characterization effort. Additionally, AC-03 and AC-06 were identified as areas that would be subject to further investigation in accordance with the *Final WP* addendum (see Appendix A) as these areas were identified in the vicinity of former Target #3 and Target #2.

A memorandum was prepared by WESTON during the fieldwork to present the results of the ground reconnaissance to the project stakeholders. This memorandum is provided as a supplement to this RI Report in Appendix A. Based on the results of the ground reconnaissance, no additional investigation was needed for AC-07, AC-08, or AC-10. Anomalies observed in the magnetic data were reconciled with cultural debris within these anomaly clusters either by visual evidence or determinations made by using historical aerial photographs.

Limited connections between observations during the ground reconnaissance and the magnetic survey data could be made for anomaly clusters AC-02, AC-04, AC-05, and AC09. Since the magnetic anomalies could not be reconciled in these anomaly clusters based on the magnetic survey data, DGM surveys and/or intrusive investigations were needed to determine if MEC, MPPEH, or MD was present. The DGM surveys, reacquisition, and intrusive investigations performed as part of the ground reconnaissance process for AC-02, AC-04, AC-05, and AC-09 is presented in Subsection 3.2.6, with the results of ground-based geophysical investigation activities performed in AC-03 and AC-06.

3.2.5 Geophysical Equipment, System Verification Program, and Data Processing

Project geophysicists that conducted the DGM surveys used the Geophysical Survey Verification (GSV) process throughout the project to monitor sensor performance and functionality consisting of an instrument verification strip (IVS) and a production survey area seeding program.

3.2.5.1 Geophysical and Navigation Instrumentation Used for Data Collection

A Battelle VG-22 cesium-vapor magnetometer array was used to collect airborne survey data over MRS 1 and the land and near shore portion of MRS 2. The Geonics EM31-MK2 was used for all ground-based geophysical survey activities in MRS 1. The Geonics EM61-MK2 was used for all ground-based DGM surveys in MRS 2. Hand-held Schonstedt GA-52Cx all-metal

detectors were used for all mag and dig surveys in the altitude exceedance areas (Area 1 and Area 2 spatial data gap from airborne survey) and for anomaly detection during the underwater investigation within MRS 2.

Navigational data was acquired with a Trimble Real Time Kinematic (RTK) or ProXLT hand-held GPS unit. All positioning data was aligned with project requirements for use of NAD 83, UTM coordinate system, in units of U.S. ft.

3.2.5.2 Instrument Verification Strip Design and Results

The IVS was constructed on 07 June 2012, southwest of the AC-01 investigation area within MRS 2, to test the EM61-MK2 system detection and positioning capabilities on a daily basis before and after surveying. The IVS location, shown on Figure 3-5, and seed item types were reviewed and approved by the USACE QA Geophysicist in advance. The seed items used to construct the IVS are presented in Table 3-3 and depicted on Figure 3-6. An unseeded transect was also established adjacent to the seeded portion of the IVS to monitor background noise. After the IVS construction, a DGM survey was performed to demonstrate instrument functionality and verify that seed item responses were consistent with instrument response curves calculated for the EM61-MK2. The results of the IVS pre- and post-seeding are provided in Appendix E.

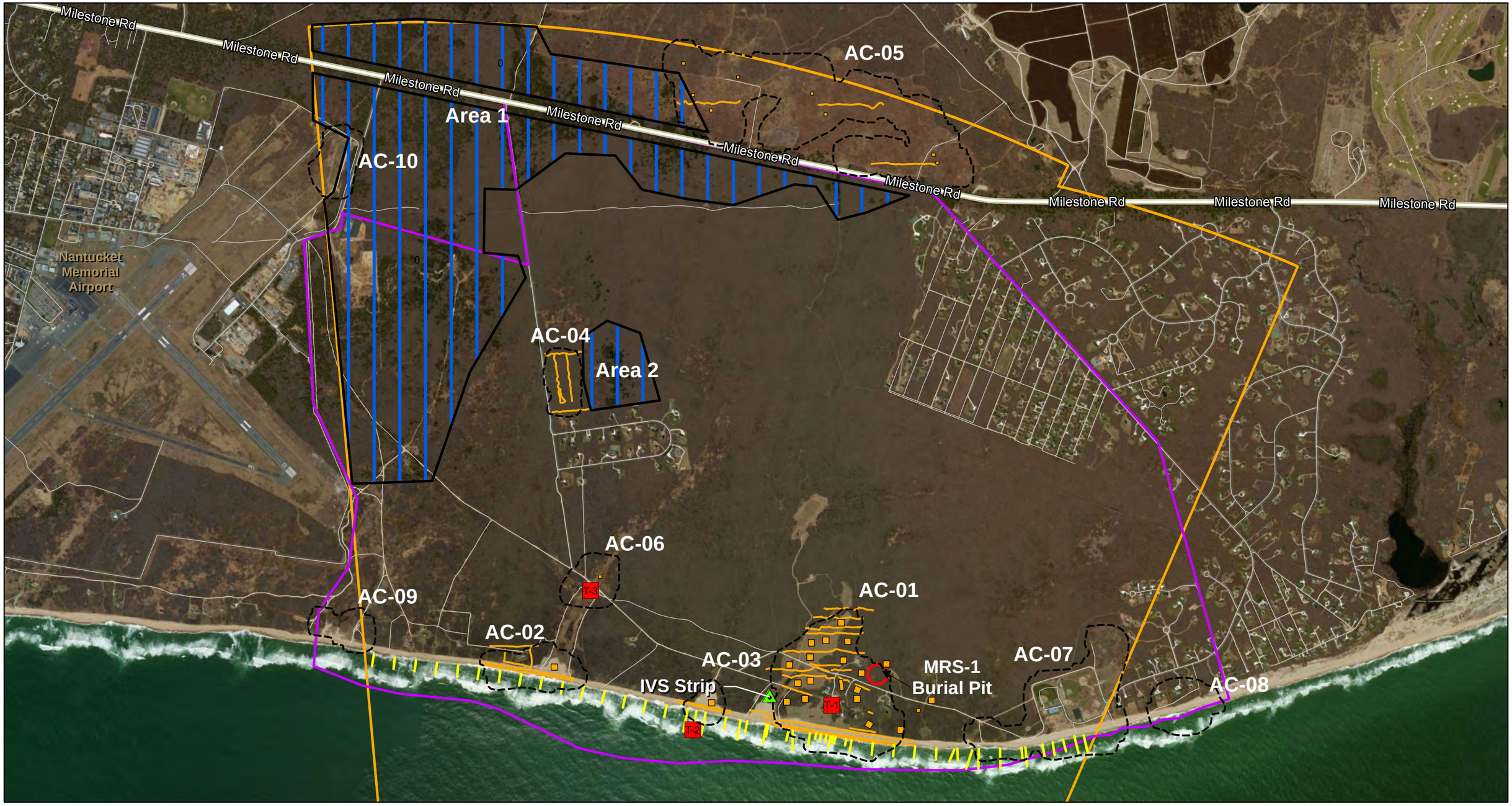
Table 3-3

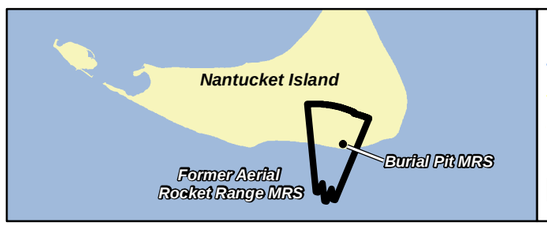
Instrument Verification Strip Seeds

Seed ID	Description	Easting	Northing	Orientation	Depth (inch)
Seed-01	Medium ISO (2 in x 8 in)	1358951.38	14980415.14	Horizontal	7.20
Seed-02	Large ISO (4 in x 12 in)	1358945.18	14980401.19	Horizontal	14.25
Seed-03	Medium ISO (2 in x 8 in)	1358939.25	14980387.71	Horizontal	9.20
Seed-04	Large ISO (4 in x 12 in)	1358931.17	14980369.29	Horizontal	14.25

Note:

Coordinates in NAD 83 UTM, U.S. ft.





T-1 Former Target
Mag and Dig Transect
Transects-Underwater
DGM Transects
Road
DGM Grids
FUDS Boundary
MRS 1 – Burial Pit
MRS 2 – Aerial Rocket Range
Anomaly Cluster (From VSP)

Coordinate System: UTM, Z19N, NAD83, US Foot

US Army Corps of Engineers

Nantucket Beach Formerly Used Defense Site

N

0 940 1,880 2,820 Feet

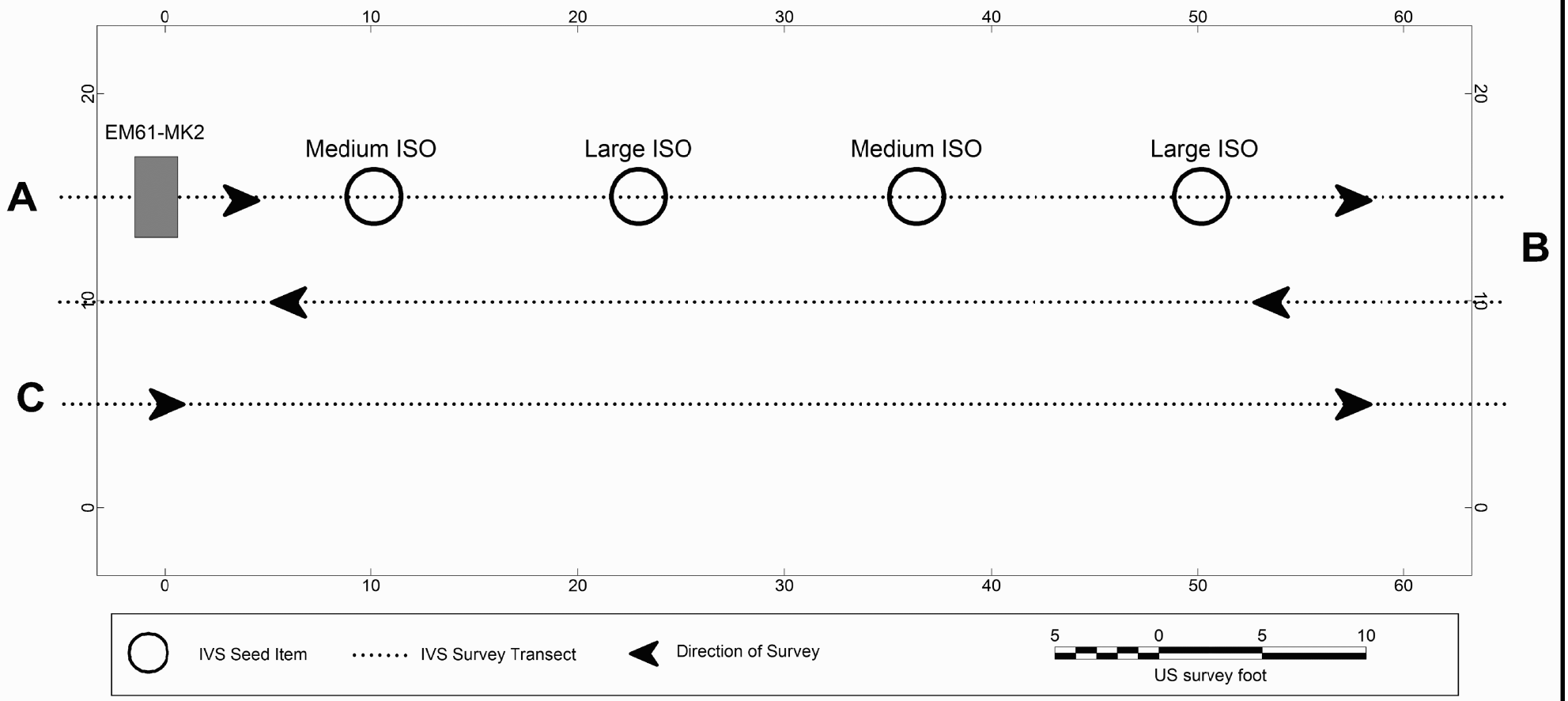
0 350 700 1,050 Meters

NOTES:
Aerial Data Source: ESRI iCubed Imagery Prime World 2D (2004)
Base Data: USACE (2004); MassGIS (2011)

FIGURE 3-5
Remedial Investigation Survey Coverage

12/6/2012	NT_RI_Survery_Coverage_1
Drawn: johna	PROJ: 03886.551.004

M:\Design\DWG\ACOE\Nantucket\Nov 2012 submittal\Figure 3-6.dwg, Layout1, 12/6/2012 11:22:18 AM, GIRARDEB, 1:1



INSTRUMENT VERIFICATION STRIP DESIGN AND PROCESS

NANTUCKET BEACH FORMERLY USED DEFENSE SITE
NANTUCKET, MA

WESTON SOLUTIONS
CONCORD NEW HAMPSHIRE

US ARMY CORPS OF ENGINEERS

DRAWN	DATE	DES. ENG.	DATE	W.O. NO.
BEG	DEC 2012	MSL	DEC 2012	03886.551.004
CHECKED	DATE	SCALE	REVISION	FIGURE NO.
MSL	DEC 2012	NONE		3-6

The IVS was not used with the EM31-MK2 (employed for MRS 1 DGM survey), as the GSV program is not a suitable method for verifying EM31-MK2 functionality. The instrument calibration routine outlined by the manufacturer, along with the standard daily instrument function checks, were sufficient to determine that the system was functioning properly and capable of achieving the RI objectives. No deficiencies were noted in QC testing of the EM31-MK2 during the MRS 1 survey.

The IVS was visited daily before and after the DGM and mag and dig surveys to verify the functionality of the EM61-MK2 and analog instrumentation. The results of daily checks for the EM61-MK2 and analog equipment were compared to the sensor response curves for each seed item to determine that the geophysical equipment was operating properly. Results collected for each day of DGM at the IVS showed agreement and repeatable results for the series of seeds. The seed items placed within the IVS were observed in the geophysical data with signals consistent with the sensor response curves developed for the EM61-MK2. All peak responses from the seed items were observed to be greater than the least favorable orientation response and to have consistent responses between surveys. These results demonstrate that the digital geophysical equipment was functioning within a tolerable range to achieve detection performance metrics. Photographs of the equipment are provided in Appendix F.

3.2.5.3 Blind Seeding

A seeding program was instituted in the DGM survey grids to provide ongoing monitoring of the geophysical instrumentation detection performance. Seeds were blind to the geophysical data collection teams. One medium ISO was also seeded within each production grid as a method of monitoring detection and positioning performance throughout the course of the project. After being placed, the location and depth of the seed items were then surveyed. The blind seed items placed within the DGM survey grids were observed in the geophysical data with a signal consistent with the sensor response curves developed for the EM61-MK2, and within the 3.3-ft offset metric established in the project-specific measurement quality objectives (MQOs).

The seeds were recovered by the UXO dig teams during intrusive investigations. Table 3-4 lists the type, depth, geophysical response, and offset of the seed item placed within the DGM grid.

Table 3-4

Geophysical System Verification Seeding Program

MRS 2 Anomaly Cluster	Unique Seed Target ID	Seed Location		Target Location		Amplitude Response	Offset: Distance (in)
		Easting Coord. (ft)	Northing Coord. (ft)	Item Easting Coord. (ft)	Item Northing Coord. (ft)		
AC-01	G02-089	1360522.64	14979975.79	1360522.91	14979975.96	68.15 mV	0.32
AC-01	G03-004	1361003.60	14979866.14	1361004.00	14979866.00	78.74 mV	0.42
AC-01	G04-191	1360344.19	14980384.98	1360344.37	14980384.73	73.50 mV	0.32
AC-01	G05-002	1359505.42	14980356.44	1359504.75	14980357.50	56.48 mV	1.25
AC-01	G06-003	1359237.05	14980328.93	1359237.75	14980329.50	71.54 mV	0.90
AC-01	G07-001	1361265.28	14980165.94	1361265.75	14980165.50	77.33 mV	0.65
AC-01	G08-060	1360302.63	14980486.09	1360302.00	14980486.50	76.85 mV	0.75
AC-01	G09-052	1360066.13	14980607.38	1360065.25	14980608.00	57.23 mV	1.08
AC-01	G10-002	1359579.91	14980657.20	1359578.75	14980657.25	79.42 mV	1.16
AC-01	G11-008	1359425.08	14980627.23	1359424.00	14980628.50	84.09 mV	1.67
AC-01	G12-035	1360381.75	14980765.25	1360382.00	14980766.50	67.85 mV	1.27
AC-01	G13-003	1360756.58	14980908.83	1360757.25	14980910.00	78.52 mV	1.35
AC-01	G14-004	1360097.88	14980944.35	1360098.00	14980944.75	59.61 mV	0.42
AC-01	G15-005	1359573.12	14981029.37	1359572.25	14981029.00	108.7 mV	0.95
AC-01	G16-005	1359257.70	14980898.42	1359257.00	14980898.75	71.36 mV	0.77
AC-01	G17-003	1360175.86	14981244.15	1360175.25	14981243.75	67.03 mV	0.73
AC-01	G18-005	1359832.46	14981271.47	1359832.80	14981271.40	81.03 mV	0.30
AC-01	G19-003	1359639.38	14981211.13	1359640.00	14981210.75	73.48 mV	0.73

Table 3-4

Geophysical System Verification Seeding Program (Concluded)

MRS 2 Anomaly Cluster	Unique Seed Target ID	Seed Location		Target Location		Amplitude Response	Offset: Distance (inches)
		Easting Coord. (ft)	Northing Coord. (ft)	Item Easting Coord. (ft)	Item Northing Coord. (ft)		
AC-01	G20-003	1360066.35	14981518.63	1360066.00	14981518.25	61.06 mV	0.51
AC-01	G21-005	1361473.40	14980353.43	1361473.75	14980353.00	70.78 mV	0.56
AC-02	G01-002	1355661.24	14980878.01	1355662.39	14980878.75	86.50 mV	1.38
AC-05	G01-001	1361550.15	14988639.73	1361550.00	14988639.00	90.46 mV	0.74
AC-05	G02-001	1361483.13	14988746.21	1361483.75	14988746.50	65.32 mV	0.68
AC-05	G03-001	1359829.09	14989374.83	1359829.00	14989374.25	65.45 mV	0.58
AC-05	G04-001	1359622.76	14989696.58	1359623.50	14989696.00	75.48 mV	0.94
AC-05	G05-001	1358473.68	14989945.83	1358473.75	14989946.25	58.46 mV	0.43
AC-05	G06-001	1358058.11	14989437.07	1358058.00	14989437.50	52.04 mV	0.45
AC-05	G07-001	1357786.32	14989668.50	1357786.50	14989668.50	76.17 mV	0.18
AC-05	G08-003	1357636.59	14990159.06	1357637.75	14990158.00	72.60 mV	1.57

Note:
Coordinates in NAD 83 UTM, U.S. ft.
MRS = munitions response site
mV = millivolt

3.2.5.4 Geophysical Survey Data Processing and Quality Control

The EM61-MK2 data was imported into Geonics® DAT61MK2 software for pre-processing. DAT61MK2 is used to convert the raw binary sensor data into a Geosoft®-compatible XYZ data file. Each XYZ file contains data for each of the four time gates recorded, the position, and the timestamp associated with each reading. Digital data was processed by the site Geophysicist using Geosoft Oasis Montaj® software. The IVS and quality parameters that were monitored and assessed daily during data processing included:

- Coverage
- Velocity
- Sample separation
- Noise
- QC seed detection
- Functionality tests: static, static response, and cable connection tests

Instrument functionality tests were conducted before and after DGM surveying adjacent to the IVS located in MRS 2. The Static Test and Static Response Test involved collecting non-dynamic data for a period of 3 minutes with and without a small ISO item, respectively. Tests for the EM61-MK2 indicate that site-specific background noise levels ranged from 0.08 to 1.2 standard deviations, with minimum and maximum readings between 1.7 millivolts (mV) and 1.17 mV.

The Static Spike Test measurements ranged from minimum and maximum values of 83 mV to 96 mV with a standard deviation between 0.07 and 1.2. Static Response Test data for the EM61-MK2 indicate consistent response values were obtained within the ±20% metric over the test object in pre- and post-survey tests. The project metric for test data was established at a standard deviation of less than 2.5. No anomalous data spikes or outside interference was observed during the static instrument tests.

An anomaly selection threshold value of 3 mV on the Channel 3 response, as approved by the USACE QA Geophysicist, was used for initial target selection. For DGM grids, anomalies were selected from the digital data using the Blakely Test target selection algorithm. For DGM transects, anomalies were selected using the “Pick Peaks Along Profiles” Geosoft function in which all peaks on Channel 3 exceeding the anomaly selection threshold were selected for

investigation. Target review consisted of manually evaluating all selected targets and removing or merging multiple targets associated with large anomalies. Where necessary, targets were moved to the location of the peak response associated with a given anomaly. A target decay analysis was run to remove targets that had an atypical decay between the four time gate channels. An atypical decay occurs when an anomaly undergoes a decay that does not decrease through time, but instead shows an increase in any of the subsequent time gate channels.

Table 3-5 summarizes the details of the EM61-MK2 data processing parameters using Geosoft. Appendix E presents the DGM data results with target locations.

Table 3-5

EM61-MK2 Data Processing Parameters

Process	Parameter
Drift – Non-Linear Drift Correction Filter (UCEDRIFT.GX)	Window Length: 100 % lowest values ignored: 10% % highest values ignored: 70% All data channels were processed using the same parameters.
Statistical Evaluation of Background Noise	Windowed section of background/using UX-Process QA/QC module to evaluate standard deviation and mean noise values.
Grid	Cell Size: 0.25 ft Blanking Distance: 2.25 ft Search Radius: 2 ft
Blakely Peak Picking Algorithm	Smooth Filter: 3 Normal Peak Detection Grid Value Cutoff: EM 3.0 mV
Target Decay Analysis	Performed based on each data channel.
Target Review	Performed.

Notes:
ft = foot
mV = millivolt

3.2.5.4.1 Data Management

All data related to DGM surveys were managed using Geosoft® Oasis Montaj software. All spatial data was managed using a Geographic Information System (GIS), and were stored in Environmental Systems Research Institute®-compatible GIS formats, primarily ArcInfo coverage and ArcView shape files. Data was stored in site-specific folders based on individual field

efforts, data type, and file extensions. All DGM data was provided electronically to the USACE QA Geophysicist for QA. Data was provided via the WESTON TeamLink® website and were backed up on the WESTON internal network and project workstation.

3.2.6 Ground Reconnaissance Geophysical Surveys and Intrusive Investigations

For anomaly clusters AC-02, AC-03, AC-04, and AC-05, DGM transects and grid surveys were designed to investigate locations that have the highest likelihood of containing UXO. These DGM transects and grids were placed across and within the areas exhibiting the highest concentration of anomalies within the anomaly clusters based on the airborne vertical magnetic gradient survey results. Transect and grid placements were presented during the TPP 2 meeting, revised based on discussions during that meeting, and then documented in the *Final WP* addendum (see Appendix A).

The DGM surveys were performed using a Geonics EM61-MK2 all-metals detector coupled with RTK-GPS for positioning. Digital geophysical data was collected, processed, and analyzed to generate dig lists for intrusive investigations. A sampling frequency of no less than 10 Hertz (Hz) was used for EM61-MK2 data collection, which resulted in an average sample separation of 0.29 ft.

The DGM surveys were performed based on the project MQOs developed in the *Final WP*. The DGM transect surveys were approximately 3 ft wide (width of EM61-MK2 sensor) and performed along pre-determined pathways. A sampling frequency of no less than 10 Hz was used for data collection, which resulted in an average sampling rate of between three to four measurements per linear foot. The DGM grids ranged from 0.07 acres to 0.28 acres in size and data was collected on 3-ft spaced parallel lines. The polyvinyl chloride pin flags were used along the lines during data collection as a navigational aid to ensure consistent spacing, and data overlap between adjacent lines was achieved to mitigate the risk of spatial data gaps. Any obstructions, such as large vegetation or fencing, were documented in field notes and plotted on the DGM maps.

A total of 91 anomalies were selected during the DGM surveys in anomaly clusters AC-02, AC-03, AC-04, and AC-05. Anomaly reacquisition was performed by the UXO Team using RTK GPS to navigate to the location of each anomaly.

For anomaly clusters AC-06 and AC-09, a total of 123 magnetic anomalies were selected during the airborne vertical magnetic survey and were reacquired. Each anomaly was intrusively investigated by UXO Technicians using hand tools or mechanical means (i.e., mini-excavator) as needed to remove overburden around anomaly locations and/or excavate beyond 4 ft bgs. Details on excavation procedures are provided in Subsection 3.2.11.

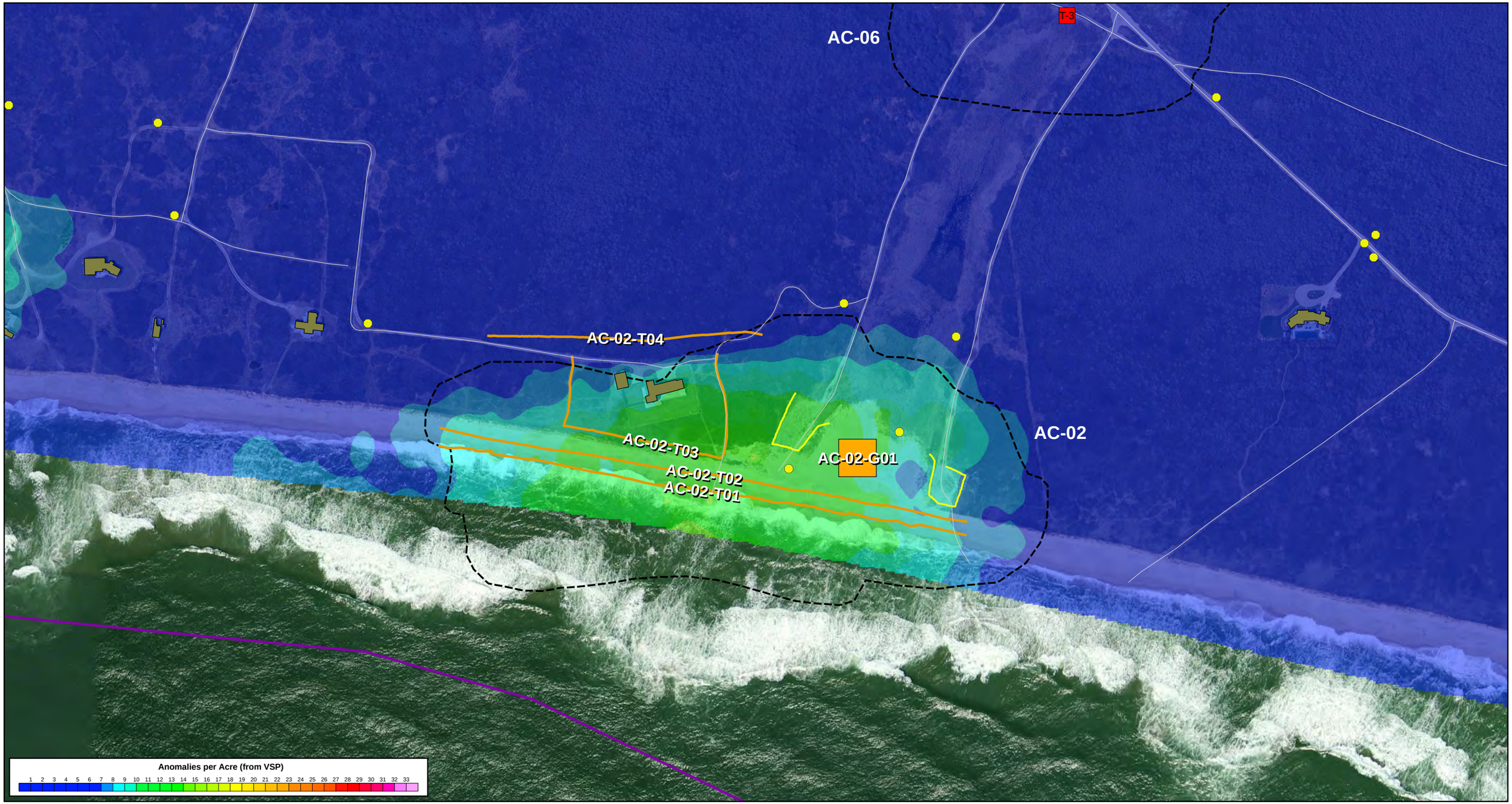
Geophysical data is provided in Appendix E. Transect, grid, and anomaly locations are presented in Figure 3-5. Individual maps for DGM survey coverage within AC-02, AC-03, AC-04, AC-05, AC-06, and AC-09 are included as Figures 3-7 through Figure 3-12. All DGM survey coverage, WAA, and intrusive investigation results are summarized in Table 3-6.

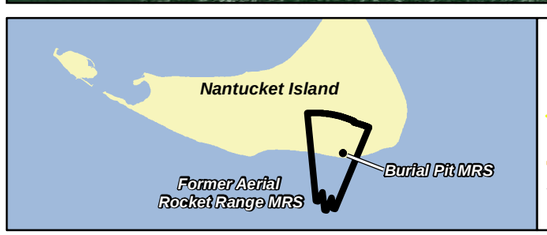
As no UXO or MD was identified, no further investigation of this portion of the MRS 2 was warranted.

3.2.7 Anomaly Cluster AC-01 Characterization

Based on the results of the WAA, ground reconnaissance, assessment of historical aerial imagery, and the known presence of MD, it was determined that the magnetic anomalies in AC-01 were likely related to military munitions-related use. Estimated anomaly densities within AC-01 range from a maximum of 32.9 anomalies per acre to a minimum of 6.1 anomalies per acre in areas near the cluster boundary where background densities are present.

To assess the potential MEC density, UXO Estimator was used to determine the appropriate coverage needed to test the hypothesis that less than 0.5 MEC per acre are present within the AC-01 boundaries. A characterization approach was developed to test this hypothesis to a 95% confidence level. Based on the WAA interpretation, AC-01 was estimated to encompass 73 acres in size and required at least 5.605 acres of coverage based on the UXO Estimator calculation.





T-1 Former Taget
Cultural Source/Field Reconnaissance Location
Cultural Source/Field Reconnaissance Location
DGM Transect
Road

DGM Grid
FUDS Boundary
Anomaly Cluster (From VSP)
Building

Coordinate System: UTM, Z19N, NAD83, US Foot

US Army Corps of Engineers

Nantucket Beach Formerly Used Defense Site

WESTON SOLUTIONS

FIGURE 3-7
AC-02 DGM Coverage

N

0 160 320 480 Feet

0 60 120 180 Meters

NOTES:
Aerial Data Source: ESRI Bing Imagery Service
Base Data: USACE (2004)

2/19/2013
Revision: 0

NT_DGM_AC_02_Coverage

Drawn: johna

PROJ: 03886.551.004

AC-03

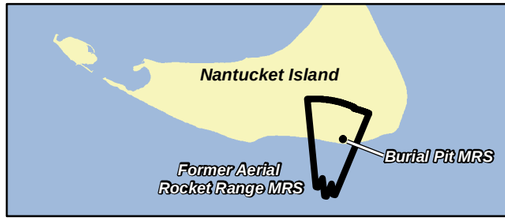
AC-03-G01

AC-03-T02

AC-03-T01

Analytic Signal

0.2 0.5 0.9 1.3 1.6 2.0 2.3 2.7 3.1 3.4 3.8 4.1 4.5 4.8 5.2 5.6 5.9 6.3 6.6



T-1 Former Taget

Cultural Source/Field Reconnaissance Location

Cultural Source/Field Reconnaissance Location

DGM Transect

Road

Anomaly Cluster (From VSP)

DGM Grid

Coordinate System: UTM, Z19N, NAD83, US Foot

US Army Corps of Engineers

Nantucket Beach Formerly Used Defense Site

N

0 50 100 150 Feet

0 20 40 60 Meters

NOTES:
Aerial Data Source: ESRI Bing Imagery Service
Base Data: USACE (2004)

FIGURE 3-8
AC-03 DGM Coverage

2/19/2013
Revision: 0

NT_DGM_AC_03_Coverage

Drawn: johna

PROJ: 03886.551.004

AC-04-T04

AC-04-T03

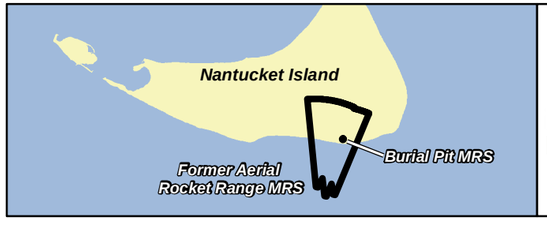
AC-04-T02

AC-04-T01

AC-04

Anomalies per Acre (from VSP)

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33



- Cultural Source/Field Reconnaissance Location
- DGM Transect
- Road
- Anomaly Cluster (From VSP)
- Building

Coordinate System: UTM, Z19N, NAD83, US Foot

US Army Corps of Engineers

Nantucket Beach Formerly Used Defense Site

WESTON SOLUTIONS

FIGURE 3-9
AC-04 DGM Coverage

N

0 130 260 390 Feet

0 50 100 150 Meters

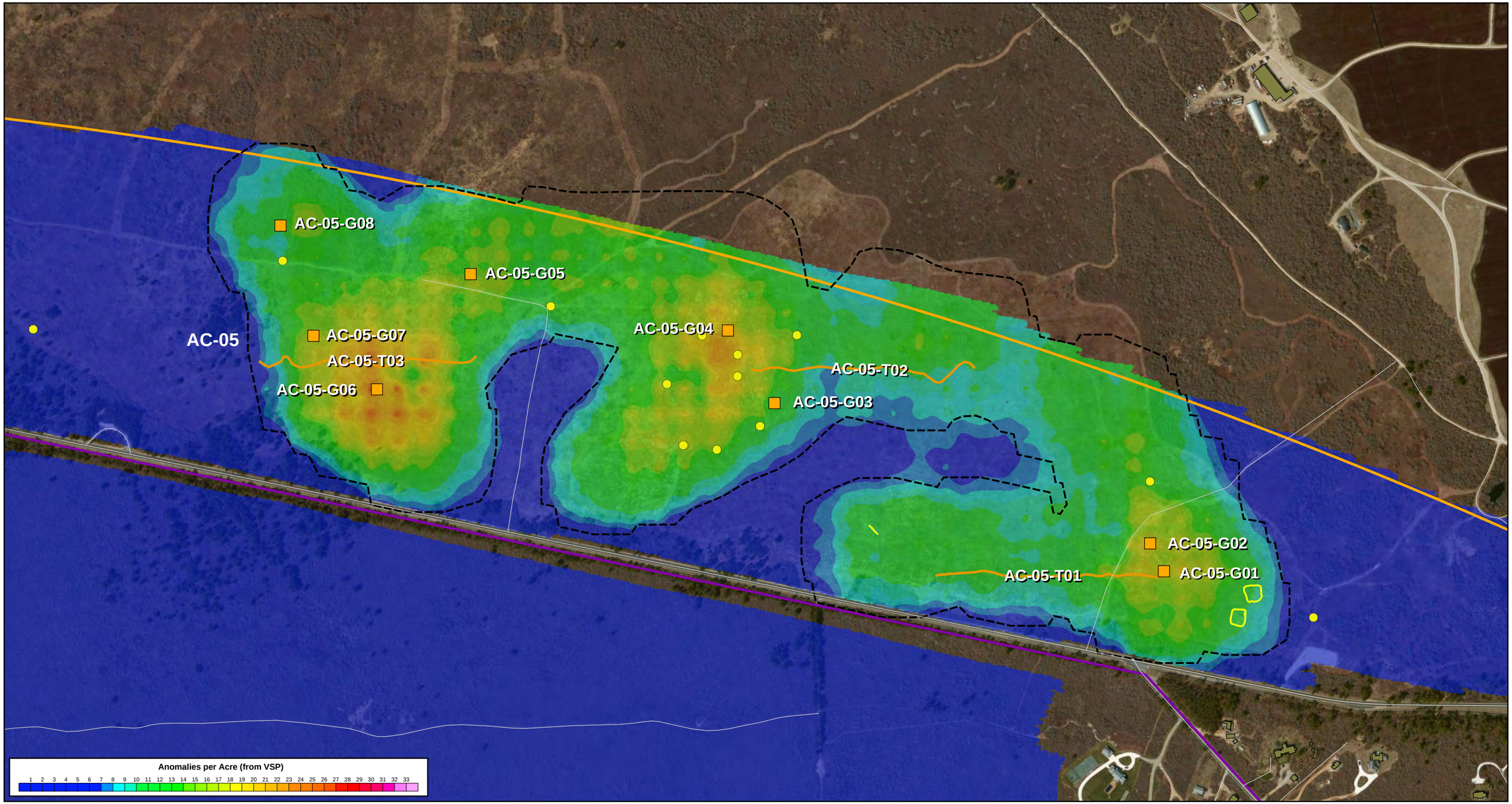
NOTES:
Aerial Data Source: ESRI Bing Imagery Service
Base Data: USACE (2004)

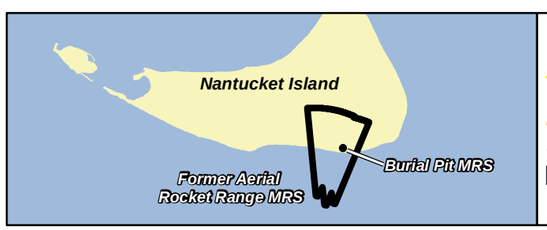
2/19/2013
Revision: 0

NT_DGM_AC_04_Coverage

Drawn: johna

PROJ: 03886.551.004





Cultural Source/Field Reconnaissance Location
Cultural Source/Field Reconnaissance Location
DGM Transect
Road
DGM Grid
FUDS Boundary
Anomaly Cluster (From VSP)
Building

Coordinate System: UTM, Z19N, NAD83, US Foot

US Army Corps of Engineers

Nantucket Beach Formerly Used Defense Site

N

0 270 540 810 Feet

0 100 200 300 Meters

NOTES:
Aerial Data Source: ESRI Bing Imagery Service
Base Data: USACE (2004)

FIGURE 3-10
AC-05 DGM Coverage

2/19/2013
Revision: 0

NT_DGM_AC_05_Coverage

Drawn: johna

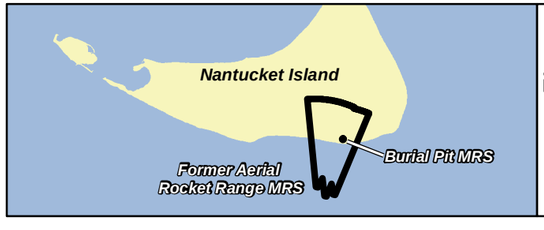
PROJ: 03886.551.004

AC-06

T-1

Analytic Signal

0.2 0.5 0.9 1.3 1.6 2.0 2.3 2.7 3.1 3.4 3.8 4.1 4.5 4.8 5.2 5.6 5.9 6.3 6.6



T-1 Former Taget

Road

Anomaly Cluster (From VSP)

× Anomaly Investigated

Planned Magnetic Anomaly Locations

Coordinate System:
UTM, Z19N, NAD83, US Foot

US Army Corps of Engineers

Nantucket Beach Formerly Used Defense Site

WESTON SOLUTIONS

FIGURE 3-11
AC-06 Investigation Coverage

N

0 90 180 270 Feet

0 30 60 90 Meters

NOTES:
Aerial Data Source: ESRI Bing Imagery Service
Base Data: USACE (2004)

2/20/2013
Revision: 0

NT_DGM_AC_06_Invest_Coverage

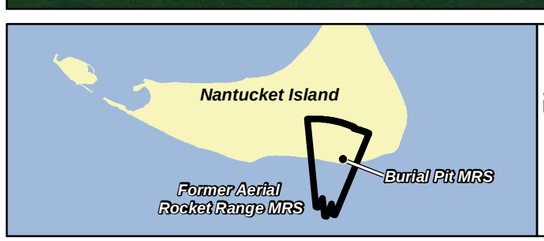
Drawn: johna

PROJ: 03886.551.004

AC-09

Analytic Signal

0.2 0.5 0.9 1.3 1.6 2.0 2.3 2.7 3.1 3.4 3.8 4.1 4.5 4.8 5.2 5.6 5.9 6.3 6.6



T-1 Former Taget

Road

Anomaly Cluster (From VSP)

Anomaly Investigated

Planned Magnetic Anomaly Locations

Building

Coordinate System: UTM, Z19N, NAD83, US Foot

US Army Corps of Engineers

Nantucket Beach Formerly Used Defense Site

WESTON SOLUTIONS

FIGURE 3-12
AC-09 Investigation Coverage

N

0 90 180 270 Feet

0 30 60 90 Meters

NOTES:
Aerial Data Source: ESRI Bing Imagery Service
Base Data: USACE (2004)

2/20/2013
Revision: 0

NT_DGM_AC_09_Invest_Coverage

Drawn: johna

PROJ: 03886.551.004

Table 3-6

Ground Reconnaissance Geophysical Surveys and Intrusive Investigation Summary

Anomaly Cluster ID	Investigation Method	Investigation Coverage/Results	Target Investigation Results
AC-02	DGM	Grid acres: 0.28 Transect acres: 0.36 EM anomalies: 7	▪ 1 seed item ▪ 4 cultural debris ▪ 2 no contacts
AC-03	DGM and WAA survey data	Transect acres: 0.14 EM anomalies: 1 Magnetic anomalies: 61	▪ 47 cultural debris* ▪ 15 no contacts
AC-04	DGM	Transect acres: 0.27 EM anomalies: 3	▪ 1 seed item ▪ 2 cultural debris
AC-05	DGM	Grid acres: 0.56 Transect acres: 0.27 EM anomalies: 19	▪ 8 seed items ▪ 8 cultural debris ▪ 3 no contact
AC-06	WAA survey data	Magnetic anomalies: 69	▪ 34 cultural debris* ▪ 36 no contact
AC-09	WAA survey data	Magnetic anomalies: 48	▪ 44 cultural debris* ▪ 9 no contacts
AC-07 AC-08 AC-10	Visual survey	All accessible portions visually surveyed, WAA magnetic anomalies were reconciled with observed cultural debris	▪ Not applicable

Notes:
AC = anomaly cluster
DGM = digital geophysical mapping
WAA = Wide Area Assessment
EM = electromagnetic (anomalies detected via DGM versus magnetic anomalies detected via WAA survey)
*Indicates that at some anomalies, multiple cultural debris items were recovered

The coverage requirements were met by performing DGM surveys along pre-planned transects and grids. A total of 3.53 miles of transects (or 1.28 acres based on an average width of 3 ft per transect) and 21 grids of variable sizes between 0.02 and 0.31 acres (average size of approximately 100 ft x 100 ft) covering a total of 5.24 acres were traversed using an EM61-MK2 similar to the procedures employed during the ground reconnaissance surveys. The total coverage (6.52 acres) exceeded the requirements of UXO Estimator. The DGM transects were collected according to the same procedure described in Subsection 3.2.6. Grids ranged from 0.02 acres to 0.31 acres in size. A total of 1,042 anomalies were selected during the DGM surveys in anomaly cluster AC-01. To meet the UXO Estimator requirements, all anomalies were investigated. Anomaly reacquisition was performed by the UXO Team using RTK GPS to navigate to the location of each anomaly. Details on excavation procedures are provided in

Subsection 3.2.11. The DGM data is provided in Appendix E. Transect, grid, and anomaly locations are presented in Figure 3-13 for AC-01. All DGM survey coverage and intrusive investigation results are summarized below in Table 3-7.

Table 3-7

AC-01 DGM Surveys and Intrusive Investigation Summary

Anomaly Cluster ID	Investigation Coverage and Selected Targets	Target Investigation Results
AC-01	Grid acres: 5.24 Transect acres: 1.28 EM anomalies: 1,042	66, 5-inch high velocity aircraft rocket (HVARs)* 298, 3.5-inch forward firing aircraft rocket (FFARs)* 313, 2.25-inch sub-caliber aircraft rocket (SCARs)* 242 miscellaneous rocket components* 1 suspect frag (from historical demolition)* 19 seed items 70 cultural debris 10 "shared" contacts 21 no contacts 2 not investigated due to property owner request (to preserve landscaping)

Notes:
AC = anomaly cluster
DGM = digital geophysical mapping
WAA = Wide Area Assessment
EM = electromagnetic (anomalies detected via DGM versus magnetic anomalies detected via WAA survey)
*Denotes MD item

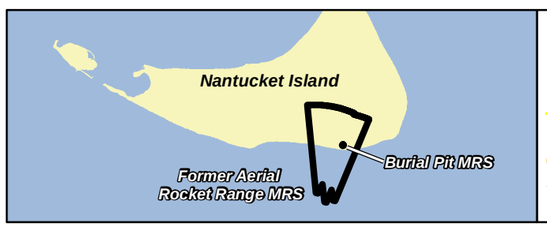
The results of intrusive investigations performed in AC-01 including the nature and extent of MD recovered is discussed further in Section 4 of this RI Report. No UXO was recovered during intrusive investigations in AC-01.

3.2.8 Altitude Exceedance Areas (Area 1 and Area 2)

Mag and dig surveys were conducted in Area 1 and Area 2 within MRS 2 as shown on Figure 3-14. The purpose of these surveys was to complete full investigation coverage of the land-portion of MRS 2, as both Area 1 and Area 2 were identified as spatial data gaps (550 total acres) in the March 2012 airborne survey data due to altitude exceedances during flight. The cause of these altitude exceedances was determined to be related to high vegetation and over-head utility lines that precluded safe flight conditions at lower altitudes in these portions of MRS 2.

AC-01-T14
AC-01-T13
AC-01-G20
AC-01-T12
AC-01-T11
AC-01-G18
AC-01
AC-01-G19
AC-01-G17
AC-01-T10
AC-01-G15
AC-01-G12
AC-01-G14
AC-01-G16
AC-01-T09
AC-01-T09
AC-01-G13
AC-01-T08
AC-01-T08
AC-01-T07
AC-01-T06
AC-01-G11
AC-03
AC-01-G10
MRS 1 - Burial Pit
AC-01-T06
AC-01-G09
AC-01-T05
AC-01-G05
AC-01-G08
AC-01-G04
AC-01-G21
AC-07
AC-01-G06
T-1
AC-01-G07
AC-03-T02
AC-03-T01
AC-01-T16
AC-01-T04
AC-01-GG01
AC-01-G02
AC-01-T03
AC-01-G03
T-2
AC-01-T01
AC-01-T02
AC-01-T15

Anomalies per Acre (from VSP)
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33



T-1 Former Taget
Cultural Source/Field Reconnaissance Location
Cultural Source/Field Reconnaissance Location
DGM Transect
Road

DGM Grid
MRS 1 – Burial Pit
MRS 2 – Aerial Rocket Range
FUDS Boundary
Anomaly Cluster (From VSP)
Building

Coordinate System: UTM, Z19N, NAD83, US Foot

US Army Corps of Engineers

Nantucket Beach Formerly Used Defense Site

N

0 190 380 570 Feet
0 70 140 210 Meters

NOTES:
Aerial Data Source: ESRI Bing Imagery Service
Base Data: USACE (2004)

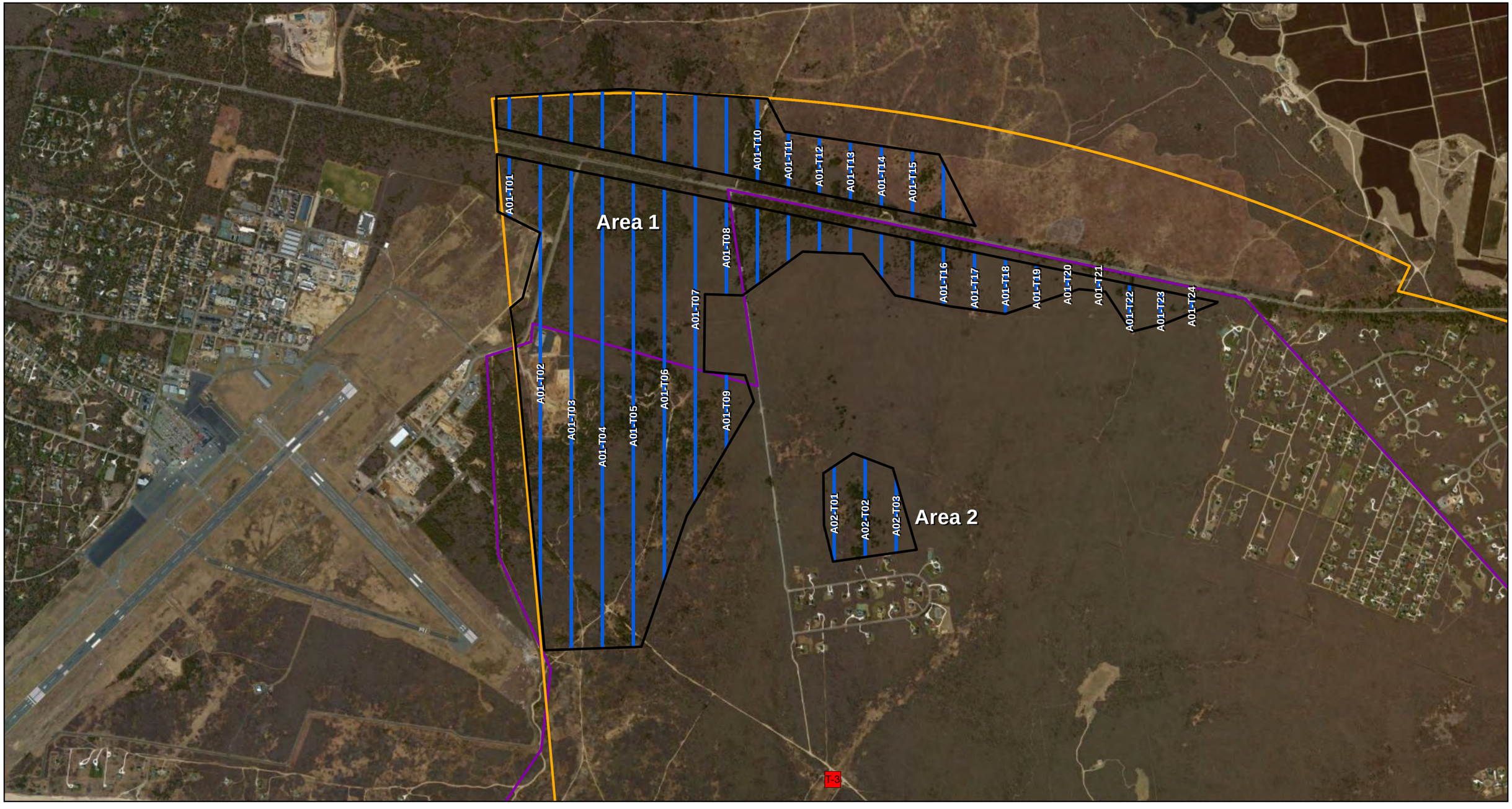
FIGURE 3-13
AC-01 DGM Coverage

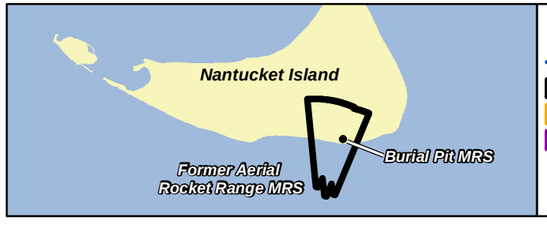
2/19/2013
Revision: 0

NT_DGM_AC_01_Coverage

Drawn: johna

PROJ: 03886.551.004





T-1 Former Taget
Mag and Dig Transect
Area > 8m Altitude
MRS 2 – Aerial Rocket Range
FUDS Boundary

Coordinate System:
UTM, Z19N, NAD83, US Foot

US Army Corps of Engineers

Nantucket Beach Formerly Used Defense Site

N

0 775 1,550 2,325 Feet

0 290 580 870 Meters

NOTES:
Aerial Data Source: ESRI Bing Imagery Service
Base Data: USACE (2004)

FIGURE 3-14
Altitude Exceedance Areas
Mag & Dig Investigation Coverage

2/19/2013	NT_Mag&Dig_Area1_and_2
Drawn: johna	PROJ: 03886.551.004

A mag and dig approach was selected to facilitate real-time identification of any suspect UXO discovered in the subsurface due to the high tree canopy that precluded use of DGM methods. Visual surveys were facilitated by selective vegetation clearing to allow UXO Technicians an unobstructed view of the ground surface and adequate space to effectively survey with hand-held Schonstedts.

The geophysical investigation approach was derived using VSP that includes mag and dig transect surveys traversing the area where the flight altitude exceeded allowable limits. Each mag and dig transect was approximately 10 ft wide. The VSP parameters used previously for the airborne survey evaluation were incorporated into this survey design for consistency. Based on the results of the VSP analysis, 10-ft wide transects spaced at 396 ft on center, over the altitude exceedance area, achieved a 95% chance of traversing and detecting a 500-ft-diameter target area having a bivariate-normal distribution with an outer edge anomaly density of 10 anomalies per acre above the background anomaly density. Transects were oriented north to south across the Area 1 and Area 2 survey areas. A total of 27 transects of variable length were surveyed as shown on Figure 3-14 resulting in 11.26 miles of transect coverage, or 13.65 acres based on a 10 ft width for each transect.

No UXO or MD was identified during the mag and dig survey conducted in Area 1 and Area 2. A total of 18 anomalies were investigated and all assessed to be culturally-related items. Findings consisted of nine (9) hot rocks and nine (9) miscellaneous metallic materials (e.g., fence, nail, can, rebar, etc.). Of the 18 total anomalies investigated, 4 were discovered at ground surface and 14 were located subsurface between 0.25 ft and 5 ft bgs. As no MEC or evidence of potential MEC was identified, no further investigation of this portion of MRS 2 was warranted for characterization.

3.2.9 Munitions Response Site 2 Underwater Investigation

The coastal water included within MRS 2 was also investigated via a mag and dig approach. All work was conducted in accordance with the *Final WP*, specifically, Appendix M, which included the *Dive Plan* and *Emergency Management Plan* for dive operations. A Dive Inspection was conducted by USACE, Baltimore District on 5 June 2012; no deficiencies were noted. Transects

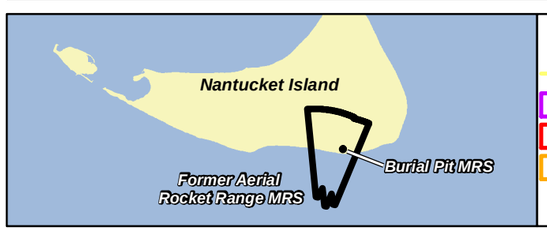
that were investigated by dive personnel varied in length, extending from the shore (mean low tide elevation) between 100 and 515 ft into the water. Qualified divers surveyed and investigated the underwater portion of MRS 2 using a jackstay as a guide while investigating along the ocean bottom with a Schonstedt magnetometer. Divers were weighted down and supplied air via an umbilical cord bundled with a video/audio feed cable to provide support personnel on the beach with real-time observations of findings and assist with identification of any suspect anomalies. A mobile support trailer was utilized from the beach to support the underwater investigation.

A total of 33 transects were investigated during the RI in the underwater portion of MRS 2, which resulted in 1.72 miles (1.04 acres) of linear survey coverage underwater within MRS 2, exceeding the *PWS* requirement to complete 1.33 miles of investigation coverage. Transect line placements were initially designed to attain evenly spaced lateral coverage throughout the near shore portion of MRS 2 with transects spaced 328 ft on center. Several transects were biased in length based on historical evidence of the former Target #2 location which resulted in initial transect lengths ranging between 200 and 300 ft offshore. The field investigation strategy employed included varying the length and lateral spacing between transects along the beach based on the RI findings in order to allow for real-time adjustments to transect location and length to bias the investigation towards areas most likely to be impacted.

The following lines of evidence were considered by the project team (WESTON, USACE, and MassDEP) while refining the investigation approach for the underwater portion of MRS 2: historical imagery and documentation on the location of former Target #2; historical erosion rates since active use in the mid-40s; the WAA survey results from March 2012 along the shoreline; local observations made by diver personnel on sedimentation/deposition during the RI; and, any real-time information on anomaly identification collected underwater. In total, 33 underwater mag and dig transects were investigated and varied in length from 100 ft to 515 ft offshore. The final location of the underwater mag and dig transects is provided on Figure 3-15.

No UXO or MD was identified during the mag and dig survey performed for the underwater investigation in MRS 2. A total of 15 anomalies were investigated and all assessed to be culturally-related items as documented on Table 3-8. Findings consisted of 5 hot rocks and





T-1 Former Target
Transects-Underwater
FUDS Boundary
MRS 1 – Burial Pit
MRS 2 – Aerial Rocket Range

Coordinate System:
UTM, Z19N, NAD83, US Foot

US Army Corps of Engineers

Nantucket Beach Formerly Used Defense Site

N

0 380 760 1,140 Feet

0 140 280 420 Meters

NOTES:
Aerial Data Source: ESRI iCubed Imagery Prime World 2D (2004)
Base Data: USACE (2004); MassGIS (2011)

FIGURE 3-15
MRS 2 Underwater Mag & Dig Investigation Coverage

7/15/2013	NT_Underwater_Investigation
Drawn: johna	PROJ: 03886.551.004

Table 3-8
Munitions Response Site 2
Underwater Investigation Results

Date: 06-28-12

Ocean Transect	Start Date	Description				End Date	PWS Transect Length (ft)	Revised Transect Length (ft)	(A) Interim Investigation	(B) Interim Investigation	(C) Interim Investigation	(A+B+C) Final Transect Length (ft)	Adjusted Total (for Trans> 300 ft.)	Comments
		MEC	MD	Hot Rock	CD									
17	6/6/2012	0	0	0	1	6/11/2012	200	342	342.38-6/6 (0)	173-6/11 (1)		515.4	558.5	1-CD (Small item, unknown, blown out of airlift, 348 ft., not reaquired, > 5 ft. deep)
18	6/6/2012	0	0	0	1	6/6/2012	200	342	342.38-6/6 (1)			342.4	350.9	1-CD (Chain @ 160 ft out, 2" deep, Photo ID 038)
15	6/7/2012	0	0	1	1	6/12/2012	200	182	110-6/7 (0)	71.7-6/8 (2)	328-6/12(0)	509.7	551.6	1- CD & 1 Hot Rock (Unrecoverable item, 110 ft. out, > 4 ft. deep, and 4"x3" hot rock verified on beach, 180 ft. out, 6" deep)
16	6/7/2012	0	0	0	2	6/7/2012	200	342	342.38-6/7 (2)			342.4	350.9	2-CD (Qtr. Size pc. Metal @ 295 ft out, 7" deep, Photo 040) & (Boat railing @ 322 ft. out, 6" deep, Photo
12	6/8/2012	0	0	0	0	6/8/2012	200	182	65-6/8 (O)	235-6/18 (0)		300.0	300.0	No Finds
13	6/8/2012	0	0	0	0	6/8/2012	200	182	181.7-6/8 (0)			181.7	181.8	No Finds
14	6/8/2012	0	0	0	1	6/8/2012	200	182	181.7 6/8 (1)			181.7	181.7	1-CD (8" pc. Wire @ 155 ft. out, surface)
19	6/11/2012	0	0	0	0	6/11/2012	200	182	510-6/11 (0)			510.0	552.0	No Finds
25	6/12/2012	0	0	2	0	6/12/2012	200	182	505-6/12 (2)			505.0	546.0	2-Hot Rocks (Hot rocks located at 172-ft X 2-inch deep and 390-ft x 2-inch deep, Photo 043, and 044 respectively)
23	6/13/2012	0	0	0	1	6/13/2012	200	182	300-6/13 (1)			300.0	300.0	1-CD (6" x 1/2" rusty handle @ 140 ft. out, 4" deep, photo 045)
24	6/13/2012	0	0	0	0	6/13/2012	200	182	300-6/13 (0)			300.0	300.0	No Finds
26	6/13/2012	0	0	0	0	6/13/2012	200	182	300-6/13 (0)			300.0	300.0	No Finds
9	6/14/2012	0	0	1	0	6/18/2012	200	182	300-6/12 (1)			300	300	1-Hot Rock (Hot rock located at 180 ft. out, 8" deep)
10	6/14/2012	0	0	0	0	6/14/2012	200	182	300-6/14 (0)			300	300	No Finds
11	6/14/2012	0	0	0	0	6/14/2012	200	182	300-6/14 (0)			300	300	No Finds
27	6/19/2012	0	0	1	1	6/19/2012	200	182	300-6/19 (2)			300.0	300.0	1-Hot Rock and 1-CD (5 ft. long fence post at 270 ft., 5.5 ft. deep, Photo 0053 & 6"x4" Hot Rock at 270 ft., 6 deep, Photo 0054)
23A	6/20/2012	0	0	0	0	6/20/2012			100-6/20 (0)			100.0	100.0	No Finds
23B	6/20/2012	0	0	0	0	6/20/2012			100-6/20 (0)			100.0	100.0	No Finds
23C	6/20/2012	0	0	0	0	6/20/2012			100-6/20 (0)			100.0	100.0	No Finds
24A	6/20/2012	0	0	0	0	6/20/2012			100-6/20 (0)			100.0	100.0	No Finds
24B	6/20/2012	0	0	0	0	6/20/2012			100-6/20 (0)			100.0	100.0	No Finds
24C	6/20/2012	0	0	0	0	6/20/2012			100-6/20 (0)			100.0	100.0	No Finds
28	6/21/2012	0	0	0	0	6/21/2012	200	182	200-6/21 (0)			200.0	200.0	No Finds
29A	6/21/2012	0	0	0	0	6/21/2012			200-6/21(0)			200.0	200.0	No Finds
34A	6/21/2012	0	0	0	1	6/21/2012			200-6/21 (1)			200.0	200.0	1-CD (Timber w/ferrous bolts at 90 ft. out, surface, could not be recovered-too large and deep)
36	6/22/2012	0	0	0	1	6/22/2012		182	300-6/22 (1)			300.0	300.0	1 Unrecoverable item 77 ft. out, 4 ft. deep
35A	6/22/2012	0	0	0	0	6/22/2012			300-6/22 (0)			300.0	300.0	No Finds
32	6/25/2012	0	0	0	0	6/25/2012	200	182	300-6/25 (0)			300.0	300.0	No Finds
31	6/26/2012	0	0	0	0	6/26/2012	200	182	300-6/26 (0)			300.0	300.0	No Finds
20A	6/26/2012	0	0	0	0	6/26/2012			300-6/26 (0)			300.0	300.0	No Finds
30A	6/26/2012	0	0	0	0	6/26/2012			300-6/26 (0)			300.0	300.0	No Finds
22A	6/27/2012	0	0	0	0	6/27/2012			300-6/27 (0)			300.0	300.0	No Finds
19A	6/28/2012	0	0	0	0	6/27/2012			300-6/28 (0)			300.0	300.0	No Finds
Totals		0	0	5	10		1.33	1.33				**9088.24**	1.76	1.72 Miles

10 miscellaneous metallic materials (e.g., fence, chain, etc.). One anomaly was detected on Transect 33 approximately 77 ft offshore that could not be recovered, and had a recorded burial depth greater than 4 ft. The average depth of recovered items underwater was 1.7 ft, while the median of investigated anomalies was 0.5 ft bgs, and the maximum depth of investigated anomalies was 6 ft (hot rock discovery on Transect-27-2). As no MEC or evidence of potential MEC was identified, no further investigation of this portion of MRS 2 was warranted for characterization.

3.2.10 Munitions Response Site 1 Munitions and Explosives of Concern Characterization

A full coverage Geonics EM31-MK2 survey was performed over the 1.5-acre MRS 1 to detect potential munitions burial or disposal features. The MRS was cleared of vegetation prior to performing the DGM surveys. The line spacing across the MRS during the survey did not exceed 10 ft. No anomalies were detected during the survey indicative of a burial or disposal pit feature. A total of 21 individual point source anomalies were detected within the airborne vertical magnetic gradient survey data. Based on the close proximity of MRS 1 to AC-01 (the suspected former impact area), the 21 magnetic anomalies were reacquired and investigated to determine the anomaly source. Geophysical survey data is provided in Appendix E.

Anomaly reacquisition was performed by the UXO Team using RTK GPS to navigate to the location of each anomaly. Each anomaly was intrusively investigated by UXO Technicians using hand tools or mechanical means (i.e., mini-excavator) as needed to remove overburden around anomaly locations and/or excavate beyond 4 ft bgs. Details on excavation procedures are provided in Subsection 3.2.11. Intrusive investigation of the 21 anomalies resulted in identification of three culturally-related debris items and recovery of 18 MD items including the following:

- 1 – 5-inch HVAR
- 4 – 3.5-inch FFARs
- 13 – 2.25-inch SCARs

The results of intrusive investigations performed in MRS 1 and the nature and extent of MD recovered are discussed further in Section 4 of this RI Report. No MEC, including UXO or DMM, was recovered during intrusive investigations in MRS 1.

3.2.11 Munitions and Explosives of Concern Intrusive Investigations

Intrusive investigations were conducted in accordance with the *Final WP* (WESTON, 2012) including the approved *Accident Prevention Plan*/*Site Safety and Health Plan* and *Explosives Site Plan*. Intrusive investigations at selected anomaly locations were performed to positively identify and recover MEC. All recovered anomalies were treated as MPPEH, and were subject to field inspection to determine the nature of recovered anomalies. All items were verified free of explosives hazards prior to relocating for future disposal. Recovered suspect MEC that could not be determined to be 100% free of explosive material in the field was subject to on-site demolition in accordance with planning documents for RI activities.

The SUXOS conducted oversight of all intrusive investigations, while the UXO Quality Control Specialist (UXOQCS) conducted daily QC following target reacquisition and intrusive investigation as documented in the Daily Reports for the RI (see Appendix B). A Massachusetts State Licensed blaster was retained on-site throughout the duration of the RI to perform demolition supervision as needed.

3.2.11.1 Excavation Procedures

UXO Technicians began the anomaly investigations by sweeping a 3-foot radius around the pin flag with a Schonstedt to focus the excavation at the peak response. The offset and northing and easting position of the peak response were recorded for each anomaly. Intrusive operations at each anomaly location were performed using hand tools, or by mechanical means (i.e., mini-excavator) as needed to facilitate removal of overburden and/or excavation beyond 4 ft in depth. When mechanical means of excavation were employed, work was closely monitored visually and with hand-held instrumentation. The remaining 1 ft of excavation was completed via hand tools for safety purposes.

The UXO Technicians excavated at the location of the highest detector response until the source of the anomaly was found. The target location was considered clear when a signal source was no

longer detected after removal of the conductive item, or the source of the signal was identified to be associated with a cultural feature such as a fence or building, or the target was determined non-recoverable due to sensitive environmental issues, such as subsurface detections below 2 ft along the beach bluffs where excessive intrusive activity may compromise the integrity of the soil stability. Dig teams used the personal handheld computers with RespondFast[SM] UXO Investigation software to electronically log the target characteristics real-time in the field. Characteristics logged in RespondFast include item category, item type, depth, dig data, and final disposition.

Exclusion zones during intrusive operations were based on the project's munition with the greatest fragmentation distance which is the 3.5-inch FFAR. The minimum separation distance for nonessential personnel was 157 ft.

Results of the intrusive investigation are provided in the Target Anomaly Dig List included as Appendix G. Photographs of intrusive activities are provided in Appendix F.

3.2.11.2 Inspection of Material Potentially Presenting an Explosive Hazard and Demolition Operations

During the course of the RI intrusive activities, military munitions-related items were considered MPPEH until properly inspected by a qualified UXO Technician II or higher. When it was encountered in the field, MPPEH was inspected by a UXO Technician II and Technician III and classified as MDAS or material documented as an explosive hazard. Items classified in the field as MDAS pose no explosive hazard and were transported to a collection point for final disposal as MD as described below.

The UXO team conducted demolition operations on all ordnance items where the filler could not be identified through visual inspections. Perforators, detonating cord, and electric blasting caps were used to perforate rocket warheads in order to visually inspect cavities for explosives. All rocket warheads were determined to be inert filled after two independent inspections by qualified UXO technicians. Rocket motors were also inspected by two qualified UXO technicians and were found to be expended. A total of 938 munitions-related items (rocket warheads/motors and miscellaneous components) were inspected and determined to be MDAS.

3.2.11.3 Management of Recovered Munitions Debris

No UXO or DMM was recovered during the RI. All recovered items, classified as MD, were recovered from transects/grids, certified, verified as free from explosives, and stored in a locked container. Following recovery, the SUXOS inspected the MD followed by re-inspection by the UXOQCS to verify the process and to ensure that only inert items were stored in the locked container. A final inspection was conducted immediately prior to the transfer of MD to the licensed transporter for off-site recycling as scrap metal for new steel production. Certified MD was transferred with the completed DoD Form 1348-1A, signed by the SUXOS to certify that the material listed had been thoroughly inspected and, to the best of the SUXOS's knowledge and belief, was inert and/or free of explosives or related materials. After the DoD Form 1348-1A was verified and signed by the UXOQCS, a copy was maintained and the original accompanied the MD to Mid-City Scrap Iron & Salvage Co., Inc., located in Westport, Massachusetts on 15 August 2012 for final disposition. A copy of the DoD Form 1348-1A along with a weight slip for the 18,140 pounds of MD recovered during the RI, and a certificate of destruction are provided in Appendix H.

3.2.11.4 Intrusive Investigation Quality Control

In accordance with the *Final WP*, the UXOQCS conducted daily inspections of grids and transects following intrusive activities at dig locations using a Schonstedt to determine whether or not the removal was effective. In practice, this was accomplished by the UXOQCS joining the intrusive team and inspecting all of the digs they made during the day. The results of the QC inspections for the intrusive investigation are provided in the UXOQCS reports (Appendix B). There were no QC failures noted during the RI in either MRS 1 or MRS 2.

3.3 MUNITIONS RESPONSE SITE 1 BURIAL PIT HAZARDOUS AND TOXIC WASTE INVESTIGATION

As no burial sites were identified by the EM31-MK2 survey conducted across MRS 1, further investigation proceeded in accordance with the *Final WP* via excavation of test pits for soil observation and analytical sampling. Four test pits were excavated within the specific areas of the MRS (see Figure 3-16) that showed field indications of potential impacts to provide a biased assessment of the area to confirm the absence/presence of a potential HTW contaminant.

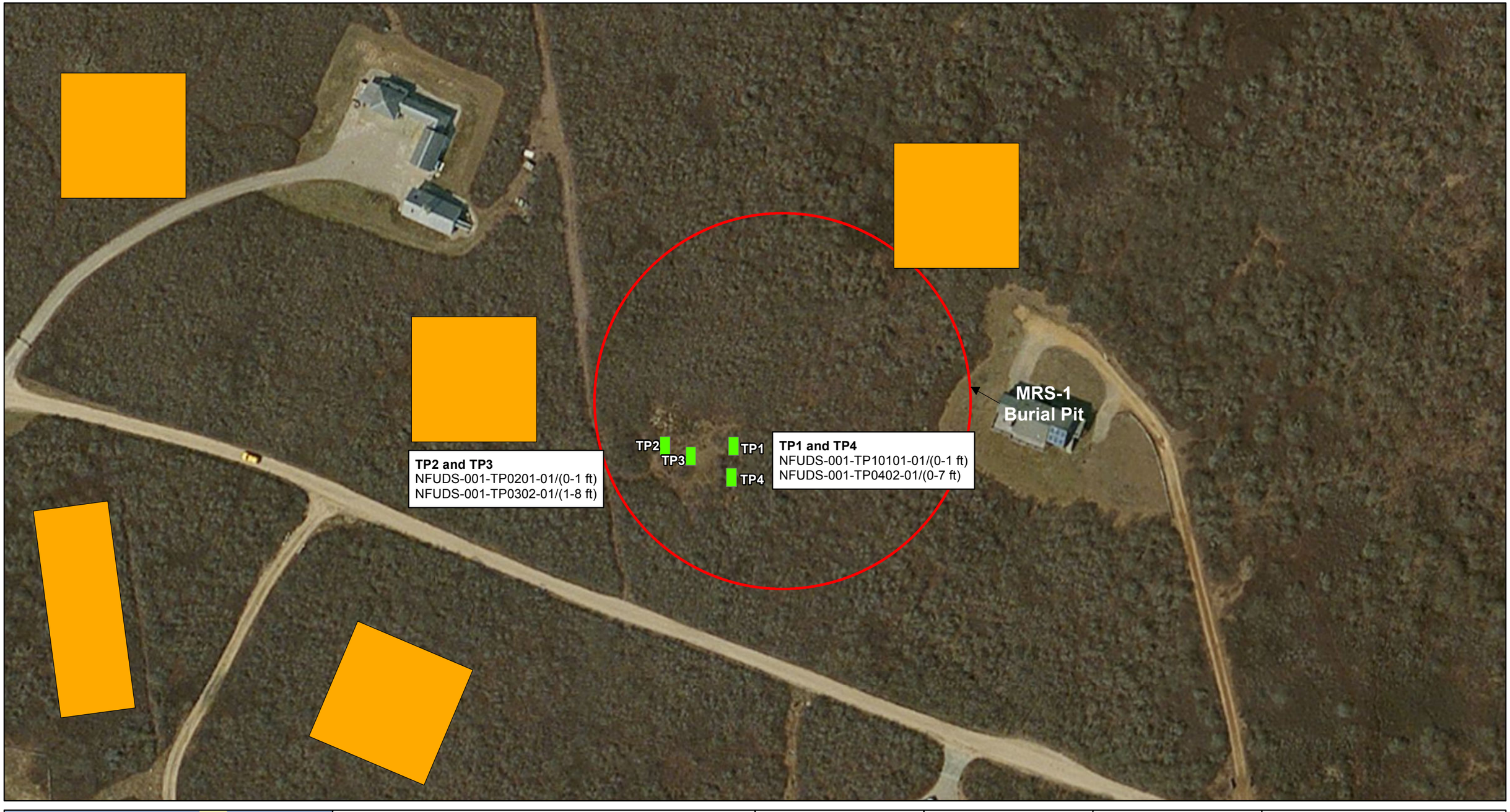
3.3.1 Test Pitting Activities

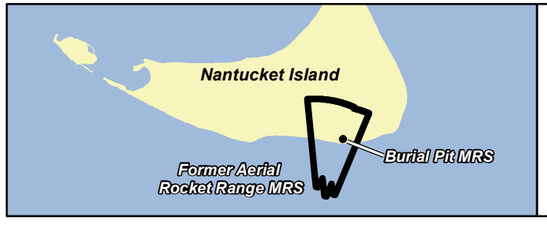
On 28 June 2012, two test pits were excavated directly within the area of noted sparse vegetation, and two test pits were excavated in a ditch adjacent to the sparse vegetation as depicted on Figure 3-16. All four test pits encountered up to 4 ft of observed native sands prior to terminating excavation, and reached a total depth of approximately 8 ft from the ground surface. Field screening via photoionization detector (PID) and x-ray fluorescence detector (XRF) was performed to supplement visual inspection of the test pits, but no indications of a release were noted in the field that warranted collection of biased samples. Composite samples were collected from the surface and subsurface soil exposed during test pitting and analyzed for a full-suite of potential HTW constituents including volatile organic compounds, semi-volatile organic compounds, polycyclic aromatic hydrocarbons, metals, explosives, polychlorinated biphenyls, pesticides, and herbicides. Four, 8-point composite samples were collected between the four test pits. Samples collected for volatile analysis were collected as discrete samples.

Samples were collected to characterize surface soil (between 0 and 1 ft bgs) and subsurface soil (1+ ft bgs) separately, and to sample each surface feature observed within the MRS separately. To this end, sample aliquots were collected between 0 and 1 ft bgs between TP1 and TP4 and homogenized for characterization of surface soil within the depression observed east of the sparely vegetated area within the MRS. Similarly, aliquots were collected between the two test pits at depths greater than 1 ft to characterize subsurface soil. Samples were collected in a similar manner from TP2 and TP3, which were excavated within the sparsely vegetated area of the MRS.

3.4 MUNITIONS CONSTITUENTS CHARACTERIZATION

Characterization activities for MC performed during the RI were conducted in accordance with the *Final WP*, specifically the *UFP-QAPP* and MC Sampling Memoranda (WESTON, 2012a and 2012b). As no MEC sources was identified during the RI, Incremental Sampling (IS) for MC in surface soil was performed in the investigation grids overlying the highest densities of recovered MD to assess the potential for MC to be released into the environment from significant





Test Pit Location
Geophysics Complete
MRS 1 – Burial Pit

Coordinate System:
UTM, Z19N, NAD83, US Foot

US Army Corps of Engineers

Nantucket Beach Formerly Used Defense Site

N

0 40 80 120 Feet

0 10 20 30 Meters

NOTES:
Aerial Data Source: ESRI iCubed Imagery Prime World 2D (2004)
Base Data: USACE (2004); MassGIS (2011)

FIGURE 3-16
MRS 1 Test Pit and Sampling Locations

2/20/2013	NT_Test_Pit_Locations
Drawn: johna	PROJ: 03886.551.004

amounts of MD. Discrete subsurface soil profile sampling for MC was conducted at one location in each of the grids subject to IS, biased towards the exact location of the maximum density of recovered MD during RI intrusive investigations. Parameters included in MC analysis of soil were explosives, metals, and pH. Analytical requirements for IS of surface soil included laboratory processing in accordance with Method 8330B, with the extraction for metals analysis removed prior to grinding through the puck mill. Sampling for MC was conducted on 31 July 2012 and 1 August 2012. Figure 3-17 has been included to document the location of soil samples collected during the RI to characterize MC associated with MD within the MRS boundaries.

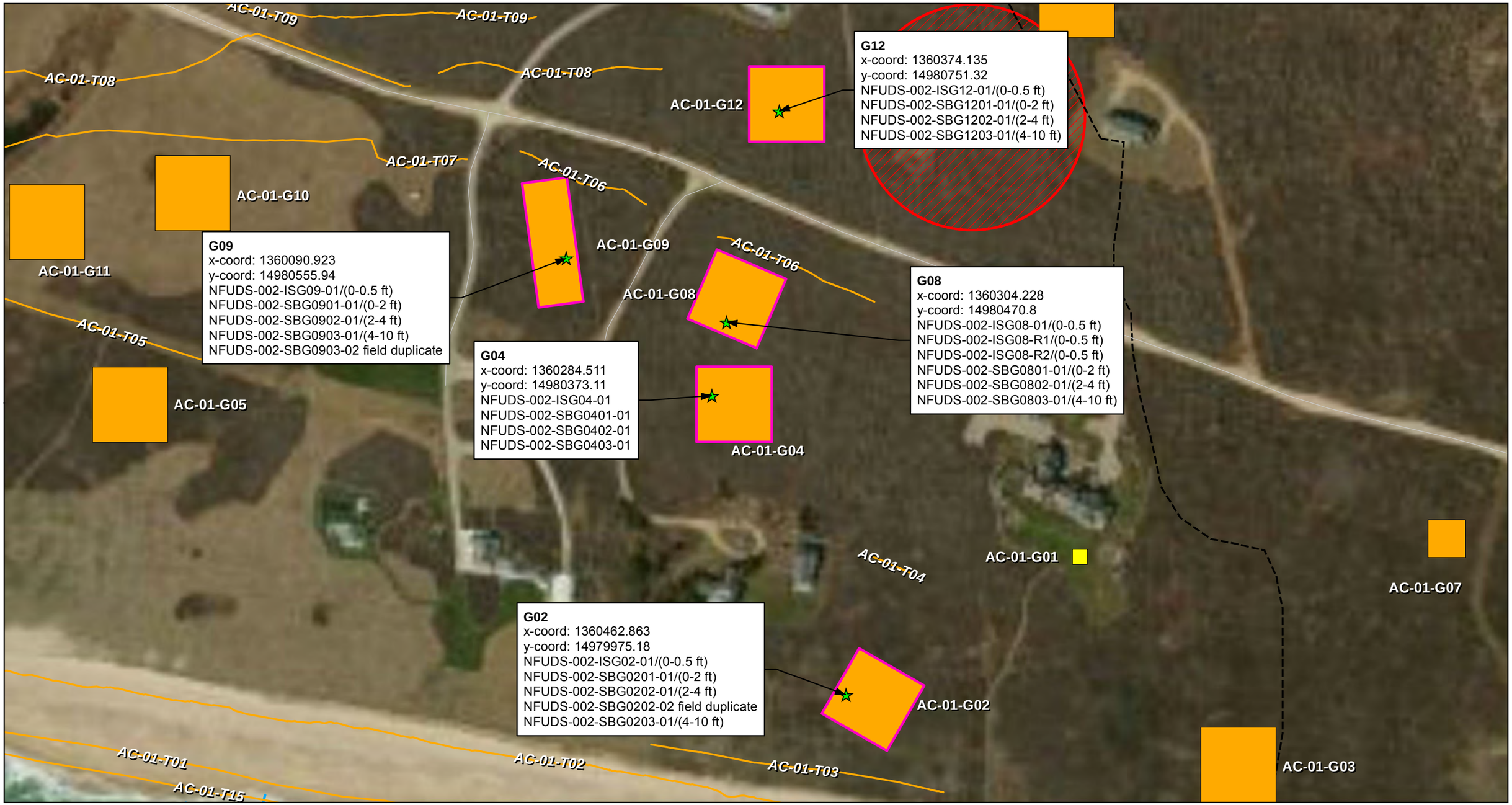
Groundwater samples were collected from residential properties, included in the 2010 SI sampling activities. Groundwater samples were analyzed for explosives, metals, and perchlorate. Groundwater samples were collected on 31 August 2012. Figure 3-18 has been included to document the location of groundwater samples collected during the RI to characterize potential MC associated with MD within the MRS boundaries.

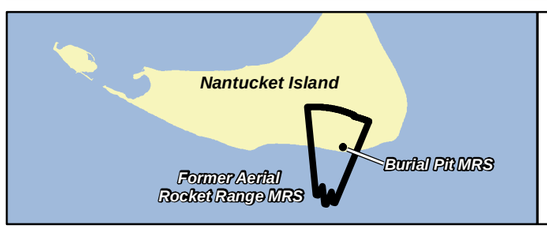
All samples were submitted to a National Environmental Laboratory Accreditation Program-accredited laboratory, TestAmerica Laboratories, Inc., located in Burlington, Vermont.

3.4.1 Surface Soil

A total of five primary surface soil samples were collected via IS methodology from the following geophysical investigation grids located in AC-01: G02, G04, G08, G09, and G12. These grids represent the highest MD densities observed during the RI. Additionally, G12 in AC-01 was dually utilized as a common demolition area for recovered items determined safe to move, but not able to be identified as MDAS upon recovery. Due to extensive surface disturbance from demolition operations, the IS collected from G12 can be considered representative of post-blow-in-place conditions during the RI.

During IS systematic planning, it was determined that all five grids would be considered part of the same Decision Unit, and each grid would be considered a separate Sampling Unit. The Sampling Unit size of 0.25 acres was determined adequate to meet risk assessment assumptions for potential human health (residential exposure) and ecological exposure risks.





MC Sample Location
Intrusive Investigation Complete
Road
AC-01 Boundary
MRS 1 – Burial Pit
MC sampling conducted via IS for grid surface soil and discretely in subsurface at arrow point
Geophysics Complete
Intrusive Investigation Complete

Project Coordinate System: UTM, Z19N, NAD83, US Feet

US Army Corps of Engineers

Nantucket Beach Formerly Used Defense Site

WESTON SOLUTIONS

N

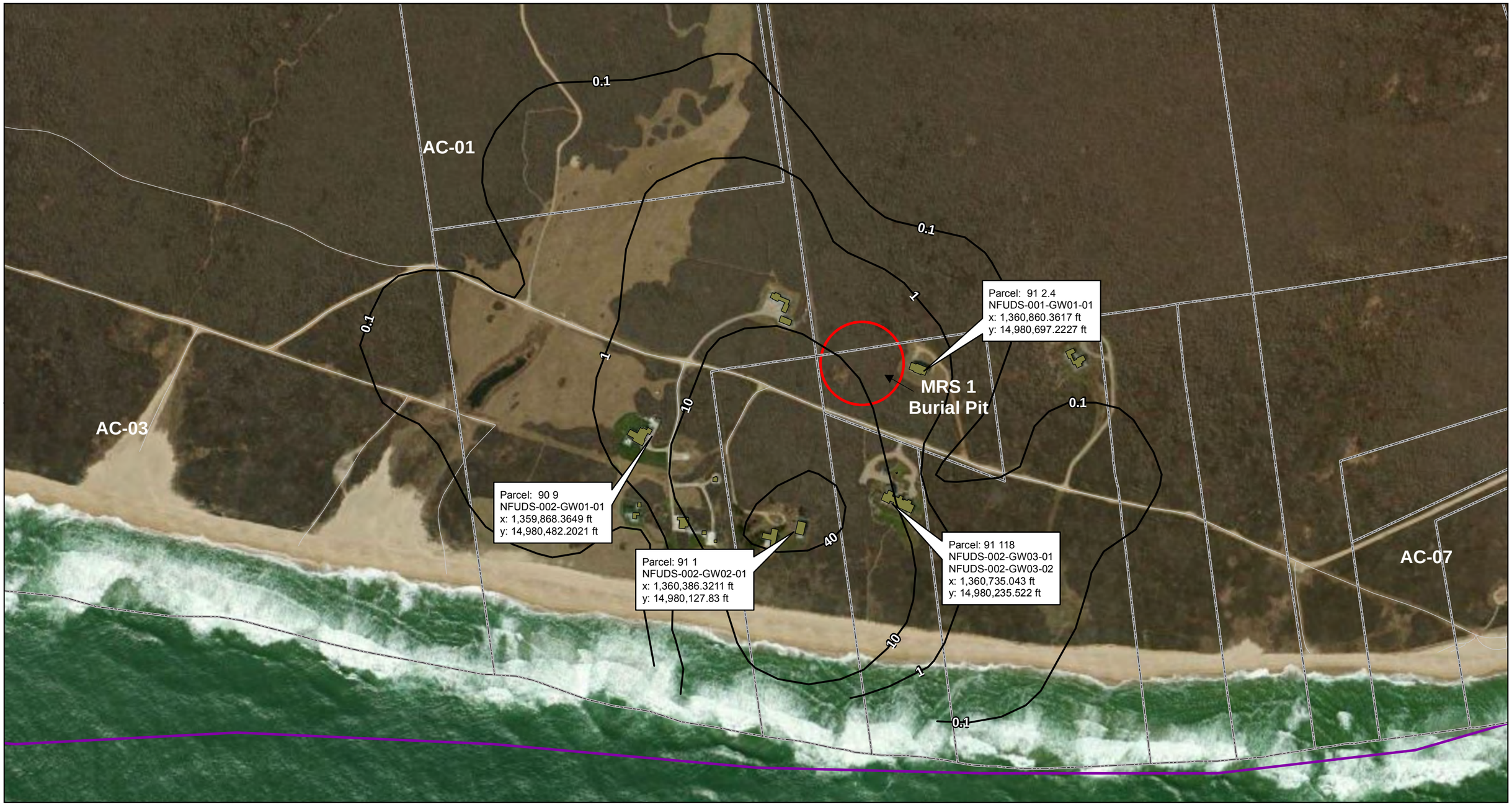
0 80 160 240 Feet

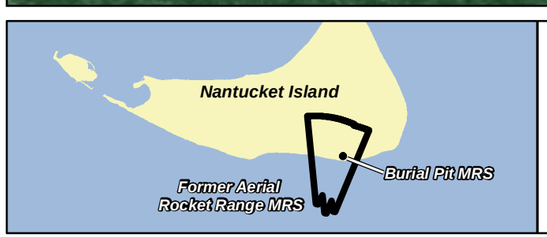
0 30 60 90 Meters

NOTES:
Aerial Data Source: ESRI Bing Imagery Service
Base Data: USACE (2004)

FIGURE 3-17
RI MC Soil Sampling Locations

2/19/2013	NT_MC_Soil_Samples
Drawn: johna	PROJ: 03886.551.004





Anomaly Density Contour
Road
Building
Parcel Lines
MRS 1 – Burial Pit

Coordinate System:
UTM, Z19N, NAD83, US Foot

US Army Corps of Engineers

Nantucket Beach Formerly Used Defense Site

N

0 220 440 660 Feet

0 80 160 240 Meters

NOTES:
Aerial Data Source: ESRI Bing Imagery Service
Base Data: USACE (2004)

FIGURE 3-18
RI MC Groundwater Sampling Locations

2/19/2013 Revision: 0	NT_Water_Sample_Locations
Drawn: johna	PROJ: 03886.551.004

All five grids were subject to surface soil assessment via IS using a systematic grid layout, detailed on Figures 3-19 and 3-20, to facilitate collection of 30 increments within each grid to comprise each sample. Approximately 35 grams of soil was collected from each increment to yield a total field volume of 1,000 grams for each sample, which was sent off-site to the laboratory for further processing in accordance with the method Standard Operating Procedure for 8330B (i.e., sieving, grinding, and further subsampling) prior to analysis.

Of the five sampled grids, G08 was sampled in triplicate to provide replicate results for QA purposes in accordance with *UFP-QAPP* requirements, and USACE guidance for use of IS methodology to characterize energetic compounds. Samples were also analyzed for metals per EPA Method 6010C and pH per EPA Method 9045D. In accordance with the *UFP-QAPP*, the laboratory extracted sample volume for metals analysis prior to grinding the sample for explosives analysis.

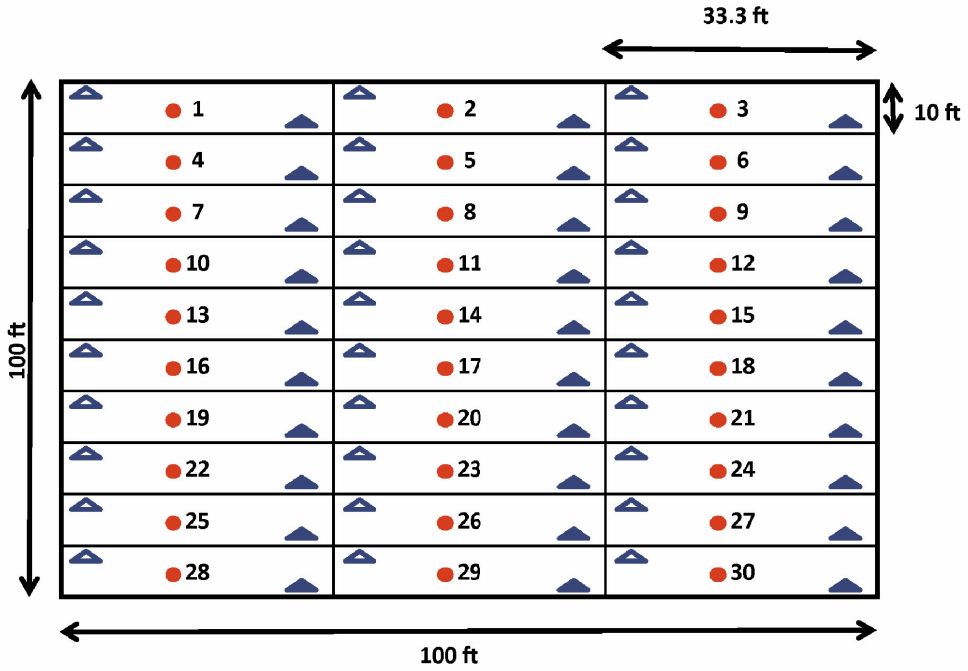
3.4.2 Subsurface Soil

At each of the five subsurface soil sampling locations, soil was sampled discretely to obtain data that could profile MC concentrations, if present, to 10 ft bgs to meet risk assumptions regarding potential human health exposure risks from direct contact with contaminated soil. Samples were collected between 0 and 2 ft bgs, 2 and 4 ft bgs, and between 4 and 10 ft bgs at each location. Since exposure risks for ecological receptors were determined to be limited to 2 ft bgs or less, the discrete samples collected between 0 and 2 ft bgs were also intended to be used in the direct comparison of chemical concentrations to benchmark ecological screening levels. A total of 15 primary samples were collected for discrete subsurface characterization of soil. Off-site analytical performed by the laboratory included metals analysis via EPA Method 6010C, explosives analysis via EPA Method 8330B, and pH analysis via EPA Method 9045B.

3.4.3 Groundwater

Based on the results of the geophysical investigation, no UXO, DMM and/or field observations of a potential release (e.g., leaking munitions, stained soil) were documented to initiate characterization of groundwater at a suspected point-source. Therefore, groundwater sampling

M:\Design\DWG\ACOE\Nantucket\Nov 2012 submittal\Figure 3-19.dwg, Layout1, 2/20/2013 9:38:14 AM, girardeb, 1:1



Notes:

Sampling Unit size meets risk assessment exposure assumptions (~0.25 acres)

Red dot (●) indicates location of systematic random increment collection point (~35 grams/increment)

Solid blue triangle (▲) indicates location of replicate (duplicate) increment collection point (collected in G08)

Open blue triangle (△) indicates location of replicate (triplicate) increment collection point (collected in G08)

ft = foot

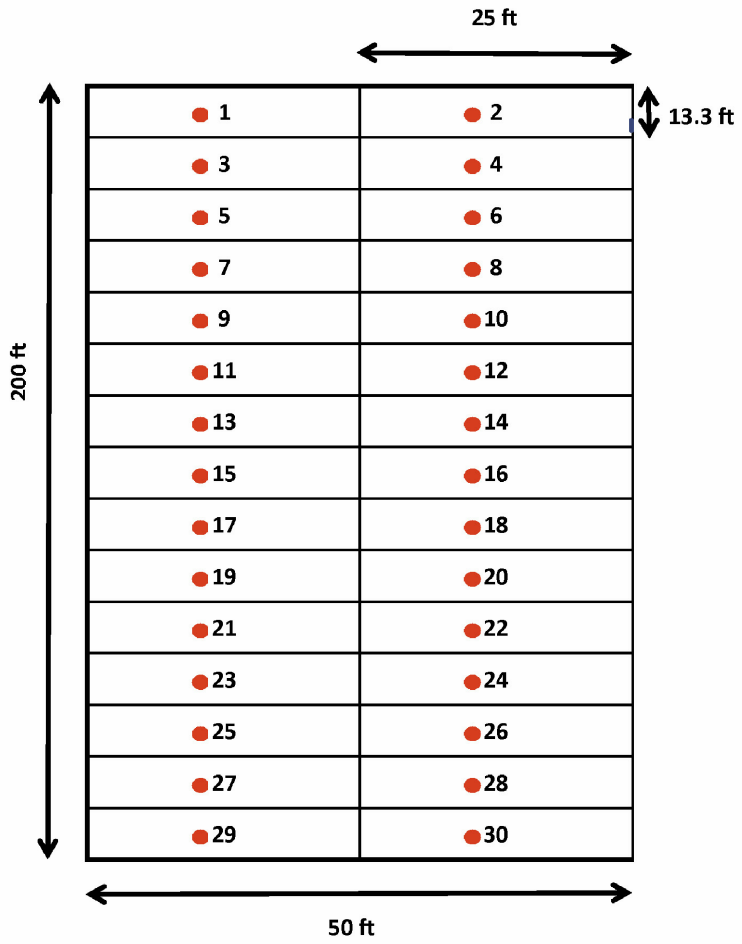
INCREMENTAL SAMPLING SYSTEMATIC SAMPLING UNIT LAYOUT FOR GRIDS G02, G04, G08, AND G12

NANTUCKET BEACH FORMERLY USED DEFENSE SITE
NANTUCKET, MA

WESTON SOLUTIONS
CONCORD NEW HAMPSHIRE

US ARMY CORPS OF ENGINEERS

DRAWN	DATE	DES. ENG.	DATE	W.O. NO.
BEG	DEC 2012	MSL	DEC 2012	03886.551.004
CHECKED	DATE	SCALE	REVISION	FIGURE NO.
MSL	DEC 2012	NONE		3-19



Notes:

Sampling Unit size meets risk assessment exposure assumptions (~0.25 acres)

Red dot (●) indicates location of systematic random increment collection point (~35 grams/increment)

ft = foot

INCREMENTAL SAMPLING SYSTEMATIC SAMPLING UNIT LAYOUT FOR GRID G09

NANTUCKET BEACH FORMERLY USED DEFENSE SITE
NANTUCKET, MA

WESTON SOLUTIONS
CONCORD NEW HAMPSHIRE

US ARMY CORPS OF ENGINEERS

DRAWN	DATE	DES. ENG.	DATE	W.O. NO.
BEG	DEC 2012	MSL	DEC 2012	03886.551.004
CHECKED	**DATE**	**SCALE**	**REVISION**	**FIGURE NO.**
MSL	DEC 2012	NONE		3-20

was conducted in accordance with the *Final WP* via collection of samples from residential groundwater wells in the vicinity of MRS 1 and MRS 2 that were sampled during the SI and are currently used as a source for drinking water by local residents. All four residences fall within the boundary of AC-01, which was the only anomaly cluster where MD was recovered during the RI and would be the most likely to be impact if MC impacts from soil leaching to groundwater were present.

Parcel No. 91 2.4 was sampled to supplement data previously collected to characterize MRS 1. Parcel No.'s 90 9, 91 1, and 91 118 were sampled to supplement data previously collected to characterize MRS 2. See Figure 3-18 for the locations of residents within MRS 1 and MRS 2 that were included in the groundwater characterization effort.

Following the same procedure employed for SI sampling, residential wells were sampled from exterior spigots after verification that there were no water treatment systems existing in the home, and following a 5-minute purge. Off-site analytical performed by the laboratory included metals analysis via EPA Method 6010C, explosives analysis via EPA Method 8330B, and perchlorate analysis via EPA Method 6850.

3.4.4 Reference Area Sampling Activities

No reference area samples were collected in accordance with decision logic employed for data evaluation and risk assessment activities as no releases were identified and no COPC for human or ecological receptors were identified (see Section 5).

3.4.5 Quality Control Sampling

Quality control sampling in accordance with the *UFP-QAPP* was performed including: collection of replicate samples at a frequency of 10% of the total IS collected; and collection of field duplicates at a frequency of 10% and matrix spike/matrix spike duplicate at a frequency of 20% for all discrete soil and groundwater samples. Review of QC samples was completed during data validation and is reported in memoranda included in Appendix A that were prepared as interim submittals to detail field investigations and data evaluations conducted for HTW and MC sampling analytical tasks.

3.4.6 Data Validation Procedures

A modified Tier II Data Validation was performed on 100% of samples analyzed in accordance with the *UFP-QAPP*. The verification/validation of the sampling data and analysis is in accordance with the project *UFP-QAPP*, the EPA *Contract Laboratory Program National Functional Guidelines for Superfund Organic Data Review*, issued in June 2008, and the EPA *CLP National Functional Guidelines for Inorganic Superfund Data Review*, issued in January 2010, along with the QA/QC requirements for the analytical methods used for the analyses. All instruments and method sensitivities were according to the specified analytical methods.

Overall, data quality was found to be non-impacted, except for several minor issues that have been documented in data validation memoranda attached to the technical memoranda provided in Appendix A to document analytical data evaluation and validation. The final analytical data packages received from the laboratory are also attached to the technical memoranda in Appendix A (an insert sheet is provided as Appendix I to reference the reader to Appendix A for analytical data packages). Potential bias that should be considered when evaluating the data is provided with the validated data tables presented in Subsection 4.4 to facilitate the discussion of results obtained during the RI sampling events.

SECTION 4

REMEDIAL INVESTIGATION RESULTS

4. REMEDIAL INVESTIGATION RESULTS

Based on the results of the WAA airborne survey, ground reconnaissance, ground-based geophysical surveys, and intrusive investigations documented above in Section 3, no UXO or DMM was confirmed to be present at either MRS 1 or MRS 2. The only former military munitions training materials that were discovered constituted MD, recovered from within the boundaries of AC-01 only. No evidence of MEC was identified in any other investigation areas included in the RI. The following subsections detail the nature and extent of MD discovered during the RI within the boundaries of each of the MRSs.

4.1 NATURE AND EXTENT OF MUNITIONS DEBRIS

4.1.1 Munitions Response Site 1

No evidence of a burial pit for DMM or HTW was identified within the 1.5 acres of MRS 1. Typical munitions burial pits would include multiple MD items or masses of MD stacked or obviously discarded in one location. Other items that may have been present due to HTW concerns are tanks, drums, or debris that would have been detectable either by the EM31-MK2 and/or magnetometer survey.

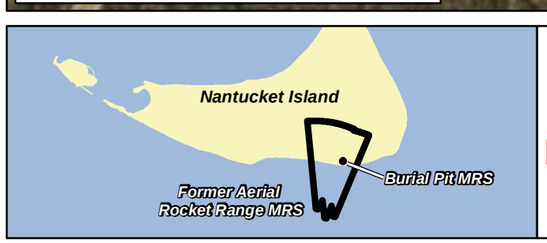
Since no anomalies indicative of burial features were detected by the geophysical surveys, 21 single item anomalies were selected for intrusive investigation. Anomalies intrusively investigated within this MRS resulted in recovery of three culturally-related debris items and recovery of 18 MD items including:

- 1 – 5-inch HVAR
- 4 – 3.5-inch FFARs
- 13 – 2.25-inch SCARs

All items were recovered as non-clustered, single-items dispersed across the MRS as shown on Figure 4-1, and are most likely associated with the encompassing aerial rocket range as indicated by the dispersion pattern and nature of items recovered. All MD was recovered and ultimately classified as MDAS. Munitions Technical Data Sheets for the recovered practice munitions are provided in Appendix J.

MRS 1
Burial Pit

NOTES:
MRS 2 MD items not shown (see Figures 4-2 and 4-6)



- 2.25-in rocket
- 3.5-in rocket
- 5-in rocket
- MRS 1 – Burial Pit

Coordinate System:
UTM, Z19N, NAD83, US Foot

US Army Corps of Engineers

Nantucket Beach Formerly Used Defense Site

N

0 30 60 90 Feet

0 10 20 30 Meters

NOTES:
Aerial Data Source: ESRI iCubed Imagery Prime World 2D (2004)
Base Data: USACE (2004); MassGIS (2011)

FIGURE 4-1
Nature and Lateral Extent of MD Recovered from MRS 1

6/28/2013 | NT_MD's_Recovered_MRS1

Drawn: johna | PROJ: 03886.551.004

4.1.2 Munitions Response Site 2

A total of 1,292 targets were selected from the geophysical data for intrusive investigation based on the DGM survey (1,133 DGM anomalies), underwater mag and dig survey (15 anomalies), Area 1 and 2 mag and dig surveys (18 anomalies), and the WAA survey (126 target anomalies) results. No UXO was identified during the RI. A total of 920 miscellaneous rockets and/or rocket components, all determined to be MD by UXO Technicians, were recovered during the RI including:

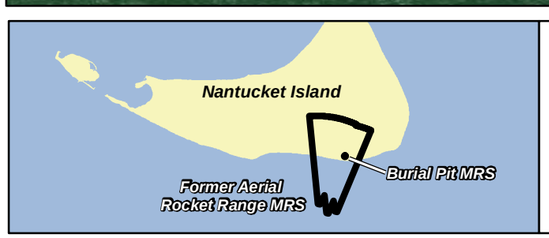
- 66 – 5-inch HVARs
- 298 – 3.5-inch FFARs
- 313 – 2.25-inch SCARs
- 242 – miscellaneous rocket components
- 1 - fragment

One MD item identified as a rocket fragment, recovered from transect T-11 in AC-01, was also discovered but this item was assessed to be associated with historical demilitarization operations performed by EOD, or other responsible organization. No other fragments were recovered during the RI. All MD was recovered and ultimately classified as MDAS. Historical reports of suspect HE munitions that have been found or demolished within the MRS were not confirmed as no UXO was observed during the RI. Munitions Technical Data Sheets for the recovered practice munitions are provided in Appendix J.

A figure depicting the type and location of MD recovered during the RI is included as Figure 4-2. The density of MD characterized within AC-01 was modeled using VSP as depicted on Figure 4-3. This figure portrays a boundary line encompassing an area of 97 acres around the former Target #1 footprint, which captures all MD delineated within the MRS boundary. No evidence of munitions was found beyond this demarcation. A summary of the MD recovered during the RI with an estimate of the total quantity of MD present within the 97-acre boundary line is presented on Table 4-1.



NOTES:
MRS 1 MD items not shown (see figures 4-1 and 4-4)



T-1 Former Target
2.25-in rocket
3.5-in rocket
5-in rocket
Frag
Other MD

DGM Transect
DGM Grid
Anomaly Cluster (From VSP)
MRS 1 – Burial Pit
MRS 2 – Aerial Rocket Range

Coordinate System: UTM, Z19N, NAD83, US Foot

US Army Corps of Engineers

Nantucket Beach Formerly Used Defense Site

WESTON SOLUTIONS

FIGURE 4-2
Nature and Lateral Extent of MD Recovered from MRS 2

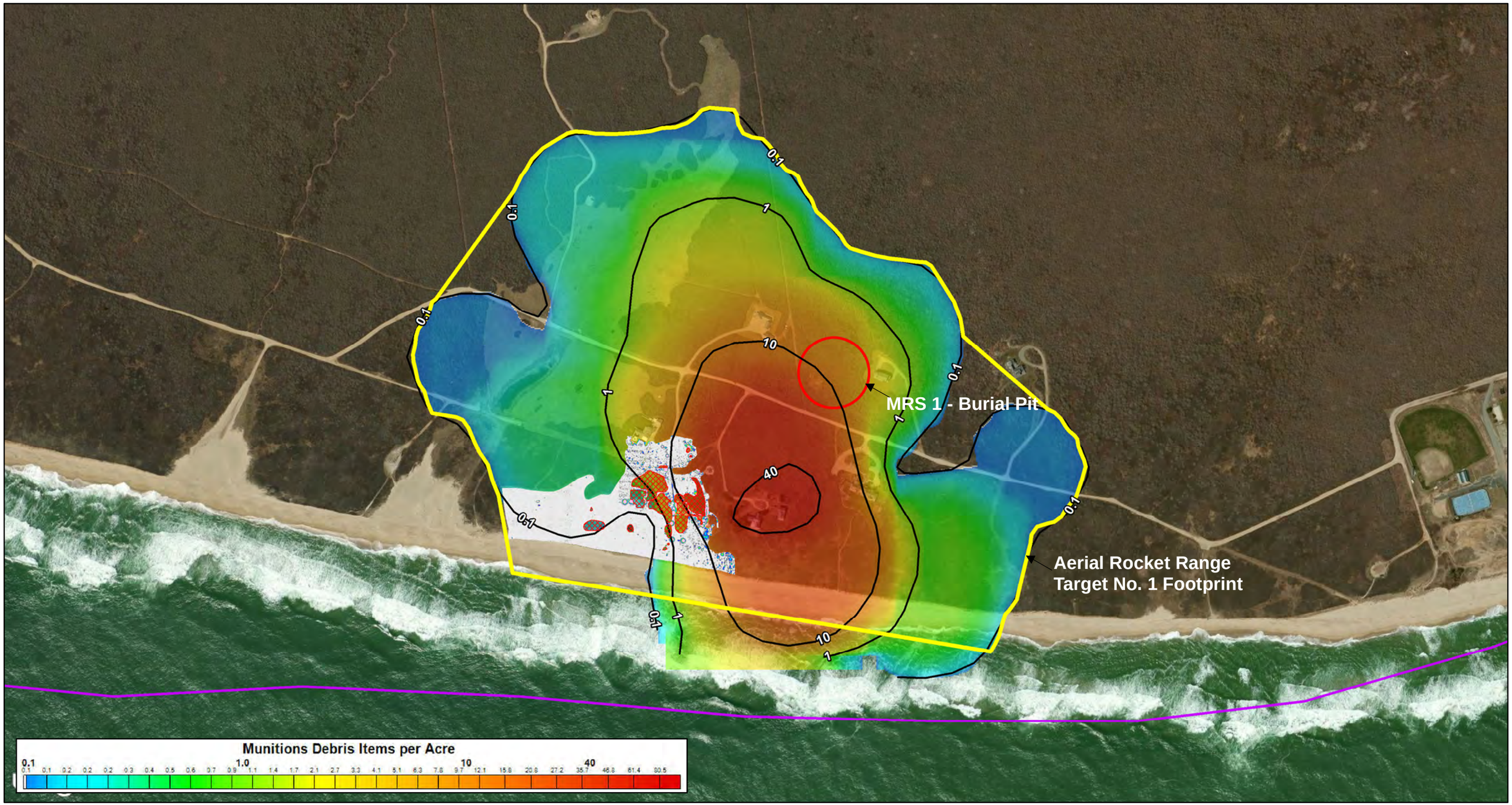
N

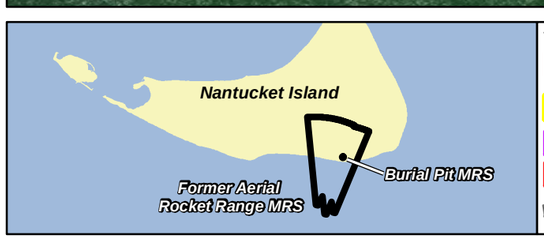
0 190 380 570 Feet
0 70 140 210 Meters

NOTES:
Aerial Data Source: ESRI iCubed Imagery Prime World 2D (2004)
Base Data: USACE (2004); MassGIS (2011)

6/28/2013 | NT_MD's_Recovered_MRS2_2V

Drawn: johna | PROJ: 03886.551.004





- Anomaly Density Contour
- Areas Not Investigated
- MRS 2 – Aerial Rocket Range Target #1 Footprint
- FUDS Boundary
- MRS 1 – Burial Pit
- Area subject to previous removal action by private contract

Coordinate System:
UTM, Z19N, NAD83, US Foot

US Army Corps of Engineers

Nantucket Beach Formerly Used Defense Site

N

0 250 500 750 Feet

0 90 180 270 Meters

NOTES:
Aerial Data Source: ESRI iCubed Imagery Prime World 2D (2004)
Base Data: USACE (2004); MassGIS (2011)

FIGURE 4-3
Munitions Debris Density in MRS1 and MRS 2

7/15/2013	NT_Density_MD_2V
Drawn: johna	PROJ: 03886.551.004

Table 4-1
Estimated Quantity of Munitions Debris within MRS Boundaries

MD Density Interval (Figure 4-3)	Total Area (acres) in Density Interval	Total Area (acres) Investigated	Quantity of MD Recovered during RI	Depth Range of Recovered MD	Maximum Estimated Quantity of MD Remaining [1]
< 1	55.9	2.9	2.5-inch: 6 items 3.5-inch: 5 items 5-inch: 1 item Frag: 1 item[2] Other MD: 0 items	2.5-inch: 12 in to 36 in bgs 3.5-inch: 0 in to 4 in bgs 5-inch: 6 in bgs Frag: 6 in bgs Other MD: NA **Range: 0 in to 36 in bgs**	238
1-10	23.0	1.2	2.5-inch: 25 items 3.5-inch: 8 items 5-inch: 4 items Frag: 0 items Other MD: 0 items	2.5-inch: 0 in to 60 in bgs 3.5-inch: 3 in to 48 in bgs 5-inch: 0 in to 24 in bgs Frag: NA Other MD: NA **Range: 0 in to 60 in bgs**	672
10-40	16.3	1.4	2.5-inch: 286 items 3.5-inch: 284 items 5-inch: 60 items Frag: 0 items Other MD[3]: 239 items	2.5-inch: 0 in to 96 in bgs 3.5-inch: 0 in to 72 in bgs 5-inch: 0 in to 72 in bgs Frag: NA Other MD[3]: 0 in to 51 in bgs **Range: 0 in to 96 in bgs**	9,253
40+	1.8	0.006	2.5-inch: 9 items 3.5-inch: 5 items 5-inch: 2 items Frag: 0 items Other MD[3]: 3 items	2.5-inch: 6 in to 60 in bgs 3.5-inch: 6 in to 30 in bgs 5-inch: 48 in to 60 in bgs Frag: NA Other MD[3]: 6 in to 60 in bgs **Range: 0 in to 96 in bgs[4]**	5,569
Totals	**97.0**	**5.5**	**938**		**15,731**

Notes:
bgs = below ground surface
in = inches
MD = munitions debris
MRS = Munitions Response Site
RI = Remedial Investigation
VSP = Visual Sample Plan software

[1] Maximum estimated quantity of MD generated using RI intrusive investigation results (See Appendix G - Target Dig List) for MRS 2/AC-01; extrapolated over portions of MRS 2/AC-01 demarcated using VSP (see Figure 4-3) to simulate the spatial distribution of MD.

[2] Recovered item classified as a rocket fragment was determined in the field by the Senior Unexploded Ordnance Supervisor to be associated with a historical demilitarization operation performed by EOD or other responsible organization.

[3] Other MD indicates miscellaneous, inert rocket components.

[4] Contacts were left in-place during the RI at depths greater than 60 inches bgs in the 40+ MD/acre density interval; assumed maximum range in depth is equal to 96 in bgs based on RI findings in Grid AC-01-G02.

Of the remaining 351 targets investigated intrusively during the RI in MRS 2, 224 items were found to be cultural in nature (e.g., pipe, metal scrap, rebar, hot rocks, fencing/fence posts, etc.,), 10 targets were resolved as "shared" targets within AC-01 (i.e., accounted for in MD total above), 29 items were part of the blind seeding program, 86 anomalies were no contacts, and 2 anomalies were not investigated due to property owner concerns regarding impacts to landscape features (grid AC-01-G01). As shown on Figure 4-2, all recovered MD was concentrated in the vicinity of former Target #1 in the investigation area demarcated as AC-01. The amount of MEC characterization (DGM and intrusive work) performed in AC-01 exceeded UXO Estimator requirements and MQOs established for the RI.

As highlighted on Figure 4-3 and referenced in Subsection 2.4.1, a 6-acre portion of AC-01 was subject to a RA under private contract by the residential parcel owner as documented in the *Final Site Specific Final Report* (VRHabilis, 2011).

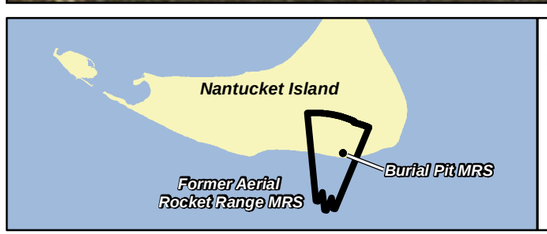
4.2 DEPTH DISTRIBUTION OF MUNITIONS DEBRIS

4.2.1 Munitions Response Site 1

The average depth of recovered items in MRS 1 was 2.8 ft, with a median of 3 ft based on the 18 recovered items. The maximum depth of recovered MD in this MRS was 5 ft (2.25-inch SCAR and 3.5-inch FFAR). A figure depicting the depth of MD items recovered during the RI is provided as Figure 4-4 for MRS 1.

Table 4-2 has been provided to summarize the distribution of MD within MRS 1 that was characterized during the RI, and Figure 4-5 provides a histogram of the RI results that plots the total frequency of recovered MD against the depth of each finding in inches below ground surface.





MD Depth Contour
Depth in Inches
- -108 to -96
- -96 to -84
- -84 to -72
- -72 to -60
- -60 to -48
- -48 to -36
- -36 to -24
- -24 to -12
- -12 to 0

Anomaly Density Contour
MRS 1 – Burial Pit

Coordinate System:
UTM, Z19N, NAD83, US Foot

US Army Corps of Engineers

Nantucket Beach Formerly Used Defense Site

N

0 40 80 120 Feet

0 10 20 30 Meters

NOTES:
Aerial Data Source: ESRI Bing Imagery Service
Base Data: USACE (2004)

FIGURE 4-4
Depth Extent of MD Recovered from MRS 1

6/28/2013 Revision: 0	nt_md_depth_MRS1
Drawn: johna	PROJ: 03886.551.004

Table 4-2

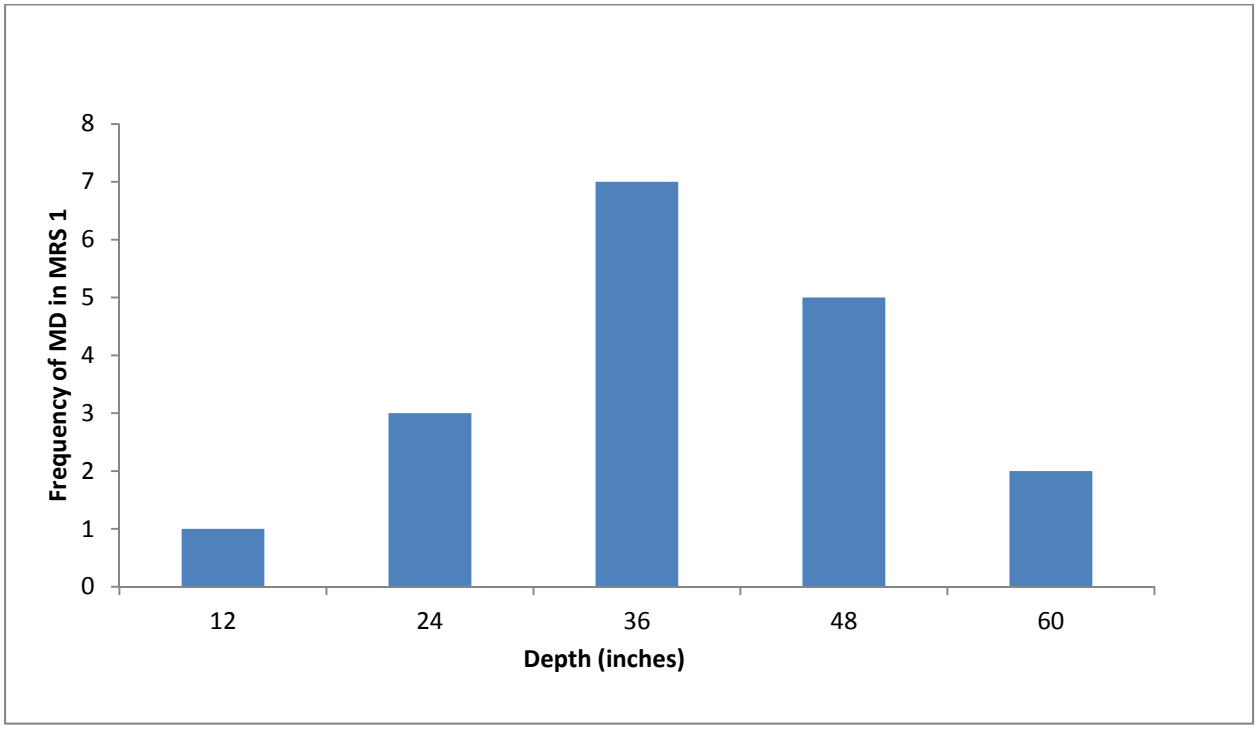
MRS 1 Munitions Debris Depth Distribution

Depth (inches below ground surface)	Munitions Debris Type			Total
	2.25-inch SCAR	3.5-inch FFAR	5-inch HVAR	
0 – 12	0	0	1	1
12 – 24	3	0	0	3
24 – 36	6	1	0	7
36 – 48	3	2	0	5
48 – 60	1	1	0	2
				18

Notes:
Munitions debris recovered during 2012 Remedial Investigation
SCAR = sub-caliber aircraft rocket
FFAR = forward firing aircraft rocket
HVAR = high velocity aircraft rocket

Figure 4-5

MRS 1 Munitions Debris Depth Profile



4.2.2 Munitions Response Site 2

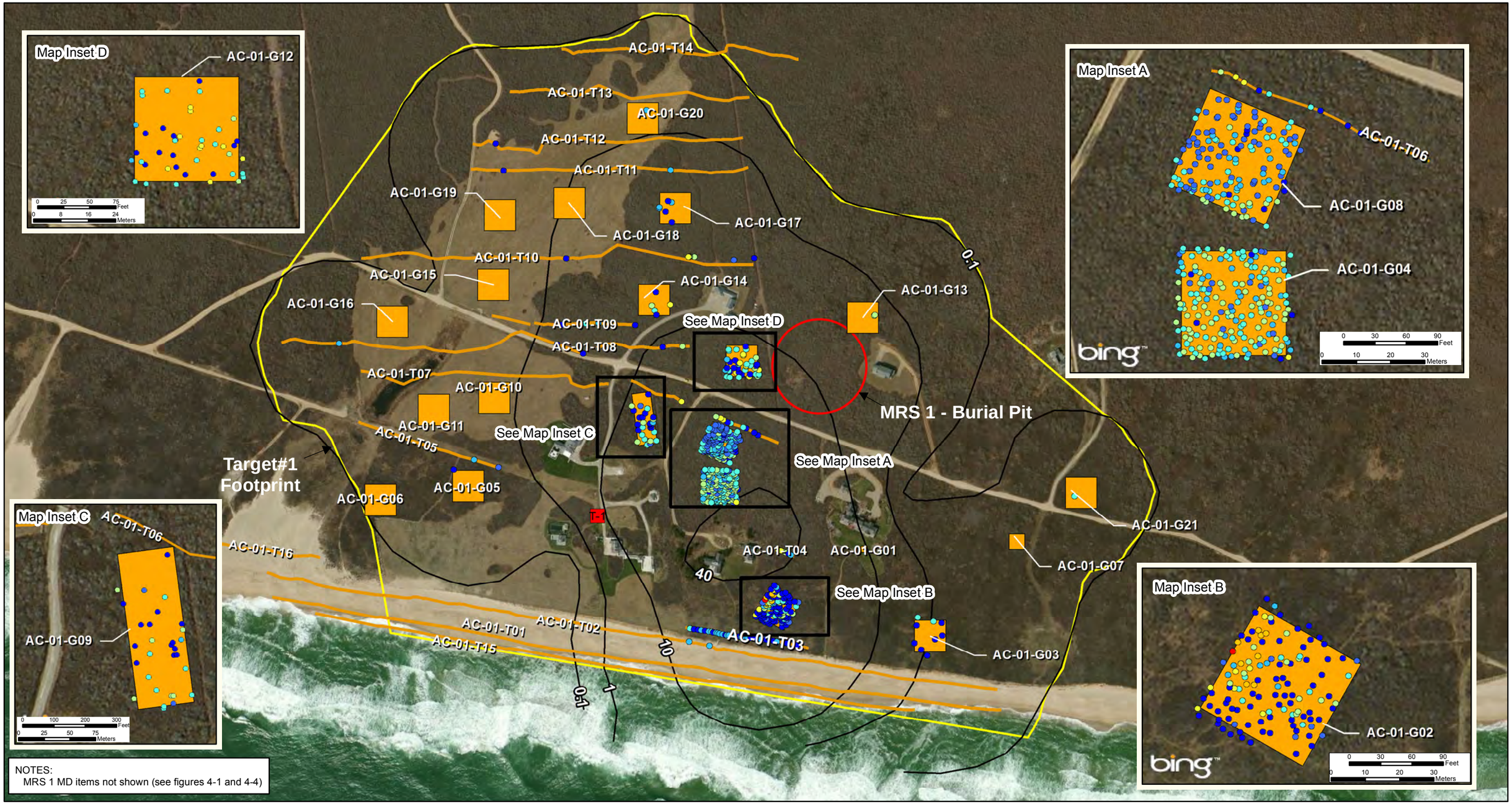
The average depth of recovered items was 2.5 ft, with a median depth of 3 ft based on the 920 recovered items. The maximum depth of recovered MD in this MRS was 8 ft (2.25-inch SCAR in grid AC-01-G02). A total of 110 contacts were left in-place within the AC-01 investigation area and not intrusively investigated as documented in Appendix G (Target Dig List) and summarized below. Given the location of these residual contacts within the high anomaly density areas mapped as AC-01, it is assumed that the location and nature of these items are most likely similar to the inert MD recovered during the RI.

In both grids AC-01-G04 and AC-01-G08, contacts were left in-place at depths greater than 4 ft bgs as the depth of MD is likely similar to that observed in AC-01-G02 given the similar density of anomalies mapped in these grids. A total of 77 contacts were left in grid AC-01-G04, and 13 contacts were left in grid AC-01-G08.

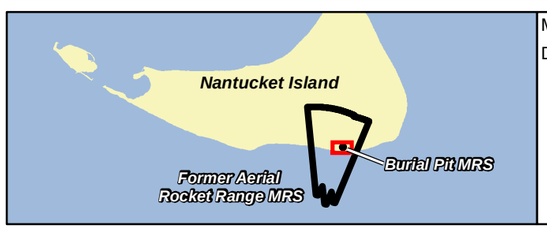
Additionally, on transect AC-01-T03, contacts were left in-place at depths greater than 2 ft bgs due to the transect's close proximity to the beach bluff and fragile stability of soils and vegetation. To preserve the integrity of the bluff, 18 contacts were left in-place within AC-01-T03.

Grid AC-01-G01 was positioned within a landscaped portion of a residential lawn and, based on property owner's request, the two contacts detected in this grid during the geophysical survey were also left in-place.

A figure depicting the depth of MD items recovered during the RI is provided as Figure 4-6 for MRS 2. Inset D is provided on Figure 4-6 to detail the depth of MD recovered from grid AC-01-G12, which was located in close proximity to the potential burial pit being investigated in MRS 1. Although MD was recovered from this grid at depths up to 5 ft bgs, the clustering of MD delineated within this grid was determined not to be representative of a burial pit. Most MD recovered within AC-01-G12 were single items. Only three of the locations investigated as part of the RI had two MD items in this grid.



NOTES:
MRS 1 MD items not shown (see figures 4-1 and 4-4)



MD Depth Contour
Depth in Inches
-108 to -96
-96 to -84
-84 to -72
-72 to -60
-60 to -48
-48 to -36
-36 to -24
-24 to -12
-12 to 0

Former Target
DGM Grid
DGM Transect
MRS 1 – Burial Pit
MRS 2 – Aerial Rocket Range
MRS 2 – Aerial Rocket Range Target #1 Footprint
Anomaly Density Contour

US Army Corps of Engineers

Nantucket Beach Formerly Used Defense Site

WESTON SOLUTIONS

N

0 190 380 570 Feet
0 70 140 210 Meters

NOTES:
Aerial Data Source: ESRI Bing Mapping Service (2011)
Base Data: USACE (2004); MassGIS (2011)

FIGURE 4-6
Depth Extent of MD Recovered from MRS 2

7/24/2013	NT_md_depth_MRS2
Drawn: johna	PROJ: 03886.551.004

Table 4-3 below has been provided to summarize the distribution of MD within MRS 2 that was characterized during the RI, and Figure 4-7 provides a histogram of the RI results that plots the total frequency of recovered MD against the depth of each finding in inches below ground surface.

Table 4-3

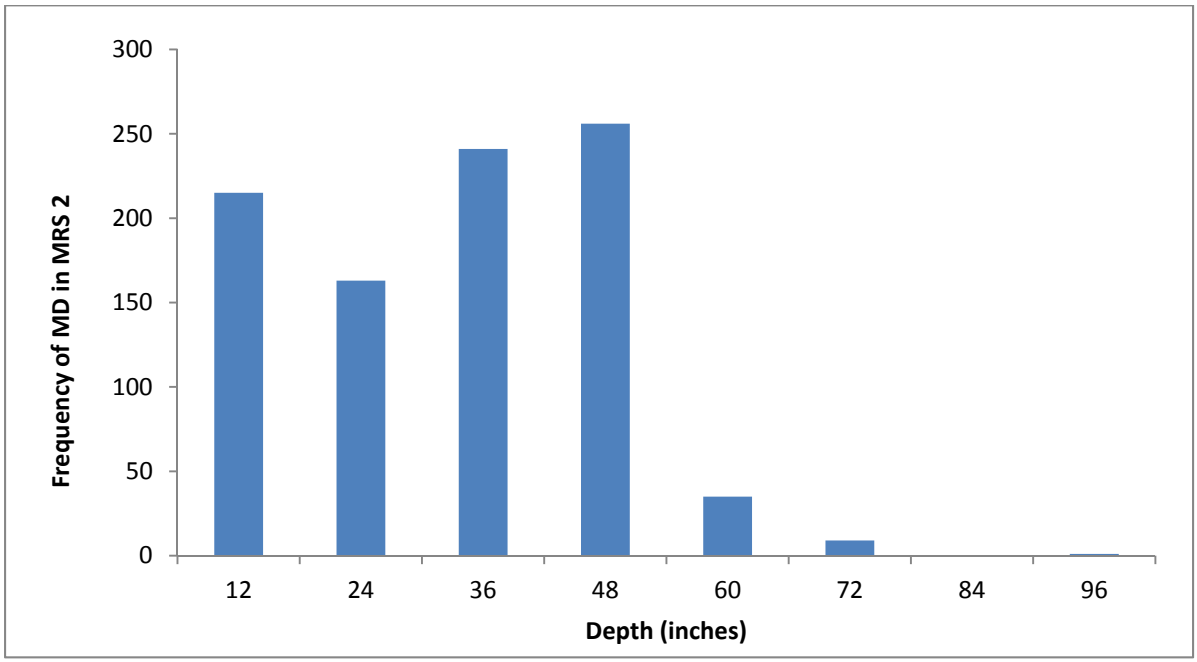
MRS 2 Munitions Debris Depth Distribution

Depth (inches below ground surface)	Munitions Debris Type				Total
	2.25-inch SCAR	3.5-inch FFAR	5-inch HVAR	Miscellaneous Components	
0 - 12	88	56	17	54	215
12 - 24	32	47	17	67	163
24 - 36	74	89	18	60	241
36 - 48	94	92	10	60	256
48 - 60	20	10	3	2	35
60 - 72	4	4	1	0	9
72 - 84	0	0	0	0	0
84 - 96	1	0	0	0	1
					920

Notes:
Munitions debris recovered during 2012 Remedial Investigation
SCAR = sub-caliber aircraft rocket
FFAR = forward firing aircraft rocket
HVAR = high velocity aircraft rocket

Figure 4-7

MRS 2 Munitions Debris Depth Profile



Based on the type of MD that was positively identified during the RI, calculations were performed to assess the maximum possible penetration depth for the types of munitions identified during the RI. Based on the results of these calculations, summarized below in Table 4-4, the maximum possible depth that MD may be present within the MRS boundaries, inclusive of MRS 1 as the type of MD discovered was the same, is 12.5 ft bgs for the 5-inch HVAR.

4.2.2.1.1 Underwater Investigation Area of MRS 2

As reported above, no UXO or MD was discovered during the RI mag and dig survey. The average depth of recovered items underwater was 1.7 ft, while the median depth of investigated targets was 0.5 ft bgs, and the maximum depth of investigated targets was 6 ft (hot rock discovery on Transect-27).

Table 4-4

Maximum Potential Penetration Depth for Practice Munitions Formerly Used at MRS 1 and MRS 2

Rocket type	W_f	k_p	V_s	t_p	Depth (feet below ground surface)
2.25-inch SCAR	1280	5.29	1129.33	95.37516898	7.9
3.5-inch FFAR	864	5.29	1173.33	86.50579887	7.2
5-inch HVAR	2960	5.29	1393.33	150.1879556	12.5

Notes:
Reference: Technical Manual (TM) 5-855-1, "Fundamentals of Protective Design for Conventional Weapons," U.S. Department of Army, Washington, DC, November 1986. Crull, Michelle, "Estimating Ordnance Penetration into Earth," U.S. Army Engineering & Support Center, Huntsville, Huntsville, AL
SCAR = sub-caliber aircraft rocket
FFAR = forward firing aircraft rocket
HVAR = high velocity aircraft rocket
W_f = fragment weight in ounces
k_p = constant depending on soil type
V_s = striking velocity in feet per second
t_p = penetration depth in inches

4.3 MUNITIONS CONSTITUENTS AND HAZARDOUS TOXIC WASTE CHARACTERIZATION

A summary of the investigation and sampling results performed to assess MC in both MRSs, and the potential for HTW in MRS 1, is presented in the following subsections. Refer to Appendix A for detailed technical memoranda prepared during the RI to present the results of field investigations, data evaluation/validation (Modified Tier II), and risk screening activities conducted to support the RI.

Environmental sampling was conducted in accordance with planning documents and included full parameter lists for the analyses requested. Based on the inert nature of practice munitions characterized within the MRS boundaries during the RI, MC of concern includes metals analytes associated with the body/head composition of the rockets including aluminum, barium, iron, magnesium, and zinc. Propellants associated with the rocket motors including nitrocellulose and nitroglycerin would only be a concern in the unlikely event that a rocket motor did not fire during practice; however, this was not the case with any of the recovered MD items during the RI.

4.3.1 Munitions Response Site 1 Soil Sampling Data Evaluation

A summary table is provided as Table 4-5, which includes the validated MRS 1 analytical data compared to the selected screening levels to evaluate the presence/absence of contamination and potential risks posed to receptors for MRS 1. As previously established in the *UFP-QAPP*, laboratory analytical methods were not able to achieve a limit of detection (LOD) below selected screening levels for several compounds.

As shown on Table 4-5, the majority of constituents analyzed by the laboratory yielded non-detect results or low level detections at quantitation limits that were below project screening levels. There were no pesticides, polychlorinated biphenyls, herbicides, or explosives detected in the samples. Several detections within the volatile organic compound and semi-volatile organic compound lists of chemicals were reported by the laboratory, but the concentrations were all below the selected screening levels. The only detected analyte above its respective screening level was arsenic. All other metals were undetected or detected at concentrations below selected screening levels.

Additionally highlighted on Table 4-5 are occurrences within the data set where non-detect results reported at the laboratory LOD did not meet the selected screening levels. This was observed in the results obtained for thallium (metal), nitroglycerin (explosive), and 4-chloro-2-methylphenoxyacetic acid (MCPA) (herbicide) during the human health risk screening, and for antimony and thallium (both metals) during the ecological risk screening. These results are discussed in the context of COPC and COPEC selection in Section 5 of this RI Report.

Table 4-5
Munitions Response Site 1 Burial Pit
Hazardous, Toxic Waste and Munitions Constituents
Test Pit Composite Soil Sampling Analytical Data Evaluation

Analytical Method	Compound	CAS No.	Human Health Risk Screening Level [1]	Ecological Risk Screening Level [2]	Units:	Field Sample ID:	NFUDS-001-TP0101-01		NFUDS-001-TP0201-01		NFUDS-001-TP0302-01		NFUDS-001-TP0402-01		NFUDS-001-TB01-06	
						Date:	6/29/2012		6/29/2012		6/29/2012		6/29/2012		6/29/2012	
						Lab Sample	200-11554-1		200-11554-2		200-11554-3		200-11554-4		200-11554-5	
						Depth:	0 - 1		0 - 1		1 - 8		1 - 7		NA	
							Result	Val Qual	Result	Val Qual	Result	Val Qual	Result	Val Qual	Result	Val Qual
Metals																
6010C	Aluminum, Total	7429-90-5	7700	-- [3]	mg/kg		2400		2900		2000		1200	J7	-	
6010C	Antimony, Total	7440-36-0	3.1	0.27	mg/kg		0.99	U	1	U	0.99	U	0.97	UJ8	-	
6010C	Arsenic, Total	7440-38-2	0.39	18	mg/kg		1.8		2		1.6		1.9		-	
6010C	Barium, Total	7440-39-3	1500	330	mg/kg		4	J	2.6	J	3.4	J	2.7	J	-	
6010C	Beryllium, Total	7440-41-7	16	21	mg/kg		0.13	J	0.1	J	0.12	J	0.093	J	-	
6010C	Cadmium, Total	7440-43-9	7	0.36	mg/kg		0.17	U	0.17	U	0.16	U	0.16	U	-	
6010C	Calcium, Total	7440-70-2	--	--	mg/kg		420		70	J	81	J	46	J7J9	-	
6010C	Chromium, Total	7440-47-3	12000	26	mg/kg		3.5		3.9		3.8		2.3		-	
6010C	Cobalt, Total	7440-48-4	2.3	13	mg/kg		1.1	J	1	J	1.5	J	0.81	J	-	
6010C	Copper, Total	7440-50-8	310	28	mg/kg		1.1	J	0.82	J	1.2	J	0.89	J	-	
6010C	Iron, Total	7439-89-6	5500	-- [3]	mg/kg		4400		3900		3900		2500	J7	-	
6010C	Lead, Total	7439-92-1	40	11	mg/kg		2		2.3		1.7		1.1	J9	-	
6010C	Magnesium, Total	7439-95-4	--	--	mg/kg		500		450		660		270	J9	-	
6010C	Manganese, Total	7439-96-5	180	220	mg/kg		49		26		47		29	J7J9	-	
6010C	Nickel, Total	7440-02-0	150	38	mg/kg		2.1	J	2.3	J	2.8		1.5	J	-	
6010C	Potassium, Total	7440-09-7	--	--	mg/kg		270	J	260	J	270	J	230	J9	-	
6010C	Selenium, Total	7782-49-2	39	0.52	mg/kg		1.5	U	1.6	U	1.5	U	1.5	U	-	
6010C	Silver, Total	7440-22-4	39	4.2	mg/kg		0.26	U	0.28	U	0.26	U	0.26	U	-	
6010C	Sodium, Total	7440-23-5	--	--	mg/kg		19	J	9.9	J	9	J	5.9	J	-	
6010C	Thallium, Total	7440-28-0	0.078	1	mg/kg		0.99	U	1	U	0.99	U	0.97	U	-	
6010C	Vanadium, Total	7440-62-2	39	7.8	mg/kg		5.2		5.3		4.7		3.9		-	
6010C	Zinc, Total	7440-66-6	2300	46	mg/kg		5.7		4.5		6.5		3.6	J7	-	
7471B	Mercury, Total	7439-97-6	1	0.1	mg/kg		0.011	J	0.031	J	0.015	J	0.0059	J	-	
Pesticides																
8081B	4,4'-DDD	72-54-8	2000	21	ug/kg		0.7	U	0.69	U	0.68	U	0.68	U	-	
8081B	4,4'-DDE	72-55-9	1400	21	ug/kg		0.7	U	0.69	U	0.68	U	0.68	U	-	
8081B	4,4'-DDT	50-29-3	1700	21	ug/kg		0.7	U	0.69	U	0.68	U	0.68	U	-	
8081B	Aldrin	309-00-2	29	30	ug/kg		0.35	U	0.34	U	0.33	U	0.33	U	-	
8081B	Alpha-BHC	319-84-6	77	150	ug/kg		0.35	U	0.34	U	0.33	U	0.33	U	-	
8081B	Alpha-chlordane	5103-71-9	1600.0	4.8	ug/kg		0.4	U	0.3	U	0.3	U	0.3	U	-	
8081B	Beta-BHC	319-85-7	270	150	ug/kg		0.35	U	0.34	U	0.33	U	0.33	U	-	
8081B	Delta-BHC	319-86-8	--	150	ug/kg		0.35	U	0.34	U	0.33	U	0.33	U	-	
8081B	Dieldrin	60-57-1	30	4.9	ug/kg		0.7	U	0.69	U	0.68	U	0.68	U	-	
8081B	Endosulfan I	959-98-8	--	3800	ug/kg		0.35	U	0.34	U	0.33	U	0.33	U	-	
8081B	Endosulfan II	33213-65-9	--	3800	ug/kg		0.7	U	0.69	U	0.68	U	0.68	U	-	
8081B	Endosulfan Sulfate	1031-07-8	--	3800	ug/kg		0.7	U	0.69	U	0.68	U	0.68	U	-	
8081B	Endrin	72-20-8	1800	5	ug/kg		0.7	U	0.69	U	0.68	U	0.68	U	-	
8081B	Endrin Aldehyde	7421-93-4	--	5	ug/kg		0.7	U	0.69	U	0.68	U	0.68	U	-	
8081B	Endrin Ketone	53494-70-5	--	5	ug/kg		0.7	U	0.69	U	0.68	U	0.68	U	-	
8081B	Gamma-BHC	58-89-9	520	150	ug/kg		0.35	U	0.34	U	0.33	U	0.33	U	-	
8081B	Gamma-Chlordane	5103-74-2	1600	4.8	ug/kg		0.35	U	0.34	U	0.33	U	0.33	U	-	
8081B	Heptachlor	76-44-8	110	6300	ug/kg		0.35	U	0.34	U	0.33	U	0.33	U	-	
8081B	Heptachlor Epoxide	1024-57-3	53	6300	ug/kg		0.35	U	0.34	U	0.33	U	0.33	U	-	
8081B	Methoxychlor	72-43-5	31000	--	ug/kg		3.5	U	3.4	U	3.3	U	3.3	U	-	
8081B	Toxaphene	8001-35-2	440	--	ug/kg		35	U	34	U	33	U	33	U	-	
8081B	Toxaphene Peak 1		--	--	ug/kg		35	U	34	U	33	U	33	U	-	
8081B	Toxaphene Peak 2		--	--	ug/kg		35	U	34	U	33	U	33	U	-	
8081B	Toxaphene Peak 3		--	--	ug/kg		35	U	34	U	33	U	33	U	-	
8081B	Toxaphene Peak 4		--	--	ug/kg		35	U	34	U	33	U	33	U	-	
8081B	Toxaphene Peak 5		--	--	ug/kg		35	U	34	U	33	U	33	U	-	

Table 4-5
Munitions Response Site 1 Burial Pit
Hazardous, Toxic Waste and Munitions Constituents
Test Pit Composite Soil Sampling Analytical Data Evaluation

Analytical Method	Compound	CAS No.	Human Health Risk Screening Level [1]	Ecological Risk Screening Level [2]	Field Sample ID:	NFUDS-001-TP0101-01		NFUDS-001-TP0201-01		NFUDS-001-TP0302-01		NFUDS-001-TP0402-01		NFUDS-001-TB01-06	
					Date:	6/29/2012		6/29/2012		6/29/2012		6/29/2012		6/29/2012	
					Lab Sample	200-11554-1		200-11554-2		200-11554-3		200-11554-4		200-11554-5	
					Depth:	0 - 1		0 - 1		1 - 8		1 - 7		NA	
					Units:	Result	Val Qual	Result	Val Qual	Result	Val Qual	Result	Val Qual	Result	Val Qual
Polychlorinated Biphenyls															
8082A	Aroclor-1016	12674-11-2	3900	--	ug/kg	3.5	U	3.4	U	3.3	U	3.4	U	-	
8082A	Aroclor-1221	11104-28-2	140	--	ug/kg	3.5	U	3.4	U	3.3	U	3.4	U	-	
8082A	Aroclor-1232	11141-16-5	140	--	ug/kg	3.5	U	3.4	U	3.3	U	3.4	U	-	
8082A	Aroclor-1242	53469-21-9	220	--	ug/kg	3.5	U	3.4	U	3.3	U	3.4	U	-	
8082A	Aroclor-1248	12672-29-6	220	--	ug/kg	3.5	U	3.4	U	3.3	U	3.4	U	-	
8082A	Aroclor-1254	11097-69-1	220	--	ug/kg	3.5	U	3.4	U	3.3	U	3.4	U	-	
8082A	Aroclor-1260	11096-82-5	220	--	ug/kg	3.5	U	3.4	U	3.3	U	3.4	U	-	
8082A	Polychlorinated biphenyls, Total	1336-36-3		2500	ug/kg	1.8	U	1.7	U	1.7	U	1.7	U	-	
Herbicides															
8151/DOD	2,4,5-T	93-76-5	61000	--	ug/kg	8.7	U	8.5	U	8.4	U	8.5	U	-	
8151/DOD	2,4,5-TP	93-72-1	49000	--	ug/kg	8.7	U	8.5	U	8.4	U	8.5	U	-	
8151/DOD	2,4-D	94-75-7	160000	--	ug/kg	35	U	34	U	34	U	34	U	-	
8151/DOD	2,4-DB	94-82-6	49000	--	ug/kg	35	U	34	U	34	U	34	U	-	
8151/DOD	4-Chloro-2-methylphenoxyacetic acid	94-74-6	3100	--	ug/kg	3500	U	3400	U	3400	U	3400	U	-	
8151/DOD	Dalapon	75-99-0	180000	--	ug/kg	17	U	58		17	U	17	U	-	
8151/DOD	Dicamba	1918-00-9	180000	--	ug/kg	17	U	17	U	17	U	17	U	-	
8151/DOD	Dichloropropane	120-36-5	--	--	ug/kg	70	U	68	U	67	U	68	U	-	
8151/DOD	Dinoseb	88-85-7	6100	--	ug/kg	10	U	10	U	10	U	10	U	-	
8151/DOD	MCPP	93-65-2	6100	--	ug/kg	3500	U	3400	U	3400	U	3400	U	-	
Volatile Organic Compounds															
8260B	1,1,1-Trichloroethane	71-55-6	870000	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	1,1,2,2-Tetrachloroethane	79-34-5	560	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	1,1,2-Trichloroethane	79-00-5	1100	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	1,1-Dichloroethane	75-34-3	3300	27	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	1,1-Dichloroethene	75-35-4	24000	3500	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	1,2,3-Trichlorobenzene	87-61-6	4900	20000	ug/kg	0.17	J	0.16	J	0.21	J	0.95	U	1	U
8260B	1,2,4-Trichlorobenzene, VOC	120-82-1	22000	20000	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	1,2-Dibromo-3-chloropropane	96-12-8	5.4	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	1,2-Dibromoethane	106-93-4	34	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	1,2-Dichlorobenzene, VOC	95-50-1	190000	--	ug/kg	0.2	U	0.25	U	0.27	U	0.24	U	0.25	U
8260B	1,2-Dichloroethane	107-06-2	430	4500	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	1,2-Dichloropropane	78-87-5	940	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	1,3-Dichlorobenzene, VOC	541-73-1	--	--	ug/kg	0.088	U	0.11	U	0.12	U	0.1	U	0.11	U
8260B	1,4-Dichlorobenzene, VOC	106-46-7	2400	20000	ug/kg	0.2	U	0.25	U	0.27	U	0.24	U	0.25	U
8260B	1,4-Dioxane	123-91-1	4900	--	ug/kg	40	U	50	U	53	U	47	U	50	U
8260B	2-Butanone	78-93-3	2800000	--	ug/kg	2	U	2.5	U	2.7	U	2.4	U	2.5	U
8260B	2-Hexanone	591-78-6	21000	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	4-Methyl-2-pentanone	108-10-1	530000	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	Acetone	67-64-1	6100000	--	ug/kg	7.1		7.3		6.1		5	M	5	
8260B	Benzene	71-43-2	1100	1900	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	Bromodichloromethane	75-27-4	270	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	Bromoform	75-25-2	62000	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	Bromomethane	74-83-9	730	--	ug/kg	2	U	2.5	U	2.7	U	2.4	U	2.5	U
8260B	Carbon disulfide	75-15-0	82000	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	Carbon tetrachloride	56-23-5	610	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	Chlorobenzene	108-90-7	290000	40000	ug/kg	0.4	U	0.5	U	0.53	U	0.47	U	0.5	U
8260B	Chlorobromomethane	74-97-5	16000	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	Chloroethane	75-00-3	1500000	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	Chloroform	67-66-3	290	960	ug/kg	0.8	U	1	U	1.1	U	2.1	J	1	U
8260B	Chloromethane	74-87-3	12000	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	cis-1,2-Dichloroethene	156-59-2	16000	4500	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	cis-1,3-Dichloropropene	10061-01-5	4300000	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	Cyclohexane	110-82-7	700000	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	Cyclohexane, Methyl-	108-87-2	--	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	Dibromochloromethane	124-48-1	680	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	Dichlorodifluoromethane	75-71-8	9400	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U

Table 4-5
Munitions Response Site 1 Burial Pit
Hazardous, Toxic Waste and Munitions Constituents
Test Pit Composite Soil Sampling Analytical Data Evaluation

Analytical Method	Compound	CAS No.	Human Health Risk Screening Level [1]	Ecological Risk Screening Level [2]	Field Sample ID:	NFUDS-001-TP0101-01		NFUDS-001-TP0201-01		NFUDS-001-TP0302-01		NFUDS-001-TP0402-01		NFUDS-001-TB01-06	
					Date:	6/29/2012		6/29/2012		6/29/2012		6/29/2012		6/29/2012	
					Lab Sample	200-11554-1		200-11554-2		200-11554-3		200-11554-4		200-11554-5	
					Depth:	0 - 1		0 - 1		1 - 8		1 - 7		NA	
					Units:	Result	Val Qual	Result	Val Qual	Result	Val Qual	Result	Val Qual	Result	Val Qual
8260B	Ethylbenzene	100-41-4	5400	--	ug/kg	0.2	U	0.25	U	0.27	U	0.24	U	0.25	UM
8260B	Freon TF	76-13-1	--	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	Isopropylbenzene	98-82-8	210000	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	Methyl acetate	79-20-9	7800000	--	ug/kg	2	U	2.5	U	2.7	U	2.4	U	2.5	U
8260B	Methyl t-butyl ether	1634-04-4	43000	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	Methylene chloride	75-09-2	11000	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	m-Xylene & p-Xylene	179601-23-1	119000	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	o-Xylene	95-47-6	69000	--	ug/kg	0.2	U	0.25	U	0.27	U	0.24	U	0.25	U
8260B	Styrene	100-42-5	630000	300000	ug/kg	0.2	U	0.25	U	0.27	U	0.24	U	0.25	U
8260B	Tetrachloroethene	127-18-4	550	4500	ug/kg	0.2	U	0.25	U	0.27	U	0.24	U	0.25	U
8260B	Toluene	108-88-3	500000	200000	ug/kg	0.093	U3	0.27	U3	0.37	U3	0.17	U3	0.41	U3
8260B	trans-1,2-Dichloroethene	156-60-5	15000	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	trans-1,3-Dichloropropene	10061-02-6	--	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	Trichloroethene	79-01-6	910	4500	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	Trichlorofluoromethane	75-69-4	79000	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	Vinylchloride	75-01-4	60	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	Xylenes, Total	1330-20-7	--	--	ug/kg	0.2	U	0.25	U	0.27	U	0.24	U	0.25	U
Semi-volatile Organic Compounds															
8270C SIM	2-Methylnaphthalene	91-57-6	31000	1100	ug/kg	0.085	UJ1	0.085	UJ1	0.083	U	0.084	U	-	
8270C SIM	Acenaphthene	83-32-9	340000	1100	ug/kg	0.085	UJ1	0.085	UJ1	0.083	U	0.084	U	-	
8270C SIM	Acenaphthylene	208-96-8	--	1100	ug/kg	0.085	UJ1	0.085	UJ1	0.083	U	0.084	U	-	
8270C SIM	Anthracene	120-12-7	1700000	1100	ug/kg	0.085	UJ1	0.085	UJ1	0.083	U	0.084	U	-	
8270C SIM	Benz(a)anthracene	56-55-3	150	1100	ug/kg	0.26	JH	0.19	JH	0.083	U	0.084	U	-	
8270C SIM	Benzo(a)pyrene	50-32-8	15	1100	ug/kg	0.3	JH	0.2	JH	0.083	U	0.084	U	-	
8270C SIM	Benzo(b)fluoranthene	205-99-2	150	1100	ug/kg	0.59	JH	0.41	JH	0.083	U	0.084	U	-	
8270C SIM	Benzo(g,h,i)perylene	191-24-2	--	1100	ug/kg	0.17	UJ1	0.17	UJ1	0.17	U	0.17	U	-	
8270C SIM	Benzo(k)fluoranthene	207-08-9	1500	1100	ug/kg	0.19	JH	0.085	UJ1	0.083	U	0.084	U	-	
8270C SIM	Chrysene	218-01-9	15000	1100	ug/kg	0.34	JH	0.25	JH	0.083	U	0.084	U	-	
8270C SIM	Dibenz(a,h)anthracene	53-70-3	15	1100	ug/kg	0.17	UJ1	0.17	UJ1	0.17	U	0.17	U	-	
8270C SIM	Fluoranthene	206-44-0	230000	1100	ug/kg	0.85	U3J1	0.6	U3J1	0.083	U	0.084	U	-	
8270C SIM	Fluorene	86-73-7	230000	1100	ug/kg	0.085	UJ1	0.085	UJ1	0.083	U	0.084	U	-	
8270C SIM	Indeno(1,2,3-cd)pyrene	193-39-5	150	1100	ug/kg	0.085	UJ1	0.085	UJ1	0.083	U	0.084	U	-	
8270C SIM	Naphthalene, SVOC	91-20-3	3600	1100	ug/kg	0.26	JH	0.21	JH	0.25	U4	0.23	U4	-	
8270C SIM	Phenanthrene	85-01-8	--	1100	ug/kg	0.39	JH	0.25	JH	0.083	U	0.084	U	-	
8270C SIM	Pyrene	129-00-0	170000	1100	ug/kg	1.2	U3J1	0.95	U3J1	0.042	U	0.042	U	-	
8270C/DoD	1,1'-Biphenyl	92-52-4	5100	--	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	1,2,4,5-Tetrachlorobenzene	95-94-3	1800	--	ug/kg	5.5	U	5.4	U	5.3	U	5.4	U	-	
8270C/DoD	2,3,4,6-Tetrachlorophenol	58-90-2	180000	--	ug/kg	1700	U	1600	U	1600	U	1600	U	-	
8270C/DoD	2,4,5-Trichlorophenol	95-95-4	610000	9000	ug/kg	28	UJ2	28	UJ2	27	UJ2	27	UJ2	-	
8270C/DoD	2,4,6-Trichlorophenol	88-06-2	44000	4000	ug/kg	83	UJ2	82	UJ2	81	UJ2	81	UJ2	-	
8270C/DoD	2,4-Dichlorophenol	120-83-2	18000	--	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	2,4-Dimethylphenol	105-67-9	120000	--	ug/kg	83	U	82	U	81	U	81	U	-	
8270C/DoD	2,4-Dinitrophenol	51-28-5	12000	20000	ug/kg	83	U	82	UJ6	81	U	81	U	-	
8270C/DoD	2,4-Dinitrotoluene	121-14-2	1600	--	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	2,6-Dinitrotoluene	606-20-2	6100	--	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	2-Chloronaphthalene	91-58-7	630000	--	ug/kg	3.4	U	3.4	U	3.3	U	3.3	U	-	
8270C/DoD	2-Chlorophenol	95-57-8	39000	--	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	2-Methylnaphthalene	91-57-6	31000	--	ug/kg	3.4	U	3.4	U	3.3	U	3.3	U	-	
8270C/DoD	2-Methylphenol	95-48-7	310000	--	ug/kg	83	U	82	U	81	U	81	U	-	
8270C/DoD	2-Nitroaniline	88-74-4	61000	--	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	2-Nitrophenol	88-75-5	--	--	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	3,3'-Dichlorobenzidine	91-94-1	1100	--	ug/kg	83	U	82	UJ6	81	U	81	U	-	
8270C/DoD	3,4-Methylphenol	108-39-4	--	--	ug/kg	83	U	82	U	81	U	81	U	-	
8270C/DoD	3-Nitroaniline	99-09-2	--	--	ug/kg	83	U	82	U	81	U	81	U	-	
8270C/DoD	4,6-Dinitro-2-methylphenol	534-52-1	490	--	ug/kg	83	U	82	U	81	U	81	U	-	
8270C/DoD	4-Bromophenyl-phenylether	101-55-3	--	--	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	4-Chloro-3-methylphenol	59-50-7	610000	--	ug/kg	28	U	28	U	27	U	27	U	-	

Table 4-5
Munitions Response Site 1 Burial Pit
Hazardous, Toxic Waste and Munitions Constituents
Test Pit Composite Soil Sampling Analytical Data Evaluation

Analytical Method	Compound	CAS No.	Human Health Risk Screening Level [1]	Ecological Risk Screening Level [2]	Field Sample ID:	NFUDS-001-TP0101-01		NFUDS-001-TP0201-01		NFUDS-001-TP0302-01		NFUDS-001-TP0402-01		NFUDS-001-TB01-06	
					Date:	6/29/2012		6/29/2012		6/29/2012		6/29/2012		6/29/2012	
					Lab Sample	200-11554-1		200-11554-2		200-11554-3		200-11554-4		200-11554-5	
					Depth:	0 - 1		0 - 1		1 - 8		1 - 7		NA	
					Units:	Result	Val Qual	Result	Val Qual	Result	Val Qual	Result	Val Qual	Result	Val Qual
8270C/DoD	4-Chloroaniline	106-47-8	2400	--	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	4-Chlorophenyl-phenylether	7005-72-3	--	--	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	4-Nitroaniline	100-01-6	24000	--	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	4-Nitrophenol, SVOC	100-02-7	--	7000	ug/kg	83	U	82	U	81	U	81	U	-	
8270C/DoD	Acenaphthene	83-32-9	340000	20000	ug/kg	3.4	U	3.4	U	3.3	U	3.3	U	-	
8270C/DoD	Acenaphthylene	208-96-8	--	--	ug/kg	3.4	U	3.4	U	3.3	U	3.3	U	-	
8270C/DoD	Acetophenone	98-86-2	780000	--	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	Anthracene	120-12-7	1700000	--	ug/kg	3.4	U	3.4	U	3.3	U	3.3	U	-	
8270C/DoD	Atrazine	1912-24-9	2100	--	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	Benz(a)anthracene	56-55-3	150	--	ug/kg	3.4	U	3.4	U	3.3	U	3.3	U	-	
8270C/DoD	Benzaldehyde	100-52-7	780000	--	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	Benzo(a)pyrene	50-32-8	15	--	ug/kg	3.4	U	3.4	U	3.3	U	3.3	U	-	
8270C/DoD	Benzo(b)fluoranthene	205-99-2	150	--	ug/kg	3.4	U	3.4	U	3.3	U	3.3	U	-	
8270C/DoD	Benzo(g,h,i)perylene	191-24-2	--	--	ug/kg	3.4	U	3.4	U	3.3	U	3.3	U	-	
8270C/DoD	Benzo(k)fluoranthene	207-08-9	1500	--	ug/kg	3.4	U	3.4	U	3.3	U	3.3	U	-	
8270C/DoD	bis (2-chloroisopropyl) ether	108-60-1	4600	--	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	bis(2-Chloroethoxy)methane	111-91-1	18000	--	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	bis(2-Chloroethyl)ether	111-44-4	210	--	ug/kg	3.4	U	3.4	U	3.3	U	3.3	U	-	
8270C/DoD	bis(2-Ethylhexyl)phthalate	117-81-7	35000	3000 [6]	ug/kg	21	J	33	J	19	J	27	U	-	
8270C/DoD	Butyl benzyl phthalate	85-68-7	260000	3000 [6]	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	Caprolactam	105-60-2	3100000	--	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	Carbazole	86-74-8	--	--	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	Chrysene	218-01-9	15000	--	ug/kg	3.4	U	3.4	U	3.3	U	3.3	U	-	
8270C/DoD	Dibenz(a,h)anthracene	53-70-3	15	--	ug/kg	3.4	U	3.4	U	3.3	U	3.3	U	-	
8270C/DoD	Dibenzofuran	132-64-9	7800	--	ug/kg	3.4	U	3.4	U	3.3	U	3.3	U	-	
8270C/DoD	Diethylphthalate	84-66-2	4900000	100000	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	Dimethyl phthalate	131-11-3	--	--	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	Di-N-Butyl phthalate	84-74-2	610000	3000 [6]	ug/kg	28	U	32	U5	27	U	27	U	-	
8270C/DoD	Di-N-Octyl phthalate	117-84-0	--	3000 [6]	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	Fluoranthene	206-44-0	230000	--	ug/kg	3.4	U	3.4	U	3.3	U	3.3	U	-	
8270C/DoD	Fluorene	86-73-7	230000	--	ug/kg	3.4	U	3.4	U	3.3	U	3.3	U	-	
8270C/DoD	Hexachlorobenzene	118-74-1	300	--	ug/kg	3.4	U	3.4	U	3.3	U	3.3	U	-	
8270C/DoD	Hexachlorobutadiene, SVOC	87-68-3	6200	--	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	Hexachlorocyclopentadiene	77-47-4	37000	10000	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	Hexachloroethane	67-72-1	1200	--	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	Indeno(1,2,3-cd)pyrene	193-39-5	150	--	ug/kg	3.4	U	3.4	U	3.3	U	3.3	U	-	
8270C/DoD	Isophorone	78-59-1	510000	--	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	Naphthalene, SVOC	91-20-3	3600	--	ug/kg	3.4	U	3.4	U	3.3	U	3.3	U	-	
8270C/DoD	Nitrobenzene	98-95-3	4800	--	ug/kg	3.4	U	3.4	U	3.3	U	3.3	U	-	
8270C/DoD	N-Nitroso-di-N-propylamine	621-64-7	69	--	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	N-Nitrosodiphenylamine	86-30-6	99000	--	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	Pentachlorophenol, SVOC	87-86-5	890	2100	ug/kg	83	U	82	U	81	U	81	U	-	
8270C/DoD	Phenanthrene	85-01-8	--	--	ug/kg	3.4	U	3.4	U	3.3	U	3.3	U	-	
8270C/DoD	Phenol	108-95-2	1800000	30000	ug/kg	28	U	44	U5	27	U	27	U	-	
8270C/DoD	Pyrene	129-00-0	170000	--	ug/kg	3.4	U	3.4	U	3.3	U	3.3	U	-	
Explosives															
8330 Mod	1,3,5-Trinitrobenzene	99-35-4	220000	40000 [4]	ug/kg	12	U	12	U	12	U	12	U	-	
8330 Mod	1,3-Dinitrobenzene	99-65-0	610	40000 [4]	ug/kg	12	U	12	U	12	U	12	U	-	
8330 Mod	2,4,6-Trinitrotoluene	118-96-7	19000	30000	ug/kg	24	U	24	U	24	U	24	U	-	
8330 Mod	2,4-Dinitrotoluene	121-14-2	1600	30000 [5]	ug/kg	24	U	24	U	24	U	24	U	-	
8330 Mod	2,6-Dinitrotoluene	606-20-2	6100	30000 [5]	ug/kg	12	U	12	U	12	U	12	U	-	
8330 Mod	2-Amino-4,6-dinitrotoluene	35572-78-2	15000	80000	ug/kg	12	U	12	U	12	U	12	U	-	
8330 Mod	2-Nitrotoluene	88-72-2	2900	30000 [5]	ug/kg	24	U	24	U	24	U	24	U	-	
8330 Mod	3-Nitrotoluene	99-08-1	610	30000 [5]	ug/kg	30	U	30	U	30	U	30	U	-	

Table 4-5
Munitions Response Site 1 Burial Pit
Hazardous, Toxic Waste and Munitions Constituents
Test Pit Composite Soil Sampling Analytical Data Evaluation

Analytical Method	Compound	CAS No.	Human Health Risk Screening Level [1]	Ecological Risk Screening Level [2]	Field Sample ID:	NFUDS-001-TP0101-01		NFUDS-001-TP0201-01		NFUDS-001-TP0302-01		NFUDS-001-TP0402-01		NFUDS-001-TB01-06	
					Date:	6/29/2012		6/29/2012		6/29/2012		6/29/2012		6/29/2012	
					Lab Sample	200-11554-1		200-11554-2		200-11554-3		200-11554-4		200-11554-5	
					Depth:	0 - 1		0 - 1		1 - 8		1 - 7		NA	
					Units:	Result	Val Qual	Result	Val Qual	Result	Val Qual	Result	Val Qual	Result	Val Qual
8330 Mod	4-Amino-2,6-dinitrotoluene	19406-51-0	15000	80000	ug/kg	12	U	12	U	12	U	12	U	-	
8330 Mod	4-Nitrotoluene	99-99-0	30000	30000 [5]	ug/kg	30	U	30	U	30	U	30	U	-	
8330 Mod	HMX	2691-41-0	380000	--	ug/kg	12	U	12	U	12	U	12	U	-	
8330 Mod	Nitrobenzene	98-95-3	4800	40000	ug/kg	30	U	30	U	30	U	30	U	-	
8330 Mod	Nitroglycerin	55-63-0	610	--	ug/kg	730	U	720	U	730	U	730	U	-	
8330 Mod	RDX	121-82-4	5600	100000	ug/kg	12	U	12	U	12	U	12	U	-	
8330 Mod	Tetryl	479-45-8	24000	25000	ug/kg	24	U	24	U	24	U	24	U	-	
Soil Moisture															
Moisture	Percent Solids	NA	--	--	%	96		97		99		98		-	

Notes:
Lab Qualifiers

B	Blank contamination: The analyte was detected above one-half the reporting limit in an associated blank.
H	Sample was prepped or analyzed beyond the specified holding time.
J	Estimated: The analyte was positively identified; the quantitation is an estimation.
M	Manual integrated compound.
Q	One or more quality control criteria failed.
U	The analyte was not detected in the sample. The numeric value represents the sample LOD.

Validation Qualifiers

J1/UJ1	The positive and non-detected results were estimated in all SVOA SIMs reanalysis and SVOA 8270C DoD reanalysis due to holding time exceedances. Only reanalyses for SVOA SIMS samples NFUDS-001-TP0101-01 and NFUDS-001-TP0201-01 were reported. The original analyses for all other samples were reported.
J2/UJ2	Estimate the positive and non-detected results for 2,4,5-trichlorophenol and 2,4,6-trichlorophenol results in all original 8270 DoD samples due to LCS recoveries below QC limits (potential low bias).
U3	Qualify the positive result for toluene in all samples as undetected (U) due to method blank contamination.
U4	Qualify the positive result for naphthalene in semivolatile SIM samples original analyses NFUDS-001-TP0302-01, NFUDS-001-TP0402-01 as undetected (U) due to method blank contamination.
U5	Qualify the positive result for di-n-butyl phthalate and phenol in semivolatile 8270 C DoD sample NFUDS-001-TP0201-01 as undetected (U) due to method blank contamination.
UJ6	Estimate the non-detected results for 3,3'-dichlorobenzidine and 2,4-dinitrophenol in sample NFUDS-001-TP0201-01 due to matrix spike recoveries below QC limits and non-compliant RPD results (potential low bias).
J7	Estimated the positive results for Al, Ca, Fe, Mn and Zn in sample NFUDS-001-TP0402-01 due to non-compliant laboratory duplicate results (bias can not be determined).
UJ8	Estimate the non-detected Sb result in sample NFUDS-001-TP0402-01 due to matrix spike recovery below QC limits (potential low bias).
J9	Estimate the positive results for Ca, Pb, Mg, Mn and K in sample NFUDS-001-TP0402-01 due to matrix spike results above QC limits (potential high bias).

[1] Human health risk soil screening levels were obtained from EPA RSLs for residential soil May 2012;
non-carcinogenic endpoint screening levels selected to assess a Target Hazard Quotient (THQ) of 0.1, to account potential occurrence of adverse health effects due to exposure to multiple noncarcinogens.

[2] Ecological risk soil screening levels were obtained from EPA Eco-SSLs (various publication dates) for metals and organics;
ecological risk soil screening levels were obtained from Talmage et al., 1999, for nitroaromatic munition compounds; and,
ecological risk soil screening levels were obtained from Efroymson et al., 1997, for various DOE site contaminants based on soil invertebrate and microbial process effects.

Analytical results highlighted in **PINK** exceed the selected human health screening level.
Analytical results highlighted in **GREEN** exceed the selected ecological benchmark screening level.
Analytical results highlighted in **YELLOW** were not detected by the laboratory but are reported at a LOD above the selected screening level(s).

[3] Toxicity is dependent on pH

[4] Benchmark based on nitrobenzene

[5] Benchmark based on TNT

[6] Benchmark based on total phthalates

-- = screening level not available
mg/kg = milligrams per kilograms
µg/kg = micrograms per kilogram
COPC = chemical of potential concern (for human health receptors)
COPEC = chemical of potential environmental concern (for ecological receptors)
EPA = U.S. Environmental Protection Agency
LOD = level of detection
RSL = Regional Screening Level
THQ = Target Hazard Quotient
NA = Not applicable

4.3.2 Munitions Response Site 2 Soil Sampling Data Evaluation

Table 4-6 and Table 4-7 are provided with this RI Report to summarize MC sampling performed during the RI. Table 4-6 provides the validated MC analytical data collected via IS methodology for surface soil compared to the selected screening levels. To assess risk associated with concentrations of chemicals in G08 using all of the replicate results, an upper concentration limit (UCL) was calculated for each compound using the Chebyshev approach, which is shown as the results for G08 in Table 4-6. The Chebyshev formula was selected to calculate the UCL in accordance with Interstate Technology & Regulatory Council (ITRC) guidance for incremental sampling due to the small number of replicates included in the sample size (n=3), and based on the tendency for IS to produce a normalized distribution of results (ITRC, 2012). Normalized distributions evaluated using the Chebyshev UCL formula typically yield a conservative estimate of the UCL. The Technical Memorandum prepared during the RI to detail data evaluation and validation (see Appendix A) includes details on the UCL calculation.

Table 4-7 provides the validated analytical data for MC subsurface samples collected for the RI compared to the selected screening levels. Only the samples collected between 0 and 2 ft bgs were compared to the selected screening levels to assess ecological risk as will be further detailed below in Section 5 of this RI Report.

As shown on Table 4-6 and Table 4-7, the majority of constituents analyzed by the laboratory yielded non-detect results or low level detections at quantitation limits that were below project screening levels. The only detected analytes above respective screening levels in one or more samples were arsenic, cobalt, iron, selenium, and vanadium. All of these metals were observed at concentrations consistent with expected background levels, as discussed in Section 5. All explosive compounds were undetected or detected at estimated concentrations below selected screening levels. The negative log of hydrogen ion activity (pH) was also measured to assist with evaluation of constituents with pH-dependent toxicities. As noted on the tables, the holding time for pH analysis is 15 minutes, and although sample shipment was expedited to the extent possible, analysis beyond the holding time was unavoidable.

Table 4-6
Munitions Response Site 2 Aerial Rocket Range
Munitions Constituents
Surface Soil Incremental Sampling
Analytical Data Evaluation

Analytical Method	Compound	CAS No.	Human Health Risk Screening Level [1]	Ecological Risk Screening Level [2]	Field Sample ID: / Date: / Lab Sample ID: / Depth (ft bgs):	Units:	NFUDS-002-ISG02-01 7/31/2012 200-12041-1 0 - 0.5	Result	Val. Qual.	NFUDS-002-ISG04-01 8/1/2012 200-12041-2 0 - 0.5	Result	Val. Qual.	NFUDS-002-ISG09-01 7/31/2012 200-12041-6 0 - 0.5	Result	Val. Qual.	NFUDS-002-ISG12-01 8/1/2012 200-12041-7 0 - 0.5	Result	Val. Qual.	NFUDS-002-ISG08-01 7/31/2012 200-12041-3 0 - 0.5	Result	Val. Qual.	NFUDS-002-ISG08-R1 8/1/2012 200-12041-4 0 - 0.5	Result	Val. Qual.	NFUDS-002-ISG08-R2 8/1/2012 200-12041-5 0 - 0.5	Result	Val. Qual.	NFUDS-002-ISG08 UCL Result (n=3 replicates) [6]
Metals																												
6010C	Aluminum, Total	7429-90-5	7700	-- [3]		mg/kg	3800	J11		4600			4200			3600			4000			5100			5400			6688
6010C	Antimony, Total	7440-36-0	3.1	0.27		mg/kg	0.74	U		0.71	U		0.72	U		0.75	U		0.76	U		0.74	U		0.76	U		0.78
6010C	Arsenic, Total	7440-38-2	0.39	18		mg/kg	2.1			2.2			2.5			2.3			2.1			2.4			2.4			2.7
6010C	Barium, Total	7440-39-3	1500	330		mg/kg	5	J		5.2	J		7.9	J		6	J		5.2	J		6.2	J		6.1	J		7.2
6010C	Beryllium, Total	7440-41-7	16	21		mg/kg	0.1	J		0.12	J		0.092	J		0.089	J		0.092	J		0.1	J		0.12	J		0.14
6010C	Cadmium, Total	7440-43-9	7	0.36		mg/kg	0.044	J		0.077	J		0.057	J		0.059	J		0.05	J		0.05	J		0.053	J		0.06
6010C	Calcium, Total	7440-70-2	--	--		mg/kg	310	J11		170	J		370			300			160	J		170	J		190	J		212
6010C	Chromium, Total	7440-47-3	12000	26		mg/kg	4.6			5.7			5.5			4.9			5.1			5.9			6.1			7.0
6010C	Cobalt, Total	7440-48-4	2.3	13		mg/kg	0.58	J		1.1	J		0.78	J		0.75	J		0.71	J		0.75	J		0.81	J		0.88
6010C	Copper, Total	7440-50-8	310	28		mg/kg	1.5			1.6			2.3			6.6			1.6			1.6			1.8			2.0
6010C	Iron, Total	7439-89-6	5500	-- [3]		mg/kg	4800	J10,J11		6000	J10		6400	J10		5700	J10		5600	J10		6700	J10		7000	J10		8288
6010C	Lead, Total	7439-92-1	40	11		mg/kg	4.6			4.5			8.5			9.1			6.2			6.7			5.6			7.6
6010C	Magnesium, Total	7439-95-4	--	--		mg/kg	490	J11		530			520			450			400			450			470			531
6010C	Manganese, Total	7439-96-5	180	220		mg/kg	35			38			47			35			32			35			38			43
6010C	Nickel, Total	7440-02-0	150	38		mg/kg	1.8	J		2.8			2.5			2.1			2.1			2.3			2.5			2.8
6010C	Potassium, Total	7440-09-7	--	--		mg/kg	270			290			310			280			260			270			280			295
6010C	Selenium, Total	7782-49-2	39	0.52		mg/kg	1.1	U		0.53	J		0.63	J		0.63	J		0.58	J		0.64	J		0.56	J		0.70
6010C	Silver, Total	7440-22-4	39	4.2		mg/kg	0.2	U		0.19	U		0.19	U		0.2	U		0.2	U		0.2	U		0.2	U		0.2
6010C	Sodium, Total	7440-23-5	--	--		mg/kg	59	J		20	J		55	J		41	J		35	J		31	J		29	J		39
6010C	Thallium, Total	7440-28-0	0.078	1		mg/kg	0.74	U		0.71	U		0.72	U		0.75	U		0.76	U		0.74	U		0.76	U		0.78
6010C	Vanadium, Total	7440-62-2	39	7.8		mg/kg	8			8.8			10			9.3			9.3			11			11			12.9
6010C	Zinc, Total	7440-66-6	2300	46		mg/kg	9			11			8.9			8.2			7.1			8.4			8.9			10.5
7471B	Mercury, Total	7439-97-6	1	0.1		mg/kg	0.0037	U		0.0036	U		0.008	J		0.014	J		0.01	J		0.0037	UJ13		0.0034	UJ13		0.02
Explosives																												
8330B	1,3,5-Trinitrobenzene	99-35-4	220000	40,000 [4]		ug/kg	12	U		12	U		330	J12		69	J12		35	J		12	UJ13		79	J		128
8330B	1,3-Dinitrobenzene	99-65-0	610	40,000 [4]		ug/kg	12	U		12	U		12	U		12	U		12	U		12	U		11	U		13
8330B	2,4,6-Trinitrotoluene	118-96-7	19000	30,000		ug/kg	24	U		24	U		24	U		24	U		24	U		24	U		23	U		25
8330B	2,4-Dinitrotoluene	121-14-2	1600	30,000 [5]		ug/kg	24	U		24	U		24	U		24	U		24	U		24	U		23	U		25
8330B	2,6-Dinitrotoluene	606-20-2	6100	30,000 [5]		ug/kg	31	J12		12	U		12	U		12	U		12	U		12	U		11	U		13
8330B	2-Amino-4,6-dinitrotoluene	35572-78-2	15000	80,000		ug/kg	12	U		12	U		12	U		12	U		190	J13		190	J13		11	UJ13		390
8330B	2-Nitrotoluene	88-72-2	2900	30,000 [5]		ug/kg	24	U		24	U		24	U		24	U		24	U		24	U		23	U		25
8330B	3-Nitrotoluene	99-08-1	610	30,000 [5]		ug/kg	30	U		450	J12		30	U		47	J		30	UJ13		30	UJ13		270	J12,13		459
8330B	4-Amino-2,6-dinitrotoluene	19406-51-0	15000	80,000		ug/kg	490	J12		12	U		12	U		12	U		12	U		12	U		11	U		13
8330B	4-Nitrotoluene	99-99-0	30000	30,000 [5]		ug/kg	30	U		30	U		30	U		70	J		30	UJ13		30	UJ13		89	J12,13		135
8330B	HMX	2691-41-0	380000	--		ug/kg	12	U		12	U		12	U		12	U		12	U		12	U		11	U		13
8330B	Nitrobenzene	98-95-3	4800	40,000		ug/kg	30	U		30	U		30	U		29	U		30	U		30	U		28	U		32
8330B	Nitroglycerin	55-63-0	610	--		ug/kg	720	U		720	U		720	U		710	U		710	U		720	U		680	U		756
8330B	RDX	121-82-4	5600	100,000		ug/kg	12	U		12	U		12	U		12	U		12	UJ13		12	UJ13		30	J12,13		44
8330B	Tetryl	479-45-8	24000	25,000		ug/kg	24	U		24	U		24	U		24	U		52	J		56	J		190	J13		297
pH																												
9045D	Laboratory pH	NA	--	< 5.5		s.u.	4.78	HF		4.75	HF		4.41	HF		4.28	HF		4.41	HF		4.33	HF		4.38	HF		4.48

Notes:

Lab Qualifiers

HF Field parameter with holding time of 15 min - sample was prepped beyond specified holding time.
J Estimated: The analyte was positively identified; the quantitation is an estimation.
U The analyte was not detected in the sample. The numeric value represents the sample LOD.

Validation Qualifiers

J10 Estimate the positive result for Fe in all samples due to non-compliant serial dilution results (bias could not be determined).
J11 Estimate the positive results for Al, Ca, Fe and Mg in sample NFUDS-002-ISG02-01 due to non-compliant post-digestion results (bias could not be determined).
J12 Estimate the positive explosive results due to %RPD between columns above 40% (bias could not be determined).
J13/UJ13 Estimate the positive and non-detected results due to %RSD between triplicate results above 20% (bias could not be determined).

EPA RSL = U.S. Environmental Protection Agency Regional Screening Level
mg/kg = milligrams per kilograms
µg/kg = micrograms per kilogram
NA = Not applicable

LOD = level of detection
UCL = upper concentration limit
%RPD = relative percent difference
%RSD = relative standard deviation
THQ = Target Hazard Quotient

Screening Levels

[1] Human health risk soil screening levels were obtained from EPA RSLs for residential soil May 2012;*non-carcinogenic endpoint screening levels selected to assess a Target Hazard Quotient of 0.1, to account potential occurrence of adverse health effects due to exposure to multiple noncarcinogens.*

[2] Ecological risk soil screening levels were obtained from EPA Eco-SSLs (various publication dates) for metals and organics;
ecological risk soil screening levels were obtained from Talmage et al., 1999, for nitroaromatic munition compounds; and,
ecological risk soil screening levels were obtained from Efroymson et al., 1997, for various DOE site contaminants based on soil invertebrate and microbial process effects.

[3] Toxicity is dependent on pH.

[4] Benchmark based on nitrobenzene.

[5] Benchmark based on TNT.

[6] Results shown for G08 represent the Chebyshev UCL between sample replicates (total of 3) for comparison to selected screening levels.

-- = screening level not available

Analytical results highlighted in **PINK** exceed the selected human health screening level.
Analytical results highlighted in **GREEN** exceed the selected ecological benchmark screening level.
Analytical results highlighted in **YELLOW** were not detected by the laboratory but are reported at a level of detection above the selected screening level(s).

Table 4-7
Munitions Response Site 2 Aerial Rocket Range
Munitions Constituents
Subsurface Soil Discrete Sampling Analytical Data Evaluation

Analytical Method	Compound	CAS No.	Human Health Risk Screening Level [1]	Ecological Risk Screening Level [2]	Units:	Field Sample ID:		NFUDS-002-SBG0201-01		NFUDS-002-SBG0202-01		NFUDS-002-SBG0202-02		NFUDS-002-SBG0203-01		NFUDS-002-SBG0401-01		NFUDS-002-SBG0402-01		NFUDS-002-SBG0403-01		NFUDS-002-SBG0801-01	
						Date:		8/1/2012		8/1/2012		8/1/2012		8/1/2012		8/1/2012		8/1/2012		8/1/2012		8/1/2012	
						Lab Sample		200-12042-1		200-12042-2		200-12042-3		200-12042-4		200-12042-5		200-12042-6		200-12042-7		200-12042-8	
						Depth (ft bgs):		0 - 2		2 - 4		2 - 4		4 - 10		0 - 2		2 - 4		4 - 10		0 - 2	
							Val. Qual.		Val. Qual.		Val. Qual.		Val. Qual.		Val. Qual.		Val. Qual.		Val. Qual.		Val. Qual.		Val. Qual.
Metals																							
6010C	Aluminum, Total	7429-90-5	7700	-- [3]	mg/kg	2800		3500		3500		1900	J	3200		3000		2100		6300	
6010C	Antimony, Total	7440-36-0	3.1	0.27	mg/kg	1.1	U	1	U	0.87	U	1.1	U	1.2	U	1.2	U	1.2	U	1	U
6010C	Arsenic, Total	7440-38-2	0.39	18	mg/kg	1.4		1.7		2		1.9		3.3		1.9		3.8		2	
6010C	Barium, Total	7440-39-3	1500	330	mg/kg	4.4	J	3.6	J	3.8	J	2.8	J	4	J	5.6	J	4.4	J	5.2	J
6010C	Beryllium, Total	7440-41-7	16	21	mg/kg	0.094	J	0.1	J	0.12	J	0.1	J	0.11	J	0.12	J	0.15	J	0.14	J
6010C	Cadmium, Total	7440-43-9	7	0.36	mg/kg	0.18	U	0.17	U	0.14	U	0.19	U	0.19	U	0.2	U	0.2	U	0.17	U
6010C	Calcium, Total	7440-70-2	--	--	mg/kg	70	J	120	J	130	J	68	J9	120	J	76	J	61	J	43	J
6010C	Chromium, Total	7440-47-3	12000	26	mg/kg	3.5		4.6		4.5		3.3		4.2		4.3		4.1		5.9	
6010C	Cobalt, Total	7440-48-4	2.3	13	mg/kg	0.67	J	1	J	1.1	J	0.98	J	0.99	J	1.1	J	3.5	J	0.76	J
6010C	Copper, Total	7440-50-8	310	28	mg/kg	0.88	J	0.91	J	1.1	J	1.3	J	1.2	J	1.1	J	2		0.94	J
6010C	Iron, Total	7439-89-6	5500	-- [3]	mg/kg	3500		4000		5100		3300	J	5900		4400		5300		6200	
6010C	Lead, Total	7439-92-1	40	11	mg/kg	2.3		2.3		2.5		1.5		2.4		2.6		1.7		3.7	
6010C	Magnesium, Total	7439-95-4	--	--	mg/kg	390		570		610		440	J9	420		450		700		400	
6010C	Manganese, Total	7439-96-5	180	220	mg/kg	21	J7	26	J7	42	J7	23	J7	36	J7	36	J7	79	J7	32	J7
6010C	Nickel, Total	7440-02-0	150	38	mg/kg	1.8	J	2.7		2.7		2.4	J	2.4	J	2.3	J	3.9		2.5	J
6010C	Potassium, Total	7440-09-7	--	--	mg/kg	230	J	300	J	290		280	J9	250	J	260	J	350	J	200	J
6010C	Selenium, Total	7782-49-2	39	0.52	mg/kg	1.7	U	1.6	U	1.3	U	1.7	U	1.8	U	1.8	U	1.8	U	1.5	U
6010C	Silver, Total	7440-22-4	39	4.2	mg/kg	0.29	U	0.27	U	0.23	U	0.3	U	0.31	U	0.32	U	0.32	U	0.27	U
6010C	Sodium, Total	7440-23-5	--	--	mg/kg	18	J	21	J	18	J	8	J	7.7	J	23	J	6.7	J	12	J
6010C	Thallium, Total	7440-28-0	0.078	1	mg/kg	1.1	U	1	U	0.87	U	1.1	U	1.2	U	1.2	U	1.2	U	1	U
6010C	Vanadium, Total	7440-62-2	39	7.8	mg/kg	5.5		6.6		6.6		3.9		6.2		6.5		5.9		9.4	
6010C	Zinc, Total	7440-66-6	2300	46	mg/kg	5.4		5.5		7.3		5.9		8.7		20		14		7.9	
7471B	Mercury, Total	7439-97-6	1	0.1	mg/kg	0.0041	U	0.0038	U	0.0037	U	0.0033	U	0.0037	U	0.0036	U	0.0023	J	0.0042	U
Explosives																							
8330 Mod	1,3,5-Trinitrobenzene	99-35-4	220000	40,000 [4]	ug/kg	12	U	12	U	12	U	12	U	12	U	12	U	12	U	12	U
8330 Mod	1,3-Dinitrobenzene	99-65-0	610	40,000 [4]	ug/kg	12	U	12	U	12	U	12	U	12	U	12	U	12	U	12	U
8330 Mod	2,4,6-Trinitrotoluene	118-96-7	19000	30,000	ug/kg	24	U	24	U	24	U	24	U	24	U	24	U	24	U	24	U
8330 Mod	2,4-Dinitrotoluene	121-14-2	1600	30,000 [5]	ug/kg	24	U	24	U	24	U	24	U	24	U	24	U	24	U	24	U
8330 Mod	2,6-Dinitrotoluene	606-20-2	6100	30,000 [5]	ug/kg	12	U	12	U	12	U	12	U	12	U	12	U	12	U	12	U
8330 Mod	2-Amino-4,6-dinitrotoluene	35572-78-2	15000	80,000	ug/kg	12	U	12	U	12	U	12	U	12	U	12	U	12	U	12	U
8330 Mod	2-Nitrotoluene	88-72-2	2900	30,000 [5]	ug/kg	24	U	24	U	24	U	24	U	24	U	24	U	24	U	24	U
8330 Mod	3-Nitrotoluene	99-08-1	610	30,000 [5]	ug/kg	30	U	30	U	30	U	30	U	30	U	30	U	30	U	30	U
8330 Mod	4-Amino-2,6-dinitrotoluene	19406-51-0	15000	80,000	ug/kg	12	U	12	U	12	U	12	U	12	U	12	U	12	U	12	U
8330 Mod	4-Nitrotoluene	99-99-0	30000	30,000 [5]	ug/kg	30	U	30	U	30	U	30	U	30	U	30	U	30	U	30	U
8330 Mod	HMX	2691-41-0	380000	--	ug/kg	12	U	12	U	12	U	12	U	12	U	12	U	12	U	12	U
8330 Mod	Nitrobenzene	98-95-3	4800	40,000	ug/kg	30	U	30	U	30	U	30	U	30	U	30	U	30	U	30	U
8330 Mod	Nitroglycerin	55-63-0	610	--	ug/kg	720	U	720	U	720	U	720	U	720	U	720	U	720	U	720	U
8330 Mod	RDX	121-82-4	5600	100,000	ug/kg	12	U	12	U	12	U	12	U	12	U	12	U	12	U	12	U
8330 Mod	Tetryl	479-45-8	24000	25,000	ug/kg	24	U	24	U	24	U	24	U	24	U	24	U	24	U	24	U
pH																							
9045D	Laboratory pH	NA		< 5.5	s.u.	4.88	HF	5.3	HF	5.31	HF	5.2	HF	4.53	HF	4.61	HF	5.09	HF	4.24	HF
Moisture																							
Moisture	Percent Solids			NA	%	92		95		95		98		91		91		97		87	

Table 4-7
Munitions Response Site 2 Aerial Rocket Range
Munitions Constituents
Subsurface Soil Discrete Sampling Analytical Data Evaluation

Analytical Method	Compound	CAS No.	Human Health Risk Screening Level [1]	Ecological Risk Screening Level [2]	Units:	Field Sample ID:	Val. Qual.	Field Sample ID:	Val. Qual.	Field Sample ID:	Val. Qual.	Field Sample ID:	Val. Qual.	Field Sample ID:	Val. Qual.	Field Sample ID:	Val. Qual.	Field Sample ID:	Val. Qual.	Field Sample ID:	Val. Qual.	Field Sample ID:	Val. Qual.
						NFUDS-002-SBG0802-01		NFUDS-002-SBG0803-01		NFUDS-002-SBG0901-01		NFUDS-002-SBG0902-01		NFUDS-002-SBG0903-01		NFUDS-002-SBG0903-02		NFUDS-002-SBG1201-01		NFUDS-002-SBG1202-01		NFUDS-002-SBG1203-01	
						8/1/2012		8/1/2012		8/1/2012		8/1/2012		8/1/2012		8/1/2012		8/1/2012		8/1/2012		8/1/2012	
						200-12042-9		200-12042-10		200-12042-11		200-12042-12		200-12042-13		200-12042-14		200-12042-15		200-12042-16		200-12042-17	
						2 - 4		4 - 10		0 - 2		2 - 4		4 - 10		4 - 10		0 - 2		2 - 4		4 - 10	
Metals																							
6010C	Aluminum, Total	7429-90-5	7700	-- [3]	mg/kg	2000		1700		6000		1900		1200		1400		5800		2000		1600	
6010C	Antimony, Total	7440-36-0	3.1	0.27	mg/kg	1.2	U	0.98	U	1.3	U	1.2	U	1	U	1.2	U	1.2	U	1.3	U	1.2	U
6010C	Arsenic, Total	7440-38-2	0.39	18	mg/kg	1.6		1.5		2.7		1.8		2.2		1.8		2.1		1.7		1.5	
6010C	Barium, Total	7440-39-3	1500	330	mg/kg	3	J	4	J	4.9	J	3	J	2.3	J	2.9	J	4.5	J	3.1	J	3.3	J
6010C	Beryllium, Total	7440-41-7	16	21	mg/kg	0.088	J	0.1	J	0.13	J	0.085	J	0.091	J	0.093	J	0.14	J	0.098	J	0.099	J
6010C	Cadmium, Total	7440-43-9	7	0.36	mg/kg	0.2	U	0.16	U	0.22	U	0.21	U	0.17	U	0.2	U	0.2	U	0.22	U	0.2	U
6010C	Calcium, Total	7440-70-2	--	--	mg/kg	70	J	170	J	53	J	95	J	73	J	130	J	64	J	120	J	49	J
6010C	Chromium, Total	7440-47-3	12000	26	mg/kg	3.8		2.8		6.1		3.5		2.6		2.5		6		4.5		2.7	
6010C	Cobalt, Total	7440-48-4	2.3	13	mg/kg	1	J	1.1	J	0.99	J	1.1	J	1.2	J	1.2	J	1.1	J	1.2	J	1.1	J
6010C	Copper, Total	7440-50-8	310	28	mg/kg	0.7	J	1	J	1	J	0.88	J	0.75	J	0.83	J	0.93	J	1	J	1	J
6010C	Iron, Total	7439-89-6	5500	-- [3]	mg/kg	3300		3100		6100		3200		3300		3400		6100		4500		2900	
6010C	Lead, Total	7439-92-1	40	11	mg/kg	1.3		1.9		3.3		1.6		1.1		1.1		3.3		1.3		1.2	
6010C	Magnesium, Total	7439-95-4	--	--	mg/kg	450		500		490		430		280	J	370	J	490		490		370	J
6010C	Manganese, Total	7439-96-5	180	220	mg/kg	34	J7	45	J7	35	J7	31	J7	36	J7	40	J7	33	J7	29	J7	32	J7
6010C	Nickel, Total	7440-02-0	150	38	mg/kg	2.6	J	1.8	J	3.1	J	2.3	J	1.9	J	1.8	J	3	J	2.5	J	1.9	J
6010C	Potassium, Total	7440-09-7	--	--	mg/kg	240	J	290	J	250	J	250	J	210	J	240	J	230	J	310	J	280	J
6010C	Selenium, Total	7782-49-2	39	0.52	mg/kg	1.8	U	1.5	U	2	U	1.9	U	1.6	U	1.8	U	1.8	U	2	U	1.8	U
6010C	Silver, Total	7440-22-4	39	4.2	mg/kg	0.32	U	0.26	U	0.35	U	0.33	U	0.27	U	0.32	U	0.32	U	0.35	U	0.31	U
6010C	Sodium, Total	7440-23-5	--	--	mg/kg	20	U	6.4	J	9.2	J	21	U	5.3	J	20	U	11	J	10	J	20	U
6010C	Thallium, Total	7440-28-0	0.078	1	mg/kg	1.2	U	0.98	U	1.3	U	1.2	U	1	U	1.2	U	1.2	U	1.3	U	1.2	U
6010C	Vanadium, Total	7440-62-2	39	7.8	mg/kg	4.5		4.8		8.7		4.4		4.6		3.9	J	8.9		4.7		3.8	J
6010C	Zinc, Total	7440-66-6	2300	46	mg/kg	4.5		5.2		7.9		4.1		4.8		4.2		6.7		4.4		4.5	
7471B	Mercury, Total	7439-97-6	1	0.1	mg/kg	0.0034	U	0.0036	U	0.0043	U	0.0037	U	0.0034	U	0.0037	U	0.0042	U	0.0037	U	0.0034	U
Explosives																							
8330 Mod	1,3,5-Trinitrobenzene	99-35-4	220000	40,000 [4]	ug/kg	12	U	12	U	12	U	12	U	12	U	12	U	12	U	12	U	12	U
8330 Mod	1,3-Dinitrobenzene	99-65-0	610	40,000 [4]	ug/kg	12	U	12	U	12	U	12	U	12	U	12	U	12	U	12	U	12	U
8330 Mod	2,4,6-Trinitrotoluene	118-96-7	19000	30,000	ug/kg	24	U	24	U	24	U	24	U	24	U	24	U	24	U	24	U	24	U
8330 Mod	2,4-Dinitrotoluene	121-14-2	1600	30,000 [5]	ug/kg	24	U	24	U	24	U	24	U	24	U	24	U	24	U	24	U	24	U
8330 Mod	2,6-Dinitrotoluene	606-20-2	6100	30,000 [5]	ug/kg	12	U	12	U	12	U	12	U	12	U	12	U	12	U	12	U	12	U
8330 Mod	2-Amino-4,6-dinitrotoluene	35572-78-2	15000	80,000	ug/kg	12	U	12	U	12	U	12	U	12	U	12	U	12	U	12	U	12	U
8330 Mod	2-Nitrotoluene	88-72-2	2900	30,000 [5]	ug/kg	24	U	24	U	24	U	24	U	24	U	24	U	24	U	24	U	24	U
8330 Mod	3-Nitrotoluene	99-08-1	610	30,000 [5]	ug/kg	30	U	30	U	30	U	30	U	30	U	30	U	30	U	30	U	30	U
8330 Mod	4-Amino-2,6-dinitrotoluene	19406-51-0	15000	80,000	ug/kg	12	U	12	U	12	U	12	U	12	U	12	U	12	U	12	U	12	U
8330 Mod	4-Nitrotoluene	99-99-0	30000	30,000 [5]	ug/kg	30	U	30	U	30	U	30	U	30	U	30	U	30	U	30	U	30	U
8330 Mod	HMX	2691-41-0	380000	--	ug/kg	12	U	12	U	12	U	12	U	12	U	12	U	12	U	12	U	12	U
8330 Mod	Nitrobenzene	98-95-3	4800	40,000	ug/kg	30	U	30	U	30	U	30	U	30	U	30	U	30	U	30	U	30	U
8330 Mod	Nitroglycerin	55-63-0	610	--	ug/kg	720	U	720	U	720	U	720	U	720	U	720	U	720	U	720	U	720	U
8330 Mod	RDX	121-82-4	5600	100,000	ug/kg	12	U	12	U	12	U	12	U	12	U	12	U	12	U	12	U	12	U
8330 Mod	Tetryl	479-45-8	24000	25,000	ug/kg	24	U	24	U	24	U	24	U	24	U	24	U	24	U	24	U	24	U
pH																							
9045D	Laboratory pH	NA		< 5.5	s.u.	4.34	HF	4.61	HF	4.3	HF	4.29	HF	4.4	HF	4.42	HF	4.28	HF	4.57	HF	4.59	HF
Moisture																							
Moisture	Percent Solids			NA	%	96		96		89		96		97		97		88		96		97	

Table 4-7
Munitions Response Site 2 Aerial Rocket Range
Munitions Constituents
Subsurface Soil Discrete Sampling Analytical Data Evaluation

Notes:
Lab Qualifiers
J Estimated: The analyte was positively identified; the quantitation is an estimation.
U The analyte was not detected in the sample. The numeric value represents the sample limit of detection.
HF Field parameter with holding time of 15 min - sample was prepped beyond specified holding time.
Validation Qualifiers
J7 Estimated the positive results for Mn in all samples due to no-compliant laboratory duplicates (bias could not be determined).
J9 Estimate the positive results for Ca, Mg and K in sample NFUDS-002-SBG0203-01 due to matrix spike results above QC limits (potential high bias).
Screening Levels
[1] Human health risk soil screening levels were obtained from EPA RSLs for residential soil May 2012;
non-carcinogenic endpoint screening levels selected to assess a Target Hazard Quotient (THQ) of 0.1, to account potential occurrence of adverse health effects due to exposure to multiple noncarcinogens.
[2] Ecological risk soil screening levels were obtained from EPA Eco-SSLs (various publication dates) for metals and organics;
ecological risk soil screening levels were obtained from Talmage et al., 1999, for nitroaromatic munition compounds;
ecological risk soil screening levels were obtained from Efroymson et al., 1997, for various DOE site contaminants based on soil invertebrate and microbial process effects; and,
ecological screening performed for samples collected between 0 and 2 ft bgs only; ecological risk exposure is not applicable at depths greater than 2 ft.
[3] Toxicity is dependent on pH.
[4] Benchmark based on nitrobenzene.
[5] Benchmark based on TNT.
-- = screening level not available
Analytical results highlighted in **PINK** exceed the selected human health screening level.
Analytical results highlighted in **GREEN** exceed the selected ecological benchmark screening level.
Analytical results highlighted in **YELLOW** were not detected by the laboratory but are reported at a LOD above the selected screening level(s).
EPA = U.S. Environmental Protection Agency
mg/kg = milligrams per kilograms
µg/kg = micrograms per kilogram
COPC = chemical of potential concern (for human health receptors)
COPEC = chemical of potential environmental concern (for ecological receptors)
LOD = level of detection
RSL = Regional Screening Level
NA = Not applicable
ft = feet
bgs = below ground surface

Similar to the above analytical results discussion for MRS 1, laboratory methods were not able to achieve a LOD below selected screening levels for several compounds as previously established in the project *UFP-QAPP*. In these instances, non-detect results that were reported by the laboratory at LOD values not meeting selected screening levels are also highlighted in the tables. This was observed in the results obtained for thallium (metal) and nitroglycerin (explosive) during the human health risk screening, and for antimony and selenium (both metals) during the ecological risk screening. These results are discussed in the context of COPC and COPEC selection, to assess human health and ecological risks, respectively, in Section 5 of this RI Report.

4.3.3 Munitions Response Site 1 and Munitions Response Site 2 Groundwater Data Evaluation

As shown in Table 4-8, the majority of constituents analyzed by the laboratory yielded non-detect results or low level detections at detection limits that were below project screening levels. The only detected analyte reported above its respective screening level was copper, which was observed in samples collected from two of the residences located within MRS 2. Samples from one of the residences were duplicated in the field and copper was detected above the screening level in both samples. Copper was observed at concentrations between 89 and 100 µg/L, compared to the selected screening level of 62 µg/L.

There were no explosives detected in any of the samples. One of the two coolers shipped to the laboratory, containing sample containers for explosives analysis only, was slightly above temperature requirements upon receipt. The temperature of the cooler was documented at 8.8 degrees Celsius (ºC) versus an upper quality limit of 6 ºC. However, the laboratory also noted that there was still solid ice remaining in the cooler. Temperature requirements for sample receipt at the laboratory outlined in the DoD Quality Systems Manual (QSM) (Version 4.2 Subsection 5.8.3.1) indicates that samples that are hand delivered to the laboratory on the same day that they are collected may not meet temperature criteria. In these cases, the samples shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice. Although hand delivery of samples was not logistically possible due to the remote location

Table 4-8
Munitions Response Site 1 Burial Pit
Munitions Response Site 2 Aerial Rocket Range
Munitions Constituents
Groundwater Residential Sampling Analytical Data Evaluation

				Field Sample ID:	NFUDS-001-GW01-01		NFUDS-002-GW01-01		NFUDS-002-GW02-01		NFUDS-002-GW03-01		NFUDS-002-GW03-02	
				Date:	8/31/2012		8/31/2012		8/31/2012		8/31/2012		8/31/2012	
				Lab Sample ID:	200-12542-1		200-12542-2		200-12542-3		200-12542-4		200-12542-5	
				Depth:	NA		NA		NA		NA		NA	
Analytical Method	Compound	CAS No.	Human Health Risk Screening Level [1]	Units:		Val. Qual.		Val. Qual.		Val. Qual.		Val. Qual.		Val. Qual.
Metals														
6010C	Aluminum, Total	7429-90-5	1600	µg/l	150	U	150	U	150	U	150	U	150	U
6010C	Antimony, Total	7440-36-0	0.6	µg/l	15	U	15	U	15	U	15	U	15	U
6010C	Arsenic, Total	7440-38-2	0.045	µg/l	9	U	9	U	9	U	9	U	9	U
6010C	Barium, Total	7440-39-3	200	µg/l	14	U	6.8	J	14	U	6.2	J	5.9	J
6010C	Beryllium, Total	7440-41-7	0.4	µg/l	0.35	U	0.35	U	0.35	U	0.35	U	0.35	U
6010C	Cadmium, Total	7440-43-9	0.5	µg/l	2.6	U	2.6	U	2.6	U	2.6	U	2.6	U
6010C	Calcium, Total	7440-70-2	--	µg/l	11000	J	1700	J	1900	J	1600	J	1600	J
6010C	Chromium, Total	7440-47-3	100	µg/l	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
6010C	Cobalt, Total	7440-48-4	0.47	µg/l	2	U	2	U	2	U	2	U	2	U
6010C	Copper, Total	7440-50-8	62	µg/l	1.7	J	89		23	J	97		100	
6010C	Iron, Total	7439-89-6	1100	µg/l	150	U	150	U	150	U	150	U	150	U
6010C	Lead, Total	7439-92-1	1.5	µg/l	9	U	9	U	9	U	9	U	9	U
6010C	Magnesium, Total	7439-95-4	--	µg/l	1000	J	2000	J	1400	J	1500	J	1500	J
6010C	Manganese, Total	7439-96-5	32	µg/l	8.5	U	3.1	J	8.5	U	8.5	U	8.5	U
6010C	Nickel, Total	7440-02-0	30	µg/l	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U
6010C	Potassium, Total	7440-09-7	--	µg/l	520	J	870	J	520	J	520	J	520	J
6010C	Selenium, Total	7782-49-2	5	µg/l	23	U	23	U	23	U	23	U	23	U
6010C	Silver, Total	7440-22-4	7.1	µg/l	3.8	U	3.8	U	3.8	U	3.8	U	3.8	U
6010C	Sodium, Total	7440-23-5	--	µg/l	12000	J	11000		10000		9900		10000	
6010C	Thallium, Total	7440-28-0	0.016	µg/l	20	U	20	U	20	U	20	U	20	U
6010C	Vanadium, Total	7440-62-2	7.8	µg/l	3.8	U	3.8	U	3.8	U	3.8	U	3.8	U
6010C	Zinc, Total	7440-66-6	470	µg/l	2.8	U13	7.1	U13	12	J	8.3	J	8.3	J
7470A	Mercury, Total	7439-97-6	0.063	µg/l	0.1	U	0.1	U	0.11	U14	0.1	U	0.1	U
Explosives														
8330B	1,3,5-Trinitrobenzene	99-35-4	46	µg/l	0.024	UJ15	0.024	UJ15	0.024	U	0.024	UJ15	0.024	UJ15
8330B	1,3-Dinitrobenzene	99-65-0	0.15	µg/l	0.024	UJ15	0.024	UJ15	0.024	U	0.024	UJ15	0.024	UJ15
8330B	2,4,6-Trinitrotoluene	118-96-7	2.2	µg/l	0.048	UJ15	0.048	UJ15	0.048	U	0.048	UJ15	0.048	UJ15
8330B	2,4-diamino-6-nitrotoluene	6629-29-4	--	µg/l	0.048	UJ15	0.048	UJ15	0.048	U	0.048	UJ15	0.048	UJ15
8330B	2,4-Dinitrotoluene	121-14-2	0.14	µg/l	0.048	UJ15	0.048	UJ15	0.048	U	0.048	UJ15	0.048	UJ15
8330B	2,6-diamino-4-nitrotoluene	59229-75-3	--	µg/l	0.048	UJ15	0.048	UJ15	0.048	U	0.048	UJ15	0.048	UJ15
8330B	2,6-Dinitrotoluene	606-20-2	1.5	µg/l	0.024	UJ15	0.024	UJ15	0.024	U	0.024	UJ15	0.024	UJ15
8330B	2-Amino-4,6-dinitrotoluene	35572-78-2	3	µg/l	0.048	UJ15	0.048	UJ15	0.048	U	0.048	UJ15	0.048	UJ15
8330B	2-Nitrotoluene	88-72-2	0.27	µg/l	0.048	UJ15	0.048	UJ15	0.048	U	0.048	UJ15	0.048	UJ15
8330B	3-Nitrotoluene	99-08-1	0.13	µg/l	0.06	UJ15	0.06	UJ15	0.06	U	0.06	UJ15	0.06	UJ15
8330B	4-Amino-2,6-dinitrotoluene	19406-51-0	3	µg/l	0.024	UJ15	0.024	UJ15	0.024	U	0.024	UJ15	0.024	UJ15
8330B	4-Nitrotoluene	99-99-0	3.7	µg/l	0.06	UJ15	0.06	UJ15	0.06	U	0.06	UJ15	0.06	UJ15
8330B	HMX	2691-41-0	78	µg/l	0.024	UJ15	0.024	UJ15	0.024	U	0.024	UJ15	0.024	UJ15
8330B	Nitrobenzene	98-95-3	0.12	µg/l	0.048	UJ15	0.048	UJ15	0.048	U	0.048	UJ15	0.048	UJ15
8330B	Nitroglycerin	55-63-0	0.15	µg/l	1.4	UJ15	1.4	UJ15	1.4	U	1.4	UJ15	1.4	UJ15
8330B	PETN	78-11-5	--	µg/l	2	UJ15	2	UJ15	2	U	2	UJ15	2	UJ15
8330B	Picric acid	88-89-1	--	µg/l	0.048	UJ15	0.048	UJ15	0.048	U	0.048	UJ15	0.048	UJ15
8330B	RDX	121-82-4	0.61	µg/l	0.024	UJ15	0.024	UJ15	0.024	U	0.024	UJ15	0.024	UJ15
8330B	Tetryl	479-45-8	6.3	µg/l	0.048	UJ15	0.048	UJ15	0.048	U	0.048	UJ15	0.048	UJ15

Table 4-8
Munitions Response Site 1 Burial Pit
Munitions Response Site 2 Aerial Rocket Range
Munitions Constituents
Groundwater Residential Sampling Analytical Data Evaluation

				Field Sample ID:	NFUDS-001-GW01-01		NFUDS-002-GW01-01		NFUDS-002-GW02-01		NFUDS-002-GW03-01		NFUDS-002-GW03-02	
				Date:	8/31/2012		8/31/2012		8/31/2012		8/31/2012		8/31/2012	
				Lab Sample ID:	200-12542-1		200-12542-2		200-12542-3		200-12542-4		200-12542-5	
				Depth:	NA		NA		NA		NA		NA	
Analytical Method	Compound	CAS No.	Human Health Risk Screening Level [1]	Units:		Val. Qual.		Val. Qual.		Val. Qual.		Val. Qual.		Val. Qual.
Perchlorate														
6850	Perchlorate	14797-73-0	2	µg/l	0.027	J2	0.039	J2	0.097	J2	0.04	U	0.027	J2

Notes:
Lab Qualifiers

J	The positive result reported for this analyte is a quantitative estimate.
U	The analyte was not detected in the sample. The numeric value represents the sample limit of detection.
Q	One or more quality control criteria failed.
R	The result for this analyte is unusable. The analyte may or may not be present.
UJ	The analyte was not detected in the sample. The detection limit should be considered estimated and may be inaccurate or imprecise.

Validation Qualifiers

J[2]	Estimate positive results for perchlorate due to LCS recovery above QC limits (potential high bias).
U[13]	Qualify the positive zinc results as undetected due to method blank contamination.
U[14]	Qualify the positive Hg results as undetected due to continuing calibration blank contamination.
J[15]/UJ[15]	Estimate positive and non-detected explosive results due to cooler temperature outside acceptance limits (bias can't be determined).

Screening Levels

[1] Except for perchlorate, human health screening values for groundwater were selected from EPA RSLs (U.S. EPA, 2012) for tapwater and/or Federal MCLs; the most stringent of the RSLs or MCLs were selected; for perchlorate, a more conservative State drinkwater screening criterion has been established by MassDEP and was adopted for data evaluation and risk screening of perchlorate concentrations in groundwater (MassDEP, 2006).; and, *non-carcinogenic endpoint screening levels (except for perchlorate) selected to assess a Target Hazard Quotient (THQ) of 0.1, to account potential occurrence of adverse health effects due to exposure to multiple noncarcinogens.*

-- = screening level not available

Analytical results highlighted in **PINK** exceed the selected human health screening level.

Analytical results highlighted in **YELLOW** were not detected by the laboratory but are reported at a limit of detection above the selected screening level.

EPA = U.S. Environmental Protection Agency
MassDEP = Massachusetts Department of Environmental Protection
µg/L = micrograms per liter
LOD = limit of detection
RSL = Regional Screening Level
NA = Not applicable
HMX = Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
PETN = Pentaerythritol tetranitrate
RDX = Hexahydro-1,3,5-trinitro-1,3,5-triazine
Tetryl = Methyl-2,4,6-trinitrophenylnitramine

of these MRSs, sample shipment was expedited to the extent possible and the total duration of time between sample collections until receipt in the laboratory was less than 24 hours. An estimated flag was added to the explosives results during validation to account for this issue; but, data quality is considered non-impacted due to the short duration of time between sample collection and sample receipt, and evidence of ice in the cooler documented by the laboratory indicating that preservation was underway.

Perchlorate was reported by the laboratory at estimated positive detections between 0.027 and 0.097 µg/L in samples collected from all four residences. Validation indicates that recovery of the batch Laboratory Control Sample was above quality criteria, introducing a potential high bias to these results. Regardless, estimated detections of perchlorate reported by the laboratory appear consistent with levels observed during the SI sampling in 2010, and remain approximately two orders of magnitude below the state-derived screening level of 2 µg/L.

Additionally highlighted in Table 4-8 are occurrences within the data set where non-detect results reported at the laboratory LOD did not meet the selected screening levels. This was observed in the results obtained for several metal analytes, and nitroglycerin. These results are discussed in the context of COPC selection to assess human health risks in Section 5 of this RI Report.

4.3.4 Quality Control

Overall the quality of data collected was non-impacted, except as noted in the validated data tables. Validation flag descriptions included in the notes for each analytical data summary table provide potential biases that should be considered when using the data and are further discussed in context of COPC and/or COPEC selection as part of risk activities reported in Section 5 of this RI Report. Detailed memoranda generated to document data validation activities are provide in Appendix A, attached to the data evaluation technical memoranda prepared as interim reports during the RI.

SECTION 5

RISK ASSESSMENT ACTIVITIES

5. RISK ASSESSMENT ACTIVITIES

In accordance with the *Final WP*, an evaluation of the explosive hazard at MRS 1 and MRS 2 was to be prepared in accordance with the *Interim Munitions and Explosives of Concern (MEC) Hazard Assessment Methodology* (EPA, 2008), herein referred to as the MECHA. The MECHA process was developed to evaluate the potential explosive hazard associated with MEC present at a particular MRS under a variety of MRS conditions, including various cleanup scenarios and land-use assumptions. No MEC were identified at the MRS during either the SI or RI field activities, and these results have been interpreted to indicate that no MEC source or explosive safety hazard is present at MRS 1 and MRS 2. As a result, the project team (USACE and WESTON) determined that calculation of a MECHA score was not warranted for either MRS.

Sampling for MC during the RI was conducted to verify the finding of no significant risk documented in the SI at both MRS 1 and MRS 2. No prior sampling for HTW constituents at the potential Burial Pit had been conducted, and was therefore included under the RI per request in the *PWS* issued by USACE for RI activities pertaining to MRS 1. The following subsections detail activities performed to support baseline risk assessment for the RI based on sampling and analytical data collected to characterize potential MC hazards at both MRSs, and HTW at MRS 1, to human health and the environment.

5.1 MUNITIONS RESPONSE SITE 1 SOIL HAZARDOUS TOXIC WASTE AND MUNITIONS CONSTITUENTS ASSESSMENT

5.1.1 Burial Pit Hazardous Toxic Waste and Munitions Constituents Human Health Evaluation

The potential human health risks assessed for HTW and MC at MRS 1 were initially identified to confirm the potential presence/absence of contamination. This level of effort was appropriate based on the limited amount of pre-existing analytical data and risk assessment results previously documented for this MRS. The basis for this investigation was anecdotal information collected during the ASR, and visual observations of sparse vegetation in this MRS documented during the SI, that inferred a suspect burial pit for munitions or other HTW may be present. No debris, soil staining, odors, or elevated field screening results (PID and XRF) were observed during test pitting activities that would indicate a potential release was present. Test pit logs (see

Appendix A) indicate that native, undisturbed stratified sand and gravel layers were encountered at an average depth of 4 ft bgs in all four test pits investigated.

The first step in this process was to perform a point-by-point comparison of the analytical results to the screening levels selected for each compound. To develop appropriate screening levels, the current and future use of the FUDS property was considered. Parcel ownership within the boundary of MRS 1 is limited to a private resident and the NCF. Within the boundary of MRS 2, parcel ownership consists of both public and private entities (residents, Town of Nantucket, NCF, Nantucket Island Land Bank, Nantucket Airport Commission, and Nantucket Housing Authority), with large portions owned and maintained for conservation purposes. Recreational access to property within the MRS boundaries is allowed by non-residential parcel owners. The current use is not anticipated to change in the future.

Screening levels for human health were based on the latest revision to Oak Ridge National Laboratory (ORNL) Regional Screening Levels for residential soil exposure (EPA, 2012). Exposure points considered during this RI were selected based on current and foreseeable use scenarios for these MRSs, which include residential, construction worker/employee, and recreational user/trespasser scenarios. To be conservative, residential exposure screening levels were selected as the project screening levels to assess potential human health effects and were applied uniformly to the data for all receptors. Additionally, human health screening levels for non-carcinogens were selected to assess a target hazard quotient (HQ) of 0.1 (reduced by a factor of 10 from the published value) to account for potential additive non-carcinogenic risk among multiple non-carcinogens that may affect the same non-carcinogenic endpoint.

Baseline risk assessment for human health was conducted as required by the NCP to support the RI. A Human Health Risk Assessment (HHRA) was performed in accordance with the EPA's *Risk Assessment Guidance for Superfund (RAGS): Volume I Human Health Evaluation Manual (Part A)*, (EPA, 1989). Table 4-5 and Figure 3-14 illustrate the comparison of validated data results to the screening levels selected to initiate the HHRA, and the locations where MC and HTW samples were collected, respectively. Based on this screening level evaluation, a determination was made whether screening level exceedances warranted selection as a COPC for

human health and quantitative assessment as discussed below. If no COPCs are identified, then the risk assessment process ends.

5.1.1.1 Data Evaluation and Selection of Chemicals of Potential Concern for Human Health Risks

As shown on Table 4-5, the majority of constituents analyzed by the laboratory yielded non-detect results or low level detections at quantitation limits that were below project screening levels. Four deviations from this pattern were noted during data evaluation that warranted further review. The first is the arsenic detection noted in all four samples above the project screening level (0.39 mg/kg), at variable concentrations not exceeding 2 mg/kg. The other three notable occurrences within the data set are instances where a non-detect result reported at the laboratory LOD did not meet the selected screening level. This was observed in the results obtained for analysis of thallium (metal), MCPA (herbicide) and nitroglycerin (explosive). Table 5-1 provides a consolidated list of these potential COPCs, and summary of the selection process reported below.

5.1.1.1.1 Arsenic

As shown on Table 5-1, the maximum observed concentration of arsenic was 2.0 mg/kg with a selected level of 0.39 mg/kg used for comparison. Arsenic is a known carcinogen and therefore, the project screening level was selected equivalent to the published value for a target cancer risk of 1.0.

Anthropogenic sources for releasing arsenic into the environment include, nonferrous metal mining and smelting, pesticide application, coal combustion, wood combustion, and waste incineration. However, there are abundant natural sources of arsenic as well (i.e., volcanism and windblown soil), which contribute towards its occurrence as a natural component of Earth's crust and therefore ubiquitous presence in environmental media at low levels. Regardless of its source, once present in the environment, arsenic typically forms insoluble complexes with iron, aluminum, and magnesium oxides in soil, but can be mobilized under reducing conditions [Agency for Toxic Substances and Disease Registry (ATSDR), 2007]. The toxicology report for

Table 5-1
Munitions ResponseSite 1 Burial Pit
Selection of Soil COPCs and COPECs for Human Health and Ecological Risk Assessment

Analytical Method	Compound	carcinogen	CAS No.	Human Health Risk Screening Level [1]	Ecological Risk Screening Level [2]	Field Sample ID:	NFUDS-001-TP0101-01		NFUDS-001-TP0201-01		NFUDS-001-TP0302-01		NFUDS-001-TP0402-01		Select as COPC?	Select as COPEC?
						Date:	6/29/2012		6/29/2012		6/29/2012		6/29/2012			
						Lab Sample	200-11554-1		200-11554-2		200-11554-3		200-11554-4			
						Depth:	0 - 1		0 - 1		1 - 8		1 - 7			
						Units:	Result	Val Qual	Result	Val Qual	Result	Val Qual	Result	Val Qual		
Metals																
6010C	Antimony, Total	n	7440-36-0	3.1	0.27	mg/kg	0.99	U	1	U	0.99	U	0.97	UJ8	no	no[3]
6010C	Arsenic, Total	c	7440-38-2	0.39	18	mg/kg	1.8		2		1.6		1.9		no[4]	no
6010C	Selenium, Total	n	7782-49-2	39	0.52	mg/kg	1.5	U	1.6	U	1.5	U	1.5	U	no	no[5]
6010C	Thallium, Total	n	7440-28-0	0.078	1	mg/kg	0.99	U	1	U	0.99	U	0.97	U	no[6]	no
Pesticides																
8151/DOD	4-Chloro-2-methylphenoxyacetic acid	n	94-74-6	3100	--	ug/kg	3500	U	3400	U	3400	U	3400	U	no[7]	NA
Explosives																
8330 Mod	Nitroglycerin	n	55-63-0	610	--	ug/kg	730	U	720	U	730	U	730	U	no[7]	NA

Notes:
Lab Qualifiers
U The analyte was not detected in the sample. The numeric value represents the sample LOD.
Validation Qualifiers
UJ8 Estimate the non-detected Sb result in sample NFUDS-001-TP0402-01 due to matrix spike recovery below QC limits (potential low bias).

Analytical results highlighted in **PINK** exceed the selected human health screening level.
Analytical results highlighted in **GREEN** exceed the selected ecological benchmark screening level.
Analytical results highlighted in **YELLOW** were not detected by the laboratory but are reported at a LOD above the selected screening level(s).

-- = screening level not available

[1] Human health risk soil screening levels were obtained from EPA RSLs for residential soil May 2012;
non-carcinogenic endpoint screening levels selected to assess a THQ of 0.1, to account potential occurrence of adverse health effects due to exposure to multiple noncarcinogens.

[2] Ecological risk soil screening levels were obtained from EPA Eco-SSLs (various publication dates) for metals and organics;
ecological risk soil screening levels were obtained from Talmage et al., 1999, for nitroaromatic munition compounds; and,
ecological risk soil screening levels were obtained from Efroymson et al., 1997, for various DOE site contaminants based on soil invertebrate and microbial process effects.

[3] Antimony was not selected as COPEC as it was not detected site-wide during the RI (28 soil samples in total), and because the LOD was below the published State background concentration of 1 mg/kg (MassDEP, 2002)

[4] Arsenic was not selected as COPC due to known natural occurrence, and because the LOD is below the published State background concentration of 20 mg/kg (MassDEP, 2002)

[5] Selenium was not selected as a COPEC due to known natural occurrence, and because the LOD was below the published average concentration in soil observed across the United States of 2 mg/kg (ASTDR, 2003)

[6] Thallium was not selected as a COPC as it was not detected site-wide during the RI (28 soil samples in total) and there are no historically documented potential sources for thallium; as multiple noncarcinogens were not detected, the screening level can be adjusted upwards to assess a THQ = 1.0 instead of 0.1, and a value of 1/2 the reported LOD would meet the adjusted screening level (.78 mg/kg)

[7] Chemical was not selected as COPC because the screening level can be adjusted upwards (multiply by 10) to assess a THQ = 1.0 instead of 0.1 due to the lack of detected noncarcinogens

c = carcinogen
n = noncarcinogen
mg/kg = milligrams per kilograms
µg/kg = micrograms per kilogram
COPC = chemical of potential concern (for human health receptors)
COPEC = chemical of potential environmental concern (for ecological receptors)

EPA = U.S. Environmental Protection Agency
LOD = level of detection
RSL = Regional Screening Level
THQ = Target Hazard Quotient
NA = Not applicable

arsenic indicates that typical soil concentrations of arsenic are between 1 and 40 mg/kg, with a mean of 5 mg/kg and higher concentrations associated with waste disposal or pesticide application sites (ATSDR, 2007).

Additionally, the statewide background concentration of arsenic for natural soil, as established by MassDEP is 20 mg/kg (MassDEP, 2002). This is an order of magnitude greater than the detections observed within MRS 1.

Given the lack of any existing historical documentation of anthropogenic arsenic sources, soil composition indicating abundant arsenic-bearing minerals, toxicology information regarding natural occurrence/concentrations in soil, and the MassDEP statewide background level of 20 mg/kg for arsenic in natural soil, arsenic has not been determined to be a COPC for MRS 1.

5.1.1.1.2 Thallium

In accordance with the DoD QSM, the non-detect results obtained by the laboratory for thallium in all four HTW samples were reported at the LOD for each analysis, which varied between 0.97 and 1 mg/kg, and exceed the selected screening level of 0.078 mg/kg shown on Table 5-1. Thallium is a non-carcinogen, and the selected risk screening level was reduced to assess a target HQ of 0.1 instead of 1.0, and account for the potential for additive non-carcinogenic risk among multiple non-carcinogens that may affect the same non-carcinogenic endpoint. Since the full suite of analytical testing for the burial pit samples did not indicate that there were multiple non-carcinogens acting within the system, the screening level can be adjusted upwards equal to the published value of 0.78 mg/kg, which is only slightly below the LOD reported by the laboratory, and would be greater than half the value of the LOD which can typically be considered during risk assessment. Thallium was not detected in any of the samples obtained in test pits from MRS 1, or site-wide during the RI (28 surface and subsurface samples in total). Given the considerations presented above, thallium was not determined to be a COPC for MRS 1.

5.1.1.1.3 Nitroglycerin

Nitroglycerin was not detected by the laboratory in any of the four samples collected. The results for nitroglycerin reported on Table 5-1 represent the LOD for each analysis, which exceed the

selected screening level of 610 µg/kg. Nitroglycerin is a non-carcinogen and the screening level was selected to assess a target HQ of 0.1. Since the full suite of analytical testing for the burial pit samples did not indicate that there were multiple non-carcinogens acting within the system, the screening level can be adjusted upwards equal to the published value of 6,100 µg/kg, which is significantly higher than the maximum LOD reported by the laboratory of 730 µg/kg.

Nitroglycerin was not detected in any of the samples obtained in test pits from MRS 1, or site-wide during the RI (28 surface and subsurface soil samples in total), and based on the considerations presented above, the LOD was sufficient for the purposes of risk screening; therefore, nitroglycerin was not determined to be a COPC for MRS 1.

5.1.1.1.4 4-chloro-2-methylphenoxyacetic Acid

As highlighted on Table 5-1, the last constituent also reported as a non-detect, but at a LOD that does not meet the screening level was an herbicide, MCPA. Non-detect laboratory results reported at the LOD ranged between 3,400 and 3,500 µg/kg for the four potential burial pit samples, which exceed the selected screening level of 3,100 µg/kg. As a non-carcinogen, the screening level for MCPA was selected to assess a target HQ of 0.1. Since the full suite of analytical testing for the burial pit samples did not indicate that there were multiple non-carcinogens acting within the system, the screening level can be adjusted upwards equal to the published value of 31,000 µg/kg, which is significantly higher than the maximum LOD reported by the laboratory of 3,500 µg/kg. Therefore, MCPA was not determined to be a COPC for MRS 1.

5.1.1.2 Uncertainty Analysis

The objectives of the uncertainty analysis are defined in several guidance documents (EPA, 1989; 1995) and are summarized as follows:

- Provide the appropriate decision-makers a summary of those factors that significantly influence the risk results, evaluate their range of variability, and assess the contribution of these factors to the under- or over-estimation of risk.
- Discuss the data underlying the assumptions that most significantly influence risk to highlight the strengths and weaknesses of the risk assessment results.

The quality and robustness of sample data can be key factors in risk uncertainties. If exposure areas are not well characterized (i.e., samples are not collected randomly or insufficient samples are taken), or if data are not validated according to EPA guidelines, the resulting risks may be questionable or uncertain.

MRS 1 has been demarcated to encompass a 1.5-acre circle surrounding the surface features potentially indicative of a burial pit (i.e., sparse vegetation and large depression). Since test pit placement was biased towards these surface features, a "worst case scenario" was subject to investigation, which would tend to overestimate risk. As no field indications of a burial pit or release were observed, sample collection within the potentially affected area was completed using composite samples with random aliquot collection within a specified depth interval. Sample collection characterized the surface and subsurface exposure units within both the sparse vegetation area and the depression. Four, 8-point composite samples were collected for this purpose. Neither the number nor location of samples collected were determined to be large sources of uncertainty in this risk assessment, given the lack of other indications of a potential release; however, increasing the number and spatial coverage of the sampling program would provide further definition.

To reduce the risk of uncertainty due to analytical processing, results were validated in accordance with EPA protocol (see Table 4-5) prior to incorporation into the risk assessment. Potential biases within the data results were identified and considered during the screening exercise; therefore, data quality is not likely to contribute to uncertainty for this risk assessment.

The last potential source of uncertainty associated with this analysis is the non-selection of arsenic as a COPC in light of its screening level exceedance. However, as noted above, the low levels observed are likely indicative of background for the area. A formal reference sample program could be initiated for MRS 1 that could alleviate this source of uncertainty but should not be necessary based on the extent of published background information available.

5.1.1.3 Human Health Risk Assessment Summary and Conclusions

Based on the screening level evaluation conducted to assess human health risks associated with the potential historic use of MRS 1 as a burial pit, no screening level exceedances were observed

warranting further quantitative assessment. No COPC were identified as a result of the screening level evaluation because no exceedances were noted inconsistent with published background concentrations of any evaluated constituent indicating a release is present. Therefore, the results of the HHRA support the conclusion that no remedial action is necessary to protect public health, or welfare from HTW or MC in soil at MRS 1 based on current and intended future use of the site (i.e., residential users, construction workers, recreational users/trespassers).

5.1.2 Burial Pit Hazardous Toxic Waste and Munitions Constituents Ecological Risk Evaluation

A screening level comparison of analytical results to conservative ecological benchmark values for receptors in soil was conducted for all samples to initially evaluate the risk to potential ecological receptors including plants, soil invertebrates, and wildlife (terrestrial-feeding mammals and avian species) based on direct contact exposures of organisms to the affected soil, and potential exposure through the ingestion of other organisms as food sources. Benchmark ecological soil screening levels selected for this RI evaluation were composited from the following sources, using the most conservative benchmark available for the potential receptors with published values:

- Talmage et al. 1999. Talmage, S.S., D.M. Opresko, C.J. Maxwell, C.J.E. Welsh, M. Cretella, P.H. Reno, and F.B. Daniel. Nitroaromatic munition compounds: environmental effects and screening values. Rev. Environ. Contam. Toxicol. 161: 1-156.

- Efroymson et al. 1997. Efroymson, R.A., M.E. Will, and G.W. Suter II. 1997. Toxicological benchmarks for contaminants of potential concern for effects on soil and litter invertebrates and heterotrophic processes: 1997 revision. ES/ER/TM-126/R2. U.S. Department of Energy, ORNL, Oak Ridge, TN.

- U.S. EPA Ecological Soil Screening Levels available for metals and organics (various publications dates). Available at: www.epa.gov/ecotox/ecossl/.

The screening-level portion of the ecological risk assessment (ERA) includes Steps 1 and 2 of *Ecological Risk Assessment Guidance for Superfund* (EPA, 1997) to determine whether or not chemicals found at the site pose a potential risk to ecological receptors that should be further

evaluated during Steps 3 through 8. The following steps included in the screening-level portion of the ERA are as follows:

- Problem formulation
- Analysis of exposure
- Analysis of ecological effects
- Risk characterization
- Uncertainty analysis

A primary component of the problem formulation step is the selection of COPECs. In this case, potential COPECs were identified via the point-by-point comparison of analytical data results provided on Table 4-5 to the benchmark screening levels, and subject to further evaluation to determine if the chemical warranted selection as a COPEC for risk assessment. If all chemicals of concern are eliminated at this point, the ERA process ends.

5.1.2.1 Data Evaluation and Selection of Chemical of Potential Environmental Concern for Ecological Risks

The results of the point-by-point comparison using validated data are provided on Table 4-5, with the selected ecological risk screening levels, and indicate that two compounds were reported at non-detect, or estimated concentrations below limits of detection that did not meet the selected screening levels (antimony and selenium). All other detected and non-detected results were quantified at observed concentrations below the selected benchmarks for ecological screening levels. Table 5-1 provides a consolidated list of these potential COPECs, and summary of the selection process reported below.

5.1.2.1.1 Antimony

The non-detect results obtained by the laboratory for antimony in all four HTW samples collected from MRS 1 were reported at the LOD for the method, which varied between 0.97 mg/kg and 1 mg/kg, and were above the selected benchmark screening level of 0.27 mg/kg [based on mammalian uptake, (EPA, 2005a)]. Antimony is typically found in soil and rock at low levels, less than 1 mg/kg and up to 8.8 mg/kg (ATSDR, 1992). Specifically in the State of Massachusetts, antimony has a published background concentration of 1 mg/kg for natural soil (MassDEP, 2002).

Antimony was not detected in any of the samples obtained in test pits from MRS 1, or site-wide during the RI (28 surface and subsurface soil samples in total), and based on the published background concentrations, the LOD was sufficient for the purposes of risk screening; therefore, antimony was not determined to be a COPEC for MRS 1.

5.1.2.1.2 Selenium

Similar to the above discussion, the non-detect results obtained by the laboratory for selenium in all four HTW samples were reported at the LOD for each analysis, which varied between 1.5 and 1.6 mg/kg, and exceeds the selected benchmark screening level for this RI of 0.52 mg/kg [based on terrestrial plant exposure, (EPA, 2007)]. However, selenium is naturally occurring at concentrations typically less than 2 mg/kg across the U.S. (ATSDR, 2003).

Selenium was not detected in any of the samples obtained in test pits from MRS 1, and there are no known documented sources for selenium associated with the MRS. Site-wide during the RI, it was only detected in 4 28 total surface and subsurface soil samples, at estimated concentrations which were below the LOD. Based on the published background concentrations, the LOD was sufficient for the purposes of risk screening within MRS 1; therefore, selenium was not determined to be a COPEC for MRS 1.

5.1.2.2 Uncertainty Analysis

As with any environmental assessment process, many uncertainties are associated with estimating exposure and risks to ecological organisms. For this ERA, uncertainty is primarily associated with: (1) ecological benchmarks and other information taken from the literature and (2) limited data necessitating the use of single sample values as the exposure point concentrations. Because conservative ecotoxicity screening levels based on food chain effects were used in this evaluation, much of this uncertainty will overestimate risk. Historical data and field investigation/screening protocols were used to select sample locations. Such a biased sampling approach tends to result in collection of “worst case” rather than representative sample concentrations, and also has the potential to conservatively overestimate risk. For site-specific risk assessments, as the number of sampling points increases, the uncertainty about the true distributions of values decreases. Even with a large number of sampling locations, it is

impossible to conclude definitively that concentrations above those measured do not exist at the site.

5.1.2.3 Ecological Risk Assessment Summary and Conclusions

Based on the HTW and MC field investigation, analytical data results and point-by-point benchmark screening evaluation performed as for the RI, no indications of a release, or significant risk to ecological receptors have been identified at MRS 1 related to potential historic use as a burial pit. No COPECs were identified as a result of the screening level evaluation through Step 2 of the *Ecological Risk Assessment Guidance for Superfund* (*ERAGS*), and further assessment by proceeding to Steps 3 through 8 was not required. Therefore, the results of the ERA support the conclusion that no remedial action is necessary to protect the environment from HTW or MC in soil at MRS 1.

5.2 MUNITIONS RESPONSE SITE 2 SOIL MUNITIONS CONSTITUENTS ASSESSMENT

5.2.1 Aerial Rocket Range Munitions Constituents Human Health Evaluation

The human health evaluation conducted to assess potential risks from MC in soil and groundwater to receptors for MRS 2 followed the same general procedure outlined above in Subsection 5.1.1, including a comparison of results to screening levels for each analyte, evaluation of potential COPCs for further quantitative assessment. Validated analytical results and risk screening results are presented on Tables 4-6 and 4-7 for potential MC concentrations in surface and subsurface soil, respectively.

Surface soil samples were collected per IS methodology in accordance with the *Final WP* (specifically Appendix E MC Sampling Memorandum and Appendix J *UFP-QAPP*) and subsequent Memorandum for MC Sampling (WESTON, 2012a and 2012b), from geophysical investigation grids G02, G04, G08, G09, and G12 located within AC-01. The five grids sampled are depicted on Figure 3-15 and represent the highest density of observed MD within the MRS based on the data collected during the RI. Of the five sampled grids, G08 was sampled in triplicate to provide replicate results for QA purposes. To assess risk associated with concentrations of chemicals in G08, a UCL was calculated for each compound reported using the

Chebyshev approach to provide a conservative estimate of the mean of the sample set (n=3), which are the analyte concentrations shown on Table 4-6 for G08.

Subsurface samples were also collected from the same five grids. Discrete grab samples were collected from pre-determined depth intervals (0 to 2, 2 to 4, and 4 to 10 ft bgs) from the location within each grid corresponding to the highest density of MD to provide a "worst-case" assessment of MC contamination for subsurface soil.

5.2.1.1 Data Evaluation and Selection of Chemical of Potential Concern for Human Health Risk

As shown on Table 4-6 and Table 4-7, the majority of constituents analyzed by the laboratory yielded non-detect results or low level detections at quantitation limits that were below project screening levels. The only detected analytes above respective screening levels in one or more samples were arsenic, cobalt, and iron. All explosive compounds were undetected or detected at estimated concentrations below selected screening levels. The negative log of hydrogen ion activity (pH) was also measured to assist with evaluation of constituents with pH-dependent toxicities. However, as noted on the tables, the holding time for pH analysis is 15 minutes, and although sample shipment was expedited to the extent possible, analysis beyond the holding time was unavoidable.

Additionally highlighted in the tables are occurrences within the data set where non-detect results reported at the laboratory LOD did not meet the selected screening levels. This was observed in the results obtained for thallium (metal) and nitroglycerin (explosive) during the human health risk screening. These results are discussed in the context of COPC selection to assess human health risks below, and summarized on Table 5-2 and Table 5-3 for surface soil and subsurface soil, respectively.

5.2.1.1.1 Arsenic

As shown on Table 5-2, for surface samples collected via IS methodology, the range of detected arsenic was 2.1 to 2.7 mg/kg with a selected screening level of 0.39 mg/kg used for comparison. Arsenic is a known carcinogen and therefore, the selected screening level was not reduced and

Table 5-2
Munitions Response Site 2 Aerial Rocket Range
Surface Soil Incremental Sampling
Selection of COPCs and COPECs for Human Health and Ecological Risk Assessment

Analytical Method	Compound	CAS No.	carcinogen	Human Health Risk Screening Level [1]	Ecological Risk Screening Level [2]	Field Sample ID: Date: Lab Sample ID: Depth (ft bgs): Units:	NFUDS-002-ISG02-01 7/31/2012 200-12041-1 0 - 0.5 Result	Val. Qual.	NFUDS-002-ISG04-01 8/1/2012 200-12041-2 0 - 0.5 Result	Val. Qual.	NFUDS-002-ISG09-01 7/31/2012 200-12041-6 0 - 0.5 Result	Val. Qual.	NFUDS-002-ISG12-01 8/1/2012 200-12041-7 0 - 0.5 Result	Val. Qual.	NFUDS-002-ISG08 UCL Result (n=3 replicates) [9]	Select as COPC?	Select as COPEC?
Metals																	
6010C	Antimony, Total	7440-36-0	n	3.1	0.27	mg/kg	0.74	U	0.71	U	0.72	U	0.75	U	0.78	no	no[3]
6010C	Arsenic, Total	7440-38-2	c	0.39	18	mg/kg	2.1		2.2		2.5		2.3		2.7	no[4]	no
6010C	Iron, Total	7439-89-6	n	5500	--	mg/kg	4800	J10,J11	6000	J10	6400	J10	5700	J10	8288	no[5]	NA
6010C	Selenium, Total	7782-49-2	n	39	0.52	mg/kg	1.1	U	0.53	J	0.63	J	0.63	J	0.70	no	no[6]
6010C	Thallium, Total	7440-28-0	n	0.078	1	mg/kg	0.74	U	0.71	U	0.72	U	0.75	U	0.78	no[7]	no
6010C	Vanadium, Total	7440-62-2	n	39	7.8	mg/kg	8		8.8		10		9.3		12.9	no	no[8]
Explosives																	
8330B	Nitroglycerin	55-63-0	n	610	--	ug/kg	720	U	720	U	720	U	710	U	756	no[5]	NA

Notes:
Lab Qualifiers
J Estimated: The analyte was positively identified; the quantitation is an estimation.
U The analyte was not detected in the sample. The numeric value represents the sample LOD.
Validation Qualifiers
J10 Estimate the positive result for Fe in all samples due to non-compliant serial dilution results (bias could not be determined).
J11 Estimate the positive results for Al, Ca, Fe and Mg in sample NFUDS-002-ISG02-01 due to non-compliant post-digestion results (bias could not be determined).

[1] Human health risk soil screening levels were obtained from EPA RSLs for residential soil May 2012; *non-carcinogenic endpoint screening levels selected to assess a Target Hazard Quotient of 0.1, to account potential occurrence of adverse health effects due to exposure to multiple noncarcinogens.*

[2] Ecological risk soil screening levels were obtained from EPA Eco-SSLs (various publication dates) for metals and organics;
ecological risk soil screening levels were obtained from Talmage et al., 1999, for nitroaromatic munition compounds; and,
ecological risk soil screening levels were obtained from Efroymson et al., 1997, for various DOE site contaminants based on soil invertebrate and microbial process effects.

[3] Antimony was not selected as COPEC as it was not detected site-wide during the RI (28 soil samples in total), and because the LOD was below the published State background concentration of 1 mg/kg (MassDEP, 2002

[4] Arsenic was not selected as COPC due to known natural occurrence, and because the LOD is below the published State background concentration of 20 mg/kg (MassDEP, 2002)

[5] Chemical was not selected as COPC because the screening level can be adjusted upwards (multiply by 10) to assess a THQ = 1.0 instead of 0.1 due to the lack of detected noncarcinogens

[6] Selenium was not selected as a COPEC due to known natural occurrence, and because the LOD was below the published average concentration in soil observed across the United States of 2 mg/kg (ASTDR, 2003

[7] Thallium was not selected as a COPC as it was not detected site-wide during the RI (28 soil samples in total) and there are no historically documented potential sources for thallium; as multiple noncarcinogens were not detected, the screening level can be adjusted upwards to assess a THQ = 1.0 instead of 0.1, and a value of 1/2 the reported LOD would meet the adjusted screening level (.78 mg/kg)

8 Vanadium was not selected as COPEC due to known natural occurrence, and because the LOD is below the published State background concentration of 30 mg/kg (MassDEP, 2002)

[9] Results shown for G08 represent the Chebyshev UCL between sample replicates (total of 3) for comparison to selected screening levels.

-- = screening level not available

Analytical results highlighted ir Analytical results highlighed in **PINK** exceed the selected human health screening level.
Analytical results highlighted ir Analytical results highlighed in **GREEN** exceed the selected ecological benchmark screening level.
Analytical results highlighted ir Analytical results highlighted in **YELLOW** were not detected by the laboratory but are reported at a level of detection above the selected screening level.

EPA RSL = U.S. Environmental Protection Agency Regional Screening Level
mg/kg = milligrams per kilograms
µg/kg = micrograms per kilogram
COPC = chemical of potential concern (for human health receptors)
COPEC = chemical of potential environmental concern (for ecological receptors)
c = carcinogen
n = noncarcinogen
LOD = level of detection
UCL = upper concentration limit
%RPD = relative percent difference
%RSD = relative standard deviation
THQ = Target Hazard Quotient
NA = Not applicable

Table 5-3
Munitions Response Site 2 Aerial Rocket Range
Subsurface Soil Discrete Sampling
Selection of COPCs and COPECs for Human Health and Ecological Risk Assessment

Analytical Method	Compound	CAS No.	carcinogen	Human Health Risk Screening Level [1]	Ecological Risk Screening Level [2]	Units:	Field Sample ID:	Val. Qual.	Field Sample ID:	Val. Qual.	Field Sample ID:	Val. Qual.	Field Sample ID:	Val. Qual.	Field Sample ID:	Val. Qual.	Field Sample ID:	Val. Qual.	Field Sample ID:	Val. Qual.	Field Sample ID:	Val. Qual.	Field Sample ID:	Val. Qual.
							NFUDS-002-SBG0201-01		NFUDS-002-SBG0202-01		NFUDS-002-SBG0202-02		NFUDS-002-SBG0203-01		NFUDS-002-SBG0401-01		NFUDS-002-SBG0402-01		NFUDS-002-SBG0403-01		NFUDS-002-SBG0801-01			
							8/1/2012		8/1/2012		8/1/2012		8/1/2012		8/1/2012		8/1/2012		8/1/2012		8/1/2012			
							200-12042-1		200-12042-2		200-12042-3		200-12042-4		200-12042-5		200-12042-6		200-12042-7		200-12042-8			
							0 - 2		2 - 4		2 - 4		4 - 10		0 - 2		2 - 4		4 - 10		0 - 2			
Metals																								
6010C	Antimony, Total	7440-36-0	n	3.1	0.27	mg/kg	1.1	U	1	U	0.87	U	1.1	U	1.2	U	1.2	U	1.2	U	1	U		
6010C	Arsenic, Total	7440-38-2	c	0.39	18	mg/kg	1.4		1.7		2		1.9		3.3		1.9		3.8		2			
6010C	Cobalt, Total	7440-48-4	n	2.3	13	mg/kg	0.67	J	1	J	1.1	J	0.98	J	0.99	J	1.1	J	3.5	J	0.76	J		
6010C	Iron, Total	7439-89-6	n	5500	-- [3]	mg/kg	3500		4000		5100		3300	J	5900		4400		5300		6200			
6010C	Selenium, Total	7782-49-2	n	39	0.52	mg/kg	1.7	U	1.6	U	1.3	U	1.7	U	1.8	U	1.8	U	1.8	U	1.5	U		
6010C	Thallium, Total	7440-28-0	n	0.078	1	mg/kg	1.1	U	1	U	0.87	U	1.1	U	1.2	U	1.2	U	1.2	U	1	U		
6010C	Vanadium, Total	7440-62-2	n	39	7.8	mg/kg	5.5		6.6		6.6		3.9		6.2		6.5		5.9		9.4			
Explosives																								
8330 Mod	Nitroglycerin	55-63-0	n	610	--	ug/kg	720	U	720	U	720	U	720	U	720	U	720	U	720	U	720	U		

Notes:

Lab Qualifiers

J Estimated: The analyte was positively identified; the quantitation is an estimation.
U The analyte was not detected in the sample. The numeric value represents the sample limit of detection.
HF Field parameter with holding time of 15 min - sample was prepped beyond specified holding time.

Validation Qualifiers

J7 Estimated the positive results for Mn in all samples due to no-compliant laboratory duplicates (bias could not be determined).
J9 Estimate the positive results for Ca, Mg and K in sample NFUDS-002-SBG0203-01 due to matrix spike results above QC limits (potential high bias).

Analytical results highlighted in **PINK** exceed the selected human health screening level.
Analytical results highlighted in **GREEN** exceed the selected ecological benchmark screening level.
Analytical results highlighted in **YELLOW** were not detected by the laboratory but are reported at a LOD above the selected screening level(s).

EPA = U.S. Environmental Protection Agency
mg/kg = milligrams per kilograms
µg/kg = micrograms per kilogram
c = carcinogen
n = noncarcinogen
COPC = chemical of potential concern (for human health receptors)
COPEC = chemical of potential environmental concern (for ecological receptors)
LOD = level of detection
RSL = Regional Screening Level
THQ = Target Hazard Quotient
NA = Not applicable
ft = feet

was selected at the published value to assess a target cancer risk of 1.0. It should be noted that the maximum result of 2.7 mg/kg is a conservative UCL estimate calculated using all three replicates collected from grid G08. The highest individual sample value of arsenic detected in surface soil samples was 2.5 mg/kg.

Within the subsurface sample results shown on Table 5-3, arsenic was detected at a range of 1.4 to 3.8 mg/kg over all depth intervals sampled. All 15 primary samples and both field duplicates exceeded the selected screening criteria.

However, the statewide background concentration of arsenic for natural soil, as established by MassDEP is 20 mg/kg (MassDEP, 2002). This is an order of magnitude greater than the detections observed within MRS 2. Given the lack of any existing historical documentation of anthropogenic arsenic sources, and known natural occurrence of arsenic in soil, including the MassDEP statewide background level of 20 mg/kg, arsenic has not been determined to be a COPC for MRS 2.

5.2.1.1.2 Cobalt

Cobalt was detected by the laboratory at variable estimated concentrations in all samples collected to characterize MC for this RI. However, only one sample was reported at an estimated concentration in excess of the selected screening level of 2.3 mg/kg. The 4 to 10 ft bgs sample collected from grid G04 was reported by the laboratory at an estimated concentration of 3.5 mg/kg. Cobalt is a non-carcinogen, and the selected risk screening level was reduced by an order of magnitude from the published screening level to evaluate a target HQ of 0.1 instead of 1.0 to account for potential additive non-carcinogenic risk among multiple non-carcinogens that may affect the same endpoint. Based on the historic use known for this FUDS property and lack of any other releases noted throughout the FUDS (i.e., SI results, visual inspections of surface and subsurface, MRS 1 full suite sampling), this screening level reduction is likely over conservative and not needed. Therefore, the screening level can be adjusted upwards to 23 mg/kg, which is greater than the positive detection reported by the laboratory. Additionally, the statewide background concentration of cobalt for natural soil, as established by MassDEP is 4 mg/kg (MassDEP, 2002). All estimated concentrations of cobalt detected in MRS 2 are below this published background value. Given the conservative nature of the selected screening level,

and MassDEP published background concentration, cobalt has not been determined to be a COPC for MRS 2.

5.2.1.1.3 Iron

As shown on Table 5-2, for surface samples collected via IS methodology, the range of detected iron was 5,700 to 8,288 mg/kg with a selected screening level of 5,500 mg/kg used for comparison. Validation performed on the data indicated that quality criteria for serial dilutions and/or post-digestion results were not met and all of the positive detections were qualified as estimated (biased could not be determined).

Within the subsurface sample results shown on Table 5-3, iron was detected in excess of the selected screening level at variable concentrations between 5,900 to 6,200 mg/kg in four primary samples (none duplicated in the field), collected from the 0 to 2-ft bgs depth interval in all grids except G02.

Iron is a non-carcinogen, and the selected risk screening level was reduced by an order of magnitude from the published screening level to evaluate a target HQ of 0.1 instead of 1.0 to account for potential additive non-carcinogenic risk among multiple non-carcinogens that may affect the same endpoint. Similar to above, based on the historic use known for this FUDS property and lack of any other releases noted throughout the FUDS (i.e., SI results, visual inspections of surface and subsurface, MRS 1 full suite sampling), this screening level reduction is likely over conservative and not needed. Therefore, the screening level can be adjusted upwards to 55,000 mg/kg, and the positive detections reported by the laboratory are all well below this value. Additionally, iron is not a CERCLA hazardous chemical, and is a naturally occurring heavy metal in the environment that is an essential nutrient. The statewide background concentration of iron for natural soil, as established by MassDEP is 20,000 mg/kg (MassDEP, 2002). This is an order of magnitude greater than the detections observed within MRS 2. Given all of the considerations above, iron has not been determined to be a COPC for MRS 2.

5.2.1.1.4 Thallium

In accordance with the DoD QSM, the non-detect results obtained by the laboratory for thallium in surface soil samples were reported at the LOD for each analysis, which varied between 0.71

and 0.78 mg/kg, and exceed the selected screening level of 0.078 mg/kg (see Table 5-2). Subsurface sample results reported as non-detect at the LOD varied between 0.87 and 1.3 mg/kg (see Table 5-3).

Thallium is a non-carcinogen, and the selected risk screening level was reduced by an order of magnitude from the published screening level to evaluate a target HQ of 0.1 instead of 1.0 to account for potential additive non-carcinogenic risk among multiple non-carcinogens that may affect the same endpoint. Based on the historic use known for this FUDS property and lack of any other releases noted throughout the FUDS, this screening level reduction is likely over conservative and not needed. Therefore, the screening level can be adjusted upwards to 0.78 mg/kg, which is only slightly below the LOD reported by the laboratory, and would be greater than half the value of the LOD which can typically be considered during risk assessment. Thallium was not detected in any of the samples collected site-wide during the RI (28 surface and subsurface samples in total). Given the considerations presented above, thallium was not determined to be a COPC for MRS 2.

5.2.1.1.5 Nitroglycerin

Nitroglycerin was not detected by the laboratory in any of the four samples collected. The results for nitroglycerin reported on Tables 5-2 and 5-3 represent the LOD for each analysis, which varied between 710 and 756 µg/kg, and exceed the selected screening level of 610 µg/kg.

Nitroglycerin is a non-carcinogen and the screening level was selected to assess a target HQ of 0.1 instead of 1.0 to account for potential additive non-carcinogenic risk among multiple non-carcinogens that may affect the same endpoint. Based on the historic use known for this FUDS property and lack of any other releases noted throughout the FUDS, this screening level reduction is likely over conservative and not needed. Therefore, the screening level can be adjusted upwards to 6,100 mg/kg, which is one order of magnitude greater than the LOD reported by the laboratory.

Nitroglycerin was not detected in any of the samples collected site-wide during the RI (28 surface and subsurface soil samples in total), and based on the considerations presented

above, the LOD was sufficient for the purposes of risk screening; therefore, nitroglycerin was not determined to be a COPC for MRS 2.

5.2.1.2 Uncertainty Analysis

The factors that should be considered during the uncertainty analysis were documented above in Subsection 5.1.1.2 for MRS 1 and are dually applicable here. MRS 2 has been demarcated to encompass a 5,155-acre area associated with historical air-to-ground practice munitions training. As no UXO or DMM was identified, any potential MC contamination would be associated with significant amounts of MD. The most concentrated areas of recovered MD were sampled to assess potential MC impacts with MRS 2 with a biased/"worst-case" scenario approach. Similar to test pitting for HTW in MRS 1, this approach would tend to overestimate risk. Both a highly representative (IS methodology), and point-source type (discrete grab methodology) of sampling techniques were employed. Neither the number or location of samples collected were determined to be large sources of uncertainty in this HHRA; however, increasing the number and spatial coverage of the sampling program would provide further definition.

To reduce the risk of uncertainty due to analytical processing, results were validated in accordance with EPA protocol (see Table 5-2 and 5-3) prior to incorporation into the risk assessment. Potential biases within the data results were identified and considered during the screening exercise; therefore, data quality is not likely to contribute to uncertainty for this HHRA.

The last potential source of uncertainty associated with this analysis is the non-selection of arsenic as a COPC in light of its screening level exceedance. As noted above, the low levels observed are likely indicative of background for the area. A formal reference sample program could be initiated for MRS 2 that could alleviate this source of uncertainty, but should not be necessary based on the extent of published background information available.

5.2.1.3 Human Health Risk Assessment Summary and Conclusions

Based on the screening level evaluation conducted to assess human health risks associated the potential historic use of MRS 2 as an aerial rocket range, no screening level exceedances were observed warranting further quantitative assessment. No COPC were identified as a result of the

screening level evaluation because no exceedances were noted inconsistent with published background concentrations of any evaluated constituent indicating a release is present. Therefore, the results of the HHRA support the conclusion that no remedial action is necessary to protect public health or welfare from MC in soil at MRS 2 based on current and intended future use of the site (i.e., residential users, construction workers, recreational users/trespassers).

5.2.2 Aerial Rocket Range Munitions Constituents Ecological Risk Evaluation

Similar to the HTW assessment described above in Subsection 5.1.2, an ERA was initiated at the screening-level using the project selected benchmarks to identify potential COPECs for further assessment. Analytical data used to assess ecological risk was limited to the IS surface soil samples, and subsurface samples collected between 0 and 2 ft bgs only as this is the only depth interval with exposure potential for ecological receptors.

5.2.2.1 Data Evaluation and Selection of Chemical of Potential Environmental Concern for Ecological Risks

As shown on Table 5-2 and Table 5-3, the majority of constituents analyzed by the laboratory yielded non-detect results or low level detections at quantitation limits that were below project screening levels. The only detected analytes above respective screening levels in one or more samples were selenium and vanadium. All explosive compounds were undetected or detected at estimated concentrations below selected screening levels. The negative log of hydrogen ion activity (pH) was also measured to assist with evaluation of constituents with pH-dependent toxicities. As noted on the tables, the holding time for pH analysis is 15 minutes, and although sample shipment was expedited to the extent possible, analysis beyond the holding time was unavoidable.

Additionally highlighted in the tables are occurrences within the data set where non-detect results reported at the laboratory LOD did not meet the selected screening levels. This was observed in the results obtained for antimony and selenium (both metals) during the ecological risk screening. These results are discussed in the context of COPEC selection to assess ecological risks below, and summarized on Table 5-2 and Table 5-3 for surface soil and subsurface soil, respectively.

5.2.2.1.1 Antimony

As shown on Table 5-2, the non-detect results obtained by the laboratory for antimony in all surface soil samples collected from MRS 2 were reported at the LOD, which varied between 0.71 mg/kg and 0.78 mg/kg, and were above the selected benchmark screening level of 0.27 mg/kg [based on mammalian uptake, (EPA, 2005a)].

Within the subsurface sample results provided on Table 5-3, the non-detect LOD reported by the laboratory for all five samples collected between 0 and 2 ft bgs ranged between 1 and 1.3 mg/kg, which still slightly exceed the selected screening level. Antimony is typically found in soil and rock at low levels, less than 1 mg/kg and up to 8.8 mg/kg (ATSDR, 1992). Specifically in the State of Massachusetts, antimony has a published background concentration of 1 mg/kg for natural soil (MassDEP, 2002).

Given the fact that there were no detections of antimony in any samples collected site-wide during the RI (28 surface and subsurface soil samples in total), and the statewide background concentrations of 1 mg/kg, antimony was not determined to be a COPEC for MRS 2.

5.2.2.1.2 Selenium

As shown on Table 5-2, surface soil sample results reported by the laboratory were estimated at positive detections between 0.53 and 0.70 mg/kg for selenium in four of the five sampled grids (all but G02), which exceed the selected benchmark screening level for this RI of 0.52 mg/kg [based on terrestrial plant exposure, (EPA, 2007)]. However, selenium is naturally occurring at concentrations typically less than 2 mg/kg across the U.S. (ATSDR, 2003).

As shown on Table 5-3, selenium was reported as non-detect by the laboratory for all subsurface soil samples collected between 0 and 2 ft bgs at concentrations equivalent to the LOD for each analysis, which varied between 1.5 and 2 mg/kg, but exceed the selected benchmark screening level.

Selenium is a naturally occurring element that is widely but unevenly distributed throughout earth's crust. Natural sources of selenium include volcanism, weathering, and dust deposition. Based on the toxicology profile for selenium, in low concentrations, it is an essential nutrient for

humans and animals. Anthropogenic sources of selenium include copper refining, fossil fuel burning, and disposal/release of selenium-containing commercial products (ATSDR, 2003). None of the anthropogenic sources established in the toxicology profile for selenium are suspected to be present within MRS 2 based on historical and current use of the property. Additionally, the statewide background concentration for selenium in soil is 0.5 mg/kg, with concentrations up to 1 mg/kg associated with contaminated sites (MassDEP, 2002).

Given the low levels of estimated detections within 4the 28 total surface and subsurface soil MC samples collected during the RI, which are consistent with the published statewide background concentration, coupled with the lack of any existing historical documentation of anthropogenic selenium sources, selenium was not determined to be a COPEC for MRS 2.

5.2.2.1.3 Vanadium

As shown on Table 5-2, surface soil sample results reported by the laboratory were estimated at positive detections between 8 and 12.9 mg/kg for vanadium in all five (5) samples, which slightly exceed the selected benchmark screening level for this RI of 7.8 mg/kg [based on avian wildlife exposure, (EPA, 2005b)]. As shown on Table 5-3, vanadium was positively detected in all subsurface samples collected between 0 and 2 ft bgs at variable concentrations between 5.5 and 9.4 mg/kg, but only exceeded the selected benchmark screening level in three (3) primary samples (none were duplicated in the field).

Based on the toxicology profile for vanadium, this element is naturally and widely occurring throughout earth's crust at an average concentration of 100 mg/kg and is associated with over 65 minerals. Natural sources include volcanism, dust, and marine aerosol deposition, while anthropogenic sources include oil refineries and power plants using vanadium-rich fuel oil and coal (ATSDR, 2009). None of these anthropogenic sources are suspected to have impacted MRS 2 based on historic and current use information. Identification of MC likely to be associated with the types of munitions previously used at these MRSs completed for the SI and RI planning document do not include vanadium as a potential constituent. Additionally, the statewide background concentration of vanadium for natural soil, as established by MassDEP, is

30 mg/kg (MassDEP, 2002), which is greater than all detections of vanadium reported by the laboratory throughout MRS 2.

Given the lack of any existing historical documentation of anthropogenic vanadium sources, toxicology information regarding natural occurrence/concentrations in soil, and the MassDEP statewide background level of 30 mg/kg for vanadium in natural soil, vanadium has not been determined to be a COPEC for MRS 2.

5.2.2.2 Uncertainty Analysis

The factors that should be considered during the uncertainty analysis were documented above in Subsection 5.1.2.2 for MRS 1 and are dually applicable here.

5.2.2.3 Ecological Risk Assessment Summary and Conclusions

Based on the analytical data results and point-by-point benchmark screening evaluation performed as for the RI, no indications of a release, or significant risk to ecological receptors have been identified at MRS 2 related to potential historic use as an air-to-ground practice aerial rocket range. No COPECs were identified as a result of the screening level evaluation through Step 2 of *ERAGS*, and further assessment by proceeding to Steps 3 through 8 was not required. Therefore, the results of the ERA support the conclusion that no remedial action is necessary to protect the environment from MC in soil at MRS 2.

5.3 MUNITIONS RESPONSE SITE 1 AND 2 GROUNDWATER MUNITIONS CONSTITUENTS ASSESSMENT

5.3.1 Burial Pit and Aerial Rocket Range Groundwater Munitions Constituents Human Health Evaluation

Human health effects are the only endpoint of concern regarding risk from groundwater due to potential MC contamination. The human health evaluation conducted to assess potential risks from MC in groundwater from receptors followed the same general procedure outlined above in Subsection 5.1.1 and 5.1.2, including a comparison of results to screening levels for each analyte, and evaluation of potential COPCs for further quantitative assessment.

Based on the results of the geophysical investigation, no UXO, DMM, and/or field observations of a potential release (e.g., leaking munitions, stained soil) were documented to initiate characterization of groundwater at a suspected point-source. Therefore, groundwater sampling was conducted in accordance with planning documents via collection of samples from residential groundwater wells in the vicinity of MRS 1 and MRS 2 that were sampled during the SI. Parcel No. 91 2.4 was sampled to supplement data previously collected to characterize MRS 1. Parcel No.'s. 90 9, 91 1, and 91 118 were sampled to characterize MRS 2. See Figure 3-16 for the locations of residents that were included in the groundwater characterization effort. Validated analytical results and risk screening results are presented on Table 4-8 for MC concentrations in groundwater.

To develop appropriate screening levels, the current and future use of groundwater was considered. The current and expected future use of groundwater underlying the site is residential use. Screening levels were developed to evaluate potential risks for this exposure scenario. Except for perchlorate, human health screening values for groundwater were selected from ORNL Regional Screening Levels (EPA, 2012) for tap water and/or Federal Maximum Contaminant Levels (MCL); the most stringent of the Regional Screening Levels or MCLs were selected. For perchlorate, a more conservative state drinking water screening criterion has been established by MassDEP and was adopted for data evaluation and risk screening of perchlorate concentrations in groundwater (MassDEP, 2006). Additionally, human health screening levels for non-carcinogens were selected to assess a target HQ of 0.1 to account for potential additive non-carcinogenic risk among multiple non-carcinogens that may affect the same non-carcinogenic endpoint.

5.3.1.1 Data Evaluation and Selection of Chemical of Potential Concern for Human Health Risk

As shown in Table 4-8, the majority of constituents analyzed by the laboratory yielded non-detect results or low level detections at detection limits that were below project screening levels. The only detected analyte reported above its respective screening level was copper, which was observed in samples collected from two of the residences located within MRS 2. Samples from one of the residences were duplicated in the field and copper was detected above the

screening level in both samples. Copper was observed at concentrations between 89 and 100 µg/L, compared to the selected screening level of 62 µg/L. There were no explosives detected in any of the samples.

Additionally highlighted in the table are occurrences within the data set where non-detect results reported at the laboratory LOD did not meet the selected screening levels. This was observed in the results obtained for several metal analytes and nitroglycerin. These results are discussed in the context of COPC selection to assess human health risks below, and summarized on Table 5-4.

Perchlorate was reported by the laboratory at estimated positive detections between 0.027 and 0.097 µg/L in samples collected from all four residences. Validation indicates that recovery of the batch Laboratory Control Sample was above quality criteria, introducing a potential high bias to these results. Regardless, estimated detections of perchlorate reported by the laboratory appear consistent with levels observed during the SI sampling in 2010, and remain approximately two orders of magnitude below the state-derived screening level of 2 µg/L.

5.3.1.1.1 Copper

As shown on Table 4-8, the range of detected copper was 89 to 100 µg/L with a selected screening level of 62 µg/L used for comparison. Copper is a non-carcinogen, and the selected risk screening level was reduced by an order of magnitude from the published screening level to evaluate a target HQ of 0.1 (instead of 1.0) to account for additive non-carcinogenic risk among multiple non-carcinogens that may affect the same non-carcinogenic endpoint. Based on both historical and current information available regarding suspect and known munitions used at this FUDS property, and lack of any other releases noted during past investigation and the RI, this screening level reduction is likely over conservative and not needed. Therefore, the screening level can be adjusted upwards to 620 mg/kg, which is above the concentrations of copper observed in groundwater during the RI. Additionally, copper is not a potential MC for either MRS based on the type of munitions that were suspected, to be present, and confirmed via SI results and RI characterization. Therefore, copper has not been determined to be a COPC for MRS 1 or MRS 2.

Table 5-4
Munitions Response Site 1 Burial Pit
Munitions Response Site 2 Aerial Rocket Range
Groundwater Residential Sampling
Selection of COPCs for Human Health Risk Assessment

Analytical Method	Compound	CAS No.	carcinogen	Human Health Risk Screening Level [1]	Units:	Field Sample ID: NFUDS-001-GW01-01 Date: 8/31/2012 Lab Sample ID: 200-12542-1 Depth: NA	Val. Qual.	Field Sample ID: NFUDS-002-GW01-01 Date: 8/31/2012 Lab Sample ID: 200-12542-2 Depth: NA	Val. Qual.	Field Sample ID: NFUDS-002-GW02-01 Date: 8/31/2012 Lab Sample ID: 200-12542-3 Depth: NA	Val. Qual.	Field Sample ID: NFUDS-002-GW03-01 Date: 8/31/2012 Lab Sample ID: 200-12542-4 Depth: NA	Val. Qual.	Field Sample ID: NFUDS-002-GW03-02 Date: 8/31/2012 Lab Sample ID: 200-12542-5 Depth: NA	Val. Qual.	Select as COPC?
Metals																
6010C	Antimony, Total	7440-36-0	n	0.6	µg/l	15	U	15	U	15	U	15	U	15	U	n[2]
6010C	Arsenic, Total	7440-38-2	c	0.045	µg/l	9	U	9	U	9	U	9	U	9	U	n[3]
6010C	Cadmium, Total	7440-43-9	n	0.5	µg/l	2.6	U	2.6	U	2.6	U	2.6	U	2.6	U	n[4]
6010C	Cobalt, Total	7440-48-4	n	0.47	µg/l	2	U	2	U	2	U	2	U	2	U	n[4]
6010C	Copper, Total	7440-50-8	n	62	µg/l	1.7	J	89		23	J	97		100		n[4]
6010C	Lead, Total	7439-92-1	n	1.5	µg/l	9	U	9	U	9	U	9	U	9	U	n[4]
6010C	Selenium, Total	7782-49-2	n	5	µg/l	23	U	23	U	23	U	23	U	23	U	n[4]
6010C	Thallium, Total	7440-28-0	n	0.016	µg/l	20	U	20	U	20	U	20	U	20	U	n[5]
7470A	Mercury, Total	7439-97-6	n	0.063	µg/l	0.1	U	0.1	U	0.11	U14	0.1	U	0.1	U	n[4]
Explosives																
8330B	Nitroglycerin	55-63-0	n	0.15	µg/l	1.4	UJ15	1.4	UJ15	1.4	U	1.4	UJ15	1.4	UJ15	n[4]

Notes:

Lab Qualifiers

J The positive result reported for this analyte is a quantitative estimate.
U The analyte was not detected in the sample. The numeric value represents the sample limit of detection.

Validation Qualifiers

J^{15}/UJ^{15} Estimate positive and non-detected explosive results due to cooler temperature outside acceptance limits (bias can't be determined).

Screening Levels

[1] Human health screening values for groundwater were selected from EPA RSLs (U.S. EPA, 2012) for tapwater and/or Federal MCLs; the most stringent of the RSLs or MCLs were selected;
non-carcinogenic endpoint screening levels (except for perchlorate) selected to assess a Target Hazard Quotient (THQ) of 0.1, to account potential occurrence of adverse health effects due to exposure to multiple noncarcinogens.
[2] Antimony was not selected as COPC as it was not detected in any of the 4 groundwater samples, or site-wide during RI soil sampling (28 samples) indicating a potential source was present
[3] Arsenic was not selected as a COPC because it was not detected in any of the 4 groundwater samples, and because the LOD reported by the laboratory is below the federal MCL of 10µg/L
[4] Chemical was not selected as COPC because the screening level can be adjusted upwards (multiply by 10) to assess a THQ = 1.0 instead of 0.1 due to the lack of detected noncarcinogens
[5] Thallium was not selected as COPC as it was not detected in any of the 4 groundwater samples, or site-wide during RI soil sampling (28 samples) indicating a potential source was present
-- = screening level not available
Analytical results highlighted in **PINK** exceed the selected human health screening level.
Analytical results highlighted in **YELLOW** were not detected by the laboratory but are reported at a limit of detection above the selected screening level
EPA = U.S. Environmental Protection Agency
MassDEP = Massachusetts Department of Environmental Protection
µg/L = micrograms per liter
LOD = limit of detection
RSL = Regional Screening Level
NA = Not applicable
HMX = Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
PETN = Pentaerythritol tetranitrate
RDX = Hexahydro-1,3,5-trinitro-1,3,5-triazine
Tetryl = Methyl-2,4,6-trinitrophenylnitramine
THQ = Target Hazard Quotient

5.3.1.1.2 Analytical Limit of Detection Exceedances of Selected Screening Levels

In accordance with the QSM, the non-detect results obtained by the laboratory for a number of constituents analyzed in groundwater were reported at the LOD, which were found to be greater than respective screening levels. This observation was made for the following analytes reviewed during data evaluation: antimony, arsenic, cadmium, cobalt, lead, selenium, thallium, mercury, and nitroglycerin. Of these constituents, only nitroglycerin is a potential MC for MRS 1 and MRS 2 based on suspected and confirmed munitions historically used.

Nitroglycerin is a non-carcinogen; therefore, the selected risk screening level was selected to assess a target HQ of 0.1 instead of 1.0 to account for additive non-carcinogenic risk among multiple non-carcinogens that may affect the same non-carcinogenic endpoint. As this is likely over conservative, the screening level can be adjusted upwards to 1.5 µg/L, which is greater than the laboratory LOD of 1.4 µg/L.

The remaining metal analytes not detected by the laboratory, but reported at LODs above selected screening levels, are not potential MC for MRS 1 or MRS 2 based on suspected and confirmed munitions characterized for these MRSs. Furthermore, review of the analytes in the context of alternative screening levels such as MCLs, and/or adjustments upwards to published values to assess target HQs of 1.0, and/or the lack of analyte detection in any groundwater samples, did not identify any metals for further quantitative assessment of risk (see Table 5-4). The analytical methods used for groundwater analysis were determined to be sufficient for RI risk screening purposes, and none of the undetected chemicals analyzed by the laboratory and reported at LOD concentrations in excess of selected screening levels have been identified as COPCs for MRS 1 or MRS 2.

5.3.1.2 Uncertainty Analysis

Similar factors that should be considered during the uncertainty analysis were documented above in Subsection 5.1.1.2 for MRS 1 and Subsection 5.2.1.2 for MRS 2 soil sampling and are dually applicable here. As no UXO or DMM were identified, any potential MC contamination would be associated with significant amounts of MD. The most concentrated areas of recovered MD were sampled to assess potential MC impacts with MRS 2 with a biased "worst-case" scenario

approach. This approach would tend to overestimate risk. These residences also coincide with the SI sampling locations assessed in 2010, providing two seasonally and temporally variable data sets to compare. Neither the number or location of samples collected were determined to be large sources of uncertainty in the risk assessment; however, increasing the number and spatial coverage of the sampling program would provide further definition.

To reduce the risk of uncertainty due to analytical processing, results were validated in accordance with EPA protocol (see Table 4-8) prior to incorporation into the risk assessment. Potential biases within the data results were identified and considered during the screening exercise; therefore, data quality is not likely to contribute to uncertainty for this HHRA.

5.3.1.3 Human Health Risk Assessment Summary and Conclusions

Based on the analytical data results and point-by-point risk screening evaluation performed for the RI, no indications of significant risk to human health receptors have been identified from MC in groundwater associated the potential historic use of MRS 1 as a burial pit and use of MRS 2 as an aerial rocket range. No screening level exceedances were observed warranting further quantitative assessment. As no COPCs were identified and no exceedances were noted indicating a release is present, the results of the HHRA support the conclusion that no remedial action is necessary to protect public health or welfare at MRS 1 or MRS 2 from groundwater based on current and intended future use of the site (i.e., source of drinking water).

SECTION 6

CONTAMINANT FATE AND TRANSPORT

6. CONTAMINANT FATE AND TRANSPORT

The intent of this chapter is to describe the fate of contaminants in the environment and potential transport mechanisms for MEC and MC identified at MRS 1 and MRS 2. Contaminant fate refers to the expected final state that an element, compound, or group of compounds will achieve following release to the environment. Contaminant transport refers to migration mechanisms away from the source area. As no UXO or DMM was found at the MRS during the SI and RI field activities, an explosive hazard has not be identified to provide the basis for this discussion pertaining to MEC.

Similarly, sampling was conducted to evaluate potential MC impacts from the significant amounts of MD that was recovered during the RI. Analytical data evaluation and subsequent risk assessment screening performed for the RI did not identify any COPCs or COPECs, and concluded that an MC risk from MD is not present within MRS 1 and MRS 2 to provide the basis for a detailed discussion on MC fate and transport dynamics.

These RI findings are consistent with previous surface inspections and sampling conducted within the MRS boundaries to support the SI in 2010. Therefore, fate and transport for MEC and MC is not applicable to MRS 1 or MRS 2.

Due to the significant amount of MD delineated and dynamic coastal erosion, some discussion is warranted related to fate and transport of MD. Based on the delineation of MD within AC-01 in the vicinity of former Target #1, surface and subsurface MD extends southerly to the ocean. Subsurface MD has the potential to readily become accessible at ground surface due to the significant coastal erosion that annually erodes portions of the bluffs away and deposits MD along the beach. Wherever MD is exposed and accessible, the potential for private land owners and public land users to encounter it exists.

SECTION 7

UPDATED CONCEPTUAL SITE MODEL

7. UPDATED CONCEPTUAL SITE MODEL

The preliminary CSM developed prior to the RI addressed MRS 1 as a 1.5-acre potential former burial pit and MRS 2 as a 5,155-acre former Aerial Rocket Range using information available at the time of the SI (see Section 2). The CSM is a dynamic process that is evaluated and revised each time new information is received. The following sections describe significant updates to the CSM that were developed incorporating the results from the RI.

7.1 MUNITIONS AND EXPLOSIVES OF CONCERN EXPOSURE ANALYSIS

This section summarizes the results of the RI with regard to refining the MEC exposure pathway analyses for MRS 1 and MRS 2 to update the CSMs applicable to MEC exposure hazards at each MRS. Each pathway includes a source, activity, access, location, and receptor, with complete, potentially complete, and incomplete exposure pathways identified for each receptor. A pathway is considered complete when a source (MEC) is known to exist and when receptors have access to the MRS while engaging in some activity which results in contact with the source. A pathway is considered potentially complete when a source (MEC) has not been confirmed, but is suspected to exist and when receptors have access to the MRS while engaging in some activity which results in contact with the source. Lastly, an incomplete pathway is any case where at least one of the four components (source, activity, access, or receptors), is determined to be not present within the exposure pathway analysis.

7.1.1 Source

A MEC source is the location where MEC is located or expected to be found. MRS 1 was thought to be a burial site used to dispose of munitions and/or HTW. MRS 1 is co-located within MRS 2 which is a former aerial rocket range fan complex. The range fans were designed around three potential target locations where training may have occurred. Potential Target #1 and Target #3 were depicted on land. Target #2 was depicted in a location underwater. It was unknown following the SI if additional potential MEC source areas were present within the MRS 2.

Survey activities performed during the SI in MRS 1 and around the three potential target areas of MRS 2 did not observe any UXO. Munitions debris was identified in the vicinity of Target #1 in MRS 2 where munitions-related material has been reported historically responded to by EOD and local emergency officials. Although MD was observed near Target #1, the nature and extent of MEC at both MRS 1 and MRS 2 was not fully understood following the SI. Based on the potential MEC burial scenario and use as a former air-to-ground rocket range, the MEC source would be expected to be found on the ground surface and/or subsurface soils. The MEC source may also have been underwater at Target #2 and along the shoreline spanning MRS 2. The anticipated nature of MEC sources included UXO within the range from aerial rocket training, and DMM within the suspected burial pit.

During the RI field activities, no UXO or DMM was identified during either surface or subsurface investigations. A WAA survey and follow on ground reconnaissance activities were used to determine if a potential MEC source was present at Target #1, Target #3, and within the remaining portions of MRS 2. A full coverage DGM survey was also performed across MRS 1 to detect burial features. The only potential MEC source area identified during these activities was at Target #1 where a high density of anomalies were observed during the WAA survey, and MD was identified during prior investigations. The historical reports also indicate that munitions-related items, and potential HE rockets were recovered in this location.

To investigate potential UXO at Target #1, UXO Estimator was used to develop a comprehensive characterization strategy that included 6.52 acres of DGM surveys and the investigation of 1,042 anomalies. During intrusive activities, a significant amount of MD was recovered on the ground surface and in the subsurface up to 8 ft at MRS 2. Single MD items were also recovered in MRS 1 which is directly adjacent to Target #1. No burial features were detected at MRS 1 and no UXO or DMM was recovered in any of the investigations. No UXO or MD was recovered during underwater investigations at Target #2 in MRS 2.

The characterization coverage was determined to be adequate to satisfy the UXO Estimator parameters of 0.5 MEC per acre at a 95% confidence level. Based on these results, a MEC source and therefore an explosive hazard are not present at MRS 1 and MRS 2.

7.1.2 Activity

Activity describes ways that receptors come into contact with a source. Current activities at MRS 1 and MRS 2 includes residential, recreational, and maintenance activities. Residential and maintenance activities may include surface and subsurface soil disturbance. Recreational activities typically involve only foot traffic. Biota activities at MRS 1 and MRS 2 may include foot traffic and/or burrowing activities. There is no anticipated change in land use at MRS 1 and MRS 2.

7.1.3 Access

Access describes the degree to which a MEC source or environment containing MEC is available to potential receptors. There are currently no access restrictions for MRS 1 and MRS 2, although there is significant vegetative cover throughout these areas that physically limits access to both surface and subsurface soils beyond established trails/landscaping. There is no anticipated change to future land use, which will include both foot traffic and surface and subsurface soil disturbance. Although a public beach is not located within the FUDS boundaries and use of the beach is not advocated, the beach is accessible to the public via property owned by NCF. Recreational use is permitted provided users are responsible and discreet. Local property owners indicate that this portion of Nantucket is occasionally used for recreational fishing; however, there are no established beds for shell fishing.

7.1.4 Location

The full coverage WAA survey and subsequent statistical ground-based investigations narrowed the Target #1 footprint to a 97-acre portion of the overall 5,067-acre MRS 2. Target #1 is centered on several residential properties as well as land owned by NCF and the Town of Nantucket. Target #1 also includes the 1.5-acre portion demarcated as MRS 1. Munitions debris was recovered on the ground surface, and up to depths of 8 ft bgs in subsurface soil. Based on the types of rockets used for training, penetration depths may be up to 12.5 ft in depth; however, the average depth of MD observed during the RI was 2.5 to 3 ft bgs within the boundaries of the MRSs.

Additionally, subsurface MD has the potential to readily become accessible at ground surface due to the significant coastal erosion that annually erodes portions of the bluffs away and deposits MD along the beach. Wherever MD is exposed and accessible the potential for receptors to encounter it exists.

7.1.5 Receptors

A receptor is an organism (human or ecological) that comes into physical contact with MEC. Human receptors identified for MRS 1 and MRS 2 include both current and anticipated future land users. Human receptors may include trespassers/visitors, residents, employees/volunteers of NCF and Town of Nantucket, and construction workers hired by residents, NCF, and Town of Nantucket.

All of MRS 1 and large portions of MRS 2 are undeveloped. The ecological receptors (biota) of concern for the MRSs developed for SI Screening-Level Ecological Risk Assessment (SLERA) activities were plants, soil, benthic invertebrates, terrestrial-feeding mammals, and terrestrial-feeding birds and did not change as a result of RI activities. All listed and unlisted species of flora and fauna found in the vicinity of the MRSs on Nantucket Island are potential ecological receptors.

7.1.6 Munitions and Explosives of Concern Exposure Conclusions

The information collected during the RI was used to update the preliminary MEC CSM for MRS 1 and MRS 2 and to identify all actual, potentially complete, or incomplete source-receptor interactions for current and anticipated future land uses. The revised MEC exposure pathway analysis is presented in Figure 7-1.

A WAA survey and 24.59 acres of ground-based and underwater geophysical surveys, including the investigation of 1,304 anomalies, were completed within MRS 1 and MRS 2 to assess Target #1, potential Target #2, and potential Target #3, and to locate other potential target areas that were unknown. The only potential MEC source was determined to be at former Target #1. A statistical approach was taken at this location to assess MEC density.

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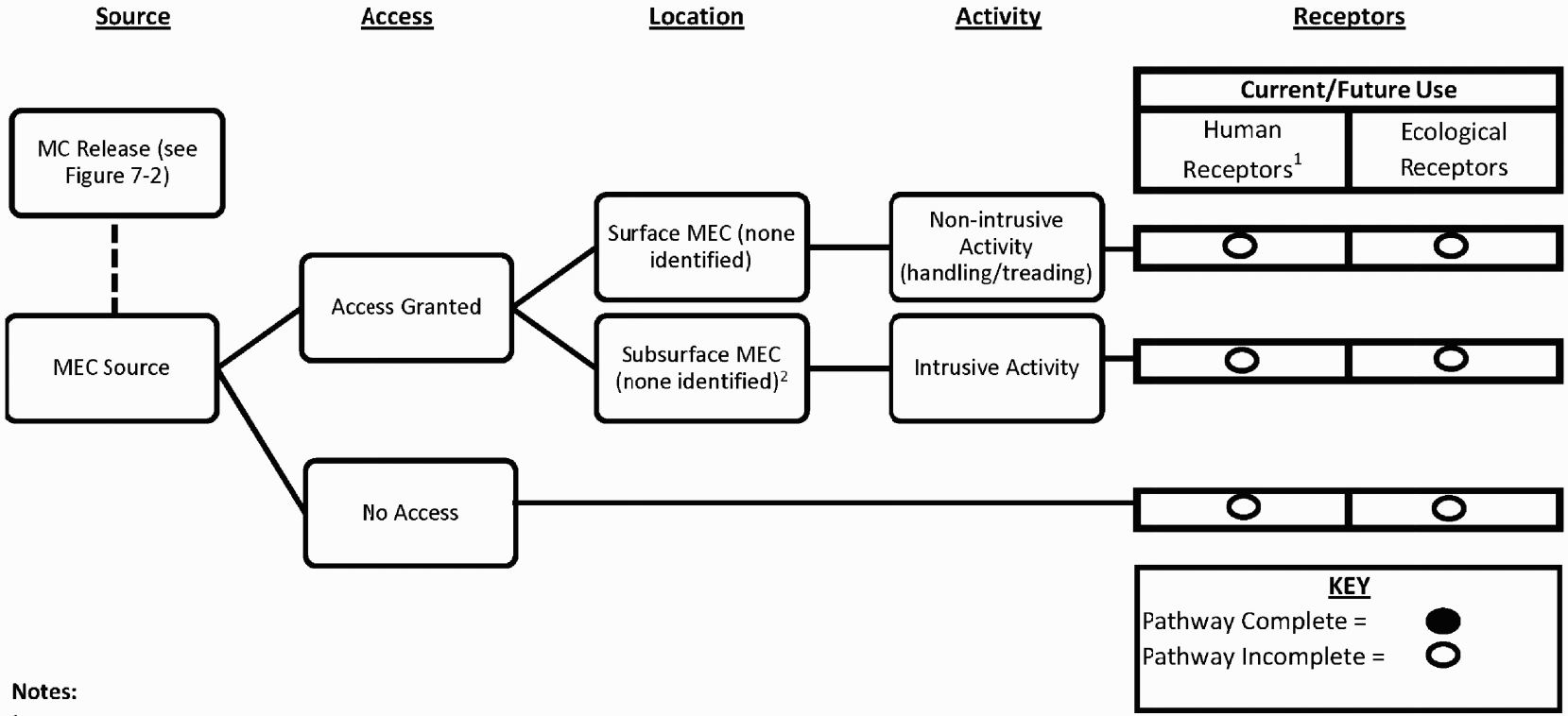

Notes:

[1]Human Receptors include residents, construction/maintenance employees, recreational users/trespassers.

[2]Maximum depth of MD recovered curing the RI was 8 ft bgs; estimated maximum penetration depth based on munition type is 12.5 ft bgs.

ft = feet

bgs = below ground surface

MD = munitions debris (material documented as safe)

MUNITIONS AND EXPLOSIVES OF CONCERN REMEDIAL INVESTIGATION CONCEPTUAL SITE MODEL MRS 1 AND MRS 2

NANTUCKET BEACH FORMERLY USED DEFENSE SITE
NANTUCKET, MA

WESTON SOLUTIONS
CONCORD NEW HAMPSHIRE

US ARMY CORPS OF ENGINEERS

DRAWN	DATE	DES. ENG.	DATE	W.O. NO.
BEG	DEC 2012	MSL	DEC 2012	03886.551.004
CHECKED	DATE	SCALE	REVISION	FIGURE NO.
MSL	DEC 2012	NONE		7-1

No UXO was identified during the investigation of 1,042 anomalies distributed over 6.52 acres of investigation area. Based on these RI results, and the results from the SI field investigation, it is not expected that a MEC source or explosive safety hazard is present at MRS 1 and MRS 2. Given that no UXO or DMM has been identified to date to provide the basis for an explosive safety risk at MRS 1 or MRS 2, there are no current or future exposure pathways present where a receptor may come into contact with a source for MEC. As a result, the revised CSM for MEC identifies incomplete pathways for surface and subsurface soils for all activities undertaken by receptors having access to the MRSs.

7.2 MUNITIONS CONSTITUENTS EXPOSURE ANALYSIS

Although no COPCs or COPECs were identified following the SI and a hazard rating of no known or suspected hazard for MC in environmental media was offered for both MRSs, potentially complete pathways were identified; therefore, additional MC characterization was completed during the RI. Based on these efforts, the findings of the RI were used to update the preliminary CSM for MC to determine if the pathway for MC is complete or incomplete for potential human health and ecological receptors at MRS 1 and MRS 2.

7.2.1 Source

Since no MEC was recovered during the RI constituting a source for MC, potential MC was assessed at MRS 1 and MRS 2 in environmental media found directly in contact with, or potentially affected by, the significant density of MD that was observed (see Technical Memoranda in Appendix A that detail data evaluation, validation, and risk assessment performed for the RI). All MD was recovered and classified as MDAS, and none of the practice rockets were determined to have been fuzed or unfired. Based on the inert nature of practice munitions characterized within the MRS boundaries during the RI, MC of concern includes metals analytes associated with the body/head composition of the rockets including aluminum, barium, iron, magnesium, and zinc. Propellants associated with the rocket motors including nitrocellulose and nitroglycerin would only be a concern in the unlikely event that a rocket motor did not fire during practice.

Surface soil was sampled according to IS methodology to achieve representational characterization of the surface at five geophysical grids determined to have the highest densities of MD identified during the RI. Discrete subsurface sampling was conducted at biased locations selected within each grid to correspond to the maximum observed MD density and characterize soil up to 10 ft bgs. Groundwater was sampled from residential wells constructed within the local aquifer beneath the area of confirmed MD within MRS 1 and MRS 2, and which also correlate to the wells included in the SI groundwater characterization effort.

Analytical data evaluation and risk assessment for potential MC including explosive compounds, metal analytes, and perchlorate (groundwater only) did not identify any elevated concentrations of MC in surface soil, subsurface soil, or groundwater indicating MD was providing a source for contamination.

7.2.2 Release Mechanisms, Exposure Routes, and Mediums

Release of MC to environmental media occurs initially through direct contact at the munitions impact site. At MRS 1 and MRS 2, MD was observed in direct contact with surface soil between 0 and 2 ft bgs, and subsurface soil greater than 2 ft bgs. No sediment or surface water is present in MRS 1. Although present in MRS 2 as a small percentage of total land cover, none of the mapped surface water bodies or wetland sediment areas were investigated during the RI, and are located outside of the preponderance of MD characterized at the former target area. Groundwater was not encountered during any intrusive activities performed during the RI.

Secondary release mechanisms that could affect the fate of MC released to the environment includes dry and wet erosion of surface soil, surface water transport, leaching from soil to groundwater, and volatilization to air. Exposure routes for MC to affect potential receptors include ingestion, incidental ingestion, inhalation, and direct contact based on specific media to receptor pathways.

7.2.3 Receptors

Human receptors identified for MRS 1 and MRS 2 include both current and anticipated future land users that could be potentially affected by MC released within the MRS boundaries. Human receptors may include trespassers/visitors, residents, employees/volunteers of the NCF and Town

of Nantucket, and construction workers hired by residents, NCF, and Town of Nantucket. In the presence of a source for MC contamination, human receptors are considered at risk for exposure to MC in surface and subsurface soil, sediment/surface water, groundwater, and air. Groundwater below the identified target area in AC-01 that could be affected by a potential subsequent release of MC from soil to groundwater is a known source for drinking water used by local full-time and part-time residents.

All of MRS 1 and large portions of MRS 2 are undeveloped. The ecological receptors (biota) of concern for the MRSs developed for SI SLERA activities were plants, soil, benthic invertebrates, terrestrial-feeding mammals, and terrestrial-feeding birds and did not change as a result of RI activities. All listed and unlisted species of flora and fauna found in the vicinity of the MRSs on Nantucket Island are potential ecological receptors. In the presence of a source for MC contamination, ecological receptors are considered at risk for exposure to MC in surface soil, surface water, sediment, and/or air through direct contact, ingestion, or inhalation of contaminated media. Neither subsurface soil or groundwater were determined to be media with potential to affect ecological receptors.

7.2.4 Munitions Constituents Exposure Conclusions

The information collected during the RI was used to update the preliminary MC CSM for MRS 1 and MRS 2 and to identify all actual, potentially complete, or incomplete source-receptor pathways for current and anticipated future land uses. The revised MC exposure pathway analysis is presented in Figure 7-2.

Sampling performed to support the RI focused on assessment of potential MC contamination released from the significant amount of MD characterized at both MRSs as a MEC source was not identified. The data collected was biased to evaluate a “worst-case” scenario by sampling environmental media in direct contact with the highest densities of MD recovered during the RI, and media with increased human health exposure risks. Risk assessment activities conducted to support the RI employed conservative screening levels and had low potential for uncertainty associated with the findings of no significant risk for all potential receptors.

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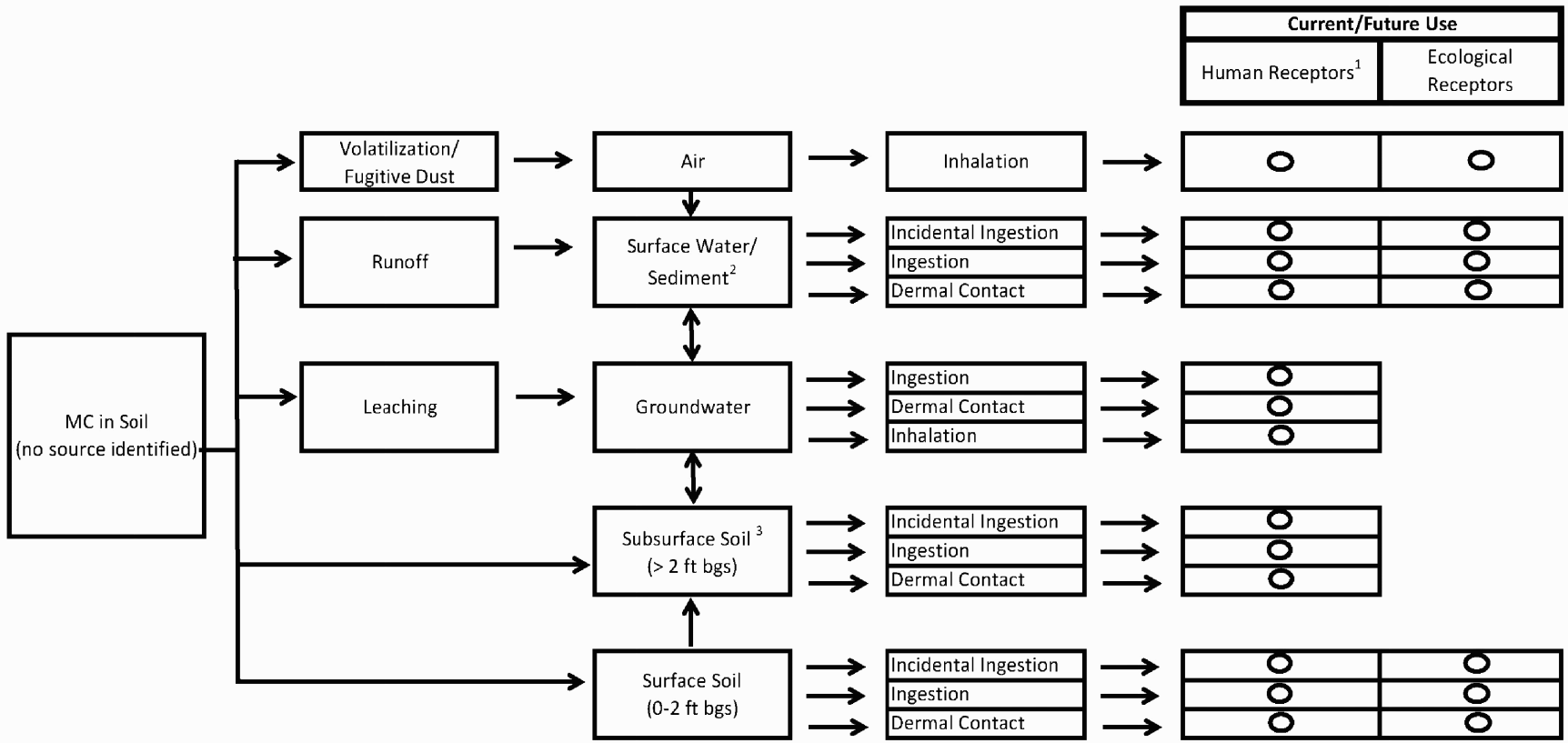

Notes:

[1]Human Receptors include residents, construction/maintenance employees, recreational users/trespassers.

[2]Surface water/sediment exposure media is not present in MRS 1.

[3]Maximum depth of MD recovered during the RI was 8 ft bgs; estimated maximum penetration depth based on munition type is 12.5 ft bgs.

ft = feet

bgs = below ground surface

MD = munitions debris (material documented as safe)

KEY

Pathway Complete = ●

Pathway Incomplete = ○

MUNITIONS CONSTITUENTS REMEDIAL INVESTIGATION CONCEPTUAL SITE MODEL MRS 1 AND MRS 2

NANTUCKET BEACH FORMERLY USED DEFENSE SITE
NANTUCKET, MA

WESTON SOLUTIONS
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DRAWN	DATE	DES. ENG.	DATE	W.O. NO.
BEG	DEC 2012	MSL	DEC 2012	03886.551.004
CHECKED	**DATE**	**SCALE**	**REVISION**	**FIGURE NO.**
MSL	DEC 2012	NONE		7-2

Given the lack of any MEC discoveries during the RI to be a source for MC, and on the findings of no significant risk to all receptors for MRS 1 and MRS 2 from soil and groundwater most likely to be affected by the significant amount of MD characterized within the MRSs, the RI findings infer that the pathway for MC is incomplete for human and ecological receptors. See Technical Memoranda in Appendix A that detail data evaluation and risk assessment performed for the RI. No significant risks were identified for any human health or ecological receptors.

SECTION 8

SUMMARY AND CONCLUSIONS

8. SUMMARY AND CONCLUSIONS

This section summarizes the results of the RI activities conducted at MRS 1 and MRS 2 located at the Nantucket Beach FUDS. The RI is intended to determine the nature and extent of MEC and MC and subsequently determine the potential hazards and risks posed to human health and the environment by MEC and MC. The RI also provides additional data to assist in determining what remedial alternatives, if any, are necessary. As a result of the characterization activities conducted at MRS 1 and MRS 2, the objectives of the RI have been satisfied.

8.1 SUMMARY OF REMEDIAL INVESTIGATION ACTIVITIES

The preliminary CSM for MRS 1 and MRS 2 aided in the development of data needs and DQOs as documented in the *Final WP*. In general, the data needs and DQOs for MRS 1 focused on detecting and assessing a potential burial pit that may contain DMM and/or HTW. The data needs and DQOs for MRS 2 were to detect, delineate, and assess potential UXO impact areas associated with air-to-ground rocket training activities formerly conducted by the Navy. All characterization activities to support the data needs and DQOs were used to gather information to evaluate whether there are unacceptable potential risks to human health and the environment associated with MEC and/or MC, and additionally HTW at MRS 1, to determine if further action is required under the CERCLA process.

The initial phase of work involved a WAA survey utilizing an airborne vertical magnetic gradient system. The WAA survey encompassed 2,480 acres of land and near shore portions of MRS 1 and MRS 2. The purpose of the WAA survey was to locate areas exhibiting elevated anomaly densities which are indicative of potential MEC impact areas. Ten areas were identified as anomaly clusters during the WAA survey analysis. One anomaly cluster, AC-01, was determined to require a focused characterization based on the known presence of MD. AC-01 is co-located at the Target #1 location identified in the preliminary CSM. The remaining nine anomaly clusters (AC-02 through AC-10) were delineated and selected for further ground-based reconnaissance and geophysical investigations to determine if MEC, MPPEH, MD, or other features indicative of military munitions use were present, similar to what was found at AC-01, which would require further characterization of nature and extent.

A total of 24.59 acres were surveyed using ground-based and underwater geophysical surveys at anomaly clusters AC-01 through AC-10, and MRS 1, resulting in a 1,304 total anomalies that were intrusively investigated. Summaries of AC-02 through AC-10, MRS1, and AC-01 are provided below.

A full coverage 1.5-acre EM31-MK2 geophysical survey was completed at MRS 1 to detect potential burial features. No burial features were detected that required intrusive investigation. Test pitting activities were then biased to surface expressions such as depressions and sparse vegetation to investigate for HTW. As test pitting was performed, the excavations were visually inspected and field screening, soil sampling, and laboratory analysis was performed. There were no indications of a HTW disposal or release encountered or detected. However, a total of 21 non-clustered, magnetic anomalies detected during the WAA were intrusively investigated throughout the MRS. Eighteen MD items were recovered from the 21 anomalies investigated in MRS 1, which is directly adjacent to Target #1.

To assess the density of potential UXO at AC-01/Target #1, UXO Estimator software was used to develop a comprehensive characterization strategy that included 6.52 acres of DGM surveys and the investigation of 1,042 anomalies. No UXO was identified during intrusive activities.

A total of 920 MD items were recovered on the ground surface and in the subsurface to a depth of 8 ft below grade at MRS 2. Combined with the MD recovered within MRS 1, the total volume of MD recovered during the RI and removed from within the MRS boundaries was 18,140 pounds.

No UXO or DMM was recovered during any RI intrusive investigations. Based on the WAA survey results, DGM surveys, intrusive investigations, distribution of MD, and previous studies performed at the MRSs, the size of the Target #1 footprint area was delineated in lateral extent to 97 acres within MRS 2, inclusive of MRS 1. Within this 97-acre boundary, residual MD is present at densities equal to or greater than 0.1 MD per acre. No MEC or MD was discovered beyond this boundary during the RI.

Due to the high concentration of MD located at AC-01/Target #1, MC sampling was performed even though a MEC source was not detected, to support baseline risk assessment during the RI.

The surface soil in five geophysical investigation grids where the highest concentrations of MD was recovered during the RI were sampled according to IS methodology for analysis of metals and explosives. In addition, soil sampling was performed in biased locations within each of these grids where the highest density of subsurface MD was observed using discrete grab samples to profile subsurface soil to 10 ft bgs. Groundwater was also sampled for MC. Groundwater was sampled directly from residential wells located within MRS 1 and MRS 2 that are known drinking water supplies for both full-time and seasonal residents. The data collected was validated, and evaluated via a point-by-point comparison to the screening levels selected for the RI.

8.2 RISK ASSESSMENT

8.2.1 Munitions and Explosives of Concern Hazard Assessment

No UXO or DMM were identified during the SI or RI field activities which have been interpreted to indicate that no MEC source or explosive safety hazard is present at the MRS. As a result, the project team determined that calculation of a MECHA score was not warranted for either MRS 1 or MRS 2.

8.2.2 Munitions Constituents Risk Assessment

8.2.2.1 Munitions Response Site 1 Soil

Based on the HTW and MC field investigation, analytical data results, and point-by-point screening evaluation performed for the RI, no indications of a release, or significant risk to receptors have been identified at MRS 1 related to potential historic use as a burial pit. No COPCs or COPECs were identified as a result of the screening level evaluation. Therefore, the results of risk assessment activities performed for MRS 1 support the conclusion that no remedial action is necessary to protect public health, welfare or the environment at MRS 1 from HTW or MC in soil.

8.2.2.2 Munitions Response Site 2 Soil

Based on the analytical data results and point-by-point screening evaluation performed for the RI, no indications of a release or significant risk to receptors have been identified at MRS 2

related to historic use as an air-to-ground practice aerial rocket range. No COPCs or COPECs were identified as a result of the screening level evaluation for further quantitative assessment. Therefore, the results of risk assessment activities performed for MRS 2 support the conclusion that no remedial action is necessary to protect public health, welfare or the environment at MRS 2 from MC in soil.

8.2.2.3 Munitions Response Site 1 and Munitions Response Site 2 Groundwater

Based on the analytical data results and point-by-point risk screening evaluation performed for the RI, no indications of significant risk to human health receptors have been identified from MC in groundwater associated the potential historic use of MRS 1 as a burial pit and use of MRS 2 as an aerial rocket range. No screening level exceedances were observed warranting further quantitative assessment. As no COPCs were identified and no exceedances were noted indicating a release is present, the results of the HHRA support the conclusion that no remedial action is necessary to protect public health or welfare at MRS 1 or MRS 2 from groundwater based on current and intended future use of the site (i.e., source of drinking water).

8.3 REVISED CONCEPTUAL SITE MODEL

A discussion of the preliminary CSM, based on then available data and historical information compiled prior to RI activities is presented in Section 2. The information collected during the RI was used to update the CSM. The purpose of the CSM is to identify all complete, potentially complete, or incomplete source-receptor interactions for current and reasonably anticipated future land use at the MRS. An exposure pathway is the course a MEC item or MC takes from a source to a receptor. Each pathway includes a source, activities, access, and receptor.

Geophysical surveys and intrusive investigations were conducted throughout MRS 1 and MRS 2 to locate potential MEC source areas. Only one potential MEC source area was identified at anomaly cluster AC-01/Target #1. A statistical approach was developed to assess the potential MEC density within this area. UXO Estimator was used to develop the appropriate coverage necessary to make high confidence assessments. No UXO was identified on the ground surface or in the subsurface within the 6.52 acres that underwent DGM surveys and the subsequent intrusive investigation of 1,042 anomalies. These results were then re-assessed in UXO

Estimator. The statistical upper bound density of MEC to be 0.443 MEC per acre based on the percentage of area surveyed at the MRS, and the actual intrusive investigation results. This value was within the DQO maximum target density of 0.5 MEC per acre which means that the investigation was adequate to be 95% confident that there is less than 0.443 MEC per acre within AC-01/Target #1. Although the UXO Estimator results indicate that a statistical potential for MEC may remain at the MRS; no UXO or DMM have been found, and it is anticipated that no MEC source or explosive safety hazard is present.

Current activities at MRS 1 and MRS 2 includes residential, recreational, and maintenance activities. Residential and maintenance activities may include surface and subsurface soil disturbance. Recreational activities typically involve only foot traffic. Biota activities at MRS 1 and MRS 2 may include foot traffic and/or burrowing activities. There is no anticipated change in land use at MRS 1 and MRS 2.

There are currently no access restrictions for MRS 1 and MRS 2, although there is significant vegetative cover throughout these areas that physically limits access to both surface and subsurface soils beyond established trails/landscaping. There is no anticipated change to future land use and will include both foot traffic and surface and subsurface soil disturbance. However, subsurface MD has the potential to readily become accessible at ground surface due to the significant coastal erosion that annually erodes portions of the bluffs away and deposits MD along the beach.

Human receptors identified for MRS 1 and MRS 2 include both current and anticipated future land users. Human receptors may include trespassers/visitors, residents, employees/volunteers of the NCF and Town of Nantucket, and construction workers hired by residents, NCF, and Town of Nantucket.

All of MRS 1 and large portions of MRS 2 are undeveloped. The ecological receptors (biota) of concern for the MRSs developed for SI SLERA activities were plants, soil, benthic invertebrates, terrestrial-feeding mammals, and terrestrial-feeding birds and did not change as a result of RI activities. All listed and unlisted species of flora and fauna found in the vicinity of the MRSs on Nantucket Island are potential ecological receptors.

Given that no UXO or DMM sources have been identified to date to provide the basis for an explosive safety risk at MRS 1 or MRS 2, there are no current or future exposure pathways present where a receptor may come into contact with MEC. As a result, the revised CSM for MEC identifies incomplete pathways for surface and subsurface soils for all activities undertaken by receptors having access to the MRSs.

The information collected during the RI was used to update the preliminary MC CSM for MRS 1 and MRS 2 and to identify all actual, complete, or incomplete source-receptor pathways for current and anticipated future land uses. Sampling performed to support the RI focused on assessment of potential MC contamination released from the significant amount of MD characterized at both MRSs as a MEC source was not identified. The data collected was biased to evaluate a "worst-case" scenario by sampling environmental media in direct contact with the highest densities of MD recovered during the RI, and media with increased human health exposure risks.

Given the lack of any UXO or DMM discoveries during the RI to be a source for MC, and on the findings of no significant risk to all receptors for MRS 1 and MRS 2 from soil and groundwater most likely to be affected by the significant amount of MD characterized within the MRSs, the RI findings infer that the pathway for MC is incomplete for human and ecological receptors. No significant risks were identified for any human health or ecological receptors.

8.4 UNCERTAINTIES

Even though no UXO or DMM was discovered during the RI, a statistical potential for MEC may remain at the MRS related to the use of UXO Estimator to define the investigation coverage. Based on the results of the RI, a 95% confidence that the MEC density is less than .443 MEC per acre was achieved. However, based on all information collected to date indicating that no UXO or DMM has been found, it is anticipated that no MEC source or explosive safety hazard is present. As the DQOs were met, any remaining uncertainty that MEC is present is low.

Uncertainties associated with risk assessment activities were determined to be low as the methods used for sampling were found to be appropriate for the media and areas being assessed, including biasing sample locations to confirm the presence/absence of constituents of potential

concern. Reference area (i.e., local background) sampling was not conducted and may have provided more confidence in the assessment of observed constituent concentrations in soil and groundwater, but, published background levels available for the State of Massachusetts and federal ATSDR applicable to constituents observed in excess of selected screening levels were determined to be sufficient for RI assessment. An increase in the frequency of sampling could also increase confidence in the findings of the RI, but, based on the lack of a confirmed MEC source for MC, the sampling conducted was considered sufficient for the RI as the five highest density areas of MD were included in the MC evaluation.

8.5 CONCLUSIONS AND RECOMMENDATIONS

The following conclusions can be made for MRS 1 and MRS 2 based on the results of the RI field activities:

- No features indicative of a burial pit were detected in MRS 1.
- Air-to-ground rocket training activities were conducted at one location known as anomaly cluster AC-01/Target #1.
- No UXO or DMM was identified during the SI or RI, and all recovered MD was discovered within AC-01/Target #1.
- The nature and extent of MD has been adequately defined and is located on ground surface and subsurface within the AC-01/Target #1 area encompassing 97 acres.
- The maximum depth of MD recovered during the RI within the highest density of observed MD in the AC-01/Target #1 area was 8 ft bgs.
- An explosive safety hazard is not anticipated to exist at AC-01/Target #1.
- All MEC and MC pathways to potential receptors at MRS 1 and MRS 2 have been determined to be incomplete for lack of a confirmed source.

It has been determined that the DQOs for MRS 1 and MRS 2 have been satisfied and the MRSs have been adequately characterized.

As noted previously in Subsection 2.4.1 regarding the MRS history, following the SI this FUDS was realigned at the program-level by USACE, but was not delineated into two MRSs as recommended in the SI. Realignment identified one MRS, known as the 5,517-acre Nantucket

Beach Burial Pit & Rocket Range, Identification Number: D01MA045601R01. This decision was based on the pending RI and anticipated need to delineate further based on findings at that stage of the investigation.

Administratively, it is recommended that the MRS be further delineated to reflect the results of the RI. The recommendation is as follows, and is summarized in Table 8-1 and depicted on Figure 8-1:

- Establish a boundary of 97 acres to capture the extent of delineated MD as the Aerial Rocket Range Target #1 MRS.
- Delineate the remaining 5,059.9-acre portion as the Aerial Rocket Range Fan MRS.

Table 8-1

Recommendations for Munitions Response Site Boundary Revisions

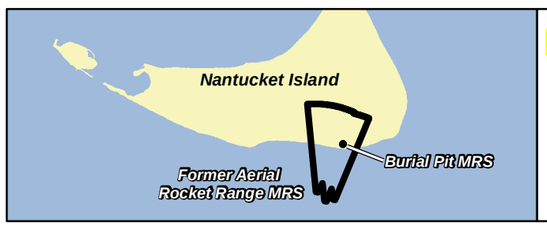
Configuration Based on SI Results		Configuration Based on RI Delineation	
Munitions Response Site (MRS) Name	**Area (acres)**	**MRS Name**	**Area (acres)**
MRS 1 – Burial Pit	1.5	MRS 1 – Aerial Rocket Range Target #1	97
MRS 2 – Aerial Rocket Range	5,155.4	MRS 2 – Aerial Rocket Range Fan	5,059.9

Note: Following the SI, this FUDS was realigned by USACE, but was not delineated into two (2) MRS per the SI recommendation. Only one (1) MRS of 5,157 acres was retained for management efficiency prior to the RI phase of investigation.

Additionally, based on the findings of the RI, there is a significant amount of MD within AC-01 in the vicinity of former Target #1. While no UXO or DMM was found during the investigation, some risk management is warranted given that a target footprint area of 97 acres was identified. Property owners will likely continue to encounter intact munitions in the future. Although it is most likely that munitions recovered in the future will be inert, this determination should only be made by trained EOD personnel. Therefore, a Feasibility Study is recommended to address management of future munition recoveries within the 97 acres delineated as the Aerial Rocket Range Target #1 MRS.

A finding of No Further Action, to be documented in a Proposed Plan, is recommended for the remaining 5,059.9 acres delineated as the Aerial Rocket Range Fan MRS as no UXO or MD have been confirmed within this area.





MRS 1 – Aerial Rocket Range Target No.1

MRS 2 - Rocket Range Fan

FUDS Boundary

Coordinate System: UTM, Z19N, NAD83, US Foot

US Army Corps of Engineers

Nantucket Beach Formerly Used Defense Site

WESTON SOLUTIONS

FIGURE 8-1
Recommendations for Munitions Response Site Boundary Revisions

N

0 940 1,880 2,820 Feet

0 350 700 1,050 Meters

NOTES:
Aerial Data Source: ESRI iCubed Imagery Prime World 2D (2004)
Base Data: USACE (2004); MassGIS (2011)

6/11/2013

NT_MRS2_Bound_Revision1_TPP_Meeting

Drawn: johna

PROJ: 03886.551.004

SECTION 9

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9. REFERENCES

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APPENDIX A

TECHNICAL MEMORANDA

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Memorandum
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Subject: Contract No. W912DR-09-D-0006, Delivery Order 0005
Military Munitions Response Program
Remedial Investigation through Decision Document
Nantucket Beach Formerly Used Defense Site, Nantucket, Massachusetts
Ground Reconnaissance Technical Memorandum

1.0 INTRODUCTION

Weston Solutions Inc. (WESTON) is submitting a Final Ground Reconnaissance Technical Memorandum along with Responses to USACE Comments and MassDEP Comments on the Draft Ground Reconnaissance Technical Memorandum (submitted on 6 July 2012) for USACE approval. This submittal reflects revisions made to the document based on the attached Responses to Comments.

WESTON performed a ground reconnaissance survey at anomaly clusters located within Munitions Response Site (MRS) 2 – Aerial Rocket Range, Nantucket Beach Formerly Used Defense Site (FUDS), Nantucket, Massachusetts. The ground reconnaissance survey is part of an overall phased investigation approach that uses lines of evidence to determine the most appropriate characterization strategy for this Military Munitions Response Program (MMRP) Remedial Investigation (RI).

The objective of the ground reconnaissance was to determine if anomalies observed during the airborne vertical magnetic gradient survey are related to cultural debris or the presence of munitions and explosives of concern (MEC), material potentially presenting an explosive hazard (MPPEH), and/or munitions debris (MD). Anomaly clusters AC-02, AC-04, AC-05, AC-07, AC-

08, AC-09, and AC-10 were identified in the Work Plan Addendum as requiring ground reconnaissance surveys.

Based on ground truthing assessments conducted during the airborne vertical magnetic gradient survey, several anomaly clusters including AC-01, AC-03, and AC-06 were found to require further intrusive investigative work to determine if MEC, MPPEH, and/or MD is present. The intrusive investigative work for AC-01, AC-03, and AC-06 will follow the investigation procedures presented in the Work Plan Addendum. No separate ground reconnaissance efforts were conducted at these anomaly clusters. This technical memorandum reports the procedures and results of the ground reconnaissance efforts and provides recommendations for anomaly clusters AC-02, AC-04, AC-05, AC-07, AC-08, AC-09, and AC-10.

2.0 GROUND RECONNAISANCE PROCEDURES

The reconnaissance team navigated to each anomaly cluster while making observations of any features that would create a magnetic anomaly. Magnetic anomaly locations were also uploaded into the team's global positioning system (GPS) to aid in the navigation. Coordinate locations for cultural debris observed during the ground reconnaissance were recorded with the GPS. Each cultural debris item has a unique ID to correlate the item description to the location on the anomaly cluster maps.

3.0 RESULTS AND RECOMMENDATIONS

This section describes the ground reconnaissance results at each anomaly cluster and presents the recommended action based on information gathered during the survey. Maps for each anomaly cluster are included in **Appendix A**. A table listing cultural debris identified during ground reconnaissance activities is included in **Appendix B**. Each item has a unique ID which correlates with the anomaly cluster maps.

AC-02:

Discussion:

Several anomalies detected during the aerial magnetic survey correlate well with existing cultural features. Most notably the fence posts and steel cabling and beach access points which define the bounds of the parking areas. No evidence of cultural material was noted on the beach or along the bluff.

Recommended Action:

Since several magnetic anomalies were unable to be reconciled during the ground reconnaissance surveys, we recommend:

- Perform DGM surveys over 4,800 linear feet of transects or 0.36 acres. Perform two parallel transects along the beach regardless of the ground reconnaissance results. Perform transects north, east and west of the property to aid in evaluating anomaly source and provide information on extent of contamination if it is recovered. The northern most transect was adjusted based on comments during the TPP #2 Meeting.
- Perform DGM surveys over one (1) 50 ft x 50 ft grid or 0.06 acres.
- Intrusively investigate anomalies detected along transects and in grids.

- Confirm anomalies are related to cultural material and provide a no further investigation recommendation.
- Perform additional characterization, based on UXO Estimator, if MEC, MPPEH, or MD is recovered.

DGM Results:

- A total of 0.64 acres were geophysically mapped on the beach and dune area within AC-02.
- Seven (7) geophysical anomalies were detected and intrusively investigated within the 0.64 acres. All items detected were cultural debris related. No munitions related items were recovered or observed in AC-02.

AC-04:

Discussion:

No evidence of cultural debris was observed during ground reconnaissance activities in AC-04.

Recommended Action:

Since magnetic anomalies were unable to be reconciled during the ground reconnaissance surveys, we recommend:

- Perform DGM surveys over 2,400 linear feet of transects or 0.18 acres. These transects were placed perpendicular (two transects) and parallel (two transects) to the long axis of the anomaly cluster extending from Russells Way to provide information to aid in evaluating anomaly sources and provide information on extent of contamination if it is recovered.
- Intrusively investigate anomalies detected along transects.
- Confirm anomalies are related to cultural material and provide a no further investigation recommendation.
- Perform additional characterization, based on UXO Estimator, if MEC, MPPEH, or MD is recovered.

DGM Results:

- A total of 0.27 acres of transects were geophysically mapped within AC-04.
- Three (3) geophysical anomalies were detected and intrusively investigated within the 0.27 acres. All items detected and investigated were cultural debris related. No munitions related
  items were recovered or observed in AC-04.

AC-05:

Discussion:

Several anomalies detected during the aerial magnetic survey correlate well with existing cultural features. The central portion of the anomaly cluster correlates well with the Nantucket Conservation Foundation grassland testing areas which contain several hundred metallic pin flags and steel fence posts. The eastern and western portions of the anomaly cluster contain very few cultural features (mainly sign posts, trail markers) at the surface that correlate with aerial magnetic anomalies.

Recommended Action:

Since magnetic anomalies were unable to be reconciled during the ground reconnaissance surveys, we recommend:

- Perform DGM surveys over 3,000 feet of transects or 0.22 acres and eight (8) 50 ft x 50 ft grids or 0.46 acres.
- Intrusively investigate anomalies detected along the transects and in grids.
- Confirm anomalies are related to cultural material and provide a no further investigation recommendation.
- Perform additional characterization, based on UXO Estimator, if MEC, MPPEH, or MD is recovered.

DGM Results:

- A total of 0.83 acres of grids and transects were geophysically mapped within AC-05.
- Nineteen (19) geophysical anomalies were detected and intrusively investigated within the 0.83 acres. All items detected and investigated were cultural debris or geology related. No munitions related items were recovered or observed in AC-05.

AC-07:

Discussion:

AC-07 was the site of the former Tom Nevers Naval Facility (submarine listening base). The facility was eventually turned into a recreational area and significantly reworked causing magnetic anomalies. Historical aerial photographs show the former facility extending down to the shoreline. Currently, aerial magnetic data correlates well with existing cultural debris on land. Prominent structures within the Tom Nevers complex correlate with bulk anomaly features and infrastructure surrounding the fields (fences, utilities, etc.). Cultural debris can also be observed along the shoreline. Underwater mag & dig transects found no MEC, MPPEH, or MD.

Recommended Action:

Due to the correlation between the magnetic data and cultural debris within the Tom Nevers Area, historical photograph analysis, discussions at the Technical Project Planning #2 meeting, and results from the underwater mag & dig surveys, no additional work is recommended for AC-07.

AC-08:

Discussion:

Ground reconnaissance was performed within AC-08 on accessible parcels. Numerous cultural items were noted in the location where a road had previously existed. Pieces of asphalt, old utilities and infrastructure were documented. Additionally, historical aerial photographs were analyzed to determine if this anomaly cluster could represent a target area. The historical photographs appear to show a former roadway that crossed this area and was subsequently eroded as the coastline recedes. Anomalies were observed in the magnetic data that are consistent with infrastructure such as roadways and possible utilities that were noted in the historical aerial photographs.

Recommended Action:

Rights of Entry were only available for 2 of the 6 parcels within AC-08, so reconnaissance could only be performed within a small portion of this anomaly cluster. Due to the limited amount of ground reconnaissance that could be performed, a lines of evidence approach was used to assess the probability of the magnetic anomalies being associated with a target area. Historical aerial photographs, roadway related debris noted during the reconnaissance, and magnetic data for this area suggest that this anomaly cluster is not an impact area. The likelihood of this being used for rocket training is low due to the close proximity to the former Tom Nevers Naval Facility. No additional work is recommended for AC-08.

AC-09:

Discussion:

No cultural debris was observed on the ground surface within the anomaly cluster that correlates with magnetic anomalies. Several of the magnetic anomalies possess linear trends indicative of subsurface utilities. Other magnetic anomalies are individual and discrete from other features. A total of 132 magnetic anomalies are present within the anomaly cluster.

Recommended Action:

Since magnetic anomalies were unable to be reconciled during the ground reconnaissance surveys, we recommend:

- Reacquire and intrusively investigate 48 magnetic anomalies located within the anomaly cluster. If 48 of the 132 identified anomaly locations are randomly selected and all 48 are identified as cultural debris, we will be 95% confident that at least 95% of the total detected anomalies are not MEC, MPPEH, or MD. This calculation was performed using Visual Sample Plan (VSP) and the results are presented in **Figure 1** below. **Table 1**

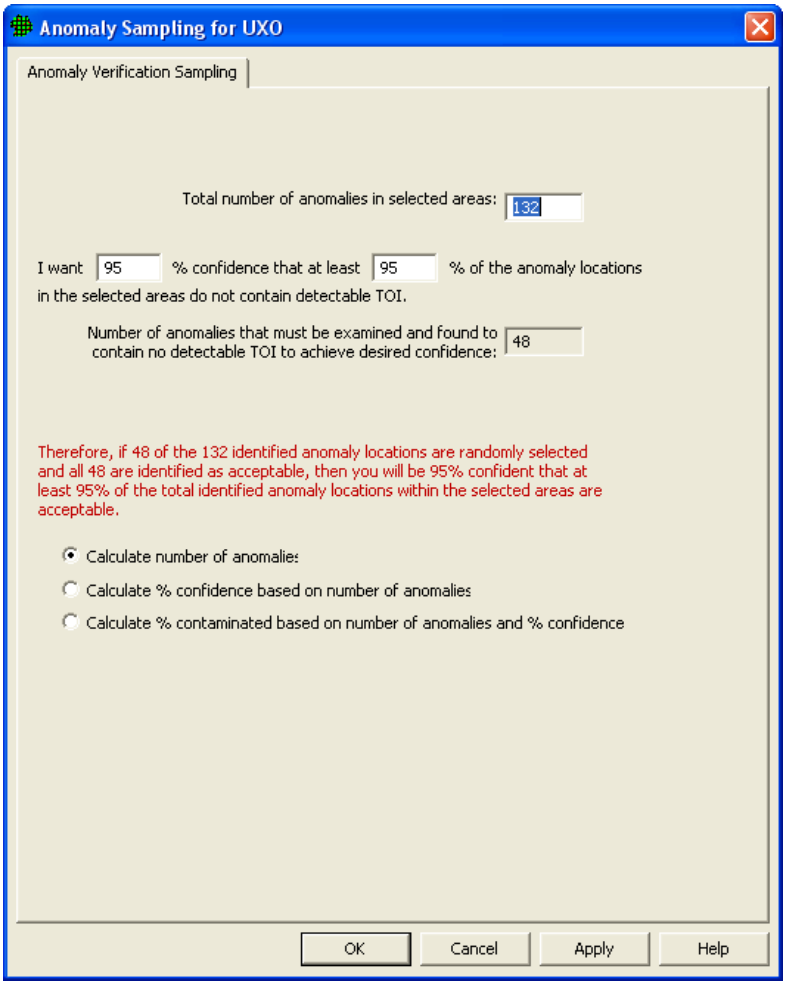


Figure 1: VSP results for AC-09.

presents the list of anomalies that will be reacquired and intrusively investigated at AC-09.

- Confirm the anomaly sources are related to cultural debris and provide a no further investigation recommendation.
- Perform additional characterization, based on UXO Estimator, if MEC, MPPEH, or MD is recovered.

Table 1: Dig List for AC-09			
Target ID	**Easting**	**Northing**	**Analytic Signal (nT)**
2735	1352635.09	14981106.85	0.5919
2800	1352574.395	14981164.26	4.1463
2947	1352354.579	14981279.09	0.3612
2953	1352521.901	14981292.22	32.5212
2968	1352456.285	14981303.7	1.2185
2968	1352456.285	14981303.7	1.2185
2968	1352456.285	14981303.7	1.2185
2968	1352456.285	14981303.7	1.2185
2981	1352064.225	14981318.46	5.2467
2996	1352031.417	14981328.31	1.8149
3001	1352689.224	14981333.23	1.9755
3046	1352428.397	14981382.44	0.3043
3052	1352618.686	14981385.72	3.1903
3052	1352618.686	14981385.72	3.1903
3073	1352576.035	14981407.05	174.0857
3073	1352576.035	14981407.05	174.0857
3077	1352533.384	14981408.69	87.7364
3110	1352520.261	14981444.77	55.5901
3115	1352357.86	14981452.98	0.3134
3119	1352037.978	14981457.9	2.98
3120	1352520.261	14981457.9	62.1657
3121	1352625.247	14981457.9	3.1946
3121	1352625.247	14981457.9	3.1946
3122	1352128.201	14981457.9	2.2629
3139	1351954.317	14981480.86	29.5527
3160	1352505.497	14981497.27	28.7321
3171	1352188.897	14981507.11	0.7089
3174	1352438.24	14981508.75	0.3035
3181	1352533.384	14981520.23	2.0515
3192	1352416.915	14981538.28	4.0273
3200	1352224.986	14981544.84	2.6878
3223	1352554.71	14981564.53	1.6293
3226	1352320.13	14981567.81	0.5616
3231	1352567.833	14981580.93	1.5916
3231	1352567.833	14981580.93	1.5916
3238	1352259.435	14981589.13	1.4574
3242	1352646.573	14981590.77	27.4731
3243	1352572.754	14981597.33	3.2746
3249	1352838.502	14981605.54	1.2195

Table 1: Dig List for AC-09			
Target ID	**Easting**	**Northing**	**Analytic Signal (nT)**
3252	1352825.378	14981607.18	1.5508
3258	1352177.414	14981613.74	0.3708
3259	1352753.2	14981613.74	1.903
3259	1352753.2	14981613.74	1.903
3262	1352138.044	14981621.94	1.6899
3294	1352692.505	14981682.64	0.5808
3294	1352692.505	14981682.64	0.5808
3308	1352105.235	14981728.57	14.0461
3315	1352159.369	14981761.38	0.3022

AC-10:

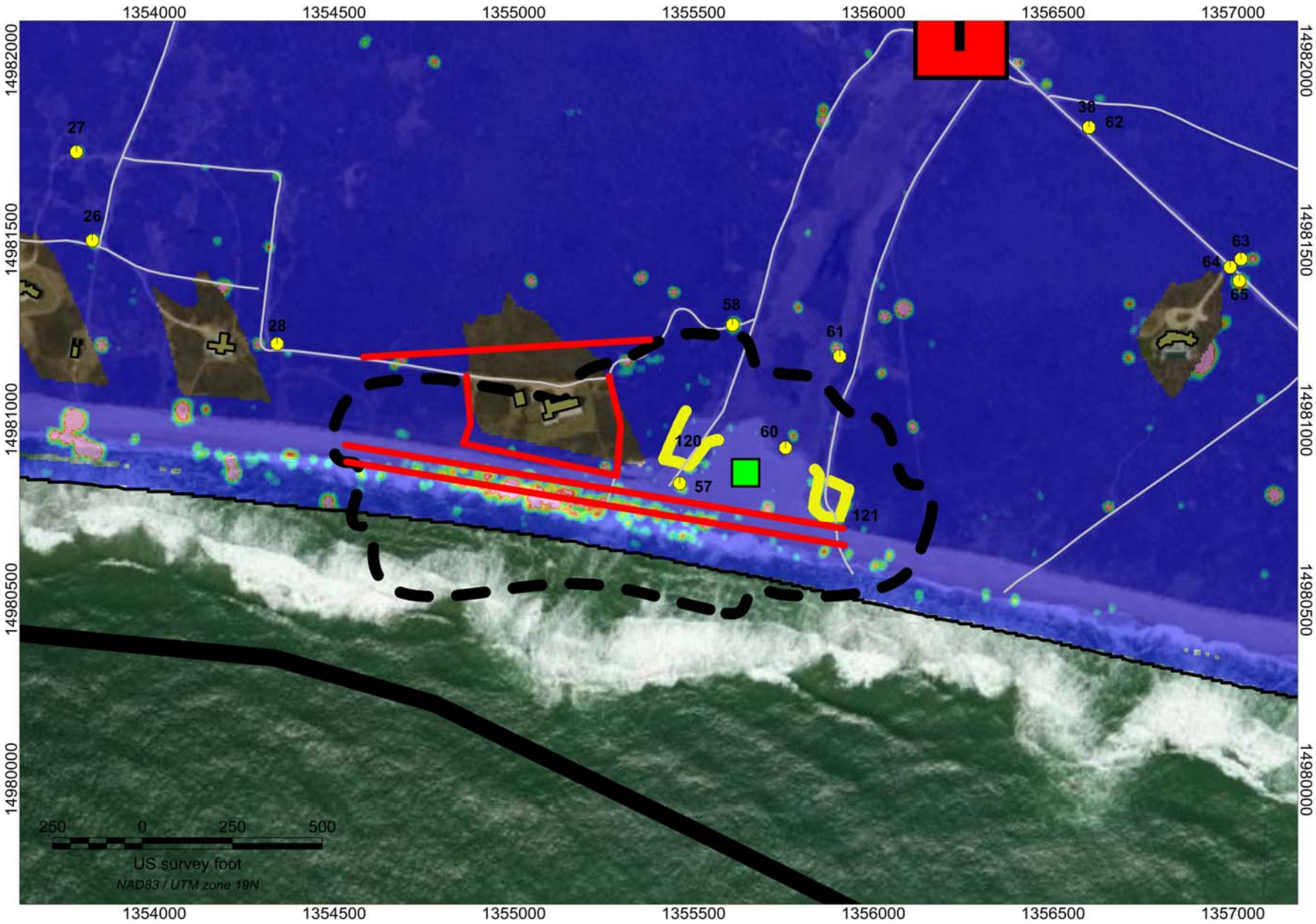
Discussion:

This anomaly cluster is associated with existing infrastructure surrounding the runway on airport property. The magnetic data correlates well with existing infrastructure including a fence line and service road.

Recommended Action:

Due to the correlation between the magnetic data and cultural debris at the end of the airport runway, no additional work is recommended for AC-10.

APPENDIX A
Anomaly Cluster Maps



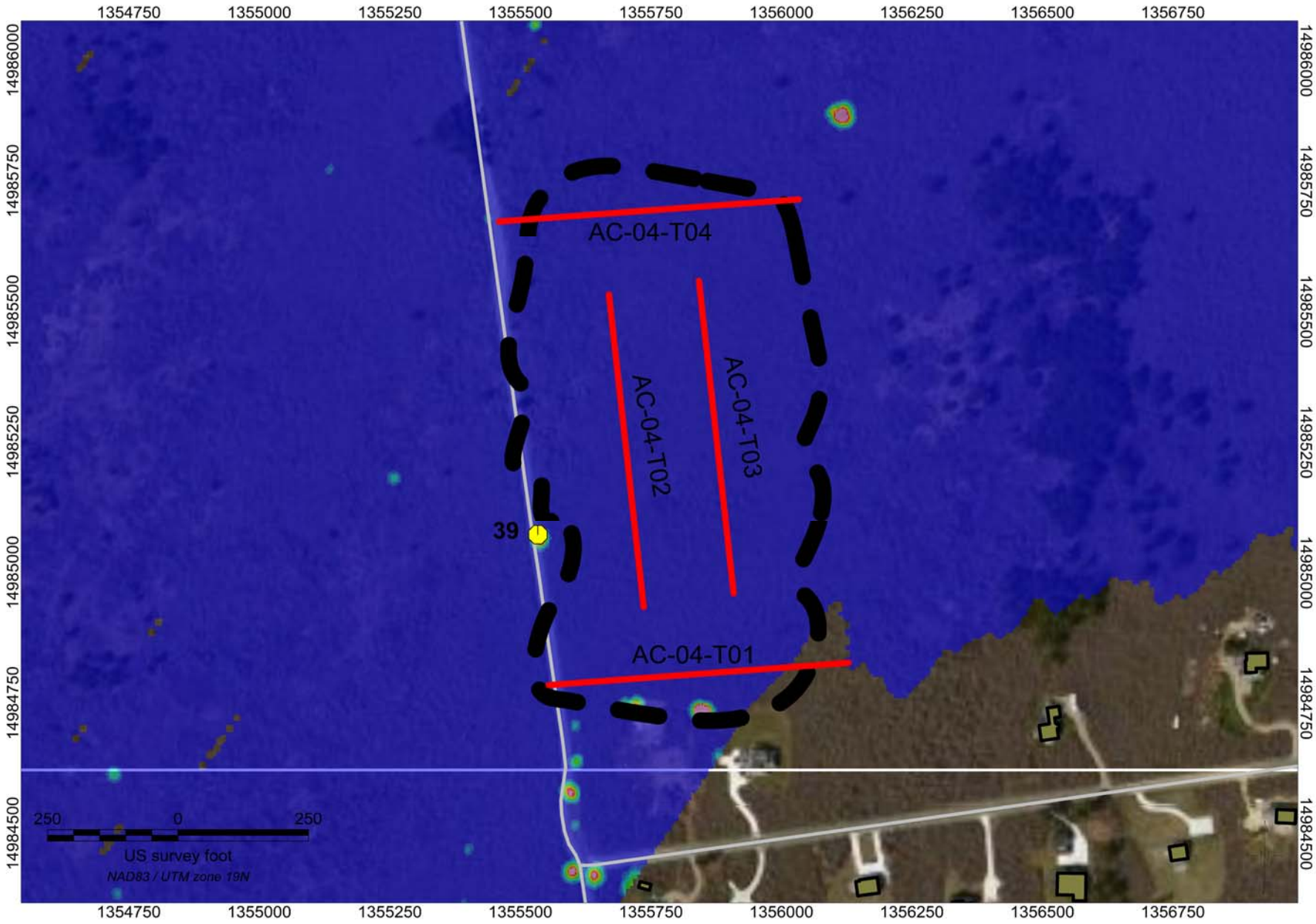
Analytic Signal

0.2 0.5 0.9 1.3 1.6 2.0 2.3 2.7 3.1 3.4 3.8 4.1 4.5 4.8 5.2 5.6 5.9 6.3 6.6

- FUDS Boundary
- MRS 1 - Burial Pit
- MRS 2 - Aerial Rocket Range
- Former Target
- Anomaly Cluster (From VSP)
- Proposed DGM Transect
- Proposed DGM Grid
- Proposed Underwater Transect
- Full DGM Coverage Area EM31-MK2
- Geophysical Anomaly
- or Cultural Source/Field Reconnaissance Location
- Road
- Railroad
- Harrier Nesting Site

Nantucket Beach
Formerly Used Defense Site
Anomaly Cluster AC-02
Reconnaissance Results

WESTON SOLUTIONS

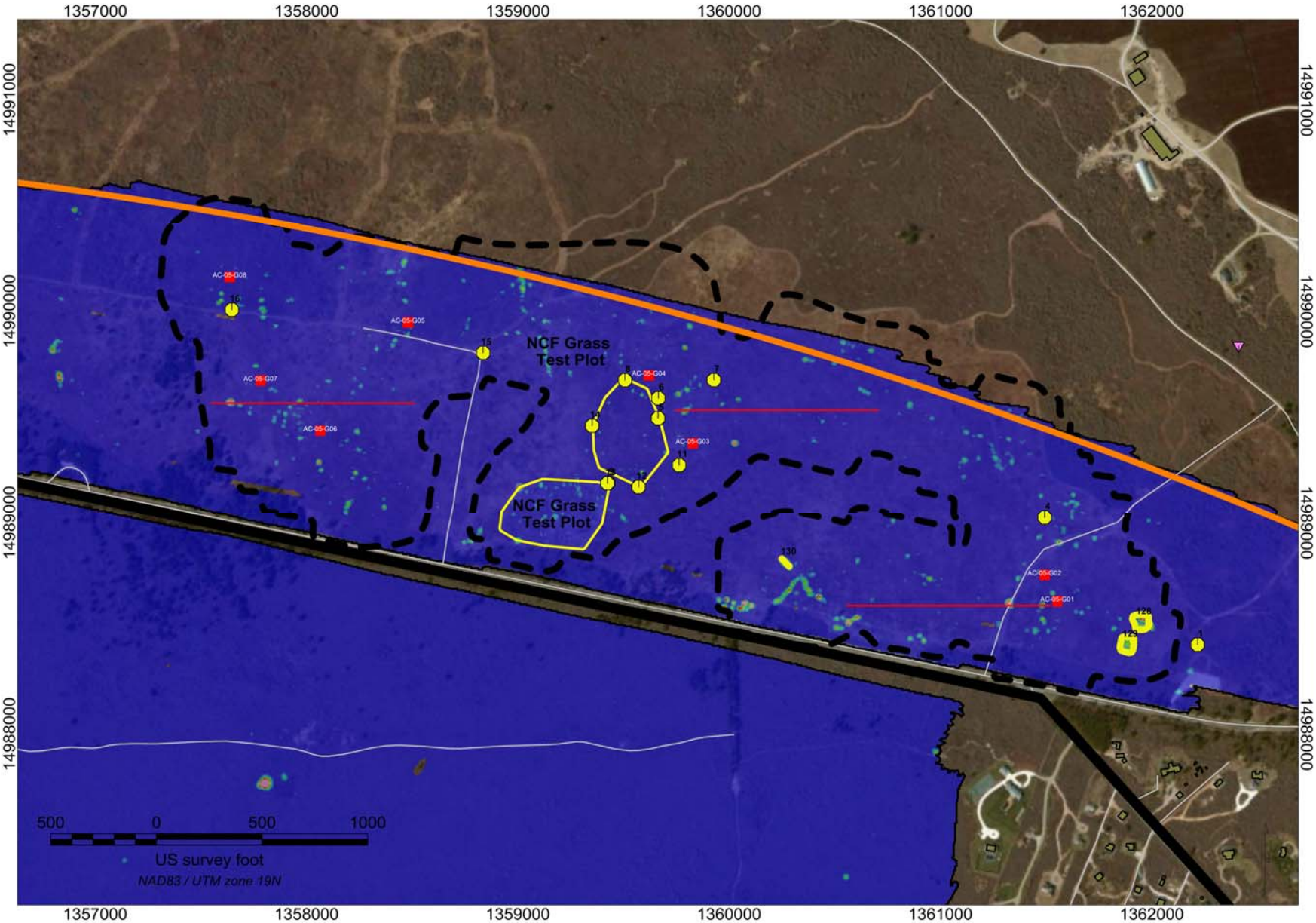


Analytic Signal

0.2 0.5 0.9 1.3 1.6 2.0 2.3 2.7 3.1 3.4 3.8 4.1 4.5 4.8 5.2 5.6 5.9 6.3 6.6

- FUDS Boundary
- MRS 1 - Burial Pit
- MRS 2 - Aerial Rocket Range
- Former Target
- Anomaly Cluster (From VSP)
- Proposed DGM Transect
- Proposed DGM Grid
- Proposed Underwater Transect
- Full DGM Coverage Area EM31-MK2
- Geophysical Anomaly
- or Cultural Source/Field Reconnaissance Location
- Road
- Railroad
- Harrier Nesting Site

Nantucket Beach
Formerly Used Defense Site
Anomaly Cluster AC-04
Reconnaissance Results

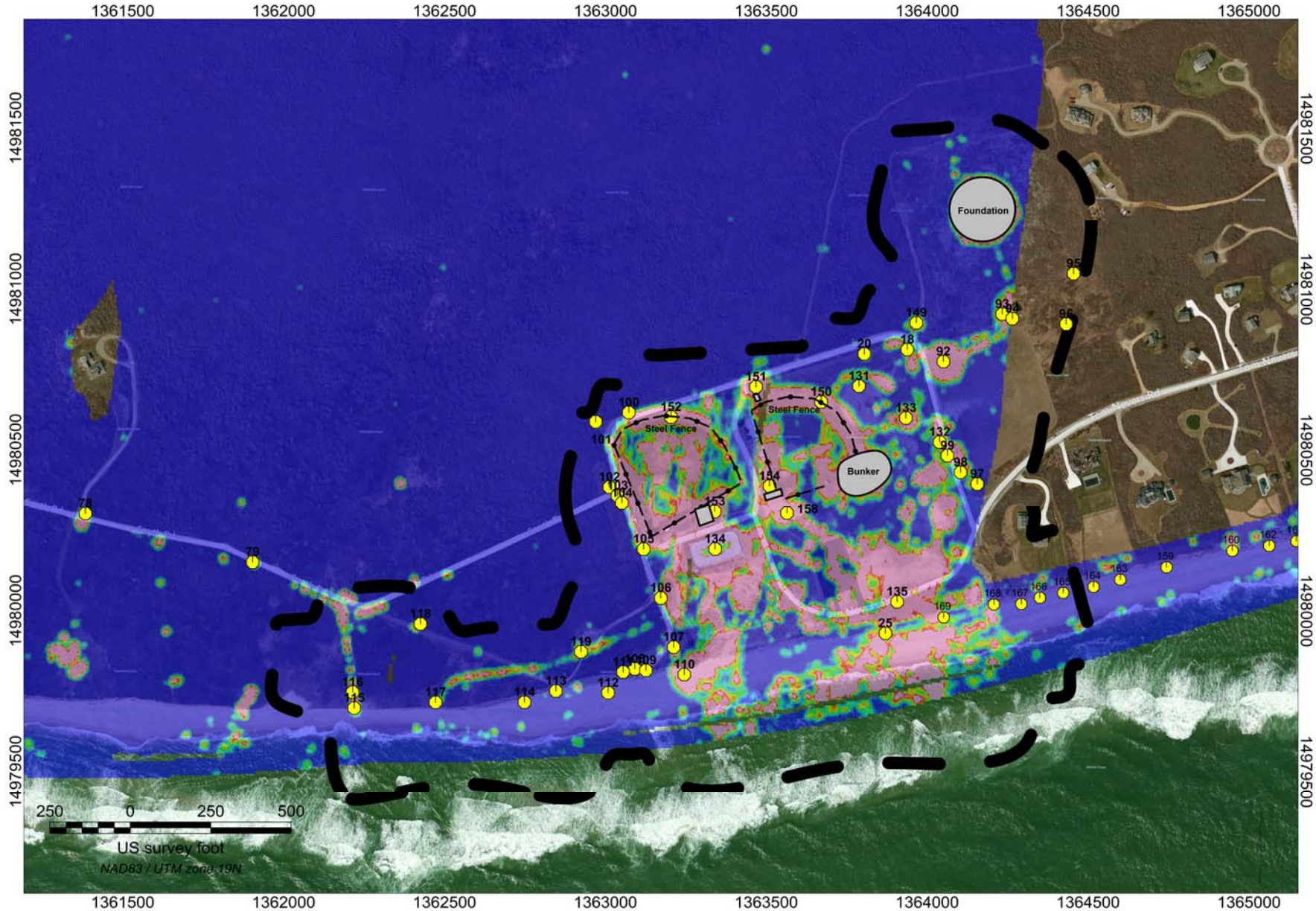


Analytic Signal

0.2 0.5 0.9 1.3 1.6 2.0 2.3 2.7 3.1 3.4 3.8 4.1 4.5 4.8 5.2 5.6 5.9 6.3 6.6

- FUDS Boundary
- MRS 1 - Burial Pit
- MRS 2 - Aerial Rocket Range
- Former Target
- Anomaly Cluster (From VSP)
- Proposed DGM Transect
- Proposed DGM Grid
- Proposed Underwater Transect
- Full DGM Coverage Area EM31-MK2
- Geophysical Anomaly
- or Cultural Source/Field Reconnaissance Location
- Road
- Railroad
- Harrier Nesting Site

Nantucket Beach
Formerly Used Defense Site
Anomaly Cluster AC-05
Reconnaissance Results



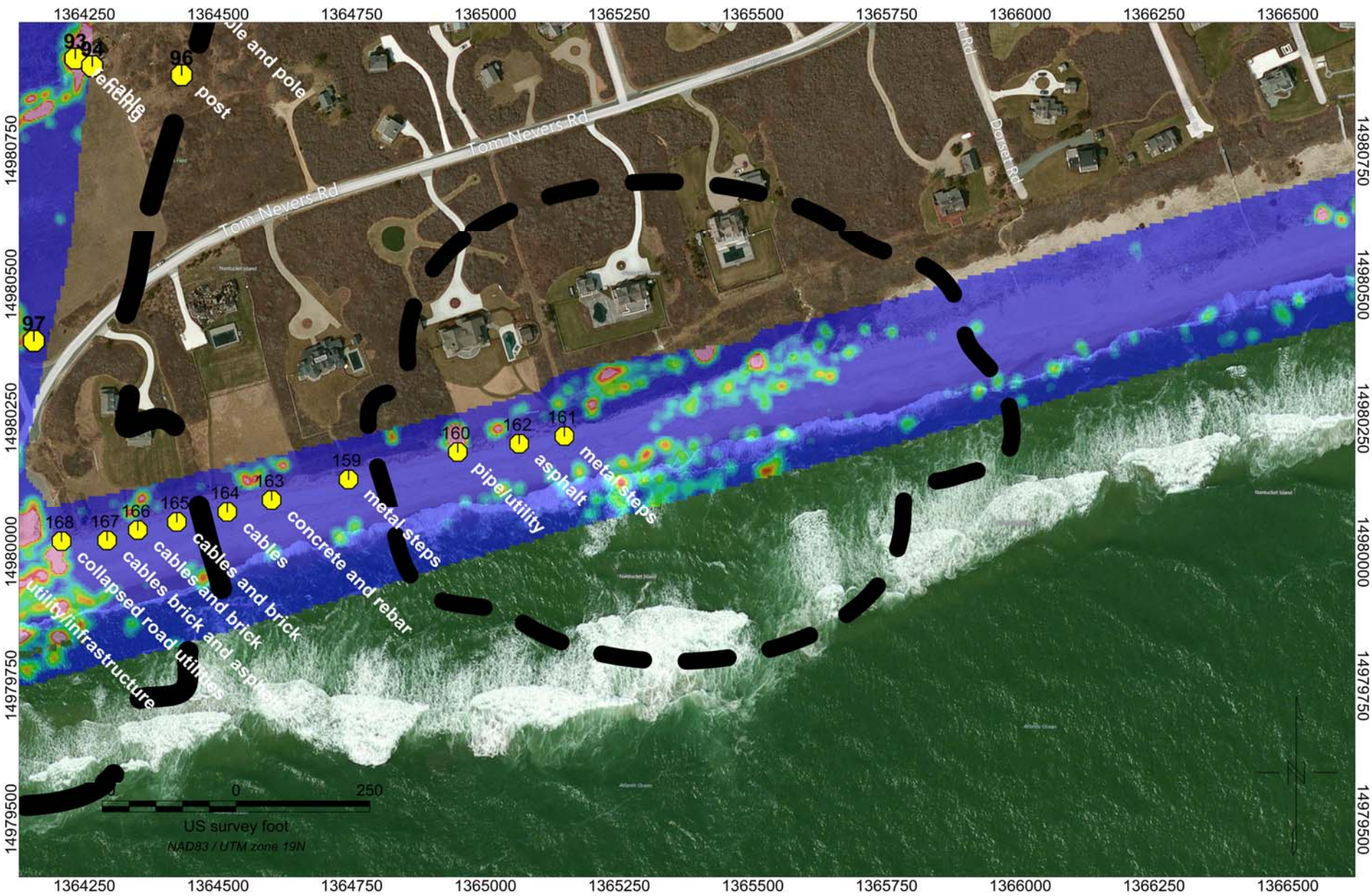
Analytic Signal

0.2 0.5 0.9 1.3 1.6 2.0 2.3 2.7 3.1 3.4 3.8 4.1 4.5 4.8 5.2 5.6 5.9 6.3 6.6

- FUDS Boundary
- MRS 1 - Burial Pit
- MRS 2 - Aerial Rocket Range
- Former Target
- Anomaly Cluster (From VSP)
- Proposed DGM Transect
- Proposed DGM Grid
- Proposed Underwater Transect
- Full DGM Coverage Area EM31-MK2
- Geophysical Anomaly
- or Cultural Source/Field Reconnaissance Location
- Road
- Railroad
- Harrier Nesting Site

Nantucket Beach
Formerly Used Defense Site
Anomaly Cluster AC-07
Reconnaissance Results

WESTON SOLUTIONS



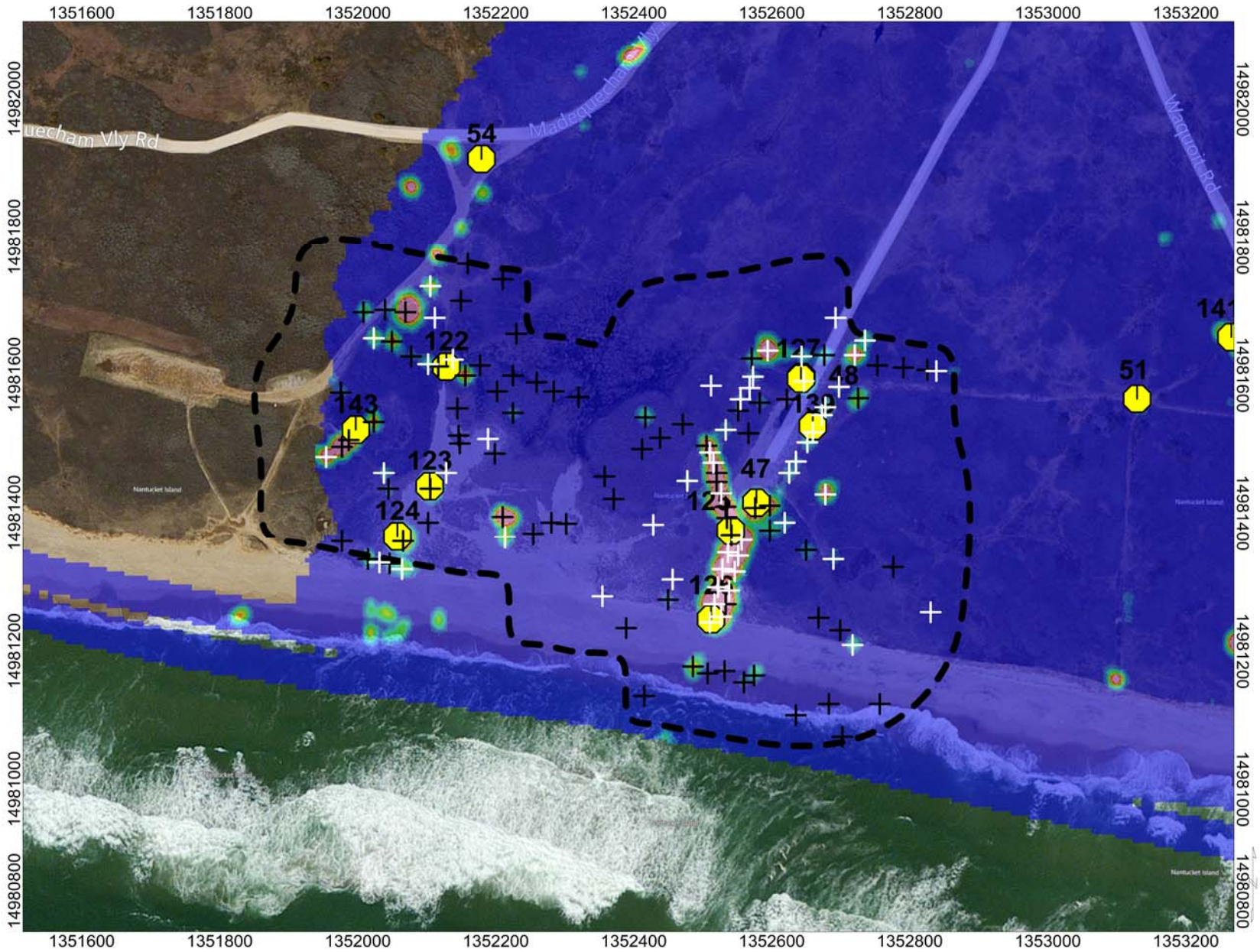
Analytic Signal

0.2 0.5 0.9 1.3 1.6 2.0 2.3 2.7 3.1 3.4 3.8 4.1 4.5 4.8 5.2 5.6 5.9 6.3 6.6

- FUDS Boundary
- MRS 1 - Burial Pit
- MRS 2 - Aerial Rocket Range
- T Former Target
- Anomaly Cluster (From VSP)
- Proposed DGM Transect
- Proposed DGM Grid
- Proposed Underwater Transect
- Full DGM Coverage Area EM31-MK2
- Geophysical Anomaly
- or Cultural Source/Field Reconnaissance Location
- Road
- Railroad
- Harrier Nesting Site

Nantucket Beach
Formerly Used Defense Site
Anomaly Cluster AC-08
Reconnaissance Results

WESTON SOLUTIONS



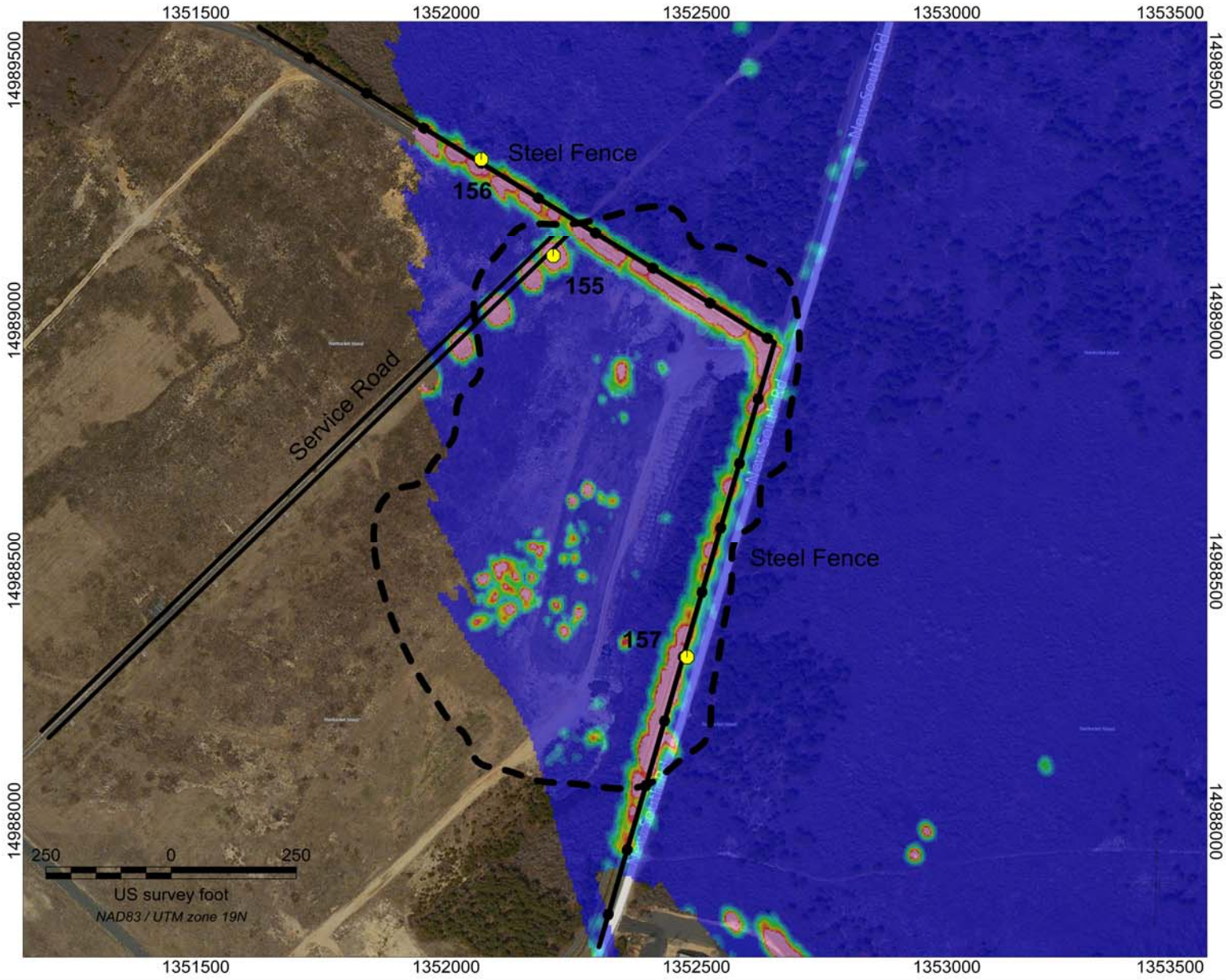
Analytic Signal

0.2 0.5 0.9 1.3 1.6 2.0 2.3 2.7 3.1 3.4 3.8 4.1 4.5 4.8 5.2 5.6 5.9 6.3 6.6

- FUDS Boundary
- MRS 1 - Burial Pit
- MRS 2 - Aerial Rocket Range
- Former Target
- Anomaly Cluster (From VSP)
- Proposed DGM Transect
- Proposed DGM Grid
- Proposed Underwater Transect
- Full DGM Coverage Area EM31-MK2
- Magnetic Anomaly
- Intrusively Investigated Magnetic Anomaly
- Cultural Source/Field Reconnaissance Location (or)
- Road
- Railroad
- Harrier Nesting Site

Nantucket Beach
Formerly Used Defense Site
Anomaly Cluster AC-09
Reconnaissance Results

WESTON SOLUTIONS



Analytic Signal

0.2 0.5 0.9 1.3 1.6 2.0 2.3 2.7 3.1 3.4 3.8 4.1 4.5 4.8 5.2 5.6 5.9 6.3 6.6

- FUDS Boundary
- MRS 1 - Burial Pit
- MRS 2 - Aerial Rocket Range
- Former Target
- Anomaly Cluster (From VSP)
- Proposed DGM Transect
- Proposed DGM Grid
- Proposed Underwater Transect
- Full DGM Coverage Area EM31-MK2
- Geophysical Anomaly
- or Cultural Source/Field Reconnaissance Location
- Road
- Railroad
- Harrier Nesting Site

Nantucket Beach
Formerly Used Defense Site
Anomaly Cluster AC-10
Reconnaissance Results

APPENDIX B
Ground Reconnaissance Results

Cultural Feature Locations

Feature ID	Northing	Easting	Description	Feature Type
1	14988422.86	1362217.59	signpost+D50	Point Feature
2	14989025.10	1361493.61	concrete post	Point Feature
3	14989494.14	1359664.23	sign post	Point Feature
4	14989588.54	1359665.46	sign post	Point Feature
5	14989675.01	1359928.48	sign post	Point Feature
6	14989674.18	1359507.69	sign post	Point Feature
7	14989188.54	1359428.20	sign post	Point Feature
8	14989272.02	1359763.95	fence post	Point Feature
9	14989169.10	1359571.75	fence post	Point Feature
10	14989186.44	1359424.33	fence post	Point Feature
11	14989458.65	1359352.13	fence post	Point Feature
12	14989803.56	1358836.36	fence post	Point Feature
13	14990006.82	1357647.24	fence post	Point Feature
14	14989702.59	1356542.18	ladder,treestand	Point Feature
15	14980811.97	1363938.35	powerbox	Point Feature
16	14980798.22	1363804.76	power pole	Point Feature
17	14979930.14	1363870.25	storm vault	Point Feature
18	14981497.98	1353828.16	phone box	Point Feature
19	14981744.31	1353783.82	fence post	Point Feature
20	14981210.87	1354341.92	post and wire	Point Feature
21	14984134.76	1353425.07	fence post	Point Feature
22	14984164.64	1353377.10	fence post	Point Feature
23	14983396.19	1354211.03	fence post,concrete block	Point Feature
24	14982399.64	1355887.33	power box	Point Feature
25	14982399.93	1355887.10	power box	Point Feature
26	14982355.42	1355949.55	phone box	Point Feature
27	14982331.52	1355941.59	signs	Point Feature
28	14981811.45	1356599.47	phone box	Point Feature
29	14985072.45	1355533.70	sign	Point Feature
30	14986124.65	1355366.21	sign	Point Feature
31	14986875.38	1355260.72	sign post	Point Feature
32	14989308.92	1354895.00	wire	Point Feature
33	14983630.41	1352726.10	signs	Point Feature
34	14982947.94	1352930.41	fence post and marker	Point Feature
35	14981414.72	1352577.81	post	Point Feature
36	14981596.61	1352643.13	electric vault	Point Feature
37	14981565.30	1353129.45	electric vault	Point Feature
38	14981791.74	1353386.78	fence post and marker	Point Feature
39	14981912.69	1352179.35	sign	Point Feature
40	14980822.89	1355461.62	sign	Point Feature
41	14981263.64	1355608.69	fence posts	Point Feature
42	14980922.01	1355755.78	board with nails	Point Feature
43	14981176.17	1355906.58	board with nails	Point Feature
44	14981812.48	1356599.86	phone box	Point Feature
45	14981446.61	1357022.44	post and marker	Point Feature

Cultural Feature Locations

Feature ID	Northing	Easting	Description	Feature Type
46	14981423.91	1356992.60	gate	Point Feature
47	14981385.86	1357018.04	power box	Point Feature
48	14980680.98	1358095.21	post with spikes	Point Feature
49	14980572.17	1358028.53	metal debris	Point Feature
50	14980738.98	1358621.64	fence post	Point Feature
51	14980157.41	1358720.67	sign	Point Feature
52	14980462.04	1358815.60	posts	Point Feature
53	14980609.83	1359154.71	post	Point Feature
54	14981116.18	1359074.55	post	Point Feature
55	14981129.00	1359082.53	posts	Point Feature
56	14980420.37	1360974.05	power box	Point Feature
57	14980302.25	1361384.43	phone box	Point Feature
58	14980151.17	1361903.95	electric box	Point Feature
59	14980506.39	1360651.14	electric box	Point Feature
60	14980590.62	1360496.56	phone box	Point Feature
61	14979904.64	1360158.87	metal scrap	Point Feature
62	14979857.70	1360376.44	iron scrap	Point Feature
63	14979845.07	1360403.85	iron scrap	Point Feature
64	14979856.50	1360383.14	metal scrap	Point Feature
65	14979861.63	1360357.63	metal scrap	Point Feature
66	14979882.57	1360224.30	metal scrap	Point Feature
67	14979891.80	1360210.70	post	Point Feature
68	14979873.09	1360311.67	step supports	Point Feature
69	14979869.43	1360339.93	post	Point Feature
70	14980089.13	1359097.39	post	Point Feature
71	14988529.39	1361948.75	pin-flagged area,no metal	Linear Feature
72	14988422.29	1361883.26	pin-flagged area	Linear Feature
73	14988811.55	1360267.04	fence posts	Linear Feature
74	14980698.45	1363788.30	posts	Linear Feature
75	14980524.40	1364038.96	barriers	Linear Feature
76	14980599.32	1363933.93	building	Linear Feature
77	14980192.10	1363341.03	hockey rink	Linear Feature
78	14980028.15	1363906.73	snow fence	Linear Feature
79	14984147.08	1353434.44	fence posts	Linear Feature
80	14984199.10	1353379.07	fence posts	Linear Feature
81	14983380.53	1352924.34	wire on posts	Linear Feature
82	14981525.94	1352659.55	cable and posts - parking area	Linear Feature
83	14982565.36	1352963.41	cable and posts	Linear Feature
84	14981654.61	1353266.18	cable and posts	Linear Feature
85	14982521.66	1352487.67	cable and posts	Linear Feature
86	14981520.57	1351997.31	cable and posts	Linear Feature
87	14980948.15	1355493.23	cable and posts	Linear Feature
88	14980792.27	1355882.94	cable and posts	Linear Feature
89	14980406.31	1357967.88	cable and posts	Linear Feature
90	14980571.12	1358177.52	debris	Linear Feature

Cultural Feature Locations

Feature ID	Northing	Easting	Description	Feature Type
91	14980303.97	1358747.81	posts	Linear Feature
92	14980774.45	1364050.49	cable and cement	Point Feature
93	14980922.21	1364233.50	fencing	Point Feature
94	14980908.02	1364264.97	cable	Point Feature
95	14981047.92	1364455.44	cable and pole	Point Feature
96	14980891.16	1364432.14	post	Point Feature
97	14980394.18	1364155.89	farm equipment	Point Feature
98	14980430.32	1364103.91	sign	Point Feature
99	14980482.32	1364063.05	jersey barriers	Point Feature
100	14980616.35	1363072.98	sign	Point Feature
101	14980587.51	1362970.08	metal sign/markers	Point Feature
102	14980384.30	1363012.74	phone box	Point Feature
103	14980357.75	1363037.75	post	Point Feature
104	14980335.29	1363051.57	metal pole	Point Feature
105	14980191.85	1363118.93	posts	Point Feature
106	14980039.71	1363172.31	post	Point Feature
107	14979887.22	1363212.47	barbed wire	Point Feature
108	14979819.54	1363091.86	wire	Point Feature
109	14979814.88	1363126.21	steel sign	Point Feature
110	14979801.95	1363245.40	reinforced concrete	Point Feature
111	14979809.70	1363055.28	pole with metal	Point Feature
112	14979745.46	1363008.62	metal debris	Point Feature
113	14979750.97	1362846.36	metal sign	Point Feature
114	14979716.18	1362748.68	wood with metal spikes	Point Feature
115	14979697.86	1362219.61	pole with cables	Point Feature
116	14979747.07	1362214.61	poles with cable	Point Feature
117	14979715.84	1362472.39	post	Point Feature
118	14979959.16	1362425.63	post	Point Feature
119	14979872.53	1362924.28	parking area	Point Feature
120	14980877.85	1355457.94	parking area	Point Feature
121	14980746.01	1355841.31	parking area	Point Feature
122	14981611.82	1352128.47	cables	Point Feature
123	14981438.58	1352104.29	post	Point Feature
124	14981366.05	1352057.47	posts	Point Feature
125	14981374.44	1352540.62	posts wth wire	Point Feature
126	14981245.78	1352512.06	post	Point Feature
127	14981594.37	1352642.28	electric/utility	Point Feature
128	14988529.39	1361948.754	metal pin-flagged area	Point Feature
129	14988422.29	1361883.255	metal pin-flagged area	Point Feature
130	14988811.55	1360267.036	fence posts	Point Feature
131	14980698.45	1363788.303	posts	Point Feature
132	14980524.4	1364038.957	jersey barriers	Point Feature
133	14980599.32	1363933.927	building	Point Feature
134	14980192.1	1363341.034	Structure	Point Feature
135	14980028.15	1363906.726	snow fence	Point Feature

Cultural Feature Locations

Feature ID	Northing	Easting	Description	Feature Type
136	14984147.08	1353434.438	fence posts	Point Feature
137	14984199.1	1353379.066	fence posts	Point Feature
138	14983380.53	1352924.341	posts with wire	Point Feature
139	14981525.94	1352659.548	cable and posts	Point Feature
140	14982565.36	1352963.407	cable and posts	Point Feature
141	14981654.61	1353266.18	cable and posts	Point Feature
142	14982521.66	1352487.669	cable and posts	Point Feature
143	14981520.57	1351997.308	cable and posts	Point Feature
144	14980948.15	1355493.232	cable and posts	Point Feature
145	14980792.27	1355882.936	cable and posts	Point Feature
146	14980406.31	1357967.884	cable and posts	Point Feature
147	14980571.12	1358177.517	metal debris	Point Feature
148	14980303.97	1358747.814	posts	Point Feature
149	14980895.27	1363966.592	sign post	Point Feature
150	14980649.15	1363670.662	Steel Fence	Linear Feature
151	14980696.05	1363468.227	Building	Point Feature
152	14980602.24	1363204.073	Steel Fence	Linear Feature
153	14980308.46	1363339.853	Building	Point Feature
154	14980387.46	1363510.195	Building	Point Feature
155	14989129.74	1352214.287	Building	Point Feature
156	14989322.33	1352070.561	Steel Fence	Linear Feature
157	14988327.75	1352481.618	Steel Fence	Linear Feature
158	14980304.33	1363564.802	Playground	Point Feature
159	14980135.23	1364744.15	metal steps	Point Feature
160	14980186.45	1364948.49	pipe/utility	Point Feature
161	14980216.38	1365147.84	metal steps	Point Feature
162	14980202.06	1365063.31	asphalt	Point Feature
163	14980096.79	1364600.27	concrete and rebar	Point Feature
164	14980074.54	1364517.41	cables	Point Feature
165	14980055.81	1364423.08	cables and brick	Point Feature
166	14980040.58	1364350.27	cables and brick	Point Feature
167	14980021.32	1364292.68	cables brick and asphalt	Point Feature
168	14980019.71	1364207.55	collapsed road utilities	Point Feature
169	14979979.49	1364051.41	utility/infrastructure	Point Feature

Cultural Feature Locations

Coincident Magnetic Anomalies	Anomaly Cluster
4508	AC-05
5062	AC-05
5689	AC-05
5824	AC-05
5945	AC-05
5942	AC-05
5248	AC-05
5347	AC-05
5228	AC-05
5248	AC-05
5653	AC-05
6066	AC-05
6318	AC-05
5966	No associated anomaly cluster
2382	No associated anomaly cluster
2336	No associated anomaly cluster
549	No associated anomaly cluster
3153	No associated anomaly cluster
3312	No associated anomaly cluster
2855	No associated anomaly cluster
3861	No associated anomaly cluster
N/A	No associated anomaly cluster
3766	No associated anomaly cluster
3535	AC-06
3535	AC-06
3520	AC-06
3520	AC-06
3330	AC-06
4017	AC-04
4226,4239	No associated anomaly cluster
4303	No associated anomaly cluster
5406	No associated anomaly cluster
3784	No associated anomaly cluster
3665	No associated anomaly cluster
3073	AC-09
3242	AC-09
3220	No associated anomaly cluster
3322	No associated anomaly cluster
3368	No associated anomaly cluster
2402	AC-02
2926	AC-02
2589	AC-02
2844	AC-02
3330	AC-06
3102,3112	No associated anomaly cluster

Cultural Feature Locations

Coincident Magnetic Anomalies	Anomaly Cluster
3097	No associated anomaly cluster
3041	No associated anomaly cluster
2206	No associated anomaly cluster
1904	AC-03
2207	No associated anomaly cluster
1080	No associated anomaly cluster
1711	No associated anomaly cluster
1974	No associated anomaly cluster
2736	No associated anomaly cluster
2736	No associated anomaly cluster
1635	No associated anomaly cluster
1391	No associated anomaly cluster
1066	No associated anomaly cluster
1781	No associated anomaly cluster
1938	No associated anomaly cluster
489	No associated anomaly cluster
386	No associated anomaly cluster
336	No associated anomaly cluster
386	No associated anomaly cluster
378	No associated anomaly cluster
441	No associated anomaly cluster
441	No associated anomaly cluster
401	No associated anomaly cluster
396	No associated anomaly cluster
928	No associated anomaly cluster
4614	AC-05
4511	AC-05
4902,4914,4887	AC-05
2210	No associated anomaly cluster
1796	No associated anomaly cluster
1961	No associated anomaly cluster
1244	No associated anomaly cluster
875	No associated anomaly cluster
3861	No associated anomaly cluster
N/A	No associated anomaly cluster
N/A	No associated anomaly cluster
3178	AC-09
3592,3582,3594	No associated anomaly cluster
3288,3273	No associated anomaly cluster
3586,3588,3577,3568	No associated anomaly cluster
3168	AC-09
2642	AC-02
2429	AC-02
1367 + ~10 additional	AC-03
1954	AC-03

Cultural Feature Locations

Coincident Magnetic Anomalies	Anomaly Cluster
1405	No associated anomaly cluster
2289	No associated anomaly cluster
2596	AC-07
2594	No associated anomaly cluster
N/A	AC-07
N/A	No associated anomaly cluster
1613	No associated anomaly cluster
1661	No associated anomaly cluster
1767	No associated anomaly cluster
1939	No associated anomaly cluster
1931	AC-07
1580	AC-07
1520	AC-07
1520	AC-07
1134	No associated anomaly cluster
763	No associated anomaly cluster
466	No associated anomaly cluster
322	No associated anomaly cluster
289	AC-07
277	No associated anomaly cluster
302	AC-07
186	AC-07
204	AC-07
143	AC-07
109	No associated anomaly cluster
183 + 20 additional	AC-07
147	No associated anomaly cluster
629	AC-07
389	AC-07
2522	AC-02
2224	AC-02
3246, 3257	AC-09
3099	AC-09
3022	AC-09
3032	AC-09
2901	AC-09
3242	AC-09
4614 + ~10 additional	AC-05
4515	AC-05
4902,4914,4887	AC-05
2086	No associated anomaly cluster
1926	No associated anomaly cluster
1961	No associated anomaly cluster
1244	No associated anomaly cluster
738	No associated anomaly cluster

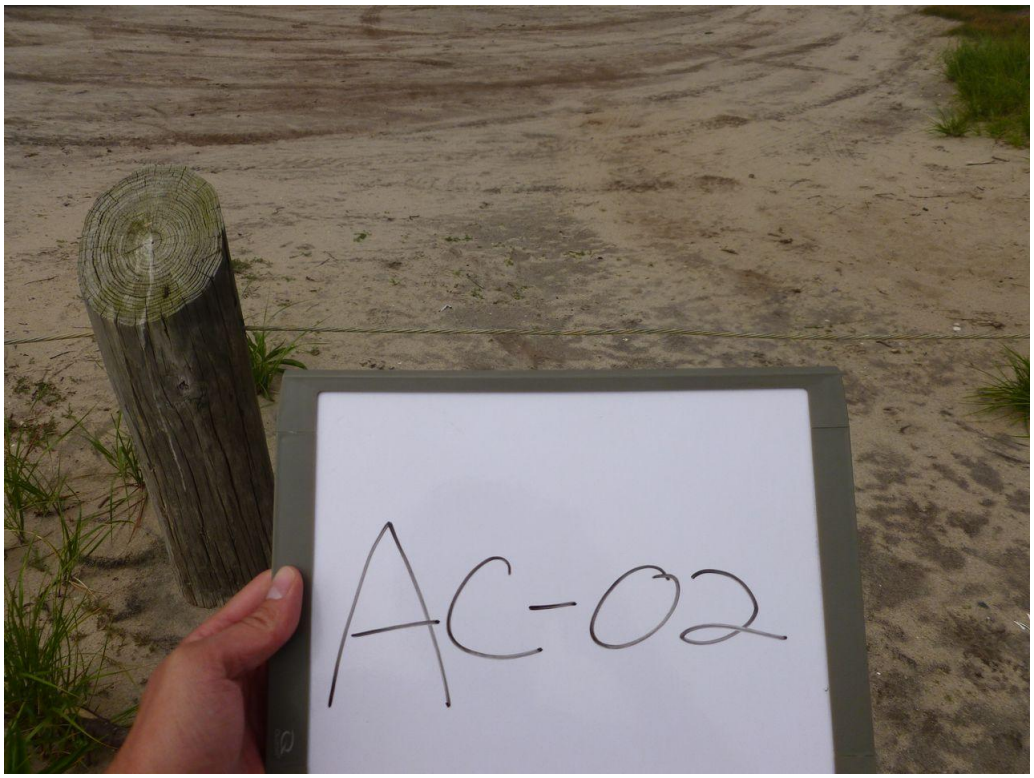
Cultural Feature Locations

Coincident Magnetic Anomalies	Anomaly Cluster
N/A	No associated anomaly cluster
N/A	No associated anomaly cluster
N/A	No associated anomaly cluster
3178	AC-09
3592	No associated anomaly cluster
3288,3273	No associated anomaly cluster
3568	No associated anomaly cluster
3168	AC-09
2662 + ~10 additional	AC-02
2429 + ~10 additional	AC-02
1636 + ~10 additional	AC-03
1954	AC-03
1405	No associated anomaly cluster
2555	No associated anomaly cluster
2060 + 20 additional	No associated anomaly cluster
2139	No associated anomaly cluster
1977	No associated anomaly cluster
1450	No associated anomaly cluster
1571	No associated anomaly cluster
5184	AC-10
5411 + ~10 additional	AC-10
4478 + ~10 additional	AC-10
1437	No associated anomaly cluster
1112	AC-08
1204	AC-08
1288	AC-08
1275	AC-08
1056	AC-08
1015	AC-07
924	AC-07
802	AC-07
802	AC-07
702	No associated anomaly cluster
755	No associated anomaly cluster

APPENDIX C
Ground Reconnaissance Photo Log



Steel cable defining parking area perimeter in AC-02



Steel cable and posts defining parking area perimeter



Sign post in AC-05



Steel fence posts in AC-05



Steel tree stand in AC-05



Infrastructure and metal debris in AC-07



Reinforced concrete posts in AC-07



Steel chain link Fence in AC-07



Utility pole with =loudspeaker in AC-07



Reinforced concrete barriers in AC-07



Building infrastructure in AC-07



Metal debris on beach in AC-07



Reinforced concrete in AC-07



Steel fence post in AC-07



Farm machinery in AC-07



Reinforced concrete barriers in AC-07



Steel fence post in AC-07



Metal debris on beach in AC-07

Metal staircase in AC-08

Metal piping in AC-08



Metal cabling in AC-08



Collapsed asphalt road and infrastructure in AC-08



Old utility and infrastructure in AC-08



Phone/Utility vault in AC-09



Phone/Utility vault in AC-09



Communications box in AC-09



Steel cable and posts defining parking area perimeter in AC-09



Steel cable and metal posts defining parking area perimeter in AC-09



Steel cable and metal posts along access road in AC-09



Utility vault in AC-09

Below are WESTONs' responses to MassDEPs' 19 July 2012 comments (received by USACE on 27 July 2012) in regards to the 6 July 2012 Ground Reconnaissance Technical Memorandum:

1. How were the number of linear transect feet and the number of grids to be DGM surveyed at AC-02, AC-04, and AC-05 derived?

Response: Pre-planned digital geophysical mapping (DGM) transects and grids were recommended to support ground reconnaissance efforts if a conclusive determination could not be made as to whether munitions related material was present at anomaly cluster locations identified from the airborne vertical magnetic gradient survey. No evidence of munitions related material was observed on the ground surface during ground reconnaissance efforts at anomaly clusters AC-02, AC-04, and AC-05. There was however a limited amount of cultural debris visible on the ground surface. This cultural debris could be linked to magnetic anomalies but the source of the majority of anomalies appeared to be subsurface or magnetic noise. Based on these findings it was recommended that the pre-planned DGM transect and grid surveys and subsequent intrusive investigations be completed as documented in the work plan addendum and modified during the Technical Project Planning #2 meeting. The transects and grids were placed in biased locations of where increased density of anomalies was observed based on the airborne vertical magnetic gradient results. This biased placement allowed us to verify the source of the anomalies were not related munitions related material in a target area.

2. How many anomalies were detected at each anomaly cluster, how many were determined to be cultural debris, and how many were unable to be reconciled? This memorandum states that "several anomalies detected ...correlate nicely with existing cultural debris features" and that "several magnetic anomalies were unable to be reconciled during the ground reconnaissance survey". Also, on the Cultural Features Locations table (Appendix B) please identify which anomaly cluster the feature was located at.

Response: Anomaly cluster ID's have been added to the Cultural Features Locations table in Appendix B. A photograph log has also been added to the document. The table below lists the quantity of anomalies within each anomaly cluster. All anomaly clusters underwent intrusive investigations except AC-07 (former Tom Nevers Naval Facility location), AC-08 (significant cultural debris), and AC-10 (airport fence).

Anomaly Cluster ID	Number of Magnetic Anomalies Detected	Intrusive Investigations Conducted after Ground Reconnaissance
AC-01	996	Yes – intrusive work completed. Munitions debris recovered.
AC-02	142	Yes – intrusive work completed. No munitions related material.
AC-03	74	Yes – intrusive work completed. No munitions related material.
AC-04	136	Yes – intrusive work completed. No munitions related material.
AC-05	1741	Yes – intrusive work completed. No munitions related material.
AC-06	69	Yes – intrusive work completed. No munitions related material.
AC-07	292	No – intrusive work not performed. This is the location of the former Tom Nevers Naval Facility.
AC-08	152	No – intrusive work not performed. Cultural debris observed.
AC-09	132	Yes – intrusive work completed. No munitions related material.
AC-10	182	No – intrusive work not performed. This is the airport fence.

3. Does the Appendix B table identify the extent of the cultural debris located during the ground reconnaissance? I.E., during the WAA, xxx number of anomalies were detected and out of that 169 anomalies were determined to be cultural debris.

Response: Yes, Appendix B relates cultural debris to magnetic anomaly locations. Not all magnetic anomalies could be reconciled during ground reconnaissance efforts. Additional DGM surveys and intrusive work were then completed at AC-02, AC-03, AC-4, AC-05, and AC-06 to confirm the anomaly clusters were not target areas. Only AC-07 (former Tom Nevers Naval Facility location), AC-08

(significant cultural debris), and AC-10 (airport fence) were validated as not being target areas by using historical research and ground reconnaissance.

4. Please discuss why "reconnaissance could only be performed within a small portion of" AC-08? Is this due to not obtaining ROEs? If so, that should be noted. Also, please identify on the AC-08 figure the anomalies "that are consistent with infrastructure such as roadways and possible utilities that were noted in the historical aerial photographs" to support your claim that no additional work is recommended for AC-08.

Response: Agree. Notes will be added to the AC-08 figure regarding the location of cultural debris consistent with infrastructure such as roadways and utilities. Photographs of the cultural debris have also been added to the appendix. ROEs were not available to access the entire anomaly cluster. A note will be made regarding availability of ROEs in the text.

5. For AC-09, please discuss the rational for investigating individual anomalies, as opposed to conducting transect and grid surveys. Also, please include a anomaly cluster map for AC-09. This map should include the locations of the 132 magnetic anomalies identified and depict the 48 to be intrusively investigated.

Response: Magnetic anomalies within AC-09 were sporadic and distributed across the anomaly cluster. Based on ground DGM results from other anomaly clusters at Nantucket, additional anomalies would not have been detected by the EM61-MK2 and the possibility exists for not traversing any anomalies since we are evaluating such low anomaly density counts. Utilizing the magnetic data provides a means to evaluate more anomalies across the anomaly cluster. The map for AC-09 will be updated to show the magnetic anomalies and the 48 anomalies that were investigated. No munitions related material was observed during the intrusive work.

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The Trusted Integrator for Sustainable Solutions

6 August 2012

Ms. Carol Ann Charette, Project Manager (CENAE-PP-M)
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Work Order No.: 03886.551.004

Subject: Contract No. W912DR-09-D-0006, Delivery Order 0005
Military Munitions Response Program Remedial Investigation through Decision Document
Nantucket Beach Formerly Used Defense Site, Nantucket, Massachusetts
Final Work Plan Addendum
DCN: MAMMS05-080612-AART

Dear Ms. Charette and Mr. Beckwith:

Weston Solutions, Inc. (WESTON®) is pleased to submit this Final Work Plan Addendum for two Military Munitions Response Program sites at the Nantucket Beach, Nantucket Ordnance Site, a.k.a Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site, located on Nantucket Island, Nantucket, Massachusetts. The document has been downloaded to the WESTON® TeamLink site and Responses to Baltimore District Corps of Engineer Comments dated 21 May 2012 and 3 July 2012 are included. Responses to MassDEP comments dated 31 May 2012 which were previously transmitted to USACE are also included for reference purposes. The Final WP Addendum has also been forwarded to MassDEP along with MassDEP Responses to Comments per USACE approval.

If you have any question or comments, please do not hesitate to contact me at (603) 656-5428.

Very truly yours,
Weston Solutions, Inc.

Christopher G. Kane
Project Manager, PMP

CGK;
cc: D. King (CENAB), 1 electronic copy
T. Colozza (CENAB), 1 electronic copy
A. Larkins (WESTON), 1 electronic copy
R. Steigerwalt (WESTON), 1 electronic copy
M. Swiech-Laflamme (WESTON)
Project File/DCN/Site

Plan Title/Date: Draft Work Plan Addendum, 15 May 2012
Comments Received From: USACE Baltimore District, Tom Colozza and David King, Geophysicists
Comments Dated: 21 May 2012
Comments Received on: 21 May 2012
Responses submitted: 29 June 2012

Comment No.	*Document Reference*	*Comment*	*Response*	*Response Owner (WESTON)*
1.	General	I was just discussing the addendum with Tom C and we have an additional comment on the altitude exceedance areas- Pg 18 - the assumed anomaly density for a target area is too high (30 anomalies per acre). It should be lowered to about 10 anomalies per acre to match what we've seen in other areas.	The change will be made as requested.	RS
2.	Page 2	If possible an improved VSP anomaly density histogram illustrating the break.	A larger figure has been added to the Work Plan Addendum.	RS
3.	Page 5	Decision Criteria for Ground Reconnaissance. Box that includes "The entire anomaly cluster is traversed. No munitions related material is observed. Cultural features match magnetic anomalies." What if an anomaly is masked by a metal object? How are we going to prove an anomaly isn't masked by a metal object i.e. fence?	We agree that individual anomalies may be masked by cultural objects such as a fence. Clusters of anomalies indicative of a target area would likely not be completely masked by cultural objects and at least part of the cluster footprint would be identifiable.	RS
4.	General	Are all the targets found from the ground-based DGM going to be investigated?	We are currently assuming that all anomalies will be reacquired and investigated in all transects and grids. However, if a significant amount of anomalies are investigated and only cultural debris has been recovered, we would present our findings to the project team to determine if additional investigation is warranted. Similarly, if a transect	RS

			and grid are saturated with anomalies and the nature and extent can be obtained without performing a removal of all anomalies, WESTON would present the findings to the project team to determine if additional investigation is warranted.	
5.	Page 6. 2nd paragraph. 3rd sentence.	Should include "All" before Anomalies. Figures 1 to 6. Think about including the geophysical data showing the proximity of geophysical targets to known cultural debris objects.	Magnetic anomaly locations have been added to AC-03 and AC-06.	RS

End of Comments and Responses.

WESTON Response Owner Key

WESTON Response Owner:

CK = Christopher G. Kane, PMP, Project Manager
RS = Ryan Steigerwalt, PG, Sr. Geophysicist

Plan Title/Date:	Draft Work Plan Addendum, 15 May 2012
Comments Received From:	MassDEP, Ms. Joanne Dearden
Comments Dated:	31 May 2012
Comments Received on:	31 May 2012
Responses submitted:	6 August 2012

Comment 1: MassDEP does not concur with the determination of "9 anomalies per acre...to be the breakpoint between background and increasing anomaly densities". It remains unclear to MassDEP why "9" was chosen as the Critical Density Breakpoint.

Response: WESTON is offering a detailed response to this concern expressed by MassDEP in an attempt to increase the transparency of our technical implementation of this RI and provide clear rationale for selection of VSP parameters employed by WESTON, with CENAB approval, to design our proposed investigation plan. The current understanding of the conceptual site model for this FUDS indicates that three former target structures were present within MRS 2 and may have been used for air to ground rocket practice by the U.S. Navy. At this time, no historical evidence has been discovered that indicates use of munitions within this MRS for any other training purposes.

A wide area assessment (WAA) survey was initially performed as part of the Nantucket Beach FUDS RI. The WAA survey objective was to collect the maximum amount of airborne magnetic geophysical survey data (i.e., to detect non-discriminate magnetic anomalies) possible across the entire 3,000 acre land portion of the FUDS without direct impact to residents, land owners and/or the environment. The secondary purpose of the airborne survey is to focus on potential former target areas and define the nature and extent of munitions impact to a point that future remedial alternatives for the site can be evaluated. This approach is supported by MMRP RI/FS guidance (USAEC, 2009) and industry practice for assessment of large sites potentially impacted by munitions, particularly in the case of sites like the Nantucket Beach FUDS, where current land use and environmental conditions impedes accessibility for investigation.

In addition to the WAA survey, a multiple lines of evidence approach was used as part of the RI process to design the investigation strategy and draw conclusions regarding the nature and extent of MEC within the FUDS. Elements of this process include:

- historical document/data review,
- airborne geophysical survey data collected in March 2012 at the FUDS, and
- statistical-based software program recommendations (Visual Sample Plan (VSP) and EXO Estimator, as appropriate).

Industry standard procedures for a MRS investigation at this stage of the remedial process supports the use of statistical-based analyses to design characterization strategies, specifically in the case of an RI/FS, where 100% coverage of a MRS is not typically required for characterization to determine future response activities (USAEC, 2009). VSP is a widely accepted software program used to analyze geophysical data and design investigation plans, particularly when target locations are unknown at a site

(USAEC, 2009). A useful feature of VSP is its ability to define target areas using a highly refined grid matrix of anomaly densities mapped across a site in relation to background densities (PNNL, 2010).

To identify targets, VSP "flags" anomaly densities within the site matrix that are greater than a pre-defined critical density for the site. It is important to note that the critical density for a site is the point where the most rapid transition occurs between background densities and higher densities of anomalies, which are indicative of a former target area. The critical density function is not calculated by the software program, but is entered by the user and is assessed through an iterative approach to select a critical density that best defines former target areas. This process is subjective, but given an understanding of the release mechanism that resulted in potential munitions impacts (e.g., type of historical site use, expected dispersal patterns, etc.,) the software user can identify a critical density that best defines target areas.

An example of this iterative process which illustrates the effect of selecting a critical density that is either too high, or too low for a site is provided in the Version 6.0 VSP user manual for a WAA at the Pueblo Precision Bombing Range (air to ground bombing similar to Nantucket Beach FUDS). **Figure 1** and **Figure 2** illustrate the key factors of the VSP output that are evaluated when selecting an appropriate critical density. These factors include both the continuity and shape of mapped clusters, in addition to the rate of change and range of densities captured. **Figure 1** illustrates a critical density that is too high. **Figure 2** illustrates a critical density that is appropriate.

In the case of the Nantucket Beach FUDS, the results of the airborne magnetic WAA survey were evaluated using VSP to identify potential target areas. Two scenarios were run with VSP using critical densities of 14 anomalies per acre and 9 anomalies per acre. **Figure 3** depicts the VSP results at Nantucket Beach FUDS using a critical density of 14 anomalies per acre. Similar to the example in **Figure 2** where the selected critical density was too high, definition of elevated anomaly density areas (or anomaly clusters) at 14 anomalies per acre resulted in identification of few, concentrated areas, which did not exhibit the gradation and variation in anomaly densities we expected to see across the MRS. Additionally, evidence that this critical density was too high was apparent in the non-contiguous clusters of anomalies identified around former Target #1, which based on historical documentation and as inferred by the aerial magnetic survey data was anticipated to be representative of a single target area.

On the other hand, assessment of the VSP output generated using a critical density of 9 anomalies per acre did produce results that we would expect to see associated with former targets used for air-to-ground training exercises. **Figure 4** depicts the VSP results at Nantucket Beach FUDS using a critical density of 14 anomalies per acre. In this scenario, we identified clearly defined areas with elevated anomaly densities (or anomaly clusters) as expected (i.e., highest anomaly density in the center of the area with a steady tapering towards the lateral extents). Based on our evaluation of these critical densities, a breakpoint of 9 anomalies per acre was determined to be appropriate by the project team to initiate identification and further evaluation of anomaly clusters as part of a lines of evidence approach.

Another important feature of the general application of VSP, is that the boundaries that are plotted around each anomaly cluster (AC) are generated by the software. The boundaries extend beyond the

critical density point of 9 anomalies per acre into much lower densities between 4 or 5 anomalies per acre in most cases. This phenomenon is due to user input decisions including window and grid size selection used by VSP to determine anomaly densities across the MRS [a discussion on window and grid size is provided below]. Therefore, as can be seen in the detailed figures produced for each AC (presented in Work Plan Addendum No. 1 and TPP No. 2 presentation), the boundary extends beyond the critical density where the transition to background densities is well established.

FIGURE 1- TOO HIGH CRITICAL DENSITY

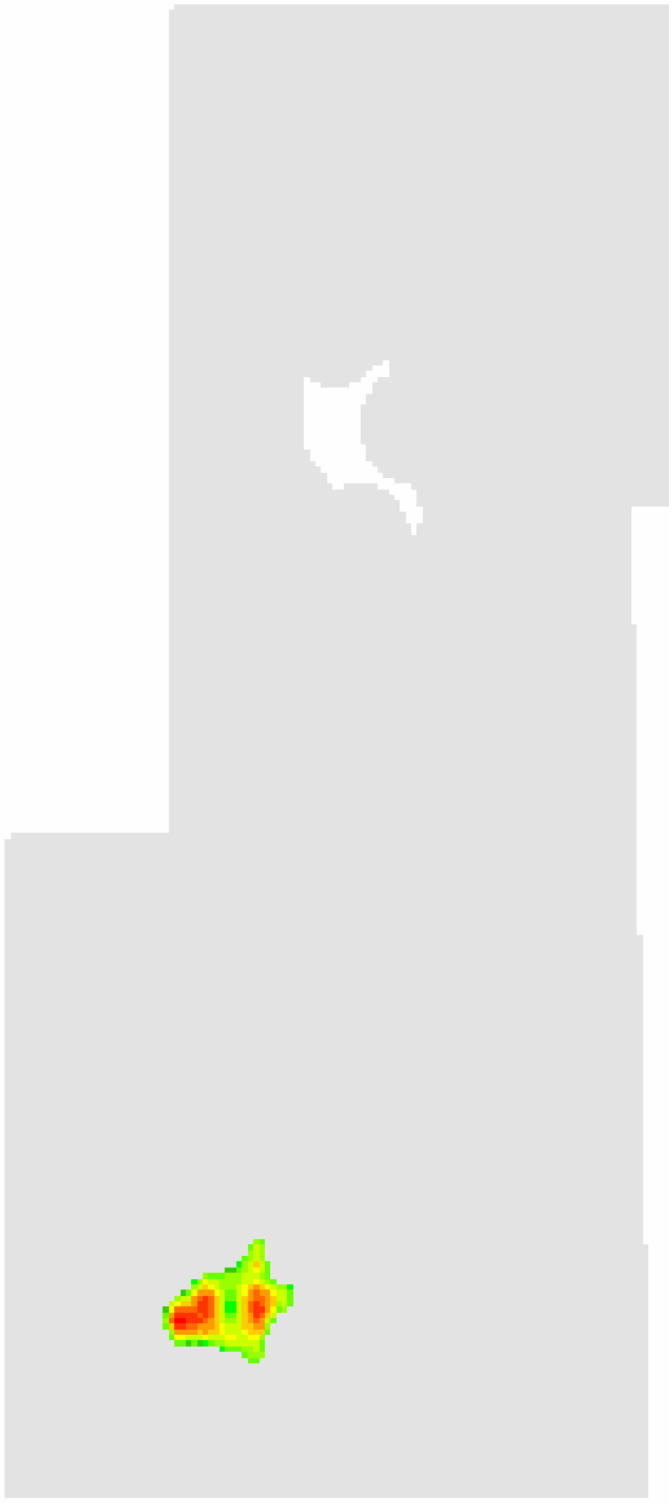


Figure 7.28. Anomaly Density Display for the Pueblo Precision Bombing Range WAA Site Resulting from Selection of a Too-High Critical Density Cutoff Level. Areas of highest anomaly density are shown in red; the lowest-density areas are shown in green. Gray indicates areas in which the anomaly density is below the critical density.

FIGURE 2- APPROPRIATE CRITICAL DENSITY

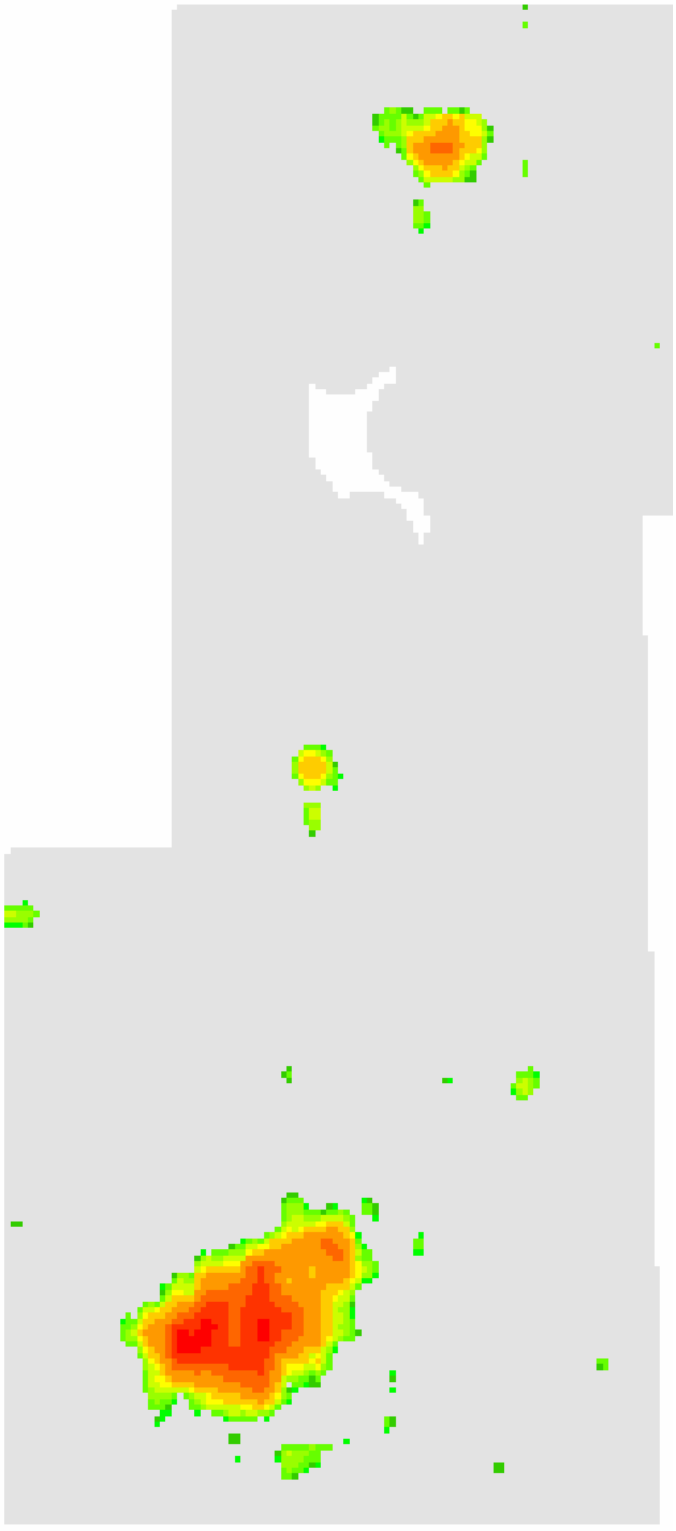
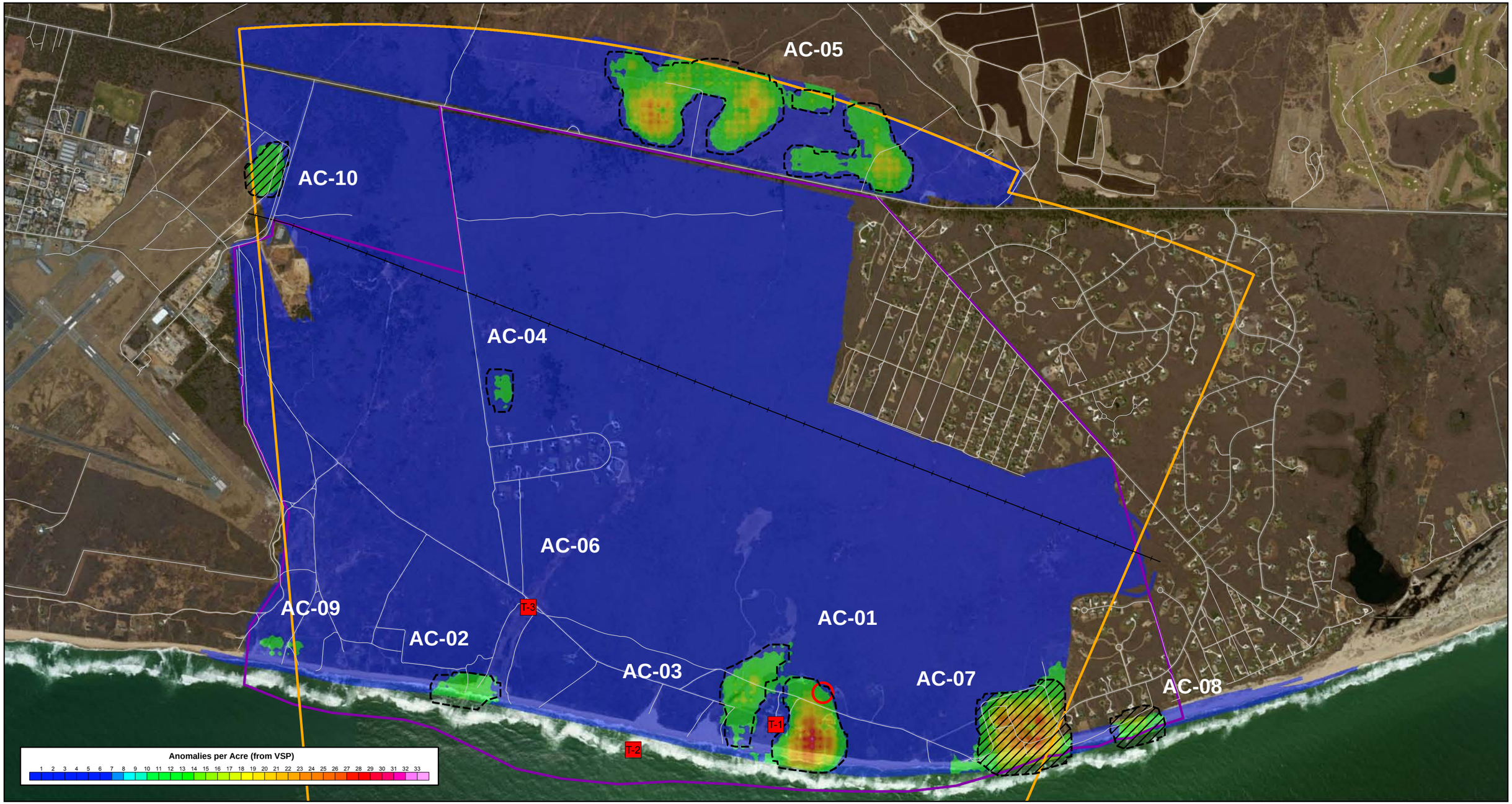
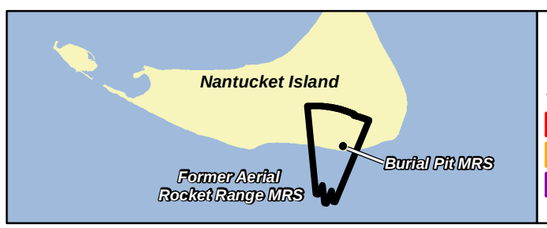


Figure 7.29. Anomaly Density Display for the Pueblo Precision Bombing Range WAA Site Resulting from Selection of an Appropriate Critical Density Cutoff Level. Areas of highest anomaly density are shown in red; green indicates lowest-density areas. Gray indicates areas in which the anomaly density is below the critical density.





T-1 Former Taget
Road
Railroad
MRS 1 – Burial Pit
MRS 2 – Aerial Rocket Range
FUDS Boundary
Anomaly Cluster (From VSP)
Anomaly Cluster Likely Cultural Source

US Army Corps of Engineers

Nantucket Beach Formerly Used Defense Site

WESTON SOLUTIONS

Figure 3
14 Anomalies Per Acre
Nantucket, MA

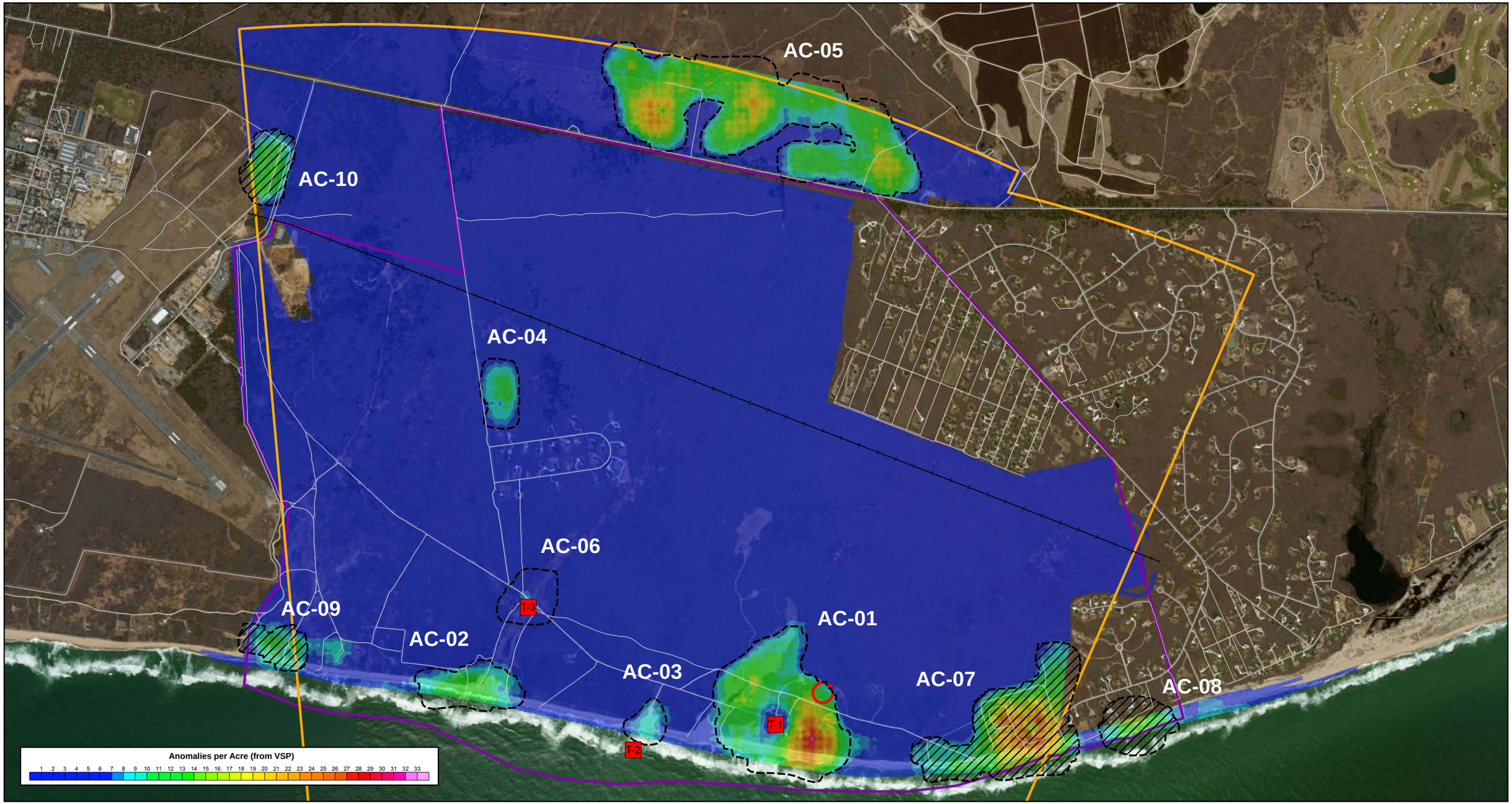
N

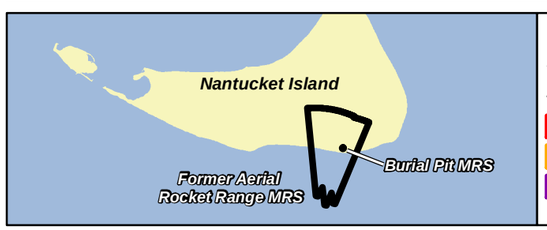
0 920 1,840 2,760 Feet

0 340 680 1,020 Meters

NOTES:
Aerial Data Source: ESRI Bing Imagery Service
Base Data: USACE (2004)

6/12/2012	NT_14AnomPerAcre
Drawn: zieglera	PROJ: 03886.551.004





T-1 Former Taget
Road
Railroad
MRS 1 – Burial Pit
MRS 2 – Aerial Rocket Range
FUDS Boundary
Anomaly Cluster (From VSP)
Anomaly Cluster Likely Cultural Source

US Army Corps of Engineers

Nantucket Beach Formerly Used Defense Site

N

0 920 1,840 2,760 Feet

0 340 680 1,020 Meters

NOTES:
Aerial Data Source: ESRI Bing Imagery Service
Base Data: USACE (2004)

Figure 4
9 Anomalies Per Acre
Nantucket, MA

6/12/2012	NT_9AnomPerAcre
Drawn: zieglera	PROJ: 03886.551.004

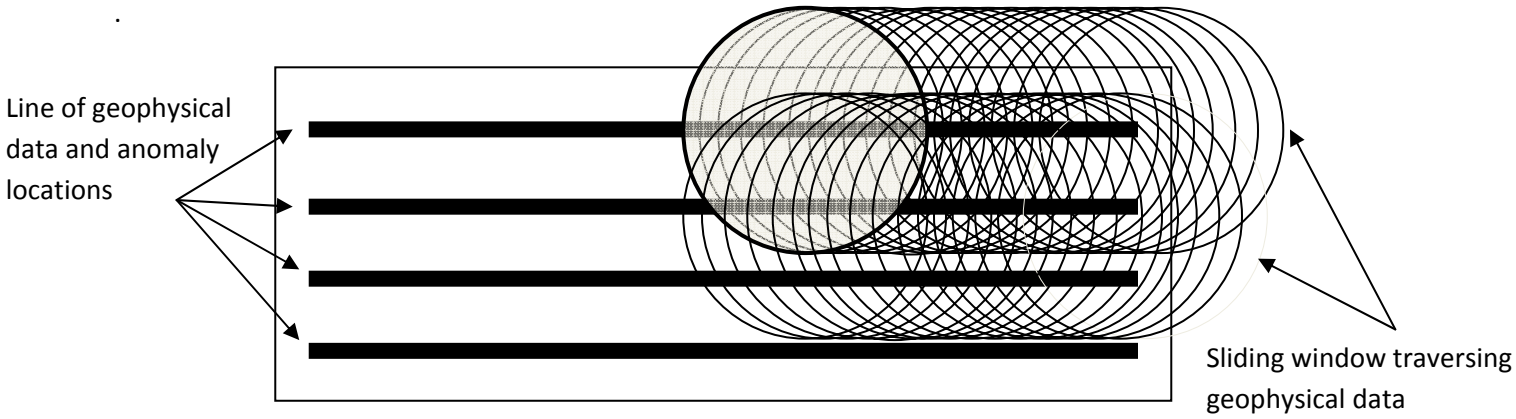
It is important to note that the FS process will utilize characterization data regarding the nature and extent of munitions in addition to hazards posed to potential receptors when contemplating future actions for the site. To this end, the FS will evaluate the need to address sporadic anomalies not currently included in AC investigation areas should the nature of anomalies investigated indicate explosive hazards are present, and/or the extent of impact warrants further actions.

VSP Anomaly Density Mapping and Analysis

To statistically differentiate areas of high density from background density across a site, a sliding window function in VSP is used to calculate and map anomaly density from observed data. In the case of Nantucket, a window size of 166 ft in diameter was used to traverse the entire site using the airborne survey data collected in March 2012. As the window traverses back and forth across the dataset, anomaly densities for each window position are recorded for further evaluation. A depiction of the sliding window function is presented below. VSP displays a histogram of the densities based on the detected anomalies within each window.

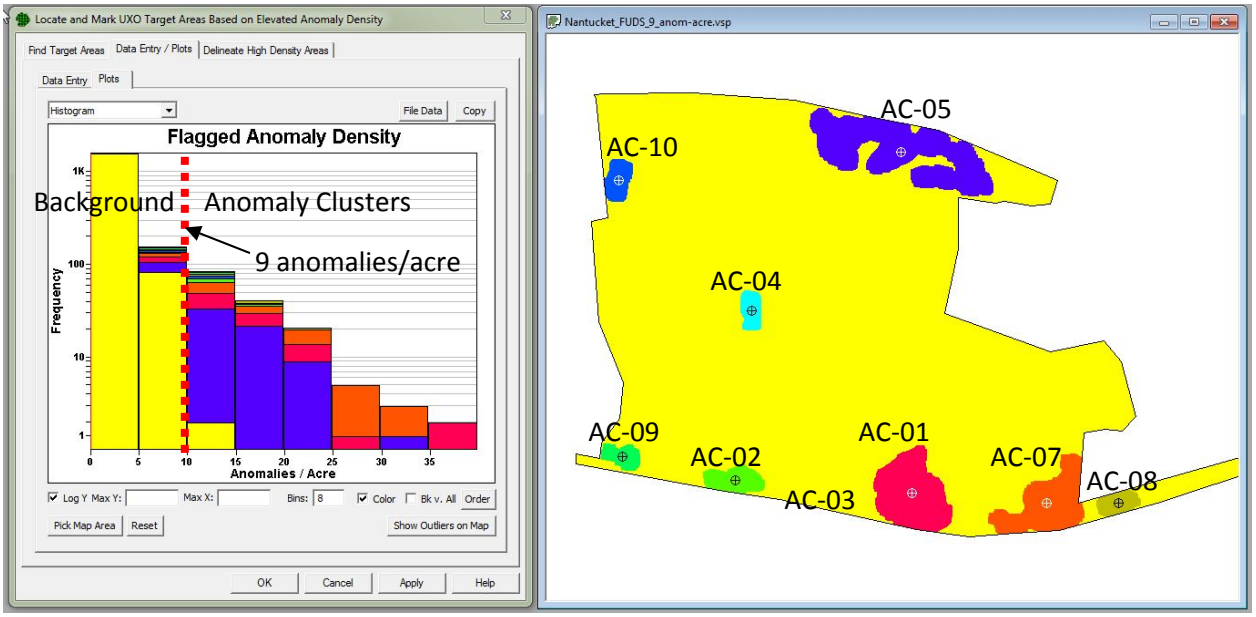
Diagram depicting the VSP sliding box analysis.

.



The results from the VSP analysis are provided below. The blue, purple, green, pink, and orange colors represent anomaly cluster areas identified within the MRSs (right side of figure). The yellow color identifies areas determined to represent a site-specific background density. The corresponding histogram on the left side of the figure is depicted using colors which correlate to the anomaly cluster map.

Nantucket Beach FUDS Analysis using a Critical Density of 9 Anomalies/Acre



Example of Using Multiple Lines of Evidence Approach

As indicated above, multiple lines of evidence are being evaluated to determine if further ground-based investigation is warranted throughout the FUDS. A relevant example of this process would be AC-06. This anomaly cluster is located in the vicinity of the location of suspect Target #3. The reason for adding this anomaly cluster was due to its location around Target #3 and not the anomaly density. As you can see in the figure above, AC-06 was not detected using the 9 anomalies per acre critical density. This anomaly cluster actually has 3.5 anomalies per acre along its boundaries and a maximum anomaly density of 6.6 anomalies per acre within its center. The anomaly cluster boundary and associated anomaly locations are presented in **Figure 5**.

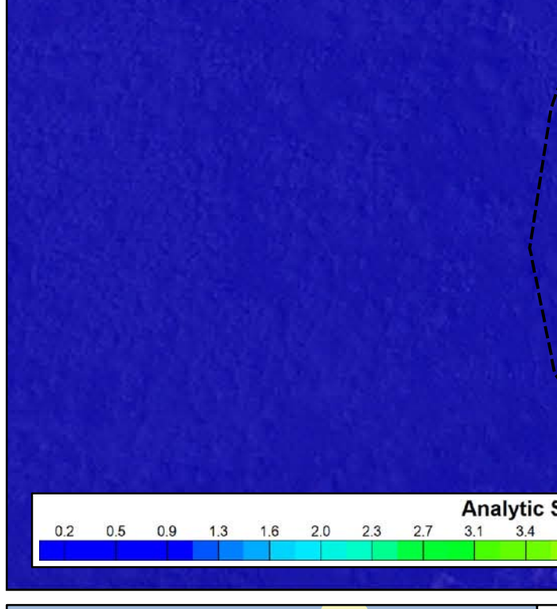
Anomalies in AC-06 are fairly wide-spread, limited in quantity, and not typically representative of a target area. However, employing multiple lines of evidence to make a determine regarding the need for further investigation, AC-06 was added to the anomaly cluster list for further investigation, regardless of the low anomaly density and quantity detected during the airborne survey due to the historical record indicating a target structure was located here (Target #3). Just for comparison, the magnetic anomaly map for AC-01 is presented below in the vicinity of Target #1. The pink area around the Parcel No. 91 1 is assumed to be the location of where the preponderance of munitions related material is located. This is corroborated by a maximum anomaly density of 32.9 anomalies per acre.

AC-06

T3

Analytic Signal

0.2 0.5 0.9 1.3 1.6 2.0 2.3 2.7 3.1 3.4 3.8 4.1 4.5 4.8 5.2 5.6 5.9 6.3 6.6



Former Taget
Aerial Mag Targets
Cultural Source/Field Reconnaissance Location
Cultural Source/Field Reconnaissance Location
Road
Anomaly Cluster (From VSP)

US Army Corps of Engineers

Nantucket Beach Formerly Used Defense Site

WESTON SOLUTIONS

FIGURE 5
Cluster-06 Magnetic Data and Anomaly Locations

N

0 60 120 180 Feet

0 25 50 75 Meters

NOTES:
Aerial Data Source: ESRI Bing Imagery Service
Base Data: USACE (2004)

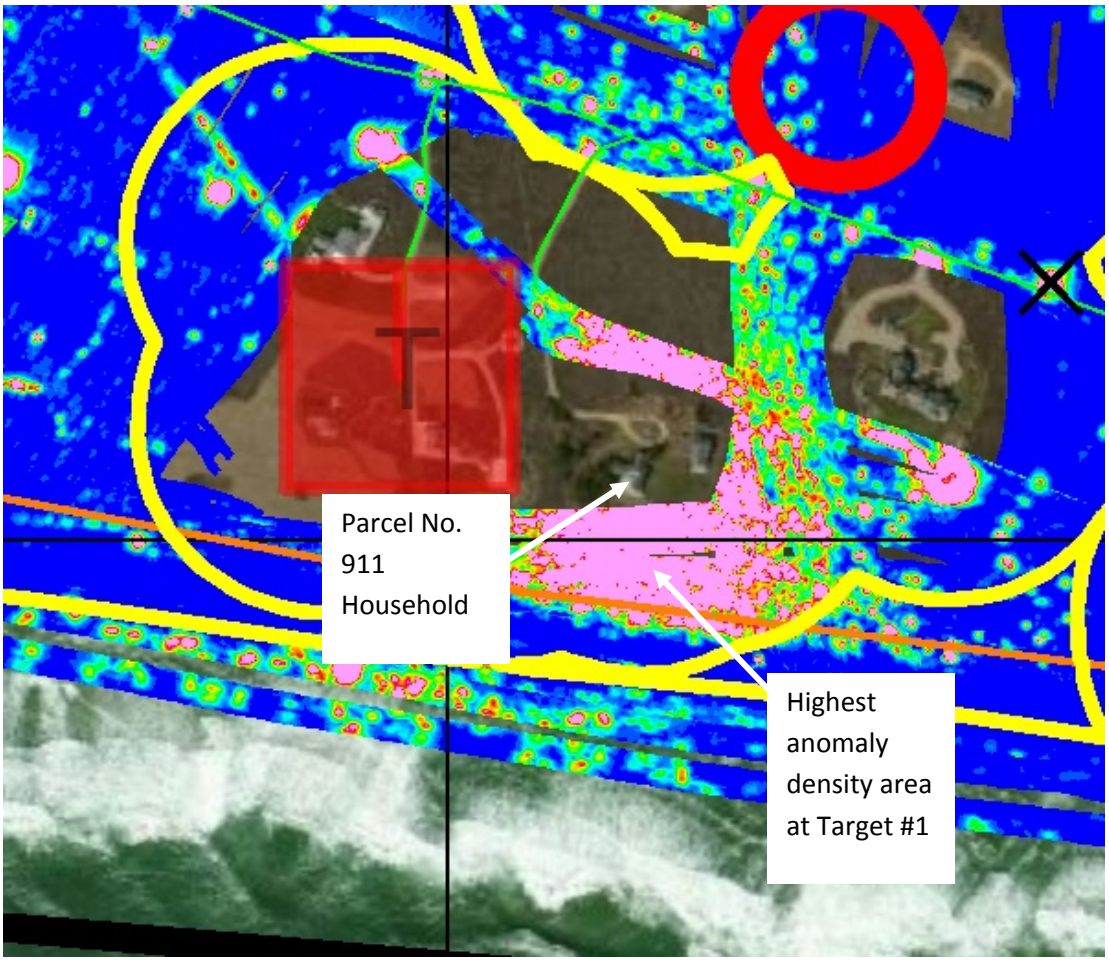
6/12/2012
Revision: 1

NT_DGM_AC_06_Magnetic

Drawn: zieglera

PROJ: 03886.551.004

Magnetic Data at Target #1 Showing a High Anomaly Density Expected at Target Areas



Also for your reference and as was documented in the Draft Work Plan Addendum, the density information for each anomaly cluster is provided below:

Anomaly Cluster ID	Minimum Density at Boundary of the Anomaly Cluster	Maximum Density in Center of Anomaly Cluster
AC-01	6.1	32.9
AC-02	5.7	13.7
AC-03	5.3	9
AC-04	5.7	11.6
AC-05	5.8	25.5
AC-06	3.5	6.6

Note: Densities lower than the 9 anomalies/acre critical density are within the anomaly cluster boundary as they were captured within the sliding window used to map anomaly densities across the site.

To conclude, we used multiple lines of evidence and a statistically-based approach to identify anomaly clusters for further investigation. Although determining the most appropriate critical density value for

the site was critical to facilitate delineation of anomaly cluster area, it is not a deciding factor in whether or not subsequent ground-based activities are warranted.

References

U.S. Army. 2009. *Final Munitions Response Remedial Investigation/Feasibility Study Guidance. Military Munitions Response Program*. November 2009.

Weston Solutions Inc. 2011. *Draft Work Plan for the Nantucket Beach FUDS Remedial Investigation*. December 2011.

Pacific Northwest National Laboratory (PNNL). 2010. *Visual Sample Plan Version 6.0 User's Guide*. June 2010.

Comment 2: MassDEP does not concur with the approach of conducting a visual ground reconnaissance on areas AC-02 through AC-06 to determine the source of magnetic anomalies identified during the aerial geophysical investigation. The work plan addendum states that "If the ground reconnaissance results find that the extent and nature of the cultural features discount the fact that munitions related material are present, a recommendation of no additional work will be documented." MassDEP does not concur that a visual ground reconnaissance will be able to accurately determine that no munitions related material are present, especially in a former target area. Also, all anomaly cluster areas should be further assessed using a ground-based geophysical survey with an Geonics EM61-MK2, which detects all metals, as opposed to the aerial geophysical survey in which the instrumentation (cesium-vapor magnetometers) only detected ferrous metals.

Response: The work plan addendum will be revised based on the TPP 2 meeting. Some of the key changes from that meeting are as follows:

- AC-02:
  - Perform DGM and intrusive investigation along beach transects regardless of ground reconnaissance results.
  - Reorient the northern most transect so it crosses the magnetic anomaly within the roadway.
- AC-03:
  - Perform DGM and intrusive investigation along beach transects regardless of ground reconnaissance results.
  - Reacquire and intrusively investigate anomalies from the airborne vertical magnetic gradient survey.
  -
- AC-04:
  - Reorient two transects to run north and south through the anomaly cluster.

- AC-05:
  - Perform DGM and intrusive investigation within grids regardless of ground reconnaissance results.
- AC-06:
  - Reacquire and intrusively investigate anomalies from the airborne vertical magnetic gradient survey.

All of the potential rockets that may be present at this FUDS are of a ferrous composition (refer to Appendix E of the Work Plan, VRHabilis Report, and SI Report) and of a size that are easily detectable by the magnetometer survey. Many of the anomalies observed within AC-02 through AC-06 are individual discrete anomalies that are interpreted as being related to single ferrous objects. The exception to this is AC-02 where a distinct anomalous area was detected near the beach and bluff, which will undergo DGM surveys using an EM61-MK2 and follow on intrusive work regardless of the ground reconnaissance results as noted above. Individual anomalies observed in the magnetic data will be reacquired in AC-03, AC-06, and AC-09 for intrusive investigation to determine the source of these detections.

Comment 3: The nature and extent of ordnance should be determined using a line of evidence/layered approach to document that no ordnance is present at each anomaly cluster.

Response: Concur. Aerial flyover data along with multiple lines of evidence are being evaluated to determine if further ground-based investigation is warranted throughout the FUDS. Initially, historical photo analysis review of previous documentation such as the Archive Search Report and Site Inspection Report were reviewed to assess probable range operations and to determine where further investigation would be warranted. Ground reconnaissance is planned at each anomaly cluster location to further support findings. In addition, individual magnetic anomalies will be reacquired and investigated at several anomaly clusters to evaluate the anomaly source. Ground based digital geophysical mapping surveys will also be used to pin point anomaly locations and to develop dig lists for further intrusive investigations. Each phase of work is a layered process used to determine if munitions and explosives of concern are present and then to determine nature and extent of potential contamination.

Comment 4: Individual site maps, representing each residential property, should be generated upon completion of the geophysical investigation to determine the nature and extent of MEC, MPPEH, and MD on each property so the property owners can have a plan of action as a result of the investigation.

Response: Segmenting the data or results by property limits will not likely be beneficial in summarizing investigative findings for defining cluster areas. As a result, individual site maps are not recommended. However, WESTON plans on generating maps based on each investigation area, i.e., AC-01, AC-02, AC-03, etc. which can easily be modified to show a layer for the respective property lines.

Comment 5: Brush removal should be included as part of the brush clearing process to ensure that no cut brush remains in order to reduce any fire hazards.

Response: WESTON has addressed brush removal with the USACE and property owners to ensure that hazards are minimized and that cut brush is addressed.

Comment 6: Additional investigation (grids and transects) should be conducted in the area of the Nantucket Conservation Foundation (NCF) property.

Response: A significant area within NCF property was added to the investigation adjacent to Russells Way and Milestone Road based on the results of the wide area assessment. Over 12 miles of transects within Areas 1 and 2 will be investigated using via a mag and dig approach.

Comment 7: MassDEP requests an opportunity to review the SOP for removal of ordnance finds at each anomaly cluster. This SOP should include information such as what equipment the contractor will have on hand to address items found at depth as well as how will the contractor will address areas with extensive finds.

Response: The SOP's for the removal and handling of MEC can be found in the Final RIWP that was transmitted to MassDEP on 22 May 2012. The Final RIWP contains an Explosives Management Plan and an Explosives Site Plan which contain all the required procedures for MEC removal, handling, and disposal. However, an amendment to the ESP is pending to cover excavations performed with mechanical equipment.

Comment 8: Has a location been chosen to place the donor charge bunker, and if so where? Also, where will munitions debris and demilled ordnance be stored?

Response: Donor explosives will be stored in a magazine located at the Nantucket Memorial Airport property as approved in the Explosives Site Plan. Munitions debris will be stored in secured and approved containers on NCF property until demil operations are conducted.

Comment 9: Who will be the onsite lead uxo person for Weston? Will this person be on site for all clearance measures? If not, who will be overseeing the ordnance removal during their absence?

Response: The onsite lead person for WESTON is Mr. Don Mears (Senior UXO Supervisor). This information is contained in the Final RIWP which was transmitted to MassDEP on 22 May 2012. This person will be onsite for all munitions related activities.

Comment 10: Please provide the name and title of the onsite Weston lead who will be on island each day during the project and responsible for all operations especially ordnance removal and communication with homeowners.

Response: As outlined in Response to Comment No. 9, Mr. Don Mears will be the central onsite POC for WESTON for all operations and munitions activities. In addition, Mr. Brian Junck (project geophysicist) will assist with communications to homeowners and technical support as needed.

FINAL

WORK PLAN ADDENDUM FOR GEOPHYSICAL SURVEYS
MILITARY MUNITIONS RESPONSE PROGRAM
REMEDIAL INVESTIGATION
NANTUCKET BEACH FORMERLY USED DEFENSE SITE
NANTUCKET, MASSACHUSETTS

6 August 2012

1.0 INTRODUCTION

This work plan addendum has been prepared to describe the ground-based and underwater geophysical survey approaches that will be performed as part of the Nantucket Beach Formerly Used Defense Site Remedial Investigation (RI). The geophysical surveys and subsequent intrusive investigation will be used to further assess anomaly cluster locations identified as part of the airborne vertical magnetic gradient survey. The Nantucket Beach FUDS overview map is provided in **Appendix A**.

1.1 Airborne Vertical Magnetic Gradient Survey

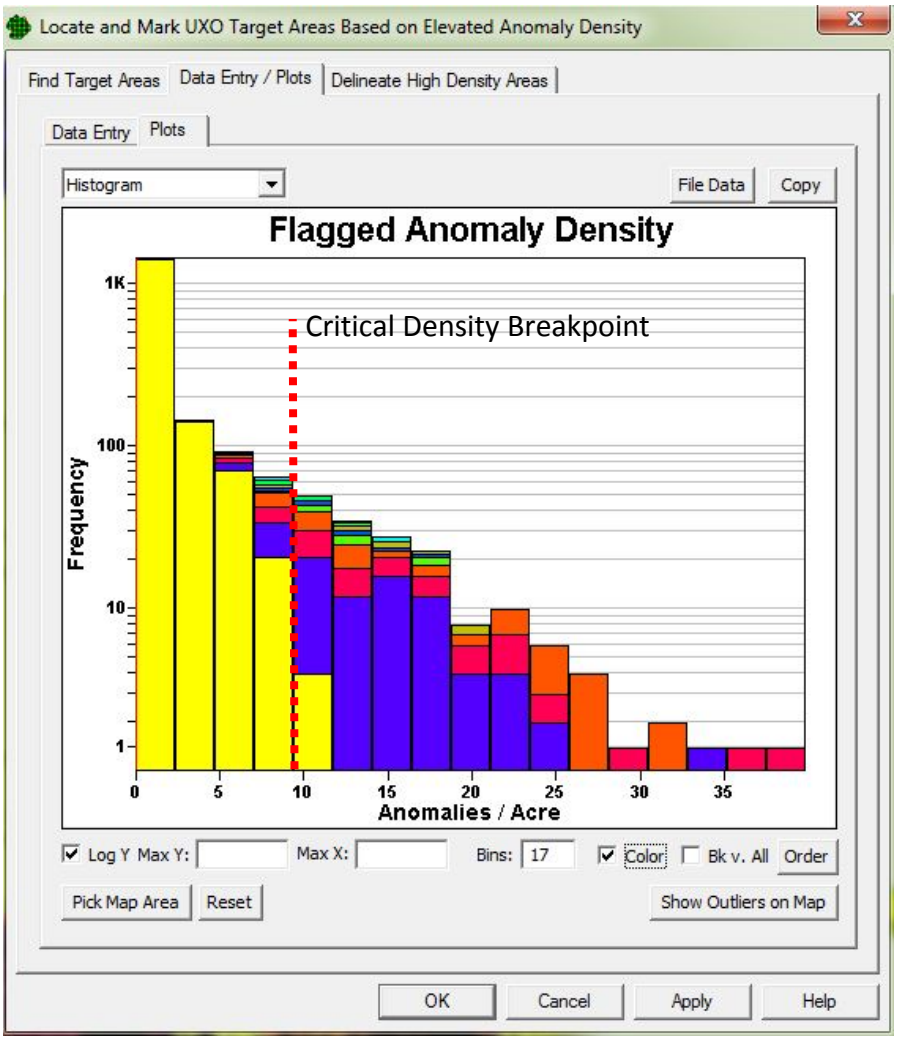
The 2,480 acre airborne vertical magnetic gradient survey was flown across both MRS 1 – Burial Pit and MRS 2 – Aerial Rocket Range to traverse and detect potential target areas within the MRSs that may contain munitions and explosives of concern (MEC), material potentially presenting an explosive hazard (MPPEH), and munitions debris (MD). The Preliminary Draft Airborne Vertical Magnetic Gradient Survey Report was prepared by Battelle and is available on the Weston TeamLink site at: https://westonproject.net/TL/NantucketFUDS.nsf/ID/EXTT-8TGLLT.

Quality control (QC)/quality assurance (QA) checks were performed daily by Weston Solutions, Inc. (Weston) and United States Army Corps of Engineers (USACE) personnel daily to monitor survey parameters including coverage, altitude, velocity, and sensor functionality. Based on the QC/QA review, several areas were identified as exceeding the 8 meter altitude requirement and will require additional ground-based work to confirm performance objectives have been achieved. The details of this work are described in Section 2.0 Technical Investigation Approach. The complete airborne vertical magnetic gradient dataset was processed to select individual anomalies. These anomalies were further evaluated with the Visual Sample Plan (VSP) statistical application to develop anomaly density maps. The overall anomaly density map is presented in **Appendix A**. Blue colors represent a low (background) density and wide distribution of anomalies. The red colors represent increasing density and limited/narrow distribution of anomalies.

The locations of anomalies selected from the airborne vertical magnetic gradient dataset were imported into VSP and plotted within the survey area boundary. Within VSP, anomaly density distribution was calculated using the "Locate and Mark Targets Based on Elevated Anomaly Density" tool. Based on evaluation of the flagged anomaly densities histogram generated in VSP (see figure below), a critical

anomaly density of 9 anomalies per acre was determined to be the breakpoint between background (yellow) and increasing anomaly densities (other colors). From this critical density data, anomaly cluster areas were delineated using the “Delineate High Density Areas” tool using a 166 ft block size.

VSP Anomaly Density Histogram



Ten (10) anomaly clusters were identified. Anomaly Cluster (AC)-01 is located in the vicinity of Target #1. MD has been recovered within this anomaly cluster and additional ground based geophysical surveys and intrusive work will be performed to assess the nature and extent of munitions related material. The remaining anomaly clusters are suspected to be from cultural debris or infrastructure within privately owned parcels.

1.2 Preliminary Ground Reconnaissance/ Assessment

Preliminary ground reconnaissance efforts were performed during the course of the airborne survey to determine the source of select anomalies observed in the magnetic data. Waypoint locations of where the reconnaissance team performed inspections were recorded with a global positioning system (GPS)

to be used as part of the anomaly cluster evaluation process. Locations of cultural debris, when visible and accessible, were logged into the database. The locations and results of the preliminary ground reconnaissance are presented in **Appendix B**. This preliminary work is the precursor to the full ground reconnaissance task that will be performed prior to geophysical surveys.

Only a limited amount of anomaly locations were directly accessible to the magnetic survey team during the preliminary reconnaissance. The full extents of each of the ten anomaly cluster locations were not evaluated. The available results in each anomaly cluster show a good correlation between cultural features on the ground surface with magnetic anomalies.

As part of the preliminary reconnaissance task, Weston also assessed recent and historical aerial photographs to determine if cultural features are or were present that would suggest anomaly clusters are cultural related rather than munitions related. Anomaly clusters AC-01 through AC-06 were found to have cultural debris causing magnetic anomalies but the entire anomaly cluster was not evaluated and a clear determination that these anomaly clusters are not munitions related could not be made.

AC-07 through AC-10 were also found to have numerous cultural related features causing magnetic anomalies. The most prominent example is AC-07 which is the Tom Nevers Park area and former Tom Nevers Naval Facility (submarine listening base) and bomb shelter for President Kennedy. The facility was eventually turned into a recreational area and significantly reworked causing magnetic anomalies. AC-08 is a location of a former roadway and access point to the beach. AC-09 is related to potential utilities, roadways and parking areas. AC-10 is related to the land utilized by Nantucket Memorial Airport. Based on the preliminary reconnaissance and research, each of these anomaly clusters (AC-07 through AC-10) have been identified as cultural source areas and not related to former munitions use activities. However, AC-07 through AC-10 will require additional ground reconnaissance as described below.

1.3 Ground Reconnaissance

The ground reconnaissance task will be performed upon site mobilization. The reconnaissance team will reconnoiter to AC-02, AC-04, AC-05, AC-07, AC-08, AC-09 and AC-10 to evaluate the occurrence of cultural debris and the relationship to magnetic anomaly locations. AC-01 will not undergo ground reconnaissance as MD has been previously recovered in this location. AC-01 will be further assessed using ground-based geophysical surveys and intrusive work.

During the ground reconnaissance, the team will navigate through each anomaly cluster while noting features that would create a magnetic anomaly. Cultural features will be described in the field log, photographed, and waypoint locations captured with a GPS. Each feature will have a unique ID to assess the log with the waypoint location on the anomaly cluster maps.

Following the ground reconnaissance task, a memorandum will be prepared to present the results and findings. The memorandum will provide an assessment of each anomaly cluster and provide a recommendation for the path forward. The following recommendations will be made for each anomaly cluster:

- If the ground reconnaissance results find that the extent and nature of the cultural features discount the fact that munitions related material are present, a recommendation of no additional work will be documented.
- If the ground reconnaissance results find that a conclusive determination cannot be made as to whether munitions related material is present, pre-planned ground-based DGM and intrusive investigations will be performed. Pre-planned ground-based DGM and intrusive investigations are discussed in Section 1.4.
- If the ground reconnaissance results find MEC, MPPEH, or MD in anomaly clusters, further DGM surveys and intrusive work will be needed to delineate nature and extent of contamination based on the work plan and coverage calculated by UXO Estimator.

Table 1 illustrates the decision criteria discussed above.

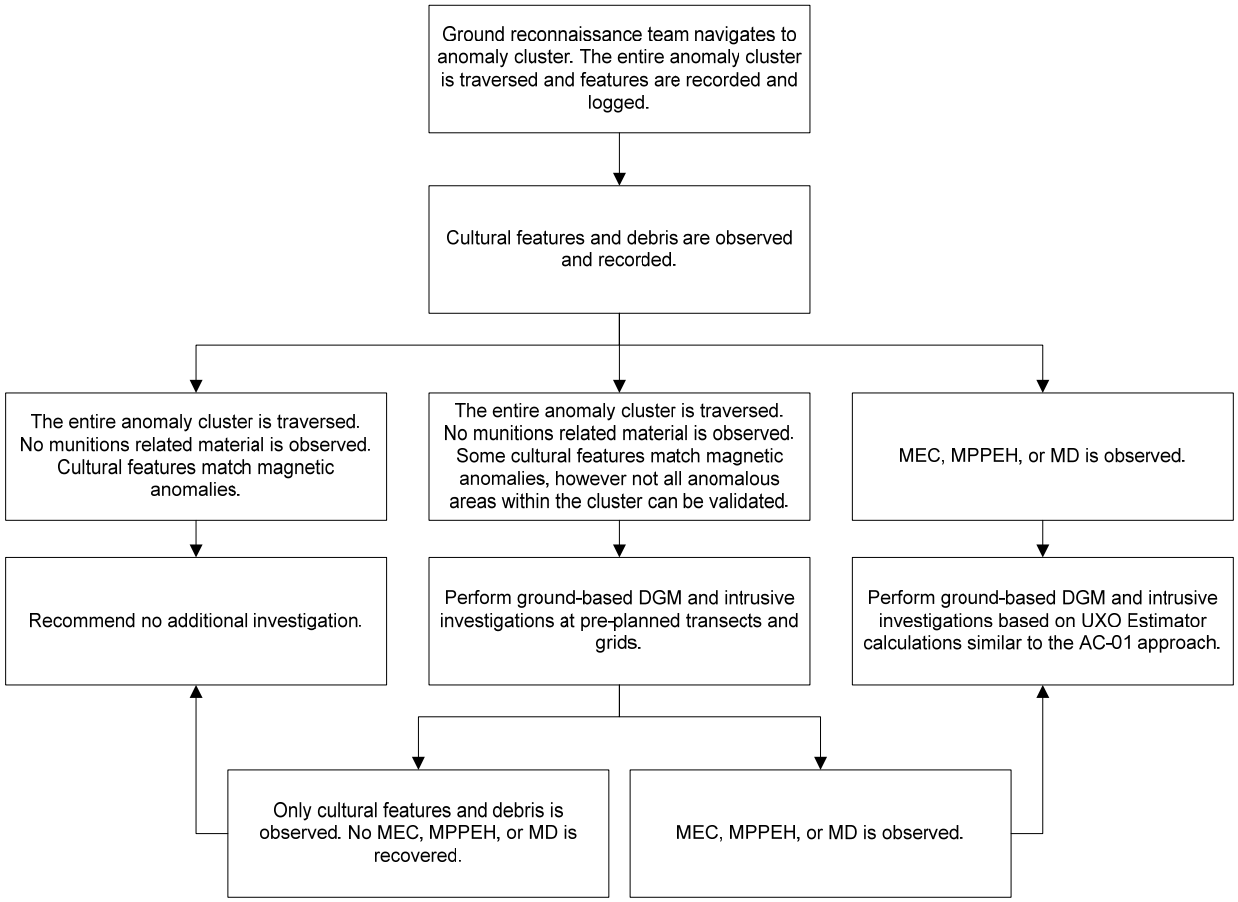
1.4 Pre-Planned Digital Geophysical Mapping and Intrusive Investigations

As discussed above, pre-planned DGM and intrusive investigations are presented in this work plan addendum to support the ground reconnaissance effort if a conclusive determination cannot be made as to whether munitions related material is present. A combination of transects and grids will be digitally mapped using an EM61-MK2 based on survey parameters described in the work plan. Anomalies will be investigated to determine if the source is cultural or munitions related. The number of anomalies requiring investigation will be assessed real time based on the dig results.

Magnetic anomalies detected within two anomaly cluster areas will be reacquired and intrusively investigated. AC-03 and AC-06 have low anomaly densities and individual discrete anomalies were observed in the magnetic data. These anomalies will be reacquired using GPS and investigated during intrusive operations.

If the dig results show significant amounts of cultural debris, the project team will be alerted and a determination made to perform additional investigations at that location. If MEC, MPPEH, or MD is recovered, further DGM surveys and intrusive work will be needed to delineate nature and extent of contamination based on the work plan and coverage calculated by UXO Estimator. No pre-planned work has been presented for AC-07 through AC-10 since preliminary ground reconnaissance and research suggests these anomaly clusters are related to cultural features and debris. The locations and rationale of these pre-planned investigations for AC-02 through AC-06 are presented in Section 2.0 Technical Investigation Approach.

Table 1 – Decision Criteria for Ground Reconnaisance



The following sections describe the ground-based geophysical survey approach. Geophysical transects and grids will be used to assess each anomaly cluster. The final sections of this work plan addendum present details of the investigation activities planned for the area where airborne magnetic data was collected above 8 meters and for the underwater mag & dig strategy. Details of the data collection specifications and instrumentation planned for the geophysical surveys are provided in the RI work plan.

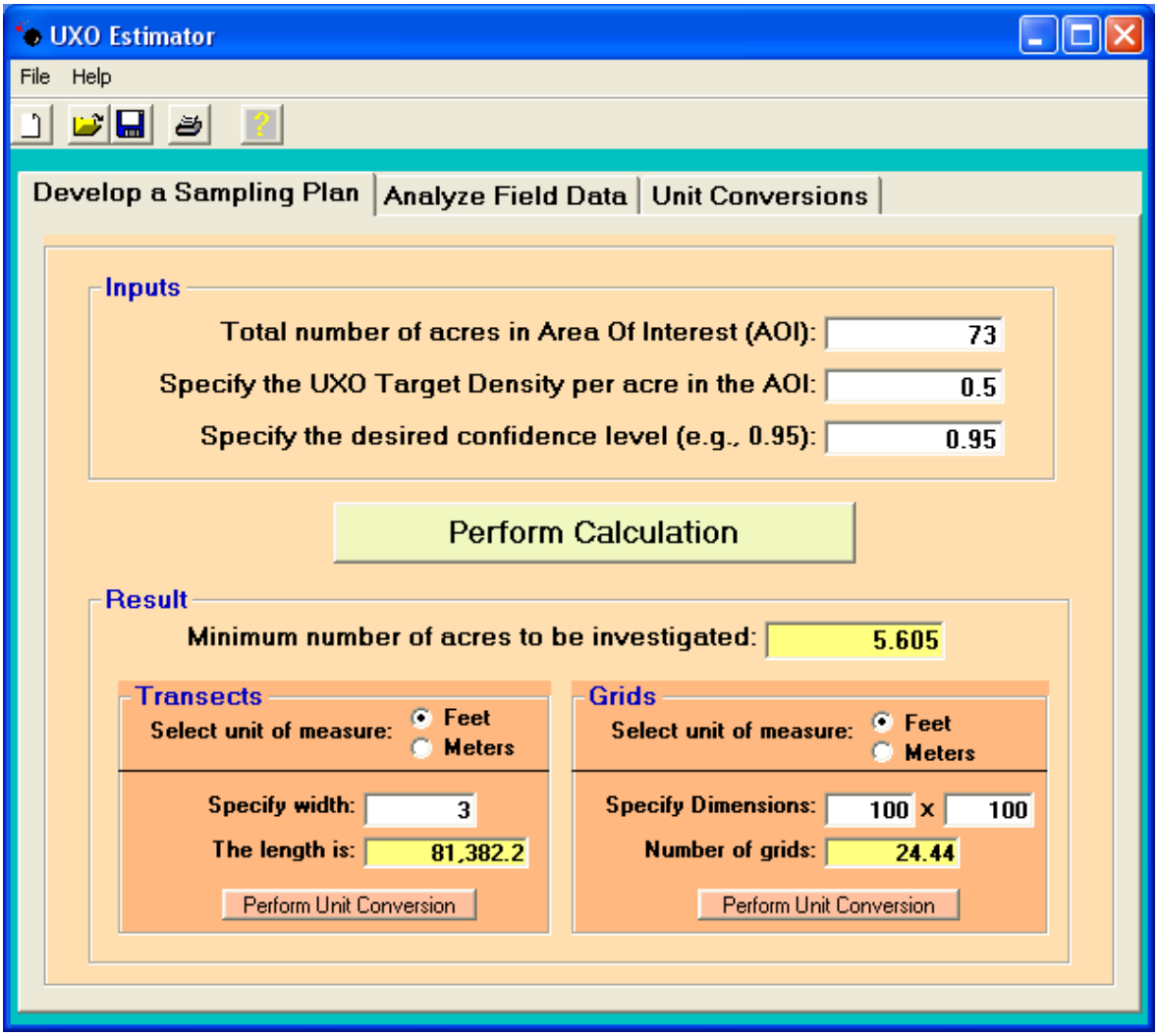
2.0 TECHNICAL INVESTIGATION APPROACH

ANOMALY CLUSTER-01

AC-01 is in the vicinity of Target #1. Based on preliminary ground reconnaissance, aerial imagery, and historical evidence, there is a high probability that magnetic anomalies in AC-01 are related to military munitions. The elevated anomaly density area located east of Target #1 is likely the center of the target area. Estimated anomaly densities within AC-01 range from a maximum of 32.9 anomalies per acre to a minimum of 6.1 anomalies per acre in areas near the cluster boundary where background densities are present. Evidence of military munitions has also been found east of this location.

Geophysical grids and transects in AC-01 are being performed to determine if the source of detected anomalies are related to military munitions. The coverage requirements were calculated using UXO Estimator. A total of 5.605 acres will be performed in AC-01 to assess, at a 95% confidence level, if there are less than 0.5 MEC/acre within the anomaly cluster.

UXO Estimator Calculation



Transects and grids have been located to span the anomaly cluster to determine the extent of military munitions related materials. Both transects and grids have been carefully placed to maximize access and minimize disruption to privately owned properties that span this entire area. All anomalies detected within the transect and grid surveys will be reacquired and investigated to further evaluate nature, extent, and density of MEC, MPPEH, and MD.

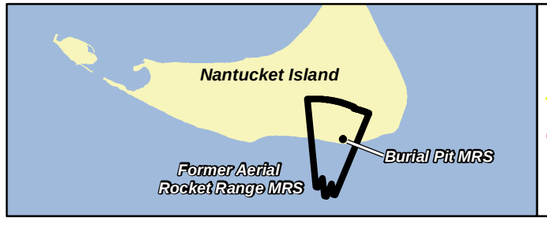
Geophysical survey details are provided below. Transect and grid locations are presented in **Figure 1**. Transect and Grid locations are provided in **Appendix C**.

- Anomaly Cluster Size: 73 acres

- Investigation Strategy:
    - Perform DGM surveys over 12,734 linear feet of transects or 0.95 acres. Three transects will be run parallel with the beach extending beyond the anomaly cluster boundaries.
    - Perform a mag & dig transect survey over 2,290 linear feet or 0.26 acres on the beach along the water line at low tide.
    - Perform DGM surveys over nineteen (19) 100 ft x 100 ft grids, one 20 ft x 20 ft grid, and one 50 ft x 50 ft grid equating to 4.43 acres.
    - Intrusively investigate anomalies identified in grids and along transects.
    - Assess results and delineate the distribution of MEC, MPPEH, and MD.

AC-01-T14
AC-01-T13
AC-01-G20
AC-01
AC-01-T12
AC-01-T11
AC-01-G18
AC-01-G17
AC-01-G19
AC-01-T10
AC-01-G15
AC-01-G12
AC-01-G14
AC-01-G16
AC-01-G13
AC-01-T09
MRS 1 - Burial Pit
AC-01-T08
AC-01-T07
AC-01-T06
AC-01-G11
AC-01-G10
AC-01-T06
AC-03
AC-01-T05
AC-01-G09
AC-01-G05
AC-01-G08
AC-01-G04
AC-01-G21
AC-03-T02
AC-03-T01
AC-01-G06
AC-01-G07
AC-01-T16
AC-01-T04
AC-07
AC-01-GG01
AC-01-G02
AC-01-T02
AC-01-T03
AC-01-G03
AC-01-T15
AC-01-T01
T-1
T-2
14
15
16
17
18
19
19-A
20
20-A
21
22
22-A
23
23-A
23-B
23-C
24
24-B
24-C
25
26
27
28
29
29-A
30
30-A
31
32
33
33-A
34

Anomalies per Acre (from VSP)
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33



Former Taget
Cultural Source/Field Reconnaissance Location
Cultural Source/Field Reconnaissance Location
DGM Transect
Road
MRS 1 – Burial Pit - Full DGM Coverage Area
MRS 2 – Aerial Rocket Range
FUDS Boundary
Anomaly Cluster (From VSP)
Anomaly Cluster Known Cultural Source
Building

US Army Corps of Engineers

Nantucket Beach Formerly Used Defense Site

WESTON SOLUTIONS

FIGURE 1
Proposed Anomaly Cluster AC-01 Grid and Transect Placement

N

0 270 540 810 Feet
0 100 200 300 Meters

NOTES:
Aerial Data Source: ESRI Bing Imagery Service
Base Data: USACE (2004)

8/6/2012
Revision: 2

Name: NT_DGM_AC_01

Drawn: zieglera

PROJ: 03886.551.004

ANOMALY CLUSTER-02

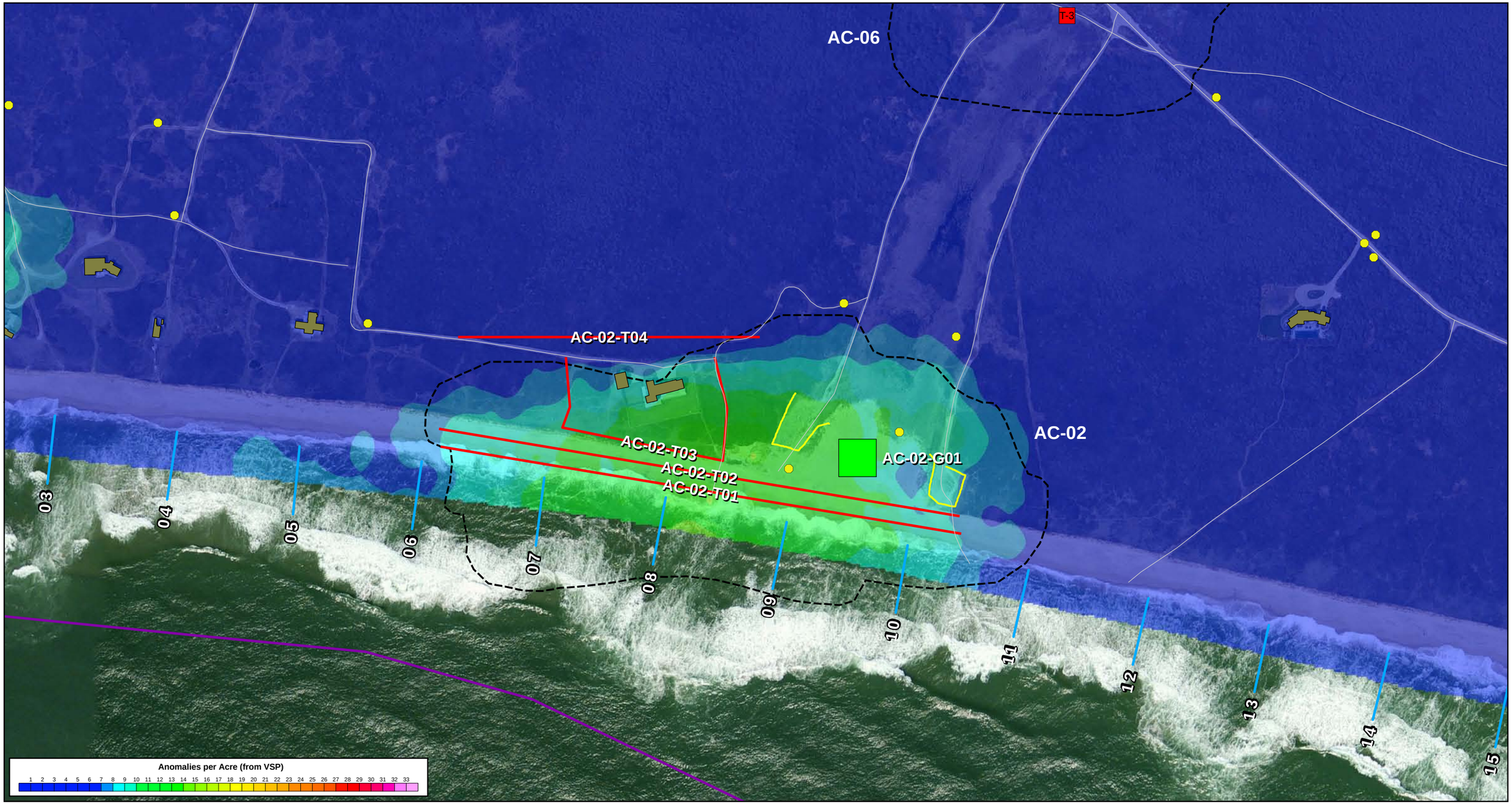
AC-02 is located along the shoreline within MRS 2. Cultural debris has been observed within the inlet area and around the bluff approaching the residence. Based on preliminary ground reconnaissance and aerial imagery, it is anticipated that the magnetic anomalies detected in AC-02 are related to cultural debris. Estimated anomaly densities within AC-02 range from a maximum of 13.7 anomalies per acre to a minimum of 5.7 anomalies per acre in areas near the cluster boundary where background densities are present.

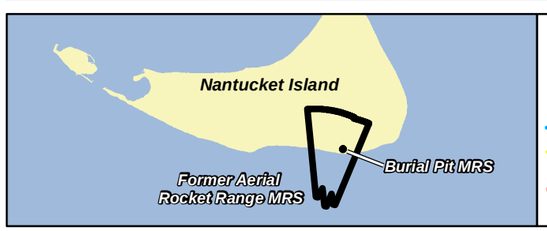
Anomalies related to surface cultural features are present as depicted on **Figure 2**. However, the source of magnetic anomalies along the beach has not been verified by the preliminary ground reconnaissance efforts. Ground reconnaissance will be performed across this anomaly cluster as described in Section 1.3 above to determine if the magnetic anomalies are related to cultural features or munitions related material.

If a conclusive determination cannot be made as to whether munitions related material are present at AC-02, the pre-planned transects and grids will be performed (as presented in Section 1.4 above) to assess the subsurface anomalies and confirm that the source of detected anomalies are the result of cultural debris. If MEC is recovered during intrusive work, more characterization, based on UXO Estimator, will be needed to verify extents/density of contamination. Two parallel beach transects will be performed regardless of the ground reconnaissance results.

Geophysical survey details are provided below. Pre-planned transect and grid locations are presented in **Figure 2**. Transect and Grid locations are provided in **Appendix C**.

- Anomaly Cluster Size: 20.5 acres
- Investigation Strategy:
  - Perform ground reconnaissance along the beach and near the residence to confirm/determine if cultural debris is visible.
  - If significant cultural debris is evident, provide a recommendation of no further investigation in the memorandum to the project team. If no cultural debris is present, continue to next step.
  - Perform DGM surveys over 4,800 linear feet of transects or 0.36 acres. Perform two parallel transects along the beach regardless of the ground reconnaissance results. Perform transects north, east and west of the property to aid in evaluating anomaly source and provide information on extent of contamination if it is recovered. The northern most transect was adjusted based on comments during the TPP #2 Meeting.
  - Perform DGM surveys over one (1) 100 ft x 100 ft grid or 0.23 acres.
  - Intrusively investigate anomalies detected along transects and in grids.
  - Confirm anomalies are related to cultural material and provide a no further investigation recommendation.
  - Perform additional characterization, based on UXO Estimator, if MEC, MPPEH, or MD is recovered.





T-1 Former Taget
Cultural Source/Field Reconnaissance Location
DGM Grid
Mag and Dig Transect
Cultural Source/Field Reconnaissance Location
DGM Transect
Road
FUDS Boundary
Anomaly Cluster (From VSP)
Building

US Army Corps of Engineers

Nantucket Beach Formerly Used Defense Site

WESTON SOLUTIONS

FIGURE 2
Proposed Anomaly Cluster AC-02 Grid and Transect Placement

N

0 160 320 480 Feet

0 60 120 180 Meters

NOTES:
Aerial Data Source: ESRI Bing Imagery Service
Base Data: USACE (2004)

8/6/2012
Revision: 1

Name: NT_DGM_AC_02

Drawn: zieglera

PROJ: 03886.551.004

ANOMALY CLUSTER-03

AC-03 is located approximately 200 ft north of Target #2. Cultural debris has been observed in this anomaly cluster based on preliminary ground reconnaissance efforts (**Figure 3**). However, the source of magnetic anomalies along the beach has not been verified by the preliminary ground reconnaissance efforts. Estimated anomaly densities within AC-03 range from a maximum of 9 anomalies per acre to a minimum of 5.3 anomalies per acre in areas near the cluster boundary where background densities are present.

Pre-planned transects will be performed (as presented in Section 1.4 above) to assess subsurface anomalies and confirm that the source of detected anomalies are the result of cultural debris. Individual magnetic anomaly locations will be reacquired and investigated during intrusive operations. If MEC is recovered during intrusive work, more characterization, based on UXO Estimator, will be needed to verify extents of contamination.

Geophysical survey details are provided below. Pre-planned transect and grid locations are presented in **Figure 3**. Transect and Grid locations are provided in **Appendix C**.

- Anomaly Cluster Size: 5.8 acres
- Investigation Strategy:
  - Perform DGM surveys over 1,600 linear feet of transects or 0.12 acres. Perform two parallel transects along the beach.
  - Reacquire and intrusively investigate anomalies detected along transects.
  - Reacquire and intrusively investigate 18 magnetic anomalies.
  - Confirm anomalies are related to cultural material and provide a no further investigation recommendation.
  - Perform additional characterization, based on UXO Estimator, if MEC, MPPEH, or MD is recovered.

AC-03

AC-03-T02

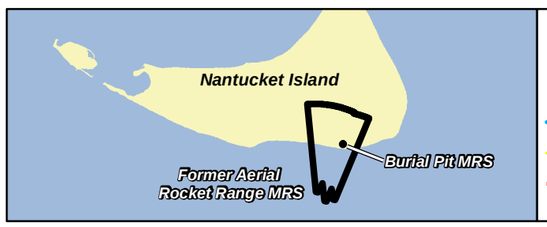
AC-03-T01

15

19

Analytic Signal

0.2 0.5 0.9 1.3 1.6 2.0 2.3 2.7 3.1 3.4 3.8 4.1 4.5 4.8 5.2 5.6 5.9 6.3 6.6



Former Taget

Aerial Mag Targets

Cultural Source/Field Reconnaissance Location

Mag and Dig Transect

Cultural Source/Field Reconnaissance Location

DGM Transect

Road

Anomaly Cluster (From VSP)

US Army Corps of Engineers

Nantucket Beach Formerly Used Defense Site

WESTON SOLUTIONS

FIGURE 3
Proposed Anomaly Cluster AC-03 Grid and Transect Placement

N

0 50 100 150 Feet

0 20 40 60 Meters

NOTES:
Aerial Data Source: ESRI Bing Imagery Service
Base Data: USACE (2004)

7/23/2013
Revision: 1

Name: NT_DGM_AC_03

Drawn: johna

PROJ: 03886.551.004

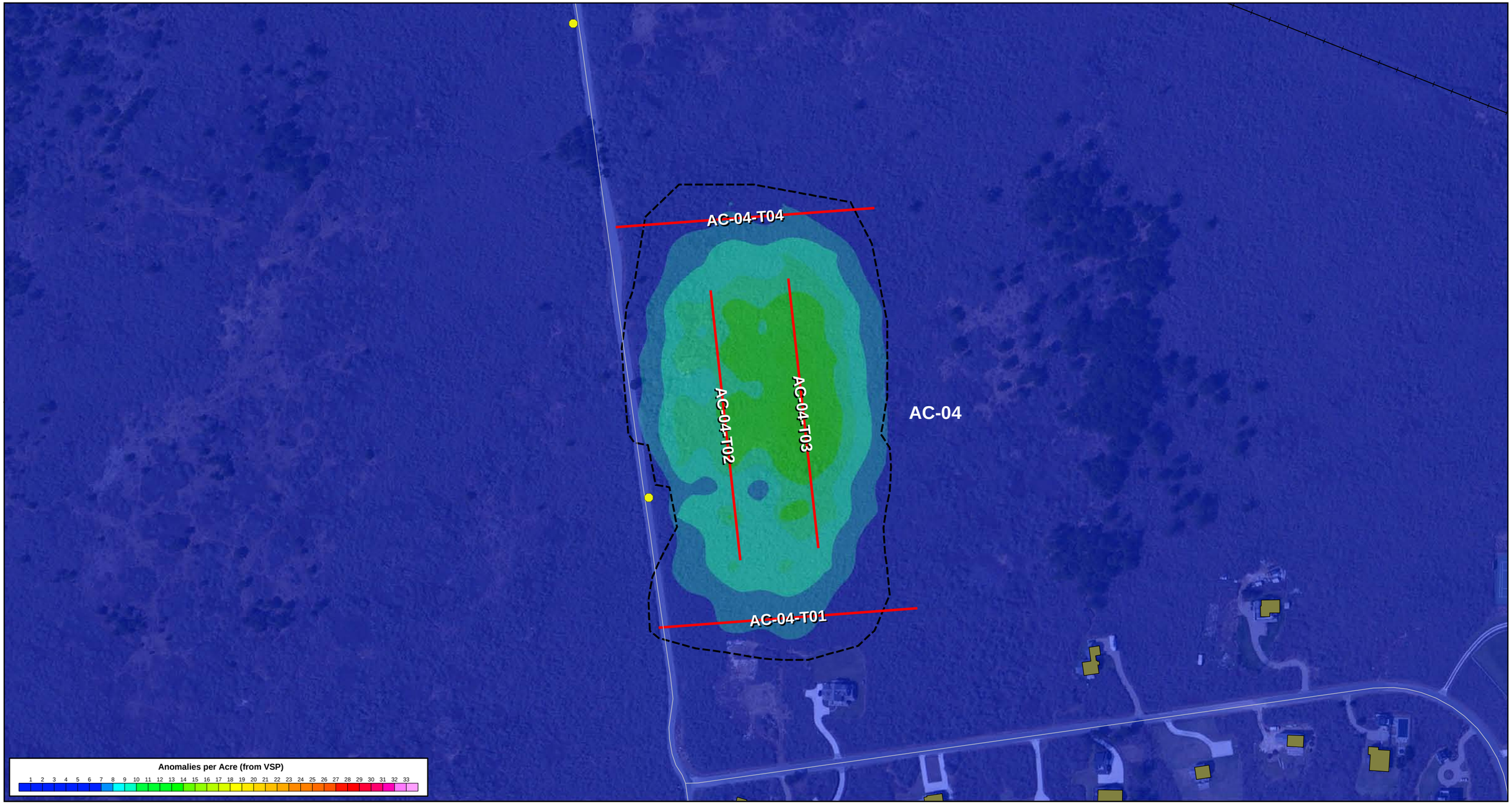
ANOMALY CLUSTER-04

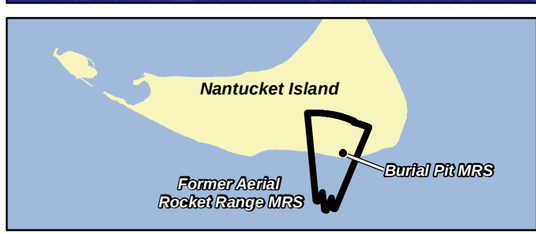
AC-04 is located immediately adjacent to Russells Way. It is anticipated that magnetic anomalies in AC-04 are related to cultural debris. Anecdotal evidence suggests that this area was historically used by island residents as a dumping ground. Preliminary ground reconnaissance was not performed in this anomaly cluster to verify these claims. Only one location along the roadside was checked and determined to be a sign and sign post. Ground reconnaissance will be performed across this anomaly cluster as described in Section 1.3 above to determine if the magnetic anomalies are related to cultural features or munitions related material. Estimated anomaly densities within AC-04 range from a maximum of 11.6 anomalies per acre to a minimum of 5.7 anomalies per acre in areas near the cluster boundary where background densities are present.

If a conclusive determination cannot be made as to whether munitions related material is present at AC-04, the pre-planned transects will be performed (as presented in Section 1.4 above) to assess subsurface anomalies and confirm that the source of detected anomalies are the result of cultural debris. If MEC is recovered during intrusive work, more characterization, based on UXO Estimator, will be needed to verify extents/density of contamination.

Geophysical survey details are provided below. Pre-planned transect locations are presented in **Figure 4**. Transect and Grid locations are provided in **Appendix C**.

- Anomaly Cluster Size: 11.9 acres
- Investigation Strategy:
  - Perform ground reconnaissance to confirm/determine if cultural debris is visible.
  - If significant cultural debris is evident, provide a recommendation of no further investigation in the memorandum to the project team. If no cultural debris is present, continue to next step.
  - Perform DGM surveys over 2,400 linear feet of transects or 0.18 acres. These transects were placed perpendicular (two transects) and parallel (two transects) to the long axis of the anomaly cluster extending from Russells Way to provide information to aid in evaluating anomaly sources and provide information on extent of contamination if it is recovered.
  - Intrusively investigate anomalies detected along transects.
  - Confirm anomalies are related to cultural material and provide a no further investigation recommendation.
  - Perform additional characterization, based on UXO Estimator, if MEC, MPPEH, or MD is recovered.





Cultural Source/Field Reconnaissance Location
DGM Transect
Road
Railroad
Anomaly Cluster (From VSP)
Building

US Army Corps of Engineers

Nantucket Beach Formerly Used Defense Site

WESTON SOLUTIONS

FIGURE 4
Proposed Anomaly Cluster AC-04 Grid and Transect Placement

N

0 130 260 390 Feet

0 50 100 150 Meters

NOTES:
Aerial Data Source: ESRI Bing Imagery Service
Base Data: USACE (2004)

8/6/2012
Revision: 1

Name: NT_DGM_AC_04

Drawn: zieglera

PROJ: 03886.551.004

ANOMALY CLUSTER-05

AC-05 is located north of Milestone Road. It is anticipated that magnetic anomalies in AC-05 are related to cultural debris. Anecdotal evidence suggests that the area was historically used as an active airstrip and dumping ground. Preliminary ground reconnaissance identified cultural debris scattered throughout the anomaly cluster. These locations are presented in **Figure 5**. However, the source of some of the magnetic anomalies has not been verified by the preliminary ground reconnaissance efforts. Ground reconnaissance will be performed across this anomaly cluster as described in Section 1.3 above to determine if the magnetic anomalies are related to cultural features or munitions related material. Estimated anomaly densities within AC-05 range from a maximum of 25.5 anomalies per acre to a minimum of 5.8 anomalies per acre in areas near the cluster boundary where background densities are present.

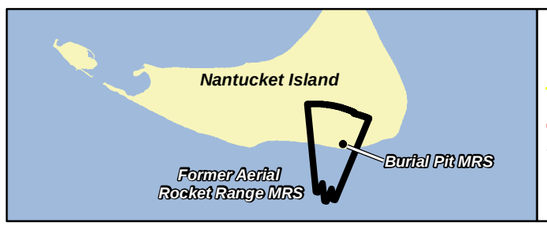
If a conclusive determination cannot be made as to whether munitions related material are present at AC-05, the pre-planned grids will be performed (as presented in Section 1.4 above) to assess subsurface anomalies and confirm that the source of detected anomalies is the result of cultural debris. If MEC is recovered during intrusive work, more characterization, based on UXO Estimator, will be needed to verify extents/density of contamination.

Geophysical survey details are provided below. Pre-planned grid locations are presented in **Figure 5**. Grid locations are provided in **Appendix C**.

- Anomaly Cluster Size: 129 acres
- Investigation Strategy:
  - Perform ground reconnaissance to confirm/determine if cultural debris is visible.
  - If significant cultural debris is evident, provide a recommendation of no further investigation in the memorandum to the project team. If no cultural debris is present, continue to next step.
  - Perform DGM surveys over 3,000 feet of transects or .22 acres and eight (8) 50 ft x 50 ft grids or 0.46 acres.
  - Intrusively investigate anomalies detected in grids.
  - Confirm anomalies are related to cultural material and provide a no further investigation recommendation.
  - Perform additional characterization, based on UXO Estimator, if MEC, MPPEH, or MD is recovered.

AC-05-G08
AC-05-G05
AC-05-G04
AC-05
AC-05-G07
AC-05-T03
AC-05-T02
AC-05-G06
AC-05-G03
AC-05-G02
AC-05-T01
AC-05-G01

Anomalies per Acre (from VSP)
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33



- Cultural Source/Field Reconnaissance Location
- DGM Grid
- Cultural Source/Field Reconnaissance Location
- DGM Transect
- Road
- MRS 1 – Burial Pit
- MRS 2 – Aerial Rocket Range
- FUDS Boundary
- Anomaly Cluster (From VSP)
- Building

US Army Corps of Engineers

Nantucket Beach Formerly Used Defense Site

WESTON SOLUTIONS

FIGURE 5
Proposed Anomaly Cluster AC-05 Grid and Transect Placement

N

0 270 540 810 Feet

0 100 200 300 Meters

NOTES:
Aerial Data Source: ESRI Bing Imagery Service
Base Data: USACE (2004)

8/6/2012
Revision: 2

Name: NT_DGM_AC_05

Drawn: zieglera

PROJ: 03886.551.004

ANOMALY CLUSTER-06

AC-06 spans the location of Target #3. No munitions related material has been reported. Multiple intersecting roadways are present in this area. Several anomalies were identified as cultural related material during preliminary ground reconnaissance. These locations are presented in **Figure 6**. Several of these anomalies have linear trends along roadways suggesting cultural features similar to those that have been previously confirmed. However, the source of these and other anomalies within AC-06 have not been verified by the preliminary ground reconnaissance efforts. Estimated anomaly densities within AC-06 range from a maximum of 6.6 anomalies per acre to a minimum of 3.5 anomalies per acre in areas near the cluster boundary.

Individual magnetic anomaly locations will be reacquired and investigated during intrusive operations.. If MEC is recovered during intrusive work, more characterization, based on UXO Estimator, will be needed to verify extents/density of contamination.

Geophysical survey details are provided below. Pre-planned grid locations are presented in **Figure 6**. Grid locations are provided in **Appendix C**.

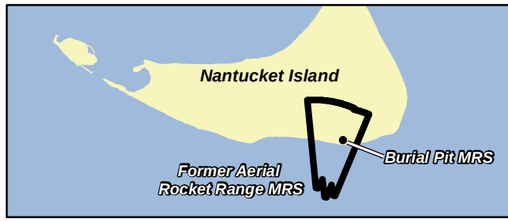
- Anomaly Cluster Size: 13.34 acres
- Investigation Strategy:
  - Reacquire and intrusively investigate 52 magnetic anomalies.
  - Confirm anomalies are related to cultural material and provide a no further investigation recommendation.
  - Perform additional characterization, based on UXO Estimator, if MEC, MPPEH, or MD is recovered.

AC-06

T-3

Analytic Signal

0.2 0.5 0.9 1.3 1.6 2.0 2.3 2.7 3.1 3.4 3.8 4.1 4.5 4.8 5.2 5.6 5.9 6.3 6.6



T-3 Former Taget

Aerial Mag Targets

Cultural Source/Field Reconnaissance Location

Cultural Source/Field Reconnaissance Location

Road

Anomaly Cluster (From VSP)

US Army Corps of Engineers

Nantucket Beach Formerly Used Defense Site

WESTON SOLUTIONS

FIGURE 6
Cluster-06 Magnetic Data and Anomaly Locations

N

0 60 120 180 Feet

0 25 50 75 Meters

NOTES:
Aerial Data Source: ESRI Bing Imagery Service
Base Data: USACE (2004)

8/6/2012
Revision: 1

NT_DGM_AC_06_Magnetic

Drawn: zieglera

PROJ: 03886.551.004

ALTITUDE EXCEEDENCE AREAS

During QA/QC review of the airborne vertical magnetic gradient survey data, it was determined that there were areas within MRS 2 in which the flight altitudes exceeded the 8 meter metric. These areas were found to require additional ground-based work to adequately characterize the MRS as part of the RI.

The portion of MRS 2 affected by the 8m altitude exceedance comprises approximately 550 acres and is located to the north along Milestone Road and to the west adjacent to the airport. The altitude exceedance in these areas was primarily due to high stands of trees, utility poles, or housing areas in which the lowest altitude safely achievable was above the 8 meter metric. The extents of this area are presented in **Figure 7**.

A geophysical approach was derived using VSP that includes mag & dig transect surveys traversing the area where the flight altitude exceeded allowable limits. Each mag & dig transect will be approximately 10 ft wide equating to 5 ft for each UXO technician. Mag & dig transects were chosen for this survey due to tree canopy and vegetation that may prevent the use of DGM surveys.

The VSP parameters used previously for the airborne survey evaluation were incorporated into this survey design for consistency and are detailed in **Table 1**. Based on the results of the VSP analysis, if 10ft wide transects are spaced at 396 ft on center, over the altitude exceedance area, these transects have a 95% chance of traversing and detecting a 500 ft diameter target area having a bivariate-normal distribution with an outer edge anomaly density of 10 anomalies per acre above the background anomaly density. The VSP calculations are provided in Appendix D.

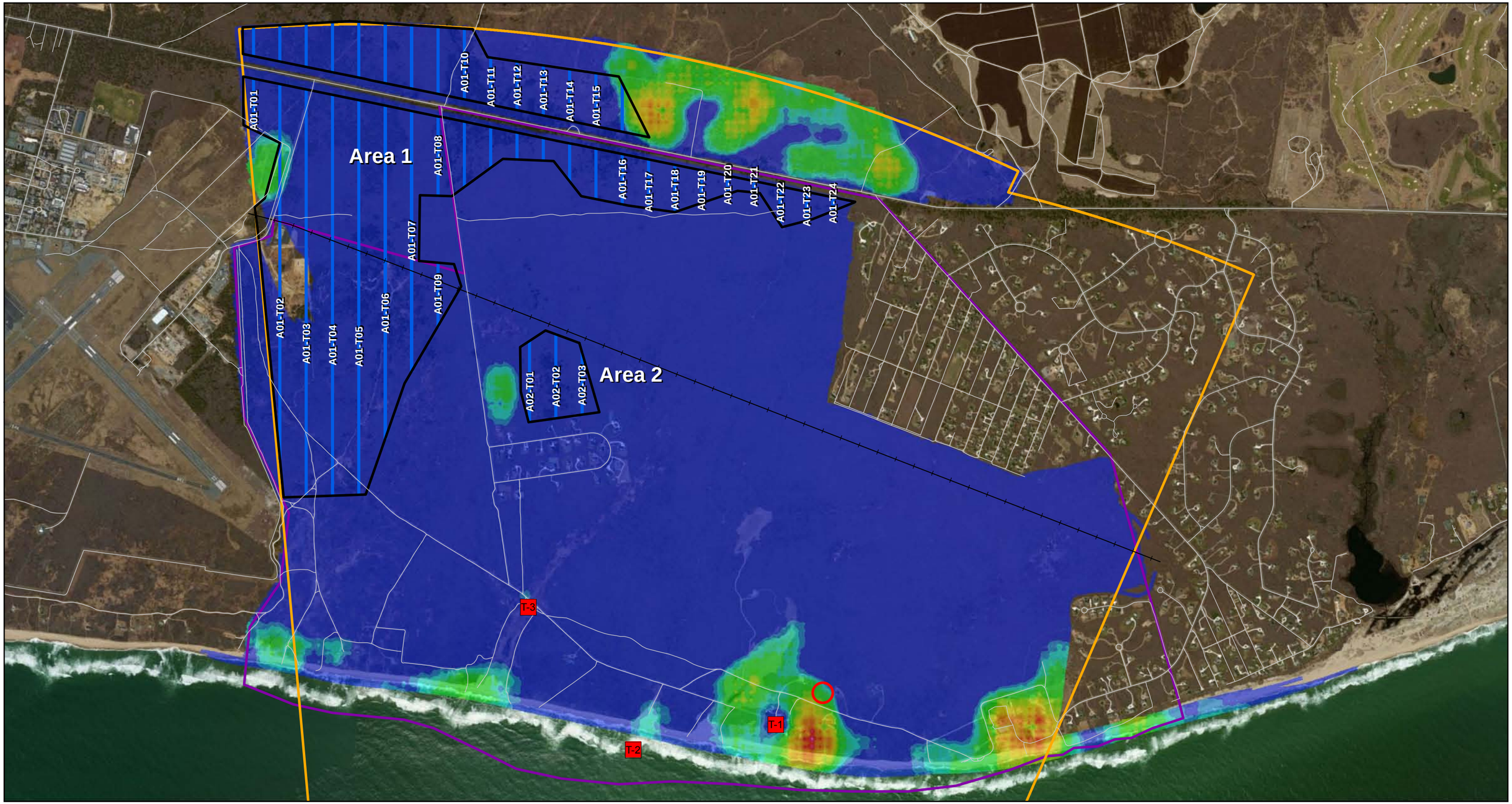
Table 1 VSP Parameters and Coverage Requirements

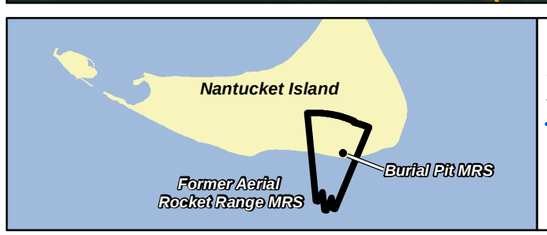
VSP Parameter	VSP Input and Coverage Requirements
Shape of Target Area	Circular
Target Area of Interest	250-ft radius
Anomaly Density Indicator	10 anomalies/acre
Background Anomaly Density	5 anomalies/acre
Transect Width	10 ft (physical transect width)
Transect Spacing	386 ft (396 ft on centers)
Transect Distance	12.2 miles
Transect Area	14.8 acres

Mag & dig transect surveys will be performed by UXO technicians in a north-south orientation along pre-designated transects as shown in **Figure 7**. The technicians will use GPS for navigation and to also record the exact pathways the UXO technicians walk. These pathways will be migrated into the project GIS to review investigation coverage.

Each UXO Technician will be operating a Schonstedt magnetometer. All subsurface anomalies detected will be intrusively investigated in real-time to determine the presence of potential munitions related material. Anomaly locations will be recorded by GPS, and details of the investigation including item depth, type, and characteristics will be logged and added to the project GIS for analysis.

Additional mag & dig transects will be performed in areas where MEC, MPPEH, or MD is recovered. These transects will be placed midway between the other transect locations to achieve a spacing of 234 ft. This exceeds the performance work statement (PWS) performance objective of demonstrating boundaries of MEC-contaminated areas have been delineated to an accuracy of at least 250 ft. If all anomalies encountered along the pre-designated transects are confirmed to be related to cultural material, a no further investigation recommendation will be provided.





T-1 Former Taget
Road
Railroad
Mag and Dig Transect

Area > 8m Altitude
MRS 1 – Burial Pit
MRS 2 – Aerial Rocket Range
FUDS Boundary

Anomalies per Acre (from VSP)

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33

US Army Corps of Engineers

Nantucket Beach Formerly Used Defense Site

WESTON SOLUTIONS

FIGURE 7
Survey Approach for Altitude Exceedence Areas

N

0 920 1,840 2,760 Feet

0 340 680 1,020 Meters

NOTES:
Aerial Data Source: ESRI Bing Imagery Service
Base Data: USACE (2004)

8/6/2012	Name: NT_Alt_Exceed
Drawn: zieglera	PROJ: 03886.551.004

UNDERWATER MAG & DIG TRANSECTS

Underwater geophysical transects will be performed using a mag & dig approach. Transects have been placed based on airborne magnetic vertical gradient data results, the Target #2 location, and requirements from the Performance Work Statement (PWS). Investigations will be prioritized based on probability of encountering munitions. The priority scheme is described below:

- Priority 1: Perform transects at Target #2.
- Priority 2: Perform transects at anomaly cluster areas identified during the airborne magnetic gradient survey.
- Priority 3: Remaining transects east of Target #3 since beach erosion and water current is typically is an easterly direction.
- Priority 4: Remaining transects west of Target #3. It is expected that munitions, if present, would be transported eastward due to current and erosion.

As the dig results are reported, the project team will provide direction for the investigations based on these priorities. Transect placement and anomaly investigation strategy is presented below. **Figure 8** presents the transect layout.

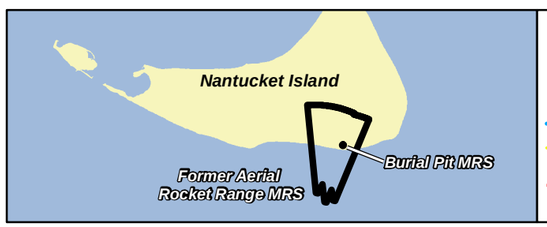
- **Transect layout – 1.33 total miles of transects are planned.**
  - Transect layout at Target #2
    - Target #2 is located 292 feet (ft) from the mean low tide line.
    - Place three transects spaced 140-ft apart perpendicular to the shoreline so they cross left, center and right of Target #2. 140 ft was found to be the optimum transect spacing for this area based on the anomaly cluster size (as presented below) and the operator and instrument swath width of approximately 5 ft.
    - Extend transects 50 ft beyond Target #2 to determine extent of potential military munitions related material.
    - Each transect at Target #2 is 342 ft long equating to 0.19 miles.
  - Transect layout based on airborne vertical magnetic gradient results
    - Three locations along the shoreline were identified as Anomaly Clusters following magnetic data analysis: AC-01, AC-02, and AC-03.
    - AC-01 is in the vicinity of Target #1 and has a footprint of approximately 1,600 ft along the shoreline.
    - AC-02 has a footprint of approximately 1,300 ft along the shoreline.
    - AC-03 is in the vicinity of Target #2 and has a footprint of approximately 650 ft along the shoreline.
    - Seven (7) and five (5) underwater transects will be used to assess AC-01 and AC-02, respectively. Transects will be spaced at 325 ft (100 meters) along the shoreline. Each transect will be 182 ft long equating 0.41 miles.
    - Three (3) underwater transects will be used to assess AC-03. These transects are spaced 140 ft apart to evaluate Target #2. Each transect at Target #2 is 342 ft long equating to 0.19 miles.
  - Transect layout for remaining available distance
    - Based on the PWS, remaining transects will be spaced at 325 ft (100 meters) along the shoreline between eastern and western boundaries.
    - A total of 21 transects will be spaced at 325 ft (100 meters) along the shoreline between eastern and western boundaries.
    - Each transect will be 182 ft long equating to 0.72 miles.

- **Intrusive investigations along transects – 200 total anomalies are planned for investigation**
  - Detected anomalies will be investigated real time during transect traversal
  - All anomalies will be investigated unless a substantial increase in anomaly density is observed
  - If areas with elevated anomaly densities are detected, report findings to project team to determine the appropriate strategy for investigation
  - Results will be reported to the project team daily
  - Formal submittals will be made when anomaly counts reach 50, 100, and 150
  - A project planning meeting will be held when the anomaly count reaches 150 to determine the most appropriate path forward

Note: Technical deviations from the PWS will need to be evaluated with the entire project delivery team and diving subcontractor and approved in advance of implementation.

AC-09
AC-02
AC-06
AC-03
AC-01
AC-07
T-1
T-2
T-3
01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 19-A 20 20-A1 22 22-A 23-A 23-B 23-C 24-A 24-C 25 26 27 28 29 29-A 30 30-A 31 32 33-A 34 34-A 35 35-A 36

Analytic Signal
0.2 0.5 0.9 1.3 1.6 2.0 2.3 2.7 3.1 3.4 3.8 4.1 4.5 4.8 5.2 5.6 5.9 6.3 6.6



T-1 Former Taget
Cultural Source/Field Reconnaissance Location
DGM Grid
Mag and Dig Transect
Cultural Source/Field Reconnaissance Location
DGM Transect
Road
MRS 1 – Burial Pit
MRS 2 – Aerial Rocket Range
FUDS Boundary
Anomaly Cluster
Anomaly Cluster Likely Cultural Source

US Army Corps of Engineers

Nantucket Beach Formerly Used Defense Site

N

0 470 940 1,410 Feet

0 175 350 525 Meters

NOTES:
Aerial Data Source: ESRI Bing Imagery Service
Base Data: USACE (2004)

FIGURE 8
Proposed Underwater Transect Placement

8/6/2012

Name: NT_UW_PropTransects

Drawn: zieglera

PROJ: 03886.551.004

APPENDIX A
NANTUCKET BEACH FUDS OVERVIEW MAP

AC-05

AC-10

AC-04

AC-06

AC-09

AC-02

AC-03

AC-01

AC-07

AC-08

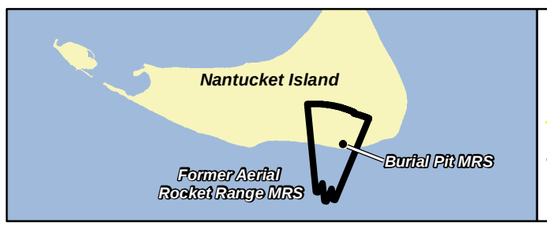
T-1

T-2

T-3

Anomalies per Acre (from VSP)

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33



T-1 Former Taget

Cultural Source/Field Reconnaissance Location

DGM Grid

Cultural Source/Field Reconnaissance Location

DGM Transect

Road

Railroad

MRS 1 – Burial Pit

MRS 2 – Aerial Rocket Range

FUDS Boundary

Anomaly Cluster

Anomaly Cluster Likely Cultural Source

US Army Corps of Engineers

Nantucket Beach Formerly Used Defense Site

WESTON SOLUTIONS

APPENDIX A
Proposed Anomaly Cluster Grid and Transect Placement

N

0 920 1,840 2,760 Feet

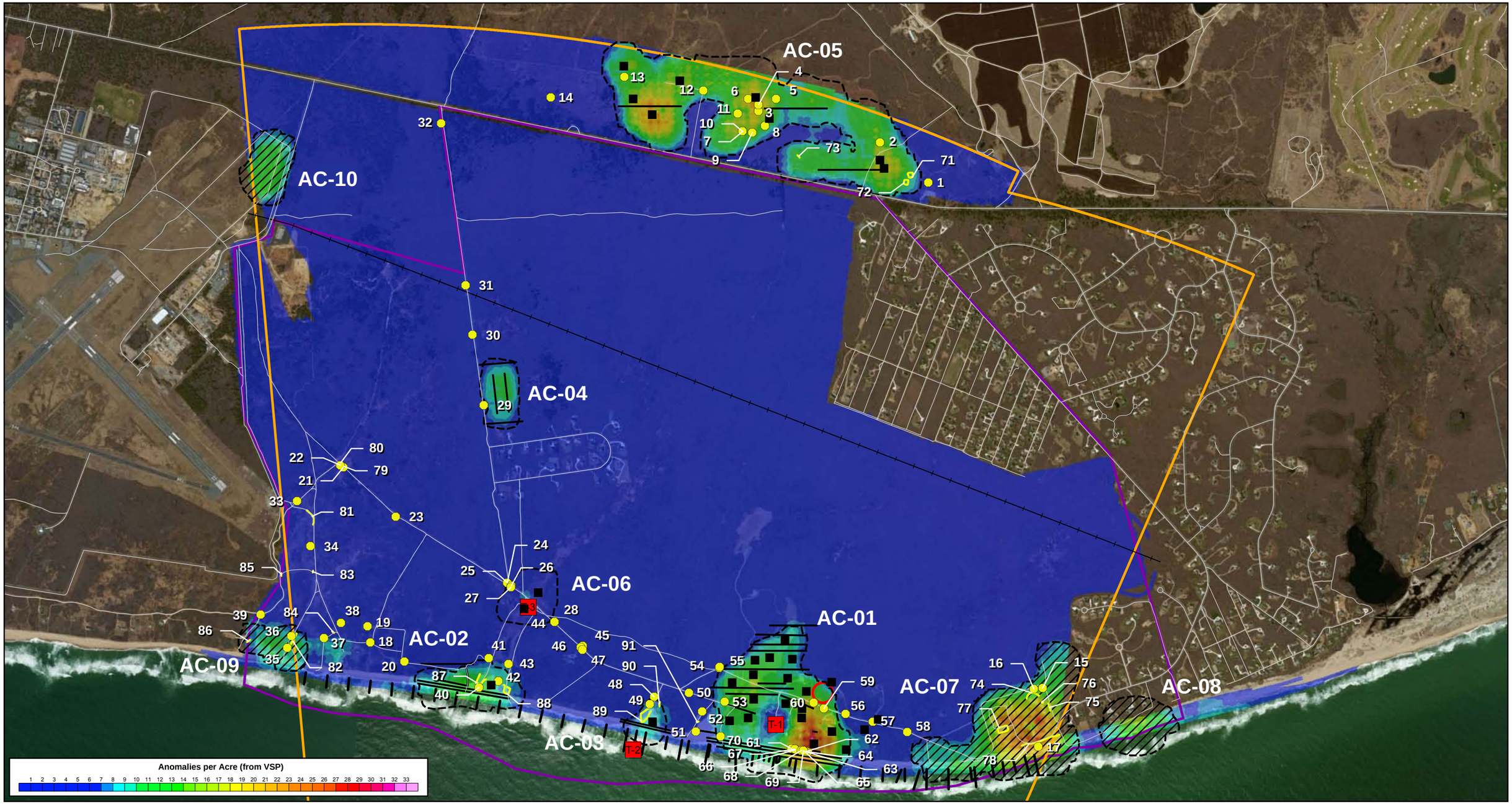
0 340 680 1,020 Meters

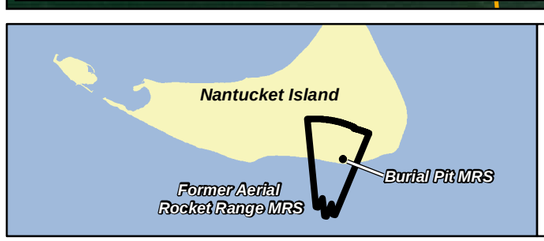
NOTES:
Aerial Data Source: ESRI Bing Imagery Service
Base Data: USACE (2004)

8/6/2012	Name: NT_DGM_Results
Drawn: zieglera	PROJ: 03886.551.004

APPENDIX B

PRELIMINARY RECONNAISANCE CULTURAL FEATURES OVERVIEW MAP





T-1 Former Taget
Cultural Source/Field Reconnaissance Location
Proposed DGM Grid
Road
Railroad
Cultural Source/Field Reconnaissance Location
Proposed DGM Transect
MRS 1 – Burial Pit
MRS 2 – Aerial Rocket Range
FUDS Boundary
Anomaly Cluster
Anomaly Cluster Likely Cultural Source

US Army Corps of Engineers

Nantucket Beach Formerly Used Defense Site

WESTON SOLUTIONS

APPENDIX B
Cultural Source Map
Nantucket, MA

N

0 920 1,840 2,760 Feet

0 340 680 1,020 Meters

NOTES:
Aerial Data Source: ESRI Bing Imagery Service
Base Data: USACE (2004)

6/22/2012 | Name: NT_Cultural_Source

Drawn: zieglera | PROJ: 03886.551.004

APPENDIX C
TRANSECT AND GRID LOCATIONS TABLE

DGM Grid Locations				
Anomaly Cluster	**ID**	**Survey Type**	**Easting**	**Northing**
AC-01	AC-01-G01	DGM - Grid (100 ft x 100 ft)	1360858.73	14979934.57
			1360758.73	14979934.57
			1360758.73	14980034.57
			1360858.73	14980034.57
AC-01	AC-01-G02	DGM - Grid (100 ft x 100 ft)	1360517.37	14979900.58
			1360430.62	14979950.33
			1360480.38	14980037.08
			1360567.12	14979987.32
AC-01	AC-01-G04	DGM - Grid (100 ft x 100 ft)	1360364.06	14980311.55
			1360264.06	14980311.54
			1360264.06	14980411.55
			1360364.06	14980411.55
AC-01	AC-01-G05	DGM - Grid (100 ft x 100 ft)	1359560.77	14980311.23
			1359460.77	14980311.23
			1359460.77	14980411.23
			1359560.77	14980411.23
AC-01	AC-01-G06	DGM - Grid (100 ft x 100 ft)	1359280.98	14980266.30
			1359180.98	14980266.30
			1359180.98	14980366.30
			1359280.98	14980366.30
AC-01	AC-01-G07	DGM - Grid (100 ft x 100 ft)	1360978.88	14980296.37
			1360878.89	14980296.37
			1360878.89	14980396.37
			1360978.88	14980396.37
AC-01	AC-01-G08	DGM - Grid (100 ft x 100 ft)	1360344.23	14980436.32
			1360252.16	14980475.34
			1360291.18	14980567.41
			1360383.25	14980528.39
AC-01	AC-01-G09	DGM - Grid (100 ft x 100 ft)	1360113.50	14980498.20
			1360054.02	14980490.26
			1360031.97	14980655.47
			1360091.45	14980663.40
AC-01	AC-01-G10	DGM - Grid (100 ft x 100 ft)	1359644.06	14980592.38
			1359544.06	14980592.38
			1359544.06	14980692.38
			1359644.06	14980692.38
AC-01	AC-01-G11	DGM - Grid (100 ft x 100 ft)	1359450.56	14980554.14
			1359350.56	14980554.14
			1359350.56	14980654.14

DGM Grid Locations				
Anomaly Cluster	**ID**	**Survey Type**	**Easting**	**Northing**
			1359450.56	14980654.14
AC-01	AC-01-G12	DGM - Grid (100 ft x 100 ft)	1360434.19	14980710.61
			1360334.19	14980710.61
			1360334.19	14980810.61
			1360434.19	14980810.61
AC-01	AC-01-G13	DGM - Grid (100 ft x 100 ft)	1360819.75	14980849.45
			1360719.75	14980849.45
			1360719.75	14980949.45
			1360819.75	14980949.45
AC-01	AC-01-G14	DGM - Grid (100 ft x 100 ft)	1360154.09	14980905.39
			1360054.09	14980905.39
			1360054.09	14981005.39
			1360154.09	14981005.39
AC-01	AC-01-G15	DGM - Grid (100 ft x 100 ft)	1359640.62	14980954.52
			1359540.62	14980954.52
			1359540.62	14981054.52
			1359640.62	14981054.52
AC-01	AC-01-G16	DGM - Grid (100 ft x 100 ft)	1359318.47	14980836.36
			1359218.47	14980836.36
			1359218.47	14980936.36
			1359318.47	14980936.36
AC-01	AC-01-G17	DGM - Grid (100 ft x 100 ft)	1360221.96	14981197.68
			1360121.96	14981197.68
			1360121.96	14981297.68
			1360221.96	14981297.68
AC-01	AC-01-G18	DGM - Grid (100 ft x 100 ft)	1359883.67	14981214.45
			1359783.67	14981214.45
			1359783.67	14981314.45
			1359883.67	14981314.45
AC-01	AC-01-G19	DGM - Grid (100 ft x 100 ft)	1359661.69	14981176.50
			1359561.69	14981176.50
			1359561.69	14981276.50
			1359661.69	14981276.50
AC-01	AC-01-G20	DGM - Grid (100 ft x 100 ft)	1360117.86	14981484.75
			1360017.86	14981484.75
			1360017.86	14981584.75
			1360117.86	14981584.75
AC-02	AC-02-G01	DGM - Grid (50 ft x 50 ft)	1355694.81	14980802.29
			1355594.81	14980802.29

DGM Grid Locations				
Anomaly Cluster	**ID**	**Survey Type**	**Easting**	**Northing**
			1355594.81	14980902.29
			1355694.81	14980902.29
AC-05	AC-05-G01	DGM - Grid (50 ft x 50 ft)	1361578.73	14988603.63
			1361528.73	14988603.63
			1361528.73	14988653.63
			1361578.73	14988653.63
AC-05	AC-05-G02	DGM - Grid (50 ft x 50 ft)	1361518.30	14988727.73
			1361468.30	14988727.73
			1361468.30	14988777.73
			1361518.30	14988777.73
AC-05	AC-05-G03	DGM - Grid (50 ft x 50 ft)	1359853.44	14989349.79
			1359803.44	14989349.79
			1359803.44	14989399.79
			1359853.44	14989399.79
AC-05	AC-05-G04	DGM - Grid (50 ft x 50 ft)	1359645.88	14989671.78
			1359595.88	14989671.78
			1359595.88	14989721.78
			1359645.88	14989721.78
AC-05	AC-05-G05	DGM - Grid (50 ft x 50 ft)	1358505.73	14989922.11
			1358455.73	14989922.11
			1358455.73	14989972.11
			1358505.73	14989972.11
AC-05	AC-05-G06	DGM - Grid (50 ft x 50 ft)	1358090.89	14989410.19
			1358040.89	14989410.19
			1358040.89	14989460.19
			1358090.89	14989460.19
AC-05	AC-05-G07	DGM - Grid (50 ft x 50 ft)	1357808.08	14989647.36
			1357758.08	14989647.36
			1357758.08	14989697.36
			1357808.08	14989697.36
AC-05	AC-05-G08	DGM - Grid (50 ft x 50 ft)	1357662.18	14990136.83
			1357612.18	14990136.83
			1357612.18	14990186.83
			1357662.18	14990186.83

DGM Transect Locations						
Anomaly Cluster	**ID**	**Survey Type**	**Start_ Easting**	**Start_ Northing**	**End_ Easting**	**End_ Northing**
AC-01	AC-01-T01	DGM - Transect (2348.1 ft)	1361204.14	14979659.10	1358884.04	14980020.88
AC-01	AC-01-T02	DGM - Transect (2348.1 ft)	1361198.04	14979707.26	1358877.94	14980069.04
AC-01	AC-01-T03	DGM - Transect (945.9 ft)	1360198.19	14979912.03	1361132.89	14979766.28
AC-01	AC-01-T04	DGM - Transect (668.6 ft)	1361124.25	14980032.25	1360468.50	14980163.19
AC-01	AC-01-T05	DGM - Transect (531.5 ft)	1359116.55	14980584.72	1359623.93	14980426.16
AC-01	AC-01-T06	DGM - Transect (438.5 ft)	1360659.16	14980440.70	1360251.81	14980603.20
AC-01	AC-01-T06	DGM - Transect (223.7 ft)	1360202.09	14980623.03	1359994.30	14980705.92
AC-01	AC-01-T07	DGM - Transect (795.8 ft)	1359959.50	14980713.97	1359163.73	14980725.78
AC-01	AC-01-T08	DGM - Transect (1270.2 ft)	1360198.62	14980805.54	1358928.55	14980824.39
AC-01	AC-01-T09	DGM - Transect (432.6 ft)	1360081.59	14980878.79	1359649.04	14980885.21
AC-01	AC-01-T10	DGM - Transect (1331.5 ft)	1359100.00	14981098.70	1360431.57	14981090.13
AC-01	AC-01-T11	DGM - Transect (887.9 ft)	1359506.02	14981374.52	1360393.94	14981374.52
AC-01	AC-01-T12	DGM - Transect (850.9 ft)	1359536.54	14981469.14	1360387.50	14981469.14
AC-01	AC-01-T13	DGM - Transect (788.4 ft)	1359613.62	14981616.63	1360402.01	14981605.73
AC-01	AC-01-T14	DGM - Transect (729.3 ft)	1359823.13	14981755.06	1360552.49	14981755.06
AC-01	AC-01-T15	DGM-Transect (1927.2 ft)	1360934.53	14979639.63	1359030.35	14979936.55
AC-01	AC-01-T16	DGM-Transect (363.6 ft)	1359029.82	14980135.52	1358670.55	14980191.54
AC-02	AC-02-T01	DGM - Transect (1404.4 ft)	1354535.06	14980882.82	1355920.26	14980650.79
AC-02	AC-02-T02	DGM - Transect (1404.4 ft)	1354531.36	14980929.60	1355916.56	14980697.57
AC-02	AC-02-T03	DGM - Transect (907.5 ft)	1355264.72	14981120.70	1354868.71	14981120.70
AC-02	AC-02-T04	DGM - Transect (802.6 ft)	1354581.86	14981173.94	1355384.55	14981173.94
AC-03	AC-03-T01	DGM - Transect (794.2 ft)	1357578.06	14980311.15	1358351.60	14980130.77
AC-03	AC-03-T02	DGM - Transect (783.4 ft)	1357588.30	14980344.24	1358352.39	14980170.94
AC-04	AC-04-T01	DGM - Transect (575.6 ft)	1355554.60	14984784.25	1356128.65	14984826.82
AC-04	AC-04-T02	DGM - Transect (602.1 ft)	1355669.88	14985532.03	1355736.38	14984933.56
AC-04	AC-04-T03	DGM - Transect	1355842.35	14985558.56	1355908.85	14984960.09

		(602.1 ft)				
AC-04	AC-04-T04	DGM - Transect (575.6 ft)	1355459.47	14985672.16	1356033.52	14985714.74
AC-05	AC-05-T01	DGM - Transect (961.25 ft)	1360556.71	14988607.92	1361517.96	14988607.92
AC-05	AC-05-T02	DGM - Transect (961.25 ft)	1359745.66	14989531.62	1360706.91	14989531.62
AC-05	AC-05-T03	DGM - Transect (961.25 ft)	1357549.04	14989565.42	1358510.29	14989565.42

Mag & Dig Transect Locations						
Anomaly Cluster	**ID**	**Survey Type**	**Start_ Easting**	**Start_ Northing**	**End_ Easting**	**End_ Northing**
Area 1	A01-T01	M&D - Transect (1554.0817 ft)	1352072.18	14989208.96	1352072.06	14990763.04
Area 1	A01-T02	M&D - Transect (3400 ft)	1352468.18	14984261.81	1352468.23	14990786.57
Area 1	A01-T03	M&D - Transect (3900 ft)	1352864.18	14983692.16	1352864.30	14990810.09
Area 1	A01-T04	M&D - Transect (2700 ft)	1353260.18	14983706.13	1353259.95	14990833.62
Area 1	A01-T05	M&D - Transect (2800 ft)	1353656.18	14983720.11	1353655.99	14990839.85
Area 1	A01-T06	M&D - Transect (980 ft)	1354052.18	14984567.66	1354052.15	14990813.34
Area 1	A01-T07	M&D - Transect (980 ft)	1354448.18	14985579.41	1354448.04	14990786.83
Area 1	A01-T08	M&D - Transect (1200 ft)	1354844.18	14988218.40	1354844.33	14990760.32
Area 1	A01-T09	M&D - Transect (958.2189 ft)	1354844.18	14986255.39	1354843.77	14987213.61
Area 1	A01-T10	M&D - Transect (1200 ft)	1355240.18	14988350.00	1355240.11	14990733.80
Area 1	A01-T11	M&D - Transect (840 ft)	1355636.18	14988639.24	1355636.07	14990296.85
Area 1	A01-T12	M&D - Transect (840 ft)	1356032.18	14988763.97	1356032.13	14990238.61
Area 1	A01-T13	M&D - Transect (900 ft)	1356428.18	14988747.47	1356428.38	14990180.38
Area 1	A01-T14	M&D - Transect (1683.938 ft)	1356824.18	14988438.20	1356823.97	14990122.14
Area 1	A01-T15	M&D - Transect (1894.8758 ft)	1357220.18	14988169.03	1357220.28	14990063.91
Area 1	A01-T16	M&D - Transect (1821.6861 ft)	1357616.18	14988088.03	1357616.33	14989909.72
Area 1	A01-T17	M&D - Transect (1090.489 ft)	1358012.18	14988028.07	1358012.15	14989118.56
Area 1	A01-T18	M&D - Transect (770.229 ft)	1358408.18	14987974.95	1358407.89	14988683.75
Area 1	A01-T19	M&D - Transect (551.7364 ft)	1358804.18	14988109.19	1358804.09	14988602.42
Area 1	A01-T20	M&D - Transect (333.2438 ft)	1359200.18	14988243.42	1359200.18	14988521.13
Area 1	A01-T21	M&D - Transect (222.2616 ft)	1359596.18	14988270.15	1359596.03	14988439.88
Area 1	A01-T22	M&D - Transect (619.4447 ft)	1359992.18	14987788.71	1359992.56	14988358.49
Area 1	A01-T23	M&D - Transect (481.3631 ft)	1360388.18	14987842.54	1360388.42	14988277.24
Area 1	A01-T24	M&D - Transect (250.1504 ft)	1360784.18	14987989.50	1360783.99	14988196.06
Area 1	A02-T01	M&D - Transect (1220.1245 ft)	1356220.72	14984813.84	1356220.93	14986033.97
Area 1	A02-T02	M&D - Transect	1356616.72	14984870.41	1356616.91	14986136.53

Mag & Dig Transect Locations						
Anomaly Cluster	**ID**	**Survey Type**	**Start_ Easting**	**Start_ Northing**	**End_ Easting**	**End_ Northing**
		(1266.1136 ft)				
Area 1	A02-T03	M&D - Transect (928.4235 ft)	1357012.72	14984926.98	1357012.47	14985855.41
Underwater	UT-T01	M&D - Transect	1352858.25	14981046.32	1352828.63	14980867.04
Underwater	UT-T02	M&D - Transect	1353183.17	14981001.50	1353162.02	14980821.03
Underwater	UT-T03	M&D - Transect	1353509.17	14980964.67	1353489.35	14980784.05
Underwater	UT-T04	M&D - Transect	1353834.37	14980921.72	1353807.59	14980742.00
Underwater	UT-T05	M&D - Transect	1354160.07	14980883.15	1354142.79	14980702.26
Underwater	UT-T06	M&D - Transect	1354485.60	14980843.07	1354459.71	14980663.22
Underwater	UT-T07	M&D - Transect	1354810.80	14980799.79	1354788.28	14980619.48
Underwater	UT-T08	M&D - Transect	1355134.48	14980747.20	1355100.40	14980568.72
Underwater	UT-T09	M&D - Transect	1355456.01	14980682.05	1355418.41	14980504.27
Underwater	UT-T10	M&D - Transect	1355778.13	14980619.98	1355746.17	14980441.11
Underwater	UT-T11	M&D - Transect	1356099.36	14980553.73	1356059.12	14980376.54
Underwater	UT-T12	M&D - Transect	1356418.94	14980479.52	1356377.19	14980302.67
Underwater	UT-T13	M&D - Transect	1356738.93	14980407.16	1356700.11	14980229.64
Underwater	UT-T14	M&D - Transect	1357058.39	14980332.54	1357015.19	14980156.04
Underwater	UT-T15	M&D - Transect	1357378.42	14980260.47	1357340.97	14980082.66
Underwater	UT-T16	M&D - Transect	1357700.50	14980198.16	1357632.99	14979862.50
Underwater	UT-T17	M&D - Transect	1357838.27	14980173.26	1357770.76	14979837.60
Underwater	UT-T18	M&D - Transect	1357975.25	14980144.36	1357907.74	14979808.70
Underwater	UT-T19	M&D - Transect	1358296.36	14980077.09	1358259.43	14979899.17
Underwater	UT-T20	M&D - Transect	1358618.61	14980015.83	1358588.72	14979836.60
Underwater	UT-T21	M&D - Transect	1358941.73	14979959.06	1358908.21	14979780.47
Underwater	UT-T22	M&D - Transect	1359262.85	14979892.23	1359221.17	14979715.37
Underwater	UT-T23	M&D - Transect	1359584.80	14979831.46	1359561.88	14979651.20
Underwater	UT-T24	M&D - Transect	1359906.64	14979782.03	1359872.74	14979603.51

Mag & Dig Transect Locations						
Anomaly Cluster	**ID**	**Survey Type**	**Start_ Easting**	**Start_ Northing**	**End_ Easting**	**End_ Northing**
Underwater	UT-T25	M&D - Transect	1360231.92	14979724.22	1360202.99	14979544.83
Underwater	UT-T26	M&D - Transect	1360556.99	14979681.20	1360540.00	14979500.29
Underwater	UT-T27	M&D - Transect	1360883.99	14979655.03	1360872.84	14979473.67
Underwater	UT-T28	M&D - Transect	1361210.89	14979628.26	1361191.15	14979447.63
Underwater	UT-T29	M&D - Transect	1361537.74	14979602.00	1361530.10	14979420.46
Underwater	UT-T30	M&D - Transect	1361865.66	14979594.95	1361866.66	14979413.24
Underwater	UT-T31	M&D - Transect	1362193.71	14979593.42	1362190.43	14979411.74
Underwater	UT-T32	M&D - Transect	1362521.76	14979591.25	1362523.29	14979409.55
Underwater	UT-T33	M&D - Transect	1362848.77	14979610.22	1362870.96	14979429.87
Underwater	UT-T34	M&D - Transect	1363173.05	14979659.01	1363206.34	14979480.37
Underwater	UT-T35	M&D - Transect	1363493.40	14979728.91	1363539.15	14979553.05
Underwater	UT-T36	M&D - Transect	1363812.40	14979805.23	1363850.15	14979627.48

APPENDIX D
VSP CALCULATIONS FOR ALTITUDE EXCEEDENCE AREAS

Transect Sampling for Unexploded Ordnance (UXO) Target Detection

Summary
This report summarizes the probability of traversing and detecting a target area of specific size and shape for different transect spacings. Simulation details and a power curve estimate how well the specified design would detect the target. The selected design statement is:

> If 10 foot wide transects with a parallel pattern are spaced 386 feet between transects (396 feet on centers) over the entire site, these transects have an approximately 95% chance of traversing and detecting any 500 foot diameter (250 foot radius) circular target area having a bivariate normal distribution with an outer edge density of 10 anomalies per acre above the background density of 5 anomalies per acre. This assumes the instrument false negative rate is 0% and flagged windows have at least 95% confidence they have density greater than background.

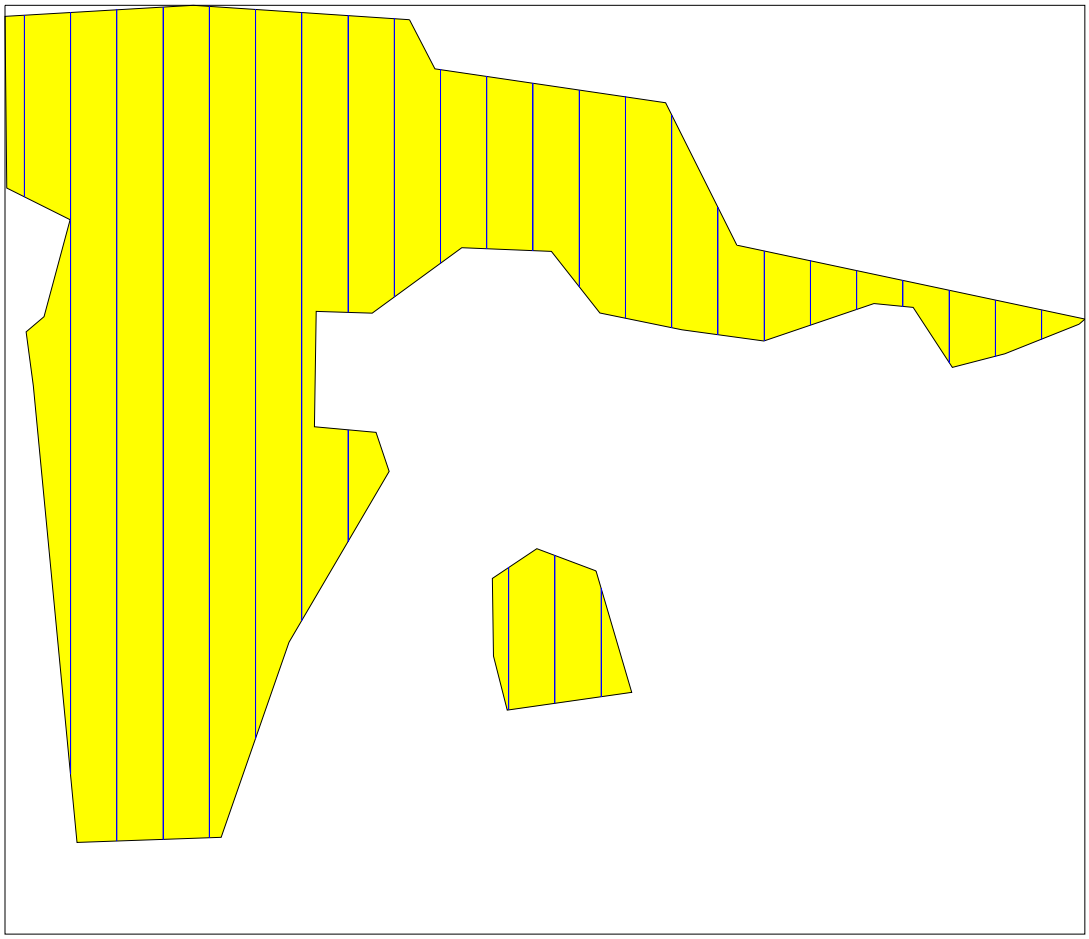
The following table summarizes the sampling design developed. A figure that shows the transect placement in the field and a table that lists the transect placement coordinates are also provided below.

SUMMARY OF SAMPLING DESIGN	
Primary Objective of Design	Ensure high probability of traversing and detecting a target area that has a specified size and shape
Required Probability of Traversing the Target	100%
TARGET AREA AND TRANSECT INPUTS	
Type of Sampling Design	Transects
Transect Pattern	Parallel
Transect Width	10 feet
Area of target area	196349.54 ft^2
Shape of target area of concern	Circular
Radius of target area of concern	250 feet
SIMULATION PARAMETERS FOR PROBABILITY OF DETECTION	
Formula for calculating the probability of traversing and detecting target area	Monte Carlo Simulation (method described below)
Decision Rule	Flag if at least 95% confident an area has density greater than background density
Background Density of the Site	5 anomalies / acre
Expected Target Area Density Above Background	10 anomalies / acre At outer edge of target
Distribution of target area density above background	Bivariate Normal
Transect spacing evaluation range	300 to 600 feet
Instrument false negative rate	0%
Minimum precision	0.1
Maximum error	0.05
Search Window Diameter	310 feet
PROPOSED TRANSECT DESIGN AND COST INFORMATION	
Number of selected sample areas [a]	2
Specified sampling area [b]	580.05 acres

Computed spacing between transects	386 feet
Computed spacing between transect centers	396 feet
Number of transects to be surveyed	27
Transect Coverage	2.55% of total site area
Linear transect coverage	19.65 km
Area of transect coverage	14.8026 acres
Total cost of sampling [c]	$68,180.27

[a] The number of selected sample areas is the number of colored areas on the map of the site. These sample areas contain the locations where samples are collected.
[b] The sampling area is the total surface area of the selected colored sample areas on the map of the site.
[c] See the Cost of Sampling section for an explanation of the costs presented here.

Site Map With Proposed Transect Design



Summary of Transect Survey Design for Area: Area 1						
(All measurements are in feet)						
Start Coordinate		**End Coordinate**		**Transect**		
X	**Y**	**X**	**Y**	**Width**	**Length**	**ID**
1360784.1807	14987989.4955	1360784.1807	14988239.6458	10.0000	250.1504	0

1360388.1807	14987842.5381	1360388.1807	14988323.9012	10.0000	481.3631	0
1359992.1807	14987788.7118	1359992.1807	14988408.1565	10.0000	619.4447	0
1359596.1807	14988270.1502	1359596.1807	14988492.4118	10.0000	222.2616	0
1359200.1807	14988243.4233	1359200.1807	14988576.6671	10.0000	333.2438	0
1358804.1807	14988109.1860	1358804.1807	14988660.9224	10.0000	551.7364	0
1358408.1807	14987974.9488	1358408.1807	14988745.1778	10.0000	770.2290	0
1358012.1807	14988028.0674	1358012.1807	14989118.5564	10.0000	1090.4890	0
1357616.1807	14988088.0295	1357616.1807	14989909.7156	10.0000	1821.6861	0
1357220.1807	14988169.0295	1357220.1807	14990063.9052	10.0000	1894.8758	0
1356824.1807	14988438.2026	1356824.1807	14990122.1405	10.0000	1683.9380	0
1356428.1807	14988747.4678	1356428.1807	14990180.3758	10.0000	1432.9080	0
1356032.1807	14988763.9678	1356032.1807	14990238.6111	10.0000	1474.6433	0
1355636.1807	14988639.2391	1355636.1807	14990296.8464	10.0000	1657.6073	0
1355240.1807	14988349.9999	1355240.1807	14990733.8035	10.0000	2383.8036	0
1354844.1807	14986255.3896	1354844.1807	14987213.6085	10.0000	958.2189	0
1354844.1807	14988218.4039	1354844.1807	14990760.3156	10.0000	2541.9117	0
1354448.1807	14985579.4097	1354448.1807	14990786.8278	10.0000	5207.4181	0
1354052.1807	14984567.6583	1354052.1807	14990813.3400	10.0000	6245.6817	0
1353656.1807	14983720.1086	1353656.1807	14990839.8521	10.0000	7119.7435	0
1353260.1807	14983706.1322	1353260.1807	14990833.6168	10.0000	7127.4847	0
1352864.1807	14983692.1557	1352864.1807	14990810.0921	10.0000	7117.9364	0
1352468.1807	14984261.8119	1352468.1807	14990786.5673	10.0000	6524.7554	0
1352072.1807	14989208.9609	1352072.1807	14990763.0426	10.0000	1554.0817	0

Summary of Transect Survey Design for Area: Area 2						
(All measurements are in feet)						
Start Coordinate		**End Coordinate**		**Transect**		
X	**Y**	**X**	**Y**	**Width**	**Length**	**ID**
1357012.7150	14984926.9840	1357012.7150	14985855.4074	10.0000	928.4235	0
1356616.7150	14984870.4125	1356616.7150	14986136.5262	10.0000	1266.1136	0
1356220.7150	14984813.8411	1356220.7150	14986033.9656	10.0000	1220.1245	0

Primary Sampling Objective
The primary purpose of sampling at this site is to traverse and detect target areas of a given size and shape with required high probability. The transect design tools provide a statistically defensible method to use transect survey data that covers only a small proportion of the total study area.

Selected Sampling Approach
The specified sampling approach was random parallel transect sampling. If parameters change from those specified in the table above, then the probability of detecting the target area will be different from those computed by VSP and reported here.

Simulation Details
To generate an estimated probability on a graph, VSP runs a Monte Carlo simulation based on the entered parameters. For each iteration, VSP creates a square site with the target area centered at the origin and rotated at a random angle. A parallel transect pattern is placed randomly so that 10 feet wide transects are parallel to the x axis.

VSP calculates the total area of the site traversed by transects, A_b, which can vary for each iteration. The expected number of detected background anomalies, λ_b, is calculated as $\lambda_b = D_b A_b (1 - P_{fn})$ where D_b is the background density of 5 anomalies / acres and P_{fn} is the instrument false negative rate of 0. A random number of detected background anomalies is generated using a Poisson distribution with parameter λ_b. VSP randomly places these anomalies within the traversed areas of the site.

To simulate the number of additional anomalies in the target area, VSP uses an approximation technique to randomly place additional detected anomalies in the traversed areas of the target area. Portions of transects overlapping the target area are divided into small sections. For each section, the quantile of the target area in which it lies is determined, the expected number of additional anomalies is determined, and a random number of detected anomalies is determined using a Poisson distribution and placed within the section.

VSP uses a moving window along each transect to determine which areas have density significantly greater than background density. The window moves 1/6 of the search window diameter for each iteration. Where D_a is the actual density for the current window, the null and alternative hypotheses for determining if the area inside the window has density significantly greater than background density, D_b, are as follows:

Null Hypothesis: $H_o : D_a \leq D_b$

Alternative Hypothesis: $H_a : D_a > D_b$

VSP checks each window to see if the actual number of detected anomalies is significantly greater than the expected number of anomalies for a Poisson distribution. If any windows intersecting the target area are flagged as significant, then we determine the target area has been detected.

250 iterations are run to begin the simulation to estimate a probability of detection. If the specified Maximum Error has not been achieved, additional iterations are run until the Maximum Error is met. If the total number of iterations is *n* and the proportion of target areas detected is *p*, then another iteration is run if

Maximum Error < $1.96 * \sqrt{\frac{p(1-p)}{n}}$

The quantity $1.96 * \sqrt{\frac{p(1-p)}{n}}$ is the 95th percentile of the standard error of the mean for a binomial distribution. We are 95% certain that the estimated probability is close to the true probability (within the maximum error). When all iterations are completed, VSP tabulates the estimated probability the target area has been detected, *p* / *n*. VSP repeats this process for a number of transect spacings determined by simulation results and the minimum precision specified.

Cost of Sampling

The total cost of the completed sampling program depends on several cost inputs, some of which are fixed, and others that are based on the number and length of the transects. Based on the number of transects determined above, the estimated total cost of surveying this site is $68,180.27, which averages out to a per transect cost of $2,525.20. Note: these costs are for the geophysical survey only, and do not include any excavation or follow-up investigations. The following table summarizes the inputs and resulting cost estimates.

COST INFORMATION			
Cost Details	**Cost / Unit**	**Units**	**Total**
Collection costs	$1.00 / foot	64480.27 feet	$64,480.27
Setup costs	$100.00 / transect	27 transects	$2,700.00
Fixed planning and validation costs			$1,000.00
Total cost			**$68,180.27**

Software and documentation available at http://vsp.pnnl.gov
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Memorandum
8 November 2012

To: Ms. Carol Ann Charette, Project Manager
U.S. Army Corps of Engineers
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Concord, MA 01742

Mr. Todd Beckwith, P.E., Design Team Leader
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From: Mr. Christopher G. Kane, PMP, Senior Project Manager
Weston Solutions, Inc.,
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Concord, NH 03301

W.O. # 03886.551.004

Subject: Contract No. W912DR-09-D-0006, Delivery Order 0005
Military Munitions Response Program
Remedial Investigation through Decision Document
Project: Nantucket Beach Formerly Used Defense Site, Nantucket, Massachusetts
Title: Draft Final - Munitions Response Site 1 Data Evaluation Technical Memorandum
Action: Review for Approval

1.0 INTRODUCTION

Weston Solutions Inc. (WESTON) is submitting a Draft Final Burial Pit Data Evaluation Technical Memorandum for USACE approval of data obtained during the munitions constituents (MC) and hazardous and toxic waste (HTW) investigation at Munitions Response Site (MRS) 1, and WESTON's future recommendations for this MRS. This investigation was a subtask completed solely for MRS 1, located within the encompassing MRS 2 – Aerial Rocket Range, as part of the Military Munitions Response Program (MMRP) Remedial Investigation (RI) being undertaken at the Nantucket Beach Formerly Used Defense Site (FUDS), Nantucket, Massachusetts. The following attachments are additionally being provided to supplement this Technical Memorandum:

- Attachment 1 – MRS 1 Test Pit and Sample Locations Figure
- Attachment 2 – Validated Analytical Data and Risk Screening Results Table

- Attachment 3 – Test Pit Logs and Field Screening Results
- Attachment 4 – Data Validation Memorandum
- Attachment 5 – Final Analytical Data

The objective of the MC and HTW investigation within MRS 1 was to assess the presence/absence of MC and HTW contamination related to potential use of this MRS as a burial pit. Activities were conducted in accordance with planning documents for the RI [(Final Work Plan, specifically Appendix J (UFP-QAPP) issued by WESTON in May 2012]. Geophysical mapping with EM-31 survey instrumentation, conducted on 20 June 2012, did not indicate anomalous features indicative of a burial pit anywhere within MRS 1. Therefore, four (4) test pits were identified for excavation in the areas assumed most likely to have been impacted based on visual inspection of the ground surface (i.e., sparsely vegetated area and a surface depression) to bias the investigation approach towards areas of potential HTW contamination. No other visual observations were noted during the inspection of MRS 1 that would be indicative of a burial pit (staining, empty/leaking containers, etc.).

Excavation, field screening and sampling were conducted between 28 June 2012 and 29 June 2012 at the four test pit locations. Test pits were generically excavated to achieve a width of 3 ft and length of 5 ft. The depth of each test pit varied between 7 and 8 ft below ground surface (bgs), and was dependent on *in situ* soil observations to ensure that each investigation continued until native soil was encountered. In all four test pits, excavation proceeded until ~3 ft beyond the depth at which native soil had been encountered. Native soil was considered to be stratified glacial drifts of sands and gravel (i.e., visible soil layering/bedding). Overlying soil was similar in composition, but varied in color likely due to weathering over time. Areas of oxidation, evidenced by orange discoloration within the soil layers, were apparent in all four test pits.

Field screening with a photoionization detector (PID) and x-ray fluorescence detector (XRF) was performed to supplement visual observations of soil characteristics within the four test pits. Headspace screening with a PID did not yield any results above background (0.0 parts per million (ppm)). As shown in Attachment 3, XRF screening results did not indicate any exceedances above screening levels were present in TP1 or TP2. However, there were several exceedances throughout TP3 and TP4 that were slightly above selected screening levels for iron, lead, manganese, antimony and cadmium. In accordance with Method 6200 XRF field screening protocol, three trials were used to calculate an average concentration for analytes present in each sample. Except for the iron field screening results, all other analytes highlighted represent an average concentration where at least one of the trials were non-detect or below screening levels.

As no obvious evidence of contamination was observed to bias sampling within the test pits, samples were collected in an unbiased manner in accordance with planning documents. Four, 8-point composite samples were collected that characterized both the 0 to 1 ft bgs and greater than 1 ft bgs depth intervals. Samples were analyzed by TestAmerica at both the Burlington, Vermont and Canton, Ohio facilities via EPA Method 8260B for volatiles, EPA Method 8270C and 8270C-SIM for SVOCs and PAHs, EPA Method 6010B for metals, EPA Method 8330B for explosives, EPA Method 8082A for PCBs, EPA Method 8081B for pesticides and EPA Method 8151 for herbicides. Sample results were received by WESTON and subject to data evaluation and Tier II validation in accordance with the UFP-QAPP.

Validated analytical results were subject to a point-by-point comparison of chemical concentrations to screening levels selected to assess human health and ecological risks and

established in the UFP-QAPP for the RI. Screening levels for human health were based on the latest revision to Oak Ridge National Laboratory (ORNL) Regional Screening Levels (RSL) for residential soil exposure (U.S. EPA, 2012). Exposure points considered during this RI were selected based on current and foreseeable use scenarios for this FUDS, which include residential, construction worker and recreational user scenarios. To be conservative, residential screening levels were selected as the project screening levels for human health. Additionally, screening levels for non-carcinogens were reduced by a factor of 10 (one order of magnitude) to account for the potential effects of multiple non-carcinogens potentially affecting the system.

A screening-level ecological risk assessment was conducted to evaluate the risk to potential ecological receptors including plants, soil invertebrates, and wildlife (terrestrial-feeding mammals and avian) species based on direct contact exposures of organisms to the affected soil, and potential exposure through the ingestion of other organisms as food sources. Benchmark ecological soil screening levels selected for this RI evaluation were composited from the following sources, using the most conservative benchmark available for the potential receptors with published values:

- Talmage et al. 1999. Talmage, S.S., D.M. Opresko, C.J. Maxwell, C.J.E. Welsh, M. Cretella, P.H. Reno, and F.B. Daniel. Nitroaromatic munition compounds: environmental effects and screening values. Rev. Environ. Contam. Toxicol. 161: 1-156.
- Efroymson et al. 1997. Efroymson, R.A., M.E. Will, and G.W. Suter II. 1997. Toxicological benchmarks for contaminants of potential concern for effects on soil and litter invertebrates and heterotrophic processes: 1997 revision. ES/ER/TM-126/R2. U.S. Department of Energy, Oak Ridge National Laboratory, Oak Ridge, TN.
- U.S. EPA Ecological Soil Screening Levels (Eco-SSLs) available for metals and organics (various publications dates). Available at: www.epa.gov/ecotox/ecossl/.

The attached figure (Attachment 1) has been provided to depict the location of test pits and samples collected as part of this investigation. As shown in the attached figure, test pit (TP)1 and TP4 were located in the depression surface feature within MRS 1, with a ground surface elevation approximately 4 ft below the surrounding topography. Test pits 2 and 3 were located in the sparsely vegetated area to the west of the depression. Test Pit Logs and Field Screening Results have been included in Attachment 3 to this memorandum.

A summary table is provided as Attachment 2, which includes the validated HTW analytical data compared to the selected screening levels to evaluate the presence/absence of contamination and potential risks posed to receptors for MRS 1. As previously established in the UFP-QAPP, laboratory analytical methods were not able to achieve a limit of quantitation (LOQ) and/or limit of detection (LOD) below selected screening levels for several compounds. In these instances, non-detect results that were reported by the laboratory at LOD values not meeting selected screening levels are also highlighted in the table.

A Memorandum prepared to detail Data Validation conducted for samples collected from MRS 1 is provided as Attachment 4 and the final analytical data package received from the laboratory is provided as Attachment 5.

A summary of the data evaluation and findings for risk assessment activities conducted to evaluate human health and ecological risks present in MRS 1 related to its potential historic use as a burial pit is provided in the following sections.

2.0 DATA EVALUATION

As shown on the attached table, the majority of constituents analyzed by the laboratory yielded non-detect results or low level detections at quantitation limits that were below project screening levels. There were no pesticides, PCBs, herbicides or explosives detected in the samples. Several detections within the VOC and SVOC lists of chemicals were reported by the laboratory, but the concentrations were all below the selected screening levels. The only detected analyte above its respective screening level was arsenic. All other metals were undetected or detected at concentrations below selected screening levels.

Additionally highlighted on the attached table are occurrences within the data set where non-detect results reported at the laboratory LOD did not meet the selected screening levels. This was observed in the results obtained for thallium (metal), nitroglycerin (explosive), and 4-chloro-2-methylphenoxyacetic acid (MCPA) (herbicide) during the human health risk screening, and for antimony and thallium (both metals) during the ecological risk screening. These results are discussed in the context of chemical of potential concern (COPC) and chemical of potential environmental concern (COPEC) selection below.

2.1 Selection of COPCs

Arsenic

The maximum observed concentration of arsenic was 2.0 mg/kg with a selected screening level of 0.39 mg/kg used for comparison. Arsenic is a known carcinogen and therefore, the selected screening level was not reduced by a factor of 10 and is equivalent to the published value.

Anthropogenic sources for releasing arsenic into the environment include, nonferrous metal mining and smelting, pesticide application, coal combustion, wood combustion, and waste incineration. However, there abundant natural sources of arsenic as well (i.e., volcanism and windblown soil), which contribute towards its occurrence as a natural component of Earth's crust and therefore ubiquitous presence in environmental media at low levels. Regardless of its source, once present in the environment, arsenic typically forms insoluble complexes with iron, aluminum and magnesium oxides in soil, but can be mobilized under reducing conditions (ATSDR, 2007). The toxicology report for arsenic indicates that typical soil concentrations of arsenic are between 1 and 40 mg/kg, with a mean of 5 mg/kg and higher concentrations associated with waste disposal or pesticide application sites (ATSDR, 2007). Additionally, the statewide background concentration of arsenic for natural soil, as established by the Massachusetts Department of Environmental Protection (MassDEP) is 20 mg/kg (MassDEP, 2002). This is an order of magnitude greater than the detections observed within MRS 1.

Given the lack of any existing historical documentation of anthropogenic arsenic sources, soil composition indicating abundant arsenic-bearing minerals, toxicology information regarding natural occurrence/concentrations in soil, and the MassDEP statewide background level of 20 mg/kg for arsenic in natural soil, arsenic has not been determined to be a COPC for MRS 1.

Thallium

In accordance with the Department of Defense Quality Systems Manual (QSM), the non-detect results obtained by the laboratory for thallium in all four samples were reported at the LOD for each analysis, which varied between 0.97 and 1 mg/kg, and exceed the selected screening level of 0.078 mg/kg. However, the "u" flag applied to the data results implies that thallium was not detected at any concentration between the LOQ and LOD or the calculated method detection limit (MDL) of 0.13 mg/kg for thallium.

Thallium is a non-carcinogen, and the selected risk screening level was reduced by an order of magnitude from the published screening level, to account for additive non-carcinogenic risk among multiple non-carcinogens that may affect the same non-carcinogenic endpoint. Since the full suite of analytical testing for the burial pit samples did not indicate that there were multiple non-carcinogens acting within the system, this screening level reduction is likely over conservative and not needed. Without the reduction applied, the laboratory results indicating no detections down to the MDL would meet the screening level as published by EPA. Thallium was not detected in any of the samples obtained in test pits from MRS 1, and based on the considerations presented above, the MDL was sufficient for the purposes of risk screening, therefore, thallium was not determined to be a COPC for MRS 1.

Nitroglycerin

Nitroglycerin was not detected by the laboratory in any of the fours sampled collected. The results for nitroglycerin reported on the attached table represent the LOD for each analysis, which exceed the selected screening level of 610 µg/L. However, the implication of the non-detect "u" flag attached to each result is that nitroglycerin was not detected at any estimated concentrations between the LOQ and LOD or the calculated MDL for each analysis. The MDL achieved by the laboratory for nitroglycerin was 490 µg/L.

Nitroglycerin is a non-carcinogen and the screening level was selected at an order of magnitude below the published level, to account for additive non-carcinogenic risk among multiple non-carcinogens that may affect the same non-carcinogenic endpoint. Without the reduction factor applied, the non-detect results reported at the LOD would also meet the screening level.

Nitroglycerin was not detected in any of the samples obtained in test pits from MRS 1, and based on the considerations presented above, the LOD was sufficient for the purposes of risk screening, therefore nitroglycerin was not determined to be a COPC for MRS 1.

4-chloro-2-methylphenoxyacetic acid (MCPA)

The last constituent also reported as a non-detect, but at an LOD that does not meet the screening level was an herbicide, MCPA. Non-detect laboratory results reported at the LOD ranged between 3,400 and 3,500 µg/kg, which exceed the selected screening level of 3,100 µg/kg. However, the implication of the non-detect "u" flag attached to each result is that MCPA was not detected at any estimated concentrations between the LOQ and LOD or the calculated MDL for each analysis. The MDL achieved by the laboratory MCPA was 1,700 µg/kg, which does meet the selected screening level.

MCPA is a non-carcinogen, and the risk screening level was selected at an order of magnitude below the published screening level, to account for additive non-carcinogenic risk among multiple non-carcinogens that may affect the same non-carcinogenic endpoint. Without the reduction factor applied, the non-detect results reported at the LOD would meet the screening level.

MCPA was not detected in any of the samples obtained in test pits from MRS 1, and based on the considerations presented above, the LOD was sufficient for the purposes of risk screening, therefore, MCPA was not determined to be a COPC for MRS 1.

2.2 Selection of COPECs

Antimony

The non-detect results obtained by the laboratory for antimony in all four HTW samples collected from MRS 1 were reported at the LOD for the method, which varied between 0.97 mg/kg and 1 mg/kg, and were above the selected benchmark screening level of 0.27 mg/kg [based on mammalian uptake, (EPA, 2005)]. However, the MDL calculated by the laboratory was 0.24 mg/kg for antimony, which does meet the screening level. Therefore, antimony was not determined to be a COPEC for MRS 1.

Selenium

Similar to the above discussion, the non-detect results obtained by the laboratory for selenium in all four HTW samples were reported at the LOD for each analysis, which varied between 1.5 and 1.6 mg/kg, and exceeds the selected benchmark screening level for this RI of 0.52 mg/kg [based on terrestrial plant exposure, (EPA 2007)]. However, the MDL calculated by the laboratory for this analysis was 0.22 mg/kg, which does meet the selected screening level. Therefore selenium was not determined to be a COPEC for MRS 1.

3.0 RECOMMENDATIONS

Based on the results of the field investigation, no indications of a burial pit for either munitions-related material or HTW were observed during characterization of surface and subsurface soil via geophysical and visual surveys, or via field screening conducted with a PID and XRF. Analytical results obtained from sampling within the investigation test pits to confirm these findings did not yield significant exceedances of the screening levels selected to assess human health and ecological risks from contact with soil in MRS 1. No COPCs or COPECs were identified as a result of RI investigation and risk screening activities for MRS 1.

Therefore, no further sampling or investigation is proposed as part of the RI to support the proposed conclusion that no remedial action is necessary to protect public health, welfare, or the environment at MRS 1 based on current and intended future use of the site (i.e., residential users, construction workers, recreational users). This recommendation is limited in its application to MRS 1 as a potential historic burial pit and does not exclude it from further consideration as a portion of MRS 2.

4.0 REFERENCES

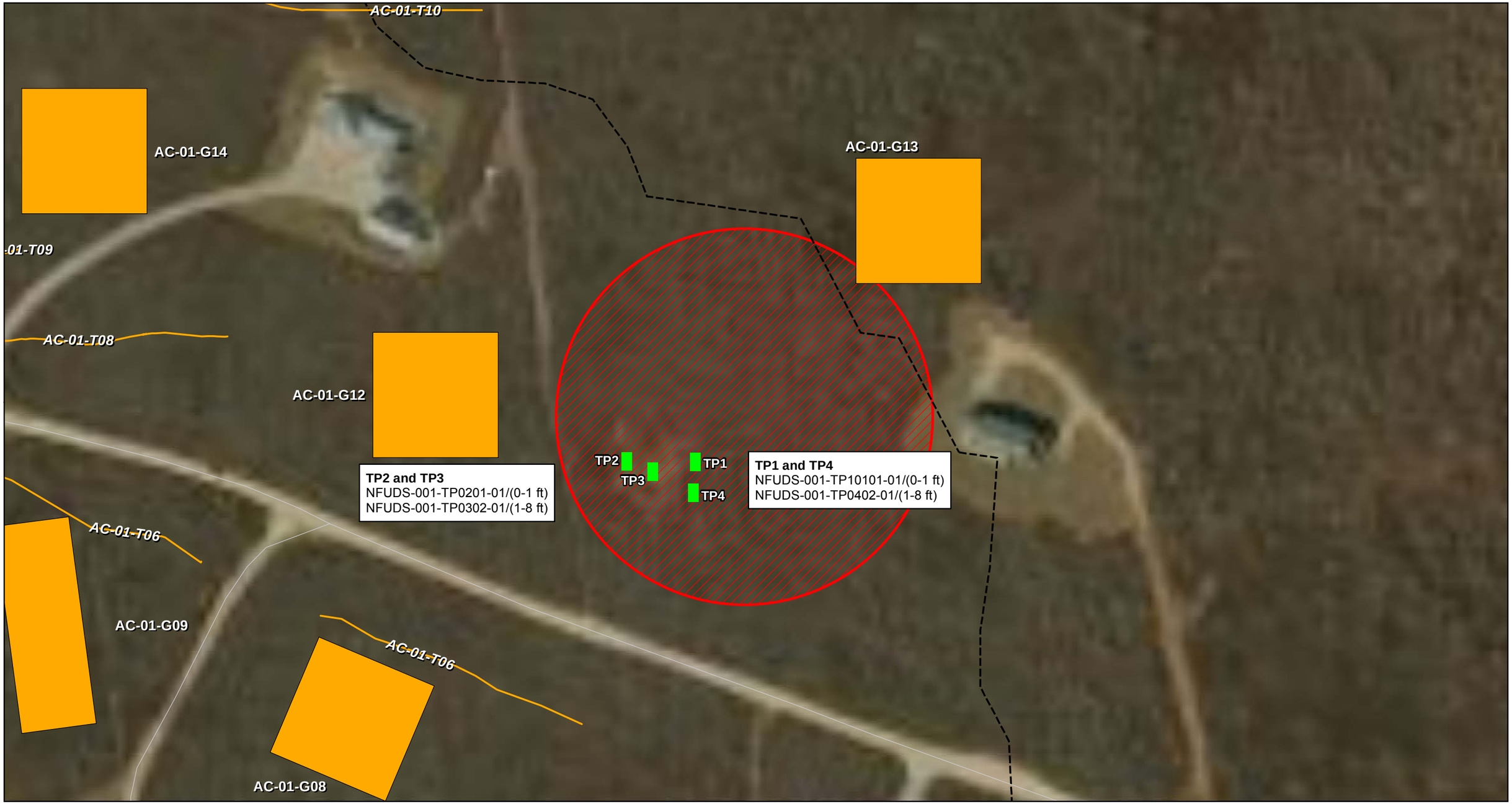
Agency for Toxic Substances and Disease Registry (ATSDR). 2007. Toxicological profile for Arsenic. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

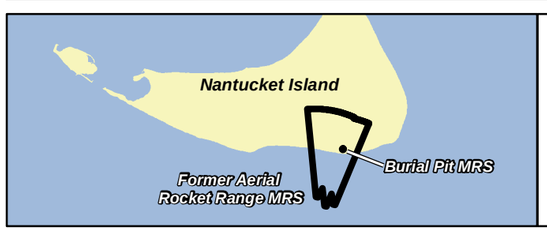
Massachusetts Department of Environmental Protection (MassDEP). 2002. Background Levels of Polycyclic Aromatic Hydrocarbons and Metals in Soil. Boston, MA. Office of Research and Standards.

U.S. Environmental Protection Agency (U.S. EPA). 2005. Ecological Soil Screening Levels for Antimony, Interim Final. Washington, D.C. Office of Solid Waste and Emergency Response, OSWER Directive 9285.7-61.

U.S. EPA. 2007. Ecological Soil Screening Levels for Selenium, Interim Final. Washington, D.C. Office of Solid Waste and Emergency Response, OSWER Directive 9285.7-72.

ATTACHMENT 1
Figure





Intrusive Investigation Complete
Road
AC-01 Boundary
MRS 1 – Burial Pit
Geophysics Complete
Intrusive Investigation Complete
Test Pit Location

US Army Corps of Engineers

Nantucket Beach Formerly Used Defense Site

WESTON SOLUTIONS

MRS 1 Burial Pit HTW Sampling Map

N

0 40 80 120 Feet

0 10 20 30 Meters

NOTES:
Aerial Data Source: ESRI Bing Imagery Service
Base Data: USACE (2004)

8/28/2012
Revision: 0

NT_HTW_Samples

Drawn: zieglera

PROJ: 03886.551.004

ATTACHMENT 2
Table

Munitions Response Site 1
Burial Pit Investigation Analytical Data Evaluation
Nantucket Beach FUDS Remedial Investigation
June 2012

Analytical Method	Compound	CAS No.	Human Health Risk Screening Level	Ecological Risk Screening Level	Field Sample ID:	NFUDS-001-TP0101-01		NFUDS-001-TP0201-01		NFUDS-001-TP0302-01		NFUDS-001-TP0402-01		NFUDS-001-TB01-06	
					Date:	6/29/2012		6/29/2012		6/29/2012		6/29/2012		6/29/2012	
					Lab Sample	200-11554-1		200-11554-2		200-11554-3		200-11554-4		200-11554-5	
					Depth:	0 - 1		0 - 1		1 - 8		1 - 8		NA	
					Units:	Result	Val Qual	Result	Val Qual	Result	Val Qual	Result	Val Qual	Result	Val Qual
Metals															
6010C	Aluminum, Total	7429-90-5	7700	-- [1]	mg/kg	2400		2900		2000		1200	J7	-	
6010C	Antimony, Total	7440-36-0	3.1	0.27	mg/kg	0.99	U	1	U	0.99	U	0.97	UJ8	-	
6010C	Arsenic, Total	7440-38-2	0.39	18	mg/kg	1.8		2		1.6		1.9		-	
6010C	Barium, Total	7440-39-3	1500	330	mg/kg	4	J	2.6	J	3.4	J	2.7	J	-	
6010C	Beryllium, Total	7440-41-7	16	21	mg/kg	0.13	J	0.1	J	0.12	J	0.093	J	-	
6010C	Cadmium, Total	7440-43-9	7	0.36	mg/kg	0.17	U	0.17	U	0.16	U	0.16	U	-	
6010C	Calcium, Total	7440-70-2	--	--	mg/kg	420		70	J	81	J	46	J7J9	-	
6010C	Chromium, Total	7440-47-3	12000	26	mg/kg	3.5		3.9		3.8		2.3		-	
6010C	Cobalt, Total	7440-48-4	2.3	13	mg/kg	1.1	J	1	J	1.5	J	0.81	J	-	
6010C	Copper, Total	7440-50-8	310	28	mg/kg	1.1	J	0.82	J	1.2	J	0.89	J	-	
6010C	Iron, Total	7439-89-6	5500	-- [1]	mg/kg	4400		3900		3900		2500	J7	-	
6010C	Lead, Total	7439-92-1	40	11	mg/kg	2		2.3		1.7		1.1	J9	-	
6010C	Magnesium, Total	7439-95-4	--	--	mg/kg	500		450		660		270	J9	-	
6010C	Manganese, Total	7439-96-5	180	220	mg/kg	49		26		47		29	J7J9	-	
6010C	Nickel, Total	7440-02-0	150	38	mg/kg	2.1	J	2.3	J	2.8		1.5	J	-	
6010C	Potassium, Total	7440-09-7	--	--	mg/kg	270	J	260	J	270	J	230	J9	-	
6010C	Selenium, Total	7782-49-2	39	0.52	mg/kg	1.5	U	1.6	U	1.5	U	1.5	U	-	
6010C	Silver, Total	7440-22-4	39	4.2	mg/kg	0.26	U	0.28	U	0.26	U	0.26	U	-	
6010C	Sodium, Total	7440-23-5	--	--	mg/kg	19	J	9.9	J	9	J	5.9	J	-	
6010C	Thallium, Total	7440-28-0	0.078	1	mg/kg	0.99	U	1	U	0.99	U	0.97	U	-	
6010C	Vanadium, Total	7440-62-2	39	7.8	mg/kg	5.2		5.3		4.7		3.9		-	
6010C	Zinc, Total	7440-66-6	2300	46	mg/kg	5.7		4.5		6.5		3.6	J7	-	
7471B	Mercury, Total	7439-97-6	1	0.1	mg/kg	0.011	J	0.031	J	0.015	J	0.0059	J	-	
Pesticides															
8081B	4,4'-DDD	72-54-8	2000	21	ug/kg	0.7	U	0.69	U	0.68	U	0.68	U	-	
8081B	4,4'-DDE	72-55-9	1400	21	ug/kg	0.7	U	0.69	U	0.68	U	0.68	U	-	
8081B	4,4'-DDT	50-29-3	1700	21	ug/kg	0.7	U	0.69	U	0.68	U	0.68	U	-	
8081B	Aldrin	309-00-2	29	30	ug/kg	0.35	U	0.34	U	0.33	U	0.33	U	-	
8081B	Alpha-BHC	319-84-6	77	150	ug/kg	0.35	U	0.34	U	0.33	U	0.33	U	-	
8081B	Alpha-chlordane	5103-71-9	1600.0	4.8	ug/kg	0.4	U	0.3	U	0.3	U	0.3	U	-	
8081B	Beta-BHC	319-85-7	270	150	ug/kg	0.35	U	0.34	U	0.33	U	0.33	U	-	
8081B	Delta-BHC	319-86-8	--	150	ug/kg	0.35	U	0.34	U	0.33	U	0.33	U	-	

Munitions Response Site 1
Burial Pit Investigation Analytical Data Evaluation
Nantucket Beach FUDS Remedial Investigation
June 2012

					Field Sample ID:	NFUDS-001-TP0101-01		NFUDS-001-TP0201-01		NFUDS-001-TP0302-01		NFUDS-001-TP0402-01		NFUDS-001-TB01-06	
					Date:	6/29/2012		6/29/2012		6/29/2012		6/29/2012		6/29/2012	
					Lab Sample	200-11554-1		200-11554-2		200-11554-3		200-11554-4		200-11554-5	
					Depth:	0 - 1		0 - 1		1 - 8		1 - 8		NA	
Analytical Method	Compound	CAS No.	Human Health Risk Screening Level	Ecological Risk Screening Level	Units:	Result	Val Qual	Result	Val Qual	Result	Val Qual	Result	Val Qual	Result	Val Qual
8081B	Dieldrin	60-57-1	30	4.9	ug/kg	0.7	U	0.69	U	0.68	U	0.68	U	-	
8081B	Endosulfan I	959-98-8	--	3,800	ug/kg	0.35	U	0.34	U	0.33	U	0.33	U	-	
8081B	Endosulfan II	33213-65-9	--	3,800	ug/kg	0.7	U	0.69	U	0.68	U	0.68	U	-	
8081B	Endosulfan Sulfate	1031-07-8	--	3,800	ug/kg	0.7	U	0.69	U	0.68	U	0.68	U	-	
8081B	Endrin	72-20-8	1800	5	ug/kg	0.7	U	0.69	U	0.68	U	0.68	U	-	
8081B	Endrin Aldehyde	7421-93-4	--	5	ug/kg	0.7	U	0.69	U	0.68	U	0.68	U	-	
8081B	Endrin Ketone	53494-70-5	--	5	ug/kg	0.7	U	0.69	U	0.68	U	0.68	U	-	
8081B	Gamma-BHC	58-89-9	520	150	ug/kg	0.35	U	0.34	U	0.33	U	0.33	U	-	
8081B	Gamma-Chlordane	5103-74-2	1600	4.8	ug/kg	0.35	U	0.34	U	0.33	U	0.33	U	-	
8081B	Heptachlor	76-44-8	110	6,300	ug/kg	0.35	U	0.34	U	0.33	U	0.33	U	-	
8081B	Heptachlor Epoxide	1024-57-3	53	6,300	ug/kg	0.35	U	0.34	U	0.33	U	0.33	U	-	
8081B	Methoxychlor	72-43-5	31000	--	ug/kg	3.5	U	3.4	U	3.3	U	3.3	U	-	
8081B	Toxaphene	8001-35-2	440	--	ug/kg	35	U	34	U	33	U	33	U	-	
8081B	Toxaphene Peak 1		--	--	ug/kg	35	U	34	U	33	U	33	U	-	
8081B	Toxaphene Peak 2		--	--	ug/kg	35	U	34	U	33	U	33	U	-	
8081B	Toxaphene Peak 3		--	--	ug/kg	35	U	34	U	33	U	33	U	-	
8081B	Toxaphene Peak 4		--	--	ug/kg	35	U	34	U	33	U	33	U	-	
8081B	Toxaphene Peak 5		--	--	ug/kg	35	U	34	U	33	U	33	U	-	
Polychlorinated Biphenyls															
8082A	Aroclor-1016	12674-11-2	3900	--	ug/kg	3.5	U	3.4	U	3.3	U	3.4	U	-	
8082A	Aroclor-1221	11104-28-2	140	--	ug/kg	3.5	U	3.4	U	3.3	U	3.4	U	-	
8082A	Aroclor-1232	11141-16-5	140	--	ug/kg	3.5	U	3.4	U	3.3	U	3.4	U	-	
8082A	Aroclor-1242	53469-21-9	220	--	ug/kg	3.5	U	3.4	U	3.3	U	3.4	U	-	
8082A	Aroclor-1248	12672-29-6	220	--	ug/kg	3.5	U	3.4	U	3.3	U	3.4	U	-	
8082A	Aroclor-1254	11097-69-1	220	--	ug/kg	3.5	U	3.4	U	3.3	U	3.4	U	-	
8082A	Aroclor-1260	11096-82-5	220	--	ug/kg	3.5	U	3.4	U	3.3	U	3.4	U	-	
8082A	Polychlorinated biphenyls, Total	1336-36-3		2,500	ug/kg	1.8	U	1.7	U	1.7	U	1.7	U	-	
Herbicides															
8151/DOD	2,4,5-T	93-76-5	61000	--	ug/kg	8.7	U	8.5	U	8.4	U	8.5	U	-	
8151/DOD	2,4,5-TP	93-72-1	49000	--	ug/kg	8.7	U	8.5	U	8.4	U	8.5	U	-	
8151/DOD	2,4-D	94-75-7	160000	--	ug/kg	35	U	34	U	34	U	34	U	-	
8151/DOD	2,4-DB	94-82-6	49000	--	ug/kg	35	U	34	U	34	U	34	U	-	
8151/DOD	4-Chloro-2-methylphenoxyacetic acid	94-74-6	3100	--	ug/kg	3500	U	3400	U	3400	U	3400	U	-	
8151/DOD	Dalapon	75-99-0	180000	--	ug/kg	17	U	58		17	U	17	U	-	
8151/DOD	Dicamba	1918-00-9	180000	--	ug/kg	17	U	17	U	17	U	17	U	-	
8151/DOD	Dichloropropane	120-36-5	--	--	ug/kg	70	U	68	U	67	U	68	U	-	
8151/DOD	Dinoseb	88-85-7	6100	--	ug/kg	10	U	10	U	10	U	10	U	-	
8151/DOD	MCPP	93-65-2	6100	--	ug/kg	3500	U	3400	U	3400	U	3400	U	-	

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Analytical Method	Compound	CAS No.	Human Health Risk Screening Level	Ecological Risk Screening Level	Field Sample ID:	NFUDS-001-TP0101-01		NFUDS-001-TP0201-01		NFUDS-001-TP0302-01		NFUDS-001-TP0402-01		NFUDS-001-TB01-06	
					Date:	6/29/2012		6/29/2012		6/29/2012		6/29/2012		6/29/2012	
					Lab Sample	200-11554-1		200-11554-2		200-11554-3		200-11554-4		200-11554-5	
					Depth:	0 - 1		0 - 1		1 - 8		1 - 8		NA	
					Units:	Result	Val Qual	Result	Val Qual	Result	Val Qual	Result	Val Qual	Result	Val Qual
Volatile Organic Compounds															
8260B	1,1,1-Trichloroethane	71-55-6	870000	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	1,1,2,2-Tetrachloroethane	79-34-5	560	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	1,1,2-Trichloroethane	79-00-5	1100	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	1,1-Dichloroethane	75-34-3	3300	27	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	1,1-Dichloroethene	75-35-4	24000	3,500	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	1,2,3-Trichlorobenzene	87-61-6	4900	20,000	ug/kg	0.17	J	0.16	J	0.21	J	0.95	U	1	U
8260B	1,2,4-Trichlorobenzene, VOC	120-82-1	22000	20,000	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	1,2-Dibromo-3-chloropropane	96-12-8	5.4	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	1,2-Dibromoethane	106-93-4	34	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	1,2-Dichlorobenzene, VOC	95-50-1	190000	--	ug/kg	0.2	U	0.25	U	0.27	U	0.24	U	0.25	U
8260B	1,2-Dichloroethane	107-06-2	430	4,500	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	1,2-Dichloropropane	78-87-5	940	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	1,3-Dichlorobenzene, VOC	541-73-1	--	--	ug/kg	0.088	U	0.11	U	0.12	U	0.1	U	0.11	U
8260B	1,4-Dichlorobenzene, VOC	106-46-7	2400	20,000	ug/kg	0.2	U	0.25	U	0.27	U	0.24	U	0.25	U
8260B	1,4-Dioxane	123-91-1	4900	--	ug/kg	40	U	50	U	53	U	47	U	50	U
8260B	2-Butanone	78-93-3	2800000	--	ug/kg	2	U	2.5	U	2.7	U	2.4	U	2.5	U
8260B	2-Hexanone	591-78-6	21000	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	4-Methyl-2-pentanone	108-10-1	530000	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	Acetone	67-64-1	6100000	--	ug/kg	7.1		7.3		6.1		5	M	5	
8260B	Benzene	71-43-2	1100	1,900	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	Bromodichloromethane	75-27-4	270	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	Bromoform	75-25-2	62000	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	Bromomethane	74-83-9	730	--	ug/kg	2	U	2.5	U	2.7	U	2.4	U	2.5	U
8260B	Carbon disulfide	75-15-0	82000	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	Carbon tetrachloride	56-23-5	610	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	Chlorobenzene	108-90-7	290000	40,000	ug/kg	0.4	U	0.5	U	0.53	U	0.47	U	0.5	U
8260B	Chlorobromomethane	74-97-5	16000	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	Chloroethane	75-00-3	1500000	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	Chloroform	67-66-3	290	960	ug/kg	0.8	U	1	U	1.1	U	2.1	J	1	U
8260B	Chloromethane	74-87-3	12000	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	cis-1,2-Dichloroethene	156-59-2	16000	4,500	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	cis-1,3-Dichloropropene	10061-01-5	4300000	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	Cyclohexane	110-82-7	700000	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	Cyclohexane, Methyl-	108-87-2	--	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	Dibromochloromethane	124-48-1	680	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	Dichlorodifluoromethane	75-71-8	9400	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	Ethylbenzene	100-41-4	5400	--	ug/kg	0.2	U	0.25	U	0.27	U	0.24	U	0.25	UM
8260B	Freon TF	76-13-1	--	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	Isopropylbenzene	98-82-8	210000	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	Methyl acetate	79-20-9	7800000	--	ug/kg	2	U	2.5	U	2.7	U	2.4	U	2.5	U
8260B	Methyl t-butyl ether	1634-04-4	43000	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	Methylene chloride	75-09-2	11000	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	m-Xylene & p-Xylene	179601-23-1	119000	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	o-Xylene	95-47-6	69000	--	ug/kg	0.2	U	0.25	U	0.27	U	0.24	U	0.25	U
8260B	Styrene	100-42-5	630000	300,000	ug/kg	0.2	U	0.25	U	0.27	U	0.24	U	0.25	U
8260B	Tetrachloroethene	127-18-4	550	4,500	ug/kg	0.2	U	0.25	U	0.27	U	0.24	U	0.25	U
8260B	Toluene	108-88-3	500000	200,000	ug/kg	0.093	U3	0.27	U3	0.37	U3	0.17	U3	0.41	U3
8260B	trans-1,2-Dichloroethene	156-60-5	15000	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	trans-1,3-Dichloropropene	10061-02-6	--	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	Trichloroethene	79-01-6	910	4,500	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	Trichlorofluoromethane	75-69-4	79000	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	Vinylchloride	75-01-4	60	--	ug/kg	0.8	U	1	U	1.1	U	0.95	U	1	U
8260B	Xylenes, Total	1330-20-7	--	--	ug/kg	0.2	U	0.25	U	0.27	U	0.24	U	0.25	U

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Analytical Method	Compound	CAS No.	Human Health Risk Screening Level	Ecological Risk Screening Level	Field Sample ID:	NFUDS-001-TP0101-01		NFUDS-001-TP0201-01		NFUDS-001-TP0302-01		NFUDS-001-TP0402-01		NFUDS-001-TB01-06	
					Date:	6/29/2012		6/29/2012		6/29/2012		6/29/2012		6/29/2012	
					Lab Sample	200-11554-1		200-11554-2		200-11554-3		200-11554-4		200-11554-5	
					Depth:	0 - 1		0 - 1		1 - 8		1 - 8		NA	
					Units:	Result	Val Qual	Result	Val Qual	Result	Val Qual	Result	Val Qual	Result	Val Qual
Semi-volatile Organic Compounds															
8270C SIM	2-Methylnaphthalene	91-57-6	31000	1100	ug/kg	0.085	UJ1	0.085	UJ1	0.083	U	0.084	U	-	
8270C SIM	Acenaphthene	83-32-9	340000	1100	ug/kg	0.085	UJ1	0.085	UJ1	0.083	U	0.084	U	-	
8270C SIM	Acenaphthylene	208-96-8	--	1100	ug/kg	0.085	UJ1	0.085	UJ1	0.083	U	0.084	U	-	
8270C SIM	Anthracene	120-12-7	1700000	1100	ug/kg	0.085	UJ1	0.085	UJ1	0.083	U	0.084	U	-	
8270C SIM	Benz(a)anthracene	56-55-3	150	1100	ug/kg	0.26	JH	0.19	JH	0.083	U	0.084	U	-	
8270C SIM	Benzo(a)pyrene	50-32-8	15	1100	ug/kg	0.3	JH	0.2	JH	0.083	U	0.084	U	-	
8270C SIM	Benzo(b)fluoranthene	205-99-2	150	1100	ug/kg	0.59	JH	0.41	JH	0.083	U	0.084	U	-	
8270C SIM	Benzo(g,h,i)perylene	191-24-2	--	1100	ug/kg	0.17	UJ1	0.17	UJ1	0.17	U	0.17	U	-	
8270C SIM	Benzo(k)fluoranthene	207-08-9	1500	1100	ug/kg	0.19	JH	0.085	UJ1	0.083	U	0.084	U	-	
8270C SIM	Chrysene	218-01-9	15000	1100	ug/kg	0.34	JH	0.25	JH	0.083	U	0.084	U	-	
8270C SIM	Dibenz(a,h)anthracene	53-70-3	15	1100	ug/kg	0.17	UJ1	0.17	UJ1	0.17	U	0.17	U	-	
8270C SIM	Fluoranthene	206-44-0	230000	1100	ug/kg	0.85	U3J1	0.6	U3J1	0.083	U	0.084	U	-	
8270C SIM	Fluorene	86-73-7	230000	1100	ug/kg	0.085	UJ1	0.085	UJ1	0.083	U	0.084	U	-	
8270C SIM	Indeno(1,2,3-cd)pyrene	193-39-5	150	1100	ug/kg	0.085	UJ1	0.085	UJ1	0.083	U	0.084	U	-	
8270C SIM	Naphthalene, SVOC	91-20-3	3600	1100	ug/kg	0.26	JH	0.21	JH	0.25	U4	0.23	U4	-	
8270C SIM	Phenanthrene	85-01-8	--	1100	ug/kg	0.39	JH	0.25	JH	0.083	U	0.084	U	-	
8270C SIM	Pyrene	129-00-0	170000	1100	ug/kg	1.2	U3J1	0.95	U3J1	0.042	U	0.042	U	-	
8270C/DoD	1,1'-Biphenyl	92-52-4	5100	--	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	1,2,4,5-Tetrachlorobenzene	95-94-3	1800	--	ug/kg	5.5	U	5.4	U	5.3	U	5.4	U	-	
8270C/DoD	2,3,4,6-Tetrachlorophenol	58-90-2	180000	--	ug/kg	1700	U	1600	U	1600	U	1600	U	-	
8270C/DoD	2,4,5-Trichlorophenol	95-95-4	610000	9,000	ug/kg	28	UJ2	28	UJ2	27	UJ2	27	UJ2	-	
8270C/DoD	2,4,6-Trichlorophenol	88-06-2	44000	4,000	ug/kg	83	UJ2	82	UJ2	81	UJ2	81	UJ2	-	
8270C/DoD	2,4-Dichlorophenol	120-83-2	18000	--	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	2,4-Dimethylphenol	105-67-9	120000	--	ug/kg	83	U	82	U	81	U	81	U	-	
8270C/DoD	2,4-Dinitrophenol	51-28-5	12000	20,000	ug/kg	83	U	82	UJ6	81	U	81	U	-	
8270C/DoD	2,4-Dinitrotoluene	121-14-2	1600	--	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	2,6-Dinitrotoluene	606-20-2	6100	--	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	2-Chloronaphthalene	91-58-7	630000	--	ug/kg	3.4	U	3.4	U	3.3	U	3.3	U	-	
8270C/DoD	2-Chlorophenol	95-57-8	39000	--	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	2-Methylnaphthalene	91-57-6	31000	--	ug/kg	3.4	U	3.4	U	3.3	U	3.3	U	-	
8270C/DoD	2-Methylphenol	95-48-7	310000	--	ug/kg	83	U	82	U	81	U	81	U	-	
8270C/DoD	2-Nitroaniline	88-74-4	61000	--	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	2-Nitrophenol	88-75-5	--	--	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	3,3'-Dichlorobenzidine	91-94-1	1100	--	ug/kg	83	U	82	UJ6	81	U	81	U	-	
8270C/DoD	3,4-Methylphenol	108-39-4	--	--	ug/kg	83	U	82	U	81	U	81	U	-	
8270C/DoD	3-Nitroaniline	99-09-2	--	--	ug/kg	83	U	82	U	81	U	81	U	-	
8270C/DoD	4,6-Dinitro-2-methylphenol	534-52-1	490	--	ug/kg	83	U	82	U	81	U	81	U	-	
8270C/DoD	4-Bromophenyl-phenylether	101-55-3	--	--	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	4-Chloro-3-methylphenol	59-50-7	610000	--	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	4-Chloroaniline	106-47-8	2400	--	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	4-Chlorophenyl-phenylether	7005-72-3	--	--	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	4-Nitroaniline	100-01-6	24000	--	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	4-Nitrophenol, SVOC	100-02-7	--	7,000	ug/kg	83	U	82	U	81	U	81	U	-	
8270C/DoD	Acenaphthene	83-32-9	340000	20,000	ug/kg	3.4	U	3.4	U	3.3	U	3.3	U	-	
8270C/DoD	Acenaphthylene	208-96-8	--	--	ug/kg	3.4	U	3.4	U	3.3	U	3.3	U	-	
8270C/DoD	Acetophenone	98-86-2	780000	--	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	Anthracene	120-12-7	1700000	--	ug/kg	3.4	U	3.4	U	3.3	U	3.3	U	-	
8270C/DoD	Atrazine	1912-24-9	2100	--	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	Benz(a)anthracene	56-55-3	150	--	ug/kg	3.4	U	3.4	U	3.3	U	3.3	U	-	
8270C/DoD	Benzaldehyde	100-52-7	780000	--	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	Benzo(a)pyrene	50-32-8	15	--	ug/kg	3.4	U	3.4	U	3.3	U	3.3	U	-	
8270C/DoD	Benzo(b)fluoranthene	205-99-2	150	--	ug/kg	3.4	U	3.4	U	3.3	U	3.3	U	-	
8270C/DoD	Benzo(g,h,i)perylene	191-24-2	--	--	ug/kg	3.4	U	3.4	U	3.3	U	3.3	U	-	

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Nantucket Beach FUDS Remedial Investigation
June 2012

Analytical Method	Compound	CAS No.	Human Health Risk Screening Level	Ecological Risk Screening Level	Field Sample ID:	NFUDS-001-TP0101-01		NFUDS-001-TP0201-01		NFUDS-001-TP0302-01		NFUDS-001-TP0402-01		NFUDS-001-TB01-06	
					Date:	6/29/2012		6/29/2012		6/29/2012		6/29/2012		6/29/2012	
					Lab Sample	200-11554-1		200-11554-2		200-11554-3		200-11554-4		200-11554-5	
					Depth:	0 - 1		0 - 1		1 - 8		1 - 8		NA	
					Units:	Result	Val Qual	Result	Val Qual	Result	Val Qual	Result	Val Qual	Result	Val Qual
8270C/DoD	Benzo(k)fluoranthene	207-08-9	1500	--	ug/kg	3.4	U	3.4	U	3.3	U	3.3	U	-	
8270C/DoD	bis (2-chloroisopropyl) ether	108-60-1	4600	--	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	bis(2-Chloroethoxy)methane	111-91-1	18000	--	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	bis(2-Chloroethyl)ether	111-44-4	210	--	ug/kg	3.4	U	3.4	U	3.3	U	3.3	U	-	
8270C/DoD	bis(2-Ethylhexyl)phthalate	117-81-7	35000	3,000 [4]	ug/kg	21	J	33	J	19	J	27	U	-	
8270C/DoD	Butyl benzyl phthalate	85-68-7	260000	3,000 [4]	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	Caprolactam	105-60-2	3100000	--	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	Carbazole	86-74-8	--	--	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	Chrysene	218-01-9	15000	--	ug/kg	3.4	U	3.4	U	3.3	U	3.3	U	-	
8270C/DoD	Dibenz(a,h)anthracene	53-70-3	15	--	ug/kg	3.4	U	3.4	U	3.3	U	3.3	U	-	
8270C/DoD	Dibenzofuran	132-64-9	7800	--	ug/kg	3.4	U	3.4	U	3.3	U	3.3	U	-	
8270C/DoD	Diethylphthalate	84-66-2	4900000	100,000	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	Dimethyl phthalate	131-11-3	--	--	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	Di-N-Butyl phthalate	84-74-2	610000	3,000 [4]	ug/kg	28	U	32	U5	27	U	27	U	-	
8270C/DoD	Di-N-Octyl phthalate	117-84-0	--	3,000 [4]	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	Fluoranthene	206-44-0	230000	--	ug/kg	3.4	U	3.4	U	3.3	U	3.3	U	-	
8270C/DoD	Fluorene	86-73-7	230000	--	ug/kg	3.4	U	3.4	U	3.3	U	3.3	U	-	
8270C/DoD	Hexachlorobenzene	118-74-1	300	--	ug/kg	3.4	U	3.4	U	3.3	U	3.3	U	-	
8270C/DoD	Hexachlorobutadiene, SVOC	87-68-3	6200	--	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	Hexachlorocyclopentadiene	77-47-4	37000	10,000	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	Hexachloroethane	67-72-1	1200	--	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	Indeno(1,2,3-cd)pyrene	193-39-5	150	--	ug/kg	3.4	U	3.4	U	3.3	U	3.3	U	-	
8270C/DoD	Isophorone	78-59-1	510000	--	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	Naphthalene, SVOC	91-20-3	3600	--	ug/kg	3.4	U	3.4	U	3.3	U	3.3	U	-	
8270C/DoD	Nitrobenzene	98-95-3	4800	--	ug/kg	3.4	U	3.4	U	3.3	U	3.3	U	-	
8270C/DoD	N-Nitroso-di-N-propylamine	621-64-7	69	--	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	N-Nitrosodiphenylamine	86-30-6	99000	--	ug/kg	28	U	28	U	27	U	27	U	-	
8270C/DoD	Pentachlorophenol, SVOC	87-86-5	890	2,100	ug/kg	83	U	82	U	81	U	81	U	-	
8270C/DoD	Phenanthrene	85-01-8	--	--	ug/kg	3.4	U	3.4	U	3.3	U	3.3	U	-	
8270C/DoD	Phenol	108-95-2	1800000	30,000	ug/kg	28	U	44	U5	27	U	27	U	-	
8270C/DoD	Pyrene	129-00-0	170000	--	ug/kg	3.4	U	3.4	U	3.3	U	3.3	U	-	
Explosives															
8330 Mod	1,3,5-Trinitrobenzene	99-35-4	220000	40,000 [2]	ug/kg	12	U	12	U	12	U	12	U	-	
8330 Mod	1,3-Dinitrobenzene	99-65-0	610	40,000 [2]	ug/kg	12	U	12	U	12	U	12	U	-	
8330 Mod	2,4,6-Trinitrotoluene	118-96-7	19000	30,000	ug/kg	24	U	24	U	24	U	24	U	-	
8330 Mod	2,4-Dinitrotoluene	121-14-2	1600	30,000 [3]	ug/kg	24	U	24	U	24	U	24	U	-	
8330 Mod	2,6-Dinitrotoluene	606-20-2	6100	30,000 [3]	ug/kg	12	U	12	U	12	U	12	U	-	
8330 Mod	2-Amino-4,6-dinitrotoluene	35572-78-2	15000	80,000	ug/kg	12	U	12	U	12	U	12	U	-	
8330 Mod	2-Nitrotoluene	88-72-2	2900	30,000 [3]	ug/kg	24	U	24	U	24	U	24	U	-	
8330 Mod	3-Nitrotoluene	99-08-1	610	30,000 [3]	ug/kg	30	U	30	U	30	U	30	U	-	
8330 Mod	4-Amino-2,6-dinitrotoluene	19406-51-0	15000	80,000	ug/kg	12	U	12	U	12	U	12	U	-	
8330 Mod	4-Nitrotoluene	99-99-0	30000	30,000 [3]	ug/kg	30	U	30	U	30	U	30	U	-	
8330 Mod	HMX	2691-41-0	380000	--	ug/kg	12	U	12	U	12	U	12	U	-	
8330 Mod	Nitrobenzene	98-95-3	4800	40,000	ug/kg	30	U	30	U	30	U	30	U	-	
8330 Mod	Nitroglycerin	55-63-0	610	--	ug/kg	730	U	720	U	730	U	730	U	-	
8330 Mod	RDX	121-82-4	5600	100,000	ug/kg	12	U	12	U	12	U	12	U	-	
8330 Mod	Tetryl	479-45-8	24000	25,000	ug/kg	24	U	24	U	24	U	24	U	-	
Soil Moisture															
Moisture	Percent Solids	NA	--	--	%	96		97		99		98		-	

Munitions Response Site 1
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June 2012

Notes:

Lab Qualifiers

B	Blank contamination: The analyte was detected above one-half thereporting limit in an associated blank.
H	Sample was prepped or analyzed beyond the specified holding time
J	Estimated: The analyte was positively identified; the quantitation is an estimation.
M	Manual integrated compound.
Q	One or more quality control criteria failed.
U	The analyte was not detected in the sample. The numeric value represents the sample detection limit

Validation Qualifiers

J1/UJ1	The positive and non-detected results were estimated in all SVOA SIMs reanalysis and SVOA 8270C DoD reanalysis due to holding time exceedances. Only reanalyses for SVOA SIMS samples NFUDS-001-TP0101-01 and NFUDS-001-TP0201-01 were reported. The original analyses for all other samples were reported.
J2/UJ2	Estimate the positive and non-detected results for 2,4,5-trichlorophenol and 2,4,6-trichlorophenol results in all original 8270 DoD samples due to LCS recoveries below QC limits (potential low bias).
U3	Qualify the positive result for toluene in all samples as undetected (U) due to method blank contamination.
U4	Qualify the positive result for naphthalene in semivolatile SIM samples original analyses NFUDS-001-TP-0302-01, NFUDS-001-TP0402-01 as undetected (U) due to method blank contamination.
U5	Qualify the positive result for di-n-butyl phthalate and phenol in semivolatile 8270 C DoD sample NFUDS-001-TP0201-01 as undetected (U) due to method blank contamination.
UJ6	Estimate the non-detected results for 3,3'-dichlorobenzidine and 2,4-dinitrophenol in sample NFUDS-001-TP0201-01 due to matrix spike recoveries below QC limits and non-compliant RPD results (potential low bias).
J7	Estimated the positive results for Al, Ca, Fe, Mn and Zn in sample NFUDS-001-TP0402-01 due to non-compliant laboratory duplicate results (bias can not be determined).
UJ8	Estimate the non-detected Sb result in sample NFUDS-001-TP0402-01 due to matrix spike recovery below QC limits (potential low bias).
J9	Estimate the positive results for Ca, Pb, Mg, Mn and K in sample NFUDS-001-TP0402-01 due to matrix spike results above QC limits (potential high bias).

Human health risk soil screening levels were obtained from EPA RSLs for residential soil November 2011;
non-carcinogenic endpoint screening levels were divided by ten (10) to account for potential occurrence of adverse health effects due to exposure to multiple noncarcinogens.
Analytical results highlighted in **RED** exceed the selected human health screening level
Ecological risk soil screening levels were obtained from EPA Eco-SSLs (various publication dates) for metals and organics.
Ecological risk soil screening levels were obtained from Talmage et al., 1999, for nitroaromatic munition compounds.
Ecological risk soil screening levels were obtained from Efroymson et al., 1997, for various DOE site contaminants based on soil invertebrate and microbial process effects.
Analytical results highlighted in **GREEN** exceed the selected ecological benchmark screening level
Analytical results highlighted in **PINK** were not detected by the laboratory but are reported at a level of detection above the selected screening level
[1] Toxicity is dependent on pH
[2] Benchmark based on nitrobenzene
[3] Benchmark based on TNT
[4] Benchmark based on total phthalates
-- = screening level not available
EPA = U.S. Environmental Protection Agency
mg/kg = milligrams per kilograms
µg/kg = micrograms per kilogram
µg/L = micrograms per liter
DQO = data quality objectives
LOD = level of detection
LOQ = level of quantitation
MCL = Maximum Contaminant Levels
RSL = Regional Screening Level
TBD = laboratory in-process of updating LODs; updated values will be provided in subsequent revisions of the *QAPP*
%R = percent relative
%RPD = percent reportable difference
NA = Not applicable

ATTACHMENT 3
Test Pit Logs and Field Screening Results

Location:	MRS 1
Project Name:	Nantucket FUDS RI
Project Number:	03886.551.004.0011
Project Manager:	Chris Kane, PMP
Logged By:	Marie S-Laflamme
Date Logged:	6/28/2012
Excavation Method:	Backhoe
Total Depth:	8 feet
Ground Surf. Elev.:	

Remarks:
Test pit was excavated 3 ft W x 5 ft L x 8 ft D.
Soil aliquots (composited with TP3) collected from sidewalls of test pit, composited from depths of 0-1 and 1-8 ft bgs. VOC sample collected discretely at 6 in bgs from east sidewall.

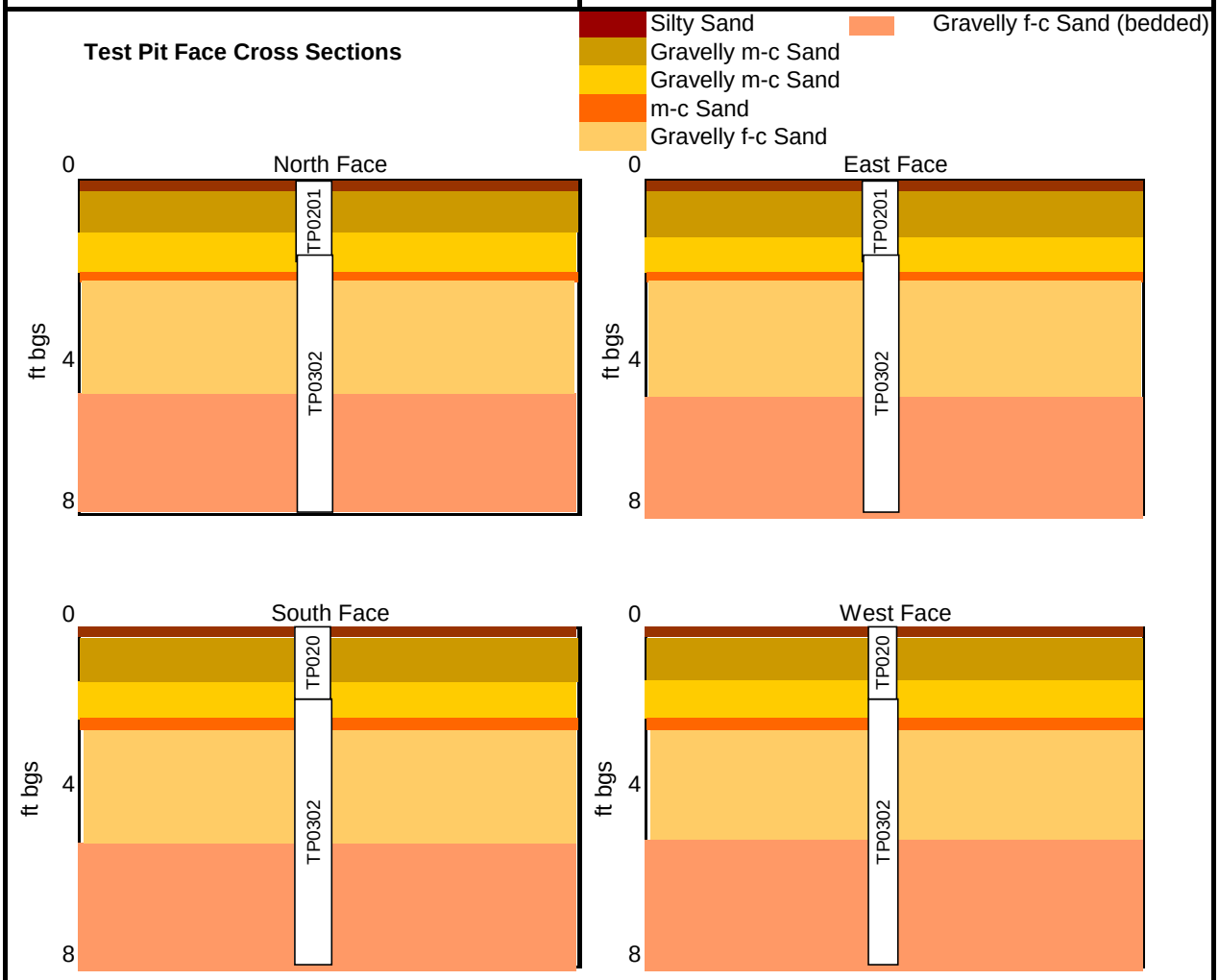


Northeast face of Test Pit 02; 0-8 ft bgs.

Stratigraphic Unit	Sample Number	Depth (ft) below ground surface (bgs)	PID	Material Description
FILL	NFUDS-001-TP0201-01	0.25		Dark brown, well-graded, Silty Sand (SM) with organics.
		0.7	0.0	Dark yellowish brown, well-graded, gravelly, medium to coarse Sand (SW). Rouned fine to coarse gravel. Little organics.
	NFUDS-001-TP0302-01 (composited with TP3)	2.0	0.0	Med yellowish brown, well-graded, gravelly, medium to coarse Sand (SW). Rouned fine to coarse gravel.
		2.25	0.0	Med orangish brown, poorly-graded, med to coarse Sand (SP).
OUTWASH		5.0	0.0	Light yellowish brown, well-graded, gravelly, medium to coarse Sand (SW) with fine black sand. Rounded fine to coarse gravel in stratified layers/pockets.
		8.0	0.0	Same as above with increasing stratified sand layers (SW) observed to bottom of test pit, including bands/pockets of med orangish brown med to coarse sand.
		Bottom of test pit		

Location:	MRS 1
Project Name:	Nantucket FUDS RI
Project Number:	03886.551.004.0011
Project Manager:	Chris Kane, PMP
Logged By:	Marie S-Laflamme
Date Logged:	6/28/2012
Excavation Method:	Backhoe
Total Depth:	8 feet
Ground Surf. Elev.:	
Remarks:	

Test Pit Face Cross Sections



Test Pit: MRS 1 Burial Pit Test Pit 3 (TP3)

Location:	MRS 1
Project Name:	Nantucket FUDS RI
Project Number:	03886.551.004.0011
Project Manager:	Chris Kane, PMP
Logged By:	Marie S-Laflamme
Date Logged:	6/28/2012
Excavation Method:	Backhoe
Total Depth:	7.3 feet
Ground Surf. Elev.:	

Remarks:
Test pit was excavated 3 ft W x 5 ft L x 8 ft D. Soil aliquots (composited with TP2) collected from sidewalls of test pit, composited from depths of 0-1 and 1-7.3 ft bgs. VOC sample collected discretely at 4 ft bgs from southeast sidewall.

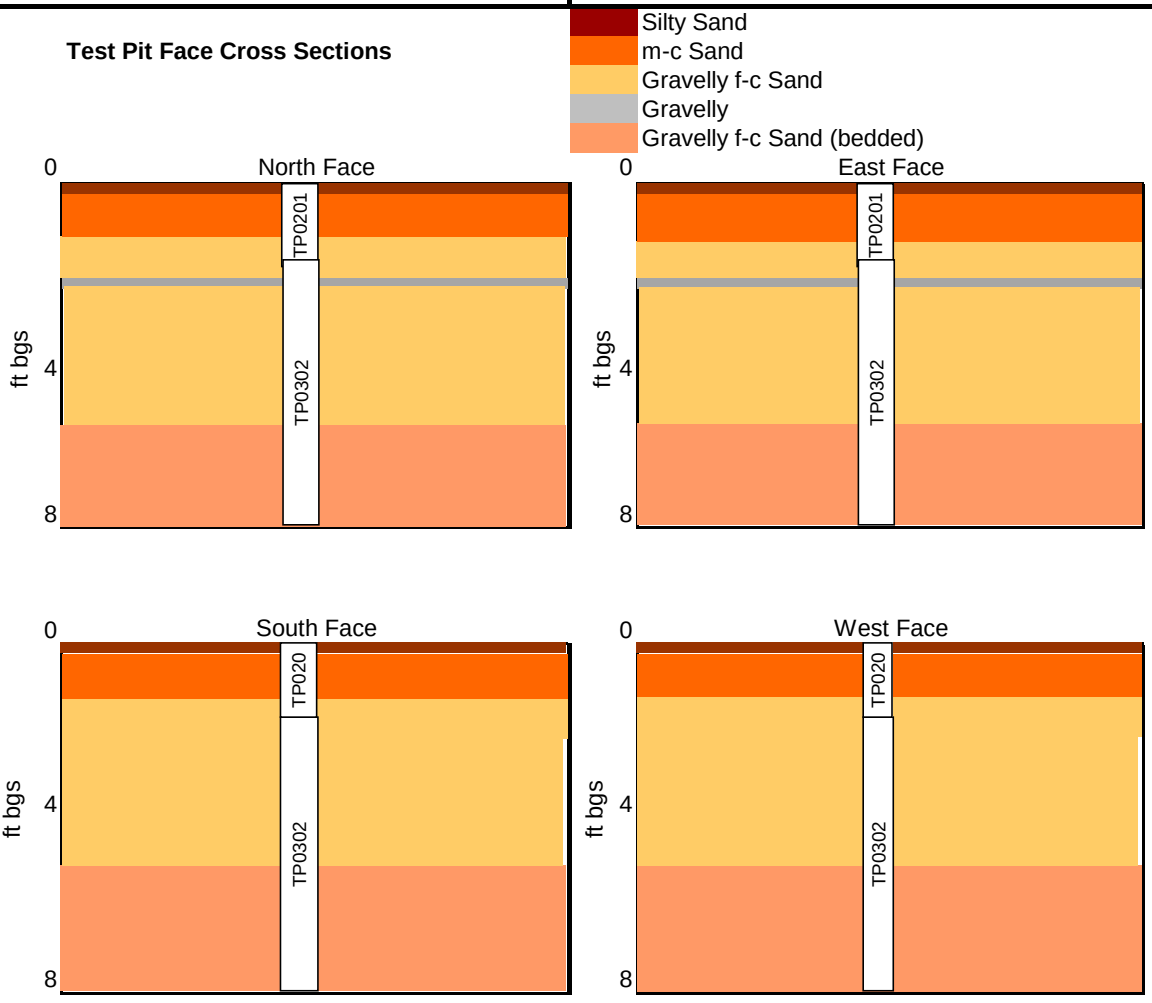


Southwest face of Test Pit 03; 0-~7 ft bgs

Stratigraphic Unit	Sample Number	Depth (ft) below ground surface (bgs)	PID	Material Description
FILL	NFUDS-001-TP0201-01	0.3	0.0	Dark brown, well-graded, Silty Sand (SM) with organics.
		1.5	0.0	Med orangish brown, poorly-graded, med to coarse Sand (SP). Rouned fine to coarse gravel.
OUTWASH	NFUDS-001-TP0302-01 (composited with TP2)	2.6	0.0	Light yellowish brown, well-graded, gravelly, medium to coarse Sand (SW) with fine black sand. Rounded fine to coarse gravel.
		3.2	0.0	Northeast face of Test Pit 03; med to coarse gravel layer
		4.4	0.0	Light yellowish brown, well-graded, gravelly, medium to coarse Sand (SW) with fine black sand. Rounded fine to coarse gravel in stratisfied band/pockets.
		7.3	0.0	Same as above with increasing stratified sand layers (SW) observed to bottom of test pit, including bands/pockets of med orangish brown med to coarse sand. Areas of reddish orange color observed. Very compacted.
		Bottom of test pit		

Location:	MRS 1
Project Name:	Nantucket FUDS RI
Project Number:	03886.551.004.0011
Project Manager:	Chris Kane, PMP
Logged By:	Marie S-Laflamme
Date Logged:	6/28/2012
Excavation Method:	Backhoe
Total Depth:	7.3 feet
Ground Surf. Elev.:	
Remarks:	

Test Pit Face Cross Sections



Location:	MRS 1
Project Name:	Nantucket FUDS RI
Project Number:	03886.551.004.0011
Project Manager:	Chris Kane, PMP
Logged By:	Marie S-Laflamme
Date Logged:	6/28/2012
Excavation Method:	Backhoe
Total Depth:	7.0 feet
Ground Surf. Elev.:	

Remarks:
Test pit was excavated 3 ft W x 5 ft L x 8 ft D. Soil aliquots (composited with TP4) collected from sidewalls of test pit, composited from depths of 0-1 and 1-7 ft bgs. VOC sample collected discretely at 6 in bgs from northeast corner.

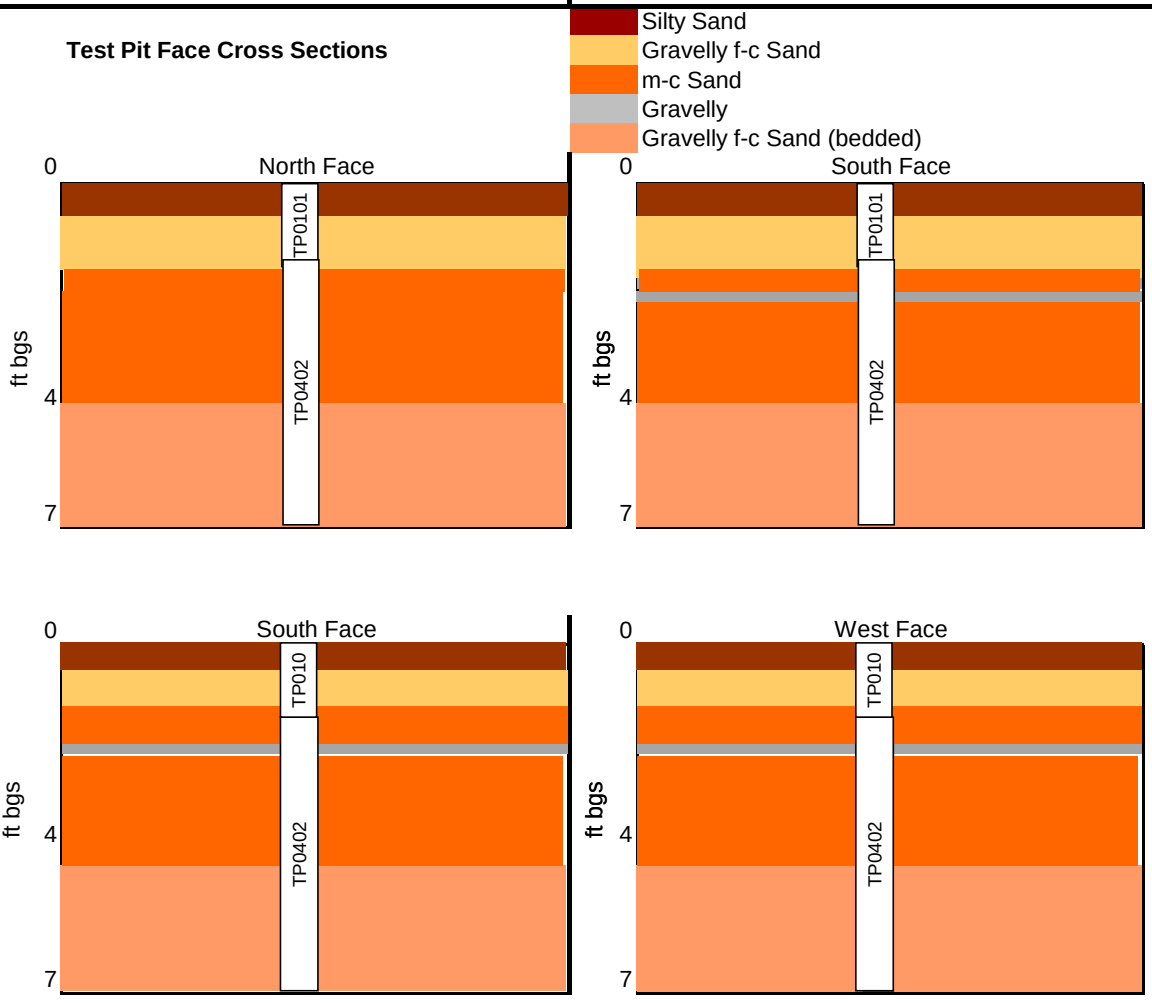


Southwest face of Test Pit 01; 0-~4 ft bgs

Stratigraphic Unit	Sample Number	Depth (ft) below ground surface (bgs)	PID	Material Description
FILL	NFUDS-001-TP0101-01 (composited with TP4)	1	0.0	Dark brown, well-graded, Silty Sand (SM) with organics and some med to coarse orangish brown sand.
OUTWASH	NFUDS-001-TP0402-01 (composited with TP4)	1.5	0.0	Light yellowish brown, well-graded, gravelly, med to coarse Sand (SW) with fine black sand, some fine to med orangish brown sand. Rounded fine to med gravel.
		~2		Med orangish brown, well-graded, gravelly, med to coarse Sand (SW), with stratisfied layers of light yellowish brown coarse sand and fine black sand, and rounded fine to med gravel. SE, SW, and S faces - med to coarse, sandy gravel (GP) layer
		3.8	0.0	
		4.3	0.0	Light yellowish brown, poorly-graded, med to coarse Sand (SP) with fine black sand. Little rounded med gravel.
		7.0	0.0	Light yellowish brown, well-graded, gravelly, medium to coarse Sand (SW) with fine black sand. Rounded med to coarse gravel in stratisfied band/pockets with fine orangish brown sand to bottom of test pit. Very compacted.
		Bottom of test pit		

Location:	MRS 1
Project Name:	Nantucket FUDS RI
Project Number:	03886.551.004.0011
Project Manager:	Chris Kane, PMP
Logged By:	Marie S-Laflamme
Date Logged:	6/28/2012
Excavation Method:	Backhoe
Total Depth:	7.0 feet
Ground Surf. Elev.:	
Remarks:	

Test Pit Face Cross Sections



Test Pit: MRS 1 Burial Pit Test Pit 4 (TP4)

Location:	MRS 1
Project Name:	Nantucket FUDS RI
Project Number:	03886.551.004.0011
Project Manager:	Chris Kane, PMP
Logged By:	Marie S-Laflamme
Date Logged:	6/28/2012
Excavation Method:	Backhoe
Total Depth:	7.0 feet
Ground Surf. Elev.:	

Remarks:
Test pit was excavated 3 ft W x 5 ft L x 8 ft D. Soil aliquots (composited with TP1) collected from sidewalls of test pit, composited from depths of 0-1 and 1-7 ft bgs. VOC sample collected discretely at 4 ft bgs from southeast corner.



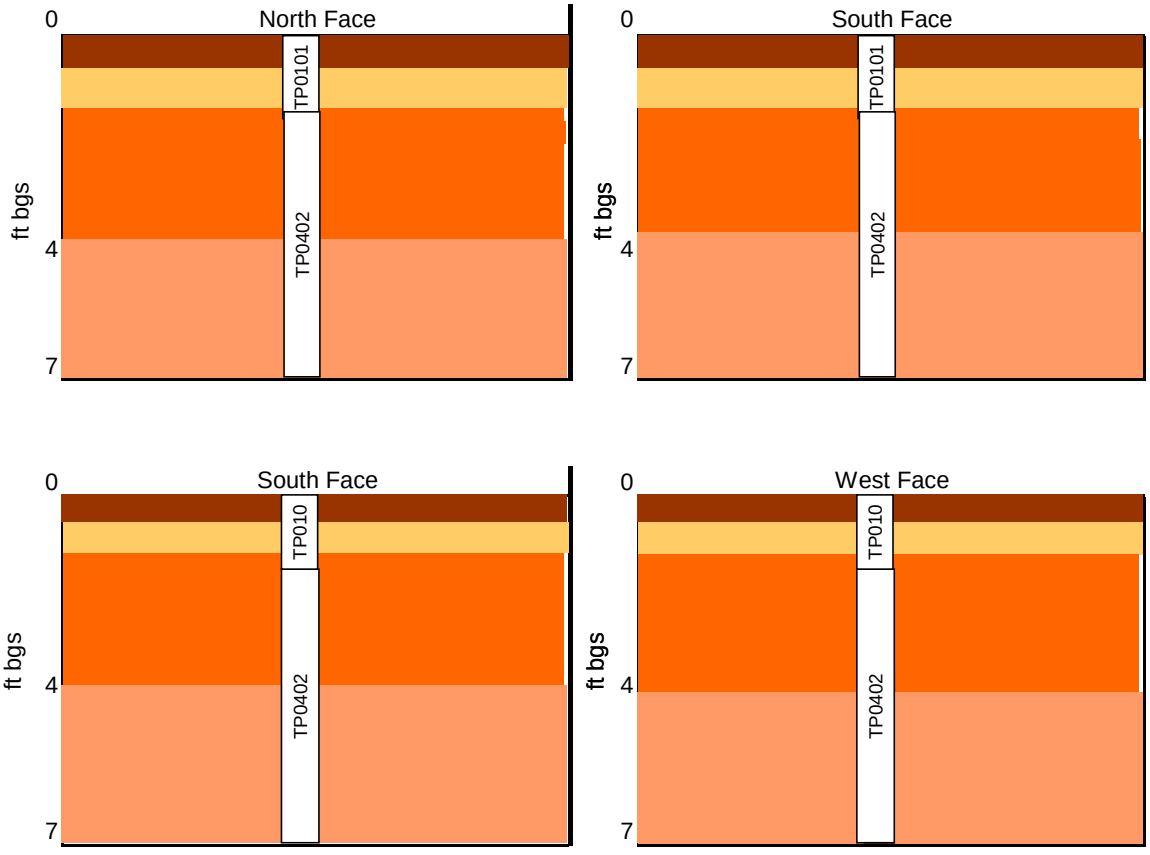
Northeast face of Test Pit 04; 0-~4 ft bgs

Stratigraphic Unit	Sample Number	Depth (ft) below ground surface (bgs)	PID	Material Description
FILL	NFUDS-001-TP0101-01 (composited with TP1)	1	0.0	Dark brown, well-graded, Silty Sand (SM) with organics and some med to coarse orangish brown sand.
OUTWASH	NFUDS-001-TP0402-01 (composited with TP1)	2	0.0	Light yellowish brown, well-graded, gravelly, med to coarse Sand (SW) with fine black sand. Rounded fine to med gravel.
		4	0.0	Med orangish brown, well-graded, gravelly, med to coarse Sand (SW), with stratisfied layers of light yellowish brown coarse sand and fine black sand, and rounded fine to med gravel.
		7.0	0.0	Light yellowish brown, well-graded, gravelly, medium to coarse Sand (SW) with fine black sand. Rounded med to coarse gravel in stratisfied band/pockets with fine orangish brown sand to bottom of test pit. Very compacted.
		Bottom of test pit		

Location:	MRS 1
Project Name:	Nantucket FUDS RI
Project Number:	03886.551.004.0011
Project Manager:	Chris Kane, PMP
Logged By:	Marie S-Laflamme
Date Logged:	6/28/2012
Excavation Method:	Backhoe
Total Depth:	7.0 feet
Ground Surf. Elev.:	
Remarks:	

Test Pit Face Cross Sections

Silty Sand
Gravelly f-c Sand
m-c Sand
Gravelly f-c Sand (bedded)



Nantucket Beach FUDS Remedial Investigation
MRS 1 Burial Pit HTW Test Pit Investigation
XRF Field Screening Results
28-Jun-12

All units are mg/kg
Test Pit 02

	Fe	Ti	Zr	Sr	Rb	Mn	Zn	Pb	Sb	Cd
	5500	**--**	**--**	**--**	**--**	**180**	**2300**	**40**	**3.1**	**7**
	NA	**--**	**--**	**--**	**--**	**220**	**46**	**11**	**0.27**	**0.36**
0-1	4381.0	1175.0	121.0	22.9	11.6	ND	ND	ND	ND	ND
	4310.0	1153.0	112.0	12.2	11.0	ND	ND	ND	ND	ND
	4028.0	1354.0	91.0	5.6	4.8	ND	ND	ND	ND	ND
average	**4239.7**	**1227.3**	**108.0**	**13.6**	**9.1**	**ND**	**ND**	**ND**	**ND**	**ND**
1-2	5107.0	1963.0	134.0	21.0	15.5	ND	ND	ND	ND	ND
	4259.0	ND	97.0	9.2	ND	ND	ND	ND	ND	ND
	5575.0	ND	163.0	18.2	12.5	ND	ND	ND	ND	ND
average	**4980.3**	**1963.0**	**131.3**	**16.1**	**14.0**	**ND**	**ND**	**ND**	**ND**	**ND**
3-5	5511.0	1714.0	71.0	22.2	24.0	ND	ND	ND	ND	ND
	2950.0	ND	56.0	9.9	12.8	ND	ND	ND	ND	ND
	4176.0	13.0	130.0	11.8	8.5	117.0	ND	ND	ND	ND
average	**4212.3**	**863.5**	**85.7**	**14.6**	**15.1**	**117.0**	**ND**	**ND**	**ND**	**ND**
5-8	2705.0	ND	61.0	12.1	11.9	ND	ND	ND	ND	ND
	3770.0	ND	50.0	11.3	9.5	ND	37.0	ND	ND	ND
	3511.0	ND	76.0	18.8	11.3	ND	ND	ND	ND	ND
average	**3328.7**	**ND**	**62.3**	**14.1**	**10.9**	**ND**	**37.0**	**ND**	**ND**	**ND**

Nantucket Beach FUDS Remedial Investigation
MRS 1 Burial Pit HTW Test Pit Investigation
XRF Field Screening Results
28-Jun-12

All units are mg/kg
Test Pit 03

	Fe	Ti	Zr	Sr	Rb	Mn	Zn	Pb	Sb	Cd
	5500	**--**	**--**	**--**	**--**	**180**	**2300**	**40**	**3.1**	**7**
	NA	**--**	**--**	**--**	**--**	**220**	**46**	**11**	**0.27**	**0.36**
0-1	ND	3110.0	374.0	28.0	20.0	147.0	ND	ND	ND	ND
	8249.0	2742.0	467.0	27.0	18.6	229.0	ND	ND	ND	ND
	8264.0	3615.0	509.0	29.0	23.0	234.0	ND	ND	ND	ND
average	**8256.5**	**3155.7**	**450.0**	**28.0**	**20.5**	**203.3**	**ND**	**ND**	**ND**	**ND**
1-1.5	3481.0	1403.0	173.0	15.6	13.6	ND	ND	ND	ND	ND
	3691.0	1212.0	164.0	17.5	15.5	ND	ND	ND	ND	ND
	2738.0	941.0	169.0	22.9	10.9	ND	ND	ND	ND	ND
average	**3303.3**	**1185.3**	**168.7**	**18.7**	**13.3**	**ND**	**ND**	**ND**	**ND**	**ND**
1.5-2.6	1997.0	ND	113.0	12.8	ND	122.0	ND	ND	ND	ND
	1999.0	1740.0	60.0	11.5	ND	117.0	ND	ND	ND	ND
	2821.0	ND	146.0	16.7	ND	ND	ND	ND	ND	ND
average	**2272.3**	**1740.0**	**106.3**	**13.7**	**ND**	**119.5**	**ND**	**ND**	**ND**	**ND**
2.6-3.2	2854.0	ND	141.0	15.9	8.7	ND	ND	ND	ND	ND
	4389.0	ND	117.0	14.4	10.6	135.0	ND	ND	ND	ND
	3517.0	925.0	74.0	9.0	9.8	ND	ND	ND	ND	ND
average	**3586.7**	**925.0**	**110.7**	**13.1**	**9.7**	**135.0**	**ND**	**ND**	**ND**	**ND**
3.2-4.4	9454.0	ND	109.0	15.5	25.0	215.0	ND	ND	ND	ND
	9461.0	1068.0	115.0	15.8	23.0	154.0	ND	ND	ND	ND
	8676.0	ND	95.0	16.3	18.2	174.0	ND	ND	ND	ND
average	**9197.0**	**1068.0**	**106.3**	**15.9**	**22.1**	**181.0**	**ND**	**ND**	**ND**	**ND**
4.4-7	3195.0	ND	35.0	8.1	8.8	ND	ND	ND	ND	ND
	3648.0	ND	60.0	10.5	13.2	119.0	ND	ND	ND	ND
	3055.0	ND	69.0	27.0	12.9	ND	ND	ND	ND	ND
average	**3299.3**	**ND**	**54.7**	**15.2**	**11.6**	**119.0**	**ND**	**ND**	**ND**	**ND**

Nantucket Beach FUDS Remedial Investigation
MRS 1 Burial Pit HTW Test Pit Investigation
XRF Field Screening Results
28-Jun-12

All units are mg/kg
Test Pit 01

	Fe	Ti	Zr	Sr	Rb	Mn	Zn	Pb	Sb	Cd
	5500	**--**	**--**	**--**	**--**	**180**	**2300**	**40**	**3.1**	**7**
	NA	**--**	**--**	**--**	**--**	**220**	**46**	**11**	**0.27**	**0.36**
0-1	5089	1783	178	23.2	19.3	ND	ND	ND	ND	ND
	4230	ND	36	16.2	13	ND	36	9	ND	ND
	4190	ND	95	13.2	13.9	ND	ND	ND	ND	ND
average	**4503**	**1783**	**103**	**17.53333**	**15.4**	**ND**	**36**	**9**	**ND**	**ND**
1-1.5	2957	ND	ND	12.4	16.6	103	63	11	ND	ND
	2999	1392	ND	11	58	117	175	11	ND	ND
	3375	1597	ND	16.7	110	117	86	16	ND	ND
average	**3110.333**	**1494.5**	**ND**	**13.36667**	**61.53333**	**112.3333**	**108**	**12.66667**	**ND**	**ND**
1.5-3.8	2349	ND	17.3	6.2	ND	ND	ND	ND	73	ND
	2409	ND	23	7.1	5.5	ND	ND	ND	ND	ND
	5005	ND	65	36	20	ND	ND	ND	ND	ND
average	**3254.333**	**ND**	**35.1**	**16.43333**	**12.75**	**ND**	**ND**	**ND**	**73**	**ND**
3.8-4.3	1652	ND	64	13.3	12	ND	ND	ND	ND	ND
	2566	ND	48	11.8	14.5	ND	ND	ND	ND	ND
	2822	ND	53	16.9	15.8	345	ND	ND	ND	ND
average	**2346.667**	**ND**	**55**	**14**	**14.1**	**345**	**ND**	**ND**	**ND**	**ND**
4.3-7	2764	1710	307	26	19.6	ND	ND	ND	ND	ND
	2435	2014	286	24.4	19.8	118	ND	ND	ND	39
	2438	ND	182	26	17	ND	ND	ND	ND	ND
average	**2545.667**	**1862**	**258.3333**	**25.46667**	**18.8**	**118**	**ND**	**ND**	**ND**	**39**

Nantucket Beach FUDS Remedial Investigation
MRS 1 Burial Pit HTW Test Pit Investigation
XRF Field Screening Results
28-Jun-12

All units are mg/kg
Test Pit 04

	Fe	Ti	Zr	Sr	Rb	Mn	Zn	Pb	Sb	Cd
	5500	**--**	**--**	**--**	**--**	**180**	**2300**	**40**	**3.1**	**7**
	NA	**--**	**--**	**--**	**--**	**220**	**46**	**11**	**0.27**	**0.36**
0-1	6717	1744	233	24.9	18.9	ND	ND	ND	ND	ND
	7326	1636	170	22.9	24	ND	ND	ND	ND	ND
	6661	1675	311	25.8	35	ND	ND	12	ND	ND
average	**6901.333**	**1685**	**238**	**24.53333**	**25.96667**	**ND**	**ND**	**12**	**ND**	**ND**
1-2	2432	ND	89	16.7	12.8	124	ND	ND	59	ND
	4644	ND	75	19.9	14.8	ND	ND	ND	ND	ND
	3504	1021	66	17.7	18.9	117	ND	ND	ND	ND
average	**3526.667**	**1021**	**76.66667**	**18.1**	**15.5**	**120.5**	**ND**	**ND**	**59**	**ND**
2-4	4125	1017	72	13	15.6	ND	ND	ND	ND	ND
	5505	ND	52	14.7	27	ND	ND	ND	ND	44
	6019	ND	38	16.5	34	ND	ND	ND	ND	44
average	**5216.333**	**1017**	**54**	**14.73333**	**25.53333**	**ND**	**ND**	**ND**	**ND**	**44**
4-7	2520	ND	91	20.4	23	ND	ND	ND	ND	ND
	2031	ND	50	23.4	16.9	ND	ND	ND	ND	ND
	2138	ND	43	18.8	19.7	ND	ND	ND	ND	ND
average	**2229.667**	**ND**	**61.33333**	**20.86667**	**19.86667**	**ND**	**ND**	**ND**	**ND**	**ND**

ATTACHMENT 4
Data Validation Memorandum

Nantucket Beach FUDS
Data Validation Report
TestBurlington SDG 200-11554-1

Weston Solutions, Inc.
45 Constitution Way
Concord, NH 03301-5079
603-656-5400 ● Fax 603-656-5401
www.westonsolutions.com

DATE: August 6, 2012

PROJECT: Nantucket Beach FUDS
03886.551.004

LABORATORY: TestAmerica Laboratories, Inc., South Burlington, VT

SDG: 200-11554-1

FROM: Diane Quigley
Senior Technical Manager

Gretchen Fodor
Senior Data Review Chemist

Linda Adams
Data Validator

SAMPLES: NFUDS-001-TP0101-01, NFUDS-001-TP0201-01, NFUDS-001-TP0302-01, NFUDS-001-TP0402-01, NFUDS-001-TB01-06

This data validation report is based upon a review of analytical data generated for five sediment samples collected on June 29, 2012 by Weston Solutions, Inc. (WESTON).

Samples 1 through 4 were analyzed for volatiles by SW-846 Method 8260B, polycyclic aromatic hydrocarbons (PAHs) using selective ion monitoring (SIM) by SW-846 Method 8270C, semi volatile organic compounds (SVOCs) by SW-846 8270C pesticides by SW-846 Method 8081B, polychlorinated biphenyls (PCBs) by SW-846 Method 8082A, herbicides by SW-846 Method 8051, total metals by SW-846 Method 6010C, total mercury by SW-846 Method 7471B and explosives by SW-846 Method 8330. Sample 5 was a trip blank and only analyzed for volatiles.

Weston performed a modified Tier II data validation in accordance with the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Data Review, USEPA, 06/2008 and USEPA CLP National Functional Guidelines for Inorganic Superfund Data Review, January 2010.

The data were evaluated based on the following parameters:

*	Overall Evaluation of Data and Potential Usability Issues
*	Data Completeness
*	Chain-of-Custody (COC) Documentation
*	Holding Times and Sample Preservation
*	GC/MS Tune
	Method Blanks/Trip and Equipment blanks
	Initial and Continuing Calibrations
*	Laboratory and Field Blanks
*	Surrogate Recoveries
	Matrix Spike Recoveries and Reproducibility
*	Field Duplicates (Not applicable)
*	Laboratory Duplicates (Inorganics)
	Laboratory Control Samples (LCS)
*	Internal Standard Performance
*	Qualitative Identification
	Quantitation Limits

* – Denotes QC parameter was evaluated and criteria was met.

Overall Evaluation of Data and Potential Usability Issues

Volatile

Toluene was qualified as undetected (U) in all samples due to method blank contamination.

Semi volatile SIM 8270C

The re-extracted results (7/19/2012) for samples NFUDS-001-TP0101-01 and NFUDS-001-TP0201-01 were reported with all results estimated (J,UJ) due to extraction past holding times. Fluoranthene and pyrene were qualified as (UJ) in re-extracted samples (7/19/2012) NFUDS-001-TP0101-01 and NFUDS-001-TP0201-01 due to method blank contamination.

The original results (7/16/2012) for samples NFUDS-001-TP0302-01 and NFUDS-001-TP0402-01 were reported with naphthalene qualified as undetected (U) due to method blank contamination.

Semi volatile 82070C DoD

All original results were reported with non-detected results for 2,4,5-trichlorophenol and 2,4,6-trichlorophenol estimated (UJ) due to LCS recoveries below QC limits (potential low bias). The re-extracted sample results were not used.

3,3'-Dichlorobenzidene and 2,4-dinitrophenol were estimated (UJ) in sample NFUDS-001-TP0201-01 due to low matrix spike recoveries and non-compliant RPD results (potential low bias). The positive results for di-n-butyl phthalate and phenol were qualified as undetected (U) in this sample due to method blank contamination.

Metals

The positive results for aluminum, lead, manganese and zinc were estimated (J) in sample NFUDS-001-TP0402-01 due to non-compliant laboratory duplicate results. Professional judgment was used in qualifying only this sample.

The non-detected result for antimony was estimated (UJ) in sample NFUDS-001-TP0402-01 due to low matrix spike recoveries (potential low bias) and the positive results for Calcium, Lead, Magnesium, Manganese and Potassium were estimated (J) due to high matrix spike recoveries (potential high bias). Professional judgment was used in qualifying only this sample.

No qualifications were made in the pesticide/PCB, herbicide, explosive or mercury analyses.

Holding Times

Due to the semi volatile SIM method blank MB 200-41630/1-A containing all target compounds, all samples were re-extracted. Re-extraction took place outside of holding times resulting in all results being estimated (J,UJ). The laboratory reported both sets of results; however, the restriction results should be used (UJ) for samples NFUDS-001-TP0101-01 and NFUDS-001-TP0201-01. The original results should be used for samples NFUDS-001-TP0302-01 and NFUDS-001-TP0402-01 with appropriate qualifications.

The semi volatile samples were all re-extracted past holding times due to method blank contamination and two compounds recovering in the LCS below QC limits. Professional judgment was used in reporting all original 8270C DOD results with appropriate qualifications.

NFUDS-001-TB01-06 was not affected and only one result was reported by laboratory.

Method Blanks

Volatiles

Compound	Concentration (ug/kg)	Action level (ug/kg)
Toluene	.274	1.37

The laboratory flagged these results above the RL with a "J". Using the five times rule, the positive values for toluene in the following samples were qualified as undetected (U) and the validator replaced the "J" flag with a "U": NFUDS-001-TP0101-01, NFUDS-001-TP0201-01, NFUDS-001-TP0302-01 and NFUDS-001-TP0402-01.

Semi volatile SIM

Due to the semi volatile SIM method blank MB 200-41630/1-A containing all target compounds, all samples were re-extracted. Re-extraction took place outside of holding times resulting in all results being estimated (J,UJ). The laboratory reported both sets of results; however, the re-extraction results (7/19/2012) should be used for samples NFUDS-001-TP0101-01 and NFUDS-001-TP0201-01. The original results (7/16/2012) for samples NFUDS-001-TP-0302-01 and NFUDS-001-TP0402-01 were reported but napthalene has been qualified as undetected (U) in both of these samples due to method blank contamination.

MB 200-41970/1-A

Compound	Concentration (ug/kg)	Action level (ug/kg)
Fluoranthene	.248	1.24
Pyrene	.688	3.44

Fluoranthene and pyrene were qualified as undetected (UJ) in the following samples: NFUDS-001-TP0101-01, NFUDS-001-TP0201-01 (7/19/2012).

Semi volatile 8270C DoD

Compound	Concentration (ug/kg)	Action level (ug/kg)
Di-n-butyl phthalate	31.7	158.7
Phenol	29.5	147.5

The positive results for di-n-butyl phthalate and phenol were qualified as undetected (U) in sample NFUDS-001-TP0201-01.

No compounds were detected in trip blank NFUDS-001-TB01-06.

Metals

Chromium (.0228 mg/kg), Iron (3.42 mg/kg) and Zinc (.130 mg/kg) were detected in MB 200-41429/12-A. Since concentrations for these analytes were 10 times greater in the associated samples, no qualifications were made.

Initial and Continuing Calibration

Several compounds did not meet QC criteria in semi volatile 8270 C DoD Batch 51914. Since the re-extracted results are not being used due to extraction past holding times, no qualifications were made.

Laboratory Control Samples

Semi volatile 8270 DoD

Compounds 2,4,5-trichlorophenol (49%) and 2,4,6-trichlorophenol (42%) recovered below QC limits in LCS 240-49913/16-A. As a result, the non-detected results for 2,4,5-trichlorophenol and 2,4,6-trichlorophenol were estimated (J,UJ) in all samples. All 8270 C DOD original sample results were reported.

Explosives 8330

The analytical batch included a laboratory control sample (LCS) spiked with all 15 target compounds which included all 13 compounds listed in QSM 4.2 Table G-13 as well as tetryl and nitroglycerin. All spiked target compound recovered between the upper and lower control laboratory limits. During validation, the spiked target compounds were also evaluated using the acceptance criterion listed in QSM 4.2 Table G-13. All LCS recoveries recovered within the QSM and laboratory limits and as such, no validation qualifiers were applied.

Matrix Spike Recoveries and Precision

Semi volatile 8270 DoD

The matrix spike was performed on sample NFUDS-001-TP0201-01. All recoveries were within QC limit except for the following: 3,3'-dichlorobenzidene recovered below QC limits (8%) in the MSD. The RPD for 2,4-dinitrophenol was above QC limits. Professional judgment was used in estimating (UJ) the non-detected 3,3'-dichlorobenzidine and 2,4-dinitrophenol results in parent sample NFUDS-001-TP0201-01.

Metals

The matrix spike was performed on sample NFUDS-001-TP0402-01. All recoveries were within QC limits except for the following: Antimony recovered below QC limits and Calcium, Lead, Magnesium, Manganese and Potassium recovered above QC limits. As a result, the non-detected result for Antimony was estimated in parent sample NFUDS-001-TP0402-01; and, the positive results for Calcium, Lead, Magnesium, Manganese and Potassium were estimated (J) in parent sample NFUDS-001-TP0402-01.

A post digestion spike was performed and met QC criteria for all analytes except Aluminum and Iron.

Laboratory Duplicate (Metals Only)

Aluminum, Iron, Manganese and Zinc did not meet laboratory duplicate RPD criteria in sample NFUDS-001-TP0402-01. Professional judgment was used in estimating (J) aluminum, iron, manganese and zinc in sample NFUDS-001-TP0402-01 only.

Limit of Quantitation

Explosives 8330

The laboratory qualified the non-detect results for 1,3-dinitrobenzene and 3-nitrotoluene in sample NFUDS-001-TP101-01, for 1,3-dinitrobenzene in sample NFUDS-001-TP0402-01, and for 1,3-dinitrobenzene, 2,4-dinitrotoluene, and 2,6-dinitrotoluene in method blank (MB) 200-41397/1-A as “M” to indicate that manual integration of these compounds had been performed. The “M” qualifiers were removed during validation.

Data Validation Qualifier Code Glossary

Lab Validation Qualifier	Explanation
J	The positive result reported for this analyte is a quantitative estimate.
U	The analyte was not detected in the sample. The numeric value represents the sample detection limit
R	The result for this analyte is unusable. The analyte may or may not be present.
UJ	The analyte was not detected in the sample. The detection limit should be considered estimated and may be inaccurate or imprecise.

Data Reviewer's Validation Qualifier	Explanation
J[1]/UJ[1]	The positive and non-detected results were estimated in all SVOA SIMs reanalysis and SVOA 8270C DoD reanalysis due to holding time exceedances. Only reanalysis results for SVOA SIMS samples NFUDS-001-TP0101-01 and NFUDS-001-TP0201-01 were reported. The original analyses for all other samples were reported.
J[2]/UJ[2]	Estimate the positive and non-detected results for 2,4,5-trichlorophenol and 2,4,6-trichlorophenol results in all original 8270 DoD samples due to LCS recoveries below QC limits (potential low bias).
U[3]	Qualify the positive result for toluene in all samples as undetected (U) due to method blank contamination.
U[4]	Qualify the positive result for naphthalene in semi volatile SIM samples original analyses NFUDS-001-TP0302-01, NFUDS-001-TP0402-01 as undetected (U) due to method blank contamination.
U[5]	Qualify the positive result for di-n-butyl phthalate and phenol in semi volatile 8270 C DoD sample NFUDS-001-TP0201-01 as undetected (U) due to method blank contamination.
UJ[6]	Estimate the non-detected results for 3,3'-dichlorobenzidine and 2,4-dinitrophenol in sample NFUDS-001-TP0201-01 due to matrix spike recoveries below QC limits and non-compliant RPD results (potential low bias).
J[7]	Estimated the positive results for Al, Ca, Fe, Mn and Zn in sample NFUDS-001-TP0402-01 due to non-compliant laboratory duplicates (bias could not be determined).
UJ[8]	Estimate the non-detected Sb result in sample NFUDS-001-TP0402-01 due to matrix spike recovery below QC limits (potential low bias).
J[9]	Estimate the positive results for Ca, Pb, Mg, Mn and K in sample NFUDS-001-TP0402-01 due to matrix spike results above QC limits (potential high bias).

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0101-01**

Lab Sample ID: 200-11554-1
Client Matrix: Solid % Moisture: 4.1

Date Sampled: 06/29/2012 0830
Date Received: 06/30/2012 1005

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	200-41409	Instrument ID:	7227.i
Prep Method:	3550C	Prep Batch:	200-41276	Initial Weight/Volume:	29.83 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	07/06/2012 0349			Injection Volume:	1 uL
Prep Date:	07/03/2012 0928			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
PCB-1016		3.5	U	2.4	18
PCB-1221		3.5	U	1.3	18
PCB-1232		3.5	U	2.2	18
PCB-1242		3.5	U	1.5	18
PCB-1248		3.5	U	0.73	18
PCB-1254		3.5	U	3.5	18
PCB-1260		3.5	U	2.3	18
Polychlorinated biphenyls, Total		1.8	U	0.50	18

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	89		30 - 130
DCB Decachlorobiphenyl	95		45 - 125

DF 8 8/6/12

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0101-01**

Lab Sample ID: 200-11554-1
Client Matrix: Solid

% Moisture: 4.1

Date Sampled: 06/29/2012 0830
Date Received: 06/30/2012 1005

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	200-41409	Instrument ID:	7227.i
Prep Method:	3550C	Prep Batch:	200-41276	Initial Weight/Volume:	29.83 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	07/06/2012 0349			Injection Volume:	1 uL
Prep Date:	07/03/2012 0928			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	93		30 - 130
DCB Decachlorobiphenyl	96		45 - 125

DRC 8/16/12

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0201-01**

Lab Sample ID: 200-11554-2
Client Matrix: Solid

% Moisture: 2.9

Date Sampled: 06/29/2012 0845
Date Received: 06/30/2012 1005

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method: 8082A
Prep Method: 3550C
Dilution: 1.0
Analysis Date: 07/06/2012 0413
Prep Date: 07/03/2012 0928

Analysis Batch: 200-41409
Prep Batch: 200-41276

Instrument ID: 7227.i
Initial Weight/Volume: 30.31 g
Final Weight/Volume: 10000 uL
Injection Volume: 1 uL
Result Type: PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
PCB-1016		3.4	U	2.3	17
PCB-1221		3.4	U	1.2	17
PCB-1232		3.4	U	2.1	17
PCB-1242		3.4	U	1.4	17
PCB-1248		3.4	U	0.71	17
PCB-1254		3.4	U	3.4	17
PCB-1260		3.4	U	2.2	17
Polychlorinated biphenyls, Total		1.7	U	0.49	17

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	99		30 - 130
DCB Decachlorobiphenyl	96		45 - 125

DFG 8/6/12

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0201-01**

Lab Sample ID: 200-11554-2
Client Matrix: Solid

% Moisture: 2.9

Date Sampled: 06/29/2012 0845
Date Received: 06/30/2012 1005

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	200-41409	Instrument ID:	7227.i
Prep Method:	3550C	Prep Batch:	200-41276	Initial Weight/Volume:	30.31 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	07/06/2012 0413			Injection Volume:	1 uL
Prep Date:	07/03/2012 0928			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	100		30 - 130
DCB Decachlorobiphenyl	104		45 - 125

DFG 8/10

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0302-01**

Lab Sample ID: 200-11554-3
Client Matrix: Solid % Moisture: 1.3

Date Sampled: 06/29/2012 0844
Date Received: 06/30/2012 1005

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	200-41409	Instrument ID:	7227.i
Prep Method:	3550C	Prep Batch:	200-41276	Initial Weight/Volume:	30.34 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	07/06/2012 0438			Injection Volume:	1 uL
Prep Date:	07/03/2012 0928			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
PCB-1016		3.3	U	2.3	17
PCB-1221		3.3	U	1.2	17
PCB-1232		3.3	U	2.1	17
PCB-1242		3.3	U	1.4	17
PCB-1248		3.3	U	0.70	17
PCB-1254		3.3	U	3.3	17
PCB-1260		3.3	U	2.2	17
Polychlorinated biphenyls, Total		1.7	U	0.48	17

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	82		30 - 130
DCB Decachlorobiphenyl	80		45 - 125

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0302-01**

Lab Sample ID: 200-11554-3
Client Matrix: Solid

% Moisture: 1.3

Date Sampled: 06/29/2012 0844
Date Received: 06/30/2012 1005

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	200-41409	Instrument ID:	7227.i
Prep Method:	3550C	Prep Batch:	200-41276	Initial Weight/Volume:	30.34 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	07/06/2012 0438			Injection Volume:	1 uL
Prep Date:	07/03/2012 0928			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	84		30 - 130
DCB Decachlorobiphenyl	87		45 - 125

DFG 8/10

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0402-01**

Lab Sample ID: 200-11554-4
Client Matrix: Solid % Moisture: 1.7

Date Sampled: 06/29/2012 0855
Date Received: 06/30/2012 1005

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	200-41409	Instrument ID:	7227.i
Prep Method:	3550C	Prep Batch:	200-41276	Initial Weight/Volume:	29.86 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	07/06/2012 0502			Injection Volume:	1 uL
Prep Date:	07/03/2012 0928			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
PCB-1016		3.4	U	2.4	17
PCB-1221		3.4	U	1.2	17
PCB-1232		3.4	U	2.1	17
PCB-1242		3.4	U	1.4	17
PCB-1248		3.4	U	0.72	17
PCB-1254		3.4	U	3.4	17
PCB-1260		3.4	U	2.2	17
Polychlorinated biphenyls, Total		1.7	U	0.49	17

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	80		30 - 130
DCB Decachlorobiphenyl	82		45 - 125

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0402-01**

Lab Sample ID: 200-11554-4
Client Matrix: Solid % Moisture: 1.7

Date Sampled: 06/29/2012 0855
Date Received: 06/30/2012 1005

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	200-41409	Instrument ID:	7227.i
Prep Method:	3550C	Prep Batch:	200-41276	Initial Weight/Volume:	29.86 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	07/06/2012 0502			Injection Volume:	1 uL
Prep Date:	07/03/2012 0928			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	81		30 - 130
DCB Decachlorobiphenyl	85		45 - 125

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0101-01**

Lab Sample ID: 200-11554-1
Client Matrix: Solid

% Moisture: 4.1

Date Sampled: 06/29/2012 0830
Date Received: 06/30/2012 1005

8151/DOD Herbicides (GC)

Analysis Method:	8151/DOD	Analysis Batch:	240-50119	Instrument ID:	A2HP1
Prep Method:	8151A	Prep Batch:	240-50002	Initial Weight/Volume:	29.82 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	07/07/2012 1518			Injection Volume:	1 uL
Prep Date:	07/06/2012 0725			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
2,4-D		35	U	20	84
Dalapon		17	U	8.2	42
2,4-DB		35	U	23	84
Dicamba		17	U	8.5	42
Dichlorprop		70	U	38	84
Dinoseb		10	U	10	13
MCPA		3500	U	1700	8400
MCPP		3500	U	1600	8400
Silvex (2,4,5-TP)		8.7	U	4.3	21
2,4,5-T		8.7	U	3.9	21

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	77		19 - 122

DKE 8/10/12

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0101-01**

Lab Sample ID: 200-11554-1
Client Matrix: Solid

% Moisture: 4.1

Date Sampled: 06/29/2012 0830
Date Received: 06/30/2012 1005

8151/DOD Herbicides (GC)

Analysis Method:	8151/DOD	Analysis Batch:	240-50119	Instrument ID:	A2HP1
Prep Method:	8151A	Prep Batch:	240-50002	Initial Weight/Volume:	29.82 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	07/07/2012 1518			Injection Volume:	1 uL
Prep Date:	07/06/2012 0725			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	65		19 - 122

DFG 8/10/12

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0201-01**

Lab Sample ID: 200-11554-2
Client Matrix: Solid % Moisture: 2.9

Date Sampled: 06/29/2012 0845
Date Received: 06/30/2012 1005

8151/DOD Herbicides (GC)

Analysis Method:	8151/DOD	Analysis Batch:	240-50119	Instrument ID:	A2HP1
Prep Method:	8151A	Prep Batch:	240-50002	Initial Weight/Volume:	30.11 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	07/07/2012 1542			Injection Volume:	1 uL
Prep Date:	07/06/2012 0725			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
2,4-D		34	U	19	82
Dalapon		58		8.0	41
2,4-DB		34	U	22	82
Dicamba		17	U	8.3	41
Dichlorprop		68	U	38	82
Dinoseb		10	U	10	12
MCPA		3400	U	1700	8200
MCPP		3400	U	1500	8200
Silvex (2,4,5-TP)		8.5	U	4.2	21
2,4,5-T		8.5	U	3.8	21

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	74		19 - 122

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0201-01**

Lab Sample ID: 200-11554-2
Client Matrix: Solid % Moisture: 2.9

Date Sampled: 06/29/2012 0845
Date Received: 06/30/2012 1005

8151/DOD Herbicides (GC)

Analysis Method:	8151/DOD	Analysis Batch:	240-50119	Instrument ID:	A2HP1
Prep Method:	8151A	Prep Batch:	240-50002	Initial Weight/Volume:	30.11 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	07/07/2012 1542			Injection Volume:	1 uL
Prep Date:	07/06/2012 0725			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	65		19 - 122

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0302-01**

Lab Sample ID: 200-11554-3
Client Matrix: Solid

% Moisture: 1.3

Date Sampled: 06/29/2012 0844
Date Received: 06/30/2012 1005

8151/DOD Herbicides (GC)

Analysis Method: 8151/DOD
Prep Method: 8151A
Dilution: 1.0
Analysis Date: 07/07/2012 1606
Prep Date: 07/06/2012 0725

Analysis Batch: 240-50119
Prep Batch: 240-50002

Instrument ID: A2HP1
Initial Weight/Volume: 30.09 g
Final Weight/Volume: 100 mL
Injection Volume: 1 uL
Result Type: PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
2,4-D		34	U	19	81
Dalapon		17	U	7.9	40
2,4-DB		34	U	22	81
Dicamba		17	U	8.2	40
Dichlorprop		67	U	37	81
Dinoseb		10	U	10	12
MCPA		3400	U	1700	8100
MCPP		3400	U	1500	8100
Silvex (2,4,5-TP)		8.4	U	4.2	20
2,4,5-T		8.4	U	3.8	20

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	67		19 - 122

DKB 8/1

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0302-01**

Lab Sample ID: 200-11554-3
Client Matrix: Solid

% Moisture: 1.3

Date Sampled: 06/29/2012 0844
Date Received: 06/30/2012 1005

8151/DOD Herbicides (GC)

Analysis Method:	8151/DOD	Analysis Batch:	240-50119	Instrument ID:	A2HP1
Prep Method:	8151A	Prep Batch:	240-50002	Initial Weight/Volume:	30.09 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	07/07/2012 1606			Injection Volume:	1 uL
Prep Date:	07/06/2012 0725			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	63		19 - 122

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0402-01**

Lab Sample ID: 200-11554-4
Client Matrix: Solid % Moisture: 1.7

Date Sampled: 06/29/2012 0855
Date Received: 06/30/2012 1005

8151/DOD Herbicides (GC)

Analysis Method:	8151/DOD	Analysis Batch:	240-50119	Instrument ID:	A2HP1
Prep Method:	8151A	Prep Batch:	240-50002	Initial Weight/Volume:	29.81 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	07/07/2012 1630			Injection Volume:	1 uL
Prep Date:	07/06/2012 0725			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
2,4-D		34	U	19	82
Dalapon		17	U	8.0	41
2,4-DB		34	U	22	82
Dicamba		17	U	8.3	41
Dichlorprop		68	U	37	82
Dinoseb		10	U	10	12
MCPA		3400	U	1700	8200
MCPP		3400	U	1500	8200
Silvex (2,4,5-TP)		8.5	U	4.2	20
2,4,5-T		8.5	U	3.8	20

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	78		19 - 122

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0402-01**

Lab Sample ID: 200-11554-4
Client Matrix: Solid

% Moisture: 1.7

Date Sampled: 06/29/2012 0855
Date Received: 06/30/2012 1005

8151/DOD Herbicides (GC)

Analysis Method:	8151/DOD	Analysis Batch:	240-50119	Instrument ID:	A2HP1
Prep Method:	8151A	Prep Batch:	240-50002	Initial Weight/Volume:	29.81 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	07/07/2012 1630			Injection Volume:	1 uL
Prep Date:	07/06/2012 0725			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	72		19 - 122

DFG 8/6/12

Client: Weston Solutions, Inc.

Analytical Data

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: NFUDS-001-TP0101-01

Lab Sample ID: 200-11554-1
Client Matrix: Solid

Date Sampled: 06/29/2012 0830
Date Received: 06/30/2012 1005

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Analysis Method:	8330 Modified	Analysis Batch:	200-41502	Instrument ID:	CH1488
Prep Method:	8330	Prep Batch:	200-41397	Initial Weight/Volume:	9.91 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	07/09/2012 1751			Injection Volume:	450 uL
Prep Date:	07/05/2012 1841			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	87		40 - 140

LMA 8/8/12

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: NFUDS-001-TP0101-01

Lab Sample ID: 200-11554-1
Client Matrix: Solid

Date Sampled: 06/29/2012 0830
Date Received: 06/30/2012 1005

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Analysis Method:	8330 Modified	Analysis Batch:	200-41501	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-41397	Initial Weight/Volume:	9.91 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	07/09/2012 1803			Injection Volume:	150 uL
Prep Date:	07/05/2012 1841			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.5	100
RDX		12	U	12	100
1,3,5-Trinitrobenzene		12	U	5.0	100
1,3-Dinitrobenzene		12	U M	6.0	100
Nitrobenzene		30	U	26	100
Tetryl		24	U	15	100
Nitroglycerin		730	U	490	2000
2,4,6-Trinitrotoluene		24	U	17	100
4-Amino-2,6-dinitrotoluene		12	U	8.5	100
2-Amino-4,6-dinitrotoluene		12	U	6.7	100
2,6-Dinitrotoluene		12	U	11	100
2,4-Dinitrotoluene		24	U	15	100
2-Nitrotoluene		24	U	14	100
4-Nitrotoluene		30	U	27	100
3-Nitrotoluene		30	U M	27	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	97		40 - 140

LMA 8/8/12

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: NFUDS-001-TP0201-01

Lab Sample ID: 200-11554-2
Client Matrix: Solid

Date Sampled: 06/29/2012 0845
Date Received: 06/30/2012 1005

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Analysis Method:	8330 Modified	Analysis Batch:	200-41502	Instrument ID:	CH1488
Prep Method:	8330	Prep Batch:	200-41397	Initial Weight/Volume:	10.02 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	07/09/2012 1825			Injection Volume:	450 uL
Prep Date:	07/05/2012 1841			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	86		40 - 140

CMP 8/8/12

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: NFUDS-001-TP0201-01

Lab Sample ID: 200-11554-2
Client Matrix: Solid

Date Sampled: 06/29/2012 0845
Date Received: 06/30/2012 1005

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Analysis Method:	8330 Modified	Analysis Batch:	200-41501	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-41397	Initial Weight/Volume:	10.02 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	07/09/2012 1840			Injection Volume:	150 uL
Prep Date:	07/05/2012 1841			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.5	100
RDX		12	U	12	100
1,3,5-Trinitrobenzene		12	U	5.0	100
1,3-Dinitrobenzene		12	U	5.9	100
Nitrobenzene		30	U	26	100
Tetryl		24	U	15	100
Nitroglycerin		720	U	480	2000
2,4,6-Trinitrotoluene		24	U	17	100
4-Amino-2,6-dinitrotoluene		12	U	8.4	100
2-Amino-4,6-dinitrotoluene		12	U	6.6	100
2,6-Dinitrotoluene		12	U	11	100
2,4-Dinitrotoluene		24	U	15	100
2-Nitrotoluene		24	U	14	100
4-Nitrotoluene		30	U	27	100
3-Nitrotoluene		30	U	27	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	89		40 - 140

UMA 8/8/12

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: NFUDS-001-TP0302-01

Lab Sample ID: 200-11554-3
Client Matrix: Solid

Date Sampled: 06/29/2012 0844
Date Received: 06/30/2012 1005

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Analysis Method:	8330 Modified	Analysis Batch:	200-41502	Instrument ID:	CH1488
Prep Method:	8330	Prep Batch:	200-41397	Initial Weight/Volume:	9.91 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	07/09/2012 1900			Injection Volume:	450 uL
Prep Date:	07/05/2012 1841			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	94		40 - 140

LMM 8/8/12

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: NFUDS-001-TP0302-01

Lab Sample ID: 200-11554-3
Client Matrix: Solid

Date Sampled: 06/29/2012 0844
Date Received: 06/30/2012 1005

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Analysis Method:	8330 Modified	Analysis Batch:	200-41501	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-41397	Initial Weight/Volume:	9.91 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	07/09/2012 1918			Injection Volume:	150 uL
Prep Date:	07/05/2012 1841			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.5	100
RDX		12	U	12	100
1,3,5-Trinitrobenzene		12	U	5.0	100
1,3-Dinitrobenzene		12	U	6.0	100
Nitrobenzene		30	U	26	100
Tetryl		24	U	15	100
Nitroglycerin		730	U	490	2000
2,4,6-Trinitrotoluene		24	U	17	100
4-Amino-2,6-dinitrotoluene		12	U	8.5	100
2-Amino-4,6-dinitrotoluene		12	U	6.7	100
2,6-Dinitrotoluene		12	U	11	100
2,4-Dinitrotoluene		24	U	15	100
2-Nitrotoluene		24	U	14	100
4-Nitrotoluene		30	U	27	100
3-Nitrotoluene		30	U	27	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	94		40 - 140

UMA 8/8/12

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: NFUDS-001-TP0402-01

Lab Sample ID: 200-11554-4
Client Matrix: Solid

Date Sampled: 06/29/2012 0855
Date Received: 06/30/2012 1005

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Analysis Method:	8330 Modified	Analysis Batch:	200-41502	Instrument ID:	CH1488
Prep Method:	8330	Prep Batch:	200-41397	Initial Weight/Volume:	9.93 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	07/09/2012 1934			Injection Volume:	450 uL
Prep Date:	07/05/2012 1841			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	92		40 - 140

LMA 8/8/12

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: NFUDS-001-TP0402-01

Lab Sample ID: 200-11554-4
Client Matrix: Solid

Date Sampled: 06/29/2012 0855
Date Received: 06/30/2012 1005

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Analysis Method:	8330 Modified	Analysis Batch:	200-41501	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-41397	Initial Weight/Volume:	9.93 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	07/09/2012 1955			Injection Volume:	150 uL
Prep Date:	07/05/2012 1841			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.5	100
RDX		12	U	12	100
1,3,5-Trinitrobenzene		12	U	5.0	100
1,3-Dinitrobenzene		12	U M	5.9	100
Nitrobenzene		30	U	26	100
Tetryl		24	U	15	100
Nitroglycerin		730	U	490	2000
2,4,6-Trinitrotoluene		24	U	17	100
4-Amino-2,6-dinitrotoluene		12	U	8.5	100
2-Amino-4,6-dinitrotoluene		12	U	6.6	100
2,6-Dinitrotoluene		12	U	11	100
2,4-Dinitrotoluene		24	U	15	100
2-Nitrotoluene		24	U	14	100
4-Nitrotoluene		30	U	27	100
3-Nitrotoluene		30	U	27	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	94		40 - 140

UNJA 8/8/12

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0101-01**

Lab Sample ID: 200-11554-1
Client Matrix: Solid % Moisture: 4.1

Date Sampled: 06/29/2012 0830
Date Received: 06/30/2012 1005

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	200-41930	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-41429	Lab File ID:	071612-06.ttx
Dilution:	1.0			Initial Weight/Volume:	1.58 g
Analysis Date:	07/17/2012 0623			Final Weight/Volume:	100 mL
Prep Date:	07/06/2012 1000				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		2400		1.8	13
Antimony		0.99	U	0.25	4.0
Arsenic		1.8		0.14	0.66
Barium		4.0	J	0.42	13
Beryllium		0.13	J	0.013	0.33
Cadmium		0.17	U	0.040	0.33
Calcium		420		6.6	330
Chromium		3.5		0.013	0.66
Cobalt		1.1	J	0.040	3.3
Copper		1.1	J	0.11	1.7
Iron		4400		1.5	13
Lead		2.0		0.15	0.66
Magnesium		500		2.3	330
Manganese		49		0.059	0.99
Nickel		2.1	J	0.099	2.6
Potassium		270	J	15	330
Selenium		1.5	U	0.21	2.3
Silver		0.26	U	0.073	0.66
Sodium		19	J	3.4	330
Thallium		0.99	U	0.13	1.7
Vanadium		5.2		0.053	3.3
Zinc		5.7		0.040	1.3

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method:	7471B	Analysis Batch:	200-41691	Instrument ID:	MEPCV3 II
Prep Method:	7471B	Prep Batch:	200-41687	Lab File ID:	071112HH.PRN
Dilution:	1.0			Initial Weight/Volume:	0.34 g
Analysis Date:	07/11/2012 1800			Final Weight/Volume:	50 mL
Prep Date:	07/10/2012 1700				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.011	J	0.0020	0.030

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: NFUDS-001-TP0201-01

Lab Sample ID: 200-11554-2
Client Matrix: Solid

% Moisture: 2.9

Date Sampled: 06/29/2012 0845
Date Received: 06/30/2012 1005

6010C Metals (ICP)

Analysis Method: 6010C
Prep Method: 3050B
Dilution: 1.0
Analysis Date: 07/17/2012 0628
Prep Date: 07/06/2012 1000

Analysis Batch: 200-41930
Prep Batch: 200-41429

Instrument ID: METICP7
Lab File ID: 071612-06.ttx
Initial Weight/Volume: 1.48 g
Final Weight/Volume: 100 mL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		2900		1.9	14
Antimony		1.0	U	0.26	4.2
Arsenic		2.0		0.15	0.70
Barium		2.6	J	0.44	14
Beryllium		0.10	J	0.014	0.35
Cadmium		0.17	U	0.042	0.35
Calcium		70	J	7.0	350
Chromium		3.9		0.014	0.70
Cobalt		1.0	J	0.042	3.5
Copper		0.82	J	0.11	1.7
Iron		3900		1.6	14
Lead		2.3		0.15	0.70
Magnesium		450		2.4	350
Manganese		26		0.063	1.0
Nickel		2.3	J	0.10	2.8
Potassium		260	J	16	350
Selenium		1.6	U	0.22	2.4
Silver		0.28	U	0.077	0.70
Sodium		9.9	J	3.5	350
Thallium		1.0	U	0.13	1.7
Vanadium		5.3		0.056	3.5
Zinc		4.5		0.042	1.4

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method: 7471B
Prep Method: 7471B
Dilution: 1.0
Analysis Date: 07/11/2012 1803
Prep Date: 07/10/2012 1700

Analysis Batch: 200-41691
Prep Batch: 200-41687

Instrument ID: MEPCV3 II
Lab File ID: 071112HH.PRN
Initial Weight/Volume: 0.31 g
Final Weight/Volume: 50 mL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.031	J	0.0022	0.033

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0302-01**

Lab Sample ID: 200-11554-3
Client Matrix: Solid % Moisture: 1.3

Date Sampled: 06/29/2012 0844
Date Received: 06/30/2012 1005

6010C Metals (ICP)

Analysis Method: 6010C
Prep Method: 3050B
Dilution: 1.0
Analysis Date: 07/17/2012 0648
Prep Date: 07/06/2012 1000

Analysis Batch: 200-41930
Prep Batch: 200-41429

Instrument ID: METICP7
Lab File ID: 071612-06.ttx
Initial Weight/Volume: 1.54 g
Final Weight/Volume: 100 mL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		2000		1.8	13
Antimony		0.99	U	0.25	3.9
Arsenic		1.6		0.14	0.66
Barium		3.4	J	0.41	13
Beryllium		0.12	J	0.013	0.33
Cadmium		0.16	U	0.039	0.33
Calcium		81	J	6.6	330
Chromium		3.8		0.013	0.66
Cobalt		1.5	J	0.039	3.3
Copper		1.2	J	0.11	1.6
Iron		3900		1.5	13
Lead		1.7		0.14	0.66
Magnesium		660		2.3	330
Manganese		47		0.059	0.99
Nickel		2.8		0.099	2.6
Potassium		270	J	15	330
Selenium		1.5	U	0.21	2.3
Silver		0.26	U	0.072	0.66
Sodium		9.0	J	3.4	330
Thallium		0.99	U	0.13	1.6
Vanadium		4.7		0.053	3.3
Zinc		6.5		0.039	1.3

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method: 7471B
Prep Method: 7471B
Dilution: 1.0
Analysis Date: 07/11/2012 1805
Prep Date: 07/10/2012 1700

Analysis Batch: 200-41691
Prep Batch: 200-41687

Instrument ID: MEPCV3 II
Lab File ID: 071112HH.PRN
Initial Weight/Volume: 0.31 g
Final Weight/Volume: 50 mL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.015	J	0.0022	0.032

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: NFUDS-001-TP0402-01

Lab Sample ID: 200-11554-4
Client Matrix: Solid

% Moisture: 1.7

Date Sampled: 06/29/2012 0855
Date Received: 06/30/2012 1005

6010C Metals (ICP)

Analysis Method: 6010C
Prep Method: 3050B
Dilution: 1.0
Analysis Date: 07/17/2012 0654
Prep Date: 07/06/2012 1000

Analysis Batch: 200-41930
Prep Batch: 200-41429

Instrument ID: METICP7
Lab File ID: 071612-06.ttx
Initial Weight/Volume: 1.58 g
Final Weight/Volume: 100 mL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		1200	J J7	1.8	13
Antimony		0.97	UJ UJ8	0.24	3.9
Arsenic		1.9		0.14	0.64
Barium		2.7	J	0.41	13
Beryllium		0.093	J	0.013	0.32
Cadmium		0.16	U	0.039	0.32
Calcium		46	J J7,9	6.4	320
Chromium		2.3		0.013	0.64
Cobalt		0.81	J	0.039	3.2
Copper		0.89	J	0.10	1.6
Iron		2500	J J7	1.5	13
Lead		1.1	J J9	0.14	0.64
Magnesium		270	J J9	2.3	320
Manganese		29	J J7,9	0.058	0.97
Nickel		1.5	J	0.097	2.6
Potassium		230	J J9	15	320
Selenium		1.5	U	0.21	2.3
Silver		0.26	U	0.071	0.64
Sodium		5.9	J	3.3	320
Thallium		0.97	U	0.12	1.6
Vanadium		3.9		0.051	3.2
Zinc		3.6	J7	0.039	1.3

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method: 7471B
Prep Method: 7471B
Dilution: 1.0
Analysis Date: 07/11/2012 1808
Prep Date: 07/10/2012 1700

Analysis Batch: 200-41691
Prep Batch: 200-41687

Instrument ID: MEPCV3 II
Lab File ID: 071112HH.PRN
Initial Weight/Volume: 0.37 g
Final Weight/Volume: 50 mL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.0059	J	0.0018	0.027

J7 = lab dup
UJ8 - low MS
J9/UJ9 - high MS

Pg 1 of 2

DATA REVIEW CHECKLIST

SITE: Nantucket Beach FUDS

LAB NUMBER: ~~see~~ TestAm 200-11554-1

WESTON SAMPLE IDs: see attached

Data Reviewed	Fraction: 8260B		8270C SIM DoD			8270SIM	Comments: Pest/PCBs / Herbs
Chain of Custody	✓						All criteria was met.
Percent Solids/RLs	✓						
Preservation/Log Sheet							
Holding Time			~~#~~			#J1/UJ1	see below
Field Blanks (Trip/Equip.)	✓						
Instrument/Method Blanks (Soils/Solids)	U3 - Toluene qualified as (U) in all samples due to method blank contam.		U5 - Qualify di-n-butylphthalate & phenol as (U) in -2 due to method blank contam.				U4 - Qualify Napthalene as (U) in original -3 & -4 due to MB contamination
Instrument/Method Blanks (Aqueous)							
MS/MSD (Soil/Solids)							
MS/MSD (Aqueous)			UJ6 - Estimate 3,3'-dichlorobenzidine & 2,4-dinitrophenol in sample -2 due to low MSD & noncompliant RPD results.				
LCS/LCSD			J2/UJ2 - Report all original analyses with 2,4,5-trichlorophenol & 2,4,6-trichlorophenol estimated due to low LCS recoveries				
Blank Spikes (BS/BSD)							
Lab Duplicates							
Field Duplicates N/A							
Surrogate Recoveries	✓		✓			✓	✓ ✓

Note:

Data reviewed but not commented on is considered acceptable.

√ = Data Reviewed

NA = Not Applicable

#J1/UJ1(H) = Holding time exceeded in all SVOA 8270C SIM reanalysis & SVOA 8270C DoD reanalysis. Do not use 8270C DoD reanalysis. Report 8270C SIM reanalysis for -1 & -2. Use original -3 & -4 results.

Qualifiers Used:

Data Reviewer Initials: DFR

Date: 8/6/12

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DATA REVIEW CHECKLIST

SITE: Nantucket Beach FUDs

LAB NUMBER: Test Am 200-11554-1

WESTON SAMPLE IDs: See attached

Data Reviewed	Fraction: Metals						Comments
Chain of Custody	✓						
Percent Solids/RLs	✓						
Preservation/Log Sheet							
Holding Time	✓						
Field Blanks (Trip/Equip.)							
Instrument/Method Blanks (Soils/Solids)	Several analytes detected but since sample concen >10x, no qualifications made						
Instrument/Method Blanks (Aqueous)							
MS/MSD (Soil/Solids)	UJ & Estimate Sb in -4 due to low MS. J/UJ Estimate Ca, Pb, Ms, Mn & K in -4, due to high MS results						
MS/MSD (Aqueous)							
LCS/LCSD							
Blank Spikes (BS/BSD)							
Lab Duplicates	J Estimate ~~Al, Pb, Mn~~ Al, Ca, Fe, Mn & ~~Zn~~ Zn in sample -4 due to non-compliant lab dup results.						
Field Duplicates	NA						
Surrogate Recoveries	N/A						

Note:
Data reviewed but not commented on is considered acceptable.
√ = Data Reviewed
NA = Not Applicable

Qualifiers Used:

Data Reviewer Initials: DG

Date: 8/10/12

Weston Solutions, Inc.
45 Constitution Way
Concord, NH 03301-5079
603-656-5400 ● Fax 603-656-5401
www.westonsolutions.com

DATE: August 5, 2012

PROJECT: Nantucket Beach FUDS
03886.551.004

LABORATORY: TestAmerica Laboratories, Inc., South Burlington, VT

SDG: 200-11554-1

FROM: Linda Adams
Data Validator

Gretchen Fodor
Senior Data Review Chemist

SAMPLES: NFUDS-001-TP0101-01, NFUDS-001-TP0201-01, NFUDS-001-TP-0302-01, NFUDS-001-TP0402-01

This data validation report is based upon a review of analytical data generated for four sediment samples collected on June 29, 2012 by Weston Solutions, Inc. (WESTON).

Samples 1 through 4 were analyzed for explosives by SW846 Method 8330.

Weston performed a modified Tier II data validation in accordance with the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Data Review, USEPA, 06/2008 and USEPA CLP National Functional Guidelines for Inorganic Superfund Data Review, January 2010.

The data were evaluated based on the following parameters:

* Overall Evaluation of Data and Potential Usability Issues
* Data Completeness
* Chain-of-Custody (COC) Documentation
* Holding Times and Sample Preservation
* Initial and Continuing Calibrations

*	Laboratory and Field Blanks
*	Surrogate Recoveries
NA	Matrix Spike Recoveries and Reproducibility
NA	Field Duplicates
*	Laboratory Control Samples (LCS)
NA	Internal Standard Performance
*	Qualitative Identification
*	Quantitation Limits

* – Denotes QC parameter was evaluated and criteria was met.
NA – Not Applicable

VALIDATION DETAIL

1.0 SURROGATE RECOVERIES

All surrogate recoveries recovered between the upper and lower control laboratory limits of 40-140%. During validation, a more stringent recovery acceptance criterion of 85-115 %R was used as listed in Table 15-1 of the Uniform Federal Policy Quality Assurance Project Plan (QAPP). All surrogate recoveries recovered within the QAPP limits and as such, no validation qualifiers were applied.

2.0 LABORATORY CONTROL SAMPLES (LCS)

The analytical batch included a laboratory control sample (LCS) spiked with all 15 target compounds which included all 13 compounds listed in QSM 4.2 Table G-13 as well as tetryl and nitroglycerin. All spiked target compound recovered between the upper and lower control laboratory limits. During validation, the spiked target compounds were also evaluated using the acceptance criterion listed in QSM 4.2 Table G-13. All LCS recoveries recovered within the QSM and laboratory limits and as such, no validation qualifiers were applied.

3.0 QUANTITATION LIMITS

The laboratory qualified the non-detect results for 1,3-dinitrobenzene and 3-nitrotoluene in sample NFUDS-001-TP101-01, for 1,3-dinitrobenzene in sample NFUDS-001-TP0402-01, and for 1,3-dinitrobenzene, 2,4-dinitrotoluene, and 2,6-dinitrotoluene in method blank (MB) 200-41397/1-A as "M" to indicate that manual integration of these compounds had been performed. The "M" qualifiers were removed during validation.

Data Validation Qualifier Code Glossary

Validation Qualifier	Explanation
J	The positive result reported for this analyte is a quantitative estimate.
U	The analyte was not detected in the sample. The numeric value represents the sample detection limit
R	The result for this analyte is unusable. The analyte may or may not be present.
UJ	The analyte was not detected in the sample. The detection limit should be considered estimated and may be inaccurate or imprecise.

SAMPLE SUMMARY

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-11554-1	NFUDS-001-TP0101-01	Solid	06/29/2012 0830	06/30/2012 1005
200-11554-2	NFUDS-001-TP0201-01	Solid	06/29/2012 0845	06/30/2012 1005
200-11554-3	NFUDS-001-TP0302-01	Solid	06/29/2012 0844	06/30/2012 1005
200-11554-4	NFUDS-001-TP0402-01	Solid	06/29/2012 0855	06/30/2012 1005
200-11554-5	NFUDS-001-TB01-06	Solid	06/29/2012 0900	06/30/2012 1005

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: NFUDS-001-TP0101-01

Lab Sample ID: 200-11554-1
Client Matrix: Solid % Moisture: 4.1

Date Sampled: 06/29/2012 0830
Date Received: 06/30/2012 1005

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B
Prep Method: 5035
Dilution: 1.0
Analysis Date: 07/11/2012 1046
Prep Date: 07/03/2012 0948

Analysis Batch: 200-41675
Prep Batch: 200-41282

Instrument ID: N.i
Lab File ID: ngia07.d
Initial Weight/Volume: 6.49 g
Final Weight/Volume: 5 mL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
Dichlorodifluoromethane		0.80	U	0.18	4.0
Chloromethane		0.80	U	0.21	4.0
Vinyl chloride		0.80	U	0.24	4.0
Bromomethane		2.0	U	0.59	4.0
Chloroethane		0.80	U	0.31	4.0
Trichlorofluoromethane		0.80	U	0.27	4.0
1,1-Dichloroethene		0.80	U	0.30	4.0
Freon TF		0.80	U	0.27	4.0
Acetone		7.1		0.80	4.0
Carbon disulfide		0.80	U	0.25	4.0
Methyl acetate		2.0	U	0.51	4.0
Methylene Chloride		0.80	U	0.44	4.0
trans-1,2-Dichloroethene		0.80	U	0.30	4.0
Methyl t-butyl ether		0.80	U	0.24	4.0
1,1-Dichloroethane		0.80	U	0.33	4.0
cis-1,2-Dichloroethene		0.80	U	0.34	4.0
2-Butanone		2.0	U	1.2	4.0
Bromochloromethane		0.80	U	0.30	4.0
Chloroform		0.80	U	0.26	4.0
1,1,1-Trichloroethane		0.80	U	0.56	4.0
Cyclohexane		0.80	U	0.68	4.0
Carbon tetrachloride		0.80	U	0.61	4.0
Benzene		0.80	U	0.57	4.0
1,2-Dichloroethane		0.80	U	0.50	4.0
Trichloroethene		0.80	U	0.39	4.0
Methylcyclohexane		0.80	U	0.14	4.0
1,2-Dichloropropane		0.80	U	0.23	4.0
1,4-Dioxane		40	U	18	200
Bromodichloromethane		0.80	U	0.17	4.0
cis-1,3-Dichloropropene		0.80	U	0.28	4.0
4-Methyl-2-pentanone		0.80	U	0.48	4.0
Toluene		0.093	J U3	0.080	4.0
trans-1,3-Dichloropropene		0.80	U	0.10	4.0
1,1,2-Trichloroethane		0.80	U	0.27	4.0
Tetrachloroethene		0.20	U	0.088	4.0
2-Hexanone		0.80	U	0.39	4.0
Dibromochloromethane		0.80	U	0.088	4.0
1,2-Dibromoethane		0.80	U	0.12	4.0
Chlorobenzene		0.40	U	0.061	4.0
Ethylbenzene		0.20	U	0.045	4.0
m&p-Xylene		0.80	U	0.56	4.0
o-Xylene		0.20	U	0.049	4.0
Xylenes, Total		0.20	U	0.59	4.0
Styrene		0.20	U	0.080	4.0
Bromoform		0.80	U	0.16	4.0
Isopropylbenzene		0.80	U	0.062	4.0

DPK 8/16/12

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0101-01**

Lab Sample ID: 200-11554-1
Client Matrix: Solid % Moisture: 4.1

Date Sampled: 06/29/2012 0830
Date Received: 06/30/2012 1005

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	200-41675	Instrument ID:	N.i
Prep Method:	5035	Prep Batch:	200-41282	Lab File ID:	ngia07.d
Dilution:	1.0			Initial Weight/Volume:	6.49 g
Analysis Date:	07/11/2012 1046			Final Weight/Volume:	5 mL
Prep Date:	07/03/2012 0948				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
1,1,2,2-Tetrachloroethane		0.80	U	0.21	4.0
1,3-Dichlorobenzene		0.088	U	0.12	4.0
1,4-Dichlorobenzene		0.20	U	0.18	4.0
1,2-Dichlorobenzene		0.20	U	0.18	4.0
1,2-Dibromo-3-Chloropropane		0.80	U	0.73	4.0
1,2,4-Trichlorobenzene		0.80	U	0.16	4.0
1,2,3-Trichlorobenzene		0.17	J	0.12	4.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4	100		65 - 155
Toluene-d8	98		80 - 115
Bromofluorobenzene	107		80 - 115
1,2-Dichlorobenzene-d4	98		45 - 145

DLC 8/16/12

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: NFUDS-001-TP0201-01

Lab Sample ID: 200-11554-2
Client Matrix: Solid % Moisture: 2.9

Date Sampled: 06/29/2012 0845
Date Received: 06/30/2012 1005

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B
Prep Method: 5035
Dilution: 1.0
Analysis Date: 07/11/2012 1116
Prep Date: 07/03/2012 0948

Analysis Batch: 200-41675
Prep Batch: 200-41282

Instrument ID: N.i
Lab File ID: ngia08.d
Initial Weight/Volume: 5.15 g
Final Weight/Volume: 5 mL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
Dichlorodifluoromethane		1.0	U	0.23	5.0
Chloromethane		1.0	U	0.26	5.0
Vinyl chloride		1.0	U	0.30	5.0
Bromomethane		2.5	U	0.74	5.0
Chloroethane		1.0	U	0.38	5.0
Trichlorofluoromethane		1.0	U	0.33	5.0
1,1-Dichloroethene		1.0	U	0.37	5.0
Freon TF		1.0	U	0.33	5.0
Acetone		7.3		1.0	5.0
Carbon disulfide		1.0	U	0.31	5.0
Methyl acetate		2.5	U	0.63	5.0
Methylene Chloride		1.0	U	0.55	5.0
trans-1,2-Dichloroethene		1.0	U	0.37	5.0
Methyl t-butyl ether		1.0	U	0.30	5.0
1,1-Dichloroethane		1.0	U	0.41	5.0
cis-1,2-Dichloroethene		1.0	U	0.42	5.0
2-Butanone		2.5	U	1.5	5.0
Bromochloromethane		1.0	U	0.37	5.0
Chloroform		1.0	U	0.32	5.0
1,1,1-Trichloroethane		1.0	U	0.70	5.0
Cyclohexane		1.0	U	0.85	5.0
Carbon tetrachloride		1.0	U	0.76	5.0
Benzene		1.0	U	0.71	5.0
1,2-Dichloroethane		1.0	U	0.62	5.0
Trichloroethene		1.0	U	0.48	5.0
Methylcyclohexane		1.0	U	0.17	5.0
1,2-Dichloropropane		1.0	U	0.29	5.0
1,4-Dioxane		50	U	23	250
Bromodichloromethane		1.0	U	0.21	5.0
cis-1,3-Dichloropropene		1.0	U	0.35	5.0
4-Methyl-2-pentanone		1.0	U	0.60	5.0
Toluene		0.27	J3	0.10	5.0
trans-1,3-Dichloropropene		1.0	U	0.13	5.0
1,1,2-Trichloroethane		1.0	U	0.34	5.0
Tetrachloroethene		0.25	U	0.11	5.0
2-Hexanone		1.0	U	0.49	5.0
Dibromochloromethane		1.0	U	0.11	5.0
1,2-Dibromoethane		1.0	U	0.15	5.0
Chlorobenzene		0.50	U	0.076	5.0
Ethylbenzene		0.25	U	0.056	5.0
m&p-Xylene		1.0	U	0.70	5.0
o-Xylene		0.25	U	0.061	5.0
Xylenes, Total		0.25	U	0.73	5.0
Styrene		0.25	U	0.10	5.0
Bromoform		1.0	U	0.20	5.0
Isopropylbenzene		1.0	U	0.077	5.0

DRC 8/16/12

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0201-01**

Lab Sample ID: 200-11554-2
Client Matrix: Solid % Moisture: 2.9

Date Sampled: 06/29/2012 0845
Date Received: 06/30/2012 1005

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	200-41675	Instrument ID:	N.i
Prep Method:	5035	Prep Batch:	200-41282	Lab File ID:	ngia08.d
Dilution:	1.0			Initial Weight/Volume:	5.15 g
Analysis Date:	07/11/2012 1116			Final Weight/Volume:	5 mL
Prep Date:	07/03/2012 0948				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
1,1,2,2-Tetrachloroethane		1.0	U	0.26	5.0
1,3-Dichlorobenzene		0.11	U	0.15	5.0
1,4-Dichlorobenzene		0.25	U	0.23	5.0
1,2-Dichlorobenzene		0.25	U	0.22	5.0
1,2-Dibromo-3-Chloropropane		1.0	U	0.91	5.0
1,2,4-Trichlorobenzene		1.0	U	0.20	5.0
1,2,3-Trichlorobenzene		0.16	J	0.15	5.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4	100		65 - 155
Toluene-d8	98		80 - 115
Bromofluorobenzene	104		80 - 115
1,2-Dichlorobenzene-d4	98		45 - 145

DRB 8/16/12

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: NFUDS-001-TP0302-01

Lab Sample ID: 200-11554-3
Client Matrix: Solid % Moisture: 1.3

Date Sampled: 06/29/2012 0844
Date Received: 06/30/2012 1005

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	200-41675	Instrument ID:	N.i
Prep Method:	5035	Prep Batch:	200-41282	Lab File ID:	ngia09.d
Dilution:	1.0			Initial Weight/Volume:	4.75 g
Analysis Date:	07/11/2012 1146			Final Weight/Volume:	5 mL
Prep Date:	07/03/2012 0948				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
Dichlorodifluoromethane		1.1	U	0.25	5.3
Chloromethane		1.1	U	0.28	5.3
Vinyl chloride		1.1	U	0.32	5.3
Bromomethane		2.7	U	0.79	5.3
Chloroethane		1.1	U	0.41	5.3
Trichlorofluoromethane		1.1	U	0.35	5.3
1,1-Dichloroethene		1.1	U	0.39	5.3
Freon TF		1.1	U	0.35	5.3
Acetone		6.1		1.1	5.3
Carbon disulfide		1.1	U	0.33	5.3
Methyl acetate		2.7	U	0.67	5.3
Methylene Chloride		1.1	U	0.59	5.3
trans-1,2-Dichloroethene		1.1	U	0.39	5.3
Methyl t-butyl ether		1.1	U	0.32	5.3
1,1-Dichloroethane		1.1	U	0.44	5.3
cis-1,2-Dichloroethene		1.1	U	0.45	5.3
2-Butanone		2.7	U	1.6	5.3
Bromochloromethane		1.1	U	0.39	5.3
Chloroform		1.1	U	0.34	5.3
1,1,1-Trichloroethane		1.1	U	0.75	5.3
Cyclohexane		1.1	U	0.91	5.3
Carbon tetrachloride		1.1	U	0.81	5.3
Benzene		1.1	U	0.76	5.3
1,2-Dichloroethane		1.1	U	0.66	5.3
Trichloroethene		1.1	U	0.51	5.3
Methylcyclohexane		1.1	U	0.18	5.3
1,2-Dichloropropane		1.1	U	0.31	5.3
1,4-Dioxane		53	U	25	270
Bromodichloromethane		1.1	U	0.22	5.3
cis-1,3-Dichloropropene		1.1	U	0.37	5.3
4-Methyl-2-pentanone		1.1	U	0.64	5.3
Toluene		0.37	J U	0.11	5.3
trans-1,3-Dichloropropene		1.1	U	0.14	5.3
1,1,2-Trichloroethane		1.1	U	0.36	5.3
Tetrachloroethene		0.27	U	0.12	5.3
2-Hexanone		1.1	U	0.52	5.3
Dibromochloromethane		1.1	U	0.12	5.3
1,2-Dibromoethane		1.1	U	0.16	5.3
Chlorobenzene		0.53	U	0.081	5.3
Ethylbenzene		0.27	U	0.060	5.3
m&p-Xylene		1.1	U	0.75	5.3
o-Xylene		0.27	U	0.065	5.3
Xylenes, Total		0.27	U	0.78	5.3
Styrene		0.27	U	0.11	5.3
Bromoform		1.1	U	0.21	5.3
Isopropylbenzene		1.1	U	0.082	5.3

DRS 8/16/12

Client: Weston Solutions, Inc.

Analytical Data

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: NFUDS-001-TP0302-01

Lab Sample ID: 200-11554-3
Client Matrix: Solid

% Moisture: 1.3

Date Sampled: 06/29/2012 0844
Date Received: 06/30/2012 1005

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	200-41675	Instrument ID:	N.i
Prep Method:	5035	Prep Batch:	200-41282	Lab File ID:	ngia09.d
Dilution:	1.0			Initial Weight/Volume:	4.75 g
Analysis Date:	07/11/2012 1146			Final Weight/Volume:	5 mL
Prep Date:	07/03/2012 0948				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
1,1,2,2-Tetrachloroethane		1.1	U	0.28	5.3
1,3-Dichlorobenzene		0.12	U	0.16	5.3
1,4-Dichlorobenzene		0.27	U	0.25	5.3
1,2-Dichlorobenzene		0.27	U	0.23	5.3
1,2-Dibromo-3-Chloropropane		1.1	U	0.97	5.3
1,2,4-Trichlorobenzene		1.1	U	0.21	5.3
1,2,3-Trichlorobenzene		0.21	J	0.16	5.3

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4	99		65 - 155
Toluene-d8	99		80 - 115
Bromofluorobenzene	111		80 - 115
1,2-Dichlorobenzene-d4	98		45 - 145

DEB 8/16/12

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: NFUDS-001-TP0402-01

Lab Sample ID: 200-11554-4
Client Matrix: Solid

% Moisture: 1.7

Date Sampled: 06/29/2012 0855
Date Received: 06/30/2012 1005

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	200-41675	Instrument ID:	N.i
Prep Method:	5035	Prep Batch:	200-41282	Lab File ID:	ngia10.d
Dilution:	1.0			Initial Weight/Volume:	5.36 g
Analysis Date:	07/11/2012 1220			Final Weight/Volume:	5 mL
Prep Date:	07/03/2012 0948				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
Dichlorodifluoromethane		0.95	U	0.22	4.7
Chloromethane		0.95	U	0.25	4.7
Vinyl chloride		0.95	U	0.28	4.7
Bromomethane		2.4	U	0.70	4.7
Chloroethane		0.95	U	0.36	4.7
Trichlorofluoromethane		0.95	U	0.31	4.7
1,1-Dichloroethene		0.95	U	0.35	4.7
Freon TF		0.95	U	0.31	4.7
Acetone		5.0	M	0.95	4.7
Carbon disulfide		0.95	U	0.29	4.7
Methyl acetate		2.4	U	0.60	4.7
Methylene Chloride		0.95	U	0.52	4.7
trans-1,2-Dichloroethene		0.95	U	0.35	4.7
Methyl t-butyl ether		0.95	U	0.28	4.7
1,1-Dichloroethane		0.95	U	0.39	4.7
cis-1,2-Dichloroethene		0.95	U	0.40	4.7
2-Butanone		2.4	U	1.4	4.7
Bromochloromethane		0.95	U	0.35	4.7
Chloroform		2.1	J	0.30	4.7
1,1,1-Trichloroethane		0.95	U	0.66	4.7
Cyclohexane		0.95	U	0.81	4.7
Carbon tetrachloride		0.95	U	0.72	4.7
Benzene		0.95	U	0.67	4.7
1,2-Dichloroethane		0.95	U	0.59	4.7
Trichloroethene		0.95	U	0.46	4.7
Methylcyclohexane		0.95	U	0.16	4.7
1,2-Dichloropropane		0.95	U	0.28	4.7
1,4-Dioxane		47	U	22	240
Bromodichloromethane		0.95	U	0.20	4.7
cis-1,3-Dichloropropene		0.95	U	0.33	4.7
4-Methyl-2-pentanone		0.95	U	0.57	4.7
Toluene		0.17	~~U~~ J3	0.095	4.7
trans-1,3-Dichloropropene		0.95	U	0.12	4.7
1,1,2-Trichloroethane		0.95	U	0.32	4.7
Tetrachloroethene		0.24	U	0.10	4.7
2-Hexanone		0.95	U	0.46	4.7
Dibromochloromethane		0.95	U	0.10	4.7
1,2-Dibromoethane		0.95	U	0.14	4.7
Chlorobenzene		0.47	U	0.072	4.7
Ethylbenzene		0.24	U	0.053	4.7
m&p-Xylene		0.95	U	0.66	4.7
o-Xylene		0.24	U	0.058	4.7
Xylenes, Total		0.24	U	0.69	4.7
Styrene		0.24	U	0.095	4.7
Bromoform		0.95	U	0.19	4.7
Isopropylbenzene		0.95	U	0.073	4.7

DRB 8/16/12

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0402-01**

Lab Sample ID: 200-11554-4
Client Matrix: Solid % Moisture: 1.7

Date Sampled: 06/29/2012 0855
Date Received: 06/30/2012 1005

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B
Prep Method: 5035
Dilution: 1.0
Analysis Date: 07/11/2012 1220
Prep Date: 07/03/2012 0948

Analysis Batch: 200-41675
Prep Batch: 200-41282

Instrument ID: N.i
Lab File ID: ngia10.d
Initial Weight/Volume: 5.36 g
Final Weight/Volume: 5 mL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
1,1,2,2-Tetrachloroethane		0.95	U	0.25	4.7
1,3-Dichlorobenzene		0.10	U	0.14	4.7
1,4-Dichlorobenzene		0.24	U	0.22	4.7
1,2-Dichlorobenzene		0.24	U	0.21	4.7
1,2-Dibromo-3-Chloropropane		0.95	U	0.86	4.7
1,2,4-Trichlorobenzene		0.95	U	0.19	4.7
1,2,3-Trichlorobenzene		0.95	U	0.14	4.7

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4	99		65 - 155
Toluene-d8	91		80 - 115
Bromofluorobenzene	96		80 - 115
1,2-Dichlorobenzene-d4	91		45 - 145

DCB 8/16/12

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: NFUDS-001-TB01-06

Lab Sample ID: 200-11554-5
Client Matrix: Solid

Date Sampled: 06/29/2012 0900
Date Received: 06/30/2012 1005

8260B Volatile Organic Compounds (GC/MS)

Analysis Method: 8260B
Prep Method: 5035
Dilution: 1.0
Analysis Date: 07/11/2012 1015
Prep Date: 07/03/2012 0948

Analysis Batch: 200-41675
Prep Batch: 200-41282

Instrument ID: N.i
Lab File ID: ngia06.d
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 mL

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
Dichlorodifluoromethane		1.0	U	1.0	5.0
Chloromethane		1.0	U	1.0	5.0
Vinyl chloride		1.0	U	1.0	5.0
Bromomethane		2.5	U	2.5	5.0
Chloroethane		1.0	U	1.0	5.0
Trichlorofluoromethane		1.0	U	1.0	5.0
1,1-Dichloroethene		1.0	U	1.0	5.0
Freon TF		1.0	U	1.0	5.0
Acetone		5.0		2.5	5.0
Carbon disulfide		1.0	U	1.0	5.0
Methyl acetate		2.5	U	2.5	5.0
Methylene Chloride		1.0	U	1.0	5.0
trans-1,2-Dichloroethene		1.0	U	1.0	5.0
Methyl t-butyl ether		1.0	U	1.0	5.0
1,1-Dichloroethane		1.0	U	1.0	5.0
cis-1,2-Dichloroethene		1.0	U	1.0	5.0
2-Butanone		2.5	U	2.5	5.0
Bromochloromethane		1.0	U	1.0	5.0
Chloroform		1.0	U	1.0	5.0
1,1,1-Trichloroethane		1.0	U	1.0	5.0
Cyclohexane		1.0	U	1.0	5.0
Carbon tetrachloride		1.0	U	1.0	5.0
Benzene		1.0	U	1.0	5.0
1,2-Dichloroethane		1.0	U	1.0	5.0
Trichloroethene		1.0	U	1.0	5.0
Methylcyclohexane		1.0	U	1.0	5.0
1,2-Dichloropropane		1.0	U	1.0	5.0
1,4-Dioxane		50	U	50	250
Bromodichloromethane		1.0	U	1.0	5.0
cis-1,3-Dichloropropene		1.0	U	1.0	5.0
4-Methyl-2-pentanone		1.0	U	1.0	5.0
Toluene		0.41	J U3	0.25	5.0
trans-1,3-Dichloropropene		1.0	U	1.0	5.0
1,1,2-Trichloroethane		1.0	U	1.0	5.0
Tetrachloroethene		0.25	U	0.25	5.0
2-Hexanone		1.0	U	1.0	5.0
Dibromochloromethane		1.0	U	1.0	5.0
1,2-Dibromoethane		1.0	U	1.0	5.0
Chlorobenzene		0.50	U	0.50	5.0
Ethylbenzene		0.25	U M	0.25	5.0
m&p-Xylene		1.0	U	1.0	5.0
o-Xylene		0.25	U	0.25	5.0
Xylenes, Total		0.25	U	0.25	5.0
Styrene		0.25	U	0.25	5.0
Bromoform		1.0	U	1.0	5.0
Isopropylbenzene		1.0	U	1.0	5.0

DRB 8/1/12

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TB01-06**

Lab Sample ID: 200-11554-5
Client Matrix: Solid

Date Sampled: 06/29/2012 0900
Date Received: 06/30/2012 1005

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	200-41675	Instrument ID:	N.i
Prep Method:	5035	Prep Batch:	200-41282	Lab File ID:	ngia06.d
Dilution:	1.0			Initial Weight/Volume:	5 g
Analysis Date:	07/11/2012 1015			Final Weight/Volume:	5 mL
Prep Date:	07/03/2012 0948				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
1,1,2,2-Tetrachloroethane		1.0	U	1.0	5.0
1,3-Dichlorobenzene		0.11	U	0.11	5.0
1,4-Dichlorobenzene		0.25	U	0.25	5.0
1,2-Dichlorobenzene		0.25	U	0.25	5.0
1,2-Dibromo-3-Chloropropane		1.0	U	1.0	5.0
1,2,4-Trichlorobenzene		1.0	U	1.0	5.0
1,2,3-Trichlorobenzene		1.0	U	1.0	5.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4	93		65 - 155
Toluene-d8	95		80 - 115
Bromofluorobenzene	99		80 - 115
1,2-Dichlorobenzene-d4	94		45 - 145

8/14/12

Don't use

Client: Weston Solutions, Inc.

Analytical Data

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: NFUDS-001-TP0101-01

Lab Sample ID: 200-11554-1
Client Matrix: Solid

% Moisture: 4.1

Date Sampled: 06/29/2012 0830
Date Received: 06/30/2012 1005

8270C SIM Semivolatile Organic Compounds (GC/MS SIM)

Analysis Method:	8270C SIM	Analysis Batch:	200-42145	Instrument ID:	Z.i
Prep Method:	3550C	Prep Batch:	200-41630	Lab File ID:	zywa05.d
Dilution:	1.0			Initial Weight/Volume:	30.06 g
Analysis Date:	07/16/2012 1805			Final Weight/Volume:	1000 uL
Prep Date:	07/11/2012 0848			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
Naphthalene		0.30	J B	0.059	0.70
2-Methylnaphthalene		0.086	U	0.057	0.70
Acenaphthylene		0.086	U	0.055	0.70
Acenaphthene		0.086	U	0.055	0.70
Fluorene		0.086	U	0.057	0.70
Phenanthrene		0.26	J B	0.073	0.70
Anthracene		0.086	U	0.055	0.70
Fluoranthene		0.42	J B	0.064	0.70
Pyrene		0.36	J B	0.039	0.70
Benzo[a]anthracene		0.086	U	0.050	0.70
Chrysene		0.25	J B	0.059	0.70
Benzo[b]fluoranthene		0.39	J B	0.049	0.70
Benzo[k]fluoranthene		0.086	U	0.059	0.70
Benzo[a]pyrene		0.21	J B	0.049	0.70
Indeno[1,2,3-cd]pyrene		0.18	J M B	0.080	0.70
Dibenz(a,h)anthracene		0.18	U	0.059	0.70
Benzo[g,h,i]perylene		0.18	U	0.095	0.70

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Methylnaphthalene-d10	83		30 - 120
Fluorene-d10	82		30 - 130
Fluoranthene-d10	86		10 - 165
Benzo(a)pyrene-d12	79		20 - 130

Area pres 8/16/12

Client: Weston Solutions, Inc.

Report

Analytical Data

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0101-01**

Lab Sample ID: 200-11554-1
Client Matrix: Solid

% Moisture: 4.1

Date Sampled: 06/29/2012 0830
Date Received: 06/30/2012 1005

8270C SIM Semivolatile Organic Compounds (GC/MS SIM)

Analysis Method:	8270C SIM	Analysis Batch:	200-42148	Instrument ID:	Z.i
Prep Method:	3550C	Prep Batch:	200-41970	Lab File ID:	zywb07.d
Dilution:	1.0			Initial Weight/Volume:	30.70 g
Analysis Date:	07/19/2012 1754	Run Type:	RE	Final Weight/Volume:	1000 uL
Prep Date:	07/17/2012 1723			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
Naphthalene		0.26	J H	0.058	0.68
2-Methylnaphthalene		0.085	U H UJ	0.056	0.68
Acenaphthylene		0.085	U H	0.054	0.68
Acenaphthene		0.085	U H	0.054	0.68
Fluorene		0.085	U H	0.056	0.68
Phenanthrene		0.39	J H	0.071	0.68
Anthracene		0.085	U H UJ	0.054	0.68
Fluoranthene		0.85	H UJ	0.062	0.68
Pyrene		1.2	H B UJ	0.038	0.68
Benzo[a]anthracene		0.26	J H	0.049	0.68
Chrysene		0.34	J H	0.058	0.68
Benzo[b]fluoranthene		0.59	J H	0.048	0.68
Benzo[k]fluoranthene		0.19	J H	0.058	0.68
Benzo[a]pyrene		0.30	J H	0.048	0.68
Indeno[1,2,3-cd]pyrene		0.085	U H UJ	0.078	0.68
Dibenz(a,h)anthracene		0.17	U H	0.058	0.68
Benzo[g,h,i]perylene		0.17	U H	0.093	0.68

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Methylnaphthalene-d10	86		30 - 120
Fluorene-d10	85		30 - 130
Fluoranthene-d10	89		10 - 165
Benzo(a)pyrene-d12	87		20 - 130

DRB 8/10/12

Client: Weston Solutions, Inc.

Analytical Data

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: NFUDS-001-TP0201-01

Lab Sample ID: 200-11554-2
Client Matrix: Solid

Do not use

% Moisture: 2.9

Date Sampled: 06/29/2012 0845
Date Received: 06/30/2012 1005

8270C SIM Semivolatile Organic Compounds (GC/MS SIM)

Analysis Method:	8270C SIM	Analysis Batch:	200-42145	Instrument ID:	Z.i
Prep Method:	3550C	Prep Batch:	200-41630	Lab File ID:	zywa06.d
Dilution:	1.0			Initial Weight/Volume:	30.03 g
Analysis Date:	07/16/2012 1844			Final Weight/Volume:	1000 uL
Prep Date:	07/11/2012 0848			Injection Volume:	2 uL

DryWt Corrected: Y

Analyte	Result (ug/Kg)	Qualifier	DL	LOQ
Naphthalene	0.30	J B	0.059	0.69
2-Methylnaphthalene	0.085	U	0.057	0.69
Acenaphthylene	0.085	U	0.055	0.69
Acenaphthene	0.085	U	0.055	0.69
Fluorene	0.085	U	0.057	0.69
Phenanthrene	0.26	J B	0.072	0.69
Anthracene	0.085	U	0.055	0.69
Fluoranthene	0.37	J B	0.063	0.69
Pyrene	0.35	J B	0.038	0.69
Benzo[a]anthracene	0.085	U	0.049	0.69
Chrysene	0.21	J B	0.059	0.69
Benzo[b]fluoranthene	0.30	J B	0.048	0.69
Benzo[k]fluoranthene	0.085	U	0.059	0.69
Benzo[a]pyrene	0.085	U	0.048	0.69
Indeno[1,2,3-cd]pyrene	0.085	U	0.079	0.69
Dibenz(a,h)anthracene	0.17	U	0.059	0.69
Benzo[g,h,i]perylene	0.17	U	0.094	0.69

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Methylnaphthalene-d10	87		30 - 120
Fluorene-d10	85		30 - 130
Fluoranthene-d10	89		10 - 165
Benzo(a)pyrene-d12	83		20 - 130

DFB 8/16/12

Client: Weston Solutions, Inc.

Repeat

Analytical Data

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: NFUDS-001-TP0201-01

Lab Sample ID: 200-11554-2
Client Matrix: Solid

% Moisture: 2.9

Date Sampled: 06/29/2012 0845
Date Received: 06/30/2012 1005

8270C SIM Semivolatile Organic Compounds (GC/MS SIM)

Analysis Method:	8270C SIM	Analysis Batch:	200-42148	Instrument ID:	Z.i
Prep Method:	3550C	Prep Batch:	200-41970	Lab File ID:	zywb08.d
Dilution:	1.0			Initial Weight/Volume:	30.31 g
Analysis Date:	07/19/2012 1833	Run Type:	RE	Final Weight/Volume:	1000 uL
Prep Date:	07/17/2012 1723			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
Naphthalene		0.21	J H	0.058	0.68
2-Methylnaphthalene		0.085	U H UJ	0.056	0.68
Acenaphthylene		0.085	U H	0.054	0.68
Acenaphthene		0.085	U H	0.054	0.68
Fluorene		0.085	U H	0.056	0.68
Phenanthrene		0.25	J H	0.071	0.68
Anthracene		0.085	U H UJ	0.054	0.68
Fluoranthene		0.60	J H UJ	0.062	0.68
Pyrene		0.95	H B UJ	0.038	0.68
Benzo[a]anthracene		0.19	J H	0.049	0.68
Chrysene		0.25	J H	0.058	0.68
Benzo[b]fluoranthene		0.41	J H	0.048	0.68
Benzo[k]fluoranthene		0.085	U H UJ	0.058	0.68
Benzo[a]pyrene		0.20	J H	0.048	0.68
Indeno[1,2,3-cd]pyrene		0.085	U H UJ	0.079	0.68
Dibenz(a,h)anthracene		0.17	U H	0.058	0.68
Benzo[g,h,i]perylene		0.17	U H	0.093	0.68

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Methylnaphthalene-d10	77		30 - 120
Fluorene-d10	72		30 - 130
Fluoranthene-d10	75		10 - 165
Benzo(a)pyrene-d12	74		20 - 130

OPS 8/1/12

Client: Weston Solutions, Inc.

Repeat

Analytical Data

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: NFUDS-001-TP0302-01

Lab Sample ID: 200-11554-3
Client Matrix: Solid

% Moisture: 1.3

Date Sampled: 06/29/2012 0844
Date Received: 06/30/2012 1005

8270C SIM Semivolatile Organic Compounds (GC/MS SIM)

Analysis Method:	8270C SIM	Analysis Batch:	200-42145	Instrument ID:	Z.i
Prep Method:	3550C	Prep Batch:	200-41630	Lab File ID:	zywa07.d
Dilution:	1.0			Initial Weight/Volume:	30.26 g
Analysis Date:	07/16/2012 1923			Final Weight/Volume:	1000 uL
Prep Date:	07/11/2012 0848			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
Naphthalene		0.25	~~JB~~ U4	0.057	0.67
2-Methylnaphthalene		0.083	U	0.055	0.67
Acenaphthylene		0.083	U	0.053	0.67
Acenaphthene		0.083	U	0.053	0.67
Fluorene		0.083	U	0.055	0.67
Phenanthrene		0.083	U	0.070	0.67
Anthracene		0.083	U	0.053	0.67
Fluoranthene		0.083	U	0.061	0.67
Pyrene		0.042	U	0.037	0.67
Benzo[a]anthracene		0.083	U	0.048	0.67
Chrysene		0.083	U	0.057	0.67
Benzo[b]fluoranthene		0.083	U	0.047	0.67
Benzo[k]fluoranthene		0.083	U	0.057	0.67
Benzo[a]pyrene		0.083	U	0.047	0.67
Indeno[1,2,3-cd]pyrene		0.083	U	0.077	0.67
Dibenz(a,h)anthracene		0.17	U	0.057	0.67
Benzo[g,h,i]perylene		0.17	U	0.091	0.67

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Methylnaphthalene-d10	81		30 - 120
Fluorene-d10	79		30 - 130
Fluoranthene-d10	84		10 - 165
Benzo(a)pyrene-d12	80		20 - 130

DRB 8/6/12

Client: Weston Solutions, Inc.

Analytical Data

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: NFUDS-001-TP0302-01

Lab Sample ID: 200-11554-3
Client Matrix: Solid

% Moisture: 1.3

Date Sampled: 06/29/2012 0844
Date Received: 06/30/2012 1005

8270C SIM Semivolatile Organic Compounds (GC/MS SIM)

Analysis Method:	8270C SIM	Analysis Batch:	200-42148	Instrument ID:	Z.i
Prep Method:	3550C	Prep Batch:	200-41970	Lab File ID:	zywb09.d
Dilution:	1.0			Initial Weight/Volume:	30.64 g
Analysis Date:	07/19/2012 1911	Run Type:	RE	Final Weight/Volume:	1000 uL
Prep Date:	07/17/2012 1723			Injection Volume:	2 uL

DryWt Corrected: Y

Analyte	Result (ug/Kg)	Qualifier	DL	LOQ
Naphthalene	0.24	J H	0.057	0.66
2-Methylnaphthalene	0.082	U H	0.055	0.66
Acenaphthylene	0.082	U H	0.053	0.66
Acenaphthene	0.082	U H	0.053	0.66
Fluorene	0.082	U H	0.055	0.66
Phenanthrene	0.082	U H	0.069	0.66
Anthracene	0.082	U H	0.053	0.66
Fluoranthene	0.22	J H	0.061	0.66
Pyrene	0.57	J H B	0.037	0.66
Benzo[a]anthracene	0.082	U H	0.048	0.66
Chrysene	0.082	U H	0.057	0.66
Benzo[b]fluoranthene	0.082	U H	0.047	0.66
Benzo[k]fluoranthene	0.082	U H	0.057	0.66
Benzo[a]pyrene	0.082	U H	0.047	0.66
Indeno[1,2,3-cd]pyrene	0.082	U H	0.076	0.66
Dibenz(a,h)anthracene	0.17	U H	0.057	0.66
Benzo[g,h,i]perylene	0.17	U H	0.090	0.66

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Methylnaphthalene-d10	88		30 - 120
Fluorene-d10	84		30 - 130
Fluoranthene-d10	87		10 - 165
Benzo(a)pyrene-d12	88		20 - 130

Client: Weston Solutions, Inc.

Repeat

Analytical Data

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: NFUDS-001-TP0402-01

Lab Sample ID: 200-11554-4
Client Matrix: Solid

% Moisture: 1.7

Date Sampled: 06/29/2012 0855
Date Received: 06/30/2012 1005

8270C SIM Semivolatile Organic Compounds (GC/MS SIM)

Analysis Method:	8270C SIM	Analysis Batch:	200-42145	Instrument ID:	Z.i
Prep Method:	3550C	Prep Batch:	200-41630	Lab File ID:	zywa08.d
Dilution:	1.0			Initial Weight/Volume:	30.25 g
Analysis Date:	07/16/2012 2002			Final Weight/Volume:	1000 uL
Prep Date:	07/11/2012 0848			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
Naphthalene		0.23	~~JB~~ U4	0.057	0.68
2-Methylnaphthalene		0.084	U	0.055	0.68
Acenaphthylene		0.084	U	0.053	0.68
Acenaphthene		0.084	U	0.053	0.68
Fluorene		0.084	U	0.055	0.68
Phenanthrene		0.084	U	0.071	0.68
Anthracene		0.084	U	0.053	0.68
Fluoranthene		0.084	U	0.062	0.68
Pyrene		0.042	U	0.037	0.68
Benzo[a]anthracene		0.084	U	0.048	0.68
Chrysene		0.084	U	0.057	0.68
Benzo[b]fluoranthene		0.084	U	0.047	0.68
Benzo[k]fluoranthene		0.084	U	0.057	0.68
Benzo[a]pyrene		0.084	U	0.047	0.68
Indeno[1,2,3-cd]pyrene		0.084	U	0.078	0.68
Dibenz(a,h)anthracene		0.17	U	0.057	0.68
Benzo[g,h,i]perylene		0.17	U	0.092	0.68

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Methylnaphthalene-d10	84		30 - 120
Fluorene-d10	82		30 - 130
Fluoranthene-d10	86		10 - 165
Benzo(a)pyrene-d12	80		20 - 130

DFG 8/16/12

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0402-01**

Lab Sample ID: 200-11554-4
Client Matrix: Solid

% Moisture: 1.7

Date Sampled: 06/29/2012 0855
Date Received: 06/30/2012 1005

Do not use

8270C SIM Semivolatile Organic Compounds (GC/MS SIM)

Analysis Method:	8270C SIM	Analysis Batch:	200-42148	Instrument ID:	Z.i
Prep Method:	3550C	Prep Batch:	200-41970	Lab File ID:	zywb10.d
Dilution:	1.0			Initial Weight/Volume:	30.76 g
Analysis Date:	07/19/2012 1950	Run Type:	RE	Final Weight/Volume:	1000 uL
Prep Date:	07/17/2012 1723			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
Naphthalene		0.18	J H	0.057	0.66
2-Methylnaphthalene		0.082	U H	0.055	0.66
Acenaphthylene		0.082	U H	0.053	0.66
Acenaphthene		0.082	U H	0.053	0.66
Fluorene		0.082	U H	0.055	0.66
Phenanthrene		0.082	U H	0.069	0.66
Anthracene		0.082	U H	0.053	0.66
Fluoranthene		0.21	J H	0.061	0.66
Pyrene		0.54	J H B	0.037	0.66
Benzo[a]anthracene		0.082	U H	0.048	0.66
Chrysene		0.082	U H	0.057	0.66
Benzo[b]fluoranthene		0.082	U H	0.047	0.66
Benzo[k]fluoranthene		0.082	U H	0.057	0.66
Benzo[a]pyrene		0.082	U H	0.047	0.66
Indeno[1,2,3-cd]pyrene		0.082	U H	0.076	0.66
Dibenz(a,h)anthracene		0.17	U H	0.057	0.66
Benzo[g,h,i]perylene		0.17	U H	0.090	0.66

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Methylnaphthalene-d10	84		30 - 120
Fluorene-d10	81		30 - 130
Fluoranthene-d10	84		10 - 165
Benzo(a)pyrene-d12	82		20 - 130

DFB 8/1/12

Client: Weston Solutions, Inc.

Repeat

Analytical Data

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: NFUDS-001-TP0101-01

Lab Sample ID: 200-11554-1
Client Matrix: Solid

% Moisture: 4.1

Date Sampled: 06/29/2012 0830
Date Received: 06/30/2012 1005

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C/DoD	Analysis Batch:	240-50851	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-49913	Lab File ID:	20716011.D
Dilution:	1.0			Initial Weight/Volume:	30.29 g
Analysis Date:	07/16/2012 1115			Final Weight/Volume:	2 mL
Prep Date:	07/05/2012 1114			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
1,2,4,5-Tetrachlorobenzene		5.5	U	5.5	100
2,4,5-Trichlorophenol		28	U Q UJ	26	150
2,4,6-Trichlorophenol		83	U Q UJ	83	150
2,4-Dichlorophenol		28	U	21	150
2,4-Dimethylphenol		83	U	21	150
2,4-Dinitrophenol		83	U	83	340
2,4-Dinitrotoluene		28	U	28	210
2,6-Dinitrotoluene		28	U	22	210
2-Chloronaphthalene		3.4	U	3.4	52
2-Chlorophenol		28	U	28	52
2-Methylnaphthalene		3.4	U	3.4	6.9
2-Methylphenol		83	U	83	210
2-Nitroaniline		28	U	9.4	210
2-Nitrophenol		28	U	28	52
3 & 4 Methylphenol		83	U	21	410
3,3'-Dichlorobenzidine		83	U	19	100
3-Nitroaniline		83	U	17	210
4,6-Dinitro-2-methylphenol		83	U	83	150
4-Bromophenyl phenyl ether		28	U	13	52
4-Chloro-3-methylphenol		28	U	22	150
4-Chloroaniline		28	U	18	150
4-Chlorophenyl phenyl ether		28	U	13	52
4-Nitroaniline		28	U	27	210
4-Nitrophenol		83	U	83	340
Acenaphthene		3.4	U	3.4	6.9
Acenaphthylene		3.4	U	3.4	6.9
Anthracene		3.4	U	3.4	6.9
Benzo[a]anthracene		3.4	U	3.4	6.9
Benzo[a]pyrene		3.4	U	3.4	6.9
Benzo[b]fluoranthene		3.4	U	3.4	6.9
Benzo[g,h,i]perylene		3.4	U	3.4	6.9
Benzo[k]fluoranthene		3.4	U	3.4	6.9
Bis(2-chloroethoxy)methane		28	U	23	100
Bis(2-chloroethyl)ether		3.4	U	2.1	100
Bis(2-ethylhexyl) phthalate		21	J	20	52
Butyl benzyl phthalate		28	U	10	52
Carbazole		28	U	28	52
Chrysene		3.4	U	1.1	6.9
Dibenz(a,h)anthracene		3.4	U	3.4	6.9
Dibenzofuran		3.4	U	3.4	52
Diethyl phthalate		28	U	17	52
Dimethyl phthalate		28	U	18	52
Di-n-butyl phthalate		28	U	15	52
Di-n-octyl phthalate		28	U	28	52
Fluoranthene		3.4	U	3.4	6.9
Fluorene		3.4	U	3.4	6.9

DKG 8/16/12

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0101-01**

Lab Sample ID: 200-11554-1
Client Matrix: Solid % Moisture: 4.1

Date Sampled: 06/29/2012 0830
Date Received: 06/30/2012 1005

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C/DoD	Analysis Batch:	240-50851	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-49913	Lab File ID:	20716011.D
Dilution:	1.0			Initial Weight/Volume:	30.29 g
Analysis Date:	07/16/2012 1115			Final Weight/Volume:	2 mL
Prep Date:	07/05/2012 1114			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
Hexachlorobenzene		3.4	U	2.2	6.9
Hexachlorobutadiene		28	U	28	52
Hexachloroethane		28	U	9.3	52
Indeno[1,2,3-cd]pyrene		3.4	U	3.4	6.9
Naphthalene		3.4	U	3.4	6.9
Nitrobenzene		3.4	U	2.3	100
N-Nitrosodi-n-propylamine		28	U	28	52
N-Nitrosodiphenylamine		28	U	22	52
Pentachlorophenol		83	U	83	150
Phenanthrene		3.4	U	3.4	6.9
Phenol		28	U	28	52
Pyrene		3.4	U	3.4	6.9
bis (2-chloroisopropyl) ether		28	U	9.8	100
Isophorone		28	U	13	52
1,1'-Biphenyl		28	U	28	52
Acetophenone		28	U	9.5	100
Atrazine		28	U	9.4	210
Benzaldehyde		28	U	12	100
Caprolactam		28	U	38	340
Hexachlorocyclopentadiene		28	U	28	340
2,3,4,6-Tetrachlorophenol		1700	U	110	1700

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl (Surr)	51		45 - 105
2-Fluorophenol (Surr)	59		35 - 105
Nitrobenzene-d5 (Surr)	53		35 - 100
Terphenyl-d14 (Surr)	70		30 - 125
2,4,6-Tribromophenol (Surr)	66		35 - 125
Phenol-d5 (Surr)	62		40 - 100

DRE 8/16/12

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

DO not use

Client Sample ID: NFUDS-001-TP0101-01

Lab Sample ID: 200-11554-1
Client Matrix: Solid

% Moisture: 4.1

Date Sampled: 06/29/2012 0830
Date Received: 06/30/2012 1005

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C/DoD	Analysis Batch:	240-51914	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-50985	Lab File ID:	20725007.D
Dilution:	1.0			Initial Weight/Volume:	30.10 g
Analysis Date:	07/25/2012 1014	Run Type:	RE	Final Weight/Volume:	2 mL
Prep Date:	07/17/2012 0820			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
1,2,4,5-Tetrachlorobenzene		5.5	U H	5.5	100
2,4,5-Trichlorophenol		28	U H	26	160
2,4,6-Trichlorophenol		83	U H	83	160
2,4-Dichlorophenol		28	U H	21	160
2,4-Dimethylphenol		83	U H	21	160
2,4-Dinitrophenol		83	U H	83	340
2,4-Dinitrotoluene		28	U H	28	210
2,6-Dinitrotoluene		28	U H	22	210
2-Chloronaphthalene		3.4	U H	3.4	52
2-Chlorophenol		28	U H	28	52
2-Methylnaphthalene		3.4	U H	3.4	6.9
2-Methylphenol		83	U H	83	210
2-Nitroaniline		28	U H	9.5	210
2-Nitrophenol		28	U H	28	52
3 & 4 Methylphenol		83	U H	21	420
3,3'-Dichlorobenzidine		83	U H	19	100
3-Nitroaniline		83	U H	17	210
4,6-Dinitro-2-methylphenol		83	U H	83	160
4-Bromophenyl phenyl ether		28	U H	14	52
4-Chloro-3-methylphenol		28	U H	22	160
4-Chloroaniline		28	U H	18	160
4-Chlorophenyl phenyl ether		28	U H	14	52
4-Nitroaniline		28	U H	27	210
4-Nitrophenol		83	U H	83	340
Acenaphthene		3.4	U H	3.4	6.9
Acenaphthylene		3.4	U H	3.4	6.9
Anthracene		3.4	U H	3.4	6.9
Benzo[a]anthracene		3.4	U H	3.4	6.9
Benzo[a]pyrene		3.4	U H	3.4	6.9
Benzo[b]fluoranthene		3.4	U H	3.4	6.9
Benzo[g,h,i]perylene		3.4	U H	3.4	6.9
Benzo[k]fluoranthene		3.4	U H	3.4	6.9
Bis(2-chloroethoxy)methane		28	U H	23	100
Bis(2-chloroethyl)ether		3.4	U H	2.1	100
Bis(2-ethylhexyl) phthalate		28	U H	20	52
Butyl benzyl phthalate		28	U H	10	52
Carbazole		28	U H	28	52
Chrysene		3.4	U H	1.1	6.9
Dibenz(a,h)anthracene		3.4	U H	3.4	6.9
Dibenzofuran		3.4	U H	3.4	52
Diethyl phthalate		28	U H	17	52
Dimethyl phthalate		28	U H	18	52
Di-n-butyl phthalate		28	U H	16	52
Di-n-octyl phthalate		28	U H	28	52
Fluoranthene		3.4	U H	3.4	6.9
Fluorene		3.4	U H	3.4	6.9

OFC 8/16/12

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0101-01**

Lab Sample ID: 200-11554-1
Client Matrix: Solid % Moisture: 4.1

Date Sampled: 06/29/2012 0830
Date Received: 06/30/2012 1005

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C/DoD	Analysis Batch:	240-51914	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-50985	Lab File ID:	20725007.D
Dilution:	1.0			Initial Weight/Volume:	30.10 g
Analysis Date:	07/25/2012 1014	Run Type:	RE	Final Weight/Volume:	2 mL
Prep Date:	07/17/2012 0820			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
Hexachlorobenzene		3.4	U H UJ	2.2	6.9
Hexachlorobutadiene		28	U H	28	52
Hexachloroethane		28	U H	9.4	52
Indeno[1,2,3-cd]pyrene		3.4	U H	3.4	6.9
Naphthalene		3.4	U H	3.4	6.9
Nitrobenzene		3.4	U H	2.3	100
N-Nitrosodi-n-propylamine		28	U H	28	52
N-Nitrosodiphenylamine		28	U H	22	52
Pentachlorophenol		83	U H	83	160
Phenanthrene		3.4	U H	3.4	6.9
Phenol		28	U H	28	52
Pyrene		3.4	U H	3.4	6.9
bis (2-chloroisopropyl) ether		28	U H	9.9	100
Isophorone		28	U H	14	52
1,1'-Biphenyl		28	U H	28	52
Acetophenone		28	U H	9.6	100
Atrazine		28	U H	9.5	210
Benzaldehyde		28	U H	12	100
Caprolactam		28	U H	38	340
Hexachlorocyclopentadiene		28	U H	28	340
2,3,4,6-Tetrachlorophenol		1700	U H	110	1700

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl (Surr)	53		45 - 105
2-Fluorophenol (Surr)	66		35 - 105
Nitrobenzene-d5 (Surr)	61		35 - 100
Terphenyl-d14 (Surr)	75		30 - 125
2,4,6-Tribromophenol (Surr)	51		35 - 125
Phenol-d5 (Surr)	66		40 - 100

DFE 8/10/12

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: NFUDS-001-TP0201-01

Lab Sample ID: 200-11554-2
Client Matrix: Solid

% Moisture: 2.9

Date Sampled: 06/29/2012 0845
Date Received: 06/30/2012 1005

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C/DoD	Analysis Batch:	240-50851	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-49913	Lab File ID:	20716012.D
Dilution:	1.0			Initial Weight/Volume:	30.32 g
Analysis Date:	07/16/2012 1134			Final Weight/Volume:	2 mL
Prep Date:	07/05/2012 1114			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
1,2,4,5-Tetrachlorobenzene		5.4	U	5.4	100
2,4,5-Trichlorophenol		28	U Q	25	150
2,4,6-Trichlorophenol		82	U Q	82	150
2,4-Dichlorophenol		28	U	20	150
2,4-Dimethylphenol		82	U	20	150
2,4-Dinitrophenol		82	U J	82	340
2,4-Dinitrotoluene		28	U	28	200
2,6-Dinitrotoluene		28	U	21	200
2-Chloronaphthalene		3.4	U	3.4	51
2-Chlorophenol		28	U	28	51
2-Methylnaphthalene		3.4	U	3.4	6.8
2-Methylphenol		82	U	82	200
2-Nitroaniline		28	U	9.3	200
2-Nitrophenol		28	U	28	51
3 & 4 Methylphenol		82	U	20	410
3,3'-Dichlorobenzidine		82	U J	18	100
3-Nitroaniline		82	U	16	200
4,6-Dinitro-2-methylphenol		82	U	82	150
4-Bromophenyl phenyl ether		28	U	13	51
4-Chloro-3-methylphenol		28	U	21	150
4-Chloroaniline		28	U	17	150
4-Chlorophenyl phenyl ether		28	U	13	51
4-Nitroaniline		28	U	27	200
4-Nitrophenol		82	U	82	340
Acenaphthene		3.4	U	3.4	6.8
Acenaphthylene		3.4	U	3.4	6.8
Anthracene		3.4	U	3.4	6.8
Benzo[a]anthracene		3.4	U	3.4	6.8
Benzo[a]pyrene		3.4	U	3.4	6.8
Benzo[b]fluoranthene		3.4	U	3.4	6.8
Benzo[g,h,i]perylene		3.4	U	3.4	6.8
Benzo[k]fluoranthene		3.4	U	3.4	6.8
Bis(2-chloroethoxy)methane		28	U	22	100
Bis(2-chloroethyl)ether		3.4	U	2.0	100
Bis(2-ethylhexyl) phthalate		33	J	19	51
Butyl benzyl phthalate		28	U	10	51
Carbazole		28	U	28	51
Chrysene		3.4	U	1.1	6.8
Dibenz(a,h)anthracene		3.4	U	3.4	6.8
Dibenzofuran		3.4	U	3.4	51
Diethyl phthalate		28	U	16	51
Dimethyl phthalate		28	U	17	51
Di-n-butyl phthalate		32	J M B	15	51
Di-n-octyl phthalate		28	U	28	51
Fluoranthene		3.4	U	3.4	6.8
Fluorene		3.4	U	3.4	6.8

Client Sample ID: NFUDS-001-TP0201-01

Lab Sample ID: 200-11554-2
Client Matrix: Solid

% Moisture: 2.9

Date Sampled: 06/29/2012 0845
Date Received: 06/30/2012 1005

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C/DoD	Analysis Batch:	240-50851	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-49913	Lab File ID:	20716012.D
Dilution:	1.0			Initial Weight/Volume:	30.32 g
Analysis Date:	07/16/2012 1134			Final Weight/Volume:	2 mL
Prep Date:	07/05/2012 1114			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
Hexachlorobenzene		3.4	U	2.1	6.8
Hexachlorobutadiene		28	U	28	51
Hexachloroethane		28	U	9.2	51
Indeno[1,2,3-cd]pyrene		3.4	U	3.4	6.8
Naphthalene		3.4	U	3.4	6.8
Nitrobenzene		3.4	U	2.2	100
N-Nitrosodi-n-propylamine		28	U	28	51
N-Nitrosodiphenylamine		28	U	21	51
Pentachlorophenol		82	U	82	150
Phenanthrene		3.4	U	3.4	6.8
Phenol		44	J M B U	28	51
Pyrene		3.4	U	3.4	6.8
bis (2-chloroisopropyl) ether		28	U	9.7	100
Isophorone		28	U	13	51
1,1'-Biphenyl		28	U	28	51
Acetophenone		28	U	9.4	100
Atrazine		28	U	9.3	200
Benzaldehyde		28	U	12	100
Caprolactam		28	U	38	340
Hexachlorocyclopentadiene		28	U	28	340
2,3,4,6-Tetrachlorophenol		1600	U	110	1600

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl (Surr)	45	M	45 - 105
2-Fluorophenol (Surr)	59		35 - 105
Nitrobenzene-d5 (Surr)	54	M	35 - 100
Terphenyl-d14 (Surr)	61	M	30 - 125
2,4,6-Tribromophenol (Surr)	53	M	35 - 125
Phenol-d5 (Surr)	60	M	40 - 100

DFC 8/16/12

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: NFUDS-001-TP0201-01

Lab Sample ID: 200-11554-2
Client Matrix: Solid

% Moisture: 2.9

Date Sampled: 06/29/2012 0845
Date Received: 06/30/2012 1005

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C/DoD	Analysis Batch:	240-51914	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-50985	Lab File ID:	20725008.D
Dilution:	1.0			Initial Weight/Volume:	28.74 g
Analysis Date:	07/25/2012 1033	Run Type:	RE	Final Weight/Volume:	2 mL
Prep Date:	07/17/2012 0820			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
1,2,4,5-Tetrachlorobenzene		5.7	U H	5.7	110
2,4,5-Trichlorophenol		29	U H	27	160
2,4,6-Trichlorophenol		86	U H	86	160
2,4-Dichlorophenol		29	U H	22	160
2,4-Dimethylphenol		86	U H	22	160
2,4-Dinitrophenol		86	U H	86	350
2,4-Dinitrotoluene		29	U H	29	220
2,6-Dinitrotoluene		29	U H	23	220
2-Chloronaphthalene		3.5	U H	3.5	54
2-Chlorophenol		29	U H	29	54
2-Methylnaphthalene		3.5	U H	3.5	7.2
2-Methylphenol		86	U H	86	220
2-Nitroaniline		29	U H	9.8	220
2-Nitrophenol		29	U H	29	54
3 & 4 Methylphenol		86	U H	22	430
3,3'-Dichlorobenzidine		86	U H	19	110
3-Nitroaniline		86	U H	17	220
4,6-Dinitro-2-methylphenol		86	U H	86	160
4-Bromophenyl phenyl ether		29	U H	14	54
4-Chloro-3-methylphenol		29	U H	23	160
4-Chloroaniline		29	U H	18	160
4-Chlorophenyl phenyl ether		29	U H	14	54
4-Nitroaniline		29	U H	28	220
4-Nitrophenol		86	U H	86	350
Acenaphthene		3.5	U H	3.5	7.2
Acenaphthylene		3.5	U H	3.5	7.2
Anthracene		3.5	U H	3.5	7.2
Benzo[a]anthracene		3.5	U H	3.5	7.2
Benzo[a]pyrene		3.5	U H	3.5	7.2
Benzo[b]fluoranthene		3.5	U H	3.5	7.2
Benzo[g,h,i]perylene		3.5	U H	3.5	7.2
Benzo[k]fluoranthene		3.5	U H	3.5	7.2
Bis(2-chloroethoxy)methane		29	U H	24	110
Bis(2-chloroethyl)ether		3.5	U H	2.2	110
Bis(2-ethylhexyl) phthalate		29	U H	20	54
Butyl benzyl phthalate		29	U H	11	54
Carbazole		29	U H	29	54
Chrysene		3.5	U H	1.2	7.2
Dibenz(a,h)anthracene		3.5	U H	3.5	7.2
Dibenzofuran		3.5	U H	3.5	54
Diethyl phthalate		29	U H	17	54
Dimethyl phthalate		29	U H	18	54
Di-n-butyl phthalate		29	U H	16	54
Di-n-octyl phthalate		29	U H	29	54
Fluoranthene		3.5	U H	3.5	7.2
Fluorene		3.5	U H	3.5	7.2

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: NFUDS-001-TP0201-01

Lab Sample ID: 200-11554-2
Client Matrix: Solid % Moisture: 2.9

Date Sampled: 06/29/2012 0845
Date Received: 06/30/2012 1005

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270C/DoD
Prep Method: 3540C
Dilution: 1.0
Analysis Date: 07/25/2012 1033
Prep Date: 07/17/2012 0820

Analysis Batch: 240-51914
Prep Batch: 240-50985

Run Type: RE

Instrument ID: A4HP9
Lab File ID: 20725008.D
Initial Weight/Volume: 28.74 g
Final Weight/Volume: 2 mL
Injection Volume: 1 uL

DryWt Corrected: Y

Analyte	Result (ug/Kg)	Qualifier	DL	LOQ
Hexachlorobenzene	3.5	U H	2.3	7.2
Hexachlorobutadiene	29	U H	29	54
Hexachloroethane	29	U H	9.7	54
Indeno[1,2,3-cd]pyrene	3.5	U H	3.5	7.2
Naphthalene	3.5	U H	3.5	7.2
Nitrobenzene	3.5	U H	2.4	110
N-Nitrosodi-n-propylamine	29	U H	29	54
N-Nitrosodiphenylamine	29	U H	23	54
Pentachlorophenol	86	U H	86	160
Phenanthrene	3.5	U H	3.5	7.2
Phenol	29	U H	29	54
Pyrene	3.5	U H	3.5	7.2
bis (2-chloroisopropyl) ether	29	U H	10	110
Isophorone	29	U H	14	54
1,1'-Biphenyl	29	U H	29	54
Acetophenone	29	U H	9.9	110
Atrazine	29	U H	9.8	220
Benzaldehyde	29	U H	13	110
Caprolactam	29	U H	40	350
Hexachlorocyclopentadiene	29	U H	29	350
2,3,4,6-Tetrachlorophenol	1700	U H	120	1700

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl (Surr)	66		45 - 105
2-Fluorophenol (Surr)	77		35 - 105
Nitrobenzene-d5 (Surr)	74		35 - 100
Terphenyl-d14 (Surr)	93		30 - 125
2,4,6-Tribromophenol (Surr)	56		35 - 125
Phenol-d5 (Surr)	81		40 - 100

DFG 8/16/12

Client: Weston Solutions, Inc.

Report

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: NFUDS-001-TP0302-01

Lab Sample ID: 200-11554-3
Client Matrix: Solid

% Moisture: 1.3

Date Sampled: 06/29/2012 0844
Date Received: 06/30/2012 1005

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270C/DoD
Prep Method: 3540C
Dilution: 1.0
Analysis Date: 07/16/2012 1035
Prep Date: 07/05/2012 1114

Analysis Batch: 240-50851
Prep Batch: 240-49913

Instrument ID: A4HP9
Lab File ID: 20716009.D
Initial Weight/Volume: 30.14 g
Final Weight/Volume: 2 mL
Injection Volume: 1 uL

DryWt Corrected: Y

Analyte	Result (ug/Kg)	Qualifier	DL	LOQ
1,2,4,5-Tetrachlorobenzene	5.3	U	5.3	100
2,4,5-Trichlorophenol	27	U Q UJ 2	25	150
2,4,6-Trichlorophenol	81	U Q UJ 2	81	150
2,4-Dichlorophenol	27	U	20	150
2,4-Dimethylphenol	81	U	20	150
2,4-Dinitrophenol	81	U	81	330
2,4-Dinitrotoluene	27	U	27	200
2,6-Dinitrotoluene	27	U	21	200
2-Chloronaphthalene	3.3	U	3.3	50
2-Chlorophenol	27	U	27	50
2-Methylnaphthalene	3.3	U	3.3	6.7
2-Methylphenol	81	U	81	200
2-Nitroaniline	27	U	9.2	200
2-Nitrophenol	27	U	27	50
3 & 4 Methylphenol	81	U	20	400
3,3'-Dichlorobenzidine	81	U	18	100
3-Nitroaniline	81	U	16	200
4,6-Dinitro-2-methylphenol	81	U	81	150
4-Bromophenyl phenyl ether	27	U	13	50
4-Chloro-3-methylphenol	27	U	21	150
4-Chloroaniline	27	U	17	150
4-Chlorophenyl phenyl ether	27	U	13	50
4-Nitroaniline	27	U	26	200
4-Nitrophenol	81	U	81	330
Acenaphthene	3.3	U	3.3	6.7
Acenaphthylene	3.3	U	3.3	6.7
Anthracene	3.3	U	3.3	6.7
Benzo[a]anthracene	3.3	U	3.3	6.7
Benzo[a]pyrene	3.3	U	3.3	6.7
Benzo[b]fluoranthene	3.3	U	3.3	6.7
Benzo[g,h,i]perylene	3.3	U	3.3	6.7
Benzo[k]fluoranthene	3.3	U	3.3	6.7
Bis(2-chloroethoxy)methane	27	U	22	100
Bis(2-chloroethyl)ether	3.3	U	2.0	100
Bis(2-ethylhexyl) phthalate	19	J	19	50
Butyl benzyl phthalate	27	U	10	50
Carbazole	27	U	27	50
Chrysene	3.3	U	1.1	6.7
Dibenz(a,h)anthracene	3.3	U	3.3	6.7
Dibenzofuran	3.3	U	3.3	50
Diethyl phthalate	27	U	16	50
Dimethyl phthalate	27	U	17	50
Di-n-butyl phthalate	27	U	15	50
Di-n-octyl phthalate	27	U	27	50
Fluoranthene	3.3	U	3.3	6.7
Fluorene	3.3	U	3.3	6.7

DFG 8/16/12

07/27/2012

Client: Weston Solutions, Inc.

Reprint

Analytical Data

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0302-01**

Lab Sample ID: 200-11554-3
Client Matrix: Solid

% Moisture: 1.3

Date Sampled: 06/29/2012 0844
Date Received: 06/30/2012 1005

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C/DoD	Analysis Batch:	240-50851	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-49913	Lab File ID:	20716009.D
Dilution:	1.0			Initial Weight/Volume:	30.14 g
Analysis Date:	07/16/2012 1035			Final Weight/Volume:	2 mL
Prep Date:	07/05/2012 1114			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
Hexachlorobenzene		3.3	U	2.1	6.7
Hexachlorobutadiene		27	U	27	50
Hexachloroethane		27	U	9.1	50
Indeno[1,2,3-cd]pyrene		3.3	U	3.3	6.7
Naphthalene		3.3	U	3.3	6.7
Nitrobenzene		3.3	U	2.2	100
N-Nitrosodi-n-propylamine		27	U	27	50
N-Nitrosodiphenylamine		27	U	21	50
Pentachlorophenol		81	U	81	150
Phenanthrene		3.3	U	3.3	6.7
Phenol		27	U	27	50
Pyrene		3.3	U	3.3	6.7
bis (2-chloroisopropyl) ether		27	U	9.6	100
Isophorone		27	U	13	50
1,1'-Biphenyl		27	U	27	50
Acetophenone		27	U	9.3	100
Atrazine		27	U	9.2	200
Benzaldehyde		27	U	12	100
Caprolactam		27	U	37	330
Hexachlorocyclopentadiene		27	U	27	330
2,3,4,6-Tetrachlorophenol		1600	U	110	1600

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl (Surr)	49		45 - 105
2-Fluorophenol (Surr)	61		35 - 105
Nitrobenzene-d5 (Surr)	53		35 - 100
Terphenyl-d14 (Surr)	78		30 - 125
2,4,6-Tribromophenol (Surr)	59		35 - 125
Phenol-d5 (Surr)	64		40 - 100

DRG 8/16/12

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Do not use

Client Sample ID: NFUDS-001-TP0302-01
Lab Sample ID: 200-11554-3
Client Matrix: Solid

% Moisture: 1.3

Date Sampled: 06/29/2012 0844
Date Received: 06/30/2012 1005

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C/DoD	Analysis Batch:	240-51914	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-50985	Lab File ID:	20725009.D
Dilution:	1.0			Initial Weight/Volume:	29.78 g
Analysis Date:	07/25/2012 1053	Run Type:	RE	Final Weight/Volume:	2 mL
Prep Date:	07/17/2012 0820			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
1,2,4,5-Tetrachlorobenzene		5.4	U H	5.4	100
2,4,5-Trichlorophenol		28	U H	26	150
2,4,6-Trichlorophenol		82	U H	82	150
2,4-Dichlorophenol		28	U H	20	150
2,4-Dimethylphenol		82	U H	20	150
2,4-Dinitrophenol		82	U H	82	340
2,4-Dinitrotoluene		28	U H	28	200
2,6-Dinitrotoluene		28	U H	21	200
2-Chloronaphthalene		3.4	U H	3.4	51
2-Chlorophenol		28	U H	28	51
2-Methylnaphthalene		3.4	U H	3.4	6.8
2-Methylphenol		82	U H	82	200
2-Nitroaniline		28	U H	9.3	200
2-Nitrophenol		28	U H	28	51
3 & 4 Methylphenol		82	U H	20	410
3,3'-Dichlorobenzidine		82	U H	18	100
3-Nitroaniline		82	U H	16	200
4,6-Dinitro-2-methylphenol		82	U H	82	150
4-Bromophenyl phenyl ether		28	U H	13	51
4-Chloro-3-methylphenol		28	U H	21	150
4-Chloroaniline		28	U H	17	150
4-Chlorophenyl phenyl ether		28	U H	13	51
4-Nitroaniline		28	U H	27	200
4-Nitrophenol		82	U H	82	340
Acenaphthene		3.4	U H	3.4	6.8
Acenaphthylene		3.4	U H	3.4	6.8
Anthracene		3.4	U H	3.4	6.8
Benzo[a]anthracene		3.4	U H	3.4	6.8
Benzo[a]pyrene		3.4	U H	3.4	6.8
Benzo[b]fluoranthene		3.4	U H	3.4	6.8
Benzo[g,h,i]perylene		3.4	U H	3.4	6.8
Benzo[k]fluoranthene		3.4	U H	3.4	6.8
Bis(2-chloroethoxy)methane		28	U H	22	100
Bis(2-chloroethyl)ether		3.4	U H	2.0	100
Bis(2-ethylhexyl) phthalate		28	U H	19	51
Butyl benzyl phthalate		28	U H	10	51
Carbazole		28	U H	28	51
Chrysene		3.4	U H	1.1	6.8
Dibenz(a,h)anthracene		3.4	U H	3.4	6.8
Dibenzofuran		3.4	U H	3.4	51
Diethyl phthalate		28	U H	16	51
Dimethyl phthalate		28	U H	17	51
Di-n-butyl phthalate		28	U H	15	51
Di-n-octyl phthalate		28	U H	28	51
Fluoranthene		3.4	U H	3.4	6.8
Fluorene		3.4	U H	3.4	6.8

DFB 8/10/12

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: NFUDS-001-TP0302-01

Lab Sample ID: 200-11554-3
Client Matrix: Solid

% Moisture: 1.3

Date Sampled: 06/29/2012 0844
Date Received: 06/30/2012 1005

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C/DoD	Analysis Batch:	240-51914	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-50985	Lab File ID:	20725009.D
Dilution:	1.0			Initial Weight/Volume:	29.78 g
Analysis Date:	07/25/2012 1053	Run Type:	RE	Final Weight/Volume:	2 mL
Prep Date:	07/17/2012 0820			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
Hexachlorobenzene		3.4	U H	2.1	6.8
Hexachlorobutadiene		28	U H	28	51
Hexachloroethane		28	U H	9.2	51
Indeno[1,2,3-cd]pyrene		3.4	U H	3.4	6.8
Naphthalene		3.4	U H	3.4	6.8
Nitrobenzene		3.4	U H	2.2	100
N-Nitrosodi-n-propylamine		28	U H	28	51
N-Nitrosodiphenylamine		28	U H	21	51
Pentachlorophenol		82	U H	82	150
Phenanthrene		3.4	U H	3.4	6.8
Phenol		28	U H	28	51
Pyrene		3.4	U H	3.4	6.8
bis (2-chloroisopropyl) ether		28	U H	9.7	100
Isophorone		28	U H	13	51
1,1'-Biphenyl		28	U H	28	51
Acetophenone		28	U H	9.4	100
Atrazine		28	U H	9.3	200
Benzaldehyde		28	U H	12	100
Caprolactam		28	U H	38	340
Hexachlorocyclopentadiene		28	U H	28	340
2,3,4,6-Tetrachlorophenol		1600	U H	110	1600

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl (Surr)	54		45 - 105
2-Fluorophenol (Surr)	63		35 - 105
Nitrobenzene-d5 (Surr)	60		35 - 100
Terphenyl-d14 (Surr)	78		30 - 125
2,4,6-Tribromophenol (Surr)	48	M	35 - 125
Phenol-d5 (Surr)	64		40 - 100

DCG 8/16/12

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: NFUDS-001-TP0402-01

Lab Sample ID: 200-11554-4
Client Matrix: Solid

% Moisture: 1.7

Date Sampled: 06/29/2012 0855
Date Received: 06/30/2012 1005

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C/DoD	Analysis Batch:	240-50851	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-49913	Lab File ID:	20716010.D
Dilution:	1.0			Initial Weight/Volume:	30.14 g
Analysis Date:	07/16/2012 1055			Final Weight/Volume:	2 mL
Prep Date:	07/05/2012 1114			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
1,2,4,5-Tetrachlorobenzene		5.4	U	5.4	100
2,4,5-Trichlorophenol		27	U Q	25	150
2,4,6-Trichlorophenol		81	U Q	81	150
2,4-Dichlorophenol		27	U	20	150
2,4-Dimethylphenol		81	U	20	150
2,4-Dinitrophenol		81	U	81	330
2,4-Dinitrotoluene		27	U	27	200
2,6-Dinitrotoluene		27	U	21	200
2-Chloronaphthalene		3.3	U	3.3	51
2-Chlorophenol		27	U	27	51
2-Methylnaphthalene		3.3	U	3.3	6.8
2-Methylphenol		81	U	81	200
2-Nitroaniline		27	U	9.2	200
2-Nitrophenol		27	U	27	51
3 & 4 Methylphenol		81	U	20	400
3,3'-Dichlorobenzidine		81	U	18	100
3-Nitroaniline		81	U	16	200
4,6-Dinitro-2-methylphenol		81	U	81	150
4-Bromophenyl phenyl ether		27	U	13	51
4-Chloro-3-methylphenol		27	U	21	150
4-Chloroaniline		27	U	17	150
4-Chlorophenyl phenyl ether		27	U	13	51
4-Nitroaniline		27	U	26	200
4-Nitrophenol		81	U	81	330
Acenaphthene		3.3	U	3.3	6.8
Acenaphthylene		3.3	U	3.3	6.8
Anthracene		3.3	U	3.3	6.8
Benzo[a]anthracene		3.3	U	3.3	6.8
Benzo[a]pyrene		3.3	U	3.3	6.8
Benzo[b]fluoranthene		3.3	U	3.3	6.8
Benzo[g,h,i]perylene		3.3	U	3.3	6.8
Benzo[k]fluoranthene		3.3	U	3.3	6.8
Bis(2-chloroethoxy)methane		27	U	22	100
Bis(2-chloroethyl)ether		3.3	U	2.0	100
Bis(2-ethylhexyl) phthalate		27	U	19	51
Butyl benzyl phthalate		27	U	10	51
Carbazole		27	U	27	51
Chrysene		3.3	U	1.1	6.8
Dibenz(a,h)anthracene		3.3	U	3.3	6.8
Dibenzofuran		3.3	U	3.3	51
Diethyl phthalate		27	U	16	51
Dimethyl phthalate		27	U	17	51
Di-n-butyl phthalate		27	U	15	51
Di-n-octyl phthalate		27	U	27	51
Fluoranthene		3.3	U	3.3	6.8
Fluorene		3.3	U	3.3	6.8

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0402-01**

Lab Sample ID: 200-11554-4
Client Matrix: Solid % Moisture: 1.7

Date Sampled: 06/29/2012 0855
Date Received: 06/30/2012 1005

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C/DoD	Analysis Batch:	240-50851	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-49913	Lab File ID:	20716010.D
Dilution:	1.0			Initial Weight/Volume:	30.14 g
Analysis Date:	07/16/2012 1055			Final Weight/Volume:	2 mL
Prep Date:	07/05/2012 1114			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
Hexachlorobenzene		3.3	U	2.1	6.8
Hexachlorobutadiene		27	U	27	51
Hexachloroethane		27	U	9.1	51
Indeno[1,2,3-cd]pyrene		3.3	U	3.3	6.8
Naphthalene		3.3	U	3.3	6.8
Nitrobenzene		3.3	U	2.2	100
N-Nitrosodi-n-propylamine		27	U	27	51
N-Nitrosodiphenylamine		27	U	21	51
Pentachlorophenol		81	U	81	150
Phenanthrene		3.3	U	3.3	6.8
Phenol		27	U	27	51
Pyrene		3.3	U	3.3	6.8
bis (2-chloroisopropyl) ether		27	U	9.6	100
Isophorone		27	U	13	51
1,1'-Biphenyl		27	U	27	51
Acetophenone		27	U	9.3	100
Atrazine		27	U	9.2	200
Benzaldehyde		27	U	12	100
Caprolactam		27	U	37	330
Hexachlorocyclopentadiene		27	U	27	330
2,3,4,6-Tetrachlorophenol		1600	U	110	1600

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl (Surr)	50		45 - 105
2-Fluorophenol (Surr)	66		35 - 105
Nitrobenzene-d5 (Surr)	57		35 - 100
Terphenyl-d14 (Surr)	70		30 - 125
2,4,6-Tribromophenol (Surr)	59		35 - 125
Phenol-d5 (Surr)	66		40 - 100

DKE 8/10/12

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: NFUDS-001-TP0402-01

Lab Sample ID: 200-11554-4
Client Matrix: Solid

% Moisture: 1.7

Date Sampled: 06/29/2012 0855
Date Received: 06/30/2012 1005

Do not use

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C/DoD	Analysis Batch:	240-51914	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-50985	Lab File ID:	20725010.D
Dilution:	1.0			Initial Weight/Volume:	30.13 g
Analysis Date:	07/25/2012 1112	Run Type:	RE	Final Weight/Volume:	2 mL
Prep Date:	07/17/2012 0820			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
1,2,4,5-Tetrachlorobenzene		5.4	U H	5.4	100
2,4,5-Trichlorophenol		27	U H	25	150
2,4,6-Trichlorophenol		81	U H	81	150
2,4-Dichlorophenol		27	U H	20	150
2,4-Dimethylphenol		81	U H	20	150
2,4-Dinitrophenol		81	U H J	81	330
2,4-Dinitrotoluene		27	U H	27	200
2,6-Dinitrotoluene		27	U H	21	200
2-Chloronaphthalene		3.3	U H	3.3	51
2-Chlorophenol		27	U H	27	51
2-Methylnaphthalene		3.3	U H	3.3	6.8
2-Methylphenol		81	U H	81	200
2-Nitroaniline		27	U H	9.2	200
2-Nitrophenol		27	U H	27	51
3 & 4 Methylphenol		81	U H	20	410
3,3'-Dichlorobenzidine		81	U H	18	100
3-Nitroaniline		81	U H	16	200
4,6-Dinitro-2-methylphenol		81	U H J	81	150
4-Bromophenyl phenyl ether		27	U H	13	51
4-Chloro-3-methylphenol		27	U H	21	150
4-Chloroaniline		27	U H	17	150
4-Chlorophenyl phenyl ether		27	U H	13	51
4-Nitroaniline		27	U H	26	200
4-Nitrophenol		81	U H	81	330
Acenaphthene		3.3	U H	3.3	6.8
Acenaphthylene		3.3	U H	3.3	6.8
Anthracene		3.3	U H	3.3	6.8
Benzo[a]anthracene		3.3	U H	3.3	6.8
Benzo[a]pyrene		3.3	U H	3.3	6.8
Benzo[b]fluoranthene		3.3	U H	3.3	6.8
Benzo[g,h,i]perylene		3.3	U H	3.3	6.8
Benzo[k]fluoranthene		3.3	U H	3.3	6.8
Bis(2-chloroethoxy)methane		27	U H	22	100
Bis(2-chloroethyl)ether		3.3	U H	2.0	100
Bis(2-ethylhexyl) phthalate		27	U H	19	51
Butyl benzyl phthalate		27	U H	10	51
Carbazole		27	U H	27	51
Chrysene		3.3	U H	1.1	6.8
Dibenz(a,h)anthracene		3.3	U H	3.3	6.8
Dibenzofuran		3.3	U H	3.3	51
Diethyl phthalate		27	U H	16	51
Dimethyl phthalate		27	U H	17	51
Di-n-butyl phthalate		27	U H	15	51
Di-n-octyl phthalate		27	U H	27	51
Fluoranthene		3.3	U H	3.3	6.8
Fluorene		3.3	U H	3.3	6.8

DKG 8/16/12

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0402-01**

Lab Sample ID: 200-11554-4
Client Matrix: Solid

% Moisture: 1.7

Date Sampled: 06/29/2012 0855
Date Received: 06/30/2012 1005

Do not use

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C/DoD	Analysis Batch:	240-51914	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-50985	Lab File ID:	20725010.D
Dilution:	1.0			Initial Weight/Volume:	30.13 g
Analysis Date:	07/25/2012 1112	Run Type:	RE	Final Weight/Volume:	2 mL
Prep Date:	07/17/2012 0820			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
Hexachlorobenzene		3.3	U H	2.1	6.8
Hexachlorobutadiene		27	U H	27	51
Hexachloroethane		27	U H	9.1	51
Indeno[1,2,3-cd]pyrene		3.3	U H	3.3	6.8
Naphthalene		3.3	U H	3.3	6.8
Nitrobenzene		3.3	U H	2.2	100
N-Nitrosodi-n-propylamine		27	U H	27	51
N-Nitrosodiphenylamine		27	U H	21	51
Pentachlorophenol		81	U H	81	150
Phenanthrene		3.3	U H	3.3	6.8
Phenol		27	U H	27	51
Pyrene		3.3	U H	3.3	6.8
bis (2-chloroisopropyl) ether		27	U H	9.6	100
Isophorone		27	U H	13	51
1,1'-Biphenyl		27	U H	27	51
Acetophenone		27	U H	9.3	100
Atrazine		27	U H	9.2	200
Benzaldehyde		27	U H	12	100
Caprolactam		27	U H	37	330
Hexachlorocyclopentadiene		27	U H	27	330
2,3,4,6-Tetrachlorophenol		1600	U H	110	1600

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl (Surr)	61		45 - 105
2-Fluorophenol (Surr)	71		35 - 105
Nitrobenzene-d5 (Surr)	67		35 - 100
Terphenyl-d14 (Surr)	86		30 - 125
2,4,6-Tribromophenol (Surr)	51	M	35 - 125
Phenol-d5 (Surr)	73		40 - 100

DCG 8/16/12

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0101-01**

Lab Sample ID: 200-11554-1
Client Matrix: Solid % Moisture: 4.1

Date Sampled: 06/29/2012 0830
Date Received: 06/30/2012 1005

8081B Organochlorine Pesticides (GC)

Analysis Method:	8081B	Analysis Batch:	200-41698	Instrument ID:	5005.i
Prep Method:	3550C	Prep Batch:	200-41275	Initial Weight/Volume:	29.77 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	07/11/2012 0215			Injection Volume:	1 uL
Prep Date:	07/03/2012 0920			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
alpha-BHC		0.35	U	0.12	1.8
gamma-BHC (Lindane)		0.35	U	0.12	1.8
beta-BHC		0.35	U	0.14	1.8
delta-BHC		0.35	U	0.11	1.8
Heptachlor		0.35	U	0.12	1.8
Aldrin		0.35	U	0.12	1.8
Heptachlor epoxide		0.35	U	0.12	1.8
gamma-Chlordane		0.35	U	0.12	1.8
alpha-Chlordane		0.35	U	0.13	1.8
4,4'-DDE		0.70	U	0.22	3.5
Endosulfan I		0.35	U	0.13	1.8
Dieldrin		0.70	U	0.23	3.5
Endrin		0.70	U	0.24	3.5
4,4'-DDD		0.70	U	0.20	3.5
Endosulfan II		0.70	U	0.23	3.5
4,4'-DDT		0.70	U	0.23	3.5
Endrin aldehyde		0.70	U	0.32	3.5
Methoxychlor		3.5	U	1.2	18
Endosulfan sulfate		0.70	U	0.25	3.5
Endrin ketone		0.70	U	0.22	3.5
Toxaphene		35	U	14	180
Toxaphene Peak 1		35	U	14	180
Toxaphene Peak 2		35	U	14	180
Toxaphene Peak 3		35	U	14	180
Toxaphene Peak 4		35	U	14	180
Toxaphene Peak 5		35	U	14	180

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	91		50 - 120
DCB Decachlorobiphenyl	97		45 - 115

DFG 8/16/12

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0101-01**

Lab Sample ID: 200-11554-1
Client Matrix: Solid
% Moisture: 4.1

Date Sampled: 06/29/2012 0830
Date Received: 06/30/2012 1005

8081B Organochlorine Pesticides (GC)

Analysis Method:	8081B	Analysis Batch:	200-41698	Instrument ID:	5005.i
Prep Method:	3550C	Prep Batch:	200-41275	Initial Weight/Volume:	29.77 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	07/11/2012 0215			Injection Volume:	1 uL
Prep Date:	07/03/2012 0920			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	93		50 - 120
DCB Decachlorobiphenyl	100		45 - 115

DFG 8/16/12

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0201-01**

Lab Sample ID: 200-11554-2
Client Matrix: Solid % Moisture: 2.9

Date Sampled: 06/29/2012 0845
Date Received: 06/30/2012 1005

8081B Organochlorine Pesticides (GC)

Analysis Method:	8081B	Analysis Batch:	200-41698	Instrument ID:	5005.i
Prep Method:	3550C	Prep Batch:	200-41275	Initial Weight/Volume:	30.20 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	07/11/2012 0241			Injection Volume:	1 uL
Prep Date:	07/03/2012 0920			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
alpha-BHC		0.34	U	0.11	1.7
gamma-BHC (Lindane)		0.34	U	0.11	1.7
beta-BHC		0.34	U	0.13	1.7
delta-BHC		0.34	U	0.10	1.7
Heptachlor		0.34	U	0.11	1.7
Aldrin		0.34	U	0.11	1.7
Heptachlor epoxide		0.34	U	0.11	1.7
gamma-Chlordane		0.34	U	0.11	1.7
alpha-Chlordane		0.34	U	0.12	1.7
4,4'-DDE		0.69	U	0.21	3.4
Endosulfan I		0.34	U	0.12	1.7
Dieldrin		0.69	U	0.23	3.4
Endrin		0.69	U	0.24	3.4
4,4'-DDD		0.69	U	0.19	3.4
Endosulfan II		0.69	U	0.23	3.4
4,4'-DDT		0.69	U	0.23	3.4
Endrin aldehyde		0.69	U	0.31	3.4
Methoxychlor		3.4	U	1.1	17
Endosulfan sulfate		0.69	U	0.25	3.4
Endrin ketone		0.69	U	0.21	3.4
Toxaphene		34	U	13	170
Toxaphene Peak 1		34	U	13	170
Toxaphene Peak 2		34	U	13	170
Toxaphene Peak 3		34	U	13	170
Toxaphene Peak 4		34	U	13	170
Toxaphene Peak 5		34	U	13	170

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	89		50 - 120
DCB Decachlorobiphenyl	95		45 - 115

DFG 8/16/12

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0201-01**

Lab Sample ID: 200-11554-2
Client Matrix: Solid % Moisture: 2.9

Date Sampled: 06/29/2012 0845
Date Received: 06/30/2012 1005

8081B Organochlorine Pesticides (GC)

Analysis Method:	8081B	Analysis Batch:	200-41698	Instrument ID:	5005.i
Prep Method:	3550C	Prep Batch:	200-41275	Initial Weight/Volume:	30.20 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	07/11/2012 0241			Injection Volume:	1 uL
Prep Date:	07/03/2012 0920			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	92		50 - 120
DCB Decachlorobiphenyl	97		45 - 115

DCL 8/10/12

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0302-01**

Lab Sample ID: 200-11554-3
Client Matrix: Solid % Moisture: 1.3

Date Sampled: 06/29/2012 0844
Date Received: 06/30/2012 1005

8081B Organochlorine Pesticides (GC)

Analysis Method:	8081B	Analysis Batch:	200-41698	Instrument ID:	5005.i
Prep Method:	3550C	Prep Batch:	200-41275	Initial Weight/Volume:	30.00 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	07/11/2012 0306			Injection Volume:	1 uL
Prep Date:	07/03/2012 0920			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
alpha-BHC		0.33	U	0.11	1.7
gamma-BHC (Lindane)		0.33	U	0.11	1.7
beta-BHC		0.33	U	0.13	1.7
delta-BHC		0.33	U	0.10	1.7
Heptachlor		0.33	U	0.11	1.7
Aldrin		0.33	U	0.11	1.7
Heptachlor epoxide		0.33	U	0.11	1.7
gamma-Chlordane		0.33	U	0.11	1.7
alpha-Chlordane		0.33	U	0.12	1.7
4,4'-DDE		0.68	U	0.21	3.3
Endosulfan I		0.33	U	0.12	1.7
Dieldrin		0.68	U	0.22	3.3
Endrin		0.68	U	0.23	3.3
4,4'-DDD		0.68	U	0.19	3.3
Endosulfan II		0.68	U	0.22	3.3
4,4'-DDT		0.68	U	0.22	3.3
Endrin aldehyde		0.68	U	0.30	3.3
Methoxychlor		3.3	U	1.1	17
Endosulfan sulfate		0.68	U	0.24	3.3
Endrin ketone		0.68	U	0.21	3.3
Toxaphene		33	U	13	170
Toxaphene Peak 1		33	U	13	170
Toxaphene Peak 2		33	U	13	170
Toxaphene Peak 3		33	U	13	170
Toxaphene Peak 4		33	U	13	170
Toxaphene Peak 5		33	U	13	170

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	89		50 - 120
DCB Decachlorobiphenyl	97		45 - 115

DFG 8/6/12

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0302-01**

Lab Sample ID: 200-11554-3
Client Matrix: Solid % Moisture: 1.3

Date Sampled: 06/29/2012 0844
Date Received: 06/30/2012 1005

8081B Organochlorine Pesticides (GC)

Analysis Method:	8081B	Analysis Batch:	200-41698	Instrument ID:	5005.i
Prep Method:	3550C	Prep Batch:	200-41275	Initial Weight/Volume:	30.00 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	07/11/2012 0306			Injection Volume:	1 uL
Prep Date:	07/03/2012 0920			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	94		50 - 120
DCB Decachlorobiphenyl	98		45 - 115

DRB 8/10/12

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0402-01**

Lab Sample ID: 200-11554-4
Client Matrix: Solid
% Moisture: 1.7

Date Sampled: 06/29/2012 0855
Date Received: 06/30/2012 1005

8081B Organochlorine Pesticides (GC)

Analysis Method:	8081B	Analysis Batch:	200-41698	Instrument ID:	5005.i
Prep Method:	3550C	Prep Batch:	200-41275	Initial Weight/Volume:	30.15 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	07/11/2012 0332			Injection Volume:	1 uL
Prep Date:	07/03/2012 0920			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
alpha-BHC		0.33	U	0.11	1.7
gamma-BHC (Lindane)		0.33	U	0.11	1.7
beta-BHC		0.33	U	0.13	1.7
delta-BHC		0.33	U	0.10	1.7
Heptachlor		0.33	U	0.11	1.7
Aldrin		0.33	U	0.11	1.7
Heptachlor epoxide		0.33	U	0.11	1.7
gamma-Chlordane		0.33	U	0.11	1.7
alpha-Chlordane		0.33	U	0.12	1.7
4,4'-DDE		0.68	U	0.21	3.3
Endosulfan I		0.33	U	0.12	1.7
Dieldrin		0.68	U	0.22	3.3
Endrin		0.68	U	0.23	3.3
4,4'-DDD		0.68	U	0.19	3.3
Endosulfan II		0.68	U	0.22	3.3
4,4'-DDT		0.68	U	0.22	3.3
Endrin aldehyde		0.68	U	0.30	3.3
Methoxychlor		3.3	U	1.1	17
Endosulfan sulfate		0.68	U	0.24	3.3
Endrin ketone		0.68	U	0.21	3.3
Toxaphene		33	U	13	170
Toxaphene Peak 1		33	U	13	170
Toxaphene Peak 2		33	U	13	170
Toxaphene Peak 3		33	U	13	170
Toxaphene Peak 4		33	U	13	170
Toxaphene Peak 5		33	U	13	170

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	88		50 - 120
DCB Decachlorobiphenyl	94		45 - 115

DFG 8/6/12

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0402-01**

Lab Sample ID: 200-11554-4
Client Matrix: Solid
% Moisture: 1.7

Date Sampled: 06/29/2012 0855
Date Received: 06/30/2012 1005

8081B Organochlorine Pesticides (GC)

Analysis Method:	8081B	Analysis Batch:	200-41698	Instrument ID:	5005.i
Prep Method:	3550C	Prep Batch:	200-41275	Initial Weight/Volume:	30.15 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	07/11/2012 0332			Injection Volume:	1 uL
Prep Date:	07/03/2012 0920			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	92		50 - 120
DCB Decachlorobiphenyl	94		45 - 115

DCG 8/10/12

ATTACHMENT 5
Final Analytical Data

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

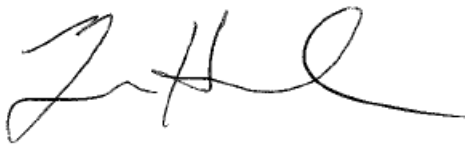
Job Number: 200-11554-1

SDG Number: 200-11554-1

Job Description: Nantucket Beach FUDS

For:
Weston Solutions, Inc.
45 Constitution Ave
Suite 100
Concord, NH 03301

Attention: Ms. Marie Swiech-Laflamme



Approved for release.
Ryan J Hammond
Project Manager I
8/6/2012 2:03 PM

Ryan J Hammond
Project Manager I
ryan.hammond@testamericainc.com
08/06/2012

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

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CASE NARRATIVE

Client: Weston Solutions, Inc.

Project: Nantucket Beach FUDS

Report Number: 200-11554-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 06/30/2012; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.4 C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples NFUDS-001-TP0101-01, NFUDS-001-TP0201-01, NFUDS-001-TP0302-01, NFUDS-001-TP0402-01 and NFUDS-001-TB01-06 were analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The samples were prepared on 07/03/2012 and analyzed on 07/11/2012.

Toluene was detected in method blank MB 200-41675/5 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged “J”. If the associated sample reported a result above the MDL and/or RL, the result has been “B” flagged. Refer to the QC report for details.

No other difficulties were encountered during the volatiles analyses.

All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples NFUDS-001-TP0101-01, NFUDS-001-TP0201-01, NFUDS-001-TP0302-01 and NFUDS-001-TP0402-01 were analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 07/05/2012 and 07/17/2012 and analyzed on 07/16/2012 and 07/25/2012.

The laboratory control sample (LCS) for batch 50851 had recoveries for 2,4,6-trichlorophenol and 2,4,5-trichlorophenol below acceptance criteria. The method blank also had phenol contamination in excess of acceptance criteria. The associated samples were re-prepared and re-analyzed outside holding time. Both sets of data have been reported.

Caprolactam, Di-n-butyl phthalate and Phenol were detected in method blank MB 240-49913/15-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged “J”. If the associated sample reported a result above the MDL and/or RL, the result has been “B” flagged. Refer to the QC report for details.

The initial calibration verification (ICV) for analytical batch 51914 exceeded control criteria for the analytes: benzaldehyde, 2,4-dimethylphenol, 4-chloroaniline, atrazine, and 3,3'-dichlorobenzidine. These analytes have been documented poor performers in the independent calibration verification. The data have been qualified and reported.

The continuing calibration verification (CCV) for the analyte benzaldehyde in analytical batch 51914 was below acceptance criteria. This analyte has shown to be a poor performer when analyzed using this method, therefore no corrective action was initiated. The data have been qualified and reported.

3,3'-Dichlorobenzidine failed the recovery criteria low for the MSD of sample NFUDS-001-TP0201-01MSD in batch 240-50851. 3,3'-Dichlorobenzidine exceeded the rpd limit.

2,4-Dinitrophenol and 4,6-Dinitro-2-methylphenol failed the recovery criteria low for the MS of sample NFUDS-001-TP0402-01MS in batch 240-51914.

2,4-Dinitrophenol and 4,6-Dinitro-2-methylphenol failed the recovery criteria low for the MSD of sample NFUDS-001-TP0402-01MSD in batch 240-51914. The presence of the '4' qualifier in the report indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Refer to the QC report for details.

No other difficulties were encountered during the SVOC analyses.

All other quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS - SELECTED ION MODE (SIM)

Samples NFUDS-001-TP0101-01, NFUDS-001-TP0201-01, NFUDS-001-TP0302-01 and NFUDS-001-TP0402-01 were analyzed for semivolatile organic compounds - Selected Ion Mode (SIM) in accordance with EPA SW-846 Method 8270C SIM. The samples were prepared on 07/11/2012 and 07/17/2012 and analyzed on 07/16/2012 and 07/19/2012.

Several analytes were detected in method blank MB 200-41630/1-A at levels exceeding 1/2 the reporting limit. All affected samples were re-extracted and re-analyzed outside of holding time. Both sets of data have been reported. If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

Pyrene was detected at a level exceeding the reporting limit and Fluoranthene was detected at a level that was above the method detection limit but below the reporting limit in method blank MB 200-41970/1-A . If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. The data have been qualified and reported.

No other difficulties were encountered during the SVOC SIM analyses.

All other quality control parameters were within the acceptance limits.

ORGANOCHLORINE PESTICIDES

Samples NFUDS-001-TP0101-01, NFUDS-001-TP0201-01, NFUDS-001-TP0302-01 and NFUDS-001-TP0402-01 were analyzed for organochlorine pesticides in accordance with EPA SW-846 Method 1311/8081B. The samples were prepared on 07/03/2012 and analyzed on 07/11/2012.

No difficulties were encountered during the pesticides analyses.

All quality control parameters were within the acceptance limits.

POLYCHLORINATED BIPHENYLS (PCBS)

Samples NFUDS-001-TP0101-01, NFUDS-001-TP0201-01, NFUDS-001-TP0302-01 and NFUDS-001-TP0402-01 were analyzed for polychlorinated biphenyls (PCBs) in accordance with EPA SW-846 Method 8082. The samples were prepared on 07/03/2012 and analyzed on 07/06/2012.

No difficulties were encountered during the PCBs analyses.

All quality control parameters were within the acceptance limits.

ORGANOCHLORINE HERBICIDES

Samples NFUDS-001-TP0101-01, NFUDS-001-TP0201-01, NFUDS-001-TP0302-01 and NFUDS-001-TP0402-01 were analyzed for organochlorine herbicides in accordance with EPA SW-846 Method 8151A. The samples were prepared on 07/06/2012 and analyzed on 07/07/2012.

No difficulties were encountered during the herbicides analyses.

All quality control parameters were within the acceptance limits.

EXPLOSIVES

Samples NFUDS-001-TP0101-01, NFUDS-001-TP0201-01, NFUDS-001-TP0302-01 and NFUDS-001-TP0402-01 were analyzed for explosives in accordance with EPA SW-846 Method 8330B. The samples were prepared on 07/05/2012 and analyzed on 07/09/2012.

No difficulties were encountered during the explosives analyses.

All quality control parameters were within the acceptance limits.

METALS (ICP)

Samples NFUDS-001-TP0101-01, NFUDS-001-TP0201-01, NFUDS-001-TP0302-01 and NFUDS-001-TP0402-01 were analyzed for Metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 07/06/2012 and analyzed on 07/17/2012.

Chromium, Iron and Zinc were detected in method blank MB 200-41429/12-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged. Refer to the QC report for details.

The matrix spike (MS) recoveries for batch 41930 were outside control limits for Antimony, Calcium, Lead, Magnesium, Manganese, and

Potassium. The associated laboratory control sample (LCS) recovery met acceptance criteria.

The matrix duplicate %RPD for Aluminum, Iron, Manganese and Zinc associated with batch 41930 was outside the control limits due to non homogeneity of the sample.

The post digestion spike % recovery for Aluminum and Iron associated with batch 41930 was outside of control limits for Al and Fe.

The opening low level continuing calibration verification (CCV) for analytical batch 22962 exceeded control criteria for Arsenic at 68%. All samples are above the RL and the routine CCVs pass within acceptance criteria. All of the following CCVL's are within acceptance criteria.

Refer to the QC report for details.

No other difficulties were encountered during the metals analyses.

All other quality control parameters were within the acceptance limits.

MERCURY

Samples NFUDS-001-TP0101-01, NFUDS-001-TP0201-01, NFUDS-001-TP0302-01 and NFUDS-001-TP0402-01 were analyzed for mercury in accordance with EPA SW-846 Method 7471B. The samples were prepared on 07/10/2012 and analyzed on 07/11/2012.

No difficulties were encountered during the mercury analyses.

All quality control parameters were within the acceptance limits.

PERCENT SOLIDS

Samples NFUDS-001-TP0101-01, NFUDS-001-TP0201-01, NFUDS-001-TP0302-01 and NFUDS-001-TP0402-01 were analyzed for percent solids in accordance with EPA SW846 3550C. The samples were analyzed on 07/05/2012.

No difficulties were encountered during the % solids analyses.

All quality control parameters were within the acceptance limits.

Comments

No additional comments.

Metals

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: N.i Analysis Batch Number: 41643

Lab Sample ID: IC 200-41643/3 Client Sample ID:

Date Analyzed: 07/10/12 14:51 Lab File ID: ngi03.d GC Column: DB-624 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorodifluoromethane	2.43	Baseline event	mtp	07/10/12 17:38
Chloromethane	2.70	Baseline event	mtp	07/10/12 17:39
Methyl acetate	5.36	Baseline event	mtp	07/10/12 17:39
Acrylonitrile	5.90	Baseline event	mtp	07/10/12 17:39
2-Butanone	7.72	Baseline event	mtp	07/10/12 17:39

Lab Sample ID: IC 200-41643/4 Client Sample ID:

Date Analyzed: 07/10/12 15:22 Lab File ID: ngi04.d GC Column: DB-624 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorodifluoromethane	2.42	Baseline event	mtp	07/10/12 17:40

Lab Sample ID: IC 200-41643/5 Client Sample ID:

Date Analyzed: 07/10/12 15:52 Lab File ID: ngi05.d GC Column: DB-624 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorodifluoromethane	2.43	Baseline event	mtp	07/10/12 17:41

Lab Sample ID: ICIS 200-41643/6 Client Sample ID:

Date Analyzed: 07/10/12 16:22 Lab File ID: ngi06.d GC Column: DB-624 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromomethane	3.28	Baseline event	mtp	07/10/12 17:41

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: N.i Analysis Batch Number: 41643

Lab Sample ID: IC 200-41643/7 Client Sample ID:

Date Analyzed: 07/10/12 16:53 Lab File ID: ngi07.d GC Column: DB-624 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorodifluoromethane	2.42	Baseline event	mtp	07/10/12 17:42
Bromomethane	3.27	Baseline event	mtp	07/10/12 17:42

Lab Sample ID: IC 200-41643/8 Client Sample ID:

Date Analyzed: 07/10/12 17:23 Lab File ID: ngi08.d GC Column: DB-624 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorodifluoromethane	2.52	Baseline event	mtp	07/10/12 18:01
Bromomethane	3.26	Baseline event	mtp	07/10/12 18:01
Chloroethane	3.39	Baseline event	mtp	07/10/12 18:01

Lab Sample ID: ICV 200-41643/11 Client Sample ID:

Date Analyzed: 07/10/12 18:54 Lab File ID: ngi11.d GC Column: DB-624 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorodifluoromethane	2.53	Baseline event	mtp	07/11/12 07:39
Chloromethane	2.74	Baseline event	mtp	07/11/12 07:39
Bromomethane	3.27	Baseline event	mtp	07/11/12 07:40

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: N.i Analysis Batch Number: 41675

Lab Sample ID: CCVIS 200-41675/2 Client Sample ID:

Date Analyzed: 07/11/12 08:13 Lab File ID: ngia02.d GC Column: DB-624 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorodifluoromethane	2.42	Baseline event	mtp	07/11/12 09:20
Bromomethane	3.26	Baseline event	mtp	07/11/12 09:20

Lab Sample ID: LCS 200-41675/3 Client Sample ID:

Date Analyzed: 07/11/12 08:44 Lab File ID: ngia03.d GC Column: DB-624 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorodifluoromethane	2.42	Baseline event	mtp	07/11/12 09:21
Bromomethane	3.27	Baseline event	mtp	07/11/12 09:21

Lab Sample ID: 200-11554-5 Client Sample ID: NFUDS-001-TB01-06

Date Analyzed: 07/11/12 10:15 Lab File ID: ngia06.d GC Column: DB-624 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethylbenzene	15.94	Baseline event	mtp	07/11/12 12:18

Lab Sample ID: 200-11554-4 Client Sample ID: NFUDS-001-TP0402-01

Date Analyzed: 07/11/12 12:20 Lab File ID: ngia10.d GC Column: DB-624 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	4.80	Baseline event	mtp	07/11/12 13:35

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: Z.i Analysis Batch Number: 41872

Lab Sample ID: IC 200-41872/6 Client Sample ID:

Date Analyzed: 07/13/12 18:56 Lab File ID: zyw09.d GC Column: ZB-SVOA ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Indeno[1,2,3-cd]pyrene	26.35	Not specified	mtw	07/16/12 12:26
Dibenz(a,h)anthracene	26.41	Baseline event	mtw	07/16/12 12:27

Lab Sample ID: ICV 200-41872/7 Client Sample ID:

Date Analyzed: 07/13/12 19:34 Lab File ID: zyw10.d GC Column: ZB-SVOA ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Indeno[1,2,3-cd]pyrene	26.35	Baseline event	mtw	07/16/12 12:28

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: Z.i Analysis Batch Number: 42145

Lab Sample ID: 200-11554-1 Client Sample ID: NFUDS-001-TP0101-01

Date Analyzed: 07/16/12 18:05 Lab File ID: zywa05.d GC Column: ZB-SVOA ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Indeno[1,2,3-cd]pyrene	26.36	Analyte not identified by the data system	mtw	07/16/12 19:10

GC SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: 5005.i Analysis Batch Number: 41684

Lab Sample ID: IC 200-41684/3 Client Sample ID:

Date Analyzed: 07/10/12 20:39 Lab File ID: 10jul121626-r061.d GC Column: RTX-CLP ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
gamma-BHC (Lindane)	6.05	Analyte misidentified by the data system		

Lab Sample ID: IC 200-41684/3 Client Sample ID:

Date Analyzed: 07/10/12 20:39 Lab File ID: 10jul121626-r061.d GC Column: RTX-CLPII ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Endrin ketone	10.64	Baseline event	lmt	07/11/12 16:28

Lab Sample ID: IC 200-41684/7 Client Sample ID:

Date Analyzed: 07/10/12 22:22 Lab File ID: 10jul121626-r101.d GC Column: RTX-CLP ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Toxaphene		Baseline event		
Toxaphene Peak 1	9.59	Baseline event	rrm	07/11/12 14:35
Toxaphene Peak 2	10.03	Baseline event	rrm	07/11/12 14:35
Toxaphene Peak 3	10.96	Baseline event	rrm	07/11/12 14:35
Toxaphene Peak 4	11.19	Baseline event	rrm	07/11/12 14:35
Toxaphene Peak 5	11.84	Baseline event	rrm	07/11/12 14:35

GC SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: 5005.i Analysis Batch Number: 41698

Lab Sample ID: 200-11554-2 Client Sample ID: NFUDS-001-TP0201-01

Date Analyzed: 07/11/12 02:41 Lab File ID: 10jul121628-r041.d GC Column: RTX-CLPII ID: 0.32(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4,4'-DDT	8.98	Split peak	rrm	07/11/12 16:25

GC SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: 7227.i Analysis Batch Number: 41407

Lab Sample ID: IC 200-41407/5 Client Sample ID:

Date Analyzed: 07/05/12 17:19 Lab File ID: 05jul121536-r051.d GC Column: RTX-5 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Aroclor-1232		Baseline event		
PCB-1232 Peak 1	4.25	Baseline event	sld	07/06/12 07:23
PCB-1232 Peak 2	4.47	Baseline event	sld	07/06/12 07:23
PCB-1232 Peak 3	4.80	Baseline event	sld	07/06/12 07:23
PCB-1232 Peak 4	4.93	Baseline event	sld	07/06/12 07:23
PCB-1232 Peak 5	5.04	Baseline event	sld	07/06/12 07:23

Lab Sample ID: IC 200-41407/9 Client Sample ID:

Date Analyzed: 07/05/12 18:56 Lab File ID: 05jul121536-r091.d GC Column: RTX-5 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Aroclor-1242		Baseline event		
PCB-1242 Peak 1	4.25	Baseline event	sld	07/06/12 07:23
PCB-1242 Peak 2	4.47	Baseline event	sld	07/06/12 07:23
PCB-1242 Peak 3	4.80	Baseline event	sld	07/06/12 07:23
PCB-1242 Peak 4	4.93	Baseline event	sld	07/06/12 07:23
PCB-1242 Peak 5	5.04	Baseline event	sld	07/06/12 07:23

Lab Sample ID: IC 200-41407/10 Client Sample ID:

Date Analyzed: 07/05/12 19:20 Lab File ID: 05jul121536-r101.d GC Column: RTX-5 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Aroclor-1242		Baseline event		
PCB-1242 Peak 1	4.26	Baseline event	sld	07/06/12 07:23
PCB-1242 Peak 2	4.47	Baseline event	sld	07/06/12 07:23
PCB-1242 Peak 3	4.81	Baseline event	sld	07/06/12 07:23
PCB-1242 Peak 4	4.94	Baseline event	sld	07/06/12 07:23
PCB-1242 Peak 5	5.04	Baseline event	sld	07/06/12 07:23

GC SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: 7227.i Analysis Batch Number: 41407

Lab Sample ID: IC 200-41407/10 Client Sample ID:

Date Analyzed: 07/05/12 19:20 Lab File ID: 05jul121536-r101.d GC Column: RTX-35 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Aroclor-1242		Baseline event		
PCB-1242 Peak 1	5.44	Baseline event	sld	07/06/12 07:36
PCB-1242 Peak 2	5.79	Baseline event	sld	07/06/12 07:36
PCB-1242 Peak 3	6.15	Baseline event	sld	07/06/12 07:36
PCB-1242 Peak 4	6.42	Baseline event	sld	07/06/12 07:36
PCB-1242 Peak 5	6.65	Baseline event	sld	07/06/12 07:36

Lab Sample ID: IC 200-41407/11 Client Sample ID:

Date Analyzed: 07/05/12 19:45 Lab File ID: 05jul121536-r111.d GC Column: RTX-5 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Aroclor-1248		Baseline event		
PCB-1248 Peak 1	4.26	Baseline event	sld	07/06/12 07:22
PCB-1248 Peak 2	4.80	Baseline event	sld	07/06/12 07:22
PCB-1248 Peak 3	4.94	Baseline event	sld	07/06/12 07:22
PCB-1248 Peak 4	5.64	Baseline event	sld	07/06/12 07:22
PCB-1248 Peak 5	6.24	Baseline event	sld	07/06/12 07:22

Lab Sample ID: IC 200-41407/12 Client Sample ID:

Date Analyzed: 07/05/12 20:09 Lab File ID: 05jul121536-r121.d GC Column: RTX-5 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Aroclor-1254		Baseline event		
PCB-1254 Peak 1	6.84	Baseline event	sld	07/06/12 07:22
PCB-1254 Peak 2	7.16	Baseline event	sld	07/06/12 07:22
PCB-1254 Peak 3	7.27	Baseline event	sld	07/06/12 07:22
PCB-1254 Peak 4	7.35	Baseline event	sld	07/06/12 07:22
PCB-1254 Peak 5	8.04	Baseline event	sld	07/06/12 07:22

GC SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: 7227.i Analysis Batch Number: 41407

Lab Sample ID: IC 200-41407/16 Client Sample ID:

Date Analyzed: 07/05/12 21:46 Lab File ID: 05jul121536-r161.d GC Column: RTX-5 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Aroclor-1260		Baseline event		
PCB-1260 Peak 1	9.65	Baseline event		
PCB-1260 Peak 2	10.24	Baseline event	sld	07/06/12 07:22
PCB-1260 Peak 3	10.99	Baseline event	sld	07/06/12 07:22
PCB-1260 Peak 4	11.68	Baseline event		
PCB-1260 Peak 5	11.95	Baseline event		

Lab Sample ID: IC 200-41407/17 Client Sample ID:

Date Analyzed: 07/05/12 22:10 Lab File ID: 05jul121536-r171.d GC Column: RTX-5 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Aroclor-1260		Baseline event		
PCB-1260 Peak 1	9.65	Baseline event	sld	07/06/12 07:21
PCB-1260 Peak 2	10.25	Baseline event	sld	07/06/12 07:21
PCB-1260 Peak 3	11.00	Baseline event	sld	07/06/12 07:21
PCB-1260 Peak 4	11.68	Baseline event	sld	07/06/12 07:21
PCB-1260 Peak 5	11.95	Baseline event		

Lab Sample ID: IC 200-41407/19 Client Sample ID:

Date Analyzed: 07/05/12 22:59 Lab File ID: 05jul121536-r191.d GC Column: RTX-5 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Aroclor-1016		Baseline event		
PCB-1016 Peak 1	4.27	Baseline event	sld	07/06/12 07:21
PCB-1016 Peak 2	4.48	Baseline event	sld	07/06/12 07:21
PCB-1016 Peak 3	4.82	Baseline event	sld	07/06/12 07:21
PCB-1016 Peak 4	4.95	Baseline event	sld	07/06/12 07:21
PCB-1016 Peak 5	5.05	Baseline event	sld	07/06/12 07:21

GC SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: 7227.i Analysis Batch Number: 41407

Lab Sample ID: IC 200-41407/20 Client Sample ID:

Date Analyzed: 07/05/12 23:23 Lab File ID: 05jul121536-r201.d GC Column: RTX-5 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Aroclor-1016		Baseline event		
Aroclor-1260		Baseline event		
PCB-1016 Peak 1	4.27	Baseline event	sld	07/06/12 07:21
PCB-1016 Peak 2	4.48	Baseline event	sld	07/06/12 07:21
PCB-1016 Peak 3	4.82	Baseline event	sld	07/06/12 07:21
PCB-1016 Peak 4	4.95	Baseline event	sld	07/06/12 07:21
PCB-1016 Peak 5	5.05	Baseline event	sld	07/06/12 07:21
PCB-1260 Peak 1	9.65	Baseline event	sld	07/06/12 07:21
PCB-1260 Peak 2	10.25	Baseline event	sld	07/06/12 07:21
PCB-1260 Peak 3	10.99	Baseline event	sld	07/06/12 07:21
PCB-1260 Peak 4	11.68	Baseline event	sld	07/06/12 07:21
PCB-1260 Peak 5	11.95	Baseline event	sld	07/06/12 07:21

GC SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: 7227.i Analysis Batch Number: 41407

Lab Sample ID: IC 200-41407/20 Client Sample ID:

Date Analyzed: 07/05/12 23:23 Lab File ID: 05jul121536-r201.d GC Column: RTX-35 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Aroclor-1016		Baseline event		
Aroclor-1260		Baseline event		
PCB-1016 Peak 1	4.79	Baseline event		
PCB-1016 Peak 2	5.44	Baseline event		
PCB-1016 Peak 3	6.15	Baseline event	sld	07/06/12 07:36
PCB-1016 Peak 4	6.42	Baseline event	sld	07/06/12 07:36
PCB-1016 Peak 5	6.65	Baseline event	sld	07/06/12 07:36
PCB-1260 Peak 1	11.93	Baseline event	sld	07/06/12 07:36
PCB-1260 Peak 2	12.82	Baseline event	sld	07/06/12 07:36
PCB-1260 Peak 3	13.35	Baseline event	sld	07/06/12 07:36
PCB-1260 Peak 4	13.95	Baseline event	sld	07/06/12 07:36
PCB-1260 Peak 5	14.06	Baseline event	sld	07/06/12 07:36
DCB Decachlorobiphenyl	14.77	Baseline event	sld	07/06/12 07:36

Lab Sample ID: ICV 200-41407/22 Client Sample ID:

Date Analyzed: 07/06/12 00:11 Lab File ID: 05jul121536-r221.d GC Column: RTX-5 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1016		Analyte misidentified by the data system		
PCB-1016 Peak 1	4.25	Analyte misidentified by the data system	sld	07/06/12 07:26
PCB-1016 Peak 2	4.47	Analyte misidentified by the data system		
PCB-1016 Peak 3	4.80	Analyte misidentified by the data system		
PCB-1016 Peak 4	4.93	Analyte misidentified by the data system		
PCB-1016 Peak 5	5.03	Analyte misidentified by the data system		

GC SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: 7227.i Analysis Batch Number: 41408

Lab Sample ID: CCV 200-41408/6 Client Sample ID:

Date Analyzed: 07/06/12 02:37 Lab File ID: 05jul121538-r061.d GC Column: RTX-5 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1260		Baseline event		
PCB-1260 Peak 1	9.64	Baseline event	sld	07/06/12 07:47
PCB-1260 Peak 2	10.24	Baseline event	sld	07/06/12 07:47
PCB-1260 Peak 3	10.99	Baseline event		
PCB-1260 Peak 4	11.67	Baseline event		
PCB-1260 Peak 5	11.95	Baseline event		

GC SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: 7227.i Analysis Batch Number: 41409

Lab Sample ID: LCS 200-41276/2-C Client Sample ID:

Date Analyzed: 07/06/12 03:25 Lab File ID: 05jul121546-r021.d GC Column: RTX-5 ID: 0.25(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-1260		Baseline event		
Aroclor-1260-1	9.64	Baseline event		
Aroclor-1260-2	10.23	Baseline event	sld	07/06/12 08:09
Aroclor-1260-3	10.99	Baseline event	sld	07/06/12 08:09
Aroclor-1260-4	11.67	Baseline event	sld	07/06/12 08:09
Aroclor-1260-5	11.95	Baseline event	sld	07/06/12 08:09

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: CH1208 Analysis Batch Number: 36007

Lab Sample ID: IC 200-36007/2 Client Sample ID:

Date Analyzed: 04/02/12 10:19 Lab File ID: 02APR120829_021.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4-Nitrotoluene	23.47	Unspecified		
PETN	24.98	Baseline Event	chirgwinb	04/02/12 12:40

Lab Sample ID: IC 200-36007/3 Client Sample ID:

Date Analyzed: 04/02/12 10:56 Lab File ID: 02APR120829_031.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4-Nitrotoluene	23.47	Unspecified		

Lab Sample ID: IC 200-36007/4 Client Sample ID:

Date Analyzed: 04/02/12 11:34 Lab File ID: 02APR120829_041.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	19.27	Baseline Event	chirgwinb	04/02/12 12:39
4-Nitrotoluene	23.46	Unspecified		

Lab Sample ID: ICRTAV 200-36007/5 Client Sample ID:

Date Analyzed: 04/02/12 12:11 Lab File ID: 02APR120829_051.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
3-Nitrotoluene	24.20	Baseline Event	chirgwinb	04/02/12 14:38

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: CH1208 Analysis Batch Number: 41501

Lab Sample ID: MB 200-41397/1-A Client Sample ID:

Date Analyzed: 07/09/12 16:48 Lab File ID: 09JUL121028_091.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3-Dinitrobenzene	17.42	Baseline Event	robinsonw	07/10/12 14:37
2,6-Dinitrotoluene	20.83	Peak not found by the data system	robinsonw	07/10/12 14:37
2,4-Dinitrotoluene	21.00	Peak not found by the data system	robinsonw	07/10/12 14:37

Lab Sample ID: 200-11554-1 Client Sample ID: NFUDS-001-TP0101-01

Date Analyzed: 07/09/12 18:03 Lab File ID: 09JUL121028_111.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3-Dinitrobenzene	17.36	Peak not found by the data system	robinsonw	07/10/12 14:39
3-Nitrotoluene	24.09	Baseline Event	robinsonw	07/10/12 14:39

Lab Sample ID: 200-11554-4 Client Sample ID: NFUDS-001-TP0402-01

Date Analyzed: 07/09/12 19:55 Lab File ID: 09JUL121028_141.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3-Dinitrobenzene	17.35	Peak not found by the data system	robinsonw	07/10/12 14:41

Lab Sample ID: CCV 200-41501/15 Client Sample ID:

Date Analyzed: 07/09/12 20:33 Lab File ID: 09JUL121028_151.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4-Nitrotoluene	23.45	Baseline Event	robinsonw	07/10/12 08:19
3-Nitrotoluene	24.18	Baseline Event	robinsonw	07/10/12 08:19

8330 Modified

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: CH1488 Analysis Batch Number: 39219

Lab Sample ID: IC 200-39219/3 Client Sample ID:

Date Analyzed: 05/24/12 14:13 Lab File ID: 24MAY121229_031.d GC Column: Biphenyl ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4-diamino-6-nitrotoluene	4.54	Baseline Event	chirgwinb	05/25/12 09:44
2,6-diamino-4-nitrotoluene	4.54	Baseline Event	chirgwinb	05/25/12 09:44
HMX	5.37	Baseline Event	chirgwinb	05/25/12 09:44

Lab Sample ID: IC 200-39219/4 Client Sample ID:

Date Analyzed: 05/24/12 14:47 Lab File ID: 24MAY121229_041.d GC Column: Biphenyl ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4-diamino-6-nitrotoluene	4.54	Baseline Event	chirgwinb	05/25/12 09:44
2,6-diamino-4-nitrotoluene	4.54	Baseline Event	chirgwinb	05/25/12 09:44
HMX	5.35	Baseline Event	chirgwinb	05/25/12 09:44

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: CH1488 Analysis Batch Number: 41502

Lab Sample ID: 200-11554-3 Client Sample ID: NFUDS-001-TP0302-01

Date Analyzed: 07/09/12 19:00 Lab File ID: 09JUL121033_131.d GC Column: Biphenyl ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
3-Nitrotoluene	16.10	Peak not found by the data system	robinsonw	07/10/12 14:56
4-Nitrotoluene	16.10	Unspecified	robinsonw	07/10/12 14:56

Lab Sample ID: CCV 200-41502/15 Client Sample ID:

Date Analyzed: 07/09/12 20:08 Lab File ID: 09JUL121033_151.d GC Column: Biphenyl ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Nitrotoluene	14.88	Peak not found by the data system	robinsonw	07/10/12 08:20
PETN	15.33	Peak not found by the data system	robinsonw	07/10/12 08:20

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: A4HP9 Analysis Batch Number: 50712

Lab Sample ID: STD4 240-50712/3 IC Client Sample ID:

Date Analyzed: 07/13/12 10:13 Lab File ID: 20713003.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4,5-Trichlorophenol	5.51	Poor Chromatography	ulmanm	07/13/12 10:52

Lab Sample ID: STD3 240-50712/4 IC Client Sample ID:

Date Analyzed: 07/13/12 10:32 Lab File ID: 20713004.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzoic acid	4.49	Poor Chromatography	ulmanm	07/13/12 11:06
Caprolactam	5.03	Poor Chromatography	ulmanm	07/13/12 11:06
2,4-Dinitrophenol	6.07	Poor Chromatography	ulmanm	07/13/12 11:06

Lab Sample ID: STD2 240-50712/5 IC Client Sample ID:

Date Analyzed: 07/13/12 10:52 Lab File ID: 20713005.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4-Nitrophenol	6.09	Poor Chromatography	ulmanm	07/13/12 11:26

Lab Sample ID: STD1 240-50712/6 IC Client Sample ID:

Date Analyzed: 07/13/12 11:11 Lab File ID: 20713006.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Indeno[1,2,3-cd]pyrene	11.88	Poor Chromatography	ulmanm	07/13/12 11:43

Lab Sample ID: STD9 240-50712/7 IC Client Sample ID:

Date Analyzed: 07/13/12 11:30 Lab File ID: 20713007.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzoic acid	4.59	Poor Chromatography	ulmanm	07/13/12 12:10

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: A4HP9 Analysis Batch Number: 50712

Lab Sample ID: STD5 240-50712/12 IC Client Sample ID:

Date Analyzed: 07/13/12 13:11 Lab File ID: 20713012.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
p-Phenylene diamine	5.05	Poor Chromatography	ulmanm	07/13/12 13:41
3,3'-Dimethylbenzidine	8.62	Poor Chromatography	ulmanm	07/16/12 07:06

Lab Sample ID: STD4 240-50712/13 IC Client Sample ID:

Date Analyzed: 07/13/12 13:31 Lab File ID: 20713013.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
p-Phenylene diamine	5.05	Poor Chromatography	ulmanm	07/13/12 14:13
2,3,4,6-Tetrachlorophenol	6.28	Poor Chromatography	ulmanm	07/13/12 14:13

Lab Sample ID: STD3 240-50712/14 IC Client Sample ID:

Date Analyzed: 07/13/12 13:50 Lab File ID: 20713014.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
p-Phenylene diamine	5.05	Poor Chromatography	ulmanm	07/13/12 14:48

Lab Sample ID: STD2 240-50712/15 IC Client Sample ID:

Date Analyzed: 07/13/12 14:10 Lab File ID: 20713015.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
p-Phenylene diamine	5.05	Poor Chromatography	ulmanm	07/13/12 14:50
Phenacetin	6.72	Poor Chromatography	ulmanm	07/13/12 14:50
Methapyrilene	7.73	Poor Chromatography	ulmanm	07/13/12 14:50
2-Acetylaminofluorene	8.81	Poor Chromatography	ulmanm	07/13/12 14:50

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: A4HP9 Analysis Batch Number: 50712

Lab Sample ID: STD6 240-50712/16 IC Client Sample ID:

Date Analyzed: 07/13/12 14:29 Lab File ID: 20713016.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
p-Phenylene diamine	5.06	Poor Chromatography	ulmanm	07/13/12 14:58
3,3'-Dimethylbenzidine	8.62	Poor Chromatography	ulmanm	07/16/12 07:07

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: A4HP9 Analysis Batch Number: 50851

Lab Sample ID: 200-11554-2 Client Sample ID: NFUDS-001-TP0201-01

Date Analyzed: 07/16/12 11:34 Lab File ID: 20716012.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Phenol-d5 (Surr)	3.39	Poor Chromatography	ulmanm	07/16/12 12:06
Phenol	3.40	Poor Chromatography	ulmanm	07/16/12 12:06
1,4-Dichlorobenzene-d4	3.69	Poor Chromatography	ulmanm	07/16/12 12:06
Nitrobenzene-d5 (Surr)	4.11	Poor Chromatography	ulmanm	07/16/12 12:06
Naphthalene-d8	4.66	Poor Chromatography	ulmanm	07/16/12 12:06
2-Fluorobiphenyl (Surr)	5.44	Poor Chromatography	ulmanm	07/16/12 12:06
Acenaphthene-d10	5.95	Poor Chromatography	ulmanm	07/16/12 12:06
2,4,6-Tribromophenol (Surr)	6.52	Poor Chromatography	ulmanm	07/16/12 12:06
Phenanthrene-d10	7.03	Poor Chromatography	ulmanm	07/16/12 12:06
Di-n-butyl phthalate	7.40	Poor Chromatography	ulmanm	07/16/12 12:06
Terphenyl-d14 (Surr)	8.17	Poor Chromatography	ulmanm	07/16/12 12:06
Chrysene-d12	8.97	Poor Chromatography	ulmanm	07/16/12 12:06

Lab Sample ID: 200-11554-2 MSD Client Sample ID: NFUDS-001-TP0201-01 MSD

Date Analyzed: 07/16/12 12:13 Lab File ID: 20716014.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Pentachlorophenol	6.89	Poor Chromatography	ulmanm	07/16/12 13:11

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: A4HP9 Analysis Batch Number: 51747

Lab Sample ID: STD5 240-51747/2 IC Client Sample ID:

Date Analyzed: 07/24/12 09:07 Lab File ID: 20724002.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzoic acid	4.53	Unspecified		
4,6-Dinitro-2-methylphenol	6.47	Poor Chromatography	ulmanm	07/24/12 09:40

Lab Sample ID: STD3 240-51747/4 IC Client Sample ID:

Date Analyzed: 07/24/12 09:46 Lab File ID: 20724004.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzoic acid	4.49	Poor Chromatography	ulmanm	07/24/12 10:19

Lab Sample ID: STD1 240-51747/6 IC Client Sample ID:

Date Analyzed: 07/24/12 10:25 Lab File ID: 20724006.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Indeno[1,2,3-cd]pyrene	11.87	Poor Chromatography	ulmanm	07/24/12 11:04
Benzo[g,h,i]perylene	12.31	Poor Chromatography	ulmanm	07/24/12 11:04

Lab Sample ID: STD9 240-51747/7 IC Client Sample ID:

Date Analyzed: 07/24/12 10:48 Lab File ID: 20724007.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Malononitrile	2.54	Poor Chromatography	ulmanm	07/24/12 11:23

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: A4HP9 Analysis Batch Number: 51747

Lab Sample ID: STD8 240-51747/8 IC Client Sample ID:

Date Analyzed: 07/24/12 11:07 Lab File ID: 20724008.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Ethyl methacrylate	2.15	Poor Chromatography	ulmanm	07/24/12 11:47
3-Chloropropionitrile	2.35	Poor Chromatography	ulmanm	07/24/12 11:47
Malononitrile	2.52	Poor Chromatography	ulmanm	07/24/12 11:47

Lab Sample ID: STD6 240-51747/10 ICIS Client Sample ID:

Date Analyzed: 07/24/12 11:46 Lab File ID: 20724010.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzaldehyde	3.47	Poor Chromatography	ulmanm	07/24/12 12:22

Lab Sample ID: STD4 240-51747/13 IC Client Sample ID:

Date Analyzed: 07/24/12 12:51 Lab File ID: 20724013.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
p-Phenylene diamine	5.05	Poor Chromatography	ulmanm	07/24/12 13:31
Dinoseb	7.10	Poor Chromatography	ulmanm	07/24/12 13:31

Lab Sample ID: STD3 240-51747/14 IC Client Sample ID:

Date Analyzed: 07/24/12 13:10 Lab File ID: 20724014.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
alpha,alpha-Dimethyl phenethylamine	4.61	Poor Chromatography	ulmanm	07/24/12 14:04
p-Phenylene diamine	5.05	Poor Chromatography	ulmanm	07/24/12 14:04

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: A4HP9 Analysis Batch Number: 51747

Lab Sample ID: STD2 240-51747/15 IC Client Sample ID:

Date Analyzed: 07/24/12 13:29 Lab File ID: 20724015.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
p-Phenylene diamine	5.05	Poor Chromatography	ulmanm	07/24/12 14:09
N-Nitro-o-toluidine	6.44	Poor Chromatography	ulmanm	07/24/12 14:09
Phenacetin	6.71	Poor Chromatography	ulmanm	07/24/12 14:09
2-Acetylaminofluorene	8.81	Poor Chromatography	ulmanm	07/24/12 14:09
3-Methylcholanthrene	10.77	Poor Chromatography	ulmanm	07/24/12 14:09

Lab Sample ID: STD7 240-51747/17 IC Client Sample ID:

Date Analyzed: 07/24/12 14:08 Lab File ID: 20724017.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
p-Phenylene diamine	5.06	Poor Chromatography	ulmanm	07/24/12 15:14

Lab Sample ID: STD8 240-51747/18 IC Client Sample ID:

Date Analyzed: 07/24/12 14:28 Lab File ID: 20724018.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
p-Phenylene diamine	5.06	Poor Chromatography	ulmanm	07/24/12 15:13

Lab Sample ID: STD9 240-51747/19 IC Client Sample ID:

Date Analyzed: 07/24/12 14:47 Lab File ID: 20724019.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
alpha,alpha-Dimethyl phenethylamine	4.64	Poor Chromatography	ulmanm	07/24/12 15:42

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: A4HP9 Analysis Batch Number: 51914

Lab Sample ID: CCV 240-51914/2 Client Sample ID:

Date Analyzed: 07/25/12 08:16 Lab File ID: 20725002.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzoic acid	4.47	Poor Chromatography	ulmanm	07/25/12 08:50

Lab Sample ID: ICV 240-51914/4 Client Sample ID:

Date Analyzed: 07/25/12 09:10 Lab File ID: 20725004.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Benzoic acid	4.47	Poor Chromatography	ulmanm	07/25/12 09:44

Lab Sample ID: MB 240-50985/23-A Client Sample ID:

Date Analyzed: 07/25/12 09:35 Lab File ID: 20725005.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4,6-Tribromophenol (Surr)	6.53	Poor Chromatography	ulmanm	07/25/12 10:07

Lab Sample ID: LCS 240-50985/22-A Client Sample ID:

Date Analyzed: 07/25/12 09:55 Lab File ID: 20725006.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Caprolactam	4.95	Poor Chromatography	ulmanm	07/25/12 10:31

Lab Sample ID: 200-11554-3 RE Client Sample ID: NFUDS-001-TP0302-01 RE

Date Analyzed: 07/25/12 10:53 Lab File ID: 20725009.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4,6-Tribromophenol (Surr)	6.54	Poor Chromatography	ulmanm	07/25/12 11:41

GC/MS SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: A4HP9 Analysis Batch Number: 51914

Lab Sample ID: 200-11554-4 RE Client Sample ID: NFUDS-001-TP0402-01 RE

Date Analyzed: 07/25/12 11:12 Lab File ID: 20725010.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4,6-Tribromophenol (Surr)	6.54	Poor Chromatography	ulmanm	07/25/12 11:42

Lab Sample ID: 200-11554-4 MS Client Sample ID: NFUDS-001-TP0402-01 MS

Date Analyzed: 07/25/12 11:32 Lab File ID: 20725011.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4-Nitrophenol	6.03	Poor Chromatography	ulmanm	07/25/12 12:12
4,6-Dinitro-2-methylphenol	6.40	Poor Chromatography	ulmanm	07/25/12 12:12
Pentachlorophenol	6.90	Poor Chromatography	ulmanm	07/25/12 12:12

Lab Sample ID: 200-11554-4 MSD Client Sample ID: NFUDS-001-TP0402-01 MSD

Date Analyzed: 07/25/12 11:51 Lab File ID: 20725012.D GC Column: RXI-5SILMS ID: 0.45(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4,6-Dinitro-2-methylphenol	6.41	Poor Chromatography	ulmanm	07/25/12 12:25
Pentachlorophenol	6.94	Poor Chromatography	ulmanm	07/25/12 12:25

GC SEMI VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: A2HP1 Analysis Batch Number: 50119

Lab Sample ID: STD 240-50119/5 ICRT Client Sample ID:

Date Analyzed: 07/07/12 10:06 Lab File ID: P1000005.D GC Column: CLP-1 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
MCPA	7.57	Baseline Event	robbinsa	07/07/12 13:03

Lab Sample ID: STD 240-50119/5 ICRT Client Sample ID:

Date Analyzed: 07/07/12 10:06 Lab File ID: P1000005.D GC Column: CLP-2 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
MCPA	8.12	Baseline Event	robbinsa	07/07/12 13:03
Dinoseb	11.22	Split Peak	robbinsa	07/07/12 13:03

Lab Sample ID: ICV 240-50119/9 Client Sample ID:

Date Analyzed: 07/07/12 11:42 Lab File ID: P1000009.D GC Column: CLP-1 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
MCPA	7.57	Baseline Event	robbinsa	07/07/12 13:11
Dichlorprop	7.95	Baseline Event	robbinsa	07/07/12 13:11

Lab Sample ID: ICV 240-50119/9 Client Sample ID:

Date Analyzed: 07/07/12 11:42 Lab File ID: P1000009.D GC Column: CLP-2 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
MCPA	8.12	Baseline Event	robbinsa	07/07/12 13:11

Lab Sample ID: CCV 240-50119/36 Client Sample ID:

Date Analyzed: 07/07/12 22:30 Lab File ID: P1000036.D GC Column: CLP-2 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4-Dichlorophenylacetic acid	7.52	Split Peak	robbinsa	07/09/12 09:23

SAMPLE SUMMARY

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-11554-1	NFUDS-001-TP0101-01	Solid	06/29/2012 0830	06/30/2012 1005
200-11554-2	NFUDS-001-TP0201-01	Solid	06/29/2012 0845	06/30/2012 1005
200-11554-3	NFUDS-001-TP0302-01	Solid	06/29/2012 0844	06/30/2012 1005
200-11554-4	NFUDS-001-TP0402-01	Solid	06/29/2012 0855	06/30/2012 1005
200-11554-5	NFUDS-001-TB01-06	Solid	06/29/2012 0900	06/30/2012 1005

METHOD SUMMARY

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Volatile Organic Compounds (GC/MS)	TAL BUR	SW846 8260B	
Closed System Purge and Trap	TAL BUR		SW846 5035
Semivolatile Organic Compounds (GC/MS SIM)	TAL BUR	SW846 8270C SIM	
Ultrasonic Extraction	TAL BUR		SW846 3550C
Organochlorine Pesticides (GC)	TAL BUR	SW846 8081B	
Ultrasonic Extraction	TAL BUR		SW846 3550C
Florisil Cleanup	TAL BUR		SW846 3620B
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	TAL BUR	SW846 8082A	
Ultrasonic Extraction	TAL BUR		SW846 3550C
Sulfuric Acid/Permanganate Cleanup	TAL BUR		SW846 3665A
Nitroaromatics and Nitramines by High Performance Liquid Chromatography	TAL BUR	SW846 8330 Modified	
Soil Extraction Procedure	TAL BUR		SW846 8330
Metals (ICP)	TAL BUR	SW846 6010C	
Preparation, Metals	TAL BUR		SW846 3050B
Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)	TAL BUR	SW846 7471B	
Preparation, Mercury	TAL BUR		SW846 7471B
Percent Moisture	TAL BUR	EPA Moisture	
Semivolatile Organic Compounds (GC/MS)	TAL NC	SW846 8270C/DoD	
Soxhlet Extraction	TAL NC		SW846 3540C
Herbicides (GC)	TAL NC	SW846 8151/DOD	
Extraction (Herbicides)	TAL NC		SW846 8151A

Lab References:

TAL BUR = TestAmerica Burlington

TAL NC = TestAmerica Canton

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Method	Analyst	Analyst ID
SW846 8260B	Phillips, Mark T	MTP
SW846 8270C SIM	White, Matthew T	MTW
SW846 8270C/DoD	Ulman, Mark	MU
SW846 8081B	Toomey, Lisa M	LMT
SW846 8082A	Duncan, Stacee L	SLD
SW846 8151/DOD	Robbins, Alex	AR
SW846 6010C	Lyons, Benjamin	BL
SW846 7471B	Pham, Vu T	VTP
EPA Moisture	Nelson, Andrea J	AJN
SW846 8330 Modified	Robinson, Wallace B	WBR

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0101-01**

Lab Sample ID: 200-11554-1
Client Matrix: Solid
% Moisture: 4.1

Date Sampled: 06/29/2012 0830
Date Received: 06/30/2012 1005

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	200-41675	Instrument ID:	N.i
Prep Method:	5035	Prep Batch:	200-41282	Lab File ID:	ngia07.d
Dilution:	1.0			Initial Weight/Volume:	6.49 g
Analysis Date:	07/11/2012 1046			Final Weight/Volume:	5 mL
Prep Date:	07/03/2012 0948				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
Dichlorodifluoromethane		0.80	U	0.18	4.0
Chloromethane		0.80	U	0.21	4.0
Vinyl chloride		0.80	U	0.24	4.0
Bromomethane		2.0	U	0.59	4.0
Chloroethane		0.80	U	0.31	4.0
Trichlorofluoromethane		0.80	U	0.27	4.0
1,1-Dichloroethene		0.80	U	0.30	4.0
Freon TF		0.80	U	0.27	4.0
Acetone		7.1		0.80	4.0
Carbon disulfide		0.80	U	0.25	4.0
Methyl acetate		2.0	U	0.51	4.0
Methylene Chloride		0.80	U	0.44	4.0
trans-1,2-Dichloroethene		0.80	U	0.30	4.0
Methyl t-butyl ether		0.80	U	0.24	4.0
1,1-Dichloroethane		0.80	U	0.33	4.0
cis-1,2-Dichloroethene		0.80	U	0.34	4.0
2-Butanone		2.0	U	1.2	4.0
Bromochloromethane		0.80	U	0.30	4.0
Chloroform		0.80	U	0.26	4.0
1,1,1-Trichloroethane		0.80	U	0.56	4.0
Cyclohexane		0.80	U	0.68	4.0
Carbon tetrachloride		0.80	U	0.61	4.0
Benzene		0.80	U	0.57	4.0
1,2-Dichloroethane		0.80	U	0.50	4.0
Trichloroethene		0.80	U	0.39	4.0
Methylcyclohexane		0.80	U	0.14	4.0
1,2-Dichloropropane		0.80	U	0.23	4.0
1,4-Dioxane		40	U	18	200
Bromodichloromethane		0.80	U	0.17	4.0
cis-1,3-Dichloropropene		0.80	U	0.28	4.0
4-Methyl-2-pentanone		0.80	U	0.48	4.0
Toluene		0.093	J	0.080	4.0
trans-1,3-Dichloropropene		0.80	U	0.10	4.0
1,1,2-Trichloroethane		0.80	U	0.27	4.0
Tetrachloroethene		0.20	U	0.088	4.0
2-Hexanone		0.80	U	0.39	4.0
Dibromochloromethane		0.80	U	0.088	4.0
1,2-Dibromoethane		0.80	U	0.12	4.0
Chlorobenzene		0.40	U	0.061	4.0
Ethylbenzene		0.20	U	0.045	4.0
m&p-Xylene		0.80	U	0.56	4.0
o-Xylene		0.20	U	0.049	4.0
Xylenes, Total		0.20	U	0.59	4.0
Styrene		0.20	U	0.080	4.0
Bromoform		0.80	U	0.16	4.0
Isopropylbenzene		0.80	U	0.062	4.0

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0101-01**

Lab Sample ID: 200-11554-1
Client Matrix: Solid
% Moisture: 4.1

Date Sampled: 06/29/2012 0830
Date Received: 06/30/2012 1005

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	200-41675	Instrument ID:	N.i
Prep Method:	5035	Prep Batch:	200-41282	Lab File ID:	ngia07.d
Dilution:	1.0			Initial Weight/Volume:	6.49 g
Analysis Date:	07/11/2012 1046			Final Weight/Volume:	5 mL
Prep Date:	07/03/2012 0948				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
1,1,2,2-Tetrachloroethane		0.80	U	0.21	4.0
1,3-Dichlorobenzene		0.088	U	0.12	4.0
1,4-Dichlorobenzene		0.20	U	0.18	4.0
1,2-Dichlorobenzene		0.20	U	0.18	4.0
1,2-Dibromo-3-Chloropropane		0.80	U	0.73	4.0
1,2,4-Trichlorobenzene		0.80	U	0.16	4.0
1,2,3-Trichlorobenzene		0.17	J	0.12	4.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4	100		65 - 155
Toluene-d8	98		80 - 115
Bromofluorobenzene	107		80 - 115
1,2-Dichlorobenzene-d4	98		45 - 145

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0201-01**

Lab Sample ID: 200-11554-2
Client Matrix: Solid
% Moisture: 2.9

Date Sampled: 06/29/2012 0845
Date Received: 06/30/2012 1005

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	200-41675	Instrument ID:	N.i
Prep Method:	5035	Prep Batch:	200-41282	Lab File ID:	ngia08.d
Dilution:	1.0			Initial Weight/Volume:	5.15 g
Analysis Date:	07/11/2012 1116			Final Weight/Volume:	5 mL
Prep Date:	07/03/2012 0948				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
Dichlorodifluoromethane		1.0	U	0.23	5.0
Chloromethane		1.0	U	0.26	5.0
Vinyl chloride		1.0	U	0.30	5.0
Bromomethane		2.5	U	0.74	5.0
Chloroethane		1.0	U	0.38	5.0
Trichlorofluoromethane		1.0	U	0.33	5.0
1,1-Dichloroethene		1.0	U	0.37	5.0
Freon TF		1.0	U	0.33	5.0
Acetone		7.3		1.0	5.0
Carbon disulfide		1.0	U	0.31	5.0
Methyl acetate		2.5	U	0.63	5.0
Methylene Chloride		1.0	U	0.55	5.0
trans-1,2-Dichloroethene		1.0	U	0.37	5.0
Methyl t-butyl ether		1.0	U	0.30	5.0
1,1-Dichloroethane		1.0	U	0.41	5.0
cis-1,2-Dichloroethene		1.0	U	0.42	5.0
2-Butanone		2.5	U	1.5	5.0
Bromochloromethane		1.0	U	0.37	5.0
Chloroform		1.0	U	0.32	5.0
1,1,1-Trichloroethane		1.0	U	0.70	5.0
Cyclohexane		1.0	U	0.85	5.0
Carbon tetrachloride		1.0	U	0.76	5.0
Benzene		1.0	U	0.71	5.0
1,2-Dichloroethane		1.0	U	0.62	5.0
Trichloroethene		1.0	U	0.48	5.0
Methylcyclohexane		1.0	U	0.17	5.0
1,2-Dichloropropane		1.0	U	0.29	5.0
1,4-Dioxane		50	U	23	250
Bromodichloromethane		1.0	U	0.21	5.0
cis-1,3-Dichloropropene		1.0	U	0.35	5.0
4-Methyl-2-pentanone		1.0	U	0.60	5.0
Toluene		0.27	J	0.10	5.0
trans-1,3-Dichloropropene		1.0	U	0.13	5.0
1,1,2-Trichloroethane		1.0	U	0.34	5.0
Tetrachloroethene		0.25	U	0.11	5.0
2-Hexanone		1.0	U	0.49	5.0
Dibromochloromethane		1.0	U	0.11	5.0
1,2-Dibromoethane		1.0	U	0.15	5.0
Chlorobenzene		0.50	U	0.076	5.0
Ethylbenzene		0.25	U	0.056	5.0
m&p-Xylene		1.0	U	0.70	5.0
o-Xylene		0.25	U	0.061	5.0
Xylenes, Total		0.25	U	0.73	5.0
Styrene		0.25	U	0.10	5.0
Bromoform		1.0	U	0.20	5.0
Isopropylbenzene		1.0	U	0.077	5.0

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0201-01**

Lab Sample ID: 200-11554-2
Client Matrix: Solid
% Moisture: 2.9

Date Sampled: 06/29/2012 0845
Date Received: 06/30/2012 1005

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	200-41675	Instrument ID:	N.i
Prep Method:	5035	Prep Batch:	200-41282	Lab File ID:	ngia08.d
Dilution:	1.0			Initial Weight/Volume:	5.15 g
Analysis Date:	07/11/2012 1116			Final Weight/Volume:	5 mL
Prep Date:	07/03/2012 0948				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
1,1,2,2-Tetrachloroethane		1.0	U	0.26	5.0
1,3-Dichlorobenzene		0.11	U	0.15	5.0
1,4-Dichlorobenzene		0.25	U	0.23	5.0
1,2-Dichlorobenzene		0.25	U	0.22	5.0
1,2-Dibromo-3-Chloropropane		1.0	U	0.91	5.0
1,2,4-Trichlorobenzene		1.0	U	0.20	5.0
1,2,3-Trichlorobenzene		0.16	J	0.15	5.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4	100		65 - 155
Toluene-d8	98		80 - 115
Bromofluorobenzene	104		80 - 115
1,2-Dichlorobenzene-d4	98		45 - 145

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0302-01**

Lab Sample ID: 200-11554-3
Client Matrix: Solid
% Moisture: 1.3

Date Sampled: 06/29/2012 0844
Date Received: 06/30/2012 1005

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	200-41675	Instrument ID:	N.i
Prep Method:	5035	Prep Batch:	200-41282	Lab File ID:	ngia09.d
Dilution:	1.0			Initial Weight/Volume:	4.75 g
Analysis Date:	07/11/2012 1146			Final Weight/Volume:	5 mL
Prep Date:	07/03/2012 0948				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
Dichlorodifluoromethane		1.1	U	0.25	5.3
Chloromethane		1.1	U	0.28	5.3
Vinyl chloride		1.1	U	0.32	5.3
Bromomethane		2.7	U	0.79	5.3
Chloroethane		1.1	U	0.41	5.3
Trichlorofluoromethane		1.1	U	0.35	5.3
1,1-Dichloroethene		1.1	U	0.39	5.3
Freon TF		1.1	U	0.35	5.3
Acetone		6.1		1.1	5.3
Carbon disulfide		1.1	U	0.33	5.3
Methyl acetate		2.7	U	0.67	5.3
Methylene Chloride		1.1	U	0.59	5.3
trans-1,2-Dichloroethene		1.1	U	0.39	5.3
Methyl t-butyl ether		1.1	U	0.32	5.3
1,1-Dichloroethane		1.1	U	0.44	5.3
cis-1,2-Dichloroethene		1.1	U	0.45	5.3
2-Butanone		2.7	U	1.6	5.3
Bromochloromethane		1.1	U	0.39	5.3
Chloroform		1.1	U	0.34	5.3
1,1,1-Trichloroethane		1.1	U	0.75	5.3
Cyclohexane		1.1	U	0.91	5.3
Carbon tetrachloride		1.1	U	0.81	5.3
Benzene		1.1	U	0.76	5.3
1,2-Dichloroethane		1.1	U	0.66	5.3
Trichloroethene		1.1	U	0.51	5.3
Methylcyclohexane		1.1	U	0.18	5.3
1,2-Dichloropropane		1.1	U	0.31	5.3
1,4-Dioxane		53	U	25	270
Bromodichloromethane		1.1	U	0.22	5.3
cis-1,3-Dichloropropene		1.1	U	0.37	5.3
4-Methyl-2-pentanone		1.1	U	0.64	5.3
Toluene		0.37	J	0.11	5.3
trans-1,3-Dichloropropene		1.1	U	0.14	5.3
1,1,2-Trichloroethane		1.1	U	0.36	5.3
Tetrachloroethene		0.27	U	0.12	5.3
2-Hexanone		1.1	U	0.52	5.3
Dibromochloromethane		1.1	U	0.12	5.3
1,2-Dibromoethane		1.1	U	0.16	5.3
Chlorobenzene		0.53	U	0.081	5.3
Ethylbenzene		0.27	U	0.060	5.3
m&p-Xylene		1.1	U	0.75	5.3
o-Xylene		0.27	U	0.065	5.3
Xylenes, Total		0.27	U	0.78	5.3
Styrene		0.27	U	0.11	5.3
Bromoform		1.1	U	0.21	5.3
Isopropylbenzene		1.1	U	0.082	5.3

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0302-01**

Lab Sample ID: 200-11554-3
Client Matrix: Solid
% Moisture: 1.3

Date Sampled: 06/29/2012 0844
Date Received: 06/30/2012 1005

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	200-41675	Instrument ID:	N.i
Prep Method:	5035	Prep Batch:	200-41282	Lab File ID:	ngia09.d
Dilution:	1.0			Initial Weight/Volume:	4.75 g
Analysis Date:	07/11/2012 1146			Final Weight/Volume:	5 mL
Prep Date:	07/03/2012 0948				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
1,1,2,2-Tetrachloroethane		1.1	U	0.28	5.3
1,3-Dichlorobenzene		0.12	U	0.16	5.3
1,4-Dichlorobenzene		0.27	U	0.25	5.3
1,2-Dichlorobenzene		0.27	U	0.23	5.3
1,2-Dibromo-3-Chloropropane		1.1	U	0.97	5.3
1,2,4-Trichlorobenzene		1.1	U	0.21	5.3
1,2,3-Trichlorobenzene		0.21	J	0.16	5.3

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4	99		65 - 155
Toluene-d8	99		80 - 115
Bromofluorobenzene	111		80 - 115
1,2-Dichlorobenzene-d4	98		45 - 145

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0402-01**

Lab Sample ID: 200-11554-4
Client Matrix: Solid
% Moisture: 1.7

Date Sampled: 06/29/2012 0855
Date Received: 06/30/2012 1005

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	200-41675	Instrument ID:	N.i
Prep Method:	5035	Prep Batch:	200-41282	Lab File ID:	ngia10.d
Dilution:	1.0			Initial Weight/Volume:	5.36 g
Analysis Date:	07/11/2012 1220			Final Weight/Volume:	5 mL
Prep Date:	07/03/2012 0948				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
Dichlorodifluoromethane		0.95	U	0.22	4.7
Chloromethane		0.95	U	0.25	4.7
Vinyl chloride		0.95	U	0.28	4.7
Bromomethane		2.4	U	0.70	4.7
Chloroethane		0.95	U	0.36	4.7
Trichlorofluoromethane		0.95	U	0.31	4.7
1,1-Dichloroethene		0.95	U	0.35	4.7
Freon TF		0.95	U	0.31	4.7
Acetone		5.0	M	0.95	4.7
Carbon disulfide		0.95	U	0.29	4.7
Methyl acetate		2.4	U	0.60	4.7
Methylene Chloride		0.95	U	0.52	4.7
trans-1,2-Dichloroethene		0.95	U	0.35	4.7
Methyl t-butyl ether		0.95	U	0.28	4.7
1,1-Dichloroethane		0.95	U	0.39	4.7
cis-1,2-Dichloroethene		0.95	U	0.40	4.7
2-Butanone		2.4	U	1.4	4.7
Bromochloromethane		0.95	U	0.35	4.7
Chloroform		2.1	J	0.30	4.7
1,1,1-Trichloroethane		0.95	U	0.66	4.7
Cyclohexane		0.95	U	0.81	4.7
Carbon tetrachloride		0.95	U	0.72	4.7
Benzene		0.95	U	0.67	4.7
1,2-Dichloroethane		0.95	U	0.59	4.7
Trichloroethene		0.95	U	0.46	4.7
Methylcyclohexane		0.95	U	0.16	4.7
1,2-Dichloropropane		0.95	U	0.28	4.7
1,4-Dioxane		47	U	22	240
Bromodichloromethane		0.95	U	0.20	4.7
cis-1,3-Dichloropropene		0.95	U	0.33	4.7
4-Methyl-2-pentanone		0.95	U	0.57	4.7
Toluene		0.17	J	0.095	4.7
trans-1,3-Dichloropropene		0.95	U	0.12	4.7
1,1,2-Trichloroethane		0.95	U	0.32	4.7
Tetrachloroethene		0.24	U	0.10	4.7
2-Hexanone		0.95	U	0.46	4.7
Dibromochloromethane		0.95	U	0.10	4.7
1,2-Dibromoethane		0.95	U	0.14	4.7
Chlorobenzene		0.47	U	0.072	4.7
Ethylbenzene		0.24	U	0.053	4.7
m&p-Xylene		0.95	U	0.66	4.7
o-Xylene		0.24	U	0.058	4.7
Xylenes, Total		0.24	U	0.69	4.7
Styrene		0.24	U	0.095	4.7
Bromoform		0.95	U	0.19	4.7
Isopropylbenzene		0.95	U	0.073	4.7

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0402-01**

Lab Sample ID: 200-11554-4
Client Matrix: Solid
% Moisture: 1.7

Date Sampled: 06/29/2012 0855
Date Received: 06/30/2012 1005

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	200-41675	Instrument ID:	N.i
Prep Method:	5035	Prep Batch:	200-41282	Lab File ID:	ngia10.d
Dilution:	1.0			Initial Weight/Volume:	5.36 g
Analysis Date:	07/11/2012 1220			Final Weight/Volume:	5 mL
Prep Date:	07/03/2012 0948				

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
1,1,2,2-Tetrachloroethane		0.95	U	0.25	4.7
1,3-Dichlorobenzene		0.10	U	0.14	4.7
1,4-Dichlorobenzene		0.24	U	0.22	4.7
1,2-Dichlorobenzene		0.24	U	0.21	4.7
1,2-Dibromo-3-Chloropropane		0.95	U	0.86	4.7
1,2,4-Trichlorobenzene		0.95	U	0.19	4.7
1,2,3-Trichlorobenzene		0.95	U	0.14	4.7

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4	99		65 - 155
Toluene-d8	91		80 - 115
Bromofluorobenzene	96		80 - 115
1,2-Dichlorobenzene-d4	91		45 - 145

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TB01-06**

Lab Sample ID: 200-11554-5
Client Matrix: Solid

Date Sampled: 06/29/2012 0900
Date Received: 06/30/2012 1005

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	200-41675	Instrument ID:	N.i
Prep Method:	5035	Prep Batch:	200-41282	Lab File ID:	ngia06.d
Dilution:	1.0			Initial Weight/Volume:	5 g
Analysis Date:	07/11/2012 1015			Final Weight/Volume:	5 mL
Prep Date:	07/03/2012 0948				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
Dichlorodifluoromethane		1.0	U	1.0	5.0
Chloromethane		1.0	U	1.0	5.0
Vinyl chloride		1.0	U	1.0	5.0
Bromomethane		2.5	U	2.5	5.0
Chloroethane		1.0	U	1.0	5.0
Trichlorofluoromethane		1.0	U	1.0	5.0
1,1-Dichloroethene		1.0	U	1.0	5.0
Freon TF		1.0	U	1.0	5.0
Acetone		5.0		2.5	5.0
Carbon disulfide		1.0	U	1.0	5.0
Methyl acetate		2.5	U	2.5	5.0
Methylene Chloride		1.0	U	1.0	5.0
trans-1,2-Dichloroethene		1.0	U	1.0	5.0
Methyl t-butyl ether		1.0	U	1.0	5.0
1,1-Dichloroethane		1.0	U	1.0	5.0
cis-1,2-Dichloroethene		1.0	U	1.0	5.0
2-Butanone		2.5	U	2.5	5.0
Bromochloromethane		1.0	U	1.0	5.0
Chloroform		1.0	U	1.0	5.0
1,1,1-Trichloroethane		1.0	U	1.0	5.0
Cyclohexane		1.0	U	1.0	5.0
Carbon tetrachloride		1.0	U	1.0	5.0
Benzene		1.0	U	1.0	5.0
1,2-Dichloroethane		1.0	U	1.0	5.0
Trichloroethene		1.0	U	1.0	5.0
Methylcyclohexane		1.0	U	1.0	5.0
1,2-Dichloropropane		1.0	U	1.0	5.0
1,4-Dioxane		50	U	50	250
Bromodichloromethane		1.0	U	1.0	5.0
cis-1,3-Dichloropropene		1.0	U	1.0	5.0
4-Methyl-2-pentanone		1.0	U	1.0	5.0
Toluene		0.41	J	0.25	5.0
trans-1,3-Dichloropropene		1.0	U	1.0	5.0
1,1,2-Trichloroethane		1.0	U	1.0	5.0
Tetrachloroethene		0.25	U	0.25	5.0
2-Hexanone		1.0	U	1.0	5.0
Dibromochloromethane		1.0	U	1.0	5.0
1,2-Dibromoethane		1.0	U	1.0	5.0
Chlorobenzene		0.50	U	0.50	5.0
Ethylbenzene		0.25	U M	0.25	5.0
m&p-Xylene		1.0	U	1.0	5.0
o-Xylene		0.25	U	0.25	5.0
Xylenes, Total		0.25	U	0.25	5.0
Styrene		0.25	U	0.25	5.0
Bromoform		1.0	U	1.0	5.0
Isopropylbenzene		1.0	U	1.0	5.0

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TB01-06**

Lab Sample ID: 200-11554-5
Client Matrix: Solid

Date Sampled: 06/29/2012 0900
Date Received: 06/30/2012 1005

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	200-41675	Instrument ID:	N.i
Prep Method:	5035	Prep Batch:	200-41282	Lab File ID:	ngia06.d
Dilution:	1.0			Initial Weight/Volume:	5 g
Analysis Date:	07/11/2012 1015			Final Weight/Volume:	5 mL
Prep Date:	07/03/2012 0948				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
1,1,2,2-Tetrachloroethane		1.0	U	1.0	5.0
1,3-Dichlorobenzene		0.11	U	0.11	5.0
1,4-Dichlorobenzene		0.25	U	0.25	5.0
1,2-Dichlorobenzene		0.25	U	0.25	5.0
1,2-Dibromo-3-Chloropropane		1.0	U	1.0	5.0
1,2,4-Trichlorobenzene		1.0	U	1.0	5.0
1,2,3-Trichlorobenzene		1.0	U	1.0	5.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4	93		65 - 155
Toluene-d8	95		80 - 115
Bromofluorobenzene	99		80 - 115
1,2-Dichlorobenzene-d4	94		45 - 145

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0101-01**

Lab Sample ID: 200-11554-1
Client Matrix: Solid
% Moisture: 4.1

Date Sampled: 06/29/2012 0830
Date Received: 06/30/2012 1005

8270C SIM Semivolatile Organic Compounds (GC/MS SIM)

Analysis Method:	8270C SIM	Analysis Batch:	200-42145	Instrument ID:	Z.i
Prep Method:	3550C	Prep Batch:	200-41630	Lab File ID:	zywa05.d
Dilution:	1.0			Initial Weight/Volume:	30.06 g
Analysis Date:	07/16/2012 1805			Final Weight/Volume:	1000 uL
Prep Date:	07/11/2012 0848			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
Naphthalene		0.30	J B	0.059	0.70
2-Methylnaphthalene		0.086	U	0.057	0.70
Acenaphthylene		0.086	U	0.055	0.70
Acenaphthene		0.086	U	0.055	0.70
Fluorene		0.086	U	0.057	0.70
Phenanthrene		0.26	J B	0.073	0.70
Anthracene		0.086	U	0.055	0.70
Fluoranthene		0.42	J B	0.064	0.70
Pyrene		0.36	J B	0.039	0.70
Benzo[a]anthracene		0.086	U	0.050	0.70
Chrysene		0.25	J B	0.059	0.70
Benzo[b]fluoranthene		0.39	J B	0.049	0.70
Benzo[k]fluoranthene		0.086	U	0.059	0.70
Benzo[a]pyrene		0.21	J B	0.049	0.70
Indeno[1,2,3-cd]pyrene		0.18	J M B	0.080	0.70
Dibenz(a,h)anthracene		0.18	U	0.059	0.70
Benzo[g,h,i]perylene		0.18	U	0.095	0.70

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Methylnaphthalene-d10	83		30 - 120
Fluorene-d10	82		30 - 130
Fluoranthene-d10	86		10 - 165
Benzo(a)pyrene-d12	79		20 - 130

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0101-01**

Lab Sample ID: 200-11554-1
Client Matrix: Solid
% Moisture: 4.1

Date Sampled: 06/29/2012 0830
Date Received: 06/30/2012 1005

8270C SIM Semivolatile Organic Compounds (GC/MS SIM)

Analysis Method:	8270C SIM	Analysis Batch:	200-42148	Instrument ID:	Z.i
Prep Method:	3550C	Prep Batch:	200-41970	Lab File ID:	zywb07.d
Dilution:	1.0			Initial Weight/Volume:	30.70 g
Analysis Date:	07/19/2012 1754	Run Type:	RE	Final Weight/Volume:	1000 uL
Prep Date:	07/17/2012 1723			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
Naphthalene		0.26	J H	0.058	0.68
2-Methylnaphthalene		0.085	U H	0.056	0.68
Acenaphthylene		0.085	U H	0.054	0.68
Acenaphthene		0.085	U H	0.054	0.68
Fluorene		0.085	U H	0.056	0.68
Phenanthrene		0.39	J H	0.071	0.68
Anthracene		0.085	U H	0.054	0.68
Fluoranthene		0.85	H	0.062	0.68
Pyrene		1.2	H B	0.038	0.68
Benzo[a]anthracene		0.26	J H	0.049	0.68
Chrysene		0.34	J H	0.058	0.68
Benzo[b]fluoranthene		0.59	J H	0.048	0.68
Benzo[k]fluoranthene		0.19	J H	0.058	0.68
Benzo[a]pyrene		0.30	J H	0.048	0.68
Indeno[1,2,3-cd]pyrene		0.085	U H	0.078	0.68
Dibenz(a,h)anthracene		0.17	U H	0.058	0.68
Benzo[g,h,i]perylene		0.17	U H	0.093	0.68

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Methylnaphthalene-d10	86		30 - 120
Fluorene-d10	85		30 - 130
Fluoranthene-d10	89		10 - 165
Benzo(a)pyrene-d12	87		20 - 130

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0201-01**

Lab Sample ID: 200-11554-2
Client Matrix: Solid
% Moisture: 2.9

Date Sampled: 06/29/2012 0845
Date Received: 06/30/2012 1005

8270C SIM Semivolatile Organic Compounds (GC/MS SIM)

Analysis Method:	8270C SIM	Analysis Batch:	200-42145	Instrument ID:	Z.i
Prep Method:	3550C	Prep Batch:	200-41630	Lab File ID:	zywa06.d
Dilution:	1.0			Initial Weight/Volume:	30.03 g
Analysis Date:	07/16/2012 1844			Final Weight/Volume:	1000 uL
Prep Date:	07/11/2012 0848			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
Naphthalene		0.30	J B	0.059	0.69
2-Methylnaphthalene		0.085	U	0.057	0.69
Acenaphthylene		0.085	U	0.055	0.69
Acenaphthene		0.085	U	0.055	0.69
Fluorene		0.085	U	0.057	0.69
Phenanthrene		0.26	J B	0.072	0.69
Anthracene		0.085	U	0.055	0.69
Fluoranthene		0.37	J B	0.063	0.69
Pyrene		0.35	J B	0.038	0.69
Benzo[a]anthracene		0.085	U	0.049	0.69
Chrysene		0.21	J B	0.059	0.69
Benzo[b]fluoranthene		0.30	J B	0.048	0.69
Benzo[k]fluoranthene		0.085	U	0.059	0.69
Benzo[a]pyrene		0.085	U	0.048	0.69
Indeno[1,2,3-cd]pyrene		0.085	U	0.079	0.69
Dibenz(a,h)anthracene		0.17	U	0.059	0.69
Benzo[g,h,i]perylene		0.17	U	0.094	0.69

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Methylnaphthalene-d10	87		30 - 120
Fluorene-d10	85		30 - 130
Fluoranthene-d10	89		10 - 165
Benzo(a)pyrene-d12	83		20 - 130

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0201-01**

Lab Sample ID: 200-11554-2
Client Matrix: Solid
% Moisture: 2.9

Date Sampled: 06/29/2012 0845
Date Received: 06/30/2012 1005

8270C SIM Semivolatile Organic Compounds (GC/MS SIM)

Analysis Method:	8270C SIM	Analysis Batch:	200-42148	Instrument ID:	Z.i
Prep Method:	3550C	Prep Batch:	200-41970	Lab File ID:	zywb08.d
Dilution:	1.0			Initial Weight/Volume:	30.31 g
Analysis Date:	07/19/2012 1833	Run Type:	RE	Final Weight/Volume:	1000 uL
Prep Date:	07/17/2012 1723			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
Naphthalene		0.21	J H	0.058	0.68
2-Methylnaphthalene		0.085	U H	0.056	0.68
Acenaphthylene		0.085	U H	0.054	0.68
Acenaphthene		0.085	U H	0.054	0.68
Fluorene		0.085	U H	0.056	0.68
Phenanthrene		0.25	J H	0.071	0.68
Anthracene		0.085	U H	0.054	0.68
Fluoranthene		0.60	J H	0.062	0.68
Pyrene		0.95	H B	0.038	0.68
Benzo[a]anthracene		0.19	J H	0.049	0.68
Chrysene		0.25	J H	0.058	0.68
Benzo[b]fluoranthene		0.41	J H	0.048	0.68
Benzo[k]fluoranthene		0.085	U H	0.058	0.68
Benzo[a]pyrene		0.20	J H	0.048	0.68
Indeno[1,2,3-cd]pyrene		0.085	U H	0.079	0.68
Dibenz(a,h)anthracene		0.17	U H	0.058	0.68
Benzo[g,h,i]perylene		0.17	U H	0.093	0.68

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Methylnaphthalene-d10	77		30 - 120
Fluorene-d10	72		30 - 130
Fluoranthene-d10	75		10 - 165
Benzo(a)pyrene-d12	74		20 - 130

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0302-01**

Lab Sample ID: 200-11554-3
Client Matrix: Solid
% Moisture: 1.3

Date Sampled: 06/29/2012 0844
Date Received: 06/30/2012 1005

8270C SIM Semivolatile Organic Compounds (GC/MS SIM)

Analysis Method:	8270C SIM	Analysis Batch:	200-42145	Instrument ID:	Z.i
Prep Method:	3550C	Prep Batch:	200-41630	Lab File ID:	zywa07.d
Dilution:	1.0			Initial Weight/Volume:	30.26 g
Analysis Date:	07/16/2012 1923			Final Weight/Volume:	1000 uL
Prep Date:	07/11/2012 0848			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
Naphthalene		0.25	J B	0.057	0.67
2-Methylnaphthalene		0.083	U	0.055	0.67
Acenaphthylene		0.083	U	0.053	0.67
Acenaphthene		0.083	U	0.053	0.67
Fluorene		0.083	U	0.055	0.67
Phenanthrene		0.083	U	0.070	0.67
Anthracene		0.083	U	0.053	0.67
Fluoranthene		0.083	U	0.061	0.67
Pyrene		0.042	U	0.037	0.67
Benzo[a]anthracene		0.083	U	0.048	0.67
Chrysene		0.083	U	0.057	0.67
Benzo[b]fluoranthene		0.083	U	0.047	0.67
Benzo[k]fluoranthene		0.083	U	0.057	0.67
Benzo[a]pyrene		0.083	U	0.047	0.67
Indeno[1,2,3-cd]pyrene		0.083	U	0.077	0.67
Dibenz(a,h)anthracene		0.17	U	0.057	0.67
Benzo[g,h,i]perylene		0.17	U	0.091	0.67

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Methylnaphthalene-d10	81		30 - 120
Fluorene-d10	79		30 - 130
Fluoranthene-d10	84		10 - 165
Benzo(a)pyrene-d12	80		20 - 130

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0302-01**

Lab Sample ID: 200-11554-3
Client Matrix: Solid
% Moisture: 1.3

Date Sampled: 06/29/2012 0844
Date Received: 06/30/2012 1005

8270C SIM Semivolatile Organic Compounds (GC/MS SIM)

Analysis Method:	8270C SIM	Analysis Batch:	200-42148	Instrument ID:	Z.i
Prep Method:	3550C	Prep Batch:	200-41970	Lab File ID:	zywb09.d
Dilution:	1.0			Initial Weight/Volume:	30.64 g
Analysis Date:	07/19/2012 1911	Run Type:	RE	Final Weight/Volume:	1000 uL
Prep Date:	07/17/2012 1723			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
Naphthalene		0.24	J H	0.057	0.66
2-Methylnaphthalene		0.082	U H	0.055	0.66
Acenaphthylene		0.082	U H	0.053	0.66
Acenaphthene		0.082	U H	0.053	0.66
Fluorene		0.082	U H	0.055	0.66
Phenanthrene		0.082	U H	0.069	0.66
Anthracene		0.082	U H	0.053	0.66
Fluoranthene		0.22	J H	0.061	0.66
Pyrene		0.57	J H B	0.037	0.66
Benzo[a]anthracene		0.082	U H	0.048	0.66
Chrysene		0.082	U H	0.057	0.66
Benzo[b]fluoranthene		0.082	U H	0.047	0.66
Benzo[k]fluoranthene		0.082	U H	0.057	0.66
Benzo[a]pyrene		0.082	U H	0.047	0.66
Indeno[1,2,3-cd]pyrene		0.082	U H	0.076	0.66
Dibenz(a,h)anthracene		0.17	U H	0.057	0.66
Benzo[g,h,i]perylene		0.17	U H	0.090	0.66

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Methylnaphthalene-d10	88		30 - 120
Fluorene-d10	84		30 - 130
Fluoranthene-d10	87		10 - 165
Benzo(a)pyrene-d12	88		20 - 130

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0402-01**

Lab Sample ID: 200-11554-4
Client Matrix: Solid
% Moisture: 1.7

Date Sampled: 06/29/2012 0855
Date Received: 06/30/2012 1005

8270C SIM Semivolatile Organic Compounds (GC/MS SIM)

Analysis Method:	8270C SIM	Analysis Batch:	200-42145	Instrument ID:	Z.i
Prep Method:	3550C	Prep Batch:	200-41630	Lab File ID:	zywa08.d
Dilution:	1.0			Initial Weight/Volume:	30.25 g
Analysis Date:	07/16/2012 2002			Final Weight/Volume:	1000 uL
Prep Date:	07/11/2012 0848			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
Naphthalene		0.23	J B	0.057	0.68
2-Methylnaphthalene		0.084	U	0.055	0.68
Acenaphthylene		0.084	U	0.053	0.68
Acenaphthene		0.084	U	0.053	0.68
Fluorene		0.084	U	0.055	0.68
Phenanthrene		0.084	U	0.071	0.68
Anthracene		0.084	U	0.053	0.68
Fluoranthene		0.084	U	0.062	0.68
Pyrene		0.042	U	0.037	0.68
Benzo[a]anthracene		0.084	U	0.048	0.68
Chrysene		0.084	U	0.057	0.68
Benzo[b]fluoranthene		0.084	U	0.047	0.68
Benzo[k]fluoranthene		0.084	U	0.057	0.68
Benzo[a]pyrene		0.084	U	0.047	0.68
Indeno[1,2,3-cd]pyrene		0.084	U	0.078	0.68
Dibenz(a,h)anthracene		0.17	U	0.057	0.68
Benzo[g,h,i]perylene		0.17	U	0.092	0.68

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Methylnaphthalene-d10	84		30 - 120
Fluorene-d10	82		30 - 130
Fluoranthene-d10	86		10 - 165
Benzo(a)pyrene-d12	80		20 - 130

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0402-01**

Lab Sample ID: 200-11554-4
Client Matrix: Solid
% Moisture: 1.7

Date Sampled: 06/29/2012 0855
Date Received: 06/30/2012 1005

8270C SIM Semivolatile Organic Compounds (GC/MS SIM)

Analysis Method:	8270C SIM	Analysis Batch:	200-42148	Instrument ID:	Z.i
Prep Method:	3550C	Prep Batch:	200-41970	Lab File ID:	zywb10.d
Dilution:	1.0			Initial Weight/Volume:	30.76 g
Analysis Date:	07/19/2012 1950	Run Type:	RE	Final Weight/Volume:	1000 uL
Prep Date:	07/17/2012 1723			Injection Volume:	2 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
Naphthalene		0.18	J H	0.057	0.66
2-Methylnaphthalene		0.082	U H	0.055	0.66
Acenaphthylene		0.082	U H	0.053	0.66
Acenaphthene		0.082	U H	0.053	0.66
Fluorene		0.082	U H	0.055	0.66
Phenanthrene		0.082	U H	0.069	0.66
Anthracene		0.082	U H	0.053	0.66
Fluoranthene		0.21	J H	0.061	0.66
Pyrene		0.54	J H B	0.037	0.66
Benzo[a]anthracene		0.082	U H	0.048	0.66
Chrysene		0.082	U H	0.057	0.66
Benzo[b]fluoranthene		0.082	U H	0.047	0.66
Benzo[k]fluoranthene		0.082	U H	0.057	0.66
Benzo[a]pyrene		0.082	U H	0.047	0.66
Indeno[1,2,3-cd]pyrene		0.082	U H	0.076	0.66
Dibenz(a,h)anthracene		0.17	U H	0.057	0.66
Benzo[g,h,i]perylene		0.17	U H	0.090	0.66

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Methylnaphthalene-d10	84		30 - 120
Fluorene-d10	81		30 - 130
Fluoranthene-d10	84		10 - 165
Benzo(a)pyrene-d12	82		20 - 130

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0101-01**

Lab Sample ID: 200-11554-1
Client Matrix: Solid
% Moisture: 4.1

Date Sampled: 06/29/2012 0830
Date Received: 06/30/2012 1005

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C/DoD	Analysis Batch:	240-50851	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-49913	Lab File ID:	20716011.D
Dilution:	1.0			Initial Weight/Volume:	30.29 g
Analysis Date:	07/16/2012 1115			Final Weight/Volume:	2 mL
Prep Date:	07/05/2012 1114			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
1,2,4,5-Tetrachlorobenzene		5.5	U	5.5	100
2,4,5-Trichlorophenol		28	U Q	26	150
2,4,6-Trichlorophenol		83	U Q	83	150
2,4-Dichlorophenol		28	U	21	150
2,4-Dimethylphenol		83	U	21	150
2,4-Dinitrophenol		83	U	83	340
2,4-Dinitrotoluene		28	U	28	210
2,6-Dinitrotoluene		28	U	22	210
2-Chloronaphthalene		3.4	U	3.4	52
2-Chlorophenol		28	U	28	52
2-Methylnaphthalene		3.4	U	3.4	6.9
2-Methylphenol		83	U	83	210
2-Nitroaniline		28	U	9.4	210
2-Nitrophenol		28	U	28	52
3 & 4 Methylphenol		83	U	21	410
3,3'-Dichlorobenzidine		83	U	19	100
3-Nitroaniline		83	U	17	210
4,6-Dinitro-2-methylphenol		83	U	83	150
4-Bromophenyl phenyl ether		28	U	13	52
4-Chloro-3-methylphenol		28	U	22	150
4-Chloroaniline		28	U	18	150
4-Chlorophenyl phenyl ether		28	U	13	52
4-Nitroaniline		28	U	27	210
4-Nitrophenol		83	U	83	340
Acenaphthene		3.4	U	3.4	6.9
Acenaphthylene		3.4	U	3.4	6.9
Anthracene		3.4	U	3.4	6.9
Benzo[a]anthracene		3.4	U	3.4	6.9
Benzo[a]pyrene		3.4	U	3.4	6.9
Benzo[b]fluoranthene		3.4	U	3.4	6.9
Benzo[g,h,i]perylene		3.4	U	3.4	6.9
Benzo[k]fluoranthene		3.4	U	3.4	6.9
Bis(2-chloroethoxy)methane		28	U	23	100
Bis(2-chloroethyl)ether		3.4	U	2.1	100
Bis(2-ethylhexyl) phthalate		21	J	20	52
Butyl benzyl phthalate		28	U	10	52
Carbazole		28	U	28	52
Chrysene		3.4	U	1.1	6.9
Dibenz(a,h)anthracene		3.4	U	3.4	6.9
Dibenzofuran		3.4	U	3.4	52
Diethyl phthalate		28	U	17	52
Dimethyl phthalate		28	U	18	52
Di-n-butyl phthalate		28	U	15	52
Di-n-octyl phthalate		28	U	28	52
Fluoranthene		3.4	U	3.4	6.9
Fluorene		3.4	U	3.4	6.9

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0101-01**

Lab Sample ID: 200-11554-1
Client Matrix: Solid
% Moisture: 4.1

Date Sampled: 06/29/2012 0830
Date Received: 06/30/2012 1005

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C/DoD	Analysis Batch:	240-50851	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-49913	Lab File ID:	20716011.D
Dilution:	1.0			Initial Weight/Volume:	30.29 g
Analysis Date:	07/16/2012 1115			Final Weight/Volume:	2 mL
Prep Date:	07/05/2012 1114			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
Hexachlorobenzene		3.4	U	2.2	6.9
Hexachlorobutadiene		28	U	28	52
Hexachloroethane		28	U	9.3	52
Indeno[1,2,3-cd]pyrene		3.4	U	3.4	6.9
Naphthalene		3.4	U	3.4	6.9
Nitrobenzene		3.4	U	2.3	100
N-Nitrosodi-n-propylamine		28	U	28	52
N-Nitrosodiphenylamine		28	U	22	52
Pentachlorophenol		83	U	83	150
Phenanthrene		3.4	U	3.4	6.9
Phenol		28	U	28	52
Pyrene		3.4	U	3.4	6.9
bis (2-chloroisopropyl) ether		28	U	9.8	100
Isophorone		28	U	13	52
1,1'-Biphenyl		28	U	28	52
Acetophenone		28	U	9.5	100
Atrazine		28	U	9.4	210
Benzaldehyde		28	U	12	100
Caprolactam		28	U	38	340
Hexachlorocyclopentadiene		28	U	28	340
2,3,4,6-Tetrachlorophenol		1700	U	110	1700

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl (Surr)	51		45 - 105
2-Fluorophenol (Surr)	59		35 - 105
Nitrobenzene-d5 (Surr)	53		35 - 100
Terphenyl-d14 (Surr)	70		30 - 125
2,4,6-Tribromophenol (Surr)	66		35 - 125
Phenol-d5 (Surr)	62		40 - 100

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0101-01**

Lab Sample ID: 200-11554-1
Client Matrix: Solid
% Moisture: 4.1

Date Sampled: 06/29/2012 0830
Date Received: 06/30/2012 1005

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C/DoD	Analysis Batch:	240-51914	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-50985	Lab File ID:	20725007.D
Dilution:	1.0			Initial Weight/Volume:	30.10 g
Analysis Date:	07/25/2012 1014	Run Type:	RE	Final Weight/Volume:	2 mL
Prep Date:	07/17/2012 0820			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
1,2,4,5-Tetrachlorobenzene		5.5	U H	5.5	100
2,4,5-Trichlorophenol		28	U H	26	160
2,4,6-Trichlorophenol		83	U H	83	160
2,4-Dichlorophenol		28	U H	21	160
2,4-Dimethylphenol		83	U H	21	160
2,4-Dinitrophenol		83	U H	83	340
2,4-Dinitrotoluene		28	U H	28	210
2,6-Dinitrotoluene		28	U H	22	210
2-Chloronaphthalene		3.4	U H	3.4	52
2-Chlorophenol		28	U H	28	52
2-Methylnaphthalene		3.4	U H	3.4	6.9
2-Methylphenol		83	U H	83	210
2-Nitroaniline		28	U H	9.5	210
2-Nitrophenol		28	U H	28	52
3 & 4 Methylphenol		83	U H	21	420
3,3'-Dichlorobenzidine		83	U H	19	100
3-Nitroaniline		83	U H	17	210
4,6-Dinitro-2-methylphenol		83	U H	83	160
4-Bromophenyl phenyl ether		28	U H	14	52
4-Chloro-3-methylphenol		28	U H	22	160
4-Chloroaniline		28	U H	18	160
4-Chlorophenyl phenyl ether		28	U H	14	52
4-Nitroaniline		28	U H	27	210
4-Nitrophenol		83	U H	83	340
Acenaphthene		3.4	U H	3.4	6.9
Acenaphthylene		3.4	U H	3.4	6.9
Anthracene		3.4	U H	3.4	6.9
Benzo[a]anthracene		3.4	U H	3.4	6.9
Benzo[a]pyrene		3.4	U H	3.4	6.9
Benzo[b]fluoranthene		3.4	U H	3.4	6.9
Benzo[g,h,i]perylene		3.4	U H	3.4	6.9
Benzo[k]fluoranthene		3.4	U H	3.4	6.9
Bis(2-chloroethoxy)methane		28	U H	23	100
Bis(2-chloroethyl)ether		3.4	U H	2.1	100
Bis(2-ethylhexyl) phthalate		28	U H	20	52
Butyl benzyl phthalate		28	U H	10	52
Carbazole		28	U H	28	52
Chrysene		3.4	U H	1.1	6.9
Dibenz(a,h)anthracene		3.4	U H	3.4	6.9
Dibenzofuran		3.4	U H	3.4	52
Diethyl phthalate		28	U H	17	52
Dimethyl phthalate		28	U H	18	52
Di-n-butyl phthalate		28	U H	16	52
Di-n-octyl phthalate		28	U H	28	52
Fluoranthene		3.4	U H	3.4	6.9
Fluorene		3.4	U H	3.4	6.9

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0101-01**

Lab Sample ID: 200-11554-1
Client Matrix: Solid
% Moisture: 4.1

Date Sampled: 06/29/2012 0830
Date Received: 06/30/2012 1005

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C/DoD	Analysis Batch:	240-51914	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-50985	Lab File ID:	20725007.D
Dilution:	1.0			Initial Weight/Volume:	30.10 g
Analysis Date:	07/25/2012 1014	Run Type:	RE	Final Weight/Volume:	2 mL
Prep Date:	07/17/2012 0820			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
Hexachlorobenzene		3.4	U H	2.2	6.9
Hexachlorobutadiene		28	U H	28	52
Hexachloroethane		28	U H	9.4	52
Indeno[1,2,3-cd]pyrene		3.4	U H	3.4	6.9
Naphthalene		3.4	U H	3.4	6.9
Nitrobenzene		3.4	U H	2.3	100
N-Nitrosodi-n-propylamine		28	U H	28	52
N-Nitrosodiphenylamine		28	U H	22	52
Pentachlorophenol		83	U H	83	160
Phenanthrene		3.4	U H	3.4	6.9
Phenol		28	U H	28	52
Pyrene		3.4	U H	3.4	6.9
bis (2-chloroisopropyl) ether		28	U H	9.9	100
Isophorone		28	U H	14	52
1,1'-Biphenyl		28	U H	28	52
Acetophenone		28	U H	9.6	100
Atrazine		28	U H	9.5	210
Benzaldehyde		28	U H	12	100
Caprolactam		28	U H	38	340
Hexachlorocyclopentadiene		28	U H	28	340
2,3,4,6-Tetrachlorophenol		1700	U H	110	1700

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl (Surr)	53		45 - 105
2-Fluorophenol (Surr)	66		35 - 105
Nitrobenzene-d5 (Surr)	61		35 - 100
Terphenyl-d14 (Surr)	75		30 - 125
2,4,6-Tribromophenol (Surr)	51		35 - 125
Phenol-d5 (Surr)	66		40 - 100

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0201-01**

Lab Sample ID: 200-11554-2
Client Matrix: Solid
% Moisture: 2.9

Date Sampled: 06/29/2012 0845
Date Received: 06/30/2012 1005

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C/DoD	Analysis Batch:	240-50851	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-49913	Lab File ID:	20716012.D
Dilution:	1.0			Initial Weight/Volume:	30.32 g
Analysis Date:	07/16/2012 1134			Final Weight/Volume:	2 mL
Prep Date:	07/05/2012 1114			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
1,2,4,5-Tetrachlorobenzene		5.4	U	5.4	100
2,4,5-Trichlorophenol		28	U Q	25	150
2,4,6-Trichlorophenol		82	U Q	82	150
2,4-Dichlorophenol		28	U	20	150
2,4-Dimethylphenol		82	U	20	150
2,4-Dinitrophenol		82	U J	82	340
2,4-Dinitrotoluene		28	U	28	200
2,6-Dinitrotoluene		28	U	21	200
2-Chloronaphthalene		3.4	U	3.4	51
2-Chlorophenol		28	U	28	51
2-Methylnaphthalene		3.4	U	3.4	6.8
2-Methylphenol		82	U	82	200
2-Nitroaniline		28	U	9.3	200
2-Nitrophenol		28	U	28	51
3 & 4 Methylphenol		82	U	20	410
3,3'-Dichlorobenzidine		82	U J	18	100
3-Nitroaniline		82	U	16	200
4,6-Dinitro-2-methylphenol		82	U	82	150
4-Bromophenyl phenyl ether		28	U	13	51
4-Chloro-3-methylphenol		28	U	21	150
4-Chloroaniline		28	U	17	150
4-Chlorophenyl phenyl ether		28	U	13	51
4-Nitroaniline		28	U	27	200
4-Nitrophenol		82	U	82	340
Acenaphthene		3.4	U	3.4	6.8
Acenaphthylene		3.4	U	3.4	6.8
Anthracene		3.4	U	3.4	6.8
Benzo[a]anthracene		3.4	U	3.4	6.8
Benzo[a]pyrene		3.4	U	3.4	6.8
Benzo[b]fluoranthene		3.4	U	3.4	6.8
Benzo[g,h,i]perylene		3.4	U	3.4	6.8
Benzo[k]fluoranthene		3.4	U	3.4	6.8
Bis(2-chloroethoxy)methane		28	U	22	100
Bis(2-chloroethyl)ether		3.4	U	2.0	100
Bis(2-ethylhexyl) phthalate		33	J	19	51
Butyl benzyl phthalate		28	U	10	51
Carbazole		28	U	28	51
Chrysene		3.4	U	1.1	6.8
Dibenz(a,h)anthracene		3.4	U	3.4	6.8
Dibenzofuran		3.4	U	3.4	51
Diethyl phthalate		28	U	16	51
Dimethyl phthalate		28	U	17	51
Di-n-butyl phthalate		32	J M B	15	51
Di-n-octyl phthalate		28	U	28	51
Fluoranthene		3.4	U	3.4	6.8
Fluorene		3.4	U	3.4	6.8

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0201-01**

Lab Sample ID: 200-11554-2
Client Matrix: Solid
% Moisture: 2.9

Date Sampled: 06/29/2012 0845
Date Received: 06/30/2012 1005

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C/DoD	Analysis Batch:	240-50851	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-49913	Lab File ID:	20716012.D
Dilution:	1.0			Initial Weight/Volume:	30.32 g
Analysis Date:	07/16/2012 1134			Final Weight/Volume:	2 mL
Prep Date:	07/05/2012 1114			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
Hexachlorobenzene		3.4	U	2.1	6.8
Hexachlorobutadiene		28	U	28	51
Hexachloroethane		28	U	9.2	51
Indeno[1,2,3-cd]pyrene		3.4	U	3.4	6.8
Naphthalene		3.4	U	3.4	6.8
Nitrobenzene		3.4	U	2.2	100
N-Nitrosodi-n-propylamine		28	U	28	51
N-Nitrosodiphenylamine		28	U	21	51
Pentachlorophenol		82	U	82	150
Phenanthrene		3.4	U	3.4	6.8
Phenol		44	J M B	28	51
Pyrene		3.4	U	3.4	6.8
bis (2-chloroisopropyl) ether		28	U	9.7	100
Isophorone		28	U	13	51
1,1'-Biphenyl		28	U	28	51
Acetophenone		28	U	9.4	100
Atrazine		28	U	9.3	200
Benzaldehyde		28	U	12	100
Caprolactam		28	U	38	340
Hexachlorocyclopentadiene		28	U	28	340
2,3,4,6-Tetrachlorophenol		1600	U	110	1600

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl (Surr)	45	M	45 - 105
2-Fluorophenol (Surr)	59		35 - 105
Nitrobenzene-d5 (Surr)	54	M	35 - 100
Terphenyl-d14 (Surr)	61	M	30 - 125
2,4,6-Tribromophenol (Surr)	53	M	35 - 125
Phenol-d5 (Surr)	60	M	40 - 100

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0201-01**

Lab Sample ID: 200-11554-2
Client Matrix: Solid
% Moisture: 2.9

Date Sampled: 06/29/2012 0845
Date Received: 06/30/2012 1005

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C/DoD	Analysis Batch:	240-51914	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-50985	Lab File ID:	20725008.D
Dilution:	1.0			Initial Weight/Volume:	28.74 g
Analysis Date:	07/25/2012 1033	Run Type:	RE	Final Weight/Volume:	2 mL
Prep Date:	07/17/2012 0820			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
1,2,4,5-Tetrachlorobenzene		5.7	U H	5.7	110
2,4,5-Trichlorophenol		29	U H	27	160
2,4,6-Trichlorophenol		86	U H	86	160
2,4-Dichlorophenol		29	U H	22	160
2,4-Dimethylphenol		86	U H	22	160
2,4-Dinitrophenol		86	U H	86	350
2,4-Dinitrotoluene		29	U H	29	220
2,6-Dinitrotoluene		29	U H	23	220
2-Chloronaphthalene		3.5	U H	3.5	54
2-Chlorophenol		29	U H	29	54
2-Methylnaphthalene		3.5	U H	3.5	7.2
2-Methylphenol		86	U H	86	220
2-Nitroaniline		29	U H	9.8	220
2-Nitrophenol		29	U H	29	54
3 & 4 Methylphenol		86	U H	22	430
3,3'-Dichlorobenzidine		86	U H	19	110
3-Nitroaniline		86	U H	17	220
4,6-Dinitro-2-methylphenol		86	U H	86	160
4-Bromophenyl phenyl ether		29	U H	14	54
4-Chloro-3-methylphenol		29	U H	23	160
4-Chloroaniline		29	U H	18	160
4-Chlorophenyl phenyl ether		29	U H	14	54
4-Nitroaniline		29	U H	28	220
4-Nitrophenol		86	U H	86	350
Acenaphthene		3.5	U H	3.5	7.2
Acenaphthylene		3.5	U H	3.5	7.2
Anthracene		3.5	U H	3.5	7.2
Benzo[a]anthracene		3.5	U H	3.5	7.2
Benzo[a]pyrene		3.5	U H	3.5	7.2
Benzo[b]fluoranthene		3.5	U H	3.5	7.2
Benzo[g,h,i]perylene		3.5	U H	3.5	7.2
Benzo[k]fluoranthene		3.5	U H	3.5	7.2
Bis(2-chloroethoxy)methane		29	U H	24	110
Bis(2-chloroethyl)ether		3.5	U H	2.2	110
Bis(2-ethylhexyl) phthalate		29	U H	20	54
Butyl benzyl phthalate		29	U H	11	54
Carbazole		29	U H	29	54
Chrysene		3.5	U H	1.2	7.2
Dibenz(a,h)anthracene		3.5	U H	3.5	7.2
Dibenzofuran		3.5	U H	3.5	54
Diethyl phthalate		29	U H	17	54
Dimethyl phthalate		29	U H	18	54
Di-n-butyl phthalate		29	U H	16	54
Di-n-octyl phthalate		29	U H	29	54
Fluoranthene		3.5	U H	3.5	7.2
Fluorene		3.5	U H	3.5	7.2

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0201-01**

Lab Sample ID: 200-11554-2
Client Matrix: Solid
% Moisture: 2.9

Date Sampled: 06/29/2012 0845
Date Received: 06/30/2012 1005

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C/DoD	Analysis Batch:	240-51914	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-50985	Lab File ID:	20725008.D
Dilution:	1.0			Initial Weight/Volume:	28.74 g
Analysis Date:	07/25/2012 1033	Run Type:	RE	Final Weight/Volume:	2 mL
Prep Date:	07/17/2012 0820			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
Hexachlorobenzene		3.5	U H	2.3	7.2
Hexachlorobutadiene		29	U H	29	54
Hexachloroethane		29	U H	9.7	54
Indeno[1,2,3-cd]pyrene		3.5	U H	3.5	7.2
Naphthalene		3.5	U H	3.5	7.2
Nitrobenzene		3.5	U H	2.4	110
N-Nitrosodi-n-propylamine		29	U H	29	54
N-Nitrosodiphenylamine		29	U H	23	54
Pentachlorophenol		86	U H	86	160
Phenanthrene		3.5	U H	3.5	7.2
Phenol		29	U H	29	54
Pyrene		3.5	U H	3.5	7.2
bis (2-chloroisopropyl) ether		29	U H	10	110
Isophorone		29	U H	14	54
1,1'-Biphenyl		29	U H	29	54
Acetophenone		29	U H	9.9	110
Atrazine		29	U H	9.8	220
Benzaldehyde		29	U H	13	110
Caprolactam		29	U H	40	350
Hexachlorocyclopentadiene		29	U H	29	350
2,3,4,6-Tetrachlorophenol		1700	U H	120	1700

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl (Surr)	66		45 - 105
2-Fluorophenol (Surr)	77		35 - 105
Nitrobenzene-d5 (Surr)	74		35 - 100
Terphenyl-d14 (Surr)	93		30 - 125
2,4,6-Tribromophenol (Surr)	56		35 - 125
Phenol-d5 (Surr)	81		40 - 100

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0302-01**

Lab Sample ID: 200-11554-3
Client Matrix: Solid
% Moisture: 1.3

Date Sampled: 06/29/2012 0844
Date Received: 06/30/2012 1005

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C/DoD	Analysis Batch:	240-50851	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-49913	Lab File ID:	20716009.D
Dilution:	1.0			Initial Weight/Volume:	30.14 g
Analysis Date:	07/16/2012 1035			Final Weight/Volume:	2 mL
Prep Date:	07/05/2012 1114			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
1,2,4,5-Tetrachlorobenzene		5.3	U	5.3	100
2,4,5-Trichlorophenol		27	U Q	25	150
2,4,6-Trichlorophenol		81	U Q	81	150
2,4-Dichlorophenol		27	U	20	150
2,4-Dimethylphenol		81	U	20	150
2,4-Dinitrophenol		81	U	81	330
2,4-Dinitrotoluene		27	U	27	200
2,6-Dinitrotoluene		27	U	21	200
2-Chloronaphthalene		3.3	U	3.3	50
2-Chlorophenol		27	U	27	50
2-Methylnaphthalene		3.3	U	3.3	6.7
2-Methylphenol		81	U	81	200
2-Nitroaniline		27	U	9.2	200
2-Nitrophenol		27	U	27	50
3 & 4 Methylphenol		81	U	20	400
3,3'-Dichlorobenzidine		81	U	18	100
3-Nitroaniline		81	U	16	200
4,6-Dinitro-2-methylphenol		81	U	81	150
4-Bromophenyl phenyl ether		27	U	13	50
4-Chloro-3-methylphenol		27	U	21	150
4-Chloroaniline		27	U	17	150
4-Chlorophenyl phenyl ether		27	U	13	50
4-Nitroaniline		27	U	26	200
4-Nitrophenol		81	U	81	330
Acenaphthene		3.3	U	3.3	6.7
Acenaphthylene		3.3	U	3.3	6.7
Anthracene		3.3	U	3.3	6.7
Benzo[a]anthracene		3.3	U	3.3	6.7
Benzo[a]pyrene		3.3	U	3.3	6.7
Benzo[b]fluoranthene		3.3	U	3.3	6.7
Benzo[g,h,i]perylene		3.3	U	3.3	6.7
Benzo[k]fluoranthene		3.3	U	3.3	6.7
Bis(2-chloroethoxy)methane		27	U	22	100
Bis(2-chloroethyl)ether		3.3	U	2.0	100
Bis(2-ethylhexyl) phthalate		19	J	19	50
Butyl benzyl phthalate		27	U	10	50
Carbazole		27	U	27	50
Chrysene		3.3	U	1.1	6.7
Dibenz(a,h)anthracene		3.3	U	3.3	6.7
Dibenzofuran		3.3	U	3.3	50
Diethyl phthalate		27	U	16	50
Dimethyl phthalate		27	U	17	50
Di-n-butyl phthalate		27	U	15	50
Di-n-octyl phthalate		27	U	27	50
Fluoranthene		3.3	U	3.3	6.7
Fluorene		3.3	U	3.3	6.7

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0302-01**

Lab Sample ID: 200-11554-3
Client Matrix: Solid
% Moisture: 1.3

Date Sampled: 06/29/2012 0844
Date Received: 06/30/2012 1005

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C/DoD	Analysis Batch:	240-50851	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-49913	Lab File ID:	20716009.D
Dilution:	1.0			Initial Weight/Volume:	30.14 g
Analysis Date:	07/16/2012 1035			Final Weight/Volume:	2 mL
Prep Date:	07/05/2012 1114			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
Hexachlorobenzene		3.3	U	2.1	6.7
Hexachlorobutadiene		27	U	27	50
Hexachloroethane		27	U	9.1	50
Indeno[1,2,3-cd]pyrene		3.3	U	3.3	6.7
Naphthalene		3.3	U	3.3	6.7
Nitrobenzene		3.3	U	2.2	100
N-Nitrosodi-n-propylamine		27	U	27	50
N-Nitrosodiphenylamine		27	U	21	50
Pentachlorophenol		81	U	81	150
Phenanthrene		3.3	U	3.3	6.7
Phenol		27	U	27	50
Pyrene		3.3	U	3.3	6.7
bis (2-chloroisopropyl) ether		27	U	9.6	100
Isophorone		27	U	13	50
1,1'-Biphenyl		27	U	27	50
Acetophenone		27	U	9.3	100
Atrazine		27	U	9.2	200
Benzaldehyde		27	U	12	100
Caprolactam		27	U	37	330
Hexachlorocyclopentadiene		27	U	27	330
2,3,4,6-Tetrachlorophenol		1600	U	110	1600

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl (Surr)	49		45 - 105
2-Fluorophenol (Surr)	61		35 - 105
Nitrobenzene-d5 (Surr)	53		35 - 100
Terphenyl-d14 (Surr)	78		30 - 125
2,4,6-Tribromophenol (Surr)	59		35 - 125
Phenol-d5 (Surr)	64		40 - 100

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0302-01**

Lab Sample ID: 200-11554-3
Client Matrix: Solid
% Moisture: 1.3

Date Sampled: 06/29/2012 0844
Date Received: 06/30/2012 1005

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C/DoD	Analysis Batch:	240-51914	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-50985	Lab File ID:	20725009.D
Dilution:	1.0			Initial Weight/Volume:	29.78 g
Analysis Date:	07/25/2012 1053	Run Type:	RE	Final Weight/Volume:	2 mL
Prep Date:	07/17/2012 0820			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
1,2,4,5-Tetrachlorobenzene		5.4	U H	5.4	100
2,4,5-Trichlorophenol		28	U H	26	150
2,4,6-Trichlorophenol		82	U H	82	150
2,4-Dichlorophenol		28	U H	20	150
2,4-Dimethylphenol		82	U H	20	150
2,4-Dinitrophenol		82	U H	82	340
2,4-Dinitrotoluene		28	U H	28	200
2,6-Dinitrotoluene		28	U H	21	200
2-Chloronaphthalene		3.4	U H	3.4	51
2-Chlorophenol		28	U H	28	51
2-Methylnaphthalene		3.4	U H	3.4	6.8
2-Methylphenol		82	U H	82	200
2-Nitroaniline		28	U H	9.3	200
2-Nitrophenol		28	U H	28	51
3 & 4 Methylphenol		82	U H	20	410
3,3'-Dichlorobenzidine		82	U H	18	100
3-Nitroaniline		82	U H	16	200
4,6-Dinitro-2-methylphenol		82	U H	82	150
4-Bromophenyl phenyl ether		28	U H	13	51
4-Chloro-3-methylphenol		28	U H	21	150
4-Chloroaniline		28	U H	17	150
4-Chlorophenyl phenyl ether		28	U H	13	51
4-Nitroaniline		28	U H	27	200
4-Nitrophenol		82	U H	82	340
Acenaphthene		3.4	U H	3.4	6.8
Acenaphthylene		3.4	U H	3.4	6.8
Anthracene		3.4	U H	3.4	6.8
Benzo[a]anthracene		3.4	U H	3.4	6.8
Benzo[a]pyrene		3.4	U H	3.4	6.8
Benzo[b]fluoranthene		3.4	U H	3.4	6.8
Benzo[g,h,i]perylene		3.4	U H	3.4	6.8
Benzo[k]fluoranthene		3.4	U H	3.4	6.8
Bis(2-chloroethoxy)methane		28	U H	22	100
Bis(2-chloroethyl)ether		3.4	U H	2.0	100
Bis(2-ethylhexyl) phthalate		28	U H	19	51
Butyl benzyl phthalate		28	U H	10	51
Carbazole		28	U H	28	51
Chrysene		3.4	U H	1.1	6.8
Dibenz(a,h)anthracene		3.4	U H	3.4	6.8
Dibenzofuran		3.4	U H	3.4	51
Diethyl phthalate		28	U H	16	51
Dimethyl phthalate		28	U H	17	51
Di-n-butyl phthalate		28	U H	15	51
Di-n-octyl phthalate		28	U H	28	51
Fluoranthene		3.4	U H	3.4	6.8
Fluorene		3.4	U H	3.4	6.8

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0302-01**

Lab Sample ID: 200-11554-3
Client Matrix: Solid
% Moisture: 1.3

Date Sampled: 06/29/2012 0844
Date Received: 06/30/2012 1005

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C/DoD	Analysis Batch:	240-51914	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-50985	Lab File ID:	20725009.D
Dilution:	1.0			Initial Weight/Volume:	29.78 g
Analysis Date:	07/25/2012 1053	Run Type:	RE	Final Weight/Volume:	2 mL
Prep Date:	07/17/2012 0820			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
Hexachlorobenzene		3.4	U H	2.1	6.8
Hexachlorobutadiene		28	U H	28	51
Hexachloroethane		28	U H	9.2	51
Indeno[1,2,3-cd]pyrene		3.4	U H	3.4	6.8
Naphthalene		3.4	U H	3.4	6.8
Nitrobenzene		3.4	U H	2.2	100
N-Nitrosodi-n-propylamine		28	U H	28	51
N-Nitrosodiphenylamine		28	U H	21	51
Pentachlorophenol		82	U H	82	150
Phenanthrene		3.4	U H	3.4	6.8
Phenol		28	U H	28	51
Pyrene		3.4	U H	3.4	6.8
bis (2-chloroisopropyl) ether		28	U H	9.7	100
Isophorone		28	U H	13	51
1,1'-Biphenyl		28	U H	28	51
Acetophenone		28	U H	9.4	100
Atrazine		28	U H	9.3	200
Benzaldehyde		28	U H	12	100
Caprolactam		28	U H	38	340
Hexachlorocyclopentadiene		28	U H	28	340
2,3,4,6-Tetrachlorophenol		1600	U H	110	1600

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl (Surr)	54		45 - 105
2-Fluorophenol (Surr)	63		35 - 105
Nitrobenzene-d5 (Surr)	60		35 - 100
Terphenyl-d14 (Surr)	78		30 - 125
2,4,6-Tribromophenol (Surr)	48	M	35 - 125
Phenol-d5 (Surr)	64		40 - 100

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0402-01**

Lab Sample ID: 200-11554-4
Client Matrix: Solid
% Moisture: 1.7

Date Sampled: 06/29/2012 0855
Date Received: 06/30/2012 1005

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C/DoD	Analysis Batch:	240-50851	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-49913	Lab File ID:	20716010.D
Dilution:	1.0			Initial Weight/Volume:	30.14 g
Analysis Date:	07/16/2012 1055			Final Weight/Volume:	2 mL
Prep Date:	07/05/2012 1114			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
1,2,4,5-Tetrachlorobenzene		5.4	U	5.4	100
2,4,5-Trichlorophenol		27	U Q	25	150
2,4,6-Trichlorophenol		81	U Q	81	150
2,4-Dichlorophenol		27	U	20	150
2,4-Dimethylphenol		81	U	20	150
2,4-Dinitrophenol		81	U	81	330
2,4-Dinitrotoluene		27	U	27	200
2,6-Dinitrotoluene		27	U	21	200
2-Chloronaphthalene		3.3	U	3.3	51
2-Chlorophenol		27	U	27	51
2-Methylnaphthalene		3.3	U	3.3	6.8
2-Methylphenol		81	U	81	200
2-Nitroaniline		27	U	9.2	200
2-Nitrophenol		27	U	27	51
3 & 4 Methylphenol		81	U	20	400
3,3'-Dichlorobenzidine		81	U	18	100
3-Nitroaniline		81	U	16	200
4,6-Dinitro-2-methylphenol		81	U	81	150
4-Bromophenyl phenyl ether		27	U	13	51
4-Chloro-3-methylphenol		27	U	21	150
4-Chloroaniline		27	U	17	150
4-Chlorophenyl phenyl ether		27	U	13	51
4-Nitroaniline		27	U	26	200
4-Nitrophenol		81	U	81	330
Acenaphthene		3.3	U	3.3	6.8
Acenaphthylene		3.3	U	3.3	6.8
Anthracene		3.3	U	3.3	6.8
Benzo[a]anthracene		3.3	U	3.3	6.8
Benzo[a]pyrene		3.3	U	3.3	6.8
Benzo[b]fluoranthene		3.3	U	3.3	6.8
Benzo[g,h,i]perylene		3.3	U	3.3	6.8
Benzo[k]fluoranthene		3.3	U	3.3	6.8
Bis(2-chloroethoxy)methane		27	U	22	100
Bis(2-chloroethyl)ether		3.3	U	2.0	100
Bis(2-ethylhexyl) phthalate		27	U	19	51
Butyl benzyl phthalate		27	U	10	51
Carbazole		27	U	27	51
Chrysene		3.3	U	1.1	6.8
Dibenz(a,h)anthracene		3.3	U	3.3	6.8
Dibenzofuran		3.3	U	3.3	51
Diethyl phthalate		27	U	16	51
Dimethyl phthalate		27	U	17	51
Di-n-butyl phthalate		27	U	15	51
Di-n-octyl phthalate		27	U	27	51
Fluoranthene		3.3	U	3.3	6.8
Fluorene		3.3	U	3.3	6.8

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0402-01**

Lab Sample ID: 200-11554-4
Client Matrix: Solid
% Moisture: 1.7

Date Sampled: 06/29/2012 0855
Date Received: 06/30/2012 1005

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C/DoD	Analysis Batch:	240-50851	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-49913	Lab File ID:	20716010.D
Dilution:	1.0			Initial Weight/Volume:	30.14 g
Analysis Date:	07/16/2012 1055			Final Weight/Volume:	2 mL
Prep Date:	07/05/2012 1114			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
Hexachlorobenzene		3.3	U	2.1	6.8
Hexachlorobutadiene		27	U	27	51
Hexachloroethane		27	U	9.1	51
Indeno[1,2,3-cd]pyrene		3.3	U	3.3	6.8
Naphthalene		3.3	U	3.3	6.8
Nitrobenzene		3.3	U	2.2	100
N-Nitrosodi-n-propylamine		27	U	27	51
N-Nitrosodiphenylamine		27	U	21	51
Pentachlorophenol		81	U	81	150
Phenanthrene		3.3	U	3.3	6.8
Phenol		27	U	27	51
Pyrene		3.3	U	3.3	6.8
bis (2-chloroisopropyl) ether		27	U	9.6	100
Isophorone		27	U	13	51
1,1'-Biphenyl		27	U	27	51
Acetophenone		27	U	9.3	100
Atrazine		27	U	9.2	200
Benzaldehyde		27	U	12	100
Caprolactam		27	U	37	330
Hexachlorocyclopentadiene		27	U	27	330
2,3,4,6-Tetrachlorophenol		1600	U	110	1600

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl (Surr)	50		45 - 105
2-Fluorophenol (Surr)	66		35 - 105
Nitrobenzene-d5 (Surr)	57		35 - 100
Terphenyl-d14 (Surr)	70		30 - 125
2,4,6-Tribromophenol (Surr)	59		35 - 125
Phenol-d5 (Surr)	66		40 - 100

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0402-01**

Lab Sample ID: 200-11554-4
Client Matrix: Solid
% Moisture: 1.7

Date Sampled: 06/29/2012 0855
Date Received: 06/30/2012 1005

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C/DoD	Analysis Batch:	240-51914	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-50985	Lab File ID:	20725010.D
Dilution:	1.0			Initial Weight/Volume:	30.13 g
Analysis Date:	07/25/2012 1112	Run Type:	RE	Final Weight/Volume:	2 mL
Prep Date:	07/17/2012 0820			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
1,2,4,5-Tetrachlorobenzene		5.4	U H	5.4	100
2,4,5-Trichlorophenol		27	U H	25	150
2,4,6-Trichlorophenol		81	U H	81	150
2,4-Dichlorophenol		27	U H	20	150
2,4-Dimethylphenol		81	U H	20	150
2,4-Dinitrophenol		81	U H J	81	330
2,4-Dinitrotoluene		27	U H	27	200
2,6-Dinitrotoluene		27	U H	21	200
2-Chloronaphthalene		3.3	U H	3.3	51
2-Chlorophenol		27	U H	27	51
2-Methylnaphthalene		3.3	U H	3.3	6.8
2-Methylphenol		81	U H	81	200
2-Nitroaniline		27	U H	9.2	200
2-Nitrophenol		27	U H	27	51
3 & 4 Methylphenol		81	U H	20	410
3,3'-Dichlorobenzidine		81	U H	18	100
3-Nitroaniline		81	U H	16	200
4,6-Dinitro-2-methylphenol		81	U H J	81	150
4-Bromophenyl phenyl ether		27	U H	13	51
4-Chloro-3-methylphenol		27	U H	21	150
4-Chloroaniline		27	U H	17	150
4-Chlorophenyl phenyl ether		27	U H	13	51
4-Nitroaniline		27	U H	26	200
4-Nitrophenol		81	U H	81	330
Acenaphthene		3.3	U H	3.3	6.8
Acenaphthylene		3.3	U H	3.3	6.8
Anthracene		3.3	U H	3.3	6.8
Benzo[a]anthracene		3.3	U H	3.3	6.8
Benzo[a]pyrene		3.3	U H	3.3	6.8
Benzo[b]fluoranthene		3.3	U H	3.3	6.8
Benzo[g,h,i]perylene		3.3	U H	3.3	6.8
Benzo[k]fluoranthene		3.3	U H	3.3	6.8
Bis(2-chloroethoxy)methane		27	U H	22	100
Bis(2-chloroethyl)ether		3.3	U H	2.0	100
Bis(2-ethylhexyl) phthalate		27	U H	19	51
Butyl benzyl phthalate		27	U H	10	51
Carbazole		27	U H	27	51
Chrysene		3.3	U H	1.1	6.8
Dibenz(a,h)anthracene		3.3	U H	3.3	6.8
Dibenzofuran		3.3	U H	3.3	51
Diethyl phthalate		27	U H	16	51
Dimethyl phthalate		27	U H	17	51
Di-n-butyl phthalate		27	U H	15	51
Di-n-octyl phthalate		27	U H	27	51
Fluoranthene		3.3	U H	3.3	6.8
Fluorene		3.3	U H	3.3	6.8

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0402-01**

Lab Sample ID: 200-11554-4
Client Matrix: Solid
% Moisture: 1.7

Date Sampled: 06/29/2012 0855
Date Received: 06/30/2012 1005

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C/DoD	Analysis Batch:	240-51914	Instrument ID:	A4HP9
Prep Method:	3540C	Prep Batch:	240-50985	Lab File ID:	20725010.D
Dilution:	1.0			Initial Weight/Volume:	30.13 g
Analysis Date:	07/25/2012 1112	Run Type:	RE	Final Weight/Volume:	2 mL
Prep Date:	07/17/2012 0820			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
Hexachlorobenzene		3.3	U H	2.1	6.8
Hexachlorobutadiene		27	U H	27	51
Hexachloroethane		27	U H	9.1	51
Indeno[1,2,3-cd]pyrene		3.3	U H	3.3	6.8
Naphthalene		3.3	U H	3.3	6.8
Nitrobenzene		3.3	U H	2.2	100
N-Nitrosodi-n-propylamine		27	U H	27	51
N-Nitrosodiphenylamine		27	U H	21	51
Pentachlorophenol		81	U H	81	150
Phenanthrene		3.3	U H	3.3	6.8
Phenol		27	U H	27	51
Pyrene		3.3	U H	3.3	6.8
bis (2-chloroisopropyl) ether		27	U H	9.6	100
Isophorone		27	U H	13	51
1,1'-Biphenyl		27	U H	27	51
Acetophenone		27	U H	9.3	100
Atrazine		27	U H	9.2	200
Benzaldehyde		27	U H	12	100
Caprolactam		27	U H	37	330
Hexachlorocyclopentadiene		27	U H	27	330
2,3,4,6-Tetrachlorophenol		1600	U H	110	1600

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Fluorobiphenyl (Surr)	61		45 - 105
2-Fluorophenol (Surr)	71		35 - 105
Nitrobenzene-d5 (Surr)	67		35 - 100
Terphenyl-d14 (Surr)	86		30 - 125
2,4,6-Tribromophenol (Surr)	51	M	35 - 125
Phenol-d5 (Surr)	73		40 - 100

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0101-01**

Lab Sample ID: 200-11554-1
Client Matrix: Solid
% Moisture: 4.1

Date Sampled: 06/29/2012 0830
Date Received: 06/30/2012 1005

8081B Organochlorine Pesticides (GC)

Analysis Method:	8081B	Analysis Batch:	200-41698	Instrument ID:	5005.i
Prep Method:	3550C	Prep Batch:	200-41275	Initial Weight/Volume:	29.77 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	07/11/2012 0215			Injection Volume:	1 uL
Prep Date:	07/03/2012 0920			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
alpha-BHC		0.35	U	0.12	1.8
gamma-BHC (Lindane)		0.35	U	0.12	1.8
beta-BHC		0.35	U	0.14	1.8
delta-BHC		0.35	U	0.11	1.8
Heptachlor		0.35	U	0.12	1.8
Aldrin		0.35	U	0.12	1.8
Heptachlor epoxide		0.35	U	0.12	1.8
gamma-Chlordane		0.35	U	0.12	1.8
alpha-Chlordane		0.35	U	0.13	1.8
4,4'-DDE		0.70	U	0.22	3.5
Endosulfan I		0.35	U	0.13	1.8
Dieldrin		0.70	U	0.23	3.5
Endrin		0.70	U	0.24	3.5
4,4'-DDD		0.70	U	0.20	3.5
Endosulfan II		0.70	U	0.23	3.5
4,4'-DDT		0.70	U	0.23	3.5
Endrin aldehyde		0.70	U	0.32	3.5
Methoxychlor		3.5	U	1.2	18
Endosulfan sulfate		0.70	U	0.25	3.5
Endrin ketone		0.70	U	0.22	3.5
Toxaphene		35	U	14	180
Toxaphene Peak 1		35	U	14	180
Toxaphene Peak 2		35	U	14	180
Toxaphene Peak 3		35	U	14	180
Toxaphene Peak 4		35	U	14	180
Toxaphene Peak 5		35	U	14	180

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	91		50 - 120
DCB Decachlorobiphenyl	97		45 - 115

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0101-01**

Lab Sample ID: 200-11554-1
Client Matrix: Solid
% Moisture: 4.1

Date Sampled: 06/29/2012 0830
Date Received: 06/30/2012 1005

8081B Organochlorine Pesticides (GC)

Analysis Method:	8081B	Analysis Batch:	200-41698	Instrument ID:	5005.i
Prep Method:	3550C	Prep Batch:	200-41275	Initial Weight/Volume:	29.77 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	07/11/2012 0215			Injection Volume:	1 uL
Prep Date:	07/03/2012 0920			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	93		50 - 120
DCB Decachlorobiphenyl	100		45 - 115

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0201-01**

Lab Sample ID: 200-11554-2
Client Matrix: Solid
% Moisture: 2.9

Date Sampled: 06/29/2012 0845
Date Received: 06/30/2012 1005

8081B Organochlorine Pesticides (GC)

Analysis Method:	8081B	Analysis Batch:	200-41698	Instrument ID:	5005.i
Prep Method:	3550C	Prep Batch:	200-41275	Initial Weight/Volume:	30.20 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	07/11/2012 0241			Injection Volume:	1 uL
Prep Date:	07/03/2012 0920			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
alpha-BHC		0.34	U	0.11	1.7
gamma-BHC (Lindane)		0.34	U	0.11	1.7
beta-BHC		0.34	U	0.13	1.7
delta-BHC		0.34	U	0.10	1.7
Heptachlor		0.34	U	0.11	1.7
Aldrin		0.34	U	0.11	1.7
Heptachlor epoxide		0.34	U	0.11	1.7
gamma-Chlordane		0.34	U	0.11	1.7
alpha-Chlordane		0.34	U	0.12	1.7
4,4'-DDE		0.69	U	0.21	3.4
Endosulfan I		0.34	U	0.12	1.7
Dieldrin		0.69	U	0.23	3.4
Endrin		0.69	U	0.24	3.4
4,4'-DDD		0.69	U	0.19	3.4
Endosulfan II		0.69	U	0.23	3.4
4,4'-DDT		0.69	U	0.23	3.4
Endrin aldehyde		0.69	U	0.31	3.4
Methoxychlor		3.4	U	1.1	17
Endosulfan sulfate		0.69	U	0.25	3.4
Endrin ketone		0.69	U	0.21	3.4
Toxaphene		34	U	13	170
Toxaphene Peak 1		34	U	13	170
Toxaphene Peak 2		34	U	13	170
Toxaphene Peak 3		34	U	13	170
Toxaphene Peak 4		34	U	13	170
Toxaphene Peak 5		34	U	13	170

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	89		50 - 120
DCB Decachlorobiphenyl	95		45 - 115

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0201-01**

Lab Sample ID: 200-11554-2
Client Matrix: Solid
% Moisture: 2.9

Date Sampled: 06/29/2012 0845
Date Received: 06/30/2012 1005

8081B Organochlorine Pesticides (GC)

Analysis Method:	8081B	Analysis Batch:	200-41698	Instrument ID:	5005.i
Prep Method:	3550C	Prep Batch:	200-41275	Initial Weight/Volume:	30.20 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	07/11/2012 0241			Injection Volume:	1 uL
Prep Date:	07/03/2012 0920			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	92		50 - 120
DCB Decachlorobiphenyl	97		45 - 115

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0302-01**

Lab Sample ID: 200-11554-3
Client Matrix: Solid
% Moisture: 1.3

Date Sampled: 06/29/2012 0844
Date Received: 06/30/2012 1005

8081B Organochlorine Pesticides (GC)

Analysis Method:	8081B	Analysis Batch:	200-41698	Instrument ID:	5005.i
Prep Method:	3550C	Prep Batch:	200-41275	Initial Weight/Volume:	30.00 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	07/11/2012 0306			Injection Volume:	1 uL
Prep Date:	07/03/2012 0920			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
alpha-BHC		0.33	U	0.11	1.7
gamma-BHC (Lindane)		0.33	U	0.11	1.7
beta-BHC		0.33	U	0.13	1.7
delta-BHC		0.33	U	0.10	1.7
Heptachlor		0.33	U	0.11	1.7
Aldrin		0.33	U	0.11	1.7
Heptachlor epoxide		0.33	U	0.11	1.7
gamma-Chlordane		0.33	U	0.11	1.7
alpha-Chlordane		0.33	U	0.12	1.7
4,4'-DDE		0.68	U	0.21	3.3
Endosulfan I		0.33	U	0.12	1.7
Dieldrin		0.68	U	0.22	3.3
Endrin		0.68	U	0.23	3.3
4,4'-DDD		0.68	U	0.19	3.3
Endosulfan II		0.68	U	0.22	3.3
4,4'-DDT		0.68	U	0.22	3.3
Endrin aldehyde		0.68	U	0.30	3.3
Methoxychlor		3.3	U	1.1	17
Endosulfan sulfate		0.68	U	0.24	3.3
Endrin ketone		0.68	U	0.21	3.3
Toxaphene		33	U	13	170
Toxaphene Peak 1		33	U	13	170
Toxaphene Peak 2		33	U	13	170
Toxaphene Peak 3		33	U	13	170
Toxaphene Peak 4		33	U	13	170
Toxaphene Peak 5		33	U	13	170

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	89		50 - 120
DCB Decachlorobiphenyl	97		45 - 115

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0302-01**

Lab Sample ID: 200-11554-3
Client Matrix: Solid
% Moisture: 1.3

Date Sampled: 06/29/2012 0844
Date Received: 06/30/2012 1005

8081B Organochlorine Pesticides (GC)

Analysis Method:	8081B	Analysis Batch:	200-41698	Instrument ID:	5005.i
Prep Method:	3550C	Prep Batch:	200-41275	Initial Weight/Volume:	30.00 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	07/11/2012 0306			Injection Volume:	1 uL
Prep Date:	07/03/2012 0920			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	94		50 - 120
DCB Decachlorobiphenyl	98		45 - 115

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0402-01**

Lab Sample ID: 200-11554-4
Client Matrix: Solid
% Moisture: 1.7

Date Sampled: 06/29/2012 0855
Date Received: 06/30/2012 1005

8081B Organochlorine Pesticides (GC)

Analysis Method:	8081B	Analysis Batch:	200-41698	Instrument ID:	5005.i
Prep Method:	3550C	Prep Batch:	200-41275	Initial Weight/Volume:	30.15 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	07/11/2012 0332			Injection Volume:	1 uL
Prep Date:	07/03/2012 0920			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
alpha-BHC		0.33	U	0.11	1.7
gamma-BHC (Lindane)		0.33	U	0.11	1.7
beta-BHC		0.33	U	0.13	1.7
delta-BHC		0.33	U	0.10	1.7
Heptachlor		0.33	U	0.11	1.7
Aldrin		0.33	U	0.11	1.7
Heptachlor epoxide		0.33	U	0.11	1.7
gamma-Chlordane		0.33	U	0.11	1.7
alpha-Chlordane		0.33	U	0.12	1.7
4,4'-DDE		0.68	U	0.21	3.3
Endosulfan I		0.33	U	0.12	1.7
Dieldrin		0.68	U	0.22	3.3
Endrin		0.68	U	0.23	3.3
4,4'-DDD		0.68	U	0.19	3.3
Endosulfan II		0.68	U	0.22	3.3
4,4'-DDT		0.68	U	0.22	3.3
Endrin aldehyde		0.68	U	0.30	3.3
Methoxychlor		3.3	U	1.1	17
Endosulfan sulfate		0.68	U	0.24	3.3
Endrin ketone		0.68	U	0.21	3.3
Toxaphene		33	U	13	170
Toxaphene Peak 1		33	U	13	170
Toxaphene Peak 2		33	U	13	170
Toxaphene Peak 3		33	U	13	170
Toxaphene Peak 4		33	U	13	170
Toxaphene Peak 5		33	U	13	170

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	88		50 - 120
DCB Decachlorobiphenyl	94		45 - 115

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0402-01**

Lab Sample ID: 200-11554-4
Client Matrix: Solid
% Moisture: 1.7

Date Sampled: 06/29/2012 0855
Date Received: 06/30/2012 1005

8081B Organochlorine Pesticides (GC)

Analysis Method:	8081B	Analysis Batch:	200-41698	Instrument ID:	5005.i
Prep Method:	3550C	Prep Batch:	200-41275	Initial Weight/Volume:	30.15 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	07/11/2012 0332			Injection Volume:	1 uL
Prep Date:	07/03/2012 0920			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	92		50 - 120
DCB Decachlorobiphenyl	94		45 - 115

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0101-01**

Lab Sample ID: 200-11554-1
Client Matrix: Solid
% Moisture: 4.1

Date Sampled: 06/29/2012 0830
Date Received: 06/30/2012 1005

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	200-41409	Instrument ID:	7227.i
Prep Method:	3550C	Prep Batch:	200-41276	Initial Weight/Volume:	29.83 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	07/06/2012 0349			Injection Volume:	1 uL
Prep Date:	07/03/2012 0928			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
PCB-1016		3.5	U	2.4	18
PCB-1221		3.5	U	1.3	18
PCB-1232		3.5	U	2.2	18
PCB-1242		3.5	U	1.5	18
PCB-1248		3.5	U	0.73	18
PCB-1254		3.5	U	3.5	18
PCB-1260		3.5	U	2.3	18
Polychlorinated biphenyls, Total		1.8	U	0.50	18

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	89		30 - 130
DCB Decachlorobiphenyl	95		45 - 125

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0101-01**

Lab Sample ID: 200-11554-1
Client Matrix: Solid
% Moisture: 4.1

Date Sampled: 06/29/2012 0830
Date Received: 06/30/2012 1005

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	200-41409	Instrument ID:	7227.i
Prep Method:	3550C	Prep Batch:	200-41276	Initial Weight/Volume:	29.83 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	07/06/2012 0349			Injection Volume:	1 uL
Prep Date:	07/03/2012 0928			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	93		30 - 130
DCB Decachlorobiphenyl	96		45 - 125

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0201-01**

Lab Sample ID: 200-11554-2
Client Matrix: Solid
% Moisture: 2.9

Date Sampled: 06/29/2012 0845
Date Received: 06/30/2012 1005

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	200-41409	Instrument ID:	7227.i
Prep Method:	3550C	Prep Batch:	200-41276	Initial Weight/Volume:	30.31 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	07/06/2012 0413			Injection Volume:	1 uL
Prep Date:	07/03/2012 0928			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
PCB-1016		3.4	U	2.3	17
PCB-1221		3.4	U	1.2	17
PCB-1232		3.4	U	2.1	17
PCB-1242		3.4	U	1.4	17
PCB-1248		3.4	U	0.71	17
PCB-1254		3.4	U	3.4	17
PCB-1260		3.4	U	2.2	17
Polychlorinated biphenyls, Total		1.7	U	0.49	17

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	99		30 - 130
DCB Decachlorobiphenyl	96		45 - 125

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0201-01**

Lab Sample ID: 200-11554-2
Client Matrix: Solid
% Moisture: 2.9

Date Sampled: 06/29/2012 0845
Date Received: 06/30/2012 1005

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	200-41409	Instrument ID:	7227.i
Prep Method:	3550C	Prep Batch:	200-41276	Initial Weight/Volume:	30.31 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	07/06/2012 0413			Injection Volume:	1 uL
Prep Date:	07/03/2012 0928			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	100		30 - 130
DCB Decachlorobiphenyl	104		45 - 125

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0302-01**

Lab Sample ID: 200-11554-3
Client Matrix: Solid
% Moisture: 1.3

Date Sampled: 06/29/2012 0844
Date Received: 06/30/2012 1005

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	200-41409	Instrument ID:	7227.i
Prep Method:	3550C	Prep Batch:	200-41276	Initial Weight/Volume:	30.34 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	07/06/2012 0438			Injection Volume:	1 uL
Prep Date:	07/03/2012 0928			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
PCB-1016		3.3	U	2.3	17
PCB-1221		3.3	U	1.2	17
PCB-1232		3.3	U	2.1	17
PCB-1242		3.3	U	1.4	17
PCB-1248		3.3	U	0.70	17
PCB-1254		3.3	U	3.3	17
PCB-1260		3.3	U	2.2	17
Polychlorinated biphenyls, Total		1.7	U	0.48	17

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	82		30 - 130
DCB Decachlorobiphenyl	80		45 - 125

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0302-01**

Lab Sample ID: 200-11554-3
Client Matrix: Solid
% Moisture: 1.3

Date Sampled: 06/29/2012 0844
Date Received: 06/30/2012 1005

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	200-41409	Instrument ID:	7227.i
Prep Method:	3550C	Prep Batch:	200-41276	Initial Weight/Volume:	30.34 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	07/06/2012 0438			Injection Volume:	1 uL
Prep Date:	07/03/2012 0928			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	84		30 - 130
DCB Decachlorobiphenyl	87		45 - 125

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0402-01**

Lab Sample ID: 200-11554-4
Client Matrix: Solid
% Moisture: 1.7

Date Sampled: 06/29/2012 0855
Date Received: 06/30/2012 1005

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	200-41409	Instrument ID:	7227.i
Prep Method:	3550C	Prep Batch:	200-41276	Initial Weight/Volume:	29.86 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	07/06/2012 0502			Injection Volume:	1 uL
Prep Date:	07/03/2012 0928			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
PCB-1016		3.4	U	2.4	17
PCB-1221		3.4	U	1.2	17
PCB-1232		3.4	U	2.1	17
PCB-1242		3.4	U	1.4	17
PCB-1248		3.4	U	0.72	17
PCB-1254		3.4	U	3.4	17
PCB-1260		3.4	U	2.2	17
Polychlorinated biphenyls, Total		1.7	U	0.49	17

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	80		30 - 130
DCB Decachlorobiphenyl	82		45 - 125

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0402-01**

Lab Sample ID: 200-11554-4
Client Matrix: Solid
% Moisture: 1.7

Date Sampled: 06/29/2012 0855
Date Received: 06/30/2012 1005

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082A	Analysis Batch:	200-41409	Instrument ID:	7227.i
Prep Method:	3550C	Prep Batch:	200-41276	Initial Weight/Volume:	29.86 g
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	07/06/2012 0502			Injection Volume:	1 uL
Prep Date:	07/03/2012 0928			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
Tetrachloro-m-xylene	81		30 - 130
DCB Decachlorobiphenyl	85		45 - 125

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0101-01**

Lab Sample ID: 200-11554-1
Client Matrix: Solid
% Moisture: 4.1

Date Sampled: 06/29/2012 0830
Date Received: 06/30/2012 1005

8151/DOD Herbicides (GC)

Analysis Method:	8151/DOD	Analysis Batch:	240-50119	Instrument ID:	A2HP1
Prep Method:	8151A	Prep Batch:	240-50002	Initial Weight/Volume:	29.82 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	07/07/2012 1518			Injection Volume:	1 uL
Prep Date:	07/06/2012 0725			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
2,4-D		35	U	20	84
Dalapon		17	U	8.2	42
2,4-DB		35	U	23	84
Dicamba		17	U	8.5	42
Dichlorprop		70	U	38	84
Dinoseb		10	U	10	13
MCPA		3500	U	1700	8400
MCPP		3500	U	1600	8400
Silvex (2,4,5-TP)		8.7	U	4.3	21
2,4,5-T		8.7	U	3.9	21

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	77		19 - 122

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0101-01**

Lab Sample ID: 200-11554-1
Client Matrix: Solid
% Moisture: 4.1

Date Sampled: 06/29/2012 0830
Date Received: 06/30/2012 1005

8151/DOD Herbicides (GC)

Analysis Method:	8151/DOD	Analysis Batch:	240-50119	Instrument ID:	A2HP1
Prep Method:	8151A	Prep Batch:	240-50002	Initial Weight/Volume:	29.82 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	07/07/2012 1518			Injection Volume:	1 uL
Prep Date:	07/06/2012 0725			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	65		19 - 122

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0201-01**

Lab Sample ID: 200-11554-2
Client Matrix: Solid
% Moisture: 2.9

Date Sampled: 06/29/2012 0845
Date Received: 06/30/2012 1005

8151/DOD Herbicides (GC)

Analysis Method:	8151/DOD	Analysis Batch:	240-50119	Instrument ID:	A2HP1
Prep Method:	8151A	Prep Batch:	240-50002	Initial Weight/Volume:	30.11 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	07/07/2012 1542			Injection Volume:	1 uL
Prep Date:	07/06/2012 0725			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
2,4-D		34	U	19	82
Dalapon		58		8.0	41
2,4-DB		34	U	22	82
Dicamba		17	U	8.3	41
Dichlorprop		68	U	38	82
Dinoseb		10	U	10	12
MCPA		3400	U	1700	8200
MCPP		3400	U	1500	8200
Silvex (2,4,5-TP)		8.5	U	4.2	21
2,4,5-T		8.5	U	3.8	21

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	74		19 - 122

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0201-01**

Lab Sample ID: 200-11554-2
Client Matrix: Solid
% Moisture: 2.9

Date Sampled: 06/29/2012 0845
Date Received: 06/30/2012 1005

8151/DOD Herbicides (GC)

Analysis Method:	8151/DOD	Analysis Batch:	240-50119	Instrument ID:	A2HP1
Prep Method:	8151A	Prep Batch:	240-50002	Initial Weight/Volume:	30.11 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	07/07/2012 1542			Injection Volume:	1 uL
Prep Date:	07/06/2012 0725			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	65		19 - 122

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0302-01**

Lab Sample ID: 200-11554-3
Client Matrix: Solid
% Moisture: 1.3

Date Sampled: 06/29/2012 0844
Date Received: 06/30/2012 1005

8151/DOD Herbicides (GC)

Analysis Method:	8151/DOD	Analysis Batch:	240-50119	Instrument ID:	A2HP1
Prep Method:	8151A	Prep Batch:	240-50002	Initial Weight/Volume:	30.09 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	07/07/2012 1606			Injection Volume:	1 uL
Prep Date:	07/06/2012 0725			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
2,4-D		34	U	19	81
Dalapon		17	U	7.9	40
2,4-DB		34	U	22	81
Dicamba		17	U	8.2	40
Dichlorprop		67	U	37	81
Dinoseb		10	U	10	12
MCPA		3400	U	1700	8100
MCPP		3400	U	1500	8100
Silvex (2,4,5-TP)		8.4	U	4.2	20
2,4,5-T		8.4	U	3.8	20

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	67		19 - 122

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0302-01**

Lab Sample ID: 200-11554-3
Client Matrix: Solid
% Moisture: 1.3

Date Sampled: 06/29/2012 0844
Date Received: 06/30/2012 1005

8151/DOD Herbicides (GC)

Analysis Method:	8151/DOD	Analysis Batch:	240-50119	Instrument ID:	A2HP1
Prep Method:	8151A	Prep Batch:	240-50002	Initial Weight/Volume:	30.09 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	07/07/2012 1606			Injection Volume:	1 uL
Prep Date:	07/06/2012 0725			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	63		19 - 122

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0402-01**

Lab Sample ID: 200-11554-4
Client Matrix: Solid
% Moisture: 1.7

Date Sampled: 06/29/2012 0855
Date Received: 06/30/2012 1005

8151/DOD Herbicides (GC)

Analysis Method:	8151/DOD	Analysis Batch:	240-50119	Instrument ID:	A2HP1
Prep Method:	8151A	Prep Batch:	240-50002	Initial Weight/Volume:	29.81 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	07/07/2012 1630			Injection Volume:	1 uL
Prep Date:	07/06/2012 0725			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	DL	LOQ
2,4-D		34	U	19	82
Dalapon		17	U	8.0	41
2,4-DB		34	U	22	82
Dicamba		17	U	8.3	41
Dichlorprop		68	U	37	82
Dinoseb		10	U	10	12
MCPA		3400	U	1700	8200
MCPP		3400	U	1500	8200
Silvex (2,4,5-TP)		8.5	U	4.2	20
2,4,5-T		8.5	U	3.8	20

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	78		19 - 122

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0402-01**

Lab Sample ID: 200-11554-4
Client Matrix: Solid
% Moisture: 1.7

Date Sampled: 06/29/2012 0855
Date Received: 06/30/2012 1005

8151/DOD Herbicides (GC)

Analysis Method:	8151/DOD	Analysis Batch:	240-50119	Instrument ID:	A2HP1
Prep Method:	8151A	Prep Batch:	240-50002	Initial Weight/Volume:	29.81 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	07/07/2012 1630			Injection Volume:	1 uL
Prep Date:	07/06/2012 0725			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4-Dichlorophenylacetic acid	72		19 - 122

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0101-01**

Lab Sample ID: 200-11554-1
Client Matrix: Solid

Date Sampled: 06/29/2012 0830
Date Received: 06/30/2012 1005

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Analysis Method:	8330 Modified	Analysis Batch:	200-41502	Instrument ID:	CH1488
Prep Method:	8330	Prep Batch:	200-41397	Initial Weight/Volume:	9.91 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	07/09/2012 1751			Injection Volume:	450 uL
Prep Date:	07/05/2012 1841			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	87		40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0101-01**

Lab Sample ID: 200-11554-1
Client Matrix: Solid

Date Sampled: 06/29/2012 0830
Date Received: 06/30/2012 1005

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Analysis Method:	8330 Modified	Analysis Batch:	200-41501	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-41397	Initial Weight/Volume:	9.91 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	07/09/2012 1803			Injection Volume:	150 uL
Prep Date:	07/05/2012 1841			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.5	100
RDX		12	U	12	100
1,3,5-Trinitrobenzene		12	U	5.0	100
1,3-Dinitrobenzene		12	U M	6.0	100
Nitrobenzene		30	U	26	100
Tetryl		24	U	15	100
Nitroglycerin		730	U	490	2000
2,4,6-Trinitrotoluene		24	U	17	100
4-Amino-2,6-dinitrotoluene		12	U	8.5	100
2-Amino-4,6-dinitrotoluene		12	U	6.7	100
2,6-Dinitrotoluene		12	U	11	100
2,4-Dinitrotoluene		24	U	15	100
2-Nitrotoluene		24	U	14	100
4-Nitrotoluene		30	U	27	100
3-Nitrotoluene		30	U M	27	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	97		40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0201-01**

Lab Sample ID: 200-11554-2
Client Matrix: Solid

Date Sampled: 06/29/2012 0845
Date Received: 06/30/2012 1005

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Analysis Method:	8330 Modified	Analysis Batch:	200-41502	Instrument ID:	CH1488
Prep Method:	8330	Prep Batch:	200-41397	Initial Weight/Volume:	10.02 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	07/09/2012 1825			Injection Volume:	450 uL
Prep Date:	07/05/2012 1841			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	86		40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0201-01**

Lab Sample ID: 200-11554-2
Client Matrix: Solid

Date Sampled: 06/29/2012 0845
Date Received: 06/30/2012 1005

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Analysis Method:	8330 Modified	Analysis Batch:	200-41501	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-41397	Initial Weight/Volume:	10.02 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	07/09/2012 1840			Injection Volume:	150 uL
Prep Date:	07/05/2012 1841			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.5	100
RDX		12	U	12	100
1,3,5-Trinitrobenzene		12	U	5.0	100
1,3-Dinitrobenzene		12	U	5.9	100
Nitrobenzene		30	U	26	100
Tetryl		24	U	15	100
Nitroglycerin		720	U	480	2000
2,4,6-Trinitrotoluene		24	U	17	100
4-Amino-2,6-dinitrotoluene		12	U	8.4	100
2-Amino-4,6-dinitrotoluene		12	U	6.6	100
2,6-Dinitrotoluene		12	U	11	100
2,4-Dinitrotoluene		24	U	15	100
2-Nitrotoluene		24	U	14	100
4-Nitrotoluene		30	U	27	100
3-Nitrotoluene		30	U	27	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	89		40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0302-01**

Lab Sample ID: 200-11554-3
Client Matrix: Solid

Date Sampled: 06/29/2012 0844
Date Received: 06/30/2012 1005

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Analysis Method:	8330 Modified	Analysis Batch:	200-41502	Instrument ID:	CH1488
Prep Method:	8330	Prep Batch:	200-41397	Initial Weight/Volume:	9.91 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	07/09/2012 1900			Injection Volume:	450 uL
Prep Date:	07/05/2012 1841			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	94		40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0302-01**

Lab Sample ID: 200-11554-3
Client Matrix: Solid

Date Sampled: 06/29/2012 0844
Date Received: 06/30/2012 1005

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Analysis Method:	8330 Modified	Analysis Batch:	200-41501	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-41397	Initial Weight/Volume:	9.91 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	07/09/2012 1918			Injection Volume:	150 uL
Prep Date:	07/05/2012 1841			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.5	100
RDX		12	U	12	100
1,3,5-Trinitrobenzene		12	U	5.0	100
1,3-Dinitrobenzene		12	U	6.0	100
Nitrobenzene		30	U	26	100
Tetryl		24	U	15	100
Nitroglycerin		730	U	490	2000
2,4,6-Trinitrotoluene		24	U	17	100
4-Amino-2,6-dinitrotoluene		12	U	8.5	100
2-Amino-4,6-dinitrotoluene		12	U	6.7	100
2,6-Dinitrotoluene		12	U	11	100
2,4-Dinitrotoluene		24	U	15	100
2-Nitrotoluene		24	U	14	100
4-Nitrotoluene		30	U	27	100
3-Nitrotoluene		30	U	27	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	94		40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0402-01**

Lab Sample ID: 200-11554-4
Client Matrix: Solid

Date Sampled: 06/29/2012 0855
Date Received: 06/30/2012 1005

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Analysis Method:	8330 Modified	Analysis Batch:	200-41502	Instrument ID:	CH1488
Prep Method:	8330	Prep Batch:	200-41397	Initial Weight/Volume:	9.93 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	07/09/2012 1934			Injection Volume:	450 uL
Prep Date:	07/05/2012 1841			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	92		40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0402-01**

Lab Sample ID: 200-11554-4
Client Matrix: Solid

Date Sampled: 06/29/2012 0855
Date Received: 06/30/2012 1005

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Analysis Method:	8330 Modified	Analysis Batch:	200-41501	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-41397	Initial Weight/Volume:	9.93 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	07/09/2012 1955			Injection Volume:	150 uL
Prep Date:	07/05/2012 1841			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.5	100
RDX		12	U	12	100
1,3,5-Trinitrobenzene		12	U	5.0	100
1,3-Dinitrobenzene		12	U M	5.9	100
Nitrobenzene		30	U	26	100
Tetryl		24	U	15	100
Nitroglycerin		730	U	490	2000
2,4,6-Trinitrotoluene		24	U	17	100
4-Amino-2,6-dinitrotoluene		12	U	8.5	100
2-Amino-4,6-dinitrotoluene		12	U	6.6	100
2,6-Dinitrotoluene		12	U	11	100
2,4-Dinitrotoluene		24	U	15	100
2-Nitrotoluene		24	U	14	100
4-Nitrotoluene		30	U	27	100
3-Nitrotoluene		30	U	27	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	94		40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0101-01**

Lab Sample ID: 200-11554-1
Client Matrix: Solid
% Moisture: 4.1

Date Sampled: 06/29/2012 0830
Date Received: 06/30/2012 1005

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	200-41930	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-41429	Lab File ID:	071612-06.ttx
Dilution:	1.0			Initial Weight/Volume:	1.58 g
Analysis Date:	07/17/2012 0623			Final Weight/Volume:	100 mL
Prep Date:	07/06/2012 1000				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		2400		1.8	13
Antimony		0.99	U	0.25	4.0
Arsenic		1.8		0.14	0.66
Barium		4.0	J	0.42	13
Beryllium		0.13	J	0.013	0.33
Cadmium		0.17	U	0.040	0.33
Calcium		420		6.6	330
Chromium		3.5		0.013	0.66
Cobalt		1.1	J	0.040	3.3
Copper		1.1	J	0.11	1.7
Iron		4400		1.5	13
Lead		2.0		0.15	0.66
Magnesium		500		2.3	330
Manganese		49		0.059	0.99
Nickel		2.1	J	0.099	2.6
Potassium		270	J	15	330
Selenium		1.5	U	0.21	2.3
Silver		0.26	U	0.073	0.66
Sodium		19	J	3.4	330
Thallium		0.99	U	0.13	1.7
Vanadium		5.2		0.053	3.3
Zinc		5.7		0.040	1.3

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method:	7471B	Analysis Batch:	200-41691	Instrument ID:	MEPCV3 II
Prep Method:	7471B	Prep Batch:	200-41687	Lab File ID:	071112HH.PRN
Dilution:	1.0			Initial Weight/Volume:	0.34 g
Analysis Date:	07/11/2012 1800			Final Weight/Volume:	50 mL
Prep Date:	07/10/2012 1700				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.011	J	0.0020	0.030

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0201-01**

Lab Sample ID: 200-11554-2
Client Matrix: Solid
% Moisture: 2.9

Date Sampled: 06/29/2012 0845
Date Received: 06/30/2012 1005

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	200-41930	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-41429	Lab File ID:	071612-06.ttx
Dilution:	1.0			Initial Weight/Volume:	1.48 g
Analysis Date:	07/17/2012 0628			Final Weight/Volume:	100 mL
Prep Date:	07/06/2012 1000				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		2900		1.9	14
Antimony		1.0	U	0.26	4.2
Arsenic		2.0		0.15	0.70
Barium		2.6	J	0.44	14
Beryllium		0.10	J	0.014	0.35
Cadmium		0.17	U	0.042	0.35
Calcium		70	J	7.0	350
Chromium		3.9		0.014	0.70
Cobalt		1.0	J	0.042	3.5
Copper		0.82	J	0.11	1.7
Iron		3900		1.6	14
Lead		2.3		0.15	0.70
Magnesium		450		2.4	350
Manganese		26		0.063	1.0
Nickel		2.3	J	0.10	2.8
Potassium		260	J	16	350
Selenium		1.6	U	0.22	2.4
Silver		0.28	U	0.077	0.70
Sodium		9.9	J	3.5	350
Thallium		1.0	U	0.13	1.7
Vanadium		5.3		0.056	3.5
Zinc		4.5		0.042	1.4

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method:	7471B	Analysis Batch:	200-41691	Instrument ID:	MEPCV3 II
Prep Method:	7471B	Prep Batch:	200-41687	Lab File ID:	071112HH.PRN
Dilution:	1.0			Initial Weight/Volume:	0.31 g
Analysis Date:	07/11/2012 1803			Final Weight/Volume:	50 mL
Prep Date:	07/10/2012 1700				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.031	J	0.0022	0.033

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0302-01**

Lab Sample ID: 200-11554-3
Client Matrix: Solid
% Moisture: 1.3

Date Sampled: 06/29/2012 0844
Date Received: 06/30/2012 1005

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	200-41930	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-41429	Lab File ID:	071612-06.ttx
Dilution:	1.0			Initial Weight/Volume:	1.54 g
Analysis Date:	07/17/2012 0648			Final Weight/Volume:	100 mL
Prep Date:	07/06/2012 1000				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		2000		1.8	13
Antimony		0.99	U	0.25	3.9
Arsenic		1.6		0.14	0.66
Barium		3.4	J	0.41	13
Beryllium		0.12	J	0.013	0.33
Cadmium		0.16	U	0.039	0.33
Calcium		81	J	6.6	330
Chromium		3.8		0.013	0.66
Cobalt		1.5	J	0.039	3.3
Copper		1.2	J	0.11	1.6
Iron		3900		1.5	13
Lead		1.7		0.14	0.66
Magnesium		660		2.3	330
Manganese		47		0.059	0.99
Nickel		2.8		0.099	2.6
Potassium		270	J	15	330
Selenium		1.5	U	0.21	2.3
Silver		0.26	U	0.072	0.66
Sodium		9.0	J	3.4	330
Thallium		0.99	U	0.13	1.6
Vanadium		4.7		0.053	3.3
Zinc		6.5		0.039	1.3

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method:	7471B	Analysis Batch:	200-41691	Instrument ID:	MEPCV3 II
Prep Method:	7471B	Prep Batch:	200-41687	Lab File ID:	071112HH.PRN
Dilution:	1.0			Initial Weight/Volume:	0.31 g
Analysis Date:	07/11/2012 1805			Final Weight/Volume:	50 mL
Prep Date:	07/10/2012 1700				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.015	J	0.0022	0.032

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client Sample ID: **NFUDS-001-TP0402-01**

Lab Sample ID: 200-11554-4
Client Matrix: Solid
% Moisture: 1.7

Date Sampled: 06/29/2012 0855
Date Received: 06/30/2012 1005

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	200-41930	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-41429	Lab File ID:	071612-06.ttx
Dilution:	1.0			Initial Weight/Volume:	1.58 g
Analysis Date:	07/17/2012 0654			Final Weight/Volume:	100 mL
Prep Date:	07/06/2012 1000				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		1200	J	1.8	13
Antimony		0.97	U J	0.24	3.9
Arsenic		1.9		0.14	0.64
Barium		2.7	J	0.41	13
Beryllium		0.093	J	0.013	0.32
Cadmium		0.16	U	0.039	0.32
Calcium		46	J	6.4	320
Chromium		2.3		0.013	0.64
Cobalt		0.81	J	0.039	3.2
Copper		0.89	J	0.10	1.6
Iron		2500	J	1.5	13
Lead		1.1	J	0.14	0.64
Magnesium		270	J	2.3	320
Manganese		29	J	0.058	0.97
Nickel		1.5	J	0.097	2.6
Potassium		230	J	15	320
Selenium		1.5	U	0.21	2.3
Silver		0.26	U	0.071	0.64
Sodium		5.9	J	3.3	320
Thallium		0.97	U	0.12	1.6
Vanadium		3.9		0.051	3.2
Zinc		3.6		0.039	1.3

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method:	7471B	Analysis Batch:	200-41691	Instrument ID:	MEPCV3 II
Prep Method:	7471B	Prep Batch:	200-41687	Lab File ID:	071112HH.PRN
Dilution:	1.0			Initial Weight/Volume:	0.37 g
Analysis Date:	07/11/2012 1808			Final Weight/Volume:	50 mL
Prep Date:	07/10/2012 1700				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.0059	J	0.0018	0.027

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

General Chemistry

Client Sample ID: **NFUDS-001-TP0101-01**

Lab Sample ID: 200-11554-1
Client Matrix: Solid

Date Sampled: 06/29/2012 0830
Date Received: 06/30/2012 1005

Analyte	Result	Qual	Units	DL	LOQ	Dil	Method
Percent Solids	96		%	0.25	0.25	1.0	Moisture

Analysis Batch: 200-41363 Analysis Date: 07/05/2012 1058 DryWt Corrected: N

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

General Chemistry

Client Sample ID: **NFUDS-001-TP0201-01**

Lab Sample ID: 200-11554-2
Client Matrix: Solid

Date Sampled: 06/29/2012 0845
Date Received: 06/30/2012 1005

Analyte	Result	Qual	Units	DL	LOQ	Dil	Method
Percent Solids	97		%	0.25	0.25	1.0	Moisture

Analysis Batch: 200-41363 Analysis Date: 07/05/2012 1058 DryWt Corrected: N

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

General Chemistry

Client Sample ID: **NFUDS-001-TP0302-01**

Lab Sample ID: 200-11554-3
Client Matrix: Solid

Date Sampled: 06/29/2012 0844
Date Received: 06/30/2012 1005

Analyte	Result	Qual	Units	DL	LOQ	Dil	Method
Percent Solids	99		%	0.25	0.25	1.0	Moisture

Analysis Batch: 200-41363 Analysis Date: 07/05/2012 1058 DryWt Corrected: N

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

General Chemistry

Client Sample ID: **NFUDS-001-TP0402-01**

Lab Sample ID: 200-11554-4
Client Matrix: Solid

Date Sampled: 06/29/2012 0855
Date Received: 06/30/2012 1005

Analyte	Result	Qual	Units	DL	LOQ	Dil	Method
Percent Solids	98		%	0.25	0.25	1.0	Moisture

Analysis Batch: 200-41363 Analysis Date: 07/05/2012 1058 DryWt Corrected: N

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Surrogate Recovery Report

8260B Volatile Organic Compounds (GC/MS)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	DCA %Rec	TOL %Rec	BFB %Rec	DCZ %Rec
200-11554-1	NFUDS-001-TP0101-01	100	98	107	98
200-11554-2	NFUDS-001-TP0201-01	100	98	104	98
200-11554-3	NFUDS-001-TP0302-01	99	99	111	98
200-11554-4	NFUDS-001-TP0402-01	99	91	96	91
200-11554-5	NFUDS-001-TB01-06	93	95	99	94
MB 200-41675/5		93	94	98	93
LCS 200-41675/3		95	95	97	94

Surrogate	Acceptance Limits
DCA = 1,2-Dichloroethane-d4	65-155
TOL = Toluene-d8	80-115
BFB = Bromofluorobenzene	80-115
DCZ = 1,2-Dichlorobenzene-d4	45-145

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Surrogate Recovery Report

8270C SIM Semivolatile Organic Compounds (GC/MS SIM)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	2MN %Rec	FLR %Rec	FLN %Rec	BAP %Rec
200-11554-1	NFUDS-001-TP0101-01	83	82	86	79
200-11554-1 RE	NFUDS-001-TP0101-01 RE	86	85	89	87
200-11554-2	NFUDS-001-TP0201-01	87	85	89	83
200-11554-2 RE	NFUDS-001-TP0201-01 RE	77	72	75	74
200-11554-3	NFUDS-001-TP0302-01	81	79	84	80
200-11554-3 RE	NFUDS-001-TP0302-01 RE	88	84	87	88
200-11554-4	NFUDS-001-TP0402-01	84	82	86	80
200-11554-4 RE	NFUDS-001-TP0402-01 RE	84	81	84	82
MB 200-41630/1-A		90	89	89	87
MB 200-41970/1-A		90	88	91	90
LCS 200-41630/2-A		89	88	89	84
LCS 200-41970/2-A		88	83	88	84

Surrogate	Acceptance Limits
2MN = 2-Methylnaphthalene-d10	30-120
FLR = Fluorene-d10	30-130
FLN = Fluoranthene-d10	10-165
BAP = Benzo(a)pyrene-d12	20-130

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Surrogate Recovery Report

8081B Organochlorine Pesticides (GC)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	TCX1 %Rec	TCX2 %Rec	DCB1 %Rec	DCB2 %Rec
200-11554-1	NFUDS-001-TP0101-01	91	93	97	100
200-11554-2	NFUDS-001-TP0201-01	89	92	95	97
200-11554-3	NFUDS-001-TP0302-01	89	94	97	98
200-11554-4	NFUDS-001-TP0402-01	88	92	94	94
MB 200-41275/1-C		82	84	91	92
LCS 200-41275/2-C		88	91	99	99

Surrogate	Acceptance Limits
TCX = Tetrachloro-m-xylene	50-120
DCB = DCB Decachlorobiphenyl	45-115

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Surrogate Recovery Report

8082A Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Matrix: Solid

Lab Sample ID	Client Sample ID	TCX1 %Rec	TCX2 %Rec	DCB1 %Rec	DCB2 %Rec
200-11554-1	NFUDS-001-TP0101-01	89	93	95	96
200-11554-2	NFUDS-001-TP0201-01	99	100	96	104
200-11554-3	NFUDS-001-TP0302-01	82	84	80	87
200-11554-4	NFUDS-001-TP0402-01	80	81	82	85
MB 200-41276/1-C		88	91	93	91
LCS 200-41276/2-C		93	95	96	96

Surrogate	Acceptance Limits
TCX = Tetrachloro-m-xylene	30-130
DCB = DCB Decachlorobiphenyl	45-125

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Surrogate Recovery Report

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Client Matrix: Solid

Lab Sample ID	Client Sample ID	12DNB2 %Rec	12DNB1 %Rec
200-11554-1	NFUDS-001-TP0101-01		97
200-11554-1	NFUDS-001-TP0101-01	87	
200-11554-2	NFUDS-001-TP0201-01		89
200-11554-2	NFUDS-001-TP0201-01	86	
200-11554-3	NFUDS-001-TP0302-01		94
200-11554-3	NFUDS-001-TP0302-01	94	
200-11554-4	NFUDS-001-TP0402-01		94
200-11554-4	NFUDS-001-TP0402-01	92	
MB 200-41397/1-A			91
MB 200-41397/1-A		92	
LCS 200-41397/2-A			95
LCS 200-41397/2-A		93	

Surrogate	Acceptance Limits
12DNB = 1,2-Dinitrobenzene	40-140

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Surrogate Recovery Report

8270C/DoD Semivolatile Organic Compounds (GC/MS)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	2FP %Rec	PHL %Rec	NBZ %Rec	FBP %Rec	TBP %Rec	TPH %Rec
200-11554-1	NFUDS-001-TP0101-01	59	62	53	51	66	70
200-11554-1 RE	NFUDS-001-TP0101-01 RE	66	66	61	53	51	75
200-11554-2	NFUDS-001-TP0201-01	59	60M	54M	45M	53M	61M
200-11554-2 RE	NFUDS-001-TP0201-01 RE	77	81	74	66	56	93
200-11554-3	NFUDS-001-TP0302-01	61	64	53	49	59	78
200-11554-3 RE	NFUDS-001-TP0302-01 RE	63	64	60	54	48M	78
200-11554-4	NFUDS-001-TP0402-01	66	66	57	50	59	70
200-11554-4 RE	NFUDS-001-TP0402-01 RE	71	73	67	61	51M	86
MB 240-49913/15-A		63	69	57	53	45	75
MB 240-50985/23-A		71	75	72	61	46M	95
LCS 240-49913/16-A		62	67	58	52	44	74
LCS 240-50985/22-A		73	77	69	63	71	88
200-11554-2 MS	NFUDS-001-TP0201-01 MS	60	64	50	49	64	68
200-11554-4 MS	NFUDS-001-TP0402-01 MS	55	61	56	50	66	86
200-11554-2 MSD	NFUDS-001-TP0201-01 MSD	62	67	53	50	65	70
200-11554-4 MSD	NFUDS-001-TP0402-01 MSD	69	73	63	55	49	82

Surrogate	Acceptance Limits
2FP = 2-Fluorophenol (Surr)	35-105
PHL = Phenol-d5 (Surr)	40-100
NBZ = Nitrobenzene-d5 (Surr)	35-100
FBP = 2-Fluorobiphenyl (Surr)	45-105
TBP = 2,4,6-Tribromophenol (Surr)	35-125
TPH = Terphenyl-d14 (Surr)	30-125

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Surrogate Recovery Report

8151/DOD Herbicides (GC)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	DCPA1 %Rec	DCPA2 %Rec
200-11554-1	NFUDS-001-TP0101-01	65	77
200-11554-2	NFUDS-001-TP0201-01	65	74
200-11554-3	NFUDS-001-TP0302-01	63	67
200-11554-4	NFUDS-001-TP0402-01	72	78
MB 240-50002/9-A		70	77
LCS 240-50002/10-A		86	82
200-11554-1 MS	NFUDS-001-TP0101-01 MS	71	68
200-11554-1 MSD	NFUDS-001-TP0101-01 MSD	79	76

Surrogate	Acceptance Limits
DCPA = 2,4-Dichlorophenylacetic acid	19-122

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Method Blank - Batch: 200-41675

Method: 8260B
Preparation: N/A

Lab Sample ID:	MB 200-41675/5	Analysis Batch:	200-41675	Instrument ID:	N.i
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	ngia05.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 g
Analysis Date:	07/11/2012 0945	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	DL	LOQ
Dichlorodifluoromethane	1.0	U	1.0	5.0
Chloromethane	1.0	U	1.0	5.0
Vinyl chloride	1.0	U	1.0	5.0
Bromomethane	2.5	U	2.5	5.0
Chloroethane	1.0	U	1.0	5.0
Trichlorofluoromethane	1.0	U	1.0	5.0
1,1-Dichloroethene	1.0	U	1.0	5.0
Freon TF	1.0	U	1.0	5.0
Acetone	2.5	U	2.5	5.0
Carbon disulfide	1.0	U	1.0	5.0
Methyl acetate	2.5	U	2.5	5.0
Methylene Chloride	1.0	U	1.0	5.0
trans-1,2-Dichloroethene	1.0	U	1.0	5.0
Methyl t-butyl ether	1.0	U	1.0	5.0
1,1-Dichloroethane	1.0	U	1.0	5.0
cis-1,2-Dichloroethene	1.0	U	1.0	5.0
2-Butanone	2.5	U	2.5	5.0
Bromochloromethane	1.0	U	1.0	5.0
Chloroform	1.0	U	1.0	5.0
1,1,1-Trichloroethane	1.0	U	1.0	5.0
Cyclohexane	1.0	U	1.0	5.0
Carbon tetrachloride	1.0	U	1.0	5.0
Benzene	1.0	U	1.0	5.0
1,2-Dichloroethane	1.0	U	1.0	5.0
Trichloroethene	1.0	U	1.0	5.0
Methylcyclohexane	1.0	U	1.0	5.0
1,2-Dichloropropane	1.0	U	1.0	5.0
1,4-Dioxane	50	U	50	250
Bromodichloromethane	1.0	U	1.0	5.0
cis-1,3-Dichloropropene	1.0	U	1.0	5.0
4-Methyl-2-pentanone	1.0	U	1.0	5.0
Toluene	0.274	J	0.25	5.0
trans-1,3-Dichloropropene	1.0	U	1.0	5.0
1,1,2-Trichloroethane	1.0	U	1.0	5.0
Tetrachloroethene	0.25	U	0.25	5.0
2-Hexanone	1.0	U	1.0	5.0
Dibromochloromethane	1.0	U	1.0	5.0
1,2-Dibromoethane	1.0	U	1.0	5.0
Chlorobenzene	0.50	U	0.50	5.0
Ethylbenzene	0.25	U	0.25	5.0
m&p-Xylene	1.0	U	1.0	5.0
o-Xylene	0.25	U	0.25	5.0
Xylenes, Total	0.25	U	0.25	5.0
Styrene	0.25	U	0.25	5.0
Bromoform	1.0	U	1.0	5.0

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Method Blank - Batch: 200-41675

Method: 8260B
Preparation: N/A

Lab Sample ID:	MB 200-41675/5	Analysis Batch:	200-41675	Instrument ID:	N.i
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	ngia05.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 g
Analysis Date:	07/11/2012 0945	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	DL	LOQ
Isopropylbenzene	1.0	U	1.0	5.0
1,1,2,2-Tetrachloroethane	1.0	U	1.0	5.0
1,3-Dichlorobenzene	0.11	U	0.11	5.0
1,4-Dichlorobenzene	0.25	U	0.25	5.0
1,2-Dichlorobenzene	0.25	U	0.25	5.0
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	5.0
1,2,4-Trichlorobenzene	1.0	U	1.0	5.0
1,2,3-Trichlorobenzene	1.0	U	1.0	5.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4	93	65 - 155
Toluene-d8	94	80 - 115
Bromofluorobenzene	98	80 - 115
1,2-Dichlorobenzene-d4	93	45 - 145

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Lab Control Sample - Batch: 200-41675

Method: 8260B
Preparation: N/A

Lab Sample ID:	LCS 200-41675/3	Analysis Batch:	200-41675	Instrument ID:	N.i
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	ngia03.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 g
Analysis Date:	07/11/2012 0844	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Dichlorodifluoromethane	50.0	40.4	81	30 - 180	M
Chloromethane	50.0	41.2	82	55 - 150	
Vinyl chloride	50.0	50.1	100	65 - 145	
Bromomethane	50.0	40.5	81	65 - 145	M
Chloroethane	50.0	45.8	92	70 - 135	
Trichlorofluoromethane	50.0	47.8	96	70 - 140	
1,1-Dichloroethene	50.0	51.6	103	75 - 135	
Freon TF	50.0	44.1	88	75 - 140	
Acetone	125	114	91	50 - 130	
Carbon disulfide	50.0	42.1	84	80 - 135	
Methyl acetate	50.0	44.9	90	60 - 140	
Methylene Chloride	50.0	49.7	99	75 - 140	
trans-1,2-Dichloroethene	50.0	51.3	103	80 - 130	
Methyl t-butyl ether	50.0	47.5	95	85 - 130	
1,1-Dichloroethane	50.0	49.0	98	85 - 120	
cis-1,2-Dichloroethene	50.0	50.5	101	80 - 120	
2-Butanone	125	120	96	70 - 135	
Bromochloromethane	50.0	51.5	103	75 - 125	
Chloroform	50.0	49.9	100	85 - 120	
1,1,1-Trichloroethane	50.0	49.8	100	80 - 115	
Cyclohexane	50.0	48.8	98	60 - 140	
Carbon tetrachloride	50.0	49.8	100	80 - 115	
Benzene	50.0	51.0	102	85 - 120	
1,2-Dichloroethane	50.0	49.2	98	75 - 120	
Trichloroethene	50.0	50.9	102	85 - 120	
Methylcyclohexane	50.0	50.5	101	60 - 140	
1,2-Dichloropropane	50.0	49.4	99	85 - 120	
1,4-Dioxane	2500	2440	97	50 - 160	
Bromodichloromethane	50.0	48.9	98	80 - 115	
cis-1,3-Dichloropropene	50.0	52.4	105	85 - 120	
4-Methyl-2-pentanone	125	124	99	65 - 135	
Toluene	50.0	51.1	102	75 - 125	
trans-1,3-Dichloropropene	50.0	51.5	103	85 - 120	
1,1,2-Trichloroethane	50.0	48.9	98	75 - 125	
Tetrachloroethene	50.0	51.7	103	85 - 120	
2-Hexanone	125	125	100	70 - 135	
Dibromochloromethane	50.0	50.2	100	80 - 120	
1,2-Dibromoethane	50.0	49.6	99	80 - 120	
Chlorobenzene	50.0	51.3	103	80 - 120	
Ethylbenzene	50.0	50.9	102	80 - 120	
m&p-Xylene	100	104	104	80 - 120	
o-Xylene	50.0	50.5	101	85 - 120	
Styrene	50.0	51.4	103	80 - 125	
Bromoform	50.0	49.8	100	75 - 130	
Isopropylbenzene	50.0	49.3	99	85 - 120	
1,1,2,2-Tetrachloroethane	50.0	47.7	95	75 - 125	

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Lab Control Sample - Batch: 200-41675

Method: 8260B
Preparation: N/A

Lab Sample ID:	LCS 200-41675/3	Analysis Batch:	200-41675	Instrument ID:	N.i
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	ngia03.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 g
Analysis Date:	07/11/2012 0844	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,3-Dichlorobenzene	50.0	50.5	101	80 - 120	
1,4-Dichlorobenzene	50.0	50.5	101	85 - 120	
1,2-Dichlorobenzene	50.0	50.8	102	85 - 120	
1,2-Dibromo-3-Chloropropane	50.0	46.7	93	65 - 130	
1,2,4-Trichlorobenzene	50.0	50.8	102	80 - 125	
1,2,3-Trichlorobenzene	50.0	52.1	104	70 - 125	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4	95	65 - 155
Toluene-d8	95	80 - 115
Bromofluorobenzene	97	80 - 115
1,2-Dichlorobenzene-d4	94	45 - 145

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Method Blank - Batch: 200-41630

Method: 8270C SIM
Preparation: 3550C

Lab Sample ID:	MB 200-41630/1-A	Analysis Batch:	200-42145	Instrument ID:	Z.i
Client Matrix:	Solid	Prep Batch:	200-41630	Lab File ID:	zywa04.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.57 g
Analysis Date:	07/16/2012 1726	Units:	ug/Kg	Final Weight/Volume:	1000 uL
Prep Date:	07/11/2012 0848			Injection Volume:	2 uL
Leach Date:	N/A				

Analyte	Result	Qual	DL	LOQ
Naphthalene	1.42		0.056	0.66
2-Methylnaphthalene	1.21		0.054	0.66
Acenaphthylene	1.21		0.052	0.66
Acenaphthene	1.17		0.052	0.66
Fluorene	1.20		0.054	0.66
Phenanthrene	1.20		0.069	0.66
Anthracene	1.07		0.052	0.66
Fluoranthene	1.20		0.060	0.66
Pyrene	1.16		0.036	0.66
Benzo[a]anthracene	1.18		0.047	0.66
Chrysene	1.09		0.056	0.66
Benzo[b]fluoranthene	1.11		0.046	0.66
Benzo[k]fluoranthene	1.07		0.056	0.66
Benzo[a]pyrene	1.10		0.046	0.66
Indeno[1,2,3-cd]pyrene	1.01		0.076	0.66
Dibenz(a,h)anthracene	0.984		0.056	0.66
Benzo[g,h,i]perylene	1.01		0.089	0.66

Surrogate	% Rec	Acceptance Limits
2-Methylnaphthalene-d10	90	30 - 120
Fluorene-d10	89	30 - 130
Fluoranthene-d10	89	10 - 165
Benzo(a)pyrene-d12	87	20 - 130

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Lab Control Sample - Batch: 200-41630

Method: 8270C SIM
Preparation: 3550C

Lab Sample ID:	LCS 200-41630/2-A	Analysis Batch:	200-42145	Instrument ID:	Z.i
Client Matrix:	Solid	Prep Batch:	200-41630	Lab File ID:	zywa03.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.81 g
Analysis Date:	07/16/2012 1647	Units:	ug/Kg	Final Weight/Volume:	1000 uL
Prep Date:	07/11/2012 0848			Injection Volume:	2 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Naphthalene	13.0	10.6	81	30 - 130	
2-Methylnaphthalene	13.0	10.3	79	30 - 135	
Acenaphthylene	13.0	11.5	88	30 - 130	
Acenaphthene	13.0	10.7	83	30 - 130	
Fluorene	13.0	11.0	85	35 - 130	
Phenanthrene	13.0	10.5	81	35 - 130	
Anthracene	13.0	10.6	82	35 - 135	
Fluoranthene	13.0	10.5	81	35 - 140	
Pyrene	13.0	10.2	79	20 - 155	
Benzo[a]anthracene	13.0	11.4	88	35 - 150	
Chrysene	13.0	9.91	76	40 - 125	
Benzo[b]fluoranthene	13.0	10.8	83	40 - 135	
Benzo[k]fluoranthene	13.0	10.5	81	35 - 130	
Benzo[a]pyrene	13.0	10.3	79	35 - 135	
Indeno[1,2,3-cd]pyrene	13.0	10.9	84	20 - 140	
Dibenz(a,h)anthracene	13.0	9.32	72	20 - 145	
Benzo[g,h,i]perylene	13.0	9.60	74	20 - 135	

Surrogate	% Rec	Acceptance Limits
2-Methylnaphthalene-d10	89	30 - 120
Fluorene-d10	88	30 - 130
Fluoranthene-d10	89	10 - 165
Benzo(a)pyrene-d12	84	20 - 130

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Method Blank - Batch: 200-41970

Method: 8270C SIM
Preparation: 3550C

Lab Sample ID:	MB 200-41970/1-A	Analysis Batch:	200-42148	Instrument ID:	Z.i
Client Matrix:	Solid	Prep Batch:	200-41970	Lab File ID:	zywb06.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.00 g
Analysis Date:	07/19/2012 1715	Units:	ug/Kg	Final Weight/Volume:	1000 uL
Prep Date:	07/17/2012 1723			Injection Volume:	2 uL
Leach Date:	N/A				

Analyte	Result	Qual	DL	LOQ
Naphthalene	0.083	U	0.057	0.67
2-Methylnaphthalene	0.083	U	0.055	0.67
Acenaphthylene	0.083	U	0.053	0.67
Acenaphthene	0.083	U	0.053	0.67
Fluorene	0.083	U	0.055	0.67
Phenanthrene	0.083	U	0.070	0.67
Anthracene	0.083	U	0.053	0.67
Fluoranthene	0.248	J	0.061	0.67
Pyrene	0.688		0.037	0.67
Benzo[a]anthracene	0.083	U	0.048	0.67
Chrysene	0.083	U	0.057	0.67
Benzo[b]fluoranthene	0.083	U	0.047	0.67
Benzo[k]fluoranthene	0.083	U	0.057	0.67
Benzo[a]pyrene	0.083	U	0.047	0.67
Indeno[1,2,3-cd]pyrene	0.083	U	0.077	0.67
Dibenz(a,h)anthracene	0.17	U	0.057	0.67
Benzo[g,h,i]perylene	0.17	U	0.091	0.67

Surrogate	% Rec	Acceptance Limits
2-Methylnaphthalene-d10	90	30 - 120
Fluorene-d10	88	30 - 130
Fluoranthene-d10	91	10 - 165
Benzo(a)pyrene-d12	90	20 - 130

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Lab Control Sample - Batch: 200-41970

Method: 8270C SIM
Preparation: 3550C

Lab Sample ID:	LCS 200-41970/2-A	Analysis Batch:	200-42148	Instrument ID:	Z.i
Client Matrix:	Solid	Prep Batch:	200-41970	Lab File ID:	zywb04.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.00 g
Analysis Date:	07/19/2012 1557	Units:	ug/Kg	Final Weight/Volume:	1000 uL
Prep Date:	07/17/2012 1723			Injection Volume:	2 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Naphthalene	13.3	11.1	84	30 - 130	
2-Methylnaphthalene	13.3	12.1	91	30 - 135	
Acenaphthylene	13.3	12.1	91	30 - 130	
Acenaphthene	13.3	11.2	84	30 - 130	
Fluorene	13.3	11.5	86	35 - 130	
Phenanthrene	13.3	10.9	82	35 - 130	
Anthracene	13.3	11.2	84	35 - 135	
Fluoranthene	13.3	11.4	86	35 - 140	
Pyrene	13.3	11.0	82	20 - 155	
Benzo[a]anthracene	13.3	12.7	95	35 - 150	
Chrysene	13.3	10.3	77	40 - 125	
Benzo[b]fluoranthene	13.3	13.0	97	40 - 135	
Benzo[k]fluoranthene	13.3	10.6	79	35 - 130	
Benzo[a]pyrene	13.3	11.1	84	35 - 135	
Indeno[1,2,3-cd]pyrene	13.3	8.46	63	20 - 140	
Dibenz(a,h)anthracene	13.3	7.32	55	20 - 145	
Benzo[g,h,i]perylene	13.3	6.10	46	20 - 135	

Surrogate	% Rec	Acceptance Limits
2-Methylnaphthalene-d10	88	30 - 120
Fluorene-d10	83	30 - 130
Fluoranthene-d10	88	10 - 165
Benzo(a)pyrene-d12	84	20 - 130

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Method Blank - Batch: 240-49913

Method: 8270C/DoD
Preparation: 3540C

Lab Sample ID:	MB 240-49913/15-A	Analysis Batch:	240-50851	Instrument ID:	A4HP9
Client Matrix:	Solid	Prep Batch:	240-49913	Lab File ID:	20716005.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.00 g
Analysis Date:	07/16/2012 0917	Units:	ug/Kg	Final Weight/Volume:	2 mL
Prep Date:	07/05/2012 1114			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	DL	LOQ
1,2,4,5-Tetrachlorobenzene	5.3	U	5.3	100
2,4,5-Trichlorophenol	27	U	25	150
2,4,6-Trichlorophenol	80	U	80	150
2,4-Dichlorophenol	27	U	20	150
2,4-Dimethylphenol	80	U	20	150
2,4-Dinitrophenol	80	U	80	330
2,4-Dinitrotoluene	27	U	27	200
2,6-Dinitrotoluene	27	U	21	200
2-Chloronaphthalene	3.3	U	3.3	50
2-Chlorophenol	27	U	27	50
2-Methylnaphthalene	3.3	U	3.3	6.7
2-Methylphenol	80	U	80	200
2-Nitroaniline	27	U	9.1	200
2-Nitrophenol	27	U	27	50
3 & 4 Methylphenol	80	U	20	400
3,3'-Dichlorobenzidine	80	U	18	100
3-Nitroaniline	80	U	16	200
4,6-Dinitro-2-methylphenol	80	U	80	150
4-Bromophenyl phenyl ether	27	U	13	50
4-Chloro-3-methylphenol	27	U	21	150
4-Chloroaniline	27	U	17	150
4-Chlorophenyl phenyl ether	27	U	13	50
4-Nitroaniline	27	U	26	200
4-Nitrophenol	80	U	80	330
Acenaphthene	3.3	U	3.3	6.7
Acenaphthylene	3.3	U	3.3	6.7
Anthracene	3.3	U	3.3	6.7
Benzo[a]anthracene	3.3	U	3.3	6.7
Benzo[a]pyrene	3.3	U	3.3	6.7
Benzo[b]fluoranthene	3.3	U	3.3	6.7
Benzo[g,h,i]perylene	3.3	U	3.3	6.7
Benzo[k]fluoranthene	3.3	U	3.3	6.7
Bis(2-chloroethoxy)methane	27	U	22	100
Bis(2-chloroethyl)ether	3.3	U	2.0	100
Bis(2-ethylhexyl) phthalate	27	U	19	50
Butyl benzyl phthalate	27	U	10	50
Carbazole	27	U	27	50
Chrysene	3.3	U	1.1	6.7
Dibenz(a,h)anthracene	3.3	U	3.3	6.7
Dibenzofuran	3.3	U	3.3	50
Diethyl phthalate	27	U	16	50
Dimethyl phthalate	27	U	17	50
Di-n-butyl phthalate	31.7	J	15	50
Di-n-octyl phthalate	27	U	27	50
Fluoranthene	3.3	U	3.3	6.7

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Method Blank - Batch: 240-49913

Method: 8270C/DoD
Preparation: 3540C

Lab Sample ID:	MB 240-49913/15-A	Analysis Batch:	240-50851	Instrument ID:	A4HP9
Client Matrix:	Solid	Prep Batch:	240-49913	Lab File ID:	20716005.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.00 g
Analysis Date:	07/16/2012 0917	Units:	ug/Kg	Final Weight/Volume:	2 mL
Prep Date:	07/05/2012 1114			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	DL	LOQ
Fluorene	3.3	U	3.3	6.7
Hexachlorobenzene	3.3	U	2.1	6.7
Hexachlorobutadiene	27	U	27	50
Hexachloroethane	27	U	9.0	50
Indeno[1,2,3-cd]pyrene	3.3	U	3.3	6.7
Naphthalene	3.3	U	3.3	6.7
Nitrobenzene	3.3	U	2.2	100
N-Nitrosodi-n-propylamine	27	U	27	50
N-Nitrosodiphenylamine	27	U	21	50
Pentachlorophenol	80	U	80	150
Phenanthrene	3.3	U	3.3	6.7
Phenol	29.5	J	27	50
Pyrene	3.3	U	3.3	6.7
bis (2-chloroisopropyl) ether	27	U	9.5	100
Isophorone	27	U	13	50
1,1'-Biphenyl	27	U	27	50
Acetophenone	27	U	9.2	100
Atrazine	27	U	9.1	200
Benzaldehyde	27	U	12	100
Caprolactam	27	U	37	330
Hexachlorocyclopentadiene	27	U	27	330
2,3,4,6-Tetrachlorophenol	1600	U	110	1600

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl (Surr)	53	45 - 105
2-Fluorophenol (Surr)	63	35 - 105
Nitrobenzene-d5 (Surr)	57	35 - 100
Terphenyl-d14 (Surr)	75	30 - 125
2,4,6-Tribromophenol (Surr)	45	35 - 125
Phenol-d5 (Surr)	69	40 - 100

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Lab Control Sample - Batch: 240-49913

Method: 8270C/DoD
Preparation: 3540C

Lab Sample ID:	LCS 240-49913/16-A	Analysis Batch:	240-50851	Instrument ID:	A4HP9
Client Matrix:	Solid	Prep Batch:	240-49913	Lab File ID:	20716006.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.00 g
Analysis Date:	07/16/2012 0937	Units:	ug/Kg	Final Weight/Volume:	2 mL
Prep Date:	07/05/2012 1114			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4,5-Trichlorophenol	667	329	49	50 - 110	Q
2,4,6-Trichlorophenol	667	277	42	45 - 110	Q
2,4-Dichlorophenol	667	418	63	45 - 110	
2,4-Dimethylphenol	667	408	61	30 - 105	
2,4-Dinitrophenol	667	316	47	15 - 130	J
2,4-Dinitrotoluene	667	432	65	50 - 115	
2,6-Dinitrotoluene	667	423	63	50 - 110	
2-Chloronaphthalene	667	369	55	45 - 105	
2-Chlorophenol	667	411	62	45 - 105	
2-Methylnaphthalene	667	427	64	45 - 105	
2-Methylphenol	667	427	64	40 - 105	
2-Nitroaniline	667	506	76	45 - 120	
2-Nitrophenol	667	403	60	40 - 110	
3 & 4 Methylphenol	1330	913	69	40 - 105	
3,3'-Dichlorobenzidine	667	341	51	10 - 130	
3-Nitroaniline	667	433	65	25 - 110	
4,6-Dinitro-2-methylphenol	667	408	61	30 - 135	
4-Bromophenyl phenyl ether	667	388	58	45 - 115	
4-Chloro-3-methylphenol	667	481	72	45 - 115	
4-Chloroaniline	667	348	52	10 - 110	
4-Chlorophenyl phenyl ether	667	381	57	45 - 110	
4-Nitroaniline	667	467	70	35 - 115	
4-Nitrophenol	667	426	64	15 - 140	
Acenaphthene	667	407	61	45 - 110	
Acenaphthylene	667	424	64	45 - 105	
Anthracene	667	462	69	55 - 105	
Benzo[a]anthracene	667	475	71	50 - 110	
Benzo[a]pyrene	667	452	68	50 - 110	
Benzo[b]fluoranthene	667	464	70	45 - 115	
Benzo[g,h,i]perylene	667	505	76	40 - 125	
Benzo[k]fluoranthene	667	518	78	45 - 125	
Bis(2-chloroethoxy)methane	667	390	58	45 - 110	
Bis(2-chloroethyl)ether	667	383	57	40 - 105	
Bis(2-ethylhexyl) phthalate	667	513	77	45 - 125	
Butyl benzyl phthalate	667	497	74	50 - 125	
Carbazole	667	501	75	45 - 115	
Chrysene	667	485	73	55 - 110	
Dibenz(a,h)anthracene	667	514	77	40 - 125	
Dibenzofuran	667	437	66	50 - 105	
Diethyl phthalate	667	479	72	50 - 115	
Dimethyl phthalate	667	481	72	50 - 110	
Di-n-butyl phthalate	667	509	76	55 - 110	
Di-n-octyl phthalate	667	513	77	40 - 130	
Fluoranthene	667	489	73	55 - 115	
Fluorene	667	447	67	50 - 110	
Hexachlorobenzene	667	439	66	45 - 120	

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Lab Control Sample - Batch: 240-49913

Method: 8270C/DoD
Preparation: 3540C

Lab Sample ID:	LCS 240-49913/16-A	Analysis Batch:	240-50851	Instrument ID:	A4HP9
Client Matrix:	Solid	Prep Batch:	240-49913	Lab File ID:	20716006.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.00 g
Analysis Date:	07/16/2012 0937	Units:	ug/Kg	Final Weight/Volume:	2 mL
Prep Date:	07/05/2012 1114			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Hexachlorobutadiene	667	363	54	40 - 115	
Hexachloroethane	667	365	55	35 - 110	
Indeno[1,2,3-cd]pyrene	667	495	74	40 - 120	
Naphthalene	667	423	63	40 - 105	
Nitrobenzene	667	408	61	40 - 115	
N-Nitrosodi-n-propylamine	667	452	68	40 - 115	
N-Nitrosodiphenylamine	667	449	67	50 - 115	
Pentachlorophenol	667	334	50	25 - 120	
Phenanthrene	667	465	70	50 - 110	
Phenol	667	461	69	40 - 100	
Pyrene	667	481	72	45 - 125	
bis (2-chloroisopropyl) ether	667	401	60	20 - 115	
Isophorone	667	455	68	45 - 110	

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl (Surr)	52	45 - 105
2-Fluorophenol (Surr)	62	35 - 105
Nitrobenzene-d5 (Surr)	58	35 - 100
Terphenyl-d14 (Surr)	74	30 - 125
2,4,6-Tribromophenol (Surr)	44	35 - 125
Phenol-d5 (Surr)	67	40 - 100

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-49913

Method: 8270C/DoD
Preparation: 3540C

MS Lab Sample ID:	200-11554-2	Analysis Batch:	240-50851	Instrument ID:	A4HP9
Client Matrix:	Solid	Prep Batch:	240-49913	Lab File ID:	20716013.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	29.85 g
Analysis Date:	07/16/2012 1154			Final Weight/Volume:	2 mL
Prep Date:	07/05/2012 1114			Injection Volume:	1 uL
Leach Date:	N/A				

MSD Lab Sample ID:	200-11554-2	Analysis Batch:	240-50851	Instrument ID:	A4HP9
Client Matrix:	Solid	Prep Batch:	240-49913	Lab File ID:	20716014.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	29.94 g
Analysis Date:	07/16/2012 1213			Final Weight/Volume:	2 mL
Prep Date:	07/05/2012 1114			Injection Volume:	1 uL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
2,4,5-Trichlorophenol	67	63	50 - 110	6	30		
2,4,6-Trichlorophenol	63	63	45 - 110	0	30		
2,4-Dichlorophenol	62	63	45 - 110	2	30		
2,4-Dimethylphenol	62	63	30 - 105	2	30		
2,4-Dinitrophenol	52	28	15 - 130	59	30		J
2,4-Dinitrotoluene	62	64	50 - 115	2	30		
2,6-Dinitrotoluene	59	63	50 - 110	7	30		
2-Chloronaphthalene	52	54	45 - 105	3	30		
2-Chlorophenol	61	64	45 - 105	6	30		
2-Methylnaphthalene	59	61	45 - 105	5	30		
2-Methylphenol	67	70	40 - 105	4	30		
2-Nitroaniline	76	77	45 - 120	1	30		
2-Nitrophenol	57	62	40 - 110	8	30		
3 & 4 Methylphenol	67	70	40 - 105	4	30		
3,3'-Dichlorobenzidine	13	8	10 - 130	53	30	J	J
3-Nitroaniline	60	55	25 - 110	9	30		
4,6-Dinitro-2-methylphenol	57	50	30 - 135	14	30		
4-Bromophenyl phenyl ether	58	57	45 - 115	2	30		
4-Chloro-3-methylphenol	70	73	45 - 115	3	30		
4-Chloroaniline	47	40	10 - 95	16	30		
4-Chlorophenyl phenyl ether	56	56	45 - 110	1	30		
4-Nitroaniline	60	54	35 - 115	12	30		
4-Nitrophenol	72	64	15 - 140	12	30		
Acenaphthene	60	61	45 - 110	2	30		
Acenaphthylene	62	63	45 - 105	1	30		
Anthracene	66	67	55 - 105	1	30		
Benzo[a]anthracene	66	67	50 - 110	2	30		
Benzo[a]pyrene	61	64	50 - 110	4	30		
Benzo[b]fluoranthene	66	76	45 - 115	14	30		
Benzo[g,h,i]perylene	69	72	40 - 125	3	30		
Benzo[k]fluoranthene	71	72	45 - 125	2	30		
Bis(2-chloroethoxy)methane	53	57	45 - 110	7	30		
Bis(2-chloroethyl)ether	55	59	40 - 105	8	30		

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-49913

Method: 8270C/DoD
Preparation: 3540C

MS Lab Sample ID:	200-11554-2	Analysis Batch:	240-50851	Instrument ID:	A4HP9
Client Matrix:	Solid	Prep Batch:	240-49913	Lab File ID:	20716013.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	29.85 g
Analysis Date:	07/16/2012 1154			Final Weight/Volume:	2 mL
Prep Date:	07/05/2012 1114			Injection Volume:	1 uL
Leach Date:	N/A				

MSD Lab Sample ID:	200-11554-2	Analysis Batch:	240-50851	Instrument ID:	A4HP9
Client Matrix:	Solid	Prep Batch:	240-49913	Lab File ID:	20716014.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	29.94 g
Analysis Date:	07/16/2012 1213			Final Weight/Volume:	2 mL
Prep Date:	07/05/2012 1114			Injection Volume:	1 uL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Bis(2-ethylhexyl) phthalate	69	71	45 - 125	3	30		
Butyl benzyl phthalate	71	75	50 - 125	5	30		
Carbazole	71	70	45 - 115	1	30		
Chrysene	69	70	55 - 110	0	30		
Dibenz(a,h)anthracene	72	77	40 - 125	7	30		
Dibenzofuran	63	65	50 - 105	3	30		
Diethyl phthalate	71	73	50 - 115	2	30		
Dimethyl phthalate	68	67	50 - 110	1	30		
Di-n-butyl phthalate	69	73	55 - 110	5	30		
Di-n-octyl phthalate	74	81	40 - 130	9	30		
Fluoranthene	70	70	55 - 115	0	30		
Fluorene	66	66	50 - 110	0	30		
Hexachlorobenzene	64	65	45 - 120	1	30		
Hexachlorobutadiene	47	51	40 - 115	9	30		
Hexachloroethane	51	55	35 - 110	7	30		
Indeno[1,2,3-cd]pyrene	70	75	40 - 120	7	30		
Naphthalene	57	59	40 - 105	3	30		
Nitrobenzene	55	57	40 - 115	4	30		
N-Nitrosodi-n-propylamine	66	70	40 - 115	6	30		
N-Nitrosodiphenylamine	64	66	50 - 115	3	30		
Pentachlorophenol	38	36	25 - 120	8	30		M
Phenanthrene	67	68	50 - 110	1	30		
Phenol	61	67	40 - 100	9	30		
Pyrene	69	70	45 - 125	1	30		
bis (2-chloroisopropyl) ether	58	62	20 - 115	5	30		
Isophorone	62	65	45 - 110	4	30		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
2-Fluorobiphenyl (Surr)	49	50	45 - 105
2-Fluorophenol (Surr)	60	62	35 - 105
Nitrobenzene-d5 (Surr)	50	53	35 - 100
Terphenyl-d14 (Surr)	68	70	30 - 125
2,4,6-Tribromophenol (Surr)	64	65	35 - 125
Phenol-d5 (Surr)	64	67	40 - 100

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-49913

Method: 8270C/DoD
Preparation: 3540C

MS Lab Sample ID:	200-11554-2	Units: ug/Kg		MSD Lab Sample ID:	200-11554-2
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	07/16/2012 1154			Analysis Date:	07/16/2012 1213
Prep Date:	07/05/2012 1114			Prep Date:	07/05/2012 1114
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
2,4,5-Trichlorophenol	28	U	690	688	465		436	
2,4,6-Trichlorophenol	82	U	690	688	436		435	
2,4-Dichlorophenol	28	U	690	688	425		434	
2,4-Dimethylphenol	82	U	690	688	426		436	
2,4-Dinitrophenol	82	U	690	688	359		195	J
2,4-Dinitrotoluene	28	U	690	688	429		438	
2,6-Dinitrotoluene	28	U	690	688	404		434	
2-Chloronaphthalene	3.4	U	690	688	362		372	
2-Chlorophenol	28	U	690	688	419		443	
2-Methylnaphthalene	3.4	U	690	688	404		423	
2-Methylphenol	82	U	690	688	465		484	
2-Nitroaniline	28	U	690	688	522		529	
2-Nitrophenol	28	U	690	688	394		425	
3 & 4 Methylphenol	82	U	1380	1380	925		963	
3,3'-Dichlorobenzidine	82	U	690	688	91.8	J	53.3	J
3-Nitroaniline	82	U	690	688	411		375	
4,6-Dinitro-2-methylphenol	82	U	690	688	395		344	
4-Bromophenyl phenyl ether	28	U	690	688	400		391	
4-Chloro-3-methylphenol	28	U	690	688	485		502	
4-Chloroaniline	28	U	690	688	323		275	
4-Chlorophenyl phenyl ether	28	U	690	688	387		383	
4-Nitroaniline	28	U	690	688	413		368	
4-Nitrophenol	82	U	690	688	500		443	
Acenaphthene	3.4	U	690	688	411		418	
Acenaphthylene	3.4	U	690	688	428		431	
Anthracene	3.4	U	690	688	455		458	
Benzo[a]anthracene	3.4	U	690	688	452		463	
Benzo[a]pyrene	3.4	U	690	688	420		439	
Benzo[b]fluoranthene	3.4	U	690	688	458		525	
Benzo[g,h,i]perylene	3.4	U	690	688	477		493	
Benzo[k]fluoranthene	3.4	U	690	688	489		498	
Bis(2-chloroethoxy)methane	28	U	690	688	364		392	
Bis(2-chloroethyl)ether	3.4	U	690	688	377		409	
Bis(2-ethylhexyl) phthalate	33	J	690	688	507		521	
Butyl benzyl phthalate	28	U	690	688	487		513	
Carbazole	28	U	690	688	488		481	
Chrysene	3.4	U	690	688	476		478	
Dibenz(a,h)anthracene	3.4	U	690	688	497		533	
Dibenzofuran	3.4	U	690	688	433		445	
Diethyl phthalate	28	U	690	688	491		500	
Dimethyl phthalate	28	U	690	688	466		462	
Di-n-butyl phthalate	32	J	690	688	509		536	
Di-n-octyl phthalate	28	U	690	688	509		560	

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-49913

Method: 8270C/DoD
Preparation: 3540C

MS Lab Sample ID:	200-11554-2	Units:	ug/Kg	MSD Lab Sample ID:	200-11554-2
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	07/16/2012 1154			Analysis Date:	07/16/2012 1213
Prep Date:	07/05/2012 1114			Prep Date:	07/05/2012 1114
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual	
Fluoranthene	3.4	U	690	688	480	480	
Fluorene	3.4	U	690	688	453	453	
Hexachlorobenzene	3.4	U	690	688	440	445	
Hexachlorobutadiene	28	U	690	688	321	352	
Hexachloroethane	28	U	690	688	353	379	
Indeno[1,2,3-cd]pyrene	3.4	U	690	688	480	515	
Naphthalene	3.4	U	690	688	395	408	
Nitrobenzene	3.4	U	690	688	378	394	
N-Nitrosodi-n-propylamine	28	U	690	688	453	480	
N-Nitrosodiphenylamine	28	U	690	688	445	456	
Pentachlorophenol	82	U	690	688	265	246	M
Phenanthrene	3.4	U	690	688	460	465	
Phenol	44	J	690	688	465	507	
Pyrene	3.4	U	690	688	474	481	
bis (2-chloroisopropyl) ether	28	U	690	688	403	423	
Isophorone	28	U	690	688	428	447	

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Method Blank - Batch: 240-50985

Method: 8270C/DoD
Preparation: 3540C

Lab Sample ID:	MB 240-50985/23-A	Analysis Batch:	240-51914	Instrument ID:	A4HP9
Client Matrix:	Solid	Prep Batch:	240-50985	Lab File ID:	20725005.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 g
Analysis Date:	07/25/2012 0935	Units:	ug/Kg	Final Weight/Volume:	2 mL
Prep Date:	07/17/2012 0820			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	DL	LOQ
1,2,4,5-Tetrachlorobenzene	5.3	U	5.3	100
2,4,5-Trichlorophenol	27	U	25	150
2,4,6-Trichlorophenol	80	U	80	150
2,4-Dichlorophenol	27	U	20	150
2,4-Dimethylphenol	80	U	20	150
2,4-Dinitrophenol	80	U	80	330
2,4-Dinitrotoluene	27	U	27	200
2,6-Dinitrotoluene	27	U	21	200
2-Chloronaphthalene	3.3	U	3.3	50
2-Chlorophenol	27	U	27	50
2-Methylnaphthalene	3.3	U	3.3	6.7
2-Methylphenol	80	U	80	200
2-Nitroaniline	27	U	9.1	200
2-Nitrophenol	27	U	27	50
3 & 4 Methylphenol	80	U	20	400
3,3'-Dichlorobenzidine	80	U	18	100
3-Nitroaniline	80	U	16	200
4,6-Dinitro-2-methylphenol	80	U	80	150
4-Bromophenyl phenyl ether	27	U	13	50
4-Chloro-3-methylphenol	27	U	21	150
4-Chloroaniline	27	U	17	150
4-Chlorophenyl phenyl ether	27	U	13	50
4-Nitroaniline	27	U	26	200
4-Nitrophenol	80	U	80	330
Acenaphthene	3.3	U	3.3	6.7
Acenaphthylene	3.3	U	3.3	6.7
Anthracene	3.3	U	3.3	6.7
Benzo[a]anthracene	3.3	U	3.3	6.7
Benzo[a]pyrene	3.3	U	3.3	6.7
Benzo[b]fluoranthene	3.3	U	3.3	6.7
Benzo[g,h,i]perylene	3.3	U	3.3	6.7
Benzo[k]fluoranthene	3.3	U	3.3	6.7
Bis(2-chloroethoxy)methane	27	U	22	100
Bis(2-chloroethyl)ether	3.3	U	2.0	100
Bis(2-ethylhexyl) phthalate	19.2	J	19	50
Butyl benzyl phthalate	27	U	10	50
Carbazole	27	U	27	50
Chrysene	3.3	U	1.1	6.7
Dibenz(a,h)anthracene	3.3	U	3.3	6.7
Dibenzofuran	3.3	U	3.3	50
Diethyl phthalate	27	U	16	50
Dimethyl phthalate	27	U	17	50
Di-n-butyl phthalate	27	U	15	50
Di-n-octyl phthalate	27	U	27	50
Fluoranthene	3.3	U	3.3	6.7

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Method Blank - Batch: 240-50985

Method: 8270C/DoD
Preparation: 3540C

Lab Sample ID:	MB 240-50985/23-A	Analysis Batch:	240-51914	Instrument ID:	A4HP9
Client Matrix:	Solid	Prep Batch:	240-50985	Lab File ID:	20725005.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 g
Analysis Date:	07/25/2012 0935	Units:	ug/Kg	Final Weight/Volume:	2 mL
Prep Date:	07/17/2012 0820			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	DL	LOQ
Fluorene	3.3	U	3.3	6.7
Hexachlorobenzene	3.3	U	2.1	6.7
Hexachlorobutadiene	27	U	27	50
Hexachloroethane	27	U	9.0	50
Indeno[1,2,3-cd]pyrene	3.3	U	3.3	6.7
Naphthalene	3.3	U	3.3	6.7
Nitrobenzene	3.3	U	2.2	100
N-Nitrosodi-n-propylamine	27	U	27	50
N-Nitrosodiphenylamine	27	U	21	50
Pentachlorophenol	80	U	80	150
Phenanthrene	3.3	U	3.3	6.7
Phenol	27	U	27	50
Pyrene	3.3	U	3.3	6.7
bis (2-chloroisopropyl) ether	27	U	9.5	100
Isophorone	27	U	13	50
1,1'-Biphenyl	27	U	27	50
Acetophenone	27	U	9.2	100
Atrazine	27	U	9.1	200
Benzaldehyde	27	U	12	100
Caprolactam	27	U	37	330
Hexachlorocyclopentadiene	27	U	27	330
2,3,4,6-Tetrachlorophenol	1600	U	110	1600

Surrogate	% Rec		Acceptance Limits
2-Fluorobiphenyl (Surr)	61		45 - 105
2-Fluorophenol (Surr)	71		35 - 105
Nitrobenzene-d5 (Surr)	72		35 - 100
Terphenyl-d14 (Surr)	95		30 - 125
2,4,6-Tribromophenol (Surr)	46	M	35 - 125
Phenol-d5 (Surr)	75		40 - 100

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Lab Control Sample - Batch: 240-50985

Method: 8270C/DoD
Preparation: 3540C

Lab Sample ID:	LCS 240-50985/22-A	Analysis Batch:	240-51914	Instrument ID:	A4HP9
Client Matrix:	Solid	Prep Batch:	240-50985	Lab File ID:	20725006.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 g
Analysis Date:	07/25/2012 0955	Units:	ug/Kg	Final Weight/Volume:	2 mL
Prep Date:	07/17/2012 0820			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4,5-Trichlorophenol	667	541	81	50 - 110	
2,4,6-Trichlorophenol	667	503	75	45 - 110	
2,4-Dichlorophenol	667	479	72	45 - 110	
2,4-Dimethylphenol	667	328	49	30 - 105	
2,4-Dinitrophenol	667	169	25	15 - 130	J
2,4-Dinitrotoluene	667	513	77	50 - 115	
2,6-Dinitrotoluene	667	492	74	50 - 110	
2-Chloronaphthalene	667	435	65	45 - 105	
2-Chlorophenol	667	493	74	45 - 105	
2-Methylnaphthalene	667	482	72	45 - 105	
2-Methylphenol	667	480	72	40 - 105	
2-Nitroaniline	667	619	93	45 - 120	
2-Nitrophenol	667	463	69	40 - 110	
3 & 4 Methylphenol	1330	1020	77	40 - 105	
3,3'-Dichlorobenzidine	667	381	57	10 - 130	
3-Nitroaniline	667	488	73	25 - 110	
4,6-Dinitro-2-methylphenol	667	324	49	30 - 135	
4-Bromophenyl phenyl ether	667	459	69	45 - 115	
4-Chloro-3-methylphenol	667	543	81	45 - 115	
4-Chloroaniline	667	411	62	10 - 110	
4-Chlorophenyl phenyl ether	667	466	70	45 - 110	
4-Nitroaniline	667	561	84	35 - 115	
4-Nitrophenol	667	496	74	15 - 140	
Acenaphthene	667	502	75	45 - 110	
Acenaphthylene	667	507	76	45 - 105	
Anthracene	667	547	82	55 - 105	
Benzo[a]anthracene	667	600	90	50 - 110	
Benzo[a]pyrene	667	502	75	50 - 110	
Benzo[b]fluoranthene	667	657	98	45 - 115	
Benzo[g,h,i]perylene	667	554	83	40 - 125	
Benzo[k]fluoranthene	667	479	72	45 - 125	
Bis(2-chloroethoxy)methane	667	453	68	45 - 110	
Bis(2-chloroethyl)ether	667	462	69	40 - 105	
Bis(2-ethylhexyl) phthalate	667	585	88	45 - 125	
Butyl benzyl phthalate	667	562	84	50 - 125	
Carbazole	667	561	84	45 - 115	
Chrysene	667	533	80	55 - 110	
Dibenz(a,h)anthracene	667	557	84	40 - 125	
Dibenzofuran	667	521	78	50 - 105	
Diethyl phthalate	667	591	89	50 - 115	
Dimethyl phthalate	667	573	86	50 - 110	
Di-n-butyl phthalate	667	591	89	55 - 110	
Di-n-octyl phthalate	667	565	85	40 - 130	
Fluoranthene	667	554	83	55 - 115	
Fluorene	667	528	79	50 - 110	
Hexachlorobenzene	667	515	77	45 - 120	

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Lab Control Sample - Batch: 240-50985

Method: 8270C/DoD
Preparation: 3540C

Lab Sample ID:	LCS 240-50985/22-A	Analysis Batch:	240-51914	Instrument ID:	A4HP9
Client Matrix:	Solid	Prep Batch:	240-50985	Lab File ID:	20725006.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 g
Analysis Date:	07/25/2012 0955	Units:	ug/Kg	Final Weight/Volume:	2 mL
Prep Date:	07/17/2012 0820			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Hexachlorobutadiene	667	423	63	40 - 115	
Hexachloroethane	667	479	72	35 - 110	
Indeno[1,2,3-cd]pyrene	667	553	83	40 - 120	
Naphthalene	667	503	75	40 - 105	
Nitrobenzene	667	491	74	40 - 115	
N-Nitrosodi-n-propylamine	667	551	83	40 - 115	
N-Nitrosodiphenylamine	667	527	79	50 - 115	
Pentachlorophenol	667	286	43	25 - 120	
Phenanthrene	667	551	83	50 - 110	
Phenol	667	525	79	40 - 100	
Pyrene	667	529	79	45 - 125	
bis (2-chloroisopropyl) ether	667	497	74	20 - 115	
Isophorone	667	525	79	45 - 110	

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl (Surr)	63	45 - 105
2-Fluorophenol (Surr)	73	35 - 105
Nitrobenzene-d5 (Surr)	69	35 - 100
Terphenyl-d14 (Surr)	88	30 - 125
2,4,6-Tribromophenol (Surr)	71	35 - 125
Phenol-d5 (Surr)	77	40 - 100

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-50985

Method: 8270C/DoD
Preparation: 3540C

MS Lab Sample ID:	200-11554-4	Analysis Batch:	240-51914	Instrument ID:	A4HP9
Client Matrix:	Solid	Prep Batch:	240-50985	Lab File ID:	20725011.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	29.67 g
Analysis Date:	07/25/2012 1132			Final Weight/Volume:	2 mL
Prep Date:	07/17/2012 0820			Injection Volume:	1 uL
Leach Date:	N/A				

MSD Lab Sample ID:	200-11554-4	Analysis Batch:	240-51914	Instrument ID:	A4HP9
Client Matrix:	Solid	Prep Batch:	240-50985	Lab File ID:	20725012.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	29.76 g
Analysis Date:	07/25/2012 1151			Final Weight/Volume:	2 mL
Prep Date:	07/17/2012 0820			Injection Volume:	1 uL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
2,4,5-Trichlorophenol	64	63	50 - 110	2	30	H	H
2,4,6-Trichlorophenol	57	46	45 - 110	23	30	H	H
2,4-Dichlorophenol	57	67	45 - 110	16	30	H	H
2,4-Dimethylphenol	51	60	30 - 105	17	30	H	H
2,4-Dinitrophenol	0	0	15 - 130	NC	30	U H J	U H J
2,4-Dinitrotoluene	70	69	50 - 115	1	30	H	H
2,6-Dinitrotoluene	65	66	50 - 110	2	30	H	H
2-Chloronaphthalene	51	58	45 - 105	12	30	H	H
2-Chlorophenol	58	67	45 - 105	13	30	H	H
2-Methylnaphthalene	59	68	45 - 105	15	30	H	H
2-Methylphenol	60	72	40 - 105	17	30	H	H
2-Nitroaniline	78	79	45 - 120	1	30	H	H
2-Nitrophenol	52	62	40 - 110	18	30	H	H
3 & 4 Methylphenol	61	70	40 - 105	13	30	H	H
3,3'-Dichlorobenzidine	54	51	10 - 130	6	30	H	H
3-Nitroaniline	69	66	25 - 110	6	30	H	H
4,6-Dinitro-2-methylphenol	20	17	30 - 135	12	30	H M J	H M J
4-Bromophenyl phenyl ether	62	64	45 - 115	2	30	H	H
4-Chloro-3-methylphenol	67	71	45 - 115	6	30	H	H
4-Chloroaniline	52	56	10 - 95	7	30	H	H
4-Chlorophenyl phenyl ether	61	60	45 - 110	1	30	H	H
4-Nitroaniline	76	70	35 - 115	8	30	H	H
4-Nitrophenol	40	32	15 - 140	22	30	J H M	J H
Acenaphthene	59	66	45 - 110	11	30	H	H
Acenaphthylene	60	67	45 - 105	10	30	H	H
Anthracene	77	76	55 - 105	2	30	H	H
Benzo[a]anthracene	81	80	50 - 110	1	30	H	H
Benzo[a]pyrene	71	70	50 - 110	2	30	H	H
Benzo[b]fluoranthene	87	81	45 - 115	8	30	H	H
Benzo[g,h,i]perylene	83	77	40 - 125	7	30	H	H
Benzo[k]fluoranthene	71	76	45 - 125	6	30	H	H
Bis(2-chloroethoxy)methane	54	63	45 - 110	15	30	H	H
Bis(2-chloroethyl)ether	55	66	40 - 105	18	30	H	H

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-50985

Method: 8270C/DoD
Preparation: 3540C

MS Lab Sample ID:	200-11554-4	Analysis Batch:	240-51914	Instrument ID:	A4HP9
Client Matrix:	Solid	Prep Batch:	240-50985	Lab File ID:	20725011.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	29.67 g
Analysis Date:	07/25/2012 1132			Final Weight/Volume:	2 mL
Prep Date:	07/17/2012 0820			Injection Volume:	1 uL
Leach Date:	N/A				

MSD Lab Sample ID:	200-11554-4	Analysis Batch:	240-51914	Instrument ID:	A4HP9
Client Matrix:	Solid	Prep Batch:	240-50985	Lab File ID:	20725012.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	29.76 g
Analysis Date:	07/25/2012 1151			Final Weight/Volume:	2 mL
Prep Date:	07/17/2012 0820			Injection Volume:	1 uL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Bis(2-ethylhexyl) phthalate	84	82	45 - 125	4	30	H	H
Butyl benzyl phthalate	79	80	50 - 125	0	30	H	H
Carbazole	79	79	45 - 115	0	30	H	H
Chrysene	81	80	55 - 110	2	30	H	H
Dibenz(a,h)anthracene	82	79	40 - 125	4	30	H	H
Dibenzofuran	66	67	50 - 105	3	30	H	H
Diethyl phthalate	79	79	50 - 115	0	30	H	H
Dimethyl phthalate	73	75	50 - 110	1	30	H	H
Di-n-butyl phthalate	83	82	55 - 110	2	30	H	H
Di-n-octyl phthalate	82	81	40 - 130	2	30	H	H
Fluoranthene	77	79	55 - 115	2	30	H	H
Fluorene	67	68	50 - 110	2	30	H	H
Hexachlorobenzene	70	72	45 - 120	2	30	H	H
Hexachlorobutadiene	51	60	40 - 115	16	30	H	H
Hexachloroethane	55	65	35 - 110	15	30	H	H
Indeno[1,2,3-cd]pyrene	79	76	40 - 120	3	30	H	H
Naphthalene	59	71	40 - 105	17	30	H	H
Nitrobenzene	59	66	40 - 115	10	30	H	H
N-Nitrosodi-n-propylamine	64	75	40 - 115	16	30	H	H
N-Nitrosodiphenylamine	73	75	50 - 115	2	30	H	H
Pentachlorophenol	30	26	25 - 120	13	30	H M	H M
Phenanthrene	78	77	50 - 110	1	30	H	H
Phenol	62	72	40 - 100	16	30	H	H
Pyrene	77	75	45 - 125	2	30	H	H
bis (2-chloroisopropyl) ether	57	68	20 - 115	17	30	H	H
Isophorone	62	73	45 - 110	16	30	H	H

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
2-Fluorobiphenyl (Surr)	50	55	45 - 105
2-Fluorophenol (Surr)	55	69	35 - 105
Nitrobenzene-d5 (Surr)	56	63	35 - 100
Terphenyl-d14 (Surr)	86	82	30 - 125
2,4,6-Tribromophenol (Surr)	66	49	35 - 125
Phenol-d5 (Surr)	61	73	40 - 100

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-50985

Method: 8270C/DoD
Preparation: 3540C

MS Lab Sample ID:	200-11554-4	Units: ug/Kg		MSD Lab Sample ID:	200-11554-4
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	07/25/2012 1132			Analysis Date:	07/25/2012 1151
Prep Date:	07/17/2012 0820			Prep Date:	07/17/2012 0820
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
2,4,5-Trichlorophenol	27	U	686	683	438	H	431	H
2,4,6-Trichlorophenol	81	U	686	683	393	H	313	H
2,4-Dichlorophenol	27	U	686	683	389	H	455	H
2,4-Dimethylphenol	81	U	686	683	348	H	412	H
2,4-Dinitrophenol	81	U	686	683	82	U H J	82	U H J
2,4-Dinitrotoluene	27	U	686	683	479	H	472	H
2,6-Dinitrotoluene	27	U	686	683	446	H	453	H
2-Chloronaphthalene	3.3	U	686	683	351	H	396	H
2-Chlorophenol	27	U	686	683	400	H	457	H
2-Methylnaphthalene	3.3	U	686	683	401	H	465	H
2-Methylphenol	81	U	686	683	413	H	489	H
2-Nitroaniline	27	U	686	683	536	H	542	H
2-Nitrophenol	27	U	686	683	353	H	422	H
3 & 4 Methylphenol	81	U	1370	1370	843	H	957	H
3,3'-Dichlorobenzidine	81	U	686	683	372	H	349	H
3-Nitroaniline	81	U	686	683	474	H	448	H
4,6-Dinitro-2-methylphenol	81	U	686	683	134	H M J	119	H M J
4-Bromophenyl phenyl ether	27	U	686	683	428	H	437	H
4-Chloro-3-methylphenol	27	U	686	683	457	H	484	H
4-Chloroaniline	27	U	686	683	358	H	382	H
4-Chlorophenyl phenyl ether	27	U	686	683	415	H	411	H
4-Nitroaniline	27	U	686	683	522	H	482	H
4-Nitrophenol	81	U	686	683	271	J H M	218	J H
Acenaphthene	3.3	U	686	683	407	H	454	H
Acenaphthylene	3.3	U	686	683	413	H	456	H
Anthracene	3.3	U	686	683	529	H	517	H
Benzo[a]anthracene	3.3	U	686	683	553	H	548	H
Benzo[a]pyrene	3.3	U	686	683	487	H	476	H
Benzo[b]fluoranthene	3.3	U	686	683	596	H	553	H
Benzo[g,h,i]perylene	3.3	U	686	683	566	H	530	H
Benzo[k]fluoranthene	3.3	U	686	683	487	H	518	H
Bis(2-chloroethoxy)methane	27	U	686	683	370	H	429	H
Bis(2-chloroethyl)ether	3.3	U	686	683	377	H	451	H
Bis(2-ethylhexyl) phthalate	27	U	686	683	579	H	558	H
Butyl benzyl phthalate	27	U	686	683	542	H	544	H
Carbazole	27	U	686	683	543	H	543	H
Chrysene	3.3	U	686	683	555	H	544	H
Dibenz(a,h)anthracene	3.3	U	686	683	563	H	539	H
Dibenzofuran	3.3	U	686	683	449	H	461	H
Diethyl phthalate	27	U	686	683	542	H	541	H
Dimethyl phthalate	27	U	686	683	503	H	511	H
Di-n-butyl phthalate	27	U	686	683	570	H	559	H
Di-n-octyl phthalate	27	U	686	683	564	H	556	H

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-50985

Method: 8270C/DoD
Preparation: 3540C

MS Lab Sample ID:	200-11554-4	Units: ug/Kg	MSD Lab Sample ID:	200-11554-4	
Client Matrix:	Solid		Client Matrix:	Solid	
Dilution:	1.0		Dilution:	1.0	
Analysis Date:	07/25/2012 1132		Analysis Date:	07/25/2012 1151	
Prep Date:	07/17/2012 0820		Prep Date:	07/17/2012 0820	
Leach Date:	N/A		Leach Date:	N/A	

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
Fluoranthene	3.3	U	686	683	531	H	539	H
Fluorene	3.3	U	686	683	458	H	465	H
Hexachlorobenzene	3.3	U	686	683	482	H	490	H
Hexachlorobutadiene	27	U	686	683	352	H	413	H
Hexachloroethane	27	U	686	683	380	H	444	H
Indeno[1,2,3-cd]pyrene	3.3	U	686	683	540	H	522	H
Naphthalene	3.3	U	686	683	407	H	483	H
Nitrobenzene	3.3	U	686	683	404	H	448	H
N-Nitrosodi-n-propylamine	27	U	686	683	439	H	514	H
N-Nitrosodiphenylamine	27	U	686	683	500	H	511	H
Pentachlorophenol	81	U	686	683	206	H M	180	H M
Phenanthrene	3.3	U	686	683	532	H	529	H
Phenol	27	U	686	683	422	H	495	H
Pyrene	3.3	U	686	683	527	H	516	H
bis (2-chloroisopropyl) ether	27	U	686	683	393	H	467	H
Isophorone	27	U	686	683	422	H	496	H

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Method Blank - Batch: 200-41275

Method: 8081B
Preparation: 3550C

Lab Sample ID:	MB 200-41275/1-C	Analysis Batch:	200-41698	Instrument ID:	5005.i
Client Matrix:	Solid	Prep Batch:	200-41275	Lab File ID:	10jul121628-r011.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	29.96 g
Analysis Date:	07/11/2012 0123	Units:	ug/Kg	Final Weight/Volume:	10000 uL
Prep Date:	07/03/2012 0920			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	DL	LOQ
alpha-BHC	0.33	U	0.11	1.7
gamma-BHC (Lindane)	0.33	U	0.11	1.7
beta-BHC	0.33	U	0.13	1.7
delta-BHC	0.33	U	0.10	1.7
Heptachlor	0.33	U	0.11	1.7
Aldrin	0.33	U	0.11	1.7
Heptachlor epoxide	0.33	U	0.11	1.7
gamma-Chlordane	0.33	U	0.11	1.7
alpha-Chlordane	0.33	U	0.12	1.7
4,4'-DDE	0.67	U	0.21	3.3
Endosulfan I	0.33	U	0.12	1.7
Dieldrin	0.67	U	0.22	3.3
Endrin	0.67	U	0.23	3.3
4,4'-DDD	0.67	U	0.19	3.3
Endosulfan II	0.67	U	0.22	3.3
4,4'-DDT	0.67	U	0.22	3.3
Endrin aldehyde	0.67	U	0.30	3.3
Methoxychlor	3.3	U	1.1	17
Endosulfan sulfate	0.67	U	0.24	3.3
Endrin ketone	0.67	U	0.21	3.3
Toxaphene	33	U	13	170
Toxaphene Peak 1	33	U	13	170
Toxaphene Peak 2	33	U	13	170
Toxaphene Peak 3	33	U	13	170
Toxaphene Peak 4	33	U	13	170
Toxaphene Peak 5	33	U	13	170

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	82	50 - 120
DCB Decachlorobiphenyl	91	45 - 115

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	84	50 - 120
DCB Decachlorobiphenyl	92	45 - 115

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Lab Control Sample - Batch: 200-41275

Method: 8081B
Preparation: 3550C

Lab Sample ID:	LCS 200-41275/2-C	Analysis Batch:	200-41698	Instrument ID:	5005.i
Client Matrix:	Solid	Prep Batch:	200-41275	Lab File ID:	10jul121628-r021.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.01 g
Analysis Date:	07/11/2012 0149	Units:	ug/Kg	Final Weight/Volume:	10000 uL
Prep Date:	07/03/2012 0920			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
alpha-BHC	6.66	6.05	91	65 - 115	
gamma-BHC (Lindane)	6.66	6.05	91	65 - 115	
beta-BHC	6.66	6.40	96	70 - 115	
delta-BHC	6.66	6.15	92	65 - 115	
Heptachlor	6.66	6.19	93	65 - 115	
Aldrin	6.66	6.20	93	65 - 115	
Heptachlor epoxide	6.66	6.34	95	70 - 110	
gamma-Chlordane	6.66	6.32	95	70 - 110	
alpha-Chlordane	6.66	6.19	93	70 - 110	
4,4'-DDE	13.3	12.7	95	65 - 115	
Endosulfan I	6.66	5.90	89	50 - 115	
Dieldrin	13.3	12.9	97	65 - 115	
Endrin	13.3	13.2	99	65 - 115	
4,4'-DDD	13.3	13.0	97	65 - 115	
Endosulfan II	13.3	12.0	90	60 - 115	
4,4'-DDT	13.3	13.2	99	65 - 120	
Endrin aldehyde	13.3	7.08	53	40 - 115	
Methoxychlor	66.6	68.8	103	70 - 120	
Endosulfan sulfate	13.3	12.8	96	65 - 120	
Endrin ketone	13.3	12.8	96	70 - 115	

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	88	50 - 120
DCB Decachlorobiphenyl	99	45 - 115

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	91	50 - 120
DCB Decachlorobiphenyl	99	45 - 115

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Method Blank - Batch: 200-41276

Method: 8082A
Preparation: 3550C

Lab Sample ID:	MB 200-41276/1-C	Analysis Batch:	200-41409	Instrument ID:	7227.i
Client Matrix:	Solid	Prep Batch:	200-41276	Lab File ID:	05jul121546-r011.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	29.70 g
Analysis Date:	07/06/2012 0301	Units:	ug/Kg	Final Weight/Volume:	10000 uL
Prep Date:	07/03/2012 0928			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	DL	LOQ
PCB-1016	3.3	U	2.3	17
PCB-1221	3.3	U	1.2	17
PCB-1232	3.3	U	2.1	17
PCB-1242	3.3	U	1.4	17
PCB-1248	3.3	U	0.71	17
PCB-1254	3.3	U	3.3	17
PCB-1260	3.3	U	2.2	17
Polychlorinated biphenyls, Total	1.7	U	0.48	17

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	88	30 - 130
DCB Decachlorobiphenyl	91	45 - 125

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	91	30 - 130
DCB Decachlorobiphenyl	93	45 - 125

Lab Control Sample - Batch: 200-41276

Method: 8082A
Preparation: 3550C

Lab Sample ID:	LCS 200-41276/2-C	Analysis Batch:	200-41409	Instrument ID:	7227.i
Client Matrix:	Solid	Prep Batch:	200-41276	Lab File ID:	05jul121546-r021.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	29.96 g
Analysis Date:	07/06/2012 0325	Units:	ug/Kg	Final Weight/Volume:	10000 uL
Prep Date:	07/03/2012 0928			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
PCB-1016	167	150	90	55 - 120	
PCB-1260	167	156	94	55 - 125	

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	93	30 - 130
DCB Decachlorobiphenyl	96	45 - 125

Surrogate	% Rec	Acceptance Limits
Tetrachloro-m-xylene	95	30 - 130
DCB Decachlorobiphenyl	96	45 - 125

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Method Blank - Batch: 240-50002

Method: 8151/DOD
Preparation: 8151A

Lab Sample ID:	MB 240-50002/9-A	Analysis Batch:	240-50119	Instrument ID:	A2HP1
Client Matrix:	Solid	Prep Batch:	240-50002	Lab File ID:	P1000025.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.00 g
Analysis Date:	07/07/2012 1806	Units:	ug/Kg	Final Weight/Volume:	100 mL
Prep Date:	07/06/2012 0725			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	DL	LOQ
2,4-D	33	U	19	80
Dalapon	17	U	7.8	40
2,4-DB	33	U	22	80
Dicamba	17	U	8.1	40
Dichlorprop	67	U	37	80
Dinoseb	10	U	10	12
MCPA	3300	U	1700	8000
MCPP	3300	U	1500	8000
Silvex (2,4,5-TP)	8.3	U	4.1	20
2,4,5-T	8.3	U	3.8	20

Surrogate	% Rec	Acceptance Limits
2,4-Dichlorophenylacetic acid	77	19 - 122

Surrogate	% Rec	Acceptance Limits
2,4-Dichlorophenylacetic acid	70	19 - 122

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Lab Control Sample - Batch: 240-50002

Method: 8151/DOD
Preparation: 8151A

Lab Sample ID:	LCS 240-50002/10-A	Analysis Batch:	240-50119	Instrument ID:	A2HP1
Client Matrix:	Solid	Prep Batch:	240-50002	Lab File ID:	P1000026.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.00 g
Analysis Date:	07/07/2012 1830	Units:	ug/Kg	Final Weight/Volume:	100 mL
Prep Date:	07/06/2012 0725			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,4-D	667	645	97	35 - 145	
Dalapon	333	281	84	30 - 122	
2,4-DB	667	625	94	50 - 155	
Dicamba	333	307	92	55 - 110	
Dichlorprop	667	751	113	75 - 140	
Dinoseb	100	28.9	29	5 - 130	
MCPA	66700	66000	99	25 - 132	
Silvex (2,4,5-TP)	167	149	89	45 - 125	
2,4,5-T	167	156	93	45 - 135	

Surrogate	% Rec	Acceptance Limits
2,4-Dichlorophenylacetic acid	82	19 - 122

Surrogate	% Rec	Acceptance Limits
2,4-Dichlorophenylacetic acid	86	19 - 122

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-50002

Method: 8151/DOD
Preparation: 8151A

MS Lab Sample ID:	200-11554-1	Analysis Batch:	240-50119	Instrument ID:	A2HP1
Client Matrix:	Solid	Prep Batch:	240-50002	Lab File ID:	P1000023.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.22 g
Analysis Date:	07/07/2012 1718			Final Weight/Volume:	100 mL
Prep Date:	07/06/2012 0725			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

MSD Lab Sample ID:	200-11554-1	Analysis Batch:	240-50119	Instrument ID:	A2HP1
Client Matrix:	Solid	Prep Batch:	240-50002	Lab File ID:	P1000024.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	29.98 g
Analysis Date:	07/07/2012 1742			Final Weight/Volume:	100 mL
Prep Date:	07/06/2012 0725			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
2,4-D	80	88	35 - 145	11	30		
Dalapon	68	78	30 - 122	14	30		
2,4-DB	77	86	50 - 155	12	30		
Dicamba	77	87	55 - 110	12	30		
Dichlorprop	93	103	75 - 140	11	30		
Dinoseb	47	48	5 - 130	2	30		
MCPA	81	87	25 - 132	9	30		
Silvex (2,4,5-TP)	72	80	45 - 125	12	30		
2,4,5-T	75	85	45 - 135	12	30		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
2,4-Dichlorophenylacetic acid	68	76	19 - 122

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
2,4-Dichlorophenylacetic acid	71	79	19 - 122

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 240-50002

Method: 8151/DOD
Preparation: 8151A

MS Lab Sample ID:	200-11554-1	Units:	ug/Kg	MSD Lab Sample ID:	200-11554-1
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	07/07/2012 1718			Analysis Date:	07/07/2012 1742
Prep Date:	07/06/2012 0725			Prep Date:	07/06/2012 0725
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
2,4-D	35	U	690	696	553	615
Dalapon	17	U	345	348	235	270
2,4-DB	35	U	690	696	534	601
Dicamba	17	U	345	348	266	301
Dichlorprop	70	U	690	696	640	716
Dinoseb	10	U	104	104	48.7	49.8
MCPA	3500	U	69000	69600	55600	60500
Silvex (2,4,5-TP)	8.7	U	173	174	124	140
2,4,5-T	8.7	U	173	174	130	147

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Surrogate	% Rec	Acceptance Limits
1,2-Dinitrobenzene	92	40 - 140

Method Blank - Batch: 200-41397

Method: 8330 Modified
Preparation: 8330

Lab Sample ID:	MB 200-41397/1-A	Analysis Batch:	200-41501	Instrument ID:	CH1208
Client Matrix:	Solid	Prep Batch:	200-41397	Lab File ID:	09JUL121028_091.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10.06 g
Analysis Date:	07/09/2012 1648	Units:	ug/Kg	Final Weight/Volume:	100 mL
Prep Date:	07/05/2012 1841			Injection Volume:	150 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	DL	LOQ
HMX	12	U	4.5	99
RDX	12	U	12	99
1,3,5-Trinitrobenzene	12	U	5.0	99
1,3-Dinitrobenzene	12	U M	5.9	99
Nitrobenzene	30	U	26	99
Tetryl	24	U	15	99
Nitroglycerin	720	U	480	2000
2,4,6-Trinitrotoluene	24	U	17	99
4-Amino-2,6-dinitrotoluene	12	U	8.3	99
2-Amino-4,6-dinitrotoluene	12	U	6.6	99
2,6-Dinitrotoluene	12	U M	11	99
2,4-Dinitrotoluene	24	U M	15	99
2-Nitrotoluene	24	U	14	99
4-Nitrotoluene	30	U	27	99
3-Nitrotoluene	30	U	27	99

Surrogate	% Rec	Acceptance Limits
1,2-Dinitrobenzene	91	40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Surrogate	% Rec	Acceptance Limits
1,2-Dinitrobenzene	93	40 - 140

Lab Control Sample - Batch: 200-41397

Method: 8330 Modified
Preparation: 8330

Lab Sample ID:	LCS 200-41397/2-A	Analysis Batch:	200-41501	Instrument ID:	CH1208
Client Matrix:	Solid	Prep Batch:	200-41397	Lab File ID:	09JUL121028_101.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10.11 g
Analysis Date:	07/09/2012 1725	Units:	ug/Kg	Final Weight/Volume:	100 mL
Prep Date:	07/05/2012 1841			Injection Volume:	150 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
HMX	1980	1890	96	75 - 120	
RDX	1980	1910	96	75 - 120	
1,3,5-Trinitrobenzene	1980	1910	97	75 - 120	
1,3-Dinitrobenzene	1980	1910	96	75 - 120	
Nitrobenzene	1980	1840	93	75 - 125	
Tetryl	1980	2000	101	80 - 115	J
Nitroglycerin	39600	29200	74	60 - 150	
2,4,6-Trinitrotoluene	1980	1870	95	85 - 110	
4-Amino-2,6-dinitrotoluene	1980	1830	93	80 - 120	
2-Amino-4,6-dinitrotoluene	1980	1900	96	75 - 125	
2,6-Dinitrotoluene	1980	1840	93	75 - 125	
2,4-Dinitrotoluene	1980	1950	98	60 - 130	J
2-Nitrotoluene	1980	1910	96	70 - 125	
4-Nitrotoluene	1980	1960	99	65 - 135	J
3-Nitrotoluene	1980	1950	99	60 - 135	J

Surrogate	% Rec	Acceptance Limits
1,2-Dinitrobenzene	95	40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Method Blank - Batch: 200-41429

Method: 6010C
Preparation: 3050B

Lab Sample ID:	MB 200-41429/12-A	Analysis Batch:	200-41930	Instrument ID:	METICP7
Client Matrix:	Solid	Prep Batch:	200-41429	Lab File ID:	071612-06.ttx
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.00 g
Analysis Date:	07/17/2012 0612	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	07/06/2012 1000				
Leach Date:	N/A				

Analyte	Result	Qual	DL	LOQ
Aluminum	18	U	2.8	20
Antimony	1.5	U	0.38	6.0
Arsenic	0.90	U	0.21	1.0
Barium	2.0	U	0.63	20
Beryllium	0.13	U	0.020	0.50
Cadmium	0.25	U	0.060	0.50
Calcium	150	U	10	500
Chromium	0.0228	J	0.020	1.0
Cobalt	0.30	U	0.060	5.0
Copper	0.80	U	0.16	2.5
Iron	3.42	J	2.3	20
Lead	0.90	U	0.22	1.0
Magnesium	50	U	3.5	500
Manganese	0.90	U	0.090	1.5
Nickel	1.0	U	0.15	4.0
Potassium	50	U	23	500
Selenium	2.3	U	0.32	3.5
Silver	0.40	U	0.11	1.0
Sodium	25	U	5.1	500
Thallium	1.5	U	0.19	2.5
Vanadium	0.50	U	0.080	5.0
Zinc	0.130	J	0.060	2.0

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Lab Control Sample - Batch: 200-41429

Method: 6010C
Preparation: 3050B

Lab Sample ID:	LCS 200-41429/13-A	Analysis Batch:	200-41930	Instrument ID:	METICP7
Client Matrix:	Solid	Prep Batch:	200-41429	Lab File ID:	071612-06.ttx
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.00 g
Analysis Date:	07/17/2012 0617	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	07/06/2012 1000				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	200	210	105	80 - 120	
Antimony	50.0	50.3	101	80 - 120	
Arsenic	24.0	24.5	102	80 - 120	
Barium	200	208	104	80 - 120	
Beryllium	5.00	5.11	102	80 - 120	
Cadmium	25.0	24.7	99	80 - 120	
Calcium	2000	2000	100	80 - 120	
Chromium	20.0	20.3	101	80 - 120	
Cobalt	50.0	50.8	102	80 - 120	
Copper	25.0	24.6	98	80 - 120	
Iron	100	109	109	80 - 120	
Lead	22.0	23.1	105	80 - 120	
Magnesium	2000	2000	100	80 - 120	
Manganese	50.0	51.0	102	80 - 120	
Nickel	50.0	49.8	100	80 - 120	
Potassium	2000	2030	102	80 - 120	
Selenium	25.0	23.8	95	80 - 120	
Silver	25.0	24.0	96	80 - 120	
Sodium	2000	1970	99	80 - 120	
Thallium	25.0	24.1	96	80 - 120	
Vanadium	50.0	50.8	102	80 - 120	
Zinc	50.0	48.8	98	80 - 120	

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Post Digestion Spike - Batch: 200-41429

Method: 6010C
Preparation: 3050B

Lab Sample ID:	200-11554-4	Analysis Batch:	200-41930	Instrument ID:	METICP7
Client Matrix:	Solid	Prep Batch:	200-41429	Lab File ID:	071612-06.ttx
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.58 g
Analysis Date:	07/17/2012 0704	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	07/06/2012 1000				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	1200		129	1310	73	75 - 125	J
Antimony	0.97	U	32.2	28.9	90	75 - 125	
Arsenic	1.9		2.57	4.12	86	75 - 125	
Barium	2.7	J	129	120	91	75 - 125	
Beryllium	0.093	J	3.22	3.08	93	75 - 125	
Cadmium	0.16	U	3.22	2.86	89	75 - 125	
Calcium	46	J	129	167	94	75 - 125	J
Chromium	2.3		12.9	13.9	90	75 - 125	
Cobalt	0.81	J	32.2	30.2	91	75 - 125	
Copper	0.89	J	16.1	15.2	89	75 - 125	
Iron	2500		64.4	2530	-18	75 - 125	J
Lead	1.1		1.29	2.54	115	75 - 125	
Magnesium	270	J	129	389	91	75 - 125	
Manganese	29		32.2	58.4	90	75 - 125	
Nickel	1.5	J	32.2	30.3	90	75 - 125	
Potassium	230	J	129	346	92	75 - 125	
Selenium	1.5	U	3.22	2.81	87	75 - 125	
Silver	0.26	U	3.22	2.98	93	75 - 125	
Sodium	5.9	J	129	131	97	75 - 125	J
Thallium	0.97	U	3.22	2.59	80	75 - 125	
Vanadium	3.9		32.2	32.9	90	75 - 125	
Zinc	3.6		32.2	31.6	87	75 - 125	

Matrix Spike - Batch: 200-41429

Method: 6010C
Preparation: 3050B

Lab Sample ID:	200-11554-4	Analysis Batch:	200-41930	Instrument ID:	METICP7
Client Matrix:	Solid	Prep Batch:	200-41429	Lab File ID:	071612-06.ttx
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.41 g
Analysis Date:	07/17/2012 0715	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	07/06/2012 1000				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	1200		144	1620	275	80 - 120	4
Antimony	0.97	U	36.1	26.6	74	80 - 120	J
Arsenic	1.9		2.89	4.84	101	80 - 120	
Barium	2.7	J	144	145	99	80 - 120	
Beryllium	0.093	J	3.61	3.57	96	80 - 120	

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Matrix Spike - Batch: 200-41429

Method: 6010C
Preparation: 3050B

Lab Sample ID:	200-11554-4	Analysis Batch:	200-41930	Instrument ID:	METICP7
Client Matrix:	Solid	Prep Batch:	200-41429	Lab File ID:	071612-06.ttx
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.41 g
Analysis Date:	07/17/2012 0715	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	07/06/2012 1000				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Cadmium	0.16	U	3.61	3.35	93	80 - 120	
Calcium	46	J	144	220	121	80 - 120	J
Chromium	2.3		14.4	16.5	98	80 - 120	
Cobalt	0.81	J	36.1	35.6	96	80 - 120	
Copper	0.89	J	18.0	17.9	95	80 - 120	
Iron	2500		72.1	3010	649	80 - 120	4
Lead	1.1		1.44	2.84	124	80 - 120	J
Magnesium	270	J	144	489	150	80 - 120	J
Manganese	29		36.1	104	208	80 - 120	J
Nickel	1.5	J	36.1	35.9	95	80 - 120	
Potassium	230	J	144	417	131	80 - 120	J
Selenium	1.5	U	3.61	2.90	81	80 - 120	
Silver	0.26	U	3.61	3.17	88	80 - 120	
Sodium	5.9	J	144	157	104	80 - 120	J
Thallium	0.97	U	3.61	3.12	86	80 - 120	
Vanadium	3.9		36.1	37.9	94	80 - 120	
Zinc	3.6		36.1	36.9	92	80 - 120	

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Serial Dilution - Batch: 200-41429

Method: 6010C
Preparation: 3050B

Lab Sample ID:	200-11554-4	Analysis Batch:	200-41930	Instrument ID:	METICP7
Client Matrix:	Solid	Prep Batch:	200-41429	Lab File ID:	071612-06.ttx
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	1.58 g
Analysis Date:	07/17/2012 0659	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	07/06/2012 1000				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	%Diff	Limit	Qual
Aluminum	1200		1260	3.2	10	D
Antimony	0.97	U	4.8	NC	10	U
Arsenic	1.9		2.17	NC	10	J D
Barium	2.7	J	2.49	NC	10	J D
Beryllium	0.093	J	0.117	NC	10	J D
Cadmium	0.16	U	0.80	NC	10	U
Calcium	46	J	46.8	NC	10	J D
Chromium	2.3		2.40	5.0	10	J D
Cobalt	0.81	J	0.811	NC	10	J D
Copper	0.89	J	0.612	NC	10	J D
Iron	2500		2620	3.2	10	D
Lead	1.1		1.33	NC	10	J D
Magnesium	270	J	279	2.6	10	J D
Manganese	29		30.3	2.6	10	D
Nickel	1.5	J	1.49	NC	10	J D
Potassium	230	J	243	NC	10	J D
Selenium	1.5	U	7.4	NC	10	U
Silver	0.26	U	1.3	NC	10	U
Sodium	5.9	J	80	NC	10	U
Thallium	0.97	U	4.8	NC	10	U
Vanadium	3.9		4.00	3.5	10	J D
Zinc	3.6		3.77	4.8	10	J D

Duplicate - Batch: 200-41429

Method: 6010C
Preparation: 3050B

Lab Sample ID:	200-11554-4	Analysis Batch:	200-41930	Instrument ID:	METICP7
Client Matrix:	Solid	Prep Batch:	200-41429	Lab File ID:	071612-06.ttx
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.43 g
Analysis Date:	07/17/2012 0709	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	07/06/2012 1000				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Aluminum	1200		1580	26	20	J
Antimony	0.97	U	1.1	NC	20	U
Arsenic	1.9		1.98	3	20	
Barium	2.7	J	4.44	48	20	J
Beryllium	0.093	J	0.123	28	20	J
Cadmium	0.16	U	0.18	NC	20	U
Calcium	46	J	74.9	48	20	J

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Duplicate - Batch: 200-41429

Method: 6010C
Preparation: 3050B

Lab Sample ID:	200-11554-4	Analysis Batch:	200-41930	Instrument ID:	METICP7
Client Matrix:	Solid	Prep Batch:	200-41429	Lab File ID:	071612-06.ttx
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.43 g
Analysis Date:	07/17/2012 0709	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	07/06/2012 1000				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Chromium	2.3		2.86	22	20	
Cobalt	0.81	J	0.965	18	20	J
Copper	0.89	J	1.38	43	20	J
Iron	2500		4720	60	20	J
Lead	1.1		1.58	40	20	
Magnesium	270	J	359	27	20	J
Manganese	29		41.0	33	20	J
Nickel	1.5	J	2.45	46	20	J
Potassium	230	J	244	7	20	J
Selenium	1.5	U	1.6	NC	20	U
Silver	0.26	U	0.28	NC	20	U
Sodium	5.9	J	17.8	101	20	J
Thallium	0.97	U	1.1	NC	20	U
Vanadium	3.9		4.14	7	20	
Zinc	3.6		6.24	54	20	J

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Method Blank - Batch: 200-41687

Method: 7471B
Preparation: 7471B

Lab Sample ID:	MB 200-41687/22-A	Analysis Batch:	200-41691	Instrument ID:	MEPCV3 II
Client Matrix:	Solid	Prep Batch:	200-41687	Lab File ID:	071112HH.PRN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.30 g
Analysis Date:	07/11/2012 1755	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	07/10/2012 1700				
Leach Date:	N/A				

Analyte	Result	Qual	DL	LOQ
Mercury	0.0038	U	0.0022	0.033

Lab Control Sample - Batch: 200-41687

Method: 7471B
Preparation: 7471B

Lab Sample ID:	LCS 200-41687/23-A	Analysis Batch:	200-41691	Instrument ID:	MEPCV3 II
Client Matrix:	Solid	Prep Batch:	200-41687	Lab File ID:	071112HH.PRN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.30 g
Analysis Date:	07/11/2012 1757	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	07/10/2012 1700				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.167	0.180	108	80 - 120	

Matrix Spike - Batch: 200-41687

Method: 7471B
Preparation: 7471B

Lab Sample ID:	200-11554-4	Analysis Batch:	200-41691	Instrument ID:	MEPCV3 II
Client Matrix:	Solid	Prep Batch:	200-41687	Lab File ID:	071112HH.PRN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.36 g
Analysis Date:	07/11/2012 1812	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	07/10/2012 1700				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.0059	J	0.141	0.141	96	80 - 120	

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Duplicate - Batch: 200-41687

Method: 7471B
Preparation: 7471B

Lab Sample ID:	200-11554-4	Analysis Batch:	200-41691	Instrument ID:	MEPCV3 II
Client Matrix:	Solid	Prep Batch:	200-41687	Lab File ID:	071112HH.PRN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.33 g
Analysis Date:	07/11/2012 1810	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	07/10/2012 1700				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Mercury	0.0059	J	0.00663	11	20	J

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Duplicate - Batch: 200-41363

Method: Moisture
Preparation: N/A

Lab Sample ID:	200-11554-1	Analysis Batch:	200-41363	Instrument ID:	No Equipment
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	07/05/2012 1058	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Solids	96	96	0.2	20	

DATA REPORTING QUALIFIERS

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Lab Section	Qualifier	Description
GC/MS VOA		
	J	Estimated: The analyte was positively identified; the quantitation is an estimation
	M	Manual integrated compound.
	U	Undetected at the Limit of Detection.
GC/MS Semi VOA		
	B	Blank contamination: The analyte was detected above one-half the reporting limit in an associated blank.
	J	Estimated: The analyte was positively identified; the quantitation is an estimation
	J	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
	M	Manual integrated compound.
	Q	One or more quality control criteria failed.
	H	Sample was prepped or analyzed beyond the specified holding time
	U	Undetected at the Limit of Detection.
GC Semi VOA		
	M	Manual integrated compound.
	U	Undetected at the Limit of Detection.
HPLC/IC		
	J	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
	M	Manual integrated compound.
	U	Undetected at the Limit of Detection.

DATA REPORTING QUALIFIERS

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

Lab Section	Qualifier	Description
Metals		
	J	Estimated: The analyte was positively identified; the quantitation is an estimation
	J	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
	4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
	D	The reported value is from a dilution.
	U	Undetected at the Limit of Detection.

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Prep Batch: 200-41282					
200-11554-1	NFUDS-001-TP0101-01	T	Solid	5035	
200-11554-2	NFUDS-001-TP0201-01	T	Solid	5035	
200-11554-3	NFUDS-001-TP0302-01	T	Solid	5035	
200-11554-4	NFUDS-001-TP0402-01	T	Solid	5035	
200-11554-5	NFUDS-001-TB01-06	T	Solid	5035	
Analysis Batch:200-41675					
LCS 200-41675/3	Lab Control Sample	T	Solid	8260B	
MB 200-41675/5	Method Blank	T	Solid	8260B	
200-11554-1	NFUDS-001-TP0101-01	T	Solid	8260B	200-41282
200-11554-2	NFUDS-001-TP0201-01	T	Solid	8260B	200-41282
200-11554-3	NFUDS-001-TP0302-01	T	Solid	8260B	200-41282
200-11554-4	NFUDS-001-TP0402-01	T	Solid	8260B	200-41282
200-11554-5	NFUDS-001-TB01-06	T	Solid	8260B	200-41282

Report Basis
T = Total

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Prep Batch: 200-41630					
LCS 200-41630/2-A	Lab Control Sample	T	Solid	3550C	
MB 200-41630/1-A	Method Blank	T	Solid	3550C	
200-11554-1	NFUDS-001-TP0101-01	T	Solid	3550C	
200-11554-2	NFUDS-001-TP0201-01	T	Solid	3550C	
200-11554-3	NFUDS-001-TP0302-01	T	Solid	3550C	
200-11554-4	NFUDS-001-TP0402-01	T	Solid	3550C	
Prep Batch: 200-41970					
LCS 200-41970/2-A	Lab Control Sample	T	Solid	3550C	
MB 200-41970/1-A	Method Blank	T	Solid	3550C	
200-11554-1RE	NFUDS-001-TP0101-01	T	Solid	3550C	
200-11554-2RE	NFUDS-001-TP0201-01	T	Solid	3550C	
200-11554-3RE	NFUDS-001-TP0302-01	T	Solid	3550C	
200-11554-4RE	NFUDS-001-TP0402-01	T	Solid	3550C	
Analysis Batch:200-42145					
LCS 200-41630/2-A	Lab Control Sample	T	Solid	8270C SIM	200-41630
MB 200-41630/1-A	Method Blank	T	Solid	8270C SIM	200-41630
200-11554-1	NFUDS-001-TP0101-01	T	Solid	8270C SIM	200-41630
200-11554-2	NFUDS-001-TP0201-01	T	Solid	8270C SIM	200-41630
200-11554-3	NFUDS-001-TP0302-01	T	Solid	8270C SIM	200-41630
200-11554-4	NFUDS-001-TP0402-01	T	Solid	8270C SIM	200-41630
Analysis Batch:200-42148					
LCS 200-41970/2-A	Lab Control Sample	T	Solid	8270C SIM	200-41970
MB 200-41970/1-A	Method Blank	T	Solid	8270C SIM	200-41970
200-11554-1RE	NFUDS-001-TP0101-01	T	Solid	8270C SIM	200-41970
200-11554-2RE	NFUDS-001-TP0201-01	T	Solid	8270C SIM	200-41970
200-11554-3RE	NFUDS-001-TP0302-01	T	Solid	8270C SIM	200-41970
200-11554-4RE	NFUDS-001-TP0402-01	T	Solid	8270C SIM	200-41970
Prep Batch: 240-49913					
LCS 240-49913/16-A	Lab Control Sample	T	Solid	3540C	
MB 240-49913/15-A	Method Blank	T	Solid	3540C	
200-11554-1	NFUDS-001-TP0101-01	T	Solid	3540C	
200-11554-2	NFUDS-001-TP0201-01	T	Solid	3540C	
200-11554-2MS	Matrix Spike	T	Solid	3540C	
200-11554-2MSD	Matrix Spike Duplicate	T	Solid	3540C	
200-11554-3	NFUDS-001-TP0302-01	T	Solid	3540C	
200-11554-4	NFUDS-001-TP0402-01	T	Solid	3540C	

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Analysis Batch:240-50851					
LCS 240-49913/16-A	Lab Control Sample	T	Solid	8270C/DoD	240-49913
MB 240-49913/15-A	Method Blank	T	Solid	8270C/DoD	240-49913
200-11554-1	NFUDS-001-TP0101-01	T	Solid	8270C/DoD	240-49913
200-11554-2	NFUDS-001-TP0201-01	T	Solid	8270C/DoD	240-49913
200-11554-2MS	Matrix Spike	T	Solid	8270C/DoD	240-49913
200-11554-2MSD	Matrix Spike Duplicate	T	Solid	8270C/DoD	240-49913
200-11554-3	NFUDS-001-TP0302-01	T	Solid	8270C/DoD	240-49913
200-11554-4	NFUDS-001-TP0402-01	T	Solid	8270C/DoD	240-49913
Prep Batch: 240-50985					
LCS 240-50985/22-A	Lab Control Sample	T	Solid	3540C	
MB 240-50985/23-A	Method Blank	T	Solid	3540C	
200-11554-1RE	NFUDS-001-TP0101-01	T	Solid	3540C	
200-11554-2RE	NFUDS-001-TP0201-01	T	Solid	3540C	
200-11554-3RE	NFUDS-001-TP0302-01	T	Solid	3540C	
200-11554-4RE	NFUDS-001-TP0402-01	T	Solid	3540C	
200-11554-4MS	Matrix Spike	T	Solid	3540C	
200-11554-4MSD	Matrix Spike Duplicate	T	Solid	3540C	
Analysis Batch:240-51914					
LCS 240-50985/22-A	Lab Control Sample	T	Solid	8270C/DoD	240-50985
MB 240-50985/23-A	Method Blank	T	Solid	8270C/DoD	240-50985
200-11554-1RE	NFUDS-001-TP0101-01	T	Solid	8270C/DoD	240-50985
200-11554-2RE	NFUDS-001-TP0201-01	T	Solid	8270C/DoD	240-50985
200-11554-3RE	NFUDS-001-TP0302-01	T	Solid	8270C/DoD	240-50985
200-11554-4RE	NFUDS-001-TP0402-01	T	Solid	8270C/DoD	240-50985
200-11554-4MS	Matrix Spike	T	Solid	8270C/DoD	240-50985
200-11554-4MSD	Matrix Spike Duplicate	T	Solid	8270C/DoD	240-50985

Report Basis
T = Total

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 200-41275					
LCS 200-41275/2-C	Lab Control Sample	T	Solid	3550C	
MB 200-41275/1-C	Method Blank	T	Solid	3550C	
200-11554-1	NFUDS-001-TP0101-01	T	Solid	3550C	
200-11554-2	NFUDS-001-TP0201-01	T	Solid	3550C	
200-11554-3	NFUDS-001-TP0302-01	T	Solid	3550C	
200-11554-4	NFUDS-001-TP0402-01	T	Solid	3550C	
Prep Batch: 200-41276					
LCS 200-41276/2-C	Lab Control Sample	T	Solid	3550C	
MB 200-41276/1-C	Method Blank	T	Solid	3550C	
200-11554-1	NFUDS-001-TP0101-01	T	Solid	3550C	
200-11554-2	NFUDS-001-TP0201-01	T	Solid	3550C	
200-11554-3	NFUDS-001-TP0302-01	T	Solid	3550C	
200-11554-4	NFUDS-001-TP0402-01	T	Solid	3550C	
Analysis Batch:200-41409					
LCS 200-41276/2-C	Lab Control Sample	T	Solid	8082A	200-41276
MB 200-41276/1-C	Method Blank	T	Solid	8082A	200-41276
200-11554-1	NFUDS-001-TP0101-01	T	Solid	8082A	200-41276
200-11554-2	NFUDS-001-TP0201-01	T	Solid	8082A	200-41276
200-11554-3	NFUDS-001-TP0302-01	T	Solid	8082A	200-41276
200-11554-4	NFUDS-001-TP0402-01	T	Solid	8082A	200-41276
Analysis Batch:200-41698					
LCS 200-41275/2-C	Lab Control Sample	T	Solid	8081B	200-41275
MB 200-41275/1-C	Method Blank	T	Solid	8081B	200-41275
200-11554-1	NFUDS-001-TP0101-01	T	Solid	8081B	200-41275
200-11554-2	NFUDS-001-TP0201-01	T	Solid	8081B	200-41275
200-11554-3	NFUDS-001-TP0302-01	T	Solid	8081B	200-41275
200-11554-4	NFUDS-001-TP0402-01	T	Solid	8081B	200-41275
Prep Batch: 240-50002					
LCS 240-50002/10-A	Lab Control Sample	T	Solid	8151A	
MB 240-50002/9-A	Method Blank	T	Solid	8151A	
200-11554-1	NFUDS-001-TP0101-01	T	Solid	8151A	
200-11554-1MS	Matrix Spike	T	Solid	8151A	
200-11554-1MSD	Matrix Spike Duplicate	T	Solid	8151A	
200-11554-2	NFUDS-001-TP0201-01	T	Solid	8151A	
200-11554-3	NFUDS-001-TP0302-01	T	Solid	8151A	
200-11554-4	NFUDS-001-TP0402-01	T	Solid	8151A	

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Analysis Batch:240-50119					
LCS 240-50002/10-A	Lab Control Sample	T	Solid	8151/DOD	240-50002
MB 240-50002/9-A	Method Blank	T	Solid	8151/DOD	240-50002
200-11554-1	NFUDS-001-TP0101-01	T	Solid	8151/DOD	240-50002
200-11554-1MS	Matrix Spike	T	Solid	8151/DOD	240-50002
200-11554-1MSD	Matrix Spike Duplicate	T	Solid	8151/DOD	240-50002
200-11554-2	NFUDS-001-TP0201-01	T	Solid	8151/DOD	240-50002
200-11554-3	NFUDS-001-TP0302-01	T	Solid	8151/DOD	240-50002
200-11554-4	NFUDS-001-TP0402-01	T	Solid	8151/DOD	240-50002

Report Basis
T = Total

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 200-41429					
LCS 200-41429/13-A	Lab Control Sample	T	Solid	3050B	
MB 200-41429/12-A	Method Blank	T	Solid	3050B	
200-11554-1	NFUDS-001-TP0101-01	T	Solid	3050B	
200-11554-2	NFUDS-001-TP0201-01	T	Solid	3050B	
200-11554-3	NFUDS-001-TP0302-01	T	Solid	3050B	
200-11554-4	NFUDS-001-TP0402-01	T	Solid	3050B	
200-11554-4DU	Duplicate	T	Solid	3050B	
200-11554-4MS	Matrix Spike	T	Solid	3050B	
Prep Batch: 200-41687					
LCS 200-41687/23-A	Lab Control Sample	T	Solid	7471B	
MB 200-41687/22-A	Method Blank	T	Solid	7471B	
200-11554-1	NFUDS-001-TP0101-01	T	Solid	7471B	
200-11554-2	NFUDS-001-TP0201-01	T	Solid	7471B	
200-11554-3	NFUDS-001-TP0302-01	T	Solid	7471B	
200-11554-4	NFUDS-001-TP0402-01	T	Solid	7471B	
200-11554-4DU	Duplicate	T	Solid	7471B	
200-11554-4MS	Matrix Spike	T	Solid	7471B	
Analysis Batch:200-41691					
LCS 200-41687/23-A	Lab Control Sample	T	Solid	7471B	200-41687
MB 200-41687/22-A	Method Blank	T	Solid	7471B	200-41687
200-11554-1	NFUDS-001-TP0101-01	T	Solid	7471B	200-41687
200-11554-2	NFUDS-001-TP0201-01	T	Solid	7471B	200-41687
200-11554-3	NFUDS-001-TP0302-01	T	Solid	7471B	200-41687
200-11554-4	NFUDS-001-TP0402-01	T	Solid	7471B	200-41687
200-11554-4DU	Duplicate	T	Solid	7471B	200-41687
200-11554-4MS	Matrix Spike	T	Solid	7471B	200-41687
Analysis Batch:200-41930					
LCS 200-41429/13-A	Lab Control Sample	T	Solid	6010C	200-41429
MB 200-41429/12-A	Method Blank	T	Solid	6010C	200-41429
200-11554-1	NFUDS-001-TP0101-01	T	Solid	6010C	200-41429
200-11554-2	NFUDS-001-TP0201-01	T	Solid	6010C	200-41429
200-11554-3	NFUDS-001-TP0302-01	T	Solid	6010C	200-41429
200-11554-4	NFUDS-001-TP0402-01	T	Solid	6010C	200-41429
200-11554-4DU	Duplicate	T	Solid	6010C	200-41429
200-11554-4MS	Matrix Spike	T	Solid	6010C	200-41429

Report Basis
T = Total

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
Sdg Number: 200-11554-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:200-41363					
200-11554-1	NFUDS-001-TP0101-01	T	Solid	Moisture	
200-11554-1DU	Duplicate	T	Solid	Moisture	
200-11554-2	NFUDS-001-TP0201-01	T	Solid	Moisture	
200-11554-3	NFUDS-001-TP0302-01	T	Solid	Moisture	
200-11554-4	NFUDS-001-TP0402-01	T	Solid	Moisture	

Report Basis
T = Total

HPLC/IC					
Prep Batch: 200-41397					
LCS 200-41397/2-A	Lab Control Sample	T	Solid	8330	
MB 200-41397/1-A	Method Blank	T	Solid	8330	
200-11554-1	NFUDS-001-TP0101-01	T	Solid	8330	
200-11554-2	NFUDS-001-TP0201-01	T	Solid	8330	
200-11554-3	NFUDS-001-TP0302-01	T	Solid	8330	
200-11554-4	NFUDS-001-TP0402-01	T	Solid	8330	
Analysis Batch:200-41501					
LCS 200-41397/2-A	Lab Control Sample	T	Solid	8330 Modified	200-41397
MB 200-41397/1-A	Method Blank	T	Solid	8330 Modified	200-41397
200-11554-1	NFUDS-001-TP0101-01	T	Solid	8330 Modified	200-41397
200-11554-2	NFUDS-001-TP0201-01	T	Solid	8330 Modified	200-41397
200-11554-3	NFUDS-001-TP0302-01	T	Solid	8330 Modified	200-41397
200-11554-4	NFUDS-001-TP0402-01	T	Solid	8330 Modified	200-41397
Analysis Batch:200-41502					
LCS 200-41397/2-A	Lab Control Sample	T	Solid	8330 Modified	200-41397
MB 200-41397/1-A	Method Blank	T	Solid	8330 Modified	200-41397
200-11554-1	NFUDS-001-TP0101-01	T	Solid	8330 Modified	200-41397
200-11554-2	NFUDS-001-TP0201-01	T	Solid	8330 Modified	200-41397
200-11554-3	NFUDS-001-TP0302-01	T	Solid	8330 Modified	200-41397
200-11554-4	NFUDS-001-TP0402-01	T	Solid	8330 Modified	200-41397

Report Basis
T = Total

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
SDG: 200-11554-1

Laboratory Chronicle

Lab ID: 200-11554-1 **Client ID: NFUDS-001-TP0101-01**

Sample Date/Time: 06/29/2012 08:30 Received Date/Time: 06/30/2012 10:05

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5035	200-11554-B-1-A		200-41675	200-41282	07/03/2012 09:48	1	TAL BUR	ALG
A:8260B	200-11554-B-1-A		200-41675	200-41282	07/11/2012 10:46	1	TAL BUR	MTP
P:3550C	200-11554-D-1-D		200-42145	200-41630	07/11/2012 08:48	1	TAL BUR	MLT
A:8270C SIM	200-11554-D-1-D		200-42145	200-41630	07/16/2012 18:05	1	TAL BUR	MTW
P:3550C	200-11554-E-1-I	RE	200-42148	200-41970	07/17/2012 17:23	1	TAL BUR	TPB
A:8270C SIM	200-11554-E-1-I	RE	200-42148	200-41970	07/19/2012 17:54	1	TAL BUR	MTW
P:3540C	200-11554-G-1-A		240-50851	240-49913	07/05/2012 11:14	1	TAL NC	SE
A:8270C/DoD	200-11554-G-1-A		240-50851	240-49913	07/16/2012 11:15	1	TAL NC	MU
P:3540C	200-11554-G-1-E	RE	240-51914	240-50985	07/17/2012 08:20	1	TAL NC	SE
A:8270C/DoD	200-11554-G-1-E	RE	240-51914	240-50985	07/25/2012 10:14	1	TAL NC	MU
P:3550C	200-11554-E-1-F		200-41698	200-41275	07/03/2012 09:20	1	TAL BUR	JAB
A:8081B	200-11554-E-1-F		200-41698	200-41275	07/11/2012 02:15	1	TAL BUR	LMT
P:3550C	200-11554-E-1-D		200-41409	200-41276	07/03/2012 09:28	1	TAL BUR	JAB
A:8082A	200-11554-E-1-D		200-41409	200-41276	07/06/2012 03:49	1	TAL BUR	SLD
P:8151A	200-11554-G-1-B		240-50119	240-50002	07/06/2012 07:25	1	TAL NC	SE
A:8151/DOD	200-11554-G-1-B		240-50119	240-50002	07/07/2012 15:18	1	TAL NC	AR
P:8330	200-11554-D-1-B		200-41502	200-41397	07/05/2012 18:41	1	TAL BUR	DJI
A:8330 Modified	200-11554-D-1-B		200-41502	200-41397	07/09/2012 17:51	1	TAL BUR	WBR
P:8330	200-11554-D-1-B		200-41501	200-41397	07/05/2012 18:41	1	TAL BUR	DJI
A:8330 Modified	200-11554-D-1-B		200-41501	200-41397	07/09/2012 18:03	1	TAL BUR	WBR
P:3050B	200-11554-E-1-G		200-41930	200-41429	07/06/2012 10:00	1	TAL BUR	MNT
A:6010C	200-11554-E-1-G		200-41930	200-41429	07/17/2012 06:23	1	TAL BUR	BL
P:7471B	200-11554-D-1-E		200-41691	200-41687	07/10/2012 17:00	1	TAL BUR	VTP
A:7471B	200-11554-D-1-E		200-41691	200-41687	07/11/2012 18:00	1	TAL BUR	VTP
A:Moisture	200-11554-D-1		200-41363		07/05/2012 10:58	1	TAL BUR	AJN

Lab ID: 200-11554-1 MS **Client ID: NFUDS-001-TP0101-01**

Sample Date/Time: 06/29/2012 08:30 Received Date/Time: 06/30/2012 10:05

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8151A	200-11554-G-1-C MS		240-50119	240-50002	07/06/2012 07:25	1	TAL NC	SE
A:8151/DOD	200-11554-G-1-C MS		240-50119	240-50002	07/07/2012 17:18	1	TAL NC	AR

Lab ID: 200-11554-1 MSD **Client ID: NFUDS-001-TP0101-01**

Sample Date/Time: 06/29/2012 08:30 Received Date/Time: 06/30/2012 10:05

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8151A	200-11554-G-1-D MSD		240-50119	240-50002	07/06/2012 07:25	1	TAL NC	SE
A:8151/DOD	200-11554-G-1-D MSD		240-50119	240-50002	07/07/2012 17:42	1	TAL NC	AR

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
SDG: 200-11554-1

Laboratory Chronicle

Lab ID: 200-11554-1 DU **Client ID:** NFUDS-001-TP0101-01

Sample Date/Time: 06/29/2012 08:30 Received Date/Time: 06/30/2012 10:05

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:Moisture	200-11554-D-1 DU		200-41363		07/05/2012 10:58	1	TAL BUR	AJN

Lab ID: 200-11554-2 **Client ID:** NFUDS-001-TP0201-01

Sample Date/Time: 06/29/2012 08:45 Received Date/Time: 06/30/2012 10:05

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5035	200-11554-B-2-A		200-41675	200-41282	07/03/2012 09:48	1	TAL BUR	ALG
A:8260B	200-11554-B-2-A		200-41675	200-41282	07/11/2012 11:16	1	TAL BUR	MTP
P:3550C	200-11554-D-2-D		200-42145	200-41630	07/11/2012 08:48	1	TAL BUR	MLT
A:8270C SIM	200-11554-D-2-D		200-42145	200-41630	07/16/2012 18:44	1	TAL BUR	MTW
P:3550C	200-11554-D-2-G	RE	200-42148	200-41970	07/17/2012 17:23	1	TAL BUR	TPB
A:8270C SIM	200-11554-D-2-G	RE	200-42148	200-41970	07/19/2012 18:33	1	TAL BUR	MTW
P:3540C	200-11554-G-2-A		240-50851	240-49913	07/05/2012 11:14	1	TAL NC	SE
A:8270C/DoD	200-11554-G-2-A		240-50851	240-49913	07/16/2012 11:34	1	TAL NC	MU
P:3540C	200-11554-G-2-E	RE	240-51914	240-50985	07/17/2012 08:20	1	TAL NC	SE
A:8270C/DoD	200-11554-G-2-E	RE	240-51914	240-50985	07/25/2012 10:33	1	TAL NC	MU
P:3550C	200-11554-E-2-F		200-41698	200-41275	07/03/2012 09:20	1	TAL BUR	JAB
A:8081B	200-11554-E-2-F		200-41698	200-41275	07/11/2012 02:41	1	TAL BUR	LMT
P:3550C	200-11554-E-2-D		200-41409	200-41276	07/03/2012 09:28	1	TAL BUR	JAB
A:8082A	200-11554-E-2-D		200-41409	200-41276	07/06/2012 04:13	1	TAL BUR	SLD
P:8151A	200-11554-G-2-D		240-50119	240-50002	07/06/2012 07:25	1	TAL NC	SE
A:8151/DOD	200-11554-G-2-D		240-50119	240-50002	07/07/2012 15:42	1	TAL NC	AR
P:8330	200-11554-D-2-B		200-41502	200-41397	07/05/2012 18:41	1	TAL BUR	DJI
A:8330 Modified	200-11554-D-2-B		200-41502	200-41397	07/09/2012 18:25	1	TAL BUR	WBR
P:8330	200-11554-D-2-B		200-41501	200-41397	07/05/2012 18:41	1	TAL BUR	DJI
A:8330 Modified	200-11554-D-2-B		200-41501	200-41397	07/09/2012 18:40	1	TAL BUR	WBR
P:3050B	200-11554-E-2-G		200-41930	200-41429	07/06/2012 10:00	1	TAL BUR	MNT
A:6010C	200-11554-E-2-G		200-41930	200-41429	07/17/2012 06:28	1	TAL BUR	BL
P:7471B	200-11554-D-2-E		200-41691	200-41687	07/10/2012 17:00	1	TAL BUR	VTP
A:7471B	200-11554-D-2-E		200-41691	200-41687	07/11/2012 18:03	1	TAL BUR	VTP
A:Moisture	200-11554-D-2		200-41363		07/05/2012 10:58	1	TAL BUR	AJN

Lab ID: 200-11554-2 MS **Client ID:** NFUDS-001-TP0201-01

Sample Date/Time: 06/29/2012 08:45 Received Date/Time: 06/30/2012 10:05

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	200-11554-G-2-B MS		240-50851	240-49913	07/05/2012 11:14	1	TAL NC	SE
A:8270C/DoD	200-11554-G-2-B MS		240-50851	240-49913	07/16/2012 11:54	1	TAL NC	MU

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
SDG: 200-11554-1

Laboratory Chronicle

Lab ID: 200-11554-2 MSD **Client ID:** NFUDS-001-TP0201-01

Sample Date/Time: 06/29/2012 08:45 Received Date/Time: 06/30/2012 10:05

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	200-11554-G-2-C MSD		240-50851	240-49913	07/05/2012 11:14	1	TAL NC	SE
A:8270C/DoD	200-11554-G-2-C MSD		240-50851	240-49913	07/16/2012 12:13	1	TAL NC	MU

Lab ID: 200-11554-3 **Client ID:** NFUDS-001-TP0302-01

Sample Date/Time: 06/29/2012 08:44 Received Date/Time: 06/30/2012 10:05

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5035	200-11554-B-3-A		200-41675	200-41282	07/03/2012 09:48	1	TAL BUR	ALG
A:8260B	200-11554-B-3-A		200-41675	200-41282	07/11/2012 11:46	1	TAL BUR	MTP
P:3550C	200-11554-E-3-H		200-42145	200-41630	07/11/2012 08:48	1	TAL BUR	MLT
A:8270C SIM	200-11554-E-3-H		200-42145	200-41630	07/16/2012 19:23	1	TAL BUR	MTW
P:3550C	200-11554-D-3-H	RE	200-42148	200-41970	07/17/2012 17:23	1	TAL BUR	TPB
A:8270C SIM	200-11554-D-3-H	RE	200-42148	200-41970	07/19/2012 19:11	1	TAL BUR	MTW
P:3540C	200-11554-G-3-A		240-50851	240-49913	07/05/2012 11:14	1	TAL NC	SE
A:8270C/DoD	200-11554-G-3-A		240-50851	240-49913	07/16/2012 10:35	1	TAL NC	MU
P:3540C	200-11554-G-3-C	RE	240-51914	240-50985	07/17/2012 08:20	1	TAL NC	SE
A:8270C/DoD	200-11554-G-3-C	RE	240-51914	240-50985	07/25/2012 10:53	1	TAL NC	MU
P:3550C	200-11554-E-3-F		200-41698	200-41275	07/03/2012 09:20	1	TAL BUR	JAB
A:8081B	200-11554-E-3-F		200-41698	200-41275	07/11/2012 03:06	1	TAL BUR	LMT
P:3550C	200-11554-E-3-D		200-41409	200-41276	07/03/2012 09:28	1	TAL BUR	JAB
A:8082A	200-11554-E-3-D		200-41409	200-41276	07/06/2012 04:38	1	TAL BUR	SLD
P:8151A	200-11554-G-3-B		240-50119	240-50002	07/06/2012 07:25	1	TAL NC	SE
A:8151/DOD	200-11554-G-3-B		240-50119	240-50002	07/07/2012 16:06	1	TAL NC	AR
P:8330	200-11554-D-3-B		200-41502	200-41397	07/05/2012 18:41	1	TAL BUR	DJI
A:8330 Modified	200-11554-D-3-B		200-41502	200-41397	07/09/2012 19:00	1	TAL BUR	WBR
P:8330	200-11554-D-3-B		200-41501	200-41397	07/05/2012 18:41	1	TAL BUR	DJI
A:8330 Modified	200-11554-D-3-B		200-41501	200-41397	07/09/2012 19:18	1	TAL BUR	WBR
P:3050B	200-11554-E-3-G		200-41930	200-41429	07/06/2012 10:00	1	TAL BUR	MNT
A:6010C	200-11554-E-3-G		200-41930	200-41429	07/17/2012 06:48	1	TAL BUR	BL
P:7471B	200-11554-D-3-F		200-41691	200-41687	07/10/2012 17:00	1	TAL BUR	VTP
A:7471B	200-11554-D-3-F		200-41691	200-41687	07/11/2012 18:05	1	TAL BUR	VTP
A:Moisture	200-11554-D-3		200-41363		07/05/2012 10:58	1	TAL BUR	AJN

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
SDG: 200-11554-1

Laboratory Chronicle

Lab ID: 200-11554-4 **Client ID:** NFUDS-001-TP0402-01

Sample Date/Time: 06/29/2012 08:55 Received Date/Time: 06/30/2012 10:05

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5035	200-11554-B-4-A		200-41675	200-41282	07/03/2012 09:48	1	TAL BUR	ALG
A:8260B	200-11554-B-4-A		200-41675	200-41282	07/11/2012 12:20	1	TAL BUR	MTP
P:3550C	200-11554-E-4-J		200-42145	200-41630	07/11/2012 08:48	1	TAL BUR	MLT
A:8270C SIM	200-11554-E-4-J		200-42145	200-41630	07/16/2012 20:02	1	TAL BUR	MTW
P:3550C	200-11554-E-4-L	RE	200-42148	200-41970	07/17/2012 17:23	1	TAL BUR	TPB
A:8270C SIM	200-11554-E-4-L	RE	200-42148	200-41970	07/19/2012 19:50	1	TAL BUR	MTW
P:3540C	200-11554-G-4-A		240-50851	240-49913	07/05/2012 11:14	1	TAL NC	SE
A:8270C/DoD	200-11554-G-4-A		240-50851	240-49913	07/16/2012 10:55	1	TAL NC	MU
P:3540C	200-11554-G-4-C	RE	240-51914	240-50985	07/17/2012 08:20	1	TAL NC	SE
A:8270C/DoD	200-11554-G-4-C	RE	240-51914	240-50985	07/25/2012 11:12	1	TAL NC	MU
P:3550C	200-11554-E-4-F		200-41698	200-41275	07/03/2012 09:20	1	TAL BUR	JAB
A:8081B	200-11554-E-4-F		200-41698	200-41275	07/11/2012 03:32	1	TAL BUR	LMT
P:3550C	200-11554-E-4-D		200-41409	200-41276	07/03/2012 09:28	1	TAL BUR	JAB
A:8082A	200-11554-E-4-D		200-41409	200-41276	07/06/2012 05:02	1	TAL BUR	SLD
P:8151A	200-11554-G-4-B		240-50119	240-50002	07/06/2012 07:25	1	TAL NC	SE
A:8151/DOD	200-11554-G-4-B		240-50119	240-50002	07/07/2012 16:30	1	TAL NC	AR
P:8330	200-11554-D-4-D		200-41502	200-41397	07/05/2012 18:41	1	TAL BUR	DJI
A:8330 Modified	200-11554-D-4-D		200-41502	200-41397	07/09/2012 19:34	1	TAL BUR	WBR
P:8330	200-11554-D-4-D		200-41501	200-41397	07/05/2012 18:41	1	TAL BUR	DJI
A:8330 Modified	200-11554-D-4-D		200-41501	200-41397	07/09/2012 19:55	1	TAL BUR	WBR
P:3050B	200-11554-E-4-G		200-41930	200-41429	07/06/2012 10:00	1	TAL BUR	MNT
A:6010C	200-11554-E-4-G		200-41930	200-41429	07/17/2012 06:54	1	TAL BUR	BL
P:7471B	200-11554-D-4-F		200-41691	200-41687	07/10/2012 17:00	1	TAL BUR	VTP
A:7471B	200-11554-D-4-F		200-41691	200-41687	07/11/2012 18:08	1	TAL BUR	VTP
A:Moisture	200-11554-D-4		200-41363		07/05/2012 10:58	1	TAL BUR	AJN

Lab ID: 200-11554-4 MS **Client ID:** NFUDS-001-TP0402-01

Sample Date/Time: 06/29/2012 08:55 Received Date/Time: 06/30/2012 10:05

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	200-11554-G-4-D MS		240-51914	240-50985	07/17/2012 08:20	1	TAL NC	SE
A:8270C/DoD	200-11554-G-4-D MS		240-51914	240-50985	07/25/2012 11:32	1	TAL NC	MU
P:3050B	200-11554-E-4-I MS		200-41930	200-41429	07/06/2012 10:00	1	TAL BUR	MNT
A:6010C	200-11554-E-4-I MS		200-41930	200-41429	07/17/2012 07:15	1	TAL BUR	BL
P:7471B	200-11554-D-4-H MS		200-41691	200-41687	07/10/2012 17:00	1	TAL BUR	VTP
A:7471B	200-11554-D-4-H MS		200-41691	200-41687	07/11/2012 18:12	1	TAL BUR	VTP

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
SDG: 200-11554-1

Laboratory Chronicle

Lab ID: 200-11554-4 MSD **Client ID:** NFUDS-001-TP0402-01

Sample Date/Time: 06/29/2012 08:55 Received Date/Time: 06/30/2012 10:05

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3540C	200-11554-G-4-E MSD		240-51914	240-50985	07/17/2012 08:20	1	TAL NC	SE
A:8270C/DoD	200-11554-G-4-E MSD		240-51914	240-50985	07/25/2012 11:51	1	TAL NC	MU

Lab ID: 200-11554-4 DU **Client ID:** NFUDS-001-TP0402-01

Sample Date/Time: 06/29/2012 08:55 Received Date/Time: 06/30/2012 10:05

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3050B	200-11554-E-4-H DU		200-41930	200-41429	07/06/2012 10:00	1	TAL BUR	MNT
A:6010C	200-11554-E-4-H DU		200-41930	200-41429	07/17/2012 07:09	1	TAL BUR	BL
P:7471B	200-11554-D-4-G DU		200-41691	200-41687	07/10/2012 17:00	1	TAL BUR	VTP
A:7471B	200-11554-D-4-G DU		200-41691	200-41687	07/11/2012 18:10	1	TAL BUR	VTP

Lab ID: 200-11554-4 SD **Client ID:** NFUDS-001-TP0402-01

Sample Date/Time: 06/29/2012 08:55 Received Date/Time: 06/30/2012 10:05

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3050B	200-11554-E-4-G SD ^5		200-41930	200-41429	07/06/2012 10:00	5	TAL BUR	MNT
A:6010C	200-11554-E-4-G SD ^5		200-41930	200-41429	07/17/2012 06:59	5	TAL BUR	BL
P:3050B	200-11554-E-4-G PDS		200-41930	200-41429	07/06/2012 10:00	1	TAL BUR	MNT
A:6010C	200-11554-E-4-G PDS		200-41930	200-41429	07/17/2012 07:04	1	TAL BUR	BL

Lab ID: 200-11554-5 **Client ID:** NFUDS-001-TB01-06

Sample Date/Time: 06/29/2012 09:00 Received Date/Time: 06/30/2012 10:05

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5035	200-11554-B-5-A		200-41675	200-41282	07/03/2012 09:48	1	TAL BUR	ALG
A:8260B	200-11554-B-5-A		200-41675	200-41282	07/11/2012 10:15	1	TAL BUR	MTP

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
SDG: 200-11554-1

Laboratory Chronicle

Lab ID: **MB** **Client ID:** **N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:8260B	MB 200-41675/5		200-41675		07/11/2012 09:45	1	TAL BUR	MTP
P:3550C	MB 200-41630/1-A		200-42145	200-41630	07/11/2012 08:48	1	TAL BUR	MLT
A:8270C SIM	MB 200-41630/1-A		200-42145	200-41630	07/16/2012 17:26	1	TAL BUR	MTW
P:3550C	MB 200-41970/1-A		200-42148	200-41970	07/17/2012 17:23	1	TAL BUR	TPB
A:8270C SIM	MB 200-41970/1-A		200-42148	200-41970	07/19/2012 17:15	1	TAL BUR	MTW
P:3540C	MB 240-49913/15-A		240-50851	240-49913	07/05/2012 11:14	1	TAL NC	SE
A:8270C/DoD	MB 240-49913/15-A		240-50851	240-49913	07/16/2012 09:17	1	TAL NC	MU
P:3540C	MB 240-50985/23-A		240-51914	240-50985	07/17/2012 08:20	1	TAL NC	SE
A:8270C/DoD	MB 240-50985/23-A		240-51914	240-50985	07/25/2012 09:35	1	TAL NC	MU
P:3550C	MB 200-41275/1-C		200-41698	200-41275	07/03/2012 09:20	1	TAL BUR	JAB
A:8081B	MB 200-41275/1-C		200-41698	200-41275	07/11/2012 01:23	1	TAL BUR	LMT
P:3550C	MB 200-41276/1-C		200-41409	200-41276	07/03/2012 09:28	1	TAL BUR	JAB
A:8082A	MB 200-41276/1-C		200-41409	200-41276	07/06/2012 03:01	1	TAL BUR	SLD
P:8151A	MB 240-50002/9-A		240-50119	240-50002	07/06/2012 07:25	1	TAL NC	SE
A:8151/DOD	MB 240-50002/9-A		240-50119	240-50002	07/07/2012 18:06	1	TAL NC	AR
P:8330	MB 200-41397/1-A		200-41502	200-41397	07/05/2012 18:41	1	TAL BUR	DJI
A:8330 Modified	MB 200-41397/1-A		200-41502	200-41397	07/09/2012 16:43	1	TAL BUR	WBR
P:8330	MB 200-41397/1-A		200-41501	200-41397	07/05/2012 18:41	1	TAL BUR	DJI
A:8330 Modified	MB 200-41397/1-A		200-41501	200-41397	07/09/2012 16:48	1	TAL BUR	WBR
P:3050B	MB 200-41429/12-A		200-41930	200-41429	07/06/2012 10:00	1	TAL BUR	MNT
A:6010C	MB 200-41429/12-A		200-41930	200-41429	07/17/2012 06:12	1	TAL BUR	BL
P:7471B	MB 200-41687/22-A		200-41691	200-41687	07/10/2012 17:00	1	TAL BUR	VTP
A:7471B	MB 200-41687/22-A		200-41691	200-41687	07/11/2012 17:55	1	TAL BUR	VTP

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
SDG: 200-11554-1

Laboratory Chronicle

Lab ID: LCS **Client ID:** N/A

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:8260B	LCS 200-41675/3		200-41675		07/11/2012 08:44	1	TAL BUR	MTP
P:3550C	LCS 200-41630/2-A		200-42145	200-41630	07/11/2012 08:48	1	TAL BUR	MLT
A:8270C SIM	LCS 200-41630/2-A		200-42145	200-41630	07/16/2012 16:47	1	TAL BUR	MTW
P:3550C	LCS 200-41970/2-A		200-42148	200-41970	07/17/2012 17:23	1	TAL BUR	TPB
A:8270C SIM	LCS 200-41970/2-A		200-42148	200-41970	07/19/2012 15:57	1	TAL BUR	MTW
P:3540C	LCS 240-49913/16-A		240-50851	240-49913	07/05/2012 11:14	1	TAL NC	SE
A:8270C/DoD	LCS 240-49913/16-A		240-50851	240-49913	07/16/2012 09:37	1	TAL NC	MU
P:3540C	LCS 240-50985/22-A		240-51914	240-50985	07/17/2012 08:20	1	TAL NC	SE
A:8270C/DoD	LCS 240-50985/22-A		240-51914	240-50985	07/25/2012 09:55	1	TAL NC	MU
P:3550C	LCS 200-41275/2-C		200-41698	200-41275	07/03/2012 09:20	1	TAL BUR	JAB
A:8081B	LCS 200-41275/2-C		200-41698	200-41275	07/11/2012 01:49	1	TAL BUR	LMT
P:3550C	LCS 200-41276/2-C		200-41409	200-41276	07/03/2012 09:28	1	TAL BUR	JAB
A:8082A	LCS 200-41276/2-C		200-41409	200-41276	07/06/2012 03:25	1	TAL BUR	SLD
P:8151A	LCS 240-50002/10-A		240-50119	240-50002	07/06/2012 07:25	1	TAL NC	SE
A:8151/DOD	LCS 240-50002/10-A		240-50119	240-50002	07/07/2012 18:30	1	TAL NC	AR
P:8330	LCS 200-41397/2-A		200-41502	200-41397	07/05/2012 18:41	1	TAL BUR	DJI
A:8330 Modified	LCS 200-41397/2-A		200-41502	200-41397	07/09/2012 17:17	1	TAL BUR	WBR
P:8330	LCS 200-41397/2-A		200-41501	200-41397	07/05/2012 18:41	1	TAL BUR	DJI
A:8330 Modified	LCS 200-41397/2-A		200-41501	200-41397	07/09/2012 17:25	1	TAL BUR	WBR
P:3050B	LCS 200-41429/13-A		200-41930	200-41429	07/06/2012 10:00	1	TAL BUR	MNT
A:6010C	LCS 200-41429/13-A		200-41930	200-41429	07/17/2012 06:17	1	TAL BUR	BL
P:7471B	LCS 200-41687/23-A		200-41691	200-41687	07/10/2012 17:00	1	TAL BUR	VTP
A:7471B	LCS 200-41687/23-A		200-41691	200-41687	07/11/2012 17:57	1	TAL BUR	VTP

Lab References:
TAL BUR = TestAmerica Burlington
TAL NC = TestAmerica Canton

Certification Summary

Client: Weston Solutions, Inc.
Project/Site: Nantucket Beach FUDS

TestAmerica Job ID: 200-11554-1
SDG: 200-11554-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Burlington	ACLASS	DoD ELAP		ADE-1492
TestAmerica Burlington	Connecticut	State Program	1	PH-0751
TestAmerica Burlington	DE Haz. Subst. Cleanup Act	State Program	3	NA
TestAmerica Burlington	Florida	NELAC	4	E87467
TestAmerica Burlington	Louisiana	NELAC	6	176292
TestAmerica Burlington	Maine	State Program	1	VT00008
TestAmerica Burlington	Minnesota	NELAC	5	050-999-436
TestAmerica Burlington	New Hampshire	NELAC	1	200610
TestAmerica Burlington	New Jersey	NELAC	2	VT972
TestAmerica Burlington	New York	NELAC	2	10391
TestAmerica Burlington	Pennsylvania	NELAC	3	68-00489
TestAmerica Burlington	Rhode Island	State Program	1	LAO00298
TestAmerica Burlington	USDA	Federal		P330-11-00093
TestAmerica Burlington	Vermont	State Program	1	VT-4000
TestAmerica Burlington	Virginia	NELAC	3	460209
TestAmerica Canton	California	NELAC	9	01144CA
TestAmerica Canton	Connecticut	State Program	1	PH-0590
TestAmerica Canton	Florida	NELAC	4	E87225
TestAmerica Canton	Georgia	State Program	4	N/A
TestAmerica Canton	Illinois	NELAC	5	200004
TestAmerica Canton	Kansas	NELAC	7	E-10336
TestAmerica Canton	Kentucky	State Program	4	58
TestAmerica Canton	L-A-B	DoD ELAP		L2315
TestAmerica Canton	Minnesota	NELAC	5	039-999-348
TestAmerica Canton	Nevada	State Program	9	OH-000482008A
TestAmerica Canton	New Jersey	NELAC	2	OH001
TestAmerica Canton	New York	NELAC	2	10975
TestAmerica Canton	Ohio VAP	State Program	5	CL0024
TestAmerica Canton	Pennsylvania	NELAC	3	68-00340
TestAmerica Canton	USDA	Federal		P330-11-00328
TestAmerica Canton	Virginia	NELAC	3	460175
TestAmerica Canton	Washington	State Program	10	C971
TestAmerica Canton	West Virginia DEP	State Program	3	210
TestAmerica Canton	Wisconsin	State Program	5	999518190

Accreditation may not be offered or required for all methods and analytes reported in this package Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method 8260B

Volatile Organic Compounds (GC/MS) by Method 8260B

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Matrix: Solid Level: Low

GC Column (1): DB-624 ID: 0.53 (mm)

Client Sample ID	Lab Sample ID	DCA #	TOL #	BFB #	DCZ #
NFUDS-001-TP0101-01	200-11554-1	100	98	107	98
NFUDS-001-TP0201-01	200-11554-2	100	98	104	98
NFUDS-001-TP0302-01	200-11554-3	99	99	111	98
NFUDS-001-TP0402-01	200-11554-4	99	91	96	91
NFUDS-001-TB01-06	200-11554-5	93	95	99	94
	MB 200-41675/5	93	94	98	93
	LCS 200-41675/3	95	95	97	94

	QC LIMITS
DCA = 1,2-Dichloroethane-d4	65-155
TOL = Toluene-d8	80-115
BFB = Bromofluorobenzene	80-115
DCZ = 1,2-Dichlorobenzene-d4	45-145

Column to be used to flag recovery values

FORM II 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Matrix: Solid Level: Low Lab File ID: ngia03.d

Lab ID: LCS 200-41675/3 Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Dichlorodifluoromethane	50.0	40.4	81	30-180	M
Chloromethane	50.0	41.2	82	55-150	
Vinyl chloride	50.0	50.1	100	65-145	
Bromomethane	50.0	40.5	81	65-145	M
Chloroethane	50.0	45.8	92	70-135	
Trichlorofluoromethane	50.0	47.8	96	70-140	
1,1-Dichloroethene	50.0	51.6	103	75-135	
Freon TF	50.0	44.1	88	75-140	
Acetone	125	114	91	50-130	
Carbon disulfide	50.0	42.1	84	80-135	
Methyl acetate	50.0	44.9	90	60-140	
Methylene Chloride	50.0	49.7	99	75-140	
trans-1,2-Dichloroethene	50.0	51.3	103	80-130	
Methyl t-butyl ether	50.0	47.5	95	85-130	
1,1-Dichloroethane	50.0	49.0	98	85-120	
cis-1,2-Dichloroethene	50.0	50.5	101	80-120	
2-Butanone	125	120	96	70-135	
Bromochloromethane	50.0	51.5	103	75-125	
Chloroform	50.0	49.9	100	85-120	
1,1,1-Trichloroethane	50.0	49.8	100	80-115	
Cyclohexane	50.0	48.8	98	60-140	
Carbon tetrachloride	50.0	49.8	100	80-115	
Benzene	50.0	51.0	102	85-120	
1,2-Dichloroethane	50.0	49.2	98	75-120	
Trichloroethene	50.0	50.9	102	85-120	
Methylcyclohexane	50.0	50.5	101	60-140	
1,2-Dichloropropane	50.0	49.4	99	85-120	
1,4-Dioxane	2500	2440	97	50-160	
Bromodichloromethane	50.0	48.9	98	80-115	
cis-1,3-Dichloropropene	50.0	52.4	105	85-120	
4-Methyl-2-pentanone	125	124	99	65-135	
Toluene	50.0	51.1	102	75-125	
trans-1,3-Dichloropropene	50.0	51.5	103	85-120	
1,1,2-Trichloroethane	50.0	48.9	98	75-125	
Tetrachloroethene	50.0	51.7	103	85-120	
2-Hexanone	125	125	100	70-135	
Dibromochloromethane	50.0	50.2	100	80-120	
1,2-Dibromoethane	50.0	49.6	99	80-120	
Chlorobenzene	50.0	51.3	103	80-120	
Ethylbenzene	50.0	50.9	102	80-120	
m&p-Xylene	100	104	104	80-120	
o-Xylene	50.0	50.5	101	85-120	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Matrix: Solid Level: Low Lab File ID: ngia03.d

Lab ID: LCS 200-41675/3 Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Styrene	50.0	51.4	103	80-125	
Bromoform	50.0	49.8	100	75-130	
Isopropylbenzene	50.0	49.3	99	85-120	
1,1,2,2-Tetrachloroethane	50.0	47.7	95	75-125	
1,3-Dichlorobenzene	50.0	50.5	101	80-120	
1,4-Dichlorobenzene	50.0	50.5	101	85-120	
1,2-Dichlorobenzene	50.0	50.8	102	85-120	
1,2-Dibromo-3-Chloropropane	50.0	46.7	93	65-130	
1,2,4-Trichlorobenzene	50.0	50.8	102	80-125	
1,2,3-Trichlorobenzene	50.0	52.1	104	70-125	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab File ID: ngia05.d Lab Sample ID: MB 200-41675/5

Matrix: Solid Heated Purge:(Y/N) Y

Instrument ID: N.i Date Analyzed: 07/11/2012 09:45

GC Column: DB-624 ID: 0.53(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 200-41675/3	ngia03.d	07/11/2012 08:44
NFUDS-001-TB01-06	200-11554-5	ngia06.d	07/11/2012 10:15
NFUDS-001-TP0101-01	200-11554-1	ngia07.d	07/11/2012 10:46
NFUDS-001-TP0201-01	200-11554-2	ngia08.d	07/11/2012 11:16
NFUDS-001-TP0302-01	200-11554-3	ngia09.d	07/11/2012 11:46
NFUDS-001-TP0402-01	200-11554-4	ngia10.d	07/11/2012 12:20

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab File ID: ngi01.d BFB Injection Date: 07/10/2012

Instrument ID: N.i BFB Injection Time: 14:09

Analysis Batch No.: 41643

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	24.7	
75	30.0 - 60.0 % of mass 95	48.9	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.6	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	61.7	
175	5.0 - 9.0 % of mass 174	4.9	(8.0)1
176	95.0 - 101.0 % of mass 174	60.2	(97.6)1
177	5.0 - 9.0 % of mass 176	4.1	(6.9)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 200-41643/3	ngi03.d	07/10/2012	14:51
	IC 200-41643/4	ngi04.d	07/10/2012	15:22
	IC 200-41643/5	ngi05.d	07/10/2012	15:52
	ICIS 200-41643/6	ngi06.d	07/10/2012	16:22
	IC 200-41643/7	ngi07.d	07/10/2012	16:53
	IC 200-41643/8	ngi08.d	07/10/2012	17:23
	ICV 200-41643/11	ngi11.d	07/10/2012	18:54

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab File ID: ngia01.d BFB Injection Date: 07/11/2012

Instrument ID: N.i BFB Injection Time: 07:55

Analysis Batch No.: 41675

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	25.2	
75	30.0 - 60.0 % of mass 95	48.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.4	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	62.0	
175	5.0 - 9.0 % of mass 174	4.6	(7.4)1
176	95.0 - 101.0 % of mass 174	60.2	(97.0)1
177	5.0 - 9.0 % of mass 176	4.4	(7.3)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 200-41675/2	ngia02.d	07/11/2012	08:13
	LCS 200-41675/3	ngia03.d	07/11/2012	08:44
	MB 200-41675/5	ngia05.d	07/11/2012	09:45
NFUDS-001-TB01-06	200-11554-5	ngia06.d	07/11/2012	10:15
NFUDS-001-TP0101-01	200-11554-1	ngia07.d	07/11/2012	10:46
NFUDS-001-TP0201-01	200-11554-2	ngia08.d	07/11/2012	11:16
NFUDS-001-TP0302-01	200-11554-3	ngia09.d	07/11/2012	11:46
NFUDS-001-TP0402-01	200-11554-4	ngia10.d	07/11/2012	12:20

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Sample No.: ICIS 200-41643/6 Date Analyzed: 07/10/2012 16:22

Instrument ID: N.i GC Column: DB-624 ID: 0.53(mm)

Lab File ID (Standard): ngi06.d Heated Purge: (Y/N) Y

Calibration ID: 16616

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		3548521	9.67	2770399	15.61	1362455	20.07
UPPER LIMIT		7097042	10.17	5540798	16.11	2724910	20.57
LOWER LIMIT		1774261	9.17	1385200	15.11	681228	19.57
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 200-41643/11		3695777	9.66	2798969	15.60	1403826	20.06

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Sample No.: CCVIS 200-41675/2 Date Analyzed: 07/11/2012 08:13

Instrument ID: N.i GC Column: DB-624 ID: 0.53(mm)

Lab File ID (Standard): ngia02.d Heated Purge: (Y/N) Y

Calibration ID: 16616

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		4239484	9.66	3237244	15.60	1619718	20.06
UPPER LIMIT		8478968	10.16	6474488	16.10	3239436	20.56
LOWER LIMIT		2119742	9.16	1618622	15.10	809859	19.56
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 200-41675/3		3974983	9.66	3037254	15.60	1530840	20.06
MB 200-41675/5		3762066	9.66	2994767	15.61	1468920	20.07
200-11554-5	NFUDS-001-TB01-06	3693122	9.66	2965755	15.60	1480644	20.06
200-11554-1	NFUDS-001-TP0101-01	3464796	9.67	2753983	15.61	1306448	20.06
200-11554-2	NFUDS-001-TP0201-01	3376839	9.68	2669593	15.61	1276877	20.07
200-11554-3	NFUDS-001-TP0302-01	3360926	9.67	2547169	15.60	1135463	20.06
200-11554-4	NFUDS-001-TP0402-01	3479480	9.68	2747317	15.61	1354866	20.07

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0101-01 | Lab Sample ID: 200-11554-1

Matrix: Solid | Lab File ID: ngia07.d

Analysis Method: 8260B | Date Collected: 06/29/2012 08:30

Sample wt/vol: 6.49(g) | Date Analyzed: 07/11/2012 10:46

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.53(mm)

% Moisture: 4.1 | Level: (low/med) Low

Analysis Batch No.: 41675 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
75-71-8	Dichlorodifluoromethane	0.80	U	4.0	0.80	0.18
74-87-3	Chloromethane	0.80	U	4.0	0.80	0.21
75-01-4	Vinyl chloride	0.80	U	4.0	0.80	0.24
74-83-9	Bromomethane	2.0	U	4.0	2.0	0.59
75-00-3	Chloroethane	0.80	U	4.0	0.80	0.31
75-69-4	Trichlorofluoromethane	0.80	U	4.0	0.80	0.27
75-35-4	1,1-Dichloroethene	0.80	U	4.0	0.80	0.30
76-13-1	Freon TF	0.80	U	4.0	0.80	0.27
67-64-1	Acetone	7.1		4.0	2.0	0.80
75-15-0	Carbon disulfide	0.80	U	4.0	0.80	0.25
79-20-9	Methyl acetate	2.0	U	4.0	2.0	0.51
75-09-2	Methylene Chloride	0.80	U	4.0	0.80	0.44
156-60-5	trans-1,2-Dichloroethene	0.80	U	4.0	0.80	0.30
1634-04-4	Methyl t-butyl ether	0.80	U	4.0	0.80	0.24
75-34-3	1,1-Dichloroethane	0.80	U	4.0	0.80	0.33
156-59-2	cis-1,2-Dichloroethene	0.80	U	4.0	0.80	0.34
78-93-3	2-Butanone	2.0	U	4.0	2.0	1.2
74-97-5	Bromochloromethane	0.80	U	4.0	0.80	0.30
67-66-3	Chloroform	0.80	U	4.0	0.80	0.26
71-55-6	1,1,1-Trichloroethane	0.80	U	4.0	0.80	0.56
110-82-7	Cyclohexane	0.80	U	4.0	0.80	0.68
56-23-5	Carbon tetrachloride	0.80	U	4.0	0.80	0.61
71-43-2	Benzene	0.80	U	4.0	0.80	0.57
107-06-2	1,2-Dichloroethane	0.80	U	4.0	0.80	0.50
79-01-6	Trichloroethene	0.80	U	4.0	0.80	0.39
108-87-2	Methylcyclohexane	0.80	U	4.0	0.80	0.14
78-87-5	1,2-Dichloropropane	0.80	U	4.0	0.80	0.23
123-91-1	1,4-Dioxane	40	U	200	40	18
75-27-4	Bromodichloromethane	0.80	U	4.0	0.80	0.17
10061-01-5	cis-1,3-Dichloropropene	0.80	U	4.0	0.80	0.28
108-10-1	4-Methyl-2-pentanone	0.80	U	4.0	0.80	0.48
108-88-3	Toluene	0.093	J	4.0	0.20	0.080
10061-02-6	trans-1,3-Dichloropropene	0.80	U	4.0	0.80	0.10
79-00-5	1,1,2-Trichloroethane	0.80	U	4.0	0.80	0.27
127-18-4	Tetrachloroethene	0.20	U	4.0	0.20	0.088
591-78-6	2-Hexanone	0.80	U	4.0	0.80	0.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0101-01 | Lab Sample ID: 200-11554-1

Matrix: Solid | Lab File ID: ngia07.d

Analysis Method: 8260B | Date Collected: 06/29/2012 08:30

Sample wt/vol: 6.49(g) | Date Analyzed: 07/11/2012 10:46

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.53(mm)

% Moisture: 4.1 | Level: (low/med) Low

Analysis Batch No.: 41675 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
124-48-1	Dibromochloromethane	0.80	U	4.0	0.80	0.088
106-93-4	1,2-Dibromoethane	0.80	U	4.0	0.80	0.12
108-90-7	Chlorobenzene	0.40	U	4.0	0.40	0.061
100-41-4	Ethylbenzene	0.20	U	4.0	0.20	0.045
179601-23-1	m&p-Xylene	0.80	U	4.0	0.80	0.56
95-47-6	o-Xylene	0.20	U	4.0	0.20	0.049
1330-20-7	Xylenes, Total	0.20	U	4.0	0.20	0.59
100-42-5	Styrene	0.20	U	4.0	0.20	0.080
75-25-2	Bromoform	0.80	U	4.0	0.80	0.16
98-82-8	Isopropylbenzene	0.80	U	4.0	0.80	0.062
79-34-5	1,1,2,2-Tetrachloroethane	0.80	U	4.0	0.80	0.21
541-73-1	1,3-Dichlorobenzene	0.088	U	4.0	0.088	0.12
106-46-7	1,4-Dichlorobenzene	0.20	U	4.0	0.20	0.18
95-50-1	1,2-Dichlorobenzene	0.20	U	4.0	0.20	0.18
96-12-8	1,2-Dibromo-3-Chloropropane	0.80	U	4.0	0.80	0.73
120-82-1	1,2,4-Trichlorobenzene	0.80	U	4.0	0.80	0.16
87-61-6	1,2,3-Trichlorobenzene	0.17	J	4.0	0.80	0.12

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4	100		65-155
2037-26-5	Toluene-d8	98		80-115
460-00-4	Bromofluorobenzene	107		80-115
2199-69-1	1,2-Dichlorobenzene-d4	98		45-145

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0201-01 | Lab Sample ID: 200-11554-2

Matrix: Solid | Lab File ID: ngia08.d

Analysis Method: 8260B | Date Collected: 06/29/2012 08:45

Sample wt/vol: 5.15(g) | Date Analyzed: 07/11/2012 11:16

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.53(mm)

% Moisture: 2.9 | Level: (low/med) Low

Analysis Batch No.: 41675 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
75-71-8	Dichlorodifluoromethane	1.0	U	5.0	1.0	0.23
74-87-3	Chloromethane	1.0	U	5.0	1.0	0.26
75-01-4	Vinyl chloride	1.0	U	5.0	1.0	0.30
74-83-9	Bromomethane	2.5	U	5.0	2.5	0.74
75-00-3	Chloroethane	1.0	U	5.0	1.0	0.38
75-69-4	Trichlorofluoromethane	1.0	U	5.0	1.0	0.33
75-35-4	1,1-Dichloroethene	1.0	U	5.0	1.0	0.37
76-13-1	Freon TF	1.0	U	5.0	1.0	0.33
67-64-1	Acetone	7.3		5.0	2.5	1.0
75-15-0	Carbon disulfide	1.0	U	5.0	1.0	0.31
79-20-9	Methyl acetate	2.5	U	5.0	2.5	0.63
75-09-2	Methylene Chloride	1.0	U	5.0	1.0	0.55
156-60-5	trans-1,2-Dichloroethene	1.0	U	5.0	1.0	0.37
1634-04-4	Methyl t-butyl ether	1.0	U	5.0	1.0	0.30
75-34-3	1,1-Dichloroethane	1.0	U	5.0	1.0	0.41
156-59-2	cis-1,2-Dichloroethene	1.0	U	5.0	1.0	0.42
78-93-3	2-Butanone	2.5	U	5.0	2.5	1.5
74-97-5	Bromochloromethane	1.0	U	5.0	1.0	0.37
67-66-3	Chloroform	1.0	U	5.0	1.0	0.32
71-55-6	1,1,1-Trichloroethane	1.0	U	5.0	1.0	0.70
110-82-7	Cyclohexane	1.0	U	5.0	1.0	0.85
56-23-5	Carbon tetrachloride	1.0	U	5.0	1.0	0.76
71-43-2	Benzene	1.0	U	5.0	1.0	0.71
107-06-2	1,2-Dichloroethane	1.0	U	5.0	1.0	0.62
79-01-6	Trichloroethene	1.0	U	5.0	1.0	0.48
108-87-2	Methylcyclohexane	1.0	U	5.0	1.0	0.17
78-87-5	1,2-Dichloropropane	1.0	U	5.0	1.0	0.29
123-91-1	1,4-Dioxane	50	U	250	50	23
75-27-4	Bromodichloromethane	1.0	U	5.0	1.0	0.21
10061-01-5	cis-1,3-Dichloropropene	1.0	U	5.0	1.0	0.35
108-10-1	4-Methyl-2-pentanone	1.0	U	5.0	1.0	0.60
108-88-3	Toluene	0.27	J	5.0	0.25	0.10
10061-02-6	trans-1,3-Dichloropropene	1.0	U	5.0	1.0	0.13
79-00-5	1,1,2-Trichloroethane	1.0	U	5.0	1.0	0.34
127-18-4	Tetrachloroethene	0.25	U	5.0	0.25	0.11
591-78-6	2-Hexanone	1.0	U	5.0	1.0	0.49

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0201-01 | Lab Sample ID: 200-11554-2

Matrix: Solid | Lab File ID: ngia08.d

Analysis Method: 8260B | Date Collected: 06/29/2012 08:45

Sample wt/vol: 5.15(g) | Date Analyzed: 07/11/2012 11:16

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.53(mm)

% Moisture: 2.9 | Level: (low/med) Low

Analysis Batch No.: 41675 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
124-48-1	Dibromochloromethane	1.0	U	5.0	1.0	0.11
106-93-4	1,2-Dibromoethane	1.0	U	5.0	1.0	0.15
108-90-7	Chlorobenzene	0.50	U	5.0	0.50	0.076
100-41-4	Ethylbenzene	0.25	U	5.0	0.25	0.056
179601-23-1	m&p-Xylene	1.0	U	5.0	1.0	0.70
95-47-6	o-Xylene	0.25	U	5.0	0.25	0.061
1330-20-7	Xylenes, Total	0.25	U	5.0	0.25	0.73
100-42-5	Styrene	0.25	U	5.0	0.25	0.10
75-25-2	Bromoform	1.0	U	5.0	1.0	0.20
98-82-8	Isopropylbenzene	1.0	U	5.0	1.0	0.077
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	5.0	1.0	0.26
541-73-1	1,3-Dichlorobenzene	0.11	U	5.0	0.11	0.15
106-46-7	1,4-Dichlorobenzene	0.25	U	5.0	0.25	0.23
95-50-1	1,2-Dichlorobenzene	0.25	U	5.0	0.25	0.22
96-12-8	1,2-Dibromo-3-Chloropropane	1.0	U	5.0	1.0	0.91
120-82-1	1,2,4-Trichlorobenzene	1.0	U	5.0	1.0	0.20
87-61-6	1,2,3-Trichlorobenzene	0.16	J	5.0	1.0	0.15

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4	100		65-155
2037-26-5	Toluene-d8	98		80-115
460-00-4	Bromofluorobenzene	104		80-115
2199-69-1	1,2-Dichlorobenzene-d4	98		45-145

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0302-01 | Lab Sample ID: 200-11554-3

Matrix: Solid | Lab File ID: ngia09.d

Analysis Method: 8260B | Date Collected: 06/29/2012 08:44

Sample wt/vol: 4.75(g) | Date Analyzed: 07/11/2012 11:46

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.53(mm)

% Moisture: 1.3 | Level: (low/med) Low

Analysis Batch No.: 41675 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
75-71-8	Dichlorodifluoromethane	1.1	U	5.3	1.1	0.25
74-87-3	Chloromethane	1.1	U	5.3	1.1	0.28
75-01-4	Vinyl chloride	1.1	U	5.3	1.1	0.32
74-83-9	Bromomethane	2.7	U	5.3	2.7	0.79
75-00-3	Chloroethane	1.1	U	5.3	1.1	0.41
75-69-4	Trichlorofluoromethane	1.1	U	5.3	1.1	0.35
75-35-4	1,1-Dichloroethene	1.1	U	5.3	1.1	0.39
76-13-1	Freon TF	1.1	U	5.3	1.1	0.35
67-64-1	Acetone	6.1		5.3	2.7	1.1
75-15-0	Carbon disulfide	1.1	U	5.3	1.1	0.33
79-20-9	Methyl acetate	2.7	U	5.3	2.7	0.67
75-09-2	Methylene Chloride	1.1	U	5.3	1.1	0.59
156-60-5	trans-1,2-Dichloroethene	1.1	U	5.3	1.1	0.39
1634-04-4	Methyl t-butyl ether	1.1	U	5.3	1.1	0.32
75-34-3	1,1-Dichloroethane	1.1	U	5.3	1.1	0.44
156-59-2	cis-1,2-Dichloroethene	1.1	U	5.3	1.1	0.45
78-93-3	2-Butanone	2.7	U	5.3	2.7	1.6
74-97-5	Bromochloromethane	1.1	U	5.3	1.1	0.39
67-66-3	Chloroform	1.1	U	5.3	1.1	0.34
71-55-6	1,1,1-Trichloroethane	1.1	U	5.3	1.1	0.75
110-82-7	Cyclohexane	1.1	U	5.3	1.1	0.91
56-23-5	Carbon tetrachloride	1.1	U	5.3	1.1	0.81
71-43-2	Benzene	1.1	U	5.3	1.1	0.76
107-06-2	1,2-Dichloroethane	1.1	U	5.3	1.1	0.66
79-01-6	Trichloroethene	1.1	U	5.3	1.1	0.51
108-87-2	Methylcyclohexane	1.1	U	5.3	1.1	0.18
78-87-5	1,2-Dichloropropane	1.1	U	5.3	1.1	0.31
123-91-1	1,4-Dioxane	53	U	270	53	25
75-27-4	Bromodichloromethane	1.1	U	5.3	1.1	0.22
10061-01-5	cis-1,3-Dichloropropene	1.1	U	5.3	1.1	0.37
108-10-1	4-Methyl-2-pentanone	1.1	U	5.3	1.1	0.64
108-88-3	Toluene	0.37	J	5.3	0.27	0.11
10061-02-6	trans-1,3-Dichloropropene	1.1	U	5.3	1.1	0.14
79-00-5	1,1,2-Trichloroethane	1.1	U	5.3	1.1	0.36
127-18-4	Tetrachloroethene	0.27	U	5.3	0.27	0.12
591-78-6	2-Hexanone	1.1	U	5.3	1.1	0.52

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0302-01 | Lab Sample ID: 200-11554-3

Matrix: Solid | Lab File ID: ngia09.d

Analysis Method: 8260B | Date Collected: 06/29/2012 08:44

Sample wt/vol: 4.75(g) | Date Analyzed: 07/11/2012 11:46

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.53(mm)

% Moisture: 1.3 | Level: (low/med) Low

Analysis Batch No.: 41675 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
124-48-1	Dibromochloromethane	1.1	U	5.3	1.1	0.12
106-93-4	1,2-Dibromoethane	1.1	U	5.3	1.1	0.16
108-90-7	Chlorobenzene	0.53	U	5.3	0.53	0.081
100-41-4	Ethylbenzene	0.27	U	5.3	0.27	0.060
179601-23-1	m&p-Xylene	1.1	U	5.3	1.1	0.75
95-47-6	o-Xylene	0.27	U	5.3	0.27	0.065
1330-20-7	Xylenes, Total	0.27	U	5.3	0.27	0.78
100-42-5	Styrene	0.27	U	5.3	0.27	0.11
75-25-2	Bromoform	1.1	U	5.3	1.1	0.21
98-82-8	Isopropylbenzene	1.1	U	5.3	1.1	0.082
79-34-5	1,1,2,2-Tetrachloroethane	1.1	U	5.3	1.1	0.28
541-73-1	1,3-Dichlorobenzene	0.12	U	5.3	0.12	0.16
106-46-7	1,4-Dichlorobenzene	0.27	U	5.3	0.27	0.25
95-50-1	1,2-Dichlorobenzene	0.27	U	5.3	0.27	0.23
96-12-8	1,2-Dibromo-3-Chloropropane	1.1	U	5.3	1.1	0.97
120-82-1	1,2,4-Trichlorobenzene	1.1	U	5.3	1.1	0.21
87-61-6	1,2,3-Trichlorobenzene	0.21	J	5.3	1.1	0.16

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4	99		65-155
2037-26-5	Toluene-d8	99		80-115
460-00-4	Bromofluorobenzene	111		80-115
2199-69-1	1,2-Dichlorobenzene-d4	98		45-145

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0402-01 | Lab Sample ID: 200-11554-4

Matrix: Solid | Lab File ID: ngia10.d

Analysis Method: 8260B | Date Collected: 06/29/2012 08:55

Sample wt/vol: 5.36(g) | Date Analyzed: 07/11/2012 12:20

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.53(mm)

% Moisture: 1.7 | Level: (low/med) Low

Analysis Batch No.: 41675 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
75-71-8	Dichlorodifluoromethane	0.95	U	4.7	0.95	0.22
74-87-3	Chloromethane	0.95	U	4.7	0.95	0.25
75-01-4	Vinyl chloride	0.95	U	4.7	0.95	0.28
74-83-9	Bromomethane	2.4	U	4.7	2.4	0.70
75-00-3	Chloroethane	0.95	U	4.7	0.95	0.36
75-69-4	Trichlorofluoromethane	0.95	U	4.7	0.95	0.31
75-35-4	1,1-Dichloroethene	0.95	U	4.7	0.95	0.35
76-13-1	Freon TF	0.95	U	4.7	0.95	0.31
67-64-1	Acetone	5.0	M	4.7	2.4	0.95
75-15-0	Carbon disulfide	0.95	U	4.7	0.95	0.29
79-20-9	Methyl acetate	2.4	U	4.7	2.4	0.60
75-09-2	Methylene Chloride	0.95	U	4.7	0.95	0.52
156-60-5	trans-1,2-Dichloroethene	0.95	U	4.7	0.95	0.35
1634-04-4	Methyl t-butyl ether	0.95	U	4.7	0.95	0.28
75-34-3	1,1-Dichloroethane	0.95	U	4.7	0.95	0.39
156-59-2	cis-1,2-Dichloroethene	0.95	U	4.7	0.95	0.40
78-93-3	2-Butanone	2.4	U	4.7	2.4	1.4
74-97-5	Bromochloromethane	0.95	U	4.7	0.95	0.35
67-66-3	Chloroform	2.1	J	4.7	0.95	0.30
71-55-6	1,1,1-Trichloroethane	0.95	U	4.7	0.95	0.66
110-82-7	Cyclohexane	0.95	U	4.7	0.95	0.81
56-23-5	Carbon tetrachloride	0.95	U	4.7	0.95	0.72
71-43-2	Benzene	0.95	U	4.7	0.95	0.67
107-06-2	1,2-Dichloroethane	0.95	U	4.7	0.95	0.59
79-01-6	Trichloroethene	0.95	U	4.7	0.95	0.46
108-87-2	Methylcyclohexane	0.95	U	4.7	0.95	0.16
78-87-5	1,2-Dichloropropane	0.95	U	4.7	0.95	0.28
123-91-1	1,4-Dioxane	47	U	240	47	22
75-27-4	Bromodichloromethane	0.95	U	4.7	0.95	0.20
10061-01-5	cis-1,3-Dichloropropene	0.95	U	4.7	0.95	0.33
108-10-1	4-Methyl-2-pentanone	0.95	U	4.7	0.95	0.57
108-88-3	Toluene	0.17	J	4.7	0.24	0.095
10061-02-6	trans-1,3-Dichloropropene	0.95	U	4.7	0.95	0.12
79-00-5	1,1,2-Trichloroethane	0.95	U	4.7	0.95	0.32
127-18-4	Tetrachloroethene	0.24	U	4.7	0.24	0.10
591-78-6	2-Hexanone	0.95	U	4.7	0.95	0.46

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0402-01 | Lab Sample ID: 200-11554-4

Matrix: Solid | Lab File ID: ngia10.d

Analysis Method: 8260B | Date Collected: 06/29/2012 08:55

Sample wt/vol: 5.36(g) | Date Analyzed: 07/11/2012 12:20

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.53(mm)

% Moisture: 1.7 | Level: (low/med) Low

Analysis Batch No.: 41675 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
124-48-1	Dibromochloromethane	0.95	U	4.7	0.95	0.10
106-93-4	1,2-Dibromoethane	0.95	U	4.7	0.95	0.14
108-90-7	Chlorobenzene	0.47	U	4.7	0.47	0.072
100-41-4	Ethylbenzene	0.24	U	4.7	0.24	0.053
179601-23-1	m&p-Xylene	0.95	U	4.7	0.95	0.66
95-47-6	o-Xylene	0.24	U	4.7	0.24	0.058
1330-20-7	Xylenes, Total	0.24	U	4.7	0.24	0.69
100-42-5	Styrene	0.24	U	4.7	0.24	0.095
75-25-2	Bromoform	0.95	U	4.7	0.95	0.19
98-82-8	Isopropylbenzene	0.95	U	4.7	0.95	0.073
79-34-5	1,1,2,2-Tetrachloroethane	0.95	U	4.7	0.95	0.25
541-73-1	1,3-Dichlorobenzene	0.10	U	4.7	0.10	0.14
106-46-7	1,4-Dichlorobenzene	0.24	U	4.7	0.24	0.22
95-50-1	1,2-Dichlorobenzene	0.24	U	4.7	0.24	0.21
96-12-8	1,2-Dibromo-3-Chloropropane	0.95	U	4.7	0.95	0.86
120-82-1	1,2,4-Trichlorobenzene	0.95	U	4.7	0.95	0.19
87-61-6	1,2,3-Trichlorobenzene	0.95	U	4.7	0.95	0.14

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4	99		65-155
2037-26-5	Toluene-d8	91		80-115
460-00-4	Bromofluorobenzene	96		80-115
2199-69-1	1,2-Dichlorobenzene-d4	91		45-145

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TB01-06 Lab Sample ID: 200-11554-5

Matrix: Solid Lab File ID: ngia06.d

Analysis Method: 8260B Date Collected: 06/29/2012 09:00

Sample wt/vol: 5(g) Date Analyzed: 07/11/2012 10:15

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 41675 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
75-71-8	Dichlorodifluoromethane	1.0	U	5.0	1.0	1.0
74-87-3	Chloromethane	1.0	U	5.0	1.0	1.0
75-01-4	Vinyl chloride	1.0	U	5.0	1.0	1.0
74-83-9	Bromomethane	2.5	U	5.0	2.5	2.5
75-00-3	Chloroethane	1.0	U	5.0	1.0	1.0
75-69-4	Trichlorofluoromethane	1.0	U	5.0	1.0	1.0
75-35-4	1,1-Dichloroethene	1.0	U	5.0	1.0	1.0
76-13-1	Freon TF	1.0	U	5.0	1.0	1.0
67-64-1	Acetone	5.0		5.0	2.5	2.5
75-15-0	Carbon disulfide	1.0	U	5.0	1.0	1.0
79-20-9	Methyl acetate	2.5	U	5.0	2.5	2.5
75-09-2	Methylene Chloride	1.0	U	5.0	1.0	1.0
156-60-5	trans-1,2-Dichloroethene	1.0	U	5.0	1.0	1.0
1634-04-4	Methyl t-butyl ether	1.0	U	5.0	1.0	1.0
75-34-3	1,1-Dichloroethane	1.0	U	5.0	1.0	1.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	5.0	1.0	1.0
78-93-3	2-Butanone	2.5	U	5.0	2.5	2.5
74-97-5	Bromochloromethane	1.0	U	5.0	1.0	1.0
67-66-3	Chloroform	1.0	U	5.0	1.0	1.0
71-55-6	1,1,1-Trichloroethane	1.0	U	5.0	1.0	1.0
110-82-7	Cyclohexane	1.0	U	5.0	1.0	1.0
56-23-5	Carbon tetrachloride	1.0	U	5.0	1.0	1.0
71-43-2	Benzene	1.0	U	5.0	1.0	1.0
107-06-2	1,2-Dichloroethane	1.0	U	5.0	1.0	1.0
79-01-6	Trichloroethene	1.0	U	5.0	1.0	1.0
108-87-2	Methylcyclohexane	1.0	U	5.0	1.0	1.0
78-87-5	1,2-Dichloropropane	1.0	U	5.0	1.0	1.0
123-91-1	1,4-Dioxane	50	U	250	50	50
75-27-4	Bromodichloromethane	1.0	U	5.0	1.0	1.0
10061-01-5	cis-1,3-Dichloropropene	1.0	U	5.0	1.0	1.0
108-10-1	4-Methyl-2-pentanone	1.0	U	5.0	1.0	1.0
108-88-3	Toluene	0.41	J	5.0	0.25	0.25
10061-02-6	trans-1,3-Dichloropropene	1.0	U	5.0	1.0	1.0
79-00-5	1,1,2-Trichloroethane	1.0	U	5.0	1.0	1.0
127-18-4	Tetrachloroethene	0.25	U	5.0	0.25	0.25
591-78-6	2-Hexanone	1.0	U	5.0	1.0	1.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TB01-06 | Lab Sample ID: 200-11554-5

Matrix: Solid | Lab File ID: ngia06.d

Analysis Method: 8260B | Date Collected: 06/29/2012 09:00

Sample wt/vol: 5(g) | Date Analyzed: 07/11/2012 10:15

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.53(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 41675 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
124-48-1	Dibromochloromethane	1.0	U	5.0	1.0	1.0
106-93-4	1,2-Dibromoethane	1.0	U	5.0	1.0	1.0
108-90-7	Chlorobenzene	0.50	U	5.0	0.50	0.50
100-41-4	Ethylbenzene	0.25	U M	5.0	0.25	0.25
179601-23-1	m&p-Xylene	1.0	U	5.0	1.0	1.0
95-47-6	o-Xylene	0.25	U	5.0	0.25	0.25
1330-20-7	Xylenes, Total	0.25	U	5.0	0.25	0.25
100-42-5	Styrene	0.25	U	5.0	0.25	0.25
75-25-2	Bromoform	1.0	U	5.0	1.0	1.0
98-82-8	Isopropylbenzene	1.0	U	5.0	1.0	1.0
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	5.0	1.0	1.0
541-73-1	1,3-Dichlorobenzene	0.11	U	5.0	0.11	0.11
106-46-7	1,4-Dichlorobenzene	0.25	U	5.0	0.25	0.25
95-50-1	1,2-Dichlorobenzene	0.25	U	5.0	0.25	0.25
96-12-8	1,2-Dibromo-3-Chloropropane	1.0	U	5.0	1.0	1.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	5.0	1.0	1.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	5.0	1.0	1.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4	93		65-155
2037-26-5	Toluene-d8	95		80-115
460-00-4	Bromofluorobenzene	99		80-115
2199-69-1	1,2-Dichlorobenzene-d4	94		45-145

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41643

SDG No.: 200-11554-1

Instrument ID: N.i GC Column: DB-624 ID: 0.53(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 07/10/2012 14:51 Calibration End Date: 07/10/2012 17:23 Calibration ID: 16616

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-41643/3	ngi03.d
Level 2	IC 200-41643/4	ngi04.d
Level 3	IC 200-41643/5	ngi05.d
Level 4	ICIS 200-41643/6	ngi06.d
Level 5	IC 200-41643/7	ngi07.d
Level 6	IC 200-41643/8	ngi08.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.7609 0.7618	0.7378	0.7650	0.7833	0.7411	Ave		0.7583				2.2		15.0			
Chloromethane	0.4601 0.4491	0.4744	0.4746	0.4661	0.4374	Ave		0.4603			0.1000	3.2		15.0			
Vinyl chloride	0.3869 0.4099	0.3941	0.4075	0.4148	0.3982	Ave		0.4019				2.6		15.0			
Bromomethane	0.3033 0.2558	0.2811	0.2774	0.2725	0.2647	Ave		0.2758				5.9		15.0			
Chloroethane	0.2293 0.1726	0.2235	0.2306	0.2322	0.2114	Ave		0.2166				10.6		15.0			
Trichlorofluoromethane	0.7088 0.7107	0.7010	0.7321	0.7439	0.7062	Ave		0.7171				2.4		15.0			
Acrolein	0.0229 0.0319	0.0294	0.0278	0.0300	0.0297	Ave		0.0286				10.9		15.0			
1,1-Dichloroethene	0.2898 0.2953	0.2802	0.2861	0.2877	0.2883	Ave		0.2879			0.1000	1.7		15.0			
Freon TF	0.6758 0.6581	0.6285	0.6426	0.6462	0.6404	Ave		0.6486				2.5		15.0			
Acetone	0.0692 0.0556	0.0582	0.0590	0.0562	0.0572	Ave		0.0593				8.5		15.0			
Methyl iodide	0.3214 0.5919	0.3789	0.5063	0.5594	0.5877	Ave		0.4909				23.4	*	15.0			
Carbon disulfide	0.9925 0.9570	0.9336	0.9576	0.9755	0.9614	Ave		0.9629				2.1		15.0			
Allyl chloride	0.6154 0.6533	0.5881	0.5897	0.6374	0.6258	Ave		0.6183				4.2		15.0			
Methyl acetate	0.0453 0.0466	0.0422	0.0421	0.0449	0.0438	Ave		0.0441				4.1		15.0			
Methylene Chloride	0.3211 0.2993	0.2934	0.2917	0.3020	0.2975	Ave		0.3008				3.5		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41643

SDG No.: 200-11554-1

Instrument ID: N.i GC Column: DB-624 ID: 0.53(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 07/10/2012 14:51 Calibration End Date: 07/10/2012 17:23 Calibration ID: 16616

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
tert-Butyl alcohol	0.0273 0.0255	0.0271	0.0290	0.0276	0.0244	Ave		0.0268				6.0		15.0			
Acrylonitrile	0.0486 0.0617	0.0540	0.0541	0.0523	0.0584	Ave		0.0549				8.4		15.0			
trans-1,2-Dichloroethene	0.3183 0.3152	0.2993	0.3123	0.3153	0.3124	Ave		0.3121				2.1		15.0			
Methyl t-butyl ether	0.6698 0.6885	0.6477	0.6649	0.6848	0.6841	Ave		0.6733				2.3		15.0			
1,1-Dichloroethane	0.7152 0.7259	0.6863	0.7178	0.7208	0.7210	Ave		0.7145				2.0		15.0			
Vinyl acetate	0.4709 0.4642	0.4130	0.4761	0.4059	0.4478	Ave		0.4463				6.8		15.0			
Chloroprene	0.5806 0.5522	0.5315	0.5479	0.5510	0.5529	Ave		0.5527				2.9		15.0			
2,2-Dichloropropane	0.5981 0.5475	0.5481	0.5515	0.5554	0.5482	Ave		0.5581				3.6		15.0			
cis-1,2-Dichloroethene	0.3176 0.3159	0.2930	0.3038	0.3100	0.3112	Ave		0.3086				2.9		15.0			
2-Butanone	0.0210 0.0205	0.0190	0.0200	0.0200	0.0190	Ave		0.0199				3.9		15.0			
Propionitrile	0.0143 0.0200	0.0155	0.0167	0.0193	0.0177	Ave		0.0173				12.7		15.0			
Bromochloromethane	0.1708 0.1737	0.1594	0.1699	0.1732	0.1725	Ave		0.1699				3.1		15.0			
Methacrylonitrile	0.0633 0.0655	0.0587	0.0619	0.0627	0.0627	Ave		0.0625				3.5		15.0			
Chloroform	0.6618 0.6482	0.6190	0.6413	0.6528	0.6484	Ave		0.6452				2.3		15.0			
Tetrahydrofuran	0.0723 0.0745	0.0817	0.0742	0.0741	0.0725	Ave		0.0749				4.6		15.0			
1,1,1-Trichloroethane	0.5574 0.5554	0.5297	0.5543	0.5560	0.5496	Ave		0.5504				1.9		15.0			
Cyclohexane	0.5065 0.5033	0.4829	0.4999	0.4982	0.5000	Ave		0.4985				1.6		15.0			
1,1-Dichloropropene	0.4896 0.4644	0.4438	0.4659	0.4658	0.4648	Ave		0.4657				3.1		15.0			
Carbon tetrachloride	0.5118 0.5001	0.4840	0.4975	0.5018	0.5013	Ave		0.4994				1.8		15.0			
Benzene	0.7955 0.7940	0.7501	0.7806	0.7861	0.7952	Ave		0.7836				2.2		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41643

SDG No.: 200-11554-1

Instrument ID: N.i GC Column: DB-624 ID: 0.53(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 07/10/2012 14:51 Calibration End Date: 07/10/2012 17:23 Calibration ID: 16616

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Isobutyl alcohol	0.0107 0.0109	0.0103	0.0109	0.0108	0.0105	Ave		0.0107				2.3		15.0			
1,2-Dichloroethane	0.3754 0.3736	0.3564	0.3881	0.3766	0.3810	Ave		0.3752				2.8		15.0			
Trichloroethene	0.4222 0.4037	0.3941	0.4006	0.4102	0.4092	Ave		0.4067				2.4		15.0			
Methylcyclohexane	0.5299 0.5151	0.4970	0.5132	0.5154	0.5100	Ave		0.5134				2.1		15.0			
1,2-Dichloropropane	0.4369 0.4390	0.4351	0.4437	0.4432	0.4454	Ave		0.4406				0.9		15.0			
Dibromomethane	0.3221 0.3197	0.3026	0.3154	0.3204	0.3204	Ave		0.3168				2.3		15.0			
Methyl methacrylate	0.2716 0.3022	0.2503	0.2621	0.2635	0.2771	Ave		0.2711				6.5		15.0			
1,4-Dioxane	0.0022 0.0026	0.0020	0.0023	0.0024	0.0025	Ave		0.0023				8.7		15.0			
Bromodichloromethane	0.7438 0.7343	0.6866	0.7333	0.7427	0.7431	Ave		0.7306				3.0		15.0			
2-Chloroethyl vinyl ether	0.1469 0.1573	0.1390	0.1488	0.1555	0.1512	Ave		0.1498				4.4		15.0			
cis-1,3-Dichloropropene	0.5736 0.5692	0.5391	0.5694	0.5793	0.5797	Ave		0.5684				2.6		15.0			
4-Methyl-2-pentanone	0.3392 0.3767	0.3609	0.3760	0.3852	0.3644	Ave		0.3671				4.4		15.0			
Toluene	0.7996 0.8373	0.7811	0.8056	0.7946	0.8203	Ave		0.8064				2.5		15.0			
trans-1,3-Dichloropropene	0.6032 0.6899	0.5934	0.6292	0.6261	0.6702	Ave		0.6353				5.9		15.0			
Ethyl methacrylate	0.4212 0.4423	0.3829	0.4269	0.4228	0.4344	Ave		0.4218				4.9		15.0			
1,1,2-Trichloroethane	0.3660 0.3994	0.3548	0.3772	0.3657	0.3808	Ave		0.3740				4.1		15.0			
Tetrachloroethene	0.5531 0.5469	0.5285	0.5396	0.5225	0.5454	Ave		0.5393				2.2		15.0			
1,3-Dichloropropane	0.6744 0.7418	0.6572	0.6929	0.6775	0.7081	Ave		0.6920				4.3		15.0			
2-Hexanone	0.2821 0.3547	0.2969	0.3120	0.3228	0.3240	Ave		0.3154				7.9		15.0			
Dibromochloromethane	0.6543 0.7446	0.6363	0.6678	0.6774	0.7124	Ave		0.6821				5.8		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41643

SDG No.: 200-11554-1

Instrument ID: N.i GC Column: DB-624 ID: 0.53(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 07/10/2012 14:51 Calibration End Date: 07/10/2012 17:23 Calibration ID: 16616

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2-Dibromoethane	0.5510 0.6232	0.5188	0.5655	0.5686	0.5917	Ave		0.5698				6.2		15.0			
Chlorobenzene	0.9959 1.0080	0.9468	0.9942	0.9641	1.0116	Ave		0.9868			0.3000	2.6		15.0			
1,1,1,2-Tetrachloroethane	0.5088 0.5511	0.4946	0.5186	0.5107	0.5385	Ave		0.5204				4.0		15.0			
Ethylbenzene	1.6897 1.6490	1.6151	1.6780	1.6243	1.6910	Ave		1.6578				2.0		15.0			
m&p-Xylene	0.5745 0.5847	0.5673	0.5952	0.5782	0.6038	Ave		0.5840				2.3		15.0			
o-Xylene	0.5764 0.5731	0.5596	0.5779	0.5679	0.5848	Ave		0.5733				1.5		15.0			
Styrene	0.9223 0.9924	0.8906	0.9750	0.9549	1.0042	Ave		0.9566				4.5		15.0			
Bromoform	0.4281 0.5041	0.4192	0.4541	0.4518	0.4762	Ave		0.4556			0.1000	6.8		15.0			
Isopropylbenzene	3.5545 3.6418	3.3840	3.4590	3.3941	3.5629	Ave		3.4994				3.0		15.0			
Bromobenzene	0.9251 1.0419	0.8917	0.9368	0.9360	0.9811	Ave		0.9521				5.5		15.0			
1,1,2,2-Tetrachloroethane	1.3530 1.5917	1.3087	1.3694	1.3589	1.4012	Ave		1.3971			0.3000	7.1		15.0			
1,2,3-Trichloropropane	0.2989 0.3604	0.2884	0.3092	0.3067	0.3160	Ave		0.3133				8.0		15.0			
trans-1,4-Dichloro-2-butene	0.2655 0.3647	0.2467	0.3113	0.3126	0.3340	Ave		0.3058				14.2		15.0			
n-Propylbenzene	0.8225 0.8047	0.7883	0.8134	0.7864	0.8092	Ave		0.8041				1.8		15.0			
2-Chlorotoluene	0.7422 0.7581	0.7247	0.7372	0.7160	0.7444	Ave		0.7371				2.0		15.0			
1,3,5-Trimethylbenzene	2.5658 2.5560	2.4785	2.5485	2.4767	2.5610	Ave		2.5311				1.7		15.0			
4-Chlorotoluene	0.7253 0.7805	0.7148	0.7534	0.7379	0.7649	Ave		0.7461				3.3		15.0			
tert-Butylbenzene	2.7264 2.7802	2.6523	2.7265	2.6510	2.7661	Ave		2.7171				2.0		15.0			
1,2,4-Trimethylbenzene	2.5698 2.5352	2.4683	2.5237	2.4518	2.5480	Ave		2.5161				1.8		15.0			
sec-Butylbenzene	3.9942 3.9231	3.8446	3.9385	3.8059	3.9736	Ave		3.9133				1.9		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41643

SDG No.: 200-11554-1

Instrument ID: N.i GC Column: DB-624 ID: 0.53(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 07/10/2012 14:51 Calibration End Date: 07/10/2012 17:23 Calibration ID: 16616

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,3-Dichlorobenzene	1.5391 1.5211	1.4577	1.4686	1.4305	1.4970	Ave		1.4857				2.8		15.0			
4-Isopropyltoluene	3.0013 2.8605	2.8582	2.9413	2.8350	2.9399	Ave		2.9060				2.2		15.0			
1,4-Dichlorobenzene	1.7442 1.6505	1.6199	1.6493	1.5971	1.6475	Ave		1.6514				3.0		15.0			
1,2-Dichlorobenzene	1.4346 1.4909	1.3473	1.3890	1.4002	1.4520	Ave		1.4190				3.6		15.0			
n-Butylbenzene	3.1049 2.7378	2.9389	3.0055	2.8470	2.9089	Ave		2.9238				4.3		15.0			
1,2-Dibromo-3-Chloropropane	0.2840 0.3388	0.2715	0.2723	0.2820	0.2880	Ave		0.2894				8.7		15.0			
1,2,4-Trichlorobenzene	1.1238 1.0995	1.0314	1.0167	1.0339	1.0664	Ave		1.0619				4.0		15.0			
Hexachlorobutadiene	0.8177 0.6874	0.7732	0.7592	0.7286	0.7511	Ave		0.7529				5.8		15.0			
Naphthalene	1.6164 2.0575	1.5643	1.5427	1.7100	1.8216	Ave		1.7187				11.4		15.0			
1,2,3-Trichlorobenzene	0.9266 0.9942	0.8725	0.8562	0.9041	0.9407	Ave		0.9157				5.5		15.0			
1,2-Dichloroethane-d4	0.3385 0.3352	0.3197	0.3412	0.3410	0.3369	Ave		0.3354				2.4		15.0			
Toluene-d8	1.2478 1.2957	1.1775	1.2485	1.2018	1.2713	Ave		1.2404				3.5		15.0			
Bromofluorobenzene	1.5909 1.6629	1.4905	1.5640	1.5235	1.5920	Ave		1.5706				3.8		15.0			
1,2-Dichlorobenzene-d4	1.1057 0.9887	0.9835	0.9422	0.9213	0.9604	Ave		0.9837				6.6		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41643

SDG No.: 200-11554-1

Instrument ID: N.i GC Column: DB-624 ID: 0.53(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 07/10/2012 14:51 Calibration End Date: 07/10/2012 17:23 Calibration ID: 16616

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-41643/3	ngi03.d
Level 2	IC 200-41643/4	ngi04.d
Level 3	IC 200-41643/5	ngi05.d
Level 4	ICIS 200-41643/6	ngi06.d
Level 5	IC 200-41643/7	ngi07.d
Level 6	IC 200-41643/8	ngi08.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	304213 10875049	551519	1410504	2779466	5444595	5.00 200	10.0	25.0	50.0	100
Chloromethane	FB	Ave	183960 6411599	354593	875090	1654121	3213195	5.00 200	10.0	25.0	50.0	100
Vinyl chloride	FB	Ave	154672 5851562	294592	751392	1472021	2925608	5.00 200	10.0	25.0	50.0	100
Bromomethane	FB	Ave	121265 3651185	210127	511562	967068	1944477	5.00 200	10.0	25.0	50.0	100
Chloroethane	FB	Ave	91661 2463540	167030	425127	823883	1553178	5.00 200	10.0	25.0	50.0	100
Trichlorofluoromethane	FB	Ave	283393 10145814	524019	1349857	2639895	5188380	5.00 200	10.0	25.0	50.0	100
Acrolein	FB	Ave	9146 1138969	55004	102542	266363	545692	5.00 500	25.0	50.0	125	250
1,1-Dichloroethene	FB	Ave	115874 4215650	209478	527479	1020873	2118236	5.00 200	10.0	25.0	50.0	100
Freon TF	FB	Ave	270212 9394909	469802	1184897	2293012	4705161	5.00 200	10.0	25.0	50.0	100
Acetone	FB	Ave	27682 1984060	108796	217680	498681	1051052	5.00 500	25.0	50.0	125	250
Methyl iodide	FB	Ave	128487 8449655	283238	933608	1984972	4317750	5.00 200	10.0	25.0	50.0	100
Carbon disulfide	FB	Ave	396843 13662620	697857	1765566	3461633	7063285	5.00 200	10.0	25.0	50.0	100
Allyl chloride	FB	Ave	246044 9326018	439582	1087348	2261662	4597305	5.00 200	10.0	25.0	50.0	100
Methyl acetate	FB	Ave	18116 665006	31545	77536	159218	321471	5.00 200	10.0	25.0	50.0	100
Methylene Chloride	FB	Ave	128386 4272526	219347	537834	1071630	2185542	5.00 200	10.0	25.0	50.0	100
tert-Butyl alcohol	FB	Ave	109021 3644247	202337	427549	980140	1794940	50.0 2000	100	200	500	1000

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41643

SDG No.: 200-11554-1

Instrument ID: N.i GC Column: DB-624 ID: 0.53(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 07/10/2012 14:51 Calibration End Date: 07/10/2012 17:23 Calibration ID: 16616

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Acrylonitrile	FB	Ave	19445 880121	40364	99790	185590	429204	5.00 200	10.0	25.0	50.0	100
trans-1,2-Dichloroethene	FB	Ave	127251 4499588	223693	575801	1118885	2295156	5.00 200	10.0	25.0	50.0	100
Methyl t-butyl ether	FB	Ave	267813 9829265	484158	1225905	2430056	5025777	5.00 200	10.0	25.0	50.0	100
1,1-Dichloroethane	FB	Ave	285956 10363223	513023	1323458	2557887	5296901	5.00 200	10.0	25.0	50.0	100
Vinyl acetate	FB	Ave	188287 6626711	308729	877859	1440438	3290103	5.00 200	10.0	25.0	50.0	100
Chloroprene	FB	Ave	232150 7882898	397285	1010209	1955393	4061884	5.00 200	10.0	25.0	50.0	100
2,2-Dichloropropane	FB	Ave	239143 7816360	409689	1016874	1970703	4027345	5.00 200	10.0	25.0	50.0	100
cis-1,2-Dichloroethene	FB	Ave	126983 4509264	219040	560140	1100121	2286512	5.00 200	10.0	25.0	50.0	100
2-Butanone	FB	Ave	8378 731213	35560	73848	177866	348752	5.00 500	25.0	50.0	125	250
Propionitrile	FB	Ave	22886 1143639	46387	123147	273572	519966	20.0 800	40.0	100	200	400
Bromochloromethane	FB	Ave	68276 2479031	119150	313329	614565	1267464	5.00 200	10.0	25.0	50.0	100
Methacrylonitrile	FB	Ave	25322 934615	43897	114161	222402	460584	5.00 200	10.0	25.0	50.0	100
Chloroform	FB	Ave	264621 9253477	462676	1182382	2316480	4763382	5.00 200	10.0	25.0	50.0	100
Tetrahydrofuran	FB	Ave	289123 12230183	610867	1504639	3024557	6124083	50.0 2300	100	275	575	1150
1,1,1-Trichloroethane	FB	Ave	222871 7928670	395913	1021977	1972902	4038097	5.00 200	10.0	25.0	50.0	100
Cyclohexane	FB	Ave	202506 7185751	360977	921681	1767731	3673154	5.00 200	10.0	25.0	50.0	100
1,1-Dichloropropene	FB	Ave	195750 6630211	331744	858984	1652945	3414391	5.00 200	10.0	25.0	50.0	100
Carbon tetrachloride	FB	Ave	204626 7140015	361762	917303	1780614	3682963	5.00 200	10.0	25.0	50.0	100
Benzene	FB	Ave	318076 11334558	560691	1439220	2789324	5841999	5.00 200	10.0	25.0	50.0	100
Isobutyl alcohol	FB	Ave	213036 7780578	383551	1002504	1919194	3875162	250 10000	500	1250	2500	5000
1,2-Dichloroethane	FB	Ave	150104 5333672	266430	715510	1336465	2798928	5.00 200	10.0	25.0	50.0	100

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41643

SDG No.: 200-11554-1

Instrument ID: N.i GC Column: DB-624 ID: 0.53(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 07/10/2012 14:51 Calibration End Date: 07/10/2012 17:23 Calibration ID: 16616

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Trichloroethene	FB	Ave	168801 5763455	294570	738686	1455664	3006611	5.00 200	10.0	25.0	50.0	100
Methylcyclohexane	FB	Ave	211851 7352864	371502	946326	1828751	3747020	5.00 200	10.0	25.0	50.0	100
1,2-Dichloropropane	FB	Ave	174697 6267391	325219	818081	1572867	3272265	5.00 200	10.0	25.0	50.0	100
Dibromomethane	FB	Ave	128783 4564143	226175	581565	1137006	2353978	5.00 200	10.0	25.0	50.0	100
Methyl methacrylate	CBZ	Ave	84291 3034396	142566	366789	730038	1512828	5.00 200	10.0	25.0	50.0	100
1,4-Dioxane	FB	Ave	44070 1862163	76541	210522	433209	907371	250 10000	500	1250	2500	5000
Bromodichloromethane	FB	Ave	297392 10482352	513236	1352077	2635626	5459497	5.00 200	10.0	25.0	50.0	100
2-Chloroethyl vinyl ether	FB	Ave	58745 2245171	103897	274330	551643	1110530	5.00 200	10.0	25.0	50.0	100
cis-1,3-Dichloropropene	FB	Ave	229344 8125804	402980	1049814	2055798	4258767	5.00 200	10.0	25.0	50.0	100
4-Methyl-2-pentanone	FB	Ave	135611 13443446	674358	1386570	3417486	6693606	5.00 500	25.0	50.0	125	250
Toluene	CBZ	Ave	248136 8409114	444902	1127280	2201266	4478050	5.00 200	10.0	25.0	50.0	100
trans-1,3-Dichloropropene	CBZ	Ave	187175 6927881	337995	880376	1734464	3658521	5.00 200	10.0	25.0	50.0	100
Ethyl methacrylate	FB	Ave	168416 6314468	286197	787155	1500393	3191285	5.00 200	10.0	25.0	50.0	100
1,1,2-Trichloroethane	CBZ	Ave	113562 4010565	202073	527746	1013092	2078978	5.00 200	10.0	25.0	50.0	100
Tetrachloroethene	CBZ	Ave	171645 5492389	301045	755035	1447396	2977431	5.00 200	10.0	25.0	50.0	100
1,3-Dichloropropane	CBZ	Ave	209272 7449464	374319	969559	1876850	3865446	5.00 200	10.0	25.0	50.0	100
2-Hexanone	CBZ	Ave	87528 8906265	422698	873144	2235618	4421050	5.00 500	25.0	50.0	125	250
Dibromochloromethane	CBZ	Ave	203046 7477877	362430	934362	1876737	3888847	5.00 200	10.0	25.0	50.0	100
1,2-Dibromoethane	CBZ	Ave	170994 6258255	295516	791305	1575270	3229882	5.00 200	10.0	25.0	50.0	100
Chlorobenzene	CBZ	Ave	309039 10123369	539248	1391131	2670896	5522352	5.00 200	10.0	25.0	50.0	100
1,1,1,2-Tetrachloroethane	CBZ	Ave	157888 5534563	281700	725680	1414953	2939711	5.00 200	10.0	25.0	50.0	100

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41643

SDG No.: 200-11554-1

Instrument ID: N.i GC Column: DB-624 ID: 0.53(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 07/10/2012 14:51 Calibration End Date: 07/10/2012 17:23 Calibration ID: 16616

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Ethylbenzene	CBZ	Ave	524340 16559888	919929	2347836	4499885	9231152	5.00 200	10.0	25.0	50.0	100
m&p-Xylene	CBZ	Ave	356570 11744536	646231	1665705	3203543	6591965	10.0 400	20.0	50.0	100	200
o-Xylene	CBZ	Ave	178870 5755816	318749	808608	1573366	3192244	5.00 200	10.0	25.0	50.0	100
Styrene	CBZ	Ave	286222 9966057	507259	1364204	2645351	5481654	5.00 200	10.0	25.0	50.0	100
Bromoform	CBZ	Ave	132853 5062045	238785	635374	1251780	2599380	5.00 200	10.0	25.0	50.0	100
Isopropylbenzene	DCB	Ave	543050 16517386	953356	2410806	4624366	9474543	5.00 200	10.0	25.0	50.0	100
Bromobenzene	DCB	Ave	141332 4725382	251201	652939	1275315	2609086	5.00 200	10.0	25.0	50.0	100
1,1,2,2-Tetrachloroethane	DCB	Ave	206713 7219148	368697	954425	1851434	3726011	5.00 200	10.0	25.0	50.0	100
1,2,3-Trichloropropane	DCB	Ave	45665 1634414	81253	215485	417906	840349	5.00 200	10.0	25.0	50.0	100
trans-1,4-Dichloro-2-butene	DCB	Ave	40557 1654108	69500	216931	425923	888278	5.00 200	10.0	25.0	50.0	100
n-Propylbenzene	DCB	Ave	125653 3649836	222079	566908	1071457	2151814	5.00 200	10.0	25.0	50.0	100
2-Chlorotoluene	DCB	Ave	113397 3438149	204168	513817	975542	1979604	5.00 200	10.0	25.0	50.0	100
1,3,5-Trimethylbenzene	DCB	Ave	391992 11592981	698255	1776175	3374384	6810397	5.00 200	10.0	25.0	50.0	100
4-Chlorotoluene	DCB	Ave	110807 3539883	201376	525112	1005301	2034096	5.00 200	10.0	25.0	50.0	100
tert-Butylbenzene	DCB	Ave	416529 12609455	747217	1900264	3611932	7355747	5.00 200	10.0	25.0	50.0	100
1,2,4-Trimethylbenzene	DCB	Ave	392610 11498608	695384	1758919	3340442	6775881	5.00 200	10.0	25.0	50.0	100
sec-Butylbenzene	DCB	Ave	610226 17793171	1083104	2744992	5185305	10566692	5.00 200	10.0	25.0	50.0	100
1,3-Dichlorobenzene	DCB	Ave	235143 6898996	410655	1023564	1948998	3980859	5.00 200	10.0	25.0	50.0	100
4-Isopropyltoluene	DCB	Ave	458533 12973972	805216	2049945	3862519	7818029	5.00 200	10.0	25.0	50.0	100
1,4-Dichlorobenzene	DCB	Ave	266469 7485681	456351	1149506	2176039	4381069	5.00 200	10.0	25.0	50.0	100
1,2-Dichlorobenzene	DCB	Ave	219179 6761775	379570	968105	1907702	3861303	5.00 200	10.0	25.0	50.0	100

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41643

SDG No.: 200-11554-1

Instrument ID: N.i GC Column: DB-624 ID: 0.53(mm) Heated Purge: (Y/N) Y

Calibration Start Date: 07/10/2012 14:51 Calibration End Date: 07/10/2012 17:23 Calibration ID: 16616

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
n-Butylbenzene	DCB	Ave	474368 12417194	827961	2094685	3878847	7735386	5.00 200	10.0	25.0	50.0	100
1,2-Dibromo-3-Chloropropane	DCB	Ave	43386 1536846	76488	189777	384211	765932	5.00 200	10.0	25.0	50.0	100
1,2,4-Trichlorobenzene	DCB	Ave	171687 4986823	290561	708618	1408620	2835843	5.00 200	10.0	25.0	50.0	100
Hexachlorobutadiene	DCB	Ave	124923 3117605	217829	529103	992698	1997389	5.00 200	10.0	25.0	50.0	100
Naphthalene	DCB	Ave	246956 9331833	440693	1075186	2329804	4844104	5.00 200	10.0	25.0	50.0	100
1,2,3-Trichlorobenzene	DCB	Ave	141563 4509358	245791	596705	1231833	2501516	5.00 200	10.0	25.0	50.0	100
1,2-Dichloroethane-d4	FB	Ave	135339 4785478	238958	629116	1210040	2475426	5.00 200	10.0	25.0	50.0	100
Toluene-d8	CBZ	Ave	387205 13012488	670688	1746863	3329551	6939604	5.00 200	10.0	25.0	50.0	100
Bromofluorobenzene	DCB	Ave	243055 7542070	419902	1090022	2075634	4233486	5.00 200	10.0	25.0	50.0	100
1,2-Dichlorobenzene-d4	DCB	Ave	168934 4484365	277089	656695	1255248	2554057	5.00 200	10.0	25.0	50.0	100

Curve Type Legend:
Ave = Average ISTD

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: ICV 200-41643/11 Calibration Date: 07/10/2012 18:54

Instrument ID: N.i Calib Start Date: 07/10/2012 14:51

GC Column: DB-624 ID: 0.53(mm) Calib End Date: 07/10/2012 17:23

Lab File ID: ngi11.d Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.7583	0.7226		47.6	50.0	-4.7	25.0
Chloromethane	Ave	0.4603	0.4185	0.1000	45.5	50.0	-9.1	25.0
Vinyl chloride	Ave	0.4019	0.3858		48.0	50.0	-4.0	25.0
Bromomethane	Ave	0.2758	0.2204		40.0	50.0	-20.1	25.0
Chloroethane	Ave	0.2166	0.2020		46.6	50.0	-6.7	25.0
Trichlorofluoromethane	Ave	0.7171	0.6795		47.4	50.0	-5.2	25.0
Acrolein	Ave	0.0286	0.0244		107	125	-14.7	25.0
1,1-Dichloroethene	Ave	0.2879	0.3000		52.1	50.0	4.2	25.0
Freon TF	Ave	0.6486	0.5646		43.5	50.0	-13.0	25.0
Acetone	Ave	0.0593	0.0507		107	125	-14.4	25.0
Methyl iodide	Ave	0.4909	0.4558		46.4	50.0	-7.2	25.0
Carbon disulfide	Ave	0.9629	0.8166		42.4	50.0	-15.2	25.0
Allyl chloride	Ave	0.6183	0.6248		50.5	50.0	1.1	25.0
Methyl acetate	Ave	0.0441	0.0382		43.2	50.0	-13.5	25.0
Methylene Chloride	Ave	0.3008	0.3021		50.2	50.0	0.4	25.0
tert-Butyl alcohol	Ave	0.0268	0.0244		454	500	-9.2	25.0
Acrylonitrile	Ave	0.0549	0.0561		51.1	50.0	2.2	25.0
trans-1,2-Dichloroethene	Ave	0.3121	0.3196		51.2	50.0	2.4	25.0
Methyl t-butyl ether	Ave	0.6733	0.6305		46.8	50.0	-6.4	25.0
1,1-Dichloroethane	Ave	0.7145	0.7043	0.1000	49.3	50.0	-1.4	25.0
Vinyl acetate	Ave	0.4463	0.5255		58.9	50.0	17.7	25.0
Chloroprene	Ave	0.5527	0.5232		47.3	50.0	-5.3	25.0
2,2-Dichloropropane	Ave	0.5581	0.5552		49.7	50.0	-0.5	25.0
cis-1,2-Dichloroethene	Ave	0.3086	0.3165		51.3	50.0	2.6	25.0
2-Butanone	Ave	0.0199	0.0193		121	125	-3.3	25.0
Propionitrile	Ave	0.0173	0.0184		214	200	6.8	25.0
Bromochloromethane	Ave	0.1699	0.1731		50.9	50.0	1.9	25.0
Methacrylonitrile	Ave	0.0625	0.0603		48.3	50.0	-3.4	25.0
Chloroform	Ave	0.6452	0.6432		49.8	50.0	-0.3	25.0
Tetrahydrofuran	Ave	0.0749	0.0721		554	575	-3.7	25.0
1,1,1-Trichloroethane	Ave	0.5504	0.5535		50.3	50.0	0.6	25.0
Cyclohexane	Ave	0.4985	0.4929		49.4	50.0	-1.1	25.0
1,1-Dichloropropene	Ave	0.4657	0.4783		51.3	50.0	2.7	25.0
Carbon tetrachloride	Ave	0.4994	0.5068		50.7	50.0	1.5	25.0
Benzene	Ave	0.7836	0.7960		50.8	50.0	1.6	25.0
Isobutyl alcohol	Ave	0.0107	0.0107		2490	2500	-0.3	25.0
1,2-Dichloroethane	Ave	0.3752	0.3685		49.1	50.0	-1.8	25.0
Trichloroethene	Ave	0.4067	0.4167		51.2	50.0	2.5	25.0
Methylcyclohexane	Ave	0.5134	0.5112		49.8	50.0	-0.4	25.0
1,2-Dichloropropane	Ave	0.4406	0.4424		50.2	50.0	0.4	25.0
Dibromomethane	Ave	0.3168	0.3095		48.9	50.0	-2.3	25.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: ICV 200-41643/11 Calibration Date: 07/10/2012 18:54

Instrument ID: N.i Calib Start Date: 07/10/2012 14:51

GC Column: DB-624 ID: 0.53(mm) Calib End Date: 07/10/2012 17:23

Lab File ID: ngi11.d Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methyl methacrylate	Ave	0.2711	0.2682		49.5	50.0	-1.1	25.0
1,4-Dioxane	Ave	0.0023	0.0024		2580	2500	3.3	25.0
Bromodichloromethane	Ave	0.7306	0.7194		49.2	50.0	-1.5	25.0
2-Chloroethyl vinyl ether	Ave	0.1498	0.1454		48.5	50.0	-2.9	25.0
cis-1,3-Dichloropropene	Ave	0.5684	0.5879		51.7	50.0	3.4	25.0
4-Methyl-2-pentanone	Ave	0.3671	0.3646		124	125	-0.7	25.0
Toluene	Ave	0.8064	0.8268		51.3	50.0	2.5	25.0
trans-1,3-Dichloropropene	Ave	0.6353	0.6465		50.9	50.0	1.8	25.0
Ethyl methacrylate	Ave	0.4218	0.4231		50.2	50.0	0.3	25.0
1,1,2-Trichloroethane	Ave	0.3740	0.3726		49.8	50.0	-0.4	25.0
Tetrachloroethene	Ave	0.5393	0.5632		52.2	50.0	4.4	25.0
1,3-Dichloropropane	Ave	0.6920	0.7013		50.7	50.0	1.4	25.0
2-Hexanone	Ave	0.3154	0.3165		125	125	0.4	25.0
Dibromochloromethane	Ave	0.6821	0.6953		51.0	50.0	1.9	25.0
1,2-Dibromoethane	Ave	0.5698	0.5756		50.5	50.0	1.0	25.0
Chlorobenzene	Ave	0.9868	1.008	0.3000	51.1	50.0	2.1	25.0
1,1,1,2-Tetrachloroethane	Ave	0.5204	0.5184		49.8	50.0	-0.4	25.0
Ethylbenzene	Ave	1.658	1.699		51.2	50.0	2.5	25.0
m&p-Xylene	Ave	0.5840	0.6079		104	100	4.1	25.0
o-Xylene	Ave	0.5733	0.5817		50.7	50.0	1.5	25.0
Styrene	Ave	0.9566	1.003		52.4	50.0	4.9	25.0
Bromoform	Ave	0.4556	0.4576	0.1000	50.2	50.0	0.4	25.0
Isopropylbenzene	Ave	3.499	3.483		49.8	50.0	-0.5	25.0
Bromobenzene	Ave	0.9521	0.9434		49.5	50.0	-0.9	25.0
1,1,2,2-Tetrachloroethane	Ave	1.397	1.382	0.3000	49.5	50.0	-1.1	25.0
1,2,3-Trichloropropane	Ave	0.3133	0.3092		49.4	50.0	-1.3	25.0
trans-1,4-Dichloro-2-butene	Ave	0.3058	0.3281		53.6	50.0	7.3	25.0
n-Propylbenzene	Ave	0.8041	0.8233		51.2	50.0	2.4	25.0
2-Chlorotoluene	Ave	0.7371	0.7406		50.2	50.0	0.5	25.0
1,3,5-Trimethylbenzene	Ave	2.531	2.556		50.5	50.0	1.0	25.0
4-Chlorotoluene	Ave	0.7461	0.7747		51.9	50.0	3.8	25.0
tert-Butylbenzene	Ave	2.717	2.731		50.3	50.0	0.5	25.0
1,2,4-Trimethylbenzene	Ave	2.516	2.545		50.6	50.0	1.1	25.0
sec-Butylbenzene	Ave	3.913	4.037		51.6	50.0	3.2	25.0
1,3-Dichlorobenzene	Ave	1.486	1.501		50.5	50.0	1.1	25.0
4-Isopropyltoluene	Ave	2.906	2.929		50.4	50.0	0.8	25.0
1,4-Dichlorobenzene	Ave	1.651	1.673		50.6	50.0	1.3	25.0
1,2-Dichlorobenzene	Ave	1.419	1.448		51.0	50.0	2.1	25.0
n-Butylbenzene	Ave	2.924	3.105		53.1	50.0	6.2	25.0
1,2-Dibromo-3-Chloropropane	Ave	0.2894	0.2809		48.5	50.0	-2.9	25.0
1,2,4-Trichlorobenzene	Ave	1.062	1.087		51.2	50.0	2.4	25.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: ICV 200-41643/11 Calibration Date: 07/10/2012 18:54

Instrument ID: N.i Calib Start Date: 07/10/2012 14:51

GC Column: DB-624 ID: 0.53(mm) Calib End Date: 07/10/2012 17:23

Lab File ID: ngi11.d Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Hexachlorobutadiene	Ave	0.7529	0.8381		55.7	50.0	11.3	25.0
Naphthalene	Ave	1.719	1.801		52.4	50.0	4.8	25.0
1,2,3-Trichlorobenzene	Ave	0.9157	0.9660		52.7	50.0	5.5	25.0
1,2-Dichloroethane-d4	Ave	0.3354	0.3200		47.7	50.0	-4.6	25.0
Toluene-d8	Ave	1.240	1.202		48.4	50.0	-3.1	25.0
Bromofluorobenzene	Ave	1.571	1.509		48.0	50.0	-3.9	25.0
1,2-Dichlorobenzene-d4	Ave	0.9837	0.9241		47.0	50.0	-6.1	25.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: CCVIS 200-41675/2 Calibration Date: 07/11/2012 08:13

Instrument ID: N.i Calib Start Date: 07/10/2012 14:51

GC Column: DB-624 ID: 0.53(mm) Calib End Date: 07/10/2012 17:23

Lab File ID: ngia02.d Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.7583	0.7327		48.3	50.0	-3.4	20.0
Chloromethane	Ave	0.4603	0.4416	0.1000	48.0	50.0	-4.1	20.0
Vinyl chloride	Ave	0.4019	0.3846		47.8	50.0	-4.3	20.0
Bromomethane	Ave	0.2758	0.2450		44.4	50.0	-11.2	20.0
Chloroethane	Ave	0.2166	0.2083		48.1	50.0	-3.8	20.0
Trichlorofluoromethane	Ave	0.7171	0.7041		49.1	50.0	-1.8	20.0
Acrolein	Ave	0.0286	0.0304		133	125	6.0	20.0
1,1-Dichloroethene	Ave	0.2879	0.2818		48.9	50.0	-2.1	20.0
Freon TF	Ave	0.6486	0.6594		50.8	50.0	1.7	20.0
Acetone	Ave	0.0593	0.0557		118	125	-5.9	20.0
Methyl iodide	Ave	0.4909	0.5476		55.8	50.0	11.5	20.0
Carbon disulfide	Ave	0.9629	0.9620		50.0	50.0	-0.1	20.0
Allyl chloride	Ave	0.6183	0.6297		50.9	50.0	1.8	20.0
Methyl acetate	Ave	0.0441	0.0428		48.5	50.0	-3.0	20.0
Methylene Chloride	Ave	0.3008	0.2950		49.0	50.0	-1.9	20.0
tert-Butyl alcohol	Ave	0.0268	0.0285		531	500	6.2	20.0
Acrylonitrile	Ave	0.0549	0.0573		52.3	50.0	4.5	20.0
trans-1,2-Dichloroethene	Ave	0.3121	0.3101		49.7	50.0	-0.6	20.0
Methyl t-butyl ether	Ave	0.6733	0.6770		50.3	50.0	0.5	20.0
1,1-Dichloroethane	Ave	0.7145	0.6925	0.1000	48.5	50.0	-3.1	20.0
Vinyl acetate	Ave	0.4463	0.5132		57.5	50.0	15.0	20.0
Chloroprene	Ave	0.5527	0.5606		50.7	50.0	1.4	20.0
2,2-Dichloropropane	Ave	0.5581	0.5537		49.6	50.0	-0.8	20.0
cis-1,2-Dichloroethene	Ave	0.3086	0.3025		49.0	50.0	-2.0	20.0
2-Butanone	Ave	0.0199	0.0190		119	125	-4.6	20.0
Propionitrile	Ave	0.0173	0.0190		221	200	10.4	20.0
Bromochloromethane	Ave	0.1699	0.1679		49.4	50.0	-1.2	20.0
Methacrylonitrile	Ave	0.0625	0.0610		48.8	50.0	-2.4	20.0
Chloroform	Ave	0.6452	0.6255		48.5	50.0	-3.1	20.0
Tetrahydrofuran	Ave	0.0749	0.0717		550	575	-4.3	20.0
1,1,1-Trichloroethane	Ave	0.5504	0.5300		48.1	50.0	-3.7	20.0
Cyclohexane	Ave	0.4985	0.5002		50.2	50.0	0.3	20.0
1,1-Dichloropropene	Ave	0.4657	0.4670		50.1	50.0	0.3	20.0
Carbon tetrachloride	Ave	0.4994	0.4993		50.0	50.0	-0.0	20.0
Benzene	Ave	0.7836	0.7629		48.7	50.0	-2.6	20.0
Isobutyl alcohol	Ave	0.0107	0.0105		2460	2500	-1.7	20.0
1,2-Dichloroethane	Ave	0.3752	0.3622		48.3	50.0	-3.5	20.0
Trichloroethene	Ave	0.4067	0.4035		49.6	50.0	-0.8	20.0
Methylcyclohexane	Ave	0.5134	0.5255		51.2	50.0	2.4	20.0
1,2-Dichloropropane	Ave	0.4406	0.4304		48.8	50.0	-2.3	20.0
Dibromomethane	Ave	0.3168	0.3170		50.0	50.0	0.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: CCVIS 200-41675/2 Calibration Date: 07/11/2012 08:13

Instrument ID: N.i Calib Start Date: 07/10/2012 14:51

GC Column: DB-624 ID: 0.53(mm) Calib End Date: 07/10/2012 17:23

Lab File ID: ngia02.d Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Methyl methacrylate	Ave	0.2711	0.2632		48.5	50.0	-2.9	20.0
1,4-Dioxane	Ave	0.0023	0.0024		2510	2500	0.2	20.0
Bromodichloromethane	Ave	0.7306	0.7160		49.0	50.0	-2.0	20.0
2-Chloroethyl vinyl ether	Ave	0.1498	0.1420		47.4	50.0	-5.2	20.0
cis-1,3-Dichloropropene	Ave	0.5684	0.5762		50.7	50.0	1.4	20.0
4-Methyl-2-pentanone	Ave	0.3671	0.3716		127	125	1.2	20.0
Toluene	Ave	0.8064	0.7913		49.1	50.0	-1.9	20.0
trans-1,3-Dichloropropene	Ave	0.6353	0.6404		50.4	50.0	0.8	20.0
Ethyl methacrylate	Ave	0.4218	0.4326		51.3	50.0	2.6	20.0
1,1,2-Trichloroethane	Ave	0.3740	0.3565		47.7	50.0	-4.7	20.0
Tetrachloroethene	Ave	0.5393	0.5445		50.5	50.0	0.9	20.0
1,3-Dichloropropane	Ave	0.6920	0.6776		49.0	50.0	-2.1	20.0
2-Hexanone	Ave	0.3154	0.3173		126	125	0.6	20.0
Dibromochloromethane	Ave	0.6821	0.6637		48.7	50.0	-2.7	20.0
1,2-Dibromoethane	Ave	0.5698	0.5581		49.0	50.0	-2.1	20.0
Chlorobenzene	Ave	0.9868	0.9825	0.3000	49.8	50.0	-0.4	20.0
1,1,1,2-Tetrachloroethane	Ave	0.5204	0.5096		49.0	50.0	-2.1	20.0
Ethylbenzene	Ave	1.658	1.639		49.4	50.0	-1.1	20.0
m&p-Xylene	Ave	0.5840	0.5871		101	100	0.5	20.0
o-Xylene	Ave	0.5733	0.5708		49.8	50.0	-0.4	20.0
Styrene	Ave	0.9566	0.9723		50.8	50.0	1.6	20.0
Bromoform	Ave	0.4556	0.4573	0.1000	50.2	50.0	0.4	20.0
Isopropylbenzene	Ave	3.499	3.394		48.5	50.0	-3.0	20.0
Bromobenzene	Ave	0.9521	0.9122		47.9	50.0	-4.2	20.0
1,1,2,2-Tetrachloroethane	Ave	1.397	1.301	0.3000	46.5	50.0	-6.9	20.0
1,2,3-Trichloropropane	Ave	0.3133	0.2960		47.2	50.0	-5.5	20.0
trans-1,4-Dichloro-2-butene	Ave	0.3058	0.3193		52.2	50.0	4.4	20.0
n-Propylbenzene	Ave	0.8041	0.8039		50.0	50.0	-0.0	20.0
2-Chlorotoluene	Ave	0.7371	0.7338		49.8	50.0	-0.4	20.0
1,3,5-Trimethylbenzene	Ave	2.531	2.516		49.7	50.0	-0.6	20.0
4-Chlorotoluene	Ave	0.7461	0.7716		51.7	50.0	3.4	20.0
tert-Butylbenzene	Ave	2.717	2.646		48.7	50.0	-2.6	20.0
1,2,4-Trimethylbenzene	Ave	2.516	2.501		49.7	50.0	-0.6	20.0
sec-Butylbenzene	Ave	3.913	3.900		49.8	50.0	-0.3	20.0
1,3-Dichlorobenzene	Ave	1.486	1.523		51.2	50.0	2.5	20.0
4-Isopropyltoluene	Ave	2.906	2.960		50.9	50.0	1.8	20.0
1,4-Dichlorobenzene	Ave	1.651	1.652		50.0	50.0	0.0	20.0
1,2-Dichlorobenzene	Ave	1.419	1.403		49.5	50.0	-1.1	20.0
n-Butylbenzene	Ave	2.924	3.074		52.6	50.0	5.1	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.2894	0.2687		46.4	50.0	-7.2	20.0
1,2,4-Trichlorobenzene	Ave	1.062	1.145		53.9	50.0	7.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: CCVIS 200-41675/2 Calibration Date: 07/11/2012 08:13

Instrument ID: N.i Calib Start Date: 07/10/2012 14:51

GC Column: DB-624 ID: 0.53(mm) Calib End Date: 07/10/2012 17:23

Lab File ID: ngia02.d Conc. Units: ug/L Heated Purge: (Y/N) Y

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Hexachlorobutadiene	Ave	0.7529	0.8301		55.1	50.0	10.3	20.0
Naphthalene	Ave	1.719	1.778		51.7	50.0	3.4	20.0
1,2,3-Trichlorobenzene	Ave	0.9157	0.9697		52.9	50.0	5.9	20.0
1,2-Dichloroethane-d4	Ave	0.3354	0.3266		48.7	50.0	-2.6	20.0
Toluene-d8	Ave	1.240	1.223		49.3	50.0	-1.4	20.0
Bromofluorobenzene	Ave	1.571	1.575		50.1	50.0	0.3	20.0
1,2-Dichlorobenzene-d4	Ave	0.9837	0.9605		48.8	50.0	-2.4	20.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: | Lab Sample ID: MB 200-41675/5

Matrix: Solid | Lab File ID: ngia05.d

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(g) | Date Analyzed: 07/11/2012 09:45

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.53(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 41675 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
75-71-8	Dichlorodifluoromethane	1.0	U	5.0	1.0	1.0
74-87-3	Chloromethane	1.0	U	5.0	1.0	1.0
75-01-4	Vinyl chloride	1.0	U	5.0	1.0	1.0
74-83-9	Bromomethane	2.5	U	5.0	2.5	2.5
75-00-3	Chloroethane	1.0	U	5.0	1.0	1.0
75-69-4	Trichlorofluoromethane	1.0	U	5.0	1.0	1.0
75-35-4	1,1-Dichloroethene	1.0	U	5.0	1.0	1.0
76-13-1	Freon TF	1.0	U	5.0	1.0	1.0
67-64-1	Acetone	2.5	U	5.0	2.5	2.5
75-15-0	Carbon disulfide	1.0	U	5.0	1.0	1.0
79-20-9	Methyl acetate	2.5	U	5.0	2.5	2.5
75-09-2	Methylene Chloride	1.0	U	5.0	1.0	1.0
156-60-5	trans-1,2-Dichloroethene	1.0	U	5.0	1.0	1.0
1634-04-4	Methyl t-butyl ether	1.0	U	5.0	1.0	1.0
75-34-3	1,1-Dichloroethane	1.0	U	5.0	1.0	1.0
156-59-2	cis-1,2-Dichloroethene	1.0	U	5.0	1.0	1.0
78-93-3	2-Butanone	2.5	U	5.0	2.5	2.5
74-97-5	Bromochloromethane	1.0	U	5.0	1.0	1.0
67-66-3	Chloroform	1.0	U	5.0	1.0	1.0
71-55-6	1,1,1-Trichloroethane	1.0	U	5.0	1.0	1.0
110-82-7	Cyclohexane	1.0	U	5.0	1.0	1.0
56-23-5	Carbon tetrachloride	1.0	U	5.0	1.0	1.0
71-43-2	Benzene	1.0	U	5.0	1.0	1.0
107-06-2	1,2-Dichloroethane	1.0	U	5.0	1.0	1.0
79-01-6	Trichloroethene	1.0	U	5.0	1.0	1.0
108-87-2	Methylcyclohexane	1.0	U	5.0	1.0	1.0
78-87-5	1,2-Dichloropropane	1.0	U	5.0	1.0	1.0
123-91-1	1,4-Dioxane	50	U	250	50	50
75-27-4	Bromodichloromethane	1.0	U	5.0	1.0	1.0
10061-01-5	cis-1,3-Dichloropropene	1.0	U	5.0	1.0	1.0
108-10-1	4-Methyl-2-pentanone	1.0	U	5.0	1.0	1.0
108-88-3	Toluene	0.274	J	5.0	0.25	0.25
10061-02-6	trans-1,3-Dichloropropene	1.0	U	5.0	1.0	1.0
79-00-5	1,1,2-Trichloroethane	1.0	U	5.0	1.0	1.0
127-18-4	Tetrachloroethene	0.25	U	5.0	0.25	0.25
591-78-6	2-Hexanone	1.0	U	5.0	1.0	1.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: Lab Sample ID: MB 200-41675/5

Matrix: Solid Lab File ID: ngia05.d

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(g) Date Analyzed: 07/11/2012 09:45

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 41675 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
124-48-1	Dibromochloromethane	1.0	U	5.0	1.0	1.0
106-93-4	1,2-Dibromoethane	1.0	U	5.0	1.0	1.0
108-90-7	Chlorobenzene	0.50	U	5.0	0.50	0.50
100-41-4	Ethylbenzene	0.25	U	5.0	0.25	0.25
179601-23-1	m&p-Xylene	1.0	U	5.0	1.0	1.0
95-47-6	o-Xylene	0.25	U	5.0	0.25	0.25
1330-20-7	Xylenes, Total	0.25	U	5.0	0.25	0.25
100-42-5	Styrene	0.25	U	5.0	0.25	0.25
75-25-2	Bromoform	1.0	U	5.0	1.0	1.0
98-82-8	Isopropylbenzene	1.0	U	5.0	1.0	1.0
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	5.0	1.0	1.0
541-73-1	1,3-Dichlorobenzene	0.11	U	5.0	0.11	0.11
106-46-7	1,4-Dichlorobenzene	0.25	U	5.0	0.25	0.25
95-50-1	1,2-Dichlorobenzene	0.25	U	5.0	0.25	0.25
96-12-8	1,2-Dibromo-3-Chloropropane	1.0	U	5.0	1.0	1.0
120-82-1	1,2,4-Trichlorobenzene	1.0	U	5.0	1.0	1.0
87-61-6	1,2,3-Trichlorobenzene	1.0	U	5.0	1.0	1.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4	93		65-155
2037-26-5	Toluene-d8	94		80-115
460-00-4	Bromofluorobenzene	98		80-115
2199-69-1	1,2-Dichlorobenzene-d4	93		45-145

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: | Lab Sample ID: LCS 200-41675/3

Matrix: Solid | Lab File ID: ngia03.d

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(g) | Date Analyzed: 07/11/2012 08:44

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 ID: 0.53(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 41675 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
75-71-8	Dichlorodifluoromethane	40.4	M	5.0	1.0	1.0
74-87-3	Chloromethane	41.2		5.0	1.0	1.0
75-01-4	Vinyl chloride	50.1		5.0	1.0	1.0
74-83-9	Bromomethane	40.5	M	5.0	2.5	2.5
75-00-3	Chloroethane	45.8		5.0	1.0	1.0
75-69-4	Trichlorofluoromethane	47.8		5.0	1.0	1.0
75-35-4	1,1-Dichloroethene	51.6		5.0	1.0	1.0
76-13-1	Freon TF	44.1		5.0	1.0	1.0
67-64-1	Acetone	114		5.0	2.5	2.5
75-15-0	Carbon disulfide	42.1		5.0	1.0	1.0
79-20-9	Methyl acetate	44.9		5.0	2.5	2.5
75-09-2	Methylene Chloride	49.7		5.0	1.0	1.0
156-60-5	trans-1,2-Dichloroethene	51.3		5.0	1.0	1.0
1634-04-4	Methyl t-butyl ether	47.5		5.0	1.0	1.0
75-34-3	1,1-Dichloroethane	49.0		5.0	1.0	1.0
156-59-2	cis-1,2-Dichloroethene	50.5		5.0	1.0	1.0
78-93-3	2-Butanone	120		5.0	2.5	2.5
74-97-5	Bromochloromethane	51.5		5.0	1.0	1.0
67-66-3	Chloroform	49.9		5.0	1.0	1.0
71-55-6	1,1,1-Trichloroethane	49.8		5.0	1.0	1.0
110-82-7	Cyclohexane	48.8		5.0	1.0	1.0
56-23-5	Carbon tetrachloride	49.8		5.0	1.0	1.0
71-43-2	Benzene	51.0		5.0	1.0	1.0
107-06-2	1,2-Dichloroethane	49.2		5.0	1.0	1.0
79-01-6	Trichloroethene	50.9		5.0	1.0	1.0
108-87-2	Methylcyclohexane	50.5		5.0	1.0	1.0
78-87-5	1,2-Dichloropropane	49.4		5.0	1.0	1.0
123-91-1	1,4-Dioxane	2440		250	50	50
75-27-4	Bromodichloromethane	48.9		5.0	1.0	1.0
10061-01-5	cis-1,3-Dichloropropene	52.4		5.0	1.0	1.0
108-10-1	4-Methyl-2-pentanone	124		5.0	1.0	1.0
108-88-3	Toluene	51.1		5.0	0.25	0.25
10061-02-6	trans-1,3-Dichloropropene	51.5		5.0	1.0	1.0
79-00-5	1,1,2-Trichloroethane	48.9		5.0	1.0	1.0
127-18-4	Tetrachloroethene	51.7		5.0	0.25	0.25
591-78-6	2-Hexanone	125		5.0	1.0	1.0

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: Lab Sample ID: LCS 200-41675/3

Matrix: Solid Lab File ID: ngia03.d

Analysis Method: 8260B Date Collected:

Sample wt/vol: 5(g) Date Analyzed: 07/11/2012 08:44

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 41675 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
124-48-1	Dibromochloromethane	50.2		5.0	1.0	1.0
106-93-4	1,2-Dibromoethane	49.6		5.0	1.0	1.0
108-90-7	Chlorobenzene	51.3		5.0	0.50	0.50
100-41-4	Ethylbenzene	50.9		5.0	0.25	0.25
179601-23-1	m&p-Xylene	104		5.0	1.0	1.0
95-47-6	o-Xylene	50.5		5.0	0.25	0.25
1330-20-7	Xylenes, Total	155		5.0	0.25	0.25
100-42-5	Styrene	51.4		5.0	0.25	0.25
75-25-2	Bromoform	49.8		5.0	1.0	1.0
98-82-8	Isopropylbenzene	49.3		5.0	1.0	1.0
79-34-5	1,1,2,2-Tetrachloroethane	47.7		5.0	1.0	1.0
541-73-1	1,3-Dichlorobenzene	50.5		5.0	0.11	0.11
106-46-7	1,4-Dichlorobenzene	50.5		5.0	0.25	0.25
95-50-1	1,2-Dichlorobenzene	50.8		5.0	0.25	0.25
96-12-8	1,2-Dibromo-3-Chloropropane	46.7		5.0	1.0	1.0
120-82-1	1,2,4-Trichlorobenzene	50.8		5.0	1.0	1.0
87-61-6	1,2,3-Trichlorobenzene	52.1		5.0	1.0	1.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4	95		65-155
2037-26-5	Toluene-d8	95		80-115
460-00-4	Bromofluorobenzene	97		80-115
2199-69-1	1,2-Dichlorobenzene-d4	94		45-145

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: N.i Start Date: 07/10/2012 14:09

Analysis Batch Number: 41643 End Date: 07/10/2012 20:26

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 200-41643/1		07/10/2012 14:09	1	ngi01.d	DB-624 0.53(mm)
ZZZZZ		07/10/2012 14:21	1		DB-624 0.53(mm)
IC 200-41643/3		07/10/2012 14:51	1	ngi03.d	DB-624 0.53(mm)
IC 200-41643/4		07/10/2012 15:22	1	ngi04.d	DB-624 0.53(mm)
IC 200-41643/5		07/10/2012 15:52	1	ngi05.d	DB-624 0.53(mm)
ICIS 200-41643/6		07/10/2012 16:22	1	ngi06.d	DB-624 0.53(mm)
IC 200-41643/7		07/10/2012 16:53	1	ngi07.d	DB-624 0.53(mm)
IC 200-41643/8		07/10/2012 17:23	1	ngi08.d	DB-624 0.53(mm)
VIBLK 200-41643/9		07/10/2012 17:54	1		DB-624 0.53(mm)
VIBLK 200-41643/10		07/10/2012 18:24	1		DB-624 0.53(mm)
ICV 200-41643/11		07/10/2012 18:54	1	ngi11.d	DB-624 0.53(mm)
ZZZZZ		07/10/2012 19:25	1		DB-624 0.53(mm)
VIBLK 200-41643/13		07/10/2012 19:55	1		DB-624 0.53(mm)
VIBLK 200-41643/14		07/10/2012 20:26	1		DB-624 0.53(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: N.i Start Date: 07/11/2012 07:55

Analysis Batch Number: 41675 End Date: 07/11/2012 13:51

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 200-41675/1		07/11/2012 07:55	1	ngia01.d	DB-624 0.53(mm)
CCVIS 200-41675/2		07/11/2012 08:13	1	ngia02.d	DB-624 0.53(mm)
LCS 200-41675/3		07/11/2012 08:44	1	ngia03.d	DB-624 0.53(mm)
VIBLK 200-41675/4		07/11/2012 09:14	1		DB-624 0.53(mm)
MB 200-41675/5		07/11/2012 09:45	1	ngia05.d	DB-624 0.53(mm)
200-11554-5	NFUDS-001-TB01-06	07/11/2012 10:15	1	ngia06.d	DB-624 0.53(mm)
200-11554-1	NFUDS-001-TP0101-01	07/11/2012 10:46	1	ngia07.d	DB-624 0.53(mm)
200-11554-2	NFUDS-001-TP0201-01	07/11/2012 11:16	1	ngia08.d	DB-624 0.53(mm)
200-11554-3	NFUDS-001-TP0302-01	07/11/2012 11:46	1	ngia09.d	DB-624 0.53(mm)
200-11554-4	NFUDS-001-TP0402-01	07/11/2012 12:20	1	ngia10.d	DB-624 0.53(mm)
ZZZZZ		07/11/2012 12:50	1		DB-624 0.53(mm)
ZZZZZ		07/11/2012 13:21	1		DB-624 0.53(mm)
ZZZZZ		07/11/2012 13:51	1		DB-624 0.53(mm)

GC/MS VOA BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Batch Number: 41282 Batch Start Date: 07/03/12 09:48 Batch Analyst: Gagne, Ashley L

Batch Method: 5035 Batch End Date: 07/03/12 10:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	TareWeight	Vial&SampleWt	InitialAmount	FinalAmount	AnalysisComment	
200-11554-B-1	NFUDS-001-TP0101-01	5035, 8260B	T	31.56 g	38.05 g	6.49 g	5 mL	Sample was frozen when weight was taken	
200-11554-B-2	NFUDS-001-TP0201-01	5035, 8260B	T	31.55 g	36.70 g	5.15 g	5 mL	Sample was frozen when weight was taken	
200-11554-B-3	NFUDS-001-TP0302-01	5035, 8260B	T	31.43 g	36.18 g	4.75 g	5 mL	Sample was frozen when weight was taken	
200-11554-B-4	NFUDS-001-TP0402-01	5035, 8260B	T	31.49 g	36.85 g	5.36 g	5 mL	Sample was frozen when weight was taken	
200-11554-B-5	NFUDS-001-TB01-06	5035, 8260B	T	31.51 g	36.51 g	5 g	5 mL	Sample was frozen when weight was taken	

Batch Notes	

Basis	Basis Description
T	Total/NA

Method 8270C DOD

Semivolatile Compounds (GC/MS) by Method 8270/DOD

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Matrix: Solid Level: Low

GC Column (1): RXI-5SILMS ID: 0.45 (mm)

Client Sample ID	Lab Sample ID	2FP #	PHL #	NBZ #	FBP #	TBP #	TPH #
NFUDS-001-TP0101-01	200-11554-1	59	62	53	51	66	70
NFUDS-001-TP0101-01 RE	200-11554-1 RE	66	66	61	53	51	75
NFUDS-001-TP0201-01	200-11554-2	59	60 M	54 M	45 M	53 M	61 M
NFUDS-001-TP0201-01 RE	200-11554-2 RE	77	81	74	66	56	93
NFUDS-001-TP0302-01	200-11554-3	61	64	53	49	59	78
NFUDS-001-TP0302-01 RE	200-11554-3 RE	63	64	60	54	48 M	78
NFUDS-001-TP0402-01	200-11554-4	66	66	57	50	59	70
NFUDS-001-TP0402-01 RE	200-11554-4 RE	71	73	67	61	51 M	86
	MB 240-49913/15-A	63	69	57	53	45	75
	MB 240-50985/23-A	71	75	72	61	46 M	95
	LCS 240-49913/16-A	62	67	58	52	44	74
	LCS 240-50985/22-A	73	77	69	63	71	88
NFUDS-001-TP0201-01 MS	200-11554-2 MS	60	64	50	49	64	68
NFUDS-001-TP0402-01 MS	200-11554-4 MS	55	61	56	50	66	86
NFUDS-001-TP0201-01 MSD	200-11554-2 MSD	62	67	53	50	65	70
NFUDS-001-TP0402-01 MSD	200-11554-4 MSD	69	73	63	55	49	82

	QC LIMITS
2FP = 2-Fluorophenol (Surr)	35-105
PHL = Phenol-d5 (Surr)	40-100
NBZ = Nitrobenzene-d5 (Surr)	35-100
FBP = 2-Fluorobiphenyl (Surr)	45-105
TBP = 2,4,6-Tribromophenol (Surr)	35-125
TPH = Terphenyl-d14 (Surr)	30-125

Column to be used to flag recovery values

FORM II 8270C/DoD

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Matrix: Solid Level: Low Lab File ID: 20716006.D

Lab ID: LCS 240-49913/16-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
2,4,5-Trichlorophenol	667	329	49	50-110	Q
2,4,6-Trichlorophenol	667	277	42	45-110	Q
2,4-Dichlorophenol	667	418	63	45-110	
2,4-Dimethylphenol	667	408	61	30-105	
2,4-Dinitrophenol	667	316 J	47	15-130	
2,4-Dinitrotoluene	667	432	65	50-115	
2,6-Dinitrotoluene	667	423	63	50-110	
2-Chloronaphthalene	667	369	55	45-105	
2-Chlorophenol	667	411	62	45-105	
2-Methylnaphthalene	667	427	64	45-105	
2-Methylphenol	667	427	64	40-105	
2-Nitroaniline	667	506	76	45-120	
2-Nitrophenol	667	403	60	40-110	
3 & 4 Methylphenol	1330	913	69	40-105	
3,3'-Dichlorobenzidine	667	341	51	10-130	
3-Nitroaniline	667	433	65	25-110	
4,6-Dinitro-2-methylphenol	667	408	61	30-135	
4-Bromophenyl phenyl ether	667	388	58	45-115	
4-Chloro-3-methylphenol	667	481	72	45-115	
4-Chloroaniline	667	348	52	10-110	
4-Chlorophenyl phenyl ether	667	381	57	45-110	
4-Nitroaniline	667	467	70	35-115	
4-Nitrophenol	667	426	64	15-140	
Acenaphthene	667	407	61	45-110	
Acenaphthylene	667	424	64	45-105	
Anthracene	667	462	69	55-105	
Benzo[a]anthracene	667	475	71	50-110	
Benzo[a]pyrene	667	452	68	50-110	
Benzo[b]fluoranthene	667	464	70	45-115	
Benzo[g,h,i]perylene	667	505	76	40-125	
Benzo[k]fluoranthene	667	518	78	45-125	
Bis(2-chloroethoxy)methane	667	390	58	45-110	
Bis(2-chloroethyl)ether	667	383	57	40-105	
Bis(2-ethylhexyl) phthalate	667	513	77	45-125	
Butyl benzyl phthalate	667	497	74	50-125	
Carbazole	667	501	75	45-115	
Chrysene	667	485	73	55-110	
Dibenz(a,h)anthracene	667	514	77	40-125	
Dibenzofuran	667	437	66	50-105	
Diethyl phthalate	667	479	72	50-115	
Dimethyl phthalate	667	481	72	50-110	
Di-n-butyl phthalate	667	509	76	55-110	

Column to be used to flag recovery and RPD values

FORM III 8270C/DoD

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Matrix: Solid Level: Low Lab File ID: 20716006.D

Lab ID: LCS 240-49913/16-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Di-n-octyl phthalate	667	513	77	40-130	
Fluoranthene	667	489	73	55-115	
Fluorene	667	447	67	50-110	
Hexachlorobenzene	667	439	66	45-120	
Hexachlorobutadiene	667	363	54	40-115	
Hexachloroethane	667	365	55	35-110	
Indeno[1,2,3-cd]pyrene	667	495	74	40-120	
Naphthalene	667	423	63	40-105	
Nitrobenzene	667	408	61	40-115	
N-Nitrosodi-n-propylamine	667	452	68	40-115	
N-Nitrosodiphenylamine	667	449	67	50-115	
Pentachlorophenol	667	334	50	25-120	
Phenanthrene	667	465	70	50-110	
Phenol	667	461	69	40-100	
Pyrene	667	481	72	45-125	
bis (2-chloroisopropyl) ether	667	401	60	20-115	
Isophorone	667	455	68	45-110	

Column to be used to flag recovery and RPD values

FORM III 8270C/DoD

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Matrix: Solid Level: Low Lab File ID: 20725006.D

Lab ID: LCS 240-50985/22-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
2,4,5-Trichlorophenol	667	541	81	50-110	
2,4,6-Trichlorophenol	667	503	75	45-110	
2,4-Dichlorophenol	667	479	72	45-110	
2,4-Dimethylphenol	667	328	49	30-105	
2,4-Dinitrophenol	667	169 J	25	15-130	
2,4-Dinitrotoluene	667	513	77	50-115	
2,6-Dinitrotoluene	667	492	74	50-110	
2-Chloronaphthalene	667	435	65	45-105	
2-Chlorophenol	667	493	74	45-105	
2-Methylnaphthalene	667	482	72	45-105	
2-Methylphenol	667	480	72	40-105	
2-Nitroaniline	667	619	93	45-120	
2-Nitrophenol	667	463	69	40-110	
3 & 4 Methylphenol	1330	1020	77	40-105	
3,3'-Dichlorobenzidine	667	381	57	10-130	
3-Nitroaniline	667	488	73	25-110	
4,6-Dinitro-2-methylphenol	667	324	49	30-135	
4-Bromophenyl phenyl ether	667	459	69	45-115	
4-Chloro-3-methylphenol	667	543	81	45-115	
4-Chloroaniline	667	411	62	10-110	
4-Chlorophenyl phenyl ether	667	466	70	45-110	
4-Nitroaniline	667	561	84	35-115	
4-Nitrophenol	667	496	74	15-140	
Acenaphthene	667	502	75	45-110	
Acenaphthylene	667	507	76	45-105	
Anthracene	667	547	82	55-105	
Benzo[a]anthracene	667	600	90	50-110	
Benzo[a]pyrene	667	502	75	50-110	
Benzo[b]fluoranthene	667	657	98	45-115	
Benzo[g,h,i]perylene	667	554	83	40-125	
Benzo[k]fluoranthene	667	479	72	45-125	
Bis(2-chloroethoxy)methane	667	453	68	45-110	
Bis(2-chloroethyl)ether	667	462	69	40-105	
Bis(2-ethylhexyl) phthalate	667	585	88	45-125	
Butyl benzyl phthalate	667	562	84	50-125	
Carbazole	667	561	84	45-115	
Chrysene	667	533	80	55-110	
Dibenz(a,h)anthracene	667	557	84	40-125	
Dibenzofuran	667	521	78	50-105	
Diethyl phthalate	667	591	89	50-115	
Dimethyl phthalate	667	573	86	50-110	
Di-n-butyl phthalate	667	591	89	55-110	

Column to be used to flag recovery and RPD values

FORM III 8270C/DoD

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Matrix: Solid Level: Low Lab File ID: 20725006.D

Lab ID: LCS 240-50985/22-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Di-n-octyl phthalate	667	565	85	40-130	
Fluoranthene	667	554	83	55-115	
Fluorene	667	528	79	50-110	
Hexachlorobenzene	667	515	77	45-120	
Hexachlorobutadiene	667	423	63	40-115	
Hexachloroethane	667	479	72	35-110	
Indeno[1,2,3-cd]pyrene	667	553	83	40-120	
Naphthalene	667	503	75	40-105	
Nitrobenzene	667	491	74	40-115	
N-Nitrosodi-n-propylamine	667	551	83	40-115	
N-Nitrosodiphenylamine	667	527	79	50-115	
Pentachlorophenol	667	286	43	25-120	
Phenanthrene	667	551	83	50-110	
Phenol	667	525	79	40-100	
Pyrene	667	529	79	45-125	
bis (2-chloroisopropyl) ether	667	497	74	20-115	
Isophorone	667	525	79	45-110	

Column to be used to flag recovery and RPD values

FORM III 8270C/DoD

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Matrix: Solid Level: Low Lab File ID: 20716013.D

Lab ID: 200-11554-2 MS Client ID: NFUDS-001-TP0201-01 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
2,4,5-Trichlorophenol	690	28 U	465	67	50-110	
2,4,6-Trichlorophenol	690	82 U	436	63	45-110	
2,4-Dichlorophenol	690	28 U	425	62	45-110	
2,4-Dimethylphenol	690	82 U	426	62	30-105	
2,4-Dinitrophenol	690	82 U	359	52	15-130	
2,4-Dinitrotoluene	690	28 U	429	62	50-115	
2,6-Dinitrotoluene	690	28 U	404	59	50-110	
2-Chloronaphthalene	690	3.4 U	362	52	45-105	
2-Chlorophenol	690	28 U	419	61	45-105	
2-Methylnaphthalene	690	3.4 U	404	59	45-105	
2-Methylphenol	690	82 U	465	67	40-105	
2-Nitroaniline	690	28 U	522	76	45-120	
2-Nitrophenol	690	28 U	394	57	40-110	
3 & 4 Methylphenol	1380	82 U	925	67	40-105	
3,3'-Dichlorobenzidine	690	82 U	91.8 J	13	10-130	
3-Nitroaniline	690	82 U	411	60	25-110	
4,6-Dinitro-2-methylphenol	690	82 U	395	57	30-135	
4-Bromophenyl phenyl ether	690	28 U	400	58	45-115	
4-Chloro-3-methylphenol	690	28 U	485	70	45-115	
4-Chloroaniline	690	28 U	323	47	10-95	
4-Chlorophenyl phenyl ether	690	28 U	387	56	45-110	
4-Nitroaniline	690	28 U	413	60	35-115	
4-Nitrophenol	690	82 U	500	72	15-140	
Acenaphthene	690	3.4 U	411	60	45-110	
Acenaphthylene	690	3.4 U	428	62	45-105	
Anthracene	690	3.4 U	455	66	55-105	
Benzo[a]anthracene	690	3.4 U	452	66	50-110	
Benzo[a]pyrene	690	3.4 U	420	61	50-110	
Benzo[b]fluoranthene	690	3.4 U	458	66	45-115	
Benzo[g,h,i]perylene	690	3.4 U	477	69	40-125	
Benzo[k]fluoranthene	690	3.4 U	489	71	45-125	
Bis(2-chloroethoxy)methane	690	28 U	364	53	45-110	
Bis(2-chloroethyl)ether	690	3.4 U	377	55	40-105	
Bis(2-ethylhexyl) phthalate	690	33 J	507	69	45-125	
Butyl benzyl phthalate	690	28 U	487	71	50-125	
Carbazole	690	28 U	488	71	45-115	
Chrysene	690	3.4 U	476	69	55-110	
Dibenz(a,h)anthracene	690	3.4 U	497	72	40-125	
Dibenzofuran	690	3.4 U	433	63	50-105	
Diethyl phthalate	690	28 U	491	71	50-115	
Dimethyl phthalate	690	28 U	466	68	50-110	
Di-n-butyl phthalate	690	32 J	509	69	55-110	

Column to be used to flag recovery and RPD values

FORM III 8270C/DoD

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Matrix: Solid Level: Low Lab File ID: 20716013.D

Lab ID: 200-11554-2 MS Client ID: NFUDS-001-TP0201-01 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Di-n-octyl phthalate	690	28 U	509	74	40-130	
Fluoranthene	690	3.4 U	480	70	55-115	
Fluorene	690	3.4 U	453	66	50-110	
Hexachlorobenzene	690	3.4 U	440	64	45-120	
Hexachlorobutadiene	690	28 U	321	47	40-115	
Hexachloroethane	690	28 U	353	51	35-110	
Indeno[1,2,3-cd]pyrene	690	3.4 U	480	70	40-120	
Naphthalene	690	3.4 U	395	57	40-105	
Nitrobenzene	690	3.4 U	378	55	40-115	
N-Nitrosodi-n-propylamine	690	28 U	453	66	40-115	
N-Nitrosodiphenylamine	690	28 U	445	64	50-115	
Pentachlorophenol	690	82 U	265	38	25-120	
Phenanthrene	690	3.4 U	460	67	50-110	
Phenol	690	44 J	465	61	40-100	
Pyrene	690	3.4 U	474	69	45-125	
bis (2-chloroisopropyl) ether	690	28 U	403	58	20-115	
Isophorone	690	28 U	428	62	45-110	

Column to be used to flag recovery and RPD values

FORM III 8270C/DoD

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Matrix: Solid Level: Low Lab File ID: 20725011.D

Lab ID: 200-11554-4 MS Client ID: NFUDS-001-TP0402-01 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
2,4,5-Trichlorophenol	686	27 U	438	64	50-110	H
2,4,6-Trichlorophenol	686	81 U	393	57	45-110	H
2,4-Dichlorophenol	686	27 U	389	57	45-110	H
2,4-Dimethylphenol	686	81 U	348	51	30-105	H
2,4-Dinitrophenol	686	81 U	82 U	0	15-130	H J
2,4-Dinitrotoluene	686	27 U	479	70	50-115	H
2,6-Dinitrotoluene	686	27 U	446	65	50-110	H
2-Chloronaphthalene	686	3.3 U	351	51	45-105	H
2-Chlorophenol	686	27 U	400	58	45-105	H
2-Methylnaphthalene	686	3.3 U	401	59	45-105	H
2-Methylphenol	686	81 U	413	60	40-105	H
2-Nitroaniline	686	27 U	536	78	45-120	H
2-Nitrophenol	686	27 U	353	52	40-110	H
3 & 4 Methylphenol	1370	81 U	843	61	40-105	H
3,3'-Dichlorobenzidine	686	81 U	372	54	10-130	H
3-Nitroaniline	686	81 U	474	69	25-110	H
4,6-Dinitro-2-methylphenol	686	81 U	134 J	20	30-135	H M J
4-Bromophenyl phenyl ether	686	27 U	428	62	45-115	H
4-Chloro-3-methylphenol	686	27 U	457	67	45-115	H
4-Chloroaniline	686	27 U	358	52	10-95	H
4-Chlorophenyl phenyl ether	686	27 U	415	61	45-110	H
4-Nitroaniline	686	27 U	522	76	35-115	H
4-Nitrophenol	686	81 U	271 J	40	15-140	H M
Acenaphthene	686	3.3 U	407	59	45-110	H
Acenaphthylene	686	3.3 U	413	60	45-105	H
Anthracene	686	3.3 U	529	77	55-105	H
Benzo[a]anthracene	686	3.3 U	553	81	50-110	H
Benzo[a]pyrene	686	3.3 U	487	71	50-110	H
Benzo[b]fluoranthene	686	3.3 U	596	87	45-115	H
Benzo[g,h,i]perylene	686	3.3 U	566	83	40-125	H
Benzo[k]fluoranthene	686	3.3 U	487	71	45-125	H
Bis(2-chloroethoxy)methane	686	27 U	370	54	45-110	H
Bis(2-chloroethyl)ether	686	3.3 U	377	55	40-105	H
Bis(2-ethylhexyl) phthalate	686	27 U	579	84	45-125	H
Butyl benzyl phthalate	686	27 U	542	79	50-125	H
Carbazole	686	27 U	543	79	45-115	H
Chrysene	686	3.3 U	555	81	55-110	H
Dibenz(a,h)anthracene	686	3.3 U	563	82	40-125	H
Dibenzofuran	686	3.3 U	449	66	50-105	H
Diethyl phthalate	686	27 U	542	79	50-115	H
Dimethyl phthalate	686	27 U	503	73	50-110	H
Di-n-butyl phthalate	686	27 U	570	83	55-110	H

Column to be used to flag recovery and RPD values

FORM III 8270C/DoD

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Matrix: Solid Level: Low Lab File ID: 20725011.D

Lab ID: 200-11554-4 MS Client ID: NFUDS-001-TP0402-01 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
Di-n-octyl phthalate	686	27 U	564	82	40-130	H
Fluoranthene	686	3.3 U	531	77	55-115	H
Fluorene	686	3.3 U	458	67	50-110	H
Hexachlorobenzene	686	3.3 U	482	70	45-120	H
Hexachlorobutadiene	686	27 U	352	51	40-115	H
Hexachloroethane	686	27 U	380	55	35-110	H
Indeno[1,2,3-cd]pyrene	686	3.3 U	540	79	40-120	H
Naphthalene	686	3.3 U	407	59	40-105	H
Nitrobenzene	686	3.3 U	404	59	40-115	H
N-Nitrosodi-n-propylamine	686	27 U	439	64	40-115	H
N-Nitrosodiphenylamine	686	27 U	500	73	50-115	H
Pentachlorophenol	686	81 U	206	30	25-120	H M
Phenanthrene	686	3.3 U	532	78	50-110	H
Phenol	686	27 U	422	62	40-100	H
Pyrene	686	3.3 U	527	77	45-125	H
bis (2-chloroisopropyl) ether	686	27 U	393	57	20-115	H
Isophorone	686	27 U	422	62	45-110	H

Column to be used to flag recovery and RPD values

FORM III 8270C/DoD

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Matrix: Solid Level: Low Lab File ID: 20716014.D

Lab ID: 200-11554-2 MSD Client ID: NFUDS-001-TP0201-01 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
2,4,5-Trichlorophenol	688	436	63	6	30	50-110	
2,4,6-Trichlorophenol	688	435	63	0	30	45-110	
2,4-Dichlorophenol	688	434	63	2	30	45-110	
2,4-Dimethylphenol	688	436	63	2	30	30-105	
2,4-Dinitrophenol	688	195 J	28	59	30	15-130	J
2,4-Dinitrotoluene	688	438	64	2	30	50-115	
2,6-Dinitrotoluene	688	434	63	7	30	50-110	
2-Chloronaphthalene	688	372	54	3	30	45-105	
2-Chlorophenol	688	443	64	6	30	45-105	
2-Methylnaphthalene	688	423	61	5	30	45-105	
2-Methylphenol	688	484	70	4	30	40-105	
2-Nitroaniline	688	529	77	1	30	45-120	
2-Nitrophenol	688	425	62	8	30	40-110	
3 & 4 Methylphenol	1380	963	70	4	30	40-105	
3,3'-Dichlorobenzidine	688	53.3 J	8	53	30	10-130	J
3-Nitroaniline	688	375	55	9	30	25-110	
4,6-Dinitro-2-methylphenol	688	344	50	14	30	30-135	
4-Bromophenyl phenyl ether	688	391	57	2	30	45-115	
4-Chloro-3-methylphenol	688	502	73	3	30	45-115	
4-Chloroaniline	688	275	40	16	30	10-95	
4-Chlorophenyl phenyl ether	688	383	56	1	30	45-110	
4-Nitroaniline	688	368	54	12	30	35-115	
4-Nitrophenol	688	443	64	12	30	15-140	
Acenaphthene	688	418	61	2	30	45-110	
Acenaphthylene	688	431	63	1	30	45-105	
Anthracene	688	458	67	1	30	55-105	
Benzo[a]anthracene	688	463	67	2	30	50-110	
Benzo[a]pyrene	688	439	64	4	30	50-110	
Benzo[b]fluoranthene	688	525	76	14	30	45-115	
Benzo[g,h,i]perylene	688	493	72	3	30	40-125	
Benzo[k]fluoranthene	688	498	72	2	30	45-125	
Bis(2-chloroethoxy)methane	688	392	57	7	30	45-110	
Bis(2-chloroethyl)ether	688	409	59	8	30	40-105	
Bis(2-ethylhexyl) phthalate	688	521	71	3	30	45-125	
Butyl benzyl phthalate	688	513	75	5	30	50-125	
Carbazole	688	481	70	1	30	45-115	
Chrysene	688	478	70	0	30	55-110	
Dibenz(a,h)anthracene	688	533	77	7	30	40-125	
Dibenzofuran	688	445	65	3	30	50-105	
Diethyl phthalate	688	500	73	2	30	50-115	
Dimethyl phthalate	688	462	67	1	30	50-110	
Di-n-butyl phthalate	688	536	73	5	30	55-110	

Column to be used to flag recovery and RPD values

FORM III 8270C/DoD

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Matrix: Solid Level: Low Lab File ID: 20716014.D

Lab ID: 200-11554-2 MSD Client ID: NFUDS-001-TP0201-01 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Di-n-octyl phthalate	688	560	81	9	30	40-130	
Fluoranthene	688	480	70	0	30	55-115	
Fluorene	688	453	66	0	30	50-110	
Hexachlorobenzene	688	445	65	1	30	45-120	
Hexachlorobutadiene	688	352	51	9	30	40-115	
Hexachloroethane	688	379	55	7	30	35-110	
Indeno[1,2,3-cd]pyrene	688	515	75	7	30	40-120	
Naphthalene	688	408	59	3	30	40-105	
Nitrobenzene	688	394	57	4	30	40-115	
N-Nitrosodi-n-propylamine	688	480	70	6	30	40-115	
N-Nitrosodiphenylamine	688	456	66	3	30	50-115	
Pentachlorophenol	688	246	36	8	30	25-120	M
Phenanthrene	688	465	68	1	30	50-110	
Phenol	688	507	67	9	30	40-100	
Pyrene	688	481	70	1	30	45-125	
bis (2-chloroisopropyl) ether	688	423	62	5	30	20-115	
Isophorone	688	447	65	4	30	45-110	

Column to be used to flag recovery and RPD values

FORM III 8270C/DoD

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Matrix: Solid Level: Low Lab File ID: 20725012.D

Lab ID: 200-11554-4 MSD Client ID: NFUDS-001-TP0402-01 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
2,4,5-Trichlorophenol	683	431	63	2	30	50-110	H
2,4,6-Trichlorophenol	683	313	46	23	30	45-110	H
2,4-Dichlorophenol	683	455	67	16	30	45-110	H
2,4-Dimethylphenol	683	412	60	17	30	30-105	H
2,4-Dinitrophenol	683	82 U	0	NC	30	15-130	H J
2,4-Dinitrotoluene	683	472	69	1	30	50-115	H
2,6-Dinitrotoluene	683	453	66	2	30	50-110	H
2-Chloronaphthalene	683	396	58	12	30	45-105	H
2-Chlorophenol	683	457	67	13	30	45-105	H
2-Methylnaphthalene	683	465	68	15	30	45-105	H
2-Methylphenol	683	489	72	17	30	40-105	H
2-Nitroaniline	683	542	79	1	30	45-120	H
2-Nitrophenol	683	422	62	18	30	40-110	H
3 & 4 Methylphenol	1370	957	70	13	30	40-105	H
3,3'-Dichlorobenzidine	683	349	51	6	30	10-130	H
3-Nitroaniline	683	448	66	6	30	25-110	H
4,6-Dinitro-2-methylphenol	683	119 J	17	12	30	30-135	H M J
4-Bromophenyl phenyl ether	683	437	64	2	30	45-115	H
4-Chloro-3-methylphenol	683	484	71	6	30	45-115	H
4-Chloroaniline	683	382	56	7	30	10-95	H
4-Chlorophenyl phenyl ether	683	411	60	1	30	45-110	H
4-Nitroaniline	683	482	70	8	30	35-115	H
4-Nitrophenol	683	218 J	32	22	30	15-140	H
Acenaphthene	683	454	66	11	30	45-110	H
Acenaphthylene	683	456	67	10	30	45-105	H
Anthracene	683	517	76	2	30	55-105	H
Benzo[a]anthracene	683	548	80	1	30	50-110	H
Benzo[a]pyrene	683	476	70	2	30	50-110	H
Benzo[b]fluoranthene	683	553	81	8	30	45-115	H
Benzo[g,h,i]perylene	683	530	77	7	30	40-125	H
Benzo[k]fluoranthene	683	518	76	6	30	45-125	H
Bis(2-chloroethoxy)methane	683	429	63	15	30	45-110	H
Bis(2-chloroethyl)ether	683	451	66	18	30	40-105	H
Bis(2-ethylhexyl) phthalate	683	558	82	4	30	45-125	H
Butyl benzyl phthalate	683	544	80	0	30	50-125	H
Carbazole	683	543	79	0	30	45-115	H
Chrysene	683	544	80	2	30	55-110	H
Dibenz(a,h)anthracene	683	539	79	4	30	40-125	H
Dibenzofuran	683	461	67	3	30	50-105	H
Diethyl phthalate	683	541	79	0	30	50-115	H
Dimethyl phthalate	683	511	75	1	30	50-110	H
Di-n-butyl phthalate	683	559	82	2	30	55-110	H

Column to be used to flag recovery and RPD values

FORM III 8270C/DoD

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Matrix: Solid Level: Low Lab File ID: 20725012.D

Lab ID: 200-11554-4 MSD Client ID: NFUDS-001-TP0402-01 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Di-n-octyl phthalate	683	556	81	2	30	40-130	H
Fluoranthene	683	539	79	2	30	55-115	H
Fluorene	683	465	68	2	30	50-110	H
Hexachlorobenzene	683	490	72	2	30	45-120	H
Hexachlorobutadiene	683	413	60	16	30	40-115	H
Hexachloroethane	683	444	65	15	30	35-110	H
Indeno[1,2,3-cd]pyrene	683	522	76	3	30	40-120	H
Naphthalene	683	483	71	17	30	40-105	H
Nitrobenzene	683	448	66	10	30	40-115	H
N-Nitrosodi-n-propylamine	683	514	75	16	30	40-115	H
N-Nitrosodiphenylamine	683	511	75	2	30	50-115	H
Pentachlorophenol	683	180	26	13	30	25-120	H M
Phenanthrene	683	529	77	1	30	50-110	H
Phenol	683	495	72	16	30	40-100	H
Pyrene	683	516	75	2	30	45-125	H
bis (2-chloroisopropyl) ether	683	467	68	17	30	20-115	H
Isophorone	683	496	73	16	30	45-110	H

Column to be used to flag recovery and RPD values

FORM III 8270C/DoD

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab File ID: 20716005.D Lab Sample ID: MB 240-49913/15-A

Matrix: Solid Date Extracted: 07/05/2012 11:14

Instrument ID: A4HP9 Date Analyzed: 07/16/2012 09:17

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-49913/16-A	20716006.D	07/16/2012 09:37
NFUDS-001-TP0302-01	200-11554-3	20716009.D	07/16/2012 10:35
NFUDS-001-TP0402-01	200-11554-4	20716010.D	07/16/2012 10:55
NFUDS-001-TP0101-01	200-11554-1	20716011.D	07/16/2012 11:15
NFUDS-001-TP0201-01	200-11554-2	20716012.D	07/16/2012 11:34
NFUDS-001-TP0201-01 MS	200-11554-2 MS	20716013.D	07/16/2012 11:54
NFUDS-001-TP0201-01 MSD	200-11554-2 MSD	20716014.D	07/16/2012 12:13

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab File ID: 20725005.D Lab Sample ID: MB 240-50985/23-A

Matrix: Solid Date Extracted: 07/17/2012 08:20

Instrument ID: A4HP9 Date Analyzed: 07/25/2012 09:35

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 240-50985/22-A	20725006.D	07/25/2012 09:55
NFUDS-001-TP0101-01 RE	200-11554-1 RE	20725007.D	07/25/2012 10:14
NFUDS-001-TP0201-01 RE	200-11554-2 RE	20725008.D	07/25/2012 10:33
NFUDS-001-TP0302-01 RE	200-11554-3 RE	20725009.D	07/25/2012 10:53
NFUDS-001-TP0402-01 RE	200-11554-4 RE	20725010.D	07/25/2012 11:12
NFUDS-001-TP0402-01 MS	200-11554-4 MS	20725011.D	07/25/2012 11:32
NFUDS-001-TP0402-01 MSD	200-11554-4 MSD	20725012.D	07/25/2012 11:51

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab File ID: 20713001.D DFTPP Injection Date: 07/13/2012

Instrument ID: A4HP9 DFTPP Injection Time: 09:25

Analysis Batch No.: 50712

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	39.2	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	64.4	
70	Less than 2.0% of mass 69	0.4	(0.7)1
127	25.0 - 75.0% of mass 198	52.2	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	7.0	
275	10.0- 30.0% of mass 198	22.4	
365	Greater than 0.75% of mass 198	2.1	
441	Present, but less than mass 443	4.6	
442	40.0 - 110.0% of mass 198	47.5	
443	15.0 - 24.0% of mass 442	9.1	(19.1)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD5 240-50712/2	20713002.D	07/13/2012	09:43
	STD4 240-50712/3	20713003.D	07/13/2012	10:13
	STD3 240-50712/4	20713004.D	07/13/2012	10:32
	STD2 240-50712/5	20713005.D	07/13/2012	10:52
	STD1 240-50712/6	20713006.D	07/13/2012	11:11
	STD9 240-50712/7	20713007.D	07/13/2012	11:30
	STD8 240-50712/8	20713008.D	07/13/2012	11:49
	STD7 240-50712/9	20713009.D	07/13/2012	12:09
	STD6 240-50712/10	20713010.D	07/13/2012	12:28
	STD5 240-50712/12	20713012.D	07/13/2012	13:11
	STD4 240-50712/13	20713013.D	07/13/2012	13:31
	STD3 240-50712/14	20713014.D	07/13/2012	13:50
	STD2 240-50712/15	20713015.D	07/13/2012	14:10
	STD6 240-50712/16	20713016.D	07/13/2012	14:29
	STD7 240-50712/17	20713017.D	07/13/2012	14:47
	STD8 240-50712/18	20713018.D	07/13/2012	15:06
	STD9 240-50712/19	20713019.D	07/13/2012	15:26

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab File ID: 20716001.D DFTPP Injection Date: 07/16/2012

Instrument ID: A4HP9 DFTPP Injection Time: 07:59

Analysis Batch No.: 50851

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	50.6	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	81.7	
70	Less than 2.0% of mass 69	0.3	(0.3)1
127	25.0 - 75.0% of mass 198	55.1	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.9	
275	10.0- 30.0% of mass 198	21.3	
365	Greater than 0.75% of mass 198	2.1	
441	Present, but less than mass 443	6.3	
442	40.0 - 110.0% of mass 198	45.4	
443	15.0 - 24.0% of mass 442	8.8	(19.4)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-50851/2	20716002.D	07/16/2012	08:16
	CCV 240-50851/3	20716003.D	07/16/2012	08:38
	ICV 240-50851/4	20716004.D	07/16/2012	08:57
	MB 240-49913/15-A	20716005.D	07/16/2012	09:17
	LCS 240-49913/16-A	20716006.D	07/16/2012	09:37
NFUDS-001-TP0302-01	200-11554-3	20716009.D	07/16/2012	10:35
NFUDS-001-TP0402-01	200-11554-4	20716010.D	07/16/2012	10:55
NFUDS-001-TP0101-01	200-11554-1	20716011.D	07/16/2012	11:15
NFUDS-001-TP0201-01	200-11554-2	20716012.D	07/16/2012	11:34
NFUDS-001-TP0201-01 MS	200-11554-2 MS	20716013.D	07/16/2012	11:54
NFUDS-001-TP0201-01 MSD	200-11554-2 MSD	20716014.D	07/16/2012	12:13

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab File ID: 20724001.D DFTPP Injection Date: 07/24/2012

Instrument ID: A4HP9 DFTPP Injection Time: 08:43

Analysis Batch No.: 51747

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	43.2	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	69.3	
70	Less than 2.0% of mass 69	0.2	(0.3)1
127	25.0 - 75.0% of mass 198	52.5	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	6.8	
275	10.0- 30.0% of mass 198	21.8	
365	Greater than 0.75% of mass 198	2.0	
441	Present, but less than mass 443	1.1	
442	40.0 - 110.0% of mass 198	46.3	
443	15.0 - 24.0% of mass 442	9.1	(19.7)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	STD5 240-51747/2	20724002.D	07/24/2012	09:07
	STD4 240-51747/3	20724003.D	07/24/2012	09:26
	STD3 240-51747/4	20724004.D	07/24/2012	09:46
	STD2 240-51747/5	20724005.D	07/24/2012	10:05
	STD1 240-51747/6	20724006.D	07/24/2012	10:25
	STD9 240-51747/7	20724007.D	07/24/2012	10:48
	STD8 240-51747/8	20724008.D	07/24/2012	11:07
	STD7 240-51747/9	20724009.D	07/24/2012	11:27
	STD6 240-51747/10	20724010.D	07/24/2012	11:46
	STD5 240-51747/12	20724012.D	07/24/2012	12:31
	STD4 240-51747/13	20724013.D	07/24/2012	12:51
	STD3 240-51747/14	20724014.D	07/24/2012	13:10
	STD2 240-51747/15	20724015.D	07/24/2012	13:29
	STD6 240-51747/16	20724016.D	07/24/2012	13:49
	STD7 240-51747/17	20724017.D	07/24/2012	14:08
	STD8 240-51747/18	20724018.D	07/24/2012	14:28
	STD9 240-51747/19	20724019.D	07/24/2012	14:47

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab File ID: 20725001.D DFTPP Injection Date: 07/25/2012

Instrument ID: A4HP9 DFTPP Injection Time: 07:56

Analysis Batch No.: 51914

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0- 80.0% of mass 198	55.1	
68	Less than 2.0% of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	85.9	
70	Less than 2.0% of mass 69	0.1	(0.1)1
127	25.0 - 75.0% of mass 198	57.0	
197	Less than 1.0% of mass 198	0.0	
198	Base Peak, 100% relative abundance	100.0	
199	5.0 to 9.0% of mass 198	7.0	
275	10.0- 30.0% of mass 198	21.0	
365	Greater than 0.75% of mass 198	2.1	
441	Present, but less than mass 443	4.9	
442	40.0 - 110.0% of mass 198	41.5	
443	15.0 - 24.0% of mass 442	7.9	(18.9)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 240-51914/2	20725002.D	07/25/2012	08:16
	CCV 240-51914/3	20725003.D	07/25/2012	08:36
	ICV 240-51914/4	20725004.D	07/25/2012	09:10
	MB 240-50985/23-A	20725005.D	07/25/2012	09:35
	LCS 240-50985/22-A	20725006.D	07/25/2012	09:55
NFUDS-001-TP0101-01 RE	200-11554-1 RE	20725007.D	07/25/2012	10:14
NFUDS-001-TP0201-01 RE	200-11554-2 RE	20725008.D	07/25/2012	10:33
NFUDS-001-TP0302-01 RE	200-11554-3 RE	20725009.D	07/25/2012	10:53
NFUDS-001-TP0402-01 RE	200-11554-4 RE	20725010.D	07/25/2012	11:12
NFUDS-001-TP0402-01 MS	200-11554-4 MS	20725011.D	07/25/2012	11:32
NFUDS-001-TP0402-01 MSD	200-11554-4 MSD	20725012.D	07/25/2012	11:51

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Sample No.: STD6 240-50712/10 Date Analyzed: 07/13/2012 12:28

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 20713010.D Heated Purge: (Y/N) N

Calibration ID: 10103

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		75872	3.80	300053	4.76	178377	6.05
UPPER LIMIT		151744	4.30	600106	5.26	356754	6.55
LOWER LIMIT		37936	3.30	150027	4.26	89189	5.55
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-50851/2 CCVIS		125448	3.70	485397	4.66	291711	5.95
CCV 240-50851/3		93821	3.69	397370	4.66	237560	5.95
ICV 240-50851/4		114967	3.70	448084	4.66	265705	5.95

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C/DOD

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Sample No.: STD6 240-50712/10 Date Analyzed: 07/13/2012 12:28

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 20713010.D Heated Purge: (Y/N) N

Calibration ID: 10103

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		296511	7.14	280094	9.09	201166	10.44
UPPER LIMIT		593022	7.64	560188	9.59	402332	10.94
LOWER LIMIT		148256	6.64	140047	8.59	100583	9.94
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-50851/2 CCVIS		491251	7.03	446757	8.97	333523	10.26
CCV 240-50851/3		401712	7.03	388965	8.98	310315	10.27
ICV 240-50851/4		434951	7.03	395980	8.98	283150	10.26

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C/DOD

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Sample No.: CCV 240-50851/2 Date Analyzed: 07/16/2012 08:16

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 20716002.D Heated Purge: (Y/N) N

Calibration ID: 10107

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		125448	3.70	485397	4.66	291711	5.95
UPPER LIMIT		250896	4.20	970794	5.16	583422	6.45
LOWER LIMIT		62724	3.20	242699	4.16	145856	5.45
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-50851/3		93821	3.69	397370	4.66	237560	5.95
MB 240-49913/15-A		107658	3.69	440928	4.66	262752	5.95
LCS 240-49913/16-A		105750	3.69	419787	4.66	258812	5.95
200-11554-3	NFUDS-001-TP0302-01	99455	3.70	435385	4.66	255414	5.95
200-11554-4	NFUDS-001-TP0402-01	107735	3.69	456549	4.65	275883	5.95
200-11554-1	NFUDS-001-TP0101-01	112899	3.69	465147	4.65	271263	5.95
200-11554-2	NFUDS-001-TP0201-01	74928	3.69	294373	4.66	189046	5.95
200-11554-2 MS	NFUDS-001-TP0201-01 MS	107050	3.69	455208	4.66	273109	5.95
200-11554-2 MSD	NFUDS-001-TP0201-01 MSD	104827	3.69	446730	4.65	268482	5.95

DCB = 1,4-Dichlorobenzene-d4
DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
NPT = Naphthalene-d8
Area Limit = 50%-200% of internal standard area
ANT = Acenaphthene-d10
RT Limit = ± 0.5 minutes of internal standard RT
ANT = Acenaphthene-d10

Column used to flag values outside QC limits

FORM VIII 8270C/DOD

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Sample No.: CCV 240-50851/2 Date Analyzed: 07/16/2012 08:16

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 20716002.D Heated Purge: (Y/N) N

Calibration ID: 10107

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		491251	7.03	446757	8.97	333523	10.26
UPPER LIMIT		982502	7.53	893514	9.47	667046	10.76
LOWER LIMIT		245626	6.53	223379	8.47	166762	9.76
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-50851/3		401712	7.03	388965	8.98	310315	10.27
MB 240-49913/15-A		440557	7.03	380921	8.97	266636	10.26
LCS 240-49913/16-A		424385	7.03	391834	8.97	274384	10.25
200-11554-3	NFUDS-001-TP0302-01	439611	7.03	390158	8.98	272888	10.26
200-11554-4	NFUDS-001-TP0402-01	464231	7.03	404208	8.97	280036	10.26
200-11554-1	NFUDS-001-TP0101-01	473039	7.03	413321	8.97	294805	10.26
200-11554-2	NFUDS-001-TP0201-01	323129	7.03	283251	8.97	197839	10.26
200-11554-2 MS	NFUDS-001-TP0201-01 MS	459705	7.03	423799	8.97	298083	10.25
200-11554-2 MSD	NFUDS-001-TP0201-01 MSD	454269	7.03	405136	8.98	270364	10.26

PHN = Phenanthrene-d10
PHN = Phenanthrene-d10
CRY = Chrysene-d12
CRY = Chrysene-d12
Area Limit = 50%-200% of internal standard area
PRY = Perylene-d12
RT Limit = ± 0.5 minutes of internal standard RT
PRY = Perylene-d12

Column used to flag values outside QC limits

FORM VIII 8270C/DOD

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Sample No.: STD6 240-51747/10 Date Analyzed: 07/24/2012 11:46

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 20724010.D Heated Purge: (Y/N) N

Calibration ID: 10273

		DCB		NPT		ANT	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		127537	3.80	533296	4.76	319587	6.06
UPPER LIMIT		255074	4.30	1066592	5.26	639174	6.56
LOWER LIMIT		63769	3.30	266648	4.26	159794	5.56
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-51914/2		134697	3.71	556163	4.67	320821	5.96
CCV 240-51914/3		121278	3.71	493750	4.67	295880	5.96
ICV 240-51914/4		140866	3.71	549839	4.67	332425	5.96
MB 240-50985/23-A		100987	3.70	396596	4.66	249319	5.96
LCS 240-50985/22-A		104358	3.70	431479	4.66	253919	5.96
200-11554-1 RE	NFUDS-001-TP0101-01 RE	103899	3.71	418047	4.67	252625	5.96
200-11554-2 RE	NFUDS-001-TP0201-01 RE	109066	3.70	447274	4.67	271350	5.96
200-11554-3 RE	NFUDS-001-TP0302-01 RE	94554	3.71	392009	4.67	237209	5.96
200-11554-4 RE	NFUDS-001-TP0402-01 RE	103007	3.71	451185	4.67	276601	5.96
200-11554-4 MS	NFUDS-001-TP0402-01 MS	110157	3.71	460923	4.67	285441	5.96
200-11554-4 MSD	NFUDS-001-TP0402-01 MSD	100250	3.71	412056	4.67	257254	5.96

DCB = 1,4-Dichlorobenzene-d4
NPT = Naphthalene-d8
ANT = Acenaphthene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C/DOD

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Sample No.: STD6 240-51747/10 Date Analyzed: 07/24/2012 11:46

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm)

Lab File ID (Standard): 20724010.D Heated Purge: (Y/N) N

Calibration ID: 10273

		PHN		CRY		PRY	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		542326	7.13	473410	9.08	343300	10.43
UPPER LIMIT		1084652	7.63	946820	9.58	686600	10.93
LOWER LIMIT		271163	6.63	236705	8.58	171650	9.93
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 240-51914/2		544026	7.04	488239	8.98	345424	10.26
CCV 240-51914/3		467688	7.04	474669	8.98	346877	10.27
ICV 240-51914/4		549150	7.04	497741	9.02	347006	10.32
MB 240-50985/23-A		407144	7.04	345270	9.01	243559	10.30
LCS 240-50985/22-A		426877	7.04	392201	8.98	267501	10.26
200-11554-1 RE	NFUDS-001-TP0101-01 RE	418446	7.04	372888	8.99	272354	10.28
200-11554-2 RE	NFUDS-001-TP0201-01 RE	453881	7.04	404468	8.98	294885	10.26
200-11554-3 RE	NFUDS-001-TP0302-01 RE	406719	7.04	356158	8.98	256257	10.26
200-11554-4 RE	NFUDS-001-TP0402-01 RE	455625	7.04	405814	8.98	292912	10.27
200-11554-4 MS	NFUDS-001-TP0402-01 MS	473423	7.04	430790	8.98	302585	10.26
200-11554-4 MSD	NFUDS-001-TP0402-01 MSD	422595	7.04	384852	8.98	272454	10.26

PHN = Phenanthrene-d10
CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C/DOD

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0101-01 | Lab Sample ID: 200-11554-1

Matrix: Solid | Lab File ID: 20716011.D

Analysis Method: 8270C/DoD | Date Collected: 06/29/2012 08:30

Extract. Method: 3540C | Date Extracted: 07/05/2012 11:14

Sample wt/vol: 30.29(g) | Date Analyzed: 07/16/2012 11:15

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 4.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 50851 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
95-94-3	1,2,4,5-Tetrachlorobenzene	5.5	U	100	5.5	5.5
95-95-4	2,4,5-Trichlorophenol	28	U Q	150	28	26
88-06-2	2,4,6-Trichlorophenol	83	U Q	150	83	83
120-83-2	2,4-Dichlorophenol	28	U	150	28	21
105-67-9	2,4-Dimethylphenol	83	U	150	83	21
51-28-5	2,4-Dinitrophenol	83	U	340	83	83
121-14-2	2,4-Dinitrotoluene	28	U	210	28	28
606-20-2	2,6-Dinitrotoluene	28	U	210	28	22
91-58-7	2-Chloronaphthalene	3.4	U	52	3.4	3.4
95-57-8	2-Chlorophenol	28	U	52	28	28
91-57-6	2-Methylnaphthalene	3.4	U	6.9	3.4	3.4
95-48-7	2-Methylphenol	83	U	210	83	83
88-74-4	2-Nitroaniline	28	U	210	28	9.4
88-75-5	2-Nitrophenol	28	U	52	28	28
15831-10-4	3 & 4 Methylphenol	83	U	410	83	21
91-94-1	3,3'-Dichlorobenzidine	83	U	100	83	19
99-09-2	3-Nitroaniline	83	U	210	83	17
534-52-1	4,6-Dinitro-2-methylphenol	83	U	150	83	83
101-55-3	4-Bromophenyl phenyl ether	28	U	52	28	13
59-50-7	4-Chloro-3-methylphenol	28	U	150	28	22
106-47-8	4-Chloroaniline	28	U	150	28	18
7005-72-3	4-Chlorophenyl phenyl ether	28	U	52	28	13
100-01-6	4-Nitroaniline	28	U	210	28	27
100-02-7	4-Nitrophenol	83	U	340	83	83
83-32-9	Acenaphthene	3.4	U	6.9	3.4	3.4
208-96-8	Acenaphthylene	3.4	U	6.9	3.4	3.4
120-12-7	Anthracene	3.4	U	6.9	3.4	3.4
56-55-3	Benzo[a]anthracene	3.4	U	6.9	3.4	3.4
50-32-8	Benzo[a]pyrene	3.4	U	6.9	3.4	3.4
205-99-2	Benzo[b]fluoranthene	3.4	U	6.9	3.4	3.4
191-24-2	Benzo[g,h,i]perylene	3.4	U	6.9	3.4	3.4
207-08-9	Benzo[k]fluoranthene	3.4	U	6.9	3.4	3.4
111-91-1	Bis(2-chloroethoxy)methane	28	U	100	28	23
111-44-4	Bis(2-chloroethyl)ether	3.4	U	100	3.4	2.1

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0101-01 | Lab Sample ID: 200-11554-1

Matrix: Solid | Lab File ID: 20716011.D

Analysis Method: 8270C/DoD | Date Collected: 06/29/2012 08:30

Extract. Method: 3540C | Date Extracted: 07/05/2012 11:14

Sample wt/vol: 30.29(g) | Date Analyzed: 07/16/2012 11:15

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 4.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 50851 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
117-81-7	Bis(2-ethylhexyl) phthalate	21	J	52	28	20
85-68-7	Butyl benzyl phthalate	28	U	52	28	10
86-74-8	Carbazole	28	U	52	28	28
218-01-9	Chrysene	3.4	U	6.9	3.4	1.1
53-70-3	Dibenz(a,h)anthracene	3.4	U	6.9	3.4	3.4
132-64-9	Dibenzofuran	3.4	U	52	3.4	3.4
84-66-2	Diethyl phthalate	28	U	52	28	17
131-11-3	Dimethyl phthalate	28	U	52	28	18
84-74-2	Di-n-butyl phthalate	28	U	52	28	15
117-84-0	Di-n-octyl phthalate	28	U	52	28	28
206-44-0	Fluoranthene	3.4	U	6.9	3.4	3.4
86-73-7	Fluorene	3.4	U	6.9	3.4	3.4
118-74-1	Hexachlorobenzene	3.4	U	6.9	3.4	2.2
87-68-3	Hexachlorobutadiene	28	U	52	28	28
67-72-1	Hexachloroethane	28	U	52	28	9.3
193-39-5	Indeno[1,2,3-cd]pyrene	3.4	U	6.9	3.4	3.4
91-20-3	Naphthalene	3.4	U	6.9	3.4	3.4
98-95-3	Nitrobenzene	3.4	U	100	3.4	2.3
621-64-7	N-Nitrosodi-n-propylamine	28	U	52	28	28
86-30-6	N-Nitrosodiphenylamine	28	U	52	28	22
87-86-5	Pentachlorophenol	83	U	150	83	83
85-01-8	Phenanthrene	3.4	U	6.9	3.4	3.4
108-95-2	Phenol	28	U	52	28	28
129-00-0	Pyrene	3.4	U	6.9	3.4	3.4
108-60-1	bis (2-chloroisopropyl) ether	28	U	100	28	9.8
78-59-1	Isophorone	28	U	52	28	13
92-52-4	1,1'-Biphenyl	28	U	52	28	28
98-86-2	Acetophenone	28	U	100	28	9.5
1912-24-9	Atrazine	28	U	210	28	9.4
100-52-7	Benzaldehyde	28	U	100	28	12
105-60-2	Caprolactam	28	U	340	28	38
77-47-4	Hexachlorocyclopentadiene	28	U	340	28	28
58-90-2	2,3,4,6-Tetrachlorophenol	1700	U	1700	1700	110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0101-01 | Lab Sample ID: 200-11554-1

Matrix: Solid | Lab File ID: 20716011.D

Analysis Method: 8270C/DoD | Date Collected: 06/29/2012 08:30

Extract. Method: 3540C | Date Extracted: 07/05/2012 11:14

Sample wt/vol: 30.29(g) | Date Analyzed: 07/16/2012 11:15

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 4.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 50851 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	51		45-105
367-12-4	2-Fluorophenol (Surr)	59		35-105
4165-60-0	Nitrobenzene-d5 (Surr)	53		35-100
1718-51-0	Terphenyl-d14 (Surr)	70		30-125
118-79-6	2,4,6-Tribromophenol (Surr)	66		35-125
4165-62-2	Phenol-d5 (Surr)	62		40-100

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0101-01 RE | Lab Sample ID: 200-11554-1 RE

Matrix: Solid | Lab File ID: 20725007.D

Analysis Method: 8270C/DoD | Date Collected: 06/29/2012 08:30

Extract. Method: 3540C | Date Extracted: 07/17/2012 08:20

Sample wt/vol: 30.10(g) | Date Analyzed: 07/25/2012 10:14

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 4.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 51914 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
95-94-3	1,2,4,5-Tetrachlorobenzene	5.5	U H	100	5.5	5.5
95-95-4	2,4,5-Trichlorophenol	28	U H	160	28	26
88-06-2	2,4,6-Trichlorophenol	83	U H	160	83	83
120-83-2	2,4-Dichlorophenol	28	U H	160	28	21
105-67-9	2,4-Dimethylphenol	83	U H	160	83	21
51-28-5	2,4-Dinitrophenol	83	U H	340	83	83
121-14-2	2,4-Dinitrotoluene	28	U H	210	28	28
606-20-2	2,6-Dinitrotoluene	28	U H	210	28	22
91-58-7	2-Chloronaphthalene	3.4	U H	52	3.4	3.4
95-57-8	2-Chlorophenol	28	U H	52	28	28
91-57-6	2-Methylnaphthalene	3.4	U H	6.9	3.4	3.4
95-48-7	2-Methylphenol	83	U H	210	83	83
88-74-4	2-Nitroaniline	28	U H	210	28	9.5
88-75-5	2-Nitrophenol	28	U H	52	28	28
15831-10-4	3 & 4 Methylphenol	83	U H	420	83	21
91-94-1	3,3'-Dichlorobenzidine	83	U H	100	83	19
99-09-2	3-Nitroaniline	83	U H	210	83	17
534-52-1	4,6-Dinitro-2-methylphenol	83	U H	160	83	83
101-55-3	4-Bromophenyl phenyl ether	28	U H	52	28	14
59-50-7	4-Chloro-3-methylphenol	28	U H	160	28	22
106-47-8	4-Chloroaniline	28	U H	160	28	18
7005-72-3	4-Chlorophenyl phenyl ether	28	U H	52	28	14
100-01-6	4-Nitroaniline	28	U H	210	28	27
100-02-7	4-Nitrophenol	83	U H	340	83	83
83-32-9	Acenaphthene	3.4	U H	6.9	3.4	3.4
208-96-8	Acenaphthylene	3.4	U H	6.9	3.4	3.4
120-12-7	Anthracene	3.4	U H	6.9	3.4	3.4
56-55-3	Benzo[a]anthracene	3.4	U H	6.9	3.4	3.4
50-32-8	Benzo[a]pyrene	3.4	U H	6.9	3.4	3.4
205-99-2	Benzo[b]fluoranthene	3.4	U H	6.9	3.4	3.4
191-24-2	Benzo[g,h,i]perylene	3.4	U H	6.9	3.4	3.4
207-08-9	Benzo[k]fluoranthene	3.4	U H	6.9	3.4	3.4
111-91-1	Bis(2-chloroethoxy)methane	28	U H	100	28	23
111-44-4	Bis(2-chloroethyl)ether	3.4	U H	100	3.4	2.1

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0101-01 RE | Lab Sample ID: 200-11554-1 RE

Matrix: Solid | Lab File ID: 20725007.D

Analysis Method: 8270C/DoD | Date Collected: 06/29/2012 08:30

Extract. Method: 3540C | Date Extracted: 07/17/2012 08:20

Sample wt/vol: 30.10(g) | Date Analyzed: 07/25/2012 10:14

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 4.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 51914 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
117-81-7	Bis(2-ethylhexyl) phthalate	28	U H	52	28	20
85-68-7	Butyl benzyl phthalate	28	U H	52	28	10
86-74-8	Carbazole	28	U H	52	28	28
218-01-9	Chrysene	3.4	U H	6.9	3.4	1.1
53-70-3	Dibenz(a,h)anthracene	3.4	U H	6.9	3.4	3.4
132-64-9	Dibenzofuran	3.4	U H	52	3.4	3.4
84-66-2	Diethyl phthalate	28	U H	52	28	17
131-11-3	Dimethyl phthalate	28	U H	52	28	18
84-74-2	Di-n-butyl phthalate	28	U H	52	28	16
117-84-0	Di-n-octyl phthalate	28	U H	52	28	28
206-44-0	Fluoranthene	3.4	U H	6.9	3.4	3.4
86-73-7	Fluorene	3.4	U H	6.9	3.4	3.4
118-74-1	Hexachlorobenzene	3.4	U H	6.9	3.4	2.2
87-68-3	Hexachlorobutadiene	28	U H	52	28	28
67-72-1	Hexachloroethane	28	U H	52	28	9.4
193-39-5	Indeno[1,2,3-cd]pyrene	3.4	U H	6.9	3.4	3.4
91-20-3	Naphthalene	3.4	U H	6.9	3.4	3.4
98-95-3	Nitrobenzene	3.4	U H	100	3.4	2.3
621-64-7	N-Nitrosodi-n-propylamine	28	U H	52	28	28
86-30-6	N-Nitrosodiphenylamine	28	U H	52	28	22
87-86-5	Pentachlorophenol	83	U H	160	83	83
85-01-8	Phenanthrene	3.4	U H	6.9	3.4	3.4
108-95-2	Phenol	28	U H	52	28	28
129-00-0	Pyrene	3.4	U H	6.9	3.4	3.4
108-60-1	bis (2-chloroisopropyl) ether	28	U H	100	28	9.9
78-59-1	Isophorone	28	U H	52	28	14
92-52-4	1,1'-Biphenyl	28	U H	52	28	28
98-86-2	Acetophenone	28	U H	100	28	9.6
1912-24-9	Atrazine	28	U H	210	28	9.5
100-52-7	Benzaldehyde	28	U H	100	28	12
105-60-2	Caprolactam	28	U H	340	28	38
77-47-4	Hexachlorocyclopentadiene	28	U H	340	28	28
58-90-2	2,3,4,6-Tetrachlorophenol	1700	U H	1700	1700	110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0101-01 RE | Lab Sample ID: 200-11554-1 RE

Matrix: Solid | Lab File ID: 20725007.D

Analysis Method: 8270C/DoD | Date Collected: 06/29/2012 08:30

Extract. Method: 3540C | Date Extracted: 07/17/2012 08:20

Sample wt/vol: 30.10(g) | Date Analyzed: 07/25/2012 10:14

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 4.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 51914 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	53		45-105
367-12-4	2-Fluorophenol (Surr)	66		35-105
4165-60-0	Nitrobenzene-d5 (Surr)	61		35-100
1718-51-0	Terphenyl-d14 (Surr)	75		30-125
118-79-6	2,4,6-Tribromophenol (Surr)	51		35-125
4165-62-2	Phenol-d5 (Surr)	66		40-100

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0201-01 | Lab Sample ID: 200-11554-2

Matrix: Solid | Lab File ID: 20716012.D

Analysis Method: 8270C/DoD | Date Collected: 06/29/2012 08:45

Extract. Method: 3540C | Date Extracted: 07/05/2012 11:14

Sample wt/vol: 30.32(g) | Date Analyzed: 07/16/2012 11:34

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 2.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 50851 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
95-94-3	1,2,4,5-Tetrachlorobenzene	5.4	U	100	5.4	5.4
95-95-4	2,4,5-Trichlorophenol	28	U Q	150	28	25
88-06-2	2,4,6-Trichlorophenol	82	U Q	150	82	82
120-83-2	2,4-Dichlorophenol	28	U	150	28	20
105-67-9	2,4-Dimethylphenol	82	U	150	82	20
51-28-5	2,4-Dinitrophenol	82	U J	340	82	82
121-14-2	2,4-Dinitrotoluene	28	U	200	28	28
606-20-2	2,6-Dinitrotoluene	28	U	200	28	21
91-58-7	2-Chloronaphthalene	3.4	U	51	3.4	3.4
95-57-8	2-Chlorophenol	28	U	51	28	28
91-57-6	2-Methylnaphthalene	3.4	U	6.8	3.4	3.4
95-48-7	2-Methylphenol	82	U	200	82	82
88-74-4	2-Nitroaniline	28	U	200	28	9.3
88-75-5	2-Nitrophenol	28	U	51	28	28
15831-10-4	3 & 4 Methylphenol	82	U	410	82	20
91-94-1	3,3'-Dichlorobenzidine	82	U J	100	82	18
99-09-2	3-Nitroaniline	82	U	200	82	16
534-52-1	4,6-Dinitro-2-methylphenol	82	U	150	82	82
101-55-3	4-Bromophenyl phenyl ether	28	U	51	28	13
59-50-7	4-Chloro-3-methylphenol	28	U	150	28	21
106-47-8	4-Chloroaniline	28	U	150	28	17
7005-72-3	4-Chlorophenyl phenyl ether	28	U	51	28	13
100-01-6	4-Nitroaniline	28	U	200	28	27
100-02-7	4-Nitrophenol	82	U	340	82	82
83-32-9	Acenaphthene	3.4	U	6.8	3.4	3.4
208-96-8	Acenaphthylene	3.4	U	6.8	3.4	3.4
120-12-7	Anthracene	3.4	U	6.8	3.4	3.4
56-55-3	Benzo[a]anthracene	3.4	U	6.8	3.4	3.4
50-32-8	Benzo[a]pyrene	3.4	U	6.8	3.4	3.4
205-99-2	Benzo[b]fluoranthene	3.4	U	6.8	3.4	3.4
191-24-2	Benzo[g,h,i]perylene	3.4	U	6.8	3.4	3.4
207-08-9	Benzo[k]fluoranthene	3.4	U	6.8	3.4	3.4
111-91-1	Bis(2-chloroethoxy)methane	28	U	100	28	22
111-44-4	Bis(2-chloroethyl)ether	3.4	U	100	3.4	2.0

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0201-01 | Lab Sample ID: 200-11554-2

Matrix: Solid | Lab File ID: 20716012.D

Analysis Method: 8270C/DoD | Date Collected: 06/29/2012 08:45

Extract. Method: 3540C | Date Extracted: 07/05/2012 11:14

Sample wt/vol: 30.32(g) | Date Analyzed: 07/16/2012 11:34

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 2.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 50851 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
117-81-7	Bis(2-ethylhexyl) phthalate	33	J	51	28	19
85-68-7	Butyl benzyl phthalate	28	U	51	28	10
86-74-8	Carbazole	28	U	51	28	28
218-01-9	Chrysene	3.4	U	6.8	3.4	1.1
53-70-3	Dibenz(a,h)anthracene	3.4	U	6.8	3.4	3.4
132-64-9	Dibenzofuran	3.4	U	51	3.4	3.4
84-66-2	Diethyl phthalate	28	U	51	28	16
131-11-3	Dimethyl phthalate	28	U	51	28	17
84-74-2	Di-n-butyl phthalate	32	J M B	51	28	15
117-84-0	Di-n-octyl phthalate	28	U	51	28	28
206-44-0	Fluoranthene	3.4	U	6.8	3.4	3.4
86-73-7	Fluorene	3.4	U	6.8	3.4	3.4
118-74-1	Hexachlorobenzene	3.4	U	6.8	3.4	2.1
87-68-3	Hexachlorobutadiene	28	U	51	28	28
67-72-1	Hexachloroethane	28	U	51	28	9.2
193-39-5	Indeno[1,2,3-cd]pyrene	3.4	U	6.8	3.4	3.4
91-20-3	Naphthalene	3.4	U	6.8	3.4	3.4
98-95-3	Nitrobenzene	3.4	U	100	3.4	2.2
621-64-7	N-Nitrosodi-n-propylamine	28	U	51	28	28
86-30-6	N-Nitrosodiphenylamine	28	U	51	28	21
87-86-5	Pentachlorophenol	82	U	150	82	82
85-01-8	Phenanthrene	3.4	U	6.8	3.4	3.4
108-95-2	Phenol	44	J M B	51	28	28
129-00-0	Pyrene	3.4	U	6.8	3.4	3.4
108-60-1	bis (2-chloroisopropyl) ether	28	U	100	28	9.7
78-59-1	Isophorone	28	U	51	28	13
92-52-4	1,1'-Biphenyl	28	U	51	28	28
98-86-2	Acetophenone	28	U	100	28	9.4
1912-24-9	Atrazine	28	U	200	28	9.3
100-52-7	Benzaldehyde	28	U	100	28	12
105-60-2	Caprolactam	28	U	340	28	38
77-47-4	Hexachlorocyclopentadiene	28	U	340	28	28
58-90-2	2,3,4,6-Tetrachlorophenol	1600	U	1600	1600	110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0201-01 | Lab Sample ID: 200-11554-2

Matrix: Solid | Lab File ID: 20716012.D

Analysis Method: 8270C/DoD | Date Collected: 06/29/2012 08:45

Extract. Method: 3540C | Date Extracted: 07/05/2012 11:14

Sample wt/vol: 30.32(g) | Date Analyzed: 07/16/2012 11:34

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 2.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 50851 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	45	M	45-105
367-12-4	2-Fluorophenol (Surr)	59		35-105
4165-60-0	Nitrobenzene-d5 (Surr)	54	M	35-100
1718-51-0	Terphenyl-d14 (Surr)	61	M	30-125
118-79-6	2,4,6-Tribromophenol (Surr)	53	M	35-125
4165-62-2	Phenol-d5 (Surr)	60	M	40-100

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0201-01 RE | Lab Sample ID: 200-11554-2 RE

Matrix: Solid | Lab File ID: 20725008.D

Analysis Method: 8270C/DoD | Date Collected: 06/29/2012 08:45

Extract. Method: 3540C | Date Extracted: 07/17/2012 08:20

Sample wt/vol: 28.74(g) | Date Analyzed: 07/25/2012 10:33

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 2.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 51914 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
95-94-3	1,2,4,5-Tetrachlorobenzene	5.7	U H	110	5.7	5.7
95-95-4	2,4,5-Trichlorophenol	29	U H	160	29	27
88-06-2	2,4,6-Trichlorophenol	86	U H	160	86	86
120-83-2	2,4-Dichlorophenol	29	U H	160	29	22
105-67-9	2,4-Dimethylphenol	86	U H	160	86	22
51-28-5	2,4-Dinitrophenol	86	U H	350	86	86
121-14-2	2,4-Dinitrotoluene	29	U H	220	29	29
606-20-2	2,6-Dinitrotoluene	29	U H	220	29	23
91-58-7	2-Chloronaphthalene	3.5	U H	54	3.5	3.5
95-57-8	2-Chlorophenol	29	U H	54	29	29
91-57-6	2-Methylnaphthalene	3.5	U H	7.2	3.5	3.5
95-48-7	2-Methylphenol	86	U H	220	86	86
88-74-4	2-Nitroaniline	29	U H	220	29	9.8
88-75-5	2-Nitrophenol	29	U H	54	29	29
15831-10-4	3 & 4 Methylphenol	86	U H	430	86	22
91-94-1	3,3'-Dichlorobenzidine	86	U H	110	86	19
99-09-2	3-Nitroaniline	86	U H	220	86	17
534-52-1	4,6-Dinitro-2-methylphenol	86	U H	160	86	86
101-55-3	4-Bromophenyl phenyl ether	29	U H	54	29	14
59-50-7	4-Chloro-3-methylphenol	29	U H	160	29	23
106-47-8	4-Chloroaniline	29	U H	160	29	18
7005-72-3	4-Chlorophenyl phenyl ether	29	U H	54	29	14
100-01-6	4-Nitroaniline	29	U H	220	29	28
100-02-7	4-Nitrophenol	86	U H	350	86	86
83-32-9	Acenaphthene	3.5	U H	7.2	3.5	3.5
208-96-8	Acenaphthylene	3.5	U H	7.2	3.5	3.5
120-12-7	Anthracene	3.5	U H	7.2	3.5	3.5
56-55-3	Benzo[a]anthracene	3.5	U H	7.2	3.5	3.5
50-32-8	Benzo[a]pyrene	3.5	U H	7.2	3.5	3.5
205-99-2	Benzo[b]fluoranthene	3.5	U H	7.2	3.5	3.5
191-24-2	Benzo[g,h,i]perylene	3.5	U H	7.2	3.5	3.5
207-08-9	Benzo[k]fluoranthene	3.5	U H	7.2	3.5	3.5
111-91-1	Bis(2-chloroethoxy)methane	29	U H	110	29	24
111-44-4	Bis(2-chloroethyl)ether	3.5	U H	110	3.5	2.2

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0201-01 RE | Lab Sample ID: 200-11554-2 RE

Matrix: Solid | Lab File ID: 20725008.D

Analysis Method: 8270C/DoD | Date Collected: 06/29/2012 08:45

Extract. Method: 3540C | Date Extracted: 07/17/2012 08:20

Sample wt/vol: 28.74(g) | Date Analyzed: 07/25/2012 10:33

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 2.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 51914 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
117-81-7	*Bis(2-ethylhexyl) phthalate*	*29*	*U H*	*54*	29	*20*
85-68-7	*Butyl benzyl phthalate*	*29*	*U H*	*54*	29	*11*
86-74-8	*Carbazole*	*29*	*U H*	*54*	29	*29*
218-01-9	*Chrysene*	*3.5*	*U H*	*7.2*	3.5	*1.2*
53-70-3	*Dibenz(a,h)anthracene*	*3.5*	*U H*	*7.2*	3.5	*3.5*
132-64-9	*Dibenzofuran*	*3.5*	*U H*	*54*	3.5	*3.5*
84-66-2	*Diethyl phthalate*	*29*	*U H*	*54*	29	*17*
131-11-3	*Dimethyl phthalate*	*29*	*U H*	*54*	29	*18*
84-74-2	*Di-n-butyl phthalate*	*29*	*U H*	*54*	29	*16*
117-84-0	*Di-n-octyl phthalate*	*29*	*U H*	*54*	29	*29*
206-44-0	*Fluoranthene*	*3.5*	*U H*	*7.2*	3.5	*3.5*
86-73-7	*Fluorene*	*3.5*	*U H*	*7.2*	3.5	*3.5*
118-74-1	*Hexachlorobenzene*	*3.5*	*U H*	*7.2*	3.5	*2.3*
87-68-3	*Hexachlorobutadiene*	*29*	*U H*	*54*	29	*29*
67-72-1	*Hexachloroethane*	*29*	*U H*	*54*	29	*9.7*
193-39-5	*Indeno[1,2,3-cd]pyrene*	*3.5*	*U H*	*7.2*	3.5	*3.5*
91-20-3	*Naphthalene*	*3.5*	*U H*	*7.2*	3.5	*3.5*
98-95-3	*Nitrobenzene*	*3.5*	*U H*	*110*	3.5	*2.4*
621-64-7	*N-Nitrosodi-n-propylamine*	*29*	*U H*	*54*	29	*29*
86-30-6	*N-Nitrosodiphenylamine*	*29*	*U H*	*54*	29	*23*
87-86-5	*Pentachlorophenol*	*86*	*U H*	*160*	86	*86*
85-01-8	*Phenanthrene*	*3.5*	*U H*	*7.2*	3.5	*3.5*
108-95-2	*Phenol*	*29*	*U H*	*54*	29	*29*
129-00-0	*Pyrene*	*3.5*	*U H*	*7.2*	3.5	*3.5*
108-60-1	*bis (2-chloroisopropyl) ether*	*29*	*U H*	*110*	29	*10*
78-59-1	*Isophorone*	*29*	*U H*	*54*	29	*14*
92-52-4	*1,1'-Biphenyl*	*29*	*U H*	*54*	29	*29*
98-86-2	*Acetophenone*	*29*	*U H*	*110*	29	*9.9*
1912-24-9	*Atrazine*	*29*	*U H*	*220*	29	*9.8*
100-52-7	*Benzaldehyde*	*29*	*U H*	*110*	29	*13*
105-60-2	*Caprolactam*	*29*	*U H*	*350*	29	*40*
77-47-4	*Hexachlorocyclopentadiene*	*29*	*U H*	*350*	29	*29*
58-90-2	*2,3,4,6-Tetrachlorophenol*	*1700*	*U H*	*1700*	1700	*120*

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0201-01 RE | Lab Sample ID: 200-11554-2 RE

Matrix: Solid | Lab File ID: 20725008.D

Analysis Method: 8270C/DoD | Date Collected: 06/29/2012 08:45

Extract. Method: 3540C | Date Extracted: 07/17/2012 08:20

Sample wt/vol: 28.74(g) | Date Analyzed: 07/25/2012 10:33

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 2.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 51914 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	66		45-105
367-12-4	2-Fluorophenol (Surr)	77		35-105
4165-60-0	Nitrobenzene-d5 (Surr)	74		35-100
1718-51-0	Terphenyl-d14 (Surr)	93		30-125
118-79-6	2,4,6-Tribromophenol (Surr)	56		35-125
4165-62-2	Phenol-d5 (Surr)	81		40-100

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0302-01 | Lab Sample ID: 200-11554-3

Matrix: Solid | Lab File ID: 20716009.D

Analysis Method: 8270C/DoD | Date Collected: 06/29/2012 08:44

Extract. Method: 3540C | Date Extracted: 07/05/2012 11:14

Sample wt/vol: 30.14(g) | Date Analyzed: 07/16/2012 10:35

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 1.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 50851 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
95-94-3	1,2,4,5-Tetrachlorobenzene	5.3	U	100	5.3	5.3
95-95-4	2,4,5-Trichlorophenol	27	U Q	150	27	25
88-06-2	2,4,6-Trichlorophenol	81	U Q	150	81	81
120-83-2	2,4-Dichlorophenol	27	U	150	27	20
105-67-9	2,4-Dimethylphenol	81	U	150	81	20
51-28-5	2,4-Dinitrophenol	81	U	330	81	81
121-14-2	2,4-Dinitrotoluene	27	U	200	27	27
606-20-2	2,6-Dinitrotoluene	27	U	200	27	21
91-58-7	2-Chloronaphthalene	3.3	U	50	3.3	3.3
95-57-8	2-Chlorophenol	27	U	50	27	27
91-57-6	2-Methylnaphthalene	3.3	U	6.7	3.3	3.3
95-48-7	2-Methylphenol	81	U	200	81	81
88-74-4	2-Nitroaniline	27	U	200	27	9.2
88-75-5	2-Nitrophenol	27	U	50	27	27
15831-10-4	3 & 4 Methylphenol	81	U	400	81	20
91-94-1	3,3'-Dichlorobenzidine	81	U	100	81	18
99-09-2	3-Nitroaniline	81	U	200	81	16
534-52-1	4,6-Dinitro-2-methylphenol	81	U	150	81	81
101-55-3	4-Bromophenyl phenyl ether	27	U	50	27	13
59-50-7	4-Chloro-3-methylphenol	27	U	150	27	21
106-47-8	4-Chloroaniline	27	U	150	27	17
7005-72-3	4-Chlorophenyl phenyl ether	27	U	50	27	13
100-01-6	4-Nitroaniline	27	U	200	27	26
100-02-7	4-Nitrophenol	81	U	330	81	81
83-32-9	Acenaphthene	3.3	U	6.7	3.3	3.3
208-96-8	Acenaphthylene	3.3	U	6.7	3.3	3.3
120-12-7	Anthracene	3.3	U	6.7	3.3	3.3
56-55-3	Benzo[a]anthracene	3.3	U	6.7	3.3	3.3
50-32-8	Benzo[a]pyrene	3.3	U	6.7	3.3	3.3
205-99-2	Benzo[b]fluoranthene	3.3	U	6.7	3.3	3.3
191-24-2	Benzo[g,h,i]perylene	3.3	U	6.7	3.3	3.3
207-08-9	Benzo[k]fluoranthene	3.3	U	6.7	3.3	3.3
111-91-1	Bis(2-chloroethoxy)methane	27	U	100	27	22
111-44-4	Bis(2-chloroethyl)ether	3.3	U	100	3.3	2.0

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0302-01 | Lab Sample ID: 200-11554-3

Matrix: Solid | Lab File ID: 20716009.D

Analysis Method: 8270C/DoD | Date Collected: 06/29/2012 08:44

Extract. Method: 3540C | Date Extracted: 07/05/2012 11:14

Sample wt/vol: 30.14(g) | Date Analyzed: 07/16/2012 10:35

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 1.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 50851 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
117-81-7	Bis(2-ethylhexyl) phthalate	19	J	50	27	19
85-68-7	Butyl benzyl phthalate	27	U	50	27	10
86-74-8	Carbazole	27	U	50	27	27
218-01-9	Chrysene	3.3	U	6.7	3.3	1.1
53-70-3	Dibenz(a,h)anthracene	3.3	U	6.7	3.3	3.3
132-64-9	Dibenzofuran	3.3	U	50	3.3	3.3
84-66-2	Diethyl phthalate	27	U	50	27	16
131-11-3	Dimethyl phthalate	27	U	50	27	17
84-74-2	Di-n-butyl phthalate	27	U	50	27	15
117-84-0	Di-n-octyl phthalate	27	U	50	27	27
206-44-0	Fluoranthene	3.3	U	6.7	3.3	3.3
86-73-7	Fluorene	3.3	U	6.7	3.3	3.3
118-74-1	Hexachlorobenzene	3.3	U	6.7	3.3	2.1
87-68-3	Hexachlorobutadiene	27	U	50	27	27
67-72-1	Hexachloroethane	27	U	50	27	9.1
193-39-5	Indeno[1,2,3-cd]pyrene	3.3	U	6.7	3.3	3.3
91-20-3	Naphthalene	3.3	U	6.7	3.3	3.3
98-95-3	Nitrobenzene	3.3	U	100	3.3	2.2
621-64-7	N-Nitrosodi-n-propylamine	27	U	50	27	27
86-30-6	N-Nitrosodiphenylamine	27	U	50	27	21
87-86-5	Pentachlorophenol	81	U	150	81	81
85-01-8	Phenanthrene	3.3	U	6.7	3.3	3.3
108-95-2	Phenol	27	U	50	27	27
129-00-0	Pyrene	3.3	U	6.7	3.3	3.3
108-60-1	bis (2-chloroisopropyl) ether	27	U	100	27	9.6
78-59-1	Isophorone	27	U	50	27	13
92-52-4	1,1'-Biphenyl	27	U	50	27	27
98-86-2	Acetophenone	27	U	100	27	9.3
1912-24-9	Atrazine	27	U	200	27	9.2
100-52-7	Benzaldehyde	27	U	100	27	12
105-60-2	Caprolactam	27	U	330	27	37
77-47-4	Hexachlorocyclopentadiene	27	U	330	27	27
58-90-2	2,3,4,6-Tetrachlorophenol	1600	U	1600	1600	110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0302-01 | Lab Sample ID: 200-11554-3

Matrix: Solid | Lab File ID: 20716009.D

Analysis Method: 8270C/DoD | Date Collected: 06/29/2012 08:44

Extract. Method: 3540C | Date Extracted: 07/05/2012 11:14

Sample wt/vol: 30.14(g) | Date Analyzed: 07/16/2012 10:35

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 1.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 50851 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	49		45-105
367-12-4	2-Fluorophenol (Surr)	61		35-105
4165-60-0	Nitrobenzene-d5 (Surr)	53		35-100
1718-51-0	Terphenyl-d14 (Surr)	78		30-125
118-79-6	2,4,6-Tribromophenol (Surr)	59		35-125
4165-62-2	Phenol-d5 (Surr)	64		40-100

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0302-01 RE | Lab Sample ID: 200-11554-3 RE

Matrix: Solid | Lab File ID: 20725009.D

Analysis Method: 8270C/DoD | Date Collected: 06/29/2012 08:44

Extract. Method: 3540C | Date Extracted: 07/17/2012 08:20

Sample wt/vol: 29.78(g) | Date Analyzed: 07/25/2012 10:53

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 1.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 51914 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
95-94-3	*1,2,4,5-Tetrachlorobenzene*	*5.4*	*U H*	*100*	5.4	*5.4*
95-95-4	*2,4,5-Trichlorophenol*	*28*	*U H*	*150*	28	*26*
88-06-2	*2,4,6-Trichlorophenol*	*82*	*U H*	*150*	82	*82*
120-83-2	*2,4-Dichlorophenol*	*28*	*U H*	*150*	28	*20*
105-67-9	*2,4-Dimethylphenol*	*82*	*U H*	*150*	82	*20*
51-28-5	*2,4-Dinitrophenol*	*82*	*U H*	*340*	82	*82*
121-14-2	*2,4-Dinitrotoluene*	*28*	*U H*	*200*	28	*28*
606-20-2	*2,6-Dinitrotoluene*	*28*	*U H*	*200*	28	*21*
91-58-7	*2-Chloronaphthalene*	*3.4*	*U H*	*51*	3.4	*3.4*
95-57-8	*2-Chlorophenol*	*28*	*U H*	*51*	28	*28*
91-57-6	*2-Methylnaphthalene*	*3.4*	*U H*	*6.8*	3.4	*3.4*
95-48-7	*2-Methylphenol*	*82*	*U H*	*200*	82	*82*
88-74-4	*2-Nitroaniline*	*28*	*U H*	*200*	28	*9.3*
88-75-5	*2-Nitrophenol*	*28*	*U H*	*51*	28	*28*
15831-10-4	*3 & 4 Methylphenol*	*82*	*U H*	*410*	82	*20*
91-94-1	*3,3'-Dichlorobenzidine*	*82*	*U H*	*100*	82	*18*
99-09-2	*3-Nitroaniline*	*82*	*U H*	*200*	82	*16*
534-52-1	*4,6-Dinitro-2-methylphenol*	*82*	*U H*	*150*	82	*82*
101-55-3	*4-Bromophenyl phenyl ether*	*28*	*U H*	*51*	28	*13*
59-50-7	*4-Chloro-3-methylphenol*	*28*	*U H*	*150*	28	*21*
106-47-8	*4-Chloroaniline*	*28*	*U H*	*150*	28	*17*
7005-72-3	*4-Chlorophenyl phenyl ether*	*28*	*U H*	*51*	28	*13*
100-01-6	*4-Nitroaniline*	*28*	*U H*	*200*	28	*27*
100-02-7	*4-Nitrophenol*	*82*	*U H*	*340*	82	*82*
83-32-9	*Acenaphthene*	*3.4*	*U H*	*6.8*	3.4	*3.4*
208-96-8	*Acenaphthylene*	*3.4*	*U H*	*6.8*	3.4	*3.4*
120-12-7	*Anthracene*	*3.4*	*U H*	*6.8*	3.4	*3.4*
56-55-3	*Benzo[a]anthracene*	*3.4*	*U H*	*6.8*	3.4	*3.4*
50-32-8	*Benzo[a]pyrene*	*3.4*	*U H*	*6.8*	3.4	*3.4*
205-99-2	*Benzo[b]fluoranthene*	*3.4*	*U H*	*6.8*	3.4	*3.4*
191-24-2	*Benzo[g,h,i]perylene*	*3.4*	*U H*	*6.8*	3.4	*3.4*
207-08-9	*Benzo[k]fluoranthene*	*3.4*	*U H*	*6.8*	3.4	*3.4*
111-91-1	*Bis(2-chloroethoxy)methane*	*28*	*U H*	*100*	28	*22*
111-44-4	*Bis(2-chloroethyl)ether*	*3.4*	*U H*	*100*	3.4	*2.0*

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0302-01 RE | Lab Sample ID: 200-11554-3 RE

Matrix: Solid | Lab File ID: 20725009.D

Analysis Method: 8270C/DoD | Date Collected: 06/29/2012 08:44

Extract. Method: 3540C | Date Extracted: 07/17/2012 08:20

Sample wt/vol: 29.78(g) | Date Analyzed: 07/25/2012 10:53

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 1.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 51914 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
117-81-7	*Bis(2-ethylhexyl) phthalate*	*28*	*U H*	*51*	28	*19*
85-68-7	*Butyl benzyl phthalate*	*28*	*U H*	*51*	28	*10*
86-74-8	*Carbazole*	*28*	*U H*	*51*	28	*28*
218-01-9	*Chrysene*	*3.4*	*U H*	*6.8*	3.4	*1.1*
53-70-3	*Dibenz(a,h)anthracene*	*3.4*	*U H*	*6.8*	3.4	*3.4*
132-64-9	*Dibenzofuran*	*3.4*	*U H*	*51*	3.4	*3.4*
84-66-2	*Diethyl phthalate*	*28*	*U H*	*51*	28	*16*
131-11-3	*Dimethyl phthalate*	*28*	*U H*	*51*	28	*17*
84-74-2	*Di-n-butyl phthalate*	*28*	*U H*	*51*	28	*15*
117-84-0	*Di-n-octyl phthalate*	*28*	*U H*	*51*	28	*28*
206-44-0	*Fluoranthene*	*3.4*	*U H*	*6.8*	3.4	*3.4*
86-73-7	*Fluorene*	*3.4*	*U H*	*6.8*	3.4	*3.4*
118-74-1	*Hexachlorobenzene*	*3.4*	*U H*	*6.8*	3.4	*2.1*
87-68-3	*Hexachlorobutadiene*	*28*	*U H*	*51*	28	*28*
67-72-1	*Hexachloroethane*	*28*	*U H*	*51*	28	*9.2*
193-39-5	*Indeno[1,2,3-cd]pyrene*	*3.4*	*U H*	*6.8*	3.4	*3.4*
91-20-3	*Naphthalene*	*3.4*	*U H*	*6.8*	3.4	*3.4*
98-95-3	*Nitrobenzene*	*3.4*	*U H*	*100*	3.4	*2.2*
621-64-7	*N-Nitrosodi-n-propylamine*	*28*	*U H*	*51*	28	*28*
86-30-6	*N-Nitrosodiphenylamine*	*28*	*U H*	*51*	28	*21*
87-86-5	*Pentachlorophenol*	*82*	*U H*	*150*	82	*82*
85-01-8	*Phenanthrene*	*3.4*	*U H*	*6.8*	3.4	*3.4*
108-95-2	*Phenol*	*28*	*U H*	*51*	28	*28*
129-00-0	*Pyrene*	*3.4*	*U H*	*6.8*	3.4	*3.4*
108-60-1	*bis (2-chloroisopropyl) ether*	*28*	*U H*	*100*	28	*9.7*
78-59-1	*Isophorone*	*28*	*U H*	*51*	28	*13*
92-52-4	*1,1'-Biphenyl*	*28*	*U H*	*51*	28	*28*
98-86-2	*Acetophenone*	*28*	*U H*	*100*	28	*9.4*
1912-24-9	*Atrazine*	*28*	*U H*	*200*	28	*9.3*
100-52-7	*Benzaldehyde*	*28*	*U H*	*100*	28	*12*
105-60-2	*Caprolactam*	*28*	*U H*	*340*	28	*38*
77-47-4	*Hexachlorocyclopentadiene*	*28*	*U H*	*340*	28	*28*
58-90-2	*2,3,4,6-Tetrachlorophenol*	*1600*	*U H*	*1600*	1600	*110*

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0302-01 RE | Lab Sample ID: 200-11554-3 RE

Matrix: Solid | Lab File ID: 20725009.D

Analysis Method: 8270C/DoD | Date Collected: 06/29/2012 08:44

Extract. Method: 3540C | Date Extracted: 07/17/2012 08:20

Sample wt/vol: 29.78(g) | Date Analyzed: 07/25/2012 10:53

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 1.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 51914 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	54		45-105
367-12-4	2-Fluorophenol (Surr)	63		35-105
4165-60-0	Nitrobenzene-d5 (Surr)	60		35-100
1718-51-0	Terphenyl-d14 (Surr)	78		30-125
118-79-6	2,4,6-Tribromophenol (Surr)	48	M	35-125
4165-62-2	Phenol-d5 (Surr)	64		40-100

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0402-01 | Lab Sample ID: 200-11554-4

Matrix: Solid | Lab File ID: 20716010.D

Analysis Method: 8270C/DoD | Date Collected: 06/29/2012 08:55

Extract. Method: 3540C | Date Extracted: 07/05/2012 11:14

Sample wt/vol: 30.14(g) | Date Analyzed: 07/16/2012 10:55

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 1.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 50851 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
95-94-3	1,2,4,5-Tetrachlorobenzene	5.4	U	100	5.4	5.4
95-95-4	2,4,5-Trichlorophenol	27	U Q	150	27	25
88-06-2	2,4,6-Trichlorophenol	81	U Q	150	81	81
120-83-2	2,4-Dichlorophenol	27	U	150	27	20
105-67-9	2,4-Dimethylphenol	81	U	150	81	20
51-28-5	2,4-Dinitrophenol	81	U	330	81	81
121-14-2	2,4-Dinitrotoluene	27	U	200	27	27
606-20-2	2,6-Dinitrotoluene	27	U	200	27	21
91-58-7	2-Chloronaphthalene	3.3	U	51	3.3	3.3
95-57-8	2-Chlorophenol	27	U	51	27	27
91-57-6	2-Methylnaphthalene	3.3	U	6.8	3.3	3.3
95-48-7	2-Methylphenol	81	U	200	81	81
88-74-4	2-Nitroaniline	27	U	200	27	9.2
88-75-5	2-Nitrophenol	27	U	51	27	27
15831-10-4	3 & 4 Methylphenol	81	U	400	81	20
91-94-1	3,3'-Dichlorobenzidine	81	U	100	81	18
99-09-2	3-Nitroaniline	81	U	200	81	16
534-52-1	4,6-Dinitro-2-methylphenol	81	U	150	81	81
101-55-3	4-Bromophenyl phenyl ether	27	U	51	27	13
59-50-7	4-Chloro-3-methylphenol	27	U	150	27	21
106-47-8	4-Chloroaniline	27	U	150	27	17
7005-72-3	4-Chlorophenyl phenyl ether	27	U	51	27	13
100-01-6	4-Nitroaniline	27	U	200	27	26
100-02-7	4-Nitrophenol	81	U	330	81	81
83-32-9	Acenaphthene	3.3	U	6.8	3.3	3.3
208-96-8	Acenaphthylene	3.3	U	6.8	3.3	3.3
120-12-7	Anthracene	3.3	U	6.8	3.3	3.3
56-55-3	Benzo[a]anthracene	3.3	U	6.8	3.3	3.3
50-32-8	Benzo[a]pyrene	3.3	U	6.8	3.3	3.3
205-99-2	Benzo[b]fluoranthene	3.3	U	6.8	3.3	3.3
191-24-2	Benzo[g,h,i]perylene	3.3	U	6.8	3.3	3.3
207-08-9	Benzo[k]fluoranthene	3.3	U	6.8	3.3	3.3
111-91-1	Bis(2-chloroethoxy)methane	27	U	100	27	22
111-44-4	Bis(2-chloroethyl)ether	3.3	U	100	3.3	2.0

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0402-01 | Lab Sample ID: 200-11554-4

Matrix: Solid | Lab File ID: 20716010.D

Analysis Method: 8270C/DoD | Date Collected: 06/29/2012 08:55

Extract. Method: 3540C | Date Extracted: 07/05/2012 11:14

Sample wt/vol: 30.14(g) | Date Analyzed: 07/16/2012 10:55

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 1.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 50851 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
117-81-7	Bis(2-ethylhexyl) phthalate	27	U	51	27	19
85-68-7	Butyl benzyl phthalate	27	U	51	27	10
86-74-8	Carbazole	27	U	51	27	27
218-01-9	Chrysene	3.3	U	6.8	3.3	1.1
53-70-3	Dibenz(a,h)anthracene	3.3	U	6.8	3.3	3.3
132-64-9	Dibenzofuran	3.3	U	51	3.3	3.3
84-66-2	Diethyl phthalate	27	U	51	27	16
131-11-3	Dimethyl phthalate	27	U	51	27	17
84-74-2	Di-n-butyl phthalate	27	U	51	27	15
117-84-0	Di-n-octyl phthalate	27	U	51	27	27
206-44-0	Fluoranthene	3.3	U	6.8	3.3	3.3
86-73-7	Fluorene	3.3	U	6.8	3.3	3.3
118-74-1	Hexachlorobenzene	3.3	U	6.8	3.3	2.1
87-68-3	Hexachlorobutadiene	27	U	51	27	27
67-72-1	Hexachloroethane	27	U	51	27	9.1
193-39-5	Indeno[1,2,3-cd]pyrene	3.3	U	6.8	3.3	3.3
91-20-3	Naphthalene	3.3	U	6.8	3.3	3.3
98-95-3	Nitrobenzene	3.3	U	100	3.3	2.2
621-64-7	N-Nitrosodi-n-propylamine	27	U	51	27	27
86-30-6	N-Nitrosodiphenylamine	27	U	51	27	21
87-86-5	Pentachlorophenol	81	U	150	81	81
85-01-8	Phenanthrene	3.3	U	6.8	3.3	3.3
108-95-2	Phenol	27	U	51	27	27
129-00-0	Pyrene	3.3	U	6.8	3.3	3.3
108-60-1	bis (2-chloroisopropyl) ether	27	U	100	27	9.6
78-59-1	Isophorone	27	U	51	27	13
92-52-4	1,1'-Biphenyl	27	U	51	27	27
98-86-2	Acetophenone	27	U	100	27	9.3
1912-24-9	Atrazine	27	U	200	27	9.2
100-52-7	Benzaldehyde	27	U	100	27	12
105-60-2	Caprolactam	27	U	330	27	37
77-47-4	Hexachlorocyclopentadiene	27	U	330	27	27
58-90-2	2,3,4,6-Tetrachlorophenol	1600	U	1600	1600	110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0402-01 | Lab Sample ID: 200-11554-4

Matrix: Solid | Lab File ID: 20716010.D

Analysis Method: 8270C/DoD | Date Collected: 06/29/2012 08:55

Extract. Method: 3540C | Date Extracted: 07/05/2012 11:14

Sample wt/vol: 30.14(g) | Date Analyzed: 07/16/2012 10:55

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 1.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 50851 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	50		45-105
367-12-4	2-Fluorophenol (Surr)	66		35-105
4165-60-0	Nitrobenzene-d5 (Surr)	57		35-100
1718-51-0	Terphenyl-d14 (Surr)	70		30-125
118-79-6	2,4,6-Tribromophenol (Surr)	59		35-125
4165-62-2	Phenol-d5 (Surr)	66		40-100

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0402-01 RE | Lab Sample ID: 200-11554-4 RE

Matrix: Solid | Lab File ID: 20725010.D

Analysis Method: 8270C/DoD | Date Collected: 06/29/2012 08:55

Extract. Method: 3540C | Date Extracted: 07/17/2012 08:20

Sample wt/vol: 30.13(g) | Date Analyzed: 07/25/2012 11:12

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 1.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 51914 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
95-94-3	1,2,4,5-Tetrachlorobenzene	5.4	U H	100	5.4	5.4
95-95-4	2,4,5-Trichlorophenol	27	U H	150	27	25
88-06-2	2,4,6-Trichlorophenol	81	U H	150	81	81
120-83-2	2,4-Dichlorophenol	27	U H	150	27	20
105-67-9	2,4-Dimethylphenol	81	U H	150	81	20
51-28-5	2,4-Dinitrophenol	81	U H J	330	81	81
121-14-2	2,4-Dinitrotoluene	27	U H	200	27	27
606-20-2	2,6-Dinitrotoluene	27	U H	200	27	21
91-58-7	2-Chloronaphthalene	3.3	U H	51	3.3	3.3
95-57-8	2-Chlorophenol	27	U H	51	27	27
91-57-6	2-Methylnaphthalene	3.3	U H	6.8	3.3	3.3
95-48-7	2-Methylphenol	81	U H	200	81	81
88-74-4	2-Nitroaniline	27	U H	200	27	9.2
88-75-5	2-Nitrophenol	27	U H	51	27	27
15831-10-4	3 & 4 Methylphenol	81	U H	410	81	20
91-94-1	3,3'-Dichlorobenzidine	81	U H	100	81	18
99-09-2	3-Nitroaniline	81	U H	200	81	16
534-52-1	4,6-Dinitro-2-methylphenol	81	U H J	150	81	81
101-55-3	4-Bromophenyl phenyl ether	27	U H	51	27	13
59-50-7	4-Chloro-3-methylphenol	27	U H	150	27	21
106-47-8	4-Chloroaniline	27	U H	150	27	17
7005-72-3	4-Chlorophenyl phenyl ether	27	U H	51	27	13
100-01-6	4-Nitroaniline	27	U H	200	27	26
100-02-7	4-Nitrophenol	81	U H	330	81	81
83-32-9	Acenaphthene	3.3	U H	6.8	3.3	3.3
208-96-8	Acenaphthylene	3.3	U H	6.8	3.3	3.3
120-12-7	Anthracene	3.3	U H	6.8	3.3	3.3
56-55-3	Benzo[a]anthracene	3.3	U H	6.8	3.3	3.3
50-32-8	Benzo[a]pyrene	3.3	U H	6.8	3.3	3.3
205-99-2	Benzo[b]fluoranthene	3.3	U H	6.8	3.3	3.3
191-24-2	Benzo[g,h,i]perylene	3.3	U H	6.8	3.3	3.3
207-08-9	Benzo[k]fluoranthene	3.3	U H	6.8	3.3	3.3
111-91-1	Bis(2-chloroethoxy)methane	27	U H	100	27	22
111-44-4	Bis(2-chloroethyl)ether	3.3	U H	100	3.3	2.0

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0402-01 RE | Lab Sample ID: 200-11554-4 RE

Matrix: Solid | Lab File ID: 20725010.D

Analysis Method: 8270C/DoD | Date Collected: 06/29/2012 08:55

Extract. Method: 3540C | Date Extracted: 07/17/2012 08:20

Sample wt/vol: 30.13(g) | Date Analyzed: 07/25/2012 11:12

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 1.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 51914 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
117-81-7	*Bis(2-ethylhexyl) phthalate*	*27*	*U H*	*51*	27	*19*
85-68-7	*Butyl benzyl phthalate*	*27*	*U H*	*51*	27	*10*
86-74-8	*Carbazole*	*27*	*U H*	*51*	27	*27*
218-01-9	*Chrysene*	*3.3*	*U H*	*6.8*	3.3	*1.1*
53-70-3	*Dibenz(a,h)anthracene*	*3.3*	*U H*	*6.8*	3.3	*3.3*
132-64-9	*Dibenzofuran*	*3.3*	*U H*	*51*	3.3	*3.3*
84-66-2	*Diethyl phthalate*	*27*	*U H*	*51*	27	*16*
131-11-3	*Dimethyl phthalate*	*27*	*U H*	*51*	27	*17*
84-74-2	*Di-n-butyl phthalate*	*27*	*U H*	*51*	27	*15*
117-84-0	*Di-n-octyl phthalate*	*27*	*U H*	*51*	27	*27*
206-44-0	*Fluoranthene*	*3.3*	*U H*	*6.8*	3.3	*3.3*
86-73-7	*Fluorene*	*3.3*	*U H*	*6.8*	3.3	*3.3*
118-74-1	*Hexachlorobenzene*	*3.3*	*U H*	*6.8*	3.3	*2.1*
87-68-3	*Hexachlorobutadiene*	*27*	*U H*	*51*	27	*27*
67-72-1	*Hexachloroethane*	*27*	*U H*	*51*	27	*9.1*
193-39-5	*Indeno[1,2,3-cd]pyrene*	*3.3*	*U H*	*6.8*	3.3	*3.3*
91-20-3	*Naphthalene*	*3.3*	*U H*	*6.8*	3.3	*3.3*
98-95-3	*Nitrobenzene*	*3.3*	*U H*	*100*	3.3	*2.2*
621-64-7	*N-Nitrosodi-n-propylamine*	*27*	*U H*	*51*	27	*27*
86-30-6	*N-Nitrosodiphenylamine*	*27*	*U H*	*51*	27	*21*
87-86-5	*Pentachlorophenol*	*81*	*U H*	*150*	81	*81*
85-01-8	*Phenanthrene*	*3.3*	*U H*	*6.8*	3.3	*3.3*
108-95-2	*Phenol*	*27*	*U H*	*51*	27	*27*
129-00-0	*Pyrene*	*3.3*	*U H*	*6.8*	3.3	*3.3*
108-60-1	*bis (2-chloroisopropyl) ether*	*27*	*U H*	*100*	27	*9.6*
78-59-1	*Isophorone*	*27*	*U H*	*51*	27	*13*
92-52-4	*1,1'-Biphenyl*	*27*	*U H*	*51*	27	*27*
98-86-2	*Acetophenone*	*27*	*U H*	*100*	27	*9.3*
1912-24-9	*Atrazine*	*27*	*U H*	*200*	27	*9.2*
100-52-7	*Benzaldehyde*	*27*	*U H*	*100*	27	*12*
105-60-2	*Caprolactam*	*27*	*U H*	*330*	27	*37*
77-47-4	*Hexachlorocyclopentadiene*	*27*	*U H*	*330*	27	*27*
58-90-2	*2,3,4,6-Tetrachlorophenol*	*1600*	*U H*	*1600*	1600	*110*

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0402-01 RE | Lab Sample ID: 200-11554-4 RE

Matrix: Solid | Lab File ID: 20725010.D

Analysis Method: 8270C/DoD | Date Collected: 06/29/2012 08:55

Extract. Method: 3540C | Date Extracted: 07/17/2012 08:20

Sample wt/vol: 30.13(g) | Date Analyzed: 07/25/2012 11:12

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 1.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 51914 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	61		45-105
367-12-4	2-Fluorophenol (Surr)	71		35-105
4165-60-0	Nitrobenzene-d5 (Surr)	67		35-100
1718-51-0	Terphenyl-d14 (Surr)	86		30-125
118-79-6	2,4,6-Tribromophenol (Surr)	51	M	35-125
4165-62-2	Phenol-d5 (Surr)	73		40-100

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton | Job No.: 200-11554-1 | Analy Batch No.: 50712

SDG No.: 200-11554-1

Instrument ID: A4HP9 | GC Column: RXI-5SILMS | ID: 0.45(mm) | Heated Purge: (Y/N) N

Calibration Start Date: 07/13/2012 09:43 | Calibration End Date: 07/13/2012 12:28 | Calibration ID: 10103

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-50712/6	20713006.D
Level 2	STD2 240-50712/5	20713005.D
Level 3	STD3 240-50712/4	20713004.D
Level 4	STD4 240-50712/3	20713003.D
Level 5	STD5 240-50712/2	20713002.D
Level 6	STD6 240-50712/10	20713010.D
Level 7	STD7 240-50712/9	20713009.D
Level 8	STD8 240-50712/8	20713008.D
Level 9	STD9 240-50712/7	20713007.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.9897	1.1304 1.0625	1.0595 1.0972	0.9746 1.0903	0.8845	Ave		1.0361			0.0500	7.8		15.0			
N-Nitrosodimethylamine	1.7247	1.4790 1.7540	1.5580 1.8127	1.4889 1.8037	1.4807	Ave		1.6377			0.0500	9.2		15.0			
Pyridine	2.8034	2.6535 3.0933	2.4661 3.1094	2.5556 3.1887	2.3391	Ave		2.7761			0.0500	12.0		15.0			
Ethyl methacrylate	2.3699	2.1469 2.4538	2.3090 2.4980	2.1214 2.4521	2.1029	Ave		2.3067			0.0500	7.0		15.0			
Benzaldehyde	3.3575 2.2331	2.5373 +++++	2.4415 +++++	2.3962 +++++	2.2146	Qua	0.2119	2.1870	0.0022		0.0500				1.0000		0.9950
3-Chloropropionitrile	1.1314	1.1771 1.1824	1.1951 1.1876	1.0597 1.1923	1.0206	Ave		1.1432			0.0500	5.9		15.0			
Malononitrile	3.0462	2.8647 2.8723	2.9970 2.6014	2.8374 2.2086	2.7762	Ave		2.7755			0.0500	9.6		15.0			
Phenol	2.7287	2.6832 2.9751	2.7188 3.0339	2.6275 3.1305	2.5623	Ave		2.8075			0.0500	7.4		15.0			
Aniline	3.5563	3.2911 3.7442	3.3247 3.8015	3.2194 3.9236	3.3422	Ave		3.5254			0.0500	7.6		15.0			
Bis(2-chloroethyl)ether	2.6123	2.9199 2.8086	2.5118 2.6876	2.4548 2.8617	2.3348	Ave		2.6489			0.0500	7.8		15.0			
2-Chlorophenol	1.4280	1.5160 1.5081	1.5019 1.5163	1.3830 1.5726	1.4055	Ave		1.4789			0.0500	4.4		15.0			
1,3-Dichlorobenzene	1.6300	1.7773 1.7819	1.7456 1.7745	1.6128 1.8125	1.6595	Ave		1.7243			0.0500	4.5		15.0			
1,4-Dichlorobenzene	1.5318	1.4467 1.6226	1.5674 1.6130	1.4571 1.6747	1.5336	Ave		1.5559			0.0500	5.1		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 200-11554-1 Analy Batch No.: 50712

SDG No.: 200-11554-1

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/13/2012 09:43 Calibration End Date: 07/13/2012 12:28 Calibration ID: 10103

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Benzyl alcohol	1.2091	1.1163 1.3287	1.2441 1.3038	1.2182 1.3667	1.1879	Ave		1.2468			0.0500	6.6		15.0			
1,2-Dichlorobenzene	1.5806	1.5390 1.6712	1.6022 1.6637	1.4967 1.7419	1.5730	Ave		1.6085			0.0500	4.9		15.0			
2-Methylphenol	1.7207	1.7975 1.8044	1.8015 1.7900	1.6724 1.8766	1.6753	Ave		1.7673			0.0500	4.0		15.0			
Benzoic acid	0.2229	+++++ 0.2588	0.1161 0.2720	0.1492 0.2666	0.1983	Qua	-0.436	0.2499	0.0006		0.0500				0.9980		0.9950
bis (2-chloroisopropyl) ether	2.0346	1.9839 2.1642	1.9823 2.0627	1.9536 2.2096	1.8600	Ave		2.0314			0.0500	5.6		15.0			
3 & 4 Methylphenol	1.8172	1.8571 1.9524	1.8398 1.9085	1.7805 2.0534	1.7597	Ave		1.8711			0.0500	5.2		15.0			
N-Nitrosodi-n-propylamine	2.0292	2.1415 2.1939	2.0333 2.1380	1.9427 2.2473	1.8717	Ave		2.0747			0.0500	6.2		15.0			
Acetophenone	2.7176	2.7378 2.9502	2.6890 2.8433	2.5525 2.9486	2.5178	Ave		2.7446			0.0500	5.9		15.0			
Hexachloroethane	0.7787	0.8355 0.8057	0.8437 0.8027	0.7439 0.8190	0.7506	Ave		0.7975			0.0500	4.6		15.0			
2,4-Toluene diamine	0.1927	0.2430 0.1757	0.2500 +++++	0.3015 +++++	0.2533	Qua	0.0419	0.2561	-0.006		0.0500				0.9940	*	0.9950
Nitrobenzene	0.8167	0.8044 0.8420	0.7758 0.8555	0.7578 0.8638	0.7289	Ave		0.8056			0.0500	6.0		15.0			
Isophorone	1.2158	1.2098 1.3125	1.1622 1.3397	1.1455 1.3670	1.1318	Ave		1.2356			0.0500	7.5		15.0			
2-Nitrophenol	0.1964	0.1805 0.2187	0.1946 0.2258	0.1931 0.2335	0.2022	Ave		0.2056			0.0500	8.9		15.0			
2,4-Dimethylphenol	0.5415	0.5735 0.5685	0.4914 0.5993	0.5293 0.6200	0.5198	Ave		0.5554			0.0500	7.7		15.0			
1,3,5-Trichlorobenzene	0.3601	0.3508 0.3808	0.3599 0.3993	0.3617 0.4091	0.3677	Ave		0.3737			0.0500	5.6		15.0			
Bis(2-chloroethoxy)methane	0.7285	0.7523 0.7722	0.7499 0.8026	0.7043 0.8268	0.6944	Ave		0.7539			0.0500	6.1		15.0			
2,4-Dichlorophenol	0.2659	0.2787 0.2953	0.2612 0.3036	0.2888 0.3139	0.2866	Ave		0.2867			0.0500	6.2		15.0			
1,2,4-Trichlorobenzene	0.3482	0.3694 0.3699	0.3699 0.3926	0.3568 0.3923	0.3542	Ave		0.3691			0.0500	4.5		15.0			
Naphthalene	1.2179 0.9724	1.0024 1.0469	0.9990 1.1110	0.9981 1.1307	0.9980	Ave		1.0529			0.0500	7.8		15.0			
4-Chloroaniline	0.4506	0.4290 0.4849	0.4494 0.5016	0.4577 0.5229	0.4576	Ave		0.4692			0.0500	6.6		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 200-11554-1 Analy Batch No.: 50712

SDG No.: 200-11554-1

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/13/2012 09:43 Calibration End Date: 07/13/2012 12:28 Calibration ID: 10103

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Hexachlorobutadiene	0.1986	0.1925 0.2083	0.2054 0.2151	0.2018 0.2204	0.2029	Ave		0.2056			0.0500	4.3		15.0			
Caprolactam	0.1492	0.0968 0.1590	0.1139 0.1586	0.1303 0.1686	0.1490	Qua	-0.019	0.1416	0.0011		0.0500				1.0000		0.9950
4-Chloro-3-methylphenol	0.4648	0.4097 0.4940	0.4575 0.5053	0.4515 0.5248	0.4418	Ave		0.4687			0.0500	8.0		15.0			
2-Methylnaphthalene	0.6783 0.6586	0.6562 0.7150	0.6825 0.7475	0.6768 0.7792	0.6737	Ave		0.6964			0.0500	6.1		15.0			
2,4-Dinitrophenol	0.2012	+++++ 0.2336	0.1282 0.2569	0.1885 0.2642	0.2172	Qua	-0.060	0.1873	0.0016		0.0500				0.9980		0.9950
1-Methylnaphthalene	0.7099 0.6368	0.6189 0.6803	0.6536 0.7164	0.6379 0.7397	0.6487	Ave		0.6713			0.0500	6.3		15.0			
1,2,3,5-Tetrachlorobenzene	0.5838	0.5975 0.6534	0.6011 0.6554	0.5911 0.6704	0.5853	Ave		0.6172			0.0500	5.8		15.0			
Hexachlorocyclopentadiene	0.3880	0.3698 0.4530	0.2796 0.4604	0.3959 0.4420	0.4110	Ave		0.4000			0.0500	15.0		15.0			
2,4,6-Trichlorophenol	0.3520	0.3216 0.3863	0.3383 0.3870	0.3538 0.3983	0.3749	Ave		0.3640			0.0500	7.4		15.0			
2,4,5-Trichlorophenol	0.3642	0.3788 0.4061	0.3807 0.4082	0.3837 0.4298	0.3917	Ave		0.3929			0.0500	5.3		15.0			
1,1'-Biphenyl	1.7284 1.3909	1.3461 1.5711	1.4110 1.6257	1.3454 1.6809	1.3767	Ave		1.4974			0.0500	10.0		15.0			
2-Chloronaphthalene	1.3373 1.1623	1.2335 1.2854	1.2427 1.3148	1.2167 1.3475	1.1941	Ave		1.2594			0.0500	5.2		15.0			
2-Nitroaniline	0.6652	0.6641 0.7093	0.6196 0.6965	0.5935 0.7060	0.5826	Ave		0.6546			0.0500	7.7		15.0			
Dimethyl phthalate	1.2682	1.3102 1.3681	1.2099 1.3731	1.2277 1.4095	1.2493	Ave		1.3020			0.0500	5.7		15.0			
2,6-Dinitrotoluene	0.3334	0.3280 0.3741	0.3416 0.3636	0.3153 0.3820	0.3510	Ave		0.3486			0.0500	6.7		15.0			
1,2-Dinitrobenzene	0.1602	0.1603 0.1816	0.1363 0.1762	0.1563 0.1840	0.1633	Ave		0.1648			0.0500	9.5		15.0			
Acenaphthylene	2.2280 1.7188	1.7002 1.9329	1.8202 1.9754	1.7487 2.0428	1.7666	Ave		1.8815			0.0500	9.4		15.0			
3-Nitroaniline	0.3230	0.2949 0.3613	0.3510 0.3621	0.3331 0.3770	0.3387	Ave		0.3426			0.0500	7.6		15.0			
Acenaphthene	1.3958 1.1297	1.0981 1.2812	1.1678 1.2979	1.1057 1.3586	1.1504	Ave		1.2206			0.0500	9.3		15.0			
4-Nitrophenol	0.2878	0.2353 0.3227	0.2460 0.3209	0.2652 0.3383	0.2859	Ave		0.2878			0.0500	13.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 200-11554-1 Analy Batch No.: 50712

SDG No.: 200-11554-1

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/13/2012 09:43 Calibration End Date: 07/13/2012 12:28 Calibration ID: 10103

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2,4-Dinitrotoluene	0.4528	0.4300 0.4957	0.4469 0.5019	0.4553 0.5123	0.4700	Ave		0.4706			0.0500	6.3		15.0			
Dibenzofuran	1.8424 1.4802	1.4630 1.6456	1.5132 1.6580	1.4787 1.7351	1.4812	Ave		1.5886			0.0500	8.6		15.0			
2,3,5,6-Tetrachlorophenol	0.2971	0.2563 0.3378	0.2823 0.3401	0.2986 0.3573	0.3061	Ave		0.3094			0.0500	11.0		15.0			
Diethyl phthalate	1.2884	1.3265 1.4612	1.3340 1.4458	1.2929 1.5094	1.2939	Ave		1.3690			0.0500	6.5		15.0			
4-Chlorophenyl phenyl ether	0.6943	0.6473 0.7641	0.7108 0.7805	0.6902 0.8176	0.7039	Ave		0.7261			0.0500	7.7		15.0			
4-Nitroaniline	0.3579	0.3411 0.4096	0.3410 0.4134	0.3470 0.4198	0.3609	Ave		0.3738			0.0500	9.2		15.0			
Fluorene	1.4547 1.2340	1.2435 1.4378	1.2917 1.4741	1.2690 1.5328	1.2917	Ave		1.3588			0.0500	8.4		15.0			
4,6-Dinitro-2-methylphenol	0.1371	0.0991 0.1684	0.1094 0.1656	0.1383 0.1675	0.1487	Qua	-0.041	0.1493	0.0009		0.0500				0.9970		0.9950
N-Nitrosodiphenylamine	0.5686	0.6180 0.6421	0.5566 0.6430	0.5703 0.6397	0.5721	Ave		0.6013			0.0500	6.3		15.0			
1,2-Diphenylhydrazine(as Azobenzene)	1.4540	1.4750 1.6216	1.3628 1.5817	1.3405 1.5873	1.2857	Ave		1.4710			0.0500	8.5		15.0			
Azobenzene	1.4536	1.5146 1.6226	1.3678 1.5819	1.3514 1.5873	1.2890	Ave		1.4710			0.0500	8.5		15.0			
4-Bromophenyl phenyl ether	0.2029	0.2138 0.2389	0.2118 0.2378	0.2188 0.2383	0.2132	Ave		0.2219			0.0500	6.4		15.0			
Hexachlorobenzene	0.1978 0.1729	0.1745 0.1950	0.1743 0.1950	0.1933 0.2040	0.1773	Ave		0.1871			0.0500	6.5		15.0			
Atrazine	0.1957	0.1916 0.2147	0.1860 0.2071	0.2028 0.2008	0.1964	Ave		0.1994			0.0500	4.5		15.0			
Pentachlorophenol	0.1209	0.0929 0.1411	0.0942 0.1490	0.1144 0.1551	0.1282	Qua	-0.024	0.1138	0.0009		0.0500				0.9990		0.9950
Benzidine	0.6904	+++++ 0.8636	0.6210 0.8695	0.7150 0.8749	0.8319	Ave		0.7809			0.0500	13.0		15.0			
Phenanthrene	1.3513 1.0539	1.1761 1.2247	1.0874 1.2251	1.0709 1.2494	1.0478	Ave		1.1652			0.0500	9.1		15.0			
Anthracene	1.3752 1.1011	1.0906 1.2858	1.1462 1.2959	1.1014 1.3020	1.1212	Ave		1.2022			0.0500	9.2		15.0			
Carbazole	1.0050	1.0361 1.1620	1.0198 1.1676	1.0405 1.1775	1.0306	Ave		1.0799			0.0500	6.9		15.0			
Di-n-butyl phthalate	1.3498	1.3798 1.5743	1.3503 1.5785	1.3340 1.6043	1.3448	Ave		1.4395			0.0500	8.5		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 200-11554-1 Analy Batch No.: 50712

SDG No.: 200-11554-1

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/13/2012 09:43 Calibration End Date: 07/13/2012 12:28 Calibration ID: 10103

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
3,3'-Dimethoxybenzidine	0.3093	+++++ 0.3970	0.2859 0.4033	0.3229 0.4013	0.3611	Ave		0.3544			0.0500	14.0		15.0			
Fluoranthene	1.3501 1.1915	1.2233 1.3888	1.2061 1.4054	1.1911 1.4355	1.2190	Ave		1.2901			0.0500	7.9		15.0			
Pyrene	1.5210 1.3148	1.3345 1.5394	1.4087 1.5321	1.3889 1.5792	1.3747	Ave		1.4437			0.0500	6.9		15.0			
Butyl benzyl phthalate	0.6574	0.7243 0.7767	0.7153 0.7612	0.6858 0.7753	0.6793	Ave		0.7219			0.0500	6.4		15.0			
Bis(2-ethylhexyl) phthalate	0.9176	1.0020 1.0964	0.9563 1.1059	0.9457 1.1114	0.9719	Ave		1.0134			0.0500	7.8		15.0			
4,4'-Methylene bis(2-chloroaniline)	0.2412	0.2223 0.3025	0.2816 0.3038	0.2637 0.3040	0.2735	Ave		0.2741			0.0500	11.0		15.0			
3,3'-Dichlorobenzidine	0.4298	0.3938 0.5231	0.4585 0.5362	0.4553 0.5433	0.4723	Ave		0.4765			0.0500	11.0		15.0			
Benzo[a]anthracene	1.6988 1.1911	1.3135 1.4053	1.2856 1.3814	1.2757 1.4247	1.2773	Ave		1.3615			0.0500	11.0		15.0			
Chrysene	1.5354 1.1005	1.1789 1.2743	1.1958 1.2700	1.1684 1.3064	1.1563	Ave		1.2429			0.0500	10.0		15.0			
Di-n-octyl phthalate	2.1379	2.2482 2.5975	2.3335 2.6066	2.2816 2.6815	2.2776	Ave		2.3955			0.0500	8.4		15.0			
Benzo[b]fluoranthene	1.8581 1.5086	1.5194 1.7238	1.6011 1.7697	1.6177 1.8726	1.5433	Ave		1.6683			0.0500	8.5		15.0			
Benzo[k]fluoranthene	1.9850 1.4965	1.5944 1.9179	1.7186 1.8685	1.5658 1.8564	1.6443	Ave		1.7386			0.0500	10.0		15.0			
Benzo[a]pyrene	1.6423 1.3850	1.4828 1.6719	1.4990 1.6713	1.4982 1.7102	1.4520	Ave		1.5570			0.0500	7.5		15.0			
Indeno[1,2,3-cd]pyrene	1.8571 1.4597	1.4591 1.8309	1.5831 1.8116	1.5486 1.8490	1.5754	Ave		1.6638			0.0500	10.0		15.0			
Dibenz(a,h)anthracene	1.4518 1.2363	1.2255 1.5314	1.2406 1.5189	1.2911 1.5446	1.2864	Ave		1.3696			0.0500	10.0		15.0			
Benzo[g,h,i]perylene	1.5402 1.1881	1.2194 1.4638	1.3280 1.4561	1.3029 1.4721	1.2763	Ave		1.3608			0.0500	9.2		15.0			
2-Fluorophenol (Surr)	1.6531	1.6584 1.8684	1.6168 1.8085	1.6103 1.9763	1.6744	Ave		1.7333			0.0500	7.8		15.0			
Phenol-d5 (Surr)	2.5474	2.6074 2.7808	2.4471 2.8387	2.4758 2.9069	2.4607	Ave		2.6331			0.0500	7.0		15.0			
Nitrobenzene-d5 (Surr)	1.0099 0.7976	0.7644 0.8311	0.7765 0.8427	0.7691 0.8549	0.7534	Ave		0.8222			0.0500	9.7		15.0			
2-Fluorobiphenyl (Surr)	1.7317 1.4065	1.3935 1.5945	1.4403 1.5774	1.4292 1.6267	1.4225	Ave		1.5136			0.0500	8.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 200-11554-1 Analy Batch No.: 50712

SDG No.: 200-11554-1

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/13/2012 09:43 Calibration End Date: 07/13/2012 12:28 Calibration ID: 10103

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2,4,6-Tribromophenol (Surr)	0.1095	0.0957 0.1203	0.1150 0.1265	0.1075 0.1309	0.1160	Ave		0.1152			0.0500	9.7		15.0			
Terphenyl-d14 (Surr)	1.0089 0.7681	0.8420 0.9168	0.8157 0.9148	0.8199 0.9391	0.8311	Ave		0.8729			0.0500	8.7		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 200-11554-1 Analy Batch No.: 50712

SDG No.: 200-11554-1

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/13/2012 09:43 Calibration End Date: 07/13/2012 12:28 Calibration ID: 10103

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-50712/6	20713006.D
Level 2	STD2 240-50712/5	20713005.D
Level 3	STD3 240-50712/4	20713004.D
Level 4	STD4 240-50712/3	20713003.D
Level 5	STD5 240-50712/2	20713002.D
Level 6	STD6 240-50712/10	20713010.D
Level 7	STD7 240-50712/9	20713009.D
Level 8	STD8 240-50712/8	20713008.D
Level 9	STD9 240-50712/7	20713007.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,4-Dioxane	DCB	Ave	187729	15052 340679	29835 518979	64145 519115	136203	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodimethylamine	DCB	Ave	327147	19695 562376	43875 857363	97993 858756	228009	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Pyridine	DCB	Ave	531750	35334 991805	69445 1470690	168200 1518177	360200	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Ethyl methacrylate	DCB	Ave	449524	28588 786770	65021 1181519	139620 1167460	323834	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzaldehyde	DCB	Qua	7538 423568	33787 +++++	68753 +++++	157709 +++++	341030	0.100 10.0	0.500 +++++	1.00 +++++	2.00 +++++	5.00
3-Chloropropionitrile	DCB	Ave	214596	15674 379096	33653 561712	69742 567667	157161	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Malononitrile	DCB	Ave	577797	38146 920949	84396 1230419	186741 1051520	427520	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Phenol	DCB	Ave	517589	35729 953892	76563 1434970	172927 1490460	394576	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Aniline	DCB	Ave	674567	43824 1200503	93625 1798055	211886 1868070	514669	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Bis(2-chloroethyl)ether	DCB	Ave	495503	38882 900517	70733 1271185	161565 1362494	359540	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chlorophenol	DCB	Ave	270870	20187 483543	42294 717200	91020 748724	216440	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dichlorobenzene	DCB	Ave	309184	23667 571328	49157 839308	106147 862968	255556	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,4-Dichlorobenzene	DCB	Ave	290553	19264 520260	44138 762918	95896 797363	236162	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzyl alcohol	DCB	Ave	229335	14865 426026	35033 616669	80177 650713	182920	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 200-11554-1 Analy Batch No.: 50712

SDG No.: 200-11554-1

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/13/2012 09:43 Calibration End Date: 07/13/2012 12:28 Calibration ID: 10103

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,2-Dichlorobenzene	DCB	Ave	299801	20493 535825	45117 786889	98507 829320	242227	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylphenol	DCB	Ave	326382	23935 578556	50731 846663	110070 893482	257980	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzoic acid	NPT	Qua	334441	+++++ 669107	25771 981392	75768 1018582	238575	20.0	+++++ 30.0	2.00 40.0	4.00 50.0	10.0
bis (2-chloroisopropyl) ether	DCB	Ave	385926	26417 693904	55823 975607	128573 1052037	286432	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3 & 4 Methylphenol	DCB	Ave	344681	24729 625998	51809 902692	117186 977645	270981	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodi-n-propylamine	DCB	Ave	384907	28516 703419	57258 1011247	127856 1069987	288231	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acetophenone	DCB	Ave	515482	36456 945929	75722 1344861	167991 1403845	387722	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachloroethane	DCB	Ave	147697	11125 258323	23759 379655	48960 389957	115585	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Toluene diamine	NPT	Qua	144521	12971 227078	27757 +++++	76590 +++++	152410	10.0	0.500 15.0	1.00 +++++	2.00 +++++	5.00
Nitrobenzene	NPT	Ave	612635	42944 1088486	86132 1543252	192468 1650284	438552	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Isophorone	NPT	Ave	912017	64590 1696682	129034 2416861	290956 2611615	680996	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitrophenol	NPT	Ave	147316	9636 282686	21610 407339	49047 446104	121633	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dimethylphenol	NPT	Ave	406192	30616 734845	54552 1081145	134451 1184454	312730	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3,5-Trichlorobenzene	NPT	Ave	270097	18726 492282	39954 720268	91865 781558	221272	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Bis(2-chloroethoxy)methane	NPT	Ave	546463	40163 998215	83260 1447878	178892 1579537	417827	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dichlorophenol	NPT	Ave	199435	14881 381700	29003 547695	73348 599622	172445	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4-Trichlorobenzene	NPT	Ave	261173	19720 478094	41063 708253	90619 749399	213122	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Naphthalene	NPT	Ave	10980 729420	53517 1353262	110914 2004270	253523 2160095	600469	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Chloroaniline	NPT	Ave	338045	22903 626751	49898 904862	116252 999000	275346	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobutadiene	NPT	Ave	149001	10279 269299	22801 388119	51257 421054	122089	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Caprolactam	NPT	Qua	111928	5170 205512	12649 286192	33108 322191	89657	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 200-11554-1 Analy Batch No.: 50712

SDG No.: 200-11554-1

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/13/2012 09:43 Calibration End Date: 07/13/2012 12:28 Calibration ID: 10103

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
4-Chloro-3-methylphenol	NPT	Ave	348629	21875 638558	50796 911539	114691 1002668	265799	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylnaphthalene	NPT	Ave	6115 494019	35033 924286	75773 1348557	171917 1488600	405385	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dinitrophenol	ANT	Qua	179490	+++++ 348506	16602 550636	56904 614790	153858	20.0	+++++ 30.0	2.00 40.0	4.00 50.0	10.0
1-Methylnaphthalene	NPT	Ave	6400 477655	33040 879443	72569 1292332	162013 1413063	390309	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,3,5-Tetrachlorobenzene	ANT	Ave	260343	18571 487371	38912 702499	89215 779937	207285	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorocyclopentadiene	ANT	Ave	173040	11495 337867	18101 493441	59752 514247	145554	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Trichlorophenol	ANT	Ave	156987	9995 288153	21898 414869	53402 463377	132790	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,5-Trichlorophenol	ANT	Ave	162398	11773 302926	24644 437567	57910 500018	138730	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,1'-Biphenyl	ANT	Ave	9006 620250	41840 1171912	91340 1742563	203063 1955548	487582	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chloronaphthalene	ANT	Ave	6968 518325	38342 958814	80442 1409313	183643 1567694	422904	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitroaniline	ANT	Ave	296651	20642 529115	40108 746528	89579 821339	206328	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dimethyl phthalate	ANT	Ave	565541	40726 1020522	78320 1471791	185303 1639755	442452	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dinitrotoluene	ANT	Ave	148658	10195 279018	22115 389749	47588 444373	124320	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2-Dinitrobenzene	ANT	Ave	71440	4983 135424	8824 188917	23596 214026	57838	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acenaphthylene	ANT	Ave	11609 766472	52848 1441755	117829 2117362	263932 2376575	625654	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3-Nitroaniline	ANT	Ave	144031	9167 269476	22720 388174	50277 438607	119965	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acenaphthene	ANT	Ave	7273 503794	34132 955688	75595 1391169	166881 1580552	407419	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitrophenol	ANT	Ave	128358	7315 240723	15925 343976	40033 393609	101266	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dinitrotoluene	ANT	Ave	201932	13367 369764	28932 537925	68722 596042	166467	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenzofuran	ANT	Ave	9600 660082	45475 1227494	97955 1777165	223181 2018640	524567	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,3,5,6-Tetrachlorophenol	ANT	Ave	132498	7966 251960	18276 364493	45063 415690	108419	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 200-11554-1 Analy Batch No.: 50712

SDG No.: 200-11554-1

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/13/2012 09:43 Calibration End Date: 07/13/2012 12:28 Calibration ID: 10103

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Diethyl phthalate	ANT	Ave	574540	41233 1089959	86355 1549735	195144 1756034	458238	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Chlorophenyl phenyl ether	ANT	Ave	309611	20120 569970	46012 836601	104178 951190	249281	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitroaniline	ANT	Ave	159622	10603 305535	22072 443166	52373 488394	127817	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluorene	ANT	Ave	7580 550312	38652 1072479	83615 1580036	191530 1783203	457463	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4,6-Dinitro-2-methylphenol	PHN	Qua	101606	4938 205839	11775 295692	33769 334524	88457	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodiphenylamine	PHN	Ave	421493	30791 784790	59919 1148244	139250 1277402	340310	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2-Diphenylhydrazine(as Azobenzene)	PHN	Ave	1077795	73485 1982014	146697 2824754	327320 3169420	764811	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Azobenzene	PHN	Ave	1077502	75460 1983236	147231 2825143	329976 3169418	766777	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Bromophenyl phenyl ether	PHN	Ave	150414	10651 292037	22803 424611	53421 475812	126807	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobenzene	PHN	Ave	1679 128202	8696 238306	18760 348190	47207 407415	105446	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Atrazine	PHN	Ave	145095	9547 262433	20021 369832	49528 400936	116821	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Pentachlorophenol	PHN	Qua	179308	9255 344911	20271 532250	55856 619353	152470	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Benzidine	CRY	Ave	483468	+++++ 981420	58424 1451653	157253 1621659	437499	10.0	+++++ 15.0	1.00 20.0	2.00 25.0	5.00
Phenanthrene	PHN	Ave	11468 781230	58596 1496927	117055 2187929	261497 2494771	623281	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Anthracene	PHN	Ave	11671 816233	54333 1571554	123383 2314409	268935 2599854	666954	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Carbazole	PHN	Ave	744948	51619 1420274	109772 2085246	254061 2351199	613057	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-butyl phthalate	PHN	Ave	1000555	68741 1924229	145345 2818964	325728 3203403	799938	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3,3'-Dimethoxybenzidine	CRY	Ave	216603	+++++ 451204	26895 673330	71019 743897	189898	10.0	+++++ 15.0	1.00 20.0	2.00 25.0	5.00
Fluoranthene	PHN	Ave	11458 883218	60944 1697460	129824 2509956	290853 2866317	725118	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Pyrene	CRY	Ave	11296 920669	59441 1749395	132525 2557883	305451 2927177	722926	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Butyl benzyl phthalate	CRY	Ave	460320	32263 882655	67288 1270838	150821 1437165	357245	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 200-11554-1 Analy Batch No.: 50712

SDG No.: 200-11554-1

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/13/2012 09:43 Calibration End Date: 07/13/2012 12:28 Calibration ID: 10103

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Bis(2-ethylhexyl) phthalate	CRY	Ave	642532	44631 1245946	89967 1846396	207989 2060107	511146	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4,4'-Methylene bis(2-chloroaniline)	CRY	Ave	168870	9903 343726	26492 507264	57997 563533	143821	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3,3'-Dichlorobenzidine	CRY	Ave	300942	17542 594430	43135 895188	100126 1007012	248398	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[a]anthracene	CRY	Ave	12617 834015	58507 1596968	120943 2306282	280550 2640862	671734	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Chrysene	CRY	Ave	11403 770626	52512 1448079	112497 2120282	256953 2421540	608099	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-octyl phthalate	PRY	Ave	1075191	72137 2120800	155984 3104754	356754 3538510	889398	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[b]fluoranthene	PRY	Ave	9704 758698	48754 1407427	107028 2107862	252942 2471109	602682	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[k]fluoranthene	PRY	Ave	10367 752636	51160 1565875	114885 2225546	244830 2449767	642114	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[a]pyrene	PRY	Ave	8577 696520	47580 1365026	100204 1990650	234257 2256725	567014	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indeno[1,2,3-cd]pyrene	PRY	Ave	9699 734115	46818 1494892	105825 2157828	242136 2439961	615213	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenz(a,h)anthracene	PRY	Ave	7582 621738	39321 1250367	82927 1809200	201875 2038243	502345	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[g,h,i]perylene	PRY	Ave	8044 597531	39126 1195147	88772 1734325	203718 1942616	498390	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorophenol (Surr)	DCB	Ave	313551	22083 599065	45529 855412	105981 940930	257840	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Phenol-d5 (Surr)	DCB	Ave	483182	34720 891602	68912 1342670	162943 1383994	378929	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene-d5 (Surr)	NPT	Ave	9105 598288	40810 1074350	86211 1520171	195350 1633209	453344	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorobiphenyl (Surr)	ANT	Ave	9023 627227	43314 1189359	93234 1690732	215716 1892530	503804	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Tribromophenol (Surr)	ANT	Ave	48813	2974 89766	7446 135595	16227 152265	41100	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Terphenyl-d14 (Surr)	CRY	Ave	7493 537853	37506 1041878	76734 1527401	180308 1740688	437094	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

Curve Type Legend:

Ave = Average ISTD
Qua = Quadratic ISTD

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 200-11554-1 Analy Batch No.: 50712

SDG No.: 200-11554-1

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/13/2012 13:11 Calibration End Date: 07/13/2012 15:26 Calibration ID: 10107

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD2 240-50712/15	20713015.D
Level 2	STD3 240-50712/14	20713014.D
Level 3	STD4 240-50712/13	20713013.D
Level 4	STD5 240-50712/12	20713012.D
Level 5	STD6 240-50712/16	20713016.D
Level 6	STD7 240-50712/17	20713017.D
Level 7	STD8 240-50712/18	20713018.D
Level 8	STD9 240-50712/19	20713019.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
2-Picoline	2.6785 2.9881	2.5034 3.0322	2.5223 2.9879	2.4341	2.4742	Ave		2.7026			0.0500	9.6		15.0			
N-Nitrosomethylethylamine	1.2931 1.3372	1.1812 1.3589	1.2066 1.2877	1.1419	1.1627	Ave		1.2462			0.0500	6.7		15.0			
Methyl methanesulfonate	1.8272 1.8536	1.6449 1.8551	1.7131 1.7830	1.5677	1.6164	Ave		1.7326			0.0500	6.5		15.0			
3-Picoline	1.9953 2.8159	2.1982 2.7962	2.3155 2.7057	2.2854	2.2820	Ave		2.4243			0.0500	13.0		15.0			
N-Nitrosodiethylamine	1.0394 1.1335	1.0404 1.1571	1.0221 1.0998	1.0073	0.9932	Ave		1.0616			0.0500	5.7		15.0			
Ethyl methanesulfonate	2.2011 2.2239	1.9882 2.2141	1.9999 2.1364	1.8743	1.9308	Ave		2.0711			0.0500	6.7		15.0			
Pentachloroethane	0.5944 0.5815	0.4922 0.5655	0.5015 0.5431	0.5116	0.4943	Ave		0.5355			0.0500	7.7		15.0			
2-Toluidine	3.1637 2.3254	2.8738 1.9068	3.0398 +++++	2.8667	2.6664	Qua	-0.506	3.4726	-0.076		0.0500				0.9990		0.9950
N-Nitrosopyrrolidine	1.0041 1.2363	0.9628 1.2412	1.0488 1.2027	1.0486	1.0457	Ave		1.0988			0.0500	10.0		15.0			
N-Nitrosomorpholine	1.4322 1.4409	1.2961 1.4342	1.3308 1.3605	1.2006	1.2455	Ave		1.3426			0.0500	6.8		15.0			
N-Nitrosopiperidine	0.2243 0.2413	0.2135 0.2314	0.2038 0.2269	0.2003	0.2015	Ave		0.2179			0.0500	7.0		15.0			
p-Phenylene diamine	0.2876 0.2925	0.3353 0.2491	0.3968 +++++	0.3956	0.3506	Qua	-0.084	0.4583	-0.010		0.0500				1.0000		0.9950
o,o',o''-Triethylphosphorothioate	0.1690 0.1944	0.1682 0.1863	0.1572 0.1853	0.1627	0.1609	Ave		0.1730			0.0500	8.0		15.0			
alpha,alpha-Dimethyl phenethylamine	0.9023 1.4382	0.9146 1.3846	1.0608 1.3433	1.0913	1.1748	Qua	-0.708	1.3791	0.0007		0.0500				0.9950		0.9950

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 200-11554-1 Analy Batch No.: 50712

SDG No.: 200-11554-1

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/13/2012 13:11 Calibration End Date: 07/13/2012 15:26 Calibration ID: 10107

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
1-Naphthylamine	1.0072 0.6780	1.0483 +++++	1.0115 +++++	0.8789	0.7452	Qua	0.1713	0.9024	-0.016		0.0500				0.9990		0.9950
2-Naphthylamine	1.1840 0.7004	1.1099 +++++	1.0979 +++++	0.9890	0.8297	Qua	0.0692	1.0987	-0.027		0.0500				1.0000		0.9950
2,6-Dichlorophenol	0.2068 0.3024	0.2330 0.2845	0.2336 0.2831	0.2506	0.2432	Ave		0.2547			0.0500	13.0		15.0			
Hexachloropropene	0.1640 0.2430	0.1904 0.2246	0.1903 0.2222	0.2037	0.2028	Ave		0.2051			0.0500	12.0		15.0			
N-Nitrosodi-n-butylamine	0.4696 0.5170	0.4455 0.4860	0.4211 0.4819	0.4213	0.4320	Ave		0.4593			0.0500	7.6		15.0			
Safrole, Total	0.2528 0.3044	0.2600 0.2901	0.2580 0.2908	0.2620	0.2584	Ave		0.2721			0.0500	7.3		15.0			
Famphur	0.3887 +++++	0.4249 +++++	0.4205 +++++	0.2938	0.1742	Ave		0.3404			0.0500	31.0	*	15.0			
3,3'-Dimethylbenzidine	0.5539 +++++	0.6115 +++++	0.6425 +++++	0.4486	0.3403	Ave		0.5194			0.0500	24.0	*	15.0			
1,2,4,5-Tetrachlorobenzene	0.5057 0.5488	0.4666 0.5209	0.4544 0.5404	0.4639	0.4669	Ave		0.4960			0.0500	7.6		15.0			
Isosafrole Peak 1	0.1358 0.1794	0.1408 0.1697	0.1542 0.1743	0.1494	0.1515	Ave		0.1569			0.0500	10.0		15.0			
2,3,4,6-Tetrachlorophenol	+++++ 0.3048	0.1714 0.2745	0.2218 0.2815	0.2448	0.2451	Qua	-0.178	0.2931	0		0.0500				0.9940	*	0.9950
Isosafrole Peak 2	0.8932 1.0659	0.8952 1.0326	0.8663 1.0628	0.8790	0.8960	Ave		0.9489			0.0500	9.3		15.0			
1,4-Naphthoquinone	0.3699 0.4593	0.3954 0.4366	0.3862 0.4315	0.4106	0.4038	Ave		0.4117			0.0500	7.1		15.0			
1,4-Dinitrobenzene	0.1487 0.2228	0.1761 0.2130	0.1780 0.2134	0.1818	0.1876	Ave		0.1902			0.0500	13.0		15.0			
1,3,5-Trinitrobenzene	+++++ 0.1045	0.0587 0.1037	0.0709 0.1029	0.0818	0.0870	Qua	-0.070	0.0997	0.0003		0.0500				0.9970		0.9950
1,3-Dinitrobenzene	0.1837 0.2576	0.1757 0.2417	0.2143 0.2452	0.2195	0.2138	Ave		0.2189			0.0500	13.0		15.0			
Pentachlorobenzene	0.3786 0.4269	0.3967 0.4056	0.3588 0.4125	0.3475	0.3535	Ave		0.3850			0.0500	7.7		15.0			
Dinoseb	+++++ 0.2240	0.0899 0.2033	0.1091 0.2227	0.1522	0.1513	Qua	-0.148	0.1748	0.0022		0.0500				0.9900	*	0.9950
Thionazin	0.4355 0.4912	0.4223 0.4597	0.3930 0.4657	0.4185	0.4278	Ave		0.4392			0.0500	7.1		15.0			
N-Nitro-o-toluidine	0.3383 0.3304	0.3132 0.2853	0.3506 0.2967	0.3503	0.3129	Ave		0.3222			0.0500	7.5		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 200-11554-1 Analy Batch No.: 50712

SDG No.: 200-11554-1

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/13/2012 13:11 Calibration End Date: 07/13/2012 15:26 Calibration ID: 10107

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Tributyl phosphate	2.5100 2.9056	2.4714 2.7680	2.6591 2.7123	2.4702	2.4133	Ave		2.6137			0.0500	6.7		15.0			
Diphenylamine	0.6321 0.7557	0.6288 0.7382	0.6257 0.7252	0.6157	0.6468	Ave		0.6710			0.0500	8.7		15.0			
Sulfotepp	0.0999 0.1133	0.0973 0.1099	0.0901 0.1058	0.0946	0.0970	Ave		0.1010			0.0500	7.9		15.0			
Diallate Peak 1	1.0938 1.2890	1.0507 1.2698	1.0529 1.2322	1.0440	1.1203	Ave		1.1441			0.0500	9.0		15.0			
Phenacetin	0.4922 0.6600	0.5046 0.6412	0.5485 0.6345	0.5447	0.5767	Ave		0.5753			0.0500	11.0		15.0			
Phorate	0.1596 0.2211	0.1683 0.2160	0.1824 0.2110	0.1779	0.1853	Ave		0.1902			0.0500	12.0		15.0			
4-Nitroquinoline-1-oxide	+++++ 0.1152	0.0308 0.1119	0.0473 0.1128	0.0807	0.0772	Qua	-0.114	0.1005	0.0008		0.0500				0.9900	*	0.9950
Diallate Peak 2	0.1457 0.1725	0.1663 0.1679	0.1542 0.1608	0.1447	0.1571	Ave		0.1586			0.0500	6.4		15.0			
Dimethoate	0.4101 0.5161	0.4556 0.4735	0.4932 0.4320	0.4656	0.4742	Ave		0.4650			0.0500	7.2		15.0			
Pronamide	0.3237 0.4058	0.3227 0.3939	0.3214 0.3924	0.3268	0.3517	Ave		0.3548			0.0500	10.0		15.0			
Disulfoton	0.6406 0.7949	0.6342 0.7745	0.6411 0.7769	0.6410	0.6840	Ave		0.6984			0.0500	10.0		15.0			
Aramite Peak 1	+++++ 0.1936	0.1502 0.1843	0.1702 0.1761	0.1612	0.1608	Ave		0.1709			0.0500	8.8		15.0			
Aramite Peak 2	+++++ 0.2209	0.1894 0.2176	0.1815 0.2073	0.1948	0.1886	Ave		0.2000			0.0500	7.7		15.0			
Methyl parathion	0.3126 0.3792	0.3274 0.3531	0.3516 0.3295	0.3314	0.3525	Ave		0.3422			0.0500	6.1		15.0			
Ethyl Parathion	0.2053 0.2916	0.2085 0.2870	0.2297 0.2825	0.2333	0.2509	Ave		0.2486			0.0500	14.0		15.0			
Methapyrilene	0.5918 0.7154	0.6185 0.6099	0.6822 0.6677	0.6319	0.6314	Ave		0.6436			0.0500	6.4		15.0			
Isodrin	0.2115 0.2243	0.2105 0.2196	0.2049 0.2152	0.1897	0.2044	Ave		0.2100			0.0500	5.1		15.0			
p-Dimethylamino azobenzene	0.2347 0.3116	0.2172 0.3031	0.2434 0.3020	0.2489	0.2531	Ave		0.2643			0.0500	14.0		15.0			
Ethyl 4,4'-Dichlorobenzilate	0.5094 0.5575	0.4947 0.5351	0.4695 0.5224	0.4686	0.4771	Ave		0.5043			0.0500	6.5		15.0			
2-Acetylaminofluorene	0.4506 0.6805	0.4409 0.6666	0.5014 0.6294	0.5232	0.5622	Qua	-0.362	0.6738	-0.001		0.0500				0.9950		0.9950

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 200-11554-1 Analy Batch No.: 50712

SDG No.: 200-11554-1

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/13/2012 13:11 Calibration End Date: 07/13/2012 15:26 Calibration ID: 10107

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
7,12-Dimethylbenz(a)anthracene	0.5970 0.7515	0.5984 0.7407	0.5923 0.7511	0.6213	0.6393	Ave		0.6615			0.0500	11.0		15.0			
3-Methylcholanthrene	0.5720 0.7496	0.6102 0.7403	0.6162 0.7435	0.6332	0.6335	Ave		0.6623			0.0500	11.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 200-11554-1 Analy Batch No.: 50712

SDG No.: 200-11554-1

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/13/2012 13:11 Calibration End Date: 07/13/2012 15:26 Calibration ID: 10107

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD2 240-50712/15	20713015.D
Level 2	STD3 240-50712/14	20713014.D
Level 3	STD4 240-50712/13	20713013.D
Level 4	STD5 240-50712/12	20713012.D
Level 5	STD6 240-50712/16	20713016.D
Level 6	STD7 240-50712/17	20713017.D
Level 7	STD8 240-50712/18	20713018.D
Level 8	STD9 240-50712/19	20713019.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
2-Picoline	DCB	Ave	36983 1146244	67829 1402120	139280 1963485	333427	587355	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
N-Nitrosomethylethylamine	DCB	Ave	17854 512956	32003 628378	66629 846235	156424	276021	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
Methyl methanesulfonate	DCB	Ave	25229 711049	44567 857791	94594 1171722	214750	383727	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
3-Picoline	DCB	Ave	27549 1080194	59558 1292978	127856 1778021	313052	541722	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
N-Nitrosodiethylamine	DCB	Ave	14351 434799	28190 535058	56437 722766	137986	235789	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
Ethyl methanesulfonate	DCB	Ave	30391 853085	53869 1023826	110430 1403935	256737	458354	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
Pentachloroethane	DCB	Ave	8207 223050	13335 261473	27694 356887	70085	117346	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
2-Toluidine	DCB	Qua	43681 892022	77864 881718	167852 +++++	392687	632982	0.500 15.0	1.00 20.0	2.00 +++++	5.00	10.0
N-Nitrosopyrrolidine	DCB	Ave	13864 474245	26087 573951	57915 790349	143634	248240	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
N-Nitrosomorpholine	DCB	Ave	19775 552709	35118 663184	73486 894057	164459	295676	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
N-Nitrosopiperidine	NPT	Ave	12532 363384	22712 441860	46825 595242	108344	193909	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
p-Phenylene diamine	NPT	Qua	16065 440548	35664 475714	91153 +++++	214018	337469	0.500 15.0	1.00 20.0	2.00 +++++	5.00	10.0
o,o',o''-Triethylphosphorothioate	NPT	Ave	9441 292705	17893 355722	36105 485945	88018	154826	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
alpha,alpha-Dimethyl phenethylamine	NPT	Qua	50400 2165913	97283 2644314	243708 3523189	590458	1130711	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
1-Naphthylamine	ANT	Qua	32919 607457	65282 +++++	136038 +++++	282075	424921	0.500 15.0	1.00 +++++	2.00 +++++	5.00	10.0

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 200-11554-1 Analy Batch No.: 50712

SDG No.: 200-11554-1

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/13/2012 13:11 Calibration End Date: 07/13/2012 15:26 Calibration ID: 10107

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
2-Naphthylamine	ANT	Qua	38697 627484	69115 +++++	147660 +++++	317384	473109	0.500 15.0	1.00 +++++	2.00 +++++	5.00	10.0
2,6-Dichlorophenol	NPT	Ave	11552 455404	24782 543413	53673 742535	135572	234084	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
Hexachloropropene	NPT	Ave	9163 365881	20256 428951	43714 582833	110231	195188	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
N-Nitrosodi-n-butylamine	NPT	Ave	26229 778545	47384 928093	96748 1264060	227954	415743	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
Safrole, Total	NPT	Ave	14120 458429	27661 554002	59269 762673	141746	248716	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
Famphur	CRY	Ave	19691 +++++	41122 +++++	89639 +++++	149667	156397	0.500 +++++	1.00 +++++	2.00 +++++	5.00	10.0
3,3'-Dimethylbenzidine	CRY	Ave	28065 +++++	59181 +++++	136949 +++++	228504	305602	0.500 +++++	1.00 +++++	2.00 +++++	5.00	10.0
1,2,4,5-Tetrachlorobenzene	ANT	Ave	16527 491698	29058 600456	61113 832668	148865	266231	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
Isosafrole Peak 1	ANT	Ave	4437 160759	8770 195662	20740 268576	47956	86403	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
2,3,4,6-Tetrachlorophenol	ANT	Qua	+++++ 273068	10675 316459	29826 433710	78567	139745	+++++ 15.0	1.00 20.0	2.00 25.0	5.00	10.0
Isosafrole Peak 2	ANT	Ave	29193 954991	55744 1190262	116514 1637383	282096	510940	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
1,4-Naphthoquinone	ANT	Ave	12091 411531	24624 503308	51943 664805	131756	230230	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
1,4-Dinitrobenzene	ANT	Ave	4860 199620	10965 245498	23936 328787	58348	106999	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
1,3,5-Trinitrobenzene	PHN	Qua	+++++ 153258	6080 188134	15810 260357	43962	79155	+++++ 15.0	1.00 20.0	2.00 25.0	5.00	10.0
1,3-Dinitrobenzene	ANT	Ave	6003 230817	10939 278578	28829 377820	70440	121897	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
Pentachlorobenzene	ANT	Ave	12374 382442	24701 467518	48252 635550	111536	201584	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
Dinoseb	PHN	Qua	+++++ 328486	9322 368671	24302 563397	81812	137640	+++++ 15.0	1.00 20.0	2.00 25.0	5.00	10.0
Thionazin	ANT	Ave	14234 440031	26296 529896	52860 717472	134294	243954	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
N-Nitro-o-toluidine	ANT	Ave	11057 295978	19501 328888	47149 457065	112409	178418	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
Tributyl phosphate	ANT	Ave	82037 2603219	153897 3190594	357640 4178827	792759	1376115	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
Diphenylamine	PHN	Ave	34433 1108025	65182 1338920	139434 1834263	330872	588479	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 200-11554-1 Analy Batch No.: 50712

SDG No.: 200-11554-1

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/13/2012 13:11 Calibration End Date: 07/13/2012 15:26 Calibration ID: 10107

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Sulfotepp	PHN	Ave	5443 166147	10089 199389	20082 267497	50852	88301	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
Diallate Peak 1	PHN	Ave	59580 1889926	108914 2303238	234631 3116736	560996	1019349	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
Phenacetin	PHN	Ave	26809 967687	52307 1162922	122225 1604900	292703	524758	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
Phorate	PHN	Ave	8692 324253	17440 391707	40647 533644	95610	168633	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
4-Nitroquinoline-1-oxide	PHN	Qua	+++++ 168855	3196 202935	10548 285429	43348	70228	+++++ 15.0	1.00 20.0	2.00 25.0	5.00	10.0
Diallate Peak 2	PHN	Ave	7936 252969	17233 304572	34355 406620	77737	142953	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
Dimethoate	PHN	Ave	22339 756727	47221 858776	109900 1092581	250176	431503	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
Pronamide	PHN	Ave	17631 594944	33448 714531	71627 992469	175601	319987	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
Disulfoton	PHN	Ave	34895 1165561	65738 1404789	142867 1964911	344463	622378	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
Aramite Peak 1	CRY	Ave	+++++ 138202	7269 161995	18142 216203	41053	72186	+++++ 7.50	0.500 10.0	1.00 12.5	2.50	5.00
Aramite Peak 2	CRY	Ave	+++++ 157718	9167 191273	19347 254521	49607	84702	+++++ 7.50	0.500 10.0	1.00 12.5	2.50	5.00
Methyl parathion	PHN	Ave	17026 556047	33941 640382	78346 833509	178076	320766	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
Ethyl Parathion	PHN	Ave	11182 427497	21615 520585	51197 714478	125366	228310	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
Methapyrilene	PHN	Ave	32235 1048978	64112 1106219	152029 1688866	339551	574507	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
Isodrin	PHN	Ave	11522 328824	21820 398250	45667 544318	101961	186001	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
p-Dimethylamino azobenzene	CRY	Ave	11893 444937	21021 532746	51880 741505	126788	227333	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
Ethyl 4,4'-Dichlorobenzilate	CRY	Ave	25809 795964	47879 940686	100087 1282770	238711	428445	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
2-Acetylaminofluorene	CRY	Qua	22832 971513	42674 1171741	106873 1545354	266496	504868	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
7,12-Dimethylbenz(a)anthracene	PRY	Ave	23387 857644	43969 1036668	95317 1447470	239403	436738	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
3-Methylcholanthrene	PRY	Ave	22406 855448	44838 1036162	99173 1432904	243967	432788	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 200-11554-1 Analy Batch No.: 50712

SDG No.: 200-11554-1

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/13/2012 13:11 Calibration End Date: 07/13/2012 15:26 Calibration ID: 10107

Curve Type Legend:

Ave = Average ISTD
Qua = Quadratic ISTD

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 200-11554-1 Analy Batch No.: 51747

SDG No.: 200-11554-1

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2012 09:07 Calibration End Date: 07/24/2012 11:46 Calibration ID: 10273

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-51747/6	20724006.D
Level 2	STD2 240-51747/5	20724005.D
Level 3	STD3 240-51747/4	20724004.D
Level 4	STD4 240-51747/3	20724003.D
Level 5	STD5 240-51747/2	20724002.D
Level 6	STD6 240-51747/10	20724010.D
Level 7	STD7 240-51747/9	20724009.D
Level 8	STD8 240-51747/8	20724008.D
Level 9	STD9 240-51747/7	20724007.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dioxane	0.9943	1.0431 1.1280	0.9882 1.0799	1.0031 1.1690	1.0030	Ave		1.0511			0.0500	6.5		15.0			
N-Nitrosodimethylamine	1.7916	1.7930 1.8411	1.7298 1.7741	1.7123 1.9262	1.6387	Ave		1.7759			0.0500	4.9		15.0			
Pyridine	3.0423	2.4465 2.9636	2.6532 2.9311	2.6494 3.1369	2.6990	Ave		2.8153			0.0500	8.4		15.0			
Ethyl methacrylate	2.3167	2.3975 2.5243	2.2932 2.5026	2.2764 2.6404	2.1948	Ave		2.3932			0.0500	6.3		15.0			
Benzaldehyde	2.7753 2.3337	2.5415 +++++	2.4888 +++++	2.4452 +++++	2.2792	Ave		2.4773			0.0500	7.1		15.0			
3-Chloropropionitrile	1.2254	1.1541 1.1910	1.0748 1.1962	1.1112 1.2546	1.0909	Ave		1.1623			0.0500	5.6		15.0			
Malononitrile	3.2197	3.0661 2.9048	2.9972 2.4183	3.1683 2.3923	2.9836	Ave		2.8938			0.0500	11.0		15.0			
Phenol	3.0341	2.7168 2.9909	2.6955 2.8090	2.7721 3.1132	2.8386	Ave		2.8713			0.0500	5.4		15.0			
2,4-Toluene diamine	0.1954	0.2968 +++++	0.2529 +++++	0.3016 +++++	0.2139	Ave		0.2521			0.0500	19.0	*	15.0			
Aniline	3.9038	3.3851 3.8602	3.4876 3.5593	3.5348 3.9189	3.5835	Ave		3.6542			0.0500	5.7		15.0			
Bis(2-chloroethyl)ether	2.7992	2.4463 2.6459	2.6316 2.9773	2.5705 2.7410	2.4781	Ave		2.6612			0.0500	6.6		15.0			
2-Chlorophenol	1.5755	1.5643 1.5219	1.4662 1.5272	1.4596 1.6029	1.4458	Ave		1.5204			0.0500	3.9		15.0			
1,3-Dichlorobenzene	1.7772	1.7027 1.8219	1.6864 1.7761	1.6990 1.9108	1.7055	Ave		1.7600			0.0500	4.4		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 200-11554-1 Analy Batch No.: 51747

SDG No.: 200-11554-1

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2012 09:07 Calibration End Date: 07/24/2012 11:46 Calibration ID: 10273

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
1,4-Dichlorobenzene	1.6731	1.5770 1.6854	1.5223 1.6637	1.5875 1.7311	1.5722	Ave		1.6265			0.0500	4.4		15.0			
Benzyl alcohol	1.4264	1.1870 1.3232	1.2506 1.3490	1.2992 1.3912	1.2533	Ave		1.3100			0.0500	6.0		15.0			
1,2-Dichlorobenzene	1.7625	1.6763 1.6895	1.6344 1.7055	1.6460 1.7897	1.5625	Ave		1.6833			0.0500	4.3		15.0			
2-Methylphenol	1.9427	1.6765 1.8178	1.7114 1.8190	1.7002 1.8597	1.7548	Ave		1.7853			0.0500	5.1		15.0			
Benzoic acid	0.2509	+++++ 0.2712	0.1291 0.2721	0.1690 0.2828	0.2537	Qua	-0.274	0.2595	0.0006		0.0500				1.0000		0.9950
bis (2-chloroisopropyl) ether	2.2310	2.1032 2.1128	1.9818 2.1155	2.0188 2.1382	1.9865	Ave		2.0860			0.0500	4.1		15.0			
3 & 4 Methylphenol	2.0576	1.7498 1.9595	1.8198 1.9515	1.8602 2.0229	1.8399	Ave		1.9076			0.0500	5.6		15.0			
N-Nitrosodi-n-propylamine	2.3089	2.0253 2.1209	1.9895 2.0522	2.0073 2.1872	1.8898	Ave		2.0726			0.0500	6.3		15.0			
Acetophenone	3.1112	2.6621 2.8807	2.6628 2.8744	2.6504 3.0206	2.6591	Ave		2.8152			0.0500	6.5		15.0			
Hexachloroethane	0.8217	0.7861 0.8189	0.7430 0.7965	0.7862 0.8261	0.7591	Ave		0.7922			0.0500	3.8		15.0			
Nitrobenzene	0.8600	0.7286 0.8408	0.7642 0.8346	0.7482 0.8655	0.7475	Ave		0.7987			0.0500	7.1		15.0			
Isophorone	1.3371	1.0925 1.3204	1.1854 1.3457	1.1493 1.3558	1.1694	Ave		1.2445			0.0500	8.5		15.0			
2-Nitrophenol	0.2260	0.1749 0.2202	0.2149 0.2221	0.2022 0.2395	0.2065	Ave		0.2133			0.0500	9.1		15.0			
2,4-Dimethylphenol	0.5929	0.4836 0.5980	0.5449 0.5881	0.5297 0.6222	0.5400	Ave		0.5624			0.0500	8.1		15.0			
1,3,5-Trichlorobenzene	0.3904	0.3430 0.3991	0.3686 0.3934	0.3544 0.4205	0.3677	Ave		0.3796			0.0500	6.7		15.0			
Bis(2-chloroethoxy)methane	0.7899	0.6952 0.7883	0.7135 0.7922	0.7167 0.8063	0.7143	Ave		0.7520			0.0500	6.1		15.0			
2,4-Dichlorophenol	0.3007	0.2487 0.3086	0.2764 0.3094	0.2799 0.3197	0.2855	Ave		0.2911			0.0500	7.9		15.0			
1,2,4-Trichlorobenzene	0.3854	0.3684 0.3862	0.3740 0.3827	0.3645 0.4024	0.3687	Ave		0.3790			0.0500	3.3		15.0			
Naphthalene	1.1529 1.0964	0.9825 1.1021	1.0110 1.1235	0.9776 1.1587	1.0192	Ave		1.0693			0.0500	6.7		15.0			
4-Chloroaniline	0.5081	0.4371 0.4976	0.4469 0.4895	0.4666 0.5176	0.4777	Ave		0.4801			0.0500	6.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 200-11554-1 Analy Batch No.: 51747

SDG No.: 200-11554-1

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2012 09:07 Calibration End Date: 07/24/2012 11:46 Calibration ID: 10273

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Hexachlorobutadiene	0.2147	0.1949 0.2120	0.2088 0.2134	0.2009 0.2184	0.1941	Ave		0.2071			0.0500	4.5		15.0			
Caprolactam	0.1654	0.1236 0.1603	0.1338 0.1610	0.1466 0.1670	0.1540	Ave		0.1515			0.0500	10.0		15.0			
4-Chloro-3-methylphenol	0.5074	0.4471 0.5014	0.4601 0.5109	0.4515 0.5233	0.4672	Ave		0.4836			0.0500	6.2		15.0			
2-Methylnaphthalene	0.7436 0.7579	0.6629 0.7507	0.6609 0.7540	0.6605 0.7863	0.6826	Ave		0.7177			0.0500	7.0		15.0			
2,4-Dinitrophenol	0.2280	+++++ 0.2553	0.1634 0.2427	0.1996 0.2774	0.2295	Qua	0.0138	0.1995	0.0014		0.0500				0.9960		0.9950
1-Methylnaphthalene	0.7841 0.7173	0.6115 0.7104	0.6446 0.7226	0.6277 0.7594	0.6623	Ave		0.6933			0.0500	8.6		15.0			
1,2,3,5-Tetrachlorobenzene	0.6503	0.5571 0.6369	0.6024 0.6393	0.5611 0.6850	0.5997	Ave		0.6165			0.0500	7.2		15.0			
Hexachlorocyclopentadiene	0.4307	0.3509 0.4310	0.2815 0.4361	0.3619 0.4340	0.4285	Ave		0.3943			0.0500	14.0		15.0			
2,4,6-Trichlorophenol	0.3820	0.3287 0.3767	0.3498 0.3808	0.3546 0.3963	0.3708	Ave		0.3674			0.0500	5.9		15.0			
2,4,5-Trichlorophenol	0.4108	0.3567 0.4058	0.3528 0.4062	0.3787 0.4305	0.3906	Ave		0.3915			0.0500	6.9		15.0			
1,1'-Biphenyl	1.5028 1.5828	1.2792 1.5891	1.3982 1.6073	1.3841 1.7496	1.4070	Ave		1.5000			0.0500	9.7		15.0			
2-Chloronaphthalene	1.3288 1.3156	1.2198 1.2968	1.1895 1.2981	1.2046 1.3874	1.2229	Ave		1.2737			0.0500	5.3		15.0			
4,6-Dinitro-2-methylphenol	0.1609	+++++ 0.1679	0.1379 0.1526	0.1462 0.1812	0.1682	Ave		0.1593			0.0500	9.3		15.0			
2-Nitroaniline	0.6939	0.6007 0.6816	0.6374 0.6750	0.6093 0.6910	0.5985	Ave		0.6484			0.0500	6.4		15.0			
Dimethyl phthalate	1.3547	1.2407 1.3715	1.2768 1.3826	1.2584 1.4052	1.2757	Ave		1.3207			0.0500	4.9		15.0			
2,6-Dinitrotoluene	0.3804	0.3050 0.3650	0.3346 0.3721	0.3407 0.3836	0.3438	Ave		0.3532			0.0500	7.6		15.0			
1,2-Dinitrobenzene	0.1787	0.1575 0.1751	0.1629 0.1741	0.1627 0.1795	0.1790	Ave		0.1712			0.0500	5.1		15.0			
Acenaphthylene	2.1734 1.9746	1.7171 1.9610	1.7436 1.9571	1.7514 2.0887	1.7921	Ave		1.9066			0.0500	8.6		15.0			
3-Nitroaniline	0.3689	0.3189 0.3569	0.3469 0.3563	0.3263 0.3679	0.3443	Ave		0.3483			0.0500	5.2		15.0			
Acenaphthene	1.2440 1.2727	1.0905 1.2905	1.1371 1.2811	1.1161 1.3652	1.1237	Ave		1.2134			0.0500	8.1		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 200-11554-1 Analy Batch No.: 51747

SDG No.: 200-11554-1

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2012 09:07 Calibration End Date: 07/24/2012 11:46 Calibration ID: 10273

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
4-Nitrophenol	0.3193	0.2738 0.3206	0.2432 0.3142	0.2795 0.3249	0.2851	Ave		0.2951			0.0500	9.9		15.0			
2,4-Dinitrotoluene	0.5026	0.3919 0.4971	0.4518 0.4934	0.4602 0.5021	0.4662	Ave		0.4706			0.0500	8.0		15.0			
Dibenzofuran	1.7545 1.6647	1.4239 1.6622	1.4843 1.6700	1.4872 1.7843	1.5373	Ave		1.6076			0.0500	8.0		15.0			
2,3,5,6-Tetrachlorophenol	0.3290	0.2986 0.3257	0.2916 0.3311	0.3043 0.3492	0.3252	Ave		0.3193			0.0500	6.1		15.0			
Diethyl phthalate	1.4342	1.1912 1.4086	1.2668 1.4375	1.2820 1.4693	1.2833	Ave		1.3466			0.0500	7.6		15.0			
4-Chlorophenyl phenyl ether	0.7736	0.6423 0.7643	0.6965 0.7738	0.6978 0.8422	0.7029	Ave		0.7367			0.0500	8.6		15.0			
4-Nitroaniline	0.3990	0.3207 0.3972	0.3641 0.3976	0.3617 0.4108	0.3678	Ave		0.3774			0.0500	7.8		15.0			
Fluorene	1.4501 1.4129	1.2408 1.4321	1.2807 1.4483	1.2911 1.5203	1.2999	Ave		1.3751			0.0500	7.1		15.0			
N-Nitrosodiphenylamine	0.6094	0.5598 0.6231	0.5521 0.6222	0.5457 0.6737	0.5490	Ave		0.5919			0.0500	7.9		15.0			
1,2-Diphenylhydrazine(as Azobenzene)	1.5386	1.3406 1.5397	1.3469 1.5407	1.3522 1.6369	1.3573	Ave		1.4593			0.0500	8.0		15.0			
Azobenzene	1.5385	1.3559 1.5410	1.3469 1.5410	1.3520 1.6370	1.3624	Ave		1.4593			0.0500	8.0		15.0			
4-Bromophenyl phenyl ether	0.2309	0.2126 0.2312	0.1985 0.2305	0.2118 0.2458	0.2191	Ave		0.2225			0.0500	6.7		15.0			
Hexachlorobenzene	0.2295 0.1921	0.1783 0.1892	0.1732 0.1905	0.1747 0.2012	0.1818	Ave		0.1901			0.0500	9.1		15.0			
Atrazine	0.1994	0.1919 0.2033	0.1988 0.2057	0.1902 0.1950	0.1926	Ave		0.1971			0.0500	2.8		15.0			
Pentachlorophenol	0.1331	0.0803 0.1413	0.1038 0.1419	0.1149 0.1617	0.1338	Qua	0.0243	0.1090	0.0010		0.0500				0.9980		0.9950
Benzidine	0.8724	+++++ 0.8792	0.6339 0.8384	0.7451 0.8791	0.8082	Ave		0.8080			0.0500	11.0		15.0			
Phenanthrene	1.1888 1.1906	1.0804 1.1740	1.0603 1.1637	1.0588 1.3037	1.0948	Ave		1.1461			0.0500	7.0		15.0			
Anthracene	1.1531 1.2327	1.0767 1.2561	1.0999 1.2632	1.1030 1.3630	1.1445	Ave		1.1880			0.0500	8.1		15.0			
Carbazole	1.1220	0.9980 1.1406	1.0280 1.1391	1.0314 1.2308	1.0614	Ave		1.0939			0.0500	7.1		15.0			
Di-n-butyl phthalate	1.4864	1.3226 1.4859	1.3122 1.5136	1.3131 1.6548	1.3500	Ave		1.4298			0.0500	8.7		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 200-11554-1 Analy Batch No.: 51747

SDG No.: 200-11554-1

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2012 09:07 Calibration End Date: 07/24/2012 11:46 Calibration ID: 10273

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
3,3'-Dimethoxybenzidine	0.3839	+++++ 0.3886	0.2533 0.3788	0.3091 0.3939	0.3729	Ave		0.3543			0.0500	15.0		15.0			
Fluoranthene	1.4956 1.3287	1.1398 1.3696	1.1952 1.3724	1.1712 1.5173	1.2261	Ave		1.3129			0.0500	11.0		15.0			
Pyrene	1.6380 1.5478	1.2975 1.5270	1.3886 1.5266	1.4176 1.6133	1.4571	Ave		1.4904			0.0500	7.4		15.0			
Butyl benzyl phthalate	0.7636	0.6911 0.7439	0.6939 0.7461	0.6862 0.7809	0.7115	Ave		0.7271			0.0500	5.0		15.0			
Bis(2-ethylhexyl) phthalate	1.0938	0.8704 1.0420	0.9310 1.0802	0.9582 1.1147	0.9827	Ave		1.0091			0.0500	8.6		15.0			
4,4'-Methylene bis(2-chloroaniline)	0.2965	0.2278 0.2885	0.2687 0.2937	0.2712 0.2988	0.2804	Ave		0.2782			0.0500	8.4		15.0			
3,3'-Dichlorobenzidine	0.5215	0.4211 0.5114	0.4438 0.5051	0.4659 0.5361	0.4875	Ave		0.4865			0.0500	8.2		15.0			
Benzo[a]anthracene	1.5775 1.4204	1.2367 1.3590	1.3025 1.3568	1.3276 1.4182	1.3009	Ave		1.3666			0.0500	7.2		15.0			
Chrysene	1.2720 1.2848	1.1172 1.2548	1.1933 1.2310	1.1933 1.3160	1.1961	Ave		1.2287			0.0500	4.9		15.0			
Di-n-octyl phthalate	2.4916	2.0665 2.5765	2.1980 2.6773	2.2288 2.7433	2.2972	Ave		2.4099			0.0500	10.0		15.0			
Benzo[b]fluoranthene	1.5918 1.6701	1.4320 1.8058	1.5843 1.9410	1.6527 1.8630	1.5753	Ave		1.6796			0.0500	9.6		15.0			
Benzo[k]fluoranthene	2.0089 1.9195	1.6997 1.8619	1.7854 1.7951	1.6132 1.9534	1.7658	Ave		1.8225			0.0500	6.9		15.0			
Benzo[a]pyrene	1.7519 1.6508	1.3872 1.6836	1.4955 1.7106	1.4972 1.7610	1.5649	Ave		1.6114			0.0500	8.1		15.0			
Indeno[1,2,3-cd]pyrene	1.7588 1.7306	1.3884 1.7813	1.5807 1.8182	1.6018 1.8646	1.6120	Ave		1.6818			0.0500	8.9		15.0			
Dibenz(a,h)anthracene	1.2570 1.4202	1.1570 1.4660	1.2058 1.5261	1.3049 1.5646	1.3662	Ave		1.3631			0.0500	10.0		15.0			
Benzo[g,h,i]perylene	1.4237 1.4136	1.2156 1.4399	1.2836 1.4695	1.2684 1.4961	1.3597	Ave		1.3745			0.0500	7.1		15.0			
2-Fluorophenol (Surr)	1.8134	1.7860 1.8473	1.6744 1.8190	1.6799 1.9258	1.7232	Ave		1.7836			0.0500	4.9		15.0			
Phenol-d5 (Surr)	2.8759	2.5208 2.7848	2.4513 2.7509	2.6887 2.9341	2.5794	Ave		2.6982			0.0500	6.3		15.0			
Nitrobenzene-d5 (Surr)	0.9144 0.8312	0.7826 0.8269	0.7657 0.8270	0.7546 0.8372	0.7542	Ave		0.8104			0.0500	6.4		15.0			
2-Fluorobiphenyl (Surr)	1.7558 1.5876	1.3508 1.5625	1.4596 1.5881	1.4009 1.6845	1.4607	Ave		1.5390			0.0500	8.6		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 200-11554-1 Analy Batch No.: 51747

SDG No.: 200-11554-1

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2012 09:07 Calibration End Date: 07/24/2012 11:46 Calibration ID: 10273

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2,4,6-Tribromophenol (Surr)	0.1255	0.0970 0.1259	0.1106 0.1201	0.1136 0.1290	0.1162	Ave		0.1172			0.0500	8.9		15.0			
Terphenyl-d14 (Surr)	0.8248 0.9217	0.7587 0.8837	0.8457 0.8954	0.8354 0.9374	0.8430	Ave		0.8607			0.0500	6.4		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 200-11554-1 Analy Batch No.: 51747

SDG No.: 200-11554-1

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2012 09:07 Calibration End Date: 07/24/2012 11:46 Calibration ID: 10273

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD1 240-51747/6	20724006.D
Level 2	STD2 240-51747/5	20724005.D
Level 3	STD3 240-51747/4	20724004.D
Level 4	STD4 240-51747/3	20724003.D
Level 5	STD5 240-51747/2	20724002.D
Level 6	STD6 240-51747/10	20724010.D
Level 7	STD7 240-51747/9	20724009.D
Level 8	STD8 240-51747/8	20724008.D
Level 9	STD9 240-51747/7	20724007.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,4-Dioxane	DCB	Ave	317036	22216 576137	41214 597404	84085 989657	197057	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodimethylamine	DCB	Ave	571252	38189 940312	72144 981458	143536 1630761	321949	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Pyridine	DCB	Ave	970028	52108 1513641	110660 1621515	222086 2655702	530248	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Ethyl methacrylate	DCB	Ave	738654	51064 1289292	95643 1384483	190818 2235394	431184	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzaldehyde	DCB	Ave	10502 744079	54131 +++++	103803 +++++	204966 +++++	447766	0.100 10.0	0.500 +++++	1.00 +++++	2.00 +++++	5.00
3-Chloropropionitrile	DCB	Ave	390723	24580 608313	44829 661778	93143 1062147	214319	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Malononitrile	DCB	Ave	1026567	65303 1483602	125007 1337817	265581 2025342	586166	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Phenol	DCB	Ave	967406	57865 1527601	112425 1554007	232371 2635643	557683	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Toluene diamine	NPT	Ave	260538	25994 +++++	41537 +++++	103278 +++++	164000	10.0	0.500 +++++	1.00 +++++	2.00 +++++	5.00
Aniline	DCB	Ave	1244707	72099 1971572	145458 1969077	296305 3317762	704018	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Bis(2-chloroethyl)ether	DCB	Ave	892497	52103 1351374	109757 1647094	215467 2320514	486843	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chlorophenol	DCB	Ave	502348	33317 777291	61150 844894	122349 1357037	284035	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3-Dichlorobenzene	DCB	Ave	566631	36266 930530	70338 982590	142420 1617721	335072	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,4-Dichlorobenzene	DCB	Ave	533449	33587 860798	63492 920401	133075 1465567	308872	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 200-11554-1 Analy Batch No.: 51747

SDG No.: 200-11554-1

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2012 09:07 Calibration End Date: 07/24/2012 11:46 Calibration ID: 10273

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Benzyl alcohol	DCB	Ave	454801	25282 675806	52160 746291	108908 1177830	246226	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2-Dichlorobenzene	DCB	Ave	561962	35702 862894	68169 943485	137976 1515184	306980	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylphenol	DCB	Ave	619423	35707 928440	71378 1006319	142516 1574395	344756	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzoic acid	NPT	Qua	668962	+++++ 1086633	42412 1193527	115792 1877637	389064	20.0	+++++ 30.0	2.00 40.0	4.00 50.0	10.0
bis (2-chloroisopropyl) ether	DCB	Ave	711345	44796 1079108	82658 1170312	169223 1810254	390277	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3 & 4 Methylphenol	DCB	Ave	656035	37268 1000799	75898 1079620	155930 1712636	361462	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodi-n-propylamine	DCB	Ave	736172	43136 1083244	82977 1135318	168261 1851722	371279	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acetophenone	DCB	Ave	991993	56700 1471286	111060 1590159	222167 2557298	522414	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachloroethane	DCB	Ave	261988	16742 418231	30990 440659	65906 699415	149125	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene	NPT	Ave	1146649	63804 1684642	125505 1830209	256256 2872967	573180	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Isophorone	NPT	Ave	1782721	95670 2645489	194689 2951092	393609 4500644	896683	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitrophenol	NPT	Ave	301371	15320 441088	35286 487117	69253 794953	158318	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dimethylphenol	NPT	Ave	790479	42353 1198025	89487 1289627	181406 2065226	414037	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,3,5-Trichlorobenzene	NPT	Ave	520449	30040 799637	60532 862802	121379 1395707	281932	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Bis(2-chloroethoxy)methane	NPT	Ave	1053180	60881 1579413	117182 1737203	245444 2676331	547715	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dichlorophenol	NPT	Ave	400861	21775 618363	45398 678532	95856 1061230	218919	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,4-Trichlorobenzene	NPT	Ave	513817	32264 773706	61419 839245	124839 1335892	282724	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Naphthalene	NPT	Ave	17698 1461829	86037 2208161	166045 2463766	334812 3846171	781524	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Chloroaniline	NPT	Ave	677360	38278 996917	73391 1073550	159819 1718278	366299	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobutadiene	NPT	Ave	286210	17069 424783	34297 467989	68802 724970	148805	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Caprolactam	NPT	Ave	220490	10827 321217	21978 353075	50193 554419	118084	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 200-11554-1 Analy Batch No.: 51747

SDG No.: 200-11554-1

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2012 09:07 Calibration End Date: 07/24/2012 11:46 Calibration ID: 10273

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
4-Chloro-3-methylphenol	NPT	Ave	676492	39150 1004617	75559 1120456	154627 1737024	358281	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Methylnaphthalene	NPT	Ave	11415 1010451	58052 1504091	108543 1653476	226195 2610024	523408	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dinitrophenol	ANT	Qua	364359	+++++ 612328	31447 649387	81587 1102198	208656	20.0	+++++ 30.0	2.00 40.0	4.00 50.0	10.0
1-Methylnaphthalene	NPT	Ave	12036 956363	53547 1423306	105860 1584553	214984 2520845	507839	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2,3,5-Tetrachlorobenzene	ANT	Ave	519552	28216 763663	57969 855381	114673 1361017	272595	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorocyclopentadiene	ANT	Ave	344133	17772 516854	27083 583496	73958 862419	194791	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Trichlorophenol	ANT	Ave	305177	16647 451665	33658 509469	72474 787335	168575	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,5-Trichlorophenol	ANT	Ave	328227	18069 486598	33952 543494	77402 855344	177580	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,1'-Biphenyl	ANT	Ave	13120 1264584	64792 1905525	134538 2150402	282857 3476434	639617	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Chloronaphthalene	ANT	Ave	11601 1051120	61783 1555021	114457 1736773	246176 2756693	555937	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4,6-Dinitro-2-methylphenol	PHN	Ave	218180	+++++ 339996	21899 347419	50252 596647	125462	10.0	+++++ 15.0	1.00 20.0	2.00 25.0	5.00
2-Nitroaniline	ANT	Ave	554417	30426 817314	61329 903115	124514 1372963	272076	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dimethyl phthalate	ANT	Ave	1082351	62845 1644594	122860 1849747	257171 2792057	579916	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,6-Dinitrotoluene	ANT	Ave	303938	15449 437720	32198 497806	69636 762166	156270	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2-Dinitrobenzene	ANT	Ave	142757	7980 209966	15678 232956	33252 356565	81361	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acenaphthylene	ANT	Ave	18975 1577626	86972 2351416	167772 2618458	357931 4150146	814686	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3-Nitroaniline	ANT	Ave	294772	16153 427999	33381 476687	66680 730938	156524	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Acenaphthene	ANT	Ave	10861 1016809	55234 1547476	109416 1713934	228089 2712600	510808	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitrophenol	ANT	Ave	255101	13868 384491	23404 420419	57130 645549	129607	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4-Dinitrotoluene	ANT	Ave	401531	19849 596080	43473 660074	94042 997581	211931	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenzofuran	ANT	Ave	15318 1330052	72122 1993164	142824 2234340	303938 3545250	698857	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 200-11554-1 Analy Batch No.: 51747

SDG No.: 200-11554-1

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2012 09:07 Calibration End Date: 07/24/2012 11:46 Calibration ID: 10273

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
2,3,5,6-Tetrachlorophenol	ANT	Ave	262839	15123 390590	28058 442956	62185 693841	147849	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Diethyl phthalate	ANT	Ave	1145908	60335 1689119	121895 1923203	262003 2919467	583395	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Chlorophenyl phenyl ether	ANT	Ave	618096	32535 916482	67016 1035203	142613 1673343	319519	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Nitroaniline	ANT	Ave	318781	16244 476249	35036 531916	73922 816156	167206	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Fluorene	ANT	Ave	12660 1128846	62850 1717235	123234 1937615	263870 3020685	590942	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
N-Nitrosodiphenylamine	PHN	Ave	826286	46847 1261783	87709 1416723	187559 2218150	409525	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
1,2-Diphenylhydrazine(as Azobenzene)	PHN	Ave	2086009	112193 3118056	213962 3507840	464706 5389477	1012500	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Azobenzene	PHN	Ave	2085880	113477 3120758	213968 3508433	464663 5389747	1016299	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4-Bromophenyl phenyl ether	PHN	Ave	312990	17791 468299	31539 524686	72778 809360	163414	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Hexachlorobenzene	PHN	Ave	3274 260459	14919 383171	27518 433744	60031 662458	135597	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Atrazine	PHN	Ave	270348	16064 411684	31585 468395	65370 642054	143643	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Pentachlorophenol	PHN	Qua	361047	13433 572398	32977 646210	78985 1065123	199593	20.0	1.00 30.0	2.00 40.0	4.00 50.0	10.0
Benzidine	CRY	Ave	1032450	+++++ 1621225	86968 1769002	219382 2759747	529100	10.0	+++++ 15.0	1.00 20.0	2.00 25.0	5.00
Phenanthrene	PHN	Ave	16957 1614277	90419 2377389	168433 2649539	363874 4292330	816692	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Anthracene	PHN	Ave	16447 1671293	90107 2543718	174724 2875980	379082 4487563	853728	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Carbazole	PHN	Ave	1521244	83522 2309810	163307 2593404	354470 4052467	791768	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-butyl phthalate	PHN	Ave	2015311	110689 3009203	208453 3446170	451294 5448571	1007060	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3,3'-Dimethoxybenzidine	CRY	Ave	454303	+++++ 716610	34743 799265	91006 1236423	244129	10.0	+++++ 15.0	1.00 20.0	2.00 25.0	5.00
Fluoranthene	PHN	Ave	21333 1801440	95388 2773606	189861 3124639	402514 4995686	914638	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Pyrene	CRY	Ave	20790 1831892	96562 2815929	190500 3221107	417384 5064552	953979	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Butyl benzyl phthalate	CRY	Ave	903748	51431 1371782	95190 1574258	202037 2451527	465805	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 200-11554-1 Analy Batch No.: 51747

SDG No.: 200-11554-1

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2012 09:07 Calibration End Date: 07/24/2012 11:46 Calibration ID: 10273

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Bis(2-ethylhexyl) phthalate	CRY	Ave	1294574	64782 1921533	127722 2279105	282125 3499270	643358	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
4,4'-Methylene bis(2-chloroaniline)	CRY	Ave	350918	16953 531943	36856 619709	79858 938004	183569	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
3,3'-Dichlorobenzidine	CRY	Ave	617151	31338 942991	60882 1065683	137171 1683026	319172	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[a]anthracene	CRY	Ave	20022 1681109	92042 2506063	178679 2862871	390886 4451866	851703	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Chrysene	CRY	Ave	16144 1520615	83149 2313922	163706 2597368	351346 4131147	783083	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Di-n-octyl phthalate	PRY	Ave	2138427	108449 3302657	214467 3851257	475034 5981762	1093561	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[b]fluoranthene	PRY	Ave	14431 1433369	75154 2314789	154585 2792165	352245 4062401	749908	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[k]fluoranthene	PRY	Ave	18212 1647383	89200 2386712	174209 2582210	343825 4259491	840585	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[a]pyrene	PRY	Ave	15882 1416761	72801 2158072	145926 2460685	319119 3839888	744975	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Indeno[1,2,3-cd]pyrene	PRY	Ave	15945 1485301	72865 2283390	154233 2615410	341410 4065876	767370	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Dibenz(a,h)anthracene	PRY	Ave	11396 1218899	60720 1879121	117655 2195306	278113 3411669	650378	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Benzo[g,h,i]perylene	PRY	Ave	12907 1213223	63794 1845668	125247 2113883	270336 3262381	647280	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorophenol (Surr)	DCB	Ave	578174	38039 943504	69834 1006308	140814 1630422	338549	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Phenol-d5 (Surr)	DCB	Ave	916947	53690 1422311	102238 1521837	225377 2484067	506755	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Nitrobenzene-d5 (Surr)	NPT	Ave	14037 1108226	68533 1656652	125756 1813574	258444 2778974	578330	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2-Fluorobiphenyl (Surr)	ANT	Ave	15329 1268480	68421 1873608	140444 2124737	286308 3347066	664038	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
2,4,6-Tribromophenol (Surr)	ANT	Ave	100242	4911 150992	10645 160698	23218 256255	52837	10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00
Terphenyl-d14 (Surr)	CRY	Ave	10468 1090910	56469 1629677	116012 1889357	245971 2942655	551884	0.100 10.0	0.500 15.0	1.00 20.0	2.00 25.0	5.00

Curve Type Legend:

Ave = Average ISTD
Qua = Quadratic ISTD

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 200-11554-1 Analy Batch No.: 51747

SDG No.: 200-11554-1

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2012 12:31 Calibration End Date: 07/24/2012 14:47 Calibration ID: 10277

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD2 240-51747/15	20724015.D
Level 2	STD3 240-51747/14	20724014.D
Level 3	STD4 240-51747/13	20724013.D
Level 4	STD5 240-51747/12	20724012.D
Level 5	STD6 240-51747/16	20724016.D
Level 6	STD7 240-51747/17	20724017.D
Level 7	STD8 240-51747/18	20724018.D
Level 8	STD9 240-51747/19	20724019.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
2-Picoline	2.5291 2.7753	2.4589 2.7336	2.5547 2.8048	2.5337	2.5003	Ave		2.6113			0.0500	5.2		15.0			
N-Nitrosomethylethylamine	1.2202 1.2452	1.2723 1.2100	1.1889 1.2415	1.1536	1.1370	Ave		1.2086			0.0500	3.9		15.0			
Methyl methanesulfonate	1.7305 1.6890	1.6651 1.6748	1.6530 1.7100	1.5788	1.5676	Ave		1.6586			0.0500	3.5		15.0			
3-Picoline	1.9289 2.6549	2.1744 2.3919	2.2648 2.6205	2.3885	2.3822	Ave		2.3508			0.0500	10.0		15.0			
N-Nitrosodiethylamine	1.1028 1.0722	1.0028 1.0550	1.0546 1.0864	0.9992	1.0028	Ave		1.0470			0.0500	3.9		15.0			
Ethyl methanesulfonate	2.0764 2.0799	2.0144 2.0619	1.9469 2.0849	1.8672	1.8948	Ave		2.0033			0.0500	4.4		15.0			
Pentachloroethane	0.5007 0.5430	0.5334 0.5387	0.5426 0.5520	0.5066	0.5258	Ave		0.5303			0.0500	3.4		15.0			
2-Toluidine	2.8806 2.2798	3.0573 1.9210	3.0179 +++++	2.9236	2.6813	Qua	-0.391	3.4340	-0.075		0.0500				1.0000		0.9950
N-Nitrosopyrrolidine	0.9691 1.1753	0.9720 1.1442	1.0375 1.2171	1.0735	1.0950	Ave		1.0855			0.0500	8.4		15.0			
N-Nitrosomorpholine	1.2202 1.3043	1.2349 1.3079	1.2474 1.2971	1.2082	1.2284	Ave		1.2560			0.0500	3.2		15.0			
N-Nitrosopiperidine	0.2120 0.2304	0.2161 0.2232	0.2060 0.2274	0.2028	0.2042	Ave		0.2153			0.0500	5.0		15.0			
p-Phenylene diamine	0.2092 0.3199	0.3222 0.2828	0.3934 +++++	0.3987	0.3710	Qua	-0.123	0.4685	-0.009		0.0500				1.0000		0.9950
o,o',o''-Triethylphosphorothioate	0.1517 0.1896	0.1609 0.1845	0.1600 0.1877	0.1591	0.1700	Ave		0.1704			0.0500	8.7		15.0			
alpha,alpha-Dimethyl phenethylamine	0.7798 1.3490	0.8279 1.2538	0.9484 1.2453	1.0888	1.2079	Qua	-0.719	1.3803	-0.004		0.0500				0.9980		0.9950

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 200-11554-1 Analy Batch No.: 51747

SDG No.: 200-11554-1

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2012 12:31 Calibration End Date: 07/24/2012 14:47 Calibration ID: 10277

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
1-Naphthylamine	1.0066 0.6689	1.0323 +++++	0.9671 +++++	0.8980	0.7899	Qua	0.0039	1.0204	-0.023		0.0500				1.0000		0.9950
2-Naphthylamine	0.9946 0.6645	1.1272 +++++	1.0851 +++++	0.9461	0.8767	Qua	-0.141	1.2217	-0.036		0.0500				0.9970		0.9950
2,6-Dichlorophenol	0.1808 0.2892	0.2090 0.2771	0.2227 0.2830	0.2505	0.2641	Qua	-0.093	0.2792	0.0003		0.0500				0.9990		0.9950
Hexachloropropene	0.1738 0.2341	0.1864 0.2183	0.2049 0.2162	0.1994	0.2121	Ave		0.2057			0.0500	9.3		15.0			
N-Nitrosodi-n-butylamine	0.4188 0.4834	0.3988 0.4626	0.4046 0.4697	0.4127	0.4382	Ave		0.4361			0.0500	7.4		15.0			
1,4-Dinitrobenzene	+++++ 0.2201	0.1506 0.2090	0.1801 0.2102	0.1833	0.1954	Ave		0.1927			0.0500	12.0		15.0			
Safrole, Total	0.2726 0.3024	0.2608 0.2885	0.2676 0.2911	0.2627	0.2624	Ave		0.2760			0.0500	5.7		15.0			
Famphur	0.3619 +++++	0.3893 +++++	0.3779 +++++	0.3168	0.1421	Ave		0.3176			0.0500	32.0	*	15.0			
3,3'-Dimethylbenzidine	0.4694 +++++	0.5796 +++++	0.6105 +++++	0.5343	0.3928	Ave		0.5173			0.0500	17.0	*	15.0			
1,2,4,5-Tetrachlorobenzene	0.4359 0.5303	0.4830 0.5149	0.4712 0.5380	0.4771	0.4739	Ave		0.4905			0.0500	7.0		15.0			
Isosafrole Peak 1	0.1566 0.1730	0.1504 0.1720	0.1576 0.1753	0.1513	0.1578	Ave		0.1617			0.0500	6.3		15.0			
2,3,4,6-Tetrachlorophenol	+++++ 0.3008	0.1430 0.2809	0.1899 0.2935	0.2540	0.2582	Qua	-0.185	0.2890	0.0004		0.0500				0.9970		0.9950
Isosafrole Peak 2	0.8649 1.0407	0.8490 1.0082	0.8927 1.0653	0.8995	0.9002	Ave		0.9401			0.0500	9.0		15.0			
1,4-Naphthoquinone	0.2832 0.4535	0.3619 0.4358	0.3780 0.4272	0.4153	0.4054	Ave		0.3950			0.0500	14.0		15.0			
1,3,5-Trinitrobenzene	+++++ 0.1018	0.0612 0.0998	0.0739 0.1033	0.0843	0.0876	Qua	-0.044	0.0925	0.0005		0.0500				0.9990		0.9950
1,3-Dinitrobenzene	0.1822 0.2559	0.1854 0.2308	0.2104 0.2466	0.2230	0.2194	Ave		0.2192			0.0500	12.0		15.0			
Pentachlorobenzene	0.3495 0.4164	0.3489 0.3904	0.3783 0.4146	0.3599	0.3575	Ave		0.3769			0.0500	7.3		15.0			
Dinoseb	+++++ 0.2268	0.0737 0.1974	0.1263 0.2325	0.1650	0.1769	Qua	-0.109	0.1772	0.0022		0.0500				0.9900	*	0.9950
Thionazin	0.3899 0.4600	0.3702 0.4449	0.3918 0.4522	0.4005	0.4071	Ave		0.4146			0.0500	8.0		15.0			
N-Nitro-o-toluidine	0.2689 0.3225	0.3275 0.2789	0.3500 0.3016	0.3507	0.3243	Ave		0.3156			0.0500	9.6		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 200-11554-1 Analy Batch No.: 51747

SDG No.: 200-11554-1

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2012 12:31 Calibration End Date: 07/24/2012 14:47 Calibration ID: 10277

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Tributyl phosphate	2.2488 2.7044	2.3406 2.6113	2.5645 2.5339	2.3913	2.3805	Ave		2.4719			0.0500	6.3		15.0			
Diphenylamine	0.6276 0.7361	0.6217 0.7146	0.5990 0.7141	0.6218	0.6311	Ave		0.6582			0.0500	8.2		15.0			
Sulfotepp	0.0985 0.1132	0.0965 0.1102	0.0920 0.1076	0.1001	0.0966	Ave		0.1018			0.0500	7.4		15.0			
Diallate Peak 1	1.0541 1.2301	1.0248 1.1967	1.0256 1.2078	1.0262	1.0676	Ave		1.1041			0.0500	8.2		15.0			
Phenacetin	0.5006 0.6408	0.4770 0.6061	0.5079 0.6059	0.5564	0.5553	Ave		0.5562			0.0500	10.0		15.0			
Phorate	0.1541 0.2112	0.1634 0.2052	0.1715 0.2110	0.1777	0.1771	Ave		0.1839			0.0500	12.0		15.0			
4-Nitroquinoline-1-oxide	+++++ 0.1263	0.0290 0.1043	0.0532 0.1160	0.0795	0.1012	Ave		0.0871			0.0500	40.0	*	15.0			
Diallate Peak 2	0.1594 0.1660	0.1426 0.1655	0.1524 0.1553	0.1394	0.1450	Ave		0.1532			0.0500	6.7		15.0			
Dimethoate	0.3874 0.5083	0.4140 0.4993	0.4418 0.4308	0.4590	0.4476	Ave		0.4485			0.0500	9.1		15.0			
Pronamide	0.3085 0.3832	0.3220 0.3820	0.3340 0.3800	0.3383	0.3333	Ave		0.3477			0.0500	8.5		15.0			
Disulfoton	0.5471 0.7589	0.5858 0.7393	0.6113 0.7443	0.6316	0.6539	Ave		0.6590			0.0500	12.0		15.0			
Aramite Peak 1	+++++ 0.1807	0.1296 0.1803	0.1486 0.1792	0.1535	0.1567	Ave		0.1612			0.0500	12.0		15.0			
Aramite Peak 2	+++++ 0.2114	0.1710 0.2143	0.1932 0.2019	0.1816	0.1819	Ave		0.1936			0.0500	8.4		15.0			
Methyl parathion	0.2797 0.3900	0.2970 0.3786	0.3257 0.3308	0.3456	0.3368	Ave		0.3355			0.0500	11.0		15.0			
Ethyl Parathion	0.1739 0.2855	0.1915 0.2725	0.2135 0.2743	0.2339	0.2381	Qua	-0.106	0.2657	0.0006		0.0500				0.9970		0.9950
Methapyrilene	0.5204 0.6671	0.6046 0.6537	0.6044 0.6266	0.6452	0.5791	Ave		0.6127			0.0500	7.7		15.0			
Isodrin	0.1797 0.2194	0.2019 0.2172	0.1965 0.2090	0.1850	0.1943	Ave		0.2004			0.0500	7.2		15.0			
p-Dimethylamino azobenzene	0.2227 0.2942	0.2197 0.2825	0.2368 0.2926	0.2529	0.2542	Ave		0.2570			0.0500	12.0		15.0			
Ethyl 4,4'-Dichlorobenzilate	0.4082 0.5167	0.4436 0.5219	0.4568 0.5077	0.4587	0.4607	Ave		0.4718			0.0500	8.5		15.0			
2-Acetylaminofluorene	0.3806 0.6438	0.3898 0.6098	0.4859 0.6437	0.5282	0.5347	Qua	-0.178	0.5583	0.0037		0.0500				0.9970		0.9950

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 200-11554-1 Analy Batch No.: 51747

SDG No.: 200-11554-1

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2012 12:31 Calibration End Date: 07/24/2012 14:47 Calibration ID: 10277

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
7,12-Dimethylbenz(a)anthracene	0.5715 0.7559	0.5945 0.7396	0.5821 0.7499	0.6267	0.6478	Ave		0.6585			0.0500	12.0		15.0			
3-Methylcholanthrene	0.5332 0.7364	0.5769 0.7165	0.5948 0.7461	0.6260	0.6298	Ave		0.6450			0.0500	12.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 200-11554-1 Analy Batch No.: 51747

SDG No.: 200-11554-1

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2012 12:31 Calibration End Date: 07/24/2012 14:47 Calibration ID: 10277

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD2 240-51747/15	20724015.D
Level 2	STD3 240-51747/14	20724014.D
Level 3	STD4 240-51747/13	20724013.D
Level 4	STD5 240-51747/12	20724012.D
Level 5	STD6 240-51747/16	20724016.D
Level 6	STD7 240-51747/17	20724017.D
Level 7	STD8 240-51747/18	20724018.D
Level 8	STD9 240-51747/19	20724019.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
2-Picoline	DCB	Ave	37423 1306376	82909 911338	203882 2308775	424607	844367	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
N-Nitrosomethylethylamine	DCB	Ave	18055 586121	42900 403407	94886 1021966	193332	383965	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
Methyl methanesulfonate	DCB	Ave	25606 795048	56146 558349	131924 1407594	264576	529408	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
3-Picoline	DCB	Ave	28542 1249715	73319 797420	180752 2157058	400282	804498	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
N-Nitrosodiethylamine	DCB	Ave	16318 504684	33813 351709	84163 894290	167443	338670	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
Ethyl methanesulfonate	DCB	Ave	30724 979060	67921 687422	155376 1716163	312920	639889	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
Pentachloroethane	DCB	Ave	7408 255604	17984 179592	43301 454350	84903	177553	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
2-Toluidine	DCB	Qua	42623 1073141	103088 640447	240853 +++++	489950	905520	0.500 15.0	1.00 20.0	2.00 +++++	5.00	10.0
N-Nitrosopyrrolidine	DCB	Ave	14340 553235	32773 381444	82802 1001837	179902	369812	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
N-Nitrosomorpholine	DCB	Ave	18055 613936	41640 436030	99554 1067726	202470	414836	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
N-Nitrosopiperidine	NPT	Ave	12204 428322	29360 301245	66667 771026	139633	276432	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
p-Phenylene diamine	NPT	Qua	12043 594741	43776 381615	127316 +++++	274498	502113	0.500 15.0	1.00 20.0	2.00 +++++	5.00	10.0
o,o',o''-Triethylphosphorothioate	NPT	Ave	8733 352513	21858 249045	51777 636521	109543	230089	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
alpha,alpha-Dimethyl phenethylamine	NPT	Qua	44890 2507897	112475 1692159	306931 4222333	749653	1634938	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
1-Naphthylamine	ANT	Qua	35601 757747	83314 +++++	186393 +++++	365166	657097	0.500 15.0	1.00 +++++	2.00 +++++	5.00	10.0

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 200-11554-1 Analy Batch No.: 51747

SDG No.: 200-11554-1

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2012 12:31 Calibration End Date: 07/24/2012 14:47 Calibration ID: 10277

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
2-Naphthylamine	ANT	Qua	35176 752720	90973 +++++	209133 +++++	384689	729326	0.500 15.0	1.00 +++++	2.00 +++++	5.00	10.0
2,6-Dichlorophenol	NPT	Qua	10410 537589	28393 374003	72077 959552	172453	357400	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
Hexachloropropene	NPT	Ave	10005 435305	25318 294561	66317 733160	137314	287126	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
N-Nitrosodi-n-butylamine	NPT	Ave	24111 898762	54186 624372	130948 1592540	284138	593046	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
1,4-Dinitrobenzene	ANT	Ave	+++++ 249295	12151 168671	34709 425674	74547	162547	+++++ 15.0	1.00 20.0	2.00 25.0	5.00	10.0
Safrole, Total	NPT	Ave	15691 562291	35431 389416	86590 986966	180887	355147	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
Famphur	CRY	Ave	19151 +++++	49918 +++++	115555 +++++	204214	190242	0.500 +++++	1.00 +++++	2.00 +++++	5.00	10.0
3,3'-Dimethylbenzidine	CRY	Ave	24837 +++++	74320 +++++	186679 +++++	344464	525982	0.500 +++++	1.00 +++++	2.00 +++++	5.00	10.0
1,2,4,5-Tetrachlorobenzene	ANT	Ave	15416 600673	38978 415647	90822 1089592	194001	394264	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
Isosafrole Peak 1	ANT	Ave	5537 195974	12137 138848	30379 355070	61508	131267	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
2,3,4,6-Tetrachlorophenol	ANT	Qua	+++++ 340693	11542 226727	36609 594434	103263	214802	+++++ 15.0	1.00 20.0	2.00 25.0	5.00	10.0
Isosafrole Peak 2	ANT	Ave	30591 1178896	68520 813764	172060 2157420	365777	748888	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
1,4-Naphthoquinone	ANT	Ave	10016 513725	29209 351751	72852 865177	168876	337236	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
1,3,5-Trinitrobenzene	PHN	Qua	+++++ 186115	8221 127259	23774 345299	56948	119997	+++++ 15.0	1.00 20.0	2.00 25.0	5.00	10.0
1,3-Dinitrobenzene	ANT	Ave	6445 289867	14966 186332	40555 499428	90693	182546	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
Pentachlorobenzene	ANT	Ave	12361 471638	28160 315149	72907 839700	146357	297418	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
Dinoseb	PHN	Qua	+++++ 414627	9893 251604	40635 776880	111451	242181	+++++ 15.0	1.00 20.0	2.00 25.0	5.00	10.0
Thionazin	ANT	Ave	13791 521126	29879 359094	75508 915797	162868	338635	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
N-Nitro-o-toluidine	ANT	Ave	9511 365342	26435 225101	67467 610767	142618	269754	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
Tributyl phosphate	ANT	Ave	79534 3063420	188901 2107701	494287 5131500	972344	1980329	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
Diphenylamine	PHN	Ave	35519 1345484	83453 910990	192774 2385934	419975	864213	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 200-11554-1 Analy Batch No.: 51747

SDG No.: 200-11554-1

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2012 12:31 Calibration End Date: 07/24/2012 14:47 Calibration ID: 10277

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Sulfotepp	PHN	Ave	5577 206923	12952 140430	29605 359375	67595	132288	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
Diallate Peak 1	PHN	Ave	59654 2248339	137566 1525601	330030 4035512	693167	1461859	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
Phenacetin	PHN	Ave	28329 1171176	64037 772731	163437 2024468	375846	760374	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
Phorate	PHN	Ave	8721 385950	21929 261560	55175 704886	120001	242491	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
4-Nitroquinoline-1-oxide	PHN	Ave	+++++ 230832	3893 132955	17123 387742	53731	138519	+++++ 15.0	1.00 20.0	2.00 25.0	5.00	10.0
Diallate Peak 2	PHN	Ave	9019 303425	19143 211025	49036 518779	94169	198538	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
Dimethoate	PHN	Ave	21923 928983	55572 636489	142169 1439391	310029	612978	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
Pronamide	PHN	Ave	17461 700454	43221 486973	107491 1269547	228521	456403	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
Disulfoton	PHN	Ave	30960 1387117	78638 942464	196729 2486866	426652	895456	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
Aramite Peak 1	CRY	Ave	+++++ 164951	8312 111224	22713 290875	49488	104939	+++++ 7.50	0.500 10.0	1.00 12.5	2.50	5.00
Aramite Peak 2	CRY	Ave	+++++ 192915	10965 132173	29544 327794	58545	121791	+++++ 7.50	0.500 10.0	1.00 12.5	2.50	5.00
Methyl parathion	PHN	Ave	15831 712793	39864 482598	104818 1105458	233465	461138	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
Ethyl Parathion	PHN	Qua	9843 521811	25704 347380	68708 916428	157986	326110	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
Methapyrilene	PHN	Ave	29452 1219406	81168 833412	194508 2093784	435819	792943	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
Isodrin	PHN	Ave	10168 401106	27105 276897	63227 698161	124991	266027	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
p-Dimethylamino azobenzene	CRY	Ave	11783 537119	28175 348593	72406 949747	163058	340398	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
Ethyl 4,4'-Dichlorobenzilate	CRY	Ave	21603 943155	56892 643870	139681 1648113	295678	616875	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
2-Acetylaminofluorene	CRY	Qua	20139 1175236	49989 752375	148579 2089545	340515	716081	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
7,12-Dimethylbenz(a)anthracene	PRY	Ave	22651 1039054	56580 688555	136780 1879343	307135	652271	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0
3-Methylcholanthrene	PRY	Ave	21134 1012218	54907 667055	139778 1870013	306776	634192	0.500 15.0	1.00 20.0	2.00 25.0	5.00	10.0

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 200-11554-1 Analy Batch No.: 51747

SDG No.: 200-11554-1

Instrument ID: A4HP9 GC Column: RXI-5SILMS ID: 0.45(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/24/2012 12:31 Calibration End Date: 07/24/2012 14:47 Calibration ID: 10277

Curve Type Legend:

Ave = Average ISTD
Qua = Quadratic ISTD

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: CCV 240-50851/2 Calibration Date: 07/16/2012 08:16

Instrument ID: A4HP9 Calib Start Date: 07/13/2012 09:43

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/13/2012 12:28

Lab File ID: 20716002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	1.036	1.055	0.0500	10.2	10.0	1.8	20.0
N-Nitrosodimethylamine	Ave	1.638	1.803	0.0500	11.0	10.0	10.1	20.0
Pyridine	Ave	2.776	2.995	0.0500	10.8	10.0	7.9	20.0
Benzaldehyde	Qua		2.130	0.0500	9.55	10.0	-4.5	20.0
Phenol	Ave	2.807	2.835	0.0500	10.1	10.0	1.0	20.0
Aniline	Ave	3.525	3.629	0.0500	10.3	10.0	2.9	20.0
Bis(2-chloroethyl)ether	Ave	2.649	2.610	0.0500	9.85	10.0	-1.5	20.0
2-Chlorophenol	Ave	1.479	1.412	0.0500	9.55	10.0	-4.5	20.0
1,3-Dichlorobenzene	Ave	1.724	1.645	0.0500	9.54	10.0	-4.6	20.0
1,4-Dichlorobenzene	Ave	1.556	1.529	0.0500	9.83	10.0	-1.7	20.0
Benzyl alcohol	Ave	1.247	1.183	0.0500	9.49	10.0	-5.1	20.0
1,2-Dichlorobenzene	Ave	1.609	1.562	0.0500	9.71	10.0	-2.9	20.0
2-Methylphenol	Ave	1.767	1.676	0.0500	9.49	10.0	-5.1	20.0
3 & 4 Methylphenol	Ave	1.871	1.792	0.0500	9.58	10.0	-4.2	20.0
N-Nitrosodi-n-propylamine	Ave	2.075	2.074	0.0500	10.0	10.0	-0.0	20.0
Acetophenone	Ave	2.745	2.694	0.0500	9.82	10.0	-1.8	20.0
Hexachloroethane	Ave	0.7975	0.7595	0.0500	9.52	10.0	-4.8	20.0
Nitrobenzene	Ave	0.8056	0.8219	0.0500	10.2	10.0	2.0	20.0
Isophorone	Ave	1.236	1.265	0.0500	10.2	10.0	2.4	20.0
2-Nitrophenol	Ave	0.2056	0.1998	0.0500	9.72	10.0	-2.8	20.0
2,4-Dimethylphenol	Ave	0.5554	0.5466	0.0500	9.84	10.0	-1.6	20.0
Bis(2-chloroethoxy)methane	Ave	0.7539	0.7420	0.0500	9.84	10.0	-1.6	20.0
Benzoic acid	Qua		0.1468	0.0500	13.1	20.0	-34.5*	20.0
2,4-Dichlorophenol	Ave	0.2867	0.2780	0.0500	9.70	10.0	-3.0	20.0
1,2,4-Trichlorobenzene	Ave	0.3691	0.3437	0.0500	9.31	10.0	-6.9	20.0
Naphthalene	Ave	1.053	1.007	0.0500	9.56	10.0	-4.4	20.0
Hexachlorobutadiene	Ave	0.2056	0.1928	0.0500	9.38	10.0	-6.2	20.0
Caprolactam	Qua		0.1488	0.0500	9.91	10.0	-0.9	20.0
4-Chloro-3-methylphenol	Ave	0.4687	0.4631	0.0500	9.88	10.0	-1.2	20.0
2-Methylnaphthalene	Ave	0.6964	0.6693	0.0500	9.61	10.0	-3.9	20.0
Hexachlorocyclopentadiene	Ave	0.4000	0.3592	0.0500	8.98	10.0	-10.2	20.0
2,4,6-Trichlorophenol	Ave	0.3640	0.3276	0.0500	9.00	10.0	-10.0	20.0
2,4,5-Trichlorophenol	Ave	0.3929	0.3369	0.0500	8.57	10.0	-14.3	20.0
1,1'-Biphenyl	Ave	1.497	1.386	0.0500	9.26	10.0	-7.4	20.0
2-Chloronaphthalene	Ave	1.259	1.156	0.0500	9.18	10.0	-8.2	20.0
2-Nitroaniline	Ave	0.6546	0.6606	0.0500	10.1	10.0	0.9	20.0
Dimethyl phthalate	Ave	1.302	1.222	0.0500	9.38	10.0	-6.2	20.0
2,6-Dinitrotoluene	Ave	0.3486	0.3171	0.0500	9.10	10.0	-9.0	20.0
Acenaphthylene	Ave	1.881	1.733	0.0500	9.21	10.0	-7.9	20.0
3-Nitroaniline	Ave	0.3426	0.3188	0.0500	9.30	10.0	-7.0	20.0
2,4-Dinitrophenol	Qua		0.1858	0.0500	17.5	20.0	-12.5	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: CCV 240-50851/2 Calibration Date: 07/16/2012 08:16

Instrument ID: A4HP9 Calib Start Date: 07/13/2012 09:43

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/13/2012 12:28

Lab File ID: 20716002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acenaphthene	Ave	1.221	1.110	0.0500	9.09	10.0	-9.1	20.0
4-Nitrophenol	Ave	0.2878	0.2741	0.0500	9.52	10.0	-4.8	20.0
2,4-Dinitrotoluene	Ave	0.4706	0.4397	0.0500	9.34	10.0	-6.6	20.0
Dibenzofuran	Ave	1.589	1.481	0.0500	9.32	10.0	-6.8	20.0
Diethyl phthalate	Ave	1.369	1.241	0.0500	9.06	10.0	-9.4	20.0
4-Chlorophenyl phenyl ether	Ave	0.7261	0.6585	0.0500	9.07	10.0	-9.3	20.0
4-Nitroaniline	Ave	0.3738	0.3468	0.0500	9.28	10.0	-7.2	20.0
Fluorene	Ave	1.359	1.256	0.0500	9.25	10.0	-7.5	20.0
4,6-Dinitro-2-methylphenol	Qua		0.1300	0.0500	8.56	10.0	-14.4	20.0
N-Nitrosodiphenylamine	Ave	0.6013	0.5432	0.0500	9.03	10.0	-9.7	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.471	1.426	0.0500	9.69	10.0	-3.1	20.0
4-Bromophenyl phenyl ether	Ave	0.2219	0.1967	0.0500	8.86	10.0	-11.4	20.0
Hexachlorobenzene	Ave	0.1871	0.1644	0.0500	8.79	10.0	-12.1	20.0
Atrazine	Ave	0.1994	0.1785	0.0500	8.95	10.0	-10.5	20.0
Pentachlorophenol	Qua		0.1089	0.0500	17.1	20.0	-14.5	20.0
Phenanthrene	Ave	1.165	1.041	0.0500	8.93	10.0	-10.7	20.0
Anthracene	Ave	1.202	1.077	0.0500	8.96	10.0	-10.4	20.0
Carbazole	Ave	1.080	0.9909	0.0500	9.18	10.0	-8.2	20.0
Di-n-butyl phthalate	Ave	1.439	1.295	0.0500	8.99	10.0	-10.1	20.0
Fluoranthene	Ave	1.290	1.167	0.0500	9.05	10.0	-9.5	20.0
Benzidine	Ave	0.7809	0.7341	0.0500	9.40	10.0	-6.0	20.0
Pyrene	Ave	1.444	1.316	0.0500	9.12	10.0	-8.8	20.0
Butyl benzyl phthalate	Ave	0.7219	0.6365	0.0500	8.82	10.0	-11.8	20.0
Bis(2-ethylhexyl) phthalate	Ave	1.013	0.9253	0.0500	9.13	10.0	-8.7	20.0
3,3'-Dichlorobenzidine	Ave	0.4765	0.4426	0.0500	9.29	10.0	-7.1	20.0
Benzo[a]anthracene	Ave	1.361	1.172	0.0500	8.61	10.0	-13.9	20.0
Chrysene	Ave	1.243	1.088	0.0500	8.76	10.0	-12.4	20.0
Di-n-octyl phthalate	Ave	2.396	2.116	0.0500	8.83	10.0	-11.7	20.0
Benzo[b]fluoranthene	Ave	1.668	1.404	0.0500	8.42	10.0	-15.8	20.0
Benzo[k]fluoranthene	Ave	1.739	1.572	0.0500	9.04	10.0	-9.6	20.0
Benzo[a]pyrene	Ave	1.557	1.369	0.0500	8.79	10.0	-12.1	20.0
Dibenz(a,h)anthracene	Ave	1.370	1.218	0.0500	8.89	10.0	-11.1	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.664	1.472	0.0500	8.85	10.0	-11.5	20.0
Benzo[g,h,i]perylene	Ave	1.361	1.194	0.0500	8.77	10.0	-12.3	20.0
2-Fluorophenol (Surr)	Ave	1.733	1.754	0.0500	10.1	10.0	1.2	20.0
Phenol-d5 (Surr)	Ave	2.633	2.624	0.0500	9.96	10.0	-0.4	20.0
Nitrobenzene-d5 (Surr)	Ave	0.8222	0.8107	0.0500	9.86	10.0	-1.4	20.0
2-Fluorobiphenyl (Surr)	Ave	1.514	1.387	0.0500	9.16	10.0	-8.4	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1152	0.1019	0.0500	8.85	10.0	-11.5	20.0
Terphenyl-d14 (Surr)	Ave	0.8729	0.7794	0.0500	8.93	10.0	-10.7	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: CCV 240-50851/3 Calibration Date: 07/16/2012 08:38

Instrument ID: A4HP9 Calib Start Date: 07/13/2012 13:11

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/13/2012 15:26

Lab File ID: 20716003.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
N-Nitrosopyrrolidine	Ave	1.099	1.125	0.0500	10.2	10.0	2.4	20.0
2,6-Dichlorophenol	Ave	0.2547	0.2581	0.0500	10.1	10.0	1.4	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.4960	0.4632	0.0500	9.34	10.0	-6.6	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: ICV 240-50851/4 Calibration Date: 07/16/2012 08:57

Instrument ID: A4HP9 Calib Start Date: 07/13/2012 09:43

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/13/2012 12:28

Lab File ID: 20716004.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	1.036	0.9590	0.0500	9.26	10.0	-7.4	20.0
N-Nitrosodimethylamine	Ave	1.638	1.716	0.0500	10.5	10.0	4.8	20.0
Benzaldehyde	Qua		0.6757	0.0500	2.98	10.0	-70.2*	20.0
Phenol	Ave	2.807	2.911	0.0500	10.4	10.0	3.7	20.0
Aniline	Ave	3.525	1.785	0.0500	5.06	10.0	-49.4*	20.0
Bis(2-chloroethyl)ether	Ave	2.649	2.478	0.0500	9.36	10.0	-6.4	20.0
2-Chlorophenol	Ave	1.479	1.428	0.0500	9.66	10.0	-3.4	20.0
1,3-Dichlorobenzene	Ave	1.724	1.552	0.0500	9.00	10.0	-10.0	20.0
1,4-Dichlorobenzene	Ave	1.556	1.608	0.0500	10.3	10.0	3.4	20.0
Benzyl alcohol	Ave	1.247	1.342	0.0500	10.8	10.0	7.7	20.0
1,2-Dichlorobenzene	Ave	1.609	1.520	0.0500	9.45	10.0	-5.5	20.0
2-Methylphenol	Ave	1.767	1.622	0.0500	9.18	10.0	-8.2	20.0
3 & 4 Methylphenol	Ave	1.871	1.895	0.0500	10.1	10.0	1.3	20.0
N-Nitrosodi-n-propylamine	Ave	2.075	2.344	0.0500	11.3	10.0	13.0	20.0
Acetophenone	Ave	2.745	2.907	0.0500	10.6	10.0	5.9	20.0
Hexachloroethane	Ave	0.7975	0.7896	0.0500	9.90	10.0	-1.0	20.0
Nitrobenzene	Ave	0.8056	0.8037	0.0500	9.98	10.0	-0.2	20.0
Isophorone	Ave	1.236	1.373	0.0500	11.1	10.0	11.2	20.0
2-Nitrophenol	Ave	0.2056	0.2158	0.0500	10.5	10.0	5.0	20.0
2,4-Dimethylphenol	Ave	0.5554	0.4737	0.0500	8.53	10.0	-14.7	20.0
Bis(2-chloroethoxy)methane	Ave	0.7539	0.7285	0.0500	9.66	10.0	-3.4	20.0
Benzoic acid	Qua		0.2154	0.0500	18.2	20.0	-9.0	20.0
2,4-Dichlorophenol	Ave	0.2867	0.2986	0.0500	10.4	10.0	4.1	20.0
1,2,4-Trichlorobenzene	Ave	0.3691	0.3235	0.0500	8.76	10.0	-12.4	20.0
Naphthalene	Ave	1.053	1.101	0.0500	10.5	10.0	4.6	20.0
Hexachlorobutadiene	Ave	0.2056	0.1849	0.0500	8.99	10.0	-10.1	20.0
Caprolactam	Qua		0.1662	0.0500	11.0	10.0	10.0	20.0
4-Chloro-3-methylphenol	Ave	0.4687	0.4985	0.0500	10.6	10.0	6.4	20.0
2-Methylnaphthalene	Ave	0.6964	0.7260	0.0500	10.4	10.0	4.2	20.0
Hexachlorocyclopentadiene	Ave	0.4000	0.3798	0.0500	9.50	10.0	-5.0	20.0
2,4,6-Trichlorophenol	Ave	0.3640	0.3637	0.0500	10.0	10.0	-0.0	20.0
2,4,5-Trichlorophenol	Ave	0.3929	0.3774	0.0500	9.61	10.0	-3.9	20.0
1,1'-Biphenyl	Ave	1.497	1.580	0.0500	10.6	10.0	5.5	20.0
2-Chloronaphthalene	Ave	1.259	1.150	0.0500	9.13	10.0	-8.7	20.0
2-Nitroaniline	Ave	0.6546	0.7319	0.0500	11.2	10.0	11.8	20.0
Dimethyl phthalate	Ave	1.302	1.398	0.0500	10.7	10.0	7.4	20.0
2,6-Dinitrotoluene	Ave	0.3486	0.3289	0.0500	9.43	10.0	-5.7	20.0
Acenaphthylene	Ave	1.881	1.873	0.0500	9.95	10.0	-0.5	20.0
3-Nitroaniline	Ave	0.3426	0.2978	0.0500	8.69	10.0	-13.1	20.0
2,4-Dinitrophenol	Qua		0.2079	0.0500	19.3	20.0	-3.5	20.0
Acenaphthene	Ave	1.221	1.238	0.0500	10.1	10.0	1.4	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: ICV 240-50851/4 Calibration Date: 07/16/2012 08:57

Instrument ID: A4HP9 Calib Start Date: 07/13/2012 09:43

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/13/2012 12:28

Lab File ID: 20716004.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Nitrophenol	Ave	0.2878	0.2963	0.0500	10.3	10.0	3.0	20.0
2,4-Dinitrotoluene	Ave	0.4706	0.4486	0.0500	9.53	10.0	-4.7	20.0
Dibenzofuran	Ave	1.589	1.628	0.0500	10.3	10.0	2.5	20.0
Diethyl phthalate	Ave	1.369	1.426	0.0500	10.4	10.0	4.2	20.0
4-Chlorophenyl phenyl ether	Ave	0.7261	0.6504	0.0500	8.96	10.0	-10.4	20.0
4-Nitroaniline	Ave	0.3738	0.3027	0.0500	8.10	10.0	-19.0	20.0
Fluorene	Ave	1.359	1.398	0.0500	10.3	10.0	2.9	20.0
4,6-Dinitro-2-methylphenol	Qua		0.1529	0.0500	9.94	10.0	-0.6	20.0
N-Nitrosodiphenylamine	Ave	0.6013	0.5925	0.0500	9.85	10.0	-1.5	20.0
4-Bromophenyl phenyl ether	Ave	0.2219	0.1925	0.0500	8.67	10.0	-13.3	20.0
Hexachlorobenzene	Ave	0.1871	0.1855	0.0500	9.91	10.0	-0.9	20.0
Pentachlorophenol	Qua		0.1245	0.0500	19.3	20.0	-3.5	20.0
Phenanthrene	Ave	1.165	1.184	0.0500	10.2	10.0	1.6	20.0
Anthracene	Ave	1.202	1.179	0.0500	9.81	10.0	-1.9	20.0
Carbazole	Ave	1.080	1.115	0.0500	10.3	10.0	3.2	20.0
Di-n-butyl phthalate	Ave	1.439	1.496	0.0500	10.4	10.0	3.9	20.0
Fluoranthene	Ave	1.290	1.312	0.0500	10.2	10.0	1.7	20.0
Pyrene	Ave	1.444	1.448	0.0500	10.0	10.0	0.3	20.0
Butyl benzyl phthalate	Ave	0.7219	0.7516	0.0500	10.4	10.0	4.1	20.0
Bis(2-ethylhexyl) phthalate	Ave	1.013	1.043	0.0500	10.3	10.0	3.0	20.0
3,3'-Dichlorobenzidine	Ave	0.4765	0.3776	0.0500	7.92	10.0	-20.8*	20.0
Benzo[a]anthracene	Ave	1.361	1.315	0.0500	9.66	10.0	-3.4	20.0
Chrysene	Ave	1.243	1.253	0.0500	10.1	10.0	0.8	20.0
Di-n-octyl phthalate	Ave	2.396	2.507	0.0500	10.5	10.0	4.7	20.0
Benzo[b]fluoranthene	Ave	1.668	1.587	0.0500	9.51	10.0	-4.9	20.0
Benzo[k]fluoranthene	Ave	1.739	1.760	0.0500	10.1	10.0	1.2	20.0
Benzo[a]pyrene	Ave	1.557	1.382	0.0500	8.88	10.0	-11.2	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.664	1.687	0.0500	10.1	10.0	1.4	20.0
Dibenz(a,h)anthracene	Ave	1.370	1.428	0.0500	10.4	10.0	4.2	20.0
Benzo[g,h,i]perylene	Ave	1.361	1.378	0.0500	10.1	10.0	1.2	20.0
Atrazine	Ave	0.1994		0.0500	0.000800	10.0		20.0
Benzidine	Ave	0.7809		0.0500	0.00240	10.0		20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: ICV 240-50851/4 Calibration Date: 07/16/2012 08:57

Instrument ID: A4HP9 Calib Start Date: 07/13/2012 13:11

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/13/2012 15:26

Lab File ID: 20716004.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
N-Nitrosopyrrolidine	Ave	1.099	1.217	0.0500	11.1	10.0	10.7	20.0
2,6-Dichlorophenol	Ave	0.2547	0.2784	0.0500	10.9	10.0	9.3	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.4960	0.5328	0.0500	10.7	10.0	7.4	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: CCV 240-51914/2 Calibration Date: 07/25/2012 08:16

Instrument ID: A4HP9 Calib Start Date: 07/24/2012 09:07

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/24/2012 11:46

Lab File ID: 20725002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	1.051	1.226	0.0500	11.7	10.0	16.6	20.0
N-Nitrosodimethylamine	Ave	1.776	2.089	0.0500	11.8	10.0	17.6	20.0
Pyridine	Ave	2.815	3.156	0.0500	11.2	10.0	12.1	20.0
Benzaldehyde	Ave	2.477	1.790	0.0500	7.22	10.0	-27.8*	20.0
Phenol	Ave	2.871	3.245	0.0500	11.3	10.0	13.0	20.0
Aniline	Ave	3.654	3.978	0.0500	10.9	10.0	8.9	20.0
Bis(2-chloroethyl)ether	Ave	2.661	2.995	0.0500	11.3	10.0	12.5	20.0
2-Chlorophenol	Ave	1.520	1.581	0.0500	10.4	10.0	4.0	20.0
1,3-Dichlorobenzene	Ave	1.760	1.876	0.0500	10.7	10.0	6.6	20.0
1,4-Dichlorobenzene	Ave	1.627	1.739	0.0500	10.7	10.0	6.9	20.0
Benzyl alcohol	Ave	1.310	1.386	0.0500	10.6	10.0	5.8	20.0
1,2-Dichlorobenzene	Ave	1.683	1.767	0.0500	10.5	10.0	5.0	20.0
2-Methylphenol	Ave	1.785	1.895	0.0500	10.6	10.0	6.2	20.0
3 & 4 Methylphenol	Ave	1.908	2.034	0.0500	10.7	10.0	6.6	20.0
N-Nitrosodi-n-propylamine	Ave	2.073	2.349	0.0500	11.3	10.0	13.3	20.0
Acetophenone	Ave	2.815	3.023	0.0500	10.7	10.0	7.4	20.0
Hexachloroethane	Ave	0.7922	0.8954	0.0500	11.3	10.0	13.0	20.0
Nitrobenzene	Ave	0.7987	0.8974	0.0500	11.2	10.0	12.4	20.0
Isophorone	Ave	1.244	1.315	0.0500	10.6	10.0	5.7	20.0
2-Nitrophenol	Ave	0.2133	0.2174	0.0500	10.2	10.0	1.9	20.0
2,4-Dimethylphenol	Ave	0.5624	0.5866	0.0500	10.4	10.0	4.3	20.0
Bis(2-chloroethoxy)methane	Ave	0.7520	0.7958	0.0500	10.6	10.0	5.8	20.0
Benzoic acid	Qua		0.2235	0.0500	17.6	20.0	-12.0	20.0
2,4-Dichlorophenol	Ave	0.2911	0.2956	0.0500	10.2	10.0	1.5	20.0
1,2,4-Trichlorobenzene	Ave	0.3790	0.3772	0.0500	9.95	10.0	-0.5	20.0
Naphthalene	Ave	1.069	1.094	0.0500	10.2	10.0	2.3	20.0
Hexachlorobutadiene	Ave	0.2071	0.2100	0.0500	10.1	10.0	1.4	20.0
Caprolactam	Ave	0.1515	0.1486	0.0500	9.81	10.0	-1.9	20.0
4-Chloro-3-methylphenol	Ave	0.4836	0.5050	0.0500	10.4	10.0	4.4	20.0
2-Methylnaphthalene	Ave	0.7177	0.7316	0.0500	10.2	10.0	1.9	20.0
Hexachlorocyclopentadiene	Ave	0.3943	0.4448	0.0500	11.3	10.0	12.8	20.0
2,4,6-Trichlorophenol	Ave	0.3674	0.3790	0.0500	10.3	10.0	3.1	20.0
2,4,5-Trichlorophenol	Ave	0.3915	0.4106	0.0500	10.5	10.0	4.9	20.0
1,1'-Biphenyl	Ave	1.500	1.567	0.0500	10.4	10.0	4.5	20.0
2-Chloronaphthalene	Ave	1.274	1.311	0.0500	10.3	10.0	3.0	20.0
2-Nitroaniline	Ave	0.6484	0.7497	0.0500	11.6	10.0	15.6	20.0
Dimethyl phthalate	Ave	1.321	1.395	0.0500	10.6	10.0	5.6	20.0
2,6-Dinitrotoluene	Ave	0.3532	0.3735	0.0500	10.6	10.0	5.8	20.0
Acenaphthylene	Ave	1.907	1.972	0.0500	10.3	10.0	3.4	20.0
3-Nitroaniline	Ave	0.3483	0.3545	0.0500	10.2	10.0	1.8	20.0
Acenaphthene	Ave	1.213	1.276	0.0500	10.5	10.0	5.2	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: CCV 240-51914/2 Calibration Date: 07/25/2012 08:16

Instrument ID: A4HP9 Calib Start Date: 07/24/2012 09:07

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/24/2012 11:46

Lab File ID: 20725002.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4-Dinitrophenol	Qua		0.2267	0.0500	19.8	20.0	-1.0	20.0
4-Nitrophenol	Ave	0.2951	0.3268	0.0500	11.1	10.0	10.7	20.0
2,4-Dinitrotoluene	Ave	0.4706	0.5078	0.0500	10.8	10.0	7.9	20.0
Dibenzofuran	Ave	1.608	1.652	0.0500	10.3	10.0	2.8	20.0
Diethyl phthalate	Ave	1.347	1.437	0.0500	10.7	10.0	6.7	20.0
4-Chlorophenyl phenyl ether	Ave	0.7367	0.7655	0.0500	10.4	10.0	3.9	20.0
4-Nitroaniline	Ave	0.3774	0.3945	0.0500	10.5	10.0	4.6	20.0
Fluorene	Ave	1.375	1.429	0.0500	10.4	10.0	3.9	20.0
4,6-Dinitro-2-methylphenol	Ave	0.1593	0.1621	0.0500	10.2	10.0	1.8	20.0
N-Nitrosodiphenylamine	Ave	0.5919	0.5958	0.0500	10.1	10.0	0.7	20.0
1,2-Diphenylhydrazine(as Azobenzene)	Ave	1.459	1.649	0.0500	11.3	10.0	13.0	20.0
4-Bromophenyl phenyl ether	Ave	0.2225	0.2228	0.0500	10.0	10.0	0.1	20.0
Hexachlorobenzene	Ave	0.1901	0.1891	0.0500	9.95	10.0	-0.5	20.0
Atrazine	Ave	0.1971	0.1973	0.0500	10.0	10.0	0.0	20.0
Pentachlorophenol	Qua		0.1254	0.0500	19.4	20.0	-3.0	20.0
Phenanthrene	Ave	1.146	1.175	0.0500	10.3	10.0	2.6	20.0
Anthracene	Ave	1.188	1.235	0.0500	10.4	10.0	3.9	20.0
Carbazole	Ave	1.094	1.123	0.0500	10.3	10.0	2.7	20.0
Di-n-butyl phthalate	Ave	1.430	1.481	0.0500	10.4	10.0	3.6	20.0
Fluoranthene	Ave	1.313	1.324	0.0500	10.1	10.0	0.8	20.0
Benzidine	Ave	0.8080	0.7020	0.0500	8.69	10.0	-13.1	20.0
Pyrene	Ave	1.490	1.540	0.0500	10.3	10.0	3.3	20.0
Butyl benzyl phthalate	Ave	0.7271	0.7437	0.0500	10.2	10.0	2.3	20.0
Bis(2-ethylhexyl) phthalate	Ave	1.009	1.064	0.0500	10.5	10.0	5.4	20.0
3,3'-Dichlorobenzidine	Ave	0.4865	0.5045	0.0500	10.4	10.0	3.7	20.0
Benzo[a]anthracene	Ave	1.367	1.361	0.0500	9.96	10.0	-0.4	20.0
Chrysene	Ave	1.229	1.275	0.0500	10.4	10.0	3.8	20.0
Di-n-octyl phthalate	Ave	2.410	2.465	0.0500	10.2	10.0	2.3	20.0
Benzo[b]fluoranthene	Ave	1.680	1.845	0.0500	11.0	10.0	9.9	20.0
Benzo[k]fluoranthene	Ave	1.823	1.809	0.0500	9.93	10.0	-0.7	20.0
Benzo[a]pyrene	Ave	1.611	1.629	0.0500	10.1	10.0	1.1	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.682	1.769	0.0500	10.5	10.0	5.2	20.0
Dibenz(a,h)anthracene	Ave	1.363	1.422	0.0500	10.4	10.0	4.3	20.0
Benzo[g,h,i]perylene	Ave	1.374	1.429	0.0500	10.4	10.0	3.9	20.0
2-Fluorophenol (Surr)	Ave	1.784	1.956	0.0500	11.0	10.0	9.7	20.0
Phenol-d5 (Surr)	Ave	2.698	2.919	0.0500	10.8	10.0	8.2	20.0
Nitrobenzene-d5 (Surr)	Ave	0.8104	0.8676	0.0500	10.7	10.0	7.1	20.0
2-Fluorobiphenyl (Surr)	Ave	1.539	1.608	0.0500	10.4	10.0	4.5	20.0
2,4,6-Tribromophenol (Surr)	Ave	0.1172	0.1264	0.0500	10.8	10.0	7.8	20.0
Terphenyl-d14 (Surr)	Ave	0.8607	0.8712	0.0500	10.1	10.0	1.2	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: CCV 240-51914/3 Calibration Date: 07/25/2012 08:36

Instrument ID: A4HP9 Calib Start Date: 07/24/2012 12:31

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/24/2012 14:47

Lab File ID: 20725003.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
N-Nitrosopyrrolidine	Ave	1.085	1.059	0.0500	9.76	10.0	-2.4	20.0
2,6-Dichlorophenol	Qua		0.2416	0.0500	8.90	10.0	-11.0	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.4905	0.4618	0.0500	9.41	10.0	-5.9	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: ICV 240-51914/4 Calibration Date: 07/25/2012 09:10

Instrument ID: A4HP9 Calib Start Date: 07/24/2012 09:07

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/24/2012 11:46

Lab File ID: 20725004.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	Ave	1.051	0.9341	0.0500	8.89	10.0	-11.1	20.0
N-Nitrosodimethylamine	Ave	1.776	1.674	0.0500	9.43	10.0	-5.7	20.0
Benzaldehyde	Ave	2.477	0.6734	0.0500	2.72	10.0	-72.8*	20.0
Phenol	Ave	2.871	2.752	0.0500	9.58	10.0	-4.2	20.0
Aniline	Ave	3.654	1.382	0.0500	3.78	10.0	-62.2*	20.0
Bis(2-chloroethyl)ether	Ave	2.661	2.409	0.0500	9.05	10.0	-9.5	20.0
2-Chlorophenol	Ave	1.520	1.352	0.0500	8.89	10.0	-11.1	20.0
1,3-Dichlorobenzene	Ave	1.760	1.523	0.0500	8.65	10.0	-13.5	20.0
1,4-Dichlorobenzene	Ave	1.627	1.561	0.0500	9.59	10.0	-4.1	20.0
Benzyl alcohol	Ave	1.310	1.235	0.0500	9.43	10.0	-5.7	20.0
1,2-Dichlorobenzene	Ave	1.683	1.443	0.0500	8.57	10.0	-14.3	20.0
2-Methylphenol	Ave	1.785	1.508	0.0500	8.45	10.0	-15.5	20.0
3 & 4 Methylphenol	Ave	1.908	1.764	0.0500	9.24	10.0	-7.6	20.0
N-Nitrosodi-n-propylamine	Ave	2.073	2.180	0.0500	10.5	10.0	5.2	20.0
Acetophenone	Ave	2.815	2.716	0.0500	9.65	10.0	-3.5	20.0
Hexachloroethane	Ave	0.7922	0.7355	0.0500	9.28	10.0	-7.2	20.0
Nitrobenzene	Ave	0.7987	0.7536	0.0500	9.44	10.0	-5.6	20.0
Isophorone	Ave	1.244	1.266	0.0500	10.2	10.0	1.7	20.0
2-Nitrophenol	Ave	0.2133	0.2002	0.0500	9.38	10.0	-6.2	20.0
2,4-Dimethylphenol	Ave	0.5624	0.4410	0.0500	7.84	10.0	-21.6*	20.0
Bis(2-chloroethoxy)methane	Ave	0.7520	0.6772	0.0500	9.00	10.0	-10.0	20.0
Benzoic acid	Qua		0.2262	0.0500	17.8	20.0	-11.0	20.0
2,4-Dichlorophenol	Ave	0.2911	0.2782	0.0500	9.56	10.0	-4.4	20.0
1,2,4-Trichlorobenzene	Ave	0.3790	0.3036	0.0500	8.01	10.0	-19.9	20.0
Naphthalene	Ave	1.069	1.049	0.0500	9.81	10.0	-1.9	20.0
Hexachlorobutadiene	Ave	0.2071	0.1769	0.0500	8.54	10.0	-14.6	20.0
Caprolactam	Ave	0.1515	0.1442	0.0500	9.52	10.0	-4.8	20.0
4-Chloro-3-methylphenol	Ave	0.4836	0.4630	0.0500	9.57	10.0	-4.3	20.0
2-Methylnaphthalene	Ave	0.7177	0.6908	0.0500	9.62	10.0	-3.8	20.0
Hexachlorocyclopentadiene	Ave	0.3943	0.3599	0.0500	9.13	10.0	-8.7	20.0
2,4,6-Trichlorophenol	Ave	0.3674	0.3614	0.0500	9.83	10.0	-1.7	20.0
2,4,5-Trichlorophenol	Ave	0.3915	0.3619	0.0500	9.24	10.0	-7.6	20.0
1,1'-Biphenyl	Ave	1.500	1.452	0.0500	9.68	10.0	-3.2	20.0
2-Chloronaphthalene	Ave	1.274	1.077	0.0500	8.45	10.0	-15.5	20.0
2-Nitroaniline	Ave	0.6484	0.6789	0.0500	10.5	10.0	4.7	20.0
Dimethyl phthalate	Ave	1.321	1.303	0.0500	9.86	10.0	-1.4	20.0
2,6-Dinitrotoluene	Ave	0.3532	0.2976	0.0500	8.43	10.0	-15.7	20.0
Acenaphthylene	Ave	1.907	1.748	0.0500	9.17	10.0	-8.3	20.0
3-Nitroaniline	Ave	0.3483	0.2784	0.0500	7.99	10.0	-20.1*	20.0
2,4-Dinitrophenol	Qua		0.1955	0.0500	17.3	20.0	-13.5	20.0
Acenaphthene	Ave	1.213	1.134	0.0500	9.34	10.0	-6.6	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: ICV 240-51914/4 Calibration Date: 07/25/2012 09:10

Instrument ID: A4HP9 Calib Start Date: 07/24/2012 09:07

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/24/2012 11:46

Lab File ID: 20725004.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
4-Nitrophenol	Ave	0.2951	0.2817	0.0500	9.55	10.0	-4.5	20.0
2,4-Dinitrotoluene	Ave	0.4706	0.4158	0.0500	8.83	10.0	-11.7	20.0
Dibenzofuran	Ave	1.608	1.520	0.0500	9.45	10.0	-5.5	20.0
Diethyl phthalate	Ave	1.347	1.304	0.0500	9.68	10.0	-3.2	20.0
4-Chlorophenyl phenyl ether	Ave	0.7367	0.6165	0.0500	8.37	10.0	-16.3	20.0
4-Nitroaniline	Ave	0.3774	0.3382	0.0500	8.96	10.0	-10.4	20.0
Fluorene	Ave	1.375	1.276	0.0500	9.28	10.0	-7.2	20.0
4,6-Dinitro-2-methylphenol	Ave	0.1593	0.1505	0.0500	9.45	10.0	-5.5	20.0
N-Nitrosodiphenylamine	Ave	0.5919	0.5502	0.0500	9.29	10.0	-7.1	20.0
4-Bromophenyl phenyl ether	Ave	0.2225	0.1829	0.0500	8.22	10.0	-17.8	20.0
Hexachlorobenzene	Ave	0.1901	0.1722	0.0500	9.06	10.0	-9.4	20.0
Pentachlorophenol	Qua		0.1157	0.0500	18.1	20.0	-9.5	20.0
Phenanthrene	Ave	1.146	1.101	0.0500	9.61	10.0	-3.9	20.0
Anthracene	Ave	1.188	1.102	0.0500	9.27	10.0	-7.3	20.0
Carbazole	Ave	1.094	1.047	0.0500	9.57	10.0	-4.3	20.0
Di-n-butyl phthalate	Ave	1.430	1.400	0.0500	9.79	10.0	-2.1	20.0
Fluoranthene	Ave	1.313	1.236	0.0500	9.41	10.0	-5.9	20.0
Pyrene	Ave	1.490	1.345	0.0500	9.02	10.0	-9.8	20.0
Butyl benzyl phthalate	Ave	0.7271	0.7069	0.0500	9.72	10.0	-2.8	20.0
Bis(2-ethylhexyl) phthalate	Ave	1.009	0.9673	0.0500	9.59	10.0	-4.1	20.0
3,3'-Dichlorobenzidine	Ave	0.4865	0.3325	0.0500	6.83	10.0	-31.7*	20.0
Benzo[a]anthracene	Ave	1.367	1.240	0.0500	9.08	10.0	-9.2	20.0
Chrysene	Ave	1.229	1.210	0.0500	9.85	10.0	-1.5	20.0
Di-n-octyl phthalate	Ave	2.410	2.320	0.0500	9.63	10.0	-3.7	20.0
Benzo[b]fluoranthene	Ave	1.680	1.496	0.0500	8.90	10.0	-11.0	20.0
Benzo[k]fluoranthene	Ave	1.823	1.808	0.0500	9.92	10.0	-0.8	20.0
Benzo[a]pyrene	Ave	1.611	1.346	0.0500	8.35	10.0	-16.5	20.0
Dibenz(a,h)anthracene	Ave	1.363	1.293	0.0500	9.49	10.0	-5.1	20.0
Indeno[1,2,3-cd]pyrene	Ave	1.682	1.559	0.0500	9.27	10.0	-7.3	20.0
Benzo[g,h,i]perylene	Ave	1.374	1.285	0.0500	9.35	10.0	-6.5	20.0
Atrazine	Ave	0.1971		0.0500	0.000800	10.0		20.0
Benzidine	Ave	0.8080		0.0500	0.00240	10.0		20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: ICV 240-51914/4 Calibration Date: 07/25/2012 09:10

Instrument ID: A4HP9 Calib Start Date: 07/24/2012 12:31

GC Column: RXI-5SILMS ID: 0.45(mm) Calib End Date: 07/24/2012 14:47

Lab File ID: 20725004.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
N-Nitrosopyrrolidine	Ave	1.085	1.116	0.0500	10.3	10.0	2.8	20.0
2,6-Dichlorophenol	Qua		0.2728	0.0500	10.0	10.0	0.0	20.0
1,2,4,5-Tetrachlorobenzene	Ave	0.4905	0.5030	0.0500	10.3	10.0	2.5	20.0

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: | Lab Sample ID: MB 240-49913/15-A

Matrix: Solid | Lab File ID: 20716005.D

Analysis Method: 8270C/DoD | Date Collected:

Extract. Method: 3540C | Date Extracted: 07/05/2012 11:14

Sample wt/vol: 30.00(g) | Date Analyzed: 07/16/2012 09:17

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 50851 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
95-94-3	1,2,4,5-Tetrachlorobenzene	5.3	U	100	5.3	5.3
95-95-4	2,4,5-Trichlorophenol	27	U	150	27	25
88-06-2	2,4,6-Trichlorophenol	80	U	150	80	80
120-83-2	2,4-Dichlorophenol	27	U	150	27	20
105-67-9	2,4-Dimethylphenol	80	U	150	80	20
51-28-5	2,4-Dinitrophenol	80	U	330	80	80
121-14-2	2,4-Dinitrotoluene	27	U	200	27	27
606-20-2	2,6-Dinitrotoluene	27	U	200	27	21
91-58-7	2-Chloronaphthalene	3.3	U	50	3.3	3.3
95-57-8	2-Chlorophenol	27	U	50	27	27
91-57-6	2-Methylnaphthalene	3.3	U	6.7	3.3	3.3
95-48-7	2-Methylphenol	80	U	200	80	80
88-74-4	2-Nitroaniline	27	U	200	27	9.1
88-75-5	2-Nitrophenol	27	U	50	27	27
15831-10-4	3 & 4 Methylphenol	80	U	400	80	20
91-94-1	3,3'-Dichlorobenzidine	80	U	100	80	18
99-09-2	3-Nitroaniline	80	U	200	80	16
534-52-1	4,6-Dinitro-2-methylphenol	80	U	150	80	80
101-55-3	4-Bromophenyl phenyl ether	27	U	50	27	13
59-50-7	4-Chloro-3-methylphenol	27	U	150	27	21
106-47-8	4-Chloroaniline	27	U	150	27	17
7005-72-3	4-Chlorophenyl phenyl ether	27	U	50	27	13
100-01-6	4-Nitroaniline	27	U	200	27	26
100-02-7	4-Nitrophenol	80	U	330	80	80
83-32-9	Acenaphthene	3.3	U	6.7	3.3	3.3
208-96-8	Acenaphthylene	3.3	U	6.7	3.3	3.3
120-12-7	Anthracene	3.3	U	6.7	3.3	3.3
56-55-3	Benzo[a]anthracene	3.3	U	6.7	3.3	3.3
50-32-8	Benzo[a]pyrene	3.3	U	6.7	3.3	3.3
205-99-2	Benzo[b]fluoranthene	3.3	U	6.7	3.3	3.3
191-24-2	Benzo[g,h,i]perylene	3.3	U	6.7	3.3	3.3
207-08-9	Benzo[k]fluoranthene	3.3	U	6.7	3.3	3.3
111-91-1	Bis(2-chloroethoxy)methane	27	U	100	27	22
111-44-4	Bis(2-chloroethyl)ether	3.3	U	100	3.3	2.0

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: | Lab Sample ID: MB 240-49913/15-A

Matrix: Solid | Lab File ID: 20716005.D

Analysis Method: 8270C/DoD | Date Collected:

Extract. Method: 3540C | Date Extracted: 07/05/2012 11:14

Sample wt/vol: 30.00(g) | Date Analyzed: 07/16/2012 09:17

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 50851 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
117-81-7	Bis(2-ethylhexyl) phthalate	27	U	50	27	19
85-68-7	Butyl benzyl phthalate	27	U	50	27	10
86-74-8	Carbazole	27	U	50	27	27
218-01-9	Chrysene	3.3	U	6.7	3.3	1.1
53-70-3	Dibenz(a,h)anthracene	3.3	U	6.7	3.3	3.3
132-64-9	Dibenzofuran	3.3	U	50	3.3	3.3
84-66-2	Diethyl phthalate	27	U	50	27	16
131-11-3	Dimethyl phthalate	27	U	50	27	17
84-74-2	Di-n-butyl phthalate	31.7	J	50	27	15
117-84-0	Di-n-octyl phthalate	27	U	50	27	27
206-44-0	Fluoranthene	3.3	U	6.7	3.3	3.3
86-73-7	Fluorene	3.3	U	6.7	3.3	3.3
118-74-1	Hexachlorobenzene	3.3	U	6.7	3.3	2.1
87-68-3	Hexachlorobutadiene	27	U	50	27	27
67-72-1	Hexachloroethane	27	U	50	27	9.0
193-39-5	Indeno[1,2,3-cd]pyrene	3.3	U	6.7	3.3	3.3
91-20-3	Naphthalene	3.3	U	6.7	3.3	3.3
98-95-3	Nitrobenzene	3.3	U	100	3.3	2.2
621-64-7	N-Nitrosodi-n-propylamine	27	U	50	27	27
86-30-6	N-Nitrosodiphenylamine	27	U	50	27	21
87-86-5	Pentachlorophenol	80	U	150	80	80
85-01-8	Phenanthrene	3.3	U	6.7	3.3	3.3
108-95-2	Phenol	29.5	J	50	27	27
129-00-0	Pyrene	3.3	U	6.7	3.3	3.3
108-60-1	bis (2-chloroisopropyl) ether	27	U	100	27	9.5
78-59-1	Isophorone	27	U	50	27	13
92-52-4	1,1'-Biphenyl	27	U	50	27	27
98-86-2	Acetophenone	27	U	100	27	9.2
1912-24-9	Atrazine	27	U	200	27	9.1
100-52-7	Benzaldehyde	27	U	100	27	12
105-60-2	Caprolactam	27	U	330	27	37
77-47-4	Hexachlorocyclopentadiene	27	U	330	27	27
58-90-2	2,3,4,6-Tetrachlorophenol	1600	U	1600	1600	110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: | Lab Sample ID: MB 240-49913/15-A

Matrix: Solid | Lab File ID: 20716005.D

Analysis Method: 8270C/DoD | Date Collected:

Extract. Method: 3540C | Date Extracted: 07/05/2012 11:14

Sample wt/vol: 30.00(g) | Date Analyzed: 07/16/2012 09:17

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 50851 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	53		45-105
367-12-4	2-Fluorophenol (Surr)	63		35-105
4165-60-0	Nitrobenzene-d5 (Surr)	57		35-100
1718-51-0	Terphenyl-d14 (Surr)	75		30-125
118-79-6	2,4,6-Tribromophenol (Surr)	45		35-125
4165-62-2	Phenol-d5 (Surr)	69		40-100

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: | Lab Sample ID: MB 240-50985/23-A

Matrix: Solid | Lab File ID: 20725005.D

Analysis Method: 8270C/DoD | Date Collected:

Extract. Method: 3540C | Date Extracted: 07/17/2012 08:20

Sample wt/vol: 30(g) | Date Analyzed: 07/25/2012 09:35

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 51914 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
95-94-3	1,2,4,5-Tetrachlorobenzene	5.3	U	100	5.3	5.3
95-95-4	2,4,5-Trichlorophenol	27	U	150	27	25
88-06-2	2,4,6-Trichlorophenol	80	U	150	80	80
120-83-2	2,4-Dichlorophenol	27	U	150	27	20
105-67-9	2,4-Dimethylphenol	80	U	150	80	20
51-28-5	2,4-Dinitrophenol	80	U	330	80	80
121-14-2	2,4-Dinitrotoluene	27	U	200	27	27
606-20-2	2,6-Dinitrotoluene	27	U	200	27	21
91-58-7	2-Chloronaphthalene	3.3	U	50	3.3	3.3
95-57-8	2-Chlorophenol	27	U	50	27	27
91-57-6	2-Methylnaphthalene	3.3	U	6.7	3.3	3.3
95-48-7	2-Methylphenol	80	U	200	80	80
88-74-4	2-Nitroaniline	27	U	200	27	9.1
88-75-5	2-Nitrophenol	27	U	50	27	27
15831-10-4	3 & 4 Methylphenol	80	U	400	80	20
91-94-1	3,3'-Dichlorobenzidine	80	U	100	80	18
99-09-2	3-Nitroaniline	80	U	200	80	16
534-52-1	4,6-Dinitro-2-methylphenol	80	U	150	80	80
101-55-3	4-Bromophenyl phenyl ether	27	U	50	27	13
59-50-7	4-Chloro-3-methylphenol	27	U	150	27	21
106-47-8	4-Chloroaniline	27	U	150	27	17
7005-72-3	4-Chlorophenyl phenyl ether	27	U	50	27	13
100-01-6	4-Nitroaniline	27	U	200	27	26
100-02-7	4-Nitrophenol	80	U	330	80	80
83-32-9	Acenaphthene	3.3	U	6.7	3.3	3.3
208-96-8	Acenaphthylene	3.3	U	6.7	3.3	3.3
120-12-7	Anthracene	3.3	U	6.7	3.3	3.3
56-55-3	Benzo[a]anthracene	3.3	U	6.7	3.3	3.3
50-32-8	Benzo[a]pyrene	3.3	U	6.7	3.3	3.3
205-99-2	Benzo[b]fluoranthene	3.3	U	6.7	3.3	3.3
191-24-2	Benzo[g,h,i]perylene	3.3	U	6.7	3.3	3.3
207-08-9	Benzo[k]fluoranthene	3.3	U	6.7	3.3	3.3
111-91-1	Bis(2-chloroethoxy)methane	27	U	100	27	22
111-44-4	Bis(2-chloroethyl)ether	3.3	U	100	3.3	2.0

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: | Lab Sample ID: MB 240-50985/23-A

Matrix: Solid | Lab File ID: 20725005.D

Analysis Method: 8270C/DoD | Date Collected:

Extract. Method: 3540C | Date Extracted: 07/17/2012 08:20

Sample wt/vol: 30(g) | Date Analyzed: 07/25/2012 09:35

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 51914 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
117-81-7	Bis(2-ethylhexyl) phthalate	19.2	J	50	27	19
85-68-7	Butyl benzyl phthalate	27	U	50	27	10
86-74-8	Carbazole	27	U	50	27	27
218-01-9	Chrysene	3.3	U	6.7	3.3	1.1
53-70-3	Dibenz(a,h)anthracene	3.3	U	6.7	3.3	3.3
132-64-9	Dibenzofuran	3.3	U	50	3.3	3.3
84-66-2	Diethyl phthalate	27	U	50	27	16
131-11-3	Dimethyl phthalate	27	U	50	27	17
84-74-2	Di-n-butyl phthalate	27	U	50	27	15
117-84-0	Di-n-octyl phthalate	27	U	50	27	27
206-44-0	Fluoranthene	3.3	U	6.7	3.3	3.3
86-73-7	Fluorene	3.3	U	6.7	3.3	3.3
118-74-1	Hexachlorobenzene	3.3	U	6.7	3.3	2.1
87-68-3	Hexachlorobutadiene	27	U	50	27	27
67-72-1	Hexachloroethane	27	U	50	27	9.0
193-39-5	Indeno[1,2,3-cd]pyrene	3.3	U	6.7	3.3	3.3
91-20-3	Naphthalene	3.3	U	6.7	3.3	3.3
98-95-3	Nitrobenzene	3.3	U	100	3.3	2.2
621-64-7	N-Nitrosodi-n-propylamine	27	U	50	27	27
86-30-6	N-Nitrosodiphenylamine	27	U	50	27	21
87-86-5	Pentachlorophenol	80	U	150	80	80
85-01-8	Phenanthrene	3.3	U	6.7	3.3	3.3
108-95-2	Phenol	27	U	50	27	27
129-00-0	Pyrene	3.3	U	6.7	3.3	3.3
108-60-1	bis (2-chloroisopropyl) ether	27	U	100	27	9.5
78-59-1	Isophorone	27	U	50	27	13
92-52-4	1,1'-Biphenyl	27	U	50	27	27
98-86-2	Acetophenone	27	U	100	27	9.2
1912-24-9	Atrazine	27	U	200	27	9.1
100-52-7	Benzaldehyde	27	U	100	27	12
105-60-2	Caprolactam	27	U	330	27	37
77-47-4	Hexachlorocyclopentadiene	27	U	330	27	27
58-90-2	2,3,4,6-Tetrachlorophenol	1600	U	1600	1600	110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: | Lab Sample ID: MB 240-50985/23-A

Matrix: Solid | Lab File ID: 20725005.D

Analysis Method: 8270C/DoD | Date Collected:

Extract. Method: 3540C | Date Extracted: 07/17/2012 08:20

Sample wt/vol: 30(g) | Date Analyzed: 07/25/2012 09:35

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 51914 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	61		45-105
367-12-4	2-Fluorophenol (Surr)	71		35-105
4165-60-0	Nitrobenzene-d5 (Surr)	72		35-100
1718-51-0	Terphenyl-d14 (Surr)	95		30-125
118-79-6	2,4,6-Tribromophenol (Surr)	46	M	35-125
4165-62-2	Phenol-d5 (Surr)	75		40-100

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: | Lab Sample ID: LCS 240-49913/16-A

Matrix: Solid | Lab File ID: 20716006.D

Analysis Method: 8270C/DoD | Date Collected:

Extract. Method: 3540C | Date Extracted: 07/05/2012 11:14

Sample wt/vol: 30.00(g) | Date Analyzed: 07/16/2012 09:37

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 50851 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
95-95-4	2,4,5-Trichlorophenol	329	Q	150	27	25
88-06-2	2,4,6-Trichlorophenol	277	Q	150	80	80
120-83-2	2,4-Dichlorophenol	418		150	27	20
105-67-9	2,4-Dimethylphenol	408		150	80	20
51-28-5	2,4-Dinitrophenol	316	J	330	80	80
121-14-2	2,4-Dinitrotoluene	432		200	27	27
606-20-2	2,6-Dinitrotoluene	423		200	27	21
91-58-7	2-Chloronaphthalene	369		50	3.3	3.3
95-57-8	2-Chlorophenol	411		50	27	27
91-57-6	2-Methylnaphthalene	427		6.7	3.3	3.3
95-48-7	2-Methylphenol	427		200	80	80
88-74-4	2-Nitroaniline	506		200	27	9.1
88-75-5	2-Nitrophenol	403		50	27	27
15831-10-4	3 & 4 Methylphenol	913		400	80	20
91-94-1	3,3'-Dichlorobenzidine	341		100	80	18
99-09-2	3-Nitroaniline	433		200	80	16
534-52-1	4,6-Dinitro-2-methylphenol	408		150	80	80
101-55-3	4-Bromophenyl phenyl ether	388		50	27	13
59-50-7	4-Chloro-3-methylphenol	481		150	27	21
106-47-8	4-Chloroaniline	348		150	27	17
7005-72-3	4-Chlorophenyl phenyl ether	381		50	27	13
100-01-6	4-Nitroaniline	467		200	27	26
100-02-7	4-Nitrophenol	426		330	80	80
83-32-9	Acenaphthene	407		6.7	3.3	3.3
208-96-8	Acenaphthylene	424		6.7	3.3	3.3
120-12-7	Anthracene	462		6.7	3.3	3.3
56-55-3	Benzo[a]anthracene	475		6.7	3.3	3.3
50-32-8	Benzo[a]pyrene	452		6.7	3.3	3.3
205-99-2	Benzo[b]fluoranthene	464		6.7	3.3	3.3
191-24-2	Benzo[g,h,i]perylene	505		6.7	3.3	3.3
207-08-9	Benzo[k]fluoranthene	518		6.7	3.3	3.3
111-91-1	Bis(2-chloroethoxy)methane	390		100	27	22
111-44-4	Bis(2-chloroethyl)ether	383		100	3.3	2.0
117-81-7	Bis(2-ethylhexyl) phthalate	513		50	27	19

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: | Lab Sample ID: LCS 240-49913/16-A

Matrix: Solid | Lab File ID: 20716006.D

Analysis Method: 8270C/DoD | Date Collected:

Extract. Method: 3540C | Date Extracted: 07/05/2012 11:14

Sample wt/vol: 30.00(g) | Date Analyzed: 07/16/2012 09:37

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 50851 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
85-68-7	Butyl benzyl phthalate	497		50	27	10
86-74-8	Carbazole	501		50	27	27
218-01-9	Chrysene	485		6.7	3.3	1.1
53-70-3	Dibenz(a,h)anthracene	514		6.7	3.3	3.3
132-64-9	Dibenzofuran	437		50	3.3	3.3
84-66-2	Diethyl phthalate	479		50	27	16
131-11-3	Dimethyl phthalate	481		50	27	17
84-74-2	Di-n-butyl phthalate	509		50	27	15
117-84-0	Di-n-octyl phthalate	513		50	27	27
206-44-0	Fluoranthene	489		6.7	3.3	3.3
86-73-7	Fluorene	447		6.7	3.3	3.3
118-74-1	Hexachlorobenzene	439		6.7	3.3	2.1
87-68-3	Hexachlorobutadiene	363		50	27	27
67-72-1	Hexachloroethane	365		50	27	9.0
193-39-5	Indeno[1,2,3-cd]pyrene	495		6.7	3.3	3.3
91-20-3	Naphthalene	423		6.7	3.3	3.3
98-95-3	Nitrobenzene	408		100	3.3	2.2
621-64-7	N-Nitrosodi-n-propylamine	452		50	27	27
86-30-6	N-Nitrosodiphenylamine	449		50	27	21
87-86-5	Pentachlorophenol	334		150	80	80
85-01-8	Phenanthrene	465		6.7	3.3	3.3
108-95-2	Phenol	461		50	27	27
129-00-0	Pyrene	481		6.7	3.3	3.3
108-60-1	bis (2-chloroisopropyl) ether	401		100	27	9.5
78-59-1	Isophorone	455		50	27	13
92-52-4	1,1'-Biphenyl	416		50	27	27
98-86-2	Acetophenone	461		100	27	9.2
1912-24-9	Atrazine	619		200	27	9.1
100-52-7	Benzaldehyde	428		100	27	12
105-60-2	Caprolactam	540		330	27	37
77-47-4	Hexachlorocyclopentadiene	309	J	330	27	27
58-90-2	2,3,4,6-Tetrachlorophenol	420	J	1600	1600	110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: | Lab Sample ID: LCS 240-49913/16-A

Matrix: Solid | Lab File ID: 20716006.D

Analysis Method: 8270C/DoD | Date Collected:

Extract. Method: 3540C | Date Extracted: 07/05/2012 11:14

Sample wt/vol: 30.00(g) | Date Analyzed: 07/16/2012 09:37

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 50851 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	52		45-105
367-12-4	2-Fluorophenol (Surr)	62		35-105
4165-60-0	Nitrobenzene-d5 (Surr)	58		35-100
1718-51-0	Terphenyl-d14 (Surr)	74		30-125
118-79-6	2,4,6-Tribromophenol (Surr)	44		35-125
4165-62-2	Phenol-d5 (Surr)	67		40-100

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: | Lab Sample ID: LCS 240-50985/22-A

Matrix: Solid | Lab File ID: 20725006.D

Analysis Method: 8270C/DoD | Date Collected:

Extract. Method: 3540C | Date Extracted: 07/17/2012 08:20

Sample wt/vol: 30(g) | Date Analyzed: 07/25/2012 09:55

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 51914 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
95-95-4	2,4,5-Trichlorophenol	541		150	27	25
88-06-2	2,4,6-Trichlorophenol	503		150	80	80
120-83-2	2,4-Dichlorophenol	479		150	27	20
105-67-9	2,4-Dimethylphenol	328		150	80	20
51-28-5	2,4-Dinitrophenol	169	J	330	80	80
121-14-2	2,4-Dinitrotoluene	513		200	27	27
606-20-2	2,6-Dinitrotoluene	492		200	27	21
91-58-7	2-Chloronaphthalene	435		50	3.3	3.3
95-57-8	2-Chlorophenol	493		50	27	27
91-57-6	2-Methylnaphthalene	482		6.7	3.3	3.3
95-48-7	2-Methylphenol	480		200	80	80
88-74-4	2-Nitroaniline	619		200	27	9.1
88-75-5	2-Nitrophenol	463		50	27	27
15831-10-4	3 & 4 Methylphenol	1020		400	80	20
91-94-1	3,3'-Dichlorobenzidine	381		100	80	18
99-09-2	3-Nitroaniline	488		200	80	16
534-52-1	4,6-Dinitro-2-methylphenol	324		150	80	80
101-55-3	4-Bromophenyl phenyl ether	459		50	27	13
59-50-7	4-Chloro-3-methylphenol	543		150	27	21
106-47-8	4-Chloroaniline	411		150	27	17
7005-72-3	4-Chlorophenyl phenyl ether	466		50	27	13
100-01-6	4-Nitroaniline	561		200	27	26
100-02-7	4-Nitrophenol	496		330	80	80
83-32-9	Acenaphthene	502		6.7	3.3	3.3
208-96-8	Acenaphthylene	507		6.7	3.3	3.3
120-12-7	Anthracene	547		6.7	3.3	3.3
56-55-3	Benzo[a]anthracene	600		6.7	3.3	3.3
50-32-8	Benzo[a]pyrene	502		6.7	3.3	3.3
205-99-2	Benzo[b]fluoranthene	657		6.7	3.3	3.3
191-24-2	Benzo[g,h,i]perylene	554		6.7	3.3	3.3
207-08-9	Benzo[k]fluoranthene	479		6.7	3.3	3.3
111-91-1	Bis(2-chloroethoxy)methane	453		100	27	22
111-44-4	Bis(2-chloroethyl)ether	462		100	3.3	2.0
117-81-7	Bis(2-ethylhexyl) phthalate	585		50	27	19

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: | Lab Sample ID: LCS 240-50985/22-A

Matrix: Solid | Lab File ID: 20725006.D

Analysis Method: 8270C/DoD | Date Collected:

Extract. Method: 3540C | Date Extracted: 07/17/2012 08:20

Sample wt/vol: 30(g) | Date Analyzed: 07/25/2012 09:55

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 51914 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
85-68-7	Butyl benzyl phthalate	562		50	27	10
86-74-8	Carbazole	561		50	27	27
218-01-9	Chrysene	533		6.7	3.3	1.1
53-70-3	Dibenz(a,h)anthracene	557		6.7	3.3	3.3
132-64-9	Dibenzofuran	521		50	3.3	3.3
84-66-2	Diethyl phthalate	591		50	27	16
131-11-3	Dimethyl phthalate	573		50	27	17
84-74-2	Di-n-butyl phthalate	591		50	27	15
117-84-0	Di-n-octyl phthalate	565		50	27	27
206-44-0	Fluoranthene	554		6.7	3.3	3.3
86-73-7	Fluorene	528		6.7	3.3	3.3
118-74-1	Hexachlorobenzene	515		6.7	3.3	2.1
87-68-3	Hexachlorobutadiene	423		50	27	27
67-72-1	Hexachloroethane	479		50	27	9.0
193-39-5	Indeno[1,2,3-cd]pyrene	553		6.7	3.3	3.3
91-20-3	Naphthalene	503		6.7	3.3	3.3
98-95-3	Nitrobenzene	491		100	3.3	2.2
621-64-7	N-Nitrosodi-n-propylamine	551		50	27	27
86-30-6	N-Nitrosodiphenylamine	527		50	27	21
87-86-5	Pentachlorophenol	286		150	80	80
85-01-8	Phenanthrene	551		6.7	3.3	3.3
108-95-2	Phenol	525		50	27	27
129-00-0	Pyrene	529		6.7	3.3	3.3
108-60-1	bis (2-chloroisopropyl) ether	497		100	27	9.5
78-59-1	Isophorone	525		50	27	13
92-52-4	1,1'-Biphenyl	505		50	27	27
98-86-2	Acetophenone	542		100	27	9.2
1912-24-9	Atrazine	693		200	27	9.1
100-52-7	Benzaldehyde	475		100	27	12
105-60-2	Caprolactam	521	M	330	27	37
77-47-4	Hexachlorocyclopentadiene	412		330	27	27
58-90-2	2,3,4,6-Tetrachlorophenol	511	J	1600	1600	110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: | Lab Sample ID: LCS 240-50985/22-A

Matrix: Solid | Lab File ID: 20725006.D

Analysis Method: 8270C/DoD | Date Collected:

Extract. Method: 3540C | Date Extracted: 07/17/2012 08:20

Sample wt/vol: 30(g) | Date Analyzed: 07/25/2012 09:55

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 51914 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	63		45-105
367-12-4	2-Fluorophenol (Surr)	73		35-105
4165-60-0	Nitrobenzene-d5 (Surr)	69		35-100
1718-51-0	Terphenyl-d14 (Surr)	88		30-125
118-79-6	2,4,6-Tribromophenol (Surr)	71		35-125
4165-62-2	Phenol-d5 (Surr)	77		40-100

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0201-01 MS | Lab Sample ID: 200-11554-2 MS

Matrix: Solid | Lab File ID: 20716013.D

Analysis Method: 8270C/DoD | Date Collected: 06/29/2012 08:45

Extract. Method: 3540C | Date Extracted: 07/05/2012 11:14

Sample wt/vol: 29.85(g) | Date Analyzed: 07/16/2012 11:54

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 2.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 50851 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
95-94-3	1,2,4,5-Tetrachlorobenzene	5.5	U	100	5.5	5.5
95-95-4	2,4,5-Trichlorophenol	465		160	28	26
88-06-2	2,4,6-Trichlorophenol	436		160	83	83
120-83-2	2,4-Dichlorophenol	425		160	28	21
105-67-9	2,4-Dimethylphenol	426		160	83	21
51-28-5	2,4-Dinitrophenol	359		340	83	83
121-14-2	2,4-Dinitrotoluene	429		210	28	28
606-20-2	2,6-Dinitrotoluene	404		210	28	22
91-58-7	2-Chloronaphthalene	362		52	3.4	3.4
95-57-8	2-Chlorophenol	419		52	28	28
91-57-6	2-Methylnaphthalene	404		6.9	3.4	3.4
95-48-7	2-Methylphenol	465		210	83	83
88-74-4	2-Nitroaniline	522		210	28	9.4
88-75-5	2-Nitrophenol	394		52	28	28
15831-10-4	3 & 4 Methylphenol	925		410	83	21
91-94-1	3,3'-Dichlorobenzidine	91.8	J	100	83	19
99-09-2	3-Nitroaniline	411		210	83	17
534-52-1	4,6-Dinitro-2-methylphenol	395		160	83	83
101-55-3	4-Bromophenyl phenyl ether	400		52	28	13
59-50-7	4-Chloro-3-methylphenol	485		160	28	22
106-47-8	4-Chloroaniline	323		160	28	18
7005-72-3	4-Chlorophenyl phenyl ether	387		52	28	13
100-01-6	4-Nitroaniline	413		210	28	27
100-02-7	4-Nitrophenol	500		340	83	83
83-32-9	Acenaphthene	411		6.9	3.4	3.4
208-96-8	Acenaphthylene	428		6.9	3.4	3.4
120-12-7	Anthracene	455		6.9	3.4	3.4
56-55-3	Benzo[a]anthracene	452		6.9	3.4	3.4
50-32-8	Benzo[a]pyrene	420		6.9	3.4	3.4
205-99-2	Benzo[b]fluoranthene	458		6.9	3.4	3.4
191-24-2	Benzo[g,h,i]perylene	477		6.9	3.4	3.4
207-08-9	Benzo[k]fluoranthene	489		6.9	3.4	3.4
111-91-1	Bis(2-chloroethoxy)methane	364		100	28	23
111-44-4	Bis(2-chloroethyl)ether	377		100	3.4	2.1

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0201-01 MS | Lab Sample ID: 200-11554-2 MS

Matrix: Solid | Lab File ID: 20716013.D

Analysis Method: 8270C/DoD | Date Collected: 06/29/2012 08:45

Extract. Method: 3540C | Date Extracted: 07/05/2012 11:14

Sample wt/vol: 29.85(g) | Date Analyzed: 07/16/2012 11:54

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 2.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 50851 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
117-81-7	Bis(2-ethylhexyl) phthalate	507		52	28	20
85-68-7	Butyl benzyl phthalate	487		52	28	10
86-74-8	Carbazole	488		52	28	28
218-01-9	Chrysene	476		6.9	3.4	1.1
53-70-3	Dibenz(a,h)anthracene	497		6.9	3.4	3.4
132-64-9	Dibenzofuran	433		52	3.4	3.4
84-66-2	Diethyl phthalate	491		52	28	17
131-11-3	Dimethyl phthalate	466		52	28	18
84-74-2	Di-n-butyl phthalate	509		52	28	16
117-84-0	Di-n-octyl phthalate	509		52	28	28
206-44-0	Fluoranthene	480		6.9	3.4	3.4
86-73-7	Fluorene	453		6.9	3.4	3.4
118-74-1	Hexachlorobenzene	440		6.9	3.4	2.2
87-68-3	Hexachlorobutadiene	321		52	28	28
67-72-1	Hexachloroethane	353		52	28	9.3
193-39-5	Indeno[1,2,3-cd]pyrene	480		6.9	3.4	3.4
91-20-3	Naphthalene	395		6.9	3.4	3.4
98-95-3	Nitrobenzene	378		100	3.4	2.3
621-64-7	N-Nitrosodi-n-propylamine	453		52	28	28
86-30-6	N-Nitrosodiphenylamine	445		52	28	22
87-86-5	Pentachlorophenol	265		160	83	83
85-01-8	Phenanthrene	460		6.9	3.4	3.4
108-95-2	Phenol	465		52	28	28
129-00-0	Pyrene	474		6.9	3.4	3.4
108-60-1	bis (2-chloroisopropyl) ether	403		100	28	9.8
78-59-1	Isophorone	428		52	28	13
92-52-4	1,1'-Biphenyl	426		52	28	28
98-86-2	Acetophenone	459		100	28	9.5
1912-24-9	Atrazine	604		210	28	9.4
100-52-7	Benzaldehyde	420		100	28	12
105-60-2	Caprolactam	563		340	28	38
77-47-4	Hexachlorocyclopentadiene	221	J	340	28	28
58-90-2	2,3,4,6-Tetrachlorophenol	434	J	1700	1700	110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0201-01 MS | Lab Sample ID: 200-11554-2 MS

Matrix: Solid | Lab File ID: 20716013.D

Analysis Method: 8270C/DoD | Date Collected: 06/29/2012 08:45

Extract. Method: 3540C | Date Extracted: 07/05/2012 11:14

Sample wt/vol: 29.85(g) | Date Analyzed: 07/16/2012 11:54

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 2.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 50851 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	49		45-105
367-12-4	2-Fluorophenol (Surr)	60		35-105
4165-60-0	Nitrobenzene-d5 (Surr)	50		35-100
1718-51-0	Terphenyl-d14 (Surr)	68		30-125
118-79-6	2,4,6-Tribromophenol (Surr)	64		35-125
4165-62-2	Phenol-d5 (Surr)	64		40-100

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0402-01 MS | Lab Sample ID: 200-11554-4 MS

Matrix: Solid | Lab File ID: 20725011.D

Analysis Method: 8270C/DoD | Date Collected: 06/29/2012 08:55

Extract. Method: 3540C | Date Extracted: 07/17/2012 08:20

Sample wt/vol: 29.67(g) | Date Analyzed: 07/25/2012 11:32

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 1.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 51914 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
95-94-3	1,2,4,5-Tetrachlorobenzene	5.5	U H	100	5.5	5.5
95-95-4	2,4,5-Trichlorophenol	438	H	150	28	26
88-06-2	2,4,6-Trichlorophenol	393	H	150	82	82
120-83-2	2,4-Dichlorophenol	389	H	150	28	21
105-67-9	2,4-Dimethylphenol	348	H	150	82	21
51-28-5	2,4-Dinitrophenol	82	U H J	340	82	82
121-14-2	2,4-Dinitrotoluene	479	H	210	28	28
606-20-2	2,6-Dinitrotoluene	446	H	210	28	22
91-58-7	2-Chloronaphthalene	351	H	51	3.4	3.4
95-57-8	2-Chlorophenol	400	H	51	28	28
91-57-6	2-Methylnaphthalene	401	H	6.9	3.4	3.4
95-48-7	2-Methylphenol	413	H	210	82	82
88-74-4	2-Nitroaniline	536	H	210	28	9.4
88-75-5	2-Nitrophenol	353	H	51	28	28
15831-10-4	3 & 4 Methylphenol	843	H	410	82	21
91-94-1	3,3'-Dichlorobenzidine	372	H	100	82	19
99-09-2	3-Nitroaniline	474	H	210	82	16
534-52-1	4,6-Dinitro-2-methylphenol	134	H M J	150	82	82
101-55-3	4-Bromophenyl phenyl ether	428	H	51	28	13
59-50-7	4-Chloro-3-methylphenol	457	H	150	28	22
106-47-8	4-Chloroaniline	358	H	150	28	17
7005-72-3	4-Chlorophenyl phenyl ether	415	H	51	28	13
100-01-6	4-Nitroaniline	522	H	210	28	27
100-02-7	4-Nitrophenol	271	J H M	340	82	82
83-32-9	Acenaphthene	407	H	6.9	3.4	3.4
208-96-8	Acenaphthylene	413	H	6.9	3.4	3.4
120-12-7	Anthracene	529	H	6.9	3.4	3.4
56-55-3	Benzo[a]anthracene	553	H	6.9	3.4	3.4
50-32-8	Benzo[a]pyrene	487	H	6.9	3.4	3.4
205-99-2	Benzo[b]fluoranthene	596	H	6.9	3.4	3.4
191-24-2	Benzo[g,h,i]perylene	566	H	6.9	3.4	3.4
207-08-9	Benzo[k]fluoranthene	487	H	6.9	3.4	3.4
111-91-1	Bis(2-chloroethoxy)methane	370	H	100	28	23
111-44-4	Bis(2-chloroethyl)ether	377	H	100	3.4	2.1

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0402-01 MS | Lab Sample ID: 200-11554-4 MS

Matrix: Solid | Lab File ID: 20725011.D

Analysis Method: 8270C/DoD | Date Collected: 06/29/2012 08:55

Extract. Method: 3540C | Date Extracted: 07/17/2012 08:20

Sample wt/vol: 29.67(g) | Date Analyzed: 07/25/2012 11:32

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 1.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 51914 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
117-81-7	Bis(2-ethylhexyl) phthalate	579	H	51	28	20
85-68-7	Butyl benzyl phthalate	542	H	51	28	10
86-74-8	Carbazole	543	H	51	28	28
218-01-9	Chrysene	555	H	6.9	3.4	1.1
53-70-3	Dibenz(a,h)anthracene	563	H	6.9	3.4	3.4
132-64-9	Dibenzofuran	449	H	51	3.4	3.4
84-66-2	Diethyl phthalate	542	H	51	28	16
131-11-3	Dimethyl phthalate	503	H	51	28	17
84-74-2	Di-n-butyl phthalate	570	H	51	28	15
117-84-0	Di-n-octyl phthalate	564	H	51	28	28
206-44-0	Fluoranthene	531	H	6.9	3.4	3.4
86-73-7	Fluorene	458	H	6.9	3.4	3.4
118-74-1	Hexachlorobenzene	482	H	6.9	3.4	2.2
87-68-3	Hexachlorobutadiene	352	H	51	28	28
67-72-1	Hexachloroethane	380	H	51	28	9.3
193-39-5	Indeno[1,2,3-cd]pyrene	540	H	6.9	3.4	3.4
91-20-3	Naphthalene	407	H	6.9	3.4	3.4
98-95-3	Nitrobenzene	404	H	100	3.4	2.3
621-64-7	N-Nitrosodi-n-propylamine	439	H	51	28	28
86-30-6	N-Nitrosodiphenylamine	500	H	51	28	22
87-86-5	Pentachlorophenol	206	H M	150	82	82
85-01-8	Phenanthrene	532	H	6.9	3.4	3.4
108-95-2	Phenol	422	H	51	28	28
129-00-0	Pyrene	527	H	6.9	3.4	3.4
108-60-1	bis (2-chloroisopropyl) ether	393	H	100	28	9.8
78-59-1	Isophorone	422	H	51	28	13
92-52-4	1,1'-Biphenyl	409	H	51	28	28
98-86-2	Acetophenone	449	H	100	28	9.5
1912-24-9	Atrazine	679	H	210	28	9.4
100-52-7	Benzaldehyde	363	H	100	28	12
105-60-2	Caprolactam	396	H	340	28	38
77-47-4	Hexachlorocyclopentadiene	277	J H	340	28	28
58-90-2	2,3,4,6-Tetrachlorophenol	456	J H	1600	1600	110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0402-01 MS | Lab Sample ID: 200-11554-4 MS

Matrix: Solid | Lab File ID: 20725011.D

Analysis Method: 8270C/DoD | Date Collected: 06/29/2012 08:55

Extract. Method: 3540C | Date Extracted: 07/17/2012 08:20

Sample wt/vol: 29.67(g) | Date Analyzed: 07/25/2012 11:32

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 1.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 51914 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	50		45-105
367-12-4	2-Fluorophenol (Surr)	55		35-105
4165-60-0	Nitrobenzene-d5 (Surr)	56		35-100
1718-51-0	Terphenyl-d14 (Surr)	86		30-125
118-79-6	2,4,6-Tribromophenol (Surr)	66		35-125
4165-62-2	Phenol-d5 (Surr)	61		40-100

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0201-01 MSD | Lab Sample ID: 200-11554-2 MSD

Matrix: Solid | Lab File ID: 20716014.D

Analysis Method: 8270C/DoD | Date Collected: 06/29/2012 08:45

Extract. Method: 3540C | Date Extracted: 07/05/2012 11:14

Sample wt/vol: 29.94(g) | Date Analyzed: 07/16/2012 12:13

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 2.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 50851 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
95-94-3	1,2,4,5-Tetrachlorobenzene	5.5	U	100	5.5	5.5
95-95-4	2,4,5-Trichlorophenol	436		150	28	26
88-06-2	2,4,6-Trichlorophenol	435		150	83	83
120-83-2	2,4-Dichlorophenol	434		150	28	21
105-67-9	2,4-Dimethylphenol	436		150	83	21
51-28-5	2,4-Dinitrophenol	195	J	340	83	83
121-14-2	2,4-Dinitrotoluene	438		210	28	28
606-20-2	2,6-Dinitrotoluene	434		210	28	22
91-58-7	2-Chloronaphthalene	372		52	3.4	3.4
95-57-8	2-Chlorophenol	443		52	28	28
91-57-6	2-Methylnaphthalene	423		6.9	3.4	3.4
95-48-7	2-Methylphenol	484		210	83	83
88-74-4	2-Nitroaniline	529		210	28	9.4
88-75-5	2-Nitrophenol	425		52	28	28
15831-10-4	3 & 4 Methylphenol	963		410	83	21
91-94-1	3,3'-Dichlorobenzidine	53.3	J	100	83	19
99-09-2	3-Nitroaniline	375		210	83	17
534-52-1	4,6-Dinitro-2-methylphenol	344		150	83	83
101-55-3	4-Bromophenyl phenyl ether	391		52	28	13
59-50-7	4-Chloro-3-methylphenol	502		150	28	22
106-47-8	4-Chloroaniline	275		150	28	18
7005-72-3	4-Chlorophenyl phenyl ether	383		52	28	13
100-01-6	4-Nitroaniline	368		210	28	27
100-02-7	4-Nitrophenol	443		340	83	83
83-32-9	Acenaphthene	418		6.9	3.4	3.4
208-96-8	Acenaphthylene	431		6.9	3.4	3.4
120-12-7	Anthracene	458		6.9	3.4	3.4
56-55-3	Benzo[a]anthracene	463		6.9	3.4	3.4
50-32-8	Benzo[a]pyrene	439		6.9	3.4	3.4
205-99-2	Benzo[b]fluoranthene	525		6.9	3.4	3.4
191-24-2	Benzo[g,h,i]perylene	493		6.9	3.4	3.4
207-08-9	Benzo[k]fluoranthene	498		6.9	3.4	3.4
111-91-1	Bis(2-chloroethoxy)methane	392		100	28	23
111-44-4	Bis(2-chloroethyl)ether	409		100	3.4	2.1

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0201-01 MSD | Lab Sample ID: 200-11554-2 MSD

Matrix: Solid | Lab File ID: 20716014.D

Analysis Method: 8270C/DoD | Date Collected: 06/29/2012 08:45

Extract. Method: 3540C | Date Extracted: 07/05/2012 11:14

Sample wt/vol: 29.94(g) | Date Analyzed: 07/16/2012 12:13

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 2.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 50851 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
117-81-7	Bis(2-ethylhexyl) phthalate	521		52	28	20
85-68-7	Butyl benzyl phthalate	513		52	28	10
86-74-8	Carbazole	481		52	28	28
218-01-9	Chrysene	478		6.9	3.4	1.1
53-70-3	Dibenz(a,h)anthracene	533		6.9	3.4	3.4
132-64-9	Dibenzofuran	445		52	3.4	3.4
84-66-2	Diethyl phthalate	500		52	28	17
131-11-3	Dimethyl phthalate	462		52	28	18
84-74-2	Di-n-butyl phthalate	536		52	28	15
117-84-0	Di-n-octyl phthalate	560		52	28	28
206-44-0	Fluoranthene	480		6.9	3.4	3.4
86-73-7	Fluorene	453		6.9	3.4	3.4
118-74-1	Hexachlorobenzene	445		6.9	3.4	2.2
87-68-3	Hexachlorobutadiene	352		52	28	28
67-72-1	Hexachloroethane	379		52	28	9.3
193-39-5	Indeno[1,2,3-cd]pyrene	515		6.9	3.4	3.4
91-20-3	Naphthalene	408		6.9	3.4	3.4
98-95-3	Nitrobenzene	394		100	3.4	2.3
621-64-7	N-Nitrosodi-n-propylamine	480		52	28	28
86-30-6	N-Nitrosodiphenylamine	456		52	28	22
87-86-5	Pentachlorophenol	246	M	150	83	83
85-01-8	Phenanthrene	465		6.9	3.4	3.4
108-95-2	Phenol	507		52	28	28
129-00-0	Pyrene	481		6.9	3.4	3.4
108-60-1	bis (2-chloroisopropyl) ether	423		100	28	9.8
78-59-1	Isophorone	447		52	28	13
92-52-4	1,1'-Biphenyl	432		52	28	28
98-86-2	Acetophenone	484		100	28	9.5
1912-24-9	Atrazine	622		210	28	9.4
100-52-7	Benzaldehyde	447		100	28	12
105-60-2	Caprolactam	519		340	28	38
77-47-4	Hexachlorocyclopentadiene	244	J	340	28	28
58-90-2	2,3,4,6-Tetrachlorophenol	458	J	1700	1700	110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0201-01 MSD | Lab Sample ID: 200-11554-2 MSD

Matrix: Solid | Lab File ID: 20716014.D

Analysis Method: 8270C/DoD | Date Collected: 06/29/2012 08:45

Extract. Method: 3540C | Date Extracted: 07/05/2012 11:14

Sample wt/vol: 29.94(g) | Date Analyzed: 07/16/2012 12:13

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 2.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 50851 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	50		45-105
367-12-4	2-Fluorophenol (Surr)	62		35-105
4165-60-0	Nitrobenzene-d5 (Surr)	53		35-100
1718-51-0	Terphenyl-d14 (Surr)	70		30-125
118-79-6	2,4,6-Tribromophenol (Surr)	65		35-125
4165-62-2	Phenol-d5 (Surr)	67		40-100

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0402-01 MSD | Lab Sample ID: 200-11554-4 MSD

Matrix: Solid | Lab File ID: 20725012.D

Analysis Method: 8270C/DoD | Date Collected: 06/29/2012 08:55

Extract. Method: 3540C | Date Extracted: 07/17/2012 08:20

Sample wt/vol: 29.76(g) | Date Analyzed: 07/25/2012 11:51

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 1.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 51914 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
95-94-3	1,2,4,5-Tetrachlorobenzene	5.4	U H	100	5.4	5.4
95-95-4	2,4,5-Trichlorophenol	431	H	150	28	26
88-06-2	2,4,6-Trichlorophenol	313	H	150	82	82
120-83-2	2,4-Dichlorophenol	455	H	150	28	21
105-67-9	2,4-Dimethylphenol	412	H	150	82	21
51-28-5	2,4-Dinitrophenol	82	U H J	340	82	82
121-14-2	2,4-Dinitrotoluene	472	H	210	28	28
606-20-2	2,6-Dinitrotoluene	453	H	210	28	22
91-58-7	2-Chloronaphthalene	396	H	51	3.4	3.4
95-57-8	2-Chlorophenol	457	H	51	28	28
91-57-6	2-Methylnaphthalene	465	H	6.8	3.4	3.4
95-48-7	2-Methylphenol	489	H	210	82	82
88-74-4	2-Nitroaniline	542	H	210	28	9.3
88-75-5	2-Nitrophenol	422	H	51	28	28
15831-10-4	3 & 4 Methylphenol	957	H	410	82	21
91-94-1	3,3'-Dichlorobenzidine	349	H	100	82	18
99-09-2	3-Nitroaniline	448	H	210	82	16
534-52-1	4,6-Dinitro-2-methylphenol	119	H M J	150	82	82
101-55-3	4-Bromophenyl phenyl ether	437	H	51	28	13
59-50-7	4-Chloro-3-methylphenol	484	H	150	28	22
106-47-8	4-Chloroaniline	382	H	150	28	17
7005-72-3	4-Chlorophenyl phenyl ether	411	H	51	28	13
100-01-6	4-Nitroaniline	482	H	210	28	27
100-02-7	4-Nitrophenol	218	J H	340	82	82
83-32-9	Acenaphthene	454	H	6.8	3.4	3.4
208-96-8	Acenaphthylene	456	H	6.8	3.4	3.4
120-12-7	Anthracene	517	H	6.8	3.4	3.4
56-55-3	Benzo[a]anthracene	548	H	6.8	3.4	3.4
50-32-8	Benzo[a]pyrene	476	H	6.8	3.4	3.4
205-99-2	Benzo[b]fluoranthene	553	H	6.8	3.4	3.4
191-24-2	Benzo[g,h,i]perylene	530	H	6.8	3.4	3.4
207-08-9	Benzo[k]fluoranthene	518	H	6.8	3.4	3.4
111-91-1	Bis(2-chloroethoxy)methane	429	H	100	28	23
111-44-4	Bis(2-chloroethyl)ether	451	H	100	3.4	2.1

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0402-01 MSD | Lab Sample ID: 200-11554-4 MSD

Matrix: Solid | Lab File ID: 20725012.D

Analysis Method: 8270C/DoD | Date Collected: 06/29/2012 08:55

Extract. Method: 3540C | Date Extracted: 07/17/2012 08:20

Sample wt/vol: 29.76(g) | Date Analyzed: 07/25/2012 11:51

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 1.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 51914 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
117-81-7	Bis(2-ethylhexyl) phthalate	558	H	51	28	19
85-68-7	Butyl benzyl phthalate	544	H	51	28	10
86-74-8	Carbazole	543	H	51	28	28
218-01-9	Chrysene	544	H	6.8	3.4	1.1
53-70-3	Dibenz(a,h)anthracene	539	H	6.8	3.4	3.4
132-64-9	Dibenzofuran	461	H	51	3.4	3.4
84-66-2	Diethyl phthalate	541	H	51	28	16
131-11-3	Dimethyl phthalate	511	H	51	28	17
84-74-2	Di-n-butyl phthalate	559	H	51	28	15
117-84-0	Di-n-octyl phthalate	556	H	51	28	28
206-44-0	Fluoranthene	539	H	6.8	3.4	3.4
86-73-7	Fluorene	465	H	6.8	3.4	3.4
118-74-1	Hexachlorobenzene	490	H	6.8	3.4	2.2
87-68-3	Hexachlorobutadiene	413	H	51	28	28
67-72-1	Hexachloroethane	444	H	51	28	9.2
193-39-5	Indeno[1,2,3-cd]pyrene	522	H	6.8	3.4	3.4
91-20-3	Naphthalene	483	H	6.8	3.4	3.4
98-95-3	Nitrobenzene	448	H	100	3.4	2.3
621-64-7	N-Nitrosodi-n-propylamine	514	H	51	28	28
86-30-6	N-Nitrosodiphenylamine	511	H	51	28	22
87-86-5	Pentachlorophenol	180	H M	150	82	82
85-01-8	Phenanthrene	529	H	6.8	3.4	3.4
108-95-2	Phenol	495	H	51	28	28
129-00-0	Pyrene	516	H	6.8	3.4	3.4
108-60-1	bis (2-chloroisopropyl) ether	467	H	100	28	9.7
78-59-1	Isophorone	496	H	51	28	13
92-52-4	1,1'-Biphenyl	454	H	51	28	28
98-86-2	Acetophenone	516	H	100	28	9.4
1912-24-9	Atrazine	682	H	210	28	9.3
100-52-7	Benzaldehyde	431	H	100	28	12
105-60-2	Caprolactam	355	H	340	28	38
77-47-4	Hexachlorocyclopentadiene	313	J H	340	28	28
58-90-2	2,3,4,6-Tetrachlorophenol	470	J H	1600	1600	110

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0402-01 MSD | Lab Sample ID: 200-11554-4 MSD

Matrix: Solid | Lab File ID: 20725012.D

Analysis Method: 8270C/DoD | Date Collected: 06/29/2012 08:55

Extract. Method: 3540C | Date Extracted: 07/17/2012 08:20

Sample wt/vol: 29.76(g) | Date Analyzed: 07/25/2012 11:51

Con. Extract Vol.: 2(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | Level: (low/med) Low

% Moisture: 1.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 51914 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
321-60-8	2-Fluorobiphenyl (Surr)	55		45-105
367-12-4	2-Fluorophenol (Surr)	69		35-105
4165-60-0	Nitrobenzene-d5 (Surr)	63		35-100
1718-51-0	Terphenyl-d14 (Surr)	82		30-125
118-79-6	2,4,6-Tribromophenol (Surr)	49		35-125
4165-62-2	Phenol-d5 (Surr)	73		40-100

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: A4HP9 Start Date: 07/13/2012 09:25

Analysis Batch Number: 50712 End Date: 07/13/2012 15:26

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-50712/1		07/13/2012 09:25	1	20713001.D	RXI-5SILMS 0.45(mm)
STD5 240-50712/2 IC		07/13/2012 09:43	1	20713002.D	RXI-5SILMS 0.45(mm)
STD4 240-50712/3 IC		07/13/2012 10:13	1	20713003.D	RXI-5SILMS 0.45(mm)
STD3 240-50712/4 IC		07/13/2012 10:32	1	20713004.D	RXI-5SILMS 0.45(mm)
STD2 240-50712/5 IC		07/13/2012 10:52	1	20713005.D	RXI-5SILMS 0.45(mm)
STD1 240-50712/6 IC		07/13/2012 11:11	1	20713006.D	RXI-5SILMS 0.45(mm)
STD9 240-50712/7 IC		07/13/2012 11:30	1	20713007.D	RXI-5SILMS 0.45(mm)
STD8 240-50712/8 IC		07/13/2012 11:49	1	20713008.D	RXI-5SILMS 0.45(mm)
STD7 240-50712/9 IC		07/13/2012 12:09	1	20713009.D	RXI-5SILMS 0.45(mm)
STD6 240-50712/10 ICIS		07/13/2012 12:28	1	20713010.D	RXI-5SILMS 0.45(mm)
STD5 240-50712/12 IC		07/13/2012 13:11	1	20713012.D	RXI-5SILMS 0.45(mm)
STD4 240-50712/13 IC		07/13/2012 13:31	1	20713013.D	RXI-5SILMS 0.45(mm)
STD3 240-50712/14 IC		07/13/2012 13:50	1	20713014.D	RXI-5SILMS 0.45(mm)
STD2 240-50712/15 IC		07/13/2012 14:10	1	20713015.D	RXI-5SILMS 0.45(mm)
STD6 240-50712/16 IC		07/13/2012 14:29	1	20713016.D	RXI-5SILMS 0.45(mm)
STD7 240-50712/17 IC		07/13/2012 14:47	1	20713017.D	RXI-5SILMS 0.45(mm)
STD8 240-50712/18 IC		07/13/2012 15:06	1	20713018.D	RXI-5SILMS 0.45(mm)
STD9 240-50712/19 IC		07/13/2012 15:26	1	20713019.D	RXI-5SILMS 0.45(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: A4HP9 Start Date: 07/16/2012 07:59

Analysis Batch Number: 50851 End Date: 07/16/2012 12:13

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-50851/1		07/16/2012 07:59	1	20716001.D	RXI-5SILMS 0.45(mm)
CCV 240-50851/2 CCVIS		07/16/2012 08:16	1	20716002.D	RXI-5SILMS 0.45(mm)
CCV 240-50851/3		07/16/2012 08:38	1	20716003.D	RXI-5SILMS 0.45(mm)
ICV 240-50851/4		07/16/2012 08:57	1	20716004.D	RXI-5SILMS 0.45(mm)
MB 240-49913/15-A		07/16/2012 09:17	1	20716005.D	RXI-5SILMS 0.45(mm)
LCS 240-49913/16-A		07/16/2012 09:37	1	20716006.D	RXI-5SILMS 0.45(mm)
200-11554-3	NFUDS-001-TP0302-01	07/16/2012 10:35	1	20716009.D	RXI-5SILMS 0.45(mm)
200-11554-4	NFUDS-001-TP0402-01	07/16/2012 10:55	1	20716010.D	RXI-5SILMS 0.45(mm)
200-11554-1	NFUDS-001-TP0101-01	07/16/2012 11:15	1	20716011.D	RXI-5SILMS 0.45(mm)
200-11554-2	NFUDS-001-TP0201-01	07/16/2012 11:34	1	20716012.D	RXI-5SILMS 0.45(mm)
200-11554-2 MS	NFUDS-001-TP0201-01 MS	07/16/2012 11:54	1	20716013.D	RXI-5SILMS 0.45(mm)
200-11554-2 MSD	NFUDS-001-TP0201-01 MSD	07/16/2012 12:13	1	20716014.D	RXI-5SILMS 0.45(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: A4HP9 Start Date: 07/24/2012 08:43

Analysis Batch Number: 51747 End Date: 07/24/2012 14:47

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-51747/1		07/24/2012 08:43	1	20724001.D	RXI-5SILMS 0.45(mm)
STD5 240-51747/2 IC		07/24/2012 09:07	1	20724002.D	RXI-5SILMS 0.45(mm)
STD4 240-51747/3 IC		07/24/2012 09:26	1	20724003.D	RXI-5SILMS 0.45(mm)
STD3 240-51747/4 IC		07/24/2012 09:46	1	20724004.D	RXI-5SILMS 0.45(mm)
STD2 240-51747/5 IC		07/24/2012 10:05	1	20724005.D	RXI-5SILMS 0.45(mm)
STD1 240-51747/6 IC		07/24/2012 10:25	1	20724006.D	RXI-5SILMS 0.45(mm)
STD9 240-51747/7 IC		07/24/2012 10:48	1	20724007.D	RXI-5SILMS 0.45(mm)
STD8 240-51747/8 IC		07/24/2012 11:07	1	20724008.D	RXI-5SILMS 0.45(mm)
STD7 240-51747/9 IC		07/24/2012 11:27	1	20724009.D	RXI-5SILMS 0.45(mm)
STD6 240-51747/10 ICIS		07/24/2012 11:46	1	20724010.D	RXI-5SILMS 0.45(mm)
STD5 240-51747/12 IC		07/24/2012 12:31	1	20724012.D	RXI-5SILMS 0.45(mm)
STD4 240-51747/13 IC		07/24/2012 12:51	1	20724013.D	RXI-5SILMS 0.45(mm)
STD3 240-51747/14 IC		07/24/2012 13:10	1	20724014.D	RXI-5SILMS 0.45(mm)
STD2 240-51747/15 IC		07/24/2012 13:29	1	20724015.D	RXI-5SILMS 0.45(mm)
STD6 240-51747/16 IC		07/24/2012 13:49	1	20724016.D	RXI-5SILMS 0.45(mm)
STD7 240-51747/17 IC		07/24/2012 14:08	1	20724017.D	RXI-5SILMS 0.45(mm)
STD8 240-51747/18 IC		07/24/2012 14:28	1	20724018.D	RXI-5SILMS 0.45(mm)
STD9 240-51747/19 IC		07/24/2012 14:47	1	20724019.D	RXI-5SILMS 0.45(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: A4HP9 Start Date: 07/25/2012 07:56

Analysis Batch Number: 51914 End Date: 07/25/2012 11:51

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 240-51914/1		07/25/2012 07:56	1	20725001.D	RXI-5SILMS 0.45(mm)
CCV 240-51914/2		07/25/2012 08:16	1	20725002.D	RXI-5SILMS 0.45(mm)
CCV 240-51914/3		07/25/2012 08:36	1	20725003.D	RXI-5SILMS 0.45(mm)
ICV 240-51914/4		07/25/2012 09:10	1	20725004.D	RXI-5SILMS 0.45(mm)
MB 240-50985/23-A		07/25/2012 09:35	1	20725005.D	RXI-5SILMS 0.45(mm)
LCS 240-50985/22-A		07/25/2012 09:55	1	20725006.D	RXI-5SILMS 0.45(mm)
200-11554-1 RE	NFUDS-001-TP0101-01 RE	07/25/2012 10:14	1	20725007.D	RXI-5SILMS 0.45(mm)
200-11554-2 RE	NFUDS-001-TP0201-01 RE	07/25/2012 10:33	1	20725008.D	RXI-5SILMS 0.45(mm)
200-11554-3 RE	NFUDS-001-TP0302-01 RE	07/25/2012 10:53	1	20725009.D	RXI-5SILMS 0.45(mm)
200-11554-4 RE	NFUDS-001-TP0402-01 RE	07/25/2012 11:12	1	20725010.D	RXI-5SILMS 0.45(mm)
200-11554-4 MS	NFUDS-001-TP0402-01 MS	07/25/2012 11:32	1	20725011.D	RXI-5SILMS 0.45(mm)
200-11554-4 MSD	NFUDS-001-TP0402-01 MSD	07/25/2012 11:51	1	20725012.D	RXI-5SILMS 0.45(mm)

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Batch Number: 49913 Batch Start Date: 07/05/12 14:20 Batch Analyst: Earle, Steve

Batch Method: 3540C Batch End Date: 07/06/12 06:20

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	EXBNALCS1 00022	EXBNASURRW 00014	EXRESTEKSPKW 00011	
200-11554-G-1	NFUDS-001-TP0101 -01	3540C, 8270C/DoD	T	30.29 g	2 mL		1 mL		
200-11554-G-2	NFUDS-001-TP0201 -01	3540C, 8270C/DoD	T	30.32 g	2 mL		1 mL		
200-11554-G-2 MS	NFUDS-001-TP0201 -01	3540C, 8270C/DoD	T	29.85 g	2 mL	1 mL	1 mL	1 mL	
200-11554-G-2 MSD	NFUDS-001-TP0201 -01	3540C, 8270C/DoD	T	29.94 g	2 mL	1 mL	1 mL	1 mL	
200-11554-G-3	NFUDS-001-TP0302 -01	3540C, 8270C/DoD	T	30.14 g	2 mL		1 mL		
200-11554-G-4	NFUDS-001-TP0402 -01	3540C, 8270C/DoD	T	30.14 g	2 mL		1 mL		
MB 240-49913/15		3540C, 8270C/DoD		30.00 g	2 mL		1 mL		
LCS 240-49913/16		3540C, 8270C/DoD		30.00 g	2 mL	1 mL	1 mL	1 mL	

Batch Notes	
Balance ID	b036
Batch Comment	s/s se/mr/bm
Person's name who did the concentration	cc
Na2SO4 Lot Number	275336
Prep Solvent Lot #	548918

Basis	Basis Description
T	Total/NA

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Batch Number: 50985 Batch Start Date: 07/17/12 14:35 Batch Analyst: Earle, Steve

Batch Method: 3540C Batch End Date: 07/18/12 06:35

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	EXBNALCS1 00023	EXBNASURRW 00015	EXRESTEKSPKW 00012	AnalysisComment
200-11554-G-1	NFUDS-001-TP0101 -01	3540C, 8270C/DoD	T	30.10 g	2 mL		1 mL		
200-11554-G-2	NFUDS-001-TP0201 -01	3540C, 8270C/DoD	T	28.74 g	2 mL		1 mL		Consumed before reaching 30g
200-11554-G-3	NFUDS-001-TP0302 -01	3540C, 8270C/DoD	T	29.78 g	2 mL		1 mL		
200-11554-G-4	NFUDS-001-TP0402 -01	3540C, 8270C/DoD	T	30.13 g	2 mL		1 mL		
200-11554-G-4 MS	NFUDS-001-TP0402 -01	3540C, 8270C/DoD	T	29.67 g	2 mL	1 mL	1 mL	1 mL	
200-11554-G-4 MSD	NFUDS-001-TP0402 -01	3540C, 8270C/DoD	T	29.76 g	2 mL	1 mL	1 mL	1 mL	
LCS 240-50985/22		3540C, 8270C/DoD		30 g	2 mL	1 mL	1 mL	1 mL	
MB 240-50985/23		3540C, 8270C/DoD		30 g	2 mL		1 mL		

Batch Notes	
Balance ID	b-036
Batch Comment	s/s se/mr
Person's name who did the concentration	lah/cc
Filter Paper Lot Number	337106
Na2SO4 Lot Number	275336
Prep Solvent Lot #	561492

Basis	Basis Description
T	Total/NA

Method 8270C SIM

Semivolatile Organic Compounds (GC/MS SIM) by Method 8270C (SIM)

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Matrix: Solid Level: Low

GC Column (1): ZB-SVOA ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	2MN #	FLR #	FLN #	BAP #
NFUDS-001-TP0101-01	200-11554-1	83	82	86	79
NFUDS-001-TP0101-01 RE	200-11554-1 RE	86	85	89	87
NFUDS-001-TP0201-01	200-11554-2	87	85	89	83
NFUDS-001-TP0201-01 RE	200-11554-2 RE	77	72	75	74
NFUDS-001-TP0302-01	200-11554-3	81	79	84	80
NFUDS-001-TP0302-01 RE	200-11554-3 RE	88	84	87	88
NFUDS-001-TP0402-01	200-11554-4	84	82	86	80
NFUDS-001-TP0402-01 RE	200-11554-4 RE	84	81	84	82
	MB 200-41630/1-A	90	89	89	87
	MB 200-41970/1-A	90	88	91	90
	LCS 200-41630/2-A	89	88	89	84
	LCS 200-41970/2-A	88	83	88	84

	QC LIMITS
2MN = 2-Methylnaphthalene-d10	30-120
FLR = Fluorene-d10	30-130
FLN = Fluoranthene-d10	10-165
BAP = Benzo(a)pyrene-d12	20-130

Column to be used to flag recovery values

FORM II 8270C SIM

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Matrix: Solid Level: Low Lab File ID: zywa03.d

Lab ID: LCS 200-41630/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Naphthalene	13.0	10.6	81	30-130	
2-Methylnaphthalene	13.0	10.3	79	30-135	
Acenaphthylene	13.0	11.5	88	30-130	
Acenaphthene	13.0	10.7	83	30-130	
Fluorene	13.0	11.0	85	35-130	
Phenanthrene	13.0	10.5	81	35-130	
Anthracene	13.0	10.6	82	35-135	
Fluoranthene	13.0	10.5	81	35-140	
Pyrene	13.0	10.2	79	20-155	
Benzo[a]anthracene	13.0	11.4	88	35-150	
Chrysene	13.0	9.91	76	40-125	
Benzo[b]fluoranthene	13.0	10.8	83	40-135	
Benzo[k]fluoranthene	13.0	10.5	81	35-130	
Benzo[a]pyrene	13.0	10.3	79	35-135	
Indeno[1,2,3-cd]pyrene	13.0	10.9	84	20-140	
Dibenz(a,h)anthracene	13.0	9.32	72	20-145	
Benzo[g,h,i]perylene	13.0	9.60	74	20-135	

Column to be used to flag recovery and RPD values

FORM III 8270C SIM

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Matrix: Solid Level: Low Lab File ID: zywb04.d

Lab ID: LCS 200-41970/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
Naphthalene	13.3	11.1	84	30-130	
2-Methylnaphthalene	13.3	12.1	91	30-135	
Acenaphthylene	13.3	12.1	91	30-130	
Acenaphthene	13.3	11.2	84	30-130	
Fluorene	13.3	11.5	86	35-130	
Phenanthrene	13.3	10.9	82	35-130	
Anthracene	13.3	11.2	84	35-135	
Fluoranthene	13.3	11.4	86	35-140	
Pyrene	13.3	11.0	82	20-155	
Benzo[a]anthracene	13.3	12.7	95	35-150	
Chrysene	13.3	10.3	77	40-125	
Benzo[b]fluoranthene	13.3	13.0	97	40-135	
Benzo[k]fluoranthene	13.3	10.6	79	35-130	
Benzo[a]pyrene	13.3	11.1	84	35-135	
Indeno[1,2,3-cd]pyrene	13.3	8.46	63	20-140	
Dibenz(a,h)anthracene	13.3	7.32	55	20-145	
Benzo[g,h,i]perylene	13.3	6.10	46	20-135	

Column to be used to flag recovery and RPD values

FORM III 8270C SIM

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab File ID: zywa04.d Lab Sample ID: MB 200-41630/1-A

Matrix: Solid Date Extracted: 07/11/2012 08:48

Instrument ID: Z.i Date Analyzed: 07/16/2012 17:26

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 200-41630/2-A	zywa03.d	07/16/2012 16:47
NFUDS-001-TP0101-01	200-11554-1	zywa05.d	07/16/2012 18:05
NFUDS-001-TP0201-01	200-11554-2	zywa06.d	07/16/2012 18:44
NFUDS-001-TP0302-01	200-11554-3	zywa07.d	07/16/2012 19:23
NFUDS-001-TP0402-01	200-11554-4	zywa08.d	07/16/2012 20:02

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab File ID: zywb06.d Lab Sample ID: MB 200-41970/1-A

Matrix: Solid Date Extracted: 07/17/2012 17:23

Instrument ID: Z.i Date Analyzed: 07/19/2012 17:15

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 200-41970/2-A	zywb04.d	07/19/2012 15:57
NFUDS-001-TP0101-01 RE	200-11554-1 RE	zywb07.d	07/19/2012 17:54
NFUDS-001-TP0201-01 RE	200-11554-2 RE	zywb08.d	07/19/2012 18:33
NFUDS-001-TP0302-01 RE	200-11554-3 RE	zywb09.d	07/19/2012 19:11
NFUDS-001-TP0402-01 RE	200-11554-4 RE	zywb10.d	07/19/2012 19:50

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab File ID: zyw04.d DFTPP Injection Date: 07/13/2012

Instrument ID: Z.i DFTPP Injection Time: 15:45

Analysis Batch No.: 41872

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 60.0 % of mass 198	37.5	
68	Less than 2.0 % of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	47.9	
70	Less than 2.0 % of mass 69	0.5	(1.1)1
127	40.0 - 60.0 % of mass 198	50.8	
197	Less than 1.0 % of mass 198	0.0	
198	Base Peak, 100 % relative abundance	100.0	
199	5.0- 9.0 % of mass 198	7.7	
275	10.0 - 30.0 % of mass 198	28.9	
365	Greater than 1.0 % of mass 198	2.8	
441	Present but less than mass 443	9.2	(75.7)1
442	Greater than 40.0 % of mass 198	64.9	
443	17.0 - 23.0 % of mass 442	12.2	(18.8)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 200-41872/2	zyw05.d	07/13/2012	16:20
	IC 200-41872/3	zyw06.d	07/13/2012	16:59
	ICIS 200-41872/4	zyw07.d	07/13/2012	17:38
	IC 200-41872/5	zyw08.d	07/13/2012	18:17
	IC 200-41872/6	zyw09.d	07/13/2012	18:56
	ICV 200-41872/7	zyw10.d	07/13/2012	19:34

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab File ID: zywa01.d DFTPP Injection Date: 07/16/2012

Instrument ID: Z.i DFTPP Injection Time: 13:41

Analysis Batch No.: 42145

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 60.0 % of mass 198	33.6	
68	Less than 2.0 % of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	45.4	
70	Less than 2.0 % of mass 69	0.3	(0.7)1
127	40.0 - 60.0 % of mass 198	49.4	
197	Less than 1.0 % of mass 198	0.0	
198	Base Peak, 100 % relative abundance	100.0	
199	5.0- 9.0 % of mass 198	6.8	
275	10.0 - 30.0 % of mass 198	28.8	
365	Greater than 1.0 % of mass 198	2.8	
441	Present but less than mass 443	9.2	(73.8)1
442	Greater than 40.0 % of mass 198	63.5	
443	17.0 - 23.0 % of mass 442	12.4	(19.5)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 200-42145/2	zywa02.d	07/16/2012	15:49
	LCS 200-41630/2-A	zywa03.d	07/16/2012	16:47
	MB 200-41630/1-A	zywa04.d	07/16/2012	17:26
NFUDS-001-TP0101-01	200-11554-1	zywa05.d	07/16/2012	18:05
NFUDS-001-TP0201-01	200-11554-2	zywa06.d	07/16/2012	18:44
NFUDS-001-TP0302-01	200-11554-3	zywa07.d	07/16/2012	19:23
NFUDS-001-TP0402-01	200-11554-4	zywa08.d	07/16/2012	20:02

FORM V
GC/MS SEMI VOA INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab File ID: zywb01.d DFTPP Injection Date: 07/19/2012

Instrument ID: Z.i DFTPP Injection Time: 14:24

Analysis Batch No.: 42148

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30.0 - 60.0 % of mass 198	34.0	
68	Less than 2.0 % of mass 69	0.0	(0.0)1
69	Mass 69 relative abundance	43.1	
70	Less than 2.0 % of mass 69	0.4	(0.8)1
127	40.0 - 60.0 % of mass 198	49.3	
197	Less than 1.0 % of mass 198	0.0	
198	Base Peak, 100 % relative abundance	100.0	
199	5.0- 9.0 % of mass 198	6.9	
275	10.0 - 30.0 % of mass 198	28.8	
365	Greater than 1.0 % of mass 198	2.9	
441	Present but less than mass 443	9.7	(77.2)1
442	Greater than 40.0 % of mass 198	66.1	
443	17.0 - 23.0 % of mass 442	12.5	(19.0)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 200-42148/2	zywb02.d	07/19/2012	14:40
	LCS 200-41970/2-A	zywb04.d	07/19/2012	15:57
	MB 200-41970/1-A	zywb06.d	07/19/2012	17:15
NFUDS-001-TP0101-01 RE	200-11554-1 RE	zywb07.d	07/19/2012	17:54
NFUDS-001-TP0201-01 RE	200-11554-2 RE	zywb08.d	07/19/2012	18:33
NFUDS-001-TP0302-01 RE	200-11554-3 RE	zywb09.d	07/19/2012	19:11
NFUDS-001-TP0402-01 RE	200-11554-4 RE	zywb10.d	07/19/2012	19:50

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Sample No.: ICIS 200-41872/4 Date Analyzed: 07/13/2012 17:38

Instrument ID: Z.i GC Column: ZB-SVOA ID: 0.25(mm)

Lab File ID (Standard): zyw07.d Heated Purge: (Y/N) N

Calibration ID: 16680

		NPT		ANT		PHN	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		472604	7.09	253564	11.14	430868	14.71
UPPER LIMIT		945208	7.59	507128	11.64	861736	15.21
LOWER LIMIT		236302	6.59	126782	10.64	215434	14.21
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 200-41872/7		492701	7.09	262753	11.14	447127	14.71

NPT = Naphthalene-d8
ANT = Acenaphthene-d10
PHN = Phenanthrene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C SIM

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Sample No.: ICIS 200-41872/4 Date Analyzed: 07/13/2012 17:38

Instrument ID: Z.i GC Column: ZB-SVOA ID: 0.25(mm)

Lab File ID (Standard): zyw07.d Heated Purge: (Y/N) N

Calibration ID: 16680

		CRY		PRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		421741	21.11	402336	24.30		
UPPER LIMIT		843482	21.61	804672	24.80		
LOWER LIMIT		210871	20.61	201168	23.80		
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 200-41872/7		439255	21.11	418509	24.29		

CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C SIM

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Sample No.: CCVIS 200-42145/2 Date Analyzed: 07/16/2012 15:49

Instrument ID: Z.i GC Column: ZB-SVOA ID: 0.25(mm)

Lab File ID (Standard): zywa02.d Heated Purge: (Y/N) N

Calibration ID: 16680

		NPT		ANT		PHN	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		408472	7.10	215973	11.15	371434	14.71
UPPER LIMIT		816944	7.60	431946	11.65	742868	15.21
LOWER LIMIT		204236	6.60	107987	10.65	185717	14.21
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 200-41630/2-A		395823	7.10	219449	11.15	386520	14.71
MB 200-41630/1-A		402016	7.09	225266	11.15	390201	14.71
200-11554-1	NFUDS-001-TP0101-01	407648	7.09	227084	11.14	388689	14.71
200-11554-2	NFUDS-001-TP0201-01	402980	7.09	229997	11.14	396512	14.71
200-11554-3	NFUDS-001-TP0302-01	417936	7.09	240120	11.14	411955	14.71
200-11554-4	NFUDS-001-TP0402-01	422425	7.09	240074	11.14	417222	14.71

NPT = Naphthalene-d8
ANT = Acenaphthene-d10
PHN = Phenanthrene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C SIM

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Sample No.: CCVIS 200-42145/2 Date Analyzed: 07/16/2012 15:49

Instrument ID: Z.i GC Column: ZB-SVOA ID: 0.25(mm)

Lab File ID (Standard): zywa02.d Heated Purge: (Y/N) N

Calibration ID: 16680

		CRY		PRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		385960	21.11	394194	24.30		
UPPER LIMIT		771920	21.61	788388	24.80		
LOWER LIMIT		192980	20.61	197097	23.80		
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 200-41630/2-A		394137	21.11	409746	24.30		
MB 200-41630/1-A		389189	21.11	393371	24.29		
200-11554-1	NFUDS-001-TP0101-01	439627	21.11	393511	24.30		
200-11554-2	NFUDS-001-TP0201-01	435071	21.11	398456	24.29		
200-11554-3	NFUDS-001-TP0302-01	438262	21.11	440076	24.29		
200-11554-4	NFUDS-001-TP0402-01	441481	21.11	450362	24.29		

CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C SIM

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Sample No.: CCVIS 200-42148/2 Date Analyzed: 07/19/2012 14:40

Instrument ID: Z.i GC Column: ZB-SVOA ID: 0.25(mm)

Lab File ID (Standard): zywb02.d Heated Purge: (Y/N) N

Calibration ID: 16680

		NPT		ANT		PHN	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		531568	7.03	284429	11.08	499877	14.65
UPPER LIMIT		1063136	7.53	568858	11.58	999754	15.15
LOWER LIMIT		265784	6.53	142215	10.58	249939	14.15
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 200-41970/2-A		502656	7.03	282392	11.08	491694	14.65
MB 200-41970/1-A		515823	7.03	278940	11.08	486788	14.65
200-11554-1 RE	NFUDS-001-TP0101-01 RE	513321	7.03	281268	11.08	488172	14.65
200-11554-2 RE	NFUDS-001-TP0201-01 RE	520842	7.03	288618	11.08	497183	14.65
200-11554-3 RE	NFUDS-001-TP0302-01 RE	534766	7.03	302038	11.08	529146	14.65
200-11554-4 RE	NFUDS-001-TP0402-01 RE	509644	7.03	284067	11.08	489020	14.65

NPT = Naphthalene-d8
ANT = Acenaphthene-d10
PHN = Phenanthrene-d10

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C SIM

FORM VIII
GC/MS SEMI VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Sample No.: CCVIS 200-42148/2 Date Analyzed: 07/19/2012 14:40

Instrument ID: Z.i GC Column: ZB-SVOA ID: 0.25(mm)

Lab File ID (Standard): zywb02.d Heated Purge: (Y/N) N

Calibration ID: 16680

		CRY		PRY			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		477765	21.04	459823	24.23		
UPPER LIMIT		955530	21.54	919646	24.73		
LOWER LIMIT		238883	20.54	229912	23.73		
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 200-41970/2-A		539332	21.04	529469	24.23		
MB 200-41970/1-A		530207	21.04	506878	24.23		
200-11554-1 RE	NFUDS-001-TP0101-01 RE	542511	21.04	445063	24.23		
200-11554-2 RE	NFUDS-001-TP0201-01 RE	559790	21.03	449750	24.23		
200-11554-3 RE	NFUDS-001-TP0302-01 RE	577624	21.03	533295	24.23		
200-11554-4 RE	NFUDS-001-TP0402-01 RE	540217	21.03	503008	24.23		

CRY = Chrysene-d12
PRY = Perylene-d12

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8270C SIM

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0101-01 | Lab Sample ID: 200-11554-1

Matrix: Solid | Lab File ID: zywa05.d

Analysis Method: 8270C SIM | Date Collected: 06/29/2012 08:30

Extract. Method: 3550C | Date Extracted: 07/11/2012 08:48

Sample wt/vol: 30.06(g) | Date Analyzed: 07/16/2012 18:05

Con. Extract Vol.: 1000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: 4.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 42145 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
91-20-3	*Naphthalene*	*0.30*	*J B*	*0.70*	0.086	*0.059*
91-57-6	*2-Methylnaphthalene*	*0.086*	*U*	*0.70*	0.086	*0.057*
208-96-8	*Acenaphthylene*	*0.086*	*U*	*0.70*	0.086	*0.055*
83-32-9	*Acenaphthene*	*0.086*	*U*	*0.70*	0.086	*0.055*
86-73-7	*Fluorene*	*0.086*	*U*	*0.70*	0.086	*0.057*
85-01-8	*Phenanthrene*	*0.26*	*J B*	*0.70*	0.086	*0.073*
120-12-7	*Anthracene*	*0.086*	*U*	*0.70*	0.086	*0.055*
206-44-0	*Fluoranthene*	*0.42*	*J B*	*0.70*	0.086	*0.064*
129-00-0	*Pyrene*	*0.36*	*J B*	*0.70*	0.044	*0.039*
56-55-3	*Benzo[a]anthracene*	*0.086*	*U*	*0.70*	0.086	*0.050*
218-01-9	*Chrysene*	*0.25*	*J B*	*0.70*	0.086	*0.059*
205-99-2	*Benzo[b]fluoranthene*	*0.39*	*J B*	*0.70*	0.086	*0.049*
207-08-9	*Benzo[k]fluoranthene*	*0.086*	*U*	*0.70*	0.086	*0.059*
50-32-8	*Benzo[a]pyrene*	*0.21*	*J B*	*0.70*	0.086	*0.049*
193-39-5	*Indeno[1,2,3-cd]pyrene*	*0.18*	*J M B*	*0.70*	0.086	*0.080*
53-70-3	*Dibenz(a,h)anthracene*	*0.18*	*U*	*0.70*	0.18	*0.059*
191-24-2	*Benzo[g,h,i]perylene*	*0.18*	*U*	*0.70*	0.18	*0.095*

CAS NO.	SURROGATE	%REC	Q	LIMITS
7297-45-2	2-Methylnaphthalene-d10	83		30-120
81103-79-9	Fluorene-d10	82		30-130
93951-69-0	Fluoranthene-d10	86		10-165
63466-71-7	Benzo(a)pyrene-d12	79		20-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0101-01 RE | Lab Sample ID: 200-11554-1 RE

Matrix: Solid | Lab File ID: zywb07.d

Analysis Method: 8270C SIM | Date Collected: 06/29/2012 08:30

Extract. Method: 3550C | Date Extracted: 07/17/2012 17:23

Sample wt/vol: 30.70(g) | Date Analyzed: 07/19/2012 17:54

Con. Extract Vol.: 1000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: 4.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 42148 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
91-20-3	Naphthalene	0.26	J H	0.68	0.085	0.058
91-57-6	2-Methylnaphthalene	0.085	U H	0.68	0.085	0.056
208-96-8	Acenaphthylene	0.085	U H	0.68	0.085	0.054
83-32-9	Acenaphthene	0.085	U H	0.68	0.085	0.054
86-73-7	Fluorene	0.085	U H	0.68	0.085	0.056
85-01-8	Phenanthrene	0.39	J H	0.68	0.085	0.071
120-12-7	Anthracene	0.085	U H	0.68	0.085	0.054
206-44-0	Fluoranthene	0.85	H	0.68	0.085	0.062
129-00-0	Pyrene	1.2	H B	0.68	0.043	0.038
56-55-3	Benzo[a]anthracene	0.26	J H	0.68	0.085	0.049
218-01-9	Chrysene	0.34	J H	0.68	0.085	0.058
205-99-2	Benzo[b]fluoranthene	0.59	J H	0.68	0.085	0.048
207-08-9	Benzo[k]fluoranthene	0.19	J H	0.68	0.085	0.058
50-32-8	Benzo[a]pyrene	0.30	J H	0.68	0.085	0.048
193-39-5	Indeno[1,2,3-cd]pyrene	0.085	U H	0.68	0.085	0.078
53-70-3	Dibenz(a,h)anthracene	0.17	U H	0.68	0.17	0.058
191-24-2	Benzo[g,h,i]perylene	0.17	U H	0.68	0.17	0.093

CAS NO.	SURROGATE	%REC	Q	LIMITS
7297-45-2	2-Methylnaphthalene-d10	86		30-120
81103-79-9	Fluorene-d10	85		30-130
93951-69-0	Fluoranthene-d10	89		10-165
63466-71-7	Benzo(a)pyrene-d12	87		20-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0201-01 | Lab Sample ID: 200-11554-2

Matrix: Solid | Lab File ID: zywa06.d

Analysis Method: 8270C SIM | Date Collected: 06/29/2012 08:45

Extract. Method: 3550C | Date Extracted: 07/11/2012 08:48

Sample wt/vol: 30.03(g) | Date Analyzed: 07/16/2012 18:44

Con. Extract Vol.: 1000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: 2.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 42145 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
91-20-3	*Naphthalene*	*0.30*	*J B*	*0.69*	0.085	*0.059*
91-57-6	*2-Methylnaphthalene*	*0.085*	*U*	*0.69*	0.085	*0.057*
208-96-8	*Acenaphthylene*	*0.085*	*U*	*0.69*	0.085	*0.055*
83-32-9	*Acenaphthene*	*0.085*	*U*	*0.69*	0.085	*0.055*
86-73-7	*Fluorene*	*0.085*	*U*	*0.69*	0.085	*0.057*
85-01-8	*Phenanthrene*	*0.26*	*J B*	*0.69*	0.085	*0.072*
120-12-7	*Anthracene*	*0.085*	*U*	*0.69*	0.085	*0.055*
206-44-0	*Fluoranthene*	*0.37*	*J B*	*0.69*	0.085	*0.063*
129-00-0	*Pyrene*	*0.35*	*J B*	*0.69*	0.043	*0.038*
56-55-3	*Benzo[a]anthracene*	*0.085*	*U*	*0.69*	0.085	*0.049*
218-01-9	*Chrysene*	*0.21*	*J B*	*0.69*	0.085	*0.059*
205-99-2	*Benzo[b]fluoranthene*	*0.30*	*J B*	*0.69*	0.085	*0.048*
207-08-9	*Benzo[k]fluoranthene*	*0.085*	*U*	*0.69*	0.085	*0.059*
50-32-8	*Benzo[a]pyrene*	*0.085*	*U*	*0.69*	0.085	*0.048*
193-39-5	*Indeno[1,2,3-cd]pyrene*	*0.085*	*U*	*0.69*	0.085	*0.079*
53-70-3	*Dibenz(a,h)anthracene*	*0.17*	*U*	*0.69*	0.17	*0.059*
191-24-2	*Benzo[g,h,i]perylene*	*0.17*	*U*	*0.69*	0.17	*0.094*

CAS NO.	SURROGATE	%REC	Q	LIMITS
7297-45-2	2-Methylnaphthalene-d10	87		30-120
81103-79-9	Fluorene-d10	85		30-130
93951-69-0	Fluoranthene-d10	89		10-165
63466-71-7	Benzo(a)pyrene-d12	83		20-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0201-01 RE | Lab Sample ID: 200-11554-2 RE

Matrix: Solid | Lab File ID: zywb08.d

Analysis Method: 8270C SIM | Date Collected: 06/29/2012 08:45

Extract. Method: 3550C | Date Extracted: 07/17/2012 17:23

Sample wt/vol: 30.31(g) | Date Analyzed: 07/19/2012 18:33

Con. Extract Vol.: 1000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: 2.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 42148 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
91-20-3	Naphthalene	0.21	J H	0.68	0.085	0.058
91-57-6	2-Methylnaphthalene	0.085	U H	0.68	0.085	0.056
208-96-8	Acenaphthylene	0.085	U H	0.68	0.085	0.054
83-32-9	Acenaphthene	0.085	U H	0.68	0.085	0.054
86-73-7	Fluorene	0.085	U H	0.68	0.085	0.056
85-01-8	Phenanthrene	0.25	J H	0.68	0.085	0.071
120-12-7	Anthracene	0.085	U H	0.68	0.085	0.054
206-44-0	Fluoranthene	0.60	J H	0.68	0.085	0.062
129-00-0	Pyrene	0.95	H B	0.68	0.043	0.038
56-55-3	Benzo[a]anthracene	0.19	J H	0.68	0.085	0.049
218-01-9	Chrysene	0.25	J H	0.68	0.085	0.058
205-99-2	Benzo[b]fluoranthene	0.41	J H	0.68	0.085	0.048
207-08-9	Benzo[k]fluoranthene	0.085	U H	0.68	0.085	0.058
50-32-8	Benzo[a]pyrene	0.20	J H	0.68	0.085	0.048
193-39-5	Indeno[1,2,3-cd]pyrene	0.085	U H	0.68	0.085	0.079
53-70-3	Dibenz(a,h)anthracene	0.17	U H	0.68	0.17	0.058
191-24-2	Benzo[g,h,i]perylene	0.17	U H	0.68	0.17	0.093

CAS NO.	SURROGATE	%REC	Q	LIMITS
7297-45-2	2-Methylnaphthalene-d10	77		30-120
81103-79-9	Fluorene-d10	72		30-130
93951-69-0	Fluoranthene-d10	75		10-165
63466-71-7	Benzo(a)pyrene-d12	74		20-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0302-01 | Lab Sample ID: 200-11554-3

Matrix: Solid | Lab File ID: zywa07.d

Analysis Method: 8270C SIM | Date Collected: 06/29/2012 08:44

Extract. Method: 3550C | Date Extracted: 07/11/2012 08:48

Sample wt/vol: 30.26(g) | Date Analyzed: 07/16/2012 19:23

Con. Extract Vol.: 1000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: 1.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 42145 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
91-20-3	*Naphthalene*	*0.25*	*J B*	*0.67*	0.083	*0.057*
91-57-6	*2-Methylnaphthalene*	*0.083*	*U*	*0.67*	0.083	*0.055*
208-96-8	*Acenaphthylene*	*0.083*	*U*	*0.67*	0.083	*0.053*
83-32-9	*Acenaphthene*	*0.083*	*U*	*0.67*	0.083	*0.053*
86-73-7	*Fluorene*	*0.083*	*U*	*0.67*	0.083	*0.055*
85-01-8	*Phenanthrene*	*0.083*	*U*	*0.67*	0.083	*0.070*
120-12-7	*Anthracene*	*0.083*	*U*	*0.67*	0.083	*0.053*
206-44-0	*Fluoranthene*	*0.083*	*U*	*0.67*	0.083	*0.061*
129-00-0	*Pyrene*	*0.042*	*U*	*0.67*	0.042	*0.037*
56-55-3	*Benzo[a]anthracene*	*0.083*	*U*	*0.67*	0.083	*0.048*
218-01-9	*Chrysene*	*0.083*	*U*	*0.67*	0.083	*0.057*
205-99-2	*Benzo[b]fluoranthene*	*0.083*	*U*	*0.67*	0.083	*0.047*
207-08-9	*Benzo[k]fluoranthene*	*0.083*	*U*	*0.67*	0.083	*0.057*
50-32-8	*Benzo[a]pyrene*	*0.083*	*U*	*0.67*	0.083	*0.047*
193-39-5	*Indeno[1,2,3-cd]pyrene*	*0.083*	*U*	*0.67*	0.083	*0.077*
53-70-3	*Dibenz(a,h)anthracene*	*0.17*	*U*	*0.67*	0.17	*0.057*
191-24-2	*Benzo[g,h,i]perylene*	*0.17*	*U*	*0.67*	0.17	*0.091*

CAS NO.	SURROGATE	%REC	Q	LIMITS
7297-45-2	2-Methylnaphthalene-d10	81		30-120
81103-79-9	Fluorene-d10	79		30-130
93951-69-0	Fluoranthene-d10	84		10-165
63466-71-7	Benzo(a)pyrene-d12	80		20-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0302-01 RE | Lab Sample ID: 200-11554-3 RE

Matrix: Solid | Lab File ID: zywb09.d

Analysis Method: 8270C SIM | Date Collected: 06/29/2012 08:44

Extract. Method: 3550C | Date Extracted: 07/17/2012 17:23

Sample wt/vol: 30.64(g) | Date Analyzed: 07/19/2012 19:11

Con. Extract Vol.: 1000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: 1.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 42148 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
91-20-3	Naphthalene	0.24	J H	0.66	0.082	0.057
91-57-6	2-Methylnaphthalene	0.082	U H	0.66	0.082	0.055
208-96-8	Acenaphthylene	0.082	U H	0.66	0.082	0.053
83-32-9	Acenaphthene	0.082	U H	0.66	0.082	0.053
86-73-7	Fluorene	0.082	U H	0.66	0.082	0.055
85-01-8	Phenanthrene	0.082	U H	0.66	0.082	0.069
120-12-7	Anthracene	0.082	U H	0.66	0.082	0.053
206-44-0	Fluoranthene	0.22	J H	0.66	0.082	0.061
129-00-0	Pyrene	0.57	J H B	0.66	0.042	0.037
56-55-3	Benzo[a]anthracene	0.082	U H	0.66	0.082	0.048
218-01-9	Chrysene	0.082	U H	0.66	0.082	0.057
205-99-2	Benzo[b]fluoranthene	0.082	U H	0.66	0.082	0.047
207-08-9	Benzo[k]fluoranthene	0.082	U H	0.66	0.082	0.057
50-32-8	Benzo[a]pyrene	0.082	U H	0.66	0.082	0.047
193-39-5	Indeno[1,2,3-cd]pyrene	0.082	U H	0.66	0.082	0.076
53-70-3	Dibenz(a,h)anthracene	0.17	U H	0.66	0.17	0.057
191-24-2	Benzo[g,h,i]perylene	0.17	U H	0.66	0.17	0.090

CAS NO.	SURROGATE	%REC	Q	LIMITS
7297-45-2	2-Methylnaphthalene-d10	88		30-120
81103-79-9	Fluorene-d10	84		30-130
93951-69-0	Fluoranthene-d10	87		10-165
63466-71-7	Benzo(a)pyrene-d12	88		20-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0402-01 | Lab Sample ID: 200-11554-4

Matrix: Solid | Lab File ID: zywa08.d

Analysis Method: 8270C SIM | Date Collected: 06/29/2012 08:55

Extract. Method: 3550C | Date Extracted: 07/11/2012 08:48

Sample wt/vol: 30.25(g) | Date Analyzed: 07/16/2012 20:02

Con. Extract Vol.: 1000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: 1.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 42145 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
91-20-3	*Naphthalene*	*0.23*	*J B*	*0.68*	0.084	*0.057*
91-57-6	*2-Methylnaphthalene*	*0.084*	*U*	*0.68*	0.084	*0.055*
208-96-8	*Acenaphthylene*	*0.084*	*U*	*0.68*	0.084	*0.053*
83-32-9	*Acenaphthene*	*0.084*	*U*	*0.68*	0.084	*0.053*
86-73-7	*Fluorene*	*0.084*	*U*	*0.68*	0.084	*0.055*
85-01-8	*Phenanthrene*	*0.084*	*U*	*0.68*	0.084	*0.071*
120-12-7	*Anthracene*	*0.084*	*U*	*0.68*	0.084	*0.053*
206-44-0	*Fluoranthene*	*0.084*	*U*	*0.68*	0.084	*0.062*
129-00-0	*Pyrene*	*0.042*	*U*	*0.68*	0.042	*0.037*
56-55-3	*Benzo[a]anthracene*	*0.084*	*U*	*0.68*	0.084	*0.048*
218-01-9	*Chrysene*	*0.084*	*U*	*0.68*	0.084	*0.057*
205-99-2	*Benzo[b]fluoranthene*	*0.084*	*U*	*0.68*	0.084	*0.047*
207-08-9	*Benzo[k]fluoranthene*	*0.084*	*U*	*0.68*	0.084	*0.057*
50-32-8	*Benzo[a]pyrene*	*0.084*	*U*	*0.68*	0.084	*0.047*
193-39-5	*Indeno[1,2,3-cd]pyrene*	*0.084*	*U*	*0.68*	0.084	*0.078*
53-70-3	*Dibenz(a,h)anthracene*	*0.17*	*U*	*0.68*	0.17	*0.057*
191-24-2	*Benzo[g,h,i]perylene*	*0.17*	*U*	*0.68*	0.17	*0.092*

CAS NO.	SURROGATE	%REC	Q	LIMITS
7297-45-2	2-Methylnaphthalene-d10	84		30-120
81103-79-9	Fluorene-d10	82		30-130
93951-69-0	Fluoranthene-d10	86		10-165
63466-71-7	Benzo(a)pyrene-d12	80		20-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0402-01 RE | Lab Sample ID: 200-11554-4 RE

Matrix: Solid | Lab File ID: zywb10.d

Analysis Method: 8270C SIM | Date Collected: 06/29/2012 08:55

Extract. Method: 3550C | Date Extracted: 07/17/2012 17:23

Sample wt/vol: 30.76(g) | Date Analyzed: 07/19/2012 19:50

Con. Extract Vol.: 1000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: 1.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 42148 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
91-20-3	Naphthalene	0.18	J H	0.66	0.082	0.057
91-57-6	2-Methylnaphthalene	0.082	U H	0.66	0.082	0.055
208-96-8	Acenaphthylene	0.082	U H	0.66	0.082	0.053
83-32-9	Acenaphthene	0.082	U H	0.66	0.082	0.053
86-73-7	Fluorene	0.082	U H	0.66	0.082	0.055
85-01-8	Phenanthrene	0.082	U H	0.66	0.082	0.069
120-12-7	Anthracene	0.082	U H	0.66	0.082	0.053
206-44-0	Fluoranthene	0.21	J H	0.66	0.082	0.061
129-00-0	Pyrene	0.54	J H B	0.66	0.042	0.037
56-55-3	Benzo[a]anthracene	0.082	U H	0.66	0.082	0.048
218-01-9	Chrysene	0.082	U H	0.66	0.082	0.057
205-99-2	Benzo[b]fluoranthene	0.082	U H	0.66	0.082	0.047
207-08-9	Benzo[k]fluoranthene	0.082	U H	0.66	0.082	0.057
50-32-8	Benzo[a]pyrene	0.082	U H	0.66	0.082	0.047
193-39-5	Indeno[1,2,3-cd]pyrene	0.082	U H	0.66	0.082	0.076
53-70-3	Dibenz(a,h)anthracene	0.17	U H	0.66	0.17	0.057
191-24-2	Benzo[g,h,i]perylene	0.17	U H	0.66	0.17	0.090

CAS NO.	SURROGATE	%REC	Q	LIMITS
7297-45-2	2-Methylnaphthalene-d10	84		30-120
81103-79-9	Fluorene-d10	81		30-130
93951-69-0	Fluoranthene-d10	84		10-165
63466-71-7	Benzo(a)pyrene-d12	82		20-130

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41872

SDG No.: 200-11554-1

Instrument ID: Z.i GC Column: ZB-SVOA ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/13/2012 16:20 Calibration End Date: 07/13/2012 18:56 Calibration ID: 16680

Calibration Files:

LEVEL:	LAB SAMPLE ID:	EPA SAMPLE NO:	LAB FILE ID:
Level 1	IC 200-41872/6	SSTD0.02	zyw09.d
Level 2	IC 200-41872/5	SSTD0.1	zyw08.d
Level 3	ICIS 200-41872/4	SSTD0.25	zyw07.d
Level 4	IC 200-41872/3	SSTD0.5	zyw06.d
Level 5	IC 200-41872/2	SSTD001	zyw05.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Naphthalene	1.1307	1.0677	1.0407	1.0187	0.9828	Ave		1.0481			0.7000	5.3		20.0			
2-Methylnaphthalene	0.6581	0.6828	0.6692	0.6619	0.6390	Ave		0.6622			0.4000	2.4		20.0			
1-Methylnaphthalene	0.6554	0.6765	0.6640	0.6608	0.6468	Ave		0.6607			0.2000	1.7		20.0			
1,1'-Biphenyl	1.4324	1.4984	1.5463	1.5085	1.4705	Ave		1.4912			0.2000	2.9		20.0			
2,6-Dimethylnaphthalene	0.9880	1.0518	1.0623	1.0673	1.0624	Ave		1.0464			0.2000	3.2		20.0			
Acenaphthylene	1.6040	1.6877	1.7963	1.8354	1.7867	Ave		1.7420			0.9000	5.4		20.0			
Acenaphthene	1.1496	1.1575	1.1690	1.1614	1.1280	Ave		1.1531			0.9000	1.4		20.0			
2,3,5-Trimethylnaphthalene	0.9307	0.9526	0.9800	0.9965	0.9725	Ave		0.9664			0.2000	2.6		20.0			
Fluorene	1.2429	1.2894	1.3291	1.3281	1.3131	Ave		1.3005			0.9000	2.8		20.0			
Dibenzothiophene	1.0375	1.0123	1.0259	1.0218	0.9762	Ave		1.0148			0.2000	2.3		20.0			
Phenanthrene	1.1621	1.0651	1.0705	1.0465	1.0063	Ave		1.0701			0.7000	5.3		20.0			
Anthracene	0.9879	0.9930	1.0244	1.0406	1.0124	Ave		1.0117			0.7000	2.2		20.0			
1-Methylphenanthrene	0.7587	0.7413	0.7594	0.7585	0.7459	Ave		0.7528			0.2000	1.1		20.0			
Fluoranthene	1.1756	1.1487	1.1664	1.1142	1.0828	Ave		1.1376			0.6000	3.4		20.0			
Pyrene	1.2548	1.1472	1.1562	1.1760	1.1262	Ave		1.1721			0.6000	4.2		20.0			
Benzo[a]anthracene	0.9779	0.9138	0.9536	0.9955	1.0170	Ave		0.9715			0.8000	4.1		20.0			
Chrysene	1.3964	1.1841	1.1812	1.1499	1.0710	Ave		1.1965			0.7000	10.1		20.0			
Benzo[b]fluoranthene	1.0133	1.0069	1.0758	1.0634	1.0830	Ave		1.0485			0.7000	3.4		20.0			
Benzo[k]fluoranthene	1.4377	1.3484	1.3779	1.2995	1.1822	Ave		1.3291			0.7000	7.2		20.0			
Benzo[e]pyrene	1.2747	1.1618	1.1664	1.1134	1.0688	Ave		1.1570			0.7000	6.6		20.0			
Benzo[a]pyrene	1.1604	1.1144	1.1526	1.1241	1.0812	Ave		1.1265			0.7000	2.8		20.0			
Perylene	1.2991	1.1203	1.1465	1.0918	1.0400	Ave		1.1395			0.2000	8.6		20.0			
Indeno[1,2,3-cd]pyrene	0.6821	0.7629	0.8495	0.8732	0.8913	Ave		0.8118			0.5000	10.8		20.0			
Dibenz(a,h)anthracene	0.9391	0.9546	1.0772	0.9773	1.0337	Ave		0.9964			0.4000	5.8		20.0			
Benzo[g,h,i]perylene	1.2122	1.1774	1.1955	1.1636	1.0840	Ave		1.1665			0.5000	4.3		20.0			
2-Methylnaphthalene-d10	0.5853	0.6121	0.6119	0.6147	0.5983	Ave		0.6045			0.2000	2.1		20.0			
Fluorene-d10	0.9831	1.0035	1.0223	1.0247	1.0191	Ave		1.0105			0.2000	1.7		20.0			
Fluoranthene-d10	0.9750	0.9318	0.9678	0.9736	0.9470	Ave		0.9591			0.2000	2.0		20.0			
Benzo(a)pyrene-d12	0.8040	0.7964	0.8165	0.8106	0.7983	Ave		0.8052			0.2000	1.0		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS SEMI VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41872

SDG No.: 200-11554-1

Instrument ID: Z.i GC Column: ZB-SVOA ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/13/2012 16:20 Calibration End Date: 07/13/2012 18:56 Calibration ID: 16680

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-41872/6	zyw09.d
Level 2	IC 200-41872/5	zyw08.d
Level 3	ICIS 200-41872/4	zyw07.d
Level 4	IC 200-41872/3	zyw06.d
Level 5	IC 200-41872/2	zyw05.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
Naphthalene	NPT	Ave	26878	127698	307395	608707	1211210	0.0400	0.200	0.500	1.00	2.00
2-Methylnaphthalene	NPT	Ave	15643	81666	197654	395490	787471	0.0400	0.200	0.500	1.00	2.00
1-Methylnaphthalene	NPT	Ave	15579	80907	196118	394875	797058	0.0400	0.200	0.500	1.00	2.00
1,1'-Biphenyl	ANT	Ave	18002	96821	245053	490420	973239	0.0400	0.200	0.500	1.00	2.00
2,6-Dimethylnaphthalene	ANT	Ave	12417	67961	168353	346998	703090	0.0400	0.200	0.500	1.00	2.00
Acenaphthylene	ANT	Ave	20158	109051	284675	596712	1182476	0.0400	0.200	0.500	1.00	2.00
Acenaphthene	ANT	Ave	14448	74795	185262	377586	746562	0.0400	0.200	0.500	1.00	2.00
2,3,5-Trimethylnaphthalene	ANT	Ave	11696	61554	155303	323963	643599	0.0400	0.200	0.500	1.00	2.00
Fluorene	ANT	Ave	15620	83318	210639	431761	869048	0.0400	0.200	0.500	1.00	2.00
Dibenzothiophene	PHN	Ave	21486	108968	276262	573542	1141617	0.0400	0.200	0.500	1.00	2.00
Phenanthrene	PHN	Ave	24066	114653	288270	587360	1176829	0.0400	0.200	0.500	1.00	2.00
Anthracene	PHN	Ave	20459	106882	275872	584058	1183947	0.0400	0.200	0.500	1.00	2.00
1-Methylphenanthrene	PHN	Ave	15712	79798	204507	425707	872261	0.0400	0.200	0.500	1.00	2.00
Fluoranthene	PHN	Ave	24347	123646	314112	625396	1266263	0.0400	0.200	0.500	1.00	2.00
Pyrene	CRY	Ave	25398	121321	304769	640857	1298646	0.0400	0.200	0.500	1.00	2.00
Benzo[a]anthracene	CRY	Ave	19792	96636	251352	542494	1172710	0.0400	0.200	0.500	1.00	2.00
Chrysene	CRY	Ave	28264	125223	311352	626627	1234945	0.0400	0.200	0.500	1.00	2.00
Benzo[b]fluoranthene	PRY	Ave	19557	102933	270525	567659	1283095	0.0400	0.200	0.500	1.00	2.00
Benzo[k]fluoranthene	PRY	Ave	27747	137842	346481	693689	1400679	0.0400	0.200	0.500	1.00	2.00
Benzo[e]pyrene	PRY	Ave	24601	118767	293304	594373	1266288	0.0400	0.200	0.500	1.00	2.00
Benzo[a]pyrene	PRY	Ave	22396	113921	289836	600052	1280962	0.0400	0.200	0.500	1.00	2.00
Perylene	PRY	Ave	25072	114523	288289	582799	1232118	0.0400	0.200	0.500	1.00	2.00
Indeno[1,2,3-cd]pyrene	PRY	Ave	13164	77987	213618	466128	1055941	0.0400	0.200	0.500	1.00	2.00
Dibenz(a,h)anthracene	PRY	Ave	18124	97583	270879	521672	1224672	0.0400	0.200	0.500	1.00	2.00
Benzo[g,h,i]perylene	PRY	Ave	23395	120359	300621	621152	1284330	0.0400	0.200	0.500	1.00	2.00
2-Methylnaphthalene-d10	NPT	Ave	13913	73204	180750	367291	737342	0.0400	0.200	0.500	1.00	2.00
Fluorene-d10	ANT	Ave	12355	64841	162007	333122	674461	0.0400	0.200	0.500	1.00	2.00
Fluoranthene-d10	PHN	Ave	20192	100300	260617	546476	1107471	0.0400	0.200	0.500	1.00	2.00
Benzo(a)pyrene-d12	PRY	Ave	15518	81416	205321	432725	945787	0.0400	0.200	0.500	1.00	2.00

Curve Type Legend:
Ave = Average ISTD

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: ICV 200-41872/7 Calibration Date: 07/13/2012 19:34

Instrument ID: Z.i Calib Start Date: 07/13/2012 16:20

GC Column: ZB-SVOA ID: 0.25(mm) Calib End Date: 07/13/2012 18:56

Lab File ID: zyw10.d Conc. Units: ug/L

EPA Sample No.: SSTD0.25-ICV

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Naphthalene	Ave	1.048	1.037	0.7000	247	250	-1.0	25.0
2-Methylnaphthalene	Ave	0.6622	0.7057	0.2000	266	250	6.6	25.0
1-Methylnaphthalene	Ave	0.6607	0.6633	0.2000	251	250	0.4	25.0
1,1'-Biphenyl	Ave	1.491	1.529	0.2000	256	250	2.5	25.0
2,6-Dimethylnaphthalene	Ave	1.046	1.092	0.2000	261	250	4.4	25.0
Acenaphthylene	Ave	1.742	1.734	0.9000	249	250	-0.4	25.0
Acenaphthene	Ave	1.153	1.164	0.9000	252	250	0.9	25.0
2,3,5-Trimethylnaphthalene	Ave	0.9664	0.9714	0.2000	251	250	0.5	25.0
Fluorene	Ave	1.301	1.309	0.9000	252	250	0.6	25.0
Dibenzothiophene	Ave	1.015	1.097	0.2000	270	250	8.1	25.0
Phenanthrene	Ave	1.070	1.088	0.7000	254	250	1.7	25.0
Anthracene	Ave	1.012	1.032	0.7000	255	250	2.0	25.0
1-Methylphenanthrene	Ave	0.7528	0.7749	0.2000	257	250	2.9	25.0
Fluoranthene	Ave	1.138	1.115	0.6000	245	250	-2.0	25.0
Pyrene	Ave	1.172	1.185	0.6000	253	250	1.1	25.0
Benzo[a]anthracene	Ave	0.9715	0.9471	0.8000	244	250	-2.5	25.0
Chrysene	Ave	1.197	1.189	0.7000	249	250	-0.6	25.0
Benzo[b]fluoranthene	Ave	1.048	1.060	0.7000	253	250	1.1	25.0
Benzo[k]fluoranthene	Ave	1.329	1.323	0.7000	249	250	-0.4	25.0
Benzo[e]pyrene	Ave	1.157	1.103	0.2000	238	250	-4.7	25.0
Benzo[a]pyrene	Ave	1.127	1.025	0.7000	227	250	-9.0	25.0
Perylene	Ave	1.140	1.176	0.2000	258	250	3.2	25.0
Indeno[1,2,3-cd]pyrene	Ave	0.8118	0.8262	0.5000	254	250	1.8	25.0
Dibenz(a,h)anthracene	Ave	0.996	1.078	0.4000	271	250	8.2	25.0
Benzo[g,h,i]perylene	Ave	1.167	1.226	0.5000	263	250	5.1	25.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: CCVIS 200-42145/2 Calibration Date: 07/16/2012 15:49

Instrument ID: Z.i Calib Start Date: 07/13/2012 16:20

GC Column: ZB-SVOA ID: 0.25(mm) Calib End Date: 07/13/2012 18:56

Lab File ID: zywa02.d Conc. Units: ug/L

EPA Sample No.: SSTD0.25

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Naphthalene	Ave	1.048	1.053	0.7000	251	250	0.5	20.0
2-Methylnaphthalene	Ave	0.6622	0.6857	0.2000	259	250	3.6	20.0
1-Methylnaphthalene	Ave	0.6607	0.6817	0.2000	258	250	3.2	20.0
1,1'-Biphenyl	Ave	1.491	1.593	0.2000	267	250	6.8	20.0
2,6-Dimethylnaphthalene	Ave	1.046	1.116	0.2000	267	250	6.6	20.0
Acenaphthylene	Ave	1.742	1.876	0.9000	269	250	7.7	20.0
Acenaphthene	Ave	1.153	1.217	0.9000	264	250	5.5	20.0
2,3,5-Trimethylnaphthalene	Ave	0.9664	1.006	0.2000	260	250	4.1	20.0
Fluorene	Ave	1.301	1.385	0.9000	266	250	6.5	20.0
Dibenzothiophene	Ave	1.015	1.062	0.2000	262	250	4.7	20.0
Phenanthrene	Ave	1.070	1.107	0.7000	259	250	3.4	20.0
Anthracene	Ave	1.012	1.064	0.7000	263	250	5.2	20.0
1-Methylphenanthrene	Ave	0.7528	0.8302	0.2000	276	250	10.3	20.0
Fluoranthene	Ave	1.138	1.215	0.6000	267	250	6.8	20.0
Pyrene	Ave	1.172	1.167	0.6000	249	250	-0.4	20.0
Benzo[a]anthracene	Ave	0.9715	1.004	0.8000	258	250	3.3	20.0
Chrysene	Ave	1.197	1.165	0.7000	243	250	-2.6	20.0
Benzo[b]fluoranthene	Ave	1.048	1.046	0.7000	249	250	-0.3	20.0
Benzo[k]fluoranthene	Ave	1.329	1.356	0.7000	255	250	2.0	20.0
Benzo[e]pyrene	Ave	1.157	1.156	0.2000	250	250	-0.1	20.0
Benzo[a]pyrene	Ave	1.127	1.158	0.7000	257	250	2.8	20.0
Perylene	Ave	1.140	1.121	0.2000	246	250	-1.6	20.0
Indeno[1,2,3-cd]pyrene	Ave	0.8118	0.8393	0.5000	258	250	3.4	20.0
Dibenz(a,h)anthracene	Ave	0.996	0.8866	0.4000	222	250	-11.0	20.0
Benzo[g,h,i]perylene	Ave	1.167	1.099	0.5000	235	250	-5.8	20.0
2-Methylnaphthalene-d10	Ave	0.6045	0.6222	0.2000	257	250	2.9	20.0
Fluorene-d10	Ave	1.011	1.063	0.2000	263	250	5.2	20.0
Fluoranthene-d10	Ave	0.9591	1.027	0.2000	268	250	7.0	20.0
Benzo(a)pyrene-d12	Ave	0.8052	0.8324	0.2000	258	250	3.4	20.0

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: CCVIS 200-42148/2 Calibration Date: 07/19/2012 14:40

Instrument ID: Z.i Calib Start Date: 07/13/2012 16:20

GC Column: ZB-SVOA ID: 0.25(mm) Calib End Date: 07/13/2012 18:56

Lab File ID: zywb02.d Conc. Units: ug/L

EPA Sample No.: SSTD0.25

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Naphthalene	Ave	1.048	1.047	0.7000	250	250	-0.1	20.0
2-Methylnaphthalene	Ave	0.6622	0.6783	0.2000	256	250	2.4	20.0
1-Methylnaphthalene	Ave	0.6607	0.6764	0.2000	256	250	2.4	20.0
1,1'-Biphenyl	Ave	1.491	1.592	0.2000	267	250	6.8	20.0
2,6-Dimethylnaphthalene	Ave	1.046	1.101	0.2000	263	250	5.3	20.0
Acenaphthylene	Ave	1.742	1.814	0.9000	260	250	4.1	20.0
Acenaphthene	Ave	1.153	1.192	0.9000	258	250	3.3	20.0
2,3,5-Trimethylnaphthalene	Ave	0.9664	0.998	0.2000	258	250	3.2	20.0
Fluorene	Ave	1.301	1.359	0.9000	261	250	4.5	20.0
Dibenzothiophene	Ave	1.015	1.028	0.2000	253	250	1.3	20.0
Phenanthrene	Ave	1.070	1.086	0.7000	254	250	1.5	20.0
Anthracene	Ave	1.012	1.010	0.7000	250	250	-0.2	20.0
1-Methylphenanthrene	Ave	0.7528	0.7728	0.2000	257	250	2.7	20.0
Fluoranthene	Ave	1.138	1.193	0.6000	262	250	4.9	20.0
Pyrene	Ave	1.172	1.326	0.6000	283	250	13.1	20.0
Benzo[a]anthracene	Ave	0.9715	1.076	0.8000	277	250	10.7	20.0
Chrysene	Ave	1.197	1.149	0.7000	240	250	-3.9	20.0
Benzo[b]fluoranthene	Ave	1.048	1.183	0.7000	282	250	12.8	20.0
Benzo[k]fluoranthene	Ave	1.329	1.285	0.7000	242	250	-3.3	20.0
Benzo[e]pyrene	Ave	1.157	1.178	0.2000	254	250	1.8	20.0
Benzo[a]pyrene	Ave	1.127	1.142	0.7000	253	250	1.4	20.0
Perylene	Ave	1.140	1.123	0.2000	246	250	-1.5	20.0
Indeno[1,2,3-cd]pyrene	Ave	0.8118	0.8890	0.5000	274	250	9.5	20.0
Dibenz(a,h)anthracene	Ave	0.996	1.004	0.4000	252	250	0.8	20.0
Benzo[g,h,i]perylene	Ave	1.167	1.136	0.5000	243	250	-2.6	20.0
2-Methylnaphthalene-d10	Ave	0.6045	0.6391	0.2000	264	250	5.7	20.0
Fluorene-d10	Ave	1.011	1.093	0.2000	270	250	8.2	20.0
Fluoranthene-d10	Ave	0.9591	1.061	0.2000	277	250	10.6	20.0
Benzo(a)pyrene-d12	Ave	0.8052	0.8774	0.2000	272	250	9.0	20.0

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: | Lab Sample ID: MB 200-41630/1-A

Matrix: Solid | Lab File ID: zywa04.d

Analysis Method: 8270C SIM | Date Collected:

Extract. Method: 3550C | Date Extracted: 07/11/2012 08:48

Sample wt/vol: 30.57(g) | Date Analyzed: 07/16/2012 17:26

Con. Extract Vol.: 1000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 42145 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
91-20-3	Naphthalene	1.42		0.66	0.081	0.056
91-57-6	2-Methylnaphthalene	1.21		0.66	0.081	0.054
208-96-8	Acenaphthylene	1.21		0.66	0.081	0.052
83-32-9	Acenaphthene	1.17		0.66	0.081	0.052
86-73-7	Fluorene	1.20		0.66	0.081	0.054
85-01-8	Phenanthrene	1.20		0.66	0.081	0.069
120-12-7	Anthracene	1.07		0.66	0.081	0.052
206-44-0	Fluoranthene	1.20		0.66	0.081	0.060
129-00-0	Pyrene	1.16		0.66	0.041	0.036
56-55-3	Benzo[a]anthracene	1.18		0.66	0.081	0.047
218-01-9	Chrysene	1.09		0.66	0.081	0.056
205-99-2	Benzo[b]fluoranthene	1.11		0.66	0.081	0.046
207-08-9	Benzo[k]fluoranthene	1.07		0.66	0.081	0.056
50-32-8	Benzo[a]pyrene	1.10		0.66	0.081	0.046
193-39-5	Indeno[1,2,3-cd]pyrene	1.01		0.66	0.081	0.076
53-70-3	Dibenz(a,h)anthracene	0.984		0.66	0.17	0.056
191-24-2	Benzo[g,h,i]perylene	1.01		0.66	0.17	0.089

CAS NO.	SURROGATE	%REC	Q	LIMITS
7297-45-2	2-Methylnaphthalene-d10	90		30-120
81103-79-9	Fluorene-d10	89		30-130
93951-69-0	Fluoranthene-d10	89		10-165
63466-71-7	Benzo(a)pyrene-d12	87		20-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: | Lab Sample ID: MB 200-41970/1-A

Matrix: Solid | Lab File ID: zywb06.d

Analysis Method: 8270C SIM | Date Collected:

Extract. Method: 3550C | Date Extracted: 07/17/2012 17:23

Sample wt/vol: 30.00(g) | Date Analyzed: 07/19/2012 17:15

Con. Extract Vol.: 1000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 42148 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
91-20-3	Naphthalene	0.083	U	0.67	0.083	0.057
91-57-6	2-Methylnaphthalene	0.083	U	0.67	0.083	0.055
208-96-8	Acenaphthylene	0.083	U	0.67	0.083	0.053
83-32-9	Acenaphthene	0.083	U	0.67	0.083	0.053
86-73-7	Fluorene	0.083	U	0.67	0.083	0.055
85-01-8	Phenanthrene	0.083	U	0.67	0.083	0.070
120-12-7	Anthracene	0.083	U	0.67	0.083	0.053
206-44-0	Fluoranthene	0.248	J	0.67	0.083	0.061
129-00-0	Pyrene	0.688		0.67	0.042	0.037
56-55-3	Benzo[a]anthracene	0.083	U	0.67	0.083	0.048
218-01-9	Chrysene	0.083	U	0.67	0.083	0.057
205-99-2	Benzo[b]fluoranthene	0.083	U	0.67	0.083	0.047
207-08-9	Benzo[k]fluoranthene	0.083	U	0.67	0.083	0.057
50-32-8	Benzo[a]pyrene	0.083	U	0.67	0.083	0.047
193-39-5	Indeno[1,2,3-cd]pyrene	0.083	U	0.67	0.083	0.077
53-70-3	Dibenz(a,h)anthracene	0.17	U	0.67	0.17	0.057
191-24-2	Benzo[g,h,i]perylene	0.17	U	0.67	0.17	0.091

CAS NO.	SURROGATE	%REC	Q	LIMITS
7297-45-2	2-Methylnaphthalene-d10	90		30-120
81103-79-9	Fluorene-d10	88		30-130
93951-69-0	Fluoranthene-d10	91		10-165
63466-71-7	Benzo(a)pyrene-d12	90		20-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: | Lab Sample ID: LCS 200-41630/2-A

Matrix: Solid | Lab File ID: zywa03.d

Analysis Method: 8270C SIM | Date Collected:

Extract. Method: 3550C | Date Extracted: 07/11/2012 08:48

Sample wt/vol: 30.81(g) | Date Analyzed: 07/16/2012 16:47

Con. Extract Vol.: 1000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 42145 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
91-20-3	Naphthalene	10.6		0.65	0.081	0.056
91-57-6	2-Methylnaphthalene	10.3		0.65	0.081	0.054
208-96-8	Acenaphthylene	11.5		0.65	0.081	0.052
83-32-9	Acenaphthene	10.7		0.65	0.081	0.052
86-73-7	Fluorene	11.0		0.65	0.081	0.054
85-01-8	Phenanthrene	10.5		0.65	0.081	0.068
120-12-7	Anthracene	10.6		0.65	0.081	0.052
206-44-0	Fluoranthene	10.5		0.65	0.081	0.059
129-00-0	Pyrene	10.2		0.65	0.041	0.036
56-55-3	Benzo[a]anthracene	11.4		0.65	0.081	0.047
218-01-9	Chrysene	9.91		0.65	0.081	0.056
205-99-2	Benzo[b]fluoranthene	10.8		0.65	0.081	0.046
207-08-9	Benzo[k]fluoranthene	10.5		0.65	0.081	0.056
50-32-8	Benzo[a]pyrene	10.3		0.65	0.081	0.046
193-39-5	Indeno[1,2,3-cd]pyrene	10.9		0.65	0.081	0.075
53-70-3	Dibenz(a,h)anthracene	9.32		0.65	0.17	0.056
191-24-2	Benzo[g,h,i]perylene	9.60		0.65	0.17	0.089

CAS NO.	SURROGATE	%REC	Q	LIMITS
7297-45-2	2-Methylnaphthalene-d10	89		30-120
81103-79-9	Fluorene-d10	88		30-130
93951-69-0	Fluoranthene-d10	89		10-165
63466-71-7	Benzo(a)pyrene-d12	84		20-130

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: | Lab Sample ID: LCS 200-41970/2-A

Matrix: Solid | Lab File ID: zywb04.d

Analysis Method: 8270C SIM | Date Collected:

Extract. Method: 3550C | Date Extracted: 07/17/2012 17:23

Sample wt/vol: 30.00(g) | Date Analyzed: 07/19/2012 15:57

Con. Extract Vol.: 1000(uL) | Dilution Factor: 1

Injection Volume: 2(uL) | Level: (low/med) Low

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 42148 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
91-20-3	Naphthalene	11.1		0.67	0.083	0.057
91-57-6	2-Methylnaphthalene	12.1		0.67	0.083	0.055
208-96-8	Acenaphthylene	12.1		0.67	0.083	0.053
83-32-9	Acenaphthene	11.2		0.67	0.083	0.053
86-73-7	Fluorene	11.5		0.67	0.083	0.055
85-01-8	Phenanthrene	10.9		0.67	0.083	0.070
120-12-7	Anthracene	11.2		0.67	0.083	0.053
206-44-0	Fluoranthene	11.4		0.67	0.083	0.061
129-00-0	Pyrene	11.0		0.67	0.042	0.037
56-55-3	Benzo[a]anthracene	12.7		0.67	0.083	0.048
218-01-9	Chrysene	10.3		0.67	0.083	0.057
205-99-2	Benzo[b]fluoranthene	13.0		0.67	0.083	0.047
207-08-9	Benzo[k]fluoranthene	10.6		0.67	0.083	0.057
50-32-8	Benzo[a]pyrene	11.1		0.67	0.083	0.047
193-39-5	Indeno[1,2,3-cd]pyrene	8.46		0.67	0.083	0.077
53-70-3	Dibenz(a,h)anthracene	7.32		0.67	0.17	0.057
191-24-2	Benzo[g,h,i]perylene	6.10		0.67	0.17	0.091

CAS NO.	SURROGATE	%REC	Q	LIMITS
7297-45-2	2-Methylnaphthalene-d10	88		30-120
81103-79-9	Fluorene-d10	83		30-130
93951-69-0	Fluoranthene-d10	88		10-165
63466-71-7	Benzo(a)pyrene-d12	84		20-130

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: Z.i Start Date: 07/13/2012 15:45

Analysis Batch Number: 41872 End Date: 07/14/2012 02:41

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 200-41872/1		07/13/2012 15:45	1	zyw04.d	ZB-SVOA 0.25(mm)
IC 200-41872/2		07/13/2012 16:20	1	zyw05.d	ZB-SVOA 0.25(mm)
IC 200-41872/3		07/13/2012 16:59	1	zyw06.d	ZB-SVOA 0.25(mm)
ICIS 200-41872/4		07/13/2012 17:38	1	zyw07.d	ZB-SVOA 0.25(mm)
IC 200-41872/5		07/13/2012 18:17	1	zyw08.d	ZB-SVOA 0.25(mm)
IC 200-41872/6		07/13/2012 18:56	1	zyw09.d	ZB-SVOA 0.25(mm)
ICV 200-41872/7		07/13/2012 19:34	1	zyw10.d	ZB-SVOA 0.25(mm)
ZZZZZ		07/13/2012 20:13	1		ZB-SVOA 0.25(mm)
ZZZZZ		07/13/2012 20:52	1		ZB-SVOA 0.25(mm)
ZZZZZ		07/13/2012 21:31	1		ZB-SVOA 0.25(mm)
ZZZZZ		07/13/2012 22:09	1		ZB-SVOA 0.25(mm)
ZZZZZ		07/13/2012 22:48	1		ZB-SVOA 0.25(mm)
ZZZZZ		07/13/2012 23:27	1		ZB-SVOA 0.25(mm)
ZZZZZ		07/14/2012 00:06	1		ZB-SVOA 0.25(mm)
ZZZZZ		07/14/2012 00:45	1		ZB-SVOA 0.25(mm)
ZZZZZ		07/14/2012 01:23	1		ZB-SVOA 0.25(mm)
ZZZZZ		07/14/2012 02:02	1		ZB-SVOA 0.25(mm)
ZZZZZ		07/14/2012 02:41	1		ZB-SVOA 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: Z.i Start Date: 07/16/2012 13:41

Analysis Batch Number: 42145 End Date: 07/16/2012 20:40

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 200-42145/1		07/16/2012 13:41	1	zywa01.d	ZB-SVOA 0.25(mm)
CCVIS 200-42145/2		07/16/2012 15:49	1	zywa02.d	ZB-SVOA 0.25(mm)
LCS 200-41630/2-A		07/16/2012 16:47	1	zywa03.d	ZB-SVOA 0.25(mm)
MB 200-41630/1-A		07/16/2012 17:26	1	zywa04.d	ZB-SVOA 0.25(mm)
200-11554-1	NFUDS-001-TP0101-01	07/16/2012 18:05	1	zywa05.d	ZB-SVOA 0.25(mm)
200-11554-2	NFUDS-001-TP0201-01	07/16/2012 18:44	1	zywa06.d	ZB-SVOA 0.25(mm)
200-11554-3	NFUDS-001-TP0302-01	07/16/2012 19:23	1	zywa07.d	ZB-SVOA 0.25(mm)
200-11554-4	NFUDS-001-TP0402-01	07/16/2012 20:02	1	zywa08.d	ZB-SVOA 0.25(mm)
ZZZZZ		07/16/2012 20:40	1		ZB-SVOA 0.25(mm)

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: Z.i Start Date: 07/19/2012 14:24

Analysis Batch Number: 42148 End Date: 07/19/2012 19:50

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 200-42148/1		07/19/2012 14:24	1	zywb01.d	ZB-SVOA 0.25(mm)
CCVIS 200-42148/2		07/19/2012 14:40	1	zywb02.d	ZB-SVOA 0.25(mm)
LCS 200-41970/2-A		07/19/2012 15:57	1	zywb04.d	ZB-SVOA 0.25(mm)
ZZZZZ		07/19/2012 16:36	1		ZB-SVOA 0.25(mm)
MB 200-41970/1-A		07/19/2012 17:15	1	zywb06.d	ZB-SVOA 0.25(mm)
200-11554-1 RE	NFUDS-001-TP0101-01 RE	07/19/2012 17:54	1	zywb07.d	ZB-SVOA 0.25(mm)
200-11554-2 RE	NFUDS-001-TP0201-01 RE	07/19/2012 18:33	1	zywb08.d	ZB-SVOA 0.25(mm)
200-11554-3 RE	NFUDS-001-TP0302-01 RE	07/19/2012 19:11	1	zywb09.d	ZB-SVOA 0.25(mm)
200-11554-4 RE	NFUDS-001-TP0402-01 RE	07/19/2012 19:50	1	zywb10.d	ZB-SVOA 0.25(mm)

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Batch Number: 41630 Batch Start Date: 07/11/12 08:48 Batch Analyst: Tice, Melissa L.

Batch Method: 3550C Batch End Date: 07/11/12 15:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	EX8270SIMSPi 00008	EX8270SIMSUi 00008		
MB 200-41630/1		3550C, 8270C SIM		30.57 g	1000 uL		0.5 mL		
LCS 200-41630/2		3550C, 8270C SIM		30.81 g	1000 uL	0.5 mL	0.5 mL		
200-11554-D-1	NFUDS-001-TP0101 -01	3550C, 8270C SIM	T	30.06 g	1000 uL		0.5 mL		
200-11554-D-2	NFUDS-001-TP0201 -01	3550C, 8270C SIM	T	30.03 g	1000 uL		0.5 mL		
200-11554-E-3	NFUDS-001-TP0302 -01	3550C, 8270C SIM	T	30.26 g	1000 uL		0.5 mL		
200-11554-E-4	NFUDS-001-TP0402 -01	3550C, 8270C SIM	T	30.25 g	1000 uL		0.5 mL		

Batch Notes	
Balance ID	L92017
Concentration End Time	1310
Concentration Start Time	1140
Person's name who did the concentration	MLT
Na2SO4 Lot Number	345047
Nominal Amount Used	30 g
Prep Solvent Lot #	345050
Prep Solvent Name	MECL2/ACETONE
Prep Solvent Volume Used	300 mL
Person's name who did the prep	MLT
Person's name who witnessed reagent drop	EAN
Analyst who added reagent	MLT
SU Reagent Drop	MLT
SU Reagent Drop Witness	EAN

Basis	Basis Description
T	Total/NA

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Batch Number: 41970 Batch Start Date: 07/17/12 17:23 Batch Analyst: Bourdeau, Timothy P

Batch Method: 3550C Batch End Date: 07/17/12 20:50

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	EX8270SIMSPi 00009	EX8270SIMSUi 00008		
MB 200-41970/1		3550C, 8270C SIM		30.00 g	1000 uL		0.5 mL		
LCS 200-41970/2		3550C, 8270C SIM		30.00 g	1000 uL	0.5 mL	0.5 mL		
200-11554-E-1	NFUDS-001-TP0101 -01	3550C, 8270C SIM	T	30.70 g	1000 uL		0.5 mL		
200-11554-D-2	NFUDS-001-TP0201 -01	3550C, 8270C SIM	T	30.31 g	1000 uL		0.5 mL		
200-11554-D-3	NFUDS-001-TP0302 -01	3550C, 8270C SIM	T	30.64 g	1000 uL		0.5 mL		
200-11554-E-4	NFUDS-001-TP0402 -01	3550C, 8270C SIM	T	30.76 g	1000 uL		0.5 mL		

Batch Notes	
Concentration End Time	20:30
Concentration Start Time	18:50
Person's name who did the concentration	TPB
Exchange Solvent Lot #	342507
Exchange Solvent Name	hexane
Final Concentrator Volume	1.0 mL
Na2SO4 Lot Number	345047
Nominal Amount Used	30 g
Prep Solvent Lot #	361111/324394
Prep Solvent Name	mecl2/acetone
Prep Solvent Volume Used	300 mL
Person's name who did the prep	TPB
Person's name who witnessed reagent drop	MTW
Vendor of Reagent used	Baker

Basis	Basis Description
T	Total/NA

8081B

Organochlorine Pesticides (GC)

FORM II
GC SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Matrix: Solid Level: Low

GC Column (1): RTX-CLP ID: 0.32 (mm) GC Column (2): RTX-CLPII ID: 0.32 (mm)

Client Sample ID	Lab Sample ID	TCX1 #	TCX2 #	DCB1 #	DCB2 #
NFUDS-001-TP0101-01	200-11554-1	91	93	97	100
NFUDS-001-TP0201-01	200-11554-2	89	92	95	97
NFUDS-001-TP0302-01	200-11554-3	89	94	97	98
NFUDS-001-TP0402-01	200-11554-4	88	92	94	94
	MB 200-41275/1-C	82	84	91	92
	LCS 200-41275/2-C	88	91	99	99

	QC LIMITS
TCX = Tetrachloro-m-xylene	50-120
DCB = DCB Decachlorobiphenyl	45-115

Column to be used to flag recovery values

FORM II 8081B

FORM III
GC SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Matrix: Solid Level: Low Lab File ID: 10jul121628-r021.d

Lab ID: LCS 200-41275/2-C Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
alpha-BHC	6.66	6.05	91	65-115	
gamma-BHC (Lindane)	6.66	6.05	91	65-115	
beta-BHC	6.66	6.40	96	70-115	
delta-BHC	6.66	6.15	92	65-115	
Heptachlor	6.66	6.19	93	65-115	
Aldrin	6.66	6.20	93	65-115	
Heptachlor epoxide	6.66	6.34	95	70-110	
gamma-Chlordane	6.66	6.32	95	70-110	
alpha-Chlordane	6.66	6.19	93	70-110	
4,4'-DDE	13.3	12.7	95	65-115	
Endosulfan I	6.66	5.90	89	50-115	
Dieldrin	13.3	12.9	97	65-115	
Endrin	13.3	13.2	99	65-115	
4,4'-DDD	13.3	13.0	97	65-115	
Endosulfan II	13.3	12.0	90	60-115	
4,4'-DDT	13.3	13.2	99	65-120	
Endrin aldehyde	13.3	7.08	53	40-115	
Methoxychlor	66.6	68.8	103	70-120	
Endosulfan sulfate	13.3	12.8	96	65-120	
Endrin ketone	13.3	12.8	96	70-115	

Column to be used to flag recovery and RPD values

FORM III 8081B

FORM IV
GC SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: MB 200-41275/1-C

Matrix: Solid Date Extracted: 07/03/2012 09:20

Lab File ID:(1) 10jul121628-r011.d Lab File ID:(2) 10jul121628-r011.d

Date Analyzed:(1) 07/11/2012 01:23 Date Analyzed:(2) 07/11/2012 01:23

Instrument ID:(1) 5005.i Instrument ID:(2) 5005.i

GC Column:(1) RTX-CLP ID: 0.32(mm) GC Column:(2) RTX-CLPII ID: 0.32(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 200-41275/2-C	07/11/2012 01:49	07/11/2012 01:49
NFUDS-001-TP0101-01	200-11554-1	07/11/2012 02:15	07/11/2012 02:15
NFUDS-001-TP0201-01	200-11554-2	07/11/2012 02:41	07/11/2012 02:41
NFUDS-001-TP0302-01	200-11554-3	07/11/2012 03:06	07/11/2012 03:06
NFUDS-001-TP0402-01	200-11554-4	07/11/2012 03:32	07/11/2012 03:32

FORM VIII
GC SEMI VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Sample No.: ICRT 200-41684/4 Date Analyzed: 07/10/2012 21:05

Instrument ID: 5005.i GC Column: RTX-CLP ID: 0.32(mm)

Lab File ID (Standard): 10jul121626-r071.d Heated Purge: (Y/N) N

Calibration ID: 16623

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TCX	DCB	
				RT #	RT #	
INITIAL CALIBRATION SURROGATE				4.96	13.57	
UPPER LIMIT				5.01	13.62	
LOWER LIMIT				4.91	13.52	
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
ICRT 200-41684/4		07/10/2012 21:05	10jul121626-r071.d	4.96	13.57	
MB 200-41275/1-C		07/11/2012 01:23	10jul121628-r011.d	4.97	13.57	
LCS 200-41275/2-C		07/11/2012 01:49	10jul121628-r021.d	4.97	13.57	
200-11554-1	NFUDS-001-TP0101-01	07/11/2012 02:15	10jul121628-r031.d	4.97	13.57	
200-11554-2	NFUDS-001-TP0201-01	07/11/2012 02:41	10jul121628-r041.d	4.97	13.57	
200-11554-3	NFUDS-001-TP0302-01	07/11/2012 03:06	10jul121628-r051.d	4.95	13.56	
200-11554-4	NFUDS-001-TP0402-01	07/11/2012 03:32	10jul121628-r061.d	4.97	13.57	
PEM 200-41698/7		07/11/2012 03:58	10jul121628-r071.d	4.97	13.57	
CCV 200-41698/8		07/11/2012 04:24	10jul121628-r081.d	4.97	13.57	

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl

TCX RT Limit = ± 0.05 minutes of surrogate RT
DCB RT Limit = ± 0.05 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8081B

FORM VIII
GC SEMI VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Sample No.: ICRT 200-41684/4 Date Analyzed: 07/10/2012 21:05

Instrument ID: 5005.i GC Column: RTX-CLPII ID: 0.32(mm)

Lab File ID (Standard): 10jul121626-r071.d Heated Purge: (Y/N) N

Calibration ID: 16626

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TCX	DCB	
				RT #	RT #	
INITIAL CALIBRATION SURROGATE				4.33	13.08	
UPPER LIMIT				4.38	13.13	
LOWER LIMIT				4.28	13.03	
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
ICRT 200-41684/4		07/10/2012 21:05	10jul121626-r071.d	4.33	13.08	
MB 200-41275/1-C		07/11/2012 01:23	10jul121628-r011.d	4.32	13.07	
LCS 200-41275/2-C		07/11/2012 01:49	10jul121628-r021.d	4.33	13.08	
200-11554-1	NFUDS-001-TP0101-01	07/11/2012 02:15	10jul121628-r031.d	4.32	13.07	
200-11554-2	NFUDS-001-TP0201-01	07/11/2012 02:41	10jul121628-r041.d	4.32	13.07	
200-11554-3	NFUDS-001-TP0302-01	07/11/2012 03:06	10jul121628-r051.d	4.33	13.08	
200-11554-4	NFUDS-001-TP0402-01	07/11/2012 03:32	10jul121628-r061.d	4.33	13.07	
PEM 200-41698/7		07/11/2012 03:58	10jul121628-r071.d	4.33	13.07	
CCV 200-41698/8		07/11/2012 04:24	10jul121628-r081.d	4.33	13.07	

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl

TCX RT Limit = ± 0.05 minutes of surrogate RT
DCB RT Limit = ± 0.05 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8081B

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: Lab Sample ID: LCS 200-41275/2-C

Instrument ID (1): 5005.i Instrument ID (2): 5005.i

Date Analyzed (1): 07/11/2012 01:49 Date Analyzed (2): 07/11/2012 01:49

GC Column (1): RTX-CLP ID: 0.32(mm) GC Column (2): RTX-CLPII ID: 0.32(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
alpha-BHC	1		5.67	5.62	5.72	6.05		1.9
	2		5.11	5.06	5.16	6.16		
gamma-BHC (Lindane)	1		6.04	5.98	6.08	6.05		0.7
	2		5.52	5.47	5.57	6.09		
beta-BHC	1		6.14	6.09	6.19	6.40		0.4
	2		5.62	5.58	5.68	6.42		
delta-BHC	1		6.35	6.29	6.39	6.15		4.5
	2		5.92	5.88	5.98	6.43		
Heptachlor	1		6.60	6.54	6.64	6.19		0.1
	2		5.96	5.91	6.01	6.19		
Aldrin	1		6.97	6.91	7.01	6.20		2.4
	2		6.28	6.24	6.34	6.35		
Heptachlor epoxide	1		7.78	7.72	7.82	6.34		0.7
	2		6.95	6.90	7.00	6.39		
gamma-Chlordane	1		7.96	7.90	8.00	6.32		1.6
	2		7.18	7.13	7.23	6.42		
alpha-Chlordane	1		8.15	8.10	8.20	6.19		0.3
	2		7.37	7.32	7.42	6.21		
4,4'-DDE	1		8.27	8.22	8.32	12.7		0.5
	2		7.63	7.58	7.68	12.7		
Endosulfan I	1		8.35	8.30	8.40	5.90		3.3
	2		7.43	7.38	7.48	6.09		
Dieldrin	1		8.73	8.67	8.77	12.9		2.3
	2		7.81	7.76	7.86	13.2		
Endrin	1		9.10	9.05	9.15	13.2		2.0
	2		8.24	8.20	8.30	13.5		
4,4'-DDD	1		9.24	9.18	9.28	13.0		3.3
	2		8.49	8.44	8.54	13.4		
Endosulfan II	1		9.48	9.43	9.53	12.0		3.5
	2		8.59	8.54	8.64	12.4		
4,4'-DDT	1		9.73	9.67	9.77	13.5		1.8
	2		8.99	8.95	9.05	13.2		
Endrin aldehyde	1		10.25	10.19	10.29	7.08		1.0
	2		9.16	9.11	9.21	7.15		
Methoxychlor	1		10.66	10.61	10.71	68.8		0.1
	2		10.33	10.28	10.38	68.9		
Endosulfan sulfate	1		11.06	11.01	11.11	13.0		1.4
	2		9.65	9.61	9.71	12.8		
Endrin ketone	1		11.58	11.52	11.62	12.8		2.9
	2		10.62	10.57	10.67	13.2		

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0101-01 | Lab Sample ID: 200-11554-1

Matrix: Solid | Lab File ID: 10jul121628-r031.d

Analysis Method: 8081B | Date Collected: 06/29/2012 08:30

Extraction Method: 3550C | Date Extracted: 07/03/2012 09:20

Sample wt/vol: 29.77(g) | Date Analyzed: 07/11/2012 02:15

Con. Extract Vol.: 10000(uL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-CLP ID: 0.32(mm)

% Moisture: 4.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 41698 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
319-84-6	alpha-BHC	0.35	U	1.8	0.35	0.12
58-89-9	gamma-BHC (Lindane)	0.35	U	1.8	0.35	0.12
319-85-7	beta-BHC	0.35	U	1.8	0.35	0.14
319-86-8	delta-BHC	0.35	U	1.8	0.35	0.11
76-44-8	Heptachlor	0.35	U	1.8	0.35	0.12
309-00-2	Aldrin	0.35	U	1.8	0.35	0.12
1024-57-3	Heptachlor epoxide	0.35	U	1.8	0.35	0.12
5103-74-2	gamma-Chlordane	0.35	U	1.8	0.35	0.12
5103-71-9	alpha-Chlordane	0.35	U	1.8	0.35	0.13
72-55-9	4,4'-DDE	0.70	U	3.5	0.70	0.22
959-98-8	Endosulfan I	0.35	U	1.8	0.35	0.13
60-57-1	Dieldrin	0.70	U	3.5	0.70	0.23
72-20-8	Endrin	0.70	U	3.5	0.70	0.24
72-54-8	4,4'-DDD	0.70	U	3.5	0.70	0.20
33213-65-9	Endosulfan II	0.70	U	3.5	0.70	0.23
7421-93-4	Endrin aldehyde	0.70	U	3.5	0.70	0.32
72-43-5	Methoxychlor	3.5	U	18	3.5	1.2
1031-07-8	Endosulfan sulfate	0.70	U	3.5	0.70	0.25
53494-70-5	Endrin ketone	0.70	U	3.5	0.70	0.22
8001-35-2	Toxaphene	35	U	180	35	14
STL00100	Toxaphene Peak 1	35	U	180	35	14
STL00109	Toxaphene Peak 2	35	U	180	35	14
STL00220	Toxaphene Peak 3	35	U	180	35	14
STL00083	Toxaphene Peak 4	35	U	180	35	14
STL00051	Toxaphene Peak 5	35	U	180	35	14

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	91		50-120
2051-24-3	DCB Decachlorobiphenyl	97		45-115

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0101-01 Lab Sample ID: 200-11554-1

Matrix: Solid Lab File ID: 10jul121628-r031.d

Analysis Method: 8081B Date Collected: 06/29/2012 08:30

Extraction Method: 3550C Date Extracted: 07/03/2012 09:20

Sample wt/vol: 29.77(g) Date Analyzed: 07/11/2012 02:15

Con. Extract Vol.: 10000(uL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-CLPII ID: 0.32(mm)

% Moisture: 4.1 GPC Cleanup:(Y/N) N

Analysis Batch No.: 41698 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
50-29-3	4,4'-DDT	0.70	U	3.5	0.70	0.23

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	93		50-120
2051-24-3	DCB Decachlorobiphenyl	100		45-115

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0201-01 | Lab Sample ID: 200-11554-2

Matrix: Solid | Lab File ID: 10jul121628-r041.d

Analysis Method: 8081B | Date Collected: 06/29/2012 08:45

Extraction Method: 3550C | Date Extracted: 07/03/2012 09:20

Sample wt/vol: 30.20(g) | Date Analyzed: 07/11/2012 02:41

Con. Extract Vol.: 10000(uL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-CLP ID: 0.32(mm)

% Moisture: 2.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 41698 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
319-84-6	alpha-BHC	0.34	U	1.7	0.34	0.11
58-89-9	gamma-BHC (Lindane)	0.34	U	1.7	0.34	0.11
319-85-7	beta-BHC	0.34	U	1.7	0.34	0.13
319-86-8	delta-BHC	0.34	U	1.7	0.34	0.10
76-44-8	Heptachlor	0.34	U	1.7	0.34	0.11
309-00-2	Aldrin	0.34	U	1.7	0.34	0.11
1024-57-3	Heptachlor epoxide	0.34	U	1.7	0.34	0.11
5103-74-2	gamma-Chlordane	0.34	U	1.7	0.34	0.11
5103-71-9	alpha-Chlordane	0.34	U	1.7	0.34	0.12
72-55-9	4,4'-DDE	0.69	U	3.4	0.69	0.21
959-98-8	Endosulfan I	0.34	U	1.7	0.34	0.12
60-57-1	Dieldrin	0.69	U	3.4	0.69	0.23
72-20-8	Endrin	0.69	U	3.4	0.69	0.24
72-54-8	4,4'-DDD	0.69	U	3.4	0.69	0.19
33213-65-9	Endosulfan II	0.69	U	3.4	0.69	0.23
50-29-3	4,4'-DDT	0.69	U	3.4	0.69	0.23
7421-93-4	Endrin aldehyde	0.69	U	3.4	0.69	0.31
72-43-5	Methoxychlor	3.4	U	17	3.4	1.1
1031-07-8	Endosulfan sulfate	0.69	U	3.4	0.69	0.25
53494-70-5	Endrin ketone	0.69	U	3.4	0.69	0.21
8001-35-2	Toxaphene	34	U	170	34	13
STL00100	Toxaphene Peak 1	34	U	170	34	13
STL00109	Toxaphene Peak 2	34	U	170	34	13
STL00220	Toxaphene Peak 3	34	U	170	34	13
STL00083	Toxaphene Peak 4	34	U	170	34	13
STL00051	Toxaphene Peak 5	34	U	170	34	13

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	89		50-120
2051-24-3	DCB Decachlorobiphenyl	95		45-115

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0201-01 Lab Sample ID: 200-11554-2

Matrix: Solid Lab File ID: 10jul121628-r041.d

Analysis Method: 8081B Date Collected: 06/29/2012 08:45

Extraction Method: 3550C Date Extracted: 07/03/2012 09:20

Sample wt/vol: 30.20(g) Date Analyzed: 07/11/2012 02:41

Con. Extract Vol.: 10000(uL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-CLPII ID: 0.32(mm)

% Moisture: 2.9 GPC Cleanup:(Y/N) N

Analysis Batch No.: 41698 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	92		50-120
2051-24-3	DCB Decachlorobiphenyl	97		45-115

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0302-01 Lab Sample ID: 200-11554-3

Matrix: Solid Lab File ID: 10jul121628-r051.d

Analysis Method: 8081B Date Collected: 06/29/2012 08:44

Extraction Method: 3550C Date Extracted: 07/03/2012 09:20

Sample wt/vol: 30.00(g) Date Analyzed: 07/11/2012 03:06

Con. Extract Vol.: 10000(uL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-CLP ID: 0.32(mm)

% Moisture: 1.3 GPC Cleanup:(Y/N) N

Analysis Batch No.: 41698 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
319-84-6	alpha-BHC	0.33	U	1.7	0.33	0.11
58-89-9	gamma-BHC (Lindane)	0.33	U	1.7	0.33	0.11
319-85-7	beta-BHC	0.33	U	1.7	0.33	0.13
319-86-8	delta-BHC	0.33	U	1.7	0.33	0.10
76-44-8	Heptachlor	0.33	U	1.7	0.33	0.11
309-00-2	Aldrin	0.33	U	1.7	0.33	0.11
1024-57-3	Heptachlor epoxide	0.33	U	1.7	0.33	0.11
5103-74-2	gamma-Chlordane	0.33	U	1.7	0.33	0.11
5103-71-9	alpha-Chlordane	0.33	U	1.7	0.33	0.12
72-55-9	4,4'-DDE	0.68	U	3.3	0.68	0.21
959-98-8	Endosulfan I	0.33	U	1.7	0.33	0.12
60-57-1	Dieldrin	0.68	U	3.3	0.68	0.22
72-20-8	Endrin	0.68	U	3.3	0.68	0.23
72-54-8	4,4'-DDD	0.68	U	3.3	0.68	0.19
33213-65-9	Endosulfan II	0.68	U	3.3	0.68	0.22
50-29-3	4,4'-DDT	0.68	U	3.3	0.68	0.22
7421-93-4	Endrin aldehyde	0.68	U	3.3	0.68	0.30
72-43-5	Methoxychlor	3.3	U	17	3.3	1.1
1031-07-8	Endosulfan sulfate	0.68	U	3.3	0.68	0.24
53494-70-5	Endrin ketone	0.68	U	3.3	0.68	0.21
8001-35-2	Toxaphene	33	U	170	33	13
STL00100	Toxaphene Peak 1	33	U	170	33	13
STL00109	Toxaphene Peak 2	33	U	170	33	13
STL00220	Toxaphene Peak 3	33	U	170	33	13
STL00083	Toxaphene Peak 4	33	U	170	33	13
STL00051	Toxaphene Peak 5	33	U	170	33	13

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	89		50-120
2051-24-3	DCB Decachlorobiphenyl	97		45-115

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0302-01 Lab Sample ID: 200-11554-3

Matrix: Solid Lab File ID: 10jul121628-r051.d

Analysis Method: 8081B Date Collected: 06/29/2012 08:44

Extraction Method: 3550C Date Extracted: 07/03/2012 09:20

Sample wt/vol: 30.00(g) Date Analyzed: 07/11/2012 03:06

Con. Extract Vol.: 10000(uL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-CLPII ID: 0.32(mm)

% Moisture: 1.3 GPC Cleanup:(Y/N) N

Analysis Batch No.: 41698 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	94		50-120
2051-24-3	DCB Decachlorobiphenyl	98		45-115

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0402-01 Lab Sample ID: 200-11554-4

Matrix: Solid Lab File ID: 10jul121628-r061.d

Analysis Method: 8081B Date Collected: 06/29/2012 08:55

Extraction Method: 3550C Date Extracted: 07/03/2012 09:20

Sample wt/vol: 30.15(g) Date Analyzed: 07/11/2012 03:32

Con. Extract Vol.: 10000(uL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-CLP ID: 0.32(mm)

% Moisture: 1.7 GPC Cleanup:(Y/N) N

Analysis Batch No.: 41698 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
319-84-6	alpha-BHC	0.33	U	1.7	0.33	0.11
58-89-9	gamma-BHC (Lindane)	0.33	U	1.7	0.33	0.11
319-85-7	beta-BHC	0.33	U	1.7	0.33	0.13
319-86-8	delta-BHC	0.33	U	1.7	0.33	0.10
76-44-8	Heptachlor	0.33	U	1.7	0.33	0.11
309-00-2	Aldrin	0.33	U	1.7	0.33	0.11
1024-57-3	Heptachlor epoxide	0.33	U	1.7	0.33	0.11
5103-74-2	gamma-Chlordane	0.33	U	1.7	0.33	0.11
5103-71-9	alpha-Chlordane	0.33	U	1.7	0.33	0.12
72-55-9	4,4'-DDE	0.68	U	3.3	0.68	0.21
959-98-8	Endosulfan I	0.33	U	1.7	0.33	0.12
60-57-1	Dieldrin	0.68	U	3.3	0.68	0.22
72-20-8	Endrin	0.68	U	3.3	0.68	0.23
72-54-8	4,4'-DDD	0.68	U	3.3	0.68	0.19
33213-65-9	Endosulfan II	0.68	U	3.3	0.68	0.22
50-29-3	4,4'-DDT	0.68	U	3.3	0.68	0.22
7421-93-4	Endrin aldehyde	0.68	U	3.3	0.68	0.30
72-43-5	Methoxychlor	3.3	U	17	3.3	1.1
1031-07-8	Endosulfan sulfate	0.68	U	3.3	0.68	0.24
53494-70-5	Endrin ketone	0.68	U	3.3	0.68	0.21
8001-35-2	Toxaphene	33	U	170	33	13
STL00100	Toxaphene Peak 1	33	U	170	33	13
STL00109	Toxaphene Peak 2	33	U	170	33	13
STL00220	Toxaphene Peak 3	33	U	170	33	13
STL00083	Toxaphene Peak 4	33	U	170	33	13
STL00051	Toxaphene Peak 5	33	U	170	33	13

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	88		50-120
2051-24-3	DCB Decachlorobiphenyl	94		45-115

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0402-01 Lab Sample ID: 200-11554-4

Matrix: Solid Lab File ID: 10jul121628-r061.d

Analysis Method: 8081B Date Collected: 06/29/2012 08:55

Extraction Method: 3550C Date Extracted: 07/03/2012 09:20

Sample wt/vol: 30.15(g) Date Analyzed: 07/11/2012 03:32

Con. Extract Vol.: 10000(uL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-CLPII ID: 0.32(mm)

% Moisture: 1.7 GPC Cleanup:(Y/N) N

Analysis Batch No.: 41698 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	92		50-120
2051-24-3	DCB Decachlorobiphenyl	94		45-115

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41684

SDG No.: 200-11554-1

Instrument ID: 5005.i GC Column: RTX-CLP ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2012 20:13 Calibration End Date: 07/10/2012 21:57 Calibration ID: 16623

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-41684/2	10jul121626-r051.d
Level 2	IC 200-41684/3	10jul121626-r061.d
Level 3	ICRT 200-41684/4	10jul121626-r071.d
Level 4	IC 200-41684/5	10jul121626-r081.d
Level 5	IC 200-41684/6	10jul121626-r091.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5						RT WINDOW	AVG RT
alpha-BHC	5.684	5.684	5.666	5.668	5.666						5.616 - 5.716	5.673
gamma-BHC (Lindane)	6.049	6.052	6.034	6.036	6.034						5.984 - 6.084	6.041
beta-BHC	6.153	6.153	6.136	6.138	6.136						6.086 - 6.186	6.143
delta-BHC	6.357	6.357	6.340	6.342	6.340						6.290 - 6.390	6.347
Heptachlor	6.608	6.608	6.590	6.592	6.590						6.540 - 6.640	6.598
Aldrin	6.978	6.978	6.960	6.963	6.960						6.910 - 7.010	6.968
Heptachlor epoxide	7.789	7.792	7.772	7.774	7.772						7.722 - 7.822	7.780
gamma-Chlordane	7.967	7.969	7.949	7.951	7.951						7.899 - 7.999	7.957
alpha-Chlordane	8.162	8.164	8.146	8.146	8.146						8.096 - 8.196	8.153
4,4'-DDE	8.288	8.288	8.270	8.273	8.270						8.220 - 8.320	8.278
Endosulfan I	8.366	8.368	8.350	8.350	8.348						8.300 - 8.400	8.356
Dieldrin	8.740	8.740	8.723	8.725	8.723						8.673 - 8.773	8.730
Endrin	9.117	9.117	9.099	9.102	9.099						9.049 - 9.149	9.107
4,4'-DDD	9.250	9.250	9.232	9.235	9.232						9.182 - 9.282	9.240
Endosulfan II	9.496	9.498	9.481	9.483	9.478						9.431 - 9.531	9.487
4,4'-DDT	9.740	9.740	9.722	9.725	9.722						9.672 - 9.772	9.730
Endrin aldehyde	10.259	10.259	10.241	10.243	10.239						10.191 - 10.291	10.248
Methoxychlor	10.673	10.673	10.656	10.656	10.656						10.606 - 10.706	10.663
Endosulfan sulfate	11.074	11.074	11.057	11.057	11.055						11.007 - 11.107	11.063
Endrin ketone	11.591	11.591	11.573	11.575	11.573						11.523 - 11.623	11.581
Tetrachloro-m-xylene	4.976	4.976	4.959	4.961	4.959						4.909 - 5.009	4.966
DCB Decachlorobiphenyl	13.584	13.584	13.566	13.566	13.564						13.516 - 13.616	13.573

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41684

SDG No.: 200-11554-1

Instrument ID: 5005.i GC Column: RTX-CLP ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2012 20:13 Calibration End Date: 07/10/2012 21:57 Calibration ID: 16623

Calibration Files:

LEVEL:	LAB SAMPLE ID:	EPA SAMPLE NO:	LAB FILE ID:
Level 1	IC 200-41684/2	INDA_B-1	10jul121626-r051.d
Level 2	IC 200-41684/3	INDA_B-2	10jul121626-r061.d
Level 3	ICRT 200-41684/4	INDA_B-3	10jul121626-r071.d
Level 4	IC 200-41684/5	INDA_B-4	10jul121626-r081.d
Level 5	IC 200-41684/6	INDA_B-5	10jul121626-r091.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
alpha-BHC	3396.0 3767.9	3398.5	3590.2	3687.8	Ave		3568.08250				4.7		20.0			
gamma-BHC (Lindane)	3211.2 3515.7	3142.7	3360.7	3398.1	Ave		3325.66500				4.5		20.0			
beta-BHC	1328.0 1189.6	1237.8	1206.3	1179.6	Ave		1228.26250				4.9		20.0			
delta-BHC	2760.4 3269.5	2814.1	3010.4	3098.9	Ave		2990.64750				7.0		20.0			
Heptachlor	2735.4 2856.0	2610.0	2758.3	2777.2	Ave		2747.38250				3.2		20.0			
Aldrin	2737.6 2847.9	2633.3	2736.0	2837.4	Ave		2758.42250				3.2		20.0			
Heptachlor epoxide	2249.4 2232.9	2162.1	2239.5	2221.9	Ave		2221.16000				1.6		20.0			
gamma-Chlordane	2181.4 2236.6	2155.1	2175.6	2213.6	Ave		2192.46500				1.5		20.0			
alpha-Chlordane	2103.6 2105.3	2056.3	2086.3	2057.8	Ave		2081.84000				1.1		20.0			
4,4'-DDE	2113.8 2353.6	2128.0	2276.3	2303.1	Ave		2234.94500				4.8		20.0			
Endosulfan I	1993.6 1914.6	1906.2	1923.3	1919.7	Ave		1931.46750				1.8		20.0			
Dieldrin	2088.3 2209.8	2017.6	2148.2	2126.5	Ave		2118.08250				3.4		20.0			
Endrin	1749.1 1864.9	1738.7	1832.6	1832.5	Ave		1803.56125				3.1		20.0			
4,4'-DDD	1434.6 1534.4	1451.2	1478.6	1507.4	Ave		1481.23750				2.7		20.0			
Endosulfan II	1610.1 1637.6	1587.2	1648.6	1642.5	Ave		1625.21625				1.6		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41684

SDG No.: 200-11554-1

Instrument ID: 5005.i GC Column: RTX-CLP ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2012 20:13 Calibration End Date: 07/10/2012 21:57 Calibration ID: 16623

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
4,4'-DDT	1275.1 1539.8	1280.1	1405.5	1450.9	Ave		1390.27750				8.2		20.0			
Endrin aldehyde	1275.5 1240.6	1225.8	1260.4	1257.3	Ave		1251.90000				1.5		20.0			
Methoxychlor	629.16 651.14	646.96	687.56	675.59	Ave		658.080750				3.6		20.0			
Endosulfan sulfate	1216.6 1302.1	1197.5	1276.2	1291.0	Ave		1256.66375				3.7		20.0			
Endrin ketone	1624.4 1656.3	1597.2	1611.9	1645.1	Ave		1626.96250				1.5		20.0			
Tetrachloro-m-xylene	1983.4 1908.0	1901.8	1936.4	1864.5	Ave		1918.80250				2.3		20.0			
DCB Decachlorobiphenyl	1439.6 1265.6	1358.8	1336.4	1286.3	Ave		1337.34250				5.1		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41684

SDG No.: 200-11554-1

Instrument ID: 5005.i GC Column: RTX-CLP ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2012 20:13 Calibration End Date: 07/10/2012 21:57 Calibration ID: 16623

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-41684/2	10jul121626-r051.d
Level 2	IC 200-41684/3	10jul121626-r061.d
Level 3	ICRT 200-41684/4	10jul121626-r071.d
Level 4	IC 200-41684/5	10jul121626-r081.d
Level 5	IC 200-41684/6	10jul121626-r091.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
alpha-BHC	Ave	16980	33985	71804	147512	301433	5.00	10.0	20.0	40.0	80.0
gamma-BHC (Lindane)	Ave	16056	31427	67214	135923	281252	5.00	10.0	20.0	40.0	80.0
beta-BHC	Ave	6640	12378	24125	47185	95171	5.00	10.0	20.0	40.0	80.0
delta-BHC	Ave	13802	28141	60207	123955	261561	5.00	10.0	20.0	40.0	80.0
Heptachlor	Ave	13677	26100	55166	111089	228479	5.00	10.0	20.0	40.0	80.0
Aldrin	Ave	13688	26333	54720	113494	227829	5.00	10.0	20.0	40.0	80.0
Heptachlor epoxide	Ave	11247	21621	44790	88877	178630	5.00	10.0	20.0	40.0	80.0
gamma-Chlordane	Ave	10907	21551	43512	88545	178928	5.00	10.0	20.0	40.0	80.0
alpha-Chlordane	Ave	10518	20563	41725	82311	168422	5.00	10.0	20.0	40.0	80.0
4,4'-DDE	Ave	21138	42559	91052	184245	376578	10.0	20.0	40.0	80.0	160
Endosulfan I	Ave	9968	19062	38465	76788	153167	5.00	10.0	20.0	40.0	80.0
Dieldrin	Ave	20883	40352	85929	170117	353572	10.0	20.0	40.0	80.0	160
Endrin	Ave	17491	34774	73303	146603	298383	10.0	20.0	40.0	80.0	160
4,4'-DDD	Ave	14346	29023	59144	120592	245510	10.0	20.0	40.0	80.0	160
Endosulfan II	Ave	16101	31744	65944	131403	262023	10.0	20.0	40.0	80.0	160
4,4'-DDT	Ave	12751	25602	56221	116068	246370	10.0	20.0	40.0	80.0	160
Endrin aldehyde	Ave	12755	24515	50416	100583	198490	10.0	20.0	40.0	80.0	160
Methoxychlor	Ave	31458	64696	137511	270235	520913	50.0	100	200	400	800
Endosulfan sulfate	Ave	12166	23950	51048	103277	208329	10.0	20.0	40.0	80.0	160
Endrin ketone	Ave	16244	31944	64475	131606	265002	10.0	20.0	40.0	80.0	160
Tetrachloro-m-xylene	Ave	9917	19018	38727	74579	152639	5.00	10.0	20.0	40.0	80.0
DCB Decachlorobiphenyl	Ave	7198	13588	26727	51453	101251	5.00	10.0	20.0	40.0	80.0

Curve Type Legend:
Ave = Average by Height

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41684

SDG No.: 200-11554-1

Instrument ID: 5005.i GC Column: RTX-CLPII ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2012 20:13 Calibration End Date: 07/10/2012 21:57 Calibration ID: 16626

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-41684/2	10jul121626-r051.d
Level 2	IC 200-41684/3	10jul121626-r061.d
Level 3	ICRT 200-41684/4	10jul121626-r071.d
Level 4	IC 200-41684/5	10jul121626-r081.d
Level 5	IC 200-41684/6	10jul121626-r091.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5						RT WINDOW	AVG RT
alpha-BHC	5.118	5.125	5.114	5.101	5.103						5.064 - 5.164	5.112
gamma-BHC (Lindane)	5.520	5.526	5.515	5.502	5.504						5.465 - 5.565	5.513
beta-BHC	5.630	5.635	5.626	5.613	5.615						5.576 - 5.676	5.624
delta-BHC	5.930	5.934	5.925	5.912	5.912						5.875 - 5.975	5.922
Heptachlor	5.961	5.967	5.958	5.945	5.947						5.908 - 6.008	5.956
Aldrin	6.289	6.295	6.286	6.273	6.273						6.236 - 6.336	6.283
Heptachlor epoxide	6.954	6.960	6.949	6.936	6.938						6.899 - 6.999	6.947
gamma-Chlordane	7.184	7.191	7.180	7.166	7.169						7.130 - 7.230	7.178
alpha-Chlordane	7.373	7.379	7.370	7.357	7.357						7.320 - 7.420	7.367
Endosulfan I	7.437	7.444	7.435	7.421	7.421						7.385 - 7.485	7.432
4,4'-DDE	7.634	7.641	7.632	7.619	7.619						7.582 - 7.682	7.629
Dieldrin	7.812	7.820	7.812	7.796	7.798						7.762 - 7.862	7.808
Endrin	8.250	8.257	8.248	8.235	8.235						8.198 - 8.298	8.245
4,4'-DDD	8.494	8.501	8.490	8.477	8.479						8.440 - 8.540	8.488
Endosulfan II	8.592	8.601	8.590	8.576	8.576						8.540 - 8.640	8.587
4,4'-DDT	8.997	9.004	8.995	8.982	8.982						8.945 - 9.045	8.992
Endrin aldehyde	9.168	9.175	9.164	9.150	9.153						9.114 - 9.214	9.162
Endosulfan sulfate	9.660	9.667	9.656	9.643	9.643						9.606 - 9.706	9.654
Methoxychlor	10.334	10.341	10.330	10.316	10.319						10.280 - 10.380	10.328
Endrin ketone	10.629	10.636	10.624	10.611	10.613						10.574 - 10.674	10.623
Tetrachloro-m-xylene	4.331	4.338	4.327	4.314	4.316						4.277 - 4.377	4.325
DCB Decachlorobiphenyl	13.083	13.089	13.078	13.065	13.065						13.028 - 13.128	13.076

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41684

SDG No.: 200-11554-1

Instrument ID: 5005.i GC Column: RTX-CLPII ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2012 20:13 Calibration End Date: 07/10/2012 21:57 Calibration ID: 16626

Calibration Files:

LEVEL:	LAB SAMPLE ID:	EPA SAMPLE NO:	LAB FILE ID:
Level 1	IC 200-41684/2	INDA_B-1	10jul121626-r051.d
Level 2	IC 200-41684/3	INDA_B-2	10jul121626-r061.d
Level 3	ICRT 200-41684/4	INDA_B-3	10jul121626-r071.d
Level 4	IC 200-41684/5	INDA_B-4	10jul121626-r081.d
Level 5	IC 200-41684/6	INDA_B-5	10jul121626-r091.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
alpha-BHC	3965.0 4659.9	4018.1	4362.9	4548.1	Ave		4310.78500				7.2		20.0			
gamma-BHC (Lindane)	3892.6 4534.9	3879.7	4227.3	4334.7	Ave		4173.83250				6.8		20.0			
beta-BHC	1636.8 1536.3	1527.6	1592.3	1543.2	Ave		1567.24250				3.0		20.0			
delta-BHC	3592.2 4637.0	3718.6	4173.4	4279.5	Ave		4080.13250				10.5		20.0			
Heptachlor	3623.0 3891.9	3567.7	3821.6	3829.3	Ave		3746.68500				3.8		20.0			
Aldrin	3589.6 3870.8	3586.5	3723.9	3677.1	Ave		3689.57000				3.2		20.0			
Heptachlor epoxide	2841.6 2963.5	2845.4	2926.3	2941.6	Ave		2903.67000				1.9		20.0			
gamma-Chlordane	2799.8 3017.0	2721.7	2879.4	2888.5	Ave		2861.27250				3.9		20.0			
alpha-Chlordane	2673.4 2832.9	2615.9	2724.2	2743.6	Ave		2717.97250				3.0		20.0			
Endosulfan I	2510.4 2521.5	2446.5	2532.4	2532.8	Ave		2508.71000				1.4		20.0			
4,4'-DDE	2497.3 2854.9	2526.3	2719.5	2743.2	Ave		2668.22750				5.7		20.0			
Dieldrin	2535.4 2802.7	2543.0	2694.1	2761.8	Ave		2667.39000				4.6		20.0			
Endrin	2070.6 2253.5	2062.2	2206.2	2238.2	Ave		2166.13250				4.3		20.0			
4,4'-DDD	1670.9 1851.7	1618.3	1779.6	1799.3	Ave		1743.95750				5.5		20.0			
Endosulfan II	1974.7 2080.9	1957.9	2079.0	2076.8	Ave		2033.85000				3.0		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41684

SDG No.: 200-11554-1

Instrument ID: 5005.i GC Column: RTX-CLPII ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2012 20:13 Calibration End Date: 07/10/2012 21:57 Calibration ID: 16626

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
4,4'-DDT	1473.7 1788.7	1520.4	1664.5	1695.3	Ave		1628.51625				8.0		20.0			
Endrin aldehyde	1473.7 1508.4	1461.5	1512.2	1479.0	Ave		1486.94750				1.5		20.0			
Endosulfan sulfate	1434.7 1579.9	1430.2	1530.4	1511.4	Ave		1497.29875				4.3		20.0			
Methoxychlor	689.18 693.88	694.06	734.18	709.71	Ave		704.201250				2.6		20.0			
Endrin ketone	1774.3 1848.2	1762.0	1849.1	1810.4	Ave		1808.78625				2.2		20.0			
Tetrachloro-m-xylene	2135.2 2178.6	2055.0	2143.5	2094.4	Ave		2121.32750				2.2		20.0			
DCB Decachlorobiphenyl	1440.8 1247.2	1336.3	1328.2	1260.0	Ave		1322.50500				5.8		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41684

SDG No.: 200-11554-1

Instrument ID: 5005.i GC Column: RTX-CLPII ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2012 20:13 Calibration End Date: 07/10/2012 21:57 Calibration ID: 16626

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-41684/2	10jul121626-r051.d
Level 2	IC 200-41684/3	10jul121626-r061.d
Level 3	ICRT 200-41684/4	10jul121626-r071.d
Level 4	IC 200-41684/5	10jul121626-r081.d
Level 5	IC 200-41684/6	10jul121626-r091.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
alpha-BHC	Ave	19825	40181	87257	181925	372788	5.00	10.0	20.0	40.0	80.0
gamma-BHC (Lindane)	Ave	19463	38797	84546	173388	362789	5.00	10.0	20.0	40.0	80.0
beta-BHC	Ave	8184	15276	31846	61729	122903	5.00	10.0	20.0	40.0	80.0
delta-BHC	Ave	17961	37186	83468	171180	370957	5.00	10.0	20.0	40.0	80.0
Heptachlor	Ave	18115	35677	76432	153170	311350	5.00	10.0	20.0	40.0	80.0
Aldrin	Ave	17948	35865	74477	147083	309666	5.00	10.0	20.0	40.0	80.0
Heptachlor epoxide	Ave	14208	28454	58526	117664	237076	5.00	10.0	20.0	40.0	80.0
gamma-Chlordane	Ave	13999	27217	57588	115538	241361	5.00	10.0	20.0	40.0	80.0
alpha-Chlordane	Ave	13367	26159	54483	109742	226629	5.00	10.0	20.0	40.0	80.0
Endosulfan I	Ave	12552	24465	50648	101311	201718	5.00	10.0	20.0	40.0	80.0
4,4'-DDE	Ave	24973	50526	108779	219453	456784	10.0	20.0	40.0	80.0	160
Dieldrin	Ave	25354	50860	107762	220946	448428	10.0	20.0	40.0	80.0	160
Endrin	Ave	20706	41244	88246	179057	360560	10.0	20.0	40.0	80.0	160
4,4'-DDD	Ave	16709	32366	71182	143945	296276	10.0	20.0	40.0	80.0	160
Endosulfan II	Ave	19747	39157	83161	166145	332938	10.0	20.0	40.0	80.0	160
4,4'-DDT	Ave	14737	30407	66581	135623	286195	10.0	20.0	40.0	80.0	160
Endrin aldehyde	Ave	14737	29229	60486	118320	241350	10.0	20.0	40.0	80.0	160
Endosulfan sulfate	Ave	14347	28603	61214	120909	252789	10.0	20.0	40.0	80.0	160
Methoxychlor	Ave	34459	69406	146835	283885	555103	50.0	100	200	400	800
Endrin ketone	Ave	17743	35239	73965	144828	295713	10.0	20.0	40.0	80.0	160
Tetrachloro-m-xylene	Ave	10676	20550	42869	83774	174291	5.00	10.0	20.0	40.0	80.0
DCB Decachlorobiphenyl	Ave	7204	13363	26564	50400	99778	5.00	10.0	20.0	40.0	80.0

Curve Type Legend:
Ave = Average by Height

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41684

SDG No.: 200-11554-1

Instrument ID: 5005.i GC Column: RTX-CLP ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2012 22:22 Calibration End Date: 07/10/2012 22:22 Calibration ID: 16629

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-41684/7	10jul121626-r101.d

ANALYTE	LVL 1										RT WINDOW	AVG RT
Toxaphene Peak 1	9.587										9.537 - 9.637	9.587
Toxaphene Peak 2	10.030										9.980 - 10.080	10.030
Toxaphene Peak 3	10.964										10.914 - 11.014	10.964
Toxaphene Peak 4	11.185										11.135 - 11.235	11.185
Toxaphene Peak 5	11.839										11.789 - 11.889	11.839

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41684

SDG No.: 200-11554-1

Instrument ID: 5005.i GC Column: RTX-CLP ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2012 22:22 Calibration End Date: 07/10/2012 22:22 Calibration ID: 16629

Calibration Files:

LEVEL:	LAB SAMPLE ID:	EPA SAMPLE NO:	LAB FILE ID:
Level 1	IC 200-41684/7	TOX-500	10jul121626-r101.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1					B	M1	M2								
Toxaphene Peak 1	36.216				Ave		36.2160000						20.0			
Toxaphene Peak 2	32.074				Ave		32.0740000						20.0			
Toxaphene Peak 3	40.858				Ave		40.8580000						20.0			
Toxaphene Peak 4	23.582				Ave		23.5820000						20.0			
Toxaphene Peak 5	21.518				Ave		21.5180000						20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41684

SDG No.: 200-11554-1

Instrument ID: 5005.i GC Column: RTX-CLP ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2012 22:22 Calibration End Date: 07/10/2012 22:22 Calibration ID: 16629

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-41684/7	10jul121626-r101.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1					LVL 1				
Toxaphene Peak 1	Ave	18108					500				
Toxaphene Peak 2	Ave	16037					500				
Toxaphene Peak 3	Ave	20429					500				
Toxaphene Peak 4	Ave	11791					500				
Toxaphene Peak 5	Ave	10759					500				

Curve Type Legend:
Ave = Average by Height

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41684

SDG No.: 200-11554-1

Instrument ID: 5005.i GC Column: RTX-CLPII ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2012 22:22 Calibration End Date: 07/10/2012 22:22 Calibration ID: 16630

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-41684/7	10jul121626-r101.d

ANALYTE	LVL 1										RT WINDOW	AVG RT
Toxaphene Peak 1	8.718										8.668 - 8.768	8.718
Toxaphene Peak 2	9.292										9.242 - 9.342	9.292
Toxaphene Peak 3	10.059										10.009 - 10.109	10.059
Toxaphene Peak 4	10.802										10.752 - 10.852	10.802
Toxaphene Peak 5	11.190										11.140 - 11.240	11.190

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41684

SDG No.: 200-11554-1

Instrument ID: 5005.i GC Column: RTX-CLPII ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2012 22:22 Calibration End Date: 07/10/2012 22:22 Calibration ID: 16630

Calibration Files:

LEVEL:	LAB SAMPLE ID:	EPA SAMPLE NO:	LAB FILE ID:
Level 1	IC 200-41684/7	TOX-500	10jul121626-r101.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1					B	M1	M2								
Toxaphene Peak 1	72.050				Ave		72.0500000						20.0			
Toxaphene Peak 2	40.772				Ave		40.7720000						20.0			
Toxaphene Peak 3	49.522				Ave		49.5220000						20.0			
Toxaphene Peak 4	30.086				Ave		30.0860000						20.0			
Toxaphene Peak 5	18.488				Ave		18.4880000						20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41684

SDG No.: 200-11554-1

Instrument ID: 5005.i GC Column: RTX-CLPII ID: 0.32(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/10/2012 22:22 Calibration End Date: 07/10/2012 22:22 Calibration ID: 16630

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-41684/7	10jul121626-r101.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1					LVL 1				
Toxaphene Peak 1	Ave	36025					500				
Toxaphene Peak 2	Ave	20386					500				
Toxaphene Peak 3	Ave	24761					500				
Toxaphene Peak 4	Ave	15043					500				
Toxaphene Peak 5	Ave	9244					500				

Curve Type Legend:
Ave = Average by Height

FORM VII
GC SEMI VOA PERFORMANCE EVALUATION MIXTURE (PEM)

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: PEM 200-41684/1 Calibration Date: 07/10/2012 19:47

Instrument ID: 5005.i Calib Start Date: 07/10/2012 20:13

GC Column: RTX-CLP ID: 0.32(mm) Calib End Date: 07/10/2012 21:57

Lab File ID: 10jul121626-r041.d Conc. Units: ug/L

EPA Sample No.: BCS

ANALYTE	RT	RESPONSE	BREAKDOWN (%)	LIMIT	#
Endrin	9.11	85081	7.05	15	
Endrin aldehyde	10.25	2600			
Endrin ketone	11.59	3855			

ANALYTE	RT	RESPONSE	BREAKDOWN (%)	LIMIT	#
4,4'-DDT	9.74	142797	2.27	15	
4,4'-DDD	9.25	1299			
4,4'-DDE	8.29	2015			

FORM VII
GC SEMI VOA PERFORMANCE EVALUATION MIXTURE (PEM)

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: PEM 200-41684/1 Calibration Date: 07/10/2012 19:47

Instrument ID: 5005.i Calib Start Date: 07/10/2012 20:13

GC Column: RTX-CLPII ID: 0.32(mm) Calib End Date: 07/10/2012 21:57

Lab File ID: 10jul121626-r041.d Conc. Units: ug/L

EPA Sample No.: BCS

ANALYTE	RT	RESPONSE	BREAKDOWN (%)	LIMIT	#
Endrin	8.25	106929	6.16	15	
Endrin aldehyde	9.17	2604			
Endrin ketone	10.63	4411			

ANALYTE	RT	RESPONSE	BREAKDOWN (%)	LIMIT	#
4,4'-DDT	9.00	177618	2.13	15	
4,4'-DDD	8.50	1458			
4,4'-DDE	7.64	2404			

FORM VII
GC SEMI VOA PERFORMANCE EVALUATION MIXTURE (PEM)

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: PEM 200-41698/7 Calibration Date: 07/11/2012 03:58

Instrument ID: 5005.i Calib Start Date: 07/10/2012 20:13

GC Column: RTX-CLP ID: 0.32(mm) Calib End Date: 07/10/2012 21:57

Lab File ID: 10jul121628-r071.d Conc. Units: ug/L

EPA Sample No.: BCS

ANALYTE	RT	RESPONSE	BREAKDOWN (%)	LIMIT	#
Endrin	9.10	93455	6.20	15	
Endrin aldehyde	10.24	2204			
Endrin ketone	11.58	3971			

ANALYTE	RT	RESPONSE	BREAKDOWN (%)	LIMIT	#
4,4'-DDT	9.73	159276	1.58	15	
4,4'-DDD	9.24	1050			
4,4'-DDE	8.28	1503			

FORM VII
GC SEMI VOA PERFORMANCE EVALUATION MIXTURE (PEM)

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: PEM 200-41698/7 Calibration Date: 07/11/2012 03:58

Instrument ID: 5005.i Calib Start Date: 07/10/2012 20:13

GC Column: RTX-CLPII ID: 0.32(mm) Calib End Date: 07/10/2012 21:57

Lab File ID: 10jul121628-r071.d Conc. Units: ug/L

EPA Sample No.: BCS

ANALYTE	RT	RESPONSE	BREAKDOWN (%)	LIMIT	#
Endrin	8.24	112485	5.77	15	
Endrin aldehyde	9.16	2321			
Endrin ketone	10.62	4564			

ANALYTE	RT	RESPONSE	BREAKDOWN (%)	LIMIT	#
4,4'-DDT	8.99	188760	1.50	15	
4,4'-DDD	8.49	1176			
4,4'-DDE	7.63	1707			

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: ICV 200-41684/13 Calibration Date: 07/11/2012 00:57

Instrument ID: 5005.i Calib Start Date: 07/10/2012 20:13

GC Column: RTX-CLP ID: 0.32(mm) Calib End Date: 07/10/2012 21:57

Lab File ID: 10jul121626-r161.d Conc. Units: ug/L

EPA Sample No.: INDABICV

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
alpha-BHC	Ave	3568	3664		20.5	20.0	2.7	20.0
gamma-BHC (Lindane)	Ave	3326	3356		20.2	20.0	0.9	20.0
beta-BHC	Ave	1228	1304		21.2	20.0	6.2	20.0
delta-BHC	Ave	2991	3075		20.6	20.0	2.8	20.0
Heptachlor	Ave	2747	2879		21.0	20.0	4.8	20.0
Aldrin	Ave	2758	2897		21.0	20.0	5.0	20.0
Heptachlor epoxide	Ave	2221	2323		20.9	20.0	4.6	20.0
gamma-Chlordane	Ave	2192	2252		20.5	20.0	2.7	20.0
alpha-Chlordane	Ave	2082	2099		20.2	20.0	0.8	20.0
4,4'-DDE	Ave	2235	2305		41.3	40.0	3.1	20.0
Endosulfan I	Ave	1931	2003		20.7	20.0	3.7	20.0
Dieldrin	Ave	2118	2195		41.4	40.0	3.6	20.0
Endrin	Ave	1804	1664		36.9	40.0	-7.8	20.0
4,4'-DDD	Ave	1481	1531		41.3	40.0	3.3	20.0
Endosulfan II	Ave	1625	1641		40.4	40.0	1.0	20.0
4,4'-DDT	Ave	1390	1388		39.9	40.0	-0.1	20.0
Endrin aldehyde	Ave	1252	1323		42.3	40.0	5.7	20.0
Methoxychlor	Ave	658.1	692.0		210	200	5.2	20.0
Endosulfan sulfate	Ave	1257	1305		41.5	40.0	3.8	20.0
Endrin ketone	Ave	1627	1731		42.6	40.0	6.4	20.0
Tetrachloro-m-xylene	Ave	1919	2069		43.1	40.0	7.8	20.0
DCB Decachlorobiphenyl	Ave	1337	1391		83.2	80.0	4.0	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: ICV 200-41684/13 Calibration Date: 07/11/2012 00:57

Instrument ID: 5005.i Calib Start Date: 07/10/2012 20:13

GC Column: RTX-CLP ID: 0.32(mm) Calib End Date: 07/10/2012 21:57

Lab File ID: 10jul121626-r161.d

Analyte	RT	RT WINDOW	
		TO	FROM
alpha-BHC	5.67	5.62	5.72
gamma-BHC (Lindane)	6.04	5.98	6.08
beta-BHC	6.14	6.09	6.19
delta-BHC	6.35	6.29	6.39
Heptachlor	6.60	6.54	6.64
Aldrin	6.97	6.91	7.01
Heptachlor epoxide	7.78	7.72	7.82
gamma-Chlordane	7.96	7.90	8.00
alpha-Chlordane	8.15	8.10	8.20
4,4'-DDE	8.27	8.22	8.32
Endosulfan I	8.35	8.30	8.40
Dieldrin	8.73	8.67	8.77
Endrin	9.11	9.05	9.15
4,4'-DDD	9.24	9.18	9.28
Endosulfan II	9.49	9.43	9.53
4,4'-DDT	9.73	9.67	9.77
Endrin aldehyde	10.25	10.19	10.29
Methoxychlor	10.66	10.61	10.71
Endosulfan sulfate	11.06	11.01	11.11
Endrin ketone	11.58	11.52	11.62
Tetrachloro-m-xylene	4.97	4.91	5.01
DCB Decachlorobiphenyl	13.57	13.52	13.62

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: ICV 200-41684/13 Calibration Date: 07/11/2012 00:57

Instrument ID: 5005.i Calib Start Date: 07/10/2012 20:13

GC Column: RTX-CLPII ID: 0.32(mm) Calib End Date: 07/10/2012 21:57

Lab File ID: 10jul121626-r161.d Conc. Units: ug/L

EPA Sample No.: INDABICV

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
alpha-BHC	Ave	4311	4502		20.9	20.0	4.4	20.0
gamma-BHC (Lindane)	Ave	4174	4315		20.7	20.0	3.4	20.0
beta-BHC	Ave	1567	1690		21.6	20.0	7.9	20.0
delta-BHC	Ave	4080	4334		21.2	20.0	6.2	20.0
Heptachlor	Ave	3747	4051		21.6	20.0	8.1	20.0
Aldrin	Ave	3690	3919		21.2	20.0	6.2	20.0
Heptachlor epoxide	Ave	2904	3079		21.2	20.0	6.0	20.0
gamma-Chlordane	Ave	2861	2993		20.9	20.0	4.6	20.0
alpha-Chlordane	Ave	2718	2762		20.3	20.0	1.6	20.0
Endosulfan I	Ave	2509	2688		21.4	20.0	7.2	20.0
4,4'-DDE	Ave	2668	2734		41.0	40.0	2.5	20.0
Dieldrin	Ave	2667	2882		43.2	40.0	8.1	20.0
Endrin	Ave	2166	2033		37.5	40.0	-6.1	20.0
4,4'-DDD	Ave	1744	1847		42.4	40.0	5.9	20.0
Endosulfan II	Ave	2034	2102		41.3	40.0	3.4	20.0
4,4'-DDT	Ave	1629	1606		39.4	40.0	-1.4	20.0
Endrin aldehyde	Ave	1487	1584		42.6	40.0	6.5	20.0
Endosulfan sulfate	Ave	1497	1565		41.8	40.0	4.5	20.0
Methoxychlor	Ave	704.2	744.9		212	200	5.8	20.0
Endrin ketone	Ave	1809	1978		43.7	40.0	9.3	20.0
Tetrachloro-m-xylene	Ave	2121	2309		43.5	40.0	8.8	20.0
DCB Decachlorobiphenyl	Ave	1323	1397		84.5	80.0	5.6	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: ICV 200-41684/13 Calibration Date: 07/11/2012 00:57

Instrument ID: 5005.i Calib Start Date: 07/10/2012 20:13

GC Column: RTX-CLPII ID: 0.32(mm) Calib End Date: 07/10/2012 21:57

Lab File ID: 10jul121626-r161.d

Analyte	RT	RT WINDOW	
		TO	FROM
alpha-BHC	5.11	5.06	5.16
gamma-BHC (Lindane)	5.51	5.47	5.57
beta-BHC	5.62	5.58	5.68
delta-BHC	5.92	5.88	5.98
Heptachlor	5.95	5.91	6.01
Aldrin	6.28	6.24	6.34
Heptachlor epoxide	6.94	6.90	7.00
gamma-Chlordane	7.18	7.13	7.23
alpha-Chlordane	7.37	7.32	7.42
Endosulfan I	7.43	7.38	7.48
4,4'-DDE	7.63	7.58	7.68
Dieldrin	7.80	7.76	7.86
Endrin	8.24	8.20	8.30
4,4'-DDD	8.49	8.44	8.54
Endosulfan II	8.58	8.54	8.64
4,4'-DDT	8.99	8.95	9.05
Endrin aldehyde	9.16	9.11	9.21
Endosulfan sulfate	9.65	9.61	9.71
Methoxychlor	10.32	10.28	10.38
Endrin ketone	10.62	10.57	10.67
Tetrachloro-m-xylene	4.32	4.28	4.38
DCB Decachlorobiphenyl	13.07	13.03	13.13

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: CCV 200-41698/8 Calibration Date: 07/11/2012 04:24

Instrument ID: 5005.i Calib Start Date: 07/10/2012 20:13

GC Column: RTX-CLP ID: 0.32(mm) Calib End Date: 07/10/2012 21:57

Lab File ID: 10jul121628-r081.d Conc. Units: ug/L

EPA Sample No.: INDA_B-3

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
alpha-BHC	Ave	3568	3727		20.9	20.0	4.4	20.0
gamma-BHC (Lindane)	Ave	3326	3480		20.9	20.0	4.6	20.0
beta-BHC	Ave	1228	1248		20.3	20.0	1.6	20.0
delta-BHC	Ave	2991	3137		21.0	20.0	4.9	20.0
Heptachlor	Ave	2747	2891		21.0	20.0	5.2	20.0
Aldrin	Ave	2758	2806		20.3	20.0	1.7	20.0
Heptachlor epoxide	Ave	2221	2315		20.8	20.0	4.2	20.0
gamma-Chlordane	Ave	2192	2245		20.5	20.0	2.4	20.0
alpha-Chlordane	Ave	2082	2083		20.0	20.0	0.0	20.0
4,4'-DDE	Ave	2235	2302		41.2	40.0	3.0	20.0
Endosulfan I	Ave	1931	1984		20.5	20.0	2.7	20.0
Dieldrin	Ave	2118	2197		41.5	40.0	3.7	20.0
Endrin	Ave	1804	1869		41.5	40.0	3.6	20.0
4,4'-DDD	Ave	1481	1550		41.9	40.0	4.7	20.0
Endosulfan II	Ave	1625	1670		41.1	40.0	2.7	20.0
4,4'-DDT	Ave	1390	1515		43.6	40.0	9.0	20.0
Endrin aldehyde	Ave	1252	1289		41.2	40.0	3.0	20.0
Methoxychlor	Ave	658.1	724.0		220	200	10.0	20.0
Endosulfan sulfate	Ave	1257	1329		42.3	40.0	5.8	20.0
Endrin ketone	Ave	1627	1704		41.9	40.0	4.7	20.0
Tetrachloro-m-xylene	Ave	1919	1935		20.2	20.0	0.8	20.0
DCB Decachlorobiphenyl	Ave	1337	1348		20.2	20.0	0.8	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: CCV 200-41698/8 Calibration Date: 07/11/2012 04:24

Instrument ID: 5005.i Calib Start Date: 07/10/2012 20:13

GC Column: RTX-CLP ID: 0.32(mm) Calib End Date: 07/10/2012 21:57

Lab File ID: 10jul121628-r081.d

Analyte	RT	RT WINDOW	
		TO	FROM
alpha-BHC	5.68	5.62	5.72
gamma-BHC (Lindane)	6.04	5.98	6.08
beta-BHC	6.14	6.09	6.19
delta-BHC	6.35	6.29	6.39
Heptachlor	6.60	6.54	6.64
Aldrin	6.97	6.91	7.01
Heptachlor epoxide	7.78	7.72	7.82
gamma-Chlordane	7.96	7.90	8.00
alpha-Chlordane	8.16	8.10	8.20
4,4'-DDE	8.28	8.22	8.32
Endosulfan I	8.36	8.30	8.40
Dieldrin	8.73	8.67	8.77
Endrin	9.11	9.05	9.15
4,4'-DDD	9.24	9.18	9.28
Endosulfan II	9.49	9.43	9.53
4,4'-DDT	9.73	9.67	9.77
Endrin aldehyde	10.25	10.19	10.29
Methoxychlor	10.66	10.61	10.71
Endosulfan sulfate	11.06	11.01	11.11
Endrin ketone	11.58	11.52	11.62
Tetrachloro-m-xylene	4.97	4.91	5.01
DCB Decachlorobiphenyl	13.57	13.52	13.62

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: CCV 200-41698/8 Calibration Date: 07/11/2012 04:24

Instrument ID: 5005.i Calib Start Date: 07/10/2012 20:13

GC Column: RTX-CLPII ID: 0.32(mm) Calib End Date: 07/10/2012 21:57

Lab File ID: 10jul121628-r081.d Conc. Units: ug/L

EPA Sample No.: INDA_B-3

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
alpha-BHC	Ave	4311	4542		21.1	20.0	5.4	20.0
gamma-BHC (Lindane)	Ave	4174	4409		21.1	20.0	5.6	20.0
beta-BHC	Ave	1567	1609		20.5	20.0	2.7	20.0
delta-BHC	Ave	4080	4328		21.2	20.0	6.1	20.0
Heptachlor	Ave	3747	3990		21.3	20.0	6.5	20.0
Aldrin	Ave	3690	3778		20.5	20.0	2.4	20.0
Heptachlor epoxide	Ave	2904	2980		20.5	20.0	2.6	20.0
gamma-Chlordane	Ave	2861	2897		20.2	20.0	1.2	20.0
alpha-Chlordane	Ave	2718	2764		20.3	20.0	1.7	20.0
Endosulfan I	Ave	2509	2624		20.9	20.0	4.6	20.0
4,4'-DDE	Ave	2668	2760		41.4	40.0	3.4	20.0
Dieldrin	Ave	2667	2788		41.8	40.0	4.5	20.0
Endrin	Ave	2166	2284		42.2	40.0	5.4	20.0
4,4'-DDD	Ave	1744	1850		42.4	40.0	6.1	20.0
Endosulfan II	Ave	2034	2121		41.7	40.0	4.3	20.0
4,4'-DDT	Ave	1629	1788		43.9	40.0	9.8	20.0
Endrin aldehyde	Ave	1487	1550		41.7	40.0	4.3	20.0
Endosulfan sulfate	Ave	1497	1612		43.1	40.0	7.7	20.0
Methoxychlor	Ave	704.2	783.8		223	200	11.3	20.0
Endrin ketone	Ave	1809	1963		43.4	40.0	8.5	20.0
Tetrachloro-m-xylene	Ave	2121	2190		20.6	20.0	3.2	20.0
DCB Decachlorobiphenyl	Ave	1323	1365		20.6	20.0	3.2	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: CCV 200-41698/8 Calibration Date: 07/11/2012 04:24

Instrument ID: 5005.i Calib Start Date: 07/10/2012 20:13

GC Column: RTX-CLPII ID: 0.32(mm) Calib End Date: 07/10/2012 21:57

Lab File ID: 10jul121628-r081.d

Analyte	RT	RT WINDOW	
		TO	FROM
alpha-BHC	5.11	5.06	5.16
gamma-BHC (Lindane)	5.52	5.47	5.57
beta-BHC	5.63	5.58	5.68
delta-BHC	5.93	5.88	5.98
Heptachlor	5.96	5.91	6.01
Aldrin	6.28	6.24	6.34
Heptachlor epoxide	6.95	6.90	7.00
gamma-Chlordane	7.18	7.13	7.23
alpha-Chlordane	7.37	7.32	7.42
Endosulfan I	7.43	7.38	7.48
4,4'-DDE	7.63	7.58	7.68
Dieldrin	7.81	7.76	7.86
Endrin	8.25	8.20	8.30
4,4'-DDD	8.49	8.44	8.54
Endosulfan II	8.59	8.54	8.64
4,4'-DDT	8.99	8.95	9.05
Endrin aldehyde	9.16	9.11	9.21
Endosulfan sulfate	9.65	9.61	9.71
Methoxychlor	10.33	10.28	10.38
Endrin ketone	10.62	10.57	10.67
Tetrachloro-m-xylene	4.33	4.28	4.38
DCB Decachlorobiphenyl	13.07	13.03	13.13

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: | Lab Sample ID: MB 200-41275/1-C

Matrix: Solid | Lab File ID: 10jul121628-r011.d

Analysis Method: 8081B | Date Collected:

Extraction Method: 3550C | Date Extracted: 07/03/2012 09:20

Sample wt/vol: 29.96(g) | Date Analyzed: 07/11/2012 01:23

Con. Extract Vol.: 10000(uL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-CLP ID: 0.32(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 41698 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
319-84-6	alpha-BHC	0.33	U	1.7	0.33	0.11
58-89-9	gamma-BHC (Lindane)	0.33	U	1.7	0.33	0.11
319-85-7	beta-BHC	0.33	U	1.7	0.33	0.13
319-86-8	delta-BHC	0.33	U	1.7	0.33	0.10
76-44-8	Heptachlor	0.33	U	1.7	0.33	0.11
309-00-2	Aldrin	0.33	U	1.7	0.33	0.11
1024-57-3	Heptachlor epoxide	0.33	U	1.7	0.33	0.11
5103-74-2	gamma-Chlordane	0.33	U	1.7	0.33	0.11
5103-71-9	alpha-Chlordane	0.33	U	1.7	0.33	0.12
72-55-9	4,4'-DDE	0.67	U	3.3	0.67	0.21
959-98-8	Endosulfan I	0.33	U	1.7	0.33	0.12
60-57-1	Dieldrin	0.67	U	3.3	0.67	0.22
72-20-8	Endrin	0.67	U	3.3	0.67	0.23
72-54-8	4,4'-DDD	0.67	U	3.3	0.67	0.19
33213-65-9	Endosulfan II	0.67	U	3.3	0.67	0.22
50-29-3	4,4'-DDT	0.67	U	3.3	0.67	0.22
7421-93-4	Endrin aldehyde	0.67	U	3.3	0.67	0.30
72-43-5	Methoxychlor	3.3	U	17	3.3	1.1
1031-07-8	Endosulfan sulfate	0.67	U	3.3	0.67	0.24
53494-70-5	Endrin ketone	0.67	U	3.3	0.67	0.21
8001-35-2	Toxaphene	33	U	170	33	13
STL00100	Toxaphene Peak 1	33	U	170	33	13
STL00109	Toxaphene Peak 2	33	U	170	33	13
STL00220	Toxaphene Peak 3	33	U	170	33	13
STL00083	Toxaphene Peak 4	33	U	170	33	13
STL00051	Toxaphene Peak 5	33	U	170	33	13

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	82		50-120
2051-24-3	DCB Decachlorobiphenyl	91		45-115

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: | Lab Sample ID: MB 200-41275/1-C

Matrix: Solid | Lab File ID: 10jul121628-r011.d

Analysis Method: 8081B | Date Collected:

Extraction Method: 3550C | Date Extracted: 07/03/2012 09:20

Sample wt/vol: 29.96(g) | Date Analyzed: 07/11/2012 01:23

Con. Extract Vol.: 10000(uL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-CLPII ID: 0.32(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 41698 | Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	84		50-120
2051-24-3	DCB Decachlorobiphenyl	92		45-115

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: Lab Sample ID: LCS 200-41275/2-C

Matrix: Solid Lab File ID: 10jul121628-r021.d

Analysis Method: 8081B Date Collected:

Extraction Method: 3550C Date Extracted: 07/03/2012 09:20

Sample wt/vol: 30.01(g) Date Analyzed: 07/11/2012 01:49

Con. Extract Vol.: 10000(uL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-CLP ID: 0.32(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 41698 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
319-84-6	alpha-BHC	6.05		1.7	0.33	0.11
58-89-9	gamma-BHC (Lindane)	6.05		1.7	0.33	0.11
319-85-7	beta-BHC	6.40		1.7	0.33	0.13
319-86-8	delta-BHC	6.15		1.7	0.33	0.10
309-00-2	Aldrin	6.20		1.7	0.33	0.11
1024-57-3	Heptachlor epoxide	6.34		1.7	0.33	0.11
5103-74-2	gamma-Chlordane	6.32		1.7	0.33	0.11
5103-71-9	alpha-Chlordane	6.19		1.7	0.33	0.12
72-55-9	4,4'-DDE	12.7		3.3	0.67	0.21
959-98-8	Endosulfan I	5.90		1.7	0.33	0.12
60-57-1	Dieldrin	12.9		3.3	0.67	0.22
72-20-8	Endrin	13.2		3.3	0.67	0.23
72-54-8	4,4'-DDD	13.0		3.3	0.67	0.19
33213-65-9	Endosulfan II	12.0		3.3	0.67	0.22
7421-93-4	Endrin aldehyde	7.08		3.3	0.67	0.30
72-43-5	Methoxychlor	68.8		17	3.3	1.1
53494-70-5	Endrin ketone	12.8		3.3	0.67	0.21
8001-35-2	Toxaphene	33	U	170	33	13
STL00100	Toxaphene Peak 1	33	U	170	33	13
STL00109	Toxaphene Peak 2	33	U	170	33	13
STL00220	Toxaphene Peak 3	33	U	170	33	13
STL00083	Toxaphene Peak 4	33	U	170	33	13
STL00051	Toxaphene Peak 5	33	U	170	33	13

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	88		50-120
2051-24-3	DCB Decachlorobiphenyl	99		45-115

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: Lab Sample ID: LCS 200-41275/2-C

Matrix: Solid Lab File ID: 10jul121628-r021.d

Analysis Method: 8081B Date Collected:

Extraction Method: 3550C Date Extracted: 07/03/2012 09:20

Sample wt/vol: 30.01(g) Date Analyzed: 07/11/2012 01:49

Con. Extract Vol.: 10000(uL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-CLPII ID: 0.32(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 41698 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
76-44-8	Heptachlor	6.19		1.7	0.33	0.11
50-29-3	4,4'-DDT	13.2		3.3	0.67	0.22
1031-07-8	Endosulfan sulfate	12.8		3.3	0.67	0.24

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	91		50-120
2051-24-3	DCB Decachlorobiphenyl	99		45-115

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: 5005.i Start Date: 07/10/2012 19:47

Analysis Batch Number: 41684 End Date: 07/11/2012 00:57

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
PEM 200-41684/1		07/10/2012 19:47	1	10jul121626-r04 1.d	RTX-CLP 0.32(mm)
PEM 200-41684/1		07/10/2012 19:47	1	10jul121626-r04 1.d	RTX-CLPII 0.32(mm)
IC 200-41684/2		07/10/2012 20:13	1	10jul121626-r05 1.d	RTX-CLP 0.32(mm)
IC 200-41684/2		07/10/2012 20:13	1	10jul121626-r05 1.d	RTX-CLPII 0.32(mm)
IC 200-41684/3		07/10/2012 20:39	1	10jul121626-r06 1.d	RTX-CLP 0.32(mm)
IC 200-41684/3		07/10/2012 20:39	1	10jul121626-r06 1.d	RTX-CLPII 0.32(mm)
ICRT 200-41684/4		07/10/2012 21:05	1	10jul121626-r07 1.d	RTX-CLP 0.32(mm)
ICRT 200-41684/4		07/10/2012 21:05	1	10jul121626-r07 1.d	RTX-CLPII 0.32(mm)
IC 200-41684/5		07/10/2012 21:31	1	10jul121626-r08 1.d	RTX-CLP 0.32(mm)
IC 200-41684/5		07/10/2012 21:31	1	10jul121626-r08 1.d	RTX-CLPII 0.32(mm)
IC 200-41684/6		07/10/2012 21:57	1	10jul121626-r09 1.d	RTX-CLP 0.32(mm)
IC 200-41684/6		07/10/2012 21:57	1	10jul121626-r09 1.d	RTX-CLPII 0.32(mm)
IC 200-41684/7		07/10/2012 22:22	1	10jul121626-r10 1.d	RTX-CLP 0.32(mm)
IC 200-41684/7		07/10/2012 22:22	1	10jul121626-r10 1.d	RTX-CLPII 0.32(mm)
IC 200-41684/8		07/10/2012 22:48	1		RTX-CLP 0.32(mm)
IC 200-41684/8		07/10/2012 22:48	1		RTX-CLPII 0.32(mm)
IC 200-41684/9		07/10/2012 23:14	1		RTX-CLP 0.32(mm)
IC 200-41684/9		07/10/2012 23:14	1		RTX-CLPII 0.32(mm)
IC 200-41684/10		07/10/2012 23:40	1		RTX-CLP 0.32(mm)
IC 200-41684/10		07/10/2012 23:40	1		RTX-CLPII 0.32(mm)
IC 200-41684/11		07/11/2012 00:06	1		RTX-CLP 0.32(mm)
IC 200-41684/11		07/11/2012 00:06	1		RTX-CLPII 0.32(mm)
IC 200-41684/12		07/11/2012 00:31	1		RTX-CLP 0.32(mm)
IC 200-41684/12		07/11/2012 00:31	1		RTX-CLPII 0.32(mm)
ICV 200-41684/13		07/11/2012 00:57	1	10jul121626-r16 1.d	RTX-CLP 0.32(mm)
ICV 200-41684/13		07/11/2012 00:57	1	10jul121626-r16 1.d	RTX-CLPII 0.32(mm)

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: 5005.i Start Date: 07/11/2012 01:23

Analysis Batch Number: 41698 End Date: 07/11/2012 04:24

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
MB 200-41275/1-C		07/11/2012 01:23	1	10jul121628-r01 1.d	RTX-CLP 0.32(mm)
MB 200-41275/1-C		07/11/2012 01:23	1	10jul121628-r01 1.d	RTX-CLPII 0.32(mm)
LCS 200-41275/2-C		07/11/2012 01:49	1	10jul121628-r02 1.d	RTX-CLP 0.32(mm)
LCS 200-41275/2-C		07/11/2012 01:49	1	10jul121628-r02 1.d	RTX-CLPII 0.32(mm)
200-11554-1	NFUDS-001-TP0101-01	07/11/2012 02:15	1	10jul121628-r03 1.d	RTX-CLP 0.32(mm)
200-11554-1	NFUDS-001-TP0101-01	07/11/2012 02:15	1	10jul121628-r03 1.d	RTX-CLPII 0.32(mm)
200-11554-2	NFUDS-001-TP0201-01	07/11/2012 02:41	1	10jul121628-r04 1.d	RTX-CLP 0.32(mm)
200-11554-2	NFUDS-001-TP0201-01	07/11/2012 02:41	1	10jul121628-r04 1.d	RTX-CLPII 0.32(mm)
200-11554-3	NFUDS-001-TP0302-01	07/11/2012 03:06	1	10jul121628-r05 1.d	RTX-CLP 0.32(mm)
200-11554-3	NFUDS-001-TP0302-01	07/11/2012 03:06	1	10jul121628-r05 1.d	RTX-CLPII 0.32(mm)
200-11554-4	NFUDS-001-TP0402-01	07/11/2012 03:32	1	10jul121628-r06 1.d	RTX-CLP 0.32(mm)
200-11554-4	NFUDS-001-TP0402-01	07/11/2012 03:32	1	10jul121628-r06 1.d	RTX-CLPII 0.32(mm)
PEM 200-41698/7		07/11/2012 03:58	1	10jul121628-r07 1.d	RTX-CLP 0.32(mm)
PEM 200-41698/7		07/11/2012 03:58	1	10jul121628-r07 1.d	RTX-CLPII 0.32(mm)
CCV 200-41698/8		07/11/2012 04:24	1	10jul121628-r08 1.d	RTX-CLP 0.32(mm)
CCV 200-41698/8		07/11/2012 04:24	1	10jul121628-r08 1.d	RTX-CLPII 0.32(mm)

GC SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Batch Number: 41275 Batch Start Date: 07/03/12 09:20 Batch Analyst: Blow, Jessica A

Batch Method: 3550C Batch End Date: 07/03/12 11:39

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	EX8081SUw 00023	EXPEST242SPi 00033		
MB 200-41275/1		3550C, 3620B, 3660B, 8081B		29.96 g	10000 uL	1 mL			
LCS 200-41275/2		3550C, 3620B, 3660B, 8081B		30.01 g	10000 uL	1 mL	1 mL		
200-11554-E-1	NFUDS-001-TP0101 -01	3550C, 3620B, 3660B, 8081B	T	29.77 g	10000 uL	1 mL			
200-11554-E-2	NFUDS-001-TP0201 -01	3550C, 3620B, 3660B, 8081B	T	30.20 g	10000 uL	1 mL			
200-11554-E-3	NFUDS-001-TP0302 -01	3550C, 3620B, 3660B, 8081B	T	30.00 g	10000 uL	1 mL			
200-11554-E-4	NFUDS-001-TP0402 -01	3550C, 3620B, 3660B, 8081B	T	30.15 g	10000 uL	1 mL			

Batch Notes	
Balance ID	L92017
Concentration End Time	1123
Concentration Start Time	1015
Person's name who did the concentration	JAB
Exchange Solvent Lot #	345051
Exchange Solvent Name	Hexane
Na2SO4 Lot Number	327030
Nominal Amount Used	30 g
Prep Solvent Lot #	345051/ 324394
Prep Solvent Name	Hexane/ Acetone
Prep Solvent Volume Used	300 mL
Person's name who did the prep	JAB
Person's name who witnessed reagent drop	EAN
Analyst who added reagent	JAB
Vendor of Reagent used	Baker

GC SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Batch Number: 41275 Batch Start Date: 07/03/12 09:20 Batch Analyst: Blow, Jessica A

Batch Method: 3550C Batch End Date: 07/03/12 11:39

Basis	Basis Description
T	Total/NA

GC SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Batch Number: 41321 Batch Start Date: 07/03/12 12:40 Batch Analyst: Blow, Jessica A

Batch Method: 3620B Batch End Date: 07/03/12 13:21

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Florisil_S 00010			
MB 200-41275/1-A		3620B, 3660B, 8081B		1 mL	1000 uL	1 Count			
LCS 200-41275/2-A		3620B, 3660B, 8081B		1 mL	1000 uL	1 Count			
200-11554-E-1-A	NFUDS-001-TP0101 -01	3620B, 3660B, 8081B	T	1 mL	1000 uL	1 Count			
200-11554-E-2-A	NFUDS-001-TP0201 -01	3620B, 3660B, 8081B	T	1 mL	1000 uL	1 Count			
200-11554-E-3-A	NFUDS-001-TP0302 -01	3620B, 3660B, 8081B	T	1 mL	1000 uL	1 Count			
200-11554-E-4-A	NFUDS-001-TP0402 -01	3620B, 3660B, 8081B	T	1 mL	1000 uL	1 Count			

Batch Notes	

Basis	Basis Description
T	Total/NA

GC SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Batch Number: 41322 Batch Start Date: 07/03/12 13:23 Batch Analyst: Blow, Jessica A

Batch Method: 3660B Batch End Date: 07/03/12 13:36

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	EXCOPPERACT 00003			
MB 200-41275/1-B		3660B, 8081B		1 mL	1000 uL	0.25 g			
LCS 200-41275/2-B		3660B, 8081B		1 mL	1000 uL	0.25 g			
200-11554-E-1-E	NFUDS-001-TP0101 -01	3660B, 8081B	T	1 mL	1000 uL	0.25 g			
200-11554-E-2-E	NFUDS-001-TP0201 -01	3660B, 8081B	T	1 mL	1000 uL	0.25 g			
200-11554-E-3-E	NFUDS-001-TP0302 -01	3660B, 8081B	T	1 mL	1000 uL	0.25 g			
200-11554-E-4-E	NFUDS-001-TP0402 -01	3660B, 8081B	T	1 mL	1000 uL	0.25 g			

Batch Notes	

Basis	Basis Description
T	Total/NA

8082A

Polychlorinated Biphenyls (PCBs) by Gas Chromatography

FORM II
GC SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Matrix: Solid Level: Low

GC Column (1): RTX-5 ID: 0.25 (mm) GC Column (2): RTX-35 ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	TCX1 #	TCX2 #	DCB1 #	DCB2 #
NFUDS-001-TP0101-01	200-11554-1	89	93	95	96
NFUDS-001-TP0201-01	200-11554-2	99	100	96	104
NFUDS-001-TP0302-01	200-11554-3	82	84	80	87
NFUDS-001-TP0402-01	200-11554-4	80	81	82	85
	MB 200-41276/1-C	88	91	93	91
	LCS 200-41276/2-C	93	95	96	96

	QC LIMITS
TCX = Tetrachloro-m-xylene	30-130
DCB = DCB Decachlorobiphenyl	45-125

Column to be used to flag recovery values

FORM II 8082A

FORM III
GC SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Matrix: Solid Level: Low Lab File ID: 05jul121546-r021.d

Lab ID: LCS 200-41276/2-C Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
PCB-1016	167	150	90	55-120	
PCB-1260	167	156	94	55-125	

Column to be used to flag recovery and RPD values

FORM III 8082A

FORM IV
GC SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: MB 200-41276/1-C

Matrix: Solid Date Extracted: 07/03/2012 09:28

Lab File ID:(1) 05jul121546-r011.d Lab File ID:(2) 05jul121546-r011.d

Date Analyzed:(1) 07/06/2012 03:01 Date Analyzed:(2) 07/06/2012 03:01

Instrument ID:(1) 7227.i Instrument ID:(2) 7227.i

GC Column:(1) RTX-5 ID: 0.25(mm) GC Column:(2) RTX-35 ID: 0.25(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 200-41276/2-C	07/06/2012 03:25	07/06/2012 03:25
NFUDS-001-TP0101-01	200-11554-1	07/06/2012 03:49	07/06/2012 03:49
NFUDS-001-TP0201-01	200-11554-2	07/06/2012 04:13	07/06/2012 04:13
NFUDS-001-TP0302-01	200-11554-3	07/06/2012 04:38	07/06/2012 04:38
NFUDS-001-TP0402-01	200-11554-4	07/06/2012 05:02	07/06/2012 05:02

FORM VIII
GC SEMI VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Sample No.: ICRT 200-41407/18 Date Analyzed: 07/05/2012 22:34

Instrument ID: 7227.i GC Column: RTX-5 ID: 0.25(mm)

Lab File ID (Standard): 05jul121536-r181.d Heated Purge: (Y/N) N

Calibration ID: 16512

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TCX	DCB	
				RT #	RT #	
INITIAL CALIBRATION SURROGATE				3.40	13.64	
UPPER LIMIT				3.45	13.69	
LOWER LIMIT				3.35	13.59	
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
ICRT 200-41407/18		07/05/2012 22:34	05jul121536-r181.d	3.40	13.64	
CCV 200-41408/6		07/06/2012 02:37	05jul121538-r061.d	3.39	13.63	
MB 200-41276/1-C		07/06/2012 03:01	05jul121546-r011.d	3.39	13.63	
LCS 200-41276/2-C		07/06/2012 03:25	05jul121546-r021.d	3.40	13.63	
200-11554-1	NFUDS-001-TP0101-01	07/06/2012 03:49	05jul121546-r031.d	3.39	13.63	
200-11554-2	NFUDS-001-TP0201-01	07/06/2012 04:13	05jul121546-r041.d	3.40	13.63	
200-11554-3	NFUDS-001-TP0302-01	07/06/2012 04:38	05jul121546-r051.d	3.40	13.64	
200-11554-4	NFUDS-001-TP0402-01	07/06/2012 05:02	05jul121546-r061.d	3.40	13.64	
CCV 200-41409/7		07/06/2012 05:26	05jul121546-r071.d	3.40	13.64	

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl

TCX RT Limit = ± 0.05 minutes of surrogate RT
DCB RT Limit = ± 0.05 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8082A

FORM VIII
GC SEMI VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Sample No.: ICRT 200-41407/18 Date Analyzed: 07/05/2012 22:34

Instrument ID: 7227.i GC Column: RTX-35 ID: 0.25(mm)

Lab File ID (Standard): 05jul121536-r181.d Heated Purge: (Y/N) N

Calibration ID: 16520

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				TCX	DCB	
				RT #	RT #	
INITIAL CALIBRATION SURROGATE				4.02	14.78	
UPPER LIMIT				4.07	14.83	
LOWER LIMIT				3.97	14.73	
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
ICRT 200-41407/18		07/05/2012 22:34	05jul121536-r181.d	4.02	14.78	
CCV 200-41408/6		07/06/2012 02:37	05jul121538-r061.d	4.00	14.76	
MB 200-41276/1-C		07/06/2012 03:01	05jul121546-r011.d	4.00	14.76	
LCS 200-41276/2-C		07/06/2012 03:25	05jul121546-r021.d	4.01	14.77	
200-11554-1	NFUDS-001-TP0101-01	07/06/2012 03:49	05jul121546-r031.d	4.01	14.77	
200-11554-2	NFUDS-001-TP0201-01	07/06/2012 04:13	05jul121546-r041.d	4.01	14.77	
200-11554-3	NFUDS-001-TP0302-01	07/06/2012 04:38	05jul121546-r051.d	4.01	14.77	
200-11554-4	NFUDS-001-TP0402-01	07/06/2012 05:02	05jul121546-r061.d	4.02	14.78	
CCV 200-41409/7		07/06/2012 05:26	05jul121546-r071.d	4.01	14.77	

TCX = Tetrachloro-m-xylene
DCB = DCB Decachlorobiphenyl

TCX RT Limit = ± 0.05 minutes of surrogate RT
DCB RT Limit = ± 0.05 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8082A

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: Lab Sample ID: LCS 200-41276/2-C

Instrument ID (1): 7227.i Instrument ID (2): 7227.i

Date Analyzed (1): 07/06/2012 03:25 Date Analyzed (2): 07/06/2012 03:25

GC Column (1): RTX-5 ID: 0.25(mm) GC Column (2): RTX-35 ID: 0.25(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
PCB-1016	1	1	4.26	4.21	4.31	148	150	0.9
		2	4.48	4.43	4.53	149		
		3	4.81	4.76	4.86	151		
		4	4.94	4.90	5.00	151		
		5	5.04	5.00	5.10	151		
	2	1	4.78	4.75	4.85	146	152	
		2	5.44	5.40	5.50	151		
		3	6.14	6.11	6.21	158		
		4	6.42	6.38	6.48	152		
		5	6.65	6.61	6.71	151		
PCB-1260	1	1	9.64	9.60	9.70	155	157	0.7
		2	10.23	10.19	10.29	156		
		3	10.99	10.94	11.04	159		
		4	11.67	11.62	11.72	159		
		5	11.95	11.90	12.00	156		
	2	1	11.93	11.89	11.99	155	156	
		2	12.82	12.78	12.88	165		
		3	13.35	13.31	13.41	152		
		4	13.94	13.91	14.01	155		
		5	14.06	14.02	14.12	153		

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0101-01 Lab Sample ID: 200-11554-1

Matrix: Solid Lab File ID: 05jul121546-r031.d

Analysis Method: 8082A Date Collected: 06/29/2012 08:30

Extraction Method: 3550C Date Extracted: 07/03/2012 09:28

Sample wt/vol: 29.83(g) Date Analyzed: 07/06/2012 03:49

Con. Extract Vol.: 10000(uL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-5 ID: 0.25(mm)

% Moisture: 4.1 GPC Cleanup:(Y/N) N

Analysis Batch No.: 41409 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
12674-11-2	PCB-1016	3.5	U	18	3.5	2.4
11104-28-2	PCB-1221	3.5	U	18	3.5	1.3
11141-16-5	PCB-1232	3.5	U	18	3.5	2.2
53469-21-9	PCB-1242	3.5	U	18	3.5	1.5
12672-29-6	PCB-1248	3.5	U	18	3.5	0.73
11097-69-1	PCB-1254	3.5	U	18	3.5	3.5
11096-82-5	PCB-1260	3.5	U	18	3.5	2.3
1336-36-3	Polychlorinated biphenyls, Total	1.8	U	18	1.8	0.50

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	89		30-130
2051-24-3	DCB Decachlorobiphenyl	95		45-125

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0101-01 Lab Sample ID: 200-11554-1

Matrix: Solid Lab File ID: 05jul121546-r031.d

Analysis Method: 8082A Date Collected: 06/29/2012 08:30

Extraction Method: 3550C Date Extracted: 07/03/2012 09:28

Sample wt/vol: 29.83(g) Date Analyzed: 07/06/2012 03:49

Con. Extract Vol.: 10000(uL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-35 ID: 0.25(mm)

% Moisture: 4.1 GPC Cleanup:(Y/N) N

Analysis Batch No.: 41409 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	93		30-130
2051-24-3	DCB Decachlorobiphenyl	96		45-125

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0201-01 | Lab Sample ID: 200-11554-2

Matrix: Solid | Lab File ID: 05jul121546-r041.d

Analysis Method: 8082A | Date Collected: 06/29/2012 08:45

Extraction Method: 3550C | Date Extracted: 07/03/2012 09:28

Sample wt/vol: 30.31(g) | Date Analyzed: 07/06/2012 04:13

Con. Extract Vol.: 10000(uL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.25(mm)

% Moisture: 2.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 41409 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
12674-11-2	PCB-1016	3.4	U	17	3.4	2.3
11104-28-2	PCB-1221	3.4	U	17	3.4	1.2
11141-16-5	PCB-1232	3.4	U	17	3.4	2.1
53469-21-9	PCB-1242	3.4	U	17	3.4	1.4
12672-29-6	PCB-1248	3.4	U	17	3.4	0.71
11097-69-1	PCB-1254	3.4	U	17	3.4	3.4
11096-82-5	PCB-1260	3.4	U	17	3.4	2.2
1336-36-3	Polychlorinated biphenyls, Total	1.7	U	17	1.7	0.49

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	99		30-130
2051-24-3	DCB Decachlorobiphenyl	96		45-125

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0201-01 Lab Sample ID: 200-11554-2

Matrix: Solid Lab File ID: 05jul121546-r041.d

Analysis Method: 8082A Date Collected: 06/29/2012 08:45

Extraction Method: 3550C Date Extracted: 07/03/2012 09:28

Sample wt/vol: 30.31(g) Date Analyzed: 07/06/2012 04:13

Con. Extract Vol.: 10000(uL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-35 ID: 0.25(mm)

% Moisture: 2.9 GPC Cleanup:(Y/N) N

Analysis Batch No.: 41409 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	100		30-130
2051-24-3	DCB Decachlorobiphenyl	104		45-125

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0302-01 Lab Sample ID: 200-11554-3

Matrix: Solid Lab File ID: 05jul121546-r051.d

Analysis Method: 8082A Date Collected: 06/29/2012 08:44

Extraction Method: 3550C Date Extracted: 07/03/2012 09:28

Sample wt/vol: 30.34(g) Date Analyzed: 07/06/2012 04:38

Con. Extract Vol.: 10000(uL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-5 ID: 0.25(mm)

% Moisture: 1.3 GPC Cleanup:(Y/N) N

Analysis Batch No.: 41409 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
12674-11-2	PCB-1016	3.3	U	17	3.3	2.3
11104-28-2	PCB-1221	3.3	U	17	3.3	1.2
11141-16-5	PCB-1232	3.3	U	17	3.3	2.1
53469-21-9	PCB-1242	3.3	U	17	3.3	1.4
12672-29-6	PCB-1248	3.3	U	17	3.3	0.70
11097-69-1	PCB-1254	3.3	U	17	3.3	3.3
11096-82-5	PCB-1260	3.3	U	17	3.3	2.2
1336-36-3	Polychlorinated biphenyls, Total	1.7	U	17	1.7	0.48

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	82		30-130
2051-24-3	DCB Decachlorobiphenyl	80		45-125

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0302-01 Lab Sample ID: 200-11554-3

Matrix: Solid Lab File ID: 05jul121546-r051.d

Analysis Method: 8082A Date Collected: 06/29/2012 08:44

Extraction Method: 3550C Date Extracted: 07/03/2012 09:28

Sample wt/vol: 30.34(g) Date Analyzed: 07/06/2012 04:38

Con. Extract Vol.: 10000(uL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-35 ID: 0.25(mm)

% Moisture: 1.3 GPC Cleanup:(Y/N) N

Analysis Batch No.: 41409 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	84		30-130
2051-24-3	DCB Decachlorobiphenyl	87		45-125

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0402-01 | Lab Sample ID: 200-11554-4

Matrix: Solid | Lab File ID: 05jul121546-r061.d

Analysis Method: 8082A | Date Collected: 06/29/2012 08:55

Extraction Method: 3550C | Date Extracted: 07/03/2012 09:28

Sample wt/vol: 29.86(g) | Date Analyzed: 07/06/2012 05:02

Con. Extract Vol.: 10000(uL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: RTX-5 ID: 0.25(mm)

% Moisture: 1.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 41409 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
12674-11-2	PCB-1016	3.4	U	17	3.4	2.4
11104-28-2	PCB-1221	3.4	U	17	3.4	1.2
11141-16-5	PCB-1232	3.4	U	17	3.4	2.1
53469-21-9	PCB-1242	3.4	U	17	3.4	1.4
12672-29-6	PCB-1248	3.4	U	17	3.4	0.72
11097-69-1	PCB-1254	3.4	U	17	3.4	3.4
11096-82-5	PCB-1260	3.4	U	17	3.4	2.2
1336-36-3	Polychlorinated biphenyls, Total	1.7	U	17	1.7	0.49

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	80		30-130
2051-24-3	DCB Decachlorobiphenyl	82		45-125

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0402-01 Lab Sample ID: 200-11554-4

Matrix: Solid Lab File ID: 05jul121546-r061.d

Analysis Method: 8082A Date Collected: 06/29/2012 08:55

Extraction Method: 3550C Date Extracted: 07/03/2012 09:28

Sample wt/vol: 29.86(g) Date Analyzed: 07/06/2012 05:02

Con. Extract Vol.: 10000(uL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-35 ID: 0.25(mm)

% Moisture: 1.7 GPC Cleanup:(Y/N) N

Analysis Batch No.: 41409 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	81		30-130
2051-24-3	DCB Decachlorobiphenyl	85		45-125

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41407

SDG No.: 200-11554-1

Instrument ID: 7227.i GC Column: RTX-5 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/05/2012 16:55 Calibration End Date: 07/05/2012 16:55 Calibration ID: 16505

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-41407/4	05jul121536-r041.d

ANALYTE	LVL 1										RT WINDOW	AVG RT
PCB-1221 Peak 1	3.651										3.601 - 3.701	3.651
PCB-1221 Peak 2	3.759										3.709 - 3.809	3.759
PCB-1221 Peak 3	3.822										3.772 - 3.872	3.822
PCB-1221 Peak 4	4.291										4.241 - 4.341	4.291
PCB-1221 Peak 5	4.819										4.769 - 4.869	4.819

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41407

SDG No.: 200-11554-1

Instrument ID: 7227.i GC Column: RTX-5 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/05/2012 16:55 Calibration End Date: 07/05/2012 16:55 Calibration ID: 16505

Calibration Files:

LEVEL:	LAB SAMPLE ID:	EPA SAMPLE NO:	LAB FILE ID:
Level 1	IC 200-41407/4	AR1221_200	05jul121536-r041.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1					B	M1	M2								
PCB-1221 Peak 1	37.520				Ave		37.5200000						20.0			
PCB-1221 Peak 2	27.055				Ave		27.0550000						20.0			
PCB-1221 Peak 3	86.040				Ave		86.0400000						20.0			
PCB-1221 Peak 4	16.575				Ave		16.5750000						20.0			
PCB-1221 Peak 5	13.535				Ave		13.5350000						20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41407

SDG No.: 200-11554-1

Instrument ID: 7227.i GC Column: RTX-5 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/05/2012 16:55 Calibration End Date: 07/05/2012 16:55 Calibration ID: 16505

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-41407/4	05jul121536-r041.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1					LVL 1				
PCB-1221 Peak 1	Ave	7504					200				
PCB-1221 Peak 2	Ave	5411					200				
PCB-1221 Peak 3	Ave	17208					200				
PCB-1221 Peak 4	Ave	3315					200				
PCB-1221 Peak 5	Ave	2707					200				

Curve Type Legend:
Ave = Average by Height

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41407

SDG No.: 200-11554-1

Instrument ID: 7227.i GC Column: RTX-35 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/05/2012 16:55 Calibration End Date: 07/05/2012 16:55 Calibration ID: 16513

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-41407/4	05jul121536-r041.d

ANALYTE	LVL 1										RT WINDOW	AVG RT
PCB-1221 Peak 1	4.506										4.456 - 4.556	4.506
PCB-1221 Peak 2	4.704										4.654 - 4.754	4.704
PCB-1221 Peak 3	4.792										4.742 - 4.842	4.792
PCB-1221 Peak 4	4.855										4.805 - 4.905	4.855
PCB-1221 Peak 5	5.453										5.403 - 5.503	5.453

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41407

SDG No.: 200-11554-1

Instrument ID: 7227.i GC Column: RTX-35 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/05/2012 16:55 Calibration End Date: 07/05/2012 16:55 Calibration ID: 16513

Calibration Files:

LEVEL:	LAB SAMPLE ID:	EPA SAMPLE NO:	LAB FILE ID:
Level 1	IC 200-41407/4	AR1221_200	05jul121536-r041.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1					B	M1	M2								
PCB-1221 Peak 1	50.525				Ave		50.5250000						20.0			
PCB-1221 Peak 2	35.280				Ave		35.2800000						20.0			
PCB-1221 Peak 3	111.36				Ave		111.360000						20.0			
PCB-1221 Peak 4	17.545				Ave		17.5450000						20.0			
PCB-1221 Peak 5	22.680				Ave		22.6800000						20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41407

SDG No.: 200-11554-1

Instrument ID: 7227.i GC Column: RTX-35 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/05/2012 16:55 Calibration End Date: 07/05/2012 16:55 Calibration ID: 16513

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-41407/4	05jul121536-r041.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1					LVL 1				
PCB-1221 Peak 1	Ave	10105					200				
PCB-1221 Peak 2	Ave	7056					200				
PCB-1221 Peak 3	Ave	22272					200				
PCB-1221 Peak 4	Ave	3509					200				
PCB-1221 Peak 5	Ave	4536					200				

Curve Type Legend:
Ave = Average by Height

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41407

SDG No.: 200-11554-1

Instrument ID: 7227.i GC Column: RTX-5 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/05/2012 17:19 Calibration End Date: 07/05/2012 17:19 Calibration ID: 16506

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-41407/5	05jul121536-r051.d

ANALYTE	LVL 1										RT WINDOW	AVG RT
PCB-1232 Peak 1	4.252										4.202 - 4.302	4.252
PCB-1232 Peak 2	4.469										4.419 - 4.519	4.469
PCB-1232 Peak 3	4.804										4.754 - 4.854	4.804
PCB-1232 Peak 4	4.932										4.882 - 4.982	4.932
PCB-1232 Peak 5	5.036										4.986 - 5.086	5.036

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41407

SDG No.: 200-11554-1

Instrument ID: 7227.i GC Column: RTX-5 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/05/2012 17:19 Calibration End Date: 07/05/2012 17:19 Calibration ID: 16506

Calibration Files:

LEVEL:	LAB SAMPLE ID:	EPA SAMPLE NO:	LAB FILE ID:
Level 1	IC 200-41407/5	AR1232_200	05jul121536-r051.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1					B	M1	M2								
PCB-1232 Peak 1	41.285				Ave		41.2850000						20.0			
PCB-1232 Peak 2	43.560				Ave		43.5600000						20.0			
PCB-1232 Peak 3	86.445				Ave		86.4450000						20.0			
PCB-1232 Peak 4	48.870				Ave		48.8700000						20.0			
PCB-1232 Peak 5	35.380				Ave		35.3800000						20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41407

SDG No.: 200-11554-1

Instrument ID: 7227.i GC Column: RTX-5 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/05/2012 17:19 Calibration End Date: 07/05/2012 17:19 Calibration ID: 16506

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-41407/5	05jul121536-r051.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1					LVL 1				
PCB-1232 Peak 1	Ave	8257					200				
PCB-1232 Peak 2	Ave	8712					200				
PCB-1232 Peak 3	Ave	17289					200				
PCB-1232 Peak 4	Ave	9774					200				
PCB-1232 Peak 5	Ave	7076					200				

Curve Type Legend:
Ave = Average by Height

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41407

SDG No.: 200-11554-1

Instrument ID: 7227.i GC Column: RTX-35 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/05/2012 17:19 Calibration End Date: 07/05/2012 17:19 Calibration ID: 16514

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-41407/5	05jul121536-r051.d

ANALYTE	LVL 1										RT WINDOW	AVG RT
PCB-1232 Peak 1	4.784										4.734 - 4.834	4.784
PCB-1232 Peak 2	5.440										5.390 - 5.490	5.440
PCB-1232 Peak 3	6.145										6.095 - 6.195	6.145
PCB-1232 Peak 4	6.415										6.365 - 6.465	6.415
PCB-1232 Peak 5	7.413										7.363 - 7.463	7.413

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41407

SDG No.: 200-11554-1

Instrument ID: 7227.i GC Column: RTX-35 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/05/2012 17:19 Calibration End Date: 07/05/2012 17:19 Calibration ID: 16514

Calibration Files:

LEVEL:	LAB SAMPLE ID:	EPA SAMPLE NO:	LAB FILE ID:
Level 1	IC 200-41407/5	AR1232_200	05jul121536-r051.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1					B	M1	M2								
PCB-1232 Peak 1	96.840				Ave		96.8400000						20.0			
PCB-1232 Peak 2	68.460				Ave		68.4600000						20.0			
PCB-1232 Peak 3	98.710				Ave		98.7100000						20.0			
PCB-1232 Peak 4	45.860				Ave		45.8600000						20.0			
PCB-1232 Peak 5	36.315				Ave		36.3150000						20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41407

SDG No.: 200-11554-1

Instrument ID: 7227.i GC Column: RTX-35 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/05/2012 17:19 Calibration End Date: 07/05/2012 17:19 Calibration ID: 16514

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-41407/5	05jul121536-r051.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1					LVL 1				
PCB-1232 Peak 1	Ave	19368					200				
PCB-1232 Peak 2	Ave	13692					200				
PCB-1232 Peak 3	Ave	19742					200				
PCB-1232 Peak 4	Ave	9172					200				
PCB-1232 Peak 5	Ave	7263					200				

Curve Type Legend:
Ave = Average by Height

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41407

SDG No.: 200-11554-1

Instrument ID: 7227.i GC Column: RTX-5 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/05/2012 17:43 Calibration End Date: 07/05/2012 19:20 Calibration ID: 16507

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-41407/6	05jul121536-r061.d
Level 2	IC 200-41407/7	05jul121536-r071.d
Level 3	IC 200-41407/8	05jul121536-r081.d
Level 4	IC 200-41407/9	05jul121536-r091.d
Level 5	IC 200-41407/10	05jul121536-r101.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5						RT WINDOW	AVG RT
PCB-1242 Peak 1	4.256	4.252	4.256	4.254	4.256						4.206 - 4.306	4.255
PCB-1242 Peak 2	4.471	4.469	4.471	4.469	4.473						4.421 - 4.521	4.471
PCB-1242 Peak 3	4.806	4.801	4.806	4.804	4.808						4.756 - 4.856	4.805
PCB-1242 Peak 4	4.934	4.932	4.937	4.932	4.937						4.887 - 4.987	4.934
PCB-1242 Peak 5	5.038	5.034	5.038	5.036	5.038						4.988 - 5.088	5.037

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41407

SDG No.: 200-11554-1

Instrument ID: 7227.i GC Column: RTX-5 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/05/2012 17:43 Calibration End Date: 07/05/2012 19:20 Calibration ID: 16507

Calibration Files:

LEVEL:	LAB SAMPLE ID:	EPA SAMPLE NO:	LAB FILE ID:
Level 1	IC 200-41407/6	AR1242_50	05jul121536-r061.d
Level 2	IC 200-41407/7	AR1242_100	05jul121536-r071.d
Level 3	IC 200-41407/8	AR1242_200	05jul121536-r081.d
Level 4	IC 200-41407/9	AR1242_400	05jul121536-r091.d
Level 5	IC 200-41407/10	AR1242_800	05jul121536-r101.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
PCB-1242 Peak 1	83.880 63.545	77.520	71.715	66.353	Ave		72.6025000				11.4		20.0			
PCB-1242 Peak 2	88.840 66.559	79.760	74.675	69.465	Ave		75.8597500				11.7		20.0			
PCB-1242 Peak 3	169.72 143.64	156.71	153.24	150.64	Ave		154.788750				6.2		20.0			
PCB-1242 Peak 4	97.280 77.884	89.850	85.100	80.305	Ave		86.0837500				9.0		20.0			
PCB-1242 Peak 5	69.960 56.093	65.040	60.995	58.938	Ave		62.2050000				8.7		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41407

SDG No.: 200-11554-1

Instrument ID: 7227.i GC Column: RTX-5 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/05/2012 17:43 Calibration End Date: 07/05/2012 19:20 Calibration ID: 16507

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-41407/6	05jul121536-r061.d
Level 2	IC 200-41407/7	05jul121536-r071.d
Level 3	IC 200-41407/8	05jul121536-r081.d
Level 4	IC 200-41407/9	05jul121536-r091.d
Level 5	IC 200-41407/10	05jul121536-r101.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1242 Peak 1	Ave	4194	7752	14343	26541	50836	50.0	100	200	400	800
PCB-1242 Peak 2	Ave	4442	7976	14935	27786	53247	50.0	100	200	400	800
PCB-1242 Peak 3	Ave	8486	15671	30647	60254	114915	50.0	100	200	400	800
PCB-1242 Peak 4	Ave	4864	8985	17020	32122	62307	50.0	100	200	400	800
PCB-1242 Peak 5	Ave	3498	6504	12199	23575	44874	50.0	100	200	400	800

Curve Type Legend:
Ave = Average by Height

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41407

SDG No.: 200-11554-1

Instrument ID: 7227.i GC Column: RTX-35 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/05/2012 17:43 Calibration End Date: 07/05/2012 19:20 Calibration ID: 16515

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-41407/6	05jul121536-r061.d
Level 2	IC 200-41407/7	05jul121536-r071.d
Level 3	IC 200-41407/8	05jul121536-r081.d
Level 4	IC 200-41407/9	05jul121536-r091.d
Level 5	IC 200-41407/10	05jul121536-r101.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5						RT WINDOW	AVG RT
PCB-1242 Peak 1	5.435	5.424	5.433	5.440	5.444						5.383 - 5.483	5.435
PCB-1242 Peak 2	5.786	5.772	5.783	5.788	5.792						5.733 - 5.833	5.784
PCB-1242 Peak 3	6.140	6.129	6.140	6.145	6.149						6.090 - 6.190	6.141
PCB-1242 Peak 4	6.413	6.402	6.411	6.417	6.419						6.361 - 6.461	6.412
PCB-1242 Peak 5	6.646	6.634	6.643	6.648	6.652						6.593 - 6.693	6.645

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41407

SDG No.: 200-11554-1

Instrument ID: 7227.i GC Column: RTX-35 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/05/2012 17:43 Calibration End Date: 07/05/2012 19:20 Calibration ID: 16515

Calibration Files:

LEVEL:	LAB SAMPLE ID:	EPA SAMPLE NO:	LAB FILE ID:
Level 1	IC 200-41407/6	AR1242_50	05jul121536-r061.d
Level 2	IC 200-41407/7	AR1242_100	05jul121536-r071.d
Level 3	IC 200-41407/8	AR1242_200	05jul121536-r081.d
Level 4	IC 200-41407/9	AR1242_400	05jul121536-r091.d
Level 5	IC 200-41407/10	AR1242_800	05jul121536-r101.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
PCB-1242 Peak 1	128.88 103.52	120.24	115.35	106.42	Ave		114.880250				9.0		20.0			
PCB-1242 Peak 2	46.320 36.454	41.950	40.335	37.765	Ave		40.5647500				9.5		20.0			
PCB-1242 Peak 3	186.78 176.77	180.86	176.43	173.37	Ave		178.841750				2.9		20.0			
PCB-1242 Peak 4	91.360 75.633	85.120	82.045	77.895	Ave		82.4105000				7.5		20.0			
PCB-1242 Peak 5	71.360 62.706	68.500	65.660	63.393	Ave		66.3237500				5.4		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41407

SDG No.: 200-11554-1

Instrument ID: 7227.i GC Column: RTX-35 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/05/2012 17:43 Calibration End Date: 07/05/2012 19:20 Calibration ID: 16515

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-41407/6	05jul121536-r061.d
Level 2	IC 200-41407/7	05jul121536-r071.d
Level 3	IC 200-41407/8	05jul121536-r081.d
Level 4	IC 200-41407/9	05jul121536-r091.d
Level 5	IC 200-41407/10	05jul121536-r101.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1242 Peak 1	Ave	6444	12024	23069	42566	82817	50.0	100	200	400	800
PCB-1242 Peak 2	Ave	2316	4195	8067	15106	29163	50.0	100	200	400	800
PCB-1242 Peak 3	Ave	9339	18086	35286	69349	141413	50.0	100	200	400	800
PCB-1242 Peak 4	Ave	4568	8512	16409	31158	60506	50.0	100	200	400	800
PCB-1242 Peak 5	Ave	3568	6850	13132	25357	50165	50.0	100	200	400	800

Curve Type Legend:
Ave = Average by Height

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41407

SDG No.: 200-11554-1

Instrument ID: 7227.i GC Column: RTX-5 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/05/2012 19:45 Calibration End Date: 07/05/2012 19:45 Calibration ID: 16508

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-41407/11	05jul121536-r111.d

ANALYTE	LVL 1										RT WINDOW	AVG RT
PCB-1248 Peak 1	4.256										4.206 - 4.306	4.256
PCB-1248 Peak 2	4.804										4.754 - 4.854	4.804
PCB-1248 Peak 3	4.937										4.887 - 4.987	4.937
PCB-1248 Peak 4	5.641										5.591 - 5.691	5.641
PCB-1248 Peak 5	6.238										6.188 - 6.288	6.238

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41407

SDG No.: 200-11554-1

Instrument ID: 7227.i GC Column: RTX-5 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/05/2012 19:45 Calibration End Date: 07/05/2012 19:45 Calibration ID: 16508

Calibration Files:

LEVEL:	LAB SAMPLE ID:	EPA SAMPLE NO:	LAB FILE ID:
Level 1	IC 200-41407/11	AR1248_200	05jul121536-r111.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1					B	M1	M2								
PCB-1248 Peak 1	42.445				Ave		42.4450000						20.0			
PCB-1248 Peak 2	95.125				Ave		95.1250000						20.0			
PCB-1248 Peak 3	44.615				Ave		44.6150000						20.0			
PCB-1248 Peak 4	43.590				Ave		43.5900000						20.0			
PCB-1248 Peak 5	107.59				Ave		107.585000						20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41407

SDG No.: 200-11554-1

Instrument ID: 7227.i GC Column: RTX-5 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/05/2012 19:45 Calibration End Date: 07/05/2012 19:45 Calibration ID: 16508

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-41407/11	05jul121536-r111.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1					LVL 1				
PCB-1248 Peak 1	Ave	8489					200				
PCB-1248 Peak 2	Ave	19025					200				
PCB-1248 Peak 3	Ave	8923					200				
PCB-1248 Peak 4	Ave	8718					200				
PCB-1248 Peak 5	Ave	21517					200				

Curve Type Legend:
Ave = Average by Height

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41407

SDG No.: 200-11554-1

Instrument ID: 7227.i GC Column: RTX-35 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/05/2012 19:45 Calibration End Date: 07/05/2012 19:45 Calibration ID: 16516

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-41407/11	05jul121536-r111.d

ANALYTE	LVL 1										RT WINDOW	AVG RT
PCB-1248 Peak 1	6.142										6.092 - 6.192	6.142
PCB-1248 Peak 2	6.417										6.367 - 6.467	6.417
PCB-1248 Peak 3	6.938										6.888 - 6.988	6.938
PCB-1248 Peak 4	7.490										7.440 - 7.540	7.490
PCB-1248 Peak 5	8.133										8.083 - 8.183	8.133

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41407

SDG No.: 200-11554-1

Instrument ID: 7227.i GC Column: RTX-35 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/05/2012 19:45 Calibration End Date: 07/05/2012 19:45 Calibration ID: 16516

Calibration Files:

LEVEL:	LAB SAMPLE ID:	EPA SAMPLE NO:	LAB FILE ID:
Level 1	IC 200-41407/11	AR1248_200	05jul121536-r111.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1					B	M1	M2								
PCB-1248 Peak 1	111.85				Ave		111.845000						20.0			
PCB-1248 Peak 2	40.600				Ave		40.6000000						20.0			
PCB-1248 Peak 3	35.720				Ave		35.7200000						20.0			
PCB-1248 Peak 4	42.890				Ave		42.8900000						20.0			
PCB-1248 Peak 5	127.58				Ave		127.575000						20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41407

SDG No.: 200-11554-1

Instrument ID: 7227.i GC Column: RTX-35 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/05/2012 19:45 Calibration End Date: 07/05/2012 19:45 Calibration ID: 16516

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-41407/11	05jul121536-r111.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1					LVL 1				
PCB-1248 Peak 1	Ave	22369					200				
PCB-1248 Peak 2	Ave	8120					200				
PCB-1248 Peak 3	Ave	7144					200				
PCB-1248 Peak 4	Ave	8578					200				
PCB-1248 Peak 5	Ave	25515					200				

Curve Type Legend:
Ave = Average by Height

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41407

SDG No.: 200-11554-1

Instrument ID: 7227.i GC Column: RTX-5 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/05/2012 20:09 Calibration End Date: 07/05/2012 20:09 Calibration ID: 16509

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-41407/12	05jul121536-r121.d

ANALYTE	LVL 1										RT WINDOW	AVG RT
PCB-1254 Peak 1	6.843										6.793 - 6.893	6.843
PCB-1254 Peak 2	7.164										7.114 - 7.214	7.164
PCB-1254 Peak 3	7.268										7.218 - 7.318	7.268
PCB-1254 Peak 4	7.355										7.305 - 7.405	7.355
PCB-1254 Peak 5	8.040										7.990 - 8.090	8.040

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41407

SDG No.: 200-11554-1

Instrument ID: 7227.i GC Column: RTX-5 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/05/2012 20:09 Calibration End Date: 07/05/2012 20:09 Calibration ID: 16509

Calibration Files:

LEVEL:	LAB SAMPLE ID:	EPA SAMPLE NO:	LAB FILE ID:
Level 1	IC 200-41407/12	AR1254_200	05jul121536-r121.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1					B	M1	M2								
PCB-1254 Peak 1	50.650				Ave		50.6500000						20.0			
PCB-1254 Peak 2	44.310				Ave		44.3100000						20.0			
PCB-1254 Peak 3	91.930				Ave		91.9300000						20.0			
PCB-1254 Peak 4	31.965				Ave		31.9650000						20.0			
PCB-1254 Peak 5	85.690				Ave		85.6900000						20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41407

SDG No.: 200-11554-1

Instrument ID: 7227.i GC Column: RTX-5 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/05/2012 20:09 Calibration End Date: 07/05/2012 20:09 Calibration ID: 16509

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-41407/12	05jul121536-r121.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1					LVL 1				
PCB-1254 Peak 1	Ave	10130					200				
PCB-1254 Peak 2	Ave	8862					200				
PCB-1254 Peak 3	Ave	18386					200				
PCB-1254 Peak 4	Ave	6393					200				
PCB-1254 Peak 5	Ave	17138					200				

Curve Type Legend:
Ave = Average by Height

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41407

SDG No.: 200-11554-1

Instrument ID: 7227.i GC Column: RTX-35 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/05/2012 20:09 Calibration End Date: 07/05/2012 20:09 Calibration ID: 16517

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-41407/12	05jul121536-r121.d

ANALYTE	LVL 1										RT WINDOW	AVG RT
PCB-1254 Peak 1	8.829										8.779 - 8.879	8.829
PCB-1254 Peak 2	9.104										9.054 - 9.154	9.104
PCB-1254 Peak 3	9.452										9.402 - 9.502	9.452
PCB-1254 Peak 4	9.771										9.721 - 9.821	9.771
PCB-1254 Peak 5	10.387										10.337 - 10.437	10.387

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41407

SDG No.: 200-11554-1

Instrument ID: 7227.i GC Column: RTX-35 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/05/2012 20:09 Calibration End Date: 07/05/2012 20:09 Calibration ID: 16517

Calibration Files:

LEVEL:	LAB SAMPLE ID:	EPA SAMPLE NO:	LAB FILE ID:
Level 1	IC 200-41407/12	AR1254_200	05jul121536-r121.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1					B	M1	M2								
PCB-1254 Peak 1	62.145				Ave		62.1450000						20.0			
PCB-1254 Peak 2	44.435				Ave		44.4350000						20.0			
PCB-1254 Peak 3	53.030				Ave		53.0300000						20.0			
PCB-1254 Peak 4	36.490				Ave		36.4900000						20.0			
PCB-1254 Peak 5	124.43				Ave		124.425000						20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41407

SDG No.: 200-11554-1

Instrument ID: 7227.i GC Column: RTX-35 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/05/2012 20:09 Calibration End Date: 07/05/2012 20:09 Calibration ID: 16517

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-41407/12	05jul121536-r121.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1					LVL 1				
PCB-1254 Peak 1	Ave	12429					200				
PCB-1254 Peak 2	Ave	8887					200				
PCB-1254 Peak 3	Ave	10606					200				
PCB-1254 Peak 4	Ave	7298					200				
PCB-1254 Peak 5	Ave	24885					200				

Curve Type Legend:
Ave = Average by Height

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41407

SDG No.: 200-11554-1

Instrument ID: 7227.i GC Column: RTX-5 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/05/2012 21:46 Calibration End Date: 07/05/2012 23:23 Calibration ID: 16512

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-41407/16	05jul121536-r161.d
Level 2	IC 200-41407/17	05jul121536-r171.d
Level 3	ICRT 200-41407/18	05jul121536-r181.d
Level 4	IC 200-41407/19	05jul121536-r191.d
Level 5	IC 200-41407/20	05jul121536-r201.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5						RT WINDOW	AVG RT
PCB-1016 Peak 1	4.265	4.265	4.265	4.267	4.267						4.215 - 4.315	4.266
PCB-1016 Peak 2	4.482	4.482	4.482	4.484	4.484						4.432 - 4.532	4.483
PCB-1016 Peak 3	4.815	4.815	4.815	4.817	4.819						4.765 - 4.865	4.816
PCB-1016 Peak 4	4.945	4.945	4.945	4.948	4.948						4.895 - 4.995	4.946
PCB-1016 Peak 5	5.047	5.047	5.047	5.050	5.050						4.997 - 5.097	5.048
PCB-1260 Peak 1	9.647	9.647	9.647	9.649	9.649						9.597 - 9.697	9.648
PCB-1260 Peak 2	10.243	10.245	10.241	10.245	10.245						10.191 - 10.291	10.244
PCB-1260 Peak 3	10.995	10.999	10.995	10.995	10.992						10.945 - 11.045	10.995
PCB-1260 Peak 4	11.677	11.677	11.673	11.677	11.677						11.623 - 11.723	11.677
PCB-1260 Peak 5	11.952	11.954	11.952	11.954	11.954						11.902 - 12.002	11.954
Tetrachloro-m-xylene	3.398	3.400	3.398	3.400	3.403						3.348 - 3.448	3.400
DCB Decachlorobiphenyl	13.637	13.639	13.639	13.641	13.641						13.589 - 13.689	13.640

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41407

SDG No.: 200-11554-1

Instrument ID: 7227.i GC Column: RTX-5 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/05/2012 21:46 Calibration End Date: 07/05/2012 23:23 Calibration ID: 16512

Calibration Files:

LEVEL:	LAB SAMPLE ID:	EPA SAMPLE NO:	LAB FILE ID:
Level 1	IC 200-41407/16	AR1660_50	05jul121536-r161.d
Level 2	IC 200-41407/17	AR1660_100	05jul121536-r171.d
Level 3	ICRT 200-41407/18	AR1660_200	05jul121536-r181.d
Level 4	IC 200-41407/19	AR1660_400	05jul121536-r191.d
Level 5	IC 200-41407/20	AR1660_800	05jul121536-r201.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
PCB-1016 Peak 1	102.96 79.690	98.220	88.550	82.965	Ave		90.4770000				10.9		20.0			
PCB-1016 Peak 2	108.06 82.769	101.80	94.265	86.138	Ave		94.6062500				11.1		20.0			
PCB-1016 Peak 3	213.56 182.13	202.80	195.34	184.42	Ave		195.650500				6.7		20.0			
PCB-1016 Peak 4	122.24 97.366	115.30	108.63	100.86	Ave		108.878750				9.4		20.0			
PCB-1016 Peak 5	88.260 72.225	82.560	77.355	71.695	Ave		78.4190000				9.0		20.0			
PCB-1260 Peak 1	92.500 76.060	84.920	82.420	76.225	Ave		82.4250000				8.3		20.0			
PCB-1260 Peak 2	102.16 83.349	94.020	94.060	87.103	Ave		92.1382500				7.9		20.0			
PCB-1260 Peak 3	208.66 189.91	193.57	203.43	187.21	Ave		196.554750				4.6		20.0			
PCB-1260 Peak 4	145.06 128.41	133.90	130.10	128.20	Ave		133.131750				5.3		20.0			
PCB-1260 Peak 5	78.020 62.488	69.530	69.535	62.163	Ave		68.3470000				9.5		20.0			
Tetrachloro-m-xylene	3430.8 3137.1	3121.3	3202.6	3087.2	Ave		3195.78000				4.3		20.0			
DCB Decachlorobiphenyl	4464.2 4171.4	4302.2	4419.9	4168.7	Ave		4305.28750				3.2		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41407

SDG No.: 200-11554-1

Instrument ID: 7227.i GC Column: RTX-5 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/05/2012 21:46 Calibration End Date: 07/05/2012 23:23 Calibration ID: 16512

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-41407/16	05jul121536-r161.d
Level 2	IC 200-41407/17	05jul121536-r171.d
Level 3	ICRT 200-41407/18	05jul121536-r181.d
Level 4	IC 200-41407/19	05jul121536-r191.d
Level 5	IC 200-41407/20	05jul121536-r201.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1016 Peak 1	Ave	5148	9822	17710	33186	63752	50.0	100	200	400	800
PCB-1016 Peak 2	Ave	5403	10180	18853	34455	66215	50.0	100	200	400	800
PCB-1016 Peak 3	Ave	10678	20280	39068	73769	145704	50.0	100	200	400	800
PCB-1016 Peak 4	Ave	6112	11530	21725	40345	77893	50.0	100	200	400	800
PCB-1016 Peak 5	Ave	4413	8256	15471	28678	57780	50.0	100	200	400	800
PCB-1260 Peak 1	Ave	4625	8492	16484	30490	60848	50.0	100	200	400	800
PCB-1260 Peak 2	Ave	5108	9402	18812	34841	66679	50.0	100	200	400	800
PCB-1260 Peak 3	Ave	10433	19357	40685	74884	151927	50.0	100	200	400	800
PCB-1260 Peak 4	Ave	7253	13390	26019	51278	102727	50.0	100	200	400	800
PCB-1260 Peak 5	Ave	3901	6953	13907	24865	49990	50.0	100	200	400	800
Tetrachloro-m-xylene	Ave	17154	31213	64051	123486	250968	5.00	10.0	20.0	40.0	80.0
DCB Decachlorobiphenyl	Ave	22321	43022	88398	166748	333715	5.00	10.0	20.0	40.0	80.0

Curve Type Legend:
Ave = Average by Height

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41407

SDG No.: 200-11554-1

Instrument ID: 7227.i GC Column: RTX-35 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/05/2012 21:46 Calibration End Date: 07/05/2012 23:23 Calibration ID: 16520

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-41407/16	05jul121536-r161.d
Level 2	IC 200-41407/17	05jul121536-r171.d
Level 3	ICRT 200-41407/18	05jul121536-r181.d
Level 4	IC 200-41407/19	05jul121536-r191.d
Level 5	IC 200-41407/20	05jul121536-r201.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5						RT WINDOW	AVG RT
PCB-1016 Peak 1	4.788	4.788	4.797	4.788	4.788						4.747 - 4.847	4.790
PCB-1016 Peak 2	5.444	5.442	5.451	5.444	5.442						5.401 - 5.501	5.445
PCB-1016 Peak 3	6.147	6.147	6.156	6.149	6.147						6.106 - 6.206	6.149
PCB-1016 Peak 4	6.419	6.419	6.428	6.419	6.417						6.378 - 6.478	6.421
PCB-1016 Peak 5	6.652	6.650	6.659	6.652	6.650						6.609 - 6.709	6.653
PCB-1260 Peak 1	11.937	11.937	11.943	11.937	11.935						11.893 - 11.993	11.938
PCB-1260 Peak 2	12.826	12.826	12.832	12.823	12.821						12.782 - 12.882	12.826
PCB-1260 Peak 3	13.355	13.353	13.362	13.355	13.353						13.312 - 13.412	13.356
PCB-1260 Peak 4	13.949	13.949	13.956	13.949	13.947						13.906 - 14.006	13.950
PCB-1260 Peak 5	14.063	14.063	14.071	14.065	14.060						14.021 - 14.121	14.064
Tetrachloro-m-xylene	4.014	4.012	4.021	4.012	4.012						3.971 - 4.071	4.014
DCB Decachlorobiphenyl	14.772	14.772	14.779	14.772	14.770						14.729 - 14.829	14.773

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41407

SDG No.: 200-11554-1

Instrument ID: 7227.i GC Column: RTX-35 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/05/2012 21:46 Calibration End Date: 07/05/2012 23:23 Calibration ID: 16520

Calibration Files:

LEVEL:	LAB SAMPLE ID:	EPA SAMPLE NO:	LAB FILE ID:
Level 1	IC 200-41407/16	AR1660_50	05jul121536-r161.d
Level 2	IC 200-41407/17	AR1660_100	05jul121536-r171.d
Level 3	ICRT 200-41407/18	AR1660_200	05jul121536-r181.d
Level 4	IC 200-41407/19	AR1660_400	05jul121536-r191.d
Level 5	IC 200-41407/20	AR1660_800	05jul121536-r201.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2	LVL 3	LVL 4		B	M1	M2								
PCB-1016 Peak 1	98.300 76.263	92.050	86.975	80.285	Ave		86.7745000				10.2		20.0			
PCB-1016 Peak 2	158.60 126.59	151.80	143.67	132.16	Ave		142.562750				9.3		20.0			
PCB-1016 Peak 3	239.06 223.35	235.77	228.28	220.22	Ave		229.336000				3.5		20.0			
PCB-1016 Peak 4	114.64 95.306	108.59	105.71	97.438	Ave		104.335750				7.7		20.0			
PCB-1016 Peak 5	90.960 78.985	85.260	85.250	79.515	Ave		83.9940000				5.9		20.0			
PCB-1260 Peak 1	161.24 142.72	156.39	151.41	143.62	Ave		151.075250				5.3		20.0			
PCB-1260 Peak 2	511.28 526.28	491.83	502.99	505.92	Ave		507.658500				2.5		20.0			
PCB-1260 Peak 3	173.08 152.33	166.16	165.66	155.02	Ave		162.450000				5.3		20.0			
PCB-1260 Peak 4	69.120 59.589	66.360	65.520	61.345	Ave		64.3867500				6.0		20.0			
PCB-1260 Peak 5	162.70 148.07	154.13	153.43	142.53	Ave		152.171500				4.9		20.0			
Tetrachloro-m-xylene	5177.8 5427.2	5035.1	5064.4	5214.1	Ave		5183.70500				3.0		20.0			
DCB Decachlorobiphenyl	6465.6 6218.3	6088.3	6215.0	6092.7	Ave		6215.99000				2.5		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 41407

SDG No.: 200-11554-1

Instrument ID: 7227.i GC Column: RTX-35 ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/05/2012 21:46 Calibration End Date: 07/05/2012 23:23 Calibration ID: 16520

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-41407/16	05jul121536-r161.d
Level 2	IC 200-41407/17	05jul121536-r171.d
Level 3	ICRT 200-41407/18	05jul121536-r181.d
Level 4	IC 200-41407/19	05jul121536-r191.d
Level 5	IC 200-41407/20	05jul121536-r201.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1016 Peak 1	Ave	4915	9205	17395	32114	61010	50.0	100	200	400	800
PCB-1016 Peak 2	Ave	7930	15180	28734	52863	101269	50.0	100	200	400	800
PCB-1016 Peak 3	Ave	11953	23577	45656	88088	178680	50.0	100	200	400	800
PCB-1016 Peak 4	Ave	5732	10859	21141	38975	76245	50.0	100	200	400	800
PCB-1016 Peak 5	Ave	4548	8526	17050	31806	63188	50.0	100	200	400	800
PCB-1260 Peak 1	Ave	8062	15639	30282	57446	114177	50.0	100	200	400	800
PCB-1260 Peak 2	Ave	25564	49183	100597	202366	421026	50.0	100	200	400	800
PCB-1260 Peak 3	Ave	8654	16616	33132	62007	121866	50.0	100	200	400	800
PCB-1260 Peak 4	Ave	3456	6636	13104	24538	47671	50.0	100	200	400	800
PCB-1260 Peak 5	Ave	8135	15413	30685	57013	118456	50.0	100	200	400	800
Tetrachloro-m-xylene	Ave	25889	50351	101288	208563	434172	5.00	10.0	20.0	40.0	80.0
DCB Decachlorobiphenyl	Ave	32328	60883	124300	243709	497466	5.00	10.0	20.0	40.0	80.0

Curve Type Legend:
Ave = Average by Height

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: ICV 200-41407/22 Calibration Date: 07/06/2012 00:11

Instrument ID: 7227.i Calib Start Date: 07/05/2012 21:46

GC Column: RTX-5 ID: 0.25(mm) Calib End Date: 07/05/2012 23:23

Lab File ID: 05jul121536-r221.d Conc. Units: ug/L

EPA Sample No.: ICV_200

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	90.48	90.06		199	200	-0.5	20.0
PCB-1016 Peak 2	Ave	94.61	93.76		198	200	-0.9	20.0
PCB-1016 Peak 3	Ave	195.7	201.4		206	200	2.9	20.0
PCB-1016 Peak 4	Ave	108.9	108.0		198	200	-0.8	20.0
PCB-1016 Peak 5	Ave	78.42	77.64		198	200	-1.0	20.0
PCB-1260 Peak 1	Ave	82.43	91.60		222	200	11.1	20.0
PCB-1260 Peak 2	Ave	92.14	101.2		220	200	9.9	20.0
PCB-1260 Peak 3	Ave	196.6	220.1		224	200	12.0	20.0
PCB-1260 Peak 4	Ave	133.1	139.6		210	200	4.8	20.0
PCB-1260 Peak 5	Ave	68.35	82.47		241	200	20.7*	20.0
Tetrachloro-m-xylene	Ave	3196	3217		20.1	20.0	0.7	20.0
DCB Decachlorobiphenyl	Ave	4305	4129		19.2	20.0	-4.1	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: ICV 200-41407/22 Calibration Date: 07/06/2012 00:11

Instrument ID: 7227.i Calib Start Date: 07/05/2012 21:46

GC Column: RTX-5 ID: 0.25(mm) Calib End Date: 07/05/2012 23:23

Lab File ID: 05jul121536-r221.d

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1016 Peak 1	4.25	4.21	4.31
PCB-1016 Peak 2	4.47	4.43	4.53
PCB-1016 Peak 3	4.80	4.76	4.86
PCB-1016 Peak 4	4.93	4.90	5.00
PCB-1016 Peak 5	5.03	5.00	5.10
PCB-1260 Peak 1	9.64	9.60	9.70
PCB-1260 Peak 2	10.23	10.19	10.29
PCB-1260 Peak 3	10.98	10.94	11.04
PCB-1260 Peak 4	11.66	11.62	11.72
PCB-1260 Peak 5	11.94	11.90	12.00
Tetrachloro-m-xylene	3.38	3.35	3.45
DCB Decachlorobiphenyl	13.63	13.59	13.69

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: ICV 200-41407/22 Calibration Date: 07/06/2012 00:11

Instrument ID: 7227.i Calib Start Date: 07/05/2012 21:46

GC Column: RTX-35 ID: 0.25(mm) Calib End Date: 07/05/2012 23:23

Lab File ID: 05jul121536-r221.d Conc. Units: ug/L

EPA Sample No.: ICV_200

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	86.77	89.98		207	200	3.7	20.0
PCB-1016 Peak 2	Ave	142.6	145.6		204	200	2.1	20.0
PCB-1016 Peak 3	Ave	229.3	230.6		201	200	0.6	20.0
PCB-1016 Peak 4	Ave	104.3	106.1		203	200	1.7	20.0
PCB-1016 Peak 5	Ave	83.99	84.73		202	200	0.9	20.0
PCB-1260 Peak 1	Ave	151.1	171.9		228	200	13.8	20.0
PCB-1260 Peak 2	Ave	507.7	567.0		223	200	11.7	20.0
PCB-1260 Peak 3	Ave	162.5	179.8		221	200	10.7	20.0
PCB-1260 Peak 4	Ave	64.39	76.92		239	200	19.5	20.0
PCB-1260 Peak 5	Ave	152.2	174.7		230	200	14.8	20.0
Tetrachloro-m-xylene	Ave	5184	5020		19.4	20.0	-3.2	20.0
DCB Decachlorobiphenyl	Ave	6216	6021		19.4	20.0	-3.1	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: ICV 200-41407/22 Calibration Date: 07/06/2012 00:11

Instrument ID: 7227.i Calib Start Date: 07/05/2012 21:46

GC Column: RTX-35 ID: 0.25(mm) Calib End Date: 07/05/2012 23:23

Lab File ID: 05jul121536-r221.d

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1016 Peak 1	4.78	4.75	4.85
PCB-1016 Peak 2	5.44	5.40	5.50
PCB-1016 Peak 3	6.14	6.11	6.21
PCB-1016 Peak 4	6.41	6.38	6.48
PCB-1016 Peak 5	6.65	6.61	6.71
PCB-1260 Peak 1	11.93	11.89	11.99
PCB-1260 Peak 2	12.82	12.78	12.88
PCB-1260 Peak 3	13.35	13.31	13.41
PCB-1260 Peak 4	13.94	13.91	14.01
PCB-1260 Peak 5	14.06	14.02	14.12
Tetrachloro-m-xylene	4.01	3.97	4.07
DCB Decachlorobiphenyl	14.77	14.73	14.83

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: CCV 200-41408/6 Calibration Date: 07/06/2012 02:37

Instrument ID: 7227.i Calib Start Date: 07/05/2012 21:46

GC Column: RTX-5 ID: 0.25(mm) Calib End Date: 07/05/2012 23:23

Lab File ID: 05jul121538-r061.d Conc. Units: ug/L

EPA Sample No.: AR1660_200

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	90.48	93.74		207	200	3.6	20.0
PCB-1016 Peak 2	Ave	94.61	98.24		208	200	3.8	20.0
PCB-1016 Peak 3	Ave	195.7	205.5		210	200	5.0	20.0
PCB-1016 Peak 4	Ave	108.9	112.8		207	200	3.6	20.0
PCB-1016 Peak 5	Ave	78.42	83.21		212	200	6.1	20.0
PCB-1260 Peak 1	Ave	82.43	84.13		204	200	2.1	20.0
PCB-1260 Peak 2	Ave	92.14	95.73		208	200	3.9	20.0
PCB-1260 Peak 3	Ave	196.6	206.5		210	200	5.1	20.0
PCB-1260 Peak 4	Ave	133.1	137.1		206	200	3.0	20.0
PCB-1260 Peak 5	Ave	68.35	71.56		209	200	4.7	20.0
Tetrachloro-m-xylene	Ave	3196	3275		20.5	20.0	2.5	20.0
DCB Decachlorobiphenyl	Ave	4305	4405		20.5	20.0	2.3	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: CCV 200-41408/6 Calibration Date: 07/06/2012 02:37

Instrument ID: 7227.i Calib Start Date: 07/05/2012 21:46

GC Column: RTX-5 ID: 0.25(mm) Calib End Date: 07/05/2012 23:23

Lab File ID: 05jul121538-r061.d

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1016 Peak 1	4.26	4.21	4.31
PCB-1016 Peak 2	4.48	4.43	4.53
PCB-1016 Peak 3	4.81	4.76	4.86
PCB-1016 Peak 4	4.94	4.90	5.00
PCB-1016 Peak 5	5.04	5.00	5.10
PCB-1260 Peak 1	9.64	9.60	9.70
PCB-1260 Peak 2	10.24	10.19	10.29
PCB-1260 Peak 3	10.99	10.94	11.04
PCB-1260 Peak 4	11.67	11.62	11.72
PCB-1260 Peak 5	11.95	11.90	12.00
Tetrachloro-m-xylene	3.39	3.35	3.45
DCB Decachlorobiphenyl	13.63	13.59	13.69

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: CCV 200-41408/6 Calibration Date: 07/06/2012 02:37

Instrument ID: 7227.i Calib Start Date: 07/05/2012 21:46

GC Column: RTX-35 ID: 0.25(mm) Calib End Date: 07/05/2012 23:23

Lab File ID: 05jul121538-r061.d Conc. Units: ug/L

EPA Sample No.: AR1660_200

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	86.77	94.22		217	200	8.6	20.0
PCB-1016 Peak 2	Ave	142.6	150.2		211	200	5.4	20.0
PCB-1016 Peak 3	Ave	229.3	239.1		209	200	4.3	20.0
PCB-1016 Peak 4	Ave	104.3	112.9		216	200	8.2	20.0
PCB-1016 Peak 5	Ave	83.99	88.29		210	200	5.1	20.0
PCB-1260 Peak 1	Ave	151.1	155.3		206	200	2.8	20.0
PCB-1260 Peak 2	Ave	507.7	529.9		209	200	4.4	20.0
PCB-1260 Peak 3	Ave	162.5	164.6		203	200	1.3	20.0
PCB-1260 Peak 4	Ave	64.39	64.80		201	200	0.6	20.0
PCB-1260 Peak 5	Ave	152.2	155.9		205	200	2.4	20.0
Tetrachloro-m-xylene	Ave	5184	5396		20.8	20.0	4.1	20.0
DCB Decachlorobiphenyl	Ave	6216	6186		19.9	20.0	-0.5	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: CCV 200-41408/6 Calibration Date: 07/06/2012 02:37

Instrument ID: 7227.i Calib Start Date: 07/05/2012 21:46

GC Column: RTX-35 ID: 0.25(mm) Calib End Date: 07/05/2012 23:23

Lab File ID: 05jul121538-r061.d

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1016 Peak 1	4.78	4.75	4.85
PCB-1016 Peak 2	5.43	5.40	5.50
PCB-1016 Peak 3	6.14	6.11	6.21
PCB-1016 Peak 4	6.41	6.38	6.48
PCB-1016 Peak 5	6.64	6.61	6.71
PCB-1260 Peak 1	11.93	11.89	11.99
PCB-1260 Peak 2	12.81	12.78	12.88
PCB-1260 Peak 3	13.34	13.31	13.41
PCB-1260 Peak 4	13.94	13.91	14.01
PCB-1260 Peak 5	14.05	14.02	14.12
Tetrachloro-m-xylene	4.00	3.97	4.07
DCB Decachlorobiphenyl	14.76	14.73	14.83

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: CCV 200-41409/7 Calibration Date: 07/06/2012 05:26

Instrument ID: 7227.i Calib Start Date: 07/05/2012 21:46

GC Column: RTX-5 ID: 0.25(mm) Calib End Date: 07/05/2012 23:23

Lab File ID: 05jul121546-r071.d Conc. Units: ug/L

EPA Sample No.: AR1660_200

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	90.48	95.81		212	200	5.9	20.0
PCB-1016 Peak 2	Ave	94.61	99.46		210	200	5.1	20.0
PCB-1016 Peak 3	Ave	195.7	210.1		215	200	7.4	20.0
PCB-1016 Peak 4	Ave	108.9	113.3		208	200	4.0	20.0
PCB-1016 Peak 5	Ave	78.42	83.17		212	200	6.1	20.0
PCB-1260 Peak 1	Ave	82.43	87.79		213	200	6.5	20.0
PCB-1260 Peak 2	Ave	92.14	98.31		213	200	6.7	20.0
PCB-1260 Peak 3	Ave	196.6	212.3		216	200	8.0	20.0
PCB-1260 Peak 4	Ave	133.1	143.5		216	200	7.8	20.0
PCB-1260 Peak 5	Ave	68.35	73.80		216	200	8.0	20.0
Tetrachloro-m-xylene	Ave	3196	3369		21.1	20.0	5.4	20.0
DCB Decachlorobiphenyl	Ave	4305	4516		21.0	20.0	4.9	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: CCV 200-41409/7 Calibration Date: 07/06/2012 05:26

Instrument ID: 7227.i Calib Start Date: 07/05/2012 21:46

GC Column: RTX-5 ID: 0.25(mm) Calib End Date: 07/05/2012 23:23

Lab File ID: 05jul121546-r071.d

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1016 Peak 1	4.27	4.21	4.31
PCB-1016 Peak 2	4.48	4.43	4.53
PCB-1016 Peak 3	4.82	4.76	4.86
PCB-1016 Peak 4	4.95	4.90	5.00
PCB-1016 Peak 5	5.05	5.00	5.10
PCB-1260 Peak 1	9.65	9.60	9.70
PCB-1260 Peak 2	10.24	10.19	10.29
PCB-1260 Peak 3	10.99	10.94	11.04
PCB-1260 Peak 4	11.68	11.62	11.72
PCB-1260 Peak 5	11.95	11.90	12.00
Tetrachloro-m-xylene	3.40	3.35	3.45
DCB Decachlorobiphenyl	13.64	13.59	13.69

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: CCV 200-41409/7 Calibration Date: 07/06/2012 05:26

Instrument ID: 7227.i Calib Start Date: 07/05/2012 21:46

GC Column: RTX-35 ID: 0.25(mm) Calib End Date: 07/05/2012 23:23

Lab File ID: 05jul121546-r071.d Conc. Units: ug/L

EPA Sample No.: AR1660_200

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1016 Peak 1	Ave	86.77	95.25		220	200	9.8	20.0
PCB-1016 Peak 2	Ave	142.6	154.1		216	200	8.1	20.0
PCB-1016 Peak 3	Ave	229.3	246.8		215	200	7.6	20.0
PCB-1016 Peak 4	Ave	104.3	115.0		220	200	10.2	20.0
PCB-1016 Peak 5	Ave	83.99	91.74		218	200	9.2	20.0
PCB-1260 Peak 1	Ave	151.1	162.4		215	200	7.5	20.0
PCB-1260 Peak 2	Ave	507.7	547.9		216	200	7.9	20.0
PCB-1260 Peak 3	Ave	162.5	177.7		219	200	9.4	20.0
PCB-1260 Peak 4	Ave	64.39	71.02		221	200	10.3	20.0
PCB-1260 Peak 5	Ave	152.2	168.3		221	200	10.6	20.0
Tetrachloro-m-xylene	Ave	5184	5470		21.1	20.0	5.5	20.0
DCB Decachlorobiphenyl	Ave	6216	6771		21.8	20.0	8.9	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: CCV 200-41409/7 Calibration Date: 07/06/2012 05:26

Instrument ID: 7227.i Calib Start Date: 07/05/2012 21:46

GC Column: RTX-35 ID: 0.25(mm) Calib End Date: 07/05/2012 23:23

Lab File ID: 05jul121546-r071.d

Analyte	RT	RT WINDOW	
		TO	FROM
PCB-1016 Peak 1	4.79	4.75	4.85
PCB-1016 Peak 2	5.44	5.40	5.50
PCB-1016 Peak 3	6.15	6.11	6.21
PCB-1016 Peak 4	6.42	6.38	6.48
PCB-1016 Peak 5	6.65	6.61	6.71
PCB-1260 Peak 1	11.94	11.89	11.99
PCB-1260 Peak 2	12.82	12.78	12.88
PCB-1260 Peak 3	13.36	13.31	13.41
PCB-1260 Peak 4	13.95	13.91	14.01
PCB-1260 Peak 5	14.06	14.02	14.12
Tetrachloro-m-xylene	4.01	3.97	4.07
DCB Decachlorobiphenyl	14.77	14.73	14.83

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: Lab Sample ID: MB 200-41276/1-C

Matrix: Solid Lab File ID: 05jul121546-r011.d

Analysis Method: 8082A Date Collected:

Extraction Method: 3550C Date Extracted: 07/03/2012 09:28

Sample wt/vol: 29.70(g) Date Analyzed: 07/06/2012 03:01

Con. Extract Vol.: 10000(uL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-5 ID: 0.25(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 41409 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
12674-11-2	PCB-1016	3.3	U	17	3.3	2.3
11104-28-2	PCB-1221	3.3	U	17	3.3	1.2
11141-16-5	PCB-1232	3.3	U	17	3.3	2.1
53469-21-9	PCB-1242	3.3	U	17	3.3	1.4
12672-29-6	PCB-1248	3.3	U	17	3.3	0.71
11097-69-1	PCB-1254	3.3	U	17	3.3	3.3
11096-82-5	PCB-1260	3.3	U	17	3.3	2.2
1336-36-3	Polychlorinated biphenyls, Total	1.7	U	17	1.7	0.48

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	88		30-130
2051-24-3	DCB Decachlorobiphenyl	93		45-125

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: Lab Sample ID: MB 200-41276/1-C

Matrix: Solid Lab File ID: 05jul121546-r011.d

Analysis Method: 8082A Date Collected:

Extraction Method: 3550C Date Extracted: 07/03/2012 09:28

Sample wt/vol: 29.70(g) Date Analyzed: 07/06/2012 03:01

Con. Extract Vol.: 10000(uL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-35 ID: 0.25(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 41409 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	91		30-130
2051-24-3	DCB Decachlorobiphenyl	91		45-125

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: Lab Sample ID: LCS 200-41276/2-C

Matrix: Solid Lab File ID: 05jul121546-r021.d

Analysis Method: 8082A Date Collected:

Extraction Method: 3550C Date Extracted: 07/03/2012 09:28

Sample wt/vol: 29.96(g) Date Analyzed: 07/06/2012 03:25

Con. Extract Vol.: 10000(uL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-5 ID: 0.25(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 41409 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
12674-11-2	PCB-1016	150		17	3.3	2.3
11104-28-2	PCB-1221	3.3	U	17	3.3	1.2
11141-16-5	PCB-1232	3.3	U	17	3.3	2.1
53469-21-9	PCB-1242	3.3	U	17	3.3	1.4
12672-29-6	PCB-1248	3.3	U	17	3.3	0.70
11097-69-1	PCB-1254	3.3	U	17	3.3	3.3
1336-36-3	Polychlorinated biphenyls, Total	307		17	1.7	0.48

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	93		30-130
2051-24-3	DCB Decachlorobiphenyl	96		45-125

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: Lab Sample ID: LCS 200-41276/2-C

Matrix: Solid Lab File ID: 05jul121546-r021.d

Analysis Method: 8082A Date Collected:

Extraction Method: 3550C Date Extracted: 07/03/2012 09:28

Sample wt/vol: 29.96(g) Date Analyzed: 07/06/2012 03:25

Con. Extract Vol.: 10000(uL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: RTX-35 ID: 0.25(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 41409 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
11096-82-5	PCB-1260	156		17	3.3	2.2

CAS NO.	SURROGATE	%REC	Q	LIMITS
877-09-8	Tetrachloro-m-xylene	95		30-130
2051-24-3	DCB Decachlorobiphenyl	96		45-125

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: 7227.i Start Date: 07/05/2012 15:42

Analysis Batch Number: 41407 End Date: 07/06/2012 00:11

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
PIBLK 200-41407/1		07/05/2012 15:42	1		RTX-5 0.25(mm)
PIBLK 200-41407/1		07/05/2012 15:42	1		RTX-35 0.25(mm)
PIBLK 200-41407/2		07/05/2012 16:06	1		RTX-5 0.25(mm)
PIBLK 200-41407/2		07/05/2012 16:06	1		RTX-35 0.25(mm)
PIBLK 200-41407/3		07/05/2012 16:31	1		RTX-5 0.25(mm)
PIBLK 200-41407/3		07/05/2012 16:31	1		RTX-35 0.25(mm)
IC 200-41407/4		07/05/2012 16:55	1	05jul121536-r04 1.d	RTX-5 0.25(mm)
IC 200-41407/4		07/05/2012 16:55	1	05jul121536-r04 1.d	RTX-35 0.25(mm)
IC 200-41407/5		07/05/2012 17:19	1	05jul121536-r05 1.d	RTX-5 0.25(mm)
IC 200-41407/5		07/05/2012 17:19	1	05jul121536-r05 1.d	RTX-35 0.25(mm)
IC 200-41407/6		07/05/2012 17:43	1	05jul121536-r06 1.d	RTX-5 0.25(mm)
IC 200-41407/6		07/05/2012 17:43	1	05jul121536-r06 1.d	RTX-35 0.25(mm)
IC 200-41407/7		07/05/2012 18:08	1	05jul121536-r07 1.d	RTX-5 0.25(mm)
IC 200-41407/7		07/05/2012 18:08	1	05jul121536-r07 1.d	RTX-35 0.25(mm)
IC 200-41407/8		07/05/2012 18:32	1	05jul121536-r08 1.d	RTX-5 0.25(mm)
IC 200-41407/8		07/05/2012 18:32	1	05jul121536-r08 1.d	RTX-35 0.25(mm)
IC 200-41407/9		07/05/2012 18:56	1	05jul121536-r09 1.d	RTX-5 0.25(mm)
IC 200-41407/9		07/05/2012 18:56	1	05jul121536-r09 1.d	RTX-35 0.25(mm)
IC 200-41407/10		07/05/2012 19:20	1	05jul121536-r10 1.d	RTX-5 0.25(mm)
IC 200-41407/10		07/05/2012 19:20	1	05jul121536-r10 1.d	RTX-35 0.25(mm)
IC 200-41407/11		07/05/2012 19:45	1	05jul121536-r11 1.d	RTX-5 0.25(mm)
IC 200-41407/11		07/05/2012 19:45	1	05jul121536-r11 1.d	RTX-35 0.25(mm)
IC 200-41407/12		07/05/2012 20:09	1	05jul121536-r12 1.d	RTX-5 0.25(mm)
IC 200-41407/12		07/05/2012 20:09	1	05jul121536-r12 1.d	RTX-35 0.25(mm)
IC 200-41407/13		07/05/2012 20:33	1		RTX-5 0.25(mm)
IC 200-41407/13		07/05/2012 20:33	1		RTX-35 0.25(mm)
IC 200-41407/14		07/05/2012 20:58	1		RTX-5 0.25(mm)
IC 200-41407/14		07/05/2012 20:58	1		RTX-35 0.25(mm)
PIBLK 200-41407/15		07/05/2012 21:22	1		RTX-5 0.25(mm)
PIBLK 200-41407/15		07/05/2012 21:22	1		RTX-35 0.25(mm)
IC 200-41407/16		07/05/2012 21:46	1	05jul121536-r16 1.d	RTX-5 0.25(mm)
IC 200-41407/16		07/05/2012 21:46	1	05jul121536-r16 1.d	RTX-35 0.25(mm)
IC 200-41407/17		07/05/2012 22:10	1	05jul121536-r17 1.d	RTX-5 0.25(mm)
IC 200-41407/17		07/05/2012 22:10	1	05jul121536-r17 1.d	RTX-35 0.25(mm)
ICRT 200-41407/18		07/05/2012 22:34	1	05jul121536-r18 1.d	RTX-5 0.25(mm)

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: 7227.i Start Date: 07/05/2012 15:42

Analysis Batch Number: 41407 End Date: 07/06/2012 00:11

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ICRT 200-41407/18		07/05/2012 22:34	1	05jul121536-r18 1.d	RTX-35 0.25(mm)
IC 200-41407/19		07/05/2012 22:59	1	05jul121536-r19 1.d	RTX-5 0.25(mm)
IC 200-41407/19		07/05/2012 22:59	1	05jul121536-r19 1.d	RTX-35 0.25(mm)
IC 200-41407/20		07/05/2012 23:23	1	05jul121536-r20 1.d	RTX-5 0.25(mm)
IC 200-41407/20		07/05/2012 23:23	1	05jul121536-r20 1.d	RTX-35 0.25(mm)
PIBLK 200-41407/21		07/05/2012 23:47	1		RTX-5 0.25(mm)
PIBLK 200-41407/21		07/05/2012 23:47	1		RTX-35 0.25(mm)
ICV 200-41407/22		07/06/2012 00:11	1	05jul121536-r22 1.d	RTX-5 0.25(mm)
ICV 200-41407/22		07/06/2012 00:11	1	05jul121536-r22 1.d	RTX-35 0.25(mm)

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: 7227.i Start Date: 07/06/2012 00:35

Analysis Batch Number: 41408 End Date: 07/06/2012 02:37

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		07/06/2012 00:35	1		RTX-5 0.25(mm)
ZZZZZ		07/06/2012 00:35	1		RTX-35 0.25(mm)
ZZZZZ		07/06/2012 01:00	1		RTX-5 0.25(mm)
ZZZZZ		07/06/2012 01:00	1		RTX-35 0.25(mm)
ZZZZZ		07/06/2012 01:24	20		RTX-5 0.25(mm)
ZZZZZ		07/06/2012 01:24	20		RTX-35 0.25(mm)
ZZZZZ		07/06/2012 01:48	20		RTX-5 0.25(mm)
ZZZZZ		07/06/2012 01:48	20		RTX-35 0.25(mm)
ZZZZZ		07/06/2012 02:12	3		RTX-5 0.25(mm)
ZZZZZ		07/06/2012 02:12	3		RTX-35 0.25(mm)
CCV 200-41408/6		07/06/2012 02:37	1	05jul121538-r061.d	RTX-5 0.25(mm)
CCV 200-41408/6		07/06/2012 02:37	1	05jul121538-r061.d	RTX-35 0.25(mm)

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: 7227.i Start Date: 07/06/2012 03:01

Analysis Batch Number: 41409 End Date: 07/06/2012 05:26

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
MB 200-41276/1-C		07/06/2012 03:01	1	05jul121546-r01 1.d	RTX-5 0.25(mm)
MB 200-41276/1-C		07/06/2012 03:01	1	05jul121546-r01 1.d	RTX-35 0.25(mm)
LCS 200-41276/2-C		07/06/2012 03:25	1	05jul121546-r02 1.d	RTX-5 0.25(mm)
LCS 200-41276/2-C		07/06/2012 03:25	1	05jul121546-r02 1.d	RTX-35 0.25(mm)
200-11554-1	NFUDS-001-TP0101-01	07/06/2012 03:49	1	05jul121546-r03 1.d	RTX-5 0.25(mm)
200-11554-1	NFUDS-001-TP0101-01	07/06/2012 03:49	1	05jul121546-r03 1.d	RTX-35 0.25(mm)
200-11554-2	NFUDS-001-TP0201-01	07/06/2012 04:13	1	05jul121546-r04 1.d	RTX-5 0.25(mm)
200-11554-2	NFUDS-001-TP0201-01	07/06/2012 04:13	1	05jul121546-r04 1.d	RTX-35 0.25(mm)
200-11554-3	NFUDS-001-TP0302-01	07/06/2012 04:38	1	05jul121546-r05 1.d	RTX-5 0.25(mm)
200-11554-3	NFUDS-001-TP0302-01	07/06/2012 04:38	1	05jul121546-r05 1.d	RTX-35 0.25(mm)
200-11554-4	NFUDS-001-TP0402-01	07/06/2012 05:02	1	05jul121546-r06 1.d	RTX-5 0.25(mm)
200-11554-4	NFUDS-001-TP0402-01	07/06/2012 05:02	1	05jul121546-r06 1.d	RTX-35 0.25(mm)
CCV 200-41409/7		07/06/2012 05:26	1	05jul121546-r07 1.d	RTX-5 0.25(mm)
CCV 200-41409/7		07/06/2012 05:26	1	05jul121546-r07 1.d	RTX-35 0.25(mm)

GC SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Batch Number: 41276 Batch Start Date: 07/03/12 09:28 Batch Analyst: Blow, Jessica A

Batch Method: 3550C Batch End Date: 07/03/12 11:45

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	EX16605PPMSPi 00016	EX8081SUw 00023		
MB 200-41276/1		3550C, 3665A, 3660B, 8082A		29.70 g	10000 uL		1 mL		
LCS 200-41276/2		3550C, 3665A, 3660B, 8082A		29.96 g	10000 uL	1 mL	1 mL		
200-11554-E-1	NFUDS-001-TP0101 -01	3550C, 3665A, 3660B, 8082A	T	29.83 g	10000 uL		1 mL		
200-11554-E-2	NFUDS-001-TP0201 -01	3550C, 3665A, 3660B, 8082A	T	30.31 g	10000 uL		1 mL		
200-11554-E-3	NFUDS-001-TP0302 -01	3550C, 3665A, 3660B, 8082A	T	30.34 g	10000 uL		1 mL		
200-11554-E-4	NFUDS-001-TP0402 -01	3550C, 3665A, 3660B, 8082A	T	29.86 g	10000 uL		1 mL		

Batch Notes	
Balance ID	L92017
Concentration End Time	1123
Concentration Start Time	1019
Person's name who did the concentration	JAB
Exchange Solvent Lot #	345051
Exchange Solvent Name	Hexane
Na2SO4 Lot Number	327030
Nominal Amount Used	30 g
Prep Solvent Lot #	345051/ 324394
Prep Solvent Name	Hexane/ Acetone
Prep Solvent Volume Used	300 mL
Person's name who did the prep	JAB
Person's name who witnessed reagent drop	EAN
Analyst who added reagent	JAB
Vendor of Reagent used	Baker

GC SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Batch Number: 41276 Batch Start Date: 07/03/12 09:28 Batch Analyst: Blow, Jessica A

Batch Method: 3550C Batch End Date: 07/03/12 11:45

Basis	Basis Description
T	Total/NA

GC SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Batch Number: 41302 Batch Start Date: 07/03/12 11:50 Batch Analyst: Blow, Jessica A

Batch Method: 3665A Batch End Date: 07/03/12 11:57

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	EXSulfuricAci 00048			
MB 200-41276/1-A		3665A, 3660B, 8082A		2 mL	2000 uL	5 mL			
LCS 200-41276/2-A		3665A, 3660B, 8082A		2 mL	2000 uL	5 mL			
200-11554-E-1-B	NFUDS-001-TP0101 -01	3665A, 3660B, 8082A	T	2 mL	2000 uL	5 mL			
200-11554-E-2-B	NFUDS-001-TP0201 -01	3665A, 3660B, 8082A	T	2 mL	2000 uL	5 mL			
200-11554-E-3-B	NFUDS-001-TP0302 -01	3665A, 3660B, 8082A	T	2 mL	2000 uL	5 mL			
200-11554-E-4-B	NFUDS-001-TP0402 -01	3665A, 3660B, 8082A	T	2 mL	2000 uL	5 mL			

Batch Notes	

Basis	Basis Description
T	Total/NA

GC SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Batch Number: 41303 Batch Start Date: 07/03/12 12:05 Batch Analyst: Blow, Jessica A

Batch Method: 3660B Batch End Date: 07/03/12 12:29

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	EXCOPPERACT 00003			
MB 200-41276/1-B		3660B, 8082A		2 mL	2000 uL	0.25 g			
LCS 200-41276/2-B		3660B, 8082A		2 mL	2000 uL	0.25 g			
200-11554-E-1-C	NFUDS-001-TP0101 -01	3660B, 8082A	T	2 mL	2000 uL	0.25 g			
200-11554-E-2-C	NFUDS-001-TP0201 -01	3660B, 8082A	T	2 mL	2000 uL	0.25 g			
200-11554-E-3-C	NFUDS-001-TP0302 -01	3660B, 8082A	T	2 mL	2000 uL	0.25 g			
200-11554-E-4-C	NFUDS-001-TP0402 -01	3660B, 8082A	T	2 mL	2000 uL	0.25 g			

Batch Notes	

Basis	Basis Description
T	Total/NA

Method 8151 DOD

Herbicides (GC) by Method 8151A/DOD

FORM II
GC SEMI VOA SURROGATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Matrix: Solid Level: Low

GC Column (1): CLP-1 ID: 0.53 (mm) GC Column (2): CLP-2 ID: 0.53 (mm)

Client Sample ID	Lab Sample ID	DCPA1 #	DCPA2 #
NFUDS-001-TP0101-01	200-11554-1	65	77
NFUDS-001-TP0201-01	200-11554-2	65	74
NFUDS-001-TP0302-01	200-11554-3	63	67
NFUDS-001-TP0402-01	200-11554-4	72	78
	MB 240-50002/9-A	70	77
	LCS 240-50002/10-A	86	82
NFUDS-001-TP0101-01 MS	200-11554-1 MS	71	68
NFUDS-001-TP0101-01 MSD	200-11554-1 MSD	79	76

	QC LIMITS
DCPA = 2,4-Dichlorophenylacetic acid	19-122

Column to be used to flag recovery values

FORM II 8151/DOD

FORM III
GC SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Matrix: Solid Level: Low Lab File ID: P1000026.D

Lab ID: LCS 240-50002/10-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
2,4-D	667	645	97	35-145	
Dalapon	333	281	84	30-122	
2,4-DB	667	625	94	50-155	
Dicamba	333	307	92	55-110	
Dichlorprop	667	751	113	75-140	
Dinoseb	100	28.9	29	5-130	
MCPA	66700	66000	99	25-132	
Silvex (2,4,5-TP)	167	149	89	45-125	
2,4,5-T	167	156	93	45-135	

Column to be used to flag recovery and RPD values

FORM III 8151/DOD

FORM III
GC SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Matrix: Solid Level: Low Lab File ID: P1000023.D

Lab ID: 200-11554-1 MS Client ID: NFUDS-001-TP0101-01 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
2,4-D	690	35 U	553	80	35-145	
Dalapon	345	17 U	235	68	30-122	
2,4-DB	690	35 U	534	77	50-155	
Dicamba	345	17 U	266	77	55-110	
Dichlorprop	690	70 U	640	93	75-140	
Dinoseb	104	10 U	48.7	47	5-130	
MCPA	69000	3500 U	55600	81	25-132	
Silvex (2,4,5-TP)	173	8.7 U	124	72	45-125	
2,4,5-T	173	8.7 U	130	75	45-135	

Column to be used to flag recovery and RPD values

FORM III 8151/DOD

FORM III
GC SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Matrix: Solid Level: Low Lab File ID: P1000024.D

Lab ID: 200-11554-1 MSD Client ID: NFUDS-001-TP0101-01 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
2,4-D	696	615	88	11	30	35-145	
Dalapon	348	270	78	14	30	30-122	
2,4-DB	696	601	86	12	30	50-155	
Dicamba	348	301	87	12	30	55-110	
Dichlorprop	696	716	103	11	30	75-140	
Dinoseb	104	49.8	48	2	30	5-130	
MCPA	69600	60500	87	9	30	25-132	
Silvex (2,4,5-TP)	174	140	80	12	30	45-125	
2,4,5-T	174	147	85	12	30	45-135	

Column to be used to flag recovery and RPD values

FORM III 8151/DOD

FORM IV
GC SEMI VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: MB 240-50002/9-A

Matrix: Solid Date Extracted: 07/06/2012 07:25

Lab File ID:(1) P1000025.D Lab File ID:(2) P1000025.D

Date Analyzed:(1) 07/07/2012 18:06 Date Analyzed:(2) 07/07/2012 18:06

Instrument ID:(1) A2HP1 Instrument ID:(2) A2HP1

GC Column:(1) CLP-1 ID: 0.53(mm) GC Column:(2) CLP-2 ID: 0.53(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
NFUDS-001-TP0101-01	200-11554-1	07/07/2012 15:18	07/07/2012 15:18
NFUDS-001-TP0201-01	200-11554-2	07/07/2012 15:42	07/07/2012 15:42
NFUDS-001-TP0302-01	200-11554-3	07/07/2012 16:06	07/07/2012 16:06
NFUDS-001-TP0402-01	200-11554-4	07/07/2012 16:30	07/07/2012 16:30
NFUDS-001-TP0101-01 MS	200-11554-1 MS	07/07/2012 17:18	07/07/2012 17:18
NFUDS-001-TP0101-01 MSD	200-11554-1 MSD	07/07/2012 17:42	07/07/2012 17:42
	LCS 240-50002/10-A	07/07/2012 18:30	07/07/2012 18:30

FORM VIII
GC SEMI VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Sample No.: STD 240-50119/5 Date Analyzed: 07/07/2012 10:06

Instrument ID: A2HP1 GC Column: CLP-1 ID: 0.53(mm)

Lab File ID (Standard): P1000005.D Heated Purge: (Y/N) N

Calibration ID: 9913

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				DCPA RT #		
INITIAL CALIBRATION SURROGATE				6.96		
UPPER LIMIT				6.98		
LOWER LIMIT				6.94		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
STD 240-50119/5 ICRT		07/07/2012 10:06	P1000005.D	6.96		
200-11554-1	NFUDS-001-TP0101-01	07/07/2012 15:18	P1000018.D	6.96		
200-11554-2	NFUDS-001-TP0201-01	07/07/2012 15:42	P1000019.D	6.96		
200-11554-3	NFUDS-001-TP0302-01	07/07/2012 16:06	P1000020.D	6.96		
200-11554-4	NFUDS-001-TP0402-01	07/07/2012 16:30	P1000021.D	6.96		
200-11554-1 MS	NFUDS-001-TP0101-01 MS	07/07/2012 17:18	P1000023.D	6.95		
200-11554-1 MSD	NFUDS-001-TP0101-01 MSD	07/07/2012 17:42	P1000024.D	6.95		
MB 240-50002/9-A		07/07/2012 18:06	P1000025.D	6.96		
LCS 240-50002/10-A		07/07/2012 18:30	P1000026.D	6.95		
CCV 240-50119/36		07/07/2012 22:30	P1000036.D	6.95		

DCPA = 2,4-Dichlorophenylacetic acid

DCPA RT Limit = ± 0.02 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8151/DOD

FORM VIII
GC SEMI VOA ANALYTICAL SEQUENCE

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Sample No.: STD 240-50119/5 Date Analyzed: 07/07/2012 10:06

Instrument ID: A2HP1 GC Column: CLP-2 ID: 0.53(mm)

Lab File ID (Standard): P1000005.D Heated Purge: (Y/N) N

Calibration ID: 9914

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				DCPA RT #		
INITIAL CALIBRATION SURROGATE				7.53		
UPPER LIMIT				7.55		
LOWER LIMIT				7.51		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
STD 240-50119/5 ICRT		07/07/2012 10:06	P1000005.D	7.53		
200-11554-1	NFUDS-001-TP0101-01	07/07/2012 15:18	P1000018.D	7.53		
200-11554-2	NFUDS-001-TP0201-01	07/07/2012 15:42	P1000019.D	7.53		
200-11554-3	NFUDS-001-TP0302-01	07/07/2012 16:06	P1000020.D	7.53		
200-11554-4	NFUDS-001-TP0402-01	07/07/2012 16:30	P1000021.D	7.53		
200-11554-1 MS	NFUDS-001-TP0101-01 MS	07/07/2012 17:18	P1000023.D	7.53		
200-11554-1 MSD	NFUDS-001-TP0101-01 MSD	07/07/2012 17:42	P1000024.D	7.52		
MB 240-50002/9-A		07/07/2012 18:06	P1000025.D	7.53		
LCS 240-50002/10-A		07/07/2012 18:30	P1000026.D	7.52		
CCV 240-50119/36		07/07/2012 22:30	P1000036.D	7.52		

DCPA = 2,4-Dichlorophenylacetic acid

DCPA RT Limit = ± 0.02 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8151/DOD

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0101-01 MS Lab Sample ID: 200-11554-1 MS

Instrument ID (1): A2HP1 Instrument ID (2): A2HP1

Date Analyzed (1): 07/07/2012 17:18 Date Analyzed (2): 07/07/2012 17:18

GC Column (1): CLP-1 ID: 0.53(mm) GC Column (2): CLP-2 ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
Dalapon	1		1.24	1.22	1.26	218		7.5
	2		1.37	1.35	1.39	235		
Dicamba	1		7.11	7.10	7.14	244		8.5
	2		7.69	7.67	7.71	266		
MCPP	1		7.40	7.38	7.42	45900		10.0
	2		7.88	7.86	7.90	50700		
MCPA	1		7.56	7.55	7.59	49000		12.5
	2		8.12	8.10	8.14	55600		
Dichlorprop	1		7.94	7.93	7.97	651		1.6
	2		8.48	8.46	8.50	640		
2,4-D	1		8.17	8.16	8.20	571		3.1
	2		8.82	8.81	8.85	553		
Silvex (2,4,5-TP)	1		9.05	9.04	9.08	131		5.1
	2		9.75	9.73	9.77	124		
2,4,5-T	1		9.36	9.35	9.39	141		8.1
	2		10.21	10.19	10.23	130		
2,4-DB	1		9.98	9.97	10.01	565		5.7
	2		10.85	10.84	10.88	534		
Dinoseb	1		11.18	11.15	11.21	48.3		0.7
	2		11.22	11.19	11.25	48.7		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0101-01 MSD Lab Sample ID: 200-11554-1 MSD

Instrument ID (1): A2HP1 Instrument ID (2): A2HP1

Date Analyzed (1): 07/07/2012 17:42 Date Analyzed (2): 07/07/2012 17:42

GC Column (1): CLP-1 ID: 0.53(mm) GC Column (2): CLP-2 ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
Dalapon	1		1.24	1.22	1.26	243		10.3
	2		1.36	1.35	1.39	270		
Dicamba	1		7.11	7.10	7.14	270		10.7
	2		7.69	7.67	7.71	301		
MCPP	1		7.40	7.38	7.42	52900		8.8
	2		7.88	7.86	7.90	57800		
MCPA	1		7.56	7.55	7.59	58500		3.5
	2		8.12	8.10	8.14	60500		
Dichlorprop	1		7.94	7.93	7.97	731		2.2
	2		8.48	8.46	8.50	716		
2,4-D	1		8.17	8.16	8.20	643		4.4
	2		8.82	8.81	8.85	615		
Silvex (2,4,5-TP)	1		9.05	9.04	9.08	145		4.2
	2		9.75	9.73	9.77	140		
2,4,5-T	1		9.36	9.35	9.39	159		7.7
	2		10.21	10.19	10.23	147		
2,4-DB	1		9.98	9.97	10.01	674		11.4
	2		10.85	10.84	10.88	601		
Dinoseb	1		11.18	11.15	11.21	50.5		1.4
	2		11.22	11.19	11.25	49.8		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0201-01 Lab Sample ID: 200-11554-2

Instrument ID (1): A2HP1 Instrument ID (2): A2HP1

Date Analyzed (1): 07/07/2012 15:42 Date Analyzed (2): 07/07/2012 15:42

GC Column (1): CLP-1 ID: 0.53(mm) GC Column (2): CLP-2 ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
Dalapon	1		1.23	1.22	1.26	50		15.2
	2		1.35	1.35	1.39	58		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: Lab Sample ID: LCS 240-50002/10-A

Instrument ID (1): A2HP1 Instrument ID (2): A2HP1

Date Analyzed (1): 07/07/2012 18:30 Date Analyzed (2): 07/07/2012 18:30

GC Column (1): CLP-1 ID: 0.53(mm) GC Column (2): CLP-2 ID: 0.53(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
Dalapon	1		1.24	1.22	1.26	265		5.9
	2		1.37	1.35	1.39	281		
Dicamba	1		7.11	7.10	7.14	285		7.5
	2		7.69	7.67	7.71	307		
MCPP	1		7.40	7.38	7.42	57000		6.2
	2		7.88	7.86	7.90	60700		
MCPA	1		7.56	7.55	7.59	62300		5.7
	2		8.12	8.10	8.14	66000		
Dichlorprop	1		7.94	7.93	7.97	764		1.6
	2		8.48	8.46	8.50	751		
2,4-D	1		8.18	8.16	8.20	681		5.4
	2		8.82	8.81	8.85	645		
Silvex (2,4,5-TP)	1		9.05	9.04	9.08	157		5.5
	2		9.75	9.73	9.77	149		
2,4,5-T	1		9.36	9.35	9.39	166		6.6
	2		10.21	10.19	10.23	156		
2,4-DB	1		9.98	9.97	10.01	696		10.7
	2		10.85	10.84	10.88	625		
Dinoseb	1		11.18	11.15	11.21	30.3		4.8
	2		11.22	11.19	11.25	28.9		

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0101-01 Lab Sample ID: 200-11554-1

Matrix: Solid Lab File ID: P1000018.D

Analysis Method: 8151/DOD Date Collected: 06/29/2012 08:30

Extraction Method: 8151A Date Extracted: 07/06/2012 07:25

Sample wt/vol: 29.82(g) Date Analyzed: 07/07/2012 15:18

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: CLP-1 ID: 0.53(mm)

% Moisture: 4.1 GPC Cleanup:(Y/N) N

Analysis Batch No.: 50119 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
19719-28-9	2,4-Dichlorophenylacetic acid	65		19-122

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0101-01 | Lab Sample ID: 200-11554-1

Matrix: Solid | Lab File ID: P1000018.D

Analysis Method: 8151/DOD | Date Collected: 06/29/2012 08:30

Extraction Method: 8151A | Date Extracted: 07/06/2012 07:25

Sample wt/vol: 29.82(g) | Date Analyzed: 07/07/2012 15:18

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-2 ID: 0.53(mm)

% Moisture: 4.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 50119 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
94-75-7	2,4-D	35	U	84	35	20
75-99-0	Dalapon	17	U	42	17	8.2
94-82-6	2,4-DB	35	U	84	35	23
1918-00-9	Dicamba	17	U	42	17	8.5
120-36-5	Dichlorprop	70	U	84	70	38
88-85-7	Dinoseb	10	U	13	10	10
94-74-6	MCPA	3500	U	8400	3500	1700
93-65-2	MCPP	3500	U	8400	3500	1600
93-72-1	Silvex (2,4,5-TP)	8.7	U	21	8.7	4.3
93-76-5	2,4,5-T	8.7	U	21	8.7	3.9

CAS NO.	SURROGATE	%REC	Q	LIMITS
19719-28-9	2,4-Dichlorophenylacetic acid	77		19-122

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0201-01 Lab Sample ID: 200-11554-2

Matrix: Solid Lab File ID: P1000019.D

Analysis Method: 8151/DOD Date Collected: 06/29/2012 08:45

Extraction Method: 8151A Date Extracted: 07/06/2012 07:25

Sample wt/vol: 30.11(g) Date Analyzed: 07/07/2012 15:42

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: CLP-1 ID: 0.53(mm)

% Moisture: 2.9 GPC Cleanup:(Y/N) N

Analysis Batch No.: 50119 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
19719-28-9	2,4-Dichlorophenylacetic acid	65		19-122

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0201-01 | Lab Sample ID: 200-11554-2

Matrix: Solid | Lab File ID: P1000019.D

Analysis Method: 8151/DOD | Date Collected: 06/29/2012 08:45

Extraction Method: 8151A | Date Extracted: 07/06/2012 07:25

Sample wt/vol: 30.11(g) | Date Analyzed: 07/07/2012 15:42

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-2 ID: 0.53(mm)

% Moisture: 2.9 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 50119 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
94-75-7	2,4-D	34	U	82	34	19
75-99-0	Dalapon	58		41	17	8.0
94-82-6	2,4-DB	34	U	82	34	22
1918-00-9	Dicamba	17	U	41	17	8.3
120-36-5	Dichlorprop	68	U	82	68	38
88-85-7	Dinoseb	10	U	12	10	10
94-74-6	MCPA	3400	U	8200	3400	1700
93-65-2	MCPP	3400	U	8200	3400	1500
93-72-1	Silvex (2,4,5-TP)	8.5	U	21	8.5	4.2
93-76-5	2,4,5-T	8.5	U	21	8.5	3.8

CAS NO.	SURROGATE	%REC	Q	LIMITS
19719-28-9	2,4-Dichlorophenylacetic acid	74		19-122

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0302-01 Lab Sample ID: 200-11554-3

Matrix: Solid Lab File ID: P1000020.D

Analysis Method: 8151/DOD Date Collected: 06/29/2012 08:44

Extraction Method: 8151A Date Extracted: 07/06/2012 07:25

Sample wt/vol: 30.09(g) Date Analyzed: 07/07/2012 16:06

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: CLP-1 ID: 0.53(mm)

% Moisture: 1.3 GPC Cleanup:(Y/N) N

Analysis Batch No.: 50119 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
19719-28-9	2,4-Dichlorophenylacetic acid	63		19-122

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0302-01 | Lab Sample ID: 200-11554-3

Matrix: Solid | Lab File ID: P1000020.D

Analysis Method: 8151/DOD | Date Collected: 06/29/2012 08:44

Extraction Method: 8151A | Date Extracted: 07/06/2012 07:25

Sample wt/vol: 30.09(g) | Date Analyzed: 07/07/2012 16:06

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-2 ID: 0.53(mm)

% Moisture: 1.3 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 50119 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
94-75-7	2,4-D	34	U	81	34	19
75-99-0	Dalapon	17	U	40	17	7.9
94-82-6	2,4-DB	34	U	81	34	22
1918-00-9	Dicamba	17	U	40	17	8.2
120-36-5	Dichlorprop	67	U	81	67	37
88-85-7	Dinoseb	10	U	12	10	10
94-74-6	MCPA	3400	U	8100	3400	1700
93-65-2	MCPP	3400	U	8100	3400	1500
93-72-1	Silvex (2,4,5-TP)	8.4	U	20	8.4	4.2
93-76-5	2,4,5-T	8.4	U	20	8.4	3.8

CAS NO.	SURROGATE	%REC	Q	LIMITS
19719-28-9	2,4-Dichlorophenylacetic acid	67		19-122

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0402-01 Lab Sample ID: 200-11554-4

Matrix: Solid Lab File ID: P1000021.D

Analysis Method: 8151/DOD Date Collected: 06/29/2012 08:55

Extraction Method: 8151A Date Extracted: 07/06/2012 07:25

Sample wt/vol: 29.81(g) Date Analyzed: 07/07/2012 16:30

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: CLP-1 ID: 0.53(mm)

% Moisture: 1.7 GPC Cleanup:(Y/N) N

Analysis Batch No.: 50119 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
19719-28-9	2,4-Dichlorophenylacetic acid	72		19-122

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0402-01 | Lab Sample ID: 200-11554-4

Matrix: Solid | Lab File ID: P1000021.D

Analysis Method: 8151/DOD | Date Collected: 06/29/2012 08:55

Extraction Method: 8151A | Date Extracted: 07/06/2012 07:25

Sample wt/vol: 29.81(g) | Date Analyzed: 07/07/2012 16:30

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-2 ID: 0.53(mm)

% Moisture: 1.7 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 50119 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
94-75-7	2,4-D	34	U	82	34	19
75-99-0	Dalapon	17	U	41	17	8.0
94-82-6	2,4-DB	34	U	82	34	22
1918-00-9	Dicamba	17	U	41	17	8.3
120-36-5	Dichlorprop	68	U	82	68	37
88-85-7	Dinoseb	10	U	12	10	10
94-74-6	MCPA	3400	U	8200	3400	1700
93-65-2	MCPP	3400	U	8200	3400	1500
93-72-1	Silvex (2,4,5-TP)	8.5	U	20	8.5	4.2
93-76-5	2,4,5-T	8.5	U	20	8.5	3.8

CAS NO.	SURROGATE	%REC	Q	LIMITS
19719-28-9	2,4-Dichlorophenylacetic acid	78		19-122

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 200-11554-1 Analy Batch No.: 50119

SDG No.: 200-11554-1

Instrument ID: A2HP1 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/07/2012 09:19 Calibration End Date: 07/07/2012 11:18 Calibration ID: 9913

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 240-50119/3	P1000003.D
Level 2	STD 240-50119/4	P1000004.D
Level 3	STD 240-50119/5	P1000005.D
Level 4	STD 240-50119/6	P1000006.D
Level 5	STD 240-50119/7	P1000007.D
Level 6	STD 240-50119/8	P1000008.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6					RT WINDOW	AVG RT
Dalapon	1.241	1.241	1.242	1.241	1.242	1.241					1.221 - 1.261	1.241
Dicamba	7.130	7.125	7.120	7.115	7.112	7.109					7.099 - 7.139	7.119
MCPP	7.410	7.406	7.404	7.400	7.397	7.395					7.382 - 7.422	7.402
MCPA	7.573	7.571	7.566	7.564	7.562	7.559					7.546 - 7.586	7.566
Dichlorprop	7.951	7.948	7.946	7.944	7.941	7.936					7.918 - 7.958	7.944
2,4-D	8.185	8.182	8.179	8.176	8.176	8.174					8.148 - 8.188	8.179
Silvex (2,4,5-TP)	9.056	9.054	9.055	9.052	9.052	9.051					9.031 - 9.071	9.053
2,4,5-T	9.366	9.364	9.365	9.361	9.361	9.358					9.341 - 9.381	9.363
2,4-DB	9.991	9.990	9.986	9.985	9.984	9.981					9.965 - 10.005	9.986
Dinoseb	11.181	11.181	11.179	11.180	11.178	11.179					11.148 - 11.208	11.180
2,4-Dichlorophenylacetic acid	6.966	6.961	6.955	6.950	6.947	6.944					6.933 - 6.973	6.954

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 200-11554-1 Analy Batch No.: 50119

SDG No.: 200-11554-1

Instrument ID: A2HP1 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/07/2012 09:19 Calibration End Date: 07/07/2012 11:18 Calibration ID: 9913

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 240-50119/3	P1000003.D
Level 2	STD 240-50119/4	P1000004.D
Level 3	STD 240-50119/5	P1000005.D
Level 4	STD 240-50119/6	P1000006.D
Level 5	STD 240-50119/7	P1000007.D
Level 6	STD 240-50119/8	P1000008.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
Dalapon	504146900 311283075	400311600 291987694	357424900	343411688		2306482.91	292412839							0.9980		0.9900
Dicamba	577670700 481626750	577652350 450047172	540273650	507129550	Ave		522400029				10.0		20.0			
MCPP	480505 381645	537712 336995	508882	432591	Ave		446388.107				17.0		20.0			
MCPA	723583 472033	732926 417748	632307	546466	Qua	835455.667	505059.945	-1580.3244						0.9990		0.9900
Dichlorprop	120379700 93704713	118762400 86197992	117277775	105076588	Ave		106899861				13.0		20.0			
2,4-D	122909250 109009616	126862625 100989806	127945913	117868613	Ave		117597637				9.1		20.0			
Silvex (2,4,5-TP)	619015000 581081975	627502600 550707344	614524750	605997300	Ave		599804828				4.8		20.0			
2,4,5-T	459375800 474611400	473350300 455312675	478511300	472053175	Ave		468869108				2.0		20.0			
2,4-DB	46270200 44699156	47335025 43630348	48679688	46002444	Ave		46102810.2				3.9		20.0			
Dinoseb	414846667 347562500	408386000 318277740	395382917	363295667	Ave		374625248				10.0		20.0			
2,4-Dichlorophenylacetic acid	141840650 106595156	140877575 98665117	128555013	114775219	Ave		121884788				15.0		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 200-11554-1 Analy Batch No.: 50119

SDG No.: 200-11554-1

Instrument ID: A2HP1 GC Column: CLP-1 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/07/2012 09:19 Calibration End Date: 07/07/2012 11:18 Calibration ID: 9913

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 240-50119/3	P1000003.D
Level 2	STD 240-50119/4	P1000004.D
Level 3	STD 240-50119/5	P1000005.D
Level 4	STD 240-50119/6	P1000006.D
Level 5	STD 240-50119/7	P1000007.D
Level 6	STD 240-50119/8	P1000008.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dalapon		5041469 93436062	8006232	14296996	27472935	49805292	0.0100 0.320	0.0200	0.0400	0.0800	0.160
Dicamba	Ave	5776707 144015095	11553047	21610946	40570364	77060280	0.0100 0.320	0.0200	0.0400	0.0800	0.160
MCPP	Ave	961010 21567669	2150846	4071052	6921454	12212638	2.00 64.0	4.00	8.00	16.0	32.0
MCPA	Qua	1447165 26735880	2931705	5058452	8743460	15105054	2.00 64.0	4.00	8.00	16.0	32.0
Dichlorprop	Ave	2407594 55166715	4750496	9382222	16812254	29985508	0.0200 0.640	0.0400	0.0800	0.160	0.320
2,4-D	Ave	2458185 64633476	5074505	10235673	18858978	34883077	0.0200 0.640	0.0400	0.0800	0.160	0.320
Silvex (2,4,5-TP)	Ave	3095075 88113175	6275026	12290495	24239892	46486558	0.00500 0.160	0.0100	0.0200	0.0400	0.0800
2,4,5-T	Ave	2296879 72850028	4733503	9570226	18882127	37968912	0.00500 0.160	0.0100	0.0200	0.0400	0.0800
2,4-DB	Ave	925404 27923423	1893401	3894375	7360391	14303730	0.0200 0.640	0.0400	0.0800	0.160	0.320
Dinoseb	Ave	1244540 30554663	2450316	4744595	8719096	16683000	0.00300 0.0960	0.00600	0.0120	0.0240	0.0480
2,4-Dichlorophenylacetic acid	Ave	2836813 63145675	5635103	10284401	18364035	34110450	0.0200 0.640	0.0400	0.0800	0.160	0.320

Curve Type Legend:

Ave = Average by Height
Qua = Quadratic by Height

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 200-11554-1 Analy Batch No.: 50119

SDG No.: 200-11554-1

Instrument ID: A2HP1 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/07/2012 09:19 Calibration End Date: 07/07/2012 11:18 Calibration ID: 9914

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 240-50119/3	P1000003.D
Level 2	STD 240-50119/4	P1000004.D
Level 3	STD 240-50119/5	P1000005.D
Level 4	STD 240-50119/6	P1000006.D
Level 5	STD 240-50119/7	P1000007.D
Level 6	STD 240-50119/8	P1000008.D

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6					RT WINDOW	AVG RT
Dalapon	1.364	1.364	1.365	1.364	1.363	1.364					1.344 - 1.384	1.364
Dicamba	7.696	7.694	7.690	7.688	7.688	7.685					7.670 - 7.710	7.690
MCPP	7.881	7.880	7.877	7.876	7.875	7.874					7.858 - 7.898	7.877
MCPA	8.126	8.125	8.122	8.121	8.119	8.119					8.102 - 8.142	8.122
Dichlorprop	8.484	8.483	8.481	8.480	8.478	8.475					8.456 - 8.496	8.480
2,4-D	8.828	8.826	8.825	8.822	8.822	8.821					8.799 - 8.839	8.824
Silvex (2,4,5-TP)	9.752	9.751	9.750	9.750	9.750	9.749					9.728 - 9.768	9.750
2,4,5-T	10.216	10.215	10.214	10.213	10.213	10.212					10.192 - 10.232	10.214
2,4-DB	10.857	10.855	10.855	10.854	10.851	10.851					10.833 - 10.873	10.854
Dinoseb	11.224	11.225	11.222	11.223	11.223	11.224					11.195 - 11.255	11.224
2,4-Dichlorophenylacetic acid	7.533	7.531	7.527	7.524	7.523	7.522					7.504 - 7.544	7.527

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Canton Job No.: 200-11554-1 Analy Batch No.: 50119

SDG No.: 200-11554-1

Instrument ID: A2HP1 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/07/2012 09:19 Calibration End Date: 07/07/2012 11:18 Calibration ID: 9914

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 240-50119/3	P1000003.D
Level 2	STD 240-50119/4	P1000004.D
Level 3	STD 240-50119/5	P1000005.D
Level 4	STD 240-50119/6	P1000006.D
Level 5	STD 240-50119/7	P1000007.D
Level 6	STD 240-50119/8	P1000008.D

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
Dalapon	174175000 139937244	167415950 136016506	154253700	145905038		511931.838	136152809							0.9990		0.9900
Dicamba	309351900 277110744	313601000 265578684	296677550	292042163	Ave		292393673				6.3		20.0			
MCPP	359896 216417	353848 192979	306112	255115	Qua	484017.648	227539.034	-665.22567						0.9990		0.9900
MCPA	566482 286195	489715 261227	407135	336448		796243.569	260566.401							0.9910		0.9900
Dichlorprop	67944650 54875972	66450425 52590545	62765800	58874938	Ave		60583721.6				10.0		20.0			
2,4-D	76278950 67477934	76852575 65293273	74412075	70859294	Ave		71862350.3				6.7		20.0			
Silvex (2,4,5-TP)	340943200 335337525	343896900 324416781	343211500	338100900	Ave		337651134				2.1		20.0			
2,4,5-T	281379400 284043450	282226100 281634800	286642200	282506725	Ave		283072113				0.7		20.0			
2,4-DB	31970050 29301863	32222450 28734125	31901738	30236869	Ave		30727849.0				4.9		20.0			
Dinoseb	223718000 197738958	216020333 184865594	212475250	205037208	Ave		206642557				6.7		20.0			
2,4-Dichlorophenylacetic acid	81678850 65404431	79507825 61311456	74914363	77164700	Ave		73330270.8				11.0		20.0			

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
GC SEMI VOA INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Canton Job No.: 200-11554-1 Analy Batch No.: 50119

SDG No.: 200-11554-1

Instrument ID: A2HP1 GC Column: CLP-2 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/07/2012 09:19 Calibration End Date: 07/07/2012 11:18 Calibration ID: 9914

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 240-50119/3	P1000003.D
Level 2	STD 240-50119/4	P1000004.D
Level 3	STD 240-50119/5	P1000005.D
Level 4	STD 240-50119/6	P1000006.D
Level 5	STD 240-50119/7	P1000007.D
Level 6	STD 240-50119/8	P1000008.D

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dalapon		1741750 43525282	3348319	6170148	11672403	22389959	0.0100 0.320	0.0200	0.0400	0.0800	0.160
Dicamba	Ave	3093519 84985179	6272020	11867102	23363373	44337719	0.0100 0.320	0.0200	0.0400	0.0800	0.160
MCPP	Qua	719792 12350628	1415391	2448893	4081840	6925348	2.00 64.0	4.00	8.00	16.0	32.0
MCPA		1132963 16718519	1958858	3257078	5383168	9158242	2.00 64.0	4.00	8.00	16.0	32.0
Dichlorprop	Ave	1358893 33657949	2658017	5021264	9419990	17560311	0.0200 0.640	0.0400	0.0800	0.160	0.320
2,4-D	Ave	1525579 41787695	3074103	5952966	11337487	21592939	0.0200 0.640	0.0400	0.0800	0.160	0.320
Silvex (2,4,5-TP)	Ave	1704716 51906685	3438969	6864230	13524036	26827002	0.00500 0.160	0.0100	0.0200	0.0400	0.0800
2,4,5-T	Ave	1406897 45061568	2822261	5732844	11300269	22723476	0.00500 0.160	0.0100	0.0200	0.0400	0.0800
2,4-DB	Ave	639401 18389840	1288898	2552139	4837899	9376596	0.0200 0.640	0.0400	0.0800	0.160	0.320
Dinoseb	Ave	671154 17747097	1296122	2549703	4920893	9491470	0.00300 0.0960	0.00600	0.0120	0.0240	0.0480
2,4-Dichlorophenylacetic acid	Ave	1633577 39239332	3180313	5993149	12346352	20929418	0.0200 0.640	0.0400	0.0800	0.160	0.320

Curve Type Legend:

Ave = Average by Height
Qua = Quadratic by Height

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: ICV 240-50119/9 Calibration Date: 07/07/2012 11:42

Instrument ID: A2HP1 Calib Start Date: 07/07/2012 09:19

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 07/07/2012 11:18

Lab File ID: P1000009.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dalapon			338178120		0.0383	0.0399	-4.0	20.0
Dicamba	Ave	522400029	511133200		0.0391	0.0400	-2.2	20.0
MCPP	Ave	446388	492421		8.82	8.00	10.3	20.0
MCPA	Qua		606306		8.16	8.00	2.0	20.0
Dichlorprop	Ave	106899861	114463913		0.0857	0.0800	7.1	20.0
2,4-D	Ave	117597637	126181625		0.0858	0.0800	7.3	20.0
Silvex (2,4,5-TP)	Ave	599804828	595122700		0.0198	0.0200	-0.8	20.0
2,4,5-T	Ave	468869108	470736800		0.0201	0.0200	0.4	20.0
2,4-DB	Ave	46102810	45573488		0.0791	0.0800	-1.1	20.0
Dinoseb	Ave	374625248	424230833		0.0136	0.0120	13.2	20.0
2,4-Dichlorophenylacetic acid	Ave	121884788	123540788		0.0811	0.0800	1.4	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: ICV 240-50119/9 Calibration Date: 07/07/2012 11:42

Instrument ID: A2HP1 Calib Start Date: 07/07/2012 09:19

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 07/07/2012 11:18

Lab File ID: P1000009.D

Analyte	RT	RT WINDOW	
		TO	FROM
Dalapon	1.24	1.22	1.26
Dicamba	7.12	7.10	7.14
MCPP	7.40	7.38	7.42
MCPA	7.57	7.55	7.59
Dichlorprop	7.95	7.93	7.97
2,4-D	8.18	8.16	8.20
Silvex (2,4,5-TP)	9.05	9.04	9.08
2,4,5-T	9.36	9.35	9.39
2,4-DB	9.99	9.97	10.01
Dinoseb	11.18	11.15	11.21
2,4-Dichlorophenylacetic acid	6.96	6.94	6.98

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: ICV 240-50119/9 Calibration Date: 07/07/2012 11:42

Instrument ID: A2HP1 Calib Start Date: 07/07/2012 09:19

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 07/07/2012 11:18

Lab File ID: P1000009.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dalapon			139420100		0.0371	0.0399	-7.0	20.0
Dicamba	Ave	292393673	283823750		0.0388	0.0400	-2.9	20.0
MCPP	Qua		300697		8.66	8.00	8.3	20.0
MCPA			392503		8.99	8.00	12.4	20.0
Dichlorprop	Ave	60583722	64969700		0.0858	0.0800	7.2	20.0
2,4-D	Ave	71862350	73211675		0.0815	0.0800	1.9	20.0
Silvex (2,4,5-TP)	Ave	337651134	329740350		0.0195	0.0200	-2.3	20.0
2,4,5-T	Ave	283072113	282577900		0.0200	0.0200	-0.2	20.0
2,4-DB	Ave	30727849	29877488		0.0778	0.0800	-2.8	20.0
Dinoseb	Ave	206642557	202184833		0.0117	0.0120	-2.2	20.0
2,4-Dichlorophenylacetic acid	Ave	73330271	68796363		0.0751	0.0800	-6.2	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: ICV 240-50119/9 Calibration Date: 07/07/2012 11:42

Instrument ID: A2HP1 Calib Start Date: 07/07/2012 09:19

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 07/07/2012 11:18

Lab File ID: P1000009.D

Analyte	RT	RT WINDOW	
		TO	FROM
Dalapon	1.36	1.35	1.39
Dicamba	7.69	7.67	7.71
MCPP	7.88	7.86	7.90
MCPA	8.12	8.10	8.14
Dichlorprop	8.48	8.46	8.50
2,4-D	8.83	8.81	8.85
Silvex (2,4,5-TP)	9.75	9.73	9.77
2,4,5-T	10.21	10.19	10.23
2,4-DB	10.85	10.84	10.88
Dinoseb	11.22	11.19	11.25
2,4-Dichlorophenylacetic acid	7.53	7.51	7.55

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: CCV 240-50119/36 Calibration Date: 07/07/2012 22:30

Instrument ID: A2HP1 Calib Start Date: 07/07/2012 09:19

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 07/07/2012 11:18

Lab File ID: P1000036.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dalapon			374282100		0.0433	0.0400	8.3	20.0
Dicamba	Ave	522400029	560763575		0.0429	0.0400	7.3	20.0
MCPP	Ave	446388	516881		9.26	8.00	15.8	20.0
MCPA	Qua		658249		9.03	8.00	12.9	20.0
Dichlorprop	Ave	106899861	130754600		0.0979	0.0800	22.3*	20.0
2,4-D	Ave	117597637	138062775		0.0939	0.0800	17.4	20.0
Silvex (2,4,5-TP)	Ave	599804828	663496450		0.0221	0.0200	10.6	20.0
2,4,5-T	Ave	468869108	567444000		0.0242	0.0200	21.0*	20.0
2,4-DB	Ave	46102810	62573825		0.109	0.0800	35.7*	20.0
Dinoseb	Ave	374625248	428926000		0.0137	0.0120	14.5	20.0
2,4-Dichlorophenylacetic acid	Ave	121884788	134791438		0.0885	0.0800	10.6	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: CCV 240-50119/36 Calibration Date: 07/07/2012 22:30

Instrument ID: A2HP1 Calib Start Date: 07/07/2012 09:19

GC Column: CLP-1 ID: 0.53(mm) Calib End Date: 07/07/2012 11:18

Lab File ID: P1000036.D

Analyte	RT	RT WINDOW	
		TO	FROM
Dalapon	1.24	1.22	1.26
Dicamba	7.12	7.10	7.14
MCPP	7.40	7.38	7.42
MCPA	7.57	7.55	7.59
Dichlorprop	7.94	7.92	7.96
2,4-D	8.17	8.15	8.19
Silvex (2,4,5-TP)	9.05	9.03	9.07
2,4,5-T	9.36	9.34	9.38
2,4-DB	9.99	9.97	10.01
Dinoseb	11.18	11.15	11.21
2,4-Dichlorophenylacetic acid	6.95	6.93	6.97

FORM VII
GC SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: CCV 240-50119/36 Calibration Date: 07/07/2012 22:30

Instrument ID: A2HP1 Calib Start Date: 07/07/2012 09:19

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 07/07/2012 11:18

Lab File ID: P1000036.D Conc. Units: ng/uL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dalapon			156192275		0.0421	0.0400	5.3	20.0
Dicamba	Ave	292393673	312489125		0.0427	0.0400	6.9	20.0
MCPP	Qua		309609		8.99	8.00	12.4	20.0
MCPA			425972		10.0	8.00	25.0*	20.0
Dichlorprop	Ave	60583722	65863750		0.0870	0.0800	8.7	20.0
2,4-D	Ave	71862350	80231688		0.0893	0.0800	11.6	20.0
Silvex (2,4,5-TP)	Ave	337651134	358512350		0.0212	0.0200	6.2	20.0
2,4,5-T	Ave	283072113	310403050		0.0219	0.0200	9.7	20.0
2,4-DB	Ave	30727849	33721325		0.0878	0.0800	9.7	20.0
Dinoseb	Ave	206642557	228214167		0.0133	0.0120	10.4	20.0
2,4-Dichlorophenylacetic acid	Ave	73330271	98977513		0.108	0.0800	35.0*	20.0

FORM VII
GC SEMI VOA CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: CCV 240-50119/36 Calibration Date: 07/07/2012 22:30

Instrument ID: A2HP1 Calib Start Date: 07/07/2012 09:19

GC Column: CLP-2 ID: 0.53(mm) Calib End Date: 07/07/2012 11:18

Lab File ID: P1000036.D

Analyte	RT	RT WINDOW	
		TO	FROM
Dalapon	1.36	1.34	1.38
Dicamba	7.69	7.67	7.71
MCPP	7.88	7.86	7.90
MCPA	8.12	8.10	8.14
Dichlorprop	8.48	8.46	8.50
2,4-D	8.82	8.80	8.84
Silvex (2,4,5-TP)	9.75	9.73	9.77
2,4,5-T	10.21	10.19	10.23
2,4-DB	10.85	10.83	10.87
Dinoseb	11.23	11.20	11.26
2,4-Dichlorophenylacetic acid	7.52	7.50	7.54

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: Lab Sample ID: MB 240-50002/9-A

Matrix: Solid Lab File ID: P1000025.D

Analysis Method: 8151/DOD Date Collected:

Extraction Method: 8151A Date Extracted: 07/06/2012 07:25

Sample wt/vol: 30.00(g) Date Analyzed: 07/07/2012 18:06

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: CLP-1 ID: 0.53(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 50119 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
19719-28-9	2,4-Dichlorophenylacetic acid	70		19-122

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: | Lab Sample ID: MB 240-50002/9-A

Matrix: Solid | Lab File ID: P1000025.D

Analysis Method: 8151/DOD | Date Collected:

Extraction Method: 8151A | Date Extracted: 07/06/2012 07:25

Sample wt/vol: 30.00(g) | Date Analyzed: 07/07/2012 18:06

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-2 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 50119 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
94-75-7	2,4-D	33	U	80	33	19
75-99-0	Dalapon	17	U	40	17	7.8
94-82-6	2,4-DB	33	U	80	33	22
1918-00-9	Dicamba	17	U	40	17	8.1
120-36-5	Dichlorprop	67	U	80	67	37
88-85-7	Dinoseb	10	U	12	10	10
94-74-6	MCPA	3300	U	8000	3300	1700
93-65-2	MCPP	3300	U	8000	3300	1500
93-72-1	Silvex (2,4,5-TP)	8.3	U	20	8.3	4.1
93-76-5	2,4,5-T	8.3	U	20	8.3	3.8

CAS NO.	SURROGATE	%REC	Q	LIMITS
19719-28-9	2,4-Dichlorophenylacetic acid	77		19-122

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: Lab Sample ID: LCS 240-50002/10-A

Matrix: Solid Lab File ID: P1000026.D

Analysis Method: 8151/DOD Date Collected:

Extraction Method: 8151A Date Extracted: 07/06/2012 07:25

Sample wt/vol: 30.00(g) Date Analyzed: 07/07/2012 18:30

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: CLP-1 ID: 0.53(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 50119 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
19719-28-9	2,4-Dichlorophenylacetic acid	86		19-122

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: | Lab Sample ID: LCS 240-50002/10-A

Matrix: Solid | Lab File ID: P1000026.D

Analysis Method: 8151/DOD | Date Collected:

Extraction Method: 8151A | Date Extracted: 07/06/2012 07:25

Sample wt/vol: 30.00(g) | Date Analyzed: 07/07/2012 18:30

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-2 ID: 0.53(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 50119 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
94-75-7	2,4-D	645		80	33	19
75-99-0	Dalapon	281		40	17	7.8
94-82-6	2,4-DB	625		80	33	22
1918-00-9	Dicamba	307		40	17	8.1
120-36-5	Dichlorprop	751		80	67	37
88-85-7	Dinoseb	28.9		12	10	10
94-74-6	MCPA	66000		8000	3300	1700
93-65-2	MCPP	60700		8000	3300	1500
93-72-1	Silvex (2,4,5-TP)	149		20	8.3	4.1
93-76-5	2,4,5-T	156		20	8.3	3.8

CAS NO.	SURROGATE	%REC	Q	LIMITS
19719-28-9	2,4-Dichlorophenylacetic acid	82		19-122

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0101-01 MS Lab Sample ID: 200-11554-1 MS

Matrix: Solid Lab File ID: P1000023.D

Analysis Method: 8151/DOD Date Collected: 06/29/2012 08:30

Extraction Method: 8151A Date Extracted: 07/06/2012 07:25

Sample wt/vol: 30.22(g) Date Analyzed: 07/07/2012 17:18

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: CLP-1 ID: 0.53(mm)

% Moisture: 4.1 GPC Cleanup:(Y/N) N

Analysis Batch No.: 50119 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
19719-28-9	2,4-Dichlorophenylacetic acid	71		19-122

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0101-01 MS Lab Sample ID: 200-11554-1 MS

Matrix: Solid Lab File ID: P1000023.D

Analysis Method: 8151/DOD Date Collected: 06/29/2012 08:30

Extraction Method: 8151A Date Extracted: 07/06/2012 07:25

Sample wt/vol: 30.22(g) Date Analyzed: 07/07/2012 17:18

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: CLP-2 ID: 0.53(mm)

% Moisture: 4.1 GPC Cleanup:(Y/N) N

Analysis Batch No.: 50119 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
94-75-7	2,4-D	553		83	35	20
75-99-0	Dalapon	235		41	17	8.1
94-82-6	2,4-DB	534		83	35	22
1918-00-9	Dicamba	266		41	17	8.4
120-36-5	Dichlorprop	640		83	69	38
88-85-7	Dinoseb	48.7		12	10	10
94-74-6	MCPA	55600		8300	3500	1700
93-65-2	MCPP	50700		8300	3500	1500
93-72-1	Silvex (2,4,5-TP)	124		21	8.6	4.3
93-76-5	2,4,5-T	130		21	8.6	3.9

CAS NO.	SURROGATE	%REC	Q	LIMITS
19719-28-9	2,4-Dichlorophenylacetic acid	68		19-122

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0101-01 MSD Lab Sample ID: 200-11554-1 MSD

Matrix: Solid Lab File ID: P1000024.D

Analysis Method: 8151/DOD Date Collected: 06/29/2012 08:30

Extraction Method: 8151A Date Extracted: 07/06/2012 07:25

Sample wt/vol: 29.98(g) Date Analyzed: 07/07/2012 17:42

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 1(uL) GC Column: CLP-1 ID: 0.53(mm)

% Moisture: 4.1 GPC Cleanup:(Y/N) N

Analysis Batch No.: 50119 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
19719-28-9	2,4-Dichlorophenylacetic acid	79		19-122

FORM I
GC SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Canton | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0101-01 MSD | Lab Sample ID: 200-11554-1 MSD

Matrix: Solid | Lab File ID: P1000024.D

Analysis Method: 8151/DOD | Date Collected: 06/29/2012 08:30

Extraction Method: 8151A | Date Extracted: 07/06/2012 07:25

Sample wt/vol: 29.98(g) | Date Analyzed: 07/07/2012 17:42

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 1(uL) | GC Column: CLP-2 ID: 0.53(mm)

% Moisture: 4.1 | GPC Cleanup:(Y/N) N

Analysis Batch No.: 50119 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
94-75-7	2,4-D	615		84	35	20
75-99-0	Dalapon	270		42	17	8.2
94-82-6	2,4-DB	601		84	35	22
1918-00-9	Dicamba	301		42	17	8.5
120-36-5	Dichlorprop	716		84	70	38
88-85-7	Dinoseb	49.8		13	10	10
94-74-6	MCPA	60500		8400	3500	1700
93-65-2	MCPP	57800		8400	3500	1600
93-72-1	Silvex (2,4,5-TP)	140		21	8.7	4.3
93-76-5	2,4,5-T	147		21	8.7	3.9

CAS NO.	SURROGATE	%REC	Q	LIMITS
19719-28-9	2,4-Dichlorophenylacetic acid	76		19-122

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: A2HP1 Start Date: 07/07/2012 09:19

Analysis Batch Number: 50119 End Date: 07/07/2012 22:30

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD 240-50119/3 IC		07/07/2012 09:19	1	P1000003.D	CLP-1 0.53(mm)
STD 240-50119/3 IC		07/07/2012 09:19	1	P1000003.D	CLP-2 0.53(mm)
STD 240-50119/4 IC		07/07/2012 09:42	1	P1000004.D	CLP-1 0.53(mm)
STD 240-50119/4 IC		07/07/2012 09:42	1	P1000004.D	CLP-2 0.53(mm)
STD 240-50119/5 ICRT		07/07/2012 10:06	1	P1000005.D	CLP-1 0.53(mm)
STD 240-50119/5 ICRT		07/07/2012 10:06	1	P1000005.D	CLP-2 0.53(mm)
STD 240-50119/6 IC		07/07/2012 10:30	1	P1000006.D	CLP-1 0.53(mm)
STD 240-50119/6 IC		07/07/2012 10:30	1	P1000006.D	CLP-2 0.53(mm)
STD 240-50119/7 IC		07/07/2012 10:54	1	P1000007.D	CLP-1 0.53(mm)
STD 240-50119/7 IC		07/07/2012 10:54	1	P1000007.D	CLP-2 0.53(mm)
STD 240-50119/8 IC		07/07/2012 11:18	1	P1000008.D	CLP-1 0.53(mm)
STD 240-50119/8 IC		07/07/2012 11:18	1	P1000008.D	CLP-2 0.53(mm)
ICV 240-50119/9		07/07/2012 11:42	1	P1000009.D	CLP-1 0.53(mm)
ICV 240-50119/9		07/07/2012 11:42	1	P1000009.D	CLP-2 0.53(mm)
STD 240-50119/10 IC		07/07/2012 12:06	1		CLP-1 0.53(mm)
STD 240-50119/10 IC		07/07/2012 12:06	1		CLP-2 0.53(mm)
STD 240-50119/11 IC		07/07/2012 12:30	1		CLP-1 0.53(mm)
STD 240-50119/11 IC		07/07/2012 12:30	1		CLP-2 0.53(mm)
STD 240-50119/12 IC		07/07/2012 12:54	1		CLP-1 0.53(mm)
STD 240-50119/12 IC		07/07/2012 12:54	1		CLP-2 0.53(mm)
STD 240-50119/13 IC		07/07/2012 13:18	1		CLP-1 0.53(mm)
STD 240-50119/13 IC		07/07/2012 13:18	1		CLP-2 0.53(mm)
STD 240-50119/14 IC		07/07/2012 13:42	1		CLP-1 0.53(mm)
STD 240-50119/14 IC		07/07/2012 13:42	1		CLP-2 0.53(mm)
STD 240-50119/15 IC		07/07/2012 14:06	1		CLP-1 0.53(mm)
STD 240-50119/15 IC		07/07/2012 14:06	1		CLP-2 0.53(mm)
ICV 240-50119/16		07/07/2012 14:30	1		CLP-1 0.53(mm)
ICV 240-50119/16		07/07/2012 14:30	1		CLP-2 0.53(mm)
200-11554-1	NFUDS-001-TP0101-01	07/07/2012 15:18	1	P1000018.D	CLP-1 0.53(mm)
200-11554-1	NFUDS-001-TP0101-01	07/07/2012 15:18	1	P1000018.D	CLP-2 0.53(mm)
200-11554-2	NFUDS-001-TP0201-01	07/07/2012 15:42	1	P1000019.D	CLP-1 0.53(mm)
200-11554-2	NFUDS-001-TP0201-01	07/07/2012 15:42	1	P1000019.D	CLP-2 0.53(mm)
200-11554-3	NFUDS-001-TP0302-01	07/07/2012 16:06	1	P1000020.D	CLP-1 0.53(mm)
200-11554-3	NFUDS-001-TP0302-01	07/07/2012 16:06	1	P1000020.D	CLP-2 0.53(mm)
200-11554-4	NFUDS-001-TP0402-01	07/07/2012 16:30	1	P1000021.D	CLP-1 0.53(mm)
200-11554-4	NFUDS-001-TP0402-01	07/07/2012 16:30	1	P1000021.D	CLP-2 0.53(mm)
200-11554-1 MS	NFUDS-001-TP0101-01 MS	07/07/2012 17:18	1	P1000023.D	CLP-1 0.53(mm)
200-11554-1 MS	NFUDS-001-TP0101-01 MS	07/07/2012 17:18	1	P1000023.D	CLP-2 0.53(mm)
200-11554-1 MSD	NFUDS-001-TP0101-01 MSD	07/07/2012 17:42	1	P1000024.D	CLP-1 0.53(mm)
200-11554-1 MSD	NFUDS-001-TP0101-01 MSD	07/07/2012 17:42	1	P1000024.D	CLP-2 0.53(mm)
MB 240-50002/9-A		07/07/2012 18:06	1	P1000025.D	CLP-1 0.53(mm)
MB 240-50002/9-A		07/07/2012 18:06	1	P1000025.D	CLP-2 0.53(mm)
LCS 240-50002/10-A		07/07/2012 18:30	1	P1000026.D	CLP-1 0.53(mm)

GC SEMI VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: A2HP1 Start Date: 07/07/2012 09:19

Analysis Batch Number: 50119 End Date: 07/07/2012 22:30

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
LCS 240-50002/10-A		07/07/2012 18:30	1	P1000026.D	CLP-2 0.53(mm)
CCV 240-50119/36		07/07/2012 22:30	1	P1000036.D	CLP-1 0.53(mm)
CCV 240-50119/36		07/07/2012 22:30	1	P1000036.D	CLP-2 0.53(mm)

GC SEMI VOA BATCH WORKSHEET

Lab Name: TestAmerica Canton Job No.: 200-11554-1

SDG No.: 200-11554-1

Batch Number: 50002 Batch Start Date: 07/06/12 07:25 Batch Analyst: Earle, Steve

Batch Method: 8151A Batch End Date: 07/06/12 15:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	EXHEASPIKEW 00004	EXHERBSURR 00010		
200-11554-G-1	NFUDS-001-TP0101 -01	8151A, 8151/DOD	T	29.82 g	100 mL		1 mL		
200-11554-G-2	NFUDS-001-TP0201 -01	8151A, 8151/DOD	T	30.11 g	100 mL		1 mL		
200-11554-G-3	NFUDS-001-TP0302 -01	8151A, 8151/DOD	T	30.09 g	100 mL		1 mL		
200-11554-G-4	NFUDS-001-TP0402 -01	8151A, 8151/DOD	T	29.81 g	100 mL		1 mL		
200-11554-G-1 MS	NFUDS-001-TP0101 -01	8151A, 8151/DOD	T	30.22 g	100 mL	1 mL	1 mL		
200-11554-G-1 MSD	NFUDS-001-TP0101 -01	8151A, 8151/DOD	T	29.98 g	100 mL	1 mL	1 mL		
MB 240-50002/9		8151A, 8151/DOD		30.00 g	100 mL		1 mL		
LCS 240-50002/10		8151A, 8151/DOD		30.00 g	100 mL	1 mL	1 mL		

Batch Notes	
Balance ID	b036
Batch Comment	s/s se
Diethyl Ether Lot #	500538
Sulfuric Acid Lot Number	178764
Lot # of hydrochloric acid	014576
Potassium Hydroxide Lot #	039456
MeCL2 Lot #	547808
MeC12/Acetone Lot #	548917
Na2SO4 Lot Number	179089
Silica Gel Lot Number	001550
TMSDM Lot #	347068

Basis	Basis Description
T	Total/NA

Method 8330B

Nitroaromatics and Nitramines (HPLC) by Method 8330B

FORM II
HPLC/IC SURROGATE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Matrix: Solid Level: Low

GC Column (1): C-18 ID: 4.6 (mm) GC Column (2): Biphenyl 4.6 (mm)

Client Sample ID	Lab Sample ID	12DNB2 #	12DNB1 #
NFUDS-001-TP0101-01	200-11554-1		97
NFUDS-001-TP0101-01	200-11554-1	87	
NFUDS-001-TP0201-01	200-11554-2		89
NFUDS-001-TP0201-01	200-11554-2	86	
NFUDS-001-TP0302-01	200-11554-3		94
NFUDS-001-TP0302-01	200-11554-3	94	
NFUDS-001-TP0402-01	200-11554-4		94
NFUDS-001-TP0402-01	200-11554-4	92	
	MB 200-41397/1-A		91
	MB 200-41397/1-A	92	
	LCS 200-41397/2-A		95
	LCS 200-41397/2-A	93	

	QC LIMITS
12DNB = 1,2-Dinitrobenzene	40-140

Column to be used to flag recovery values

FORM II 8330 Modified

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Matrix: Solid Level: Low Lab File ID: 09JUL121028_101.d

Lab ID: LCS 200-41397/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
HMX	1980	1890	96	75-120	
RDX	1980	1910	96	75-120	
1,3,5-Trinitrobenzene	1980	1910	97	75-120	
1,3-Dinitrobenzene	1980	1910	96	75-120	
Nitrobenzene	1980	1840	93	75-125	
Tetryl	1980	2000	101	80-115	J
Nitroglycerin	39600	29200	74	60-150	
2,4,6-Trinitrotoluene	1980	1870	95	85-110	
4-Amino-2,6-dinitrotoluene	1980	1830	93	80-120	
2-Amino-4,6-dinitrotoluene	1980	1900	96	75-125	
2,6-Dinitrotoluene	1980	1840	93	75-125	
2,4-Dinitrotoluene	1980	1950	98	60-130	J
2-Nitrotoluene	1980	1910	96	70-125	
4-Nitrotoluene	1980	1960	99	65-135	J
3-Nitrotoluene	1980	1950	99	60-135	J

Column to be used to flag recovery and RPD values

FORM III 8330 Modified

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: MB 200-41397/1-A

Matrix: Solid Date Extracted: 07/05/2012 18:41

Lab File ID:(1) 09JUL121028_091.d Lab File ID:(2) 09JUL121033_091.d

Date Analyzed:(1) 07/09/2012 16:48 Date Analyzed:(2) 07/09/2012 16:43

Instrument ID:(1) CH1208 Instrument ID:(2) CH1488

GC Column:(1) C-18 ID: 4.6(mm) GC Column:(2) Biphenyl ID: 4.6(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 200-41397/2-A	07/09/2012 17:25	07/09/2012 17:17
NFUDS-001-TP0101-01	200-11554-1	07/09/2012 18:03	07/09/2012 17:51
NFUDS-001-TP0201-01	200-11554-2	07/09/2012 18:40	07/09/2012 18:25
NFUDS-001-TP0302-01	200-11554-3	07/09/2012 19:18	07/09/2012 19:00
NFUDS-001-TP0402-01	200-11554-4	07/09/2012 19:55	07/09/2012 19:34

FORM VIII
HPLC/IC ANALYTICAL SEQUENCE

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: CH1208 Calibration Start Date: 04/02/2012 10:19

GC Column: C-18 ID: 4.6(mm) Calibration End Date: 04/02/2012 13:26

Calibration ID: 14368

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				12DNB RT #		
INITIAL CALIBRATION SURROGATE MEAN RT				16.43		
UPPER LIMIT				16.53		
LOWER LIMIT				16.33		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
IC 200-36007/2		04/02/2012 10:19	02APR120829_021.d	16.44		
IC 200-36007/3		04/02/2012 10:56	02APR120829_031.d	16.43		
IC 200-36007/4		04/02/2012 11:34	02APR120829_041.d	16.43		
ICRTAV 200-36007/5		04/02/2012 12:11	02APR120829_051.d	16.42		
IC 200-36007/6		04/02/2012 12:48	02APR120829_061.d	16.42		
IC 200-36007/7		04/02/2012 13:26	02APR120829_071.d	16.41		
ICV 200-36007/10		04/02/2012 15:18	02APR120829_101.d	16.43		

12DNB = 1,2-Dinitrobenzene

12DNB RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8330 MODIFIED

FORM VIII
HPLC/IC ANALYTICAL SEQUENCE

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Sample No.: CCVRT 200-41501/3 Date Analyzed: 07/09/2012 13:03

Instrument ID: CH1208 GC Column: C-18 ID: 4.6(mm)

Lab File ID (Standard): 09JUL121028_031.d Heated Purge: (Y/N) N

Calibration ID: 14368

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				12DNB RT #		
CONTINUING CALIBRATION SURROGATE				16.42		
UPPER LIMIT				16.52		
LOWER LIMIT				16.32		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 200-41501/3		07/09/2012 13:03	09JUL121028_031.d	16.42		
MB 200-41397/1-A		07/09/2012 16:48	09JUL121028_091.d	16.42		
LCS 200-41397/2-A		07/09/2012 17:25	09JUL121028_101.d	16.42		
200-11554-1	NFUDS-001-TP0101-01	07/09/2012 18:03	09JUL121028_111.d	16.41		
200-11554-2	NFUDS-001-TP0201-01	07/09/2012 18:40	09JUL121028_121.d	16.41		
200-11554-3	NFUDS-001-TP0302-01	07/09/2012 19:18	09JUL121028_131.d	16.42		
200-11554-4	NFUDS-001-TP0402-01	07/09/2012 19:55	09JUL121028_141.d	16.42		
CCV 200-41501/15		07/09/2012 20:33	09JUL121028_151.d	16.42		

12DNB = 1,2-Dinitrobenzene

12DNB RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8330 MODIFIED

FORM VIII
HPLC/IC ANALYTICAL SEQUENCE

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: CH1488 Calibration Start Date: 05/24/2012 13:39

GC Column: Biphenyl ID: 4.6(mm) Calibration End Date: 05/24/2012 16:30

Calibration ID: 15651

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				12DNB RT #		
INITIAL CALIBRATION SURROGATE MEAN RT				11.21		
UPPER LIMIT				11.31		
LOWER LIMIT				11.11		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
IC 200-39219/2		05/24/2012 13:39	24MAY121229_021.d	11.20		
IC 200-39219/3		05/24/2012 14:13	24MAY121229_031.d	11.21		
IC 200-39219/4		05/24/2012 14:47	24MAY121229_041.d	11.21		
ICRTAV 200-39219/5		05/24/2012 15:21	24MAY121229_051.d	11.20		
IC 200-39219/6		05/24/2012 15:55	24MAY121229_061.d	11.21		
IC 200-39219/7		05/24/2012 16:30	24MAY121229_071.d	11.21		
ICV 200-39219/10		05/24/2012 18:12	24MAY121229_101.d	11.20		

12DNB = 1,2-Dinitrobenzene

12DNB RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8330 MODIFIED

FORM VIII
HPLC/IC ANALYTICAL SEQUENCE

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Sample No.: CCVRT 200-41502/3 Date Analyzed: 07/09/2012 12:50

Instrument ID: CH1488 GC Column: Biphenyl ID: 4.6(mm)

Lab File ID (Standard): 09JUL121033_031.d Heated Purge: (Y/N) N

Calibration ID: 15651

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				12DNB RT #		
CONTINUING CALIBRATION SURROGATE				11.18		
UPPER LIMIT				11.28		
LOWER LIMIT				11.08		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 200-41502/3		07/09/2012 12:50	09JUL121033_031.d	11.18		
MB 200-41397/1-A		07/09/2012 16:43	09JUL121033_091.d	11.20		
LCS 200-41397/2-A		07/09/2012 17:17	09JUL121033_101.d	11.21		
200-11554-1	NFUDS-001-TP0101-01	07/09/2012 17:51	09JUL121033_111.d	11.22		
200-11554-2	NFUDS-001-TP0201-01	07/09/2012 18:25	09JUL121033_121.d	11.22		
200-11554-3	NFUDS-001-TP0302-01	07/09/2012 19:00	09JUL121033_131.d	11.21		
200-11554-4	NFUDS-001-TP0402-01	07/09/2012 19:34	09JUL121033_141.d	11.23		
CCV 200-41502/15		07/09/2012 20:08	09JUL121033_151.d	11.23		

12DNB = 1,2-Dinitrobenzene

12DNB RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8330 MODIFIED

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: Lab Sample ID: LCS 200-41397/2-A

Instrument ID (1): CH1208 Instrument ID (2): CH1488

Date Analyzed (1): 07/09/2012 17:25 Date Analyzed (2): 07/09/2012 17:17

GC Column (1): C-18 ID: 4.6(mm) GC Column (2): Biphenyl ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
HMX	1		10.67	10.57	10.77	1890		0.5
	2		5.40	5.27	5.47	1880		
RDX	1		14.33	14.23	14.43	1910		0.6
	2		6.46	6.33	6.53	1920		
1,3,5-Trinitrobenzene	1		16.11	16.01	16.21	1910		1.8
	2		18.04	17.91	18.11	1880		
1,3-Dinitrobenzene	1		17.36	17.26	17.46	1910		1.8
	2		13.57	13.43	13.63	1870		
Nitrobenzene	1		18.24	18.14	18.34	1840		0.9
	2		10.81	10.68	10.88	1850		
Tetryl	1		18.50	18.40	18.60	2000		59.9
	2		19.07	18.93	19.13	3700		
Nitroglycerin	1		19.28	19.18	19.38	29200		27.1
	2		9.50	9.37	9.57	38300		
2,4,6-Trinitrotoluene	1		19.70	19.60	19.80	1870		1.2
	2		21.40	21.28	21.48	1850		
4-Amino-2,6-dinitrotoluene	1		20.15	20.05	20.25	1830		2.9
	2		11.69	11.56	11.76	1890		
2-Amino-4,6-dinitrotoluene	1		20.51	20.41	20.61	1900		1.3
	2		11.91	11.77	11.97	1870		
2,6-Dinitrotoluene	1		20.88	20.78	20.98	1840		3.3
	2		16.82	16.67	16.87	1900		
2,4-Dinitrotoluene	1		21.14	21.04	21.24	1950		62.3
	2		19.07	18.93	19.13	3700		
2-Nitrotoluene	1		22.67	22.57	22.77	1910		0.0
	2		14.87	14.78	14.98	1910		
4-Nitrotoluene	1		23.45	23.35	23.55	1960		63.4
	2		16.15	16.00	16.20	3780		
3-Nitrotoluene	1		24.18	24.08	24.28	1950		63.8
	2		16.15	16.00	16.20	3780		

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0101-01 Lab Sample ID: 200-11554-1

Matrix: Solid Lab File ID: 09JUL121033_111.d

Analysis Method: 8330 Modified Date Collected: 06/29/2012 08:30

Extraction Method: 8330 Date Extracted: 07/05/2012 18:41

Sample wt/vol: 9.91(g) Date Analyzed: 07/09/2012 17:51

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 450(uL) GC Column: Biphenyl ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 41502 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	87		40-140

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0101-01 Lab Sample ID: 200-11554-1

Matrix: Solid Lab File ID: 09JUL121028_111.d

Analysis Method: 8330 Modified Date Collected: 06/29/2012 08:30

Extraction Method: 8330 Date Extracted: 07/05/2012 18:41

Sample wt/vol: 9.91(g) Date Analyzed: 07/09/2012 18:03

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 150(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 41501 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
2691-41-0	HMX	12	U	100	12	4.5
121-82-4	RDX	12	U	100	12	12
99-35-4	1,3,5-Trinitrobenzene	12	U	100	12	5.0
99-65-0	1,3-Dinitrobenzene	12	U M	100	12	6.0
98-95-3	Nitrobenzene	30	U	100	30	26
479-45-8	Tetryl	24	U	100	24	15
55-63-0	Nitroglycerin	730	U	2000	730	490
118-96-7	2,4,6-Trinitrotoluene	24	U	100	24	17
19406-51-0	4-Amino-2,6-dinitrotoluene	12	U	100	12	8.5
35572-78-2	2-Amino-4,6-dinitrotoluene	12	U	100	12	6.7
606-20-2	2,6-Dinitrotoluene	12	U	100	12	11
121-14-2	2,4-Dinitrotoluene	24	U	100	24	15
88-72-2	2-Nitrotoluene	24	U	100	24	14
99-99-0	4-Nitrotoluene	30	U	100	30	27
99-08-1	3-Nitrotoluene	30	U M	100	30	27

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	97		40-140

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0201-01 Lab Sample ID: 200-11554-2

Matrix: Solid Lab File ID: 09JUL121033_121.d

Analysis Method: 8330 Modified Date Collected: 06/29/2012 08:45

Extraction Method: 8330 Date Extracted: 07/05/2012 18:41

Sample wt/vol: 10.02(g) Date Analyzed: 07/09/2012 18:25

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 450(uL) GC Column: Biphenyl ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 41502 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	86		40-140

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0201-01 Lab Sample ID: 200-11554-2

Matrix: Solid Lab File ID: 09JUL121028_121.d

Analysis Method: 8330 Modified Date Collected: 06/29/2012 08:45

Extraction Method: 8330 Date Extracted: 07/05/2012 18:41

Sample wt/vol: 10.02(g) Date Analyzed: 07/09/2012 18:40

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 150(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 41501 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
2691-41-0	HMX	12	U	100	12	4.5
121-82-4	RDX	12	U	100	12	12
99-35-4	1,3,5-Trinitrobenzene	12	U	100	12	5.0
99-65-0	1,3-Dinitrobenzene	12	U	100	12	5.9
98-95-3	Nitrobenzene	30	U	100	30	26
479-45-8	Tetryl	24	U	100	24	15
55-63-0	Nitroglycerin	720	U	2000	720	480
118-96-7	2,4,6-Trinitrotoluene	24	U	100	24	17
19406-51-0	4-Amino-2,6-dinitrotoluene	12	U	100	12	8.4
35572-78-2	2-Amino-4,6-dinitrotoluene	12	U	100	12	6.6
606-20-2	2,6-Dinitrotoluene	12	U	100	12	11
121-14-2	2,4-Dinitrotoluene	24	U	100	24	15
88-72-2	2-Nitrotoluene	24	U	100	24	14
99-99-0	4-Nitrotoluene	30	U	100	30	27
99-08-1	3-Nitrotoluene	30	U	100	30	27

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	89		40-140

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0302-01 Lab Sample ID: 200-11554-3

Matrix: Solid Lab File ID: 09JUL121033_131.d

Analysis Method: 8330 Modified Date Collected: 06/29/2012 08:44

Extraction Method: 8330 Date Extracted: 07/05/2012 18:41

Sample wt/vol: 9.91(g) Date Analyzed: 07/09/2012 19:00

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 450(uL) GC Column: Biphenyl ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 41502 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	94		40-140

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0302-01 Lab Sample ID: 200-11554-3

Matrix: Solid Lab File ID: 09JUL121028_131.d

Analysis Method: 8330 Modified Date Collected: 06/29/2012 08:44

Extraction Method: 8330 Date Extracted: 07/05/2012 18:41

Sample wt/vol: 9.91(g) Date Analyzed: 07/09/2012 19:18

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 150(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 41501 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
2691-41-0	HMX	12	U	100	12	4.5
121-82-4	RDX	12	U	100	12	12
99-35-4	1,3,5-Trinitrobenzene	12	U	100	12	5.0
99-65-0	1,3-Dinitrobenzene	12	U	100	12	6.0
98-95-3	Nitrobenzene	30	U	100	30	26
479-45-8	Tetryl	24	U	100	24	15
55-63-0	Nitroglycerin	730	U	2000	730	490
118-96-7	2,4,6-Trinitrotoluene	24	U	100	24	17
19406-51-0	4-Amino-2,6-dinitrotoluene	12	U	100	12	8.5
35572-78-2	2-Amino-4,6-dinitrotoluene	12	U	100	12	6.7
606-20-2	2,6-Dinitrotoluene	12	U	100	12	11
121-14-2	2,4-Dinitrotoluene	24	U	100	24	15
88-72-2	2-Nitrotoluene	24	U	100	24	14
99-99-0	4-Nitrotoluene	30	U	100	30	27
99-08-1	3-Nitrotoluene	30	U	100	30	27

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	94		40-140

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0402-01 Lab Sample ID: 200-11554-4

Matrix: Solid Lab File ID: 09JUL121033_141.d

Analysis Method: 8330 Modified Date Collected: 06/29/2012 08:55

Extraction Method: 8330 Date Extracted: 07/05/2012 18:41

Sample wt/vol: 9.93(g) Date Analyzed: 07/09/2012 19:34

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 450(uL) GC Column: Biphenyl ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 41502 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	92		40-140

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: NFUDS-001-TP0402-01 | Lab Sample ID: 200-11554-4

Matrix: Solid | Lab File ID: 09JUL121028_141.d

Analysis Method: 8330 Modified | Date Collected: 06/29/2012 08:55

Extraction Method: 8330 | Date Extracted: 07/05/2012 18:41

Sample wt/vol: 9.93(g) | Date Analyzed: 07/09/2012 19:55

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 150(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 41501 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
2691-41-0	HMX	12	U	100	12	4.5
121-82-4	RDX	12	U	100	12	12
99-35-4	1,3,5-Trinitrobenzene	12	U	100	12	5.0
99-65-0	1,3-Dinitrobenzene	12	U M	100	12	5.9
98-95-3	Nitrobenzene	30	U	100	30	26
479-45-8	Tetryl	24	U	100	24	15
55-63-0	Nitroglycerin	730	U	2000	730	490
118-96-7	2,4,6-Trinitrotoluene	24	U	100	24	17
19406-51-0	4-Amino-2,6-dinitrotoluene	12	U	100	12	8.5
35572-78-2	2-Amino-4,6-dinitrotoluene	12	U	100	12	6.6
606-20-2	2,6-Dinitrotoluene	12	U	100	12	11
121-14-2	2,4-Dinitrotoluene	24	U	100	24	15
88-72-2	2-Nitrotoluene	24	U	100	24	14
99-99-0	4-Nitrotoluene	30	U	100	30	27
99-08-1	3-Nitrotoluene	30	U	100	30	27

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	94		40-140

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 36007

SDG No.: 200-11554-1

Instrument ID: CH1208 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/02/2012 10:19 Calibration End Date: 04/02/2012 13:26 Calibration ID: 14368

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-36007/2	02APR120829_021.d
Level 2	IC 200-36007/3	02APR120829_031.d
Level 3	IC 200-36007/4	02APR120829_041.d
Level 4	ICRTAV 200-36007/5	02APR120829_051.d
Level 5	IC 200-36007/6	02APR120829_061.d
Level 6	IC 200-36007/7	02APR120829_071.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6					RT WINDOW	AVG RT
2,6-diamino-4-nitrotoluene	9.728	9.737	9.710	9.701	9.692	9.701					9.611 - 9.811	9.712
HMX	10.724	10.724	10.732	10.715	10.706	10.724					10.621 - 10.821	10.721
2,4-diamino-6-nitrotoluene	11.159	11.124	11.141	11.115	11.115	11.124					11.030 - 11.230	11.130
RDX	14.360	14.360	14.369	14.343	14.343	14.343					14.253 - 14.453	14.353
Picric acid	15.410	15.392	15.383	15.365	15.356	15.347					15.275 - 15.475	15.376
1,3,5-Trinitrobenzene	16.130	16.121	16.121	16.112	16.112	16.112					16.018 - 16.218	16.118
1,3-Dinitrobenzene	17.384	17.375	17.366	17.366	17.357	17.357					17.267 - 17.467	17.368
Nitrobenzene	18.237	18.246	18.246	18.237	18.237	18.228					18.139 - 18.339	18.239
Tetryl	18.522	18.531	18.513	18.513	18.504	18.504					18.414 - 18.614	18.515
Nitroglycerin	19.269	19.277	19.269	19.269	19.260	19.251					19.166 - 19.366	19.266
2,4,6-Trinitrotoluene	19.704	19.713	19.704	19.704	19.695	19.695					19.603 - 19.803	19.703
4-Amino-2,6-dinitrotoluene	20.202	20.202	20.184	20.184	20.184	20.176					20.089 - 20.289	20.189
2-Amino-4,6-dinitrotoluene	20.576	20.567	20.558	20.558	20.549	20.549					20.459 - 20.659	20.560
2,6-Dinitrotoluene	20.896	20.896	20.887	20.887	20.878	20.878					20.787 - 20.987	20.887
2,4-Dinitrotoluene	21.154	21.171	21.154	21.154	21.145	21.145					21.054 - 21.254	21.154
2-Nitrotoluene	22.674	22.692	22.674	22.683	22.674	22.674					22.574 - 22.774	22.679
4-Nitrotoluene	23.466	23.466	23.457	23.466	23.457	23.457					23.366 - 23.566	23.462
3-Nitrotoluene	24.186	24.212	24.195	24.195	24.195	24.186					24.086 - 24.286	24.195
PETN	24.977	24.995	24.959	24.959	24.959	24.959					24.864 - 25.064	24.968
1,2-Dinitrobenzene	16.441	16.432	16.432	16.423	16.423	16.414					16.328 - 16.528	16.428

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 36007

SDG No.: 200-11554-1

Instrument ID: CH1208 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/02/2012 10:19 Calibration End Date: 04/02/2012 13:26 Calibration ID: 14368

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-36007/2	02APR120829_021.d
Level 2	IC 200-36007/3	02APR120829_031.d
Level 3	IC 200-36007/4	02APR120829_041.d
Level 4	ICRTAV 200-36007/5	02APR120829_051.d
Level 5	IC 200-36007/6	02APR120829_061.d
Level 6	IC 200-36007/7	02APR120829_071.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
2,6-diamino-4-nitrotoluene	671.80 707.22	671.96 708.00	709.30	717.78	Lin1	-427.35863	709.641542							1.0000		0.9900
HMX	437.30 440.70	436.64 439.98	442.04	460.54	Lin1	15.7214643	442.424466							1.0000		0.9900
2,4-diamino-6-nitrotoluene	522.60 566.02	528.28 566.33	552.86	583.59	Lin1	-557.75563	568.896658							1.0000		0.9900
RDX	335.80 341.39	331.16 341.80	338.24	353.95	Lin1	-96.440882	343.091678							1.0000		0.9900
Picric acid	798.60 412.04	511.72 398.40	459.60	405.69	Lin1	3616.04070	396.426194							1.0000		0.9900
1,3,5-Trinitrobenzene	945.00 844.43	885.32 849.09	877.28	892.15	Lin1	1126.97203	850.656116							1.0000		0.9900
1,3-Dinitrobenzene	815.80 751.26	767.44 747.10	767.06	786.54	Lin1	755.743975	751.371169							1.0000		0.9900
Nitrobenzene	379.30 281.85	305.28 269.84	286.66	287.32	Lin1	1013.22397	273.337062							0.9990		0.9900
Tetryl	595.10 496.94	525.84 567.72	555.44	594.96	Lin1	236.627842	549.374920							0.9950		0.9900
Nitroglycerin	3.8500 4.2035	4.2540 4.2637	4.3530	4.3855	Lin1	-34.278820	4.26626535							1.0000		0.9900
2,4,6-Trinitrotoluene	590.20 579.74	560.24 584.62	573.20	606.72	Lin1	-107.30286	585.456480							1.0000		0.9900
4-Amino-2,6-dinitrotoluene	682.20 734.94	688.00 710.91	690.56	737.06	Lin1	-496.81338	721.187608							1.0000		0.9900
2-Amino-4,6-dinitrotoluene	619.20 643.15	613.24 643.99	632.24	669.34	Lin1	-358.63313	646.900728							1.0000		0.9900
2,6-Dinitrotoluene	430.50 423.80	411.12 425.46	418.38	443.02	Lin1	-49.210891	426.757572							1.0000		0.9900
2,4-Dinitrotoluene	635.80 621.17	596.12 616.69	615.40	645.25	Lin1	32.9616303	620.813574							1.0000		0.9900

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 36007

SDG No.: 200-11554-1

Instrument ID: CH1208 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/02/2012 10:19 Calibration End Date: 04/02/2012 13:26 Calibration ID: 14368

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
2-Nitrotoluene	240.20 185.52	206.56 185.33	190.20	194.38	Lin1	536.815484	185.332833							1.0000		0.9900
4-Nitrotoluene	103.50 120.92	119.48 120.97	126.88	126.68	Lin1	-77.231583	121.898818							1.0000		0.9900
3-Nitrotoluene	180.00 154.81	163.76 154.38	172.22	161.21	Lin1	339.132560	154.900955							1.0000		0.9900
PETN	3.1450 4.3370	4.6840 4.3172	4.4530	4.4588	Lin1	-88.047863	4.35575034							0.9990		0.9900
1,2-Dinitrobenzene	382.60 335.50	377.04 333.53	354.42	347.39	Lin1	729.593054	334.651228							1.0000		0.9900

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 36007

SDG No.: 200-11554-1

Instrument ID: CH1208 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/02/2012 10:19 Calibration End Date: 04/02/2012 13:26 Calibration ID: 14368

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-36007/2	02APR120829_021.d
Level 2	IC 200-36007/3	02APR120829_031.d
Level 3	IC 200-36007/4	02APR120829_041.d
Level 4	ICRTAV 200-36007/5	02APR120829_051.d
Level 5	IC 200-36007/6	02APR120829_061.d
Level 6	IC 200-36007/7	02APR120829_071.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
2,6-diamino-4-nitrotoluene	Lin1	6718 708000	16799	35465	143555	353609	10.0 1000	25.0	50.0	200	500
HMX	Lin1	4373 439975	10916	22102	92107	220349	10.0 1000	25.0	50.0	200	500
2,4-diamino-6-nitrotoluene	Lin1	5226 566330	13207	27643	116717	283011	10.0 1000	25.0	50.0	200	500
RDX	Lin1	3358 341804	8279	16912	70790	170697	10.0 1000	25.0	50.0	200	500
Picric acid	Lin1	7986 398398	12793	22980	81138	206022	10.0 1000	25.0	50.0	200	500
1,3,5-Trinitrobenzene	Lin1	9450 849091	22133	43864	178429	422216	10.0 1000	25.0	50.0	200	500
1,3-Dinitrobenzene	Lin1	8158 747099	19186	38353	157307	375629	10.0 1000	25.0	50.0	200	500
Nitrobenzene	Lin1	3793 269841	7632	14333	57463	140924	10.0 1000	25.0	50.0	200	500
Tetryl	Lin1	5951 567723	13146	27772	118992	248470	10.0 1000	25.0	50.0	200	500
Nitroglycerin	Lin1	770 85273	2127	4353	17542	42035	200 20000	500	1000	4000	10000
2,4,6-Trinitrotoluene	Lin1	5902 584616	14006	28660	121344	289868	10.0 1000	25.0	50.0	200	500
4-Amino-2,6-dinitrotoluene	Lin1	6822 710910	17200	34528	147411	367468	10.0 1000	25.0	50.0	200	500
2-Amino-4,6-dinitrotoluene	Lin1	6192 643989	15331	31612	133867	321575	10.0 1000	25.0	50.0	200	500
2,6-Dinitrotoluene	Lin1	4305 425461	10278	20919	88603	211901	10.0 1000	25.0	50.0	200	500
2,4-Dinitrotoluene	Lin1	6358 616686	14903	30770	129049	310584	10.0 1000	25.0	50.0	200	500
2-Nitrotoluene	Lin1	2402 185331	5164	9510	38875	92758	10.0 1000	25.0	50.0	200	500

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 36007

SDG No.: 200-11554-1

Instrument ID: CH1208 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 04/02/2012 10:19 Calibration End Date: 04/02/2012 13:26 Calibration ID: 14368

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
4-Nitrotoluene	Lin1	1035 120967	2987	6344	25335	60458	10.0 1000	25.0	50.0	200	500
3-Nitrotoluene	Lin1	1800 154382	4094	8611	32242	77404	10.0 1000	25.0	50.0	200	500
PETN	Lin1	629 86343	2342	4453	17835	43370	200 20000	500	1000	4000	10000
1,2-Dinitrobenzene	Lin1	3826 333529	9426	17721	69478	167750	10.0 1000	25.0	50.0	200	500

Curve Type Legend:
Lin1 = Linear 1/conc

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 39219

SDG No.: 200-11554-1

Instrument ID: CH1488 GC Column: Biphenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2012 13:39 Calibration End Date: 05/24/2012 16:30 Calibration ID: 15651

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-39219/2	24MAY121229_021.d
Level 2	IC 200-39219/3	24MAY121229_031.d
Level 3	IC 200-39219/4	24MAY121229_041.d
Level 4	ICRTAV 200-39219/5	24MAY121229_051.d
Level 5	IC 200-39219/6	24MAY121229_061.d
Level 6	IC 200-39219/7	24MAY121229_071.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6					RT WINDOW	AVG RT
2,4-diamino-6-nitrotoluene	4.508	4.535	4.544	4.526	4.535	4.553					4.408 - 4.608	4.534
2,6-diamino-4-nitrotoluene	4.508	4.535	4.544	4.526	4.535	4.553					4.408 - 4.608	4.534
HMX	5.344	5.371	5.353	5.353	5.344	5.371					5.244 - 5.444	5.356
RDX	6.411	6.438	6.411	6.411	6.411	6.429					6.319 - 6.519	6.419
Picric acid	7.060	7.034	7.052	7.025	7.016	7.025					6.835 - 7.235	7.035
Nitroglycerin	9.497	9.497	9.506	9.497	9.497	9.497					9.398 - 9.598	9.499
Nitrobenzene	10.795	10.813	10.813	10.804	10.804	10.813					10.707 - 10.907	10.807
4-Amino-2,6-dinitrotoluene	11.667	11.675	11.675	11.667	11.675	11.675					11.572 - 11.772	11.672
2-Amino-4,6-dinitrotoluene	11.880	11.889	11.889	11.880	11.880	11.880					11.783 - 11.983	11.883
1,3-Dinitrobenzene	13.552	13.561	13.552	13.561	13.552	13.561					13.456 - 13.656	13.557
2-Nitrotoluene	14.832	14.841	14.850	14.850	14.850	14.859					14.737 - 14.937	14.847
PETN	15.303	15.348	15.330	15.321	15.312	15.321					15.226 - 15.426	15.323
3-Nitrotoluene	16.104	16.130	16.113	16.139	16.130	16.130					16.024 - 16.224	16.124
4-Nitrotoluene	16.104	16.130	16.113	16.139	16.130	16.130					16.024 - 16.224	16.124
2,6-Dinitrotoluene	16.788	16.806	16.815	16.806	16.806	16.815					16.706 - 16.906	16.806
1,3,5-Trinitrobenzene	18.060	18.069	18.078	18.051	18.024	18.016					17.950 - 18.150	18.050
2,4-Dinitrotoluene	19.047	19.074	19.083	19.074	19.065	19.074					18.969 - 19.169	19.070
Tetryl	19.047	19.074	19.083	19.074	19.065	19.074					18.969 - 19.169	19.070
2,4,6-Trinitrotoluene	21.403	21.412	21.430	21.421	21.412	21.412					21.315 - 21.515	21.415
1,2-Dinitrobenzene	11.195	11.213	11.213	11.204	11.213	11.213					11.109 - 11.309	11.209

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 39219

SDG No.: 200-11554-1

Instrument ID: CH1488 GC Column: Biphenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2012 13:39 Calibration End Date: 05/24/2012 16:30 Calibration ID: 15651

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-39219/2	24MAY121229_021.d
Level 2	IC 200-39219/3	24MAY121229_031.d
Level 3	IC 200-39219/4	24MAY121229_041.d
Level 4	ICRTAV 200-39219/5	24MAY121229_051.d
Level 5	IC 200-39219/6	24MAY121229_061.d
Level 6	IC 200-39219/7	24MAY121229_071.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
2,4-diamino-6-nitrotoluene	720.75 1062.6	886.44 1093.0	961.37	1115.3	Lin1	-8529.1035	1092.65312							1.0000		0.9900
2,6-diamino-4-nitrotoluene	720.75 1062.6	886.44 1093.0	961.37	1115.3	Lin1	-8529.1035	1092.65312							1.0000		0.9900
HMX	727.80 820.10	740.64 865.48	751.82	873.32	Lin1	-2086.8186	854.956253							0.9990		0.9900
RDX	519.80 577.09	554.04 587.84	551.82	629.09	Lin1	-715.92951	589.991360							0.9990		0.9900
Picric acid	601.90 718.03	640.32 754.88	678.86	771.42	Lin1	-1931.3880	748.315030							0.9990		0.9900
Nitroglycerin	7.0200 7.8381	8.5220 7.9269	7.8270	8.7470	Lin1	-11.513131	7.99627672							0.9990		0.9900
Nitrobenzene	642.80 455.74	495.44 462.59	486.06	484.53	Lin1	1593.90183	459.897249							1.0000		0.9900
4-Amino-2,6-dinitrotoluene	1278.6 1162.4	1135.6 1147.7	1195.2	1268.4	Lin1	1247.25648	1163.06749							0.9990		0.9900
2-Amino-4,6-dinitrotoluene	1353.0 1162.9	1191.0 1235.5	1223.9	1263.2	Lin1	822.799284	1215.21412							0.9990		0.9900
1,3-Dinitrobenzene	1440.7 1294.1	1303.0 1330.7	1351.2	1408.2	Lin1	1003.06639	1326.57681							0.9990		0.9900
2-Nitrotoluene	318.80 318.10	345.88 325.87	324.80	329.18	Lin1	114.848681	323.887904							1.0000		0.9900
PETN	8.0700 7.7916	9.2940 8.1422	8.6310	7.9120	Lin1	210.385630	8.01226012							0.9990		0.9900
3-Nitrotoluene	290.20 252.34	256.92 260.13	249.99	258.74	Lin1	304.661096	257.121578							1.0000		0.9900
4-Nitrotoluene	290.20 252.34	256.92 260.13	249.99	258.74	Lin1	304.661096	257.121578							1.0000		0.9900
2,6-Dinitrotoluene	781.10 733.68	738.28 760.08	737.84	774.96	Lin1	31.7137335	753.434015							1.0000		0.9900

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 39219

SDG No.: 200-11554-1

Instrument ID: CH1488 GC Column: Biphenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2012 13:39 Calibration End Date: 05/24/2012 16:30 Calibration ID: 15651

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
1,3,5-Trinitrobenzene	1571.4 1440.1	1483.0 1488.3	1464.9	1518.7	Lin1	668.272965	1475.68536							1.0000		0.9900
2,4-Dinitrotoluene	1066.5 1035.5	1065.6 1072.7	1050.5	1055.7	Lin1	-153.34806	1059.91179							1.0000		0.9900
Tetryl	1066.5 1035.5	1065.6 1072.7	1050.5	1055.7	Lin1	-153.34806	1059.91179							1.0000		0.9900
2,4,6-Trinitrotoluene	1076.0 873.91	894.08 906.83	912.46	950.33	Lin1	1306.62773	899.015257							0.9990		0.9900
1,2-Dinitrobenzene	686.20 580.85	596.76 599.09	606.34	606.75	Lin1	696.833276	593.153502							1.0000		0.9900

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 39219

SDG No.: 200-11554-1

Instrument ID: CH1488 GC Column: Biphenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2012 13:39 Calibration End Date: 05/24/2012 16:30 Calibration ID: 15651

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-39219/2	24MAY121229_021.d
Level 2	IC 200-39219/3	24MAY121229_031.d
Level 3	IC 200-39219/4	24MAY121229_041.d
Level 4	ICRTAV 200-39219/5	24MAY121229_051.d
Level 5	IC 200-39219/6	24MAY121229_061.d
Level 6	IC 200-39219/7	24MAY121229_071.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
2,4-diamino-6-nitrotoluene	Lin1	14415 2185993	44322	96137	446125	1062605	20.0 2000	50.0	100	400	1000
2,6-diamino-4-nitrotoluene	Lin1	14415 2185993	44322	96137	446125	1062605	20.0 2000	50.0	100	400	1000
HMX	Lin1	7278 865479	18516	37591	174663	410049	10.0 1000	25.0	50.0	200	500
RDX	Lin1	5198 587837	13851	27591	125817	288545	10.0 1000	25.0	50.0	200	500
Picric acid	Lin1	6019 754883	16008	33943	154284	359017	10.0 1000	25.0	50.0	200	500
Nitroglycerin	Lin1	1404 158537	4261	7827	34988	78381	200 20000	500	1000	4000	10000
Nitrobenzene	Lin1	6428 462585	12386	24303	96906	227872	10.0 1000	25.0	50.0	200	500
4-Amino-2,6-dinitrotoluene	Lin1	12786 1147731	28389	59761	253683	581209	10.0 1000	25.0	50.0	200	500
2-Amino-4,6-dinitrotoluene	Lin1	13530 1235482	29774	61196	252643	581469	10.0 1000	25.0	50.0	200	500
1,3-Dinitrobenzene	Lin1	14407 1330717	32576	67559	281647	647052	10.0 1000	25.0	50.0	200	500
2-Nitrotoluene	Lin1	3188 325871	8647	16240	65835	159048	10.0 1000	25.0	50.0	200	500
PETN	Lin1	1614 162844	4647	8631	31648	77916	200 20000	500	1000	4000	10000
3-Nitrotoluene	Lin1	5804 520269	12846	24999	103495	252339	20.0 2000	50.0	100	400	1000
4-Nitrotoluene	Lin1	5804 520269	12846	24999	103495	252339	20.0 2000	50.0	100	400	1000
2,6-Dinitrotoluene	Lin1	7811 760081	18457	36892	154991	366838	10.0 1000	25.0	50.0	200	500
1,3,5-Trinitrobenzene	Lin1	15714 1488284	37074	73247	303740	720049	10.0 1000	25.0	50.0	200	500

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 200-11554-1 Analy Batch No.: 39219

SDG No.: 200-11554-1

Instrument ID: CH1488 GC Column: Biphenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2012 13:39 Calibration End Date: 05/24/2012 16:30 Calibration ID: 15651

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
2,4-Dinitrotoluene	Lin1	21329 2145498	53281	105052	422297	1035508	20.0 2000	50.0	100	400	1000
Tetryl	Lin1	21329 2145498	53281	105052	422297	1035508	20.0 2000	50.0	100	400	1000
2,4,6-Trinitrotoluene	Lin1	10760 906827	22352	45623	190066	436954	10.0 1000	25.0	50.0	200	500
1,2-Dinitrobenzene	Lin1	6862 599085	14919	30317	121350	290427	10.0 1000	25.0	50.0	200	500

Curve Type Legend:
Lin1 = Linear 1/conc

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: ICV 200-36007/10 Calibration Date: 04/02/2012 15:18

Instrument ID: CH1208 Calib Start Date: 04/02/2012 10:19

GC Column: C-18 ID: 4.60(mm) Calib End Date: 04/02/2012 13:26

Lab File ID: 02APR120829_101.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-diamino-4-nitrotoluene	Lin1		651.5		184	200	-7.9	30.0
HMX	Lin1		411.0		186	200	-7.2	30.0
2,4-diamino-6-nitrotoluene	Lin1		602.7		213	200	6.5	30.0
RDX	Lin1		343.4		201	200	0.3	30.0
Picric acid	Lin1		392.8		189	200	-5.5	30.0
1,3,5-Trinitrobenzene	Lin1		835.2		195	200	-2.5	30.0
1,3-Dinitrobenzene	Lin1		824.6		219	200	9.3	30.0
Nitrobenzene	Lin1		279.3		201	200	0.3	30.0
Tetryl	Lin1		595.1		216	200	8.1	30.0
Nitroglycerin	Lin1		4.106		3860	4000	-3.6	30.0
2,4,6-Trinitrotoluene	Lin1		615.4		210	200	5.2	30.0
4-Amino-2,6-dinitrotoluene	Lin1		728.7		203	200	1.4	30.0
2-Amino-4,6-dinitrotoluene	Lin1		647.3		201	200	0.3	30.0
2,6-Dinitrotoluene	Lin1		430.4		202	200	0.9	30.0
2,4-Dinitrotoluene	Lin1		638.1		206	200	2.8	30.0
2-Nitrotoluene	Lin1		190.1		202	200	1.1	30.0
4-Nitrotoluene	Lin1		124.7		205	200	2.6	30.0
3-Nitrotoluene	Lin1		162.0		207	200	3.5	30.0
PETN	Lin1		4.147		3830	4000	-4.3	30.0
1,2-Dinitrobenzene	Lin1		340.3		201	200	0.6	30.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: ICV 200-36007/10 Calibration Date: 04/02/2012 15:18

Instrument ID: CH1208 Calib Start Date: 04/02/2012 10:19

GC Column: C-18 ID: 4.60(mm) Calib End Date: 04/02/2012 13:26

Lab File ID: 02APR120829_101.d

Analyte	RT	RT WINDOW	
		TO	FROM
2,6-diamino-4-nitrotoluene	9.71	9.61	9.81
HMX	10.72	10.62	10.82
2,4-diamino-6-nitrotoluene	11.12	11.03	11.23
RDX	14.35	14.25	14.45
Picric acid	15.37	15.28	15.48
1,3,5-Trinitrobenzene	16.11	16.02	16.22
1,3-Dinitrobenzene	17.37	17.27	17.47
Nitrobenzene	18.24	18.14	18.34
Tetryl	18.52	18.41	18.61
Nitroglycerin	19.27	19.17	19.37
2,4,6-Trinitrotoluene	19.70	19.60	19.80
4-Amino-2,6-dinitrotoluene	20.19	20.09	20.29
2-Amino-4,6-dinitrotoluene	20.56	20.46	20.66
2,6-Dinitrotoluene	20.89	20.79	20.99
2,4-Dinitrotoluene	21.15	21.05	21.25
2-Nitrotoluene	22.68	22.58	22.78
4-Nitrotoluene	23.47	23.36	23.56
3-Nitrotoluene	24.20	24.10	24.30
PETN	24.96	24.87	25.07
1,2-Dinitrobenzene	16.43	16.33	16.53

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: CCVRT 200-41501/3 Calibration Date: 07/09/2012 13:03

Instrument ID: CH1208 Calib Start Date: 04/02/2012 10:19

GC Column: C-18 ID: 4.60(mm) Calib End Date: 04/02/2012 13:26

Lab File ID: 09JUL121028_031.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-diamino-4-nitrotoluene	Lin1		685.2		194	200	-3.1	20.0
HMX	Lin1		425.0		192	200	-4.0	20.0
2,4-diamino-6-nitrotoluene	Lin1		547.6		193	200	-3.3	20.0
RDX	Lin1		332.0		194	200	-3.1	20.0
Picric acid	Lin1		400.8		193	200	-3.4	20.0
1,3,5-Trinitrobenzene	Lin1		835.4		195	200	-2.5	20.0
1,3-Dinitrobenzene	Lin1		741.6		196	200	-1.8	20.0
Nitrobenzene	Lin1		263.5		189	200	-5.5	20.0
Tetryl	Lin1		562.5		204	200	2.2	20.0
Nitroglycerin	Lin1		4.026		3780	4000	-5.4	20.0
2,4,6-Trinitrotoluene	Lin1		561.6		192	200	-4.0	20.0
4-Amino-2,6-dinitrotoluene	Lin1		670.0		187	200	-6.7	20.0
2-Amino-4,6-dinitrotoluene	Lin1		620.4		192	200	-3.8	20.0
2,6-Dinitrotoluene	Lin1		404.2		190	200	-5.2	20.0
2,4-Dinitrotoluene	Lin1		612.3		197	200	-1.4	20.0
2-Nitrotoluene	Lin1		183.5		195	200	-2.5	20.0
4-Nitrotoluene	Lin1		120.3		198	200	-1.0	20.0
3-Nitrotoluene	Lin1		157.9		202	200	0.9	20.0
PETN	Lin1		4.148		3830	4000	-4.3	20.0
1,2-Dinitrobenzene	Lin1		334.7		198	200	-1.1	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: CCVRT 200-41501/3 Calibration Date: 07/09/2012 13:03

Instrument ID: CH1208 Calib Start Date: 04/02/2012 10:19

GC Column: C-18 ID: 4.60(mm) Calib End Date: 04/02/2012 13:26

Lab File ID: 09JUL121028_031.d

Analyte	RT	RT WINDOW	
		TO	FROM
2,6-diamino-4-nitrotoluene	9.66	9.56	9.76
HMX	10.67	10.57	10.77
2,4-diamino-6-nitrotoluene	11.08	10.98	11.18
RDX	14.33	14.23	14.43
Picric acid	15.33	15.23	15.43
1,3,5-Trinitrobenzene	16.11	16.01	16.21
1,3-Dinitrobenzene	17.36	17.26	17.46
Nitrobenzene	18.24	18.14	18.34
Tetryl	18.50	18.40	18.60
Nitroglycerin	19.28	19.18	19.38
2,4,6-Trinitrotoluene	19.70	19.60	19.80
4-Amino-2,6-dinitrotoluene	20.15	20.05	20.25
2-Amino-4,6-dinitrotoluene	20.51	20.41	20.61
2,6-Dinitrotoluene	20.88	20.78	20.98
2,4-Dinitrotoluene	21.14	21.04	21.24
2-Nitrotoluene	22.67	22.57	22.77
4-Nitrotoluene	23.44	23.35	23.55
3-Nitrotoluene	24.18	24.08	24.28
PETN	24.98	24.88	25.08
1,2-Dinitrobenzene	16.42	16.32	16.52

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: CCV 200-41501/15 Calibration Date: 07/09/2012 20:33

Instrument ID: CH1208 Calib Start Date: 04/02/2012 10:19

GC Column: C-18 ID: 4.60(mm) Calib End Date: 04/02/2012 13:26

Lab File ID: 09JUL121028_151.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-diamino-4-nitrotoluene	Lin1		693.1		196	200	-2.0	20.0
HMX	Lin1		424.7		192	200	-4.0	20.0
2,4-diamino-6-nitrotoluene	Lin1		539.8		191	200	-4.6	20.0
RDX	Lin1		331.1		193	200	-3.4	20.0
Picric acid	Lin1		399.9		193	200	-3.7	20.0
1,3,5-Trinitrobenzene	Lin1		836.5		195	200	-2.3	20.0
1,3-Dinitrobenzene	Lin1		742.6		197	200	-1.7	20.0
Nitrobenzene	Lin1		263.2		189	200	-5.6	20.0
Tetryl	Lin1		562.9		205	200	2.3	20.0
Nitroglycerin	Lin1		4.008		3770	4000	-5.9	20.0
2,4,6-Trinitrotoluene	Lin1		563.4		193	200	-3.7	20.0
4-Amino-2,6-dinitrotoluene	Lin1		673.7		188	200	-6.2	20.0
2-Amino-4,6-dinitrotoluene	Lin1		624.6		194	200	-3.2	20.0
2,6-Dinitrotoluene	Lin1		406.7		191	200	-4.6	20.0
2,4-Dinitrotoluene	Lin1		616.5		199	200	-0.7	20.0
2-Nitrotoluene	Lin1		182.4		194	200	-3.0	20.0
4-Nitrotoluene	Lin1		120.0		198	200	-1.2	20.0
3-Nitrotoluene	Lin1		155.4		198	200	-0.8	20.0
PETN	Lin1		4.045		3740	4000	-6.6	20.0
1,2-Dinitrobenzene	Lin1		332.0		196	200	-1.9	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: CCV 200-41501/15 Calibration Date: 07/09/2012 20:33

Instrument ID: CH1208 Calib Start Date: 04/02/2012 10:19

GC Column: C-18 ID: 4.60(mm) Calib End Date: 04/02/2012 13:26

Lab File ID: 09JUL121028_151.d

Analyte	RT	RT WINDOW	
		TO	FROM
2,6-diamino-4-nitrotoluene	9.67	9.56	9.76
HMX	10.67	10.57	10.77
2,4-diamino-6-nitrotoluene	11.09	10.98	11.18
RDX	14.33	14.23	14.43
Picric acid	15.33	15.23	15.43
1,3,5-Trinitrobenzene	16.11	16.01	16.21
1,3-Dinitrobenzene	17.36	17.26	17.46
Nitrobenzene	18.24	18.14	18.34
Tetryl	18.50	18.40	18.60
Nitroglycerin	19.28	19.18	19.38
2,4,6-Trinitrotoluene	19.70	19.60	19.80
4-Amino-2,6-dinitrotoluene	20.15	20.05	20.25
2-Amino-4,6-dinitrotoluene	20.51	20.41	20.61
2,6-Dinitrotoluene	20.88	20.78	20.98
2,4-Dinitrotoluene	21.14	21.04	21.24
2-Nitrotoluene	22.67	22.57	22.77
4-Nitrotoluene	23.45	23.35	23.55
3-Nitrotoluene	24.18	24.08	24.28
PETN	24.98	24.88	25.08
1,2-Dinitrobenzene	16.42	16.32	16.52

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: ICV 200-39219/10 Calibration Date: 05/24/2012 18:12

Instrument ID: CH1488 Calib Start Date: 05/24/2012 13:39

GC Column: Biphenyl ID: 4.60(mm) Calib End Date: 05/24/2012 16:30

Lab File ID: 24MAY121229_101.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4-diamino-6-nitrotoluene	Lin1		1068		399	400	-0.3	30.0
2,6-diamino-4-nitrotoluene	Lin1		1068		399	400	-0.3	30.0
HMX	Lin1		818.2		194	200	-3.1	30.0
RDX	Lin1		601.5		205	200	2.6	30.0
Picric acid	Lin1		719.8		195	200	-2.5	30.0
Nitroglycerin	Lin1		7.981		3990	4000	-0.2	30.0
Nitrobenzene	Lin1		477.2		204	200	2.0	30.0
4-Amino-2,6-dinitrotoluene	Lin1		1218		208	200	4.2	30.0
2-Amino-4,6-dinitrotoluene	Lin1		1319		216	200	8.2	30.0
1,3-Dinitrobenzene	Lin1		1472		221	200	10.6	30.0
2-Nitrotoluene	Lin1		324.9		200	200	0.1	30.0
PETN	Lin1		7.674		3800	4000	-4.9	30.0
3-Nitrotoluene	Lin1		255.6		396	400	-0.9	30.0
4-Nitrotoluene	Lin1		255.6		396	400	-0.9	30.0
2,6-Dinitrotoluene	Lin1		768.5		204	200	2.0	30.0
1,3,5-Trinitrobenzene	Lin1		1483		200	200	0.2	30.0
2,4-Dinitrotoluene	Lin1		1080		408	400	1.9	30.0
Tetryl	Lin1		1080		408	400	1.9	30.0
2,4,6-Trinitrotoluene	Lin1		968.2		214	200	7.0	30.0
1,2-Dinitrobenzene	Lin1		606.0		203	200	1.6	30.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: ICV 200-39219/10 Calibration Date: 05/24/2012 18:12

Instrument ID: CH1488 Calib Start Date: 05/24/2012 13:39

GC Column: Biphenyl ID: 4.60(mm) Calib End Date: 05/24/2012 16:30

Lab File ID: 24MAY121229_101.d

Analyte	RT	RT WINDOW	
		TO	FROM
2,4-diamino-6-nitrotoluene	4.49	4.43	4.63
2,6-diamino-4-nitrotoluene	4.49	4.43	4.63
HMX	5.37	5.26	5.46
RDX	6.41	6.32	6.52
Picric acid	7.05	6.84	7.24
Nitroglycerin	9.49	9.40	9.60
Nitrobenzene	10.80	10.71	10.91
4-Amino-2,6-dinitrotoluene	11.67	11.57	11.77
2-Amino-4,6-dinitrotoluene	11.85	11.78	11.98
1,3-Dinitrobenzene	13.55	13.46	13.66
2-Nitrotoluene	14.85	14.75	14.95
PETN	15.33	15.22	15.42
3-Nitrotoluene	16.12	16.02	16.22
4-Nitrotoluene	16.12	16.02	16.22
2,6-Dinitrotoluene	16.82	16.71	16.91
1,3,5-Trinitrobenzene	18.06	17.95	18.15
2,4-Dinitrotoluene	19.08	18.97	19.17
Tetryl	19.08	18.97	19.17
2,4,6-Trinitrotoluene	21.43	21.32	21.52
1,2-Dinitrobenzene	11.20	11.11	11.31

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: CCVRT 200-41502/3 Calibration Date: 07/09/2012 12:50

Instrument ID: CH1488 Calib Start Date: 05/24/2012 13:39

GC Column: Biphenyl ID: 4.60(mm) Calib End Date: 05/24/2012 16:30

Lab File ID: 09JUL121033_031.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4-diamino-6-nitrotoluene	Lin1		1055		394	400	-1.5	20.0
2,6-diamino-4-nitrotoluene	Lin1		1055		394	400	-1.5	20.0
HMX	Lin1		811.1		192	200	-3.9	20.0
RDX	Lin1		571.6		195	200	-2.5	20.0
Picric acid	Lin1		714.6		194	200	-3.2	20.0
Nitroglycerin	Lin1		7.970		3990	4000	-0.3	20.0
Nitrobenzene	Lin1		457.1		195	200	-2.3	20.0
4-Amino-2,6-dinitrotoluene	Lin1		1155		197	200	-1.3	20.0
2-Amino-4,6-dinitrotoluene	Lin1		1168		192	200	-4.2	20.0
1,3-Dinitrobenzene	Lin1		1290		194	200	-3.1	20.0
2-Nitrotoluene	Lin1		323.9		200	200	-0.2	20.0
PETN	Lin1		8.386		4160	4000	4.0	20.0
3-Nitrotoluene	Lin1		256.5		398	400	-0.5	20.0
4-Nitrotoluene	Lin1		256.5		398	400	-0.5	20.0
2,6-Dinitrotoluene	Lin1		743.6		197	200	-1.3	20.0
1,3,5-Trinitrobenzene	Lin1		1435		194	200	-3.0	20.0
2,4-Dinitrotoluene	Lin1		1011		382	400	-4.5	20.0
Tetryl	Lin1		1011		382	400	-4.5	20.0
2,4,6-Trinitrotoluene	Lin1		870.6		192	200	-3.9	20.0
1,2-Dinitrobenzene	Lin1		584.2		196	200	-2.1	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: CCVRT 200-41502/3 Calibration Date: 07/09/2012 12:50

Instrument ID: CH1488 Calib Start Date: 05/24/2012 13:39

GC Column: Biphenyl ID: 4.60(mm) Calib End Date: 05/24/2012 16:30

Lab File ID: 09JUL121033_031.d

Analyte	RT	RT WINDOW	
		TO	FROM
2,4-diamino-6-nitrotoluene	4.55	4.45	4.65
2,6-diamino-4-nitrotoluene	4.55	4.45	4.65
HMX	5.37	5.27	5.47
RDX	6.43	6.33	6.53
Picric acid	7.11	6.91	7.31
Nitroglycerin	9.47	9.37	9.57
Nitrobenzene	10.78	10.68	10.88
4-Amino-2,6-dinitrotoluene	11.66	11.56	11.76
2-Amino-4,6-dinitrotoluene	11.87	11.77	11.97
1,3-Dinitrobenzene	13.53	13.43	13.63
2-Nitrotoluene	14.82	14.78	14.98
PETN	15.28	15.23	15.43
3-Nitrotoluene	16.10	16.00	16.20
4-Nitrotoluene	16.10	16.00	16.20
2,6-Dinitrotoluene	16.77	16.67	16.87
1,3,5-Trinitrobenzene	18.01	17.91	18.11
2,4-Dinitrotoluene	19.03	18.93	19.13
Tetryl	19.03	18.93	19.13
2,4,6-Trinitrotoluene	21.38	21.28	21.48
1,2-Dinitrobenzene	11.18	11.08	11.28

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: CCV 200-41502/15 Calibration Date: 07/09/2012 20:08

Instrument ID: CH1488 Calib Start Date: 05/24/2012 13:39

GC Column: Biphenyl ID: 4.60(mm) Calib End Date: 05/24/2012 16:30

Lab File ID: 09JUL121033_151.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4-diamino-6-nitrotoluene	Lin1		1049		392	400	-2.0	20.0
2,6-diamino-4-nitrotoluene	Lin1		1049		392	400	-2.0	20.0
HMX	Lin1		824.5		195	200	-2.3	20.0
RDX	Lin1		572.4		195	200	-2.4	20.0
Picric acid	Lin1		708.6		192	200	-4.0	20.0
Nitroglycerin	Lin1		7.401		3700	4000	-7.4	20.0
Nitrobenzene	Lin1		428.0		183	200	-8.7	20.0
4-Amino-2,6-dinitrotoluene	Lin1		1084		185	200	-7.3	20.0
2-Amino-4,6-dinitrotoluene	Lin1		1170		192	200	-4.1	20.0
1,3-Dinitrobenzene	Lin1		1288		193	200	-3.3	20.0
2-Nitrotoluene	Lin1		320.6		198	200	-1.2	20.0
PETN	Lin1		8.779		4360	4000	8.9	20.0
3-Nitrotoluene	Lin1		234.3		363	400	-9.2	20.0
4-Nitrotoluene	Lin1		234.3		363	400	-9.2	20.0
2,6-Dinitrotoluene	Lin1		710.1		188	200	-5.8	20.0
1,3,5-Trinitrobenzene	Lin1		1421		192	200	-4.0	20.0
2,4-Dinitrotoluene	Lin1		1006		380	400	-5.1	20.0
Tetryl	Lin1		1006		380	400	-5.1	20.0
2,4,6-Trinitrotoluene	Lin1		867.9		192	200	-4.2	20.0
1,2-Dinitrobenzene	Lin1		554.2		186	200	-7.1	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: CCV 200-41502/15 Calibration Date: 07/09/2012 20:08

Instrument ID: CH1488 Calib Start Date: 05/24/2012 13:39

GC Column: Biphenyl ID: 4.60(mm) Calib End Date: 05/24/2012 16:30

Lab File ID: 09JUL121033_151.d

Analyte	RT	RT WINDOW	
		TO	FROM
2,4-diamino-6-nitrotoluene	4.58	4.45	4.65
2,6-diamino-4-nitrotoluene	4.58	4.45	4.65
HMX	5.41	5.27	5.47
RDX	6.46	6.33	6.53
Picric acid	7.11	6.91	7.31
Nitroglycerin	9.51	9.37	9.57
Nitrobenzene	10.82	10.68	10.88
4-Amino-2,6-dinitrotoluene	11.71	11.56	11.76
2-Amino-4,6-dinitrotoluene	11.92	11.77	11.97
1,3-Dinitrobenzene	13.58	13.43	13.63
2-Nitrotoluene	14.88	14.78	14.98
PETN	15.33	15.23	15.43
3-Nitrotoluene	16.16	16.00	16.20
4-Nitrotoluene	16.16	16.00	16.20
2,6-Dinitrotoluene	16.83	16.67	16.87
1,3,5-Trinitrobenzene	18.06	17.91	18.11
2,4-Dinitrotoluene	19.08	18.93	19.13
Tetryl	19.08	18.93	19.13
2,4,6-Trinitrotoluene	21.42	21.28	21.48
1,2-Dinitrobenzene	11.23	11.08	11.28

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: Lab Sample ID: MB 200-41397/1-A

Matrix: Solid Lab File ID: 09JUL121033_091.d

Analysis Method: 8330 Modified Date Collected:

Extraction Method: 8330 Date Extracted: 07/05/2012 18:41

Sample wt/vol: 10.06(g) Date Analyzed: 07/09/2012 16:43

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 450(uL) GC Column: Biphenyl ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 41502 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	92		40-140

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: Lab Sample ID: MB 200-41397/1-A

Matrix: Solid Lab File ID: 09JUL121028_091.d

Analysis Method: 8330 Modified Date Collected:

Extraction Method: 8330 Date Extracted: 07/05/2012 18:41

Sample wt/vol: 10.06(g) Date Analyzed: 07/09/2012 16:48

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 150(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 41501 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
2691-41-0	HMX	12	U	99	12	4.5
121-82-4	RDX	12	U	99	12	12
99-35-4	1,3,5-Trinitrobenzene	12	U	99	12	5.0
99-65-0	1,3-Dinitrobenzene	12	U M	99	12	5.9
98-95-3	Nitrobenzene	30	U	99	30	26
479-45-8	Tetryl	24	U	99	24	15
55-63-0	Nitroglycerin	720	U	2000	720	480
118-96-7	2,4,6-Trinitrotoluene	24	U	99	24	17
19406-51-0	4-Amino-2,6-dinitrotoluene	12	U	99	12	8.3
35572-78-2	2-Amino-4,6-dinitrotoluene	12	U	99	12	6.6
606-20-2	2,6-Dinitrotoluene	12	U M	99	12	11
121-14-2	2,4-Dinitrotoluene	24	U M	99	24	15
88-72-2	2-Nitrotoluene	24	U	99	24	14
99-99-0	4-Nitrotoluene	30	U	99	30	27
99-08-1	3-Nitrotoluene	30	U	99	30	27

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	91		40-140

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: Lab Sample ID: LCS 200-41397/2-A

Matrix: Solid Lab File ID: 09JUL121033_101.d

Analysis Method: 8330 Modified Date Collected:

Extraction Method: 8330 Date Extracted: 07/05/2012 18:41

Sample wt/vol: 10.11(g) Date Analyzed: 07/09/2012 17:17

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 450(uL) GC Column: Biphenyl ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 41502 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	93		40-140

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Client Sample ID: Lab Sample ID: LCS 200-41397/2-A

Matrix: Solid Lab File ID: 09JUL121028_101.d

Analysis Method: 8330 Modified Date Collected:

Extraction Method: 8330 Date Extracted: 07/05/2012 18:41

Sample wt/vol: 10.11(g) Date Analyzed: 07/09/2012 17:25

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 150(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 41501 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
2691-41-0	HMX	1890		99	12	4.5
121-82-4	RDX	1910		99	12	12
99-35-4	1,3,5-Trinitrobenzene	1910		99	12	4.9
99-65-0	1,3-Dinitrobenzene	1910		99	12	5.8
98-95-3	Nitrobenzene	1840		99	30	26
479-45-8	Tetryl	2000	J	99	24	15
55-63-0	Nitroglycerin	29200		2000	710	480
118-96-7	2,4,6-Trinitrotoluene	1870		99	24	17
19406-51-0	4-Amino-2,6-dinitrotoluene	1830		99	12	8.3
35572-78-2	2-Amino-4,6-dinitrotoluene	1900		99	12	6.5
606-20-2	2,6-Dinitrotoluene	1840		99	12	11
121-14-2	2,4-Dinitrotoluene	1950	J	99	24	15
88-72-2	2-Nitrotoluene	1910		99	24	14
99-99-0	4-Nitrotoluene	1960	J	99	30	27
99-08-1	3-Nitrotoluene	1950	J	99	30	27

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	95		40-140

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: CH1208 Start Date: 04/02/2012 10:19

Analysis Batch Number: 36007 End Date: 04/02/2012 15:18

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 200-36007/2		04/02/2012 10:19	1	02APR120829_021.d	C-18 4.6(mm)
IC 200-36007/3		04/02/2012 10:56	1	02APR120829_031.d	C-18 4.6(mm)
IC 200-36007/4		04/02/2012 11:34	1	02APR120829_041.d	C-18 4.6(mm)
ICRTAV 200-36007/5		04/02/2012 12:11	1	02APR120829_051.d	C-18 4.6(mm)
IC 200-36007/6		04/02/2012 12:48	1	02APR120829_061.d	C-18 4.6(mm)
IC 200-36007/7		04/02/2012 13:26	1	02APR120829_071.d	C-18 4.6(mm)
CCVL 200-36007/8		04/02/2012 14:03	1		C-18 4.6(mm)
CCVL 200-36007/9		04/02/2012 14:41	1		C-18 4.6(mm)
ICV 200-36007/10		04/02/2012 15:18	1	02APR120829_101.d	C-18 4.6(mm)

8330 Modified

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: CH1208 Start Date: 07/09/2012 11:48

Analysis Batch Number: 41501 End Date: 07/09/2012 20:33

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		07/09/2012 11:48	1		C-18 4.6(mm)
ZZZZZ		07/09/2012 12:26	1		C-18 4.6(mm)
CCVRT 200-41501/3		07/09/2012 13:03	1	09JUL121028_031.d	C-18 4.6(mm)
ZZZZZ		07/09/2012 13:41	1		C-18 4.6(mm)
ZZZZZ		07/09/2012 14:18	1		C-18 4.6(mm)
ZZZZZ		07/09/2012 14:56	1		C-18 4.6(mm)
ZZZZZ		07/09/2012 15:33	1		C-18 4.6(mm)
ZZZZZ		07/09/2012 16:11	1		C-18 4.6(mm)
MB 200-41397/1-A		07/09/2012 16:48	1	09JUL121028_091.d	C-18 4.6(mm)
LCS 200-41397/2-A		07/09/2012 17:25	1	09JUL121028_101.d	C-18 4.6(mm)
200-11554-1	NFUDS-001-TP0101-01	07/09/2012 18:03	1	09JUL121028_111.d	C-18 4.6(mm)
200-11554-2	NFUDS-001-TP0201-01	07/09/2012 18:40	1	09JUL121028_121.d	C-18 4.6(mm)
200-11554-3	NFUDS-001-TP0302-01	07/09/2012 19:18	1	09JUL121028_131.d	C-18 4.6(mm)
200-11554-4	NFUDS-001-TP0402-01	07/09/2012 19:55	1	09JUL121028_141.d	C-18 4.6(mm)
CCV 200-41501/15		07/09/2012 20:33	1	09JUL121028_151.d	C-18 4.6(mm)

8330 Modified

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: CH1488 Start Date: 05/24/2012 13:04

Analysis Batch Number: 39219 End Date: 05/24/2012 18:12

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ICB 200-39219/1		05/24/2012 13:04	1		Biphenyl 4.6(mm)
IC 200-39219/2		05/24/2012 13:39	1	24MAY121229_021.d	Biphenyl 4.6(mm)
IC 200-39219/3		05/24/2012 14:13	1	24MAY121229_031.d	Biphenyl 4.6(mm)
IC 200-39219/4		05/24/2012 14:47	1	24MAY121229_041.d	Biphenyl 4.6(mm)
ICRTAV 200-39219/5		05/24/2012 15:21	1	24MAY121229_051.d	Biphenyl 4.6(mm)
IC 200-39219/6		05/24/2012 15:55	1	24MAY121229_061.d	Biphenyl 4.6(mm)
IC 200-39219/7		05/24/2012 16:30	1	24MAY121229_071.d	Biphenyl 4.6(mm)
CCVL 200-39219/8		05/24/2012 17:04	1		Biphenyl 4.6(mm)
CCVL 200-39219/9		05/24/2012 17:38	1		Biphenyl 4.6(mm)
ICV 200-39219/10		05/24/2012 18:12	1	24MAY121229_101.d	Biphenyl 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: CH1488 Start Date: 07/09/2012 11:41

Analysis Batch Number: 41502 End Date: 07/09/2012 20:08

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		07/09/2012 11:41	1		Biphenyl 4.6(mm)
ZZZZZ		07/09/2012 12:15	1		Biphenyl 4.6(mm)
CCVRT 200-41502/3		07/09/2012 12:50	1	09JUL121033_031.d	Biphenyl 4.6(mm)
ZZZZZ		07/09/2012 13:24	1		Biphenyl 4.6(mm)
ZZZZZ		07/09/2012 14:26	1		Biphenyl 4.6(mm)
ZZZZZ		07/09/2012 15:00	1		Biphenyl 4.6(mm)
ZZZZZ		07/09/2012 15:34	1		Biphenyl 4.6(mm)
ZZZZZ		07/09/2012 16:09	1		Biphenyl 4.6(mm)
MB 200-41397/1-A		07/09/2012 16:43	1	09JUL121033_091.d	Biphenyl 4.6(mm)
LCS 200-41397/2-A		07/09/2012 17:17	1	09JUL121033_101.d	Biphenyl 4.6(mm)
200-11554-1	NFUDS-001-TP0101-01	07/09/2012 17:51	1	09JUL121033_111.d	Biphenyl 4.6(mm)
200-11554-2	NFUDS-001-TP0201-01	07/09/2012 18:25	1	09JUL121033_121.d	Biphenyl 4.6(mm)
200-11554-3	NFUDS-001-TP0302-01	07/09/2012 19:00	1	09JUL121033_131.d	Biphenyl 4.6(mm)
200-11554-4	NFUDS-001-TP0402-01	07/09/2012 19:34	1	09JUL121033_141.d	Biphenyl 4.6(mm)
CCV 200-41502/15		07/09/2012 20:08	1	09JUL121033_151.d	Biphenyl 4.6(mm)

8330 Modified

HPLC/IC BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Batch Number: 41397 Batch Start Date: 07/05/12 18:41 Batch Analyst: Infantino, Daniel J

Batch Method: 8330 Batch End Date: 07/06/12 13:10

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	EX833010GSUi 00024	EX8330MTXSPi 00014	LCSUPPSPi 00043	
MB 200-41397/1		8330, 8330 Modified		10.06 g	100 mL	100 uL			
LCS 200-41397/2		8330, 8330 Modified		10.11 g	100 mL	100 uL	500 uL	500 uL	
200-11554-D-1	NFUDS-001-TP0101 -01	8330, 8330 Modified	T	9.91 g	100 mL	100 uL			
200-11554-D-2	NFUDS-001-TP0201 -01	8330, 8330 Modified	T	10.02 g	100 mL	100 uL			
200-11554-D-3	NFUDS-001-TP0302 -01	8330, 8330 Modified	T	9.91 g	100 mL	100 uL			
200-11554-D-4	NFUDS-001-TP0402 -01	8330, 8330 Modified	T	9.93 g	100 mL	100 uL			

Batch Notes	
Batch Comment	ACN Lot# 304589; Witnessed by MAP;

Basis	Basis Description
T	Total/NA

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Burlington Job Number: 200-11554-1

SDG No.: 200-11554-1

Project: Nantucket Beach FUDS

Client Sample ID	Lab Sample ID
NFUDS-001-TP0101-01	200-11554-1
NFUDS-001-TP0201-01	200-11554-2
NFUDS-001-TP0302-01	200-11554-3
NFUDS-001-TP0402-01	200-11554-4

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: NFUDS-001-TP0101-01 Lab Sample ID: 200-11554-1

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG ID.: 200-11554-1

Matrix: Solid Date Sampled: 06/29/2012 08:30

Reporting Basis: DRY Date Received: 06/30/2012 10:05

% Solids: 95.9

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Aluminum	2400	13	12	1.8	mg/Kg			1	6010C
Antimony	0.99	4.0	0.99	0.25	mg/Kg	U		1	6010C
Arsenic	1.8	0.66	0.59	0.14	mg/Kg			1	6010C
Barium	4.0	13	1.3	0.42	mg/Kg	J		1	6010C
Beryllium	0.13	0.33	0.086	0.013	mg/Kg	J		1	6010C
Cadmium	0.17	0.33	0.17	0.040	mg/Kg	U		1	6010C
Calcium	420	330	99	6.6	mg/Kg			1	6010C
Chromium	3.5	0.66	0.26	0.013	mg/Kg			1	6010C
Cobalt	1.1	3.3	0.20	0.040	mg/Kg	J		1	6010C
Copper	1.1	1.7	0.53	0.11	mg/Kg	J		1	6010C
Iron	4400	13	12	1.5	mg/Kg			1	6010C
Lead	2.0	0.66	0.59	0.15	mg/Kg			1	6010C
Magnesium	500	330	33	2.3	mg/Kg			1	6010C
Manganese	49	0.99	0.59	0.059	mg/Kg			1	6010C
Nickel	2.1	2.6	0.66	0.099	mg/Kg	J		1	6010C
Potassium	270	330	33	15	mg/Kg	J		1	6010C
Selenium	1.5	2.3	1.5	0.21	mg/Kg	U		1	6010C
Silver	0.26	0.66	0.26	0.073	mg/Kg	U		1	6010C
Sodium	19	330	17	3.4	mg/Kg	J		1	6010C
Thallium	0.99	1.7	0.99	0.13	mg/Kg	U		1	6010C
Vanadium	5.2	3.3	0.33	0.053	mg/Kg			1	6010C
Zinc	5.7	1.3	0.99	0.040	mg/Kg			1	6010C
Mercury	0.011	0.030	0.0035	0.0020	mg/Kg	J		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: NFUDS-001-TP0201-01 Lab Sample ID: 200-11554-2

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG ID.: 200-11554-1

Matrix: Solid Date Sampled: 06/29/2012 08:45

Reporting Basis: DRY Date Received: 06/30/2012 10:05

% Solids: 97.1

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Aluminum	2900	14	13	1.9	mg/Kg			1	6010C
Antimony	1.0	4.2	1.0	0.26	mg/Kg	U		1	6010C
Arsenic	2.0	0.70	0.63	0.15	mg/Kg			1	6010C
Barium	2.6	14	1.4	0.44	mg/Kg	J		1	6010C
Beryllium	0.10	0.35	0.090	0.014	mg/Kg	J		1	6010C
Cadmium	0.17	0.35	0.17	0.042	mg/Kg	U		1	6010C
Calcium	70	350	100	7.0	mg/Kg	J		1	6010C
Chromium	3.9	0.70	0.28	0.014	mg/Kg			1	6010C
Cobalt	1.0	3.5	0.21	0.042	mg/Kg	J		1	6010C
Copper	0.82	1.7	0.56	0.11	mg/Kg	J		1	6010C
Iron	3900	14	13	1.6	mg/Kg			1	6010C
Lead	2.3	0.70	0.63	0.15	mg/Kg			1	6010C
Magnesium	450	350	35	2.4	mg/Kg			1	6010C
Manganese	26	1.0	0.63	0.063	mg/Kg			1	6010C
Nickel	2.3	2.8	0.70	0.10	mg/Kg	J		1	6010C
Potassium	260	350	35	16	mg/Kg	J		1	6010C
Selenium	1.6	2.4	1.6	0.22	mg/Kg	U		1	6010C
Silver	0.28	0.70	0.28	0.077	mg/Kg	U		1	6010C
Sodium	9.9	350	17	3.5	mg/Kg	J		1	6010C
Thallium	1.0	1.7	1.0	0.13	mg/Kg	U		1	6010C
Vanadium	5.3	3.5	0.35	0.056	mg/Kg			1	6010C
Zinc	4.5	1.4	1.0	0.042	mg/Kg			1	6010C
Mercury	0.031	0.033	0.0038	0.0022	mg/Kg	J		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: NFUDS-001-TP0302-01 Lab Sample ID: 200-11554-3

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG ID.: 200-11554-1

Matrix: Solid Date Sampled: 06/29/2012 08:44

Reporting Basis: DRY Date Received: 06/30/2012 10:05

% Solids: 98.7

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Aluminum	2000	13	12	1.8	mg/Kg			1	6010C
Antimony	0.99	3.9	0.99	0.25	mg/Kg	U		1	6010C
Arsenic	1.6	0.66	0.59	0.14	mg/Kg			1	6010C
Barium	3.4	13	1.3	0.41	mg/Kg	J		1	6010C
Beryllium	0.12	0.33	0.086	0.013	mg/Kg	J		1	6010C
Cadmium	0.16	0.33	0.16	0.039	mg/Kg	U		1	6010C
Calcium	81	330	99	6.6	mg/Kg	J		1	6010C
Chromium	3.8	0.66	0.26	0.013	mg/Kg			1	6010C
Cobalt	1.5	3.3	0.20	0.039	mg/Kg	J		1	6010C
Copper	1.2	1.6	0.53	0.11	mg/Kg	J		1	6010C
Iron	3900	13	12	1.5	mg/Kg			1	6010C
Lead	1.7	0.66	0.59	0.14	mg/Kg			1	6010C
Magnesium	660	330	33	2.3	mg/Kg			1	6010C
Manganese	47	0.99	0.59	0.059	mg/Kg			1	6010C
Nickel	2.8	2.6	0.66	0.099	mg/Kg			1	6010C
Potassium	270	330	33	15	mg/Kg	J		1	6010C
Selenium	1.5	2.3	1.5	0.21	mg/Kg	U		1	6010C
Silver	0.26	0.66	0.26	0.072	mg/Kg	U		1	6010C
Sodium	9.0	330	16	3.4	mg/Kg	J		1	6010C
Thallium	0.99	1.6	0.99	0.13	mg/Kg	U		1	6010C
Vanadium	4.7	3.3	0.33	0.053	mg/Kg			1	6010C
Zinc	6.5	1.3	0.99	0.039	mg/Kg			1	6010C
Mercury	0.015	0.032	0.0037	0.0022	mg/Kg	J		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: NFUDS-001-TP0402-01 Lab Sample ID: 200-11554-4

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG ID.: 200-11554-1

Matrix: Solid Date Sampled: 06/29/2012 08:55

Reporting Basis: DRY Date Received: 06/30/2012 10:05

% Solids: 98.3

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Aluminum	1200	13	12	1.8	mg/Kg		J	1	6010C
Antimony	0.97	3.9	0.97	0.24	mg/Kg	U	J	1	6010C
Arsenic	1.9	0.64	0.58	0.14	mg/Kg			1	6010C
Barium	2.7	13	1.3	0.41	mg/Kg	J		1	6010C
Beryllium	0.093	0.32	0.084	0.013	mg/Kg	J		1	6010C
Cadmium	0.16	0.32	0.16	0.039	mg/Kg	U		1	6010C
Calcium	46	320	97	6.4	mg/Kg	J	J	1	6010C
Chromium	2.3	0.64	0.26	0.013	mg/Kg			1	6010C
Cobalt	0.81	3.2	0.19	0.039	mg/Kg	J		1	6010C
Copper	0.89	1.6	0.51	0.10	mg/Kg	J		1	6010C
Iron	2500	13	12	1.5	mg/Kg		J	1	6010C
Lead	1.1	0.64	0.58	0.14	mg/Kg		J	1	6010C
Magnesium	270	320	32	2.3	mg/Kg	J	J	1	6010C
Manganese	29	0.97	0.58	0.058	mg/Kg		J	1	6010C
Nickel	1.5	2.6	0.64	0.097	mg/Kg	J		1	6010C
Potassium	230	320	32	15	mg/Kg	J	J	1	6010C
Selenium	1.5	2.3	1.5	0.21	mg/Kg	U		1	6010C
Silver	0.26	0.64	0.26	0.071	mg/Kg	U		1	6010C
Sodium	5.9	320	16	3.3	mg/Kg	J		1	6010C
Thallium	0.97	1.6	0.97	0.12	mg/Kg	U		1	6010C
Vanadium	3.9	3.2	0.32	0.051	mg/Kg			1	6010C
Zinc	3.6	1.3	0.97	0.039	mg/Kg			1	6010C
Mercury	0.0059	0.027	0.0031	0.0018	mg/Kg	J		1	7471B

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

ICV Source: MEICVw_00026 Concentration Units: ug/L

CCV Source: MECCVw_00052

Analyte	ICV 200-41930/5 07/17/2012 02:48				CCV 200-41930/10 07/17/2012 03:14				CCV 200-41930/35 07/17/2012 05:25			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	25900		26000	100	30400		30200	101	29900		30200	99
Antimony	250		250	100	296		300	99	288		300	96
Arsenic	239		250	96	104		100	104	99.0		100	99
Barium	483		500	97	191	J	200	95	189	J	200	94
Beryllium	505		500	101	99.6		100	100	97.1		100	97
Cadmium	484		500	97	96.8		100	97	94.6		100	95
Calcium	25200		25000	101	30200		30000	101	29800		30000	99
Chromium	480		500	96	192		200	96	190		200	95
Cobalt	474		500	95	189		200	94	187		200	93
Copper	475		500	95	191		200	96	184		200	92
Iron	26000		25500	102	30500		30200	101	30100		30200	100
Lead	1030		1000	103	410		400	102	405		400	101
Magnesium	25300		25000	101	30200		30200	100	30100		30200	100
Manganese	477		500	95	192		200	96	191		200	95
Nickel	471		500	94	187		200	93	186		200	93
Potassium	25200		25000	101	30300		30200	100	30000		30200	99
Selenium	240		250	96	96.3		100	96	92.1		100	92
Silver	480		500	96	97.9		100	98	95.1		100	95
Sodium	24900		25000	100	30200		30200	100	29700		30200	98
Thallium	230		250	92	99.6		100	100	96.6		100	97
Vanadium	493		500	99	197		200	98	193		200	97
Zinc	492		500	98	194		200	97	190		200	95

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

ICV Source: MEICVw_00026 Concentration Units: ug/L

CCV Source: MECCVw_00052

Analyte	CCV 200-41930/48 07/17/2012 06:33				CCV 200-41930/57 07/17/2012 07:20							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	29900		30200	99	30300		30200	100				
Antimony	289		300	96	291		300	97				
Arsenic	99.4		100	99	102		100	102				
Barium	188	J	200	94	196	J	200	98				
Beryllium	97.3		100	97	98.6		100	99				
Cadmium	94.9		100	95	96.1		100	96				
Calcium	29700		30000	99	30200		30000	101				
Chromium	190		200	95	192		200	96				
Cobalt	188		200	94	190		200	95				
Copper	184		200	92	186		200	93				
Iron	30000		30200	99	30400		30200	101				
Lead	409		400	102	411		400	103				
Magnesium	29900		30200	99	30500		30200	101				
Manganese	191		200	95	193		200	97				
Nickel	187		200	94	188		200	94				
Potassium	30000		30200	99	30200		30200	100				
Selenium	97.3		100	97	95.0		100	95				
Silver	95.1		100	95	95.9		100	96				
Sodium	29500		30200	98	29900		30200	99				
Thallium	98.4		100	98	98.5		100	99				
Vanadium	193		200	96	195		200	98				
Zinc	190		200	95	192		200	96				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

ICV Source: ME6010CRIw_00024 Concentration Units: ug/L

CCV Source: ME6010CRIw_00024

Analyte	ICVL 200-41930/6 07/17/2012 02:53				CCVL 200-41930/36 07/17/2012 05:30				CCVL 200-41930/49 07/17/2012 06:38			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	242		200	121	243		200	122	216		200	108
Antimony	60.2		60.0	100	62.9		60.0	105	61.1		60.0	102
Arsenic	8.17	J	10.0	82	6.77	J	10.0	68	10.1		10.0	101
Barium	194	J	200	97	192	J	200	96	196	J	200	98
Beryllium	4.89	J	5.00	98	5.01		5.00	100	4.98	J	5.00	100
Cadmium	5.01		5.00	100	4.99	J	5.00	100	4.94	J	5.00	99
Calcium	5030		5000	101	5040		5000	101	5100		5000	102
Chromium	10.1		10.0	101	10.0		10.0	100	10.1		10.0	101
Cobalt	48.0	J	50.0	96	47.9	J	50.0	96	48.2	J	50.0	96
Copper	24.2	J	25.0	97	22.4	J	25.0	90	23.1	J	25.0	92
Iron	219		200	110	215		200	107	219		200	109
Lead	10.4		10.0	104	10.8		10.0	108	10.1		10.0	101
Magnesium	5010		5000	100	5020		5000	100	5090		5000	102
Manganese	14.7	J	15.0	98	14.6	J	15.0	98	14.8	J	15.0	98
Nickel	38.1	J	40.0	95	37.6	J	40.0	94	38.9	J	40.0	97
Potassium	4910	J	5000	98	5080		5000	102	5040		5000	101
Selenium	34.0	J	35.0	97	35.5		35.0	101	33.5	J	35.0	96
Silver	10.3		10.0	103	9.83	J	10.0	98	10.3		10.0	103
Sodium	4910	J	5000	98	4930	J	5000	99	4940	J	5000	99
Thallium	24.2	J	25.0	97	24.5	J	25.0	98	25.1		25.0	100
Vanadium	49.1	J	50.0	98	48.6	J	50.0	97	49.0	J	50.0	98
Zinc	20.5		20.0	102	20.6		20.0	103	20.0		20.0	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

ICV Source: ME6010CRIw_00024 Concentration Units: ug/L

CCV Source: ME6010CRIw_00024

Analyte	CCVL 200-41930/58 07/17/2012 07:25											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	253		200	127								
Antimony	61.2		60.0	102								
Arsenic	11.0		10.0	110								
Barium	191	J	200	95								
Beryllium	4.92	J	5.00	98								
Cadmium	4.96	J	5.00	99								
Calcium	5050		5000	101								
Chromium	10.1		10.0	101								
Cobalt	48.0	J	50.0	96								
Copper	23.2	J	25.0	93								
Iron	223		200	111								
Lead	9.04	J	10.0	90								
Magnesium	5000		5000	100								
Manganese	14.8	J	15.0	98								
Nickel	38.4	J	40.0	96								
Potassium	5060		5000	101								
Selenium	34.3	J	35.0	98								
Silver	10.1		10.0	101								
Sodium	4890	J	5000	98								
Thallium	23.8	J	25.0	95								
Vanadium	48.2	J	50.0	96								
Zinc	21.1		20.0	106								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

ICV Source: MEHGICVw_00019 Concentration Units: ug/L

CCV Source: MEHGCCVw_00486

Analyte	ICV 200-41687/7-A 07/11/2012 17:12				CCV 200-41687/9-A 07/11/2012 17:16				CCV 200-41687/9-A 07/11/2012 17:41			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	2.96		3.00	99	4.57		5.00	91	4.79		5.00	96

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

ICV Source: MEHGICVw_00019 Concentration Units: ug/L

CCV Source: MEHGCCVw_00486

Analyte	CCV 200-41687/9-A 07/11/2012 17:50				CCV 200-41687/9-A 07/11/2012 18:14							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.85		5.00	97	4.73		5.00	95				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Concentration Units: ug/L

Analyte	RL	ICBIS 200-41930/7 07/17/2012 02:58		CCB 200-41930/11 07/17/2012 03:19		CCB 200-41930/37 07/17/2012 05:36		CCB 200-41930/50 07/17/2012 06:43	
		Found	C	Found	C	Found	C	Found	C
Aluminum	200	180	U	180	U	180	U	180	U
Antimony	60	15	U	15	U	15	U	15	U
Arsenic	10	9.0	U	9.0	U	9.0	U	9.0	U
Barium	200	20	U	20	U	20	U	20	U
Beryllium	5.0	1.3	U	1.3	U	1.3	U	1.3	U
Cadmium	5.0	2.5	U	2.5	U	2.5	U	2.5	U
Calcium	5000	1500	U	1500	U	1500	U	1500	U
Chromium	10	4.0	U	4.0	U	4.0	U	4.0	U
Cobalt	50	3.0	U	3.0	U	3.0	U	3.0	U
Copper	25	8.0	U	8.0	U	8.0	U	2.81	J
Iron	200	180	U	180	U	180	U	180	U
Lead	10	9.0	U	9.0	U	9.0	U	9.0	U
Magnesium	5000	500	U	500	U	500	U	500	U
Manganese	15	9.0	U	9.0	U	9.0	U	9.0	U
Nickel	40	10	U	10	U	10	U	10	U
Potassium	5000	500	U	500	U	500	U	500	U
Selenium	35	23	U	23	U	23	U	23	U
Silver	10	4.0	U	4.0	U	4.0	U	4.0	U
Sodium	5000	250	U	250	U	250	U	250	U
Thallium	25	15	U	15	U	15	U	15	U
Vanadium	50	5.0	U	5.0	U	5.0	U	5.0	U
Zinc	20	15	U	15	U	15	U	15	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Concentration Units: ug/L

Analyte	RL	CCB 200-41930/59 07/17/2012 07:30							
		Found	C	Found	C	Found	C	Found	C
Aluminum	200	180	U						
Antimony	60	15	U						
Arsenic	10	9.0	U						
Barium	200	20	U						
Beryllium	5.0	1.3	U						
Cadmium	5.0	2.5	U						
Calcium	5000	1500	U						
Chromium	10	4.0	U						
Cobalt	50	3.0	U						
Copper	25	8.0	U						
Iron	200	180	U						
Lead	10	9.0	U						
Magnesium	5000	500	U						
Manganese	15	9.0	U						
Nickel	40	10	U						
Potassium	5000	500	U						
Selenium	35	23	U						
Silver	10	4.0	U						
Sodium	5000	250	U						
Thallium	25	15	U						
Vanadium	50	5.0	U						
Zinc	20	15	U						

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Concentration Units: ug/L

Analyte	RL	ICB 200-41687/8-A 07/11/2012 17:14		CCB 200-41687/10-A 07/11/2012 17:19		CCB 200-41687/10-A 07/11/2012 17:43		CCB 200-41687/10-A 07/11/2012 17:52	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.10	U	0.10	U	0.10	U	0.10	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Concentration Units: ug/L

Analyte	RL	CCB 200-41687/10-A 07/11/2012 18:16							
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.10	U						

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Concentration Units: mg/Kg Lab Sample ID: MB 200-41429/12-A

Instrument Code: METICP7 Batch No.: 41930

CAS No.	Analyte	Concentration	C	Q	Method
7429-90-5	Aluminum	18	U		6010C
7440-36-0	Antimony	1.5	U		6010C
7440-38-2	Arsenic	0.90	U		6010C
7440-39-3	Barium	2.0	U		6010C
7440-41-7	Beryllium	0.13	U		6010C
7440-43-9	Cadmium	0.25	U		6010C
7440-70-2	Calcium	150	U		6010C
7440-47-3	Chromium	0.0228	J		6010C
7440-48-4	Cobalt	0.30	U		6010C
7440-50-8	Copper	0.80	U		6010C
7439-89-6	Iron	3.42	J		6010C
7439-92-1	Lead	0.90	U		6010C
7439-95-4	Magnesium	50	U		6010C
7439-96-5	Manganese	0.90	U		6010C
7440-02-0	Nickel	1.0	U		6010C
7440-09-7	Potassium	50	U		6010C
7782-49-2	Selenium	2.3	U		6010C
7440-22-4	Silver	0.40	U		6010C
7440-23-5	Sodium	25	U		6010C
7440-28-0	Thallium	1.5	U		6010C
7440-62-2	Vanadium	0.50	U		6010C
7440-66-6	Zinc	0.130	J		6010C

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Concentration Units: mg/Kg Lab Sample ID: MB 200-41687/22-A

Instrument Code: MEPCV3 II Batch No.: 41691

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.0038	U		7471B

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: ICSA 200-41930/8 Instrument ID: METICP7

Lab File ID: 071612-06.ttx ICS Source: ME6010ICSAw_00011

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Aluminum	**500000**	**518363**	**104**
Antimony		**5.46**	
Arsenic		**1.91**	
Barium		**-5.22**	
Beryllium		**-0.0280**	
Cadmium		**1.75**	
Calcium	**500000**	**491767**	**98**
Chromium		**1.04**	
Cobalt		**2.46**	
Copper		**2.27**	
Iron	**200000**	**192630**	**96**
Lead		**7.80**	
Magnesium	**500000**	**518724**	**104**
Manganese		**-6.94**	
Nickel		**4.94**	
Potassium		**-42.8**	
Selenium		**-2.90**	
Silver		**1.18**	
Sodium		**-11.1**	
Thallium		**4.45**	
Vanadium		**-0.990**	
Zinc		**-6.85**	
Boron		*3.50*	
Molybdenum		*-0.620*	
Phosphorus		*11.7*	
Silicon		*10.1*	
Strontium		*1.56*	
Tin		*0.403*	
Titanium		*3.84*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Lab Sample ID: ICSAB 200-41930/9 Instrument ID: METICP7

Lab File ID: 071612-06.ttx ICS Source: ME6010ICSABw_00014

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Aluminum	**250000**	**252566**	**101**
Antimony	**600**	**594**	**99**
Arsenic	**100**	**102**	**102**
Barium	**500**	**474**	**95**
Beryllium	**500**	**498**	**100**
Cadmium	**1000**	**971**	**97**
Calcium	**250000**	**243275**	**97**
Chromium	**500**	**470**	**94**
Cobalt	**500**	**452**	**90**
Copper	**500**	**502**	**100**
Iron	**100000**	**98441**	**98**
Lead	**50.0**	**56.7**	**113**
Magnesium	**250000**	**250530**	**100**
Manganese	**500**	**479**	**96**
Nickel	**1000**	**889**	**89**
Potassium		**22.6**	
Selenium	**50.0**	**44.0**	**88**
Silver	**200**	**203**	**102**
Sodium		**4.49**	
Thallium	**100**	**92.8**	**93**
Vanadium	**500**	**497**	**99**
Zinc	**1000**	**962**	**96**
Boron	*1500*	*1422*	*95*
Molybdenum	*1000*	*979*	*98*
Phosphorus	*500*	*509*	*102*
Silicon	*1000*	*982*	*98*
Strontium	*250*	*241*	*97*
Tin	*1500*	*1447*	*96*
Titanium	*500*	*504*	*101*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: NFUDS-001-TP0402-01 MS
Lab ID: 200-11554-4 MS
Lab Name: TestAmerica Burlington
Job No.: 200-11554-1
SDG No.: 200-11554-1
Matrix: Solid
Concentration Units: mg/Kg
% Solids: 98.3

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Aluminum	1620		1200		144	275	80-120	4	6010C
Antimony	26.6		0.97	U	36.1	74	80-120	J	6010C
Arsenic	4.84		1.9		2.89	101	80-120		6010C
Barium	145		2.7	J	144	99	80-120		6010C
Beryllium	3.57		0.093	J	3.61	96	80-120		6010C
Cadmium	3.35		0.16	U	3.61	93	80-120		6010C
Calcium	220	J	46	J	144	121	80-120	J	6010C
Chromium	16.5		2.3		14.4	98	80-120		6010C
Cobalt	35.6		0.81	J	36.1	96	80-120		6010C
Copper	17.9		0.89	J	18.0	95	80-120		6010C
Iron	3010		2500		72.1	649	80-120	4	6010C
Lead	2.84		1.1		1.44	124	80-120	J	6010C
Magnesium	489		270	J	144	150	80-120	J	6010C
Manganese	104		29		36.1	208	80-120	J	6010C
Nickel	35.9		1.5	J	36.1	95	80-120		6010C
Potassium	417		230	J	144	131	80-120	J	6010C
Selenium	2.90		1.5	U	3.61	81	80-120		6010C
Silver	3.17		0.26	U	3.61	88	80-120		6010C
Sodium	157	J	5.9	J	144	104	80-120		6010C
Thallium	3.12		0.97	U	3.61	86	80-120		6010C
Vanadium	37.9		3.9		36.1	94	80-120		6010C
Zinc	36.9		3.6		36.1	92	80-120		6010C
Mercury	0.141		0.0059	J	0.141	96	80-120		7471B

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VA - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS

Client ID: NFUDS-001-TP0402-01 PDS Lab ID: 200-11554-4 PDS

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Matrix: Solid Concentration Units: mg/Kg

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Aluminum	1310		1200		129	73	75-125	J	6010C
Antimony	28.9		0.97	U	32.2	90	75-125		6010C
Arsenic	4.12		1.9		2.57	86	75-125		6010C
Barium	120		2.7	J	129	91	75-125		6010C
Beryllium	3.08		0.093	J	3.22	93	75-125		6010C
Cadmium	2.86		0.16	U	3.22	89	75-125		6010C
Calcium	167	J	46	J	129	94	75-125		6010C
Chromium	13.9		2.3		12.9	90	75-125		6010C
Cobalt	30.2		0.81	J	32.2	91	75-125		6010C
Copper	15.2		0.89	J	16.1	89	75-125		6010C
Iron	2530		2500		64.4	-18	75-125	J	6010C
Lead	2.54		1.1		1.29	115	75-125		6010C
Magnesium	389		270	J	129	91	75-125		6010C
Manganese	58.4		29		32.2	90	75-125		6010C
Nickel	30.3		1.5	J	32.2	90	75-125		6010C
Potassium	346		230	J	129	92	75-125		6010C
Selenium	2.81		1.5	U	3.22	87	75-125		6010C
Silver	2.98		0.26	U	3.22	93	75-125		6010C
Sodium	131	J	5.9	J	129	97	75-125		6010C
Thallium	2.59		0.97	U	3.22	80	75-125		6010C
Vanadium	32.9		3.9		32.2	90	75-125		6010C
Zinc	31.6		3.6		32.2	87	75-125		6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VB - IN

6-IN
DUPLICATES
METALS

Client ID: NFUDS-001-TP0402-01 DU | Lab ID: 200-11554-4 DU

Lab Name: TestAmerica Burlington | Job No.: 200-11554-1

SDG No.: 200-11554-1

% Solids for Sample: 98.3 | % Solids for Duplicate: 98.3

Matrix: Solid | Concentration Units: mg/Kg

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Aluminum	14	1200		1580		26	J	6010C
Antimony	4.3	0.97	U	1.1	U	NC		6010C
Arsenic	0.71	1.9		1.98		3		6010C
Barium	14	2.7	J	4.44	J	48		6010C
Beryllium	0.36	0.093	J	0.123	J	28		6010C
Cadmium	0.36	0.16	U	0.18	U	NC		6010C
Calcium	360	46	J	74.9	J	48		6010C
Chromium	0.71	2.3		2.86		22		6010C
Cobalt	3.6	0.81	J	0.965	J	18		6010C
Copper	1.8	0.89	J	1.38	J	43		6010C
Iron	14	2500		4720		60	J	6010C
Lead	0.71	1.1		1.58		40		6010C
Magnesium	360	270	J	359	J	27		6010C
Manganese	1.1	29		41.0		33	J	6010C
Nickel	2.8	1.5	J	2.45	J	46		6010C
Potassium	360	230	J	244	J	7		6010C
Selenium	2.5	1.5	U	1.6	U	NC		6010C
Silver	0.71	0.26	U	0.28	U	NC		6010C
Sodium	360	5.9	J	17.8	J	101		6010C
Thallium	1.8	0.97	U	1.1	U	NC		6010C
Vanadium	3.6	3.9		4.14		7		6010C
Zinc	1.4	3.6		6.24		54	J	6010C
Mercury	0.031	0.0059	J	0.00663	J	11		7471B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 200-41429/13-A

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

Sample Matrix: Solid LCS Source: MESPIKE#1w_00026

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Aluminum	200	210		105	80	120		6010C
Antimony	50.0	50.3		101	80	120		6010C
Arsenic	24.0	24.5		102	80	120		6010C
Barium	200	208		104	80	120		6010C
Beryllium	5.00	5.11		102	80	120		6010C
Cadmium	25.0	24.7		99	80	120		6010C
Calcium	2000	2000		100	80	120		6010C
Chromium	20.0	20.3		101	80	120		6010C
Cobalt	50.0	50.8		102	80	120		6010C
Copper	25.0	24.6		98	80	120		6010C
Iron	100	109		109	80	120		6010C
Lead	22.0	23.1		105	80	120		6010C
Magnesium	2000	2000		100	80	120		6010C
Manganese	50.0	51.0		102	80	120		6010C
Nickel	50.0	49.8		100	80	120		6010C
Potassium	2000	2030		102	80	120		6010C
Selenium	25.0	23.8		95	80	120		6010C
Silver	25.0	24.0		96	80	120		6010C
Sodium	2000	1970		99	80	120		6010C
Thallium	25.0	24.1		96	80	120		6010C
Vanadium	50.0	50.8		102	80	120		6010C
Zinc	50.0	48.8		98	80	120		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 200-41687/23-A

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

Sample Matrix: Solid LCS Source: MEHGCCVw_00486

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Mercury	0.167	0.180		108	80	120		7471B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 200-11554-4

SDG No: 200-11554-1

Lab Name: TestAmerica Burlington Job No: 200-11554-1

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Aluminum	1200		1260		3.2	D	6010C
Antimony	0.97	U	4.8	U	NC		6010C
Arsenic	1.9		2.17	J	NC	D	6010C
Barium	2.7	J	2.49	J	NC	D	6010C
Beryllium	0.093	J	0.117	J	NC	D	6010C
Cadmium	0.16	U	0.80	U	NC		6010C
Calcium	46	J	46.8	J	NC	D	6010C
Chromium	2.3		2.40	J	5.0	D	6010C
Cobalt	0.81	J	0.811	J	NC	D	6010C
Copper	0.89	J	0.612	J	NC	D	6010C
Iron	2500		2620		3.2	D	6010C
Lead	1.1		1.33	J	NC	D	6010C
Magnesium	270	J	279	J	2.6	D	6010C
Manganese	29		30.3		2.6	D	6010C
Nickel	1.5	J	1.49	J	NC	D	6010C
Potassium	230	J	243	J	NC	D	6010C
Selenium	1.5	U	7.4	U	NC		6010C
Silver	0.26	U	1.3	U	NC		6010C
Sodium	5.9	J	80	U	NC		6010C
Thallium	0.97	U	4.8	U	NC		6010C
Vanadium	3.9		4.00	J	3.5	D	6010C
Zinc	3.6		3.77	J	4.8	D	6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Burlington Job Number: 200-11554-1

SDG Number: 200-11554-1

Matrix: Solid Instrument ID: METICP7

Method: 6010C DL Date: 07/19/2012 14:15

Prep Method: 3050B

Analyte	Wavelength/ Mass	LOQ (mg/Kg)	DL (mg/Kg)
Aluminum		20	17
Aluminum	396.152	20	17
Antimony		6	0.49
Antimony	206.833	6	0.49
Arsenic		1	0.56
Arsenic	189.042	1	0.56
Barium		20	0.52
Barium	233.527	20	0.52
Beryllium		0.5	0.032
Beryllium	313.042	0.5	0.032
Cadmium		0.5	0.08
Cadmium	228.802	0.5	0.08
Calcium		500	51
Calcium	318.128	500	51
Chromium		1	0.11
Chromium	205.552	1	0.11
Cobalt		5	0.081
Cobalt	228.616	5	0.081
Copper		2.5	0.22
Copper	324.754	2.5	0.22
Iron		20	13
Iron	271.441	20	13
Lead		1	0.44
Lead	220.353	1	0.44
Magnesium		500	14
Magnesium	279.079	500	14
Manganese		1.5	0.45
Manganese	257.610	1.5	0.45
Nickel		4	0.29
Nickel	231.604	4	0.29
Potassium		500	15
Potassium	766.490	500	15
Selenium		3.5	0.87
Selenium	196.090	3.5	0.87
Silver		1	0.13
Silver	328.068	1	0.13
Sodium		500	7.5
Sodium	589.592	500	7.5
Thallium		2.5	0.41
Thallium	190.856	2.5	0.41
Vanadium		5	0.13

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Burlington Job Number: 200-11554-1

SDG Number: 200-11554-1

Matrix: Solid Instrument ID: METICP7

Method: 6010C DL Date: 07/19/2012 14:15

Prep Method: 3050B

Analyte	Wavelength/ Mass	LOQ (mg/Kg)	DL (mg/Kg)
Vanadium	292.402	5	0.13
Zinc		2	0.56
Zinc	213.856	2	0.56

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Burlington Job Number: 200-11554-1

SDG Number: 200-11554-1

Matrix: Solid Instrument ID: METICP7

Method: 6010C XMDL Date: 04/10/2012 09:45

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Aluminum		200	170
Antimony		60	4.9
Arsenic		10	5.6
Barium		200	5.2
Beryllium		5	0.32
Cadmium		5	0.78
Calcium		5000	510
Chromium		10	1.1
Cobalt		50	0.81
Copper		25	2.2
Iron		200	130
Lead		10	4.4
Magnesium		5000	140
Manganese		15	4.5
Nickel		40	2.9
Potassium		5000	150
Selenium		35	8.7
Silver		10	1.3
Sodium		5000	75
Thallium		25	4.1
Vanadium		50	1.3
Zinc		20	5.6

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Burlington Job Number: 200-11554-1

SDG Number: 200-11554-1

Matrix: Solid Instrument ID: MEPCV3 II

Method: 7471B DL Date: 05/24/2011 11:59

Prep Method: 7471B

Analyte	Wavelength/ Mass	LOQ (mg/Kg)	DL (mg/Kg)
Mercury	253.7	0.033	0.0022

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Burlington Job Number: 200-11554-1

SDG Number: 200-11554-1

Matrix: Solid Instrument ID: MEPCV3 II

Method: 7471B XMDL Date: 03/13/2012 09:48

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury	253.7	0.2	0.06

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Burlington Job Number: 200-11554-1

SDG No.: 200-11554-1

ICP-AES Instrument ID: METICP7 Date: 01/04/2012

Analyte	Wave Length	Ag	Al	As	B	Ba	Be	Ca	Cd	Co	Cr	Cu	Fe	In	K
Aluminum	396.152														
Antimony	206.833										0.016442				
Arsenic	189.042		0.000011				0.000611				-0.014855				
Barium	233.527														
Beryllium	313.042														
Boron	208.959														
Cadmium	228.802			0.007049		-0.000075									
Calcium	318.128														
Chromium	205.552						-0.000659								
Cobalt	228.616														
Copper	324.754														
Indium	230.606														
Iron	271.441									0.071349					0.000979
Lead	220.353		-0.000068									-0.000611	0.000027		
Magnesium	279.079														
Manganese	257.610												0.000012		
Molybdenum	202.030														
Nickel	231.604														
Phosphorus	178.284														
Potassium	766.490														
Selenium	196.090												-0.000231		
Silicon	288.158														
Silver	328.068														
Sodium	589.592														
Strontium	407.771														
Thallium	190.856									0.002884					
Tin	189.989														
Titanium	334.904														
Vanadium	292.402												0.000030		
Zinc	213.856											0.000867	0.000083		

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Burlington Job Number: 200-11554-1

SDG No.: 200-11554-1

ICP-AES Instrument ID: METICP7 Date: 01/04/2012

Analyte	Wave Length	Mg	Mn	Mo	Na	Ni	P	Pb	Sb	Se	Si	Sn	Sr	Ti	Tl
Aluminum	396.152			0.043153											
Antimony	206.833											-0.006953			
Arsenic	189.042			0.001117											-0.006296
Barium	233.527														
Beryllium	313.042													-0.000632	
Boron	208.959			0.032223											
Cadmium	228.802														
Calcium	318.128														
Chromium	205.552			0.000103		-0.000202									
Cobalt	228.616			-0.002369										0.0019	
Copper	324.754														
Indium	230.606														
Iron	271.441														
Lead	220.353		0.000125	-0.003943		0.000175			0.000821					-0.000696	
Magnesium	279.079														
Manganese	257.610	0.000020													
Molybdenum	202.030														
Nickel	231.604			0.001565											
Phosphorus	178.284														
Potassium	766.490														
Selenium	196.090		0.000519												
Silicon	288.158											0.019661		0.0104	
Silver	328.068														
Sodium	589.592														
Strontium	407.771														
Thallium	190.856		0.000442											-0.001428	
Tin	189.989													-0.001449	
Titanium	334.904			0.000880											
Vanadium	292.402			-0.010850										0.000781	
Zinc	213.856	0.000032				0.004952								-0.000434	

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Burlington Job Number: 200-11554-1

SDG No.: 200-11554-1

ICP-AES Instrument ID: METICP7 Date: 01/04/2012

Analyte	Wave Length	V	Y	Zn											
Aluminum	396.152														
Antimony	206.833	-0.002158													
Arsenic	189.042														
Barium	233.527	-0.001101													
Beryllium	313.042	0.000804													
Boron	208.959														
Cadmium	228.802	0.000067													
Calcium	318.128														
Chromium	205.552														
Cobalt	228.616														
Copper	324.754														
Indium	230.606														
Iron	271.441	0.006103													
Lead	220.353	-0.000202													
Magnesium	279.079														
Manganese	257.610														
Molybdenum	202.030														
Nickel	231.604														
Phosphorus	178.284														
Potassium	766.490														
Selenium	196.090														
Silicon	288.158	0.010502													
Silver	328.068														
Sodium	589.592														
Strontium	407.771														
Thallium	190.856														
Tin	189.989														
Titanium	334.904														
Vanadium	292.402														
Zinc	213.856														

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Burlington Job No: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: METICP7 Date: 01/11/2011 15:12

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Aluminum		1000000	6010C
Antimony		10000	6010C
Arsenic		5000	6010C
Barium		50000	6010C
Beryllium		25000	6010C
Cadmium		5000	6010C
Calcium		600000	6010C
Chromium		20000	6010C
Cobalt		20000	6010C
Copper		50000	6010C
Iron		1000000	6010C
Lead		100000	6010C
Magnesium		1000000	6010C
Manganese		50000	6010C
Nickel		50000	6010C
Potassium		100000	6010C
Selenium		5000	6010C
Silver		2000	6010C
Sodium		100000	6010C
Thallium		5000	6010C
Vanadium		50000	6010C
Zinc		50000	6010C

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Burlington Job No: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: MEPCV3 II Date: 04/18/2011 17:05

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Mercury	10	10	7471B

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Prep Method: 3050B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
MB 200-41429/12-A	07/06/2012 10:00	41429	1.00		100
LCS 200-41429/13-A	07/06/2012 10:00	41429	1.00		100
200-11554-1	07/06/2012 10:00	41429	1.58		100
200-11554-2	07/06/2012 10:00	41429	1.48		100
200-11554-3	07/06/2012 10:00	41429	1.54		100
200-11554-4	07/06/2012 10:00	41429	1.58		100
200-11554-4 DU	07/06/2012 10:00	41429	1.43		100
200-11554-4 MS	07/06/2012 10:00	41429	1.41		100

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Prep Method: 7471B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
MB 200-41687/22-A	07/10/2012 17:00	41687	0.30		50
LCS 200-41687/23-A	07/10/2012 17:00	41687	0.30		50
200-11554-1	07/10/2012 17:00	41687	0.34		50
200-11554-2	07/10/2012 17:00	41687	0.31		50
200-11554-3	07/10/2012 17:00	41687	0.31		50
200-11554-4	07/10/2012 17:00	41687	0.37		50
200-11554-4 DU	07/10/2012 17:00	41687	0.33		50
200-11554-4 MS	07/10/2012 17:00	41687	0.36		50

ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: METICP7 Method: 6010C

Start Date: 07/17/2012 02:28 End Date: 07/17/2012 07:30

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ag	Al	As	Ba	Be	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Na	Ni	Pb	Sb	Se	Tl
CALIBSTD 200-41930/1 IC			02:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
STD7 200-41930/2 IC			02:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
STD8 200-41930/3 IC			02:38	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
STD4 200-41930/4 IC			02:43	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICV 200-41930/5	1		02:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICVL 200-41930/6	1		02:53	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICBIS 200-41930/7	1		02:58	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICSA 200-41930/8	1		03:04	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICSAB 200-41930/9	1		03:09	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV 200-41930/10	1		03:14	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 200-41930/11	1		03:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ZZZZZZ			03:24																				
ZZZZZZ			03:30																				
ZZZZZZ			03:35																				
ZZZZZZ			03:40																				
ZZZZZZ			03:45																				
ZZZZZZ			03:50																				
ZZZZZZ			03:56																				
ZZZZZZ			04:02																				
ZZZZZZ			04:08																				
ZZZZZZ			04:13																				
CCV 200-41930/22			04:18																				
CCVL 200-41930/23			04:23																				
CCB 200-41930/24			04:28																				
ZZZZZZ			04:33																				
ZZZZZZ			04:39																				
ZZZZZZ			04:44																				
ZZZZZZ			04:49																				
ZZZZZZ			04:54																				
ZZZZZZ			04:59																				
ZZZZZZ			05:05																				
ZZZZZZ			05:10																				
ZZZZZZ			05:15																				
ZZZZZZ			05:20																				
CCV 200-41930/35	1		05:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCVL 200-41930/36	1		05:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 200-41930/37	1		05:36	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ZZZZZZ			05:41																				
ZZZZZZ			05:46																				
ZZZZZZ			05:51																				
ZZZZZZ			05:56																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: METICP7 Method: 6010C

Start Date: 07/17/2012 02:28 End Date: 07/17/2012 07:30

Lab Sample ID	D / F	Type	Time	Analytes																			
				Ag	Al	As	Ba	Be	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Na	Ni	Pb	Sb	Se	Tl
ZZZZZZ			06:01																				
ZZZZZZ			06:07																				
MB 200-41429/12-A	1	T	06:12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
LCS 200-41429/13-A	1	T	06:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
200-11554-1	1	T	06:23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
200-11554-2	1	T	06:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV 200-41930/48	1		06:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCVL 200-41930/49	1		06:38	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 200-41930/50	1		06:43	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
200-11554-3	1	T	06:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
200-11554-4	1	T	06:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
200-11554-4 SD	5	T	06:59	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
200-11554-4 PDS	1	T	07:04	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
200-11554-4 DU	1	T	07:09	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
200-11554-4 MS	1	T	07:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV 200-41930/57	1		07:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCVL 200-41930/58	1		07:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 200-41930/59	1		07:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: METICP7 Method: 6010C

Start Date: 07/17/2012 02:28 End Date: 07/17/2012 07:30

Lab Sample ID	D / F	Type	Time	Analytes																				
				V	Zn																			
CALIBSTD 200-41930/1 IC			02:28	X	X																			
STD7 200-41930/2 IC			02:33	X	X																			
STD8 200-41930/3 IC			02:38	X	X																			
STD4 200-41930/4 IC			02:43	X	X																			
ICV 200-41930/5	1		02:48	X	X																			
ICVL 200-41930/6	1		02:53	X	X																			
ICBIS 200-41930/7	1		02:58	X	X																			
ICSA 200-41930/8	1		03:04	X	X																			
ICSAB 200-41930/9	1		03:09	X	X																			
CCV 200-41930/10	1		03:14	X	X																			
CCB 200-41930/11	1		03:19	X	X																			
ZZZZZZ			03:24																					
ZZZZZZ			03:30																					
ZZZZZZ			03:35																					
ZZZZZZ			03:40																					
ZZZZZZ			03:45																					
ZZZZZZ			03:50																					
ZZZZZZ			03:56																					
ZZZZZZ			04:02																					
ZZZZZZ			04:08																					
ZZZZZZ			04:13																					
CCV 200-41930/22			04:18																					
CCVL 200-41930/23			04:23																					
CCB 200-41930/24			04:28																					
ZZZZZZ			04:33																					
ZZZZZZ			04:39																					
ZZZZZZ			04:44																					
ZZZZZZ			04:49																					
ZZZZZZ			04:54																					
ZZZZZZ			04:59																					
ZZZZZZ			05:05																					
ZZZZZZ			05:10																					
ZZZZZZ			05:15																					
ZZZZZZ			05:20																					
CCV 200-41930/35	1		05:25	X	X																			
CCVL 200-41930/36	1		05:30	X	X																			
CCB 200-41930/37	1		05:36	X	X																			
ZZZZZZ			05:41																					
ZZZZZZ			05:46																					
ZZZZZZ			05:51																					
ZZZZZZ			05:56																					

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: METICP7 Method: 6010C

Start Date: 07/17/2012 02:28 End Date: 07/17/2012 07:30

Lab Sample ID	D / F	Type	Time	Analytes																			
				V	Zn																		
ZZZZZZ			06:01																				
ZZZZZZ			06:07																				
MB 200-41429/12-A	1	T	06:12	X	X																		
LCS 200-41429/13-A	1	T	06:17	X	X																		
200-11554-1	1	T	06:23	X	X																		
200-11554-2	1	T	06:28	X	X																		
CCV 200-41930/48	1		06:33	X	X																		
CCVL 200-41930/49	1		06:38	X	X																		
CCB 200-41930/50	1		06:43	X	X																		
200-11554-3	1	T	06:48	X	X																		
200-11554-4	1	T	06:54	X	X																		
200-11554-4 SD	5	T	06:59	X	X																		
200-11554-4 PDS	1	T	07:04	X	X																		
200-11554-4 DU	1	T	07:09	X	X																		
200-11554-4 MS	1	T	07:15	X	X																		
CCV 200-41930/57	1		07:20	X	X																		
CCVL 200-41930/58	1		07:25	X	X																		
CCB 200-41930/59	1		07:30	X	X																		

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: MEPCV3 II Method: 7471B

Start Date: 07/11/2012 16:59 End Date: 07/11/2012 18:16

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
IC 200-41687/1-A	1		16:59	X																			
IC 200-41687/2-A	1		17:02	X																			
IC 200-41687/3-A	1		17:04	X																			
IC 200-41687/4-A	1		17:06	X																			
IC 200-41687/5-A	1		17:08	X																			
IC 200-41687/6-A	1		17:10	X																			
ICV 200-41687/7-A	1		17:12	X																			
ICB 200-41687/8-A	1		17:14	X																			
CCV 200-41687/9-A	1		17:16	X																			
CCB 200-41687/10-A	1		17:19	X																			
ZZZZZZ			17:21																				
ZZZZZZ			17:23																				
ZZZZZZ			17:25																				
ZZZZZZ			17:27																				
ZZZZZZ			17:29																				
ZZZZZZ			17:32																				
ZZZZZZ			17:34																				
ZZZZZZ			17:37																				
ZZZZZZ			17:39																				
CCV 200-41687/9-A	1		17:41	X																			
CCB 200-41687/10-A	1		17:43	X																			
ZZZZZZ			17:45																				
ZZZZZZ			17:48																				
CCV 200-41687/9-A	1		17:50	X																			
CCB 200-41687/10-A	1		17:52	X																			
MB 200-41687/22-A	1	T	17:55	X																			
LCS 200-41687/23-A	1	T	17:57	X																			
200-11554-1	1	T	18:00	X																			
200-11554-2	1	T	18:03	X																			
200-11554-3	1	T	18:05	X																			
200-11554-4	1	T	18:08	X																			
200-11554-4 DU	1	T	18:10	X																			
200-11554-4 MS	1	T	18:12	X																			
CCV 200-41687/9-A	1		18:14	X																			
CCB 200-41687/10-A	1		18:16	X																			

Prep Types

T = Total/NA

METALS BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Batch Number: 41429 Batch Start Date: 07/06/12 10:00 Batch Analyst: Tam, Michelle N

Batch Method: 3050B Batch End Date: 07/06/12 14:55

Lab Sample ID	Client Sample ID	Method Chain	Basis	CalcMsg	InitialAmount	FinalAmount	ME5PPMAGw 00018	MEADDSPIKEw 00009	MELCSS#2w 00010
MB 200-41429/12		3050B, 6010C		CALC NOT SET TO RUN	1.00 g	100 mL			
LCS 200-41429/13		3050B, 6010C		CALC NOT SET TO RUN	1.00 g	100 mL	5 mL		1 mL
200-11554-E-1	NFUDS-001-TP0101 -01	3050B, 6010C	T	CALC NOT SET TO RUN	1.58 g	100 mL			
200-11554-E-2	NFUDS-001-TP0201 -01	3050B, 6010C	T	CALC NOT SET TO RUN	1.48 g	100 mL			
200-11554-E-3	NFUDS-001-TP0302 -01	3050B, 6010C	T	CALC NOT SET TO RUN	1.54 g	100 mL			
200-11554-E-4	NFUDS-001-TP0402 -01	3050B, 6010C	T	CALC NOT SET TO RUN	1.58 g	100 mL			
200-11554-E-4 DU	NFUDS-001-TP0402 -01	3050B, 6010C	T	CALC NOT SET TO RUN	1.43 g	100 mL			
200-11554-E-4 MS	NFUDS-001-TP0402 -01	3050B, 6010C	T	CALC NOT SET TO RUN	1.41 g	100 mL	1 mL	1 mL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	MESPIKE#1w 00026					
MB 200-41429/12		3050B, 6010C							
LCS 200-41429/13		3050B, 6010C		1 mL					
200-11554-E-1	NFUDS-001-TP0101 -01	3050B, 6010C	T						
200-11554-E-2	NFUDS-001-TP0201 -01	3050B, 6010C	T						
200-11554-E-3	NFUDS-001-TP0302 -01	3050B, 6010C	T						
200-11554-E-4	NFUDS-001-TP0402 -01	3050B, 6010C	T						
200-11554-E-4 DU	NFUDS-001-TP0402 -01	3050B, 6010C	T						
200-11554-E-4 MS	NFUDS-001-TP0402 -01	3050B, 6010C	T	1 mL					

METALS BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Batch Number: 41429 Batch Start Date: 07/06/12 10:00 Batch Analyst: Tam, Michelle N

Batch Method: 3050B Batch End Date: 07/06/12 14:55

Batch Notes	
Analyst	MNT
Balance ID	763
First End time	14:55
Hydrogen peroxide lot number	354928
Lot # of hydrochloric acid	317713
Logbook ID for diluted Nitric	339218
Lot # of Nitric Acid	354927
Hood ID or number	109A
Hot Block ID number	3+4
Nominal Amount Used	1-1.5 g
Oven, Bath or Block Temperature 1	95 Degrees C
Oven, Bath or Block Temperature 2	95 Degrees C
Pipette ID	WC5/HJ17905
Person's name who witnessed reagent drop	VP
First Start time	10:00
ID number of the thermometer	37+35
Digestion Tube/Cup Lot #	1202052
Uncorrected Temperature	95 Celsius
Uncorrected Temperature 2	95 Degrees C

Basis	Basis Description
T	Total/NA

METALS BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Batch Number: 41687 Batch Start Date: 07/10/12 17:00 Batch Analyst: Pham, Vu T

Batch Method: 7471B Batch End Date: 07/11/12 16:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MEHGCCVw 00486	MEHGICVw 00019		
IC 200-41687/1		7471B, 7471B		50 mL	50 mL				
IC 200-41687/2		7471B, 7471B		50 mL	50 mL	0.1 mL			
IC 200-41687/3		7471B, 7471B		50 mL	50 mL	0.25 mL			
IC 200-41687/4		7471B, 7471B		50 mL	50 mL	0.5 mL			
IC 200-41687/5		7471B, 7471B		50 mL	50 mL	2.5 mL			
IC 200-41687/6		7471B, 7471B		50 mL	50 mL	5 mL			
ICV 200-41687/7		7471B, 7471B		50 mL	50 mL		5 mL		
ICB 200-41687/8		7471B, 7471B		50 mL	50 mL				
CCV 200-41687/9		7471B, 7471B		50 mL	50 mL	2.5 mL			
CCB 200-41687/10		7471B, 7471B		50 mL	50 mL				
MB 200-41687/22		7471B, 7471B		0.30 g	50 mL				
LCS 200-41687/23		7471B, 7471B		0.30 g	50 mL	0.5 mL			
200-11554-D-1	NFUDS-001-TP0101-01	7471B, 7471B	T	0.34 g	50 mL				
200-11554-D-2	NFUDS-001-TP0201-01	7471B, 7471B	T	0.31 g	50 mL				
200-11554-D-3	NFUDS-001-TP0302-01	7471B, 7471B	T	0.31 g	50 mL				
200-11554-D-4	NFUDS-001-TP0402-01	7471B, 7471B	T	0.37 g	50 mL				
200-11554-D-4 DU	NFUDS-001-TP0402-01	7471B, 7471B	T	0.33 g	50 mL				
200-11554-D-4 MS	NFUDS-001-TP0402-01	7471B, 7471B	T	0.36 g	50 mL	0.5 mL			

METALS BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Batch Number: 41687 Batch Start Date: 07/10/12 17:00 Batch Analyst: Pham, Vu T

Batch Method: 7471B Batch End Date: 07/11/12 16:30

Batch Notes	
Hydroxylamine Hydrochloride Lot	360755
Aqua Regia Lot Number	350805
Balance ID	12902
Batch Comment	Witness by MNT
Blank Soil Lot Number	0919120
Hood ID or number	109B & 109C
Hot Block ID number	7 & 8
Potassium Permanganate Lot Number	360206
Nominal Amount Used	0.30 g
Oven, Bath or Block Temperature 1	91 Celsius
Oven, Bath or Block Temperature 2	94 Celsius
Pipette ID	WC5 & HJ17905
SOP Number	BR-ME-004
ID number of the thermometer	74 & 100
Digestion Tube/Cup Lot #	1202052

Basis	Basis Description
T	Total/NA

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Burlington Job Number: 200-11554-1

SDG No.: 200-11554-1

Project: Nantucket Beach FUDS

Client Sample ID	Lab Sample ID
NFUDS-001-TP0101-01	200-11554-1
NFUDS-001-TP0201-01	200-11554-2
NFUDS-001-TP0302-01	200-11554-3
NFUDS-001-TP0402-01	200-11554-4

Comments:

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Burlington Job Number: 200-11554-1

SDG Number: 200-11554-1

Matrix: Solid Instrument ID: NOEQUIP

Method: Moisture LOQ Date: 04/01/2009 07:55

Analyte	Wavelength/ Mass	LOQ (%)	
Percent Solids		0.1	

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: NOEQUIP Method: Moisture

Start Date: 07/05/2012 10:58 End Date: 07/05/2012 10:58

Lab Sample ID	D / F	Type	Time	Analytes																			
				% Sol																			
200-11554-1	1	T	10:58	X																			
200-11554-1 DU	1	T	10:58	X																			
200-11554-2	1	T	10:58	X																			
200-11554-3	1	T	10:58	X																			
200-11554-4	1	T	10:58	X																			
ZZZZZZ			10:58																				
ZZZZZZ			10:58																				
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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Instrument ID: NOEQUIP Method: Moisture

Start Date: 07/05/2012 10:58 End Date: 07/05/2012 10:58

Lab Sample ID	D / F	Type	Time	Analytes																			
				% Sol																			
ZZZZZZ			10:58																				
ZZZZZZ			10:58																				
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ZZZZZZ			10:58																				
ZZZZZZ			10:58																				
ZZZZZZ			10:58																				

Prep Types

T = Total/NA

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 200-11554-1

SDG No.: 200-11554-1

Batch Number: 41363 Batch Start Date: 07/05/12 10:58 Batch Analyst: Nelson, Andrea J

Batch Method: Moisture Batch End Date: 07/06/12 09:10

Lab Sample ID	Client Sample ID	Method Chain	Basis	DISH#	DishWeight	SampleMassWet	SampleMassDry		
200-11554-D-1	NFUDS-001-TP0101-01	Moisture	T	1	1.02 g	7.55 g	7.28 g		
200-11554-D-1 DU	NFUDS-001-TP0101-01	Moisture	T	2	1.02 g	7.66 g	7.37 g		
200-11554-D-2	NFUDS-001-TP0201-01	Moisture	T	3	1.02 g	7.51 g	7.32 g		
200-11554-D-3	NFUDS-001-TP0302-01	Moisture	T	4	1.05 g	8.71 g	8.61 g		
200-11554-D-4	NFUDS-001-TP0402-01	Moisture	T	5	1.06 g	8.84 g	8.71 g		

Batch Notes	
Balance ID	M78711 No Unit
Date samples were placed in the oven	07/05/2012
Oven Temp when samples are put in oven	106 Degrees C
Time samples were place in the oven	1256
Date samples were removed from oven	07/06/2012
Oven Temp when samples removed from oven	105 Degrees C
Time Samples were removed from oven	0830
Oven ID	2
ID number of the thermometer	140

Basis	Basis Description
T	Total/NA

Subcontract Data

Shipping and Receiving Documents

Login Sample Receipt Checklist

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
SDG Number: 200-11554-1

Login Number: 11554
List Source: TestAmerica Burlington
List Number: 1
Creator: Kirchner, Benjamin

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	698042, 041, 043
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.4ºC, IR GUN ID 154, CF -0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	Check done at department level as required.

Login Sample Receipt Checklist

Client: Weston Solutions, Inc.

Job Number: 200-11554-1
SDG Number: 200-11554-1

Login Number: 11554
List Number: 1
Creator: Sutek, Nick

List Source: TestAmerica Canton
List Creation: 07/03/12 11:20 AM

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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www.westonsolutions.com

Memorandum
1 October 2012

To: Ms. Carol Ann Charette, Project Manager
U.S. Army Corps of Engineers
New England District
696 Virginia Road
Concord, MA 01742

Mr. Todd Beckwith, P.E., Design Team Leader
U.S. Army Corps of Engineers
Baltimore District
10 S. Howard Street, Rm 10040-E
Baltimore, MD 21201

From: Mr. Christopher G. Kane, PMP, Senior Project Manager
Weston Solutions, Inc.,
45 Constitution Avenue
Concord, NH 03301

W.O. # 03886.551.004

Subject: Contract No. W912DR-09-D-0006, Delivery Order 0005
Military Munitions Response Program
Remedial Investigation through Decision Document
Project: Nantucket Beach Formerly Used Defense Site, Nantucket, Massachusetts
Title: Draft - Munitions Response Site 2 Data Evaluation Technical Memorandum
Action: Review for Approval

1.0 INTRODUCTION

Weston Solutions Inc. (WESTON) is submitting a Draft Aerial Rocket Range Data Evaluation Technical Memorandum for USACE approval of data and risk screening conclusions to assess munitions constituents (MC) in soil at Munitions Response Site (MRS) 2. This assessment was conducted to support the on-going Military Munitions Response Program (MMRP) Remedial Investigation (RI) being undertaken at the Nantucket Beach Formerly Used Defense Site (FUDS), Nantucket, Massachusetts. The following attachments are provided as supplements to this Technical Memorandum:

- Attachment 1 – Figures
- Attachment 2 – Tables
- Attachment 3 – Test Pit Logs
- Attachment 4 – Data Validation Memoranda
- Attachment 5 – Final Analytical Data

The objectives of the MRS 2 assessment were to (1) evaluate the nature and extent of potential MC contamination associated with munitions debris (MD), which was identified during geophysical surface and subsurface investigations; and (2) assess potential risks posed to human health and the environment from any identified MC releases. Activities were conducted in accordance with planning documents for the RI [(Final Work Plan, specifically Appendix J (UFP-QAPP)) issued by WESTON in May 2012, and the Final Munitions Constituents Sampling Plan Memorandum issued by WESTON in August 2012]. A complete summary of findings from the field investigation will be included in the Remedial Investigation Report.

2.0 TECHNICAL APPROACH

The field approach involved performing sampling and analysis of environmental media as a follow-on activity to geophysical investigation of the subject area to assess potential MC associated with any identified munitions and explosives of concern (MEC) and/or significant amounts of MD. Ground-based geophysical activities performed for the RI in ten Anomaly Cluster (AC) areas identified throughout the FUDS using the airborne geophysical survey results collected in March 2012, did not identify any munitions of explosives of concern (MEC) to be present; however munitions debris (MD) was observed and recovered from one of the ACs, designated as AC-01. Digital Geophysical Mapping (DGM) conducted for the RI included 6.52 acres of coverage distributed throughout AC-01 in non-contiguous grids and transects, which are shown on Figure 1 of Attachment 1.

DGM of AC-01 was conducted with EM-61 survey instrumentation between 12 June 2012 and 2 July 2012. The results of geophysical mapping indicated a high density of potential munitions targets were present, and were used as the basis for subsequent intrusive investigations conducted throughout July 2012 up to 3 August 2012. Final resolution of all surface and subsurface investigations performed by UXO technicians identified 944 items, all classified as MD, located within the grids/transects investigated in AC-01. The maximum penetration depth for MD (2.25" rocket) observed in the field during RI intrusive investigations was 8 feet (ft) below ground surface (bgs), which was recorded in grid G02.

Based on the results of the geophysical investigation, the grids observed to have the highest density of munitions-related materials were selected for analytical sampling to assess the nature and extent of MC impacts, if any, associated with MD within MRS 2. Five geophysical investigation grids were selected for further investigation in AC-01 including G02, G04, G08, G09 and G12 within the highest density area of recovered MD observed during the RI as shown on Figure 1 (Note: Grid G12 was also the on-site detonation area used during RI activities). The five grids are depicted in further detail on Figure 2 with sample locations (including coordinates for subsurface samples collected), and sample identifiers.

During IS systematic planning, it was determined that all five grids would be considered part of the same Decision Unit, and each grid would be considered a separate Sampling Unit (SU) used to characterize 10,000 square ft (~0.25 acres) within the encompassing Decision Unit. All five grids were subject to surface soil assessment via Incremental Sampling (IS) using a systematic random grid layout, detailed on Figures 3 and 4 of Attachment 1, to facilitate collection of 30 increments within each grid for each sample. Approximately 35 grams of soil was collected from each increment to yield a total field volume of 1,000 g for each sample, which was sent off-site to the laboratory for further processing in accordance with the method SOP for 8330B (i.e.,

sieving, grinding, and further subsampling) prior to analysis. Of the five sampled grids, G08 was sampled in triplicate to provide replicate results for quality assurances purposes.

Additionally, within each of the grids, the location corresponding to the highest density of observed MD was located in the field via hand-held Trimble Global Positioning System (GPS) unit for discrete subsurface sampling (see Figure 2). Subsurface sampling was performed by excavating a small test pit to 10 ft bgs and collecting discrete grab samples from the following depth intervals; 0 to 2, 2 to 4, and 4 to 10 ft bgs. Samples below a 4 ft depth were collected remotely for safety purposes.

Samples were analyzed by TestAmerica in Burlington, Vermont via EPA Method 6010C for metals, EPA Method 8330B for explosives and EPA Method 9045D for pH. Sample results were received by WESTON, evaluated and validated (Tier II) in accordance with the UFP-QAPP. Validated analytical results were subject to a point-by-point comparison of chemical concentrations to screening levels selected to assess human health and ecological risks. Selected screening levels were previously established in the UFP-QAPP as part of the work plan for the RI.

To develop appropriate screening levels, the current and future use of the FUDS property was considered. Parcel ownership within the FUDS boundaries consists of both public and private entities (residents, Town of Nantucket, Nantucket Conservation Foundation, Nantucket Conservation Commission, and the Nantucket Airport, Nantucket Housing Authority), with large portions owned and maintained for conservation purposes. Recreational access to property within the FUDS is allowed by non-residential parcel owners. The current use is not anticipated to change in the future.

Screening levels for human health were based on the latest revision to Oak Ridge National Laboratory (ORNL) Regional Screening Levels (RSL) for residential soil exposure (U.S. EPA, 2012). Exposure points considered during this RI were selected based on current and foreseeable use scenarios for this FUDS, which include residential, construction worker and recreational user scenarios. To be conservative, residential screening levels were selected as the project screening levels for human health. Additionally, human health screening levels for non-carcinogens were reduced by a factor of 10 (one order of magnitude) to account for potential additive non-carcinogenic risk among multiple non-carcinogens that may affect the same non-carcinogenic endpoint.

A screening level comparison of analytical results to ecological benchmark values for receptors in soil was conducted for samples obtained between 0 and 2-ft bgs to evaluate the risk to potential ecological receptors including plants, soil invertebrates, and wildlife (terrestrial-feeding mammals and avian species) based on direct contact exposures of organisms to the affected soil, and potential exposure through the ingestion of other organisms as food sources. Benchmark ecological soil screening levels selected for this RI evaluation were composited from the following sources, using the most conservative benchmark available for the potential receptors with published values:

- Talmage et al. 1999. Talmage, S.S., D.M. Opresko, C.J. Maxwell, C.J.E. Welsh, M. Cretella, P.H. Reno, and F.B. Daniel. Nitroaromatic munition compounds: environmental effects and screening values. Rev. Environ. Contam. Toxicol. 161: 1-156.

- Efroymson et al. 1997. Efroymson, R.A., M.E. Will, and G.W. Suter II. 1997. Toxicological benchmarks for contaminants of potential concern for effects on soil and litter invertebrates and heterotrophic processes: 1997 revision. ES/ER/TM-126/R2. U.S. Department of Energy, Oak Ridge National Laboratory, Oak Ridge, TN.
- U.S. EPA Ecological Soil Screening Levels (Eco-SSLs) available for metals and organics (various publications dates). Available at: www.epa.gov/ecotox/ecossl/.

Test Pit Logs have been included in Attachment 3 to this memorandum. As indicated in the Test Pit Logs, soil characteristics observed during excavation were generally consistent between all excavations. A thin layer of dark brown topsoil (silty sand with organics) was observed overlying brown/orangish brown, well-graded sands and gravel of fine to coarse grain size to approximately 4 ft bgs. Clearly defined, well-graded, stratified drift material (yellowish brown medium to coarse gravelly sands with fine black sand) was observed in bedded layers at depths averaging 4 ft bgs in all excavations. Pockets/bedded layers of highly oxidized medium-grain sized orangish brown sands were noted in the test pits. No silty sands, or clays, were observed at depths below the topsoil layer.

Summary tables (Table 1a, Table 1b, Table 1c and Table 2) are provided as Attachment 2. Table 1a provides the validated MC analytical data collected via IS methodology for surface soil compared to the selected screening levels. To assess risk associated with concentrations of chemicals in G08 using all of the replicate results, a 95% UCL was calculated for each compound using the Chebyshev approach to provide a conservative estimate of the mean of the sample set (n=3) for this grid, which are the result provided in Table 1a. Table 1b has been provided to detail the 95% UCL results calculated for G08. Table 1c provides the percent relative standard deviation (%RSD) that was calculated between the replicate results reported for grid G08.

Table 2 provides the validated analytical data for MC subsurface samples collected for the RI compared to the selected screening levels. Only the samples collected between 0 and 2 ft bgs were compared to the selected screening levels to assess ecological risk.

As previously established in the UFP-QAPP, laboratory analytical methods were not able to achieve a level of detection (LOD) below selected screening levels for several compounds. In these instances, non-detect results that were reported by the laboratory at LOD values not meeting selected screening levels are also highlighted in the tables.

Memoranda prepared to detail data validation conducted for MC samples collected to characterize MRS 2 are provided in Attachment 4, and final analytical data packages received from the laboratory are provided in Attachment 5.

A summary of the data evaluation and findings for risk assessment activities conducted to evaluate human health and ecological risks present in MRS 2 related to MC in soil associated with historic use as an aerial rocket range is provided in the following sections.

3.0 DATA EVALUATION

As shown on Table 1a and Table 2, the majority of constituents analyzed by the laboratory yielded non-detect results or low level detections at quantitation limits that were below project

screening levels. The only detected analytes above respective screening levels in one or more samples were arsenic, cobalt, iron, selenium, and vanadium. All of these metals were observed at concentrations consistent with expected background levels, as discussed below in subsections 3.1 and 3.2. All explosive compounds were undetected or detected at estimated concentrations below selected screening levels. The negative log of hydrogen ion activity (pH) was also measured to assist with evaluation of constituents with pH-dependent toxicities. However, as noted on the table, the holding time for pH analysis is 15 minutes, and although sample shipment was expedited to the extent possible, analysis beyond the holding time was unavoidable.

Additionally highlighted in the attached tables are occurrences within the data set where non-detect results reported at the laboratory LOD did not meet the selected screening levels. This was observed in the results obtained for thallium (metal) and nitroglycerin (explosive) during the human health risk screening, and for antimony and selenium (both metals) during the ecological risk screening. These results are discussed in the context of chemical of potential concern (COPC) and chemical of potential environmental concern (COPEC) selection, to assess human health and ecological risks, respectively, below.

3.1 Human Health Risk Evaluation Selection of COPCs

Arsenic

As shown on Table 1a, for surface samples collected via IS methodology, the range of detected arsenic was 2.1 to 2.7 mg/kg with a selected screening level of 0.39 mg/kg used for comparison. Arsenic is a known carcinogen and therefore, the selected screening level was not reduced by a factor of 10 and is equivalent to the published value. It should be noted that the maximum result of 2.7 mg/kg is a conservative 95% UCL estimate calculated using all three replicates collected from grid G08. The highest individual sample value of arsenic detected in surface soil samples was 2.5 mg/kg.

Within the subsurface sample results shown on Table 2, arsenic was detected at a range of 1.4 to 3.8 mg/kg over all depth intervals sampled. All 15 primary samples and both field duplicates exceeded the selected screening criteria.

The statewide background concentration of arsenic for natural soil, as established by the Massachusetts Department of Environmental Protection (MassDEP) is 20 mg/kg (MassDEP, 2002). This is an order of magnitude greater than the detections observed within MRS 2.

Given the lack of any existing historical documentation of anthropogenic arsenic sources, soil composition indicating abundant arsenic-bearing minerals, toxicology information regarding natural occurrence/concentrations in soil, and the MassDEP statewide background level of 20 mg/kg for arsenic in natural soil, arsenic has not been determined to be a COPC for MRS 2.

Cobalt

Cobalt was detected by the laboratory at variable estimated concentrations in all samples collected to characterize MC for this RI. However, only one sample was reported at an estimated concentration in excess of the selected screening level of 2.3 mg/kg. The 4 to 10 ft bgs sample collected from grid G04 was reported by the laboratory at an estimated concentration of 3.5 mg/kg. Cobalt is a non-carcinogen, and the selected risk screening level was reduced by an order of magnitude from the published screening level, to account for additive non-carcinogenic risk among multiple non-carcinogens that may affect the same non-carcinogenic endpoint. Based on the historic use known for this FUDS property and lack of any other releases noted

throughout the FUDS (i.e., Site Inspection results, visual inspections of surface and subsurface, MRS 1 full suite sampling), this screening level reduction is likely over conservative and not needed. Without the reduction applied, the positive detection reported by the laboratory would meet the screening level as published by EPA. Additionally, the statewide background concentration of cobalt for natural soil, as established by MassDEP is 4 mg/kg (MassDEP, 2002). All estimated concentrations of cobalt detected in MRS 2 are below this published background value. Given the conservative nature of the selected screening level, and MassDEP published background concentration, cobalt has not been determined to be a COPC for MRS 2.

Iron

As shown on Table 1a, for surface samples collected via IS methodology, the range of detected iron was 5,700 to 8,288 mg/kg with a selected screening level of 5,500 mg/kg used for comparison. Validation performed on the data indicated that quality criteria for serial dilutions and/or post-digestion results were not met and all of the positive detections were qualified as estimated (biased could not be determined).

Within the subsurface sample results shown on Table 2, iron was detected in excess of the selected screening level at variable concentrations between 5,900 to 6,200 mg/kg in four primary samples (none duplicated in the field), collected from the 0 to 2-ft bgs depth interval in all grids except G02.

Iron is a non-carcinogen, and the selected risk screening level was reduced by an order of magnitude from the published screening level, to account for additive non-carcinogenic risk among multiple non-carcinogens that may affect the same non-carcinogenic endpoint. Based on the historic use known for this FUDS property and lack of any other releases noted throughout the FUDS (i.e., Site Inspection results, visual inspections of surface and subsurface, MRS 1 full suite sampling), this screening level reduction is likely over conservative and not needed. Without the reduction applied, the positive detections reported by the laboratory would all meet the screening level as published by EPA. Iron is not a CERCLA hazardous chemical, and is a naturally occurring heavy metal in the environment that is an essential nutrient. Additionally, the statewide background concentration of iron for natural soil, as established by MassDEP is 20,000 mg/kg (MassDEP, 2002). This is an order of magnitude greater than the detections observed within MRS 2. Given all of the considerations above, iron has not been determined to be a COPC for MRS 2.

Thallium

In accordance with the Department of Defense Quality Systems Manual (QSM), the non-detect results obtained by the laboratory for thallium in surface soil samples were reported at the LOD for each analysis, which varied between 0.71 and 0.78 mg/kg, and exceed the selected screening level of 0.078 mg/kg (see Table 1a). Subsurface sample results reported as non-detect at the LOD varied between 0.87 and 1.3 mg/kg (see Table 2). The analytical laboratory further evaluated thallium down to the method detection limit (DL) for each sample and similarly reported no detections (see Attachment 5). The maximum DL reported for surface soil samples was 0.21 mg/kg, and 0.36 mg/kg for subsurface samples (see Attachment 5).

Thallium is a non-carcinogen, and the selected risk screening level was reduced by an order of magnitude from the published screening level, to account for additive non-carcinogenic risk among multiple non-carcinogens that may affect the same non-carcinogenic endpoint. Based on

the historic use known for this FUDS property and lack of any other releases noted throughout the FUDS (i.e., Site Inspection results, visual inspections of surface and subsurface, MRS 1 full suite sampling), this screening level reduction is likely over conservative and not needed. Without the reduction applied, the laboratory results indicating no detections down to the method DL would meet the screening level as published by EPA. Thallium was not detected in any of the samples obtained within MRS 2, and based on the considerations presented above, the LOD was sufficient for the purposes of risk screening, therefore, thallium was not determined to be a COPC for MRS 2.

Nitroglycerin

The non-detect results obtained by the laboratory for nitroglycerin for all surface soil samples were reported at the LOD for each analysis, which varied between 710 and 756 µg/kg, and slightly exceed the selected nitroglycerin screening level for this RI of 610 µg/kg (see Table 1a). However, the analytical laboratory further evaluated nitroglycerin down to a method DL of 480 µg/kg and similarly did not report any detections (see Attachment 5). The LOD reported for all non-detect subsurface soil sample results did not vary and was equivalent to 720 µg/kg, with a DL of 480 µg/kg for each analysis (see Table 2 and Attachment 5).

Nitroglycerin is a non-carcinogen and the screening level was selected at an order of magnitude below the published level, to account for additive non-carcinogenic risk among multiple non-carcinogens that may affect the same non-carcinogenic endpoint. Without the reduction applied, the non-detect results reported at the LOD would meet the screening level.

Nitroglycerin was not detected in any of the samples obtained from MRS 2, and based on the considerations presented above, the LOD was sufficient for the purposes of risk screening, therefore nitroglycerin was not determined to be a COPC for MRS 2.

3.2 Ecological Risk Evaluation Selection of COPECs

Antimony

As shown on Table 1a, the non-detect results obtained by the laboratory for antimony in all surface soil samples collected from MRS 2 were reported at the LOD, which varied between 0.71 mg/kg and 0.78 mg/kg, and were above the selected benchmark screening level of 0.27 mg/kg [based on mammalian uptake, (EPA, 2005)]. However, the laboratory also did not detect any antimony in the samples down to the method DL used of 0.25 mg/kg for each analysis, which does meet the screening level. Within the subsurface sample results provided on Table 2, the non-detect LOD reported by the laboratory for all 5 samples collected between 0 and 2 ft bgs ranged between 1 and 1.3 mg/kg, with variable DLs for each analysis ranging from 0.33 to 0.43 mg/kg (see Attachment 5), which still slightly exceed the selected screening level. However, given the fact that there were no detections of antimony in any samples collected to assess MC in soil throughout MRS 2 down to the method DL, antimony was not determined to be a COPEC for MRS 2.

Selenium

As shown on Table 1a, surface soil sample results reported by the laboratory were estimated at positive detections between 0.53 and 0.70 mg/kg for selenium in four of the five sampled grids (all but G02), which exceed the selected benchmark screening level for this RI of 0.52 mg/kg [based on terrestrial plant exposure, (EPA 2007)]. As shown on Table 2, selenium was reported

as non-detect by the laboratory for all subsurface soil samples collected between 0 and 2 ft bgs at concentrations equivalent to the LOD for each analysis, which varied between 1.5 and 2 mg/kg, but exceed the selected benchmark screening level. However, the analytical laboratory further evaluated selenium down to the method DL and similarly did not report any detections observed to this level either (see Attachment 5). The method DL reported by the laboratory for this evaluation varied between 0.58 and 0.76 mg/kg, which still slightly exceeds the selected screening level.

Selenium is a naturally occurring element that is widely but unevenly distributed throughout earth's crust. Natural sources of selenium include volcanism, weathering and dust deposition. Based on the toxicology profile for selenium, in low concentrations, it is an essential nutrient for humans and animals. Anthropogenic sources of selenium include copper refining, fossil fuel burning, and disposal/release of selenium-containing commercial products (ATSDR, 2003). None of the anthropogenic sources established in the toxicology profile for selenium are suspected to be present within MRS 2 based on historical and current use of the property.

Given the low levels of estimated detections within only four (4) of the total MC samples collected, lack of any existing historical documentation of anthropogenic selenium sources, and toxicology information regarding natural occurrence/concentrations in soil, selenium was not determined to be a COPEC for MRS 2.

Vanadium

As shown on Table 1a, surface soil sample results reported by the laboratory were estimated at positive detections between 8 and 12.9 mg/kg for vanadium in all five (5) samples, which slightly exceed the selected benchmark screening level for this RI of 7.8 mg/kg [based on avian wildlife exposure, (EPA 2005)]. As shown on Table 2, vanadium was positively detected in all subsurface samples collected between 0 and 2 ft bgs at variable concentrations between 5.5 and 9.4 mg/kg, but only exceeded the selected benchmark screening level in three (3) primary samples (none were duplicated in the field).

Based on the toxicology profile for vanadium, this element is naturally and widely occurring throughout earth's crust at an average concentration of 100 mg/kg and is associated with over 65 minerals. Natural sources include volcanism, dust and marine aerosol deposition, while anthropogenic sources include oil refineries and power plants using vanadium-rich fuel oil and coal (ATSDR, 2009). None of these anthropogenic sources are suspected to have impacted MRS 2 based on historic and current use information. Identification of MC likely to be associated with the types of munitions previously used at this FUDS completed for the SI and RI planning document do not include vanadium as a potential constituent. Additionally, the statewide background concentration of vanadium for natural soil, as established by MassDEP is 30 mg/kg (MassDEP, 2002), which is greater than all detections of vanadium reported by the laboratory throughout MRS 2.

Given the lack of any existing historical documentation of anthropogenic vanadium sources, toxicology information regarding natural occurrence/concentrations in soil, and the MassDEP statewide background level of 30 mg/kg for vanadium in natural soil, vanadium has not been determined to be a COPEC for MRS 2.

4.0 RECOMMENDATIONS

Based on the findings of this MC Data Evaluation Memorandum, no significant exceedances of the screening levels selected to assess human health and ecological risks from contact with MC in soil impacted by MD in MRS 2 were observed, and no COPCs or COPECs were identified. The few screening level exceedances that were observed, were found to be consistent with published background concentrations and do not indicate a release of MC from MD. Therefore, no further sampling or investigation is proposed as part of the RI to support establishing the nature and extent of MC for the RI Report. The data collected supports the proposed conclusion that no remedial action is necessary to protect public health, welfare, or the environment at MRS 2 from MC in soil based on current and intended future use of the site (i.e., residential users, construction workers, recreational users).

5.0 REFERENCES

Agency for Toxic Substances and Disease Registry (ATSDR). 2005. Toxicological Profile for Selenium. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

ATSDR. 2007. Toxicological Profile for Arsenic. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

ATSDR. 2008. Toxicological Profile for Aluminum. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

ATSDR. 2009. Draft Toxicological Profile for Vanadium. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

Massachusetts Department of Environmental Protection (MassDEP). 2002. Background Levels of Polycyclic Aromatic Hydrocarbons and Metals in Soil. Boston, MA. Office of Research and Standards.

U.S. Environmental Protection Agency (U.S. EPA). 2003. Ecological Soil Screening Levels for Aluminum, Interim Final. Washington, D.C. Office of Solid Waste and Emergency Response, OSWER Directive 9285.7-60.

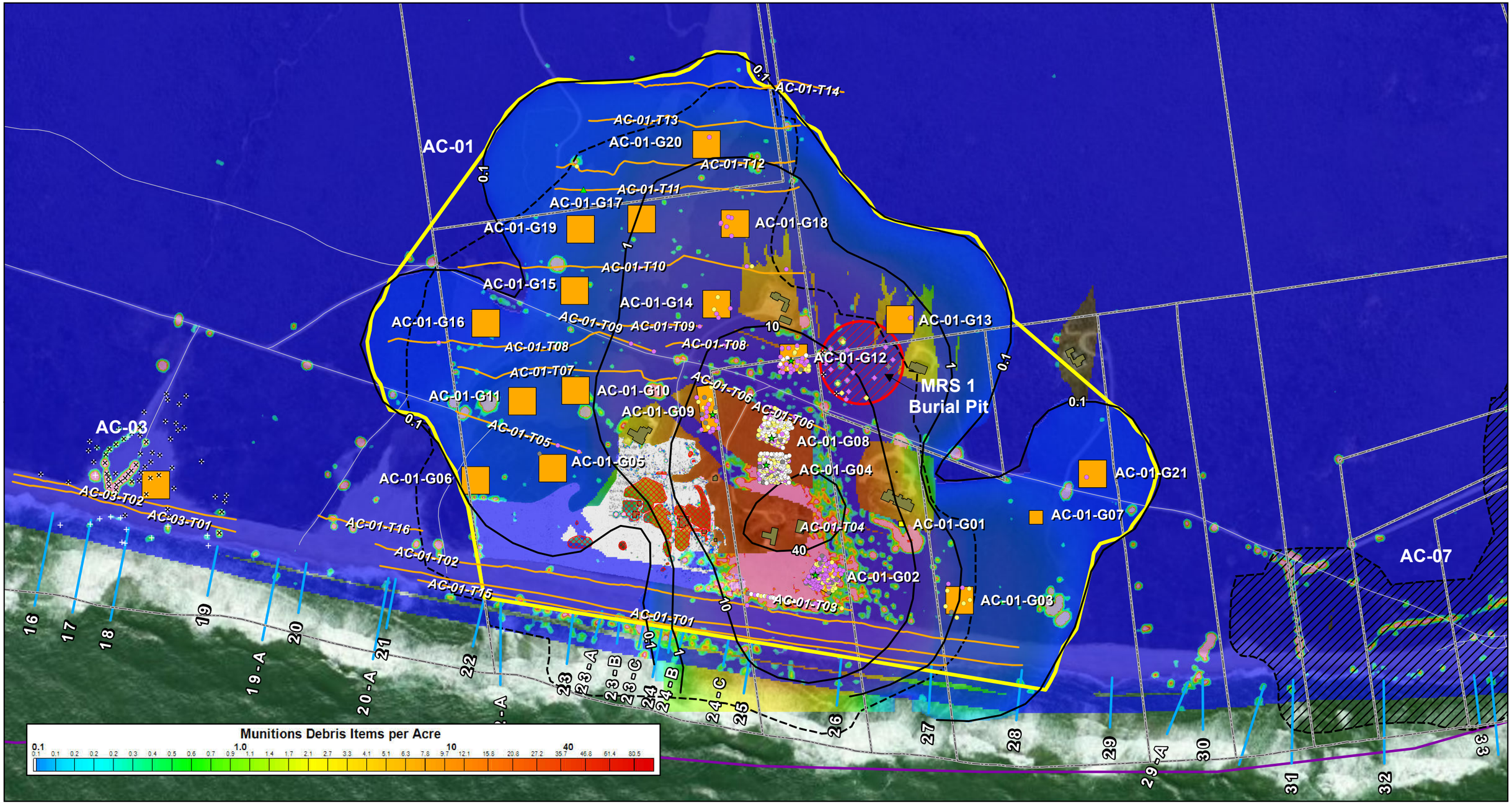
U.S. EPA. 2003. Ecological Soil Screening Levels for Iron, Interim Final. Washington, D.C. Office of Solid Waste and Emergency Response, OSWER Directive 9285.7-69.

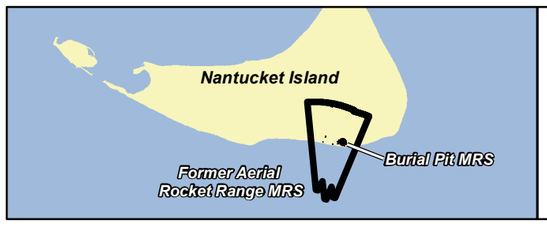
U.S. EPA. 2005. Ecological Soil Screening Levels for Antimony, Interim Final. Washington, D.C. Office of Solid Waste and Emergency Response, OSWER Directive 9285.7-61.

U.S. EPA. 2005. Ecological Soil Screening Levels for Vanadium, Interim Final. Washington, D.C. Office of Solid Waste and Emergency Response, OSWER Directive 9285.7-75.

U.S. EPA. 2007. Ecological Soil Screening Levels for Selenium, Interim Final. Washington, D.C. Office of Solid Waste and Emergency Response, OSWER Directive 9285.7-72.

ATTACHMENT 1
Figures





- 2.25-in rocket
- 3.5-in rocket
- 5-in rocket
- Misc Rocket Components
- Frag
- Anomaly Investigated
- MC Sample Location
- Planned Magnetic Anomaly Locations
- Cleared to 48 inches remainder left in place
- Planned Investigation
- Geophysics Complete
- Intrusive Investigation Complete
- Anomaly Density Contour
- Road
- Target #1 Footprint
- Areas Not Investigated by VR Hablis
- Anomaly Cluster Known Cultural Source
- AC-01 Boundary
- Building
- Parcel Lines
- Geophysics Complete
- Intrusive Investigation Complete

US Army Corps of Engineers

Nantucket Beach Formerly Used Defense Site

WESTON SOLUTIONS

Figure 1
AC-01/ Target #1 Footprint

N

0 220 440 660 Feet

0 80 160 240 Meters

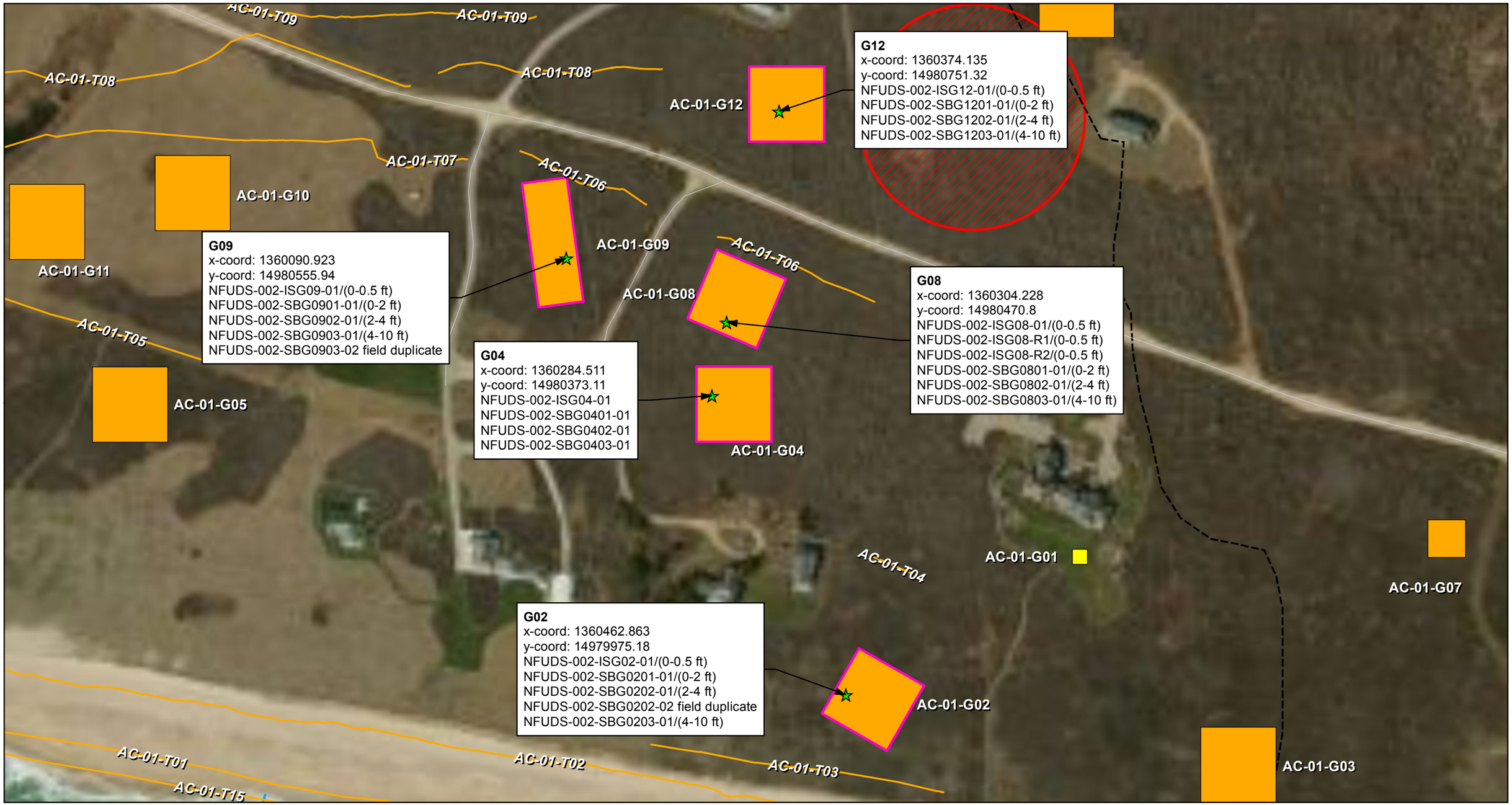
NOTES:
Aerial Data Source: ESRI Bing Imagery Service
Base Data: USACE (2004)

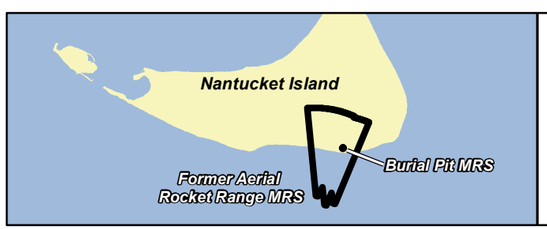
9/28/2012
Revision: 2

nt_md_density_ac_01_anomaly

Drawn: curtisf

PROJ: 03886.551.004





MC Sample Location
Intrusive Investigation Complete
Road
AC-01 Boundary
MRS 1 – Burial Pit
MC sampling conducted via IS for grid surface soil and discretely in subsurface at arrow point
Geophysics Complete
Intrusive Investigation Complete

Project Coordinate System: UTM, Z19N, NAD83, US Feet

US Army Corps of Engineers

Nantucket Beach Formerly Used Defense Site

WESTON SOLUTIONS

Figure 2
MRS 2 Aerial Rocket Range
MC Sampling Map

N

0 80 160 240 Feet

0 30 60 90 Meters

NOTES:
Aerial Data Source: ESRI Bing Imagery Service
Base Data: USACE (2004)

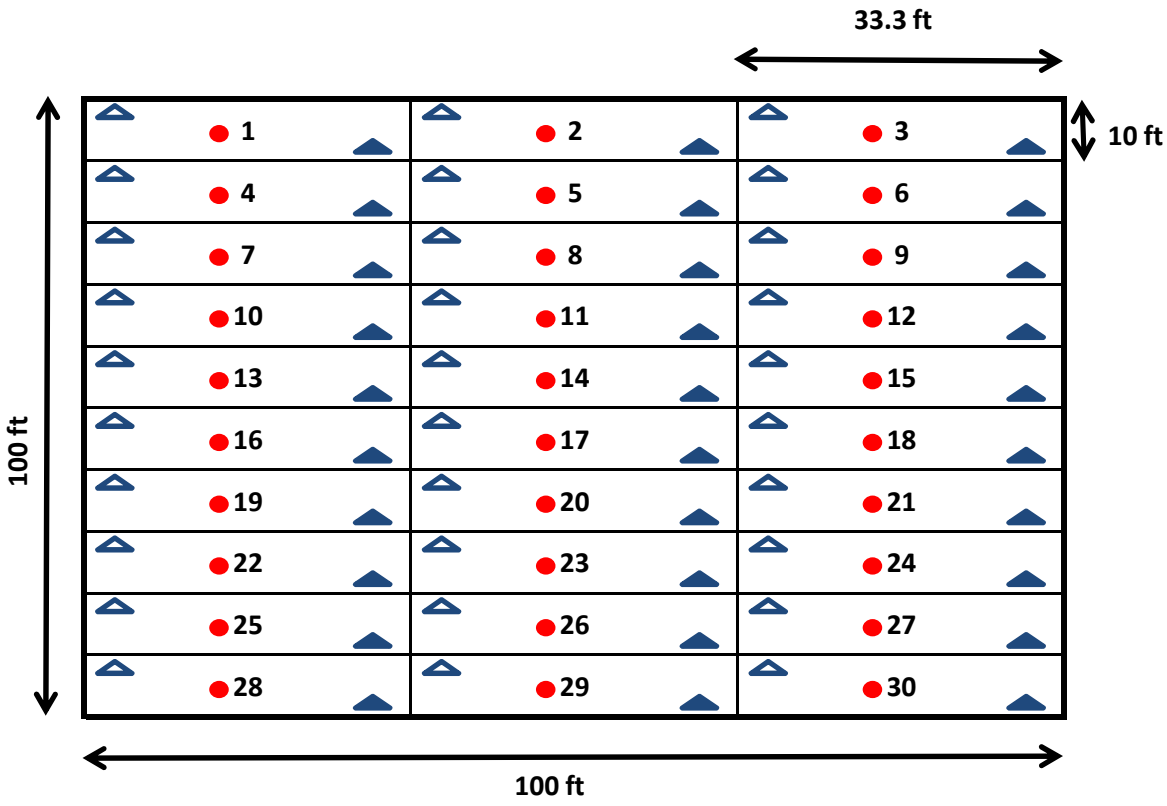
9/28/2012
Revision: 0

NT_MC_Samples

Drawn: curtisf

PROJ: 03886.551.004

Figure 3
Incremental Sampling Systematic Sampling Unit Layout
Grids G02, G04, G08 and G12
Nantucket Beach Formerly Used Defense Site



Notes:

Sampling Unit size meets risk assessment exposure assumptions (~0.25 acres)

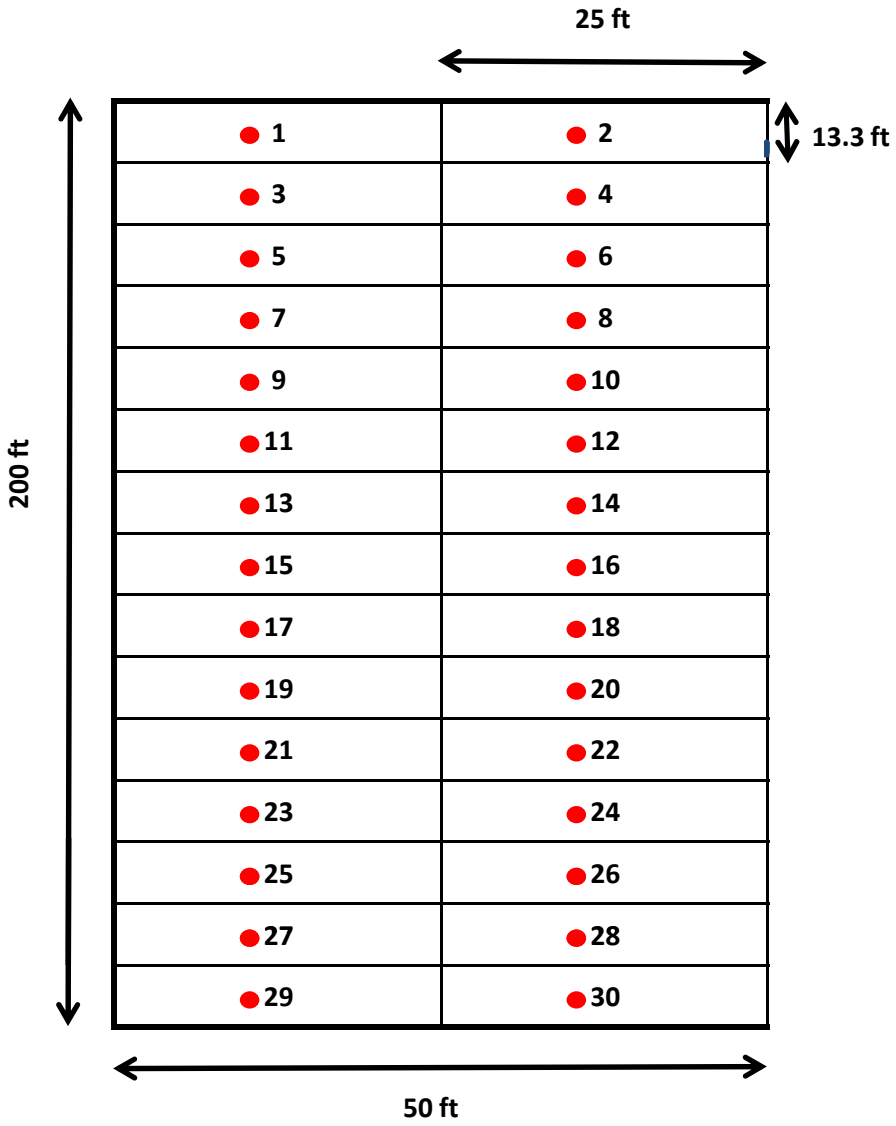
Red dot (●) indicates location of systematic random increment collection point (~35 grams/increment)

Solid blue triangle (▲) indicates location of replicate (duplicate) increment collection point (collected in G08)

Open blue triangle (△) indicates location of replicate (triplicate) increment collection point (collected in G08)

ft = foot

Figure 4
Incremental Sampling Systematic Sampling Unit Layout
Grid G09
Nantucket Beach Formerly Used Defense Site



Notes:

Sampling Unit size meets risk assessment exposure assumptions (~0.25 acres)

Red dot (●) indicates location of systematic random increment collection point (~35 grams/increment)

ft = foot

ATTACHMENT 2
Tables

Table 1a
Munitions Response Site 2
Munitions Constituents Characterization
Surface Soil Incremental Sampling Summary
Nantucket Beach FUDS Remedial Investigation

Analytical Method	Compound	CAS No.	Human Health Risk Screening Level [1]	Ecological Risk Screening Level [2]	Units:	Field Sample ID: NFUDS-002-ISG02-01 Date: 7/31/2012 Lab Sample ID: 200-12041-1 Depth (ft bgs): 0 - 0.5 Result	Val. Qual.	NFUDS-002-ISG04-01 8/1/2012 200-12041-2 0 - 0.5 Result	Val. Qual.	NFUDS-002-ISG09-01 7/31/2012 200-12041-6 0 - 0.5 Result	Val. Qual.	NFUDS-002-ISG12-01 8/1/2012 200-12041-7 0 - 0.5 Result	Val. Qual.	NFUDS-002-ISG08 95% UCL Result (n=3 replicates) [6]
Metals														
6010C	Aluminum, Total	7429-90-5	7700	-- [3]	mg/kg	3800	J11	4600		4200		3600		6688
6010C	Antimony, Total	7440-36-0	3.1	0.27	mg/kg	0.74	U	0.71	U	0.72	U	0.75	U	0.78
6010C	Arsenic, Total	7440-38-2	0.39	18	mg/kg	2.1		2.2		2.5		2.3		2.7
6010C	Barium, Total	7440-39-3	1500	330	mg/kg	5	J	5.2	J	7.9	J	6	J	7.2
6010C	Beryllium, Total	7440-41-7	16	21	mg/kg	0.1	J	0.12	J	0.092	J	0.089	J	0.14
6010C	Cadmium, Total	7440-43-9	7	0.36	mg/kg	0.044	J	0.077	J	0.057	J	0.059	J	0.06
6010C	Calcium, Total	7440-70-2	--	--	mg/kg	310	J11	170	J	370		300		212
6010C	Chromium, Total	7440-47-3	12000	26	mg/kg	4.6		5.7		5.5		4.9		7.0
6010C	Cobalt, Total	7440-48-4	2.3	13	mg/kg	0.58	J	1.1	J	0.78	J	0.75	J	0.88
6010C	Copper, Total	7440-50-8	310	28	mg/kg	1.5		1.6		2.3		6.6		2.0
6010C	Iron, Total	7439-89-6	5500	-- [3]	mg/kg	4800	J10,J11	6000	J10	6400	J10	5700	J10	8288
6010C	Lead, Total	7439-92-1	40	11	mg/kg	4.6		4.5		8.5		9.1		7.6
6010C	Magnesium, Total	7439-95-4	--	--	mg/kg	490	J11	530		520		450		531
6010C	Manganese, Total	7439-96-5	180	220	mg/kg	35		38		47		35		43
6010C	Nickel, Total	7440-02-0	150	38	mg/kg	1.8	J	2.8		2.5		2.1		2.8
6010C	Potassium, Total	7440-09-7	--	--	mg/kg	270		290		310		280		295
6010C	Selenium, Total	7782-49-2	39	0.52	mg/kg	1.1	U	0.53	J	0.63	J	0.63	J	0.70
6010C	Silver, Total	7440-22-4	39	4.2	mg/kg	0.2	U	0.19	U	0.19	U	0.2	U	0.2
6010C	Sodium, Total	7440-23-5	--	--	mg/kg	59	J	20	J	55	J	41	J	39
6010C	Thallium, Total	7440-28-0	0.078	1	mg/kg	0.74	U	0.71	U	0.72	U	0.75	U	0.78
6010C	Vanadium, Total	7440-62-2	39	7.8	mg/kg	8		8.8		10		9.3		12.9
6010C	Zinc, Total	7440-66-6	2300	46	mg/kg	9		11		8.9		8.2		10.5
7471B	Mercury, Total	7439-97-6	1	0.1	mg/kg	0.0037	U	0.0036	U	0.008	J	0.014	J	0.02
Explosives														
8330B	1,3,5-Trinitrobenzene	99-35-4	220000	40,000 [4]	ug/kg	12	U	12	U	330	J12	69	J12	128
8330B	1,3-Dinitrobenzene	99-65-0	610	40,000 [4]	ug/kg	12	U	12	U	12	U	12	U	13
8330B	2,4,6-Trinitrotoluene	118-96-7	19000	30,000	ug/kg	24	U	24	U	24	U	24	U	25
8330B	2,4-Dinitrotoluene	121-14-2	1600	30,000 [5]	ug/kg	24	U	24	U	24	U	24	U	25
8330B	2,6-Dinitrotoluene	606-20-2	6100	30,000 [5]	ug/kg	31	J12	12	U	12	U	12	U	13
8330B	2-Amino-4,6-dinitrotoluene	35572-78-2	15000	80,000	ug/kg	12	U	12	U	12	U	12	U	390
8330B	2-Nitrotoluene	88-72-2	2900	30,000 [5]	ug/kg	24	U	24	U	24	U	24	U	25
8330B	3-Nitrotoluene	99-08-1	610	30,000 [5]	ug/kg	30	U	450	J12	30	U	47	J	459
8330B	4-Amino-2,6-dinitrotoluene	19406-51-0	15000	80,000	ug/kg	490	J12	12	U	12	U	12	U	13
8330B	4-Nitrotoluene	99-99-0	30000	30,000 [5]	ug/kg	30	U	30	U	30	U	70	J	135
8330B	HMX	2691-41-0	380000	--	ug/kg	12	U	12	U	12	U	12	U	13
8330B	Nitrobenzene	98-95-3	4800	40,000	ug/kg	30	U	30	U	30	U	29	U	32
8330B	Nitroglycerin	55-63-0	610	--	ug/kg	720	U	720	U	720	U	710	U	756
8330B	RDX	121-82-4	5600	100,000	ug/kg	12	U	12	U	12	U	12	U	44
8330B	Tetryl	479-45-8	24000	25,000	ug/kg	24	U	24	U	24	U	24	U	297
pH														
9045D	Laboratory pH	NA	--	< 5.5	s.u.	4.78	HF	4.75	HF	4.41	HF	4.28	HF	4.48

Notes:

Lab Qualifiers

HF Field parameter with holding time of 15 min - sample was prepped beyond specified holding time
J Estimated: The analyte was positively identified; the quantitation is an estimation.
U The analyte was not detected in the sample. The numeric value represents the sample LOD

Validation Qualifiers

J10 Estimate the positive result for Fe in all samples due to non-compliant serial dilution results (bias could not be determined)
J11 Estimate the positive results for Al, Ca, Fe and Mg in sample NFUDS-002-ISG02-01 due to non-compliant post-digestion results (bias could not be determined)
J12 Estimate the positive explosive results due to %RPD between columns above 40% (bias could not be determined)
J13/UJ13 Estimate the positive and non-detected results due to %RSD between triplicate results above 20% (bias could not be determined)

EPA RSL = U.S. Environmental Protection Agency Regional Screening Level
mg/kg = milligrams per kilograms
µg/kg = micrograms per kilogram

LOD = level of detection
UCL = upper concentration limit
%RPD = relative percent difference
%RSD = relative standard deviation
NA = Not applicable

Screening Levels

[1] Human health risk soil screening levels were obtained from EPA RSLs for residential soil May 2012;
non-carcinogenic endpoint screening levels were divided by ten (10) to account for potential occurrence of adverse health effects due to exposure to multiple noncarcinogens.

[2] Ecological risk soil screening levels were obtained from EPA Eco-SSLs (various publication dates) for metals and organics.
Ecological risk soil screening levels were obtained from Talmage et al., 1999, for nitroaromatic munition compounds.
Ecological risk soil screening levels were obtained from Efroymson et al., 1997, for various DOE site contaminants based on soil invertebrate and microbial process effects.

[3] Toxicity is dependent on pH

[4] Benchmark based on nitrobenzene

[5] Benchmark based on TNT

[6] 95% UCL calculation details for grid G08 are shown on Table 1b; only the 95% UCL results for each analyte were compared to selected screening levels

-- = screening level not available

Analytical results highlighted in **PINK** exceed the selected human health screening level
Analytical results highlighted in **GREEN** exceed the selected ecological benchmark screening level
Analytical results highlighted in **YELLOW** were not detected by the laboratory but are reported at a level of detection above the selected screening level

Table 1b
Munitions Response Site 2
Munitions Constituents Characterization
Incremental Sampling Grid G08 Replicates 95% UCL Calculation
Nantucket Beach FUDS Remedial Investigation

	Replicate Results																																									
	Metals via EPA Method 6010C (mg/kg)																								Explosives via EPA Method 8330B (µg/kg)																	
Replicate Number	Aluminum, Total	Antimony, Total	Arsenic, Total	Barium, Total	Beryllium, Total	Cadmium, Total	Calcium, Total	Chromium, Total	Cobalt, Total	Copper, Total	Iron, Total	Lead, Total	Magnesium, Total	Manganese, Total	Nickel, Total	Potassium, Total	Selenium, Total	Silver, Total	Sodium, Total	Thallium, Total	Vanadium, Total	Zinc, Total	Mercury, Total	1,3,5-Trinitrobenzene	1,3-Dinitrobenzene	2,4,6-Trinitrotoluene	2,4-Dinitrotoluene	2,6-Dinitrotoluene	2-Amino-4,6-dinitrotoluene	2-Nitrotoluene	3-Nitrotoluene	4-Amino-2,6-dinitrotoluene	4-Nitrotoluene	HMX	Nitrobenzene	Nitroglycerin	RDX	Tetryl	pH
	7700	**3.1**	**0.39**	**1500**	**16**	**7**	**--**	**12000**	**2.3**	**310**	**5500**	**40**	**--**	**180**	**150**	**--**	**39**	**39**	**--**	**0.078**	**39**	**2300**	**1**	**220000**	**610**	**19000**	**1600**	**6100**	**15000**	**2900**	**610**	**15000**	**30000**	**380000**	**4800**	**610**	**5600**	**24000**	**--**
	-- [1]	**0.27**	**18**	**330**	**21**	**0.36**	**--**	**26**	**13**	**28**	**-- [1]**	**11**	**--**	**220**	**38**	**--**	**0.52**	**4.2**	**--**	**1**	**7.8**	**46**	**0.1**	**40,000 [2]**	**40,000 [2]**	**30,000**	**30,000 [3]**	**30,000 [3]**	**80,000**	**30,000 [3]**	**30,000 [3]**	**80,000**	**30,000 [3]**	**--**	**40,000**	**--**	**100,000**	**25,000**	**< 5.5**
ISG08-01	4000	0.76	2.1	5.2	0.092	0.05	160	5.1	0.71	1.6	5600	6.2	400	32	2.1	260	0.58	0.2	35	0.76	9.3	7.1	0.01	35	12	24	24	12	190	24	30	12	30	12	30	710	12	52	4.41
ISG08-R1	5100	0.74	2.4	6.2	0.1	0.05	170	5.9	0.75	1.6	6700	6.7	450	35	2.3	270	0.64	0.2	31	0.74	11	8.4	0.0037	12	12	24	24	12	190	24	30	12	30	12	30	720	12	56	4.33
ISG08-R2	5400	0.76	2.4	6.1	0.12	0.053	190	6.1	0.81	1.8	7000	5.6	470	38	2.5	280	0.56	0.2	29	0.76	11	8.9	0.0034	79	11	23	23	11	11	23	270	11	89	11	28	680	30	190	4.38
arithmetic mean	4833.333	0.753	2.300	5.833	0.104	0.051	173.333	5.700	0.757	1.667	6433.333	6.167	440.000	35.000	2.300	270.000	0.593	0.200	31.667	0.753	10.433	8.133	0.006	42.000	11.667	23.667	23.667	11.667	130.333	23.667	110.000	11.667	49.667	11.667	29.333	703.333	18.000	99.333	4.373
standard deviation	737.111	0.012	0.173	0.551	0.014	0.002	15.275	0.529	0.050	0.115	737.111	0.551	36.056	3.000	0.200	10.000	0.042	0.000	3.055	0.012	0.981	0.929	0.004	34.044	0.577	0.577	0.577	0.577	103.346	0.577	138.564	0.577	34.064	0.577	1.155	20.817	10.392	78.545	0.040
CV = SD / mean	0.153	0.015	0.075	0.094	0.139	0.034	0.088	0.093	0.067	0.069	0.115	0.089	0.082	0.086	0.087	0.037	0.070	0.000	0.096	0.015	0.094	0.114	0.654	0.811	0.049	0.024	0.024	0.049	0.793	0.024	1.260	0.049	0.686	0.049	0.039	0.030	0.577	0.791	0.009
count (r)	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
alpha (95% = 0.05)	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
t(alpha, df=r-1)	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92	2.92
Chebychev UCL	6688	0.78	2.7	7.2	0.14	0.06	212	7.0	0.88	2.0	8288	7.6	531	43	2.8	295	0.70	0.2	39	0.78	12.9	10.5	0.02	128	13	25	25	13	390	25	459	13	135	13	32	756	44	297	4.48

Note:
Table was adopted and modified from Interstate Technology and Regulatory Council (ITRC) ISM guidance for calculating a 95% UCL based on n=3 (ProUCL not applicable).

[1] Human health risk soil screening levels were obtained from EPA RSLs for residential soil May 2012;
non-carcinogenic endpoint screening levels were divided by ten (10) to account for potential occurrence of adverse health effects due to exposure to multiple noncarcinogens.

[2] Ecological risk soil screening levels were obtained from EPA Eco-SSLs (various publication dates) for metals and organics.
Ecological risk soil screening levels were obtained from Talmage et al., 1999, for nitroaromatic munition compounds.
Ecological risk soil screening levels were obtained from Efroymson et al., 1997, for various DOE site contaminants based on soil invertebrate and microbial process effects.

[3] Toxicity is dependent on pH

[4] Benchmark based on nitrobenzene

[5] Benchmark based on TNT

[6] 95% UCL calculation details for grid G08 are shown on Table 1b; only the 95% UCL results for each analyte were compared to selected screening levels

-- = screening level not available

Analytical results highlighted in **PINK** exceed the selected human health screening level

Analytical results highlighted in **GREEN** exceed the selected ecological benchmark screening level

Analytical results highlighted in **YELLOW** were not detected by the laboratory but are reported at a level of detection above the selected screening level

EPA = U.S. Environmental Protection Agency
mg/kg = milligrams per kilograms
µg/kg = micrograms per kilogram
LOD = level of detection
RSL = Regional Screening Level
UCL = upper concentration limit
NA = Not applicable

Table 1c
Munitions Response Site 2
Munitions Constituents Characterization
Incremental Sampling Grid G08 Replicate Summary
Nantucket Beach FUDS Remedial Investigation

Analytical Method	Compound	CAS No.	Units:	Field Sample ID: NFUDS-002-ISG08-01 Date: 7/31/2012 Lab Sample ID: 200-12041-3 Depth (ft bgs): 0 - 0.5 Result	Val. Qual.	NFUDS-002-ISG08-R1 8/1/2012 200-12041-4 0 - 0.5 Result	Val. Qual.	NFUDS-002-ISG08-R2 8/1/2012 200-12041-5 0 - 0.5 Result	Val. Qual.	G08 Replicate %RSD
Metals										
6010C	**Aluminum, Total**	**7429-90-5**	mg/kg	4000		5100		5400		15.25
6010C	**Antimony, Total**	**7440-36-0**	mg/kg	0.76	U	0.74	U	0.76	U	1.53
6010C	**Arsenic, Total**	**7440-38-2**	mg/kg	2.1		2.4		2.4		7.53
6010C	**Barium, Total**	**7440-39-3**	mg/kg	5.2	J	6.2	J	6.1	J	9.44
6010C	**Beryllium, Total**	**7440-41-7**	mg/kg	0.092	J	0.1	J	0.12	J	13.87
6010C	**Cadmium, Total**	**7440-43-9**	mg/kg	0.05	J	0.05	J	0.053	J	3.40
6010C	**Calcium, Total**	**7440-70-2**	mg/kg	160	J	170	J	190	J	8.81
6010C	**Chromium, Total**	**7440-47-3**	mg/kg	5.1		5.9		6.1		9.28
6010C	**Cobalt, Total**	**7440-48-4**	mg/kg	0.71	J	0.75	J	0.81	J	6.65
6010C	**Copper, Total**	**7440-50-8**	mg/kg	1.6		1.6		1.8		6.93
6010C	**Iron, Total**	**7439-89-6**	mg/kg	5600	J10	6700	J10	7000	J10	11.46
6010C	**Lead, Total**	**7439-92-1**	mg/kg	6.2		6.7		5.6		8.93
6010C	**Magnesium, Total**	**7439-95-4**	mg/kg	400		450		470		8.19
6010C	**Manganese, Total**	**7439-96-5**	mg/kg	32		35		38		8.57
6010C	**Nickel, Total**	**7440-02-0**	mg/kg	2.1		2.3		2.5		8.70
6010C	**Potassium, Total**	**7440-09-7**	mg/kg	260		270		280		3.70
6010C	**Selenium, Total**	**7782-49-2**	mg/kg	0.58	J	0.64	J	0.56	J	7.02
6010C	**Silver, Total**	**7440-22-4**	mg/kg	0.2	U	0.2	U	0.2	U	0.00
6010C	**Sodium, Total**	**7440-23-5**	mg/kg	35	J	31	J	29	J	9.65
6010C	**Thallium, Total**	**7440-28-0**	mg/kg	0.76	U	0.74	U	0.76	U	1.53
6010C	**Vanadium, Total**	**7440-62-2**	mg/kg	9.3		11		11		9.41
6010C	**Zinc, Total**	**7440-66-6**	mg/kg	7.1		8.4		8.9		11.42
7471B	**Mercury, Total**	**7439-97-6**	mg/kg	0.01	J	0.0037	UJ13	0.0034	UJ13	65.38
Explosives										
8330B	**1,3,5-Trinitrobenzene**	**99-35-4**	ug/kg	35	J	12	UJ13	79	J	81.06
8330B	**1,3-Dinitrobenzene**	**99-65-0**	ug/kg	12	U	12	U	11	U	4.95
8330B	**2,4,6-Trinitrotoluene**	**118-96-7**	ug/kg	24	U	24	U	23	U	2.44
8330B	**2,4-Dinitrotoluene**	**121-14-2**	ug/kg	24	U	24	U	23	U	2.44
8330B	**2,6-Dinitrotoluene**	**606-20-2**	ug/kg	12	U	12	U	11	U	4.95
8330B	**2-Amino-4,6-dinitrotoluene**	**35572-78-2**	ug/kg	190	J13	190	J13	11	UJ13	79.29
8330B	**2-Nitrotoluene**	**88-72-2**	ug/kg	24	U	24	U	23	U	2.44
8330B	**3-Nitrotoluene**	**99-08-1**	ug/kg	30	UJ13	30	UJ13	270	J12,13	125.97
8330B	**4-Amino-2,6-dinitrotoluene**	**19406-51-0**	ug/kg	12	U	12	U	11	U	4.95
8330B	**4-Nitrotoluene**	**99-99-0**	ug/kg	30	UJ13	30	UJ13	89	J12,13	68.58
8330B	**HMX**	**2691-41-0**	ug/kg	12	U	12	U	11	U	4.95
8330B	**Nitrobenzene**	**98-95-3**	ug/kg	30	U	30	U	28	U	3.94
8330B	**Nitroglycerin**	**55-63-0**	ug/kg	710	U	720	U	680	U	2.96
8330B	**RDX**	**121-82-4**	ug/kg	12	UJ13	12	UJ13	30	J12,13	57.74
8330B	**Tetryl**	**479-45-8**	ug/kg	52	J	56	J	190	J13	79.07
pH										
9045D	**Laboratory pH**	**NA**	s.u.	4.41	HF	4.33	HF	4.38	HF	0.92

Notes
Lab Qualifiers
HF Field parameter with holding time of 15 min - sample was prepped beyond specified holding time
J Estimated: The analyte was positively identified; the quantitation is an estimation.
U The analyte was not detected in the sample. The numeric value represents the sample LOD
Validation Qualifiers
J10 Estimate the positive result for Fe in all samples due to non-compliant serial dilution results (bias could not be determined)
J11 Estimate the positive results for Al, Ca, Fe and Mg in sample NFUDS-002-ISG02-01 due to non-compliant post-digestion results (bias could not be determined)
J12 Estimate the positive explosive results due to %RPD between columns above 40% (bias could not be determined)
J13/UJ13 Estimate the positive and non-detected results due to %RSD between triplicate results above 20% (bias could not be determined)

mg/kg = milligrams per kilograms
µg/kg = micrograms per kilogram
UCL = upper concentration limit
%RSD = relative standard deviation

Table 2
Munitions Response Site 2
Munitions Constituents Characterization
Subsurface Soil Discrete Sampling Summary

Analytical Method	Compound	CAS No.	Human Health Risk Screening Level [1]	Ecological Risk Screening Level [2]	Units:	Field Sample ID:		NFUDS-002-SBG0201-01		NFUDS-002-SBG0202-01		NFUDS-002-SBG0202-02		NFUDS-002-SBG0203-01		NFUDS-002-SBG0401-01		NFUDS-002-SBG0402-01		NFUDS-002-SBG0403-01		NFUDS-002-SBG0801-01	
						Date:		8/1/2012		8/1/2012		8/1/2012		8/1/2012		8/1/2012		8/1/2012		8/1/2012		8/1/2012	
						Lab Sample		200-12042-1		200-12042-2		200-12042-3		200-12042-4		200-12042-5		200-12042-6		200-12042-7		200-12042-8	
						Depth (ft bgs):		0 - 2		2 - 4		2 - 4		4 - 10		0 - 2		2 - 4		4 - 10		0 - 2	
							Val. Qual.		Val. Qual.		Val. Qual.		Val. Qual.		Val. Qual.		Val. Qual.		Val. Qual.		Val. Qual.		Val. Qual.
Metals																							
6010C	Aluminum, Total	7429-90-5	7700	-- [3]	mg/kg	2800		3500		3500		1900	J	3200		3000		2100		6300	
6010C	Antimony, Total	7440-36-0	3.1	0.27	mg/kg	1.1	U	1	U	0.87	U	1.1	U	1.2	U	1.2	U	1.2	U	1	U
6010C	Arsenic, Total	7440-38-2	0.39	18	mg/kg	1.4		1.7		2		1.9		3.3		1.9		3.8		2	
6010C	Barium, Total	7440-39-3	1500	330	mg/kg	4.4	J	3.6	J	3.8	J	2.8	J	4	J	5.6	J	4.4	J	5.2	J
6010C	Beryllium, Total	7440-41-7	16	21	mg/kg	0.094	J	0.1	J	0.12	J	0.1	J	0.11	J	0.12	J	0.15	J	0.14	J
6010C	Cadmium, Total	7440-43-9	7	0.36	mg/kg	0.18	U	0.17	U	0.14	U	0.19	U	0.19	U	0.2	U	0.2	U	0.17	U
6010C	Calcium, Total	7440-70-2	--	--	mg/kg	70	J	120	J	130	J	68	J9	120	J	76	J	61	J	43	J
6010C	Chromium, Total	7440-47-3	12000	26	mg/kg	3.5		4.6		4.5		3.3		4.2		4.3		4.1		5.9	
6010C	Cobalt, Total	7440-48-4	2.3	13	mg/kg	0.67	J	1	J	1.1	J	0.98	J	0.99	J	1.1	J	3.5	J	0.76	J
6010C	Copper, Total	7440-50-8	310	28	mg/kg	0.88	J	0.91	J	1.1	J	1.3	J	1.2	J	1.1	J	2		0.94	J
6010C	Iron, Total	7439-89-6	5500	-- [3]	mg/kg	3500		4000		5100		3300	J	5900		4400		5300		6200	
6010C	Lead, Total	7439-92-1	40	11	mg/kg	2.3		2.3		2.5		1.5		2.4		2.6		1.7		3.7	
6010C	Magnesium, Total	7439-95-4	--	--	mg/kg	390		570		610		440	J9	420		450		700		400	
6010C	Manganese, Total	7439-96-5	180	220	mg/kg	21	J7	26	J7	42	J7	23	J7	36	J7	36	J7	79	J7	32	J7
6010C	Nickel, Total	7440-02-0	150	38	mg/kg	1.8	J	2.7		2.7		2.4	J	2.4	J	2.3	J	3.9		2.5	J
6010C	Potassium, Total	7440-09-7	--	--	mg/kg	230	J	300	J	290		280	J9	250	J	260	J	350	J	200	J
6010C	Selenium, Total	7782-49-2	39	0.52	mg/kg	1.7	U	1.6	U	1.3	U	1.7	U	1.8	U	1.8	U	1.8	U	1.5	U
6010C	Silver, Total	7440-22-4	39	4.2	mg/kg	0.29	U	0.27	U	0.23	U	0.3	U	0.31	U	0.32	U	0.32	U	0.27	U
6010C	Sodium, Total	7440-23-5	--	--	mg/kg	18	J	21	J	18	J	8	J	7.7	J	23	J	6.7	J	12	J
6010C	Thallium, Total	7440-28-0	0.078	1	mg/kg	1.1	U	1	U	0.87	U	1.1	U	1.2	U	1.2	U	1.2	U	1	U
6010C	Vanadium, Total	7440-62-2	39	7.8	mg/kg	5.5		6.6		6.6		3.9		6.2		6.5		5.9		9.4	
6010C	Zinc, Total	7440-66-6	2300	46	mg/kg	5.4		5.5		7.3		5.9		8.7		20		14		7.9	
7471B	Mercury, Total	7439-97-6	1	0.1	mg/kg	0.0041	U	0.0038	U	0.0037	U	0.0033	U	0.0037	U	0.0036	U	0.0023	J	0.0042	U
Explosives																							
8330 Mod	1,3,5-Trinitrobenzene	99-35-4	220000	40,000 [4]	ug/kg	12	U	12	U	12	U	12	U	12	U	12	U	12	U	12	U
8330 Mod	1,3-Dinitrobenzene	99-65-0	610	40,000 [4]	ug/kg	12	U	12	U	12	U	12	U	12	U	12	U	12	U	12	U
8330 Mod	2,4,6-Trinitrotoluene	118-96-7	19000	30,000	ug/kg	24	U	24	U	24	U	24	U	24	U	24	U	24	U	24	U
8330 Mod	2,4-Dinitrotoluene	121-14-2	1600	30,000 [5]	ug/kg	24	U	24	U	24	U	24	U	24	U	24	U	24	U	24	U
8330 Mod	2,6-Dinitrotoluene	606-20-2	6100	30,000 [5]	ug/kg	12	U	12	U	12	U	12	U	12	U	12	U	12	U	12	U
8330 Mod	2-Amino-4,6-dinitrotoluene	35572-78-2	15000	80,000	ug/kg	12	U	12	U	12	U	12	U	12	U	12	U	12	U	12	U
8330 Mod	2-Nitrotoluene	88-72-2	2900	30,000 [5]	ug/kg	24	U	24	U	24	U	24	U	24	U	24	U	24	U	24	U
8330 Mod	3-Nitrotoluene	99-08-1	610	30,000 [5]	ug/kg	30	U	30	U	30	U	30	U	30	U	30	U	30	U	30	U
8330 Mod	4-Amino-2,6-dinitrotoluene	19406-51-0	15000	80,000	ug/kg	12	U	12	U	12	U	12	U	12	U	12	U	12	U	12	U
8330 Mod	4-Nitrotoluene	99-99-0	30000	30,000 [5]	ug/kg	30	U	30	U	30	U	30	U	30	U	30	U	30	U	30	U
8330 Mod	HMX	2691-41-0	380000	--	ug/kg	12	U	12	U	12	U	12	U	12	U	12	U	12	U	12	U
8330 Mod	Nitrobenzene	98-95-3	4800	40,000	ug/kg	30	U	30	U	30	U	30	U	30	U	30	U	30	U	30	U
8330 Mod	Nitroglycerin	55-63-0	610	--	ug/kg	720	U	720	U	720	U	720	U	720	U	720	U	720	U	720	U
8330 Mod	RDX	121-82-4	5600	100,000	ug/kg	12	U	12	U	12	U	12	U	12	U	12	U	12	U	12	U
8330 Mod	Tetryl	479-45-8	24000	25,000	ug/kg	24	U	24	U	24	U	24	U	24	U	24	U	24	U	24	U
pH																							
9045D	Laboratory pH	NA		< 5.5	s.u.	4.88	HF	5.3	HF	5.31	HF	5.2	HF	4.53	HF	4.61	HF	5.09	HF	4.24	HF
Moisture																							
Moisture	Percent Solids			NA	%	92		95		95		98		91		91		97		87	

Table 2
Munitions Response Site 2
Munitions Constituents Characterization
Subsurface Soil Discrete Sampling Summary

Analytical Method	Compound	CAS No.	Human Health Risk Screening Level [1]	Ecological Risk Screening Level [2]	Units:	Field Sample ID:		NFUDS-002-SBG0802-01		NFUDS-002-SBG0803-01		NFUDS-002-SBG0901-01		NFUDS-002-SBG0902-01		NFUDS-002-SBG0903-01		NFUDS-002-SBG0903-02		NFUDS-002-SBG1201-01		NFUDS-002-SBG1202-01		NFUDS-002-SBG1203-01	
						Date:		8/1/2012		8/1/2012		8/1/2012		8/1/2012		8/1/2012		8/1/2012		8/1/2012		8/1/2012		8/1/2012	
						Lab Sample		200-12042-9		200-12042-10		200-12042-11		200-12042-12		200-12042-13		200-12042-14		200-12042-15		200-12042-16		200-12042-17	
						Depth (ft bgs):		2 - 4		4 - 10		0 - 2		2 - 4		4 - 10		4 - 10		0 - 2		2 - 4		4 - 10	
							Val. Qual.		Val. Qual.		Val. Qual.		Val. Qual.		Val. Qual.		Val. Qual.		Val. Qual.		Val. Qual.		Val. Qual.		Val. Qual.
Metals																									
6010C	Aluminum, Total	7429-90-5	7700	-- [3]	mg/kg	2000		1700		6000		1900		1200		1400		5800		2000		1600	
6010C	Antimony, Total	7440-36-0	3.1	0.27	mg/kg	1.2	U	0.98	U	1.3	U	1.2	U	1	U	1.2	U	1.2	U	1.3	U	1.2	U
6010C	Arsenic, Total	7440-38-2	0.39	18	mg/kg	1.6		1.5		2.7		1.8		2.2		1.8		2.1		1.7		1.5	
6010C	Barium, Total	7440-39-3	1500	330	mg/kg	3	J	4	J	4.9	J	3	J	2.3	J	2.9	J	4.5	J	3.1	J	3.3	J
6010C	Beryllium, Total	7440-41-7	16	21	mg/kg	0.088	J	0.1	J	0.13	J	0.085	J	0.091	J	0.093	J	0.14	J	0.098	J	0.099	J
6010C	Cadmium, Total	7440-43-9	7	0.36	mg/kg	0.2	U	0.16	U	0.22	U	0.21	U	0.17	U	0.2	U	0.2	U	0.22	U	0.2	U
6010C	Calcium, Total	7440-70-2	--	--	mg/kg	70	J	170	J	53	J	95	J	73	J	130	J	64	J	120	J	49	J
6010C	Chromium, Total	7440-47-3	12000	26	mg/kg	3.8		2.8		6.1		3.5		2.6		2.5		6		4.5		2.7	
6010C	Cobalt, Total	7440-48-4	2.3	13	mg/kg	1	J	1.1	J	0.99	J	1.1	J	1.2	J	1.2	J	1.1	J	1.2	J	1.1	J
6010C	Copper, Total	7440-50-8	310	28	mg/kg	0.7	J	1	J	1	J	0.88	J	0.75	J	0.83	J	0.93	J	1	J	1	J
6010C	Iron, Total	7439-89-6	5500	-- [3]	mg/kg	3300		3100		6100		3200		3300		3400		6100		4500		2900	
6010C	Lead, Total	7439-92-1	40	11	mg/kg	1.3		1.9		3.3		1.6		1.1		1.1		3.3		1.3		1.2	
6010C	Magnesium, Total	7439-95-4	--	--	mg/kg	450		500		490		430		280	J	370	J	490		490		370	J
6010C	Manganese, Total	7439-96-5	180	220	mg/kg	34	J7	45	J7	35	J7	31	J7	36	J7	40	J7	33	J7	29	J7	32	J7
6010C	Nickel, Total	7440-02-0	150	38	mg/kg	2.6	J	1.8	J	3.1	J	2.3	J	1.9	J	1.8	J	3	J	2.5	J	1.9	J
6010C	Potassium, Total	7440-09-7	--	--	mg/kg	240	J	290	J	250	J	250	J	210	J	240	J	230	J	310	J	280	J
6010C	Selenium, Total	7782-49-2	39	0.52	mg/kg	1.8	U	1.5	U	2	U	1.9	U	1.6	U	1.8	U	1.8	U	2	U	1.8	U
6010C	Silver, Total	7440-22-4	39	4.2	mg/kg	0.32	U	0.26	U	0.35	U	0.33	U	0.27	U	0.32	U	0.32	U	0.35	U	0.31	U
6010C	Sodium, Total	7440-23-5	--	--	mg/kg	20	U	6.4	J	9.2	J	21	U	5.3	J	20	U	11	J	10	J	20	U
6010C	Thallium, Total	7440-28-0	0.078	1	mg/kg	1.2	U	0.98	U	1.3	U	1.2	U	1	U	1.2	U	1.2	U	1.3	U	1.2	U
6010C	Vanadium, Total	7440-62-2	39	7.8	mg/kg	4.5		4.8		8.7		4.4		4.6		3.9	J	8.9		4.7		3.8	J
6010C	Zinc, Total	7440-66-6	2300	46	mg/kg	4.5		5.2		7.9		4.1		4.8		4.2		6.7		4.4		4.5	
7471B	Mercury, Total	7439-97-6	1	0.1	mg/kg	0.0034	U	0.0036	U	0.0043	U	0.0037	U	0.0034	U	0.0037	U	0.0042	U	0.0037	U	0.0034	U
Explosives																									
8330 Mod	1,3,5-Trinitrobenzene	99-35-4	220000	40,000 [4]	ug/kg	12	U	12	U	12	U	12	U	12	U	12	U	12	U	12	U	12	U
8330 Mod	1,3-Dinitrobenzene	99-65-0	610	40,000 [4]	ug/kg	12	U	12	U	12	U	12	U	12	U	12	U	12	U	12	U	12	U
8330 Mod	2,4,6-Trinitrotoluene	118-96-7	19000	30,000	ug/kg	24	U	24	U	24	U	24	U	24	U	24	U	24	U	24	U	24	U
8330 Mod	2,4-Dinitrotoluene	121-14-2	1600	30,000 [5]	ug/kg	24	U	24	U	24	U	24	U	24	U	24	U	24	U	24	U	24	U
8330 Mod	2,6-Dinitrotoluene	606-20-2	6100	30,000 [5]	ug/kg	12	U	12	U	12	U	12	U	12	U	12	U	12	U	12	U	12	U
8330 Mod	2-Amino-4,6-dinitrotoluene	35572-78-2	15000	80,000	ug/kg	12	U	12	U	12	U	12	U	12	U	12	U	12	U	12	U	12	U
8330 Mod	2-Nitrotoluene	88-72-2	2900	30,000 [5]	ug/kg	24	U	24	U	24	U	24	U	24	U	24	U	24	U	24	U	24	U
8330 Mod	3-Nitrotoluene	99-08-1	610	30,000 [5]	ug/kg	30	U	30	U	30	U	30	U	30	U	30	U	30	U	30	U	30	U
8330 Mod	4-Amino-2,6-dinitrotoluene	19406-51-0	15000	80,000	ug/kg	12	U	12	U	12	U	12	U	12	U	12	U	12	U	12	U	12	U
8330 Mod	4-Nitrotoluene	99-99-0	30000	30,000 [5]	ug/kg	30	U	30	U	30	U	30	U	30	U	30	U	30	U	30	U	30	U
8330 Mod	HMX	2691-41-0	380000	--	ug/kg	12	U	12	U	12	U	12	U	12	U	12	U	12	U	12	U	12	U
8330 Mod	Nitrobenzene	98-95-3	4800	40,000	ug/kg	30	U	30	U	30	U	30	U	30	U	30	U	30	U	30	U	30	U
8330 Mod	Nitroglycerin	55-63-0	610	--	ug/kg	720	U	720	U	720	U	720	U	720	U	720	U	720	U	720	U	720	U
8330 Mod	RDX	121-82-4	5600	100,000	ug/kg	12	U	12	U	12	U	12	U	12	U	12	U	12	U	12	U	12	U
8330 Mod	Tetryl	479-45-8	24000	25,000	ug/kg	24	U	24	U	24	U	24	U	24	U	24	U	24	U	24	U	24	U
pH																									
9045D	Laboratory pH	NA		< 5.5	s.u.	4.34	HF	4.61	HF	4.3	HF	4.29	HF	4.4	HF	4.42	HF	4.28	HF	4.57	HF	4.59	HF
Moisture																									
Moisture	Percent Solids			NA	%	96		96		89		96		97		97		88		96		97	

Table 2
Munitions Response Site 2
Munitions Constituents Characterization
Subsurface Soil Discrete Sampling Summary

Notes:
Lab Qualifiers
J Estimated: The analyte was positively identified; the quantitation is an estimation.
U The analyte was not detected in the sample. The numeric value represents the sample LOD.
HF Field parameter with holding time of 15 min - sample was prepped beyond specified holding time.
Validation Qualifiers
J7 Estimated the positive results for Mn in all samples due to no-compliant laboratory duplicates (bias could not be determined).
J9 Estimate the positive results for Ca, Mg and K in sample NFUDS-002-SBG0203-01 due to matrix spike results above QC limits (potential high bias).
Screening Levels
[1] Human health risk soil screening levels were obtained from EPA RSLs for residential soil May 2012;
non-carcinogenic endpoint screening levels selected to assess a Target Hazard Quotient of 0.1, to account for potential occurrence of adverse health effects due to exposure to multiple noncarcinogens.
[2] Ecological risk soil screening levels were obtained from EPA Eco-SSLs (various publication dates) for metals and organics;
ecological risk soil screening levels were obtained from Talmage et al., 1999, for nitroaromatic munition compounds;
ecological risk soil screening levels were obtained from Efroymson et al., 1997, for various DOE site contaminants based on soil invertebrate and microbial process effects; and,
ecological screening performed for samples collected between 0 and 2 ft bgs only; ecological risk exposure is not applicabe at depths greater than 2 ft.
[3] Toxicity is dependent on pH.
[4] Benchmark based on nitrobenzene.
[5] Benchmark based on TNT.
-- = screening level not available
Analytical results highlighed in **PINK** exceed the selected human health screening level.
Analytical results highlighed in **GREEN** exceed the selected ecological benchmark screening level.
Analytical results highlighted in **YELLOW** were not detected by the laboratory but are reported at a LOD above the selected screening level.
EPA = U.S. Environmental Protection Agency
mg/kg = milligrams per kilograms
µg/kg = micrograms per kilogram
LOD = level of detection
RSL = Regional Screening Level
NA = Not applicable
ft = feet
bgs = below ground surface

ATTACHMENT 3
Test Pit Logs

Test Pit: MRS 2 Aerial Rocket Range AC-01-G02

Location:	MRS 2
Project Name:	Nantucket FUDS RI
Project Number:	03886.551.004.0011
Project Manager:	Chris Kane, PMP
Logged By:	Marie S-Laflamme
Date Logged:	8/1/2012
Excavation Method:	Mini-excavator
Total Depth:	10.0 feet
Ground Surf. Elev.:	

Remarks:
Test pit was excavated 2 ft W x 4 ft L x 10 ft D. Samples collected discretely for oss-site analysis of metals, explosives and pH. Samples collected from 0-2, 2-4 and 4-10 ft bgs.



Northwest face of G02 Test Pit; 0-~10 ft bgs

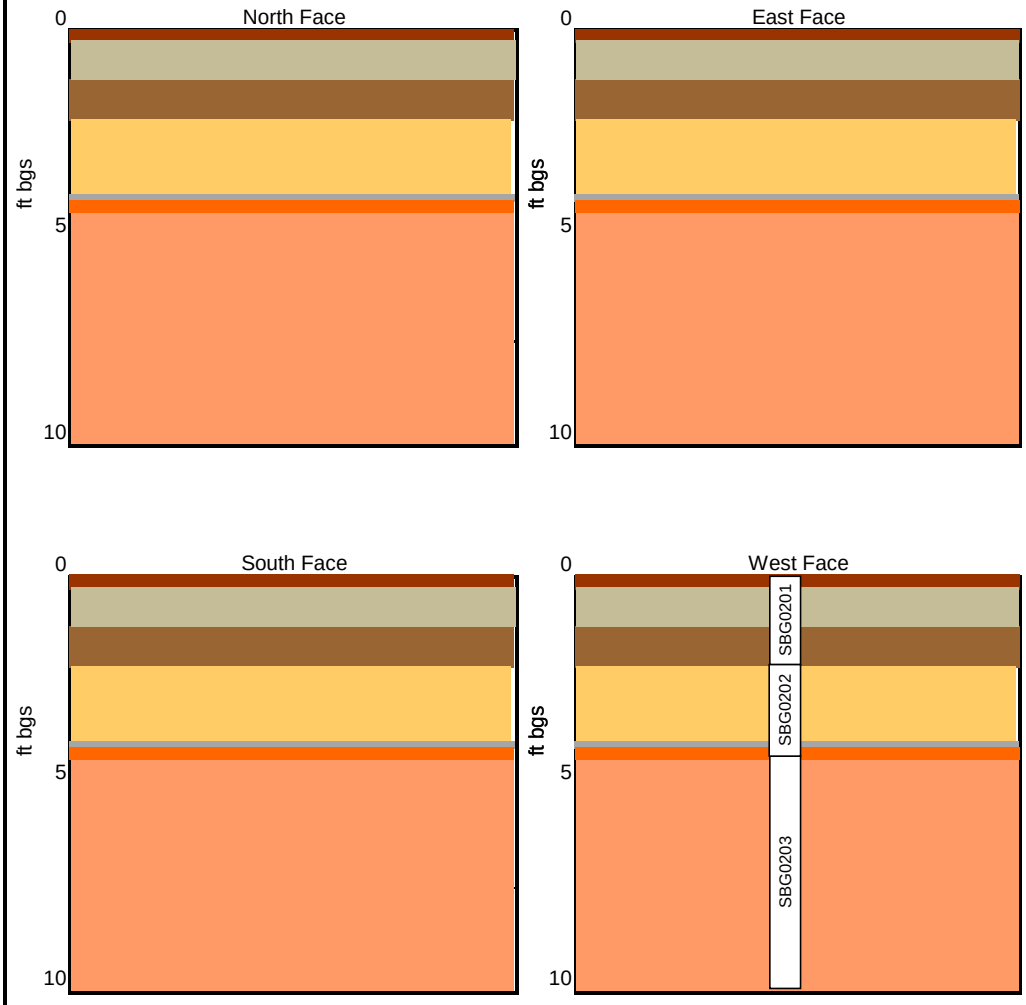
Stratigraphic Unit	Sample Number	Depth (ft) below ground surface (bgs)	Material Description
Topsoil	NFUDS-002-SBG0201-01	0.5	Dark brown, well-graded, Silty Sand (SM) with organics. Moist and semi-cohesive.
		1.0	Dark brownish gray, poorly-graded fine Sand (SP) with little rounded gravel. Moist and loose.
		2.0	Dark brown, poorly-graded fine Sand (SP) with little rounded gravel. Moist and loose.
OUTWASH	NFUDS-002-SBG0202-01 / NFUDS-002-SBG0202-02 (field dup)	3.3	Orangish brown, well-graded , gravelly, fine to medium Sand (SW) with yellowish brown coarse sand. Rounded fine to coarse gravel. Moist and loose. Rounded fine to coarse gravel layer
		4.0	Orangish brown, poorly-graded, med to coarse Sand (SP).
	NFUDS-002-SBG0203-01	10.0	Light yellowish brown, well-graded, gravelly, medium to coarse Sand (SW) with fine black sand. Stratified layers of rounded fine to coarse gravel with orangish brown med to coarse sand observed to bottom of test pit.
		Bottom of test pit	

Test Pit: MRS 2 Aerial Rocket Range AC-01-G02

Location:	MRS 2
Project Name:	Nantucket FUDS RI
Project Number:	03886.551.004.0011
Project Manager:	Chris Kane, PMP
Logged By:	Marie S-Laflamme
Date Logged:	8/1/2012
Excavation Method:	Mini-excavator
Total Depth:	10.0 feet
Ground Surf. Elev.:	
Remarks:	

Test Pit Face Cross Sections

Silty Sand
fine Sand
fine Sand
Gravelly f-c Sand
Gravel
m Sand
Gravelly f-c Sand (bedded)



Test Pit: MRS 2 Aerial Rocket Range AC-01-G04



Northeast face of G04 Test Pit; 0-~10 ft bgs

Location:	MRS 2
Project Name:	Nantucket FUDS RI
Project Number:	03886.551.004.0011
Project Manager:	Chris Kane, PMP
Logged By:	Marie S-Laflamme
Date Logged:	8/1/2012
Excavation Method:	Mini-excavator
Total Depth:	10.0 feet
Ground Surf. Elev.:	

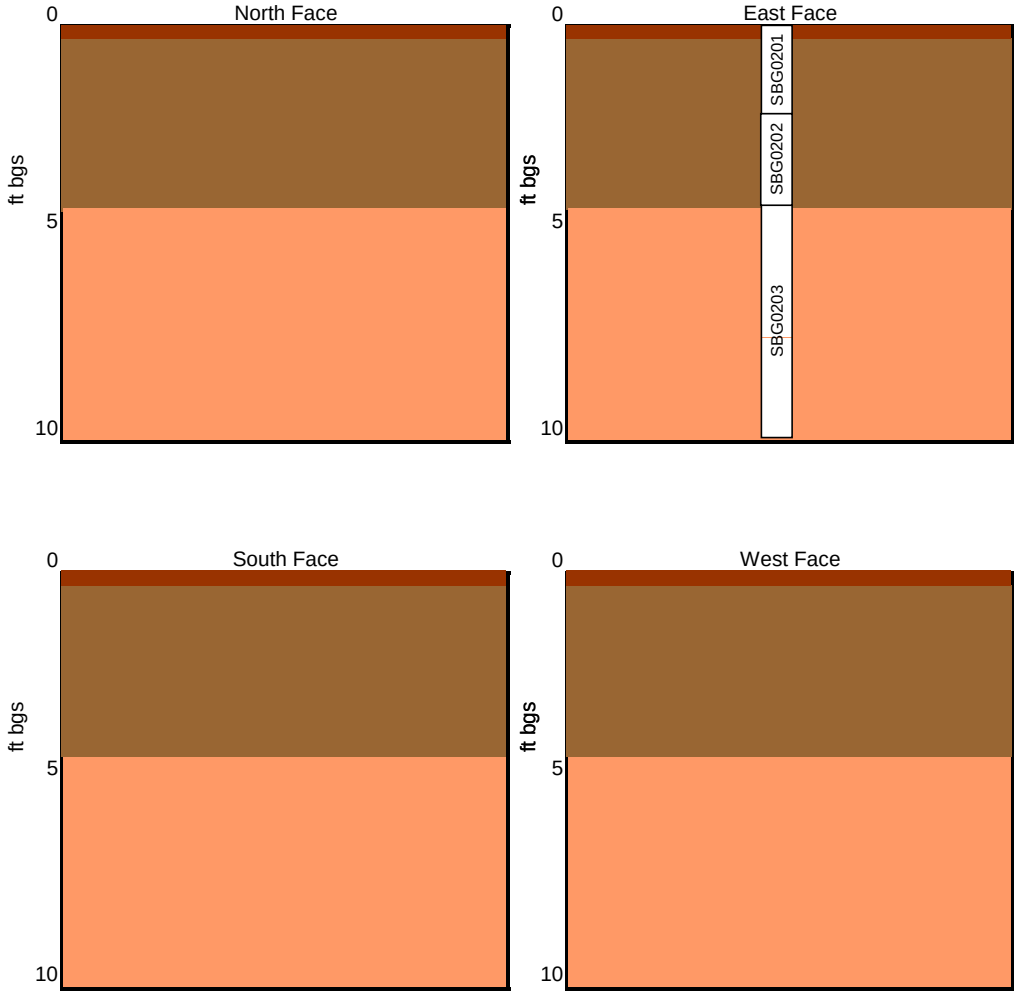
Remarks:
Test pit was excavated 2 ft W x 4 ft L x 10 ft D. Samples collected discretely for oss-site analysis of metals, explosives and pH. Samples collected from 0-2, 2-4 and 4-10 ft bgs.

Stratigraphic Unit	Sample Number	Depth (ft) below ground surface (bgs)	Material Description
FILL	NFUDS-002-SBG0401-01	0.5	Dark brown, well-graded, Silty Sand (SM) with some med sand and organics. Moist and semi-cohesive.
			Brown, poorly-graded, med to coarse Sand (SP) with some fine sand and little rounded fine gravel. Moist and Loose.
OUTWASH	NFUDS-002-SBG0402-01	4.0	
	NFUDS-002-SBG0403-01	10.0	Light yellowish brown, well-graded, gravelly, medium to coarse Sand (SW) with fine black sand. Rounded fine to coarse gravel in stratisfied band/pockets.
		Bottom of test pit	

Location:	MRS 2
Project Name:	Nantucket FUDS RI
Project Number:	03886.551.004.0011
Project Manager:	Chris Kane, PMP
Logged By:	Marie S-Laflamme
Date Logged:	8/1/2012
Excavation Method:	Mini-excavator
Total Depth:	10.0 feet
Ground Surf. Elev.:	
Remarks:	

Test Pit Face Cross Sections

Silty Sand
m-c Sand
Gravelly f-c Sand (bedded)



Test Pit: MRS 2 Aerial Rocket Range AC-01-G08

Location:	MRS 2
Project Name:	Nantucket FUDS RI
Project Number:	03886.551.004.0011
Project Manager:	Chris Kane, PMP
Logged By:	Marie S-Laflamme
Date Logged:	8/1/2012
Excavation Method:	Mini-excavator
Total Depth:	10.0 feet
Ground Surf. Elev.:	

Remarks:
Test pit was excavated 2 ft W x 4 ft L x 10 ft D. Samples collected discretely for oss-site analysis of metals, explosives and pH. Samples collected from 0-2, 2-4 and 4-10 ft bgs.



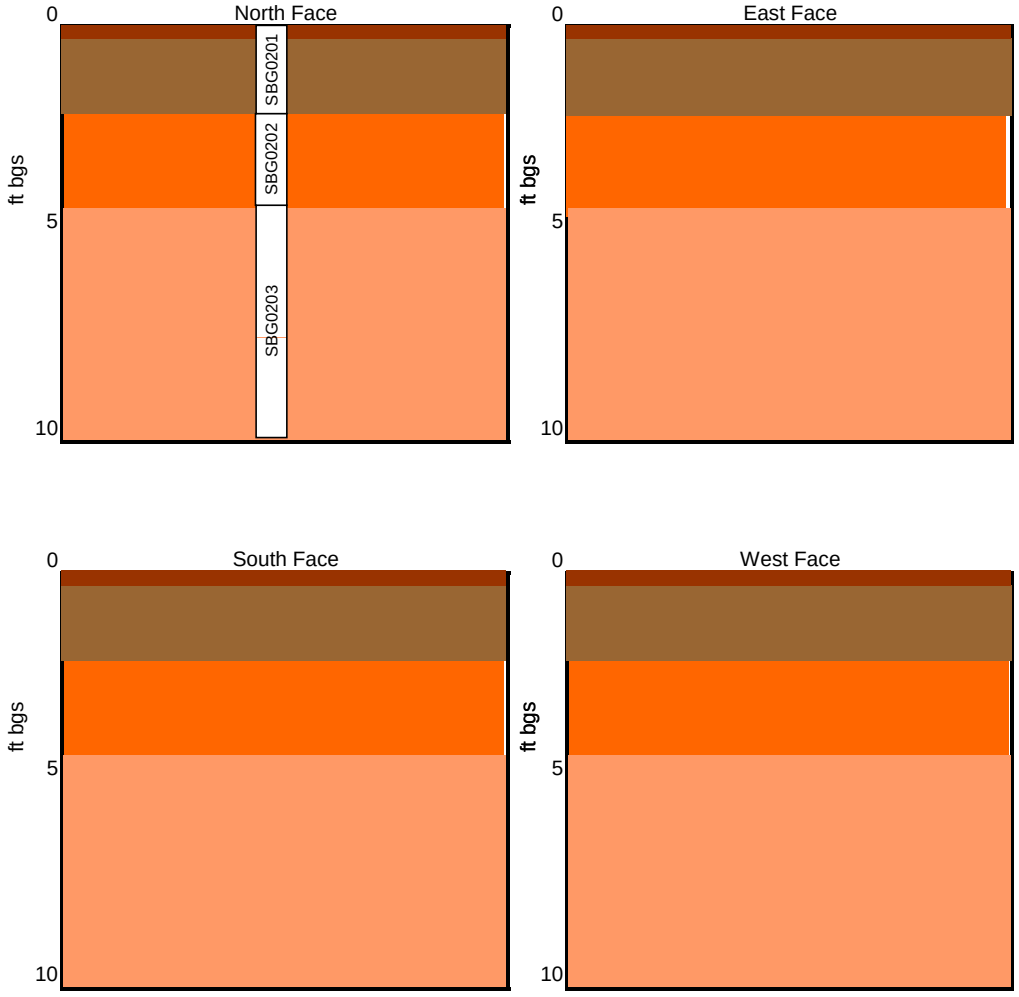
Southwest face of G08 Test Pit; 0-~10 ft bgs

Stratigraphic Unit	Sample Number	Depth (ft) below ground surface (bgs)	Material Description
FILL	NFUDS-002-SBG0801-01	0.5	Dark brown, well-graded, Silty Sand (SM) with some med sand and organics. Moist and semi-cohesive.
		2.0	Brown, poorly-graded, med to coarse Sand (SP) with some fine sand and little rounded fine gravel. Moist and Loose.
OUTWASH	NFUDS-002-SBG0802-01	4.0	Orangish brown, well-graded, gravelly, med to coarse Sand (SW), with stratisfied layers of light yellowish brown coarse sand and fine black sand, and rounded fine to med gravel.
	NFUDS-002-SBG0903-01	10.0	Light yellowish brown, well-graded, gravelly, medium to coarse Sand (SW) with fine black sand. Rounded fine to coarse gravel in stratisfied band/pockets.
		Bottom of test pit	

Location:	MRS 2
Project Name:	Nantucket FUDS RI
Project Number:	03886.551.004.0011
Project Manager:	Chris Kane, PMP
Logged By:	Marie S-Laflamme
Date Logged:	8/1/2012
Excavation Method:	Mini-excavator
Total Depth:	10.0 feet
Ground Surf. Elev.:	
Remarks:	

Test Pit Face Cross Sections

Silty Sand
m-c Sand
Gravelly m-c Sand
Gravelly f-c Sand (bedded)



Test Pit: MRS 2 Aerial Rocket Range AC-01-G09

Location:	MRS 2
Project Name:	Nantucket FUDS RI
Project Number:	03886.551.004.0011
Project Manager:	Chris Kane, PMP
Logged By:	Marie S-Laflamme
Date Logged:	8/1/2012
Excavation Method:	Mini-excavator
Total Depth:	10.0 feet
Ground Surf. Elev.:	

Remarks:
Test pit was excavated 2 ft W x 4 ft L x 10 ft D. Samples collected discretely for oss-site analysis of metals, explosives and pH. Samples collected from 0-2, 2-4 and 4-10 ft bgs.

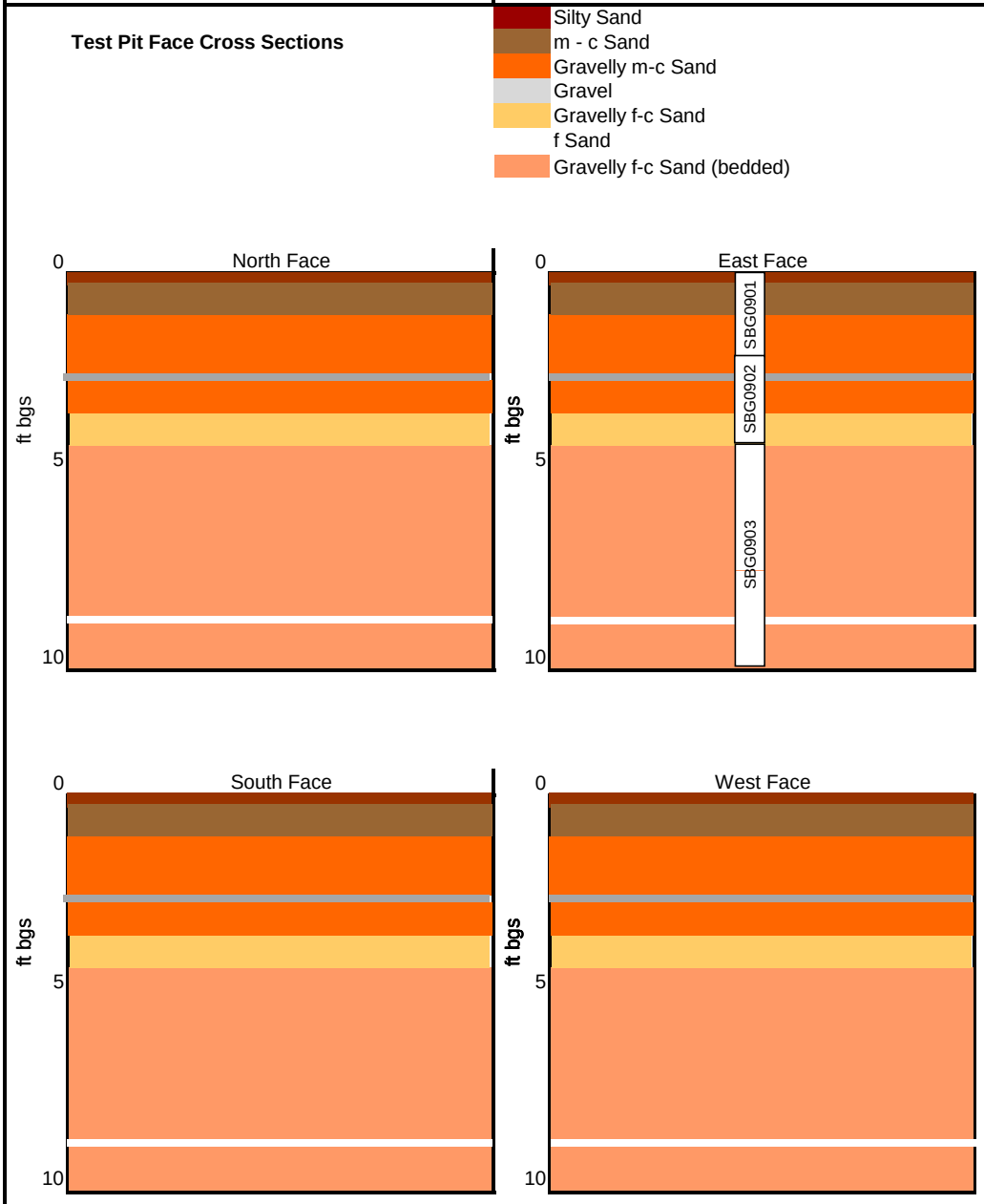


East face of G09 Test Pit; 0-~10 ft bgs

Stratigraphic Unit	Sample Number	Depth (ft) below ground surface (bgs)	Material Description
FILL	NFUDS-002-SBG0901-01	0.3	Dark brown, well-graded, Silty Sand (SM) with organics and some grey fine sand.
		1.3	Brown, poorly-graded, med to coarse Sand (SP) with some fine sand and little rounded fine gravel. Moist and Loose.
OUTWASH			Orangish brown, well-graded, gravelly, med to coarse Sand (SW).
	NFUDS-002-SBG0902-01	2.5	Rounded gravel layer.
		3.0	Yellowish brown, well-graded, medium to coarse Sand (SW) with some fine black sand and little rounded gravel.
	NFUDS-002-SBG0903-01 / NFUDS-002-SBG0903-02 (field dup)		Light yellowish brown, well-graded, gravelly, medium to coarse Sand (SW) with fine black sand. Rounded med to coarse gravel in stratisfied band/pockets with fine white sand to bottom of test pit.
		9	layer of fine white sand
		10.0	
		Bottom of test pit	

Location:	MRS 2
Project Name:	Nantucket FUDS RI
Project Number:	03886.551.004.0011
Project Manager:	Chris Kane, PMP
Logged By:	Marie S-Laflamme
Date Logged:	8/1/2012
Excavation Method:	Mini-excavator
Total Depth:	10.0 feet
Ground Surf. Elev.:	
Remarks:	

Test Pit Face Cross Sections



Test Pit: MRS 2 Aerial Rocket Range AC-01-G12



North face of G12 Test Pit; 0-~4 ft bgs

Location:	MRS 2
Project Name:	Nantucket FUDS RI
Project Number:	03886.551.004.0011
Project Manager:	Chris Kane, PMP
Logged By:	Marie S-Laflamme
Date Logged:	8/1/2012
Excavation Method:	Mini-excavator
Total Depth:	10.0 feet
Ground Surf. Elev.:	

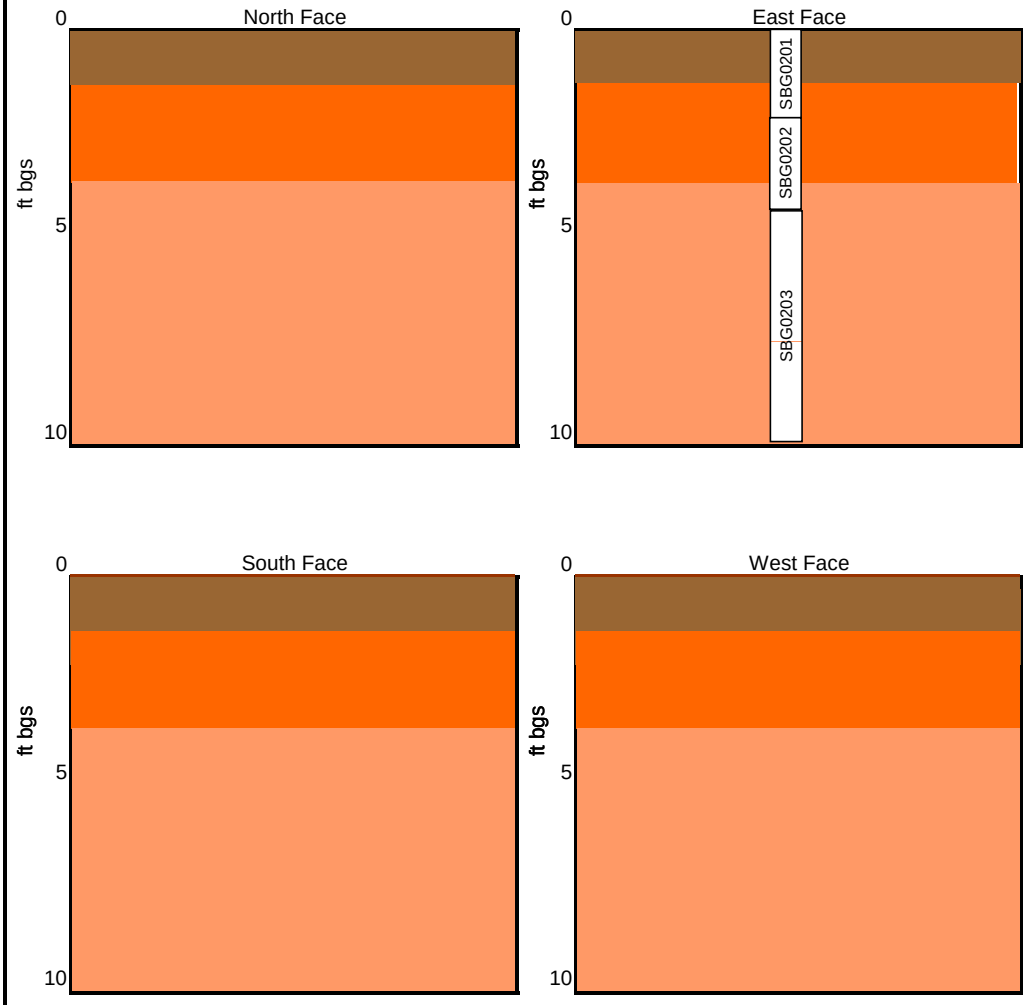
Remarks:
Test pit was excavated 2 ft W x 4 ft L x 10 ft D. Samples collected discretely for oss-site analysis of metals, explosives and pH. Samples collected from 0-2, 2-4 and 4-10 ft bgs.

Stratigraphic Unit	Sample Number	Depth (ft) below ground surface (bgs)	Material Description
FILL	NFUDS-002-SBG1201-01	1	Dark brown, poorly-graded, fine Sand (SP-SM) with organics and little rounded fine gravel. Moist and Loose.
	NFUDS-002-SBG1202-01	3.3	Orangish brown, well-graded, gravelly, medium to coarse Sand (SW), with some fine brown sand. Rounded medium to coarse gravel.
OUTWASH	NFUDS-002-SBG1203-01	10.0	Light yellowish brown, well-graded, gravelly, medium to coarse Sand (SW) with fine black sand. Rounded fine to medium gravel in stratisfied band/pockets with medium to coarse orangish brown sand. Very compacted.
		Bottom of test pit	

Location:	MRS 2
Project Name:	Nantucket FUDS RI
Project Number:	03886.551.004.0011
Project Manager:	Chris Kane, PMP
Logged By:	Marie S-Laflamme
Date Logged:	8/1/2012
Excavation Method:	Mini-excavator
Total Depth:	10.0 feet
Ground Surf. Elev.:	
Remarks:	

Test Pit Face Cross Sections

fine Sand
Gravelly f-c Sand
Gravelly f-c Sand (bedded)



ATTACHMENT 4
Data Validation Memoranda

Nantucket Beach FUDS
Data Validation Report
TestBurlington SDG 200-12041-1

Weston Solutions, Inc.
45 Constitution Way
Concord, NH 03301-5079
603-656-5400 ● Fax 603-656-5401
www.westonsolutions.com

DATE: August 27, 2012

PROJECT: Nantucket Beach FUDS
03886.551.004

LABORATORY: TestAmerica Laboratories, Inc., South Burlington, VT

SDG: 200-12041-1

FROM: Diane Quigley
Senior Technical Manager

SAMPLES: NFUDS-002-ISG02-01, NFUDS-002-ISG04-01, NFUDS-002-ISG08-01, NFUDS-002-ISG08-R1, NFUDS-002-ISG08-R2, NFUDS-002-IISG09-01, NFUDS-002-ISG12-01

This data validation report is based upon a review of analytical data generated for seven sediment samples collected on July 31 and August 1, 2012 by Weston Solutions, Inc. (WESTON).

The samples were analyzed for total metals by SW846 Method 6010C, total mercury by SW846 Method 7471B and explosives by SW846 Method 8330B. Sample NFUDS-002-ISG08-01 was analyzed in triplicate.

Weston performed a modified Tier II data validation in accordance with the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Data Review, USEPA, 06/2008 and USEPA CLP National Functional Guidelines for Inorganic Superfund Data Review, January 2010.

The data were evaluated based on the following parameters:

* Overall Evaluation of Data and Potential Usability Issues
* Data Completeness

*	Chain-of-Custody (COC) Documentation
*	Holding Times and Sample Preservation
*	GC/MS Tune
*	Method Blanks/Trip and Equipment blanks
*	Initial and Continuing Calibrations
*	Laboratory and Field Blanks
*	Surrogate Recoveries
	Matrix Spike Recoveries and Reproducibility
*	Field Duplicates (Not applicable)
	Laboratory Duplicates/Serial Dilution (Inorganics)
*	Laboratory Control Samples (LCS)
*	Internal Standard Performance
	Qualitative Identification
	Quantitation Limits

* – Denotes QC parameter was evaluated and criteria was met.

Overall Evaluation of Data and Potential Usability Issues

Metals

The positive results for iron were estimated (J) in all samples due to non-compliant serial dilution results.

The positive results for aluminum, calcium, iron and magnesium were estimated (J) in sample NFUDS-002-ISG02-01 due to non-compliant post digestion results.

Mercury

Sample NFUDS-002-ISG08-01 was analyzed in triplicate. Mercury results were outside %RSD criteria of less than 20% and were estimated in all three samples (12041-3, -4, and -5)..

Explosives 8330

The analytical batch included a laboratory control sample (LCS) spiked with all 15 target compounds which included all 13 compounds listed in QSM 4.2 Table G-13 as well as tetryl and nitroglycerin. All spiked target compound recovered between the upper and lower control laboratory limits. During validation, the spiked target compounds were also evaluated using the

acceptance criterion listed in QSM 4.2 Table G-13. All LCS recoveries recovered within the QSM and laboratory limits and as such, no validation qualifiers were applied.

Several compounds in several samples were estimated (J) due to %RPD between columns exceeding QC limits of 40%. See Qualitative Identification section of memo for details.

Sample NFUDS-002-ISG08-01 was analyzed in triplicate for the explosive analyses. Several results were outside %RSD criteria of less than 20% and were estimated in all three samples (-3,-4, and -5),

Matrix Spike Recoveries and Reproducibility

Metals

A matrix spike was not performed but a post digestion spike was performed for batch 43509 on sample NFUDS-002-ISG02-01 and did not meet criteria for Aluminum, Calcium, Iron and Magnesium. Professional judgment was used in estimating the positive results for these four analytes only in the parent sample NFUDS-002-ISG02-01.

Laboratory Duplicate/Serial Dilution (Metals)

Metals

The positive results for iron were estimated (J) in all samples due to non-compliant serial dilution results (%D=11; diluted result was above original sample result).

Explosives

Sample 200-12041-7 was analyzed in triplicate per the 8330B method and %RSD calculated. A QC criterion of less than 20% was not met for 4-nitrotoluene and 3-nitrotoluene. However, since the results are below the reporting limit and already estimated (J), no further action is needed. Professional judgment was used in not qualifying other samples in the batch.

Quanlitative Identification

Explosives

The %RPD between column results did not meet less than 40% criteria for the following compounds in the following samples:

Sample	Compound	Result Col 1/Col 2	%RPD	Action
NFUDS-002-	4-Amino-2,6-	12 U/490	189	Report Col 2 490 J

ISG02-01	dinitrotoluene 2,6-Dinitrotoluene	 35 J/31 J	 11	 Report Col 2 31 J
NFUDS-002-ISG04-01	3-Nitrotoluene	57 J/450 J	155	Report Col 2 450 J
NFUDS-002-ISG08-01	1,3,5-Trinitrobenzene Tetryl	35 J/26 J 52 J/75 J	29 36	Report from Col 1-no action necessary (NA)
NFUDS-002-ISG08-R1	Tetryl	56 J/72 J	25	Report Col 1-NA
NFUDS-002-ISG08-R2	RDX 1,3,5-Trinitrobenzene Tetryl 4-Nitrotoluene 3-Nitrotoluene	30 J/49 J 79 J/83 J 190/130 89 J/31J 270/31J	49 5 36.5 97 158	Report all Primary Results estimated based on professional judgment to use most conservative
NFUDS-002-ISG09-01	1,3,5-Trinitrobenzene	35 J/330 J	162	Report Col 2 330 J estimated
NFUDS-002-ISG12-01	1,3,5-Trinitrobenzene 4-Nitrotoluene 3-Nitrotoluene	29J/69 J 70 J/60 J 47 J/60 J	83 15 25	Report Col 2 69 J Report Col 1-NA Report Col 1-NA

Quantitation Limits

Explosives 8330

The laboratory qualified several compounds in several samples as “M” to indicate that manual integration of these compounds had been performed. The “M” qualifiers were removed during validation.

Sample NFUDS-002-ISG12-01 was analyzed in triplicate for the explosive analyses. Several results were outside %RSD criteria of less than 20% and were estimated.

Data Validation Qualifier Code Glossary

Lab Validation Qualifier	Explanation
J	The positive result reported for this analyte is a quantitative estimate.
U	The analyte was not detected in the sample. The numeric value represents the sample detection limit
R	The result for this analyte is unusable. The analyte may or may not be present.
UJ	The analyte was not detected in the sample. The detection limit should be considered estimated and may be inaccurate or imprecise.

Data Reviewer's Validation Qualifier	Explanation
J[10]	Estimate the positive result for Fe in all samples due to non-compliant serial dilution results (bias could not be determined).
J[11]	Estimate the positive results for AL, Ca, Fe and Mg in sample NFUDS-002-ISG02-01 due to non-compliant post-digestion results (bias could not be determined).
J[12]	Estimate the positive explosive results due to relative percent difference (%RPD) between columns above 40% (bias could not be determined).
J[13/]UJ[13]	Estimate the positive and non-detected results due to percent relative standard deviation (%RSD) between triplicate results above 20% (bias could not be determined).

Client: Weston Solutions, Inc.

use these results

Analytical Data

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Client Sample ID: NFUDS-002-ISG02-01
Lab Sample ID: 200-12041-1
Client Matrix: Solid

Date Sampled: 07/31/2012 1500
Date Received: 08/02/2012 1030

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method: 8330B
Prep Method: 8330
Dilution: 1.0
Analysis Date: 08/09/2012 1528
Prep Date: 08/08/2012 1440

Analysis Batch: 200-43164
Prep Batch: 200-43130

Instrument ID: CH1488
Initial Weight/Volume: 10.05 g
Final Weight/Volume: 100 mL
Injection Volume: 450 uL
Result Type: SECONDARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	Val Qual	LOQ
4-Amino-2,6-dinitrotoluene		490	J M	8.4	J12	100
2,6-Dinitrotoluene		31	J M	11	J12	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	104	M	40 - 140

Analytical Data

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Client Sample ID: **NFUDS-002-ISG02-01**

Lab Sample ID: 200-12041-1
Client Matrix: Solid

Date Sampled: 07/31/2012 1500
Date Received: 08/02/2012 1030

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-43162	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-43130	Initial Weight/Volume:	10.05 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/09/2012 1550			Injection Volume:	150 uL
Prep Date:	08/08/2012 1440			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.5	100
RDX		12	U	12	100
1,3,5-Trinitrobenzene		12	U	5.0	100
1,3-Dinitrobenzene		12	U	5.9	100
Nitrobenzene		30	U	26	100
Tetryl		24	U	15	100
Nitroglycerin		720	U ~~M~~	480	2000
2,4,6-Trinitrotoluene		24	U	17	100
4-Amino-2,6-dinitrotoluene		14 ~~490~~	J ~~M~~	8.4	100
X 2-Amino-4,6-dinitrotoluene		~~12~~ 490	U	6.6 UJ12	100 } use secondary column with J
X 2,6-Dinitrotoluene		~~35~~ 31	J ~~M~~	11 J12	100
2,4-Dinitrotoluene		24	U	15	100
2-Nitrotoluene		24	U	14	100
4-Nitrotoluene		30	U	27	100
3-Nitrotoluene		30	U ~~M~~	27	100

validation Qualifier

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	104		40 - 140

DFG 8/27/12

Report secondary column results

Analytical Data

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Client Sample ID: **NFUDS-002-ISG04-01**

Lab Sample ID: 200-12041-2
Client Matrix: Solid

Date Sampled: 08/01/2012 0800
Date Received: 08/02/2012 1030

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-43164	Instrument ID:	CH1488
Prep Method:	8330	Prep Batch:	200-43130	Initial Weight/Volume:	9.94 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/09/2012 1602			Injection Volume:	450 uL
Prep Date:	08/08/2012 1440			Result Type:	SECONDARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	Val Qual	LOQ	
3-Nitrotoluene		450	J ~~M~~	27	J12	100	% RPD 74

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	95	~~M~~	40 - 140

DFG 8/27/12

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Client Sample ID: **NFUDS-002-ISG04-01**

Lab Sample ID: 200-12041-2
Client Matrix: Solid

Date Sampled: 08/01/2012 0800
Date Received: 08/02/2012 1030

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method: 8330B
Prep Method: 8330
Dilution: 1.0
Analysis Date: 08/09/2012 1628
Prep Date: 08/08/2012 1440

Analysis Batch: 200-43162
Prep Batch: 200-43130

Instrument ID: CH1208
Initial Weight/Volume: 9.94 g
Final Weight/Volume: 100 mL
Injection Volume: 150 uL
Result Type: PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	Val Qualifier	LOQ
HMX		12	U	4.5		100
RDX		12	U	12		100
1,3,5-Trinitrobenzene		12	U M	5.0		100
1,3-Dinitrobenzene		12	U	5.9		100
Nitrobenzene		30	U M	26		100
Tetryl		24	U	15		100
Nitroglycerin		720	U	480		2000
2,4,6-Trinitrotoluene		24	U	17		100
4-Amino-2,6-dinitrotoluene		12	U	8.5		100
2-Amino-4,6-dinitrotoluene		12	U	6.6		100
2,6-Dinitrotoluene		12	U	11		100
2,4-Dinitrotoluene		24	U	15		100
2-Nitrotoluene		24	U	14		100
4-Nitrotoluene		30	U	27		100
~~3-Nitrotoluene~~ Don't report,		~~57~~ 450	J M	27	J 12	100

Report secondary column J

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	97	M	40 - 140

DRG 8/27/12

Client: Weston Solutions, Inc.

Don't use these results

Analytical Data

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Client Sample ID: NFUDS-002-ISG08-01
Lab Sample ID: 200-12041-3
Client Matrix: Solid

Date Sampled: 07/31/2012 1540
Date Received: 08/02/2012 1030

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method: 8330B
Prep Method: 8330
Dilution: 1.0
Analysis Date: 08/09/2012 1636
Prep Date: 08/08/2012 1440

Analysis Batch: 200-43164
Prep Batch: 200-43130

Instrument ID: CH1488
Initial Weight/Volume: 10.08 g
Final Weight/Volume: 100 mL
Injection Volume: 450 uL
Result Type: SECONDARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
1,3,5-Trinitrobenzene		26	J M	5.0	99
Tetryl		75	J M	15	99

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	98	M	40 - 140

DRB 8/27/12

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Client Sample ID: NFUDS-002-ISG08-01

Lab Sample ID: 200-12041-3
Client Matrix: Solid

Date Sampled: 07/31/2012 1540
Date Received: 08/02/2012 1030

Use all these results

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-43162	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-43130	Initial Weight/Volume:	10.08 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/09/2012 1705			Injection Volume:	150 uL
Prep Date:	08/08/2012 1440			Result Type:	PRIMARY

validation qualifiers

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.5	99
RDX		12	U UJ13	12	99
~~1,3,5-Trinitrobenzene~~		35	J J13	5.0	99
1,3-Dinitrobenzene		12	U	5.9	99
Nitrobenzene		30	U M	26	99
~~Tetryl~~		52	J M J13	15	99
Nitroglycerin		710	U	480	2000
2,4,6-Trinitrotoluene		24	U	17	99
4-Amino-2,6-dinitrotoluene		12	U	8.3	99
2-Amino-4,6-dinitrotoluene		190	M J13	6.5	99
2,6-Dinitrotoluene		12	U M	11	99
2,4-Dinitrotoluene		24	U	15	99
2-Nitrotoluene		24	U	14	99
4-Nitrotoluene		30	U UJ13	27	99
3-Nitrotoluene		30	U M UJ13	27	99

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	101	M	40 - 140

DFB 8/8/12

Don't Report this value

Analytical Data

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Client Sample ID: NFUDS-002-ISG08-R1

Lab Sample ID: 200-12041-4
Client Matrix: Solid

Date Sampled: 08/01/2012 1445
Date Received: 08/02/2012 1030

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-43164	Instrument ID:	CH1488
Prep Method:	8330	Prep Batch:	200-43130	Initial Weight/Volume:	10.01 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/09/2012 1744			Injection Volume:	450 uL
Prep Date:	08/08/2012 1440			Result Type:	SECONDARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
Tetryl		72	J	15	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	99	M	40 - 140

DFG 8/27/12

Analytical Data

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Client Sample ID: NFUDS-002-ISG08-R1
Lab Sample ID: 200-12041-4
Client Matrix: Solid

Repeat all these results.

Date Sampled: 08/01/2012 1445
Date Received: 08/02/2012 1030

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method: 8330B
Prep Method: 8330
Dilution: 1.0
Analysis Date: 08/09/2012 1820
Prep Date: 08/08/2012 1440

Analysis Batch: 200-43162
Prep Batch: 200-43130

Instrument ID: CH1208
Initial Weight/Volume: 10.01 g
Final Weight/Volume: 100 mL
Injection Volume: 150 uL
Result Type: PRIMARY

validation qual

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.5	100
RDX		12	U UJ13	12	100
1,3,5-Trinitrobenzene		12	U UJ13	5.0	100
1,3-Dinitrobenzene		12	U	5.9	100
Nitrobenzene		30	U M	26	100
~~Tetryl~~		~~56~~	J M J13	15	100
Nitroglycerin		720	U	480	2000
2,4,6-Trinitrotoluene		24	U	17	100
4-Amino-2,6-dinitrotoluene		12	U	8.4	100
2-Amino-4,6-dinitrotoluene		190	M J13	6.6	100
2,6-Dinitrotoluene		12	U M	11	100
2,4-Dinitrotoluene		24	U	15	100
2-Nitrotoluene		24	U	14	100
4-Nitrotoluene		30	U UJ13	27	100
3-Nitrotoluene		30	U M UJ13	27	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	101	M	40 - 140

DFB 8/27/12

Analytical Data

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Client Sample ID: NFUDS-002-ISG08-R2
Lab Sample ID: 200-12041-5
Client Matrix: Solid

Date Sampled: 08/01/2012 1515
Date Received: 08/02/2012 1030

Do not report

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method: 8330B
Prep Method: 8330
Dilution: 1.0
Analysis Date: 08/09/2012 1819
Prep Date: 08/08/2012 1440

Analysis Batch: 200-43164
Prep Batch: 200-43130

Instrument ID: CH1488
Initial Weight/Volume: 10.64 g
Final Weight/Volume: 100 mL
Injection Volume: 450 ~~uL~~
Result Type: SECONDARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
RDX		49	J ~~M~~	11	94
1,3,5-Trinitrobenzene		83	J	4.7	94
Tetryl		130	~~M~~	14	94
4-Nitrotoluene		31	J ~~M~~	25	94
3-Nitrotoluene		31	J ~~M~~	25	94

Val Qual J12 J12 J12

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	106	~~M~~	40 - 140

DFG 8/7/12

Report this one all results with Qualifiers

Analytical Data

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Client Sample ID: **NFUDS-002-ISG08-R2**

Lab Sample ID: 200-12041-5
Client Matrix: Solid

Date Sampled: 08/01/2012 1515
Date Received: 08/02/2012 1030

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-43162	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-43130	Initial Weight/Volume:	10.64 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/09/2012 1857			Injection Volume:	150 uL
Prep Date:	08/08/2012 1440			Result Type:	PRIMARY

Val qualifiers

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL		LOQ
HMX		11	U	4.2		94
RDX		30	J M	11	J 12, 13	94
1,3,5-Trinitrobenzene		79	J	4.7	J 13	94
1,3-Dinitrobenzene		11	U	5.5		94
Nitrobenzene		28	U	24		94
Tetryl		190	M	14	J 13	94
Nitroglycerin		680	U	450		1900
2,4,6-Trinitrotoluene		23	U	16		94
4-Amino-2,6-dinitrotoluene		11	U	7.9		94
2-Amino-4,6-dinitrotoluene		11	U	6.2	UJ 13	94
2,6-Dinitrotoluene		11	U	10		94
2,4-Dinitrotoluene		23	U	14		94
2-Nitrotoluene		23	U	13		94
4-Nitrotoluene		89	J M	25	J 12, 13	94
3-Nitrotoluene		270	M	25	J 12, 13	94

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	101	M	40 - 140

DFC 8/07/12

Analytical Data

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Client Sample ID: NFUDS-002-ISG09-01

Lab Sample ID: 200-12041-6
Client Matrix: Solid

Date Sampled: 07/31/2012 1701
Date Received: 08/02/2012 1030

Use this result

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-43164	Instrument ID:	CH1488
Prep Method:	8330	Prep Batch:	200-43130	Initial Weight/Volume:	9.97 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/09/2012 1853			Injection Volume:	450 uL
Prep Date:	08/08/2012 1440			Result Type:	SECONDARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
1,3,5-Trinitrobenzene		330	J	5.0	100

Validation Qualifier J12

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	92		40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Client Sample ID: **NFUDS-002-ISG09-01**

Lab Sample ID: 200-12041-6
Client Matrix: Solid

Date Sampled: 07/31/2012 1701
Date Received: 08/02/2012 1030

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-43162	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-43130	Initial Weight/Volume:	9.97 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/09/2012 1935			Injection Volume:	150 uL
Prep Date:	08/08/2012 1440			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.5	100
RDX		12	U	12	100
~~1,3,5-Trinitrobenzene~~		35 330	J J12	5.0	100
1,3-Dinitrobenzene		12	U	5.9	100
Nitrobenzene		30	U	26	100
Tetryl		24	U M	15	100
Nitroglycerin		720	U	480	2000
2,4,6-Trinitrotoluene		24	U	17	100
4-Amino-2,6-dinitrotoluene		12	U	8.4	100
2-Amino-4,6-dinitrotoluene		12	U	6.6	100
2,6-Dinitrotoluene		12	U	11	100
2,4-Dinitrotoluene		24	U	15	100
2-Nitrotoluene		24	U	14	100
4-Nitrotoluene		30	U	27	100
3-Nitrotoluene		30	U M	27	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	94	M	40 - 140

DFC 8/27/12

Use these results for 1,3,5-trinitrobenzene

Analytical Data

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Client Sample ID: **NFUDS-002-ISG12-01**

Lab Sample ID: 200-12041-7
Client Matrix: Solid

Date Sampled: 08/01/2012 1145
Date Received: 08/02/2012 1030

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-43164	Instrument ID:	CH1488
Prep Method:	8330	Prep Batch:	200-43130	Initial Weight/Volume:	10.19 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/09/2012 1927			Injection Volume:	450 uL
Prep Date:	08/08/2012 1440			Result Type:	SECONDARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
1,3,5-Trinitrobenzene		69	J M	4.9	98
4-Nitrotoluene		60	J M	26	98
3-Nitrotoluene		60	J M	26	98

val qual J 12

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	92		40 - 140

DFB 8/07/12

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Client Sample ID: **NFUDS-002-ISG12-01**

Lab Sample ID: 200-12041-7
Client Matrix: Solid

Date Sampled: 08/01/2012 1145
Date Received: 08/02/2012 1030

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-43162	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-43130	Initial Weight/Volume:	10.19 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/09/2012 2012			Injection Volume:	150 uL
Prep Date:	08/08/2012 1440			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.4	98
RDX		12	U	12	98
~~1,3,5-Trinitrobenzene~~ use secondary		~~29~~ 69	J M (J 12)	4.9	98
1,3-Dinitrobenzene		12	U	5.8	98
Nitrobenzene		29	U	26	98
Tetryl		24	U	15	98
Nitroglycerin		710	U	470	2000
2,4,6-Trinitrotoluene		24	U	17	98
4-Amino-2,6-dinitrotoluene		12	U	8.2	98
2-Amino-4,6-dinitrotoluene		12	U M	6.5	98
2,6-Dinitrotoluene		12	U M	11	98
2,4-Dinitrotoluene		24	U	15	98
2-Nitrotoluene		24	U	14	98
~~4-Nitrotoluene~~ Report there		70	J M	26	98
~~3-Nitrotoluene~~ Use there		47	J M	26	98

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	91	M	40 - 140

DFC 8/27/12

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Client Sample ID: NFUDS-002-ISG02-01

Lab Sample ID: 200-12041-1
Client Matrix: Solid

Date Sampled: 07/31/2012 1500
Date Received: 08/02/2012 1030

6010C Metals (ICP)

Analysis Method: 6010C
Prep Method: 3050B
Dilution: 1.0
Analysis Date: 08/16/2012 0356
Prep Date: 08/09/2012 1100

Analysis Batch: 200-43509
Prep Batch: 200-43205

Instrument ID: METICP7
Lab File ID: 081512-04.ttx
Initial Weight/Volume: 2.04 g
Final Weight/Volume: 100 mL

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	DL	LOQ
Silver		0.20	U	0.064	0.49
Barium		5.0	J	0.25	9.8
Calcium		310	J11	25	250
Cadmium		0.044	J	0.039	0.25
Cobalt		0.58	J	0.040	2.5
Chromium		4.6		0.054	0.49
Iron		4800	J10,11	6.4	9.8
Potassium		270		7.4	250
Magnesium		490	J11	6.9	250
Manganese		35		0.22	0.74
Sodium		59	J	3.7	250
Nickel		1.8	J	0.14	2.0
Lead		4.6		0.22	0.49
Antimony		0.74	U	0.24	2.9
Selenium		1.1	U	0.43	1.7
Thallium		0.74	U	0.20	1.2
Vanadium		8.0		0.064	2.5

Analysis Method: 6010C
Prep Method: 3050B
Dilution: 1.0
Analysis Date: 08/18/2012 1643
Prep Date: 08/09/2012 1100

Analysis Batch: 200-43690
Prep Batch: 200-43205

Instrument ID: METICP7
Lab File ID: 082012-06.ttx
Initial Weight/Volume: 2.04 g
Final Weight/Volume: 100 mL

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		3800	J11	8.3	9.8
Arsenic		2.1		0.27	0.49
Beryllium		0.10	J	0.016	0.25
Copper		1.5		0.11	1.2
Zinc		9.0		0.27	0.98

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method: 7471B
Prep Method: 7471B
Dilution: 1.0
Analysis Date: 08/20/2012 1228
Prep Date: 08/20/2012 0900

Analysis Batch: 200-43668
Prep Batch: 200-43602

Instrument ID: MEPCV3 II
Lab File ID: 082012BB.PRN
Initial Weight/Volume: 0.31 g
Final Weight/Volume: 50 mL

DFC 8/27/12

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.0037	U	0.0021	0.032

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Client Sample ID: NFUDS-002-ISG04-01

Lab Sample ID: 200-12041-2
Client Matrix: Solid

Date Sampled: 08/01/2012 0800
Date Received: 08/02/2012 1030

6010C Metals (ICP)

Analysis Method: 6010C
Prep Method: 3050B
Dilution: 1.0
Analysis Date: 08/16/2012 0430
Prep Date: 08/09/2012 1100

Analysis Batch: 200-43509
Prep Batch: 200-43205

Instrument ID: METICP7
Lab File ID: 081512-04.ttx
Initial Weight/Volume: 2.12 g
Final Weight/Volume: 100 mL

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	DL	LOQ
Silver		0.19	U	0.061	0.47
Barium		5.2	J	0.25	9.4
Calcium		170	J	24	240
Cadmium		0.077	J	0.038	0.24
Cobalt		1.1	J	0.038	2.4
Chromium		5.7		0.052	0.47
Iron		6000	J 10	6.1	9.4
Potassium		290		7.1	240
Magnesium		530		6.6	240
Manganese		38		0.21	0.71
Sodium		20	J	3.5	240
Nickel		2.8		0.14	1.9
Lead		4.5		0.21	0.47
Antimony		0.71	U	0.23	2.8
Selenium		0.53	J	0.41	1.7
Thallium		0.71	U	0.19	1.2
Vanadium		8.8		0.061	2.4

Analysis Method: 6010C
Prep Method: 3050B
Dilution: 1.0
Analysis Date: 08/18/2012 1658
Prep Date: 08/09/2012 1100

Analysis Batch: 200-43690
Prep Batch: 200-43205

Instrument ID: METICP7
Lab File ID: 082012-06.ttx
Initial Weight/Volume: 2.12 g
Final Weight/Volume: 100 mL

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		4600		8.0	9.4
Arsenic		2.2		0.26	0.47
Beryllium		0.12	J	0.015	0.24
Copper		1.6		0.10	1.2
Zinc		11		0.26	0.94

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method: 7471B
Prep Method: 7471B
Dilution: 1.0
Analysis Date: 08/20/2012 1255
Prep Date: 08/20/2012 0900

Analysis Batch: 200-43668
Prep Batch: 200-43602

Instrument ID: MEPCV3 II
Lab File ID: 082012BB.PRN
Initial Weight/Volume: 0.32 g
Final Weight/Volume: 50 mL

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.0036	U	0.0021	0.031

DPG 8/27/12

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Client Sample ID: NFUDS-002-ISG08-01

Lab Sample ID: 200-12041-3
Client Matrix: Solid

Date Sampled: 07/31/2012 1540
Date Received: 08/02/2012 1030

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	200-43509	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-43205	Lab File ID:	081512-04.ttx
Dilution:	1.0			Initial Weight/Volume:	1.97 g
Analysis Date:	08/16/2012 0436			Final Weight/Volume:	100 mL
Prep Date:	08/09/2012 1100				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	DL	LOQ
Silver		0.20	U	0.066	0.51
Barium		5.2	J	0.26	10
Calcium		160	J	26	250
Cadmium		0.050	J	0.041	0.25
Cobalt		0.71	J	0.041	2.5
Chromium		5.1		0.056	0.51
Iron		5600	J10	6.6	10
Potassium		260		7.6	250
Magnesium		400		7.1	250
Manganese		32		0.23	0.76
Sodium		35	J	3.8	250
Nickel		2.1		0.15	2.0
Lead		6.2		0.22	0.51
Antimony		0.76	U	0.25	3.0
Selenium		0.58	J	0.44	1.8
Thallium		0.76	U	0.21	1.3
Vanadium		9.3		0.066	2.5

Analysis Method:	6010C	Analysis Batch:	200-43690	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-43205	Lab File ID:	082012-06.ttx
Dilution:	1.0			Initial Weight/Volume:	1.97 g
Analysis Date:	08/18/2012 1703			Final Weight/Volume:	100 mL
Prep Date:	08/09/2012 1100				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		4000		8.6	10
Arsenic		2.1		0.28	0.51
Beryllium		0.092	J	0.016	0.25
Copper		1.6		0.11	1.3
Zinc		7.1		0.28	1.0

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method:	7471B	Analysis Batch:	200-43668	Instrument ID:	MEPCV3 II
Prep Method:	7471B	Prep Batch:	200-43602	Lab File ID:	082012BB.PRN
Dilution:	1.0			Initial Weight/Volume:	0.31 g
Analysis Date:	08/20/2012 1237			Final Weight/Volume:	50 mL
Prep Date:	08/20/2012 0900				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.010	J	0.0021	0.032

DFB 8/27/12

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Client Sample ID: **NFUDS-002-ISG08-R1**

Lab Sample ID: 200-12041-4
Client Matrix: Solid

Date Sampled: 08/01/2012 1445
Date Received: 08/02/2012 1030

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	200-43509	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-43205	Lab File ID:	081512-04.ttx
Dilution:	1.0			Initial Weight/Volume:	2.04 g
Analysis Date:	08/16/2012 0441			Final Weight/Volume:	100 mL
Prep Date:	08/09/2012 1100				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	DL	LOQ
Silver		0.20	U	0.064	0.49
Barium		6.2	J	0.25	9.8
Calcium		170	J	25	250
Cadmium		0.050	J	0.039	0.25
Cobalt		0.75	J	0.040	2.5
Chromium		5.9		0.054	0.49
Iron		6700	J [10]	6.4	9.8
Potassium		270		7.4	250
Magnesium		450		6.9	250
Manganese		35		0.22	0.74
Sodium		31	J	3.7	250
Nickel		2.3		0.14	2.0
Lead		6.7		0.22	0.49
Antimony		0.74	U	0.24	2.9
Selenium		0.64	J	0.43	1.7
Thallium		0.74	U	0.20	1.2
Vanadium		11		0.064	2.5

Analysis Method:	6010C	Analysis Batch:	200-43690	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-43205	Lab File ID:	082012-06.ttx
Dilution:	1.0			Initial Weight/Volume:	2.04 g
Analysis Date:	08/18/2012 1708			Final Weight/Volume:	100 mL
Prep Date:	08/09/2012 1100				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		5100		8.3	9.8
Arsenic		2.4		0.27	0.49
Beryllium		0.10	J	0.016	0.25
Copper		1.6		0.11	1.2
Zinc		8.4		0.27	0.98

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method:	7471B	Analysis Batch:	200-43668	Instrument ID:	MEPCV3 II
Prep Method:	7471B	Prep Batch:	200-43602	Lab File ID:	082012BB.PRN
Dilution:	1.0			Initial Weight/Volume:	0.31 g
Analysis Date:	08/20/2012 1239			Final Weight/Volume:	50 mL
Prep Date:	08/20/2012 0900				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.0037	U	0.0021	0.032

validated per Quality Manual UJ13

DLG 8/21/12

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Client Sample ID: NFUDS-002-ISG08-R2

Lab Sample ID: 200-12041-5
Client Matrix: Solid

Date Sampled: 08/01/2012 1515
Date Received: 08/02/2012 1030

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	200-43509	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-43205	Lab File ID:	081512-04.ttx
Dilution:	1.0			Initial Weight/Volume:	1.98 g
Analysis Date:	08/16/2012 0447			Final Weight/Volume:	100 mL
Prep Date:	08/09/2012 1100				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	DL	LOQ
Silver		0.20	U	0.066	0.51
Barium		6.1	J	0.26	10
Calcium		190	J	26	250
Cadmium		0.053	J	0.040	0.25
Cobalt		0.81	J	0.041	2.5
Chromium		6.1		0.056	0.51
Iron		7000	J to	6.6	10
Potassium		280		7.6	250
Magnesium		470		7.1	250
Manganese		38		0.23	0.76
Sodium		29	J	3.8	250
Nickel		2.5		0.15	2.0
Lead		5.6		0.22	0.51
Antimony		0.76	U	0.25	3.0
Selenium		0.56	J	0.44	1.8
Thallium		0.76	U	0.21	1.3
Vanadium		11		0.066	2.5

Analysis Method:	6010C	Analysis Batch:	200-43690	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-43205	Lab File ID:	082012-06.ttx
Dilution:	1.0			Initial Weight/Volume:	1.98 g
Analysis Date:	08/18/2012 1713			Final Weight/Volume:	100 mL
Prep Date:	08/09/2012 1100				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		5400		8.6	10
Arsenic		2.4		0.28	0.51
Beryllium		0.12	J	0.016	0.25
Copper		1.8		0.11	1.3
Zinc		8.9		0.28	1.0

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method:	7471B	Analysis Batch:	200-43668	Instrument ID:	MEPCV3 II
Prep Method:	7471B	Prep Batch:	200-43602	Lab File ID:	082012BB.PRN
Dilution:	1.0			Initial Weight/Volume:	0.34 g
Analysis Date:	08/20/2012 1241			Final Weight/Volume:	50 mL
Prep Date:	08/20/2012 0900				

validation qualifiers

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.0034	U	0.0019	0.029

DFG 8/27/12

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Client Sample ID: **NFUDS-002-ISG09-01**

Lab Sample ID: 200-12041-6
Client Matrix: Solid

Date Sampled: 07/31/2012 1701
Date Received: 08/02/2012 1030

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	200-43509	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-43205	Lab File ID:	081512-04.ttx
Dilution:	1.0			Initial Weight/Volume:	2.08 g
Analysis Date:	08/16/2012 0452			Final Weight/Volume:	100 mL
Prep Date:	08/09/2012 1100				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	DL	LOQ
Silver		0.19	U	0.063	0.48
Barium		7.9	J	0.25	9.6
Calcium		370		25	240
Cadmium		0.057	J	0.038	0.24
Cobalt		0.78	J	0.039	2.4
Chromium		5.5		0.053	0.48
Iron		6400	J [10]	6.3	9.6
Potassium		310		7.2	240
Magnesium		520		6.7	240
Manganese		47		0.22	0.72
Sodium		55	J	3.6	240
Nickel		2.5		0.14	1.9
Lead		8.5		0.21	0.48
Antimony		0.72	U	0.24	2.9
Selenium		0.63	J	0.42	1.7
Thallium		0.72	U	0.20	1.2
Vanadium		10		0.063	2.4

Analysis Method:	6010C	Analysis Batch:	200-43690	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-43205	Lab File ID:	082012-06.ttx
Dilution:	1.0			Initial Weight/Volume:	2.08 g
Analysis Date:	08/18/2012 1718			Final Weight/Volume:	100 mL
Prep Date:	08/09/2012 1100				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		4200		8.2	9.6
Arsenic		2.5		0.27	0.48
Beryllium		0.092	J	0.015	0.24
Copper		2.3		0.11	1.2
Zinc		8.9		0.27	0.96

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method:	7471B	Analysis Batch:	200-43668	Instrument ID:	MEPCV3 II
Prep Method:	7471B	Prep Batch:	200-43602	Lab File ID:	082012BB.PRN
Dilution:	1.0			Initial Weight/Volume:	0.33 g
Analysis Date:	08/20/2012 1250			Final Weight/Volume:	50 mL
Prep Date:	08/20/2012 0900				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.0080	J	0.0020	0.030

DFG 8/27/12

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Client Sample ID: **NFUDS-002-ISG12-01**

Lab Sample ID: 200-12041-7
Client Matrix: Solid

Date Sampled: 08/01/2012 1145
Date Received: 08/02/2012 1030

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	200-43509	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-43205	Lab File ID:	081512-04.ttx
Dilution:	1.0			Initial Weight/Volume:	1.99 g
Analysis Date:	08/16/2012 0458			Final Weight/Volume:	100 mL
Prep Date:	08/09/2012 1100				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	DL	LOQ
Silver		0.20	U	0.065	0.50
Barium		6.0	J	0.26	10
Calcium		300		26	250
Cadmium		0.059	J	0.040	0.25
Cobalt		0.75	J	0.041	2.5
Chromium		4.9		0.055	0.50
Iron		5700	J10	6.5	10
Potassium		280		7.5	250
Magnesium		450		7.0	250
Manganese		35		0.23	0.75
Sodium		41	J	3.8	250
Nickel		2.1		0.15	2.0
Lead		9.1		0.22	0.50
Antimony		0.75	U	0.25	3.0
Selenium		0.63	J	0.44	1.8
Thallium		0.75	U	0.21	1.3
Vanadium		9.3		0.065	2.5

Analysis Method:	6010C	Analysis Batch:	200-43690	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-43205	Lab File ID:	082012-06.ttx
Dilution:	1.0			Initial Weight/Volume:	1.99 g
Analysis Date:	08/18/2012 1739			Final Weight/Volume:	100 mL
Prep Date:	08/09/2012 1100				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		3600		8.5	10
Arsenic		2.3		0.28	0.50
Beryllium		0.089	J	0.016	0.25
Copper		6.6		0.11	1.3
Zinc		8.2		0.28	1.0

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method:	7471B	Analysis Batch:	200-43668	Instrument ID:	MEPCV3 II
Prep Method:	7471B	Prep Batch:	200-43602	Lab File ID:	082012BB.PRN
Dilution:	1.0			Initial Weight/Volume:	0.31 g
Analysis Date:	08/20/2012 1253			Final Weight/Volume:	50 mL
Prep Date:	08/20/2012 0900				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.014	J	0.0021	0.032

8/27/12

Nantucket Beach FUDS
Data Validation Report
TestBurlington SDG 200-12042-1

Weston Solutions, Inc.
45 Constitution Way
Concord, NH 03301-5079
603-656-5400 ● Fax 603-656-5401
www.westonsolutions.com

DATE: August 27, 2012

PROJECT: Nantucket Beach FUDS
03886.551.004

LABORATORY: TestAmerica Laboratories, Inc., South Burlington, VT

SDG: 200-12042-1

FROM: Diane Quigley
Senior Technical Manager

SAMPLES: NFUDS-002-SBG0201-01, NFUDS-002-SBG0202-01, NFUDS-002-SBG0202-02, NFUDS-002-SBG023-01, NFUDS-002-SBG0401-01, NFUDS-002-SBG0402-01, NFUDS-002-SBG0403-01, NFUDS-002-SBG0801-01, NFUDS-002-SBG0802-01, NFUDS-002-SBG0803-01, NFUDS-002-SBG0901-01, NFUDS-002-SBG0902-01, NFUDS-002-SBG0903-01, NFUDS-002-SBG0903-02, NFUDS-002-SBG1201-01, NFUDS-002-SBG1202-01, NFUDS-002-SBG1203-01

This data validation report is based upon a review of analytical data generated for seventeen sediment samples collected on July 31 and August 1, 2012 by Weston Solutions, Inc. (WESTON).

The samples were analyzed for total metals by SW846 Method 6010C, total mercury by SW846 Method 7471B and explosives by SW846 Method 8330B.

Weston performed a modified Tier II data validation in accordance with the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Data Review, USEPA, 06/2008 and USEPA CLP National Functional Guidelines for Inorganic Superfund Data Review, January 2010.

The data were evaluated based on the following parameters:

*	Overall Evaluation of Data and Potential Usability Issues
*	Data Completeness
*	Chain-of-Custody (COC) Documentation
*	Holding Times and Sample Preservation
*	GC/MS Tune
*	Method Blanks/Trip and Equipment blanks
*	Initial and Continuing Calibrations
*	Laboratory and Field Blanks
*	Surrogate Recoveries
	Matrix Spike Recoveries and Reproducibility
*	Field Duplicates
	Laboratory Duplicates/Serial Dilution (Inorganics)
*	Laboratory Control Samples (LCS)
*	Internal Standard Performance
*	Qualitative Identification
	Quantitation Limits

* – Denotes QC parameter was evaluated and criteria was met.

Overall Evaluation of Data and Potential Usability Issues

Metals

The positive results for manganese were estimated (J) in all samples due to non-compliant laboratory duplicate results.

The positive results for calcium, magnesium and potassium were estimated (J) in the parent sample NFUDS-002-SBG0203-01 due to matrix spike recoveries above QC limits (potential high bias).

Explosives 8330

The analytical batch included a laboratory control sample (LCS) spiked with all 15 target compounds which included all 13 compounds listed in QSM 4.2 Table G-13 as well as tetryl and nitroglycerin. All spiked target compound recovered between the upper and lower control laboratory limits. During validation, the spiked target compounds were also evaluated using the

acceptance criterion listed in QSM 4.2 Table G-13. All LCS recoveries recovered within the QSM and laboratory limits and as such, no validation qualifiers were applied.

Matrix Spike Recoveries and Reproducibility

Metals

A matrix spike was performed on sample NFUDS-002-SBG0203-01 and was high outside QC limits for Al, Ca, Fe, Mg and K. A post digestion spike was also performed and Al and Fe were outside QC limits for Al and Fe. No action was taken for Al and Fe since the parent sample concentration was greater than 4 times the spike amount. Professional judgment was used in estimating (J) the positive results for Ca, Mg and K in the parent sample NFUDS-002-SBG0203-01 only.

Field Duplicates

Field duplicate samples NFUDS-002-SBG0202-01 and NFUDS-002-SBG0202-02; and samples NFUDS-002-SBG0903-01, NFUDS-002-SBG0903-02 met QC criteria (%RPD < 50).

Laboratory Duplicate/Serial Dilution (Metals)

Metals

The laboratory duplicate was performed on sample NFUDS-002-SBG0203-01 and all results were within QC limits except for manganese. As a result, the positive results for manganese were estimated (J) in all samples.

Quantitation Limits

Explosives 8330

The laboratory qualified several compounds in several samples as “M” to indicate that manual integration of these compounds had been performed. The “M” qualifiers were removed during validation.

Data Validation Qualifier Code Glossary

Lab Validation Qualifier	Explanation
J	The positive result reported for this analyte is a quantitative estimate.
U	The analyte was not detected in the sample. The numeric value represents the sample detection limit
R	The result for this analyte is unusable. The analyte may or may not be present.
UJ	The analyte was not detected in the sample. The detection limit should be considered estimated and may be inaccurate or imprecise.

Data Reviewer's Validation Qualifier	Explanation
J^7	Estimated the positive results for Manganese in all samples due to non-compliant laboratory duplicates (bias could not be determined).
J^9	Estimate the positive results for Calcium, Magnesium and Potassium in sample NFUDS-002-SBG0203-01 due to matrix spike results above QC limits (potential high bias).

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG0201-01**

Lab Sample ID: 200-12042-1
Client Matrix: Solid

Date Sampled: 08/01/2012 1045
Date Received: 08/02/2012 1030

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Analysis Method:	8330 Modified	Analysis Batch:	200-43162	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-43130	Initial Weight/Volume:	10.01 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/09/2012 1435			Injection Volume:	150 uL
Prep Date:	08/08/2012 1440			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.5	100
RDX		12	U	12	100
1,3,5-Trinitrobenzene		12	U	5.0	100
1,3-Dinitrobenzene		12	U	5.9	100
Nitrobenzene		30	U	26	100
Tetryl		24	U	15	100
Nitroglycerin		720	U	480	2000
2,4,6-Trinitrotoluene		24	U	17	100
4-Amino-2,6-dinitrotoluene		12	U	8.4	100
2-Amino-4,6-dinitrotoluene		12	U	6.6	100
2,6-Dinitrotoluene		12	U	11	100
2,4-Dinitrotoluene		24	U	15	100
2-Nitrotoluene		24	U	14	100
4-Nitrotoluene		30	U	27	100
3-Nitrotoluene		30	U M	27	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	96		40 - 140

DRC 8/28/12

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG0202-01**

Lab Sample ID: 200-12042-2
Client Matrix: Solid

Date Sampled: 08/01/2012 1055
Date Received: 08/02/2012 1030

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Analysis Method:	8330 Modified	Analysis Batch:	200-43162	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-43130	Initial Weight/Volume:	10.00 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/09/2012 1513			Injection Volume:	150 uL
Prep Date:	08/08/2012 1440			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.5	100
RDX		12	U	12	100
1,3,5-Trinitrobenzene		12	U	5.0	100
1,3-Dinitrobenzene		12	U	5.9	100
Nitrobenzene		30	U	26	100
Tetryl		24	U	15	100
Nitroglycerin		720	U	480	2000
2,4,6-Trinitrotoluene		24	U	17	100
4-Amino-2,6-dinitrotoluene		12	U	8.4	100
2-Amino-4,6-dinitrotoluene		12	U	6.6	100
2,6-Dinitrotoluene		12	U	11	100
2,4-Dinitrotoluene		24	U	15	100
2-Nitrotoluene		24	U	14	100
4-Nitrotoluene		30	U	27	100
3-Nitrotoluene		30	U M	27	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	97		40 - 140

DFK 8/28/12

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG0202-02**

Lab Sample ID: 200-12042-3
Client Matrix: Solid

Date Sampled: 08/01/2012 1055
Date Received: 08/02/2012 1030

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Analysis Method:	8330 Modified	Analysis Batch:	200-43097	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-42840	Initial Weight/Volume:	10.05 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/08/2012 1520			Injection Volume:	150 uL
Prep Date:	08/02/2012 2021			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.5	100
RDX		12	U	12	100
1,3,5-Trinitrobenzene		12	U	5.0	100
1,3-Dinitrobenzene		12	U	5.9	100
Nitrobenzene		30	U	26	100
Tetryl		24	U	15	100
Nitroglycerin		720	U	480	2000
2,4,6-Trinitrotoluene		24	U M	17	100
4-Amino-2,6-dinitrotoluene		12	U	8.4	100
2-Amino-4,6-dinitrotoluene		12	U	6.6	100
2,6-Dinitrotoluene		12	U	11	100
2,4-Dinitrotoluene		24	U	15	100
2-Nitrotoluene		24	U	14	100
4-Nitrotoluene		30	U	27	100
3-Nitrotoluene		30	U M	27	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	95		40 - 140

DPR 8/28/12

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG0203-01**

Lab Sample ID: 200-12042-4
Client Matrix: Solid

Date Sampled: 08/01/2012 1115
Date Received: 08/02/2012 1030

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Analysis Method:	8330 Modified	Analysis Batch:	200-43097	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-42840	Initial Weight/Volume:	10.06 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/08/2012 1558			Injection Volume:	150 uL
Prep Date:	08/02/2012 2021			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.5	99
RDX		12	U	12	99
1,3,5-Trinitrobenzene		12	U	5.0	99
1,3-Dinitrobenzene		12	U	5.9	99
Nitrobenzene		30	U	26	99
Tetryl		24	U	15	99
Nitroglycerin		720	U	480	2000
2,4,6-Trinitrotoluene		24	U	17	99
4-Amino-2,6-dinitrotoluene		12	U	8.3	99
2-Amino-4,6-dinitrotoluene		12	U	6.6	99
2,6-Dinitrotoluene		12	U	11	99
2,4-Dinitrotoluene		24	U	15	99
2-Nitrotoluene		24	U	14	99
4-Nitrotoluene		30	U M	27	99
3-Nitrotoluene		30	U M	27	99

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	102		40 - 140

DFG 8/28/12

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG0401-01**

Lab Sample ID: 200-12042-5
Client Matrix: Solid

Date Sampled: 08/01/2012 0830
Date Received: 08/02/2012 1030

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Analysis Method:	8330 Modified	Analysis Batch:	200-43097	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-42840	Initial Weight/Volume:	10.02 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/08/2012 1635			Injection Volume:	150 uL
Prep Date:	08/02/2012 2021			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.5	100
RDX		12	U	12	100
1,3,5-Trinitrobenzene		12	U	5.0	100
1,3-Dinitrobenzene		12	U	5.9	100
Nitrobenzene		30	U	26	100
Tetryl		24	U	15	100
Nitroglycerin		720	U	480	2000
2,4,6-Trinitrotoluene		24	U	17	100
4-Amino-2,6-dinitrotoluene		12	U	8.4	100
2-Amino-4,6-dinitrotoluene		12	U	6.6	100
2,6-Dinitrotoluene		12	U	11	100
2,4-Dinitrotoluene		24	U	15	100
2-Nitrotoluene		24	U	14	100
4-Nitrotoluene		30	U	27	100
3-Nitrotoluene		30	U M	27	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	96		40 - 140

DPG 8/28/12

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG0402-01**

Lab Sample ID: 200-12042-6
Client Matrix: Solid

Date Sampled: 08/01/2012 0835
Date Received: 08/02/2012 1030

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Analysis Method:	8330 Modified	Analysis Batch:	200-43097	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-42840	Initial Weight/Volume:	10.03 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/08/2012 1713			Injection Volume:	150 uL
Prep Date:	08/02/2012 2021			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.5	100
RDX		12	U	12	100
1,3,5-Trinitrobenzene		12	U	5.0	100
1,3-Dinitrobenzene		12	U	5.9	100
Nitrobenzene		30	U	26	100
Tetryl		24	U	15	100
Nitroglycerin		720	U	480	2000
2,4,6-Trinitrotoluene		24	U	17	100
4-Amino-2,6-dinitrotoluene		12	U	8.4	100
2-Amino-4,6-dinitrotoluene		12	U	6.6	100
2,6-Dinitrotoluene		12	U	11	100
2,4-Dinitrotoluene		24	U	15	100
2-Nitrotoluene		24	U	14	100
4-Nitrotoluene		30	U	27	100
3-Nitrotoluene		30	U M	27	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	100		40 - 140

DPC 8/28/12

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG0403-01**

Lab Sample ID: 200-12042-7
Client Matrix: Solid

Date Sampled: 08/01/2012 0845
Date Received: 08/02/2012 1030

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Analysis Method:	8330 Modified	Analysis Batch:	200-43097	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-42840	Initial Weight/Volume:	10.01 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/08/2012 1750			Injection Volume:	150 uL
Prep Date:	08/02/2012 2021			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.5	100
RDX		12	U	12	100
1,3,5-Trinitrobenzene		12	U	5.0	100
1,3-Dinitrobenzene		12	U	5.9	100
Nitrobenzene		30	U	26	100
Tetryl		24	U	15	100
Nitroglycerin		720	U	480	2000
2,4,6-Trinitrotoluene		24	U	17	100
4-Amino-2,6-dinitrotoluene		12	U	8.4	100
2-Amino-4,6-dinitrotoluene		12	U	6.6	100
2,6-Dinitrotoluene		12	U	11	100
2,4-Dinitrotoluene		24	U	15	100
2-Nitrotoluene		24	U	14	100
4-Nitrotoluene		30	U	27	100
3-Nitrotoluene		30	U M	27	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	105		40 - 140

DPE 8/28/12

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG0801-01**

Lab Sample ID: 200-12042-8
Client Matrix: Solid

Date Sampled: 08/01/2012 0935
Date Received: 08/02/2012 1030

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Analysis Method:	8330 Modified	Analysis Batch:	200-43097	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-42840	Initial Weight/Volume:	10.01 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/08/2012 1828			Injection Volume:	150 uL
Prep Date:	08/02/2012 2021			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.5	100
RDX		12	U	12	100
1,3,5-Trinitrobenzene		12	U	5.0	100
1,3-Dinitrobenzene		12	U	5.9	100
Nitrobenzene		30	U	26	100
Tetryl		24	U	15	100
Nitroglycerin		720	U	480	2000
2,4,6-Trinitrotoluene		24	U	17	100
4-Amino-2,6-dinitrotoluene		12	U	8.4	100
2-Amino-4,6-dinitrotoluene		12	U	6.6	100
2,6-Dinitrotoluene		12	U	11	100
2,4-Dinitrotoluene		24	U	15	100
2-Nitrotoluene		24	U	14	100
4-Nitrotoluene		30	U	27	100
3-Nitrotoluene		30	U M	27	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	96		40 - 140

DPR 8/28/12

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG0802-01**

Lab Sample ID: 200-12042-9
Client Matrix: Solid

Date Sampled: 08/01/2012 0940
Date Received: 08/02/2012 1030

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Analysis Method:	8330 Modified	Analysis Batch:	200-43097	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-42840	Initial Weight/Volume:	10.05 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/08/2012 1905			Injection Volume:	150 uL
Prep Date:	08/02/2012 2021			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.5	100
RDX		12	U	12	100
1,3,5-Trinitrobenzene		12	U	5.0	100
1,3-Dinitrobenzene		12	U	5.9	100
Nitrobenzene		30	U	26	100
Tetryl		24	U	15	100
Nitroglycerin		720	U	480	2000
2,4,6-Trinitrotoluene		24	U	17	100
4-Amino-2,6-dinitrotoluene		12	U	8.4	100
2-Amino-4,6-dinitrotoluene		12	U	6.6	100
2,6-Dinitrotoluene		12	U	11	100
2,4-Dinitrotoluene		24	U	15	100
2-Nitrotoluene		24	U	14	100
4-Nitrotoluene		30	U	27	100
3-Nitrotoluene		30	U M	27	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	92		40 - 140

DFB 8/28/12

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: NFUDS-002-SBG0803-01

Lab Sample ID: 200-12042-10
Client Matrix: Solid

Date Sampled: 08/01/2012 0950
Date Received: 08/02/2012 1030

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Analysis Method:	8330 Modified	Analysis Batch:	200-43097	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-42840	Initial Weight/Volume:	10.01 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/08/2012 2020			Injection Volume:	150 uL
Prep Date:	08/02/2012 2021			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.5	100
RDX		12	U	12	100
1,3,5-Trinitrobenzene		12	U	5.0	100
1,3-Dinitrobenzene		12	U	5.9	100
Nitrobenzene		30	U	26	100
Tetryl		24	U	15	100
Nitroglycerin		720	U	480	2000
2,4,6-Trinitrotoluene		24	U	17	100
4-Amino-2,6-dinitrotoluene		12	U	8.4	100
2-Amino-4,6-dinitrotoluene		12	U	6.6	100
2,6-Dinitrotoluene		12	U	11	100
2,4-Dinitrotoluene		24	U	15	100
2-Nitrotoluene		24	U	14	100
4-Nitrotoluene		30	U	27	100
3-Nitrotoluene		30	U	27	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	98		40 - 140

DFG 8/28/12

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: NFUDS-002-SBG0901-01

Lab Sample ID: 200-12042-11
Client Matrix: Solid

Date Sampled: 08/01/2012 1200
Date Received: 08/02/2012 1030

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Analysis Method:	8330 Modified	Analysis Batch:	200-43097	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-42840	Initial Weight/Volume:	10.01 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/08/2012 2058			Injection Volume:	150 uL
Prep Date:	08/02/2012 2021			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.5	100
RDX		12	U	12	100
1,3,5-Trinitrobenzene		12	U	5.0	100
1,3-Dinitrobenzene		12	U	5.9	100
Nitrobenzene		30	U	26	100
Tetryl		24	U	15	100
Nitroglycerin		720	U	480	2000
2,4,6-Trinitrotoluene		24	U	17	100
4-Amino-2,6-dinitrotoluene		12	U	8.4	100
2-Amino-4,6-dinitrotoluene		12	U	6.6	100
2,6-Dinitrotoluene		12	U	11	100
2,4-Dinitrotoluene		24	U	15	100
2-Nitrotoluene		24	U	14	100
4-Nitrotoluene		30	U	27	100
3-Nitrotoluene		30	U	27	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	99		40 - 140

DKG 8/28/12

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: NFUDS-002-SBG0902-01

Lab Sample ID: 200-12042-12
Client Matrix: Solid

Date Sampled: 08/01/2012 1205
Date Received: 08/02/2012 1030

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Analysis Method:	8330 Modified	Analysis Batch:	200-43097	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-42840	Initial Weight/Volume:	10.02 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/08/2012 2135			Injection Volume:	150 uL
Prep Date:	08/02/2012 2021			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.5	100
RDX		12	U	12	100
1,3,5-Trinitrobenzene		12	U	5.0	100
1,3-Dinitrobenzene		12	U	5.9	100
Nitrobenzene		30	U	26	100
Tetryl		24	U	15	100
Nitroglycerin		720	U	480	2000
2,4,6-Trinitrotoluene		24	U	17	100
4-Amino-2,6-dinitrotoluene		12	U	8.4	100
2-Amino-4,6-dinitrotoluene		12	U	6.6	100
2,6-Dinitrotoluene		12	U	11	100
2,4-Dinitrotoluene		24	U	15	100
2-Nitrotoluene		24	U	14	100
4-Nitrotoluene		30	U	27	100
3-Nitrotoluene		30	U M	27	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	96		40 - 140

DF 8/21/12

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG0903-01**

Lab Sample ID: 200-12042-13
Client Matrix: Solid

Date Sampled: 08/01/2012 1215
Date Received: 08/02/2012 1030

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Analysis Method:	8330 Modified	Analysis Batch:	200-43097	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-42840	Initial Weight/Volume:	10.01 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/08/2012 2212			Injection Volume:	150 uL
Prep Date:	08/02/2012 2021			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.5	100
RDX		12	U	12	100
1,3,5-Trinitrobenzene		12	U	5.0	100
1,3-Dinitrobenzene		12	U	5.9	100
Nitrobenzene		30	U	26	100
Tetryl		24	U	15	100
Nitroglycerin		720	U	480	2000
2,4,6-Trinitrotoluene		24	U	17	100
4-Amino-2,6-dinitrotoluene		12	U	8.4	100
2-Amino-4,6-dinitrotoluene		12	U	6.6	100
2,6-Dinitrotoluene		12	U	11	100
2,4-Dinitrotoluene		24	U	15	100
2-Nitrotoluene		24	U	14	100
4-Nitrotoluene		30	U	27	100
3-Nitrotoluene		30	U M	27	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	98		40 - 140

DFG 8/28/12

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG0903-02**

Lab Sample ID: 200-12042-14
Client Matrix: Solid

Date Sampled: 08/01/2012 1215
Date Received: 08/02/2012 1030

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Analysis Method:	8330 Modified	Analysis Batch:	200-43097	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-42840	Initial Weight/Volume:	10.03 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/08/2012 2250			Injection Volume:	150 uL
Prep Date:	08/02/2012 2021			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.5	100
RDX		12	U	12	100
1,3,5-Trinitrobenzene		12	U	5.0	100
1,3-Dinitrobenzene		12	U	5.9	100
Nitrobenzene		30	U	26	100
Tetryl		24	U	15	100
Nitroglycerin		720	U	480	2000
2,4,6-Trinitrotoluene		24	U	17	100
4-Amino-2,6-dinitrotoluene		12	U	8.4	100
2-Amino-4,6-dinitrotoluene		12	U	6.6	100
2,6-Dinitrotoluene		12	U	11	100
2,4-Dinitrotoluene		24	U	15	100
2-Nitrotoluene		24	U	14	100
4-Nitrotoluene		30	U	27	100
3-Nitrotoluene		30	U M	27	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	95		40 - 140

DRB 8/28/12

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: NFUDS-002-SBG1201-01

Lab Sample ID: 200-12042-15
Client Matrix: Solid

Date Sampled: 08/01/2012 1325
Date Received: 08/02/2012 1030

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Analysis Method:	8330 Modified	Analysis Batch:	200-43097	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-42840	Initial Weight/Volume:	10.04 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/08/2012 2327			Injection Volume:	150 uL
Prep Date:	08/02/2012 2021			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.5	100
RDX		12	U	12	100
1,3,5-Trinitrobenzene		12	U	5.0	100
1,3-Dinitrobenzene		12	U	5.9	100
Nitrobenzene		30	U	26	100
Tetryl		24	U	15	100
Nitroglycerin		720	U	480	2000
2,4,6-Trinitrotoluene		24	U	17	100
4-Amino-2,6-dinitrotoluene		12	U	8.4	100
2-Amino-4,6-dinitrotoluene		12	U	6.6	100
2,6-Dinitrotoluene		12	U	11	100
2,4-Dinitrotoluene		24	U	15	100
2-Nitrotoluene		24	U	14	100
4-Nitrotoluene		30	U	27	100
3-Nitrotoluene		30	U M	27	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	101		40 - 140

DEB 8/28/12

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: NFUDS-002-SBG1202-01

Lab Sample ID: 200-12042-16
Client Matrix: Solid

Date Sampled: 08/01/2012 1330
Date Received: 08/02/2012 1030

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Analysis Method:	8330 Modified	Analysis Batch:	200-43097	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-42840	Initial Weight/Volume:	10.03 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/09/2012 0005			Injection Volume:	150 uL
Prep Date:	08/02/2012 2021			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.5	100
RDX		12	U	12	100
1,3,5-Trinitrobenzene		12	U	5.0	100
1,3-Dinitrobenzene		12	U	5.9	100
Nitrobenzene		30	U	26	100
Tetryl		24	U	15	100
Nitroglycerin		720	U	480	2000
2,4,6-Trinitrotoluene		24	U	17	100
4-Amino-2,6-dinitrotoluene		12	U	8.4	100
2-Amino-4,6-dinitrotoluene		12	U	6.6	100
2,6-Dinitrotoluene		12	U	11	100
2,4-Dinitrotoluene		24	U	15	100
2-Nitrotoluene		24	U	14	100
4-Nitrotoluene		30	U	27	100
3-Nitrotoluene		30	U M	27	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	99		40 - 140

DCG 8/28/12

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG1203-01**

Lab Sample ID: 200-12042-17
Client Matrix: Solid

Date Sampled: 08/01/2012 1345
Date Received: 08/02/2012 1030

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Analysis Method:	8330 Modified	Analysis Batch:	200-43097	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-42840	Initial Weight/Volume:	10.00 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/09/2012 0042			Injection Volume:	150 uL
Prep Date:	08/02/2012 2021			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.5	100
RDX		12	U	12	100
1,3,5-Trinitrobenzene		12	U	5.0	100
1,3-Dinitrobenzene		12	U	5.9	100
Nitrobenzene		30	U	26	100
Tetryl		24	U	15	100
Nitroglycerin		720	U	480	2000
2,4,6-Trinitrotoluene		24	U	17	100
4-Amino-2,6-dinitrotoluene		12	U	8.4	100
2-Amino-4,6-dinitrotoluene		12	U	6.6	100
2,6-Dinitrotoluene		12	U	11	100
2,4-Dinitrotoluene		24	U	15	100
2-Nitrotoluene		24	U	14	100
4-Nitrotoluene		30	U	27	100
3-Nitrotoluene		30	U M	27	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	99		40 - 140

DFG 8/28/12

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: NFUDS-002-SBG0201-01

Lab Sample ID: 200-12042-1
Client Matrix: Solid % Moisture: 7.5

Date Sampled: 08/01/2012 1045
Date Received: 08/02/2012 1030

6010C Metals (ICP)

Analysis Method: 6010C
Prep Method: 3050B
Dilution: 1.0
Analysis Date: 08/15/2012 1930
Prep Date: 08/06/2012 0929

Analysis Batch: 200-43487
Prep Batch: 200-42935

Instrument ID: METICP7
Lab File ID: 081512-01.ttx
Initial Weight/Volume: 1.50 g
Final Weight/Volume: 100 mL

Val data qualifiers

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Antimony		1.1	U	0.35	4.3
Arsenic		1.4		0.40	0.72
Barium		4.4	J	0.37	14
Cadmium		0.18	U	0.058	0.36
Calcium		70	J	37	360
Chromium		3.5		0.079	0.72
Cobalt		0.67	J	0.058	3.6
Copper		0.88	J	0.16	1.8
Iron		3500		9.4	14
Lead		2.3		0.32	0.72
Magnesium		390		10	360
Manganese		21		0.32	1.1
Nickel		1.8	J	0.21	2.9
Potassium		230	J	11	360
Selenium		1.7	U	0.63	2.5
Silver		0.29	U	0.094	0.72
Sodium		18	J	5.4	360
Thallium		1.1	U	0.30	1.8
Zinc		5.4		0.40	1.4

Analysis Method: 6010C
Prep Method: 3050B
Dilution: 1.0
Analysis Date: 08/17/2012 0020
Prep Date: 08/06/2012 0929

Analysis Batch: 200-43577
Prep Batch: 200-42935

Instrument ID: METICP7
Lab File ID: 081612-03.ttx
Initial Weight/Volume: 1.50 g
Final Weight/Volume: 100 mL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		2800		12	14
Beryllium		0.094	J	0.023	0.36
Vanadium		5.5		0.094	3.6

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method: 7471B
Prep Method: 7471B
Dilution: 1.0
Analysis Date: 08/20/2012 1601
Prep Date: 08/20/2012 0900

Analysis Batch: 200-43702
Prep Batch: 200-43662

Instrument ID: MEPCV3 II
Lab File ID: 082012GG.PRN
Initial Weight/Volume: 0.30 g
Final Weight/Volume: 50 mL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.0041	U	0.0024	0.036

8/28/12

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: NFUDS-002-SBG0202-01

Lab Sample ID: 200-12042-2
Client Matrix: Solid % Moisture: 5.1

Date Sampled: 08/01/2012 1055
Date Received: 08/02/2012 1030

6010C Metals (ICP)

Analysis Method: 6010C
Prep Method: 3050B
Dilution: 1.0
Analysis Date: 08/15/2012 1935
Prep Date: 08/06/2012 0929

Analysis Batch: 200-43487
Prep Batch: 200-42935

Instrument ID: METICP7
Lab File ID: 081512-01.ttx
Initial Weight/Volume: 1.54 g
Final Weight/Volume: 100 mL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Antimony		1.0	U	0.34	4.1
Arsenic		1.7		0.38	0.68
Barium		3.6	J	0.36	14
Cadmium		0.17	U	0.055	0.34
Calcium		120	J	35	340
Chromium		4.6		0.075	0.68
Cobalt		1.0	J	0.055	3.4
Copper		0.91	J	0.15	1.7
Iron		4000		8.9	14
Lead		2.3		0.30	0.68
Magnesium		570		9.6	340
Manganese		26	J 7	0.31	1.0
Nickel		2.7		0.20	2.7
Potassium		300	J	10	340
Selenium		1.6	U	0.60	2.4
Silver		0.27	U	0.089	0.68
Sodium		21	J	5.1	340
Thallium		1.0	U	0.28	1.7
Zinc		5.5		0.38	1.4

Analysis Method: 6010C
Prep Method: 3050B
Dilution: 1.0
Analysis Date: 08/17/2012 0025
Prep Date: 08/06/2012 0929

Analysis Batch: 200-43577
Prep Batch: 200-42935

Instrument ID: METICP7
Lab File ID: 081612-03.ttx
Initial Weight/Volume: 1.54 g
Final Weight/Volume: 100 mL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		3500		12	14
Beryllium		0.10	J	0.022	0.34
Vanadium		6.6		0.089	3.4

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method: 7471B
Prep Method: 7471B
Dilution: 1.0
Analysis Date: 08/20/2012 1603
Prep Date: 08/20/2012 0900

Analysis Batch: 200-43702
Prep Batch: 200-43662

Instrument ID: MEPCV3 II
Lab File ID: 082012GG.PRN
Initial Weight/Volume: 0.32 g
Final Weight/Volume: 50 mL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.0038	U	0.0022	0.033

DRG 8/28/12

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG0202-02**

Lab Sample ID: 200-12042-3
Client Matrix: Solid % Moisture: 5.4

Date Sampled: 08/01/2012 1055
Date Received: 08/02/2012 1030

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	200-43487	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081512-01.ttx
Dilution:	1.0			Initial Weight/Volume:	1.83 g
Analysis Date:	08/15/2012 1940			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Antimony		0.87	U	0.28	3.5
Arsenic		2.0		0.32	0.58
Barium		3.8	J	0.30	12
Cadmium		0.14	U	0.046	0.29
Calcium		130	J	29	290
Chromium		4.5		0.064	0.58
Cobalt		1.1	J	0.047	2.9
Copper		1.1	J	0.13	1.4
Iron		5100		7.5	12
Lead		2.5		0.25	0.58
Magnesium		610		8.1	290
Manganese		42		0.26	0.87
Nickel		2.7		0.17	2.3
Potassium		290		8.7	290
Selenium		1.3	U	0.50	2.0
Silver		0.23	U	0.075	0.58
Sodium		18	J	4.3	290
Thallium		0.87	U	0.24	1.4
Zinc		7.3		0.32	1.2

Analysis Method:	6010C	Analysis Batch:	200-43577	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081612-03.ttx
Dilution:	1.0			Initial Weight/Volume:	1.83 g
Analysis Date:	08/17/2012 0030			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		3500		9.8	12
Beryllium		0.12	J	0.018	0.29
Vanadium		6.6		0.075	2.9

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method:	7471B	Analysis Batch:	200-43702	Instrument ID:	MEPCV3 II
Prep Method:	7471B	Prep Batch:	200-43662	Lab File ID:	082012GG.PRN
Dilution:	1.0			Initial Weight/Volume:	0.33 g
Analysis Date:	08/20/2012 1606			Final Weight/Volume:	50 mL
Prep Date:	08/20/2012 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.0037	U	0.0021	0.032

DEG 8/28/12

Manganese

Client: Weston Solutions, Inc.

Analytical Data

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: NFUDS-002-SBG0203-01

Lab Sample ID: 200-12042-4
Client Matrix: Solid % Moisture: 2.2

Date Sampled: 08/01/2012 1115
Date Received: 08/02/2012 1030

6010C Metals (ICP)

Analysis Method: 6010C
Prep Method: 3050B
Dilution: 1.0
Analysis Date: 08/15/2012 1945
Prep Date: 08/06/2012 0929

Analysis Batch: 200-43487
Prep Batch: 200-42935

Instrument ID: METICP7
Lab File ID: 081512-01.ttx
Initial Weight/Volume: 1.36 g
Final Weight/Volume: 100 mL

val qual

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Antimony		1.1	U	0.37	4.5
Arsenic		1.9		0.42	0.75
Barium		2.8	J	0.39	15
Cadmium		0.19	U	0.060	0.38
Calcium		68	J	38	380
Chromium		3.3		0.083	0.75
Cobalt		0.98	J	0.061	3.8
Copper		1.3	J	0.17	1.9
Iron		3300	J	9.8	15
Lead		1.5		0.33	0.75
Magnesium		440	J	11	380
Manganese		23		0.34	1.1
Nickel		2.4	J	0.22	3.0
Potassium		280	J	11	380
Selenium		1.7	U	0.65	2.6
Silver		0.30	U	0.098	0.75
Sodium		8.0	J	5.6	380
Thallium		1.1	U	0.31	1.9
Zinc		5.9		0.42	1.5

Analysis Method: 6010C
Prep Method: 3050B
Dilution: 1.0
Analysis Date: 08/17/2012 0035
Prep Date: 08/06/2012 0929

Analysis Batch: 200-43577
Prep Batch: 200-42935

Instrument ID: METICP7
Lab File ID: 081612-03.ttx
Initial Weight/Volume: 1.36 g
Final Weight/Volume: 100 mL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		1900	J	13	15
Beryllium		0.10	J	0.024	0.38
Vanadium		3.9		0.098	3.8

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method: 7471B
Prep Method: 7471B
Dilution: 1.0
Analysis Date: 08/20/2012 1608
Prep Date: 08/20/2012 0900

Analysis Batch: 200-43702
Prep Batch: 200-43662

Instrument ID: MEPCV3 II
Lab File ID: 082012GG.PRN
Initial Weight/Volume: 0.35 g
Final Weight/Volume: 50 mL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.0033	U	0.0019	0.029

OPB 8/28/12

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: NFUDS-002-SBG0401-01

Lab Sample ID: 200-12042-5
Client Matrix: Solid

% Moisture: 9.0

Date Sampled: 08/01/2012 0830
Date Received: 08/02/2012 1030

6010C Metals (ICP)

Analysis Method: 6010C
Prep Method: 3050B
Dilution: 1.0
Analysis Date: 08/15/2012 2025
Prep Date: 08/06/2012 0929

Analysis Batch: 200-43487
Prep Batch: 200-42935

Instrument ID: METICP7
Lab File ID: 081512-01.ttx
Initial Weight/Volume: 1.41 g
Final Weight/Volume: 100 mL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Antimony		1.2	U	0.38	4.7
Arsenic		3.3		0.44	0.78
Barium		4.0	J	0.41	16
Cadmium		0.19	U	0.062	0.39
Calcium		120	J	40	390
Chromium		4.2		0.086	0.78
Cobalt		0.99	J	0.063	3.9
Copper		1.2	J	0.17	1.9
Iron		5900		10	16
Lead		2.4		0.34	0.78
Magnesium		420		11	390
Manganese		36		0.35	1.2
Nickel		2.4	J	0.23	3.1
Potassium		250	J	12	390
Selenium		1.8	U	0.68	2.7
Silver		0.31	U	0.10	0.78
Sodium		7.7	J	5.8	390
Thallium		1.2	U	0.32	1.9
Zinc		8.7		0.44	1.6

Analysis Method: 6010C
Prep Method: 3050B
Dilution: 1.0
Analysis Date: 08/17/2012 0115
Prep Date: 08/06/2012 0929

Analysis Batch: 200-43577
Prep Batch: 200-42935

Instrument ID: METICP7
Lab File ID: 081612-03.ttx
Initial Weight/Volume: 1.41 g
Final Weight/Volume: 100 mL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		3200		13	16
Beryllium		0.11	J	0.025	0.39
Vanadium		6.2		0.10	3.9

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method: 7471B
Prep Method: 7471B
Dilution: 1.0
Analysis Date: 08/20/2012 1617
Prep Date: 08/20/2012 0900

Analysis Batch: 200-43702
Prep Batch: 200-43662

Instrument ID: MEPCV3 II
Lab File ID: 082012GG.PRN
Initial Weight/Volume: 0.34 g
Final Weight/Volume: 50 mL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.0037	U	0.0021	0.032

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: NFUDS-002-SBG0402-01

Lab Sample ID: 200-12042-6
Client Matrix: Solid

% Moisture: 9.0

Date Sampled: 08/01/2012 0835
Date Received: 08/02/2012 1030

6010C Metals (ICP)

Analysis Method: 6010C
Prep Method: 3050B
Dilution: 1.0
Analysis Date: 08/15/2012 2030
Prep Date: 08/06/2012 0929

Analysis Batch: 200-43487
Prep Batch: 200-42935

Instrument ID: METICP7
Lab File ID: 081512-01.ttx
Initial Weight/Volume: 1.37 g
Final Weight/Volume: 100 mL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Antimony		1.2	U	0.39	4.8
Arsenic		1.9		0.45	0.80
Barium		5.6	J	0.42	16
Cadmium		0.20	U	0.064	0.40
Calcium		76	J	41	400
Chromium		4.3		0.088	0.80
Cobalt		1.1	J	0.065	4.0
Copper		1.1	J	0.18	2.0
Iron		4400		10	16
Lead		2.6		0.35	0.80
Magnesium		450		11	400
Manganese		36		0.36	1.2
Nickel		2.3	J	0.23	3.2
Potassium		260	J	12	400
Selenium		1.8	U	0.70	2.8
Silver		0.32	U	0.10	0.80
Sodium		23	J	6.0	400
Thallium		1.2	U	0.33	2.0
Zinc		20		0.45	1.6

Analysis Method: 6010C
Prep Method: 3050B
Dilution: 1.0
Analysis Date: 08/17/2012 0120
Prep Date: 08/06/2012 0929

Analysis Batch: 200-43577
Prep Batch: 200-42935

Instrument ID: METICP7
Lab File ID: 081612-03.ttx
Initial Weight/Volume: 1.37 g
Final Weight/Volume: 100 mL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		3000		14	16
Beryllium		0.12	J	0.026	0.40
Vanadium		6.5		0.10	4.0

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method: 7471B
Prep Method: 7471B
Dilution: 1.0
Analysis Date: 08/20/2012 1624
Prep Date: 08/20/2012 0900

Analysis Batch: 200-43702
Prep Batch: 200-43662

Instrument ID: MEPCV3 II
Lab File ID: 082012GG.PRN
Initial Weight/Volume: 0.35 g
Final Weight/Volume: 50 mL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.0036	U	0.0021	0.031

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG0403-01**

Lab Sample ID: 200-12042-7
Client Matrix: Solid
% Moisture: 2.8

Date Sampled: 08/01/2012 0845
Date Received: 08/02/2012 1030

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	200-43487	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081512-01.ttx
Dilution:	1.0			Initial Weight/Volume:	1.28 g
Analysis Date:	08/15/2012 2035			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Antimony		1.2	U	0.39	4.8
Arsenic		3.8		0.45	0.80
Barium		4.4	J	0.42	16
Cadmium		0.20	U	0.064	0.40
Calcium		61	J	41	400
Chromium		4.1		0.088	0.80
Cobalt		3.5	J	0.065	4.0
Copper		2.0		0.18	2.0
Iron		5300		10	16
Lead		1.7		0.35	0.80
Magnesium		700		11	400
Manganese		79		0.36	1.2
Nickel		3.9		0.23	3.2
Potassium		350	J	12	400
Selenium		1.8	U	0.70	2.8
Silver		0.32	U	0.10	0.80
Sodium		6.7	J	6.0	400
Thallium		1.2	U	0.33	2.0
Zinc		14		0.45	1.6

Analysis Method:	6010C	Analysis Batch:	200-43577	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081612-03.ttx
Dilution:	1.0			Initial Weight/Volume:	1.28 g
Analysis Date:	08/17/2012 0125			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		2100		14	16
Beryllium		0.15	J	0.026	0.40
Vanadium		5.9		0.10	4.0

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method:	7471B	Analysis Batch:	200-43702	Instrument ID:	MEPCV3 II
Prep Method:	7471B	Prep Batch:	200-43662	Lab File ID:	082012GG.PRN
Dilution:	1.0			Initial Weight/Volume:	0.34 g
Analysis Date:	08/20/2012 1626			Final Weight/Volume:	50 mL
Prep Date:	08/20/2012 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.0023	J	0.0020	0.030

DFG 8/28/12

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: NFUDS-002-SBG0801-01

Lab Sample ID: 200-12042-8
Client Matrix: Solid

% Moisture: 13.0

Date Sampled: 08/01/2012 0935
Date Received: 08/02/2012 1030

6010C Metals (ICP)

Analysis Method: 6010C
Prep Method: 3050B
Dilution: 1.0
Analysis Date: 08/15/2012 2040
Prep Date: 08/06/2012 0929

Analysis Batch: 200-43487
Prep Batch: 200-42935

Instrument ID: METICP7
Lab File ID: 081512-01.ttx
Initial Weight/Volume: 1.71 g
Final Weight/Volume: 100 mL

val Qual

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Antimony		1.0	U	0.33	4.0
Arsenic		2.0		0.38	0.67
Barium		5.2	J	0.35	13
Cadmium		0.17	U	0.054	0.34
Calcium		43	J	34	340
Chromium		5.9		0.074	0.67
Cobalt		0.76	J	0.054	3.4
Copper		0.94	J	0.15	1.7
Iron		6200		8.7	13
Lead		3.7		0.30	0.67
Magnesium		400		9.4	340
Manganese		32		0.30	1.0
Nickel		2.5	J	0.19	2.7
Potassium		200	J	10	340
Selenium		1.5	U	0.58	2.4
Silver		0.27	U	0.087	0.67
Sodium		12	J	5.0	340
Thallium		1.0	U	0.28	1.7
Zinc		7.9		0.38	1.3

J ?

Analysis Method: 6010C
Prep Method: 3050B
Dilution: 1.0
Analysis Date: 08/17/2012 0130
Prep Date: 08/06/2012 0929

Analysis Batch: 200-43577
Prep Batch: 200-42935

Instrument ID: METICP7
Lab File ID: 081612-03.ttx
Initial Weight/Volume: 1.71 g
Final Weight/Volume: 100 mL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		6300		11	13
Beryllium		0.14	J	0.021	0.34
Vanadium		9.4		0.087	3.4

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method: 7471B
Prep Method: 7471B
Dilution: 1.0
Analysis Date: 08/20/2012 1628
Prep Date: 08/20/2012 0900

Analysis Batch: 200-43702
Prep Batch: 200-43662

Instrument ID: MEPCV3 II
Lab File ID: 082012GG.PRN
Initial Weight/Volume: 0.31 g
Final Weight/Volume: 50 mL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.0042	U	0.0024	0.037

DRG 8/28/12

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG0802-01**

Lab Sample ID: 200-12042-9
Client Matrix: Solid % Moisture: 4.5

Date Sampled: 08/01/2012 0940
Date Received: 08/02/2012 1030

6010C Metals (ICP)

Analysis Method: 6010C
Prep Method: 3050B
Dilution: 1.0
Analysis Date: 08/15/2012 2045
Prep Date: 08/06/2012 0929

Analysis Batch: 200-43487
Prep Batch: 200-42935

Instrument ID: METICP7
Lab File ID: 081512-01.ttx
Initial Weight/Volume: 1.31 g
Final Weight/Volume: 100 mL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Antimony		1.2	U	0.39	4.8
Arsenic		1.6		0.45	0.80
Barium		3.0	J	0.42	16
Cadmium		0.20	U	0.064	0.40
Calcium		70	J	41	400
Chromium		3.8		0.088	0.80
Cobalt		1.0	J	0.065	4.0
Copper		0.70	J	0.18	2.0
Iron		3300		10	16
Lead		1.3		0.35	0.80
Magnesium		450		11	400
Manganese		34		0.36	1.2
Nickel		2.6	J	0.23	3.2
Potassium		240	J	12	400
Selenium		1.8	U	0.70	2.8
Silver		0.32	U	0.10	0.80
Sodium		20	U	6.0	400
Thallium		1.2	U	0.33	2.0
Zinc		4.5		0.45	1.6

Analysis Method: 6010C
Prep Method: 3050B
Dilution: 1.0
Analysis Date: 08/17/2012 0135
Prep Date: 08/06/2012 0929

Analysis Batch: 200-43577
Prep Batch: 200-42935

Instrument ID: METICP7
Lab File ID: 081612-03.ttx
Initial Weight/Volume: 1.31 g
Final Weight/Volume: 100 mL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		2000		14	16
Beryllium		0.088	J	0.026	0.40
Vanadium		4.5		0.10	4.0

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method: 7471B
Prep Method: 7471B
Dilution: 1.0
Analysis Date: 08/20/2012 1630
Prep Date: 08/20/2012 0900

Analysis Batch: 200-43702
Prep Batch: 200-43662

Instrument ID: MEPCV3 II
Lab File ID: 082012GG.PRN
Initial Weight/Volume: 0.35 g
Final Weight/Volume: 50 mL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.0034	U	0.0020	0.030

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG0803-01**

Lab Sample ID: 200-12042-10
Client Matrix: Solid
% Moisture: 3.6

Date Sampled: 08/01/2012 0950
Date Received: 08/02/2012 1030

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	200-43487	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081512-01.ttx
Dilution:	1.0			Initial Weight/Volume:	1.59 g
Analysis Date:	08/15/2012 2050			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Antimony		0.98	U	0.32	3.9
Arsenic		1.5		0.37	0.65
Barium		4.0	J	0.34	13
Cadmium		0.16	U	0.052	0.33
Calcium		170	J	33	330
Chromium		2.8		0.072	0.65
Cobalt		1.1	J	0.053	3.3
Copper		1.0	J	0.14	1.6
Iron		3100		8.5	13
Lead		1.9		0.29	0.65
Magnesium		500		9.1	330
Manganese		45		0.29	0.98
Nickel		1.8	J	0.19	2.6
Potassium		290	J	9.8	330
Selenium		1.5	U	0.57	2.3
Silver		0.26	U	0.085	0.65
Sodium		6.4	J	4.9	330
Thallium		0.98	U	0.27	1.6
Zinc		5.2		0.37	1.3

Analysis Method:	6010C	Analysis Batch:	200-43577	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081612-03.ttx
Dilution:	1.0			Initial Weight/Volume:	1.59 g
Analysis Date:	08/17/2012 0140			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		1700		11	13
Beryllium		0.10	J	0.021	0.33
Vanadium		4.8		0.085	3.3

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method:	7471B	Analysis Batch:	200-43702	Instrument ID:	MEPCV3 II
Prep Method:	7471B	Prep Batch:	200-43662	Lab File ID:	082012GG.PRN
Dilution:	1.0			Initial Weight/Volume:	0.33 g
Analysis Date:	08/20/2012 1632			Final Weight/Volume:	50 mL
Prep Date:	08/20/2012 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.0036	U	0.0021	0.031

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: NFUDS-002-SBG0901-01

Lab Sample ID: 200-12042-11
Client Matrix: Solid
% Moisture: 11.3

Date Sampled: 08/01/2012 1200
Date Received: 08/02/2012 1030

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	200-43487	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081512-01.ttx
Dilution:	1.0			Initial Weight/Volume:	1.29 g
Analysis Date:	08/15/2012 2055			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Antimony		1.3	U	0.43	5.2
Arsenic		2.7		0.49	0.87
Barium		4.9	J	0.45	17
Cadmium		0.22	U	0.070	0.44
Calcium		53	J	45	440
Chromium		6.1		0.096	0.87
Cobalt		0.99	J	0.071	4.4
Copper		1.0	J	0.19	2.2
Iron		6100		11	17
Lead		3.3		0.38	0.87
Magnesium		490		12	440
Manganese		35		0.39	1.3
Nickel		3.1	J	0.25	3.5
Potassium		250	J	13	440
Selenium		2.0	U	0.76	3.1
Silver		0.35	U	0.11	0.87
Sodium		9.2	J	6.6	440
Thallium		1.3	U	0.36	2.2
Zinc		7.9		0.49	1.7

Analysis Method:	6010C	Analysis Batch:	200-43577	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081612-03.ttx
Dilution:	1.0			Initial Weight/Volume:	1.29 g
Analysis Date:	08/17/2012 0145			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		6000		15	17
Beryllium		0.13	J	0.028	0.44
Vanadium		8.7		0.11	4.4

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method:	7471B	Analysis Batch:	200-43702	Instrument ID:	MEPCV3 II
Prep Method:	7471B	Prep Batch:	200-43662	Lab File ID:	082012GG.PRN
Dilution:	1.0			Initial Weight/Volume:	0.30 g
Analysis Date:	08/20/2012 1635			Final Weight/Volume:	50 mL
Prep Date:	08/20/2012 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.0043	U	0.0025	0.037

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG0902-01**

Lab Sample ID: 200-12042-12
Client Matrix: Solid % Moisture: 4.4

Date Sampled: 08/01/2012 1205
Date Received: 08/02/2012 1030

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	200-43487	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081512-01.ttx
Dilution:	1.0			Initial Weight/Volume:	1.27 g
Analysis Date:	08/15/2012 2100			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Antimony		1.2	U	0.40	4.9
Arsenic		1.8		0.46	0.82
Barium		3.0	J	0.43	16
Cadmium		0.21	U	0.066	0.41
Calcium		95	J	42	410
Chromium		3.5		0.091	0.82
Cobalt		1.1	J	0.067	4.1
Copper		0.88	J	0.18	2.1
Iron		3200		11	16
Lead		1.6		0.36	0.82
Magnesium		430		12	410
Manganese		31		0.37	1.2
Nickel		2.3	J	0.24	3.3
Potassium		250	J	12	410
Selenium		1.9	U	0.72	2.9
Silver		0.33	U	0.11	0.82
Sodium		21	U	6.2	410
Thallium		1.2	U	0.34	2.1
Zinc		4.1		0.46	1.6

Analysis Method:	6010C	Analysis Batch:	200-43577	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081612-03.ttx
Dilution:	1.0			Initial Weight/Volume:	1.27 g
Analysis Date:	08/17/2012 0150			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		1900		14	16
Beryllium		0.085	J	0.026	0.41
Vanadium		4.4		0.11	4.1

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method:	7471B	Analysis Batch:	200-43702	Instrument ID:	MEPCV3 II
Prep Method:	7471B	Prep Batch:	200-43662	Lab File ID:	082012GG.PRN
Dilution:	1.0			Initial Weight/Volume:	0.32 g
Analysis Date:	08/20/2012 1638			Final Weight/Volume:	50 mL
Prep Date:	08/20/2012 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.0037	U	0.0022	0.032

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG0903-01**

Lab Sample ID: 200-12042-13
Client Matrix: Solid % Moisture: 3.3

Date Sampled: 08/01/2012 1215
Date Received: 08/02/2012 1030

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	200-43487	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081512-01.ttx
Dilution:	1.0			Initial Weight/Volume:	1.53 g
Analysis Date:	08/15/2012 2105			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Val Qual

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Antimony		1.0	U	0.33	4.1
Arsenic		2.2		0.38	0.68
Barium		2.3	J	0.35	14
Cadmium		0.17	U	0.054	0.34
Calcium		73	J	34	340
Chromium		2.6		0.074	0.68
Cobalt		1.2	J	0.055	3.4
Copper		0.75	J	0.15	1.7
Iron		3300		8.8	14
Lead		1.1		0.30	0.68
Magnesium		280	J	9.5	340
Manganese		36		0.30	1.0
Nickel		1.9	J	0.20	2.7
Potassium		210	J	10	340
Selenium		1.6	U	0.59	2.4
Silver		0.27	U	0.088	0.68
Sodium		5.3	J	5.1	340
Thallium		1.0	U	0.28	1.7
Zinc		4.8		0.38	1.4

J ?

Analysis Method:	6010C	Analysis Batch:	200-43577	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081612-03.ttx
Dilution:	1.0			Initial Weight/Volume:	1.53 g
Analysis Date:	08/17/2012 0155			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		1200		11	14
Beryllium		0.091	J	0.022	0.34
Vanadium		4.6		0.088	3.4

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method:	7471B	Analysis Batch:	200-43702	Instrument ID:	MEPCV3 II
Prep Method:	7471B	Prep Batch:	200-43662	Lab File ID:	082012GG.PRN
Dilution:	1.0			Initial Weight/Volume:	0.35 g
Analysis Date:	08/20/2012 1640			Final Weight/Volume:	50 mL
Prep Date:	08/20/2012 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.0034	U	0.0020	0.029

DFA 8/28/12

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: NFUDS-002-SBG0903-02

Lab Sample ID: 200-12042-14
Client Matrix: Solid

% Moisture: 2.7

Date Sampled: 08/01/2012 1215
Date Received: 08/02/2012 1030

6010C Metals (ICP)

Analysis Method: 6010C
Prep Method: 3050B
Dilution: 1.0
Analysis Date: 08/15/2012 2110
Prep Date: 08/06/2012 0929

Analysis Batch: 200-43487
Prep Batch: 200-42935

Instrument ID: METICP7
Lab File ID: 081512-01.ttx
Initial Weight/Volume: 1.29 g
Final Weight/Volume: 100 mL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Antimony		1.2	U	0.39	4.8
Arsenic		1.8		0.45	0.80
Barium		2.9	J	0.41	16
Cadmium		0.20	U	0.064	0.40
Calcium		130	J	41	400
Chromium		2.5		0.088	0.80
Cobalt		1.2	J	0.065	4.0
Copper		0.83	J	0.18	2.0
Iron		3400		10	16
Lead		1.1		0.35	0.80
Magnesium		370	J	11	400
Manganese		40		0.36	1.2
Nickel		1.8	J	0.23	3.2
Potassium		240	J	12	400
Selenium		1.8	U	0.69	2.8
Silver		0.32	U	0.10	0.80
Sodium		20	U	6.0	400
Thallium		1.2	U	0.33	2.0
Zinc		4.2		0.45	1.6

Analysis Method: 6010C
Prep Method: 3050B
Dilution: 1.0
Analysis Date: 08/17/2012 0200
Prep Date: 08/06/2012 0929

Analysis Batch: 200-43577
Prep Batch: 200-42935

Instrument ID: METICP7
Lab File ID: 081612-03.ttx
Initial Weight/Volume: 1.29 g
Final Weight/Volume: 100 mL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		1400		14	16
Beryllium		0.093	J	0.025	0.40
Vanadium		3.9	J	0.10	4.0

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method: 7471B
Prep Method: 7471B
Dilution: 1.0
Analysis Date: 08/20/2012 1642
Prep Date: 08/20/2012 0900

Analysis Batch: 200-43702
Prep Batch: 200-43662

Instrument ID: MEPCV3 II
Lab File ID: 082012GG.PRN
Initial Weight/Volume: 0.32 g
Final Weight/Volume: 50 mL

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.0037	U	0.0021	0.032

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG1201-01**

Lab Sample ID: 200-12042-15
Client Matrix: Solid % Moisture: 11.7

Date Sampled: 08/01/2012 1325
Date Received: 08/02/2012 1030

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	200-43487	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081512-01.ttx
Dilution:	1.0			Initial Weight/Volume:	1.41 g
Analysis Date:	08/15/2012 2130			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Antimony		1.2	U	0.39	4.8
Arsenic		2.1		0.45	0.80
Barium		4.5	J	0.42	16
Cadmium		0.20	U	0.064	0.40
Calcium		64	J	41	400
Chromium		6.0		0.088	0.80
Cobalt		1.1	J	0.065	4.0
Copper		0.93	J	0.18	2.0
Iron		6100		10	16
Lead		3.3		0.35	0.80
Magnesium		490		11	400
Manganese		33		0.36	1.2
Nickel		3.0	J	0.23	3.2
Potassium		230	J	12	400
Selenium		1.8	U	0.70	2.8
Silver		0.32	U	0.10	0.80
Sodium		11	J	6.0	400
Thallium		1.2	U	0.33	2.0
Zinc		6.7		0.45	1.6

Analysis Method:	6010C	Analysis Batch:	200-43577	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081612-03.ttx
Dilution:	1.0			Initial Weight/Volume:	1.41 g
Analysis Date:	08/17/2012 0221			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		5800		14	16
Beryllium		0.14	J	0.026	0.40
Vanadium		8.9		0.10	4.0

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method:	7471B	Analysis Batch:	200-43702	Instrument ID:	MEPCV3 II
Prep Method:	7471B	Prep Batch:	200-43662	Lab File ID:	082012GG.PRN
Dilution:	1.0			Initial Weight/Volume:	0.31 g
Analysis Date:	08/20/2012 1651			Final Weight/Volume:	50 mL
Prep Date:	08/20/2012 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.0042	U	0.0024	0.036

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG1202-01**

Lab Sample ID: 200-12042-16
Client Matrix: Solid % Moisture: 3.6

Date Sampled: 08/01/2012 1330
Date Received: 08/02/2012 1030

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	200-43487	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081512-01.ttx
Dilution:	1.0			Initial Weight/Volume:	1.20 g
Analysis Date:	08/15/2012 2135			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Antimony		1.3	U	0.42	5.2
Arsenic		1.7		0.48	0.86
Barium		3.1	J	0.45	17
Cadmium		0.22	U	0.069	0.43
Calcium		120	J	44	430
Chromium		4.5		0.095	0.86
Cobalt		1.2	J	0.070	4.3
Copper		1.0	J	0.19	2.2
Iron		4500		11	17
Lead		1.3		0.38	0.86
Magnesium		490		12	430
Manganese		29		0.39	1.3
Nickel		2.5	J	0.25	3.5
Potassium		310	J	13	430
Selenium		2.0	U	0.75	3.0
Silver		0.35	U	0.11	0.86
Sodium		10	J	6.5	430
Thallium		1.3	U	0.35	2.2
Zinc		4.4		0.48	1.7

Analysis Method:	6010C	Analysis Batch:	200-43577	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081612-03.ttx
Dilution:	1.0			Initial Weight/Volume:	1.20 g
Analysis Date:	08/17/2012 0226			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		2000		15	17
Beryllium		0.098	J	0.028	0.43
Vanadium		4.7		0.11	4.3

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method:	7471B	Analysis Batch:	200-43702	Instrument ID:	MEPCV3 II
Prep Method:	7471B	Prep Batch:	200-43662	Lab File ID:	082012GG.PRN
Dilution:	1.0			Initial Weight/Volume:	0.32 g
Analysis Date:	08/20/2012 1653			Final Weight/Volume:	50 mL
Prep Date:	08/20/2012 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.0037	U	0.0021	0.032

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG1203-01**

Lab Sample ID: 200-12042-17
Client Matrix: Solid % Moisture: 3.1

Date Sampled: 08/01/2012 1345
Date Received: 08/02/2012 1030

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	200-43487	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081512-01.ttx
Dilution:	1.0			Initial Weight/Volume:	1.31 g
Analysis Date:	08/15/2012 2140			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Antimony		1.2	U	0.39	4.7
Arsenic		1.5		0.44	0.79
Barium		3.3	J	0.41	16
Cadmium		0.20	U	0.063	0.39
Calcium		49	J	40	390
Chromium		2.7		0.087	0.79
Cobalt		1.1	J	0.064	3.9
Copper		1.0	J	0.17	2.0
Iron		2900		10	16
Lead		1.2		0.35	0.79
Magnesium		370	J	11	390
Manganese		32		0.35	1.2
Nickel		1.9	J	0.23	3.1
Potassium		280	J	12	390
Selenium		1.8	U	0.69	2.8
Silver		0.31	U	0.10	0.79
Sodium		20	U	5.9	390
Thallium		1.2	U	0.32	2.0
Zinc		4.5		0.44	1.6

Analysis Method:	6010C	Analysis Batch:	200-43577	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081612-03.ttx
Dilution:	1.0			Initial Weight/Volume:	1.31 g
Analysis Date:	08/17/2012 0231			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		1600		13	16
Beryllium		0.099	J	0.025	0.39
Vanadium		3.8	J	0.10	3.9

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method:	7471B	Analysis Batch:	200-43702	Instrument ID:	MEPCV3 II
Prep Method:	7471B	Prep Batch:	200-43662	Lab File ID:	082012GG.PRN
Dilution:	1.0			Initial Weight/Volume:	0.35 g
Analysis Date:	08/20/2012 1656			Final Weight/Volume:	50 mL
Prep Date:	08/20/2012 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.0034	U	0.0019	0.029

DFG 8/28/12

ATTACHMENT 5
Final Analytical Data

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

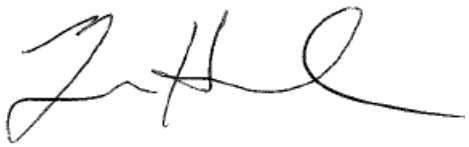
Job Number: 200-12041-1

SDG Number: 200-12041-1

Job Description: Nantucket Beach FUDS

For:
Weston Solutions, Inc.
45 Constitution Ave
Suite 100
Concord, NH 03301

Attention: Ms. Marie Swiech-Laflamme



Approved for release.
Ryan J Hammond
Project Manager I
8/28/2012 11:55 AM

Ryan J Hammond
Project Manager I
ryan.hammond@testamericainc.com
08/28/2012
Revision: 1

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

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CASE NARRATIVE

Client: Weston Solutions, Inc.

Project: Nantucket Beach FUDS

Report Number: 200-12041-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT
The samples were received on 08/02/2012; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 0.4 C.

EXPLOSIVES
Samples NFUDS-002-ISG02-01, NFUDS-002-ISG04-01, NFUDS-002-ISG08-01, NFUDS-002-ISG08-R1, NFUDS-002-ISG08-R2, NFUDS-002-ISG09-01 and NFUDS-002-ISG12-01 were analyzed for explosives in accordance with EPA SW-846 Method 8330B. The samples were prepared on 08/08/2012 and analyzed on 08/09/2012.

No other difficulties were encountered during the explosives analyses.

All other quality control parameters were within the acceptance limits.

METALS (ICP)
Samples NFUDS-002-ISG02-01, NFUDS-002-ISG04-01, NFUDS-002-ISG08-01, NFUDS-002-ISG08-R1, NFUDS-002-ISG08-R2, NFUDS-002-ISG09-01 and NFUDS-002-ISG12-01 were analyzed for Metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 08/09/2012 and analyzed on 08/16/2012 and 08/18/2012.

The post digestion spike % recovery for Aluminum, Calcium, Iron and Magnessium associated with batch 43509 was outside of control limits.

The serial dilution performed for the following sample associated with batch 43509 was outside control limits for Fe:
NFUDS-002-ISG02-01

No difficulties were encountered during the metals analyses.

All quality control parameters were within the acceptance limits.

MERCURY
Samples NFUDS-002-ISG02-01, NFUDS-002-ISG04-01, NFUDS-002-ISG08-01, NFUDS-002-ISG08-R1, NFUDS-002-ISG08-R2, NFUDS-002-ISG09-01 and NFUDS-002-ISG12-01 were analyzed for mercury in accordance with EPA SW-846 Method 7471B. The samples were prepared and analyzed on 08/20/2012.

No difficulties were encountered during the mercury analyses.

All quality control parameters were within the acceptance limits.

CORROSIVITY (PH)
Samples NFUDS-002-ISG02-01, NFUDS-002-ISG04-01, NFUDS-002-ISG08-01, NFUDS-002-ISG08-R1, NFUDS-002-ISG08-R2, NFUDS-002-ISG09-01 and NFUDS-002-ISG12-01 were analyzed for corrosivity (pH) in accordance with EPA SW-846 Method 9045D. The samples were analyzed on 08/07/2012.

This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following samples have been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe.

No difficulties were encountered during the pH analyses.

All quality control parameters were within the acceptance limits.

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Instrument ID: CH1208 Analysis Batch Number: 42650

Lab Sample ID: IC 200-42650/2 Client Sample ID:

Date Analyzed: 07/31/12 15:48 Lab File ID: 31JUL121406_021.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4-Amino-2,6-dinitrotoluene	20.14	Baseline Event	robinsonw	07/31/12 20:50
2-Amino-4,6-dinitrotoluene	20.49	Baseline Event	robinsonw	07/31/12 20:50
2,6-Dinitrotoluene	20.87	Baseline Event	robinsonw	07/31/12 20:50
2,4-Dinitrotoluene	21.12	Baseline Event	robinsonw	07/31/12 20:50
2-Nitrotoluene	22.64	Baseline Event	robinsonw	08/01/12 16:38
4-Nitrotoluene	23.41	Baseline Event	robinsonw	08/01/12 16:38

Lab Sample ID: IC 200-42650/3 Client Sample ID:

Date Analyzed: 07/31/12 16:26 Lab File ID: 31JUL121406_031.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
3-Nitrotoluene	24.16	Baseline Event	robinsonw	08/01/12 16:39

Lab Sample ID: ICRTAV 200-42650/5 Client Sample ID:

Date Analyzed: 07/31/12 17:41 Lab File ID: 31JUL121406_051.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4-Nitrotoluene	23.43	Baseline Event	robinsonw	07/31/12 20:43

Lab Sample ID: IC 200-42650/6 Client Sample ID:

Date Analyzed: 07/31/12 18:18 Lab File ID: 31JUL121406_061.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Nitrotoluene	22.66	Baseline Event	robinsonw	07/31/12 20:43

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Instrument ID: CH1208 Analysis Batch Number: 42650

Lab Sample ID: ICV 200-42650/10 Client Sample ID:

Date Analyzed: 07/31/12 20:48 Lab File ID: 31JUL121406_101.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4-Nitrotoluene	23.43	Baseline Event	robinsonw	07/31/12 21:23

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Instrument ID: CH1208 Analysis Batch Number: 43162

Lab Sample ID: MB 200-43130/17-A Client Sample ID:

Date Analyzed: 08/09/12 12:43 Lab File ID: 09AUG121108_031.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3-Dinitrobenzene	17.30	Peak not found by the data system	robinsonw	08/10/12 08:19
3-Nitrotoluene	24.06	Peak not found by the data system	robinsonw	08/10/12 08:19

Lab Sample ID: LCS 200-43130/18-A Client Sample ID:

Date Analyzed: 08/09/12 13:20 Lab File ID: 09AUG121108_041.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4-Nitrotoluene	23.39	Baseline Event	robinsonw	08/09/12 15:48

Lab Sample ID: 200-12041-1 Client Sample ID: NFUDS-002-ISG02-01

Date Analyzed: 08/09/12 15:50 Lab File ID: 09AUG121108_081.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitroglycerin	19.20	Peak not found by the data system	robinsonw	08/13/12 16:16
4-Amino-2,6-dinitrotoluene	20.05	Peak not found by the data system	robinsonw	08/13/12 16:16
2,6-Dinitrotoluene	20.71	Peak not found by the data system	robinsonw	08/13/12 16:16
3-Nitrotoluene	24.10	Baseline Event	robinsonw	08/13/12 16:16

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Instrument ID: CH1208 Analysis Batch Number: 43162

Lab Sample ID: 200-12041-2 Client Sample ID: NFUDS-002-ISG04-01

Date Analyzed: 08/09/12 16:28 Lab File ID: 09AUG121108_091.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3,5-Trinitrobenzene	16.18	Peak not found by the data system	robinsonw	08/13/12 16:18
1,2-Dinitrobenzene	16.41	Baseline Event	robinsonw	08/13/12 16:36
Nitrobenzene	18.34	Peak not found by the data system	robinsonw	08/13/12 16:18
3-Nitrotoluene	24.02	Baseline Event	robinsonw	08/13/12 16:36

Lab Sample ID: 200-12041-3 Client Sample ID: NFUDS-002-ISG08-01

Date Analyzed: 08/09/12 17:05 Lab File ID: 09AUG121108_101.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	16.41	Peak not found by the data system	robinsonw	08/13/12 16:39
Nitrobenzene	18.23	Peak not found by the data system	robinsonw	08/13/12 16:39
Tetryl	18.74	Peak not found by the data system	robinsonw	08/13/12 16:39
2-Amino-4,6-dinitrotoluene	20.34	Peak not found by the data system	robinsonw	08/13/12 16:39
2,6-Dinitrotoluene	20.81	Peak not found by the data system	robinsonw	08/13/12 16:39
3-Nitrotoluene	24.01	Peak not found by the data system	robinsonw	08/13/12 16:39

Lab Sample ID: CCV 200-43162/11 Client Sample ID:

Date Analyzed: 08/09/12 17:42 Lab File ID: 09AUG121108_111.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4-Nitrotoluene	23.38	Baseline Event	robinsonw	08/10/12 08:10

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Instrument ID: CH1208 Analysis Batch Number: 43162

Lab Sample ID: 200-12041-4 Client Sample ID: NFUDS-002-ISG08-R1

Date Analyzed: 08/09/12 18:20 Lab File ID: 09AUG121108_121.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	16.41	Peak not found by the data system	robinsonw	08/13/12 16:42
Nitrobenzene	18.24	Peak not found by the data system	robinsonw	08/13/12 16:42
Tetryl	18.74	Peak not found by the data system	robinsonw	08/13/12 16:42
2-Amino-4,6-dinitrotoluene	20.35	Peak not found by the data system	robinsonw	08/13/12 16:42
2,6-Dinitrotoluene	20.78	Peak not found by the data system	robinsonw	08/13/12 16:42
3-Nitrotoluene	24.01	Peak not found by the data system	robinsonw	08/13/12 16:42

Lab Sample ID: 200-12041-5 Client Sample ID: NFUDS-002-ISG08-R2

Date Analyzed: 08/09/12 18:57 Lab File ID: 09AUG121108_131.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
RDX	14.36	Peak not found by the data system	robinsonw	08/13/12 16:35
1,2-Dinitrobenzene	16.41	Peak not found by the data system	robinsonw	08/13/12 16:35
Tetryl	18.80	Peak not found by the data system	robinsonw	08/14/12 13:19
4-Nitrotoluene	23.40	Peak not found by the data system	robinsonw	08/13/12 16:35
3-Nitrotoluene	24.04	Baseline Event	robinsonw	08/13/12 17:28

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Instrument ID: CH1208 Analysis Batch Number: 43162

Lab Sample ID: 200-12041-6 Client Sample ID: NFUDS-002-ISG09-01

Date Analyzed: 08/09/12 19:35 Lab File ID: 09AUG121108_141.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	16.41	Baseline Event	robinsonw	08/13/12 16:45
Tetryl	18.45	Peak not found by the data system	robinsonw	08/13/12 16:45
3-Nitrotoluene	24.01	Peak not found by the data system	robinsonw	08/13/12 16:45

Lab Sample ID: 200-12041-7 Client Sample ID: NFUDS-002-ISG12-01

Date Analyzed: 08/09/12 20:12 Lab File ID: 09AUG121108_151.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3,5-Trinitrobenzene	16.18	Baseline Event	robinsonw	08/13/12 16:47
1,2-Dinitrobenzene	16.41	Baseline Event	robinsonw	08/13/12 16:47
2-Amino-4,6-dinitrotoluene	20.37	Baseline Event	robinsonw	08/13/12 16:52
2,6-Dinitrotoluene	20.68	Peak not found by the data system	robinsonw	08/13/12 16:52
4-Nitrotoluene	23.45	Baseline Event	robinsonw	08/13/12 16:54
3-Nitrotoluene	24.03	Baseline Event	robinsonw	08/13/12 16:54

Lab Sample ID: 200-12041-7 DU Client Sample ID: NFUDS-002-ISG12-01 DU

Date Analyzed: 08/09/12 20:50 Lab File ID: 09AUG121108_161.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	16.41	Baseline Event	robinsonw	08/13/12 16:49
2-Amino-4,6-dinitrotoluene	20.38	Baseline Event	robinsonw	08/13/12 16:52
2,6-Dinitrotoluene	20.68	Peak not found by the data system	robinsonw	08/13/12 16:52
4-Nitrotoluene	23.47	Baseline Event	robinsonw	08/13/12 16:49
3-Nitrotoluene	24.04	Baseline Event	robinsonw	08/13/12 16:49

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Instrument ID: CH1208 Analysis Batch Number: 43162

Lab Sample ID: 200-12041-7 TRL Client Sample ID: NFUDS-002-ISG12-01 TRL

Date Analyzed: 08/09/12 21:27 Lab File ID: 09AUG121108_171.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Amino-4,6-dinitrotoluene	20.37	Baseline Event	robinsonw	08/13/12 16:53
2,6-Dinitrotoluene	20.67	Peak not found by the data system	robinsonw	08/13/12 16:53
4-Nitrotoluene	23.42	Baseline Event	robinsonw	08/13/12 16:55
3-Nitrotoluene	24.02	Baseline Event	robinsonw	08/13/12 16:55

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Instrument ID: CH1488 Analysis Batch Number: 39219

Lab Sample ID: IC 200-39219/3 Client Sample ID:

Date Analyzed: 05/24/12 14:13 Lab File ID: 24MAY121229_031.d GC Column: Biphenyl ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4-diamino-6-nitrotoluene	4.54	Baseline Event	chirgwinb	05/25/12 09:44
2,6-diamino-4-nitrotoluene	4.54	Baseline Event	chirgwinb	05/25/12 09:44
HMX	5.37	Baseline Event	chirgwinb	05/25/12 09:44

Lab Sample ID: IC 200-39219/4 Client Sample ID:

Date Analyzed: 05/24/12 14:47 Lab File ID: 24MAY121229_041.d GC Column: Biphenyl ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4-diamino-6-nitrotoluene	4.54	Baseline Event	chirgwinb	05/25/12 09:44
2,6-diamino-4-nitrotoluene	4.54	Baseline Event	chirgwinb	05/25/12 09:44
HMX	5.35	Baseline Event	chirgwinb	05/25/12 09:44

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Instrument ID: CH1488 Analysis Batch Number: 43164

Lab Sample ID: 200-12041-1 Client Sample ID: NFUDS-002-ISG02-01

Date Analyzed: 08/09/12 15:28 Lab File ID: 09AUG121111_081.d GC Column: Biphenyl ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	11.23	Baseline Event	robinsonw	08/13/12 17:04
4-Amino-2,6-dinitrotoluene	11.37	Peak not found by the data system	robinsonw	08/13/12 17:04
3-Nitrotoluene	16.10	Peak not found by the data system	robinsonw	08/13/12 17:04
4-Nitrotoluene	16.10	Unspecified	robinsonw	08/13/12 17:04
2,6-Dinitrotoluene	16.79	Peak not found by the data system	robinsonw	08/13/12 17:04

Lab Sample ID: 200-12041-2 Client Sample ID: NFUDS-002-ISG04-01

Date Analyzed: 08/09/12 16:02 Lab File ID: 09AUG121111_091.d GC Column: Biphenyl ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrobenzene	10.91	Peak not found by the data system	robinsonw	08/13/12 17:06
1,2-Dinitrobenzene	11.21	Baseline Event	robinsonw	08/13/12 17:06
4-Amino-2,6-dinitrotoluene	11.66	Peak not found by the data system	robinsonw	08/13/12 17:06
3-Nitrotoluene	15.98	Peak not found by the data system	robinsonw	08/13/12 17:06
4-Nitrotoluene	15.98	Unspecified	robinsonw	08/13/12 17:06

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Instrument ID: CH1488 Analysis Batch Number: 43164

Lab Sample ID: 200-12041-3 Client Sample ID: NFUDS-002-ISG08-01

Date Analyzed: 08/09/12 16:36 Lab File ID: 09AUG121111_101.d GC Column: Biphenyl ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrobenzene	10.90	Peak not found by the data system	robinsonw	08/13/12 17:10
1,2-Dinitrobenzene	11.23	Baseline Event	robinsonw	08/13/12 17:10
2-Amino-4,6-dinitrotoluene	11.87	Peak not found by the data system	robinsonw	08/13/12 17:10
1,3,5-Trinitrobenzene	18.10	Baseline Event	robinsonw	08/13/12 17:10
Tetryl	18.96	Peak not found by the data system	robinsonw	08/13/12 17:10

Lab Sample ID: 200-12041-4 Client Sample ID: NFUDS-002-ISG08-R1

Date Analyzed: 08/09/12 17:44 Lab File ID: 09AUG121111_121.d GC Column: Biphenyl ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Nitrobenzene	10.67	Peak not found by the data system	robinsonw	08/13/12 17:22
1,2-Dinitrobenzene	11.22	Baseline Event	robinsonw	08/13/12 17:22
1,3,5-Trinitrobenzene	18.06	Peak not found by the data system	robinsonw	08/13/12 17:22

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Instrument ID: CH1488 Analysis Batch Number: 43164

Lab Sample ID: 200-12041-5 Client Sample ID: NFUDS-002-ISG08-R2

Date Analyzed: 08/09/12 18:19 Lab File ID: 09AUG121111_131.d GC Column: Biphenyl ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
RDX	6.45	Baseline Event	robinsonw	08/13/12 17:27
Nitroglycerin	9.65	Peak not found by the data system	robinsonw	08/13/12 17:27
Nitrobenzene	10.64	Peak not found by the data system	robinsonw	08/13/12 17:27
1,2-Dinitrobenzene	11.22	Baseline Event	robinsonw	08/13/12 17:27
3-Nitrotoluene	16.27	Peak not found by the data system	robinsonw	08/13/12 17:30
4-Nitrotoluene	16.27	Unspecified	robinsonw	08/13/12 17:30
2,4-Dinitrotoluene	18.94	Unspecified	robinsonw	08/13/12 17:27
Tetryl	18.94	Peak not found by the data system	robinsonw	08/13/12 17:27

Lab Sample ID: 200-12041-7 Client Sample ID: NFUDS-002-ISG12-01

Date Analyzed: 08/09/12 19:27 Lab File ID: 09AUG121111_151.d GC Column: Biphenyl ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
3-Nitrotoluene	16.10	Baseline Event	robinsonw	08/13/12 17:34
4-Nitrotoluene	16.10	Baseline Event	robinsonw	08/13/12 17:34
1,3,5-Trinitrobenzene	18.08	Baseline Event	robinsonw	08/13/12 17:34
2,4-Dinitrotoluene	19.06	Baseline Event	robinsonw	08/13/12 17:34
Tetryl	19.06	Baseline Event	robinsonw	08/13/12 17:34

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Instrument ID: CH1488 Analysis Batch Number: 43164

Lab Sample ID: 200-12041-7 DU Client Sample ID: NFUDS-002-ISG12-01 DU

Date Analyzed: 08/09/12 20:01 Lab File ID: 09AUG121111_161.d GC Column: Biphenyl ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
3-Nitrotoluene	16.10	Baseline Event	robinsonw	08/13/12 17:40
4-Nitrotoluene	16.10	Baseline Event	robinsonw	08/13/12 17:40
1,3,5-Trinitrobenzene	18.08	Baseline Event	robinsonw	08/13/12 17:40

Lab Sample ID: 200-12041-7 TRL Client Sample ID: NFUDS-002-ISG12-01 TRL

Date Analyzed: 08/09/12 20:35 Lab File ID: 09AUG121111_171.d GC Column: Biphenyl ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3,5-Trinitrobenzene	18.06	Baseline Event	robinsonw	08/13/12 17:42
2,4-Dinitrotoluene	19.00	Baseline Event	robinsonw	08/13/12 17:42
Tetryl	19.00	Baseline Event	robinsonw	08/13/12 17:42

SAMPLE SUMMARY

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-12041-1	NFUDS-002-ISG02-01	Solid	07/31/2012 1500	08/02/2012 1030
200-12041-2	NFUDS-002-ISG04-01	Solid	08/01/2012 0800	08/02/2012 1030
200-12041-3	NFUDS-002-ISG08-01	Solid	07/31/2012 1540	08/02/2012 1030
200-12041-4	NFUDS-002-ISG08-R1	Solid	08/01/2012 1445	08/02/2012 1030
200-12041-5	NFUDS-002-ISG08-R2	Solid	08/01/2012 1515	08/02/2012 1030
200-12041-6	NFUDS-002-ISG09-01	Solid	07/31/2012 1701	08/02/2012 1030
200-12041-7	NFUDS-002-ISG12-01	Solid	08/01/2012 1145	08/02/2012 1030
200-12041-7DU	NFUDS-002-ISG12-01	Solid	08/01/2012 1145	08/02/2012 1030
200-12041-7TRL	NFUDS-002-ISG12-01	Solid	08/01/2012 1145	08/02/2012 1030

METHOD SUMMARY

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Nitroaromatics and Nitramines (HPLC)	TAL BUR	SW846 8330B	
Soil Extraction Procedure	TAL BUR		SW846 8330
Grinding and Incremental Sampling	TAL BUR		SW846 8330B/Grind&MIS
Metals (ICP)	TAL BUR	SW846 6010C	
Preparation, Metals	TAL BUR		SW846 3050B
Sieve and Incremental Sampling	TAL BUR		SW846 Sieve/MIS
Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)	TAL BUR	SW846 7471B	
Preparation, Mercury	TAL BUR		SW846 7471B
Sieve and Incremental Sampling	TAL BUR		SW846 Sieve/MIS
pH	TAL BUR	SW846 9045D	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Method	Analyst	Analyst ID
SW846 6010C	Kvasnak, Ethan T	ETK
SW846 6010C	Lyons, Benjamin	BL
SW846 7471B	Pham, Vu T	VTP
SW846 9045D	Nelson, Andrea J	AJN
SW846 8330B	Robinson, Wallace B	WBR

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Client Sample ID: **NFUDS-002-ISG02-01**

Lab Sample ID: 200-12041-1
Client Matrix: Solid

Date Sampled: 07/31/2012 1500
Date Received: 08/02/2012 1030

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-43164	Instrument ID:	CH1488
Prep Method:	8330	Prep Batch:	200-43130	Initial Weight/Volume:	10.05 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/09/2012 1528			Injection Volume:	450 uL
Prep Date:	08/08/2012 1440			Result Type:	SECONDARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
4-Amino-2,6-dinitrotoluene		490	J M	8.4	100
2,6-Dinitrotoluene		31	J M	11	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	104	M	40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Client Sample ID: **NFUDS-002-ISG02-01**

Lab Sample ID: 200-12041-1
Client Matrix: Solid

Date Sampled: 07/31/2012 1500
Date Received: 08/02/2012 1030

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-43162	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-43130	Initial Weight/Volume:	10.05 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/09/2012 1550			Injection Volume:	150 uL
Prep Date:	08/08/2012 1440			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.5	100
RDX		12	U	12	100
1,3,5-Trinitrobenzene		12	U	5.0	100
1,3-Dinitrobenzene		12	U	5.9	100
Nitrobenzene		30	U	26	100
Tetryl		24	U	15	100
Nitroglycerin		720	U M	480	2000
2,4,6-Trinitrotoluene		24	U	17	100
4-Amino-2,6-dinitrotoluene		14	J M	8.4	100
2-Amino-4,6-dinitrotoluene		12	U	6.6	100
2,6-Dinitrotoluene		35	J M	11	100
2,4-Dinitrotoluene		24	U	15	100
2-Nitrotoluene		24	U	14	100
4-Nitrotoluene		30	U	27	100
3-Nitrotoluene		30	U M	27	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	104		40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Client Sample ID: **NFUDS-002-ISG04-01**

Lab Sample ID: 200-12041-2
Client Matrix: Solid

Date Sampled: 08/01/2012 0800
Date Received: 08/02/2012 1030

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-43164	Instrument ID:	CH1488
Prep Method:	8330	Prep Batch:	200-43130	Initial Weight/Volume:	9.94 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/09/2012 1602			Injection Volume:	450 uL
Prep Date:	08/08/2012 1440			Result Type:	SECONDARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
3-Nitrotoluene		450	J M	27	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	95	M	40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Client Sample ID: **NFUDS-002-ISG04-01**

Lab Sample ID: 200-12041-2
Client Matrix: Solid

Date Sampled: 08/01/2012 0800
Date Received: 08/02/2012 1030

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-43162	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-43130	Initial Weight/Volume:	9.94 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/09/2012 1628			Injection Volume:	150 uL
Prep Date:	08/08/2012 1440			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.5	100
RDX		12	U	12	100
1,3,5-Trinitrobenzene		12	U M	5.0	100
1,3-Dinitrobenzene		12	U	5.9	100
Nitrobenzene		30	U M	26	100
Tetryl		24	U	15	100
Nitroglycerin		720	U	480	2000
2,4,6-Trinitrotoluene		24	U	17	100
4-Amino-2,6-dinitrotoluene		12	U	8.5	100
2-Amino-4,6-dinitrotoluene		12	U	6.6	100
2,6-Dinitrotoluene		12	U	11	100
2,4-Dinitrotoluene		24	U	15	100
2-Nitrotoluene		24	U	14	100
4-Nitrotoluene		30	U	27	100
3-Nitrotoluene		57	J M	27	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	97	M	40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Client Sample ID: **NFUDS-002-ISG08-01**

Lab Sample ID: 200-12041-3
Client Matrix: Solid

Date Sampled: 07/31/2012 1540
Date Received: 08/02/2012 1030

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-43164	Instrument ID:	CH1488
Prep Method:	8330	Prep Batch:	200-43130	Initial Weight/Volume:	10.08 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/09/2012 1636			Injection Volume:	450 uL
Prep Date:	08/08/2012 1440			Result Type:	SECONDARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
1,3,5-Trinitrobenzene		26	J M	5.0	99
Tetryl		75	J M	15	99

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	98	M	40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Client Sample ID: **NFUDS-002-ISG08-01**

Lab Sample ID: 200-12041-3
Client Matrix: Solid

Date Sampled: 07/31/2012 1540
Date Received: 08/02/2012 1030

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-43162	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-43130	Initial Weight/Volume:	10.08 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/09/2012 1705			Injection Volume:	150 uL
Prep Date:	08/08/2012 1440			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.5	99
RDX		12	U	12	99
1,3,5-Trinitrobenzene		35	J	5.0	99
1,3-Dinitrobenzene		12	U	5.9	99
Nitrobenzene		30	U M	26	99
Tetryl		52	J M	15	99
Nitroglycerin		710	U	480	2000
2,4,6-Trinitrotoluene		24	U	17	99
4-Amino-2,6-dinitrotoluene		12	U	8.3	99
2-Amino-4,6-dinitrotoluene		190	M	6.5	99
2,6-Dinitrotoluene		12	U M	11	99
2,4-Dinitrotoluene		24	U	15	99
2-Nitrotoluene		24	U	14	99
4-Nitrotoluene		30	U	27	99
3-Nitrotoluene		30	U M	27	99

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	101	M	40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Client Sample ID: **NFUDS-002-ISG08-R1**

Lab Sample ID: 200-12041-4
Client Matrix: Solid

Date Sampled: 08/01/2012 1445
Date Received: 08/02/2012 1030

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-43164	Instrument ID:	CH1488
Prep Method:	8330	Prep Batch:	200-43130	Initial Weight/Volume:	10.01 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/09/2012 1744			Injection Volume:	450 uL
Prep Date:	08/08/2012 1440			Result Type:	SECONDARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
Tetryl		72	J	15	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	99	M	40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Client Sample ID: **NFUDS-002-ISG08-R1**

Lab Sample ID: 200-12041-4
Client Matrix: Solid

Date Sampled: 08/01/2012 1445
Date Received: 08/02/2012 1030

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-43162	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-43130	Initial Weight/Volume:	10.01 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/09/2012 1820			Injection Volume:	150 uL
Prep Date:	08/08/2012 1440			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.5	100
RDX		12	U	12	100
1,3,5-Trinitrobenzene		12	U	5.0	100
1,3-Dinitrobenzene		12	U	5.9	100
Nitrobenzene		30	U M	26	100
Tetryl		56	J M	15	100
Nitroglycerin		720	U	480	2000
2,4,6-Trinitrotoluene		24	U	17	100
4-Amino-2,6-dinitrotoluene		12	U	8.4	100
2-Amino-4,6-dinitrotoluene		190	M	6.6	100
2,6-Dinitrotoluene		12	U M	11	100
2,4-Dinitrotoluene		24	U	15	100
2-Nitrotoluene		24	U	14	100
4-Nitrotoluene		30	U	27	100
3-Nitrotoluene		30	U M	27	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	101	M	40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Client Sample ID: **NFUDS-002-ISG08-R2**

Lab Sample ID: 200-12041-5
Client Matrix: Solid

Date Sampled: 08/01/2012 1515
Date Received: 08/02/2012 1030

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-43164	Instrument ID:	CH1488
Prep Method:	8330	Prep Batch:	200-43130	Initial Weight/Volume:	10.64 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/09/2012 1819			Injection Volume:	450 uL
Prep Date:	08/08/2012 1440			Result Type:	SECONDARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
RDX		49	J M	11	94
1,3,5-Trinitrobenzene		83	J	4.7	94
Tetryl		130	M	14	94
4-Nitrotoluene		31	J M	25	94
3-Nitrotoluene		31	J M	25	94

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	106	M	40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Client Sample ID: **NFUDS-002-ISG08-R2**

Lab Sample ID: 200-12041-5
Client Matrix: Solid

Date Sampled: 08/01/2012 1515
Date Received: 08/02/2012 1030

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-43162	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-43130	Initial Weight/Volume:	10.64 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/09/2012 1857			Injection Volume:	150 uL
Prep Date:	08/08/2012 1440			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		11	U	4.2	94
RDX		30	J M	11	94
1,3,5-Trinitrobenzene		79	J	4.7	94
1,3-Dinitrobenzene		11	U	5.5	94
Nitrobenzene		28	U	24	94
Tetryl		190	M	14	94
Nitroglycerin		680	U	450	1900
2,4,6-Trinitrotoluene		23	U	16	94
4-Amino-2,6-dinitrotoluene		11	U	7.9	94
2-Amino-4,6-dinitrotoluene		11	U	6.2	94
2,6-Dinitrotoluene		11	U	10	94
2,4-Dinitrotoluene		23	U	14	94
2-Nitrotoluene		23	U	13	94
4-Nitrotoluene		89	J M	25	94
3-Nitrotoluene		270	M	25	94

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	101	M	40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Client Sample ID: **NFUDS-002-ISG09-01**

Lab Sample ID: 200-12041-6
Client Matrix: Solid

Date Sampled: 07/31/2012 1701
Date Received: 08/02/2012 1030

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-43164	Instrument ID:	CH1488
Prep Method:	8330	Prep Batch:	200-43130	Initial Weight/Volume:	9.97 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/09/2012 1853			Injection Volume:	450 uL
Prep Date:	08/08/2012 1440			Result Type:	SECONDARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
1,3,5-Trinitrobenzene		330	J	5.0	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	92		40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Client Sample ID: **NFUDS-002-ISG09-01**

Lab Sample ID: 200-12041-6
Client Matrix: Solid

Date Sampled: 07/31/2012 1701
Date Received: 08/02/2012 1030

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-43162	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-43130	Initial Weight/Volume:	9.97 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/09/2012 1935			Injection Volume:	150 uL
Prep Date:	08/08/2012 1440			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.5	100
RDX		12	U	12	100
1,3,5-Trinitrobenzene		35	J	5.0	100
1,3-Dinitrobenzene		12	U	5.9	100
Nitrobenzene		30	U	26	100
Tetryl		24	U M	15	100
Nitroglycerin		720	U	480	2000
2,4,6-Trinitrotoluene		24	U	17	100
4-Amino-2,6-dinitrotoluene		12	U	8.4	100
2-Amino-4,6-dinitrotoluene		12	U	6.6	100
2,6-Dinitrotoluene		12	U	11	100
2,4-Dinitrotoluene		24	U	15	100
2-Nitrotoluene		24	U	14	100
4-Nitrotoluene		30	U	27	100
3-Nitrotoluene		30	U M	27	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	94	M	40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Client Sample ID: **NFUDS-002-ISG12-01**

Lab Sample ID: 200-12041-7
Client Matrix: Solid

Date Sampled: 08/01/2012 1145
Date Received: 08/02/2012 1030

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-43164	Instrument ID:	CH1488
Prep Method:	8330	Prep Batch:	200-43130	Initial Weight/Volume:	10.19 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/09/2012 1927			Injection Volume:	450 uL
Prep Date:	08/08/2012 1440			Result Type:	SECONDARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
1,3,5-Trinitrobenzene		69	J M	4.9	98
4-Nitrotoluene		60	J M	26	98
3-Nitrotoluene		60	J M	26	98

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	92		40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Client Sample ID: **NFUDS-002-ISG12-01**

Lab Sample ID: 200-12041-7
Client Matrix: Solid

Date Sampled: 08/01/2012 1145
Date Received: 08/02/2012 1030

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-43162	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-43130	Initial Weight/Volume:	10.19 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/09/2012 2012			Injection Volume:	150 uL
Prep Date:	08/08/2012 1440			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.4	98
RDX		12	U	12	98
1,3,5-Trinitrobenzene		29	J M	4.9	98
1,3-Dinitrobenzene		12	U	5.8	98
Nitrobenzene		29	U	26	98
Tetryl		24	U	15	98
Nitroglycerin		710	U	470	2000
2,4,6-Trinitrotoluene		24	U	17	98
4-Amino-2,6-dinitrotoluene		12	U	8.2	98
2-Amino-4,6-dinitrotoluene		12	U M	6.5	98
2,6-Dinitrotoluene		12	U M	11	98
2,4-Dinitrotoluene		24	U	15	98
2-Nitrotoluene		24	U	14	98
4-Nitrotoluene		70	J M	26	98
3-Nitrotoluene		47	J M	26	98

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	91	M	40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Client Sample ID: **NFUDS-002-ISG02-01**

Lab Sample ID: 200-12041-1
Client Matrix: Solid

Date Sampled: 07/31/2012 1500
Date Received: 08/02/2012 1030

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	200-43509	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-43205	Lab File ID:	081512-04.ttx
Dilution:	1.0			Initial Weight/Volume:	2.04 g
Analysis Date:	08/16/2012 0356			Final Weight/Volume:	100 mL
Prep Date:	08/09/2012 1100				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	DL	LOQ
Silver		0.20	U	0.064	0.49
Barium		5.0	J	0.25	9.8
Calcium		310		25	250
Cadmium		0.044	J	0.039	0.25
Cobalt		0.58	J	0.040	2.5
Chromium		4.6		0.054	0.49
Iron		4800		6.4	9.8
Potassium		270		7.4	250
Magnesium		490		6.9	250
Manganese		35		0.22	0.74
Sodium		59	J	3.7	250
Nickel		1.8	J	0.14	2.0
Lead		4.6		0.22	0.49
Antimony		0.74	U	0.24	2.9
Selenium		1.1	U	0.43	1.7
Thallium		0.74	U	0.20	1.2
Vanadium		8.0		0.064	2.5

Analysis Method:	6010C	Analysis Batch:	200-43690	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-43205	Lab File ID:	082012-06.ttx
Dilution:	1.0			Initial Weight/Volume:	2.04 g
Analysis Date:	08/18/2012 1643			Final Weight/Volume:	100 mL
Prep Date:	08/09/2012 1100				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		3800		8.3	9.8
Arsenic		2.1		0.27	0.49
Beryllium		0.10	J	0.016	0.25
Copper		1.5		0.11	1.2
Zinc		9.0		0.27	0.98

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method:	7471B	Analysis Batch:	200-43668	Instrument ID:	MEPCV3 II
Prep Method:	7471B	Prep Batch:	200-43602	Lab File ID:	082012BB.PRN
Dilution:	1.0			Initial Weight/Volume:	0.31 g
Analysis Date:	08/20/2012 1228			Final Weight/Volume:	50 mL
Prep Date:	08/20/2012 0900				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.0037	U	0.0021	0.032

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Client Sample ID: **NFUDS-002-ISG04-01**

Lab Sample ID: 200-12041-2
Client Matrix: Solid

Date Sampled: 08/01/2012 0800
Date Received: 08/02/2012 1030

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	200-43509	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-43205	Lab File ID:	081512-04.ttx
Dilution:	1.0			Initial Weight/Volume:	2.12 g
Analysis Date:	08/16/2012 0430			Final Weight/Volume:	100 mL
Prep Date:	08/09/2012 1100				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	DL	LOQ
Silver		0.19	U	0.061	0.47
Barium		5.2	J	0.25	9.4
Calcium		170	J	24	240
Cadmium		0.077	J	0.038	0.24
Cobalt		1.1	J	0.038	2.4
Chromium		5.7		0.052	0.47
Iron		6000		6.1	9.4
Potassium		290		7.1	240
Magnesium		530		6.6	240
Manganese		38		0.21	0.71
Sodium		20	J	3.5	240
Nickel		2.8		0.14	1.9
Lead		4.5		0.21	0.47
Antimony		0.71	U	0.23	2.8
Selenium		0.53	J	0.41	1.7
Thallium		0.71	U	0.19	1.2
Vanadium		8.8		0.061	2.4

Analysis Method:	6010C	Analysis Batch:	200-43690	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-43205	Lab File ID:	082012-06.ttx
Dilution:	1.0			Initial Weight/Volume:	2.12 g
Analysis Date:	08/18/2012 1658			Final Weight/Volume:	100 mL
Prep Date:	08/09/2012 1100				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		4600		8.0	9.4
Arsenic		2.2		0.26	0.47
Beryllium		0.12	J	0.015	0.24
Copper		1.6		0.10	1.2
Zinc		11		0.26	0.94

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method:	7471B	Analysis Batch:	200-43668	Instrument ID:	MEPCV3 II
Prep Method:	7471B	Prep Batch:	200-43602	Lab File ID:	082012BB.PRN
Dilution:	1.0			Initial Weight/Volume:	0.32 g
Analysis Date:	08/20/2012 1255			Final Weight/Volume:	50 mL
Prep Date:	08/20/2012 0900				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.0036	U	0.0021	0.031

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Client Sample ID: **NFUDS-002-ISG08-01**

Lab Sample ID: 200-12041-3
Client Matrix: Solid

Date Sampled: 07/31/2012 1540
Date Received: 08/02/2012 1030

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	200-43509	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-43205	Lab File ID:	081512-04.ttx
Dilution:	1.0			Initial Weight/Volume:	1.97 g
Analysis Date:	08/16/2012 0436			Final Weight/Volume:	100 mL
Prep Date:	08/09/2012 1100				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	DL	LOQ
Silver		0.20	U	0.066	0.51
Barium		5.2	J	0.26	10
Calcium		160	J	26	250
Cadmium		0.050	J	0.041	0.25
Cobalt		0.71	J	0.041	2.5
Chromium		5.1		0.056	0.51
Iron		5600		6.6	10
Potassium		260		7.6	250
Magnesium		400		7.1	250
Manganese		32		0.23	0.76
Sodium		35	J	3.8	250
Nickel		2.1		0.15	2.0
Lead		6.2		0.22	0.51
Antimony		0.76	U	0.25	3.0
Selenium		0.58	J	0.44	1.8
Thallium		0.76	U	0.21	1.3
Vanadium		9.3		0.066	2.5

Analysis Method:	6010C	Analysis Batch:	200-43690	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-43205	Lab File ID:	082012-06.ttx
Dilution:	1.0			Initial Weight/Volume:	1.97 g
Analysis Date:	08/18/2012 1703			Final Weight/Volume:	100 mL
Prep Date:	08/09/2012 1100				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		4000		8.6	10
Arsenic		2.1		0.28	0.51
Beryllium		0.092	J	0.016	0.25
Copper		1.6		0.11	1.3
Zinc		7.1		0.28	1.0

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method:	7471B	Analysis Batch:	200-43668	Instrument ID:	MEPCV3 II
Prep Method:	7471B	Prep Batch:	200-43602	Lab File ID:	082012BB.PRN
Dilution:	1.0			Initial Weight/Volume:	0.31 g
Analysis Date:	08/20/2012 1237			Final Weight/Volume:	50 mL
Prep Date:	08/20/2012 0900				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.010	J	0.0021	0.032

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Client Sample ID: **NFUDS-002-ISG08-R1**

Lab Sample ID: 200-12041-4
Client Matrix: Solid

Date Sampled: 08/01/2012 1445
Date Received: 08/02/2012 1030

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	200-43509	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-43205	Lab File ID:	081512-04.ttx
Dilution:	1.0			Initial Weight/Volume:	2.04 g
Analysis Date:	08/16/2012 0441			Final Weight/Volume:	100 mL
Prep Date:	08/09/2012 1100				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	DL	LOQ
Silver		0.20	U	0.064	0.49
Barium		6.2	J	0.25	9.8
Calcium		170	J	25	250
Cadmium		0.050	J	0.039	0.25
Cobalt		0.75	J	0.040	2.5
Chromium		5.9		0.054	0.49
Iron		6700		6.4	9.8
Potassium		270		7.4	250
Magnesium		450		6.9	250
Manganese		35		0.22	0.74
Sodium		31	J	3.7	250
Nickel		2.3		0.14	2.0
Lead		6.7		0.22	0.49
Antimony		0.74	U	0.24	2.9
Selenium		0.64	J	0.43	1.7
Thallium		0.74	U	0.20	1.2
Vanadium		11		0.064	2.5

Analysis Method:	6010C	Analysis Batch:	200-43690	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-43205	Lab File ID:	082012-06.ttx
Dilution:	1.0			Initial Weight/Volume:	2.04 g
Analysis Date:	08/18/2012 1708			Final Weight/Volume:	100 mL
Prep Date:	08/09/2012 1100				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		5100		8.3	9.8
Arsenic		2.4		0.27	0.49
Beryllium		0.10	J	0.016	0.25
Copper		1.6		0.11	1.2
Zinc		8.4		0.27	0.98

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method:	7471B	Analysis Batch:	200-43668	Instrument ID:	MEPCV3 II
Prep Method:	7471B	Prep Batch:	200-43602	Lab File ID:	082012BB.PRN
Dilution:	1.0			Initial Weight/Volume:	0.31 g
Analysis Date:	08/20/2012 1239			Final Weight/Volume:	50 mL
Prep Date:	08/20/2012 0900				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.0037	U	0.0021	0.032

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Client Sample ID: **NFUDS-002-ISG08-R2**

Lab Sample ID: 200-12041-5
Client Matrix: Solid

Date Sampled: 08/01/2012 1515
Date Received: 08/02/2012 1030

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	200-43509	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-43205	Lab File ID:	081512-04.ttx
Dilution:	1.0			Initial Weight/Volume:	1.98 g
Analysis Date:	08/16/2012 0447			Final Weight/Volume:	100 mL
Prep Date:	08/09/2012 1100				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	DL	LOQ
Silver		0.20	U	0.066	0.51
Barium		6.1	J	0.26	10
Calcium		190	J	26	250
Cadmium		0.053	J	0.040	0.25
Cobalt		0.81	J	0.041	2.5
Chromium		6.1		0.056	0.51
Iron		7000		6.6	10
Potassium		280		7.6	250
Magnesium		470		7.1	250
Manganese		38		0.23	0.76
Sodium		29	J	3.8	250
Nickel		2.5		0.15	2.0
Lead		5.6		0.22	0.51
Antimony		0.76	U	0.25	3.0
Selenium		0.56	J	0.44	1.8
Thallium		0.76	U	0.21	1.3
Vanadium		11		0.066	2.5

Analysis Method:	6010C	Analysis Batch:	200-43690	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-43205	Lab File ID:	082012-06.ttx
Dilution:	1.0			Initial Weight/Volume:	1.98 g
Analysis Date:	08/18/2012 1713			Final Weight/Volume:	100 mL
Prep Date:	08/09/2012 1100				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		5400		8.6	10
Arsenic		2.4		0.28	0.51
Beryllium		0.12	J	0.016	0.25
Copper		1.8		0.11	1.3
Zinc		8.9		0.28	1.0

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method:	7471B	Analysis Batch:	200-43668	Instrument ID:	MEPCV3 II
Prep Method:	7471B	Prep Batch:	200-43602	Lab File ID:	082012BB.PRN
Dilution:	1.0			Initial Weight/Volume:	0.34 g
Analysis Date:	08/20/2012 1241			Final Weight/Volume:	50 mL
Prep Date:	08/20/2012 0900				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.0034	U	0.0019	0.029

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Client Sample ID: **NFUDS-002-ISG09-01**

Lab Sample ID: 200-12041-6
Client Matrix: Solid

Date Sampled: 07/31/2012 1701
Date Received: 08/02/2012 1030

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	200-43509	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-43205	Lab File ID:	081512-04.ttx
Dilution:	1.0			Initial Weight/Volume:	2.08 g
Analysis Date:	08/16/2012 0452			Final Weight/Volume:	100 mL
Prep Date:	08/09/2012 1100				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	DL	LOQ
Silver		0.19	U	0.063	0.48
Barium		7.9	J	0.25	9.6
Calcium		370		25	240
Cadmium		0.057	J	0.038	0.24
Cobalt		0.78	J	0.039	2.4
Chromium		5.5		0.053	0.48
Iron		6400		6.3	9.6
Potassium		310		7.2	240
Magnesium		520		6.7	240
Manganese		47		0.22	0.72
Sodium		55	J	3.6	240
Nickel		2.5		0.14	1.9
Lead		8.5		0.21	0.48
Antimony		0.72	U	0.24	2.9
Selenium		0.63	J	0.42	1.7
Thallium		0.72	U	0.20	1.2
Vanadium		10		0.063	2.4

Analysis Method:	6010C	Analysis Batch:	200-43690	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-43205	Lab File ID:	082012-06.ttx
Dilution:	1.0			Initial Weight/Volume:	2.08 g
Analysis Date:	08/18/2012 1718			Final Weight/Volume:	100 mL
Prep Date:	08/09/2012 1100				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		4200		8.2	9.6
Arsenic		2.5		0.27	0.48
Beryllium		0.092	J	0.015	0.24
Copper		2.3		0.11	1.2
Zinc		8.9		0.27	0.96

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method:	7471B	Analysis Batch:	200-43668	Instrument ID:	MEPCV3 II
Prep Method:	7471B	Prep Batch:	200-43602	Lab File ID:	082012BB.PRN
Dilution:	1.0			Initial Weight/Volume:	0.33 g
Analysis Date:	08/20/2012 1250			Final Weight/Volume:	50 mL
Prep Date:	08/20/2012 0900				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.0080	J	0.0020	0.030

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Client Sample ID: **NFUDS-002-ISG12-01**

Lab Sample ID: 200-12041-7
Client Matrix: Solid

Date Sampled: 08/01/2012 1145
Date Received: 08/02/2012 1030

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	200-43509	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-43205	Lab File ID:	081512-04.ttx
Dilution:	1.0			Initial Weight/Volume:	1.99 g
Analysis Date:	08/16/2012 0458			Final Weight/Volume:	100 mL
Prep Date:	08/09/2012 1100				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	DL	LOQ
Silver		0.20	U	0.065	0.50
Barium		6.0	J	0.26	10
Calcium		300		26	250
Cadmium		0.059	J	0.040	0.25
Cobalt		0.75	J	0.041	2.5
Chromium		4.9		0.055	0.50
Iron		5700		6.5	10
Potassium		280		7.5	250
Magnesium		450		7.0	250
Manganese		35		0.23	0.75
Sodium		41	J	3.8	250
Nickel		2.1		0.15	2.0
Lead		9.1		0.22	0.50
Antimony		0.75	U	0.25	3.0
Selenium		0.63	J	0.44	1.8
Thallium		0.75	U	0.21	1.3
Vanadium		9.3		0.065	2.5

Analysis Method:	6010C	Analysis Batch:	200-43690	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-43205	Lab File ID:	082012-06.ttx
Dilution:	1.0			Initial Weight/Volume:	1.99 g
Analysis Date:	08/18/2012 1739			Final Weight/Volume:	100 mL
Prep Date:	08/09/2012 1100				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		3600		8.5	10
Arsenic		2.3		0.28	0.50
Beryllium		0.089	J	0.016	0.25
Copper		6.6		0.11	1.3
Zinc		8.2		0.28	1.0

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method:	7471B	Analysis Batch:	200-43668	Instrument ID:	MEPCV3 II
Prep Method:	7471B	Prep Batch:	200-43602	Lab File ID:	082012BB.PRN
Dilution:	1.0			Initial Weight/Volume:	0.31 g
Analysis Date:	08/20/2012 1253			Final Weight/Volume:	50 mL
Prep Date:	08/20/2012 0900				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.014	J	0.0021	0.032

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

General Chemistry

Client Sample ID: **NFUDS-002-ISG02-01**

Lab Sample ID: 200-12041-1
Client Matrix: Solid

Date Sampled: 07/31/2012 1500
Date Received: 08/02/2012 1030

Analyte	Result	Qual	Units	DL	LOQ	Dil	Method
pH	4.78	HF	SU			1.0	9045D

Analysis Batch: 200-43017 Analysis Date: 08/07/2012 1050 DryWt Corrected: N

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

General Chemistry

Client Sample ID: **NFUDS-002-ISG04-01**

Lab Sample ID: 200-12041-2
Client Matrix: Solid

Date Sampled: 08/01/2012 0800
Date Received: 08/02/2012 1030

Analyte	Result	Qual	Units	DL	LOQ	Dil	Method
pH	4.75	HF	SU			1.0	9045D

Analysis Batch: 200-43017 Analysis Date: 08/07/2012 1050 DryWt Corrected: N

General Chemistry

Client Sample ID: **NFUDS-002-ISG08-01**

Lab Sample ID: 200-12041-3
Client Matrix: Solid

Date Sampled: 07/31/2012 1540
Date Received: 08/02/2012 1030

Analyte	Result	Qual	Units	DL	LOQ	Dil	Method
pH	4.41	HF	SU			1.0	9045D

Analysis Batch: 200-43017 Analysis Date: 08/07/2012 1050 DryWt Corrected: N

General Chemistry

Client Sample ID: **NFUDS-002-ISG08-R1**

Lab Sample ID: 200-12041-4
Client Matrix: Solid

Date Sampled: 08/01/2012 1445
Date Received: 08/02/2012 1030

Analyte	Result	Qual	Units	DL	LOQ	Dil	Method
pH	4.33	HF	SU			1.0	9045D

Analysis Batch: 200-43017 Analysis Date: 08/07/2012 1050 DryWt Corrected: N

General Chemistry

Client Sample ID: **NFUDS-002-ISG08-R2**

Lab Sample ID: 200-12041-5
Client Matrix: Solid

Date Sampled: 08/01/2012 1515
Date Received: 08/02/2012 1030

Analyte	Result	Qual	Units	DL	LOQ	Dil	Method
pH	4.38	HF	SU			1.0	9045D

Analysis Batch: 200-43017 Analysis Date: 08/07/2012 1050 DryWt Corrected: N

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

General Chemistry

Client Sample ID: **NFUDS-002-ISG09-01**

Lab Sample ID: 200-12041-6
Client Matrix: Solid

Date Sampled: 07/31/2012 1701
Date Received: 08/02/2012 1030

Analyte	Result	Qual	Units	DL	LOQ	Dil	Method
pH	4.41	HF	SU			1.0	9045D

Analysis Batch: 200-43017 Analysis Date: 08/07/2012 1050 DryWt Corrected: N

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

General Chemistry

Client Sample ID: **NFUDS-002-ISG12-01**

Lab Sample ID: 200-12041-7
Client Matrix: Solid

Date Sampled: 08/01/2012 1145
Date Received: 08/02/2012 1030

Analyte	Result	Qual	Units	DL	LOQ	Dil	Method
pH	4.28	HF	SU			1.0	9045D

Analysis Batch: 200-43017 Analysis Date: 08/07/2012 1050 DryWt Corrected: N

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Surrogate Recovery Report

8330B Nitroaromatics and Nitramines (HPLC)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	12DNB2 %Rec	12DNB1 %Rec
200-12041-1	NFUDS-002-ISG02-01		104
200-12041-1	NFUDS-002-ISG02-01	104M	
200-12041-2	NFUDS-002-ISG04-01		97M
200-12041-2	NFUDS-002-ISG04-01	95M	
200-12041-3	NFUDS-002-ISG08-01		101M
200-12041-3	NFUDS-002-ISG08-01	98M	
200-12041-4	NFUDS-002-ISG08-R1		101M
200-12041-4	NFUDS-002-ISG08-R1	99M	
200-12041-5	NFUDS-002-ISG08-R2		101M
200-12041-5	NFUDS-002-ISG08-R2	106M	
200-12041-6	NFUDS-002-ISG09-01		94M
200-12041-6	NFUDS-002-ISG09-01	92	
200-12041-7	NFUDS-002-ISG12-01		91M
200-12041-7	NFUDS-002-ISG12-01	92	
MB 200-43130/17-A			101
MB 200-43130/17-A		103	
GB 200-43003/5-B			97
GB 200-43003/5-B		97	
LCS 200-43130/18-A			100
LCS 200-43130/18-A		96	
200-12041-7 DU	NFUDS-002-ISG12-01 DU		90M

Surrogate	Acceptance Limits
12DNB = 1,2-Dinitrobenzene	40-140

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Surrogate Recovery Report

8330B Nitroaromatics and Nitramines (HPLC)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	12DNB2 %Rec	12DNB1 %Rec
200-12041-7 DU	NFUDS-002-ISG12-01 DU	94	
200-12041-7 TRL	NFUDS-002-ISG12-01 TRL		99
200-12041-7 TRL	NFUDS-002-ISG12-01 TRL	95	

Surrogate	Acceptance Limits
12DNB = 1,2-Dinitrobenzene	40-140

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Surrogate	% Rec	Acceptance Limits
1,2-Dinitrobenzene	103	40 - 140

Method Blank - Batch: 200-43130

Method: 8330B
Preparation: 8330

Lab Sample ID:	MB 200-43130/17-A	Analysis Batch:	200-43162	Instrument ID:	CH1208
Client Matrix:	Solid	Prep Batch:	200-43130	Lab File ID:	09AUG121108_031.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	9.93 g
Analysis Date:	08/09/2012 1243	Units:	ug/Kg	Final Weight/Volume:	100 mL
Prep Date:	08/08/2012 1440			Injection Volume:	150 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	DL	LOQ
HMX	12	U	4.5	100
RDX	12	U	12	100
1,3,5-Trinitrobenzene	12	U	5.0	100
1,3-Dinitrobenzene	12	U M	5.9	100
Nitrobenzene	30	U	26	100
Tetryl	24	U	15	100
Nitroglycerin	730	U	490	2000
2,4,6-Trinitrotoluene	24	U	17	100
4-Amino-2,6-dinitrotoluene	12	U	8.5	100
2-Amino-4,6-dinitrotoluene	12	U	6.6	100
2,6-Dinitrotoluene	12	U	11	100
2,4-Dinitrotoluene	24	U	15	100
2-Nitrotoluene	24	U	14	100
4-Nitrotoluene	30	U	27	100
3-Nitrotoluene	30	U M	27	100

Surrogate	% Rec	Acceptance Limits
1,2-Dinitrobenzene	101	40 - 140

Surrogate	% Rec	Acceptance Limits
1,2-Dinitrobenzene	97	40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Grinding Blank - Batch: 200-43130

Method: 8330B
Preparation: 8330

Lab Sample ID:	GB 200-43003/5-B	Analysis Batch:	200-43162	Instrument ID:	CH1208
Client Matrix:	Solid	Prep Batch:	200-43130	Lab File ID:	09AUG121108_051.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10.29 g
Analysis Date:	08/09/2012 1358	Units:	ug/Kg	Final Weight/Volume:	100 mL
Prep Date:	08/08/2012 1440			Injection Volume:	150 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	DL	LOQ
HMX	12	U	4.4	97
RDX	12	U	12	97
1,3,5-Trinitrobenzene	12	U	4.9	97
1,3-Dinitrobenzene	12	U	5.7	97
Nitrobenzene	29	U	25	97
Tetryl	23	U	15	97
Nitroglycerin	700	U	470	1900
2,4,6-Trinitrotoluene	23	U	17	97
4-Amino-2,6-dinitrotoluene	12	U	8.2	97
2-Amino-4,6-dinitrotoluene	12	U	6.4	97
2,6-Dinitrotoluene	12	U	11	97
2,4-Dinitrotoluene	23	U	15	97
2-Nitrotoluene	23	U	14	97
4-Nitrotoluene	29	U	26	97
3-Nitrotoluene	29	U	26	97

Surrogate	% Rec	Acceptance Limits
1,2-Dinitrobenzene	97	40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Surrogate	% Rec	Acceptance Limits
1,2-Dinitrobenzene	96	40 - 140

Lab Control Sample - Batch: 200-43130

Method: 8330B
Preparation: 8330

Lab Sample ID:	LCS 200-43130/18-A	Analysis Batch:	200-43162	Instrument ID:	CH1208
Client Matrix:	Solid	Prep Batch:	200-43130	Lab File ID:	09AUG121108_041.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	9.98 g
Analysis Date:	08/09/2012 1320	Units:	ug/Kg	Final Weight/Volume:	100 mL
Prep Date:	08/08/2012 1440			Injection Volume:	150 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
HMX	2000	2130	106	75 - 120	
RDX	2000	2150	107	75 - 120	
1,3,5-Trinitrobenzene	2000	2130	106	75 - 120	
1,3-Dinitrobenzene	2000	2150	107	75 - 120	
Nitrobenzene	2000	2120	106	75 - 125	
Tetryl	2000	2100	105	80 - 115	J
Nitroglycerin	40100	41500	104	60 - 150	
2,4,6-Trinitrotoluene	2000	2130	106	85 - 110	
4-Amino-2,6-dinitrotoluene	2000	2140	107	80 - 120	
2-Amino-4,6-dinitrotoluene	2000	2180	109	75 - 125	
2,6-Dinitrotoluene	2000	2050	102	75 - 125	
2,4-Dinitrotoluene	2000	2240	112	60 - 130	J
2-Nitrotoluene	2000	2070	104	70 - 125	
4-Nitrotoluene	2000	2160	108	65 - 135	J M
3-Nitrotoluene	2000	2080	104	60 - 135	J

Surrogate	% Rec	Acceptance Limits
1,2-Dinitrobenzene	100	40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Duplicate - Batch: 200-43130

Method: 8330B
Preparation: 8330

Lab Sample ID:	200-12041-7	Analysis Batch:	200-43164	Instrument ID:	CH1488
Client Matrix:	Solid	Prep Batch:	200-43130	Lab File ID:	09AUG121111_161.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	9.66 g
Analysis Date:	08/09/2012 2001	Units:	ug/Kg	Final Weight/Volume:	100 mL
Prep Date:	08/08/2012 1440			Injection Volume:	450 uL
Leach Date:	N/A			Column ID:	SECONDARY

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
1,3,5-Trinitrobenzene	69	J	72.5	5	20	J M
4-Nitrotoluene	60	J	101	50	20	M
3-Nitrotoluene	60	J	101	50	20	J M

Surrogate	% Rec	Acceptance Limits
1,2-Dinitrobenzene	94	40 - 140

Triplicate - Batch: 200-43130

Method: 8330B
Preparation: 8330

Lab Sample ID:	200-12041-7	Analysis Batch:	200-43164	Instrument ID:	CH1488
Client Matrix:	Solid	Prep Batch:	200-43130	Lab File ID:	09AUG121111_171.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10.46 g
Analysis Date:	08/09/2012 2035	Units:	ug/Kg	Final Weight/Volume:	100 mL
Prep Date:	08/08/2012 1440			Injection Volume:	450 uL
Leach Date:	N/A			Column ID:	SECONDARY

	Sample		Duplicate		Triplicate			
Analyte	Result	Qual	Result	Qual	Result	Qual	%RSD	Limit
1,3,5-Trinitrobenzene	69	J	72.5	J	65.6	J M	4	
4-Nitrotoluene	60	J	101		96.9		21	
3-Nitrotoluene	60	J	101		96.9	J	21	

Surrogate	% Rec	Acceptance Limits
1,2-Dinitrobenzene	95	40 - 140

Duplicate - Batch: 200-43130

Method: 8330B
Preparation: 8330

Lab Sample ID:	200-12041-7	Analysis Batch:	200-43162	Instrument ID:	CH1208
Client Matrix:	Solid	Prep Batch:	200-43130	Lab File ID:	09AUG121108_161.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	9.66 g
Analysis Date:	08/09/2012 2050	Units:	ug/Kg	Final Weight/Volume:	100 mL
Prep Date:	08/08/2012 1440			Injection Volume:	150 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
HMX	12	U	12	NC	20	U
RDX	12	U	12	NC	20	U
1,3,5-Trinitrobenzene	29	J	30.3	6	20	J

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Duplicate - Batch: 200-43130

Method: 8330B
Preparation: 8330

Lab Sample ID:	200-12041-7	Analysis Batch:	200-43162	Instrument ID:	CH1208
Client Matrix:	Solid	Prep Batch:	200-43130	Lab File ID:	09AUG121108_161.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	9.66 g
Analysis Date:	08/09/2012 2050	Units:	ug/Kg	Final Weight/Volume:	100 mL
Prep Date:	08/08/2012 1440			Injection Volume:	150 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
1,3-Dinitrobenzene	12	U	12	NC	20	U
Nitrobenzene	29	U	31	NC	20	U
Tetryl	24	U	25	NC	20	U
Nitroglycerin	710	U	750	NC	20	U
2,4,6-Trinitrotoluene	24	U	25	NC	20	U
4-Amino-2,6-dinitrotoluene	12	U	12	NC	20	U
2-Amino-4,6-dinitrotoluene	12	U	12	NC	20	U M
2,6-Dinitrotoluene	12	U	12	NC	20	U M
2,4-Dinitrotoluene	24	U	25	NC	20	U
2-Nitrotoluene	24	U	25	NC	20	U
4-Nitrotoluene	70	J	79.5	12	20	J M
3-Nitrotoluene	47	J	46.1	2	20	J M

Surrogate	% Rec		Acceptance Limits
1,2-Dinitrobenzene	90	M	40 - 140

Triplicate - Batch: 200-43130

Method: 8330B
Preparation: 8330

Lab Sample ID:	200-12041-7	Analysis Batch:	200-43162	Instrument ID:	CH1208
Client Matrix:	Solid	Prep Batch:	200-43130	Lab File ID:	09AUG121108_171.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10.46 g
Analysis Date:	08/09/2012 2127	Units:	ug/Kg	Final Weight/Volume:	100 mL
Prep Date:	08/08/2012 1440			Injection Volume:	150 uL
Leach Date:	N/A			Column ID:	PRIMARY

	Sample		Duplicate		Triplicate			
Analyte	Result	Qual	Result	Qual	Result	Qual	%RSD	Limit
HMX	12	U	12	U	11	U	NC	
RDX	12	U	12	U	11	U	NC	
1,3,5-Trinitrobenzene	29	J	30.3	J	31.4	J	4	
1,3-Dinitrobenzene	12	U	12	U	11	U	NC	
Nitrobenzene	29	U	31	U	29	U	NC	
Tetryl	24	U	25	U	23	U	NC	
Nitroglycerin	710	U	750	U	690	U	NC	
2,4,6-Trinitrotoluene	24	U	25	U	23	U	NC	
4-Amino-2,6-dinitrotoluene	12	U	12	U	11	U	NC	
2-Amino-4,6-dinitrotoluene	12	U	12	U	11	U M	NC	
2,6-Dinitrotoluene	12	U	12	U	11	U M	NC	
2,4-Dinitrotoluene	24	U	25	U	23	U	NC	
2-Nitrotoluene	24	U	25	U	23	U	NC	

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Triplicate - Batch: 200-43130

Method: 8330B
Preparation: 8330

Lab Sample ID:	200-12041-7	Analysis Batch:	200-43162	Instrument ID:	CH1208
Client Matrix:	Solid	Prep Batch:	200-43130	Lab File ID:	09AUG121108_171.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10.46 g
Analysis Date:	08/09/2012 2127	Units:	ug/Kg	Final Weight/Volume:	100 mL
Prep Date:	08/08/2012 1440			Injection Volume:	150 uL
Leach Date:	N/A			Column ID:	PRIMARY

	Sample		Duplicate		Triplicate			
Analyte	Result	Qual	Result	Qual	Result	Qual	%RSD	Limit
4-Nitrotoluene	70	J	79.5	J	77.1	J M	5	
3-Nitrotoluene	47	J	46.1	J	61.2	J M	13	

Surrogate	% Rec	Acceptance Limits
1,2-Dinitrobenzene	99	40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Method Blank - Batch: 200-43205

Method: 6010C
Preparation: 3050B

Lab Sample ID:	MB 200-43205/1-A	Analysis Batch:	200-43509	Instrument ID:	METICP7
Client Matrix:	Solid	Prep Batch:	200-43205	Lab File ID:	081512-04.ttx
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.00 g
Analysis Date:	08/16/2012 0315	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	08/09/2012 1100				
Leach Date:	N/A				

Analyte	Result	Qual	DL	LOQ
Silver	0.40	U	0.13	1.0
Barium	2.0	U	0.52	20
Calcium	150	U	51	500
Cadmium	0.25	U	0.080	0.50
Cobalt	0.30	U	0.081	5.0
Chromium	0.40	U	0.11	1.0
Iron	18	U	13	20
Potassium	50	U	15	500
Magnesium	50	U	14	500
Manganese	0.90	U	0.45	1.5
Sodium	25	U	7.5	500
Nickel	1.0	U	0.29	4.0
Lead	0.90	U	0.44	1.0
Antimony	1.5	U	0.49	6.0
Selenium	2.3	U	0.87	3.5
Thallium	1.5	U	0.41	2.5
Vanadium	0.50	U	0.13	5.0

Method Blank - Batch: 200-43205

Method: 6010C
Preparation: 3050B

Lab Sample ID:	MB 200-43205/1-A	Analysis Batch:	200-43690	Instrument ID:	METICP7
Client Matrix:	Solid	Prep Batch:	200-43205	Lab File ID:	082012-06.ttx
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.00 g
Analysis Date:	08/18/2012 1632	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	08/09/2012 1100				
Leach Date:	N/A				

Analyte	Result	Qual	DL	LOQ
Aluminum	18	U	17	20
Arsenic	0.90	U	0.56	1.0
Beryllium	0.13	U	0.032	0.50
Copper	0.80	U	0.22	2.5
Zinc	1.5	U	0.56	2.0

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Lab Control Sample - Batch: 200-43205

Method: 6010C
Preparation: 3050B

Lab Sample ID:	LCS 200-43205/2-A	Analysis Batch:	200-43509	Instrument ID:	METICP7
Client Matrix:	Solid	Prep Batch:	200-43205	Lab File ID:	081512-04.ttx
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.00 g
Analysis Date:	08/16/2012 0321	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	08/09/2012 1100				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Silver	25.0	29.0	116	80 - 120	
Barium	200	207	104	80 - 120	
Calcium	2000	2060	103	80 - 120	
Cadmium	25.0	25.7	103	80 - 120	
Cobalt	50.0	51.5	103	80 - 120	
Chromium	20.0	20.6	103	80 - 120	
Iron	100	109	109	80 - 120	
Potassium	2000	2100	105	80 - 120	
Magnesium	2000	2050	103	80 - 120	
Manganese	50.0	51.3	103	80 - 120	
Sodium	2000	2060	103	80 - 120	
Nickel	50.0	50.3	101	80 - 120	
Lead	22.0	23.1	105	80 - 120	
Antimony	50.0	51.4	103	80 - 120	
Selenium	25.0	25.5	102	80 - 120	
Thallium	25.0	24.4	98	80 - 120	
Vanadium	50.0	52.3	105	80 - 120	

Lab Control Sample - Batch: 200-43205

Method: 6010C
Preparation: 3050B

Lab Sample ID:	LCS 200-43205/2-A	Analysis Batch:	200-43690	Instrument ID:	METICP7
Client Matrix:	Solid	Prep Batch:	200-43205	Lab File ID:	082012-06.ttx
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.00 g
Analysis Date:	08/18/2012 1637	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	08/09/2012 1100				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	200	209	104	80 - 120	
Arsenic	24.0	24.9	104	80 - 120	
Beryllium	5.00	5.21	104	80 - 120	
Copper	25.0	25.3	101	80 - 120	
Zinc	50.0	49.9	100	80 - 120	

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Post Digestion Spike - Batch: 200-43205

Method: 6010C
Preparation: 3050B

Lab Sample ID:	200-12041-1	Analysis Batch:	200-43509	Instrument ID:	METICP7
Client Matrix:	Solid	Prep Batch:	200-43205	Lab File ID:	081512-04.ttx
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	2.04 g
Analysis Date:	08/16/2012 0407	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	08/09/2012 1100				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Silver	0.20	U	2.45	2.33	95	75 - 125	
Barium	5.0	J	98.0	100	97	75 - 125	
Calcium	310		98.0	306	-4	75 - 125	J
Cadmium	0.044	J	2.45	2.43	97	75 - 125	
Cobalt	0.58	J	24.5	24.5	98	75 - 125	
Chromium	4.6		9.80	14.1	97	75 - 125	
Iron	4800		49.0	4670	-173	75 - 125	J
Potassium	270		98.0	367	100	75 - 125	
Magnesium	490		98.0	546	58	75 - 125	J
Manganese	35		24.5	58.1	94	75 - 125	
Sodium	59	J	98.0	165	108	75 - 125	J
Nickel	1.8	J	24.5	25.2	95	75 - 125	
Lead	4.6		0.980	5.64	105	75 - 125	
Antimony	0.74	U	24.5	24.1	98	75 - 125	
Selenium	1.1	U	2.45	2.73	112	75 - 125	
Thallium	0.74	U	2.45	1.97	80	75 - 125	
Vanadium	8.0		24.5	31.8	97	75 - 125	

Post Digestion Spike - Batch: 200-43205

Method: 6010C
Preparation: 3050B

Lab Sample ID:	200-12041-1	Analysis Batch:	200-43690	Instrument ID:	METICP7
Client Matrix:	Solid	Prep Batch:	200-43205	Lab File ID:	082012-06.ttx
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	2.04 g
Analysis Date:	08/18/2012 1653	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	08/09/2012 1100				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	3800		98.0	3810	-2	75 - 125	J
Arsenic	2.1		1.96	3.90	90	75 - 125	
Beryllium	0.10	J	2.45	2.55	100	75 - 125	
Copper	1.5		12.3	13.2	96	75 - 125	
Zinc	9.0		24.5	31.9	93	75 - 125	

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Serial Dilution - Batch: 200-43205

Method: 6010C
Preparation: 3050B

Lab Sample ID:	200-12041-1	Analysis Batch:	200-43509	Instrument ID:	METICP7
Client Matrix:	Solid	Prep Batch:	200-43205	Lab File ID:	081512-04.ttx
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	2.04 g
Analysis Date:	08/16/2012 0402	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	08/09/2012 1100				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	%Diff	Limit	Qual
Silver	0.20	U	0.98	NC	10	U
Barium	5.0	J	5.03	NC	10	J D
Calcium	310		307	NC	10	J D
Cadmium	0.044	J	0.61	NC	10	U
Cobalt	0.58	J	0.638	NC	10	J D
Chromium	4.6		4.79	4.8	10	D
Iron	4800		5260	11	10	D V
Potassium	270		295	NC	10	J D
Magnesium	490		524	6.9	10	J D
Manganese	35		38.5	9.5	10	D
Sodium	59	J	71.8	NC	10	J D
Nickel	1.8	J	1.83	NC	10	J D
Lead	4.6		4.48	NC	10	D
Antimony	0.74	U	3.7	NC	10	U
Selenium	1.1	U	5.6	NC	10	U
Thallium	0.74	U	3.7	NC	10	U
Vanadium	8.0		8.66	8.4	10	J D

Serial Dilution - Batch: 200-43205

Method: 6010C
Preparation: 3050B

Lab Sample ID:	200-12041-1	Analysis Batch:	200-43690	Instrument ID:	METICP7
Client Matrix:	Solid	Prep Batch:	200-43205	Lab File ID:	082012-06.ttx
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	2.04 g
Analysis Date:	08/18/2012 1648	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	08/09/2012 1100				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	%Diff	Limit	Qual
Aluminum	3800		4020	5.3	10	D
Arsenic	2.1		2.02	NC	10	J D
Beryllium	0.10	J	0.0939	NC	10	J D
Copper	1.5		1.60	NC	10	J D
Zinc	9.0		9.36	NC	10	D

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Method Blank - Batch: 200-43602

Method: 7471B
Preparation: 7471B

Lab Sample ID:	MB 200-43602/11-A	Analysis Batch:	200-43668	Instrument ID:	MEPCV3 II
Client Matrix:	Solid	Prep Batch:	200-43602	Lab File ID:	082012BB.PRN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.30 g
Analysis Date:	08/20/2012 1222	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	08/20/2012 0900				
Leach Date:	N/A				

Analyte	Result	Qual	DL	LOQ
Mercury	0.0038	U	0.0022	0.033

Lab Control Sample - Batch: 200-43602

Method: 7471B
Preparation: 7471B

Lab Sample ID:	LCS 200-43602/12-A	Analysis Batch:	200-43668	Instrument ID:	MEPCV3 II
Client Matrix:	Solid	Prep Batch:	200-43602	Lab File ID:	082012BB.PRN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.30 g
Analysis Date:	08/20/2012 1225	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	08/20/2012 0900				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.167	0.145	87	80 - 120	

Matrix Spike - Batch: 200-43602

Method: 7471B
Preparation: 7471B

Lab Sample ID:	200-12041-1	Analysis Batch:	200-43668	Instrument ID:	MEPCV3 II
Client Matrix:	Solid	Prep Batch:	200-43602	Lab File ID:	082012BB.PRN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.30 g
Analysis Date:	08/20/2012 1233	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	08/20/2012 0900				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.0037	U	0.167	0.160	96	80 - 120	

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Duplicate - Batch: 200-43602

Method: 7471B
Preparation: 7471B

Lab Sample ID:	200-12041-1	Analysis Batch:	200-43668	Instrument ID:	MEPCV3 II
Client Matrix:	Solid	Prep Batch:	200-43602	Lab File ID:	082012BB.PRN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.30 g
Analysis Date:	08/20/2012 1231	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	08/20/2012 0900				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Mercury	0.0037	U	0.0038	NC	20	U

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Duplicate - Batch: 200-43017

Method: 9045D
Preparation: N/A

Lab Sample ID:	200-12041-7	Analysis Batch:	200-43017	Instrument ID:	WCpHmeter
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	40 mL
Analysis Date:	08/07/2012 1050	Units:	SU	Final Weight/Volume:	40 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
pH	4.28	4.300	0.5	5	

DATA REPORTING QUALIFIERS

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

Lab Section	Qualifier	Description
HPLC/IC		
	J	Estimated: The analyte was positively identified; the quantitation is an estimation
	J	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
	M	Manual integrated compound.
	U	Undetected at the Limit of Detection.
Metals		
	J	Estimated: The analyte was positively identified; the quantitation is an estimation
	J	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
	V	Serial Dilution exceeds the control limits
	D	The reported value is from a dilution.
	U	Undetected at the Limit of Detection.
General Chemistry		
	HF	Field parameter with a holding time of 15 minutes

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 200-43205					
LCS 200-43205/2-A	Lab Control Sample	T	Solid	3050B	
MB 200-43205/1-A	Method Blank	T	Solid	3050B	
200-12041-1	NFUDS-002-ISG02-01	T	Solid	3050B	
200-12041-2	NFUDS-002-ISG04-01	T	Solid	3050B	
200-12041-3	NFUDS-002-ISG08-01	T	Solid	3050B	
200-12041-4	NFUDS-002-ISG08-R1	T	Solid	3050B	
200-12041-5	NFUDS-002-ISG08-R2	T	Solid	3050B	
200-12041-6	NFUDS-002-ISG09-01	T	Solid	3050B	
200-12041-7	NFUDS-002-ISG12-01	T	Solid	3050B	
Analysis Batch:200-43509					
LCS 200-43205/2-A	Lab Control Sample	T	Solid	6010C	200-43205
MB 200-43205/1-A	Method Blank	T	Solid	6010C	200-43205
200-12041-1	NFUDS-002-ISG02-01	T	Solid	6010C	200-43205
200-12041-2	NFUDS-002-ISG04-01	T	Solid	6010C	200-43205
200-12041-3	NFUDS-002-ISG08-01	T	Solid	6010C	200-43205
200-12041-4	NFUDS-002-ISG08-R1	T	Solid	6010C	200-43205
200-12041-5	NFUDS-002-ISG08-R2	T	Solid	6010C	200-43205
200-12041-6	NFUDS-002-ISG09-01	T	Solid	6010C	200-43205
200-12041-7	NFUDS-002-ISG12-01	T	Solid	6010C	200-43205
Prep Batch: 200-43602					
LCS 200-43602/12-A	Lab Control Sample	T	Solid	7471B	
MB 200-43602/11-A	Method Blank	T	Solid	7471B	
200-12041-1	NFUDS-002-ISG02-01	T	Solid	7471B	
200-12041-1DU	Duplicate	T	Solid	7471B	
200-12041-1MS	Matrix Spike	T	Solid	7471B	
200-12041-2	NFUDS-002-ISG04-01	T	Solid	7471B	
200-12041-3	NFUDS-002-ISG08-01	T	Solid	7471B	
200-12041-4	NFUDS-002-ISG08-R1	T	Solid	7471B	
200-12041-5	NFUDS-002-ISG08-R2	T	Solid	7471B	
200-12041-6	NFUDS-002-ISG09-01	T	Solid	7471B	
200-12041-7	NFUDS-002-ISG12-01	T	Solid	7471B	

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:200-43668					
LCS 200-43602/12-A	Lab Control Sample	T	Solid	7471B	200-43602
MB 200-43602/11-A	Method Blank	T	Solid	7471B	200-43602
200-12041-1	NFUDS-002-ISG02-01	T	Solid	7471B	200-43602
200-12041-1DU	Duplicate	T	Solid	7471B	200-43602
200-12041-1MS	Matrix Spike	T	Solid	7471B	200-43602
200-12041-2	NFUDS-002-ISG04-01	T	Solid	7471B	200-43602
200-12041-3	NFUDS-002-ISG08-01	T	Solid	7471B	200-43602
200-12041-4	NFUDS-002-ISG08-R1	T	Solid	7471B	200-43602
200-12041-5	NFUDS-002-ISG08-R2	T	Solid	7471B	200-43602
200-12041-6	NFUDS-002-ISG09-01	T	Solid	7471B	200-43602
200-12041-7	NFUDS-002-ISG12-01	T	Solid	7471B	200-43602
Analysis Batch:200-43690					
LCS 200-43205/2-A	Lab Control Sample	T	Solid	6010C	200-43205
MB 200-43205/1-A	Method Blank	T	Solid	6010C	200-43205
200-12041-1	NFUDS-002-ISG02-01	T	Solid	6010C	200-43205
200-12041-2	NFUDS-002-ISG04-01	T	Solid	6010C	200-43205
200-12041-3	NFUDS-002-ISG08-01	T	Solid	6010C	200-43205
200-12041-4	NFUDS-002-ISG08-R1	T	Solid	6010C	200-43205
200-12041-5	NFUDS-002-ISG08-R2	T	Solid	6010C	200-43205
200-12041-6	NFUDS-002-ISG09-01	T	Solid	6010C	200-43205
200-12041-7	NFUDS-002-ISG12-01	T	Solid	6010C	200-43205

Report Basis
T = Total

General Chemistry

Analysis Batch:200-43017					
LCS 200-43017/4	Lab Control Sample	T	Solid	9045D	
200-12041-1	NFUDS-002-ISG02-01	T	Solid	9045D	
200-12041-2	NFUDS-002-ISG04-01	T	Solid	9045D	
200-12041-3	NFUDS-002-ISG08-01	T	Solid	9045D	
200-12041-4	NFUDS-002-ISG08-R1	T	Solid	9045D	
200-12041-5	NFUDS-002-ISG08-R2	T	Solid	9045D	
200-12041-6	NFUDS-002-ISG09-01	T	Solid	9045D	
200-12041-7	NFUDS-002-ISG12-01	T	Solid	9045D	
200-12041-7DU	Duplicate	T	Solid	9045D	

Report Basis
T = Total

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
Sdg Number: 200-12041-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
HPLC/IC					
Prep Batch: 200-43130					
GB 200-43003/5-B	Grinding Blank	T	Solid	8330	
LCS 200-43130/18-A	Lab Control Sample	T	Solid	8330	
MB 200-43130/17-A	Method Blank	T	Solid	8330	
200-12041-1	NFUDS-002-ISG02-01	T	Solid	8330	
200-12041-2	NFUDS-002-ISG04-01	T	Solid	8330	
200-12041-3	NFUDS-002-ISG08-01	T	Solid	8330	
200-12041-4	NFUDS-002-ISG08-R1	T	Solid	8330	
200-12041-5	NFUDS-002-ISG08-R2	T	Solid	8330	
200-12041-6	NFUDS-002-ISG09-01	T	Solid	8330	
200-12041-7	NFUDS-002-ISG12-01	T	Solid	8330	
200-12041-7DU	Duplicate	T	Solid	8330	
200-12041-7TRL	Triplicate	T	Solid	8330	
Analysis Batch:200-43162					
GB 200-43003/5-B	Grinding Blank	T	Solid	8330B	200-43130
LCS 200-43130/18-A	Lab Control Sample	T	Solid	8330B	200-43130
MB 200-43130/17-A	Method Blank	T	Solid	8330B	200-43130
200-12041-1	NFUDS-002-ISG02-01	T	Solid	8330B	200-43130
200-12041-2	NFUDS-002-ISG04-01	T	Solid	8330B	200-43130
200-12041-3	NFUDS-002-ISG08-01	T	Solid	8330B	200-43130
200-12041-4	NFUDS-002-ISG08-R1	T	Solid	8330B	200-43130
200-12041-5	NFUDS-002-ISG08-R2	T	Solid	8330B	200-43130
200-12041-6	NFUDS-002-ISG09-01	T	Solid	8330B	200-43130
200-12041-7	NFUDS-002-ISG12-01	T	Solid	8330B	200-43130
200-12041-7DU	Duplicate	T	Solid	8330B	200-43130
200-12041-7TRL	Triplicate	T	Solid	8330B	200-43130
Analysis Batch:200-43164					
GB 200-43003/5-B	Grinding Blank	T	Solid	8330B	200-43130
LCS 200-43130/18-A	Lab Control Sample	T	Solid	8330B	200-43130
MB 200-43130/17-A	Method Blank	T	Solid	8330B	200-43130
200-12041-1	NFUDS-002-ISG02-01	T	Solid	8330B	200-43130
200-12041-2	NFUDS-002-ISG04-01	T	Solid	8330B	200-43130
200-12041-3	NFUDS-002-ISG08-01	T	Solid	8330B	200-43130
200-12041-4	NFUDS-002-ISG08-R1	T	Solid	8330B	200-43130
200-12041-5	NFUDS-002-ISG08-R2	T	Solid	8330B	200-43130
200-12041-6	NFUDS-002-ISG09-01	T	Solid	8330B	200-43130
200-12041-7	NFUDS-002-ISG12-01	T	Solid	8330B	200-43130
200-12041-7DU	Duplicate	T	Solid	8330B	200-43130
200-12041-7TRL	Triplicate	T	Solid	8330B	200-43130

Report Basis
T = Total

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
SDG: 200-12041-1

Laboratory Chronicle

Lab ID: 200-12041-1 **Client ID:** NFUDS-002-ISG02-01

Sample Date/Time: 07/31/2012 15:00 Received Date/Time: 08/02/2012 10:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330	200-12041-A-1-B		200-43164	200-43130	08/08/2012 14:40	1	TAL BUR	EAN
A:8330B	200-12041-A-1-B		200-43164	200-43130	08/09/2012 15:28	1	TAL BUR	WBR
P:8330	200-12041-A-1-B		200-43162	200-43130	08/08/2012 14:40	1	TAL BUR	EAN
A:8330B	200-12041-A-1-B		200-43162	200-43130	08/09/2012 15:50	1	TAL BUR	WBR
P:3050B	200-12041-A-1-C		200-43509	200-43205	08/09/2012 11:00	1	TAL BUR	VTP
A:6010C	200-12041-A-1-C		200-43509	200-43205	08/16/2012 03:56	1	TAL BUR	ETK
P:3050B	200-12041-A-1-C		200-43690	200-43205	08/09/2012 11:00	1	TAL BUR	VTP
A:6010C	200-12041-A-1-C		200-43690	200-43205	08/18/2012 16:43	1	TAL BUR	BL
P:7471B	200-12041-A-1-E		200-43668	200-43602	08/20/2012 09:00	1	TAL BUR	VTP
A:7471B	200-12041-A-1-E		200-43668	200-43602	08/20/2012 12:28	1	TAL BUR	VTP
A:9045D	200-12041-A-1		200-43017		08/07/2012 10:50	1	TAL BUR	AJN

Lab ID: 200-12041-1 MS **Client ID:** NFUDS-002-ISG02-01

Sample Date/Time: 07/31/2012 15:00 Received Date/Time: 08/02/2012 10:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:7471B	200-12041-A-1-G MS		200-43668	200-43602	08/20/2012 09:00	1	TAL BUR	VTP
A:7471B	200-12041-A-1-G MS		200-43668	200-43602	08/20/2012 12:33	1	TAL BUR	VTP

Lab ID: 200-12041-1 DU **Client ID:** NFUDS-002-ISG02-01

Sample Date/Time: 07/31/2012 15:00 Received Date/Time: 08/02/2012 10:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:7471B	200-12041-A-1-F DU		200-43668	200-43602	08/20/2012 09:00	1	TAL BUR	VTP
A:7471B	200-12041-A-1-F DU		200-43668	200-43602	08/20/2012 12:31	1	TAL BUR	VTP

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
SDG: 200-12041-1

Laboratory Chronicle

Lab ID: 200-12041-1 SD **Client ID:** NFUDS-002-ISG02-01

Sample Date/Time: 07/31/2012 15:00 Received Date/Time: 08/02/2012 10:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3050B	200-12041-A-1-C SD ^5		200-43509	200-43205	08/09/2012 11:00	5	TAL BUR	VTP
A:6010C	200-12041-A-1-C SD ^5		200-43509	200-43205	08/16/2012 04:02	5	TAL BUR	ETK
P:3050B	200-12041-A-1-C PDS		200-43509	200-43205	08/09/2012 11:00	1	TAL BUR	VTP
A:6010C	200-12041-A-1-C PDS		200-43509	200-43205	08/16/2012 04:07	1	TAL BUR	ETK
P:3050B	200-12041-A-1-C SD ^5		200-43690	200-43205	08/09/2012 11:00	5	TAL BUR	VTP
A:6010C	200-12041-A-1-C SD ^5		200-43690	200-43205	08/18/2012 16:48	5	TAL BUR	BL
P:3050B	200-12041-A-1-C PDS		200-43690	200-43205	08/09/2012 11:00	1	TAL BUR	VTP
A:6010C	200-12041-A-1-C PDS		200-43690	200-43205	08/18/2012 16:53	1	TAL BUR	BL

Lab ID: 200-12041-2 **Client ID:** NFUDS-002-ISG04-01

Sample Date/Time: 08/01/2012 08:00 Received Date/Time: 08/02/2012 10:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330	200-12041-A-2-B		200-43164	200-43130	08/08/2012 14:40	1	TAL BUR	EAN
A:8330B	200-12041-A-2-B		200-43164	200-43130	08/09/2012 16:02	1	TAL BUR	WBR
P:8330	200-12041-A-2-B		200-43162	200-43130	08/08/2012 14:40	1	TAL BUR	EAN
A:8330B	200-12041-A-2-B		200-43162	200-43130	08/09/2012 16:28	1	TAL BUR	WBR
P:3050B	200-12041-A-2-C		200-43509	200-43205	08/09/2012 11:00	1	TAL BUR	VTP
A:6010C	200-12041-A-2-C		200-43509	200-43205	08/16/2012 04:30	1	TAL BUR	ETK
P:3050B	200-12041-A-2-C		200-43690	200-43205	08/09/2012 11:00	1	TAL BUR	VTP
A:6010C	200-12041-A-2-C		200-43690	200-43205	08/18/2012 16:58	1	TAL BUR	BL
P:7471B	200-12041-A-2-E		200-43668	200-43602	08/20/2012 09:00	1	TAL BUR	VTP
A:7471B	200-12041-A-2-E		200-43668	200-43602	08/20/2012 12:55	1	TAL BUR	VTP
A:9045D	200-12041-A-2		200-43017		08/07/2012 10:50	1	TAL BUR	AJN

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
SDG: 200-12041-1

Laboratory Chronicle

Lab ID: 200-12041-3 **Client ID:** NFUDS-002-ISG08-01

Sample Date/Time: 07/31/2012 15:40 Received Date/Time: 08/02/2012 10:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330	200-12041-A-3-B		200-43164	200-43130	08/08/2012 14:40	1	TAL BUR	EAN
A:8330B	200-12041-A-3-B		200-43164	200-43130	08/09/2012 16:36	1	TAL BUR	WBR
P:8330	200-12041-A-3-B		200-43162	200-43130	08/08/2012 14:40	1	TAL BUR	EAN
A:8330B	200-12041-A-3-B		200-43162	200-43130	08/09/2012 17:05	1	TAL BUR	WBR
P:3050B	200-12041-A-3-C		200-43509	200-43205	08/09/2012 11:00	1	TAL BUR	VTP
A:6010C	200-12041-A-3-C		200-43509	200-43205	08/16/2012 04:36	1	TAL BUR	ETK
P:3050B	200-12041-A-3-C		200-43690	200-43205	08/09/2012 11:00	1	TAL BUR	VTP
A:6010C	200-12041-A-3-C		200-43690	200-43205	08/18/2012 17:03	1	TAL BUR	BL
P:7471B	200-12041-A-3-E		200-43668	200-43602	08/20/2012 09:00	1	TAL BUR	VTP
A:7471B	200-12041-A-3-E		200-43668	200-43602	08/20/2012 12:37	1	TAL BUR	VTP
A:9045D	200-12041-A-3		200-43017		08/07/2012 10:50	1	TAL BUR	AJN

Lab ID: 200-12041-4 **Client ID:** NFUDS-002-ISG08-R1

Sample Date/Time: 08/01/2012 14:45 Received Date/Time: 08/02/2012 10:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330	200-12041-A-4-B		200-43164	200-43130	08/08/2012 14:40	1	TAL BUR	EAN
A:8330B	200-12041-A-4-B		200-43164	200-43130	08/09/2012 17:44	1	TAL BUR	WBR
P:8330	200-12041-A-4-B		200-43162	200-43130	08/08/2012 14:40	1	TAL BUR	EAN
A:8330B	200-12041-A-4-B		200-43162	200-43130	08/09/2012 18:20	1	TAL BUR	WBR
P:3050B	200-12041-A-4-C		200-43509	200-43205	08/09/2012 11:00	1	TAL BUR	VTP
A:6010C	200-12041-A-4-C		200-43509	200-43205	08/16/2012 04:41	1	TAL BUR	ETK
P:3050B	200-12041-A-4-C		200-43690	200-43205	08/09/2012 11:00	1	TAL BUR	VTP
A:6010C	200-12041-A-4-C		200-43690	200-43205	08/18/2012 17:08	1	TAL BUR	BL
P:7471B	200-12041-A-4-E		200-43668	200-43602	08/20/2012 09:00	1	TAL BUR	VTP
A:7471B	200-12041-A-4-E		200-43668	200-43602	08/20/2012 12:39	1	TAL BUR	VTP
A:9045D	200-12041-A-4		200-43017		08/07/2012 10:50	1	TAL BUR	AJN

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
SDG: 200-12041-1

Laboratory Chronicle

Lab ID: 200-12041-5 **Client ID:** NFUDS-002-ISG08-R2

Sample Date/Time: 08/01/2012 15:15 Received Date/Time: 08/02/2012 10:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330	200-12041-A-5-B		200-43164	200-43130	08/08/2012 14:40	1	TAL BUR	EAN
A:8330B	200-12041-A-5-B		200-43164	200-43130	08/09/2012 18:19	1	TAL BUR	WBR
P:8330	200-12041-A-5-B		200-43162	200-43130	08/08/2012 14:40	1	TAL BUR	EAN
A:8330B	200-12041-A-5-B		200-43162	200-43130	08/09/2012 18:57	1	TAL BUR	WBR
P:3050B	200-12041-A-5-C		200-43509	200-43205	08/09/2012 11:00	1	TAL BUR	VTP
A:6010C	200-12041-A-5-C		200-43509	200-43205	08/16/2012 04:47	1	TAL BUR	ETK
P:3050B	200-12041-A-5-C		200-43690	200-43205	08/09/2012 11:00	1	TAL BUR	VTP
A:6010C	200-12041-A-5-C		200-43690	200-43205	08/18/2012 17:13	1	TAL BUR	BL
P:7471B	200-12041-A-5-E		200-43668	200-43602	08/20/2012 09:00	1	TAL BUR	VTP
A:7471B	200-12041-A-5-E		200-43668	200-43602	08/20/2012 12:41	1	TAL BUR	VTP
A:9045D	200-12041-A-5		200-43017		08/07/2012 10:50	1	TAL BUR	AJN

Lab ID: 200-12041-6 **Client ID:** NFUDS-002-ISG09-01

Sample Date/Time: 07/31/2012 17:01 Received Date/Time: 08/02/2012 10:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330	200-12041-A-6-B		200-43164	200-43130	08/08/2012 14:40	1	TAL BUR	EAN
A:8330B	200-12041-A-6-B		200-43164	200-43130	08/09/2012 18:53	1	TAL BUR	WBR
P:8330	200-12041-A-6-B		200-43162	200-43130	08/08/2012 14:40	1	TAL BUR	EAN
A:8330B	200-12041-A-6-B		200-43162	200-43130	08/09/2012 19:35	1	TAL BUR	WBR
P:3050B	200-12041-A-6-C		200-43509	200-43205	08/09/2012 11:00	1	TAL BUR	VTP
A:6010C	200-12041-A-6-C		200-43509	200-43205	08/16/2012 04:52	1	TAL BUR	ETK
P:3050B	200-12041-A-6-C		200-43690	200-43205	08/09/2012 11:00	1	TAL BUR	VTP
A:6010C	200-12041-A-6-C		200-43690	200-43205	08/18/2012 17:18	1	TAL BUR	BL
P:7471B	200-12041-A-6-E		200-43668	200-43602	08/20/2012 09:00	1	TAL BUR	VTP
A:7471B	200-12041-A-6-E		200-43668	200-43602	08/20/2012 12:50	1	TAL BUR	VTP
A:9045D	200-12041-A-6		200-43017		08/07/2012 10:50	1	TAL BUR	AJN

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
SDG: 200-12041-1

Laboratory Chronicle

Lab ID: 200-12041-7 **Client ID:** NFUDS-002-ISG12-01

Sample Date/Time: 08/01/2012 11:45 Received Date/Time: 08/02/2012 10:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330	200-12041-A-7-D		200-43164	200-43130	08/08/2012 14:40	1	TAL BUR	EAN
A:8330B	200-12041-A-7-D		200-43164	200-43130	08/09/2012 19:27	1	TAL BUR	WBR
P:8330	200-12041-A-7-D		200-43162	200-43130	08/08/2012 14:40	1	TAL BUR	EAN
A:8330B	200-12041-A-7-D		200-43162	200-43130	08/09/2012 20:12	1	TAL BUR	WBR
P:3050B	200-12041-A-7-G		200-43509	200-43205	08/09/2012 11:00	1	TAL BUR	VTP
A:6010C	200-12041-A-7-G		200-43509	200-43205	08/16/2012 04:58	1	TAL BUR	ETK
P:3050B	200-12041-A-7-G		200-43690	200-43205	08/09/2012 11:00	1	TAL BUR	VTP
A:6010C	200-12041-A-7-G		200-43690	200-43205	08/18/2012 17:39	1	TAL BUR	BL
P:7471B	200-12041-A-7-I		200-43668	200-43602	08/20/2012 09:00	1	TAL BUR	VTP
A:7471B	200-12041-A-7-I		200-43668	200-43602	08/20/2012 12:53	1	TAL BUR	VTP
A:9045D	200-12041-A-7		200-43017		08/07/2012 10:50	1	TAL BUR	AJN

Lab ID: 200-12041-7 **Client ID:** NFUDS-002-ISG12-01

Sample Date/Time: 08/01/2012 11:45 Received Date/Time: 08/02/2012 10:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330	200-12041-A-7-E DU		200-43164	200-43130	08/08/2012 14:40	1	TAL BUR	EAN
A:8330B	200-12041-A-7-E DU		200-43164	200-43130	08/09/2012 20:01	1	TAL BUR	WBR
P:8330	200-12041-A-7-E DU		200-43162	200-43130	08/08/2012 14:40	1	TAL BUR	EAN
A:8330B	200-12041-A-7-E DU		200-43162	200-43130	08/09/2012 20:50	1	TAL BUR	WBR
A:9045D	200-12041-A-7 DU		200-43017		08/07/2012 10:50	1	TAL BUR	AJN

Lab ID: 200-12041-7 **Client ID:** NFUDS-002-ISG12-01

Sample Date/Time: 08/01/2012 11:45 Received Date/Time: 08/02/2012 10:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330	200-12041-A-7-F TRL		200-43164	200-43130	08/08/2012 14:40	1	TAL BUR	EAN
A:8330B	200-12041-A-7-F TRL		200-43164	200-43130	08/09/2012 20:35	1	TAL BUR	WBR
P:8330	200-12041-A-7-F TRL		200-43162	200-43130	08/08/2012 14:40	1	TAL BUR	EAN
A:8330B	200-12041-A-7-F TRL		200-43162	200-43130	08/09/2012 21:27	1	TAL BUR	WBR

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
SDG: 200-12041-1

Laboratory Chronicle

Lab ID: MB **Client ID:** N/A

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330	MB 200-43130/17-A		200-43164	200-43130	08/08/2012 14:40	1	TAL BUR	EAN
A:8330B	MB 200-43130/17-A		200-43164	200-43130	08/09/2012 12:36	1	TAL BUR	WBR
P:8330	MB 200-43130/17-A		200-43162	200-43130	08/08/2012 14:40	1	TAL BUR	EAN
A:8330B	MB 200-43130/17-A		200-43162	200-43130	08/09/2012 12:43	1	TAL BUR	WBR
P:3050B	MB 200-43205/1-A		200-43509	200-43205	08/09/2012 11:00	1	TAL BUR	VTP
A:6010C	MB 200-43205/1-A		200-43509	200-43205	08/16/2012 03:15	1	TAL BUR	ETK
P:3050B	MB 200-43205/1-A		200-43690	200-43205	08/09/2012 11:00	1	TAL BUR	VTP
A:6010C	MB 200-43205/1-A		200-43690	200-43205	08/18/2012 16:32	1	TAL BUR	BL
P:7471B	MB 200-43602/11-A		200-43668	200-43602	08/20/2012 09:00	1	TAL BUR	VTP
A:7471B	MB 200-43602/11-A		200-43668	200-43602	08/20/2012 12:22	1	TAL BUR	VTP

Lab ID: GB **Client ID:** N/A

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330	GB 200-43003/5-B		200-43164	200-43130	08/08/2012 14:40	1	TAL BUR	EAN
A:8330B	GB 200-43003/5-B		200-43164	200-43130	08/09/2012 13:45	1	TAL BUR	WBR
P:8330	GB 200-43003/5-B		200-43162	200-43130	08/08/2012 14:40	1	TAL BUR	EAN
A:8330B	GB 200-43003/5-B		200-43162	200-43130	08/09/2012 13:58	1	TAL BUR	WBR

Lab ID: LCS **Client ID:** N/A

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330	LCS 200-43130/18-A		200-43164	200-43130	08/08/2012 14:40	1	TAL BUR	EAN
A:8330B	LCS 200-43130/18-A		200-43164	200-43130	08/09/2012 13:11	1	TAL BUR	WBR
P:8330	LCS 200-43130/18-A		200-43162	200-43130	08/08/2012 14:40	1	TAL BUR	EAN
A:8330B	LCS 200-43130/18-A		200-43162	200-43130	08/09/2012 13:20	1	TAL BUR	WBR
P:3050B	LCS 200-43205/2-A		200-43509	200-43205	08/09/2012 11:00	1	TAL BUR	VTP
A:6010C	LCS 200-43205/2-A		200-43509	200-43205	08/16/2012 03:21	1	TAL BUR	ETK
P:3050B	LCS 200-43205/2-A		200-43690	200-43205	08/09/2012 11:00	1	TAL BUR	VTP
A:6010C	LCS 200-43205/2-A		200-43690	200-43205	08/18/2012 16:37	1	TAL BUR	BL
P:7471B	LCS 200-43602/12-A		200-43668	200-43602	08/20/2012 09:00	1	TAL BUR	VTP
A:7471B	LCS 200-43602/12-A		200-43668	200-43602	08/20/2012 12:25	1	TAL BUR	VTP
A:9045D	LCS 200-43017/4		200-43017		08/07/2012 10:50	1	TAL BUR	AJN

Lab References:
TAL BUR = TestAmerica Burlington

Certification Summary

Client: Weston Solutions, Inc.
Project/Site: Nantucket Beach FUDS

TestAmerica Job ID: 200-12041-1
SDG: 200-12041-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Burlington	ACLASS	DoD ELAP		ADE-1492
TestAmerica Burlington	Connecticut	State Program	1	PH-0751
TestAmerica Burlington	DE Haz. Subst. Cleanup Act	State Program	3	NA
TestAmerica Burlington	Florida	NELAC	4	E87467
TestAmerica Burlington	Louisiana	NELAC	6	176292
TestAmerica Burlington	Maine	State Program	1	VT00008
TestAmerica Burlington	Minnesota	NELAC	5	050-999-436
TestAmerica Burlington	New Hampshire	NELAC	1	200610
TestAmerica Burlington	New Jersey	NELAC	2	VT972
TestAmerica Burlington	New York	NELAC	2	10391
TestAmerica Burlington	Pennsylvania	NELAC	3	68-00489
TestAmerica Burlington	Rhode Island	State Program	1	LAO00298
TestAmerica Burlington	USDA	Federal		P330-11-00093
TestAmerica Burlington	Vermont	State Program	1	VT-4000
TestAmerica Burlington	Virginia	NELAC	3	460209

Accreditation may not be offered or required for all methods and analytes reported in this package Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method 8330B

Nitroaromatics and Nitramines (HPLC) by Method 8330B

FORM II
HPLC/IC SURROGATE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Matrix: Solid Level: Low

GC Column (1): C-18 ID: 4.6 (mm) GC Column (2): Biphenyl 4.6 (mm)

Client Sample ID	Lab Sample ID	12DNB2 #	12DNB1 #
NFUDS-002-ISG02-01	200-12041-1		104
NFUDS-002-ISG02-01	200-12041-1	104 M	
NFUDS-002-ISG04-01	200-12041-2		97 M
NFUDS-002-ISG04-01	200-12041-2	95 M	
NFUDS-002-ISG08-01	200-12041-3		101 M
NFUDS-002-ISG08-01	200-12041-3	98 M	
NFUDS-002-ISG08-R1	200-12041-4		101 M
NFUDS-002-ISG08-R1	200-12041-4	99 M	
NFUDS-002-ISG08-R2	200-12041-5		101 M
NFUDS-002-ISG08-R2	200-12041-5	106 M	
NFUDS-002-ISG09-01	200-12041-6		94 M
NFUDS-002-ISG09-01	200-12041-6	92	
NFUDS-002-ISG12-01	200-12041-7		91 M
NFUDS-002-ISG12-01	200-12041-7	92	
	MB 200-43130/17-A		101
	MB 200-43130/17-A	103	
	GB 200-43003/5-B		97
	GB 200-43003/5-B	97	
	LCS 200-43130/18-A		100
	LCS 200-43130/18-A	96	
NFUDS-002-ISG12-01 DU	200-12041-7 DU		90 M
NFUDS-002-ISG12-01 DU	200-12041-7 DU	94	
NFUDS-002-ISG12-01 TRL	200-12041-7 TRL		99
NFUDS-002-ISG12-01 TRL	200-12041-7 TRL	95	

	QC LIMITS
12DNB = 1,2-Dinitrobenzene	40-140

Column to be used to flag recovery values

FORM II 8330B

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Matrix: Solid Level: Low Lab File ID: 09AUG121108_041.d

Lab ID: LCS 200-43130/18-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
HMX	2000	2130	106	75-120	
RDX	2000	2150	107	75-120	
1,3,5-Trinitrobenzene	2000	2130	106	75-120	
1,3-Dinitrobenzene	2000	2150	107	75-120	
Nitrobenzene	2000	2120	106	75-125	
Tetryl	2000	2100	105	80-115	J
Nitroglycerin	40100	41500	104	60-150	
2,4,6-Trinitrotoluene	2000	2130	106	85-110	
4-Amino-2,6-dinitrotoluene	2000	2140	107	80-120	
2-Amino-4,6-dinitrotoluene	2000	2180	109	75-125	
2,6-Dinitrotoluene	2000	2050	102	75-125	
2,4-Dinitrotoluene	2000	2240	112	60-130	J
2-Nitrotoluene	2000	2070	104	70-125	
4-Nitrotoluene	2000	2160	108	65-135	J M
3-Nitrotoluene	2000	2080	104	60-135	J

Column to be used to flag recovery and RPD values

FORM III 8330B

HPLC/IC TRIPLICATE SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Matrix: Solid Level: Low Lab File ID: 09AUG121111_171.d

Lab ID: 200-12041-7 TRL Client ID: NFUDS-002-ISG12-01 TRL

COMPOUND	SAMPLE CONC. (ug/Kg)	DUPLICATE CONC. (ug/Kg)	TRIPLICATE CONC. (ug/Kg)	%RSD	%RSD LIMIT	#
1,3,5-Trinitrobenzene	69 J	72.5 J	65.6 J	4		J M
4-Nitrotoluene	60 J	101	96.9	21		
3-Nitrotoluene	60 J	101	96.9	21		J

Column to be used to flag %RSD values

8330B

HPLC/IC TRIPLICATE SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Matrix: Solid Level: Low Lab File ID: 09AUG121108_171.d

Lab ID: 200-12041-7 TRL Client ID: NFUDS-002-ISG12-01 TRL

COMPOUND	SAMPLE CONC. (ug/Kg)	DUPLICATE CONC. (ug/Kg)	TRIPLICATE CONC. (ug/Kg)	%RSD	%RSD LIMIT	#
HMX	12 U	12 U	11 U	NC		
RDX	12 U	12 U	11 U	NC		
1,3,5-Trinitrobenzene	29 J	30.3 J	31.4 J	4		
1,3-Dinitrobenzene	12 U	12 U	11 U	NC		
Nitrobenzene	29 U	31 U	29 U	NC		
Tetryl	24 U	25 U	23 U	NC		
Nitroglycerin	710 U	750 U	690 U	NC		
2,4,6-Trinitrotoluene	24 U	25 U	23 U	NC		
4-Amino-2,6-dinitrotoluene	12 U	12 U	11 U	NC		
2-Amino-4,6-dinitrotoluene	12 U	12 U	11 U	NC		M
2,6-Dinitrotoluene	12 U	12 U	11 U	NC		M
2,4-Dinitrotoluene	24 U	25 U	23 U	NC		
2-Nitrotoluene	24 U	25 U	23 U	NC		
4-Nitrotoluene	70 J	79.5 J	77.1 J	5		M
3-Nitrotoluene	47 J	46.1 J	61.2 J	13		M

Column to be used to flag %RSD values

8330B

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Lab Sample ID: MB 200-43130/17-A

Matrix: Solid Date Extracted: 08/08/2012 14:40

Lab File ID:(1) 09AUG121108_031.d Lab File ID:(2) 09AUG121111_031.d

Date Analyzed:(1) 08/09/2012 12:43 Date Analyzed:(2) 08/09/2012 12:36

Instrument ID:(1) CH1208 Instrument ID:(2) CH1488

GC Column:(1) C-18 ID: 4.6(mm) GC Column:(2) Biphenyl ID: 4.6(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 200-43130/18-A	08/09/2012 13:20	08/09/2012 13:11
	GB 200-43003/5-B	08/09/2012 13:58	08/09/2012 13:45
NFUDS-002-ISG02-01	200-12041-1	08/09/2012 15:50	08/09/2012 15:28
NFUDS-002-ISG04-01	200-12041-2	08/09/2012 16:28	08/09/2012 16:02
NFUDS-002-ISG08-01	200-12041-3	08/09/2012 17:05	08/09/2012 16:36
NFUDS-002-ISG08-R1	200-12041-4	08/09/2012 18:20	08/09/2012 17:44
NFUDS-002-ISG08-R2	200-12041-5	08/09/2012 18:57	08/09/2012 18:19
NFUDS-002-ISG09-01	200-12041-6	08/09/2012 19:35	08/09/2012 18:53
NFUDS-002-ISG12-01	200-12041-7	08/09/2012 20:12	08/09/2012 19:27
NFUDS-002-ISG12-01 DU	200-12041-7 DU	08/09/2012 20:50	08/09/2012 20:01
NFUDS-002-ISG12-01 TRL	200-12041-7 TRL	08/09/2012 21:27	08/09/2012 20:35

FORM VIII
HPLC/IC ANALYTICAL SEQUENCE

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Instrument ID: CH1208 Calibration Start Date: 07/31/2012 15:48

GC Column: C-18 ID: 4.6(mm) Calibration End Date: 07/31/2012 18:56

Calibration ID: 16905

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				12DNB RT #		
INITIAL CALIBRATION SURROGATE MEAN RT				16.42		
UPPER LIMIT				16.52		
LOWER LIMIT				16.32		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
IC 200-42650/2		07/31/2012 15:48	31JUL121406_021.d	16.41		
IC 200-42650/3		07/31/2012 16:26	31JUL121406_031.d	16.41		
IC 200-42650/4		07/31/2012 17:03	31JUL121406_041.d	16.42		
ICRTAV 200-42650/5		07/31/2012 17:41	31JUL121406_051.d	16.41		
IC 200-42650/6		07/31/2012 18:18	31JUL121406_061.d	16.41		
IC 200-42650/7		07/31/2012 18:56	31JUL121406_071.d	16.42		
ICV 200-42650/10		07/31/2012 20:48	31JUL121406_101.d	16.42		

12DNB = 1,2-Dinitrobenzene

12DNB RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8330B

FORM VIII
HPLC/IC ANALYTICAL SEQUENCE

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Sample No.: CCVRT 200-43162/2 Date Analyzed: 08/09/2012 12:05

Instrument ID: CH1208 GC Column: C-18 ID: 4.6(mm)

Lab File ID (Standard): 09AUG121108_021.d Heated Purge: (Y/N) N

Calibration ID: 16905

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				12DNB RT #		
CONTINUING CALIBRATION SURROGATE				16.41		
UPPER LIMIT				16.51		
LOWER LIMIT				16.31		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 200-43162/2		08/09/2012 12:05	09AUG121108_021.d	16.41		
MB 200-43130/17-A		08/09/2012 12:43	09AUG121108_031.d	16.40		
LCS 200-43130/18-A		08/09/2012 13:20	09AUG121108_041.d	16.40		
GB 200-43003/5-B		08/09/2012 13:58	09AUG121108_051.d	16.41		
200-12041-1	NFUDS-002-ISG02-01	08/09/2012 15:50	09AUG121108_081.d	16.41		
200-12041-2	NFUDS-002-ISG04-01	08/09/2012 16:28	09AUG121108_091.d	16.41		
200-12041-3	NFUDS-002-ISG08-01	08/09/2012 17:05	09AUG121108_101.d	16.41		
CCV 200-43162/11		08/09/2012 17:42	09AUG121108_111.d	16.40		
200-12041-4	NFUDS-002-ISG08-R1	08/09/2012 18:20	09AUG121108_121.d	16.41		
200-12041-5	NFUDS-002-ISG08-R2	08/09/2012 18:57	09AUG121108_131.d	16.41		
200-12041-6	NFUDS-002-ISG09-01	08/09/2012 19:35	09AUG121108_141.d	16.41		
200-12041-7	NFUDS-002-ISG12-01	08/09/2012 20:12	09AUG121108_151.d	16.41		
200-12041-7 DU	NFUDS-002-ISG12-01 DU	08/09/2012 20:50	09AUG121108_161.d	16.41		
200-12041-7 TRL	NFUDS-002-ISG12-01 TRL	08/09/2012 21:27	09AUG121108_171.d	16.41		
CCV 200-43162/22		08/10/2012 00:34	09AUG121108_221.d	16.40		

12DNB = 1,2-Dinitrobenzene

12DNB RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8330B

FORM VIII
HPLC/IC ANALYTICAL SEQUENCE

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Instrument ID: CH1488 Calibration Start Date: 05/24/2012 13:39

GC Column: Biphenyl ID: 4.6(mm) Calibration End Date: 05/24/2012 16:30

Calibration ID: 15651

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				12DNB RT #		
INITIAL CALIBRATION SURROGATE MEAN RT				11.21		
UPPER LIMIT				11.31		
LOWER LIMIT				11.11		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
IC 200-39219/2		05/24/2012 13:39	24MAY121229_021.d	11.20		
IC 200-39219/3		05/24/2012 14:13	24MAY121229_031.d	11.21		
IC 200-39219/4		05/24/2012 14:47	24MAY121229_041.d	11.21		
ICRTAV 200-39219/5		05/24/2012 15:21	24MAY121229_051.d	11.20		
IC 200-39219/6		05/24/2012 15:55	24MAY121229_061.d	11.21		
IC 200-39219/7		05/24/2012 16:30	24MAY121229_071.d	11.21		
ICV 200-39219/10		05/24/2012 18:12	24MAY121229_101.d	11.20		

12DNB = 1,2-Dinitrobenzene

12DNB RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8330B

FORM VIII
HPLC/IC ANALYTICAL SEQUENCE

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Sample No.: CCVRT 200-43164/2 Date Analyzed: 08/09/2012 12:02

Instrument ID: CH1488 GC Column: Biphenyl ID: 4.6(mm)

Lab File ID (Standard): 09AUG121111_021.d Heated Purge: (Y/N) N

Calibration ID: 15651

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				12DNB RT #		
CONTINUING CALIBRATION SURROGATE				11.21		
UPPER LIMIT				11.31		
LOWER LIMIT				11.11		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 200-43164/2		08/09/2012 12:02	09AUG121111_021.d	11.21		
MB 200-43130/17-A		08/09/2012 12:36	09AUG121111_031.d	11.20		
LCS 200-43130/18-A		08/09/2012 13:11	09AUG121111_041.d	11.21		
GB 200-43003/5-B		08/09/2012 13:45	09AUG121111_051.d	11.22		
200-12041-1	NFUDS-002-ISG02-01	08/09/2012 15:28	09AUG121111_081.d	11.23		
200-12041-2	NFUDS-002-ISG04-01	08/09/2012 16:02	09AUG121111_091.d	11.21		
200-12041-3	NFUDS-002-ISG08-01	08/09/2012 16:36	09AUG121111_101.d	11.23		
CCV 200-43164/11		08/09/2012 17:10	09AUG121111_111.d	11.23		
200-12041-4	NFUDS-002-ISG08-R1	08/09/2012 17:44	09AUG121111_121.d	11.22		
200-12041-5	NFUDS-002-ISG08-R2	08/09/2012 18:19	09AUG121111_131.d	11.22		
200-12041-6	NFUDS-002-ISG09-01	08/09/2012 18:53	09AUG121111_141.d	11.23		
200-12041-7	NFUDS-002-ISG12-01	08/09/2012 19:27	09AUG121111_151.d	11.23		
200-12041-7 DU	NFUDS-002-ISG12-01 DU	08/09/2012 20:01	09AUG121111_161.d	11.23		
200-12041-7 TRL	NFUDS-002-ISG12-01 TRL	08/09/2012 20:35	09AUG121111_171.d	11.22		
CCV 200-43164/22		08/09/2012 23:26	09AUG121111_221.d	11.23		

12DNB = 1,2-Dinitrobenzene

12DNB RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8330B

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Client Sample ID: NFUDS-002-ISG02-01 Lab Sample ID: 200-12041-1

Instrument ID (1): CH1208 Instrument ID (2): CH1488

Date Analyzed (1): 08/09/2012 15:50 Date Analyzed (2): 08/09/2012 15:28

GC Column (1): C-18 ID: 4.6(mm) GC Column (2): Biphenyl ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
4-Amino-2,6-dinitrotoluene	1		20.05	20.00	20.20	14		188.9
	2		11.37	11.58	11.78	490		
2,6-Dinitrotoluene	1		20.71	20.73	20.93	35		10.8
	2		16.79	16.71	16.91	31		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Client Sample ID: NFUDS-002-ISG04-01 Lab Sample ID: 200-12041-2

Instrument ID (1): CH1208 Instrument ID (2): CH1488

Date Analyzed (1): 08/09/2012 16:28 Date Analyzed (2): 08/09/2012 16:02

GC Column (1): C-18 ID: 4.6(mm) GC Column (2): Biphenyl ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
3-Nitrotoluene	1		24.02	24.02	24.22	57		155.1
	2		15.98	16.03	16.23	450		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Client Sample ID: NFUDS-002-ISG08-01 Lab Sample ID: 200-12041-3

Instrument ID (1): CH1208 Instrument ID (2): CH1488

Date Analyzed (1): 08/09/2012 17:05 Date Analyzed (2): 08/09/2012 16:36

GC Column (1): C-18 ID: 4.6(mm) GC Column (2): Biphenyl ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
1,3,5-Trinitrobenzene	1		16.18	15.99	16.19	35		29.4
	2		18.10	17.93	18.13	26		
Tetryl	1		18.74	18.37	18.57	52		36.3
	2		18.96	18.97	19.17	75		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Client Sample ID: NFUDS-002-ISG08-R1 Lab Sample ID: 200-12041-4

Instrument ID (1): CH1208 Instrument ID (2): CH1488

Date Analyzed (1): 08/09/2012 18:20 Date Analyzed (2): 08/09/2012 17:44

GC Column (1): C-18 ID: 4.6(mm) GC Column (2): Biphenyl ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
Tetryl	1		18.74	18.37	18.57	56		25.2
	2		19.06	18.97	19.17	72		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Client Sample ID: NFUDS-002-ISG08-R2 Lab Sample ID: 200-12041-5

Instrument ID (1): CH1208 Instrument ID (2): CH1488

Date Analyzed (1): 08/09/2012 18:57 Date Analyzed (2): 08/09/2012 18:19

GC Column (1): C-18 ID: 4.6(mm) GC Column (2): Biphenyl ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
RDX	1		14.36	14.22	14.42	30		48.9
	2		6.45	6.35	6.55	49		
1,3,5-Trinitrobenzene	1		16.19	15.99	16.19	79		4.8
	2		18.03	17.93	18.13	83		
Tetryl	1		18.80	18.37	18.57	190		36.5
	2		18.94	18.97	19.17	130		
4-Nitrotoluene	1		23.40	23.29	23.49	89		97.2
	2		16.27	16.03	16.23	31		
3-Nitrotoluene	1		24.04	24.02	24.22	270		158.3
	2		16.27	16.03	16.23	31		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Client Sample ID: NFUDS-002-ISG09-01 Lab Sample ID: 200-12041-6

Instrument ID (1): CH1208 Instrument ID (2): CH1488

Date Analyzed (1): 08/09/2012 19:35 Date Analyzed (2): 08/09/2012 18:53

GC Column (1): C-18 ID: 4.6(mm) GC Column (2): Biphenyl ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
1,3,5-Trinitrobenzene	1		16.18	15.99	16.19	35		162.4
	2		18.02	17.93	18.13	330		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Client Sample ID: NFUDS-002-ISG12-01 Lab Sample ID: 200-12041-7

Instrument ID (1): CH1208 Instrument ID (2): CH1488

Date Analyzed (1): 08/09/2012 20:12 Date Analyzed (2): 08/09/2012 19:27

GC Column (1): C-18 ID: 4.6(mm) GC Column (2): Biphenyl ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
1,3,5-Trinitrobenzene	1		16.18	15.99	16.19	29		82.9
	2		18.08	17.93	18.13	69		
4-Nitrotoluene	1		23.45	23.29	23.49	70		15.3
	2		16.10	16.03	16.23	60		
3-Nitrotoluene	1		24.03	24.02	24.22	47		24.7
	2		16.10	16.03	16.23	60		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Client Sample ID: NFUDS-002-ISG12-01 DU Lab Sample ID: 200-12041-7 DU

Instrument ID (1): CH1208 Instrument ID (2): CH1488

Date Analyzed (1): 08/09/2012 20:50 Date Analyzed (2): 08/09/2012 20:01

GC Column (1): C-18 ID: 4.6(mm) GC Column (2): Biphenyl ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
1,3,5-Trinitrobenzene	1		16.18	15.99	16.19	30.3		82.2
	2		18.08	17.93	18.13	72.5		
4-Nitrotoluene	1		23.47	23.29	23.49	79.5		24.0
	2		16.10	16.03	16.23	101		
3-Nitrotoluene	1		24.04	24.02	24.22	46.1		74.7
	2		16.10	16.03	16.23	101		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Client Sample ID: NFUDS-002-ISG12-01 TRL Lab Sample ID: 200-12041-7 TRL

Instrument ID (1): CH1208 Instrument ID (2): CH1488

Date Analyzed (1): 08/09/2012 21:27 Date Analyzed (2): 08/09/2012 20:35

GC Column (1): C-18 ID: 4.6(mm) GC Column (2): Biphenyl ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
1,3,5-Trinitrobenzene	1		16.18	15.99	16.19	31.4		70.4
	2		18.06	17.93	18.13	65.6		
4-Nitrotoluene	1		23.42	23.29	23.49	77.1		22.7
	2		16.10	16.03	16.23	96.9		
3-Nitrotoluene	1		24.02	24.02	24.22	61.2		45.1
	2		16.10	16.03	16.23	96.9		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Client Sample ID: Lab Sample ID: LCS 200-43130/18-A

Instrument ID (1): CH1208 Instrument ID (2): CH1488

Date Analyzed (1): 08/09/2012 13:20 Date Analyzed (2): 08/09/2012 13:11

GC Column (1): C-18 ID: 4.6(mm) GC Column (2): Biphenyl ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
HMX	1		10.65	10.56	10.76	2130		4.7
	2		5.36	5.30	5.50	2030		
RDX	1		14.31	14.22	14.42	2150		1.7
	2		6.43	6.35	6.55	2110		
1,3,5-Trinitrobenzene	1		16.09	15.99	16.19	2130		4.7
	2		18.02	17.93	18.13	2030		
1,3-Dinitrobenzene	1		17.33	17.23	17.43	2150		4.8
	2		13.56	13.45	13.65	2040		
Nitrobenzene	1		18.20	18.11	18.31	2120		0.5
	2		10.80	10.70	10.90	2110		
Tetryl	1		18.46	18.37	18.57	2100		62.2
	2		19.07	18.97	19.17	3990		
Nitroglycerin	1		19.22	19.14	19.34	41500		14.9
	2		9.49	9.39	9.59	48200		
2,4,6-Trinitrotoluene	1		19.65	19.56	19.76	2130		5.1
	2		21.40	21.30	21.50	2020		
4-Amino-2,6-dinitrotoluene	1		20.10	20.00	20.20	2140		4.5
	2		11.69	11.58	11.78	2050		
2-Amino-4,6-dinitrotoluene	1		20.46	20.36	20.56	2180		5.9
	2		11.91	11.80	12.00	2060		
2,6-Dinitrotoluene	1		20.83	20.73	20.93	2050		2.0
	2		16.81	16.71	16.91	2010		
2,4-Dinitrotoluene	1		21.07	20.98	21.18	2240		56.2
	2		19.07	18.97	19.17	3990		
2-Nitrotoluene	1		22.62	22.52	22.72	2070		6.6
	2		14.85	14.74	14.94	1940		
4-Nitrotoluene	1		23.39	23.29	23.49	2160		58.6
	2		16.13	16.03	16.23	3950		
3-Nitrotoluene	1		24.12	24.02	24.22	2080		61.9
	2		16.13	16.03	16.23	3950		

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Client Sample ID: NFUDS-002-ISG02-01 Lab Sample ID: 200-12041-1

Matrix: Solid Lab File ID: 09AUG121111_081.d

Analysis Method: 8330B Date Collected: 07/31/2012 15:00

Extraction Method: 8330 Date Extracted: 08/08/2012 14:40

Sample wt/vol: 10.05(g) Date Analyzed: 08/09/2012 15:28

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 450(uL) GC Column: Biphenyl ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 43164 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
19406-51-0	*4-Amino-2,6-dinitrotoluene*	*490*	*J M*	*100*	12	*8.4*
606-20-2	*2,6-Dinitrotoluene*	*31*	*J M*	*100*	12	*11*

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	104	*M*	40-140

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Client Sample ID: NFUDS-002-ISG02-01 Lab Sample ID: 200-12041-1

Matrix: Solid Lab File ID: 09AUG121108_081.d

Analysis Method: 8330B Date Collected: 07/31/2012 15:00

Extraction Method: 8330 Date Extracted: 08/08/2012 14:40

Sample wt/vol: 10.05(g) Date Analyzed: 08/09/2012 15:50

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 150(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 43162 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
2691-41-0	HMX	12	U	100	12	4.5
121-82-4	RDX	12	U	100	12	12
99-35-4	1,3,5-Trinitrobenzene	12	U	100	12	5.0
99-65-0	1,3-Dinitrobenzene	12	U	100	12	5.9
98-95-3	Nitrobenzene	30	U	100	30	26
479-45-8	Tetryl	24	U	100	24	15
55-63-0	Nitroglycerin	720	U M	2000	720	480
118-96-7	2,4,6-Trinitrotoluene	24	U	100	24	17
19406-51-0	4-Amino-2,6-dinitrotoluene	14	J M	100	12	8.4
35572-78-2	2-Amino-4,6-dinitrotoluene	12	U	100	12	6.6
606-20-2	2,6-Dinitrotoluene	35	J M	100	12	11
121-14-2	2,4-Dinitrotoluene	24	U	100	24	15
88-72-2	2-Nitrotoluene	24	U	100	24	14
99-99-0	4-Nitrotoluene	30	U	100	30	27
99-08-1	3-Nitrotoluene	30	U M	100	30	27

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	104		40-140

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Client Sample ID: NFUDS-002-ISG04-01 Lab Sample ID: 200-12041-2

Matrix: Solid Lab File ID: 09AUG121111_091.d

Analysis Method: 8330B Date Collected: 08/01/2012 08:00

Extraction Method: 8330 Date Extracted: 08/08/2012 14:40

Sample wt/vol: 9.94(g) Date Analyzed: 08/09/2012 16:02

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 450(uL) GC Column: Biphenyl ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 43164 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-08-1	*3-Nitrotoluene*	*450*	*J M*	*100*	30	*27*

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	95	*M*	40-140

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-12041-1

SDG No.: 200-12041-1

Client Sample ID: NFUDS-002-ISG04-01 | Lab Sample ID: 200-12041-2

Matrix: Solid | Lab File ID: 09AUG121108_091.d

Analysis Method: 8330B | Date Collected: 08/01/2012 08:00

Extraction Method: 8330 | Date Extracted: 08/08/2012 14:40

Sample wt/vol: 9.94(g) | Date Analyzed: 08/09/2012 16:28

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 150(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 43162 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
2691-41-0	HMX	12	U	100	12	4.5
121-82-4	RDX	12	U	100	12	12
99-35-4	1,3,5-Trinitrobenzene	12	U M	100	12	5.0
99-65-0	1,3-Dinitrobenzene	12	U	100	12	5.9
98-95-3	Nitrobenzene	30	U M	100	30	26
479-45-8	Tetryl	24	U	100	24	15
55-63-0	Nitroglycerin	720	U	2000	720	480
118-96-7	2,4,6-Trinitrotoluene	24	U	100	24	17
19406-51-0	4-Amino-2,6-dinitrotoluene	12	U	100	12	8.5
35572-78-2	2-Amino-4,6-dinitrotoluene	12	U	100	12	6.6
606-20-2	2,6-Dinitrotoluene	12	U	100	12	11
121-14-2	2,4-Dinitrotoluene	24	U	100	24	15
88-72-2	2-Nitrotoluene	24	U	100	24	14
99-99-0	4-Nitrotoluene	30	U	100	30	27
99-08-1	3-Nitrotoluene	57	J M	100	30	27

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	97	M	40-140

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-12041-1

SDG No.: 200-12041-1

Client Sample ID: NFUDS-002-ISG08-01 | Lab Sample ID: 200-12041-3

Matrix: Solid | Lab File ID: 09AUG121111_101.d

Analysis Method: 8330B | Date Collected: 07/31/2012 15:40

Extraction Method: 8330 | Date Extracted: 08/08/2012 14:40

Sample wt/vol: 10.08(g) | Date Analyzed: 08/09/2012 16:36

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 450(uL) | GC Column: Biphenyl ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 43164 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	*1,3,5-Trinitrobenzene*	*26*	*J M*	*99*	12	*5.0*
479-45-8	*Tetryl*	*75*	*J M*	*99*	24	*15*

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	98	*M*	40-140

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-12041-1

SDG No.: 200-12041-1

Client Sample ID: NFUDS-002-ISG08-01 | Lab Sample ID: 200-12041-3

Matrix: Solid | Lab File ID: 09AUG121108_101.d

Analysis Method: 8330B | Date Collected: 07/31/2012 15:40

Extraction Method: 8330 | Date Extracted: 08/08/2012 14:40

Sample wt/vol: 10.08(g) | Date Analyzed: 08/09/2012 17:05

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 150(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 43162 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
2691-41-0	HMX	12	U	99	12	4.5
121-82-4	RDX	12	U	99	12	12
99-35-4	1,3,5-Trinitrobenzene	35	J	99	12	5.0
99-65-0	1,3-Dinitrobenzene	12	U	99	12	5.9
98-95-3	Nitrobenzene	30	U M	99	30	26
479-45-8	Tetryl	52	J M	99	24	15
55-63-0	Nitroglycerin	710	U	2000	710	480
118-96-7	2,4,6-Trinitrotoluene	24	U	99	24	17
19406-51-0	4-Amino-2,6-dinitrotoluene	12	U	99	12	8.3
35572-78-2	2-Amino-4,6-dinitrotoluene	190	M	99	12	6.5
606-20-2	2,6-Dinitrotoluene	12	U M	99	12	11
121-14-2	2,4-Dinitrotoluene	24	U	99	24	15
88-72-2	2-Nitrotoluene	24	U	99	24	14
99-99-0	4-Nitrotoluene	30	U	99	30	27
99-08-1	3-Nitrotoluene	30	U M	99	30	27

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	101	M	40-140

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Client Sample ID: NFUDS-002-ISG08-R1 Lab Sample ID: 200-12041-4

Matrix: Solid Lab File ID: 09AUG121111_121.d

Analysis Method: 8330B Date Collected: 08/01/2012 14:45

Extraction Method: 8330 Date Extracted: 08/08/2012 14:40

Sample wt/vol: 10.01(g) Date Analyzed: 08/09/2012 17:44

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 450(uL) GC Column: Biphenyl ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 43164 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
479-45-8	*Tetryl*	*72*	*J*	*100*	*24*	*15*

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	99	*M*	40-140

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-12041-1

SDG No.: 200-12041-1

Client Sample ID: NFUDS-002-ISG08-R1 | Lab Sample ID: 200-12041-4

Matrix: Solid | Lab File ID: 09AUG121108_121.d

Analysis Method: 8330B | Date Collected: 08/01/2012 14:45

Extraction Method: 8330 | Date Extracted: 08/08/2012 14:40

Sample wt/vol: 10.01(g) | Date Analyzed: 08/09/2012 18:20

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 150(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 43162 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
2691-41-0	HMX	12	U	100	12	4.5
121-82-4	RDX	12	U	100	12	12
99-35-4	1,3,5-Trinitrobenzene	12	U	100	12	5.0
99-65-0	1,3-Dinitrobenzene	12	U	100	12	5.9
98-95-3	Nitrobenzene	30	U M	100	30	26
479-45-8	Tetryl	56	J M	100	24	15
55-63-0	Nitroglycerin	720	U	2000	720	480
118-96-7	2,4,6-Trinitrotoluene	24	U	100	24	17
19406-51-0	4-Amino-2,6-dinitrotoluene	12	U	100	12	8.4
35572-78-2	2-Amino-4,6-dinitrotoluene	190	M	100	12	6.6
606-20-2	2,6-Dinitrotoluene	12	U M	100	12	11
121-14-2	2,4-Dinitrotoluene	24	U	100	24	15
88-72-2	2-Nitrotoluene	24	U	100	24	14
99-99-0	4-Nitrotoluene	30	U	100	30	27
99-08-1	3-Nitrotoluene	30	U M	100	30	27

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	101	M	40-140

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Client Sample ID: NFUDS-002-ISG08-R2 Lab Sample ID: 200-12041-5

Matrix: Solid Lab File ID: 09AUG121111_131.d

Analysis Method: 8330B Date Collected: 08/01/2012 15:15

Extraction Method: 8330 Date Extracted: 08/08/2012 14:40

Sample wt/vol: 10.64(g) Date Analyzed: 08/09/2012 18:19

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 450(uL) GC Column: Biphenyl ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 43164 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
121-82-4	*RDX*	*49*	*J M*	*94*	11	*11*
99-35-4	*1,3,5-Trinitrobenzene*	*83*	*J*	*94*	11	*4.7*
479-45-8	*Tetryl*	*130*	*M*	*94*	23	*14*
99-99-0	*4-Nitrotoluene*	*31*	*J M*	*94*	28	*25*
99-08-1	*3-Nitrotoluene*	*31*	*J M*	*94*	28	*25*

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	106	*M*	40-140

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-12041-1

SDG No.: 200-12041-1

Client Sample ID: NFUDS-002-ISG08-R2 | Lab Sample ID: 200-12041-5

Matrix: Solid | Lab File ID: 09AUG121108_131.d

Analysis Method: 8330B | Date Collected: 08/01/2012 15:15

Extraction Method: 8330 | Date Extracted: 08/08/2012 14:40

Sample wt/vol: 10.64(g) | Date Analyzed: 08/09/2012 18:57

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 150(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 43162 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
2691-41-0	HMX	11	U	94	11	4.2
121-82-4	RDX	30	J M	94	11	11
99-35-4	1,3,5-Trinitrobenzene	79	J	94	11	4.7
99-65-0	1,3-Dinitrobenzene	11	U	94	11	5.5
98-95-3	Nitrobenzene	28	U	94	28	24
479-45-8	Tetryl	190	M	94	23	14
55-63-0	Nitroglycerin	680	U	1900	680	450
118-96-7	2,4,6-Trinitrotoluene	23	U	94	23	16
19406-51-0	4-Amino-2,6-dinitrotoluene	11	U	94	11	7.9
35572-78-2	2-Amino-4,6-dinitrotoluene	11	U	94	11	6.2
606-20-2	2,6-Dinitrotoluene	11	U	94	11	10
121-14-2	2,4-Dinitrotoluene	23	U	94	23	14
88-72-2	2-Nitrotoluene	23	U	94	23	13
99-99-0	4-Nitrotoluene	89	J M	94	28	25
99-08-1	3-Nitrotoluene	270	M	94	28	25

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	101	M	40-140

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Client Sample ID: NFUDS-002-ISG09-01 Lab Sample ID: 200-12041-6

Matrix: Solid Lab File ID: 09AUG121111_141.d

Analysis Method: 8330B Date Collected: 07/31/2012 17:01

Extraction Method: 8330 Date Extracted: 08/08/2012 14:40

Sample wt/vol: 9.97(g) Date Analyzed: 08/09/2012 18:53

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 450(uL) GC Column: Biphenyl ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 43164 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	*1,3,5-Trinitrobenzene*	*330*	*J*	*100*	12	*5.0*

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	92		40-140

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-12041-1

SDG No.: 200-12041-1

Client Sample ID: NFUDS-002-ISG09-01 | Lab Sample ID: 200-12041-6

Matrix: Solid | Lab File ID: 09AUG121108_141.d

Analysis Method: 8330B | Date Collected: 07/31/2012 17:01

Extraction Method: 8330 | Date Extracted: 08/08/2012 14:40

Sample wt/vol: 9.97(g) | Date Analyzed: 08/09/2012 19:35

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 150(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 43162 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
2691-41-0	HMX	12	U	100	12	4.5
121-82-4	RDX	12	U	100	12	12
99-35-4	1,3,5-Trinitrobenzene	35	J	100	12	5.0
99-65-0	1,3-Dinitrobenzene	12	U	100	12	5.9
98-95-3	Nitrobenzene	30	U	100	30	26
479-45-8	Tetryl	24	U M	100	24	15
55-63-0	Nitroglycerin	720	U	2000	720	480
118-96-7	2,4,6-Trinitrotoluene	24	U	100	24	17
19406-51-0	4-Amino-2,6-dinitrotoluene	12	U	100	12	8.4
35572-78-2	2-Amino-4,6-dinitrotoluene	12	U	100	12	6.6
606-20-2	2,6-Dinitrotoluene	12	U	100	12	11
121-14-2	2,4-Dinitrotoluene	24	U	100	24	15
88-72-2	2-Nitrotoluene	24	U	100	24	14
99-99-0	4-Nitrotoluene	30	U	100	30	27
99-08-1	3-Nitrotoluene	30	U M	100	30	27

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	94	M	40-140

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Client Sample ID: NFUDS-002-ISG12-01 Lab Sample ID: 200-12041-7

Matrix: Solid Lab File ID: 09AUG121111_151.d

Analysis Method: 8330B Date Collected: 08/01/2012 11:45

Extraction Method: 8330 Date Extracted: 08/08/2012 14:40

Sample wt/vol: 10.19(g) Date Analyzed: 08/09/2012 19:27

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 450(uL) GC Column: Biphenyl ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 43164 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	*1,3,5-Trinitrobenzene*	*69*	*J M*	*98*	12	*4.9*
99-99-0	*4-Nitrotoluene*	*60*	*J M*	*98*	29	*26*
99-08-1	*3-Nitrotoluene*	*60*	*J M*	*98*	29	*26*

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	92		40-140

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-12041-1

SDG No.: 200-12041-1

Client Sample ID: NFUDS-002-ISG12-01 | Lab Sample ID: 200-12041-7

Matrix: Solid | Lab File ID: 09AUG121108_151.d

Analysis Method: 8330B | Date Collected: 08/01/2012 11:45

Extraction Method: 8330 | Date Extracted: 08/08/2012 14:40

Sample wt/vol: 10.19(g) | Date Analyzed: 08/09/2012 20:12

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 150(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 43162 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
2691-41-0	HMX	12	U	98	12	4.4
121-82-4	RDX	12	U	98	12	12
99-35-4	1,3,5-Trinitrobenzene	29	J M	98	12	4.9
99-65-0	1,3-Dinitrobenzene	12	U	98	12	5.8
98-95-3	Nitrobenzene	29	U	98	29	26
479-45-8	Tetryl	24	U	98	24	15
55-63-0	Nitroglycerin	710	U	2000	710	470
118-96-7	2,4,6-Trinitrotoluene	24	U	98	24	17
19406-51-0	4-Amino-2,6-dinitrotoluene	12	U	98	12	8.2
35572-78-2	2-Amino-4,6-dinitrotoluene	12	U M	98	12	6.5
606-20-2	2,6-Dinitrotoluene	12	U M	98	12	11
121-14-2	2,4-Dinitrotoluene	24	U	98	24	15
88-72-2	2-Nitrotoluene	24	U	98	24	14
99-99-0	4-Nitrotoluene	70	J M	98	29	26
99-08-1	3-Nitrotoluene	47	J M	98	29	26

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	91	M	40-140

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12041-1 Analy Batch No.: 42650

SDG No.: 200-12041-1

Instrument ID: CH1208 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/31/2012 15:48 Calibration End Date: 07/31/2012 18:56 Calibration ID: 16905

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-42650/2	31JUL121406_021.d
Level 2	IC 200-42650/3	31JUL121406_031.d
Level 3	IC 200-42650/4	31JUL121406_041.d
Level 4	ICRTAV 200-42650/5	31JUL121406_051.d
Level 5	IC 200-42650/6	31JUL121406_061.d
Level 6	IC 200-42650/7	31JUL121406_071.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6					RT WINDOW	AVG RT
2,6-diamino-4-nitrotoluene	9.701	9.665	9.665	9.657	9.657	9.665					9.568 - 9.768	9.668
HMX	10.670	10.679	10.670	10.670	10.679	10.688					10.576 - 10.776	10.676
2,4-diamino-6-nitrotoluene	11.097	11.088	11.079	11.079	11.088	11.097					10.988 - 11.188	11.088
RDX	14.334	14.334	14.325	14.325	14.325	14.334					14.229 - 14.429	14.330
Picric acid	15.356	15.338	15.329	15.312	15.312	15.312					15.227 - 15.427	15.327
1,3,5-Trinitrobenzene	16.112	16.112	16.112	16.112	16.112	16.121					16.013 - 16.213	16.114
1,3-Dinitrobenzene	17.357	17.357	17.357	17.357	17.357	17.357					17.257 - 17.457	17.357
Nitrobenzene	18.237	18.228	18.237	18.237	18.228	18.237					18.134 - 18.334	18.234
Tetryl	18.486	18.495	18.495	18.495	18.486	18.495					18.392 - 18.592	18.492
Nitroglycerin	19.251	19.277	19.260	19.277	19.269	19.260					19.166 - 19.366	19.266
2,4,6-Trinitrotoluene	19.686	19.695	19.686	19.686	19.695	19.686					19.589 - 19.789	19.689
4-Amino-2,6-dinitrotoluene	20.140	20.140	20.140	20.140	20.140	20.131					20.040 - 20.240	20.139
2-Amino-4,6-dinitrotoluene	20.487	20.505	20.505	20.496	20.496	20.487					20.396 - 20.596	20.496
2,6-Dinitrotoluene	20.869	20.869	20.869	20.869	20.869	20.860					20.769 - 20.969	20.868
2,4-Dinitrotoluene	21.118	21.127	21.127	21.118	21.118	21.118					21.021 - 21.221	21.121
2-Nitrotoluene	22.639	22.647	22.674	22.656	22.656	22.656					22.547 - 22.747	22.655
4-Nitrotoluene	23.412	23.430	23.457	23.430	23.430	23.430					23.324 - 23.524	23.432
3-Nitrotoluene	24.177	24.159	24.159	24.159	24.159	24.150					24.068 - 24.268	24.161
PETN	24.942	24.942	24.968	24.950	24.950	24.942					24.849 - 25.049	24.949
1,2-Dinitrobenzene	16.414	16.414	16.423	16.414	16.414	16.423					16.317 - 16.517	16.417

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 200-12041-1 Analy Batch No.: 42650

SDG No.: 200-12041-1

Instrument ID: CH1208 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/31/2012 15:48 Calibration End Date: 07/31/2012 18:56 Calibration ID: 16905

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-42650/2	31JUL121406_021.d
Level 2	IC 200-42650/3	31JUL121406_031.d
Level 3	IC 200-42650/4	31JUL121406_041.d
Level 4	ICRTAV 200-42650/5	31JUL121406_051.d
Level 5	IC 200-42650/6	31JUL121406_061.d
Level 6	IC 200-42650/7	31JUL121406_071.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
2,6-diamino-4-nitrotoluene	683.00 692.14	667.68 699.40	681.40	693.78	Lin1	-384.04900	696.985039							1.0000		0.9900
HMX	418.70 425.40	423.12 429.26	431.12	426.68	Lin1	-84.599818	428.082128							1.0000		0.9900
2,4-diamino-6-nitrotoluene	506.50 554.69	526.36 564.00	571.28	549.49	Lin1	-557.38461	560.991769							1.0000		0.9900
RDX	311.10 332.98	318.16 337.59	328.62	333.60	Lin1	-331.67877	336.295839							1.0000		0.9900
Picric acid	592.50 402.51	464.60 403.97	414.80	405.85	Lin1	1679.92559	400.333583							1.0000		0.9900
1,3,5-Trinitrobenzene	883.20 834.58	854.00 839.01	846.10	836.37	Lin1	436.194861	836.663211							1.0000		0.9900
1,3-Dinitrobenzene	801.90 732.31	749.36 736.32	739.68	738.70	Lin1	552.078388	734.254638							1.0000		0.9900
Nitrobenzene	250.70 256.09	254.04 257.25	261.22	262.06	Lin1	-24.406548	257.576717							1.0000		0.9900
Tetryl	599.20 585.20	585.04 590.69	582.38	571.31	Lin1	-43.886880	586.865166							1.0000		0.9900
Nitroglycerin	4.2550 3.9526	3.6780 4.2564	4.0210	4.0238	Lin1	-80.676103	4.14406321							0.9990		0.9900
2,4,6-Trinitrotoluene	535.40 561.94	534.16 574.69	545.62	564.42	Lin1	-635.60420	570.501751							1.0000		0.9900
4-Amino-2,6-dinitrotoluene	631.00 663.02	628.36 679.13	639.64	671.33	Lin1	-794.62250	674.329263							1.0000		0.9900
2-Amino-4,6-dinitrotoluene	585.50 621.35	584.60 631.49	601.12	624.78	Lin1	-730.23164	628.585653							1.0000		0.9900
2,6-Dinitrotoluene	404.00 386.76	361.12 397.82	374.20	389.18	Lin1	-288.10141	393.580173							1.0000		0.9900
2,4-Dinitrotoluene	571.70 630.41	603.84 636.33	632.52	632.92	Lin1	-625.57310	635.469714							1.0000		0.9900

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 200-12041-1 Analy Batch No.: 42650

SDG No.: 200-12041-1

Instrument ID: CH1208 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/31/2012 15:48 Calibration End Date: 07/31/2012 18:56 Calibration ID: 16905

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
2-Nitrotoluene	195.90 191.52	192.44 183.49	194.92	184.13	Lin1	165.398249	185.767849							1.0000		0.9900
4-Nitrotoluene	121.60 117.56	122.52 118.23	119.02	118.88	Lin1	57.6143702	118.021464							1.0000		0.9900
3-Nitrotoluene	224.60 152.97	176.56 152.64	166.12	155.11	Lin1	698.358004	151.780309							1.0000		0.9900
PETN	3.3250 4.1483	3.7740 4.1915	3.9660	4.0173	Lin1	-194.15194	4.17548772							1.0000		0.9900
1,2-Dinitrobenzene	361.70 333.82	356.04 336.31	340.56	334.93	Lin1	320.543258	334.918622							1.0000		0.9900

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 200-12041-1 Analy Batch No.: 42650

SDG No.: 200-12041-1

Instrument ID: CH1208 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/31/2012 15:48 Calibration End Date: 07/31/2012 18:56 Calibration ID: 16905

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-42650/2	31JUL121406_021.d
Level 2	IC 200-42650/3	31JUL121406_031.d
Level 3	IC 200-42650/4	31JUL121406_041.d
Level 4	ICRTAV 200-42650/5	31JUL121406_051.d
Level 5	IC 200-42650/6	31JUL121406_061.d
Level 6	IC 200-42650/7	31JUL121406_071.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
2,6-diamino-4-nitrotoluene	Lin1	6830 699399	16692	34070	138755	346068	10.0 1000	25.0	50.0	200	500
HMX	Lin1	4187 429264	10578	21556	85336	212698	10.0 1000	25.0	50.0	200	500
2,4-diamino-6-nitrotoluene	Lin1	5065 563997	13159	28564	109897	277344	10.0 1000	25.0	50.0	200	500
RDX	Lin1	3111 337591	7954	16431	66720	166491	10.0 1000	25.0	50.0	200	500
Picric acid	Lin1	5925 403971	11615	20740	81170	201254	10.0 1000	25.0	50.0	200	500
1,3,5-Trinitrobenzene	Lin1	8832 839010	21350	42305	167274	417290	10.0 1000	25.0	50.0	200	500
1,3-Dinitrobenzene	Lin1	8019 736323	18734	36984	147740	366157	10.0 1000	25.0	50.0	200	500
Nitrobenzene	Lin1	2507 257254	6351	13061	52412	128043	10.0 1000	25.0	50.0	200	500
Tetryl	Lin1	5992 590693	14626	29119	114261	292600	10.0 1000	25.0	50.0	200	500
Nitroglycerin	Lin1	851 85127	1839	4021	16095	39526	200 20000	500	1000	4000	10000
2,4,6-Trinitrotoluene	Lin1	5354 574689	13354	27281	112884	280970	10.0 1000	25.0	50.0	200	500
4-Amino-2,6-dinitrotoluene	Lin1	6310 679134	15709	31982	134265	331510	10.0 1000	25.0	50.0	200	500
2-Amino-4,6-dinitrotoluene	Lin1	5855 631489	14615	30056	124956	310673	10.0 1000	25.0	50.0	200	500
2,6-Dinitrotoluene	Lin1	4040 397816	9028	18710	77836	193382	10.0 1000	25.0	50.0	200	500
2,4-Dinitrotoluene	Lin1	5717 636332	15096	31626	126584	315205	10.0 1000	25.0	50.0	200	500
2-Nitrotoluene	Lin1	1959 183488	4811	9746	36826	95758	10.0 1000	25.0	50.0	200	500

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 200-12041-1 Analy Batch No.: 42650

SDG No.: 200-12041-1

Instrument ID: CH1208 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/31/2012 15:48 Calibration End Date: 07/31/2012 18:56 Calibration ID: 16905

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
4-Nitrotoluene	Lin1	1216 118228	3063	5951	23776	58780	10.0 1000	25.0	50.0	200	500
3-Nitrotoluene	Lin1	2246 152644	4414	8306	31022	76486	10.0 1000	25.0	50.0	200	500
PETN	Lin1	665 83830	1887	3966	16069	41483	200 20000	500	1000	4000	10000
1,2-Dinitrobenzene	Lin1	3617 336309	8901	17028	66986	166912	10.0 1000	25.0	50.0	200	500

Curve Type Legend:
Lin1 = Linear 1/conc

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12041-1 Analy Batch No.: 39219

SDG No.: 200-12041-1

Instrument ID: CH1488 GC Column: Biphenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2012 13:39 Calibration End Date: 05/24/2012 16:30 Calibration ID: 15651

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-39219/2	24MAY121229_021.d
Level 2	IC 200-39219/3	24MAY121229_031.d
Level 3	IC 200-39219/4	24MAY121229_041.d
Level 4	ICRTAV 200-39219/5	24MAY121229_051.d
Level 5	IC 200-39219/6	24MAY121229_061.d
Level 6	IC 200-39219/7	24MAY121229_071.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6					RT WINDOW	AVG RT
2,4-diamino-6-nitrotoluene	4.508	4.535	4.544	4.526	4.535	4.553					4.408 - 4.608	4.534
2,6-diamino-4-nitrotoluene	4.508	4.535	4.544	4.526	4.535	4.553					4.408 - 4.608	4.534
HMX	5.344	5.371	5.353	5.353	5.344	5.371					5.244 - 5.444	5.356
RDX	6.411	6.438	6.411	6.411	6.411	6.429					6.319 - 6.519	6.419
Picric acid	7.060	7.034	7.052	7.025	7.016	7.025					6.835 - 7.235	7.035
Nitroglycerin	9.497	9.497	9.506	9.497	9.497	9.497					9.398 - 9.598	9.499
Nitrobenzene	10.795	10.813	10.813	10.804	10.804	10.813					10.707 - 10.907	10.807
4-Amino-2,6-dinitrotoluene	11.667	11.675	11.675	11.667	11.675	11.675					11.572 - 11.772	11.672
2-Amino-4,6-dinitrotoluene	11.880	11.889	11.889	11.880	11.880	11.880					11.783 - 11.983	11.883
1,3-Dinitrobenzene	13.552	13.561	13.552	13.561	13.552	13.561					13.456 - 13.656	13.557
2-Nitrotoluene	14.832	14.841	14.850	14.850	14.850	14.859					14.737 - 14.937	14.847
PETN	15.303	15.348	15.330	15.321	15.312	15.321					15.226 - 15.426	15.323
3-Nitrotoluene	16.104	16.130	16.113	16.139	16.130	16.130					16.024 - 16.224	16.124
4-Nitrotoluene	16.104	16.130	16.113	16.139	16.130	16.130					16.024 - 16.224	16.124
2,6-Dinitrotoluene	16.788	16.806	16.815	16.806	16.806	16.815					16.706 - 16.906	16.806
1,3,5-Trinitrobenzene	18.060	18.069	18.078	18.051	18.024	18.016					17.950 - 18.150	18.050
2,4-Dinitrotoluene	19.047	19.074	19.083	19.074	19.065	19.074					18.969 - 19.169	19.070
Tetryl	19.047	19.074	19.083	19.074	19.065	19.074					18.969 - 19.169	19.070
2,4,6-Trinitrotoluene	21.403	21.412	21.430	21.421	21.412	21.412					21.315 - 21.515	21.415
1,2-Dinitrobenzene	11.195	11.213	11.213	11.204	11.213	11.213					11.109 - 11.309	11.209

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 200-12041-1 Analy Batch No.: 39219

SDG No.: 200-12041-1

Instrument ID: CH1488 GC Column: Biphenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2012 13:39 Calibration End Date: 05/24/2012 16:30 Calibration ID: 15651

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-39219/2	24MAY121229_021.d
Level 2	IC 200-39219/3	24MAY121229_031.d
Level 3	IC 200-39219/4	24MAY121229_041.d
Level 4	ICRTAV 200-39219/5	24MAY121229_051.d
Level 5	IC 200-39219/6	24MAY121229_061.d
Level 6	IC 200-39219/7	24MAY121229_071.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
2,4-diamino-6-nitrotoluene	720.75 1062.6	886.44 1093.0	961.37	1115.3	Lin1	-8529.1035	1092.65312							1.0000		0.9900
2,6-diamino-4-nitrotoluene	720.75 1062.6	886.44 1093.0	961.37	1115.3	Lin1	-8529.1035	1092.65312							1.0000		0.9900
HMX	727.80 820.10	740.64 865.48	751.82	873.32	Lin1	-2086.8186	854.956253							0.9990		0.9900
RDX	519.80 577.09	554.04 587.84	551.82	629.09	Lin1	-715.92951	589.991360							0.9990		0.9900
Picric acid	601.90 718.03	640.32 754.88	678.86	771.42	Lin1	-1931.3880	748.315030							0.9990		0.9900
Nitroglycerin	7.0200 7.8381	8.5220 7.9269	7.8270	8.7470	Lin1	-11.513131	7.99627672							0.9990		0.9900
Nitrobenzene	642.80 455.74	495.44 462.59	486.06	484.53	Lin1	1593.90183	459.897249							1.0000		0.9900
4-Amino-2,6-dinitrotoluene	1278.6 1162.4	1135.6 1147.7	1195.2	1268.4	Lin1	1247.25648	1163.06749							0.9990		0.9900
2-Amino-4,6-dinitrotoluene	1353.0 1162.9	1191.0 1235.5	1223.9	1263.2	Lin1	822.799284	1215.21412							0.9990		0.9900
1,3-Dinitrobenzene	1440.7 1294.1	1303.0 1330.7	1351.2	1408.2	Lin1	1003.06639	1326.57681							0.9990		0.9900
2-Nitrotoluene	318.80 318.10	345.88 325.87	324.80	329.18	Lin1	114.848681	323.887904							1.0000		0.9900
PETN	8.0700 7.7916	9.2940 8.1422	8.6310	7.9120	Lin1	210.385630	8.01226012							0.9990		0.9900
3-Nitrotoluene	290.20 252.34	256.92 260.13	249.99	258.74	Lin1	304.661096	257.121578							1.0000		0.9900
4-Nitrotoluene	290.20 252.34	256.92 260.13	249.99	258.74	Lin1	304.661096	257.121578							1.0000		0.9900
2,6-Dinitrotoluene	781.10 733.68	738.28 760.08	737.84	774.96	Lin1	31.7137335	753.434015							1.0000		0.9900

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 200-12041-1 Analy Batch No.: 39219

SDG No.: 200-12041-1

Instrument ID: CH1488 GC Column: Biphenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2012 13:39 Calibration End Date: 05/24/2012 16:30 Calibration ID: 15651

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
1,3,5-Trinitrobenzene	1571.4 1440.1	1483.0 1488.3	1464.9	1518.7	Lin1	668.272965	1475.68536							1.0000		0.9900
2,4-Dinitrotoluene	1066.5 1035.5	1065.6 1072.7	1050.5	1055.7	Lin1	-153.34806	1059.91179							1.0000		0.9900
Tetryl	1066.5 1035.5	1065.6 1072.7	1050.5	1055.7	Lin1	-153.34806	1059.91179							1.0000		0.9900
2,4,6-Trinitrotoluene	1076.0 873.91	894.08 906.83	912.46	950.33	Lin1	1306.62773	899.015257							0.9990		0.9900
1,2-Dinitrobenzene	686.20 580.85	596.76 599.09	606.34	606.75	Lin1	696.833276	593.153502							1.0000		0.9900

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 200-12041-1 Analy Batch No.: 39219

SDG No.: 200-12041-1

Instrument ID: CH1488 GC Column: Biphenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2012 13:39 Calibration End Date: 05/24/2012 16:30 Calibration ID: 15651

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-39219/2	24MAY121229_021.d
Level 2	IC 200-39219/3	24MAY121229_031.d
Level 3	IC 200-39219/4	24MAY121229_041.d
Level 4	ICRTAV 200-39219/5	24MAY121229_051.d
Level 5	IC 200-39219/6	24MAY121229_061.d
Level 6	IC 200-39219/7	24MAY121229_071.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
2,4-diamino-6-nitrotoluene	Lin1	14415 2185993	44322	96137	446125	1062605	20.0 2000	50.0	100	400	1000
2,6-diamino-4-nitrotoluene	Lin1	14415 2185993	44322	96137	446125	1062605	20.0 2000	50.0	100	400	1000
HMX	Lin1	7278 865479	18516	37591	174663	410049	10.0 1000	25.0	50.0	200	500
RDX	Lin1	5198 587837	13851	27591	125817	288545	10.0 1000	25.0	50.0	200	500
Picric acid	Lin1	6019 754883	16008	33943	154284	359017	10.0 1000	25.0	50.0	200	500
Nitroglycerin	Lin1	1404 158537	4261	7827	34988	78381	200 20000	500	1000	4000	10000
Nitrobenzene	Lin1	6428 462585	12386	24303	96906	227872	10.0 1000	25.0	50.0	200	500
4-Amino-2,6-dinitrotoluene	Lin1	12786 1147731	28389	59761	253683	581209	10.0 1000	25.0	50.0	200	500
2-Amino-4,6-dinitrotoluene	Lin1	13530 1235482	29774	61196	252643	581469	10.0 1000	25.0	50.0	200	500
1,3-Dinitrobenzene	Lin1	14407 1330717	32576	67559	281647	647052	10.0 1000	25.0	50.0	200	500
2-Nitrotoluene	Lin1	3188 325871	8647	16240	65835	159048	10.0 1000	25.0	50.0	200	500
PETN	Lin1	1614 162844	4647	8631	31648	77916	200 20000	500	1000	4000	10000
3-Nitrotoluene	Lin1	5804 520269	12846	24999	103495	252339	20.0 2000	50.0	100	400	1000
4-Nitrotoluene	Lin1	5804 520269	12846	24999	103495	252339	20.0 2000	50.0	100	400	1000
2,6-Dinitrotoluene	Lin1	7811 760081	18457	36892	154991	366838	10.0 1000	25.0	50.0	200	500
1,3,5-Trinitrobenzene	Lin1	15714 1488284	37074	73247	303740	720049	10.0 1000	25.0	50.0	200	500

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 200-12041-1 Analy Batch No.: 39219

SDG No.: 200-12041-1

Instrument ID: CH1488 GC Column: Biphenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2012 13:39 Calibration End Date: 05/24/2012 16:30 Calibration ID: 15651

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
2,4-Dinitrotoluene	Lin1	21329 2145498	53281	105052	422297	1035508	20.0 2000	50.0	100	400	1000
Tetryl	Lin1	21329 2145498	53281	105052	422297	1035508	20.0 2000	50.0	100	400	1000
2,4,6-Trinitrotoluene	Lin1	10760 906827	22352	45623	190066	436954	10.0 1000	25.0	50.0	200	500
1,2-Dinitrobenzene	Lin1	6862 599085	14919	30317	121350	290427	10.0 1000	25.0	50.0	200	500

Curve Type Legend:
Lin1 = Linear 1/conc

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Lab Sample ID: ICV 200-42650/10 Calibration Date: 07/31/2012 20:48

Instrument ID: CH1208 Calib Start Date: 07/31/2012 15:48

GC Column: C-18 ID: 4.60(mm) Calib End Date: 07/31/2012 18:56

Lab File ID: 31JUL121406_101.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-diamino-4-nitrotoluene	Lin1		670.6		193	200	-3.5	30.0
HMX	Lin1		420.1		196	200	-1.8	30.0
2,4-diamino-6-nitrotoluene	Lin1		614.6		220	200	10.0	30.0
RDX	Lin1		353.3		211	200	5.5	30.0
Picric acid	Lin1		402.8		197	200	-1.5	30.0
1,3,5-Trinitrobenzene	Lin1		843.0		201	200	0.5	30.0
1,3-Dinitrobenzene	Lin1		845.5		230	200	14.8	30.0
Nitrobenzene	Lin1		281.3		219	200	9.3	30.0
Tetryl	Lin1		476.0		162	200	-18.8	30.0
Nitroglycerin	Lin1		4.132		4010	4000	0.2	30.0
2,4,6-Trinitrotoluene	Lin1		628.5		221	200	10.7	30.0
4-Amino-2,6-dinitrotoluene	Lin1		787.6		235	200	17.4	30.0
2-Amino-4,6-dinitrotoluene	Lin1		671.5		215	200	7.4	30.0
2,6-Dinitrotoluene	Lin1		421.0		215	200	7.3	30.0
2,4-Dinitrotoluene	Lin1		676.5		214	200	6.9	30.0
2-Nitrotoluene	Lin1		193.5		207	200	3.7	30.0
4-Nitrotoluene	Lin1		128.3		217	200	8.4	30.0
3-Nitrotoluene	Lin1		163.9		211	200	5.7	30.0
PETN	Lin1		4.208		4080	4000	1.9	30.0
1,2-Dinitrobenzene	Lin1		348.7		207	200	3.6	30.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Lab Sample ID: ICV 200-42650/10 Calibration Date: 07/31/2012 20:48

Instrument ID: CH1208 Calib Start Date: 07/31/2012 15:48

GC Column: C-18 ID: 4.60(mm) Calib End Date: 07/31/2012 18:56

Lab File ID: 31JUL121406_101.d

Analyte	RT	RT WINDOW	
		TO	FROM
2,6-diamino-4-nitrotoluene	9.66	9.57	9.77
HMX	10.69	10.58	10.78
2,4-diamino-6-nitrotoluene	11.10	10.99	11.19
RDX	14.33	14.23	14.43
Picric acid	15.32	15.23	15.43
1,3,5-Trinitrobenzene	16.12	16.01	16.21
1,3-Dinitrobenzene	17.36	17.26	17.46
Nitrobenzene	18.25	18.13	18.33
Tetryl	18.50	18.39	18.59
Nitroglycerin	19.27	19.17	19.37
2,4,6-Trinitrotoluene	19.70	19.59	19.79
4-Amino-2,6-dinitrotoluene	20.14	20.04	20.24
2-Amino-4,6-dinitrotoluene	20.50	20.40	20.60
2,6-Dinitrotoluene	20.87	20.77	20.97
2,4-Dinitrotoluene	21.13	21.02	21.22
2-Nitrotoluene	22.66	22.56	22.76
4-Nitrotoluene	23.43	23.33	23.53
3-Nitrotoluene	24.17	24.06	24.26
PETN	24.95	24.85	25.05
1,2-Dinitrobenzene	16.42	16.32	16.52

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Lab Sample ID: CCVRT 200-43162/2 Calibration Date: 08/09/2012 12:05

Instrument ID: CH1208 Calib Start Date: 07/31/2012 15:48

GC Column: C-18 ID: 4.60(mm) Calib End Date: 07/31/2012 18:56

Lab File ID: 09AUG121108_021.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-diamino-4-nitrotoluene	Lin1		687.2		198	200	-1.1	20.0
HMX	Lin1		428.9		201	200	0.3	20.0
2,4-diamino-6-nitrotoluene	Lin1		548.2		196	200	-1.8	20.0
RDX	Lin1		332.9		199	200	-0.5	20.0
Picric acid	Lin1		403.9		198	200	-1.2	20.0
1,3,5-Trinitrobenzene	Lin1		840.8		200	200	0.2	20.0
1,3-Dinitrobenzene	Lin1		749.8		203	200	1.7	20.0
Nitrobenzene	Lin1		258.9		201	200	0.6	20.0
Tetryl	Lin1		574.1		196	200	-2.1	20.0
Nitroglycerin	Lin1		3.976		3860	4000	-3.6	20.0
2,4,6-Trinitrotoluene	Lin1		567.2		200	200	-0.0	20.0
4-Amino-2,6-dinitrotoluene	Lin1		673.0		201	200	0.4	20.0
2-Amino-4,6-dinitrotoluene	Lin1		630.8		202	200	0.9	20.0
2,6-Dinitrotoluene	Lin1		381.1		194	200	-2.8	20.0
2,4-Dinitrotoluene	Lin1		652.2		206	200	3.1	20.0
2-Nitrotoluene	Lin1		182.9		196	200	-2.0	20.0
4-Nitrotoluene	Lin1		119.5		202	200	1.0	20.0
3-Nitrotoluene	Lin1		153.5		198	200	-1.1	20.0
PETN	Lin1		4.016		3890	4000	-2.7	20.0
1,2-Dinitrobenzene	Lin1		337.2		200	200	0.2	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Lab Sample ID: CCVRT 200-43162/2 Calibration Date: 08/09/2012 12:05

Instrument ID: CH1208 Calib Start Date: 07/31/2012 15:48

GC Column: C-18 ID: 4.60(mm) Calib End Date: 07/31/2012 18:56

Lab File ID: 09AUG121108_021.d

Analyte	RT	RT WINDOW	
		TO	FROM
2,6-diamino-4-nitrotoluene	9.66	9.56	9.76
HMX	10.66	10.56	10.76
2,4-diamino-6-nitrotoluene	11.08	10.98	11.18
RDX	14.32	14.22	14.42
Picric acid	15.29	15.19	15.39
1,3,5-Trinitrobenzene	16.09	15.99	16.19
1,3-Dinitrobenzene	17.33	17.23	17.43
Nitrobenzene	18.21	18.11	18.31
Tetryl	18.47	18.37	18.57
Nitroglycerin	19.24	19.14	19.34
2,4,6-Trinitrotoluene	19.66	19.56	19.76
4-Amino-2,6-dinitrotoluene	20.10	20.00	20.20
2-Amino-4,6-dinitrotoluene	20.46	20.36	20.56
2,6-Dinitrotoluene	20.83	20.73	20.93
2,4-Dinitrotoluene	21.08	20.98	21.18
2-Nitrotoluene	22.62	22.52	22.72
4-Nitrotoluene	23.39	23.29	23.49
3-Nitrotoluene	24.12	24.02	24.22
PETN	24.91	24.81	25.01
1,2-Dinitrobenzene	16.41	16.31	16.51

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Lab Sample ID: CCV 200-43162/11 Calibration Date: 08/09/2012 17:42

Instrument ID: CH1208 Calib Start Date: 07/31/2012 15:48

GC Column: C-18 ID: 4.60(mm) Calib End Date: 07/31/2012 18:56

Lab File ID: 09AUG121108_111.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-diamino-4-nitrotoluene	Lin1		696.3		200	200	0.2	20.0
HMX	Lin1		425.9		199	200	-0.4	20.0
2,4-diamino-6-nitrotoluene	Lin1		546.2		196	200	-2.1	20.0
RDX	Lin1		333.4		199	200	-0.4	20.0
Picric acid	Lin1		406.1		199	200	-0.7	20.0
1,3,5-Trinitrobenzene	Lin1		839.6		200	200	0.0	20.0
1,3-Dinitrobenzene	Lin1		741.8		201	200	0.7	20.0
Nitrobenzene	Lin1		251.8		196	200	-2.2	20.0
Tetryl	Lin1		579.0		197	200	-1.3	20.0
Nitroglycerin	Lin1		3.957		3840	4000	-4.0	20.0
2,4,6-Trinitrotoluene	Lin1		563.7		199	200	-0.6	20.0
4-Amino-2,6-dinitrotoluene	Lin1		666.5		199	200	-0.6	20.0
2-Amino-4,6-dinitrotoluene	Lin1		630.6		202	200	0.9	20.0
2,6-Dinitrotoluene	Lin1		379.0		193	200	-3.3	20.0
2,4-Dinitrotoluene	Lin1		653.8		207	200	3.4	20.0
2-Nitrotoluene	Lin1		180.9		194	200	-3.1	20.0
4-Nitrotoluene	Lin1		115.2		195	200	-2.7	20.0
3-Nitrotoluene	Lin1		153.5		198	200	-1.2	20.0
PETN	Lin1		4.039		3920	4000	-2.1	20.0
1,2-Dinitrobenzene	Lin1		337.4		201	200	0.3	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Lab Sample ID: CCV 200-43162/11 Calibration Date: 08/09/2012 17:42

Instrument ID: CH1208 Calib Start Date: 07/31/2012 15:48

GC Column: C-18 ID: 4.60(mm) Calib End Date: 07/31/2012 18:56

Lab File ID: 09AUG121108_111.d

Analyte	RT	RT WINDOW	
		TO	FROM
2,6-diamino-4-nitrotoluene	9.67	9.56	9.76
HMX	10.66	10.56	10.76
2,4-diamino-6-nitrotoluene	11.08	10.98	11.18
RDX	14.31	14.22	14.42
Picric acid	15.29	15.19	15.39
1,3,5-Trinitrobenzene	16.09	15.99	16.19
1,3-Dinitrobenzene	17.33	17.23	17.43
Nitrobenzene	18.20	18.11	18.31
Tetryl	18.46	18.37	18.57
Nitroglycerin	19.23	19.14	19.34
2,4,6-Trinitrotoluene	19.65	19.56	19.76
4-Amino-2,6-dinitrotoluene	20.10	20.00	20.20
2-Amino-4,6-dinitrotoluene	20.45	20.36	20.56
2,6-Dinitrotoluene	20.83	20.73	20.93
2,4-Dinitrotoluene	21.07	20.98	21.18
2-Nitrotoluene	22.61	22.52	22.72
4-Nitrotoluene	23.38	23.29	23.49
3-Nitrotoluene	24.12	24.02	24.22
PETN	24.91	24.81	25.01
1,2-Dinitrobenzene	16.40	16.31	16.51

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Lab Sample ID: CCV 200-43162/22 Calibration Date: 08/10/2012 00:34

Instrument ID: CH1208 Calib Start Date: 07/31/2012 15:48

GC Column: C-18 ID: 4.60(mm) Calib End Date: 07/31/2012 18:56

Lab File ID: 09AUG121108_221.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-diamino-4-nitrotoluene	Lin1		697.2		201	200	0.3	20.0
HMX	Lin1		429.5		201	200	0.4	20.0
2,4-diamino-6-nitrotoluene	Lin1		558.1		200	200	-0.0	20.0
RDX	Lin1		335.9		201	200	0.4	20.0
Picric acid	Lin1		407.6		199	200	-0.3	20.0
1,3,5-Trinitrobenzene	Lin1		840.9		200	200	0.2	20.0
1,3-Dinitrobenzene	Lin1		745.2		202	200	1.1	20.0
Nitrobenzene	Lin1		248.1		193	200	-3.6	20.0
Tetryl	Lin1		581.0		198	200	-1.0	20.0
Nitroglycerin	Lin1		3.912		3790	4000	-5.1	20.0
2,4,6-Trinitrotoluene	Lin1		564.0		199	200	-0.6	20.0
4-Amino-2,6-dinitrotoluene	Lin1		668.4		199	200	-0.3	20.0
2-Amino-4,6-dinitrotoluene	Lin1		632.2		202	200	1.2	20.0
2,6-Dinitrotoluene	Lin1		372.6		190	200	-5.0	20.0
2,4-Dinitrotoluene	Lin1		670.4		212	200	6.0	20.0
2-Nitrotoluene	Lin1		181.0		194	200	-3.0	20.0
4-Nitrotoluene	Lin1		117.0		198	200	-1.1	20.0
3-Nitrotoluene	Lin1		151.2		195	200	-2.7	20.0
PETN	Lin1		4.040		3920	4000	-2.1	20.0
1,2-Dinitrobenzene	Lin1		339.8		202	200	1.0	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Lab Sample ID: CCV 200-43162/22 Calibration Date: 08/10/2012 00:34

Instrument ID: CH1208 Calib Start Date: 07/31/2012 15:48

GC Column: C-18 ID: 4.60(mm) Calib End Date: 07/31/2012 18:56

Lab File ID: 09AUG121108_221.d

Analyte	RT	RT WINDOW	
		TO	FROM
2,6-diamino-4-nitrotoluene	9.67	9.56	9.76
HMX	10.66	10.56	10.76
2,4-diamino-6-nitrotoluene	11.09	10.98	11.18
RDX	14.31	14.22	14.42
Picric acid	15.29	15.19	15.39
1,3,5-Trinitrobenzene	16.09	15.99	16.19
1,3-Dinitrobenzene	17.33	17.23	17.43
Nitrobenzene	18.20	18.11	18.31
Tetryl	18.46	18.37	18.57
Nitroglycerin	19.22	19.14	19.34
2,4,6-Trinitrotoluene	19.65	19.56	19.76
4-Amino-2,6-dinitrotoluene	20.09	20.00	20.20
2-Amino-4,6-dinitrotoluene	20.45	20.36	20.56
2,6-Dinitrotoluene	20.82	20.73	20.93
2,4-Dinitrotoluene	21.07	20.98	21.18
2-Nitrotoluene	22.60	22.52	22.72
4-Nitrotoluene	23.37	23.29	23.49
3-Nitrotoluene	24.10	24.02	24.22
PETN	24.89	24.81	25.01
1,2-Dinitrobenzene	16.40	16.31	16.51

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Lab Sample ID: ICV 200-39219/10 Calibration Date: 05/24/2012 18:12

Instrument ID: CH1488 Calib Start Date: 05/24/2012 13:39

GC Column: Biphenyl ID: 4.60(mm) Calib End Date: 05/24/2012 16:30

Lab File ID: 24MAY121229_101.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4-diamino-6-nitrotoluene	Lin1		1068		399	400	-0.3	30.0
2,6-diamino-4-nitrotoluene	Lin1		1068		399	400	-0.3	30.0
HMX	Lin1		818.2		194	200	-3.1	30.0
RDX	Lin1		601.5		205	200	2.6	30.0
Picric acid	Lin1		719.8		195	200	-2.5	30.0
Nitroglycerin	Lin1		7.981		3990	4000	-0.2	30.0
Nitrobenzene	Lin1		477.2		204	200	2.0	30.0
4-Amino-2,6-dinitrotoluene	Lin1		1218		208	200	4.2	30.0
2-Amino-4,6-dinitrotoluene	Lin1		1319		216	200	8.2	30.0
1,3-Dinitrobenzene	Lin1		1472		221	200	10.6	30.0
2-Nitrotoluene	Lin1		324.9		200	200	0.1	30.0
PETN	Lin1		7.674		3800	4000	-4.9	30.0
3-Nitrotoluene	Lin1		255.6		396	400	-0.9	30.0
4-Nitrotoluene	Lin1		255.6		396	400	-0.9	30.0
2,6-Dinitrotoluene	Lin1		768.5		204	200	2.0	30.0
1,3,5-Trinitrobenzene	Lin1		1483		200	200	0.2	30.0
2,4-Dinitrotoluene	Lin1		1080		408	400	1.9	30.0
Tetryl	Lin1		1080		408	400	1.9	30.0
2,4,6-Trinitrotoluene	Lin1		968.2		214	200	7.0	30.0
1,2-Dinitrobenzene	Lin1		606.0		203	200	1.6	30.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Lab Sample ID: ICV 200-39219/10 Calibration Date: 05/24/2012 18:12

Instrument ID: CH1488 Calib Start Date: 05/24/2012 13:39

GC Column: Biphenyl ID: 4.60(mm) Calib End Date: 05/24/2012 16:30

Lab File ID: 24MAY121229_101.d

Analyte	RT	RT WINDOW	
		TO	FROM
2,4-diamino-6-nitrotoluene	4.49	4.43	4.63
2,6-diamino-4-nitrotoluene	4.49	4.43	4.63
HMX	5.37	5.26	5.46
RDX	6.41	6.32	6.52
Picric acid	7.05	6.84	7.24
Nitroglycerin	9.49	9.40	9.60
Nitrobenzene	10.80	10.71	10.91
4-Amino-2,6-dinitrotoluene	11.67	11.57	11.77
2-Amino-4,6-dinitrotoluene	11.85	11.78	11.98
1,3-Dinitrobenzene	13.55	13.46	13.66
2-Nitrotoluene	14.85	14.75	14.95
PETN	15.33	15.22	15.42
3-Nitrotoluene	16.12	16.02	16.22
4-Nitrotoluene	16.12	16.02	16.22
2,6-Dinitrotoluene	16.82	16.71	16.91
1,3,5-Trinitrobenzene	18.06	17.95	18.15
2,4-Dinitrotoluene	19.08	18.97	19.17
Tetryl	19.08	18.97	19.17
2,4,6-Trinitrotoluene	21.43	21.32	21.52
1,2-Dinitrobenzene	11.20	11.11	11.31

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Lab Sample ID: CCVRT 200-43164/2 Calibration Date: 08/09/2012 12:02

Instrument ID: CH1488 Calib Start Date: 05/24/2012 13:39

GC Column: Biphenyl ID: 4.60(mm) Calib End Date: 05/24/2012 16:30

Lab File ID: 09AUG121111_021.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4-diamino-6-nitrotoluene	Lin1		1062		396	400	-0.9	20.0
2,6-diamino-4-nitrotoluene	Lin1		1062		396	400	-0.9	20.0
HMX	Lin1		840.4		199	200	-0.5	20.0
RDX	Lin1		580.4		198	200	-1.0	20.0
Picric acid	Lin1		751.1		203	200	1.7	20.0
Nitroglycerin	Lin1		7.770		3890	4000	-2.8	20.0
Nitrobenzene	Lin1		451.0		193	200	-3.7	20.0
4-Amino-2,6-dinitrotoluene	Lin1		1136		194	200	-2.8	20.0
2-Amino-4,6-dinitrotoluene	Lin1		1198		196	200	-1.8	20.0
1,3-Dinitrobenzene	Lin1		1301		195	200	-2.3	20.0
2-Nitrotoluene	Lin1		326.0		201	200	0.5	20.0
PETN	Lin1		8.356		4150	4000	3.6	20.0
3-Nitrotoluene	Lin1		254.4		395	400	-1.3	20.0
4-Nitrotoluene	Lin1		254.4		395	400	-1.3	20.0
2,6-Dinitrotoluene	Lin1		743.6		197	200	-1.3	20.0
1,3,5-Trinitrobenzene	Lin1		1454		197	200	-1.7	20.0
2,4-Dinitrotoluene	Lin1		1027		388	400	-3.0	20.0
Tetryl	Lin1		1027		388	400	-3.0	20.0
2,4,6-Trinitrotoluene	Lin1		880.6		194	200	-2.8	20.0
1,2-Dinitrobenzene	Lin1		588.1		197	200	-1.4	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Lab Sample ID: CCVRT 200-43164/2 Calibration Date: 08/09/2012 12:02

Instrument ID: CH1488 Calib Start Date: 05/24/2012 13:39

GC Column: Biphenyl ID: 4.60(mm) Calib End Date: 05/24/2012 16:30

Lab File ID: 09AUG121111_021.d

Analyte	RT	RT WINDOW	
		TO	FROM
2,4-diamino-6-nitrotoluene	4.56	4.46	4.66
2,6-diamino-4-nitrotoluene	4.56	4.46	4.66
HMX	5.40	5.30	5.50
RDX	6.45	6.35	6.55
Picric acid	7.11	6.91	7.31
Nitroglycerin	9.49	9.39	9.59
Nitrobenzene	10.80	10.70	10.90
4-Amino-2,6-dinitrotoluene	11.68	11.58	11.78
2-Amino-4,6-dinitrotoluene	11.90	11.80	12.00
1,3-Dinitrobenzene	13.55	13.45	13.65
2-Nitrotoluene	14.84	14.74	14.94
PETN	15.28	15.18	15.38
3-Nitrotoluene	16.13	16.03	16.23
4-Nitrotoluene	16.13	16.03	16.23
2,6-Dinitrotoluene	16.81	16.71	16.91
1,3,5-Trinitrobenzene	18.03	17.93	18.13
2,4-Dinitrotoluene	19.07	18.97	19.17
Tetryl	19.07	18.97	19.17
2,4,6-Trinitrotoluene	21.40	21.30	21.50
1,2-Dinitrobenzene	11.21	11.11	11.31

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Lab Sample ID: CCV 200-43164/11 Calibration Date: 08/09/2012 17:10

Instrument ID: CH1488 Calib Start Date: 05/24/2012 13:39

GC Column: Biphenyl ID: 4.60(mm) Calib End Date: 05/24/2012 16:30

Lab File ID: 09AUG121111_111.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4-diamino-6-nitrotoluene	Lin1		1064		397	400	-0.7	20.0
2,6-diamino-4-nitrotoluene	Lin1		1064		397	400	-0.7	20.0
HMX	Lin1		842.7		200	200	-0.2	20.0
RDX	Lin1		585.0		200	200	-0.2	20.0
Picric acid	Lin1		757.7		205	200	2.5	20.0
Nitroglycerin	Lin1		7.737		3870	4000	-3.2	20.0
Nitrobenzene	Lin1		457.7		196	200	-2.2	20.0
4-Amino-2,6-dinitrotoluene	Lin1		1132		194	200	-3.2	20.0
2-Amino-4,6-dinitrotoluene	Lin1		1230		202	200	0.9	20.0
1,3-Dinitrobenzene	Lin1		1320		198	200	-0.9	20.0
2-Nitrotoluene	Lin1		311.8		192	200	-3.9	20.0
PETN	Lin1		7.879		3910	4000	-2.3	20.0
3-Nitrotoluene	Lin1		249.8		387	400	-3.2	20.0
4-Nitrotoluene	Lin1		249.8		387	400	-3.2	20.0
2,6-Dinitrotoluene	Lin1		742.8		197	200	-1.4	20.0
1,3,5-Trinitrobenzene	Lin1		1470		199	200	-0.6	20.0
2,4-Dinitrotoluene	Lin1		1036		391	400	-2.3	20.0
Tetryl	Lin1		1036		391	400	-2.3	20.0
2,4,6-Trinitrotoluene	Lin1		886.8		196	200	-2.1	20.0
1,2-Dinitrobenzene	Lin1		591.6		198	200	-0.8	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Lab Sample ID: CCV 200-43164/11 Calibration Date: 08/09/2012 17:10

Instrument ID: CH1488 Calib Start Date: 05/24/2012 13:39

GC Column: Biphenyl ID: 4.60(mm) Calib End Date: 05/24/2012 16:30

Lab File ID: 09AUG121111_111.d

Analyte	RT	RT WINDOW	
		TO	FROM
2,4-diamino-6-nitrotoluene	4.56	4.46	4.66
2,6-diamino-4-nitrotoluene	4.56	4.46	4.66
HMX	5.40	5.30	5.50
RDX	6.45	6.35	6.55
Picric acid	7.12	6.91	7.31
Nitroglycerin	9.51	9.39	9.59
Nitrobenzene	10.82	10.70	10.90
4-Amino-2,6-dinitrotoluene	11.71	11.58	11.78
2-Amino-4,6-dinitrotoluene	11.92	11.80	12.00
1,3-Dinitrobenzene	13.58	13.45	13.65
2-Nitrotoluene	14.87	14.74	14.94
PETN	15.31	15.18	15.38
3-Nitrotoluene	16.15	16.03	16.23
4-Nitrotoluene	16.15	16.03	16.23
2,6-Dinitrotoluene	16.83	16.71	16.91
1,3,5-Trinitrobenzene	18.06	17.93	18.13
2,4-Dinitrotoluene	19.09	18.97	19.17
Tetryl	19.09	18.97	19.17
2,4,6-Trinitrotoluene	21.42	21.30	21.50
1,2-Dinitrobenzene	11.23	11.11	11.31

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Lab Sample ID: CCV 200-43164/22 Calibration Date: 08/09/2012 23:26

Instrument ID: CH1488 Calib Start Date: 05/24/2012 13:39

GC Column: Biphenyl ID: 4.60(mm) Calib End Date: 05/24/2012 16:30

Lab File ID: 09AUG121111_221.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4-diamino-6-nitrotoluene	Lin1		1046		391	400	-2.4	20.0
2,6-diamino-4-nitrotoluene	Lin1		1046		391	400	-2.4	20.0
HMX	Lin1		807.1		191	200	-4.4	20.0
RDX	Lin1		581.5		198	200	-0.8	20.0
Picric acid	Lin1		725.4		196	200	-1.8	20.0
Nitroglycerin	Lin1		7.659		3830	4000	-4.2	20.0
Nitrobenzene	Lin1		442.0		189	200	-5.6	20.0
4-Amino-2,6-dinitrotoluene	Lin1		1125		192	200	-3.8	20.0
2-Amino-4,6-dinitrotoluene	Lin1		1202		197	200	-1.5	20.0
1,3-Dinitrobenzene	Lin1		1292		194	200	-3.0	20.0
2-Nitrotoluene	Lin1		311.0		192	200	-4.2	20.0
PETN	Lin1		8.410		4170	4000	4.3	20.0
3-Nitrotoluene	Lin1		243.8		378	400	-5.5	20.0
4-Nitrotoluene	Lin1		243.8		378	400	-5.5	20.0
2,6-Dinitrotoluene	Lin1		737.0		196	200	-2.2	20.0
1,3,5-Trinitrobenzene	Lin1		1444		195	200	-2.4	20.0
2,4-Dinitrotoluene	Lin1		1015		383	400	-4.2	20.0
Tetryl	Lin1		1015		383	400	-4.2	20.0
2,4,6-Trinitrotoluene	Lin1		869.6		192	200	-4.0	20.0
1,2-Dinitrobenzene	Lin1		583.1		195	200	-2.3	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Lab Sample ID: CCV 200-43164/22 Calibration Date: 08/09/2012 23:26

Instrument ID: CH1488 Calib Start Date: 05/24/2012 13:39

GC Column: Biphenyl ID: 4.60(mm) Calib End Date: 05/24/2012 16:30

Lab File ID: 09AUG121111_221.d

Analyte	RT	RT WINDOW	
		TO	FROM
2,4-diamino-6-nitrotoluene	4.56	4.46	4.66
2,6-diamino-4-nitrotoluene	4.56	4.46	4.66
HMX	5.38	5.30	5.50
RDX	6.45	6.35	6.55
Picric acid	7.12	6.91	7.31
Nitroglycerin	9.51	9.39	9.59
Nitrobenzene	10.82	10.70	10.90
4-Amino-2,6-dinitrotoluene	11.71	11.58	11.78
2-Amino-4,6-dinitrotoluene	11.92	11.80	12.00
1,3-Dinitrobenzene	13.58	13.45	13.65
2-Nitrotoluene	14.88	14.74	14.94
PETN	15.31	15.18	15.38
3-Nitrotoluene	16.16	16.03	16.23
4-Nitrotoluene	16.16	16.03	16.23
2,6-Dinitrotoluene	16.83	16.71	16.91
1,3,5-Trinitrobenzene	18.06	17.93	18.13
2,4-Dinitrotoluene	19.10	18.97	19.17
Tetryl	19.10	18.97	19.17
2,4,6-Trinitrotoluene	21.43	21.30	21.50
1,2-Dinitrobenzene	11.23	11.11	11.31

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Client Sample ID: Lab Sample ID: MB 200-43130/17-A

Matrix: Solid Lab File ID: 09AUG121111_031.d

Analysis Method: 8330B Date Collected:

Extraction Method: 8330 Date Extracted: 08/08/2012 14:40

Sample wt/vol: 9.93(g) Date Analyzed: 08/09/2012 12:36

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 450(uL) GC Column: Biphenyl ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 43164 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	103		40-140

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Client Sample ID: Lab Sample ID: MB 200-43130/17-A

Matrix: Solid Lab File ID: 09AUG121108_031.d

Analysis Method: 8330B Date Collected:

Extraction Method: 8330 Date Extracted: 08/08/2012 14:40

Sample wt/vol: 9.93(g) Date Analyzed: 08/09/2012 12:43

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 150(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 43162 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
2691-41-0	HMX	12	U	100	12	4.5
121-82-4	RDX	12	U	100	12	12
99-35-4	1,3,5-Trinitrobenzene	12	U	100	12	5.0
99-65-0	1,3-Dinitrobenzene	12	U M	100	12	5.9
98-95-3	Nitrobenzene	30	U	100	30	26
479-45-8	Tetryl	24	U	100	24	15
55-63-0	Nitroglycerin	730	U	2000	730	490
118-96-7	2,4,6-Trinitrotoluene	24	U	100	24	17
19406-51-0	4-Amino-2,6-dinitrotoluene	12	U	100	12	8.5
35572-78-2	2-Amino-4,6-dinitrotoluene	12	U	100	12	6.6
606-20-2	2,6-Dinitrotoluene	12	U	100	12	11
121-14-2	2,4-Dinitrotoluene	24	U	100	24	15
88-72-2	2-Nitrotoluene	24	U	100	24	14
99-99-0	4-Nitrotoluene	30	U	100	30	27
99-08-1	3-Nitrotoluene	30	U M	100	30	27

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	101		40-140

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Client Sample ID: Lab Sample ID: GB 200-43003/5-B

Matrix: Solid Lab File ID: 09AUG121111_051.d

Analysis Method: 8330B Date Collected:

Extraction Method: 8330 Date Extracted: 08/08/2012 14:40

Sample wt/vol: 10.29(g) Date Analyzed: 08/09/2012 13:45

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 450(uL) GC Column: Biphenyl ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 43164 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	97		40-140

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-12041-1

SDG No.: 200-12041-1

Client Sample ID: | Lab Sample ID: GB 200-43003/5-B

Matrix: Solid | Lab File ID: 09AUG121108_051.d

Analysis Method: 8330B | Date Collected:

Extraction Method: 8330 | Date Extracted: 08/08/2012 14:40

Sample wt/vol: 10.29(g) | Date Analyzed: 08/09/2012 13:58

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 150(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 43162 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
2691-41-0	HMX	12	U	97	12	4.4
121-82-4	RDX	12	U	97	12	12
99-35-4	1,3,5-Trinitrobenzene	12	U	97	12	4.9
99-65-0	1,3-Dinitrobenzene	12	U	97	12	5.7
98-95-3	Nitrobenzene	29	U	97	29	25
479-45-8	Tetryl	23	U	97	23	15
55-63-0	Nitroglycerin	700	U	1900	700	470
118-96-7	2,4,6-Trinitrotoluene	23	U	97	23	17
19406-51-0	4-Amino-2,6-dinitrotoluene	12	U	97	12	8.2
35572-78-2	2-Amino-4,6-dinitrotoluene	12	U	97	12	6.4
606-20-2	2,6-Dinitrotoluene	12	U	97	12	11
121-14-2	2,4-Dinitrotoluene	23	U	97	23	15
88-72-2	2-Nitrotoluene	23	U	97	23	14
99-99-0	4-Nitrotoluene	29	U	97	29	26
99-08-1	3-Nitrotoluene	29	U	97	29	26

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	97		40-140

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Client Sample ID: Lab Sample ID: LCS 200-43130/18-A

Matrix: Solid Lab File ID: 09AUG121111_041.d

Analysis Method: 8330B Date Collected:

Extraction Method: 8330 Date Extracted: 08/08/2012 14:40

Sample wt/vol: 9.98(g) Date Analyzed: 08/09/2012 13:11

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 450(uL) GC Column: Biphenyl ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 43164 Units: ug/Kg

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	96		40-140

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-12041-1

SDG No.: 200-12041-1

Client Sample ID: | Lab Sample ID: LCS 200-43130/18-A

Matrix: Solid | Lab File ID: 09AUG121108_041.d

Analysis Method: 8330B | Date Collected:

Extraction Method: 8330 | Date Extracted: 08/08/2012 14:40

Sample wt/vol: 9.98(g) | Date Analyzed: 08/09/2012 13:20

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 150(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 43162 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
2691-41-0	HMX	2130		100	12	4.5
121-82-4	RDX	2150		100	12	12
99-35-4	1,3,5-Trinitrobenzene	2130		100	12	5.0
99-65-0	1,3-Dinitrobenzene	2150		100	12	5.9
98-95-3	Nitrobenzene	2120		100	30	26
479-45-8	Tetryl	2100	J	100	24	15
55-63-0	Nitroglycerin	41500		2000	720	480
118-96-7	2,4,6-Trinitrotoluene	2130		100	24	17
19406-51-0	4-Amino-2,6-dinitrotoluene	2140		100	12	8.4
35572-78-2	2-Amino-4,6-dinitrotoluene	2180		100	12	6.6
606-20-2	2,6-Dinitrotoluene	2050		100	12	11
121-14-2	2,4-Dinitrotoluene	2240	J	100	24	15
88-72-2	2-Nitrotoluene	2070		100	24	14
99-99-0	4-Nitrotoluene	2160	J M	100	30	27
99-08-1	3-Nitrotoluene	2080	J	100	30	27

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	100		40-140

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Client Sample ID: NFUDS-002-ISG12-01 DU Lab Sample ID: 200-12041-7 DU

Matrix: Solid Lab File ID: 09AUG121111_161.d

Analysis Method: 8330B Date Collected: 08/01/2012 11:45

Extraction Method: 8330 Date Extracted: 08/08/2012 14:40

Sample wt/vol: 9.66(g) Date Analyzed: 08/09/2012 20:01

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 450(uL) GC Column: Biphenyl ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 43164 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	*1,3,5-Trinitrobenzene*	*72.5*	*J M*	*100*	12	*5.2*
99-99-0	*4-Nitrotoluene*	*101*	*M*	*100*	31	*28*
99-08-1	*3-Nitrotoluene*	*101*	*J M*	*100*	31	*28*

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	94		40-140

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Lab Name: TestAmerica Burlington | Job No.: 200-12041-1

SDG No.: 200-12041-1

Client Sample ID: NFUDS-002-ISG12-01 DU | Lab Sample ID: 200-12041-7 DU

Matrix: Solid | Lab File ID: 09AUG121108_161.d

Analysis Method: 8330B | Date Collected: 08/01/2012 11:45

Extraction Method: 8330 | Date Extracted: 08/08/2012 14:40

Sample wt/vol: 9.66(g) | Date Analyzed: 08/09/2012 20:50

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 150(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 43162 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
2691-41-0	HMX	12	U	100	12	4.7
121-82-4	RDX	12	U	100	12	12
99-35-4	1,3,5-Trinitrobenzene	30.3	J	100	12	5.2
99-65-0	1,3-Dinitrobenzene	12	U	100	12	6.1
98-95-3	Nitrobenzene	31	U	100	31	27
479-45-8	Tetryl	25	U	100	25	16
55-63-0	Nitroglycerin	750	U	2100	750	500
118-96-7	2,4,6-Trinitrotoluene	25	U	100	25	18
19406-51-0	4-Amino-2,6-dinitrotoluene	12	U	100	12	8.7
35572-78-2	2-Amino-4,6-dinitrotoluene	12	U M	100	12	6.8
606-20-2	2,6-Dinitrotoluene	12	U M	100	12	11
121-14-2	2,4-Dinitrotoluene	25	U	100	25	16
88-72-2	2-Nitrotoluene	25	U	100	25	14
99-99-0	4-Nitrotoluene	79.5	J M	100	31	28
99-08-1	3-Nitrotoluene	46.1	J M	100	31	28

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	90	M	40-140

FORM I
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Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Client Sample ID: NFUDS-002-ISG12-01 TRL Lab Sample ID: 200-12041-7 TRL

Matrix: Solid Lab File ID: 09AUG121111_171.d

Analysis Method: 8330B Date Collected: 08/01/2012 11:45

Extraction Method: 8330 Date Extracted: 08/08/2012 14:40

Sample wt/vol: 10.46(g) Date Analyzed: 08/09/2012 20:35

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 450(uL) GC Column: Biphenyl ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 43164 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
99-35-4	*1,3,5-Trinitrobenzene*	*65.6*	*J M*	*96*	11	*4.8*
99-99-0	*4-Nitrotoluene*	*96.9*		*96*	29	*26*
99-08-1	*3-Nitrotoluene*	*96.9*	*J*	*96*	29	*26*

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	95		40-140

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Client Sample ID: NFUDS-002-ISG12-01 TRL Lab Sample ID: 200-12041-7 TRL

Matrix: Solid Lab File ID: 09AUG121108_171.d

Analysis Method: 8330B Date Collected: 08/01/2012 11:45

Extraction Method: 8330 Date Extracted: 08/08/2012 14:40

Sample wt/vol: 10.46(g) Date Analyzed: 08/09/2012 21:27

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 150(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 43162 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
2691-41-0	HMX	11	U	96	11	4.3
121-82-4	RDX	11	U	96	11	11
99-35-4	1,3,5-Trinitrobenzene	31.4	J	96	11	4.8
99-65-0	1,3-Dinitrobenzene	11	U	96	11	5.6
98-95-3	Nitrobenzene	29	U	96	29	25
479-45-8	Tetryl	23	U	96	23	14
55-63-0	Nitroglycerin	690	U	1900	690	460
118-96-7	2,4,6-Trinitrotoluene	23	U	96	23	16
19406-51-0	4-Amino-2,6-dinitrotoluene	11	U	96	11	8.0
35572-78-2	2-Amino-4,6-dinitrotoluene	11	U M	96	11	6.3
606-20-2	2,6-Dinitrotoluene	11	U M	96	11	11
121-14-2	2,4-Dinitrotoluene	23	U	96	23	14
88-72-2	2-Nitrotoluene	23	U	96	23	13
99-99-0	4-Nitrotoluene	77.1	J M	96	29	26
99-08-1	3-Nitrotoluene	61.2	J M	96	29	26

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	99		40-140

TestAmerica Laboratories
Worklist Run Log Report

Worklist Name: 073112_CAL Worklist Num: 2241
Instrument: CH1208 Method: 8330_C18
Batch Directory: \\Btv-lims1\ChromData\CH1208\20120731-2241.b
Anaylysis Type: SemiVOA Creator: Robinson, Wallace B
Inj Volume: 150.00 Inj Vol Units: ul

Lab ID	Worklist ID	Sample Type	Cal Lvl	Inj Date/Time	File Name	Vial	Dil Fact	Client ID	Fraction
# 1 ICB	200-0002241-001	ICB		31-Jul-2012 15:11:00	31JUL121406_01	1	1.0		sv
# 2 IC 2	200-0002241-002	IC	2	31-Jul-2012 15:48:00	31JUL121406_02	2	1.0		sv
# 3 IC 3	200-0002241-003	IC	3	31-Jul-2012 16:26:00	31JUL121406_03	3	1.0		sv
# 4 IC 4	200-0002241-004	IC	4	31-Jul-2012 17:03:00	31JUL121406_04	4	1.0		sv
# 5 ICRTAV 5	200-0002241-005	ICRTAV	5	31-Jul-2012 17:41:00	31JUL121406_05	5	1.0		sv
# 6 IC 6	200-0002241-006	IC	6	31-Jul-2012 18:18:00	31JUL121406_06	6	1.0		sv
# 7 IC 7	200-0002241-007	IC	7	31-Jul-2012 18:56:00	31JUL121406_07	7	1.0		sv
# 8 CCVL	200-0002241-008	CCVL		31-Jul-2012 19:33:00	31JUL121406_08	8	1.0		sv
# 9 CCVL PETN	200-0002241-009	CCVL		31-Jul-2012 20:10:00	31JUL121406_09	9	1.0		sv
#10 ICV	200-0002241-010	ICV		31-Jul-2012 20:48:00	31JUL121406_10	10	1.0		sv

TestAmerica Laboratories
Worklist Run Log Report

Worklist Name: 080912_1 Worklist Num: 2281
Instrument: CH1208 Method: 8330_C18
Batch Directory: \\Btv-lims1\ChromData\CH1208\20120809-2281.b
Anaylysis Type: SemiVOA Creator: Robinson, Wallace B
Inj Volume: 150.00 Inj Vol Units: ul

Lab ID	Worklist ID	Sample Type	Cal Lvl	Inj Date/Time	File Name	Vial	Dil Fact	Client ID	Fraction
# 1 BLANK	200-0002281-001	Client		09-Aug-2012 11:28:00	09AUG121108_0	1	1.0		sv
# 2 CCV	200-0002281-002	CCV		09-Aug-2012 12:05:00	09AUG121108_0	2	1.0		sv
# 3 MB 200-43130/17-A	200-0002281-003	MB		09-Aug-2012 12:43:00	09AUG121108_0	3	1.0		sv
# 4 LCS 200-43130/18-A	200-0002281-004	LCS		09-Aug-2012 13:20:00	09AUG121108_0	4	1.0		sv
# 5 GB 200-43003/5-B	200-0002281-005	GB		09-Aug-2012 13:58:00	09AUG121108_0	5	1.0		sv
# 6 200-12042-A-1-C	200-0002281-006	Client		09-Aug-2012 14:35:00	09AUG121108_0	6	1.0	NFUDS-002-SBG0201	sv
# 7 200-12042-A-2-C	200-0002281-007	Client		09-Aug-2012 15:13:00	09AUG121108_0	7	1.0	NFUDS-002-SBG0202	sv
# 8 200-12041-A-1-B	200-0002281-008	Client		09-Aug-2012 15:50:00	09AUG121108_0	8	1.0	NFUDS-002-ISG02-01	sv
# 9 200-12041-A-2-B	200-0002281-009	Client		09-Aug-2012 16:28:00	09AUG121108_0	9	1.0	NFUDS-002-ISG04-01	sv
#10 200-12041-A-3-B	200-0002281-010	Client		09-Aug-2012 17:05:00	09AUG121108_1	10	1.0	NFUDS-002-ISG08-01	sv
#11 CCV	200-0002281-011	CCV		09-Aug-2012 17:42:00	09AUG121108_1	11	1.0		sv
#12 200-12041-A-4-B	200-0002281-012	Client		09-Aug-2012 18:20:00	09AUG121108_1	12	1.0	NFUDS-002-ISG08-R1	sv
#13 200-12041-A-5-B	200-0002281-013	Client		09-Aug-2012 18:57:00	09AUG121108_1	13	1.0	NFUDS-002-ISG08-R2	sv
#14 200-12041-A-6-B	200-0002281-014	Client		09-Aug-2012 19:35:00	09AUG121108_1	14	1.0	NFUDS-002-ISG09-01	sv
#15 200-12041-A-7-D	200-0002281-015	Client		09-Aug-2012 20:12:00	09AUG121108_1	15	1.0	NFUDS-002-ISG12-01	sv
#16 200-12041-A-7-E DU	200-0002281-016	DU		09-Aug-2012 20:50:00	09AUG121108_1	16	1.0	NFUDS-002-ISG12-01	sv
#17 200-12041-A-7-F TRL	200-0002281-017	TRL		09-Aug-2012 21:27:00	09AUG121108_1	17	1.0	NFUDS-002-ISG12-01	sv
#18 200-11813-A-2-B	200-0002281-018	Client		09-Aug-2012 22:05:00	09AUG121108_1	18	1.0	LOD1	sv
#19 200-11813-A-3-B	200-0002281-019	Client		09-Aug-2012 22:42:00	09AUG121108_1	18	1.0	LOD2	sv
#20 200-11813-A-4-B	200-0002281-020	Client		09-Aug-2012 23:20:00	09AUG121108_2	18	1.0	LOD3	sv
#21 200-11813-A-1-B	200-0002281-021	Client		09-Aug-2012 23:57:00	09AUG121108_2	18	1.0	LOQ1	sv
#22 CCV	200-0002281-022	CCV		10-Aug-2012 00:34:00	09AUG121108_2	18	1.0		sv

TestAmerica Laboratories
Worklist Run Log Report

Worklist Name: 052412_CAL Worklist Num: 1941
Instrument: CH1488 Method: 8330_Biphenyl
Batch Directory: \\BTV-LIMS1\ChromData\CH1488\20120524-1941.b
Anaylysis Type: SemiVOA Creator: Chirgwin, Bradley W
Inj Volume: 450.00 Inj Vol Units: ul

Lab ID	Worklist ID	Sample Type	Cal Lvl	Inj Date/Time	File Name	Vial	Dil Fact	Client ID	Fraction
# 1 ICB	200-0001941-001	ICB		24-May-2012 13:04:00	24MAY121229_0	1	1.0		sv
# 2 IC 2	200-0001941-002	IC	2	24-May-2012 13:39:00	24MAY121229_0	2	1.0		sv
# 3 IC 3	200-0001941-003	IC	3	24-May-2012 14:13:00	24MAY121229_0	3	1.0		sv
# 4 IC 4	200-0001941-004	IC	4	24-May-2012 14:47:00	24MAY121229_0	4	1.0		sv
# 5 ICRTAV 5	200-0001941-005	ICRTAV	5	24-May-2012 15:21:00	24MAY121229_0	5	1.0		sv
# 6 IC 6	200-0001941-006	IC	6	24-May-2012 15:55:00	24MAY121229_0	6	1.0		sv
# 7 IC 7	200-0001941-007	IC	7	24-May-2012 16:30:00	24MAY121229_0	7	1.0		sv
# 8 CCVL	200-0001941-008	CCVL		24-May-2012 17:04:00	24MAY121229_0	8	1.0		sv
# 9 CCVL PETN	200-0001941-009	CCVL		24-May-2012 17:38:00	24MAY121229_0	9	1.0		sv
#10 ICV	200-0001941-010	ICV		24-May-2012 18:12:00	24MAY121229_1	10	1.0		sv

TestAmerica Laboratories
Worklist Run Log Report

Worklist Name: 080912_1 Worklist Num: 2283
Instrument: CH1488 Method: 8330_Biphenyl
Batch Directory: \\BTV-LIMS1\ChromData\CH1488\20120809-2283.b
Anaylysis Type: SemiVOA Creator: Robinson, Wallace B
Inj Volume: 450.00 Inj Vol Units: ul

Lab ID	Worklist ID	Sample Type	Cal Lvl	Inj Date/Time	File Name	Vial	Dil Fact	Client ID	Fraction
# 1 BLANK	200-0002283-001	Client		09-Aug-2012 11:28:00	09AUG121111_0	1	1.0		sv
# 2 CCV	200-0002283-002	CCV		09-Aug-2012 12:02:00	09AUG121111_0	1	1.0		sv
# 3 MB 200-43130/17-A	200-0002283-003	MB		09-Aug-2012 12:36:00	09AUG121111_0	2	1.0		sv
# 4 LCS 200-43130/18-A	200-0002283-004	LCS		09-Aug-2012 13:11:00	09AUG121111_0	3	1.0		sv
# 5 GB 200-43003/5-B	200-0002283-005	GB		09-Aug-2012 13:45:00	09AUG121111_0	4	1.0		sv
# 6 200-12042-A-1-C	200-0002283-006	Client		09-Aug-2012 14:19:00	09AUG121111_0	5	1.0	NFUDS-002-SBG0201	sv
# 7 200-12042-A-2-C	200-0002283-007	Client		09-Aug-2012 14:53:00	09AUG121111_0	6	1.0	NFUDS-002-SBG0202	sv
# 8 200-12041-A-1-B	200-0002283-008	Client		09-Aug-2012 15:28:00	09AUG121111_0	7	1.0	NFUDS-002-ISG02-01	sv
# 9 200-12041-A-2-B	200-0002283-009	Client		09-Aug-2012 16:02:00	09AUG121111_0	8	1.0	NFUDS-002-ISG04-01	sv
#10 200-12041-A-3-B	200-0002283-010	Client		09-Aug-2012 16:36:00	09AUG121111_1	9	1.0	NFUDS-002-ISG08-01	sv
#11 CCV	200-0002283-011	CCV		09-Aug-2012 17:10:00	09AUG121111_1	10	1.0		sv
#12 200-12041-A-4-B	200-0002283-012	Client		09-Aug-2012 17:44:00	09AUG121111_1	10	1.0	NFUDS-002-ISG08-R1	sv
#13 200-12041-A-5-B	200-0002283-013	Client		09-Aug-2012 18:19:00	09AUG121111_1	10	1.0	NFUDS-002-ISG08-R2	sv
#14 200-12041-A-6-B	200-0002283-014	Client		09-Aug-2012 18:53:00	09AUG121111_1	10	1.0	NFUDS-002-ISG09-01	sv
#15 200-12041-A-7-D	200-0002283-015	Client		09-Aug-2012 19:27:00	09AUG121111_1	10	1.0	NFUDS-002-ISG12-01	sv
#16 200-12041-A-7-E DU	200-0002283-016	DU		09-Aug-2012 20:01:00	09AUG121111_1	10	1.0	NFUDS-002-ISG12-01	sv
#17 200-12041-A-7-F TRL	200-0002283-017	TRL		09-Aug-2012 20:35:00	09AUG121111_1	10	1.0	NFUDS-002-ISG12-01	sv
#18 200-11813-A-2-B	200-0002283-018	Client		09-Aug-2012 21:10:00	09AUG121111_1	10	1.0	LOD1	sv
#19 200-11813-A-3-B	200-0002283-019	Client		09-Aug-2012 21:44:00	09AUG121111_1	10	1.0	LOD2	sv
#20 200-11813-A-4-B	200-0002283-020	Client		09-Aug-2012 22:18:00	09AUG121111_2	10	1.0	LOD3	sv
#21 200-11813-A-1-B	200-0002283-021	Client		09-Aug-2012 22:52:00	09AUG121111_2	10	1.0	LOQ1	sv
#22 CCV	200-0002283-022	CCV		09-Aug-2012 23:26:00	09AUG121111_2	10	1.0		sv

Report Date: 13-Aug-2012 16:11:29 Chrom Revision: 2.0 31-Jul-2012 16:08:44

Preliminary Report

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Btv-lims1\ChromData\CH1208\20120809-2281.b\09AUG121108_031.d		
Lims ID:	MB 200-43130/17-A	Client ID:	
Inject. Date:	09-Aug-2012 12:43:00	Dil. Factor:	1.0000
Sample Type:	MB		
Sample ID:	200-0002281-003		
Misc. Info.:			
Operator:	WBR	Instrument ID:	CH1208
Vol. Injected:	150.0000	ALS Bottle#:	3
Lims Batch ID:	2281	Lims Sample ID:	3
Detector:	A-09AUG121108.R031		
Method:	\\Btv-lims1\ChromData\CH1208\20120809-2281.b\8330_C18.m		
Last Update:	10-Aug-2012 08:21:04	Calib Date:	31-Jul-2012 18:56:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Btv-lims1\ChromData\CH1208\20120731-2241.b\31JUL121406_071.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	XAWRK005		

First Level Reviewer: robinsonw Date: 10-Aug-2012 08:19:34

	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
	1 2,6-diamino-4-nitrotoluene		9.657				1
	2 hexahydro-1,3,5-trinitroso-1,3,5		9.754				1
	3 HMX		10.661				1
	4 2,4-diamino-6-nitrotoluene		11.079				1
	5 hexahydro-1,3-dinitroso-5-nitro-		11.589				1
	6 MNX		13.261				1
	7 RDX		14.316				1
	8 2,4,6-Trinitrophenol		15.294				1
	9 1,3,5-Trinitrobenzene		16.094				1
$	10 1,2-Dinitrobenzene	16.397	16.405	-0.008	68277	202.9	
	11 1,3-Dinitrobenzene	17.303	17.330	-0.027	382	-0.2316	MA
	12 Nitrobenzene		18.210				1
	13 Tetryl		18.468				1
	14 Nitroglycerin		19.242				1
	15 2,4,6-Trinitrotoluene		19.660				1
	16 4-Amino-2,6-dinitrotoluene		20.104				1
	17 2-Amino-4,6-dinitrotoluene		20.460				1
	18 2,6-Dinitrotoluene		20.834				1
	19 2,4-Dinitrotoluene		21.083				1
	20 o-Nitrotoluene		22.621				1
	21 p-Nitrotoluene		23.385				1
	22 m-Nitrotoluene	24.061	24.115	-0.054	299	-2.63	MA
	23 PETN		24.906				1

Report Date: 13-Aug-2012 16:11:55 Chrom Revision: 2.0 31-Jul-2012 16:08:44

Preliminary Report

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Btv-lims1\ChromData\CH1208\20120809-2281.b\09AUG121108_051.d		
Lims ID:	GB 200-43003/5-B	Client ID:	
Inject. Date:	09-Aug-2012 13:58:00	Dil. Factor:	1.0000
Sample Type:	GB		
Sample ID:	200-0002281-005		
Misc. Info.:			
Operator:	WBR	Instrument ID:	CH1208
Vol. Injected:	150.0000	ALS Bottle#:	5
Lims Batch ID:	2281	Lims Sample ID:	5
Detector:	A-09AUG121108.R051		
Method:	\\Btv-lims1\ChromData\CH1208\20120809-2281.b\8330_C18.m		
Last Update:	10-Aug-2012 08:21:04	Calib Date:	31-Jul-2012 18:56:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Btv-lims1\ChromData\CH1208\20120731-2241.b\31JUL121406_071.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	XAWRK005		

First Level Reviewer: robinsonw Date: 13-Aug-2012 16:11:54

	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
	1 2,6-diamino-4-nitrotoluene		9.657				1
	2 hexahydro-1,3,5-trinitroso-1,3,5		9.754				1
	3 HMX		10.661				1
	4 2,4-diamino-6-nitrotoluene		11.079				1
	5 hexahydro-1,3-dinitroso-5-nitro-		11.589				1
	6 MNX		13.261				1
	7 RDX		14.316				1
	8 2,4,6-Trinitrophenol		15.294				1
	9 1,3,5-Trinitrobenzene		16.094				1
$	10 1,2-Dinitrobenzene	16.405	16.405	0.0	65125	193.5	
	11 1,3-Dinitrobenzene		17.330				1
	12 Nitrobenzene		18.210				1
	13 Tetryl		18.468				1
	14 Nitroglycerin		19.242				1
	15 2,4,6-Trinitrotoluene		19.660				1
	16 4-Amino-2,6-dinitrotoluene		20.104				1
	17 2-Amino-4,6-dinitrotoluene		20.460				1
	18 2,6-Dinitrotoluene		20.834				1
	19 2,4-Dinitrotoluene		21.083				1
	20 o-Nitrotoluene		22.621				1
	21 p-Nitrotoluene		23.385				1
	22 m-Nitrotoluene		24.115				1
	23 PETN		24.906				1

QC Flag Legend

Processing Flags
1 - Missing Peaks

TestAmerica Laboratories
Amount Summary Report

Worklist Name: 080912_1 Worklist Num: 2281
Instrument: CH1208 Method: 8330_C18
Batch Directory: \\Btv-lims1\ChromData\CH1208\20120809-2281.b
Anaylysis Type: SemiVOA
Inj Volume: 150.00 Inj Vol Units: ul

Lab ID/Worklist ID Analyte	Client Sample ID Limit Group	Amount	LOD	Max Amount
# 1 BLANK 200-0002281-001	LC_8330B_Limits			
22 m-Nitrotoluene		6.0854	0.0000	1000
23 PETN		82.90	0.0000	20000
# 6 200-12042-A-1-C 200-0002281-006	NFUDS-002-SBG0201-01 LC_8330B_Limits			
22 m-Nitrotoluene		-2.0646	0.0000	1000
# 7 200-12042-A-2-C 200-0002281-007	NFUDS-002-SBG0202-01 LC_8330B_Limits			
22 m-Nitrotoluene		-1.3596	0.0000	1000
# 8 200-12041-A-1-B 200-0002281-008	NFUDS-002-ISG02-01 LC_8330B_Limits			
9 1,3,5-Trinitrobenz		40.05 ND	0.0000	1000
14 Nitroglycerin	IP	374 ND	0.0000	20000
16 4-Amino-2,6-dinitr	IP/EC	1.4201	0.0000	1000
18 2,6-Dinitrotoluene	IP	3.4735	0.0000	1000
22 m-Nitrotoluene		8.6747 NC	0.0000	1000
23 PETN (Not a target cpd)		141	0.0000	20000
# 9 200-12041-A-2-B 200-0002281-009	NFUDS-002-ISG04-01 LC_8330B_Limits			
8 2,4,6-Trinitrophen		15.24 NC	0.0000	1000
9 1,3,5-Trinitrobenz		0.0045 CDL	0.0000	1000
12 Nitrobenzene		22.89 ND	0.0000	1000
17 2-Amino-4,6-dinitr	ID	17.34 ND	0.0000	1000
22 m-Nitrotoluene		5.6505	0.0000	1000
23 PETN		259 NC	0.0000	20000
#10 200-12041-A-3-B 200-0002281-010	NFUDS-002-ISG08-01 LC_8330B_Limits			
8 2,4,6-Trinitrophen (Not a target cpd)		29.72	0.0000	1000
9 1,3,5-Trinitrobenz		3.5508	0.0000	1000
12 Nitrobenzene		2.2417 NC	0.0000	1000
13 Tetryl	IP	5.2600	0.0000	1000
17 2-Amino-4,6-dinitr	IP	19.23 ND/NC	0.0000	1000
18 2,6-Dinitrotoluene		3.4405 NC	0.0000	1000
22 m-Nitrotoluene		4.5569 NC	0.0000	1000
23 PETN		185 NC	0.0000	20000

8/13/12

Amount Summary Report

Lab ID/Worklist ID Analyte	Client Sample ID Limit Group	Amount	LOD	Max Amount
#12 200-12041-A-4-B 200-0002281-012	NFUDS-002-ISG08-R1 LC_8330B_Limits			
8 2,4,6-Trinitrophen	Not a target cpd	82.92	0.0000	1000
9 1,3,5-Trinitrobenz	DL conf Dam	3.4217	0.0000	1000
12 Nitrobenzene		7.0014 NC	0.0000	1000
13 Tetryl	IP	5.5633	0.0000	1000
17 2-Amino-4,6-dinitr	IP	18.53 NC	0.0000	1000
18 2,6-Dinitrotoluene		3.3312 NC	0.0000	1000
22 m-Nitrotoluene		-0.3450 U	0.0000	1000
23 PETN		362 NC	0.0000	20000
#13 200-12041-A-5-B 200-0002281-013	NFUDS-002-ISG08-R2 LC_8330B_Limits			
7 RDX		3.1718	0.0000	1000
8 2,4,6-Trinitrophen	(Not a target cpd)	111	0.0000	1000
9 1,3,5-Trinitrobenz		8.4476	0.0000	1000
12 Nitrobenzene		9.0746 NC	0.0000	1000
13 Tetryl	IC not a peak 19.96	~~22.81~~	0.0000	1000
14 Nitroglycerin	(ND) IP IC	329	0.0000	20000
17 2-Amino-4,6-dinitr		36.29 NC	0.0000	1000
21 p-Nitrotoluene		9.5100	0.0000	1000
22 m-Nitrotoluene	IP 36	~~22.10~~	0.0000	1000
23 PETN		481 NC	0.0000	20000
#14 200-12041-A-6-B 200-0002281-014	NFUDS-002-ISG09-01 LC_8330B_Limits			
8 2,4,6-Trinitrophen		-2.6901 U	0.0000	1000
9 1,3,5-Trinitrobenz		3.4587	0.0000	1000
13 Tetryl		0.7785 U	0.0000	1000
17 2-Amino-4,6-dinitr	IP	91.55 NC	0.0000	1000
21 p-Nitrotoluene		0.6726 U	0.0000	1000
22 m-Nitrotoluene		1.7568 U	0.0000	1000
23 PETN		788 NC	0.0000	20000
#15 200-12041-A-7-D 200-0002281-015	NFUDS-002-ISG12-01 LC_8330B_Limits			
1 2,6-diamino-4-nitr		4.1092 NC	0.0000	1000
4 2,4-diamino-6-nitr		1.3358 NC	0.0000	1000
9 1,3,5-Trinitrobenz		2.9149	0.0000	1000
17 2-Amino-4,6-dinitr	IP	18.82 ND	0.0000	1000
18 2,6-Dinitrotoluene		1.9719 ND	0.0000	1000
21 p-Nitrotoluene		7.1799	0.0000	1000
22 m-Nitrotoluene		4.8072	0.0000	1000
23 PETN		545 NC	0.0000	20000

Report Date: 13-Aug-2012 17:35:08 Chrom Revision: 2.0 31-Jul-2012 16:08:44

Preliminary Report

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Btv-lims1\ChromData\CH1208\20120809-2281.b\09AUG121108_161.d		
Lims ID:	200-12041-A-7-E DU	Client ID:	NFUDS-002-ISG12-01
Inject. Date:	09-Aug-2012 20:50:00	Dil. Factor:	1.0000
Sample Type:	DU		
Sample ID:	200-0002281-016		
Misc. Info.:			
Operator:	WBR	Instrument ID:	CH1208
Vol. Injected:	150.0000	ALS Bottle#:	16
Lims Batch ID:	2281	Lims Sample ID:	16
Detector:	A-09AUG121108.R161		
Method:	\\Btv-lims1\ChromData\CH1208\20120809-2281.b\8330_C18.m		
Last Update:	13-Aug-2012 17:28:41	Calib Date:	31-Jul-2012 18:56:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Btv-lims1\ChromData\CH1208\20120731-2241.b\31JUL121406_071.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	XAWRK005		

Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
1 2,6-diamino-4-nitrotoluene	9.817	9.657	0.160	1961	3.36 NC	A - ND
2 hexahydro-1,3,5-trinitroso-1,3,5		9.754				
3 HMX		10.661				1
4 2,4-diamino-6-nitrotoluene	11.159	11.079	0.080	141	1.24 NC	MA ND
5 hexahydro-1,3-dinitroso-5-nitro-		11.589				
6 MNX		13.261				1
7 RDX		14.316				1
8 2,4,6-Trinitrophenol		15.294				1
9 1,3,5-Trinitrobenzene	16.183	16.094	0.089	2883	2.92	
$ 10 1,2-Dinitrobenzene	16.405	16.405	0.0	60702	180.3	MA
11 1,3-Dinitrobenzene		17.330				1
12 Nitrobenzene		18.210				1
13 Tetryl		18.468				1
14 Nitroglycerin		19.242				
15 2,4,6-Trinitrotoluene		19.660				1
16 4-Amino-2,6-dinitrotoluene		20.104				1
17 2-Amino-4,6-dinitrotoluene	20.380	20.460	-0.080	10419	17.7	M
18 2,6-Dinitrotoluene	20.682	20.834	-0.152	805	2.78	MA
19 2,4-Dinitrotoluene		21.083				1
20 o-Nitrotoluene		22.621				1
21 p-Nitrotoluene	23.474	23.385	0.089	964	7.68	M
22 m-Nitrotoluene	24.035	24.115	-0.080	1375	4.46	M
23 PETN	25.030	24.906	0.124	1609	431.8 NC	MA - CX

Report Date: 13-Aug-2012 17:35:25 Chrom Revision: 2.0 31-Jul-2012 16:08:44

Preliminary Report

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Btv-lims1\ChromData\CH1208\20120809-2281.b\09AUG121108_171.d		
Lims ID:	200-12041-A-7-F TRL	Client ID:	NFUDS-002-ISG12-01
Inject. Date:	09-Aug-2012 21:27:00	Dil. Factor:	1.0000
Sample Type:	TRL		
Sample ID:	200-0002281-017		
Misc. Info.:			
Operator:	WBR	Instrument ID:	CH1208
Vol. Injected:	150.0000	ALS Bottle#:	17
Lims Batch ID:	2281	Lims Sample ID:	17
Detector:	A-09AUG121108.R171		
Method:	\\Btv-lims1\ChromData\CH1208\20120809-2281.b\8330_C18.m		
Last Update:	13-Aug-2012 17:28:41	Calib Date:	31-Jul-2012 18:56:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Btv-lims1\ChromData\CH1208\20120731-2241.b\31JUL121406_071.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	XAWRK005		

	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
1	2,6-diamino-4-nitrotoluene	10.048	9.657	0.391	1371	2.52 ND/NC	MA
2	hexahydro-1,3,5-trinitroso-1,3,5		9.754				1
3	HMX		10.661				
4	2,4-diamino-6-nitrotoluene	11.070	11.079	-0.009	193	1.34 NC/ND	
5	hexahydro-1,3-dinitroso-5-nitro-		11.589				1
6	MNX		13.261				1
7	RDX		14.316				1
8	2,4,6-Trinitrophenol		15.294				1
9	1,3,5-Trinitrobenzene	16.183	16.094	0.089	3187	3.29	
$ 10	1,2-Dinitrobenzene	16.405	16.405	0.0	66639	198.0	
11	1,3-Dinitrobenzene		17.330				1
12	Nitrobenzene		18.210				1
13	Tetryl		18.468				1
14	Nitroglycerin		19.242				1
15	2,4,6-Trinitrotoluene		19.660				1
16	4-Amino-2,6-dinitrotoluene		20.104				1
17	2-Amino-4,6-dinitrotoluene	20.371	20.460	-0.089	10111 IP	17.2	MA
18	2,6-Dinitrotoluene	20.673	20.834	-0.161	481 NC	1.95	MA ND
19	2,4-Dinitrotoluene		21.083				1
20	o-Nitrotoluene		22.621				1
21	p-Nitrotoluene	23.421	23.385	0.036	1010	8.07	M
22	m-Nitrotoluene	24.017	24.115	-0.098	1670	6.40	MA
23	PETN	24.986	24.906	0.080	1718	457.9 NC	M CD

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Instrument ID: CH1208 Start Date: 07/31/2012 15:11

Analysis Batch Number: 42650 End Date: 07/31/2012 20:48

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ICB 200-42650/1		07/31/2012 15:11	1		C-18 4.6(mm)
IC 200-42650/2		07/31/2012 15:48	1	31JUL121406_021.d	C-18 4.6(mm)
IC 200-42650/3		07/31/2012 16:26	1	31JUL121406_031.d	C-18 4.6(mm)
IC 200-42650/4		07/31/2012 17:03	1	31JUL121406_041.d	C-18 4.6(mm)
ICRTAV 200-42650/5		07/31/2012 17:41	1	31JUL121406_051.d	C-18 4.6(mm)
IC 200-42650/6		07/31/2012 18:18	1	31JUL121406_061.d	C-18 4.6(mm)
IC 200-42650/7		07/31/2012 18:56	1	31JUL121406_071.d	C-18 4.6(mm)
CCVL 200-42650/8		07/31/2012 19:33	1		C-18 4.6(mm)
CCVL 200-42650/9		07/31/2012 20:10	1		C-18 4.6(mm)
ICV 200-42650/10		07/31/2012 20:48	1	31JUL121406_101.d	C-18 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Instrument ID: CH1208 Start Date: 08/09/2012 11:28

Analysis Batch Number: 43162 End Date: 08/10/2012 00:34

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		08/09/2012 11:28	1		C-18 4.6(mm)
CCVRT 200-43162/2		08/09/2012 12:05	1	09AUG121108_021.d	C-18 4.6(mm)
MB 200-43130/17-A		08/09/2012 12:43	1	09AUG121108_031.d	C-18 4.6(mm)
LCS 200-43130/18-A		08/09/2012 13:20	1	09AUG121108_041.d	C-18 4.6(mm)
GB 200-43003/5-B		08/09/2012 13:58	1	09AUG121108_051.d	C-18 4.6(mm)
ZZZZZ		08/09/2012 14:35	1		C-18 4.6(mm)
ZZZZZ		08/09/2012 15:13	1		C-18 4.6(mm)
200-12041-1	NFUDS-002-ISG02-01	08/09/2012 15:50	1	09AUG121108_081.d	C-18 4.6(mm)
200-12041-2	NFUDS-002-ISG04-01	08/09/2012 16:28	1	09AUG121108_091.d	C-18 4.6(mm)
200-12041-3	NFUDS-002-ISG08-01	08/09/2012 17:05	1	09AUG121108_101.d	C-18 4.6(mm)
CCV 200-43162/11		08/09/2012 17:42	1	09AUG121108_111.d	C-18 4.6(mm)
200-12041-4	NFUDS-002-ISG08-R1	08/09/2012 18:20	1	09AUG121108_121.d	C-18 4.6(mm)
200-12041-5	NFUDS-002-ISG08-R2	08/09/2012 18:57	1	09AUG121108_131.d	C-18 4.6(mm)
200-12041-6	NFUDS-002-ISG09-01	08/09/2012 19:35	1	09AUG121108_141.d	C-18 4.6(mm)
200-12041-7	NFUDS-002-ISG12-01	08/09/2012 20:12	1	09AUG121108_151.d	C-18 4.6(mm)
200-12041-7 DU	NFUDS-002-ISG12-01 DU	08/09/2012 20:50	1	09AUG121108_161.d	C-18 4.6(mm)
200-12041-7 TRL	NFUDS-002-ISG12-01 TRL	08/09/2012 21:27	1	09AUG121108_171.d	C-18 4.6(mm)
CCV 200-43162/22		08/10/2012 00:34	1	09AUG121108_221.d	C-18 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Instrument ID: CH1488 Start Date: 05/24/2012 13:04

Analysis Batch Number: 39219 End Date: 05/24/2012 18:12

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ICB 200-39219/1		05/24/2012 13:04	1		Biphenyl 4.6(mm)
IC 200-39219/2		05/24/2012 13:39	1	24MAY121229_021.d	Biphenyl 4.6(mm)
IC 200-39219/3		05/24/2012 14:13	1	24MAY121229_031.d	Biphenyl 4.6(mm)
IC 200-39219/4		05/24/2012 14:47	1	24MAY121229_041.d	Biphenyl 4.6(mm)
ICRTAV 200-39219/5		05/24/2012 15:21	1	24MAY121229_051.d	Biphenyl 4.6(mm)
IC 200-39219/6		05/24/2012 15:55	1	24MAY121229_061.d	Biphenyl 4.6(mm)
IC 200-39219/7		05/24/2012 16:30	1	24MAY121229_071.d	Biphenyl 4.6(mm)
CCVL 200-39219/8		05/24/2012 17:04	1		Biphenyl 4.6(mm)
CCVL 200-39219/9		05/24/2012 17:38	1		Biphenyl 4.6(mm)
ICV 200-39219/10		05/24/2012 18:12	1	24MAY121229_101.d	Biphenyl 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Instrument ID: CH1488 Start Date: 08/09/2012 11:28

Analysis Batch Number: 43164 End Date: 08/09/2012 23:26

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		08/09/2012 11:28	1		Biphenyl 4.6(mm)
CCVRT 200-43164/2		08/09/2012 12:02	1	09AUG121111_021.d	Biphenyl 4.6(mm)
MB 200-43130/17-A		08/09/2012 12:36	1	09AUG121111_031.d	Biphenyl 4.6(mm)
LCS 200-43130/18-A		08/09/2012 13:11	1	09AUG121111_041.d	Biphenyl 4.6(mm)
GB 200-43003/5-B		08/09/2012 13:45	1	09AUG121111_051.d	Biphenyl 4.6(mm)
ZZZZZ		08/09/2012 14:19	1		Biphenyl 4.6(mm)
ZZZZZ		08/09/2012 14:53	1		Biphenyl 4.6(mm)
200-12041-1	NFUDS-002-ISG02-01	08/09/2012 15:28	1	09AUG121111_081.d	Biphenyl 4.6(mm)
200-12041-2	NFUDS-002-ISG04-01	08/09/2012 16:02	1	09AUG121111_091.d	Biphenyl 4.6(mm)
200-12041-3	NFUDS-002-ISG08-01	08/09/2012 16:36	1	09AUG121111_101.d	Biphenyl 4.6(mm)
CCV 200-43164/11		08/09/2012 17:10	1	09AUG121111_111.d	Biphenyl 4.6(mm)
200-12041-4	NFUDS-002-ISG08-R1	08/09/2012 17:44	1	09AUG121111_121.d	Biphenyl 4.6(mm)
200-12041-5	NFUDS-002-ISG08-R2	08/09/2012 18:19	1	09AUG121111_131.d	Biphenyl 4.6(mm)
200-12041-6	NFUDS-002-ISG09-01	08/09/2012 18:53	1	09AUG121111_141.d	Biphenyl 4.6(mm)
200-12041-7	NFUDS-002-ISG12-01	08/09/2012 19:27	1	09AUG121111_151.d	Biphenyl 4.6(mm)
200-12041-7 DU	NFUDS-002-ISG12-01 DU	08/09/2012 20:01	1	09AUG121111_161.d	Biphenyl 4.6(mm)
200-12041-7 TRL	NFUDS-002-ISG12-01 TRL	08/09/2012 20:35	1	09AUG121111_171.d	Biphenyl 4.6(mm)
CCV 200-43164/22		08/09/2012 23:26	1	09AUG121111_221.d	Biphenyl 4.6(mm)

HPLC/IC BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Batch Number: 43130 Batch Start Date: 08/08/12 14:40 Batch Analyst: Nye, Elizabeth A

Batch Method: 8330 Batch End Date: 08/09/12 10:15

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	EX833010GSUi 00024	EX8330MTXSPi 00014	LCSUPPSPi 00043	
200-12041-A-1-A	NFUDS-002-ISG02-01	8330, 8330B	T	10.05 g	100 mL	100 uL			
200-12041-A-2-A	NFUDS-002-ISG04-01	8330, 8330B	T	9.94 g	100 mL	100 uL			
200-12041-A-3-A	NFUDS-002-ISG08-01	8330, 8330B	T	10.08 g	100 mL	100 uL			
200-12041-A-4-A	NFUDS-002-ISG08-R1	8330, 8330B	T	10.01 g	100 mL	100 uL			
GB 200-43003/5-A		8330, 8330B		10.29 g	100 mL	100 uL			
200-12041-A-5-A	NFUDS-002-ISG08-R2	8330, 8330B	T	10.64 g	100 mL	100 uL			
200-12041-A-6-A	NFUDS-002-ISG09-01	8330, 8330B	T	9.97 g	100 mL	100 uL			
200-12041-A-7-A	NFUDS-002-ISG12-01	8330, 8330B	T	10.19 g	100 mL	100 uL			
200-12041-A-7-BDU	NFUDS-002-ISG12-01	8330, 8330B	T	9.66 g	100 mL	100 uL			
200-12041-A-7-CTRL	NFUDS-002-ISG12-01	8330, 8330B	T	10.46 g	100 mL	100 uL			
MB 200-43130/17		8330, 8330B		9.93 g	100 mL	100 uL			
LCS 200-43130/18		8330, 8330B		9.98 g	100 mL	100 uL	500 uL	500 uL	

Batch Notes	
Batch Comment	ACN Lot #304589; witnessed by MLT

Basis	Basis Description
T	Total/NA

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Burlington Job Number: 200-12041-1

SDG No.: 200-12041-1

Project: Nantucket Beach FUDS

Client Sample ID	Lab Sample ID
NFUDS-002-ISG02-01	200-12041-1
NFUDS-002-ISG04-01	200-12041-2
NFUDS-002-ISG08-01	200-12041-3
NFUDS-002-ISG08-R1	200-12041-4
NFUDS-002-ISG08-R2	200-12041-5
NFUDS-002-ISG09-01	200-12041-6
NFUDS-002-ISG12-01	200-12041-7

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: NFUDS-002-ISG02-01 Lab Sample ID: 200-12041-1

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG ID.: 200-12041-1

Matrix: Solid Date Sampled: 07/31/2012 15:00

Reporting Basis: WET Date Received: 08/02/2012 10:30

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Silver	0.20	0.49	0.20	0.064	mg/Kg	U		1	6010C
Aluminum	3800	9.8	8.8	8.3	mg/Kg			1	6010C
Arsenic	2.1	0.49	0.44	0.27	mg/Kg			1	6010C
Barium	5.0	9.8	0.98	0.25	mg/Kg	J		1	6010C
Beryllium	0.10	0.25	0.064	0.016	mg/Kg	J		1	6010C
Calcium	310	250	74	25	mg/Kg			1	6010C
Cadmium	0.044	0.25	0.12	0.039	mg/Kg	J		1	6010C
Cobalt	0.58	2.5	0.15	0.040	mg/Kg	J		1	6010C
Chromium	4.6	0.49	0.20	0.054	mg/Kg			1	6010C
Copper	1.5	1.2	0.39	0.11	mg/Kg			1	6010C
Iron	4800	9.8	8.8	6.4	mg/Kg			1	6010C
Potassium	270	250	25	7.4	mg/Kg			1	6010C
Magnesium	490	250	25	6.9	mg/Kg			1	6010C
Manganese	35	0.74	0.44	0.22	mg/Kg			1	6010C
Sodium	59	250	12	3.7	mg/Kg	J		1	6010C
Nickel	1.8	2.0	0.49	0.14	mg/Kg	J		1	6010C
Lead	4.6	0.49	0.44	0.22	mg/Kg			1	6010C
Antimony	0.74	2.9	0.74	0.24	mg/Kg	U		1	6010C
Selenium	1.1	1.7	1.1	0.43	mg/Kg	U		1	6010C
Thallium	0.74	1.2	0.74	0.20	mg/Kg	U		1	6010C
Vanadium	8.0	2.5	0.25	0.064	mg/Kg			1	6010C
Zinc	9.0	0.98	0.74	0.27	mg/Kg			1	6010C
Mercury	0.0037	0.032	0.0037	0.0021	mg/Kg	U		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: NFUDS-002-ISG04-01 Lab Sample ID: 200-12041-2

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG ID.: 200-12041-1

Matrix: Solid Date Sampled: 08/01/2012 08:00

Reporting Basis: WET Date Received: 08/02/2012 10:30

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Silver	0.19	0.47	0.19	0.061	mg/Kg	U		1	6010C
Aluminum	4600	9.4	8.5	8.0	mg/Kg			1	6010C
Arsenic	2.2	0.47	0.42	0.26	mg/Kg			1	6010C
Barium	5.2	9.4	0.94	0.25	mg/Kg	J		1	6010C
Beryllium	0.12	0.24	0.061	0.015	mg/Kg	J		1	6010C
Calcium	170	240	71	24	mg/Kg	J		1	6010C
Cadmium	0.077	0.24	0.12	0.038	mg/Kg	J		1	6010C
Cobalt	1.1	2.4	0.14	0.038	mg/Kg	J		1	6010C
Chromium	5.7	0.47	0.19	0.052	mg/Kg			1	6010C
Copper	1.6	1.2	0.38	0.10	mg/Kg			1	6010C
Iron	6000	9.4	8.5	6.1	mg/Kg			1	6010C
Potassium	290	240	24	7.1	mg/Kg			1	6010C
Magnesium	530	240	24	6.6	mg/Kg			1	6010C
Manganese	38	0.71	0.42	0.21	mg/Kg			1	6010C
Sodium	20	240	12	3.5	mg/Kg	J		1	6010C
Nickel	2.8	1.9	0.47	0.14	mg/Kg			1	6010C
Lead	4.5	0.47	0.42	0.21	mg/Kg			1	6010C
Antimony	0.71	2.8	0.71	0.23	mg/Kg	U		1	6010C
Selenium	0.53	1.7	1.1	0.41	mg/Kg	J		1	6010C
Thallium	0.71	1.2	0.71	0.19	mg/Kg	U		1	6010C
Vanadium	8.8	2.4	0.24	0.061	mg/Kg			1	6010C
Zinc	11	0.94	0.71	0.26	mg/Kg			1	6010C
Mercury	0.0036	0.031	0.0036	0.0021	mg/Kg	U		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: NFUDS-002-ISG08-01 Lab Sample ID: 200-12041-3

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG ID.: 200-12041-1

Matrix: Solid Date Sampled: 07/31/2012 15:40

Reporting Basis: WET Date Received: 08/02/2012 10:30

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Silver	0.20	0.51	0.20	0.066	mg/Kg	U		1	6010C
Aluminum	4000	10	9.1	8.6	mg/Kg			1	6010C
Arsenic	2.1	0.51	0.46	0.28	mg/Kg			1	6010C
Barium	5.2	10	1.0	0.26	mg/Kg	J		1	6010C
Beryllium	0.092	0.25	0.066	0.016	mg/Kg	J		1	6010C
Calcium	160	250	76	26	mg/Kg	J		1	6010C
Cadmium	0.050	0.25	0.13	0.041	mg/Kg	J		1	6010C
Cobalt	0.71	2.5	0.15	0.041	mg/Kg	J		1	6010C
Chromium	5.1	0.51	0.20	0.056	mg/Kg			1	6010C
Copper	1.6	1.3	0.41	0.11	mg/Kg			1	6010C
Iron	5600	10	9.1	6.6	mg/Kg			1	6010C
Potassium	260	250	25	7.6	mg/Kg			1	6010C
Magnesium	400	250	25	7.1	mg/Kg			1	6010C
Manganese	32	0.76	0.46	0.23	mg/Kg			1	6010C
Sodium	35	250	13	3.8	mg/Kg	J		1	6010C
Nickel	2.1	2.0	0.51	0.15	mg/Kg			1	6010C
Lead	6.2	0.51	0.46	0.22	mg/Kg			1	6010C
Antimony	0.76	3.0	0.76	0.25	mg/Kg	U		1	6010C
Selenium	0.58	1.8	1.2	0.44	mg/Kg	J		1	6010C
Thallium	0.76	1.3	0.76	0.21	mg/Kg	U		1	6010C
Vanadium	9.3	2.5	0.25	0.066	mg/Kg			1	6010C
Zinc	7.1	1.0	0.76	0.28	mg/Kg			1	6010C
Mercury	0.010	0.032	0.0037	0.0021	mg/Kg	J		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: NFUDS-002-ISG08-R1 Lab Sample ID: 200-12041-4

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG ID.: 200-12041-1

Matrix: Solid Date Sampled: 08/01/2012 14:45

Reporting Basis: WET Date Received: 08/02/2012 10:30

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Silver	0.20	0.49	0.20	0.064	mg/Kg	U		1	6010C
Aluminum	5100	9.8	8.8	8.3	mg/Kg			1	6010C
Arsenic	2.4	0.49	0.44	0.27	mg/Kg			1	6010C
Barium	6.2	9.8	0.98	0.25	mg/Kg	J		1	6010C
Beryllium	0.10	0.25	0.064	0.016	mg/Kg	J		1	6010C
Calcium	170	250	74	25	mg/Kg	J		1	6010C
Cadmium	0.050	0.25	0.12	0.039	mg/Kg	J		1	6010C
Cobalt	0.75	2.5	0.15	0.040	mg/Kg	J		1	6010C
Chromium	5.9	0.49	0.20	0.054	mg/Kg			1	6010C
Copper	1.6	1.2	0.39	0.11	mg/Kg			1	6010C
Iron	6700	9.8	8.8	6.4	mg/Kg			1	6010C
Potassium	270	250	25	7.4	mg/Kg			1	6010C
Magnesium	450	250	25	6.9	mg/Kg			1	6010C
Manganese	35	0.74	0.44	0.22	mg/Kg			1	6010C
Sodium	31	250	12	3.7	mg/Kg	J		1	6010C
Nickel	2.3	2.0	0.49	0.14	mg/Kg			1	6010C
Lead	6.7	0.49	0.44	0.22	mg/Kg			1	6010C
Antimony	0.74	2.9	0.74	0.24	mg/Kg	U		1	6010C
Selenium	0.64	1.7	1.1	0.43	mg/Kg	J		1	6010C
Thallium	0.74	1.2	0.74	0.20	mg/Kg	U		1	6010C
Vanadium	11	2.5	0.25	0.064	mg/Kg			1	6010C
Zinc	8.4	0.98	0.74	0.27	mg/Kg			1	6010C
Mercury	0.0037	0.032	0.0037	0.0021	mg/Kg	U		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: NFUDS-002-ISG08-R2 Lab Sample ID: 200-12041-5

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG ID.: 200-12041-1

Matrix: Solid Date Sampled: 08/01/2012 15:15

Reporting Basis: WET Date Received: 08/02/2012 10:30

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Silver	0.20	0.51	0.20	0.066	mg/Kg	U		1	6010C
Aluminum	5400	10	9.1	8.6	mg/Kg			1	6010C
Arsenic	2.4	0.51	0.45	0.28	mg/Kg			1	6010C
Barium	6.1	10	1.0	0.26	mg/Kg	J		1	6010C
Beryllium	0.12	0.25	0.066	0.016	mg/Kg	J		1	6010C
Calcium	190	250	76	26	mg/Kg	J		1	6010C
Cadmium	0.053	0.25	0.13	0.040	mg/Kg	J		1	6010C
Cobalt	0.81	2.5	0.15	0.041	mg/Kg	J		1	6010C
Chromium	6.1	0.51	0.20	0.056	mg/Kg			1	6010C
Copper	1.8	1.3	0.40	0.11	mg/Kg			1	6010C
Iron	7000	10	9.1	6.6	mg/Kg			1	6010C
Potassium	280	250	25	7.6	mg/Kg			1	6010C
Magnesium	470	250	25	7.1	mg/Kg			1	6010C
Manganese	38	0.76	0.45	0.23	mg/Kg			1	6010C
Sodium	29	250	13	3.8	mg/Kg	J		1	6010C
Nickel	2.5	2.0	0.51	0.15	mg/Kg			1	6010C
Lead	5.6	0.51	0.45	0.22	mg/Kg			1	6010C
Antimony	0.76	3.0	0.76	0.25	mg/Kg	U		1	6010C
Selenium	0.56	1.8	1.2	0.44	mg/Kg	J		1	6010C
Thallium	0.76	1.3	0.76	0.21	mg/Kg	U		1	6010C
Vanadium	11	2.5	0.25	0.066	mg/Kg			1	6010C
Zinc	8.9	1.0	0.76	0.28	mg/Kg			1	6010C
Mercury	0.0034	0.029	0.0034	0.0019	mg/Kg	U		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: NFUDS-002-ISG09-01 Lab Sample ID: 200-12041-6

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG ID.: 200-12041-1

Matrix: Solid Date Sampled: 07/31/2012 17:01

Reporting Basis: WET Date Received: 08/02/2012 10:30

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Silver	0.19	0.48	0.19	0.063	mg/Kg	U		1	6010C
Aluminum	4200	9.6	8.7	8.2	mg/Kg			1	6010C
Arsenic	2.5	0.48	0.43	0.27	mg/Kg			1	6010C
Barium	7.9	9.6	0.96	0.25	mg/Kg	J		1	6010C
Beryllium	0.092	0.24	0.063	0.015	mg/Kg	J		1	6010C
Calcium	370	240	72	25	mg/Kg			1	6010C
Cadmium	0.057	0.24	0.12	0.038	mg/Kg	J		1	6010C
Cobalt	0.78	2.4	0.14	0.039	mg/Kg	J		1	6010C
Chromium	5.5	0.48	0.19	0.053	mg/Kg			1	6010C
Copper	2.3	1.2	0.38	0.11	mg/Kg			1	6010C
Iron	6400	9.6	8.7	6.3	mg/Kg			1	6010C
Potassium	310	240	24	7.2	mg/Kg			1	6010C
Magnesium	520	240	24	6.7	mg/Kg			1	6010C
Manganese	47	0.72	0.43	0.22	mg/Kg			1	6010C
Sodium	55	240	12	3.6	mg/Kg	J		1	6010C
Nickel	2.5	1.9	0.48	0.14	mg/Kg			1	6010C
Lead	8.5	0.48	0.43	0.21	mg/Kg			1	6010C
Antimony	0.72	2.9	0.72	0.24	mg/Kg	U		1	6010C
Selenium	0.63	1.7	1.1	0.42	mg/Kg	J		1	6010C
Thallium	0.72	1.2	0.72	0.20	mg/Kg	U		1	6010C
Vanadium	10	2.4	0.24	0.063	mg/Kg			1	6010C
Zinc	8.9	0.96	0.72	0.27	mg/Kg			1	6010C
Mercury	0.0080	0.030	0.0035	0.0020	mg/Kg	J		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: NFUDS-002-ISG12-01 Lab Sample ID: 200-12041-7

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG ID.: 200-12041-1

Matrix: Solid Date Sampled: 08/01/2012 11:45

Reporting Basis: WET Date Received: 08/02/2012 10:30

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Silver	0.20	0.50	0.20	0.065	mg/Kg	U		1	6010C
Aluminum	3600	10	9.0	8.5	mg/Kg			1	6010C
Arsenic	2.3	0.50	0.45	0.28	mg/Kg			1	6010C
Barium	6.0	10	1.0	0.26	mg/Kg	J		1	6010C
Beryllium	0.089	0.25	0.065	0.016	mg/Kg	J		1	6010C
Calcium	300	250	75	26	mg/Kg			1	6010C
Cadmium	0.059	0.25	0.13	0.040	mg/Kg	J		1	6010C
Cobalt	0.75	2.5	0.15	0.041	mg/Kg	J		1	6010C
Chromium	4.9	0.50	0.20	0.055	mg/Kg			1	6010C
Copper	6.6	1.3	0.40	0.11	mg/Kg			1	6010C
Iron	5700	10	9.0	6.5	mg/Kg			1	6010C
Potassium	280	250	25	7.5	mg/Kg			1	6010C
Magnesium	450	250	25	7.0	mg/Kg			1	6010C
Manganese	35	0.75	0.45	0.23	mg/Kg			1	6010C
Sodium	41	250	13	3.8	mg/Kg	J		1	6010C
Nickel	2.1	2.0	0.50	0.15	mg/Kg			1	6010C
Lead	9.1	0.50	0.45	0.22	mg/Kg			1	6010C
Antimony	0.75	3.0	0.75	0.25	mg/Kg	U		1	6010C
Selenium	0.63	1.8	1.2	0.44	mg/Kg	J		1	6010C
Thallium	0.75	1.3	0.75	0.21	mg/Kg	U		1	6010C
Vanadium	9.3	2.5	0.25	0.065	mg/Kg			1	6010C
Zinc	8.2	1.0	0.75	0.28	mg/Kg			1	6010C
Mercury	0.014	0.032	0.0037	0.0021	mg/Kg	J		1	7471B

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

ICV Source: MEICVw_00030 Concentration Units: ug/L

CCV Source: MECCVw_00053

Analyte	ICV 200-43509/5 08/16/2012 02:35				CCV 200-43509/10 08/16/2012 03:04				CCV 200-43509/22 08/16/2012 04:13			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	249		250	100	292		300	97	290		300	97
Barium	490		500	98	191	J	200	95	194	J	200	97
Cadmium	496		500	99	96.8		100	97	95.7		100	96
Calcium	25200		25000	101	30700		30000	102	30200		30000	101
Chromium	487		500	97	191		200	96	190		200	95
Cobalt	485		500	97	188		200	94	188		200	94
Iron	25800		25500	101	30500		30200	101	30400		30200	101
Lead	1030		1000	103	404		400	101	399		400	100
Magnesium	25400		25000	102	30900		30200	102	30400		30200	101
Manganese	478		500	96	187		200	94	188		200	94
Nickel	480		500	96	187		200	93	185		200	93
Potassium	25200		25000	101	30200		30200	100	30200		30200	100
Selenium	254		250	102	100		100	100	98.3		100	98
Silver	478		500	96	95.4		100	95	94.1		100	94
Sodium	25000		25000	100	30300		30200	100	29900		30200	99
Thallium	237		250	95	98.0		100	98	95.6		100	96
Vanadium	496		500	99	194		200	97	193		200	96

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

ICV Source: MEICVw_00030 Concentration Units: ug/L

CCV Source: MECCVw_00053

Analyte	CCV 200-43509/35 08/16/2012 05:27											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	284		300	95								
Barium	191	J	200	95								
Cadmium	93.8		100	94								
Calcium	30300		30000	101								
Chromium	188		200	94								
Cobalt	186		200	93								
Iron	30000		30200	99								
Lead	397		400	99								
Magnesium	30500		30200	101								
Manganese	184		200	92								
Nickel	183		200	92								
Potassium	29900		30200	99								
Selenium	97.3		100	97								
Silver	92.7		100	93								
Sodium	30200		30200	100								
Thallium	92.7		100	93								
Vanadium	191		200	95								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

ICV Source: ME6010CRIw_00024 Concentration Units: ug/L

CCV Source: ME6010CRIw_00024

Analyte	ICVL 200-43509/6 08/16/2012 02:41				CCVL 200-43509/23 08/16/2012 04:18				CCVL 200-43509/36 08/16/2012 05:33			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	61.1		60.0	102	59.5	J	60.0	99	59.9	J	60.0	100
Barium	196	J	200	98	199	J	200	99	195	J	200	98
Cadmium	5.52		5.00	110	5.06		5.00	101	5.30		5.00	106
Calcium	5140		5000	103	5210		5000	104	5200		5000	104
Chromium	10.3		10.0	103	9.73	J	10.0	97	9.87	J	10.0	99
Cobalt	49.7	J	50.0	99	49.6	J	50.0	99	48.8	J	50.0	98
Iron	196	J	200	98	190	J	200	95	192	J	200	96
Lead	9.86	J	10.0	99	9.43	J	10.0	94	8.75	J	10.0	88
Magnesium	5190		5000	104	5290		5000	106	5290		5000	106
Manganese	13.7	J	15.0	91	13.1	J	15.0	88	13.0	J	15.0	87
Nickel	39.6	J	40.0	99	39.6	J	40.0	99	39.5	J	40.0	99
Potassium	5140		5000	103	5210		5000	104	5120		5000	102
Selenium	34.9	J	35.0	100	33.8	J	35.0	97	35.6		35.0	102
Silver	10.5		10.0	105	9.67	J	10.0	97	9.87	J	10.0	99
Sodium	5140		5000	103	5190		5000	104	5180		5000	104
Thallium	24.5	J	25.0	98	22.8	J	25.0	91	21.2	J	25.0	85
Vanadium	50.2		50.0	100	49.3	J	50.0	99	49.1	J	50.0	98

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

ICV Source: MEICVw_00030 Concentration Units: ug/L

CCV Source: MECCVw_00054

Analyte	ICV 200-43690/5 08/18/2012 15:57				CCV 200-43690/10 08/18/2012 16:22				CCV 200-43690/22 08/18/2012 17:23			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	25600		26000	99	29600		30200	98	29800		30200	99
Arsenic	254		250	102	101		100	101	104		100	104
Beryllium	515		500	103	98.1		100	98	99.1		100	99
Copper	483		500	97	189		200	94	189		200	95
Zinc	506		500	101	194		200	97	195		200	97

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

ICV Source: MEICVw_00030 Concentration Units: ug/L

CCV Source: MECCVw_00054

Analyte	CCV 200-43690/26 08/18/2012 17:44											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	29700		30200	98								
Arsenic	101		100	101								
Beryllium	98.7		100	99								
Copper	189		200	95								
Zinc	195		200	97								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

ICV Source: ME6010CRIw_00024 Concentration Units: ug/L

CCV Source: ME6010CRIw_00024

Analyte	ICVL 200-43690/6 08/18/2012 16:02				CCVL 200-43690/23 08/18/2012 17:28				CCVL 200-43690/27 08/18/2012 17:49			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	193	J	200	96	212		200	106	207		200	104
Arsenic	12.5		10.0	125	10.1		10.0	101	11.9		10.0	119
Beryllium	5.27		5.00	105	5.27		5.00	105	5.21		5.00	104
Copper	25.2		25.0	101	25.0		25.0	100	25.2		25.0	101
Zinc	20.1		20.0	100	19.8	J	20.0	99	19.7	J	20.0	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

ICV Source: MEHGICVw_00019 Concentration Units: ug/L

CCV Source: MEHGCCVw_00507

Analyte	ICV 200-43602/7-A 08/20/2012 12:11				CCV 200-43602/9-A 08/20/2012 12:18				CCV 200-43602/9-A 08/20/2012 12:43			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	2.93		3.00	98	4.84		5.00	97	4.94		5.00	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

ICV Source: MEHGICVw_00019 Concentration Units: ug/L

CCV Source: MEHGCCVw_00507

Analyte	CCV 200-43602/9-A 08/20/2012 12:57											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	4.94		5.00	99								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Concentration Units: ug/L

Analyte	RL	ICBIS 200-43509/7 08/16/2012 02:47		CCB 200-43509/11 08/16/2012 03:09		CCB 200-43509/24 08/16/2012 04:24		CCB 200-43509/37 08/16/2012 05:38	
		Found	C	Found	C	Found	C	Found	C
Antimony	60	15	U	15	U	15	U	15	U
Barium	200	20	U	20	U	20	U	20	U
Cadmium	5.0	2.5	U	2.5	U	2.5	U	2.5	U
Calcium	5000	1500	U	1500	U	1500	U	1500	U
Chromium	10	4.0	U	4.0	U	4.0	U	4.0	U
Cobalt	50	3.0	U	3.0	U	3.0	U	3.0	U
Iron	200	180	U	180	U	180	U	180	U
Lead	10	9.0	U	9.0	U	9.0	U	9.0	U
Magnesium	5000	500	U	500	U	500	U	500	U
Manganese	15	9.0	U	9.0	U	9.0	U	9.0	U
Nickel	40	10	U	10	U	10	U	10	U
Potassium	5000	500	U	500	U	500	U	500	U
Selenium	35	23	U	23	U	23	U	23	U
Silver	10	4.0	U	4.0	U	4.0	U	4.0	U
Sodium	5000	250	U	250	U	250	U	250	U
Thallium	25	15	U	15	U	15	U	15	U
Vanadium	50	5.0	U	5.0	U	5.0	U	5.0	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Concentration Units: ug/L

Analyte	RL	ICBIS 200-43690/7 08/18/2012 16:07		CCB 200-43690/11 08/18/2012 16:27		CCB 200-43690/24 08/18/2012 17:33		CCB 200-43690/28 08/18/2012 17:54	
		Found	C	Found	C	Found	C	Found	C
Aluminum	200	180	U	180	U	180	U	180	U
Arsenic	10	9.0	U	9.0	U	9.0	U	9.0	U
Beryllium	5.0	1.3	U	1.3	U	1.3	U	1.3	U
Copper	25	8.0	U	8.0	U	8.0	U	8.0	U
Zinc	20	15	U	15	U	15	U	15	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Concentration Units: ug/L

Analyte	RL	ICB 200-43602/8-A 08/20/2012 12:16		CCB 200-43602/10-A 08/20/2012 12:20		CCB 200-43602/10-A 08/20/2012 12:48		CCB 200-43602/10-A 08/20/2012 13:02	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.10	U	0.10	U	0.10	U	0.0600	J

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Concentration Units: mg/Kg Lab Sample ID: MB 200-43205/1-A

Instrument Code: METICP7 Batch No.: 43509

CAS No.	Analyte	Concentration	C	Q	Method
7440-22-4	Silver	0.40	U		6010C
7440-39-3	Barium	2.0	U		6010C
7440-70-2	Calcium	150	U		6010C
7440-43-9	Cadmium	0.25	U		6010C
7440-48-4	Cobalt	0.30	U		6010C
7440-47-3	Chromium	0.40	U		6010C
7439-89-6	Iron	18	U		6010C
7440-09-7	Potassium	50	U		6010C
7439-95-4	Magnesium	50	U		6010C
7439-96-5	Manganese	0.90	U		6010C
7440-23-5	Sodium	25	U		6010C
7440-02-0	Nickel	1.0	U		6010C
7439-92-1	Lead	0.90	U		6010C
7440-36-0	Antimony	1.5	U		6010C
7782-49-2	Selenium	2.3	U		6010C
7440-28-0	Thallium	1.5	U		6010C
7440-62-2	Vanadium	0.50	U		6010C

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Concentration Units: mg/Kg Lab Sample ID: MB 200-43205/1-A

Instrument Code: METICP7 Batch No.: 43690

CAS No.	Analyte	Concentration	C	Q	Method
7429-90-5	Aluminum	18	U		6010C
7440-38-2	Arsenic	0.90	U		6010C
7440-41-7	Beryllium	0.13	U		6010C
7440-50-8	Copper	0.80	U		6010C
7440-66-6	Zinc	1.5	U		6010C

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Concentration Units: mg/Kg Lab Sample ID: MB 200-43602/11-A

Instrument Code: MEPCV3 II Batch No.: 43668

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.0038	U		7471B

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Lab Sample ID: ICSA 200-43509/8 Instrument ID: METICP7

Lab File ID: 081512-04.ttx ICS Source: ME6010ICSAw_00011

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**2.03**	
Barium		**-2.14**	
Cadmium		**1.15**	
Calcium	**500000**	**487466**	**97**
Chromium		**0.959**	
Cobalt		**0.166**	
Iron	**200000**	**191993**	**96**
Lead		**7.16**	
Magnesium	**500000**	**514456**	**103**
Manganese		**-8.77**	
Nickel		**3.00**	
Potassium		**-77.7**	
Selenium		**6.52**	
Silver		**0.218**	
Sodium		**-12.1**	
Thallium		**-1.50**	
Vanadium		**-0.875**	
Aluminum	*500000*	*509851*	*102*
Arsenic		*4.15*	
Beryllium		*-0.157*	
Boron		*-0.996*	
Copper		*-1.79*	
Molybdenum		*-0.509*	
Phosphorus		*7.79*	
Silicon		*3.27*	
Strontium		*1.58*	
Tin		*0.390*	
Titanium		*1.68*	
Zinc		*-18.7*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Lab Sample ID: ICSAB 200-43509/9 Instrument ID: METICP7

Lab File ID: 081512-04.ttx ICS Source: ME6010ICSABw_00017

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**600**	**596**	**99**
Barium	**500**	**465**	**93**
Cadmium	**1000**	**989**	**99**
Calcium	**250000**	**247440**	**99**
Chromium	**500**	**471**	**94**
Cobalt	**500**	**457**	**91**
Iron	**100000**	**99526**	**100**
Lead	**50.0**	**56.6**	**113**
Magnesium	**250000**	**254962**	**102**
Manganese	**500**	**474**	**95**
Nickel	**1000**	**898**	**90**
Potassium		**-13.9**	
Selenium	**50.0**	**51.1**	**102**
Silver	**200**	**203**	**101**
Sodium		**1.68**	
Thallium	**100**	**89.4**	**89**
Vanadium	**500**	**497**	**99**
Aluminum	*250000*	*257298*	*103*
Arsenic	*100*	*103*	*103*
Beryllium	*500*	*499*	*100*
Boron	*1500*	*1488*	*99*
Copper	*500*	*494*	*99*
Molybdenum	*1000*	*982*	*98*
Phosphorus	*500*	*520*	*104*
Silicon	*1000*	*1116*	*112*
Strontium	*250*	*233*	*93*
Tin	*1500*	*1443*	*96*
Titanium	*500*	*503*	*101*
Zinc	*1000*	*970*	*97*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Lab Sample ID: ICSA 200-43690/8 Instrument ID: METICP7

Lab File ID: 082012-06.ttx ICS Source: ME6010ICSAw_00011

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Aluminum	**500000**	**504499**	**101**
Arsenic		**0.765**	
Beryllium		**0.0249**	
Copper		**4.03**	
Zinc		**-6.08**	
Antimony		*5.75*	
Barium		*1.96*	
Boron		*-0.209*	
Cadmium		*0.837*	
Calcium	*500000*	*479825*	*96*
Chromium		*1.40*	
Cobalt		*0.108*	
Iron	*200000*	*190363*	*95*
Lead		*8.62*	
Magnesium	*500000*	*505493*	*101*
Manganese		*-6.65*	
Molybdenum		*-0.275*	
Nickel		*3.56*	
Phosphorus		*6.66*	
Potassium		*-103*	
Selenium		*-1.20*	
Silicon		*4.38*	
Silver		*0.178*	
Sodium		*5.50*	
Strontium		*1.92*	
Thallium		*1.32*	
Tin		*1.44*	
Titanium		*2.57*	
Vanadium		*-2.21*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Lab Sample ID: ICSAB 200-43690/9 Instrument ID: METICP7

Lab File ID: 082012-06.ttx ICS Source: ME6010ICSABw_00017

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Aluminum	**250000**	**249118**	**100**
Arsenic	**100**	**99.5**	**100**
Beryllium	**500**	**497**	**99**
Copper	**500**	**502**	**100**
Zinc	**1000**	**975**	**98**
Antimony	*600*	*591*	*99*
Barium	*500*	*470*	*94*
Boron	*1500*	*1505*	*100*
Cadmium	*1000*	*984*	*98*
Calcium	*250000*	*240548*	*96*
Chromium	*500*	*473*	*95*
Cobalt	*500*	*458*	*92*
Iron	*100000*	*96762*	*97*
Lead	*50.0*	*59.0*	*118*
Magnesium	*250000*	*247985*	*99*
Manganese	*500*	*468*	*94*
Molybdenum	*1000*	*986*	*99*
Nickel	*1000*	*902*	*90*
Phosphorus	*500*	*521*	*104*
Potassium		*-62.7*	
Selenium	*50.0*	*49.0*	*98*
Silicon	*1000*	*1105*	*110*
Silver	*200*	*200*	*100*
Sodium		*7.62*	
Strontium	*250*	*238*	*95*
Thallium	*100*	*89.2*	*89*
Tin	*1500*	*1450*	*97*
Titanium	*500*	*498*	*100*
Vanadium	*500*	*490*	*98*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: NFUDS-002-ISG02-01 MS Lab ID: 200-12041-1 MS

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Matrix: Solid Concentration Units: mg/Kg

% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	0.160		0.0037	U	0.167	96	80-120		7471B

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS

Client ID: NFUDS-002-ISG02-01 PDS Lab ID: 200-12041-1 PDS

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Matrix: Solid Concentration Units: mg/Kg

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Silver	2.33		0.20	U	2.45	95	75-125		6010C
Aluminum	3810		3800		98.0	-2	75-125	J	6010C
Arsenic	3.90		2.1		1.96	90	75-125		6010C
Barium	100		5.0	J	98.0	97	75-125		6010C
Beryllium	2.55		0.10	J	2.45	100	75-125		6010C
Calcium	306		310		98.0	-4	75-125	J	6010C
Cadmium	2.43		0.044	J	2.45	97	75-125		6010C
Cobalt	24.5		0.58	J	24.5	98	75-125		6010C
Chromium	14.1		4.6		9.80	97	75-125		6010C
Copper	13.2		1.5		12.3	96	75-125		6010C
Iron	4670		4800		49.0	-173	75-125	J	6010C
Potassium	367		270		98.0	100	75-125		6010C
Magnesium	546		490		98.0	58	75-125	J	6010C
Manganese	58.1		35		24.5	94	75-125		6010C
Sodium	165	J	59	J	98.0	108	75-125		6010C
Nickel	25.2		1.8	J	24.5	95	75-125		6010C
Lead	5.64		4.6		0.980	105	75-125		6010C
Antimony	24.1		0.74	U	24.5	98	75-125		6010C
Selenium	2.73		1.1	U	2.45	112	75-125		6010C
Thallium	1.97		0.74	U	2.45	80	75-125		6010C
Vanadium	31.8		8.0		24.5	97	75-125		6010C
Zinc	31.9		9.0		24.5	93	75-125		6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VB - IN

6-IN
DUPLICATES
METALS

Client ID: NFUDS-002-ISG02-01 DU Lab ID: 200-12041-1 DU

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

% Solids for Sample: % Solids for Duplicate:

Matrix: Solid Concentration Units: mg/Kg

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Mercury	0.033	0.0037	U	0.0038	U	NC		7471B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 200-43205/2-A

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

Sample Matrix: Solid LCS Source: ME5PPMAGw_00020

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Silver	25.0	29.0		116	80	120		6010C
Barium	200	207		104	80	120		6010C
Calcium	2000	2060		103	80	120		6010C
Cadmium	25.0	25.7		103	80	120		6010C
Cobalt	50.0	51.5		103	80	120		6010C
Chromium	20.0	20.6		103	80	120		6010C
Iron	100	109		109	80	120		6010C
Potassium	2000	2100		105	80	120		6010C
Magnesium	2000	2050		103	80	120		6010C
Manganese	50.0	51.3		103	80	120		6010C
Sodium	2000	2060		103	80	120		6010C
Nickel	50.0	50.3		101	80	120		6010C
Lead	22.0	23.1		105	80	120		6010C
Antimony	50.0	51.4		103	80	120		6010C
Selenium	25.0	25.5		102	80	120		6010C
Thallium	25.0	24.4		98	80	120		6010C
Vanadium	50.0	52.3		105	80	120		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 200-43205/2-A

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

Sample Matrix: Solid LCS Source: MESPIKE#1w_00026

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Aluminum	200	209		104	80	120		6010C
Arsenic	24.0	24.9		104	80	120		6010C
Beryllium	5.00	5.21		104	80	120		6010C
Copper	25.0	25.3		101	80	120		6010C
Zinc	50.0	49.9		100	80	120		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 200-43602/12-A

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

Sample Matrix: Solid LCS Source: MEHGCCVw_00507

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Mercury	0.167	0.145		87	80	120		7471B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 200-12041-1

SDG No: 200-12041-1

Lab Name: TestAmerica Burlington Job No: 200-12041-1

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Silver	0.20	U	0.98	U	NC		6010C
Aluminum	3800		4020		5.3	D	6010C
Arsenic	2.1		2.02	J	NC	D	6010C
Barium	5.0	J	5.03	J	NC	D	6010C
Beryllium	0.10	J	0.0939	J	NC	D	6010C
Calcium	310		307	J	NC	D	6010C
Cadmium	0.044	J	0.61	U	NC		6010C
Cobalt	0.58	J	0.638	J	NC	D	6010C
Chromium	4.6		4.79		4.8	D	6010C
Copper	1.5		1.60	J	NC	D	6010C
Iron	4800		5260		11	D V	6010C
Potassium	270		295	J	NC	D	6010C
Magnesium	490		524	J	6.9	D	6010C
Manganese	35		38.5		9.5	D	6010C
Sodium	59	J	71.8	J	NC	D	6010C
Nickel	1.8	J	1.83	J	NC	D	6010C
Lead	4.6		4.48		NC	D	6010C
Antimony	0.74	U	3.7	U	NC		6010C
Selenium	1.1	U	5.6	U	NC		6010C
Thallium	0.74	U	3.7	U	NC		6010C
Vanadium	8.0		8.66	J	8.4	D	6010C
Zinc	9.0		9.36		NC	D	6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Burlington Job Number: 200-12041-1

SDG Number: 200-12041-1

Matrix: Solid Instrument ID: METICP7

Method: 6010C DL Date: 07/19/2012 14:15

Prep Method: 3050B

Analyte	Wavelength/ Mass	LOQ (mg/Kg)	DL (mg/Kg)
Aluminum		20	17
Aluminum	396.152	20	17
Antimony		6	0.49
Antimony	206.833	6	0.49
Arsenic		1	0.56
Arsenic	189.042	1	0.56
Barium		20	0.52
Barium	233.527	20	0.52
Beryllium		0.5	0.032
Beryllium	313.042	0.5	0.032
Cadmium		0.5	0.08
Cadmium	228.802	0.5	0.08
Calcium		500	51
Calcium	318.128	500	51
Chromium		1	0.11
Chromium	205.552	1	0.11
Cobalt		5	0.081
Cobalt	228.616	5	0.081
Copper		2.5	0.22
Copper	324.754	2.5	0.22
Iron		20	13
Iron	271.441	20	13
Lead		1	0.44
Lead	220.353	1	0.44
Magnesium		500	14
Magnesium	279.079	500	14
Manganese		1.5	0.45
Manganese	257.610	1.5	0.45
Nickel		4	0.29
Nickel	231.604	4	0.29
Potassium		500	15
Potassium	766.490	500	15
Selenium		3.5	0.87
Selenium	196.090	3.5	0.87
Silver		1	0.13
Silver	328.068	1	0.13
Sodium		500	7.5
Sodium	589.592	500	7.5
Thallium		2.5	0.41
Thallium	190.856	2.5	0.41
Vanadium		5	0.13

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Burlington Job Number: 200-12041-1

SDG Number: 200-12041-1

Matrix: Solid Instrument ID: METICP7

Method: 6010C DL Date: 07/19/2012 14:15

Prep Method: 3050B

Analyte	Wavelength/ Mass	LOQ (mg/Kg)	DL (mg/Kg)
Vanadium	292.402	5	0.13
Zinc		2	0.56
Zinc	213.856	2	0.56

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Burlington Job Number: 200-12041-1

SDG Number: 200-12041-1

Matrix: Solid Instrument ID: METICP7

Method: 6010C XMDL Date: 04/10/2012 09:45

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Aluminum		200	170
Antimony		60	4.9
Arsenic		10	5.6
Barium		200	5.2
Beryllium		5	0.32
Cadmium		5	0.78
Calcium		5000	510
Chromium		10	1.1
Cobalt		50	0.81
Copper		25	2.2
Iron		200	130
Lead		10	4.4
Magnesium		5000	140
Manganese		15	4.5
Nickel		40	2.9
Potassium		5000	150
Selenium		35	8.7
Silver		10	1.3
Sodium		5000	75
Thallium		25	4.1
Vanadium		50	1.3
Zinc		20	5.6

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Burlington Job Number: 200-12041-1

SDG Number: 200-12041-1

Matrix: Solid Instrument ID: MEPCV3 II

Method: 7471B DL Date: 05/24/2011 11:59

Prep Method: 7471B

Analyte	Wavelength/ Mass	LOQ (mg/Kg)	DL (mg/Kg)
Mercury	253.7	0.033	0.0022

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Burlington Job Number: 200-12041-1

SDG Number: 200-12041-1

Matrix: Solid Instrument ID: MEPCV3 II

Method: 7471B XMDL Date: 03/13/2012 09:48

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury	253.7	0.2	0.06

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Burlington Job Number: 200-12041-1

SDG No.: 200-12041-1

ICP-AES Instrument ID: METICP7 Date: 01/04/2012

Analyte	Wave Length	Ag	Al	As	B	Ba	Be	Ca	Cd	Co	Cr	Cu	Fe	In	K
Aluminum	396.152														
Antimony	206.833										0.016442				
Arsenic	189.042		0.000011				0.000611				-0.014855				
Barium	233.527														
Beryllium	313.042														
Boron	208.959														
Cadmium	228.802			0.007049		-0.000075									
Calcium	318.128														
Chromium	205.552						-0.000659								
Cobalt	228.616														
Copper	324.754														
Indium	230.606														
Iron	271.441									0.071349					0.000979
Lead	220.353		-0.000068									-0.000611	0.000027		
Magnesium	279.079														
Manganese	257.610												0.000012		
Molybdenum	202.030														
Nickel	231.604														
Phosphorus	178.284														
Potassium	766.490														
Selenium	196.090												-0.000231		
Silicon	288.158														
Silver	328.068														
Sodium	589.592														
Strontium	407.771														
Thallium	190.856									0.002884					
Tin	189.989														
Titanium	334.904														
Vanadium	292.402												0.000030		
Zinc	213.856											0.000867	0.000083		

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Burlington Job Number: 200-12041-1

SDG No.: 200-12041-1

ICP-AES Instrument ID: METICP7 Date: 01/04/2012

Analyte	Wave Length	Mg	Mn	Mo	Na	Ni	P	Pb	Sb	Se	Si	Sn	Sr	Ti	Tl
Aluminum	396.152			0.043153											
Antimony	206.833											-0.006953			
Arsenic	189.042			0.001117											-0.006296
Barium	233.527														
Beryllium	313.042													-0.000632	
Boron	208.959			0.032223											
Cadmium	228.802														
Calcium	318.128														
Chromium	205.552			0.000103		-0.000202									
Cobalt	228.616			-0.002369										0.0019	
Copper	324.754														
Indium	230.606														
Iron	271.441														
Lead	220.353		0.000125	-0.003943		0.000175			0.000821					-0.000696	
Magnesium	279.079														
Manganese	257.610	0.000020													
Molybdenum	202.030														
Nickel	231.604			0.001565											
Phosphorus	178.284														
Potassium	766.490														
Selenium	196.090		0.000519												
Silicon	288.158											0.019661		0.0104	
Silver	328.068														
Sodium	589.592														
Strontium	407.771														
Thallium	190.856		0.000442											-0.001428	
Tin	189.989													-0.001449	
Titanium	334.904			0.000880											
Vanadium	292.402			-0.010850										0.000781	
Zinc	213.856	0.000032				0.004952								-0.000434	

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Burlington Job Number: 200-12041-1

SDG No.: 200-12041-1

ICP-AES Instrument ID: METICP7 Date: 01/04/2012

Analyte	Wave Length	V	Y	Zn											
Aluminum	396.152														
Antimony	206.833	-0.002158													
Arsenic	189.042														
Barium	233.527	-0.001101													
Beryllium	313.042	0.000804													
Boron	208.959														
Cadmium	228.802	0.000067													
Calcium	318.128														
Chromium	205.552														
Cobalt	228.616														
Copper	324.754														
Indium	230.606														
Iron	271.441	0.006103													
Lead	220.353	-0.000202													
Magnesium	279.079														
Manganese	257.610														
Molybdenum	202.030														
Nickel	231.604														
Phosphorus	178.284														
Potassium	766.490														
Selenium	196.090														
Silicon	288.158	0.010502													
Silver	328.068														
Sodium	589.592														
Strontium	407.771														
Thallium	190.856														
Tin	189.989														
Titanium	334.904														
Vanadium	292.402														
Zinc	213.856														

X-IN

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Burlington Job No: 200-12041-1

SDG No.: 200-12041-1

Instrument ID: METICP7 Date: 01/11/2011 15:12

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Silver		2000	6010C
Aluminum		1000000	6010C
Arsenic		5000	6010C
Barium		50000	6010C
Beryllium		25000	6010C
Calcium		600000	6010C
Cadmium		5000	6010C
Cobalt		20000	6010C
Chromium		20000	6010C
Copper		50000	6010C
Iron		1000000	6010C
Potassium		100000	6010C
Magnesium		1000000	6010C
Manganese		50000	6010C
Sodium		100000	6010C
Nickel		50000	6010C
Lead		100000	6010C
Antimony		10000	6010C
Selenium		5000	6010C
Thallium		5000	6010C
Vanadium		50000	6010C
Zinc		50000	6010C

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Burlington Job No: 200-12041-1

SDG No.: 200-12041-1

Instrument ID: MEPCV3 II Date: 04/18/2011 17:05

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Mercury	10	10	7471B

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Prep Method: 3050B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
MB 200-43205/1-A	08/09/2012 11:00	43205	1.00		100
LCS 200-43205/2-A	08/09/2012 11:00	43205	1.00		100
200-12041-1	08/09/2012 11:00	43205	2.04		100
200-12041-2	08/09/2012 11:00	43205	2.12		100
200-12041-3	08/09/2012 11:00	43205	1.97		100
200-12041-4	08/09/2012 11:00	43205	2.04		100
200-12041-5	08/09/2012 11:00	43205	1.98		100
200-12041-6	08/09/2012 11:00	43205	2.08		100
200-12041-7	08/09/2012 11:00	43205	1.99		100

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Prep Method: 7471B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
MB 200-43602/11-A	08/20/2012 09:00	43602	0.30		50
LCS 200-43602/12-A	08/20/2012 09:00	43602	0.30		50
200-12041-1	08/20/2012 09:00	43602	0.31		50
200-12041-1 DU	08/20/2012 09:00	43602	0.30		50
200-12041-1 MS	08/20/2012 09:00	43602	0.30		50
200-12041-2	08/20/2012 09:00	43602	0.32		50
200-12041-3	08/20/2012 09:00	43602	0.31		50
200-12041-4	08/20/2012 09:00	43602	0.31		50
200-12041-5	08/20/2012 09:00	43602	0.34		50
200-12041-6	08/20/2012 09:00	43602	0.33		50
200-12041-7	08/20/2012 09:00	43602	0.31		50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Instrument ID: METICP7 Method: 6010C

Start Date: 08/16/2012 02:12 End Date: 08/16/2012 07:56

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ag	Ba	Ca	Cd	Co	Cr	Fe	K	Mg	Mn	Na	Ni	Pb	Sb	Se	Tl	V			
CALIBSTD 200-43509/1 IC			02:12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
STD7 200-43509/2 IC			02:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
STD8 200-43509/3 IC			02:23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
STD4 200-43509/4 IC			02:29	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ICV 200-43509/5	1		02:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ICVL 200-43509/6	1		02:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ICBIS 200-43509/7	1		02:47	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ICSA 200-43509/8	1		02:53	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ICSAB 200-43509/9	1		02:59	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCV 200-43509/10	1		03:04	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCB 200-43509/11	1		03:09	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
MB 200-43205/1-A	1	T	03:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
LCS 200-43205/2-A	1	T	03:21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ZZZZZZ			03:27																				
ZZZZZZ			03:33																				
ZZZZZZ			03:39																				
ZZZZZZ			03:44																				
ZZZZZZ			03:51																				
200-12041-1	1	T	03:56	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
200-12041-1 SD	5	T	04:02	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
200-12041-1 PDS	1	T	04:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCV 200-43509/22	1		04:13	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCVL 200-43509/23	1		04:18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCB 200-43509/24	1		04:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
200-12041-2	1	T	04:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
200-12041-3	1	T	04:36	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
200-12041-4	1	T	04:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
200-12041-5	1	T	04:47	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
200-12041-6	1	T	04:52	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
200-12041-7	1	T	04:58	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ZZZZZZ			05:03																				
ZZZZZZ			05:09																				
ZZZZZZ			05:15																				
ZZZZZZ			05:21																				
CCV 200-43509/35	1		05:27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCVL 200-43509/36	1		05:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
CCB 200-43509/37	1		05:38	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
ZZZZZZ			05:44																				
ZZZZZZ			05:49																				
ZZZZZZ			05:56																				
ZZZZZZ			06:01																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Instrument ID: METICP7 Method: 6010C

Start Date: 08/16/2012 02:12 End Date: 08/16/2012 07:56

Lab Sample ID	D / F	Type	Time	Analytes																			
				Ag	Ba	Ca	Cd	Co	Cr	Fe	K	Mg	Mn	Na	Ni	Pb	Sb	Se	Tl	V			
ZZZZZZ			06:07																				
ZZZZZZ			06:12																				
ZZZZZZ			06:18																				
ZZZZZZ			06:24																				
ZZZZZZ			06:30																				
ZZZZZZ			06:35																				
CCV 200-43509/48			06:41																				
CCVL 200-43509/49			06:45																				
CCB 200-43509/50			06:50																				
ZZZZZZ			06:56																				
ZZZZZZ			07:01																				
ZZZZZZ			07:06																				
ZZZZZZ			07:11																				
ZZZZZZ			07:16																				
ZZZZZZ			07:21																				
ZZZZZZ			07:26																				
ZZZZZZ			07:31																				
ZZZZZZ			07:36																				
ZZZZZZ			07:41																				
CCV 200-43509/61			07:46																				
CCVL 200-43509/62			07:51																				
CCB 200-43509/63			07:56																				

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Instrument ID: METICP7 Method: 6010C

Start Date: 08/18/2012 15:37 End Date: 08/18/2012 17:54

Lab Sample ID	D/F	Type	Time	Analytes																				
				Al	As	Be	Cu	Zn																
CALIBSTD 200-43690/1 IC			15:37	X	X	X	X	X																
STD7 200-43690/2 IC			15:42	X	X	X	X	X																
STD8 200-43690/3 IC			15:47	X	X	X	X	X																
STD4 200-43690/4 IC			15:52	X	X	X	X	X																
ICV 200-43690/5	1		15:57	X	X	X	X	X																
ICVL 200-43690/6	1		16:02	X	X	X	X	X																
ICBIS 200-43690/7	1		16:07	X	X	X	X	X																
ICSA 200-43690/8	1		16:12	X	X	X	X	X																
ICSAB 200-43690/9	1		16:17	X	X	X	X	X																
CCV 200-43690/10	1		16:22	X	X	X	X	X																
CCB 200-43690/11	1		16:27	X	X	X	X	X																
MB 200-43205/1-A	1	T	16:32	X	X	X	X	X																
LCS 200-43205/2-A	1	T	16:37	X	X	X	X	X																
200-12041-1	1	T	16:43	X	X	X	X	X																
200-12041-1 SD	5	T	16:48	X	X	X	X	X																
200-12041-1 PDS	1	T	16:53	X	X	X	X	X																
200-12041-2	1	T	16:58	X	X	X	X	X																
200-12041-3	1	T	17:03	X	X	X	X	X																
200-12041-4	1	T	17:08	X	X	X	X	X																
200-12041-5	1	T	17:13	X	X	X	X	X																
200-12041-6	1	T	17:18	X	X	X	X	X																
CCV 200-43690/22	1		17:23	X	X	X	X	X																
CCVL 200-43690/23	1		17:28	X	X	X	X	X																
CCB 200-43690/24	1		17:33	X	X	X	X	X																
200-12041-7	1	T	17:39	X	X	X	X	X																
CCV 200-43690/26	1		17:44	X	X	X	X	X																
CCVL 200-43690/27	1		17:49	X	X	X	X	X																
CCB 200-43690/28	1		17:54	X	X	X	X	X																

Prep Types
T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Instrument ID: MEPCV3 II Method: 7471B

Start Date: 08/20/2012 11:58 End Date: 08/20/2012 13:02

Lab Sample ID	D / F	Type	Time	Analytes																			
				Hg																			
IC 200-43602/1-A			11:58	X																			
IC 200-43602/2-A			12:00	X																			
IC 200-43602/3-A			12:02	X																			
IC 200-43602/4-A			12:04	X																			
IC 200-43602/5-A			12:06	X																			
IC 200-43602/6-A			12:09	X																			
ICV 200-43602/7-A	1		12:11	X																			
ICB 200-43602/8-A			12:13																				
ICB 200-43602/8-A	1		12:16	X																			
CCV 200-43602/9-A	1		12:18	X																			
CCB 200-43602/10-A	1		12:20	X																			
MB 200-43602/11-A	1	T	12:22	X																			
LCS 200-43602/12-A	1	T	12:25	X																			
200-12041-1	1	T	12:28	X																			
200-12041-1 DU	1	T	12:31	X																			
200-12041-1 MS	1	T	12:33	X																			
ZZZZZZ			12:35																				
200-12041-3	1	T	12:37	X																			
200-12041-4	1	T	12:39	X																			
200-12041-5	1	T	12:41	X																			
CCV 200-43602/9-A	1		12:43	X																			
CCB 200-43602/10-A			12:46																				
CCB 200-43602/10-A	1		12:48	X																			
200-12041-6	1	T	12:50	X																			
200-12041-7	1	T	12:53	X																			
200-12041-2	1	T	12:55	X																			
CCV 200-43602/9-A	1		12:57	X																			
CCB 200-43602/10-A			13:00																				
CCB 200-43602/10-A	1		13:02	X																			

Prep Types

T = Total/NA

METALS BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Batch Number: 43205 Batch Start Date: 08/09/12 11:00 Batch Analyst: Pham, Vu T

Batch Method: 3050B Batch End Date: 08/09/12 16:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	CalcMsg	InitialAmount	FinalAmount	ME5PPMAGw 00020	MELCSS#2w 00010	MESPIKE#1w 00026
MB 200-43205/1		3050B, 6010C		CALC NOT SET TO RUN	1.00 g	100 mL			
LCS 200-43205/2		3050B, 6010C		CALC NOT SET TO RUN	1.00 g	100 mL	5 mL	1 mL	1 mL
200-12041-A-1-A	NFUDS-002-ISG02-01	3050B, 6010C	T	CALC NOT SET TO RUN	2.04 g	100 mL			
200-12041-A-2-A	NFUDS-002-ISG04-01	3050B, 6010C	T	CALC NOT SET TO RUN	2.12 g	100 mL			
200-12041-A-3-A	NFUDS-002-ISG08-01	3050B, 6010C	T	CALC NOT SET TO RUN	1.97 g	100 mL			
200-12041-A-4-A	NFUDS-002-ISG08-R1	3050B, 6010C	T	CALC NOT SET TO RUN	2.04 g	100 mL			
200-12041-A-5-A	NFUDS-002-ISG08-R2	3050B, 6010C	T	CALC NOT SET TO RUN	1.98 g	100 mL			
200-12041-A-6-A	NFUDS-002-ISG09-01	3050B, 6010C	T	CALC NOT SET TO RUN	2.08 g	100 mL			
200-12041-A-7-A	NFUDS-002-ISG12-01	3050B, 6010C	T	CALC NOT SET TO RUN	1.99 g	100 mL			

METALS BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Batch Number: 43205 Batch Start Date: 08/09/12 11:00 Batch Analyst: Pham, Vu T

Batch Method: 3050B Batch End Date: 08/09/12 16:30

Batch Notes	
Analyst	VP
Balance ID	12902
Blank Soil Lot Number	0919120
First End time	16:30
Hydrogen peroxide lot number	362800
Lot # of hydrochloric acid	369047
Logbook ID for diluted Nitric	367264
Lot # of Nitric Acid	369920
Hood ID or number	109A & 109B
Hot Block ID number	6
Nominal Amount Used	1.00 - 2.00 g
Oven, Bath or Block Temperature 1	93 Degrees C
Pipette ID	WC7 & GH25748
Person's name who witnessed reagent drop	ANN
First Start time	11:00
Temperature	95 Degrees C
ID number of the thermometer	38
Digestion Tube/Cup Lot #	1202052
Uncorrected Temperature	94 Celsius

Basis	Basis Description
T	Total/NA

METALS BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Batch Number: 43602 Batch Start Date: 08/20/12 09:00 Batch Analyst: Pham, Vu T

Batch Method: 7471B Batch End Date: 08/20/12 11:45

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MEHGCCVw 00507	MEHGICVw 00019		
IC 200-43602/1		7471B, 7471B		50 g	50 mL				
IC 200-43602/2		7471B, 7471B		50 g	50 mL	0.1 mL			
IC 200-43602/3		7471B, 7471B		50 g	50 mL	0.25 mL			
IC 200-43602/4		7471B, 7471B		50 g	50 mL	0.5 mL			
IC 200-43602/5		7471B, 7471B		50 g	50 mL	2.5 mL			
IC 200-43602/6		7471B, 7471B		50 g	50 mL	5 mL			
ICV 200-43602/7		7471B, 7471B		50 g	50 mL		5 mL		
ICB 200-43602/8		7471B, 7471B		50 g	50 mL				
CCV 200-43602/9		7471B, 7471B		50 g	50 mL	2.5 mL			
CCB 200-43602/10		7471B, 7471B		50 g	50 mL				
MB 200-43602/11		7471B, 7471B		0.30 g	50 mL				
LCS 200-43602/12		7471B, 7471B		0.30 g	50 mL	0.5 mL			
200-12041-A-1-D	NFUDS-002-ISG02-01	7471B, 7471B	T	0.31 g	50 mL				
200-12041-A-1-D DU	NFUDS-002-ISG02-01	7471B, 7471B	T	0.30 g	50 mL				
200-12041-A-1-D MS	NFUDS-002-ISG02-01	7471B, 7471B	T	0.30 g	50 mL	0.5 mL			
200-12041-A-2-D	NFUDS-002-ISG04-01	7471B, 7471B	T	0.32 g	50 mL				
200-12041-A-3-D	NFUDS-002-ISG08-01	7471B, 7471B	T	0.31 g	50 mL				
200-12041-A-4-D	NFUDS-002-ISG08-R1	7471B, 7471B	T	0.31 g	50 mL				
200-12041-A-5-D	NFUDS-002-ISG08-R2	7471B, 7471B	T	0.34 g	50 mL				
200-12041-A-6-D	NFUDS-002-ISG09-01	7471B, 7471B	T	0.33 g	50 mL				
200-12041-A-7-H	NFUDS-002-ISG12-01	7471B, 7471B	T	0.31 g	50 mL				

METALS BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Batch Number: 43602 Batch Start Date: 08/20/12 09:00 Batch Analyst: Pham, Vu T

Batch Method: 7471B Batch End Date: 08/20/12 11:45

Batch Notes	
Hydroxylamine Hydrochloride Lot	360755
Aqua Regia Lot Number	361646
Balance ID	12902
Batch Comment	Witness by ZMS
Blank Soil Lot Number	0919120
Hood ID or number	109B & 109C
Hot Block ID number	8
Potassium Permanganate Lot Number	371835
Nominal Amount Used	0.30 g
Oven, Bath or Block Temperature 1	94 Celsius
Pipette ID	WC7 & HJ17902
SOP Number	BR-ME-004
ID number of the thermometer	100
Digestion Tube/Cup Lot #	1205258

Basis	Basis Description
T	Total/NA

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Burlington Job Number: 200-12041-1

SDG No.: 200-12041-1

Project: Nantucket Beach FUDS

Client Sample ID	Lab Sample ID
NFUDS-002-ISG02-01	200-12041-1
NFUDS-002-ISG04-01	200-12041-2
NFUDS-002-ISG08-01	200-12041-3
NFUDS-002-ISG08-R1	200-12041-4
NFUDS-002-ISG08-R2	200-12041-5
NFUDS-002-ISG09-01	200-12041-6
NFUDS-002-ISG12-01	200-12041-7

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: NFUDS-002-ISG02-01 Lab Sample ID: 200-12041-1

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG ID.: 200-12041-1

Matrix: Solid Date Sampled: 07/31/2012 15:00

Reporting Basis: WET Date Received: 08/02/2012 10:30

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
pH	4.78				SU		HF	1	9045D

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: NFUDS-002-ISG04-01 Lab Sample ID: 200-12041-2

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG ID.: 200-12041-1

Matrix: Solid Date Sampled: 08/01/2012 08:00

Reporting Basis: WET Date Received: 08/02/2012 10:30

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
pH	4.75				SU		HF	1	9045D

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: NFUDS-002-ISG08-01 Lab Sample ID: 200-12041-3

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG ID.: 200-12041-1

Matrix: Solid Date Sampled: 07/31/2012 15:40

Reporting Basis: WET Date Received: 08/02/2012 10:30

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
pH	4.41				SU		HF	1	9045D

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: NFUDS-002-ISG08-R1 Lab Sample ID: 200-12041-4

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG ID.: 200-12041-1

Matrix: Solid Date Sampled: 08/01/2012 14:45

Reporting Basis: WET Date Received: 08/02/2012 10:30

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
pH	4.33				SU		HF	1	9045D

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: NFUDS-002-ISG08-R2 Lab Sample ID: 200-12041-5

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG ID.: 200-12041-1

Matrix: Solid Date Sampled: 08/01/2012 15:15

Reporting Basis: WET Date Received: 08/02/2012 10:30

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
pH	4.38				SU		HF	1	9045D

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: NFUDS-002-ISG09-01 Lab Sample ID: 200-12041-6

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG ID.: 200-12041-1

Matrix: Solid Date Sampled: 07/31/2012 17:01

Reporting Basis: WET Date Received: 08/02/2012 10:30

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
pH	4.41				SU		HF	1	9045D

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: NFUDS-002-ISG12-01 Lab Sample ID: 200-12041-7

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG ID.: 200-12041-1

Matrix: Solid Date Sampled: 08/01/2012 11:45

Reporting Basis: WET Date Received: 08/02/2012 10:30

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
pH	4.28				SU		HF	1	9045D

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Analyst: AJN Batch Start Date: 08/07/2012

Reporting Units: SU Analytical Batch No.: 43017

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
13	CCV	10:50	pH	7.020	7.00	100	99-101		WCPH7s_00014

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Matrix: Solid

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 43017 Date: 08/07/2012 10:50								
9045D	NFUDS-002-ISG12-01	200-12041-7	pH	4.28	SU			
9045D	NFUDS-002-ISG12-01	200-12041-7 DU	pH	4.300	SU	0.5	5	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Instrument ID: WCpHmeter Method: 9045D

Start Date: 08/07/2012 10:50 End Date: 08/07/2012 10:50

Lab Sample ID	D / F	Type	Time	Analytes																				
				pH																				
IC 200-43017/1			10:50	X																				
IC 200-43017/2			10:50	X																				
IC 200-43017/3			10:50	X																				
LCS 200-43017/4	1	T	10:50	X																				
200-12041-1	1	T	10:50	X																				
200-12041-2	1	T	10:50	X																				
200-12041-3	1	T	10:50	X																				
200-12041-4	1	T	10:50	X																				
200-12041-5	1	T	10:50	X																				
200-12041-6	1	T	10:50	X																				
200-12041-7	1	T	10:50	X																				
200-12041-7 DU	1	T	10:50	X																				
CCV 200-43017/13	1		10:50	X																				

Prep Types

T = Total/NA

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 200-12041-1

SDG No.: 200-12041-1

Batch Number: 43017 Batch Start Date: 08/07/12 10:50 Batch Analyst: Nelson, Andrea J

Batch Method: 9045D Batch End Date: 08/07/12 11:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	WCPH6s 00011	WCPH7s 00014		
LCS 200-43017/4		9045D		40 mL	40 mL	40 mL			
200-12041-A-1	NFUDS-002-ISG02-01	9045D	T	40 mL	40 mL				
200-12041-A-2	NFUDS-002-ISG04-01	9045D	T	40 mL	40 mL				
200-12041-A-3	NFUDS-002-ISG08-01	9045D	T	40 mL	40 mL				
200-12041-A-4	NFUDS-002-ISG08-R1	9045D	T	40 mL	40 mL				
200-12041-A-5	NFUDS-002-ISG08-R2	9045D	T	40 mL	40 mL				
200-12041-A-6	NFUDS-002-ISG09-01	9045D	T	40 mL	40 mL				
200-12041-A-7	NFUDS-002-ISG12-01	9045D	T	40 mL	40 mL				
200-12041-A-7 DU	NFUDS-002-ISG12-01	9045D	T	40 mL	40 mL				
CCV 200-43017/13		9045D		40 mL	40 mL		40 mL		

Batch Notes	
Balance ID	114192288
pH Buffer 1 ID	WCPH4s_00011
pH Buffer 2 ID	WCPH6s_00011
pH Buffer 3 ID	WCPH7s_00014
pH Buffer 4 ID	WCPH10s_00011
Electronic Slope	94.8-98.8
Instrument ID	UB503B365
Sufficient volume for sample dup	YES
ID number of the thermometer	1307145P

Basis	Basis Description
T	Total/NA

Shipping and Receiving Documents

TestAmerica Burlington
30 Community Drive, Suite 11
South Burlington, VT 05403
Phone:(802)660-1990

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Mari Fla	Lab PM: Ryan Hammond	Carrier Tracking No(s):	COC No: 002 001
Client Contact: Marie Swiech-LaFlamme	Phone: 603-315-6853	E-Mail:		Page: 1 of 3
Company: Weston Solutions, Inc				Job #:
Address: 45 Constitution Ave	Due Date Requested:	Analysis Requested		Preservation Codes:
City: Concord, NH	TAT Requested (days): 5 DAY TAT			A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2SO3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - ph 4-5; Z - other (specify)
State, Zip: 03301	PO #:			
Phone: 603.656.5400	WO #: 03886.557.004.0011			Other:
Email: MSL@WestonSolutions.com	Project #:			
Project Name: Nantucket FUDS RI	SSOW#:			
Site: Nantucket FUDS				

Sample Identification - Client ID	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Explosives 8330B	Metals 6010B	pH	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
NFUDS-002-ISG02-01	7/31/12	1500	C	S	N	N	X	X	X	1	Incremental Sample
NFUDS-002-ISG04-01	8/01/12	0800	C							1	
NFUDS-002-ISG08-01	7/31/12	1540	C							1	
NFUDS-002-ISG08-R1	8/1/12	1445	C							1	
NFUDS-002-ISG08-R2	8/1/12	1515	C							1	
NFUDS-002-ISG09-01	7/31/12	1701	C							1	
NFUDS-002-ISG12-01	8/1/12	1145	C							1	
NFUDS-002-SBG0201-01	8/1/12	1045	G							2	0-2' BGS
NFUDS-002-SBG0202-01	8/1/12	1055	G							2	2-4' BGS
NFUDS-002-SBG0202-02	8/1/12	1055	G							1	2-4' BGS
NFUDS-002-SBG0203-01	8/1/12	1115	G			Y				3	4-10' BGS

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, (II), III, IV, Other (specify) PER QAPP

Special Instructions/QC Requirements: Incremental Samples require processing per 8330B

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Mari Fla	8/1/12 1600	Weston	FED EX		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
			Steve Powers	8/2/12 1030	TAB
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

FedEx Express US Airbill

FedEx Tracking Number 8750 7410 5268 0200 Form ID No.

FedEx Retrieval Copy

1 From

Date 8/1/12 Sender's FedEx Account Number

Sender's Name MARIE SWIECH-LAFLAMME Phone 603 315 6853

Company WESTON SOLUTIONS, INC

Address 45 CONSTITUTION AVE

Dept./Floor/Suite/Room

City CONCORD State NH ZIP 03301

2 Your Internal Billing Reference

3 To

Recipient's Name RYAN HAMMOND Phone 802 660.1990

Company TEST AMERICA

Address 30 COMMUNITY DR SUITE 11

We cannot deliver to P.O. boxes or P.O. ZIP codes

Dept./Floor/Suite/Room

Address ~~SOUTH BURLINGTON~~

Use this line for the HOLD location address or for continuation of your shipping address

City SOUTH BURLINGTON State VT ZIP 05903

01 ☐ HOLD Weekday FedEx location address REQUIRED. NOT available for FedEx First Overnight.

31 ☐ HOLD Saturday FedEx location address REQUIRED. Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

8750 7410 5268

4a Express Package Service * To most locations — Packages up to 150 lbs.

01 ☑ FedEx Priority Overnight — Next business morning * Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected

05 ☐ FedEx Standard Overnight — Next business afternoon * Saturday Delivery NOT available

06 ☐ FedEx First Overnight — Earliest next business morning delivery to select locations *

03 ☐ FedEx 2Day — Second business day * Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected

20 ☐ FedEx Express Saver — Third business day * Saturday Delivery NOT available

4b Express Freight Service ** To most locations — Packages over 150 lbs.

70 ☐ FedEx 1Day Freight — Next business day * Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected

FedEx 1Day Freight Booking No.

80 ☐ FedEx 2Day Freight — Second business day ** Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected

83 ☐ FedEx 3Day Freight — Third business day ** Saturday Delivery NOT available

5 Packaging * Declared value limit $500

06 ☐ FedEx Envelope*

02 ☐ FedEx Pak* — Includes FedEx Small Pak and FedEx Large Pak

03 ☐ FedEx Box

04 ☐ FedEx Tube

01 ☑ Other

6 Special Handling and Delivery Signature Options

03 ☐ SATURDAY DELIVERY

☐ No Signature Required — Package may be left without obtaining a signature for delivery

10 ☐ Direct Signature — Someone at recipient's address may sign for delivery. Fee applies.

34 ☐ Indirect Signature — If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. Fee applies.

Does this shipment contain dangerous goods?

One box must be checked

☑ No 04 ☐ Yes — As per attached Shipper's Declaration

☐ Yes — Shipper's Declaration not required

06 ☐ Dry Ice — Dry Ice, 9 UN 1845 ____ kg

Dangerous goods including dry ice cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box.

☐ Cargo Aircraft Only

7 Payment Bill to:

Enter FedEx Acct. No. or Credit Card No. below. Obtain recip. Acct. No.

1 ☐ Sender — Acct. No. in Section 1 will be billed

2 ☑ Recipient

3 ☐ Third Party

4 ☐ Credit Card

5 ☐ Cash/Check

Total Packages 1 Total Weight ____ lbs.

Credit Card Acct.

*Our liability is limited to $100 unless you declare a higher value. See the current FedEx Service Guide for details.

606

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Login Sample Receipt Checklist

Client: Weston Solutions, Inc.

Job Number: 200-12041-1
SDG Number: 200-12041-1

Login Number: 12041
List Number: 1
Creator: Gagne, Eric

List Source: TestAmerica Burlington

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	698044, 698045 & 698046
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.4ºC IR GUN ID 176. CF -0.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

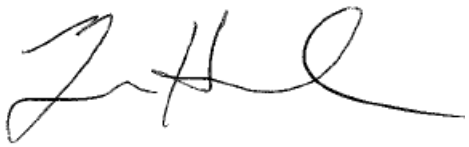
Job Number: 200-12042-1

SDG Number: 200-12042-1

Job Description: Nantucket Beach FUDS

For:
Weston Solutions, Inc.
45 Constitution Ave
Suite 100
Concord, NH 03301

Attention: Ms. Marie Swiech-Laflamme



Approved for release.
Ryan J Hammond
Project Manager I
8/21/2012 3:15 PM

Ryan J Hammond
Project Manager I
ryan.hammond@testamericainc.com
08/21/2012

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

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CASE NARRATIVE

Client: Weston Solutions, Inc.

Project: Nantucket Beach FUDS

Report Number: 200-12042-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 08/02/2012; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 0.4 C.

EXPLOSIVES

Samples NFUDS-002-SBG0201-01, NFUDS-002-SBG0202-01, NFUDS-002-SBG0202-02, NFUDS-002-SBG0203-01, NFUDS-002-SBG0401-01, NFUDS-002-SBG0402-01, NFUDS-002-SBG0403-01, NFUDS-002-SBG0801-01, NFUDS-002-SBG0802-01, NFUDS-002-SBG0803-01, NFUDS-002-SBG0901-01, NFUDS-002-SBG0902-01, NFUDS-002-SBG0903-01, NFUDS-002-SBG0903-02, NFUDS-002-SBG1201-01, NFUDS-002-SBG1202-01 and NFUDS-002-SBG1203-01 were analyzed for explosives in accordance with EPA SW-846 Method 8330B. The samples were prepared on 08/02/2012 and 08/08/2012 and analyzed on 08/08/2012 and 08/09/2012.

No difficulties were encountered during the explosives analyses.

All quality control parameters were within the acceptance limits.

METALS (ICP)

Samples NFUDS-002-SBG0201-01, NFUDS-002-SBG0202-01, NFUDS-002-SBG0202-02, NFUDS-002-SBG0203-01, NFUDS-002-SBG0401-01, NFUDS-002-SBG0402-01, NFUDS-002-SBG0403-01, NFUDS-002-SBG0801-01, NFUDS-002-SBG0802-01, NFUDS-002-SBG0803-01, NFUDS-002-SBG0901-01, NFUDS-002-SBG0902-01, NFUDS-002-SBG0903-01, NFUDS-002-SBG0903-02, NFUDS-002-SBG1201-01, NFUDS-002-SBG1202-01 and NFUDS-002-SBG1203-01 were analyzed for Metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 08/06/2012 and analyzed on 08/15/2012 and 08/17/2012.

Aluminum, Calcium, Iron, Magnesium and Potassium failed the recovery criteria high for the MS of sample NFUDS-002-SBG0203-01MS in batch 200-43577. The associated laboratory control sample (LCS) recovery met acceptance criteria.

The post digestion spike % recovery for sample NFUDS-002-SBG0203-01, associated with batch 43487 was outside of control limits for Aluminum and Iron.

Refer to the QC report for details.

No other difficulties were encountered during the metals analyses.

All other quality control parameters were within the acceptance limits.

MERCURY

Samples NFUDS-002-SBG0201-01, NFUDS-002-SBG0202-01, NFUDS-002-SBG0202-02, NFUDS-002-SBG0203-01, NFUDS-002-SBG0401-01, NFUDS-002-SBG0402-01, NFUDS-002-SBG0403-01, NFUDS-002-SBG0801-01, NFUDS-002-SBG0802-01, NFUDS-002-SBG0803-01, NFUDS-002-SBG0901-01, NFUDS-002-SBG0902-01, NFUDS-002-SBG0903-01, NFUDS-002-SBG0903-02, NFUDS-002-SBG1201-01, NFUDS-002-SBG1202-01 and NFUDS-002-SBG1203-01 were analyzed for mercury in accordance with EPA SW-846 Method 7471B. The samples were prepared and analyzed on 08/20/2012.

No difficulties were encountered during the mercury analyses.

All quality control parameters were within the acceptance limits.

CORROSIVITY (PH)

Samples NFUDS-002-SBG0201-01, NFUDS-002-SBG0202-01, NFUDS-002-SBG0202-02, NFUDS-002-SBG0203-01, NFUDS-002-SBG0401-01, NFUDS-002-SBG0402-01, NFUDS-002-SBG0403-01, NFUDS-002-SBG0801-01, NFUDS-002-SBG0802-01, NFUDS-002-SBG0803-01, NFUDS-002-SBG0901-01, NFUDS-002-SBG0902-01, NFUDS-002-SBG0903-01, NFUDS-002-SBG0903-02, NFUDS-002-SBG1201-01, NFUDS-002-SBG1202-01 and NFUDS-002-SBG1203-01 were analyzed for corrosivity (pH) in accordance with EPA SW-846 Method 9045D. The samples were analyzed on 08/07/2012.

This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The samples have been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe.

No other difficulties were encountered during the pH analyses.

All other quality control parameters were within the acceptance limits.

PERCENT SOLIDS

Samples NFUDS-002-SBG0201-01, NFUDS-002-SBG0202-01, NFUDS-002-SBG0202-02, NFUDS-002-SBG0203-01, NFUDS-002-SBG0401-01, NFUDS-002-SBG0402-01, NFUDS-002-SBG0403-01, NFUDS-002-SBG0801-01, NFUDS-002-SBG0802-01, NFUDS-002-SBG0803-01, NFUDS-002-SBG0901-01, NFUDS-002-SBG0902-01, NFUDS-002-SBG0903-01, NFUDS-002-SBG0903-02, NFUDS-002-SBG1201-01, NFUDS-002-SBG1202-01 and NFUDS-002-SBG1203-01 were analyzed for percent solids in accordance with EPA SW846 3550C. The samples were analyzed on 08/07/2012.

No difficulties were encountered during the % solids analyses.

All quality control parameters were within the acceptance limits.

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Instrument ID: CH1208 Analysis Batch Number: 42650

Lab Sample ID: IC 200-42650/2 Client Sample ID:

Date Analyzed: 07/31/12 15:48 Lab File ID: 31JUL121406_021.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4-Amino-2,6-dinitrotoluene	20.14	Baseline Event	robinsonw	07/31/12 20:50
2-Amino-4,6-dinitrotoluene	20.49	Baseline Event	robinsonw	07/31/12 20:50
2,6-Dinitrotoluene	20.87	Baseline Event	robinsonw	07/31/12 20:50
2,4-Dinitrotoluene	21.12	Baseline Event	robinsonw	07/31/12 20:50
2-Nitrotoluene	22.64	Baseline Event	robinsonw	08/01/12 16:38
4-Nitrotoluene	23.41	Baseline Event	robinsonw	08/01/12 16:38

Lab Sample ID: IC 200-42650/3 Client Sample ID:

Date Analyzed: 07/31/12 16:26 Lab File ID: 31JUL121406_031.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
3-Nitrotoluene	24.16	Baseline Event	robinsonw	08/01/12 16:39

Lab Sample ID: ICRTAV 200-42650/5 Client Sample ID:

Date Analyzed: 07/31/12 17:41 Lab File ID: 31JUL121406_051.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4-Nitrotoluene	23.43	Baseline Event	robinsonw	07/31/12 20:43

Lab Sample ID: IC 200-42650/6 Client Sample ID:

Date Analyzed: 07/31/12 18:18 Lab File ID: 31JUL121406_061.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Nitrotoluene	22.66	Baseline Event	robinsonw	07/31/12 20:43

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Instrument ID: CH1208 Analysis Batch Number: 42650

Lab Sample ID: ICV 200-42650/10 Client Sample ID:

Date Analyzed: 07/31/12 20:48 Lab File ID: 31JUL121406_101.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4-Nitrotoluene	23.43	Baseline Event	robinsonw	07/31/12 21:23

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Instrument ID: CH1208 Analysis Batch Number: 43097

Lab Sample ID: CCVRT 200-43097/2 Client Sample ID:

Date Analyzed: 08/08/12 12:51 Lab File ID: 08AUG121140_021.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4-Nitrotoluene	23.38	Baseline Event	robinsonw	08/08/12 13:31

Lab Sample ID: MB 200-42840/1-A Client Sample ID:

Date Analyzed: 08/08/12 14:06 Lab File ID: 08AUG121140_041.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
3-Nitrotoluene	23.98	Peak not found by the data system	robinsonw	08/09/12 09:48

Lab Sample ID: 200-12042-3 Client Sample ID: NFUDS-002-SBG0202-02

Date Analyzed: 08/08/12 15:20 Lab File ID: 08AUG121140_061.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4,6-Trinitrotoluene	19.57	Peak not found by the data system	robinsonw	08/09/12 10:01
3-Nitrotoluene	24.06	Peak not found by the data system	robinsonw	08/09/12 10:02

Lab Sample ID: 200-12042-4 Client Sample ID: NFUDS-002-SBG0203-01

Date Analyzed: 08/08/12 15:58 Lab File ID: 08AUG121140_071.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4-Nitrotoluene	23.38	Peak not found by the data system	robinsonw	08/09/12 10:03
3-Nitrotoluene	24.04	Peak not found by the data system	robinsonw	08/09/12 10:03

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Instrument ID: CH1208 Analysis Batch Number: 43097

Lab Sample ID: 200-12042-5 Client Sample ID: NFUDS-002-SBG0401-01

Date Analyzed: 08/08/12 16:35 Lab File ID: 08AUG121140_081.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
3-Nitrotoluene	24.00	Peak not found by the data system	robinsonw	08/09/12 10:03

Lab Sample ID: 200-12042-6 Client Sample ID: NFUDS-002-SBG0402-01

Date Analyzed: 08/08/12 17:13 Lab File ID: 08AUG121140_091.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
3-Nitrotoluene	24.05	Peak not found by the data system	robinsonw	08/09/12 10:04

Lab Sample ID: 200-12042-7 Client Sample ID: NFUDS-002-SBG0403-01

Date Analyzed: 08/08/12 17:50 Lab File ID: 08AUG121140_101.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
3-Nitrotoluene	24.10	Peak not found by the data system	robinsonw	08/09/12 10:04

Lab Sample ID: 200-12042-8 Client Sample ID: NFUDS-002-SBG0801-01

Date Analyzed: 08/08/12 18:28 Lab File ID: 08AUG121140_111.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
3-Nitrotoluene	24.04	Peak not found by the data system	robinsonw	08/09/12 10:05

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Instrument ID: CH1208 Analysis Batch Number: 43097

Lab Sample ID: 200-12042-9 Client Sample ID: NFUDS-002-SBG0802-01

Date Analyzed: 08/08/12 19:05 Lab File ID: 08AUG121140_121.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
3-Nitrotoluene	24.00	Peak not found by the data system	robinsonw	08/09/12 10:05

Lab Sample ID: 200-12042-12 Client Sample ID: NFUDS-002-SBG0902-01

Date Analyzed: 08/08/12 21:35 Lab File ID: 08AUG121140_161.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
3-Nitrotoluene	24.03	Peak not found by the data system	robinsonw	08/09/12 10:06

Lab Sample ID: 200-12042-13 Client Sample ID: NFUDS-002-SBG0903-01

Date Analyzed: 08/08/12 22:12 Lab File ID: 08AUG121140_171.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
3-Nitrotoluene	24.04	Peak not found by the data system	robinsonw	08/09/12 10:07

Lab Sample ID: 200-12042-14 Client Sample ID: NFUDS-002-SBG0903-02

Date Analyzed: 08/08/12 22:50 Lab File ID: 08AUG121140_181.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
3-Nitrotoluene	24.04	Peak not found by the data system	robinsonw	08/09/12 10:08

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Instrument ID: CH1208 Analysis Batch Number: 43097

Lab Sample ID: 200-12042-15 Client Sample ID: NFUDS-002-SBG1201-01

Date Analyzed: 08/08/12 23:27 Lab File ID: 08AUG121140_191.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
3-Nitrotoluene	23.99	Peak not found by the data system	robinsonw	08/09/12 10:08

Lab Sample ID: 200-12042-16 Client Sample ID: NFUDS-002-SBG1202-01

Date Analyzed: 08/09/12 00:05 Lab File ID: 08AUG121140_201.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
3-Nitrotoluene	24.01	Peak not found by the data system	robinsonw	08/09/12 10:09

Lab Sample ID: 200-12042-17 Client Sample ID: NFUDS-002-SBG1203-01

Date Analyzed: 08/09/12 00:42 Lab File ID: 08AUG121140_211.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
3-Nitrotoluene	24.04	Peak not found by the data system	robinsonw	08/09/12 10:09

Lab Sample ID: CCV 200-43097/24 Client Sample ID:

Date Analyzed: 08/09/12 02:35 Lab File ID: 08AUG121140_241.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4-Nitrotoluene	23.39	Baseline Event	robinsonw	08/09/12 08:28

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Instrument ID: CH1208 Analysis Batch Number: 43162

Lab Sample ID: MB 200-43130/17-A Client Sample ID:

Date Analyzed: 08/09/12 12:43 Lab File ID: 09AUG121108_031.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3-Dinitrobenzene	17.30	Peak not found by the data system	robinsonw	08/10/12 08:19
3-Nitrotoluene	24.06	Peak not found by the data system	robinsonw	08/10/12 08:19

Lab Sample ID: LCS 200-43130/18-A Client Sample ID:

Date Analyzed: 08/09/12 13:20 Lab File ID: 09AUG121108_041.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4-Nitrotoluene	23.39	Baseline Event	robinsonw	08/09/12 15:48

Lab Sample ID: 200-12042-1 Client Sample ID: NFUDS-002-SBG0201-01

Date Analyzed: 08/09/12 14:35 Lab File ID: 09AUG121108_061.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
3-Nitrotoluene	24.08	Peak not found by the data system	robinsonw	08/09/12 15:48

Lab Sample ID: 200-12042-2 Client Sample ID: NFUDS-002-SBG0202-01

Date Analyzed: 08/09/12 15:13 Lab File ID: 09AUG121108_071.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
3-Nitrotoluene	24.04	Peak not found by the data system	robinsonw	08/09/12 15:50

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Instrument ID: CH1208 Analysis Batch Number: 43162

Lab Sample ID: CCV 200-43162/11 Client Sample ID:

Date Analyzed: 08/09/12 17:42 Lab File ID: 09AUG121108_111.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4-Nitrotoluene	23.38	Baseline Event	robinsonw	08/10/12 08:10

SAMPLE SUMMARY

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-12042-1	NFUDS-002-SBG0201-01	Solid	08/01/2012 1045	08/02/2012 1030
200-12042-2	NFUDS-002-SBG0202-01	Solid	08/01/2012 1055	08/02/2012 1030
200-12042-3	NFUDS-002-SBG0202-02	Solid	08/01/2012 1055	08/02/2012 1030
200-12042-4	NFUDS-002-SBG0203-01	Solid	08/01/2012 1115	08/02/2012 1030
200-12042-4MS	NFUDS-002-SBG0203-01	Solid	08/01/2012 1115	08/02/2012 1030
200-12042-4MSD	NFUDS-002-SBG0203-01	Solid	08/01/2012 1115	08/02/2012 1030
200-12042-4DU	NFUDS-002-SBG0203-01	Solid	08/01/2012 1115	08/02/2012 1030
200-12042-5	NFUDS-002-SBG0401-01	Solid	08/01/2012 0830	08/02/2012 1030
200-12042-6	NFUDS-002-SBG0402-01	Solid	08/01/2012 0835	08/02/2012 1030
200-12042-7	NFUDS-002-SBG0403-01	Solid	08/01/2012 0845	08/02/2012 1030
200-12042-8	NFUDS-002-SBG0801-01	Solid	08/01/2012 0935	08/02/2012 1030
200-12042-9	NFUDS-002-SBG0802-01	Solid	08/01/2012 0940	08/02/2012 1030
200-12042-10	NFUDS-002-SBG0803-01	Solid	08/01/2012 0950	08/02/2012 1030
200-12042-11	NFUDS-002-SBG0901-01	Solid	08/01/2012 1200	08/02/2012 1030
200-12042-12	NFUDS-002-SBG0902-01	Solid	08/01/2012 1205	08/02/2012 1030
200-12042-13	NFUDS-002-SBG0903-01	Solid	08/01/2012 1215	08/02/2012 1030
200-12042-14	NFUDS-002-SBG0903-02	Solid	08/01/2012 1215	08/02/2012 1030
200-12042-15	NFUDS-002-SBG1201-01	Solid	08/01/2012 1325	08/02/2012 1030
200-12042-16	NFUDS-002-SBG1202-01	Solid	08/01/2012 1330	08/02/2012 1030
200-12042-17	NFUDS-002-SBG1203-01	Solid	08/01/2012 1345	08/02/2012 1030

METHOD SUMMARY

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Nitroaromatics and Nitramines by High Performance Liquid Chromatography	TAL BUR	SW846 8330 Modified	
Soil Extraction Procedure	TAL BUR		SW846 8330
Metals (ICP)	TAL BUR	SW846 6010C	
Preparation, Metals	TAL BUR		SW846 3050B
Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)	TAL BUR	SW846 7471B	
Preparation, Mercury	TAL BUR		SW846 7471B
pH	TAL BUR	SW846 9045D	
Percent Moisture	TAL BUR	EPA Moisture	

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Method	Analyst	Analyst ID
SW846 6010C	Kvasnak, Ethan T	ETK
SW846 6010C	Lyons, Benjamin	BL
SW846 7471B	Pham, Vu T	VTP
SW846 9045D	Nelson, Andrea J	AJN
EPA Moisture	Nelson, Andrea J	AJN
SW846 8330 Modified	Robinson, Wallace B	WBR

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG0201-01**

Lab Sample ID: 200-12042-1
Client Matrix: Solid

Date Sampled: 08/01/2012 1045
Date Received: 08/02/2012 1030

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Analysis Method:	8330 Modified	Analysis Batch:	200-43162	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-43130	Initial Weight/Volume:	10.01 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/09/2012 1435			Injection Volume:	150 uL
Prep Date:	08/08/2012 1440			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.5	100
RDX		12	U	12	100
1,3,5-Trinitrobenzene		12	U	5.0	100
1,3-Dinitrobenzene		12	U	5.9	100
Nitrobenzene		30	U	26	100
Tetryl		24	U	15	100
Nitroglycerin		720	U	480	2000
2,4,6-Trinitrotoluene		24	U	17	100
4-Amino-2,6-dinitrotoluene		12	U	8.4	100
2-Amino-4,6-dinitrotoluene		12	U	6.6	100
2,6-Dinitrotoluene		12	U	11	100
2,4-Dinitrotoluene		24	U	15	100
2-Nitrotoluene		24	U	14	100
4-Nitrotoluene		30	U	27	100
3-Nitrotoluene		30	U M	27	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	96		40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG0202-01**

Lab Sample ID: 200-12042-2
Client Matrix: Solid

Date Sampled: 08/01/2012 1055
Date Received: 08/02/2012 1030

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Analysis Method:	8330 Modified	Analysis Batch:	200-43162	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-43130	Initial Weight/Volume:	10.00 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/09/2012 1513			Injection Volume:	150 uL
Prep Date:	08/08/2012 1440			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.5	100
RDX		12	U	12	100
1,3,5-Trinitrobenzene		12	U	5.0	100
1,3-Dinitrobenzene		12	U	5.9	100
Nitrobenzene		30	U	26	100
Tetryl		24	U	15	100
Nitroglycerin		720	U	480	2000
2,4,6-Trinitrotoluene		24	U	17	100
4-Amino-2,6-dinitrotoluene		12	U	8.4	100
2-Amino-4,6-dinitrotoluene		12	U	6.6	100
2,6-Dinitrotoluene		12	U	11	100
2,4-Dinitrotoluene		24	U	15	100
2-Nitrotoluene		24	U	14	100
4-Nitrotoluene		30	U	27	100
3-Nitrotoluene		30	U M	27	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	97		40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG0202-02**

Lab Sample ID: 200-12042-3
Client Matrix: Solid

Date Sampled: 08/01/2012 1055
Date Received: 08/02/2012 1030

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Analysis Method:	8330 Modified	Analysis Batch:	200-43097	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-42840	Initial Weight/Volume:	10.05 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/08/2012 1520			Injection Volume:	150 uL
Prep Date:	08/02/2012 2021			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.5	100
RDX		12	U	12	100
1,3,5-Trinitrobenzene		12	U	5.0	100
1,3-Dinitrobenzene		12	U	5.9	100
Nitrobenzene		30	U	26	100
Tetryl		24	U	15	100
Nitroglycerin		720	U	480	2000
2,4,6-Trinitrotoluene		24	U M	17	100
4-Amino-2,6-dinitrotoluene		12	U	8.4	100
2-Amino-4,6-dinitrotoluene		12	U	6.6	100
2,6-Dinitrotoluene		12	U	11	100
2,4-Dinitrotoluene		24	U	15	100
2-Nitrotoluene		24	U	14	100
4-Nitrotoluene		30	U	27	100
3-Nitrotoluene		30	U M	27	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	95		40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG0203-01**

Lab Sample ID: 200-12042-4
Client Matrix: Solid

Date Sampled: 08/01/2012 1115
Date Received: 08/02/2012 1030

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Analysis Method:	8330 Modified	Analysis Batch:	200-43097	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-42840	Initial Weight/Volume:	10.06 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/08/2012 1558			Injection Volume:	150 uL
Prep Date:	08/02/2012 2021			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.5	99
RDX		12	U	12	99
1,3,5-Trinitrobenzene		12	U	5.0	99
1,3-Dinitrobenzene		12	U	5.9	99
Nitrobenzene		30	U	26	99
Tetryl		24	U	15	99
Nitroglycerin		720	U	480	2000
2,4,6-Trinitrotoluene		24	U	17	99
4-Amino-2,6-dinitrotoluene		12	U	8.3	99
2-Amino-4,6-dinitrotoluene		12	U	6.6	99
2,6-Dinitrotoluene		12	U	11	99
2,4-Dinitrotoluene		24	U	15	99
2-Nitrotoluene		24	U	14	99
4-Nitrotoluene		30	U M	27	99
3-Nitrotoluene		30	U M	27	99

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	102		40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG0401-01**

Lab Sample ID: 200-12042-5
Client Matrix: Solid

Date Sampled: 08/01/2012 0830
Date Received: 08/02/2012 1030

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Analysis Method:	8330 Modified	Analysis Batch:	200-43097	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-42840	Initial Weight/Volume:	10.02 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/08/2012 1635			Injection Volume:	150 uL
Prep Date:	08/02/2012 2021			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.5	100
RDX		12	U	12	100
1,3,5-Trinitrobenzene		12	U	5.0	100
1,3-Dinitrobenzene		12	U	5.9	100
Nitrobenzene		30	U	26	100
Tetryl		24	U	15	100
Nitroglycerin		720	U	480	2000
2,4,6-Trinitrotoluene		24	U	17	100
4-Amino-2,6-dinitrotoluene		12	U	8.4	100
2-Amino-4,6-dinitrotoluene		12	U	6.6	100
2,6-Dinitrotoluene		12	U	11	100
2,4-Dinitrotoluene		24	U	15	100
2-Nitrotoluene		24	U	14	100
4-Nitrotoluene		30	U	27	100
3-Nitrotoluene		30	U M	27	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	96		40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG0402-01**

Lab Sample ID: 200-12042-6
Client Matrix: Solid

Date Sampled: 08/01/2012 0835
Date Received: 08/02/2012 1030

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Analysis Method:	8330 Modified	Analysis Batch:	200-43097	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-42840	Initial Weight/Volume:	10.03 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/08/2012 1713			Injection Volume:	150 uL
Prep Date:	08/02/2012 2021			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.5	100
RDX		12	U	12	100
1,3,5-Trinitrobenzene		12	U	5.0	100
1,3-Dinitrobenzene		12	U	5.9	100
Nitrobenzene		30	U	26	100
Tetryl		24	U	15	100
Nitroglycerin		720	U	480	2000
2,4,6-Trinitrotoluene		24	U	17	100
4-Amino-2,6-dinitrotoluene		12	U	8.4	100
2-Amino-4,6-dinitrotoluene		12	U	6.6	100
2,6-Dinitrotoluene		12	U	11	100
2,4-Dinitrotoluene		24	U	15	100
2-Nitrotoluene		24	U	14	100
4-Nitrotoluene		30	U	27	100
3-Nitrotoluene		30	U M	27	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	100		40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG0403-01**

Lab Sample ID: 200-12042-7
Client Matrix: Solid

Date Sampled: 08/01/2012 0845
Date Received: 08/02/2012 1030

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Analysis Method:	8330 Modified	Analysis Batch:	200-43097	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-42840	Initial Weight/Volume:	10.01 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/08/2012 1750			Injection Volume:	150 uL
Prep Date:	08/02/2012 2021			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.5	100
RDX		12	U	12	100
1,3,5-Trinitrobenzene		12	U	5.0	100
1,3-Dinitrobenzene		12	U	5.9	100
Nitrobenzene		30	U	26	100
Tetryl		24	U	15	100
Nitroglycerin		720	U	480	2000
2,4,6-Trinitrotoluene		24	U	17	100
4-Amino-2,6-dinitrotoluene		12	U	8.4	100
2-Amino-4,6-dinitrotoluene		12	U	6.6	100
2,6-Dinitrotoluene		12	U	11	100
2,4-Dinitrotoluene		24	U	15	100
2-Nitrotoluene		24	U	14	100
4-Nitrotoluene		30	U	27	100
3-Nitrotoluene		30	U M	27	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	105		40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG0801-01**

Lab Sample ID: 200-12042-8
Client Matrix: Solid

Date Sampled: 08/01/2012 0935
Date Received: 08/02/2012 1030

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Analysis Method:	8330 Modified	Analysis Batch:	200-43097	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-42840	Initial Weight/Volume:	10.01 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/08/2012 1828			Injection Volume:	150 uL
Prep Date:	08/02/2012 2021			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.5	100
RDX		12	U	12	100
1,3,5-Trinitrobenzene		12	U	5.0	100
1,3-Dinitrobenzene		12	U	5.9	100
Nitrobenzene		30	U	26	100
Tetryl		24	U	15	100
Nitroglycerin		720	U	480	2000
2,4,6-Trinitrotoluene		24	U	17	100
4-Amino-2,6-dinitrotoluene		12	U	8.4	100
2-Amino-4,6-dinitrotoluene		12	U	6.6	100
2,6-Dinitrotoluene		12	U	11	100
2,4-Dinitrotoluene		24	U	15	100
2-Nitrotoluene		24	U	14	100
4-Nitrotoluene		30	U	27	100
3-Nitrotoluene		30	U M	27	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	96		40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG0802-01**

Lab Sample ID: 200-12042-9
Client Matrix: Solid

Date Sampled: 08/01/2012 0940
Date Received: 08/02/2012 1030

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Analysis Method:	8330 Modified	Analysis Batch:	200-43097	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-42840	Initial Weight/Volume:	10.05 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/08/2012 1905			Injection Volume:	150 uL
Prep Date:	08/02/2012 2021			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.5	100
RDX		12	U	12	100
1,3,5-Trinitrobenzene		12	U	5.0	100
1,3-Dinitrobenzene		12	U	5.9	100
Nitrobenzene		30	U	26	100
Tetryl		24	U	15	100
Nitroglycerin		720	U	480	2000
2,4,6-Trinitrotoluene		24	U	17	100
4-Amino-2,6-dinitrotoluene		12	U	8.4	100
2-Amino-4,6-dinitrotoluene		12	U	6.6	100
2,6-Dinitrotoluene		12	U	11	100
2,4-Dinitrotoluene		24	U	15	100
2-Nitrotoluene		24	U	14	100
4-Nitrotoluene		30	U	27	100
3-Nitrotoluene		30	U M	27	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	92		40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG0803-01**

Lab Sample ID: 200-12042-10
Client Matrix: Solid

Date Sampled: 08/01/2012 0950
Date Received: 08/02/2012 1030

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Analysis Method:	8330 Modified	Analysis Batch:	200-43097	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-42840	Initial Weight/Volume:	10.01 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/08/2012 2020			Injection Volume:	150 uL
Prep Date:	08/02/2012 2021			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.5	100
RDX		12	U	12	100
1,3,5-Trinitrobenzene		12	U	5.0	100
1,3-Dinitrobenzene		12	U	5.9	100
Nitrobenzene		30	U	26	100
Tetryl		24	U	15	100
Nitroglycerin		720	U	480	2000
2,4,6-Trinitrotoluene		24	U	17	100
4-Amino-2,6-dinitrotoluene		12	U	8.4	100
2-Amino-4,6-dinitrotoluene		12	U	6.6	100
2,6-Dinitrotoluene		12	U	11	100
2,4-Dinitrotoluene		24	U	15	100
2-Nitrotoluene		24	U	14	100
4-Nitrotoluene		30	U	27	100
3-Nitrotoluene		30	U	27	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	98		40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG0901-01**

Lab Sample ID: 200-12042-11
Client Matrix: Solid

Date Sampled: 08/01/2012 1200
Date Received: 08/02/2012 1030

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Analysis Method:	8330 Modified	Analysis Batch:	200-43097	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-42840	Initial Weight/Volume:	10.01 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/08/2012 2058			Injection Volume:	150 uL
Prep Date:	08/02/2012 2021			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.5	100
RDX		12	U	12	100
1,3,5-Trinitrobenzene		12	U	5.0	100
1,3-Dinitrobenzene		12	U	5.9	100
Nitrobenzene		30	U	26	100
Tetryl		24	U	15	100
Nitroglycerin		720	U	480	2000
2,4,6-Trinitrotoluene		24	U	17	100
4-Amino-2,6-dinitrotoluene		12	U	8.4	100
2-Amino-4,6-dinitrotoluene		12	U	6.6	100
2,6-Dinitrotoluene		12	U	11	100
2,4-Dinitrotoluene		24	U	15	100
2-Nitrotoluene		24	U	14	100
4-Nitrotoluene		30	U	27	100
3-Nitrotoluene		30	U	27	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	99		40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG0902-01**

Lab Sample ID: 200-12042-12
Client Matrix: Solid

Date Sampled: 08/01/2012 1205
Date Received: 08/02/2012 1030

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Analysis Method:	8330 Modified	Analysis Batch:	200-43097	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-42840	Initial Weight/Volume:	10.02 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/08/2012 2135			Injection Volume:	150 uL
Prep Date:	08/02/2012 2021			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.5	100
RDX		12	U	12	100
1,3,5-Trinitrobenzene		12	U	5.0	100
1,3-Dinitrobenzene		12	U	5.9	100
Nitrobenzene		30	U	26	100
Tetryl		24	U	15	100
Nitroglycerin		720	U	480	2000
2,4,6-Trinitrotoluene		24	U	17	100
4-Amino-2,6-dinitrotoluene		12	U	8.4	100
2-Amino-4,6-dinitrotoluene		12	U	6.6	100
2,6-Dinitrotoluene		12	U	11	100
2,4-Dinitrotoluene		24	U	15	100
2-Nitrotoluene		24	U	14	100
4-Nitrotoluene		30	U	27	100
3-Nitrotoluene		30	U M	27	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	96		40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG0903-01**

Lab Sample ID: 200-12042-13
Client Matrix: Solid

Date Sampled: 08/01/2012 1215
Date Received: 08/02/2012 1030

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Analysis Method:	8330 Modified	Analysis Batch:	200-43097	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-42840	Initial Weight/Volume:	10.01 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/08/2012 2212			Injection Volume:	150 uL
Prep Date:	08/02/2012 2021			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.5	100
RDX		12	U	12	100
1,3,5-Trinitrobenzene		12	U	5.0	100
1,3-Dinitrobenzene		12	U	5.9	100
Nitrobenzene		30	U	26	100
Tetryl		24	U	15	100
Nitroglycerin		720	U	480	2000
2,4,6-Trinitrotoluene		24	U	17	100
4-Amino-2,6-dinitrotoluene		12	U	8.4	100
2-Amino-4,6-dinitrotoluene		12	U	6.6	100
2,6-Dinitrotoluene		12	U	11	100
2,4-Dinitrotoluene		24	U	15	100
2-Nitrotoluene		24	U	14	100
4-Nitrotoluene		30	U	27	100
3-Nitrotoluene		30	U M	27	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	98		40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG0903-02**

Lab Sample ID: 200-12042-14
Client Matrix: Solid

Date Sampled: 08/01/2012 1215
Date Received: 08/02/2012 1030

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Analysis Method:	8330 Modified	Analysis Batch:	200-43097	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-42840	Initial Weight/Volume:	10.03 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/08/2012 2250			Injection Volume:	150 uL
Prep Date:	08/02/2012 2021			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.5	100
RDX		12	U	12	100
1,3,5-Trinitrobenzene		12	U	5.0	100
1,3-Dinitrobenzene		12	U	5.9	100
Nitrobenzene		30	U	26	100
Tetryl		24	U	15	100
Nitroglycerin		720	U	480	2000
2,4,6-Trinitrotoluene		24	U	17	100
4-Amino-2,6-dinitrotoluene		12	U	8.4	100
2-Amino-4,6-dinitrotoluene		12	U	6.6	100
2,6-Dinitrotoluene		12	U	11	100
2,4-Dinitrotoluene		24	U	15	100
2-Nitrotoluene		24	U	14	100
4-Nitrotoluene		30	U	27	100
3-Nitrotoluene		30	U M	27	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	95		40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG1201-01**

Lab Sample ID: 200-12042-15
Client Matrix: Solid

Date Sampled: 08/01/2012 1325
Date Received: 08/02/2012 1030

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Analysis Method:	8330 Modified	Analysis Batch:	200-43097	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-42840	Initial Weight/Volume:	10.04 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/08/2012 2327			Injection Volume:	150 uL
Prep Date:	08/02/2012 2021			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.5	100
RDX		12	U	12	100
1,3,5-Trinitrobenzene		12	U	5.0	100
1,3-Dinitrobenzene		12	U	5.9	100
Nitrobenzene		30	U	26	100
Tetryl		24	U	15	100
Nitroglycerin		720	U	480	2000
2,4,6-Trinitrotoluene		24	U	17	100
4-Amino-2,6-dinitrotoluene		12	U	8.4	100
2-Amino-4,6-dinitrotoluene		12	U	6.6	100
2,6-Dinitrotoluene		12	U	11	100
2,4-Dinitrotoluene		24	U	15	100
2-Nitrotoluene		24	U	14	100
4-Nitrotoluene		30	U	27	100
3-Nitrotoluene		30	U M	27	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	101		40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG1202-01**

Lab Sample ID: 200-12042-16
Client Matrix: Solid

Date Sampled: 08/01/2012 1330
Date Received: 08/02/2012 1030

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Analysis Method:	8330 Modified	Analysis Batch:	200-43097	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-42840	Initial Weight/Volume:	10.03 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/09/2012 0005			Injection Volume:	150 uL
Prep Date:	08/02/2012 2021			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.5	100
RDX		12	U	12	100
1,3,5-Trinitrobenzene		12	U	5.0	100
1,3-Dinitrobenzene		12	U	5.9	100
Nitrobenzene		30	U	26	100
Tetryl		24	U	15	100
Nitroglycerin		720	U	480	2000
2,4,6-Trinitrotoluene		24	U	17	100
4-Amino-2,6-dinitrotoluene		12	U	8.4	100
2-Amino-4,6-dinitrotoluene		12	U	6.6	100
2,6-Dinitrotoluene		12	U	11	100
2,4-Dinitrotoluene		24	U	15	100
2-Nitrotoluene		24	U	14	100
4-Nitrotoluene		30	U	27	100
3-Nitrotoluene		30	U M	27	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	99		40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG1203-01**

Lab Sample ID: 200-12042-17
Client Matrix: Solid

Date Sampled: 08/01/2012 1345
Date Received: 08/02/2012 1030

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Analysis Method:	8330 Modified	Analysis Batch:	200-43097	Instrument ID:	CH1208
Prep Method:	8330	Prep Batch:	200-42840	Initial Weight/Volume:	10.00 g
Dilution:	1.0			Final Weight/Volume:	100 mL
Analysis Date:	08/09/2012 0042			Injection Volume:	150 uL
Prep Date:	08/02/2012 2021			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	DL	LOQ
HMX		12	U	4.5	100
RDX		12	U	12	100
1,3,5-Trinitrobenzene		12	U	5.0	100
1,3-Dinitrobenzene		12	U	5.9	100
Nitrobenzene		30	U	26	100
Tetryl		24	U	15	100
Nitroglycerin		720	U	480	2000
2,4,6-Trinitrotoluene		24	U	17	100
4-Amino-2,6-dinitrotoluene		12	U	8.4	100
2-Amino-4,6-dinitrotoluene		12	U	6.6	100
2,6-Dinitrotoluene		12	U	11	100
2,4-Dinitrotoluene		24	U	15	100
2-Nitrotoluene		24	U	14	100
4-Nitrotoluene		30	U	27	100
3-Nitrotoluene		30	U M	27	100

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	99		40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG0201-01**

Lab Sample ID: 200-12042-1
Client Matrix: Solid
% Moisture: 7.5

Date Sampled: 08/01/2012 1045
Date Received: 08/02/2012 1030

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	200-43487	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081512-01.ttx
Dilution:	1.0			Initial Weight/Volume:	1.50 g
Analysis Date:	08/15/2012 1930			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Antimony		1.1	U	0.35	4.3
Arsenic		1.4		0.40	0.72
Barium		4.4	J	0.37	14
Cadmium		0.18	U	0.058	0.36
Calcium		70	J	37	360
Chromium		3.5		0.079	0.72
Cobalt		0.67	J	0.058	3.6
Copper		0.88	J	0.16	1.8
Iron		3500		9.4	14
Lead		2.3		0.32	0.72
Magnesium		390		10	360
Manganese		21		0.32	1.1
Nickel		1.8	J	0.21	2.9
Potassium		230	J	11	360
Selenium		1.7	U	0.63	2.5
Silver		0.29	U	0.094	0.72
Sodium		18	J	5.4	360
Thallium		1.1	U	0.30	1.8
Zinc		5.4		0.40	1.4

Analysis Method:	6010C	Analysis Batch:	200-43577	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081612-03.ttx
Dilution:	1.0			Initial Weight/Volume:	1.50 g
Analysis Date:	08/17/2012 0020			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		2800		12	14
Beryllium		0.094	J	0.023	0.36
Vanadium		5.5		0.094	3.6

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method:	7471B	Analysis Batch:	200-43702	Instrument ID:	MEPCV3 II
Prep Method:	7471B	Prep Batch:	200-43662	Lab File ID:	082012GG.PRN
Dilution:	1.0			Initial Weight/Volume:	0.30 g
Analysis Date:	08/20/2012 1601			Final Weight/Volume:	50 mL
Prep Date:	08/20/2012 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.0041	U	0.0024	0.036

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG0202-01**

Lab Sample ID: 200-12042-2
Client Matrix: Solid
% Moisture: 5.1

Date Sampled: 08/01/2012 1055
Date Received: 08/02/2012 1030

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	200-43487	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081512-01.ttx
Dilution:	1.0			Initial Weight/Volume:	1.54 g
Analysis Date:	08/15/2012 1935			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Antimony		1.0	U	0.34	4.1
Arsenic		1.7		0.38	0.68
Barium		3.6	J	0.36	14
Cadmium		0.17	U	0.055	0.34
Calcium		120	J	35	340
Chromium		4.6		0.075	0.68
Cobalt		1.0	J	0.055	3.4
Copper		0.91	J	0.15	1.7
Iron		4000		8.9	14
Lead		2.3		0.30	0.68
Magnesium		570		9.6	340
Manganese		26		0.31	1.0
Nickel		2.7		0.20	2.7
Potassium		300	J	10	340
Selenium		1.6	U	0.60	2.4
Silver		0.27	U	0.089	0.68
Sodium		21	J	5.1	340
Thallium		1.0	U	0.28	1.7
Zinc		5.5		0.38	1.4

Analysis Method:	6010C	Analysis Batch:	200-43577	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081612-03.ttx
Dilution:	1.0			Initial Weight/Volume:	1.54 g
Analysis Date:	08/17/2012 0025			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		3500		12	14
Beryllium		0.10	J	0.022	0.34
Vanadium		6.6		0.089	3.4

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method:	7471B	Analysis Batch:	200-43702	Instrument ID:	MEPCV3 II
Prep Method:	7471B	Prep Batch:	200-43662	Lab File ID:	082012GG.PRN
Dilution:	1.0			Initial Weight/Volume:	0.32 g
Analysis Date:	08/20/2012 1603			Final Weight/Volume:	50 mL
Prep Date:	08/20/2012 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.0038	U	0.0022	0.033

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG0202-02**

Lab Sample ID: 200-12042-3
Client Matrix: Solid
% Moisture: 5.4

Date Sampled: 08/01/2012 1055
Date Received: 08/02/2012 1030

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	200-43487	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081512-01.ttx
Dilution:	1.0			Initial Weight/Volume:	1.83 g
Analysis Date:	08/15/2012 1940			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Antimony		0.87	U	0.28	3.5
Arsenic		2.0		0.32	0.58
Barium		3.8	J	0.30	12
Cadmium		0.14	U	0.046	0.29
Calcium		130	J	29	290
Chromium		4.5		0.064	0.58
Cobalt		1.1	J	0.047	2.9
Copper		1.1	J	0.13	1.4
Iron		5100		7.5	12
Lead		2.5		0.25	0.58
Magnesium		610		8.1	290
Manganese		42		0.26	0.87
Nickel		2.7		0.17	2.3
Potassium		290		8.7	290
Selenium		1.3	U	0.50	2.0
Silver		0.23	U	0.075	0.58
Sodium		18	J	4.3	290
Thallium		0.87	U	0.24	1.4
Zinc		7.3		0.32	1.2

Analysis Method:	6010C	Analysis Batch:	200-43577	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081612-03.ttx
Dilution:	1.0			Initial Weight/Volume:	1.83 g
Analysis Date:	08/17/2012 0030			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		3500		9.8	12
Beryllium		0.12	J	0.018	0.29
Vanadium		6.6		0.075	2.9

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method:	7471B	Analysis Batch:	200-43702	Instrument ID:	MEPCV3 II
Prep Method:	7471B	Prep Batch:	200-43662	Lab File ID:	082012GG.PRN
Dilution:	1.0			Initial Weight/Volume:	0.33 g
Analysis Date:	08/20/2012 1606			Final Weight/Volume:	50 mL
Prep Date:	08/20/2012 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.0037	U	0.0021	0.032

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG0203-01**

Lab Sample ID: 200-12042-4
Client Matrix: Solid
% Moisture: 2.2

Date Sampled: 08/01/2012 1115
Date Received: 08/02/2012 1030

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	200-43487	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081512-01.ttx
Dilution:	1.0			Initial Weight/Volume:	1.36 g
Analysis Date:	08/15/2012 1945			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Antimony		1.1	U	0.37	4.5
Arsenic		1.9		0.42	0.75
Barium		2.8	J	0.39	15
Cadmium		0.19	U	0.060	0.38
Calcium		68	J	38	380
Chromium		3.3		0.083	0.75
Cobalt		0.98	J	0.061	3.8
Copper		1.3	J	0.17	1.9
Iron		3300	J	9.8	15
Lead		1.5		0.33	0.75
Magnesium		440	J	11	380
Manganese		23		0.34	1.1
Nickel		2.4	J	0.22	3.0
Potassium		280	J	11	380
Selenium		1.7	U	0.65	2.6
Silver		0.30	U	0.098	0.75
Sodium		8.0	J	5.6	380
Thallium		1.1	U	0.31	1.9
Zinc		5.9		0.42	1.5

Analysis Method:	6010C	Analysis Batch:	200-43577	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081612-03.ttx
Dilution:	1.0			Initial Weight/Volume:	1.36 g
Analysis Date:	08/17/2012 0035			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		1900	J	13	15
Beryllium		0.10	J	0.024	0.38
Vanadium		3.9		0.098	3.8

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method:	7471B	Analysis Batch:	200-43702	Instrument ID:	MEPCV3 II
Prep Method:	7471B	Prep Batch:	200-43662	Lab File ID:	082012GG.PRN
Dilution:	1.0			Initial Weight/Volume:	0.35 g
Analysis Date:	08/20/2012 1608			Final Weight/Volume:	50 mL
Prep Date:	08/20/2012 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.0033	U	0.0019	0.029

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG0401-01**

Lab Sample ID: 200-12042-5
Client Matrix: Solid
% Moisture: 9.0

Date Sampled: 08/01/2012 0830
Date Received: 08/02/2012 1030

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	200-43487	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081512-01.ttx
Dilution:	1.0			Initial Weight/Volume:	1.41 g
Analysis Date:	08/15/2012 2025			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Antimony		1.2	U	0.38	4.7
Arsenic		3.3		0.44	0.78
Barium		4.0	J	0.41	16
Cadmium		0.19	U	0.062	0.39
Calcium		120	J	40	390
Chromium		4.2		0.086	0.78
Cobalt		0.99	J	0.063	3.9
Copper		1.2	J	0.17	1.9
Iron		5900		10	16
Lead		2.4		0.34	0.78
Magnesium		420		11	390
Manganese		36		0.35	1.2
Nickel		2.4	J	0.23	3.1
Potassium		250	J	12	390
Selenium		1.8	U	0.68	2.7
Silver		0.31	U	0.10	0.78
Sodium		7.7	J	5.8	390
Thallium		1.2	U	0.32	1.9
Zinc		8.7		0.44	1.6

Analysis Method:	6010C	Analysis Batch:	200-43577	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081612-03.ttx
Dilution:	1.0			Initial Weight/Volume:	1.41 g
Analysis Date:	08/17/2012 0115			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		3200		13	16
Beryllium		0.11	J	0.025	0.39
Vanadium		6.2		0.10	3.9

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method:	7471B	Analysis Batch:	200-43702	Instrument ID:	MEPCV3 II
Prep Method:	7471B	Prep Batch:	200-43662	Lab File ID:	082012GG.PRN
Dilution:	1.0			Initial Weight/Volume:	0.34 g
Analysis Date:	08/20/2012 1617			Final Weight/Volume:	50 mL
Prep Date:	08/20/2012 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.0037	U	0.0021	0.032

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG0402-01**

Lab Sample ID: 200-12042-6
Client Matrix: Solid
% Moisture: 9.0

Date Sampled: 08/01/2012 0835
Date Received: 08/02/2012 1030

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	200-43487	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081512-01.ttx
Dilution:	1.0			Initial Weight/Volume:	1.37 g
Analysis Date:	08/15/2012 2030			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Antimony		1.2	U	0.39	4.8
Arsenic		1.9		0.45	0.80
Barium		5.6	J	0.42	16
Cadmium		0.20	U	0.064	0.40
Calcium		76	J	41	400
Chromium		4.3		0.088	0.80
Cobalt		1.1	J	0.065	4.0
Copper		1.1	J	0.18	2.0
Iron		4400		10	16
Lead		2.6		0.35	0.80
Magnesium		450		11	400
Manganese		36		0.36	1.2
Nickel		2.3	J	0.23	3.2
Potassium		260	J	12	400
Selenium		1.8	U	0.70	2.8
Silver		0.32	U	0.10	0.80
Sodium		23	J	6.0	400
Thallium		1.2	U	0.33	2.0
Zinc		20		0.45	1.6

Analysis Method:	6010C	Analysis Batch:	200-43577	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081612-03.ttx
Dilution:	1.0			Initial Weight/Volume:	1.37 g
Analysis Date:	08/17/2012 0120			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		3000		14	16
Beryllium		0.12	J	0.026	0.40
Vanadium		6.5		0.10	4.0

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method:	7471B	Analysis Batch:	200-43702	Instrument ID:	MEPCV3 II
Prep Method:	7471B	Prep Batch:	200-43662	Lab File ID:	082012GG.PRN
Dilution:	1.0			Initial Weight/Volume:	0.35 g
Analysis Date:	08/20/2012 1624			Final Weight/Volume:	50 mL
Prep Date:	08/20/2012 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.0036	U	0.0021	0.031

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG0403-01**

Lab Sample ID: 200-12042-7
Client Matrix: Solid
% Moisture: 2.8

Date Sampled: 08/01/2012 0845
Date Received: 08/02/2012 1030

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	200-43487	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081512-01.ttx
Dilution:	1.0			Initial Weight/Volume:	1.28 g
Analysis Date:	08/15/2012 2035			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Antimony		1.2	U	0.39	4.8
Arsenic		3.8		0.45	0.80
Barium		4.4	J	0.42	16
Cadmium		0.20	U	0.064	0.40
Calcium		61	J	41	400
Chromium		4.1		0.088	0.80
Cobalt		3.5	J	0.065	4.0
Copper		2.0		0.18	2.0
Iron		5300		10	16
Lead		1.7		0.35	0.80
Magnesium		700		11	400
Manganese		79		0.36	1.2
Nickel		3.9		0.23	3.2
Potassium		350	J	12	400
Selenium		1.8	U	0.70	2.8
Silver		0.32	U	0.10	0.80
Sodium		6.7	J	6.0	400
Thallium		1.2	U	0.33	2.0
Zinc		14		0.45	1.6

Analysis Method:	6010C	Analysis Batch:	200-43577	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081612-03.ttx
Dilution:	1.0			Initial Weight/Volume:	1.28 g
Analysis Date:	08/17/2012 0125			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		2100		14	16
Beryllium		0.15	J	0.026	0.40
Vanadium		5.9		0.10	4.0

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method:	7471B	Analysis Batch:	200-43702	Instrument ID:	MEPCV3 II
Prep Method:	7471B	Prep Batch:	200-43662	Lab File ID:	082012GG.PRN
Dilution:	1.0			Initial Weight/Volume:	0.34 g
Analysis Date:	08/20/2012 1626			Final Weight/Volume:	50 mL
Prep Date:	08/20/2012 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.0023	J	0.0020	0.030

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG0801-01**

Lab Sample ID: 200-12042-8
Client Matrix: Solid
% Moisture: 13.0

Date Sampled: 08/01/2012 0935
Date Received: 08/02/2012 1030

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	200-43487	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081512-01.ttx
Dilution:	1.0			Initial Weight/Volume:	1.71 g
Analysis Date:	08/15/2012 2040			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Antimony		1.0	U	0.33	4.0
Arsenic		2.0		0.38	0.67
Barium		5.2	J	0.35	13
Cadmium		0.17	U	0.054	0.34
Calcium		43	J	34	340
Chromium		5.9		0.074	0.67
Cobalt		0.76	J	0.054	3.4
Copper		0.94	J	0.15	1.7
Iron		6200		8.7	13
Lead		3.7		0.30	0.67
Magnesium		400		9.4	340
Manganese		32		0.30	1.0
Nickel		2.5	J	0.19	2.7
Potassium		200	J	10	340
Selenium		1.5	U	0.58	2.4
Silver		0.27	U	0.087	0.67
Sodium		12	J	5.0	340
Thallium		1.0	U	0.28	1.7
Zinc		7.9		0.38	1.3

Analysis Method:	6010C	Analysis Batch:	200-43577	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081612-03.ttx
Dilution:	1.0			Initial Weight/Volume:	1.71 g
Analysis Date:	08/17/2012 0130			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		6300		11	13
Beryllium		0.14	J	0.021	0.34
Vanadium		9.4		0.087	3.4

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method:	7471B	Analysis Batch:	200-43702	Instrument ID:	MEPCV3 II
Prep Method:	7471B	Prep Batch:	200-43662	Lab File ID:	082012GG.PRN
Dilution:	1.0			Initial Weight/Volume:	0.31 g
Analysis Date:	08/20/2012 1628			Final Weight/Volume:	50 mL
Prep Date:	08/20/2012 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.0042	U	0.0024	0.037

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG0802-01**

Lab Sample ID: 200-12042-9
Client Matrix: Solid
% Moisture: 4.5

Date Sampled: 08/01/2012 0940
Date Received: 08/02/2012 1030

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	200-43487	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081512-01.ttx
Dilution:	1.0			Initial Weight/Volume:	1.31 g
Analysis Date:	08/15/2012 2045			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Antimony		1.2	U	0.39	4.8
Arsenic		1.6		0.45	0.80
Barium		3.0	J	0.42	16
Cadmium		0.20	U	0.064	0.40
Calcium		70	J	41	400
Chromium		3.8		0.088	0.80
Cobalt		1.0	J	0.065	4.0
Copper		0.70	J	0.18	2.0
Iron		3300		10	16
Lead		1.3		0.35	0.80
Magnesium		450		11	400
Manganese		34		0.36	1.2
Nickel		2.6	J	0.23	3.2
Potassium		240	J	12	400
Selenium		1.8	U	0.70	2.8
Silver		0.32	U	0.10	0.80
Sodium		20	U	6.0	400
Thallium		1.2	U	0.33	2.0
Zinc		4.5		0.45	1.6

Analysis Method:	6010C	Analysis Batch:	200-43577	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081612-03.ttx
Dilution:	1.0			Initial Weight/Volume:	1.31 g
Analysis Date:	08/17/2012 0135			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		2000		14	16
Beryllium		0.088	J	0.026	0.40
Vanadium		4.5		0.10	4.0

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method:	7471B	Analysis Batch:	200-43702	Instrument ID:	MEPCV3 II
Prep Method:	7471B	Prep Batch:	200-43662	Lab File ID:	082012GG.PRN
Dilution:	1.0			Initial Weight/Volume:	0.35 g
Analysis Date:	08/20/2012 1630			Final Weight/Volume:	50 mL
Prep Date:	08/20/2012 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.0034	U	0.0020	0.030

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG0803-01**

Lab Sample ID: 200-12042-10
Client Matrix: Solid
% Moisture: 3.6

Date Sampled: 08/01/2012 0950
Date Received: 08/02/2012 1030

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	200-43487	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081512-01.ttx
Dilution:	1.0			Initial Weight/Volume:	1.59 g
Analysis Date:	08/15/2012 2050			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Antimony		0.98	U	0.32	3.9
Arsenic		1.5		0.37	0.65
Barium		4.0	J	0.34	13
Cadmium		0.16	U	0.052	0.33
Calcium		170	J	33	330
Chromium		2.8		0.072	0.65
Cobalt		1.1	J	0.053	3.3
Copper		1.0	J	0.14	1.6
Iron		3100		8.5	13
Lead		1.9		0.29	0.65
Magnesium		500		9.1	330
Manganese		45		0.29	0.98
Nickel		1.8	J	0.19	2.6
Potassium		290	J	9.8	330
Selenium		1.5	U	0.57	2.3
Silver		0.26	U	0.085	0.65
Sodium		6.4	J	4.9	330
Thallium		0.98	U	0.27	1.6
Zinc		5.2		0.37	1.3

Analysis Method:	6010C	Analysis Batch:	200-43577	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081612-03.ttx
Dilution:	1.0			Initial Weight/Volume:	1.59 g
Analysis Date:	08/17/2012 0140			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		1700		11	13
Beryllium		0.10	J	0.021	0.33
Vanadium		4.8		0.085	3.3

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method:	7471B	Analysis Batch:	200-43702	Instrument ID:	MEPCV3 II
Prep Method:	7471B	Prep Batch:	200-43662	Lab File ID:	082012GG.PRN
Dilution:	1.0			Initial Weight/Volume:	0.33 g
Analysis Date:	08/20/2012 1632			Final Weight/Volume:	50 mL
Prep Date:	08/20/2012 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.0036	U	0.0021	0.031

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG0901-01**

Lab Sample ID: 200-12042-11
Client Matrix: Solid
% Moisture: 11.3

Date Sampled: 08/01/2012 1200
Date Received: 08/02/2012 1030

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	200-43487	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081512-01.ttx
Dilution:	1.0			Initial Weight/Volume:	1.29 g
Analysis Date:	08/15/2012 2055			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Antimony		1.3	U	0.43	5.2
Arsenic		2.7		0.49	0.87
Barium		4.9	J	0.45	17
Cadmium		0.22	U	0.070	0.44
Calcium		53	J	45	440
Chromium		6.1		0.096	0.87
Cobalt		0.99	J	0.071	4.4
Copper		1.0	J	0.19	2.2
Iron		6100		11	17
Lead		3.3		0.38	0.87
Magnesium		490		12	440
Manganese		35		0.39	1.3
Nickel		3.1	J	0.25	3.5
Potassium		250	J	13	440
Selenium		2.0	U	0.76	3.1
Silver		0.35	U	0.11	0.87
Sodium		9.2	J	6.6	440
Thallium		1.3	U	0.36	2.2
Zinc		7.9		0.49	1.7

Analysis Method:	6010C	Analysis Batch:	200-43577	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081612-03.ttx
Dilution:	1.0			Initial Weight/Volume:	1.29 g
Analysis Date:	08/17/2012 0145			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		6000		15	17
Beryllium		0.13	J	0.028	0.44
Vanadium		8.7		0.11	4.4

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method:	7471B	Analysis Batch:	200-43702	Instrument ID:	MEPCV3 II
Prep Method:	7471B	Prep Batch:	200-43662	Lab File ID:	082012GG.PRN
Dilution:	1.0			Initial Weight/Volume:	0.30 g
Analysis Date:	08/20/2012 1635			Final Weight/Volume:	50 mL
Prep Date:	08/20/2012 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.0043	U	0.0025	0.037

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG0902-01**

Lab Sample ID: 200-12042-12
Client Matrix: Solid
% Moisture: 4.4

Date Sampled: 08/01/2012 1205
Date Received: 08/02/2012 1030

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	200-43487	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081512-01.ttx
Dilution:	1.0			Initial Weight/Volume:	1.27 g
Analysis Date:	08/15/2012 2100			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Antimony		1.2	U	0.40	4.9
Arsenic		1.8		0.46	0.82
Barium		3.0	J	0.43	16
Cadmium		0.21	U	0.066	0.41
Calcium		95	J	42	410
Chromium		3.5		0.091	0.82
Cobalt		1.1	J	0.067	4.1
Copper		0.88	J	0.18	2.1
Iron		3200		11	16
Lead		1.6		0.36	0.82
Magnesium		430		12	410
Manganese		31		0.37	1.2
Nickel		2.3	J	0.24	3.3
Potassium		250	J	12	410
Selenium		1.9	U	0.72	2.9
Silver		0.33	U	0.11	0.82
Sodium		21	U	6.2	410
Thallium		1.2	U	0.34	2.1
Zinc		4.1		0.46	1.6

Analysis Method:	6010C	Analysis Batch:	200-43577	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081612-03.ttx
Dilution:	1.0			Initial Weight/Volume:	1.27 g
Analysis Date:	08/17/2012 0150			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		1900		14	16
Beryllium		0.085	J	0.026	0.41
Vanadium		4.4		0.11	4.1

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method:	7471B	Analysis Batch:	200-43702	Instrument ID:	MEPCV3 II
Prep Method:	7471B	Prep Batch:	200-43662	Lab File ID:	082012GG.PRN
Dilution:	1.0			Initial Weight/Volume:	0.32 g
Analysis Date:	08/20/2012 1638			Final Weight/Volume:	50 mL
Prep Date:	08/20/2012 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.0037	U	0.0022	0.032

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG0903-01**

Lab Sample ID: 200-12042-13
Client Matrix: Solid
% Moisture: 3.3
Date Sampled: 08/01/2012 1215
Date Received: 08/02/2012 1030

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	200-43487	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081512-01.ttx
Dilution:	1.0			Initial Weight/Volume:	1.53 g
Analysis Date:	08/15/2012 2105			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Antimony		1.0	U	0.33	4.1
Arsenic		2.2		0.38	0.68
Barium		2.3	J	0.35	14
Cadmium		0.17	U	0.054	0.34
Calcium		73	J	34	340
Chromium		2.6		0.074	0.68
Cobalt		1.2	J	0.055	3.4
Copper		0.75	J	0.15	1.7
Iron		3300		8.8	14
Lead		1.1		0.30	0.68
Magnesium		280	J	9.5	340
Manganese		36		0.30	1.0
Nickel		1.9	J	0.20	2.7
Potassium		210	J	10	340
Selenium		1.6	U	0.59	2.4
Silver		0.27	U	0.088	0.68
Sodium		5.3	J	5.1	340
Thallium		1.0	U	0.28	1.7
Zinc		4.8		0.38	1.4

Analysis Method:	6010C	Analysis Batch:	200-43577	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081612-03.ttx
Dilution:	1.0			Initial Weight/Volume:	1.53 g
Analysis Date:	08/17/2012 0155			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		1200		11	14
Beryllium		0.091	J	0.022	0.34
Vanadium		4.6		0.088	3.4

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method:	7471B	Analysis Batch:	200-43702	Instrument ID:	MEPCV3 II
Prep Method:	7471B	Prep Batch:	200-43662	Lab File ID:	082012GG.PRN
Dilution:	1.0			Initial Weight/Volume:	0.35 g
Analysis Date:	08/20/2012 1640			Final Weight/Volume:	50 mL
Prep Date:	08/20/2012 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.0034	U	0.0020	0.029

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG0903-02**

Lab Sample ID: 200-12042-14
Client Matrix: Solid
% Moisture: 2.7

Date Sampled: 08/01/2012 1215
Date Received: 08/02/2012 1030

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	200-43487	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081512-01.ttx
Dilution:	1.0			Initial Weight/Volume:	1.29 g
Analysis Date:	08/15/2012 2110			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Antimony		1.2	U	0.39	4.8
Arsenic		1.8		0.45	0.80
Barium		2.9	J	0.41	16
Cadmium		0.20	U	0.064	0.40
Calcium		130	J	41	400
Chromium		2.5		0.088	0.80
Cobalt		1.2	J	0.065	4.0
Copper		0.83	J	0.18	2.0
Iron		3400		10	16
Lead		1.1		0.35	0.80
Magnesium		370	J	11	400
Manganese		40		0.36	1.2
Nickel		1.8	J	0.23	3.2
Potassium		240	J	12	400
Selenium		1.8	U	0.69	2.8
Silver		0.32	U	0.10	0.80
Sodium		20	U	6.0	400
Thallium		1.2	U	0.33	2.0
Zinc		4.2		0.45	1.6

Analysis Method:	6010C	Analysis Batch:	200-43577	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081612-03.ttx
Dilution:	1.0			Initial Weight/Volume:	1.29 g
Analysis Date:	08/17/2012 0200			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		1400		14	16
Beryllium		0.093	J	0.025	0.40
Vanadium		3.9	J	0.10	4.0

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method:	7471B	Analysis Batch:	200-43702	Instrument ID:	MEPCV3 II
Prep Method:	7471B	Prep Batch:	200-43662	Lab File ID:	082012GG.PRN
Dilution:	1.0			Initial Weight/Volume:	0.32 g
Analysis Date:	08/20/2012 1642			Final Weight/Volume:	50 mL
Prep Date:	08/20/2012 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.0037	U	0.0021	0.032

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG1201-01**

Lab Sample ID: 200-12042-15
Client Matrix: Solid
% Moisture: 11.7

Date Sampled: 08/01/2012 1325
Date Received: 08/02/2012 1030

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	200-43487	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081512-01.ttx
Dilution:	1.0			Initial Weight/Volume:	1.41 g
Analysis Date:	08/15/2012 2130			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Antimony		1.2	U	0.39	4.8
Arsenic		2.1		0.45	0.80
Barium		4.5	J	0.42	16
Cadmium		0.20	U	0.064	0.40
Calcium		64	J	41	400
Chromium		6.0		0.088	0.80
Cobalt		1.1	J	0.065	4.0
Copper		0.93	J	0.18	2.0
Iron		6100		10	16
Lead		3.3		0.35	0.80
Magnesium		490		11	400
Manganese		33		0.36	1.2
Nickel		3.0	J	0.23	3.2
Potassium		230	J	12	400
Selenium		1.8	U	0.70	2.8
Silver		0.32	U	0.10	0.80
Sodium		11	J	6.0	400
Thallium		1.2	U	0.33	2.0
Zinc		6.7		0.45	1.6

Analysis Method:	6010C	Analysis Batch:	200-43577	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081612-03.ttx
Dilution:	1.0			Initial Weight/Volume:	1.41 g
Analysis Date:	08/17/2012 0221			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		5800		14	16
Beryllium		0.14	J	0.026	0.40
Vanadium		8.9		0.10	4.0

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method:	7471B	Analysis Batch:	200-43702	Instrument ID:	MEPCV3 II
Prep Method:	7471B	Prep Batch:	200-43662	Lab File ID:	082012GG.PRN
Dilution:	1.0			Initial Weight/Volume:	0.31 g
Analysis Date:	08/20/2012 1651			Final Weight/Volume:	50 mL
Prep Date:	08/20/2012 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.0042	U	0.0024	0.036

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG1202-01**

Lab Sample ID: 200-12042-16
Client Matrix: Solid
% Moisture: 3.6

Date Sampled: 08/01/2012 1330
Date Received: 08/02/2012 1030

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	200-43487	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081512-01.ttx
Dilution:	1.0			Initial Weight/Volume:	1.20 g
Analysis Date:	08/15/2012 2135			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Antimony		1.3	U	0.42	5.2
Arsenic		1.7		0.48	0.86
Barium		3.1	J	0.45	17
Cadmium		0.22	U	0.069	0.43
Calcium		120	J	44	430
Chromium		4.5		0.095	0.86
Cobalt		1.2	J	0.070	4.3
Copper		1.0	J	0.19	2.2
Iron		4500		11	17
Lead		1.3		0.38	0.86
Magnesium		490		12	430
Manganese		29		0.39	1.3
Nickel		2.5	J	0.25	3.5
Potassium		310	J	13	430
Selenium		2.0	U	0.75	3.0
Silver		0.35	U	0.11	0.86
Sodium		10	J	6.5	430
Thallium		1.3	U	0.35	2.2
Zinc		4.4		0.48	1.7

Analysis Method:	6010C	Analysis Batch:	200-43577	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081612-03.ttx
Dilution:	1.0			Initial Weight/Volume:	1.20 g
Analysis Date:	08/17/2012 0226			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		2000		15	17
Beryllium		0.098	J	0.028	0.43
Vanadium		4.7		0.11	4.3

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method:	7471B	Analysis Batch:	200-43702	Instrument ID:	MEPCV3 II
Prep Method:	7471B	Prep Batch:	200-43662	Lab File ID:	082012GG.PRN
Dilution:	1.0			Initial Weight/Volume:	0.32 g
Analysis Date:	08/20/2012 1653			Final Weight/Volume:	50 mL
Prep Date:	08/20/2012 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.0037	U	0.0021	0.032

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Client Sample ID: **NFUDS-002-SBG1203-01**

Lab Sample ID: 200-12042-17
Client Matrix: Solid
% Moisture: 3.1

Date Sampled: 08/01/2012 1345
Date Received: 08/02/2012 1030

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	200-43487	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081512-01.ttx
Dilution:	1.0			Initial Weight/Volume:	1.31 g
Analysis Date:	08/15/2012 2140			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Antimony		1.2	U	0.39	4.7
Arsenic		1.5		0.44	0.79
Barium		3.3	J	0.41	16
Cadmium		0.20	U	0.063	0.39
Calcium		49	J	40	390
Chromium		2.7		0.087	0.79
Cobalt		1.1	J	0.064	3.9
Copper		1.0	J	0.17	2.0
Iron		2900		10	16
Lead		1.2		0.35	0.79
Magnesium		370	J	11	390
Manganese		32		0.35	1.2
Nickel		1.9	J	0.23	3.1
Potassium		280	J	12	390
Selenium		1.8	U	0.69	2.8
Silver		0.31	U	0.10	0.79
Sodium		20	U	5.9	390
Thallium		1.2	U	0.32	2.0
Zinc		4.5		0.44	1.6

Analysis Method:	6010C	Analysis Batch:	200-43577	Instrument ID:	METICP7
Prep Method:	3050B	Prep Batch:	200-42935	Lab File ID:	081612-03.ttx
Dilution:	1.0			Initial Weight/Volume:	1.31 g
Analysis Date:	08/17/2012 0231			Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Aluminum		1600		13	16
Beryllium		0.099	J	0.025	0.39
Vanadium		3.8	J	0.10	3.9

7471B Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)

Analysis Method:	7471B	Analysis Batch:	200-43702	Instrument ID:	MEPCV3 II
Prep Method:	7471B	Prep Batch:	200-43662	Lab File ID:	082012GG.PRN
Dilution:	1.0			Initial Weight/Volume:	0.35 g
Analysis Date:	08/20/2012 1656			Final Weight/Volume:	50 mL
Prep Date:	08/20/2012 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	DL	LOQ
Mercury		0.0034	U	0.0019	0.029

General Chemistry

Client Sample ID: **NFUDS-002-SBG0201-01**

Lab Sample ID: 200-12042-1
Client Matrix: Solid

Date Sampled: 08/01/2012 1045
Date Received: 08/02/2012 1030

Analyte	Result	Qual	Units	DL	LOQ	Dil	Method
pH	4.88	HF	SU			1.0	9045D
Analysis Batch: 200-42999	Analysis Date: 08/07/2012 1455						DryWt Corrected: N
Percent Solids	92		%	0.25	0.25	1.0	Moisture
Analysis Batch: 200-42970	Analysis Date: 08/07/2012 0751						DryWt Corrected: N

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

General Chemistry

Client Sample ID: **NFUDS-002-SBG0202-01**

Lab Sample ID: 200-12042-2
Client Matrix: Solid

Date Sampled: 08/01/2012 1055
Date Received: 08/02/2012 1030

Analyte	Result	Qual	Units	DL	LOQ	Dil	Method
pH	5.30	HF	SU			1.0	9045D
Analysis Batch: 200-42999	Analysis Date: 08/07/2012 1455						DryWt Corrected: N
Percent Solids	95		%	0.25	0.25	1.0	Moisture
Analysis Batch: 200-42970	Analysis Date: 08/07/2012 0751						DryWt Corrected: N

General Chemistry

Client Sample ID: **NFUDS-002-SBG0202-02**

Lab Sample ID: 200-12042-3
Client Matrix: Solid

Date Sampled: 08/01/2012 1055
Date Received: 08/02/2012 1030

Analyte	Result	Qual	Units	DL	LOQ	Dil	Method
pH	5.31	HF	SU			1.0	9045D
Analysis Batch: 200-42999	Analysis Date: 08/07/2012 1455						DryWt Corrected: N
Percent Solids	95		%	0.25	0.25	1.0	Moisture
Analysis Batch: 200-42970	Analysis Date: 08/07/2012 0751						DryWt Corrected: N

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

General Chemistry

Client Sample ID: **NFUDS-002-SBG0203-01**

Lab Sample ID: 200-12042-4
Client Matrix: Solid

Date Sampled: 08/01/2012 1115
Date Received: 08/02/2012 1030

Analyte	Result	Qual	Units	DL	LOQ	Dil	Method
pH	5.20	HF	SU			1.0	9045D
Analysis Batch: 200-42999	Analysis Date: 08/07/2012 1455						DryWt Corrected: N
Percent Solids	98		%	0.25	0.25	1.0	Moisture
Analysis Batch: 200-42970	Analysis Date: 08/07/2012 0751						DryWt Corrected: N

General Chemistry

Client Sample ID: **NFUDS-002-SBG0401-01**

Lab Sample ID: 200-12042-5
Client Matrix: Solid

Date Sampled: 08/01/2012 0830
Date Received: 08/02/2012 1030

Analyte	Result	Qual	Units	DL	LOQ	Dil	Method
pH	4.53	HF	SU			1.0	9045D
Analysis Batch: 200-42999	Analysis Date: 08/07/2012 1455						DryWt Corrected: N
Percent Solids	91		%	0.25	0.25	1.0	Moisture
Analysis Batch: 200-42970	Analysis Date: 08/07/2012 0751						DryWt Corrected: N

General Chemistry

Client Sample ID: **NFUDS-002-SBG0402-01**

Lab Sample ID: 200-12042-6
Client Matrix: Solid

Date Sampled: 08/01/2012 0835
Date Received: 08/02/2012 1030

Analyte	Result	Qual	Units	DL	LOQ	Dil	Method
pH	4.61	HF	SU			1.0	9045D
Analysis Batch: 200-42999	Analysis Date: 08/07/2012 1455						DryWt Corrected: N
Percent Solids	91		%	0.25	0.25	1.0	Moisture
Analysis Batch: 200-42970	Analysis Date: 08/07/2012 0751						DryWt Corrected: N

General Chemistry

Client Sample ID: **NFUDS-002-SBG0403-01**

Lab Sample ID: 200-12042-7
Client Matrix: Solid

Date Sampled: 08/01/2012 0845
Date Received: 08/02/2012 1030

Analyte	Result	Qual	Units	DL	LOQ	Dil	Method
pH	5.09	HF	SU			1.0	9045D
Analysis Batch: 200-42999	Analysis Date: 08/07/2012 1455						DryWt Corrected: N
Percent Solids	97		%	0.25	0.25	1.0	Moisture
Analysis Batch: 200-42970	Analysis Date: 08/07/2012 0751						DryWt Corrected: N

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

General Chemistry

Client Sample ID: **NFUDS-002-SBG0801-01**

Lab Sample ID: 200-12042-8
Client Matrix: Solid

Date Sampled: 08/01/2012 0935
Date Received: 08/02/2012 1030

Analyte	Result	Qual	Units	DL	LOQ	Dil	Method
pH	4.24	HF	SU			1.0	9045D
Analysis Batch: 200-42999	Analysis Date: 08/07/2012 1455						DryWt Corrected: N
Percent Solids	87		%	0.25	0.25	1.0	Moisture
Analysis Batch: 200-42970	Analysis Date: 08/07/2012 0751						DryWt Corrected: N

General Chemistry

Client Sample ID: **NFUDS-002-SBG0802-01**

Lab Sample ID: 200-12042-9
Client Matrix: Solid

Date Sampled: 08/01/2012 0940
Date Received: 08/02/2012 1030

Analyte	Result	Qual	Units	DL	LOQ	Dil	Method
pH	4.34	HF	SU			1.0	9045D
Analysis Batch: 200-42999	Analysis Date: 08/07/2012 1455						DryWt Corrected: N
Percent Solids	96		%	0.25	0.25	1.0	Moisture
Analysis Batch: 200-42970	Analysis Date: 08/07/2012 0751						DryWt Corrected: N

General Chemistry

Client Sample ID: **NFUDS-002-SBG0803-01**

Lab Sample ID: 200-12042-10
Client Matrix: Solid

Date Sampled: 08/01/2012 0950
Date Received: 08/02/2012 1030

Analyte	Result	Qual	Units	DL	LOQ	Dil	Method
pH	4.61	HF	SU			1.0	9045D
Analysis Batch: 200-42999	Analysis Date: 08/07/2012 1455						DryWt Corrected: N
Percent Solids	96		%	0.25	0.25	1.0	Moisture
Analysis Batch: 200-42970	Analysis Date: 08/07/2012 0751						DryWt Corrected: N

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

General Chemistry

Client Sample ID: **NFUDS-002-SBG0901-01**

Lab Sample ID: 200-12042-11
Client Matrix: Solid

Date Sampled: 08/01/2012 1200
Date Received: 08/02/2012 1030

Analyte	Result	Qual	Units	DL	LOQ	Dil	Method
pH	4.30	HF	SU			1.0	9045D
Analysis Batch: 200-42999	Analysis Date: 08/07/2012 1455						DryWt Corrected: N
Percent Solids	89		%	0.25	0.25	1.0	Moisture
Analysis Batch: 200-42970	Analysis Date: 08/07/2012 0751						DryWt Corrected: N

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

General Chemistry

Client Sample ID: **NFUDS-002-SBG0902-01**

Lab Sample ID: 200-12042-12
Client Matrix: Solid

Date Sampled: 08/01/2012 1205
Date Received: 08/02/2012 1030

Analyte	Result	Qual	Units	DL	LOQ	Dil	Method
pH	4.29	HF	SU			1.0	9045D
Analysis Batch: 200-42999	Analysis Date: 08/07/2012 1455						DryWt Corrected: N
Percent Solids	96		%	0.25	0.25	1.0	Moisture
Analysis Batch: 200-42970	Analysis Date: 08/07/2012 0751						DryWt Corrected: N

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

General Chemistry

Client Sample ID: **NFUDS-002-SBG0903-01**

Lab Sample ID: 200-12042-13
Client Matrix: Solid

Date Sampled: 08/01/2012 1215
Date Received: 08/02/2012 1030

Analyte	Result	Qual	Units	DL	LOQ	Dil	Method
pH	4.40	HF	SU			1.0	9045D
Analysis Batch: 200-42999	Analysis Date: 08/07/2012 1455						DryWt Corrected: N
Percent Solids	97		%	0.25	0.25	1.0	Moisture
Analysis Batch: 200-42970	Analysis Date: 08/07/2012 0751						DryWt Corrected: N

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

General Chemistry

Client Sample ID: **NFUDS-002-SBG0903-02**

Lab Sample ID: 200-12042-14
Client Matrix: Solid

Date Sampled: 08/01/2012 1215
Date Received: 08/02/2012 1030

Analyte	Result	Qual	Units	DL	LOQ	Dil	Method
pH	4.42	HF	SU			1.0	9045D
Analysis Batch: 200-42999	Analysis Date: 08/07/2012 1455						DryWt Corrected: N
Percent Solids	97		%	0.25	0.25	1.0	Moisture
Analysis Batch: 200-42970	Analysis Date: 08/07/2012 0751						DryWt Corrected: N

General Chemistry

Client Sample ID: **NFUDS-002-SBG1201-01**

Lab Sample ID: 200-12042-15
Client Matrix: Solid

Date Sampled: 08/01/2012 1325
Date Received: 08/02/2012 1030

Analyte	Result	Qual	Units	DL	LOQ	Dil	Method
pH	4.28	HF	SU			1.0	9045D
Analysis Batch: 200-42999	Analysis Date: 08/07/2012 1455						DryWt Corrected: N
Percent Solids	88		%	0.25	0.25	1.0	Moisture
Analysis Batch: 200-42970	Analysis Date: 08/07/2012 0751						DryWt Corrected: N

General Chemistry

Client Sample ID: **NFUDS-002-SBG1202-01**

Lab Sample ID: 200-12042-16
Client Matrix: Solid

Date Sampled: 08/01/2012 1330
Date Received: 08/02/2012 1030

Analyte	Result	Qual	Units	DL	LOQ	Dil	Method
pH	4.57	HF	SU			1.0	9045D
Analysis Batch: 200-42999	Analysis Date: 08/07/2012 1455						DryWt Corrected: N
Percent Solids	96		%	0.25	0.25	1.0	Moisture
Analysis Batch: 200-42970	Analysis Date: 08/07/2012 0751						DryWt Corrected: N

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

General Chemistry

Client Sample ID: **NFUDS-002-SBG1203-01**

Lab Sample ID: 200-12042-17
Client Matrix: Solid

Date Sampled: 08/01/2012 1345
Date Received: 08/02/2012 1030

Analyte	Result	Qual	Units	DL	LOQ	Dil	Method
pH	4.59	HF	SU			1.0	9045D
Analysis Batch: 200-42999	Analysis Date: 08/07/2012 1455						DryWt Corrected: N
Percent Solids	97		%	0.25	0.25	1.0	Moisture
Analysis Batch: 200-42970	Analysis Date: 08/07/2012 0751						DryWt Corrected: N

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Surrogate Recovery Report

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Client Matrix: Solid

Lab Sample ID	Client Sample ID	12DNB1 %Rec
200-12042-1	NFUDS-002-SBG020 1-01	96
200-12042-2	NFUDS-002-SBG020 2-01	97
200-12042-3	NFUDS-002-SBG020 2-02	95
200-12042-4	NFUDS-002-SBG020 3-01	102
200-12042-5	NFUDS-002-SBG040 1-01	96
200-12042-6	NFUDS-002-SBG040 2-01	100
200-12042-7	NFUDS-002-SBG040 3-01	105
200-12042-8	NFUDS-002-SBG080 1-01	96
200-12042-9	NFUDS-002-SBG080 2-01	92
200-12042-10	NFUDS-002-SBG080 3-01	98
200-12042-11	NFUDS-002-SBG090 1-01	99
200-12042-12	NFUDS-002-SBG090 2-01	96
200-12042-13	NFUDS-002-SBG090 3-01	98
200-12042-14	NFUDS-002-SBG090 3-02	95
200-12042-15	NFUDS-002-SBG120 1-01	101
200-12042-16	NFUDS-002-SBG120 2-01	99
200-12042-17	NFUDS-002-SBG120 3-01	99
MB 200-42840/1-A		97
MB 200-43130/17-A		101

Surrogate	Acceptance Limits
12DNB = 1,2-Dinitrobenzene	40-140

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Surrogate Recovery Report

8330 Modified Nitroaromatics and Nitramines by High Performance Liquid Chromatography

Client Matrix: Solid

Lab Sample ID	Client Sample ID	12DNB1 %Rec
LCS 200-42840/2-A		100
LCS 200-43130/18-A		100
200-12042-4 MS	NFUDS-002-SBG020 3-01 MS	96
200-12042-4 MSD	NFUDS-002-SBG020 3-01 MSD	98

Surrogate	Acceptance Limits
12DNB = 1,2-Dinitrobenzene	40-140

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Method Blank - Batch: 200-42840

Method: 8330 Modified
Preparation: 8330

Lab Sample ID:	MB 200-42840/1-A	Analysis Batch:	200-43097	Instrument ID:	CH1208
Client Matrix:	Solid	Prep Batch:	200-42840	Lab File ID:	08AUG121140_041.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10.01 g
Analysis Date:	08/08/2012 1406	Units:	ug/Kg	Final Weight/Volume:	100 mL
Prep Date:	08/02/2012 2021			Injection Volume:	150 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	DL	LOQ
HMX	12	U	4.5	100
RDX	12	U	12	100
1,3,5-Trinitrobenzene	12	U	5.0	100
1,3-Dinitrobenzene	12	U	5.9	100
Nitrobenzene	30	U	26	100
Tetryl	24	U	15	100
Nitroglycerin	720	U	480	2000
2,4,6-Trinitrotoluene	24	U	17	100
4-Amino-2,6-dinitrotoluene	12	U	8.4	100
2-Amino-4,6-dinitrotoluene	12	U	6.6	100
2,6-Dinitrotoluene	12	U	11	100
2,4-Dinitrotoluene	24	U	15	100
2-Nitrotoluene	24	U	14	100
4-Nitrotoluene	30	U	27	100
3-Nitrotoluene	30	U M	27	100

Surrogate	% Rec	Acceptance Limits
1,2-Dinitrobenzene	97	40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Lab Control Sample - Batch: 200-42840

Method: 8330 Modified
Preparation: 8330

Lab Sample ID:	LCS 200-42840/2-A	Analysis Batch:	200-43097	Instrument ID:	CH1208
Client Matrix:	Solid	Prep Batch:	200-42840	Lab File ID:	08AUG121140_051.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10.03 g
Analysis Date:	08/08/2012 1443	Units:	ug/Kg	Final Weight/Volume:	100 mL
Prep Date:	08/02/2012 2021			Injection Volume:	150 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
HMX	1990	2090	105	75 - 120	
RDX	1990	2090	105	75 - 120	
1,3,5-Trinitrobenzene	1990	2020	101	75 - 120	
1,3-Dinitrobenzene	1990	2080	104	75 - 120	
Nitrobenzene	1990	2040	102	75 - 125	
Tetryl	1990	2040	102	80 - 115	
Nitroglycerin	39900	38600	97	60 - 150	
2,4,6-Trinitrotoluene	1990	2070	104	85 - 110	
4-Amino-2,6-dinitrotoluene	1990	2090	105	80 - 120	
2-Amino-4,6-dinitrotoluene	1990	2100	105	75 - 125	
2,6-Dinitrotoluene	1990	2020	101	75 - 125	
2,4-Dinitrotoluene	1990	2150	108	60 - 130	
2-Nitrotoluene	1990	2030	102	70 - 125	
4-Nitrotoluene	1990	2080	104	65 - 135	
3-Nitrotoluene	1990	2030	102	60 - 135	

Surrogate	% Rec	Acceptance Limits
1,2-Dinitrobenzene	100	40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 200-42840

Method: 8330 Modified
Preparation: 8330

MS Lab Sample ID:	200-12042-4	Analysis Batch:	200-43097	Instrument ID:	CH1208
Client Matrix:	Solid	Prep Batch:	200-42840	Lab File ID:	08AUG121140_221.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10.08 g
Analysis Date:	08/09/2012 0120			Final Weight/Volume:	100 mL
Prep Date:	08/02/2012 2021			Injection Volume:	150 uL
Leach Date:	N/A			Column ID:	PRIMARY

MSD Lab Sample ID:	200-12042-4	Analysis Batch:	200-43097	Instrument ID:	CH1208
Client Matrix:	Solid	Prep Batch:	200-42840	Lab File ID:	08AUG121140_231.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10.00 g
Analysis Date:	08/09/2012 0157			Final Weight/Volume:	100 mL
Prep Date:	08/02/2012 2021			Injection Volume:	150 uL
Leach Date:	N/A			Column ID:	PRIMARY

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
HMX	99	98	75 - 120	1	20		
RDX	98	99	75 - 120	2	20		
1,3,5-Trinitrobenzene	97	97	75 - 120	1	20		
1,3-Dinitrobenzene	101	101	75 - 120	2	20		
Nitrobenzene	97	99	75 - 125	3	20		
Tetryl	95	95	80 - 115	0	20		
Nitroglycerin	93	94	60 - 150	1	20		
2,4,6-Trinitrotoluene	98	99	85 - 110	1	20		
4-Amino-2,6-dinitrotoluene	100	99	80 - 120	1	20		
2-Amino-4,6-dinitrotoluene	101	100	75 - 125	0	20		
2,6-Dinitrotoluene	95	96	75 - 125	2	20		
2,4-Dinitrotoluene	102	102	60 - 130	1	20		
2-Nitrotoluene	98	97	70 - 125	0	20		
4-Nitrotoluene	102	101	65 - 135	1	20		
3-Nitrotoluene	98	99	60 - 135	2	20		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
1,2-Dinitrobenzene	96	98	40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 200-42840

Method: 8330 Modified
Preparation: 8330

MS Lab Sample ID:	200-12042-4	Units:	ug/Kg	MSD Lab Sample ID:	200-12042-4
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	08/09/2012 0120			Analysis Date:	08/09/2012 0157
Prep Date:	08/02/2012 2021			Prep Date:	08/02/2012 2021
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
HMX	12	U	1980	2000	1960	1970
RDX	12	U	1980	2000	1950	1980
1,3,5-Trinitrobenzene	12	U	1980	2000	1920	1950
1,3-Dinitrobenzene	12	U	1980	2000	2000	2030
Nitrobenzene	30	U	1980	2000	1920	1970
Tetryl	24	U	1980	2000	1880	1890
Nitroglycerin	720	U	39700	40000	36900	37500
2,4,6-Trinitrotoluene	24	U	1980	2000	1940	1970
4-Amino-2,6-dinitrotoluene	12	U	1980	2000	1970	1990
2-Amino-4,6-dinitrotoluene	12	U	1980	2000	2000	1990
2,6-Dinitrotoluene	12	U	1980	2000	1890	1930
2,4-Dinitrotoluene	24	U	1980	2000	2030	2040
2-Nitrotoluene	24	U	1980	2000	1940	1940
4-Nitrotoluene	30	U	1980	2000	2010	2030
3-Nitrotoluene	30	U	1980	2000	1940	1990

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Method Blank - Batch: 200-43130

Method: 8330 Modified
Preparation: 8330

Lab Sample ID:	MB 200-43130/17-A	Analysis Batch:	200-43162	Instrument ID:	CH1208
Client Matrix:	Solid	Prep Batch:	200-43130	Lab File ID:	09AUG121108_031.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	9.93 g
Analysis Date:	08/09/2012 1243	Units:	ug/Kg	Final Weight/Volume:	100 mL
Prep Date:	08/08/2012 1440			Injection Volume:	150 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	DL	LOQ
HMX	12	U	4.5	100
RDX	12	U	12	100
1,3,5-Trinitrobenzene	12	U	5.0	100
1,3-Dinitrobenzene	12	U M	5.9	100
Nitrobenzene	30	U	26	100
Tetryl	24	U	15	100
Nitroglycerin	730	U	490	2000
2,4,6-Trinitrotoluene	24	U	17	100
4-Amino-2,6-dinitrotoluene	12	U	8.5	100
2-Amino-4,6-dinitrotoluene	12	U	6.6	100
2,6-Dinitrotoluene	12	U	11	100
2,4-Dinitrotoluene	24	U	15	100
2-Nitrotoluene	24	U	14	100
4-Nitrotoluene	30	U	27	100
3-Nitrotoluene	30	U M	27	100

Surrogate	% Rec	Acceptance Limits
1,2-Dinitrobenzene	101	40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Lab Control Sample - Batch: 200-43130

Method: 8330 Modified
Preparation: 8330

Lab Sample ID:	LCS 200-43130/18-A	Analysis Batch:	200-43162	Instrument ID:	CH1208
Client Matrix:	Solid	Prep Batch:	200-43130	Lab File ID:	09AUG121108_041.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	9.98 g
Analysis Date:	08/09/2012 1320	Units:	ug/Kg	Final Weight/Volume:	100 mL
Prep Date:	08/08/2012 1440			Injection Volume:	150 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
HMX	2000	2130	106	75 - 120	
RDX	2000	2150	107	75 - 120	
1,3,5-Trinitrobenzene	2000	2130	106	75 - 120	
1,3-Dinitrobenzene	2000	2150	107	75 - 120	
Nitrobenzene	2000	2120	106	75 - 125	
Tetryl	2000	2100	105	80 - 115	
Nitroglycerin	40100	41500	104	60 - 150	
2,4,6-Trinitrotoluene	2000	2130	106	85 - 110	
4-Amino-2,6-dinitrotoluene	2000	2140	107	80 - 120	
2-Amino-4,6-dinitrotoluene	2000	2180	109	75 - 125	
2,6-Dinitrotoluene	2000	2050	102	75 - 125	
2,4-Dinitrotoluene	2000	2240	112	60 - 130	
2-Nitrotoluene	2000	2070	104	70 - 125	
4-Nitrotoluene	2000	2160	108	65 - 135	M
3-Nitrotoluene	2000	2080	104	60 - 135	

Surrogate	% Rec	Acceptance Limits
1,2-Dinitrobenzene	100	40 - 140

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Method Blank - Batch: 200-42935

Method: 6010C
Preparation: 3050B

Lab Sample ID:	MB 200-42935/1-A	Analysis Batch:	200-43487	Instrument ID:	METICP7
Client Matrix:	Solid	Prep Batch:	200-42935	Lab File ID:	081512-01.ttx
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.00 g
Analysis Date:	08/15/2012 1920	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				
Leach Date:	N/A				

Analyte	Result	Qual	DL	LOQ
Antimony	1.5	U	0.49	6.0
Arsenic	0.90	U	0.56	1.0
Barium	2.0	U	0.52	20
Cadmium	0.25	U	0.080	0.50
Calcium	150	U	51	500
Chromium	0.40	U	0.11	1.0
Cobalt	0.30	U	0.081	5.0
Copper	0.80	U	0.22	2.5
Iron	18	U	13	20
Lead	0.90	U	0.44	1.0
Magnesium	50	U	14	500
Manganese	0.90	U	0.45	1.5
Nickel	1.0	U	0.29	4.0
Potassium	50	U	15	500
Selenium	2.3	U	0.87	3.5
Silver	0.40	U	0.13	1.0
Sodium	25	U	7.5	500
Thallium	1.5	U	0.41	2.5
Zinc	1.5	U	0.56	2.0

Method Blank - Batch: 200-42935

Method: 6010C
Preparation: 3050B

Lab Sample ID:	MB 200-42935/1-A	Analysis Batch:	200-43577	Instrument ID:	METICP7
Client Matrix:	Solid	Prep Batch:	200-42935	Lab File ID:	081612-03.ttx
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.00 g
Analysis Date:	08/17/2012 0010	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				
Leach Date:	N/A				

Analyte	Result	Qual	DL	LOQ
Aluminum	18	U	17	20
Beryllium	0.13	U	0.032	0.50
Vanadium	0.50	U	0.13	5.0

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Lab Control Sample - Batch: 200-42935

Method: 6010C
Preparation: 3050B

Lab Sample ID:	LCS 200-42935/2-A	Analysis Batch:	200-43487	Instrument ID:	METICP7
Client Matrix:	Solid	Prep Batch:	200-42935	Lab File ID:	081512-01.ttx
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.00 g
Analysis Date:	08/15/2012 1925	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Antimony	50.0	54.6	109	80 - 120	
Arsenic	24.0	26.4	110	80 - 120	
Barium	200	222	111	80 - 120	
Cadmium	25.0	27.6	110	80 - 120	
Calcium	2000	2170	108	80 - 120	
Chromium	20.0	22.1	110	80 - 120	
Cobalt	50.0	54.6	109	80 - 120	
Copper	25.0	27.0	108	80 - 120	
Iron	100	112	112	80 - 120	
Lead	22.0	24.4	111	80 - 120	
Magnesium	2000	2160	108	80 - 120	
Manganese	50.0	54.7	109	80 - 120	
Nickel	50.0	53.5	107	80 - 120	
Potassium	2000	2210	111	80 - 120	
Selenium	25.0	27.0	108	80 - 120	
Silver	25.0	28.8	115	80 - 120	
Sodium	2000	2160	108	80 - 120	
Thallium	25.0	26.7	107	80 - 120	
Zinc	50.0	54.8	110	80 - 120	

Lab Control Sample - Batch: 200-42935

Method: 6010C
Preparation: 3050B

Lab Sample ID:	LCS 200-42935/2-A	Analysis Batch:	200-43577	Instrument ID:	METICP7
Client Matrix:	Solid	Prep Batch:	200-42935	Lab File ID:	081612-03.ttx
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.00 g
Analysis Date:	08/17/2012 0015	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	200	223	111	80 - 120	
Beryllium	5.00	5.46	109	80 - 120	
Vanadium	50.0	55.2	110	80 - 120	

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Post Digestion Spike - Batch: 200-42935

Method: 6010C
Preparation: 3050B

Lab Sample ID:	200-12042-4	Analysis Batch:	200-43487	Instrument ID:	METICP7
Client Matrix:	Solid	Prep Batch:	200-42935	Lab File ID:	081512-01.ttx
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.36 g
Analysis Date:	08/15/2012 1955	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Antimony	1.1	U	37.6	35.3	94	75 - 125	
Arsenic	1.9		3.01	4.68	93	75 - 125	
Barium	2.8	J	150	143	93	75 - 125	
Cadmium	0.19	U	3.76	3.53	94	75 - 125	
Calcium	68	J	150	221	102	75 - 125	J
Chromium	3.3		15.0	17.2	93	75 - 125	
Cobalt	0.98	J	37.6	36.1	93	75 - 125	
Copper	1.3	J	18.8	18.9	94	75 - 125	
Iron	3300		75.2	3300	-30	75 - 125	J
Lead	1.5		1.50	2.91	91	75 - 125	
Magnesium	440		150	583	92	75 - 125	
Manganese	23		37.6	57.9	93	75 - 125	
Nickel	2.4	J	37.6	36.8	92	75 - 125	
Potassium	280	J	150	430	101	75 - 125	
Selenium	1.7	U	3.76	3.46	92	75 - 125	
Silver	0.30	U	3.76	3.59	95	75 - 125	
Sodium	8.0	J	150	167	106	75 - 125	J
Thallium	1.1	U	3.76	3.71	99	75 - 125	
Zinc	5.9		37.6	41.6	95	75 - 125	

Matrix Spike - Batch: 200-42935

Method: 6010C
Preparation: 3050B

Lab Sample ID:	200-12042-4	Analysis Batch:	200-43487	Instrument ID:	METICP7
Client Matrix:	Solid	Prep Batch:	200-42935	Lab File ID:	081512-01.ttx
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.39 g
Analysis Date:	08/15/2012 2005	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Antimony	1.1	U	36.8	29.3	80	80 - 120	
Arsenic	1.9		2.94	4.79	98	80 - 120	
Barium	2.8	J	147	162	108	80 - 120	
Cadmium	0.19	U	3.68	3.84	104	80 - 120	
Calcium	68	J	147	279	143	80 - 120	J
Chromium	3.3		14.7	19.0	107	80 - 120	
Cobalt	0.98	J	36.8	39.6	105	80 - 120	
Copper	1.3	J	18.4	20.4	104	80 - 120	

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Matrix Spike - Batch: 200-42935

Method: 6010C
Preparation: 3050B

Lab Sample ID:	200-12042-4	Analysis Batch:	200-43487	Instrument ID:	METICP7
Client Matrix:	Solid	Prep Batch:	200-42935	Lab File ID:	081512-01.ttx
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.39 g
Analysis Date:	08/15/2012 2005	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Iron	3300		73.6	3630	417	80 - 120	4
Lead	1.5		1.47	3.09	105	80 - 120	
Magnesium	440		147	685	163	80 - 120	J
Manganese	23		36.8	62.8	108	80 - 120	
Nickel	2.4	J	36.8	39.8	102	80 - 120	
Potassium	280	J	147	566	195	80 - 120	J
Selenium	1.7	U	3.68	3.91	106	80 - 120	
Silver	0.30	U	3.68	4.10	111	80 - 120	
Sodium	8.0	J	147	176	114	80 - 120	J
Thallium	1.1	U	3.68	4.06	110	80 - 120	
Zinc	5.9		36.8	44.9	106	80 - 120	

Post Digestion Spike - Batch: 200-42935

Method: 6010C
Preparation: 3050B

Lab Sample ID:	200-12042-4	Analysis Batch:	200-43577	Instrument ID:	METICP7
Client Matrix:	Solid	Prep Batch:	200-42935	Lab File ID:	081612-03.ttx
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.36 g
Analysis Date:	08/17/2012 0045	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	1900		150	1970	62	75 - 125	J
Beryllium	0.10	J	3.76	3.75	97	75 - 125	
Vanadium	3.9		37.6	39.4	94	75 - 125	

Matrix Spike - Batch: 200-42935

Method: 6010C
Preparation: 3050B

Lab Sample ID:	200-12042-4	Analysis Batch:	200-43577	Instrument ID:	METICP7
Client Matrix:	Solid	Prep Batch:	200-42935	Lab File ID:	081612-03.ttx
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.39 g
Analysis Date:	08/17/2012 0055	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	1900		147	2240	247	80 - 120	4

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Matrix Spike - Batch: 200-42935

Method: 6010C
Preparation: 3050B

Lab Sample ID:	200-12042-4	Analysis Batch:	200-43577	Instrument ID:	METICP7
Client Matrix:	Solid	Prep Batch:	200-42935	Lab File ID:	081612-03.ttx
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.39 g
Analysis Date:	08/17/2012 0055	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Beryllium	0.10	J	3.68	3.87	102	80 - 120	
Vanadium	3.9		36.8	41.0	101	80 - 120	

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Serial Dilution - Batch: 200-42935

Method: 6010C
Preparation: 3050B

Lab Sample ID:	200-12042-4	Analysis Batch:	200-43487	Instrument ID:	METICP7
Client Matrix:	Solid	Prep Batch:	200-42935	Lab File ID:	081512-01.ttx
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	1.36 g
Analysis Date:	08/15/2012 1950	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	%Diff	Limit	Qual
Antimony	1.1	U	5.6	NC	10	U
Arsenic	1.9		3.4	NC	10	U
Barium	2.8	J	3.52	NC	10	J D
Cadmium	0.19	U	0.94	NC	10	U
Calcium	68	J	560	NC	10	U
Chromium	3.3		3.35	NC	10	J D
Cobalt	0.98	J	0.985	NC	10	J D
Copper	1.3	J	4.87	NC	10	J D
Iron	3300		3530	6.2	10	D
Lead	1.5		3.4	NC	10	U
Magnesium	440		451	NC	10	J D
Manganese	23		24.5	6.1	10	D
Nickel	2.4	J	2.48	NC	10	J D
Potassium	280	J	279	NC	10	J D
Selenium	1.7	U	8.6	NC	10	U
Silver	0.30	U	1.5	NC	10	U
Sodium	8.0	J	94	NC	10	U
Thallium	1.1	U	5.6	NC	10	U
Zinc	5.9		6.17	NC	10	J D

Duplicate - Batch: 200-42935

Method: 6010C
Preparation: 3050B

Lab Sample ID:	200-12042-4	Analysis Batch:	200-43487	Instrument ID:	METICP7
Client Matrix:	Solid	Prep Batch:	200-42935	Lab File ID:	081512-01.ttx
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.44 g
Analysis Date:	08/15/2012 2000	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Antimony	1.1	U	1.1	NC	20	U
Arsenic	1.9		1.51	22	20	
Barium	2.8	J	2.84	2	20	J
Cadmium	0.19	U	0.18	NC	20	U
Calcium	68	J	89.4	27	20	J
Chromium	3.3		3.44	5	20	
Cobalt	0.98	J	0.804	20	20	J
Copper	1.3	J	0.959	31	20	J
Iron	3300		2880	14	20	
Lead	1.5		1.28	18	20	

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Duplicate - Batch: 200-42935

Method: 6010C
Preparation: 3050B

Lab Sample ID:	200-12042-4	Analysis Batch:	200-43487	Instrument ID:	METICP7
Client Matrix:	Solid	Prep Batch:	200-42935	Lab File ID:	081512-01.ttx
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.44 g
Analysis Date:	08/15/2012 2000	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Magnesium	440		415	7	20	
Manganese	23		17.7	26	20	J
Nickel	2.4	J	1.98	18	20	J
Potassium	280	J	290	4	20	J
Selenium	1.7	U	1.6	NC	20	U
Silver	0.30	U	0.28	NC	20	U
Sodium	8.0	J	9.13	13	20	J
Thallium	1.1	U	1.1	NC	20	U
Zinc	5.9		4.44	29	20	J

Serial Dilution - Batch: 200-42935

Method: 6010C
Preparation: 3050B

Lab Sample ID:	200-12042-4	Analysis Batch:	200-43577	Instrument ID:	METICP7
Client Matrix:	Solid	Prep Batch:	200-42935	Lab File ID:	081612-03.ttx
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	1.36 g
Analysis Date:	08/17/2012 0040	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	%Diff	Limit	Qual
Aluminum	1900		1900	1.3	10	D
Beryllium	0.10	J	0.49	NC	10	U
Vanadium	3.9		3.96	NC	10	J D

Duplicate - Batch: 200-42935

Method: 6010C
Preparation: 3050B

Lab Sample ID:	200-12042-4	Analysis Batch:	200-43577	Instrument ID:	METICP7
Client Matrix:	Solid	Prep Batch:	200-42935	Lab File ID:	081612-03.ttx
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.44 g
Analysis Date:	08/17/2012 0050	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	08/06/2012 0929				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Aluminum	1900		1700	10	20	
Beryllium	0.10	J	0.0812	21	20	J
Vanadium	3.9		3.82	2	20	

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Method Blank - Batch: 200-43662

Method: 7471B
Preparation: 7471B

Lab Sample ID:	MB 200-43662/11-A	Analysis Batch:	200-43702	Instrument ID:	MEPCV3 II
Client Matrix:	Solid	Prep Batch:	200-43662	Lab File ID:	082012GG.PRN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.30 g
Analysis Date:	08/20/2012 1557	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	08/20/2012 0900				
Leach Date:	N/A				

Analyte	Result	Qual	DL	LOQ
Mercury	0.0038	U	0.0022	0.033

Lab Control Sample - Batch: 200-43662

Method: 7471B
Preparation: 7471B

Lab Sample ID:	LCS 200-43662/12-A	Analysis Batch:	200-43702	Instrument ID:	MEPCV3 II
Client Matrix:	Solid	Prep Batch:	200-43662	Lab File ID:	082012GG.PRN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.30 g
Analysis Date:	08/20/2012 1559	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	08/20/2012 0900				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.167	0.159	95	80 - 120	

Matrix Spike - Batch: 200-43662

Method: 7471B
Preparation: 7471B

Lab Sample ID:	200-12042-4	Analysis Batch:	200-43702	Instrument ID:	MEPCV3 II
Client Matrix:	Solid	Prep Batch:	200-43662	Lab File ID:	082012GG.PRN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.35 g
Analysis Date:	08/20/2012 1614	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	08/20/2012 0900				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.0033	U	0.146	0.134	92	80 - 120	

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Duplicate - Batch: 200-43662

Method: 7471B
Preparation: 7471B

Lab Sample ID:	200-12042-4	Analysis Batch:	200-43702	Instrument ID:	MEPCV3 II
Client Matrix:	Solid	Prep Batch:	200-43662	Lab File ID:	082012GG.PRN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.34 g
Analysis Date:	08/20/2012 1610	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	08/20/2012 0900				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Mercury	0.0033	U	0.0034	NC	20	U

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Duplicate - Batch: 200-42999

Method: 9045D
Preparation: N/A

Lab Sample ID:	200-12042-4	Analysis Batch:	200-42999	Instrument ID:	WCpHmeter
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	40 mL
Analysis Date:	08/07/2012 1455	Units:	SU	Final Weight/Volume:	40 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
pH	5.20	5.160	0.8	5	HF

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Duplicate - Batch: 200-42970

Method: Moisture
Preparation: N/A

Lab Sample ID:	200-12042-4	Analysis Batch:	200-42970	Instrument ID:	No Equipment
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	08/07/2012 0751	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Solids	98	98	0.06	20	

DATA REPORTING QUALIFIERS

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

Lab Section	Qualifier	Description
HPLC/IC		
	M	Manual integrated compound.
	U	Undetected at the Limit of Detection.
Metals		
	J	Estimated: The analyte was positively identified; the quantitation is an estimation
	J	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
	4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
	D	The reported value is from a dilution.
	U	Undetected at the Limit of Detection.
General Chemistry		
	HF	Field parameter with a holding time of 15 minutes

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 200-42935					
LCS 200-42935/2-A	Lab Control Sample	T	Solid	3050B	
MB 200-42935/1-A	Method Blank	T	Solid	3050B	
200-12042-1	NFUDS-002-SBG0201-01	T	Solid	3050B	
200-12042-2	NFUDS-002-SBG0202-01	T	Solid	3050B	
200-12042-3	NFUDS-002-SBG0202-02	T	Solid	3050B	
200-12042-4	NFUDS-002-SBG0203-01	T	Solid	3050B	
200-12042-4DU	Duplicate	T	Solid	3050B	
200-12042-4MS	Matrix Spike	T	Solid	3050B	
200-12042-5	NFUDS-002-SBG0401-01	T	Solid	3050B	
200-12042-6	NFUDS-002-SBG0402-01	T	Solid	3050B	
200-12042-7	NFUDS-002-SBG0403-01	T	Solid	3050B	
200-12042-8	NFUDS-002-SBG0801-01	T	Solid	3050B	
200-12042-9	NFUDS-002-SBG0802-01	T	Solid	3050B	
200-12042-10	NFUDS-002-SBG0803-01	T	Solid	3050B	
200-12042-11	NFUDS-002-SBG0901-01	T	Solid	3050B	
200-12042-12	NFUDS-002-SBG0902-01	T	Solid	3050B	
200-12042-13	NFUDS-002-SBG0903-01	T	Solid	3050B	
200-12042-14	NFUDS-002-SBG0903-02	T	Solid	3050B	
200-12042-15	NFUDS-002-SBG1201-01	T	Solid	3050B	
200-12042-16	NFUDS-002-SBG1202-01	T	Solid	3050B	
200-12042-17	NFUDS-002-SBG1203-01	T	Solid	3050B	
Analysis Batch:200-43487					
LCS 200-42935/2-A	Lab Control Sample	T	Solid	6010C	200-42935
MB 200-42935/1-A	Method Blank	T	Solid	6010C	200-42935
200-12042-1	NFUDS-002-SBG0201-01	T	Solid	6010C	200-42935
200-12042-2	NFUDS-002-SBG0202-01	T	Solid	6010C	200-42935
200-12042-3	NFUDS-002-SBG0202-02	T	Solid	6010C	200-42935
200-12042-4	NFUDS-002-SBG0203-01	T	Solid	6010C	200-42935
200-12042-4DU	Duplicate	T	Solid	6010C	200-42935
200-12042-4MS	Matrix Spike	T	Solid	6010C	200-42935
200-12042-5	NFUDS-002-SBG0401-01	T	Solid	6010C	200-42935
200-12042-6	NFUDS-002-SBG0402-01	T	Solid	6010C	200-42935
200-12042-7	NFUDS-002-SBG0403-01	T	Solid	6010C	200-42935
200-12042-8	NFUDS-002-SBG0801-01	T	Solid	6010C	200-42935
200-12042-9	NFUDS-002-SBG0802-01	T	Solid	6010C	200-42935
200-12042-10	NFUDS-002-SBG0803-01	T	Solid	6010C	200-42935
200-12042-11	NFUDS-002-SBG0901-01	T	Solid	6010C	200-42935
200-12042-12	NFUDS-002-SBG0902-01	T	Solid	6010C	200-42935
200-12042-13	NFUDS-002-SBG0903-01	T	Solid	6010C	200-42935
200-12042-14	NFUDS-002-SBG0903-02	T	Solid	6010C	200-42935
200-12042-15	NFUDS-002-SBG1201-01	T	Solid	6010C	200-42935
200-12042-16	NFUDS-002-SBG1202-01	T	Solid	6010C	200-42935
200-12042-17	NFUDS-002-SBG1203-01	T	Solid	6010C	200-42935

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:200-43577					
LCS 200-42935/2-A	Lab Control Sample	T	Solid	6010C	200-42935
MB 200-42935/1-A	Method Blank	T	Solid	6010C	200-42935
200-12042-1	NFUDS-002-SBG0201-01	T	Solid	6010C	200-42935
200-12042-2	NFUDS-002-SBG0202-01	T	Solid	6010C	200-42935
200-12042-3	NFUDS-002-SBG0202-02	T	Solid	6010C	200-42935
200-12042-4	NFUDS-002-SBG0203-01	T	Solid	6010C	200-42935
200-12042-4DU	Duplicate	T	Solid	6010C	200-42935
200-12042-4MS	Matrix Spike	T	Solid	6010C	200-42935
200-12042-5	NFUDS-002-SBG0401-01	T	Solid	6010C	200-42935
200-12042-6	NFUDS-002-SBG0402-01	T	Solid	6010C	200-42935
200-12042-7	NFUDS-002-SBG0403-01	T	Solid	6010C	200-42935
200-12042-8	NFUDS-002-SBG0801-01	T	Solid	6010C	200-42935
200-12042-9	NFUDS-002-SBG0802-01	T	Solid	6010C	200-42935
200-12042-10	NFUDS-002-SBG0803-01	T	Solid	6010C	200-42935
200-12042-11	NFUDS-002-SBG0901-01	T	Solid	6010C	200-42935
200-12042-12	NFUDS-002-SBG0902-01	T	Solid	6010C	200-42935
200-12042-13	NFUDS-002-SBG0903-01	T	Solid	6010C	200-42935
200-12042-14	NFUDS-002-SBG0903-02	T	Solid	6010C	200-42935
200-12042-15	NFUDS-002-SBG1201-01	T	Solid	6010C	200-42935
200-12042-16	NFUDS-002-SBG1202-01	T	Solid	6010C	200-42935
200-12042-17	NFUDS-002-SBG1203-01	T	Solid	6010C	200-42935
Prep Batch: 200-43662					
LCS 200-43662/12-A	Lab Control Sample	T	Solid	7471B	
MB 200-43662/11-A	Method Blank	T	Solid	7471B	
200-12042-1	NFUDS-002-SBG0201-01	T	Solid	7471B	
200-12042-2	NFUDS-002-SBG0202-01	T	Solid	7471B	
200-12042-3	NFUDS-002-SBG0202-02	T	Solid	7471B	
200-12042-4	NFUDS-002-SBG0203-01	T	Solid	7471B	
200-12042-4DU	Duplicate	T	Solid	7471B	
200-12042-4MS	Matrix Spike	T	Solid	7471B	
200-12042-5	NFUDS-002-SBG0401-01	T	Solid	7471B	
200-12042-6	NFUDS-002-SBG0402-01	T	Solid	7471B	
200-12042-7	NFUDS-002-SBG0403-01	T	Solid	7471B	
200-12042-8	NFUDS-002-SBG0801-01	T	Solid	7471B	
200-12042-9	NFUDS-002-SBG0802-01	T	Solid	7471B	
200-12042-10	NFUDS-002-SBG0803-01	T	Solid	7471B	
200-12042-11	NFUDS-002-SBG0901-01	T	Solid	7471B	
200-12042-12	NFUDS-002-SBG0902-01	T	Solid	7471B	
200-12042-13	NFUDS-002-SBG0903-01	T	Solid	7471B	
200-12042-14	NFUDS-002-SBG0903-02	T	Solid	7471B	
200-12042-15	NFUDS-002-SBG1201-01	T	Solid	7471B	
200-12042-16	NFUDS-002-SBG1202-01	T	Solid	7471B	
200-12042-17	NFUDS-002-SBG1203-01	T	Solid	7471B	

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:200-43702					
LCS 200-43662/12-A	Lab Control Sample	T	Solid	7471B	200-43662
MB 200-43662/11-A	Method Blank	T	Solid	7471B	200-43662
200-12042-1	NFUDS-002-SBG0201-01	T	Solid	7471B	200-43662
200-12042-2	NFUDS-002-SBG0202-01	T	Solid	7471B	200-43662
200-12042-3	NFUDS-002-SBG0202-02	T	Solid	7471B	200-43662
200-12042-4	NFUDS-002-SBG0203-01	T	Solid	7471B	200-43662
200-12042-4DU	Duplicate	T	Solid	7471B	200-43662
200-12042-4MS	Matrix Spike	T	Solid	7471B	200-43662
200-12042-5	NFUDS-002-SBG0401-01	T	Solid	7471B	200-43662
200-12042-6	NFUDS-002-SBG0402-01	T	Solid	7471B	200-43662
200-12042-7	NFUDS-002-SBG0403-01	T	Solid	7471B	200-43662
200-12042-8	NFUDS-002-SBG0801-01	T	Solid	7471B	200-43662
200-12042-9	NFUDS-002-SBG0802-01	T	Solid	7471B	200-43662
200-12042-10	NFUDS-002-SBG0803-01	T	Solid	7471B	200-43662
200-12042-11	NFUDS-002-SBG0901-01	T	Solid	7471B	200-43662
200-12042-12	NFUDS-002-SBG0902-01	T	Solid	7471B	200-43662
200-12042-13	NFUDS-002-SBG0903-01	T	Solid	7471B	200-43662
200-12042-14	NFUDS-002-SBG0903-02	T	Solid	7471B	200-43662
200-12042-15	NFUDS-002-SBG1201-01	T	Solid	7471B	200-43662
200-12042-16	NFUDS-002-SBG1202-01	T	Solid	7471B	200-43662
200-12042-17	NFUDS-002-SBG1203-01	T	Solid	7471B	200-43662

Report Basis
T = Total

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:200-42970					
200-12042-1	NFUDS-002-SBG0201-01	T	Solid	Moisture	
200-12042-2	NFUDS-002-SBG0202-01	T	Solid	Moisture	
200-12042-3	NFUDS-002-SBG0202-02	T	Solid	Moisture	
200-12042-4	NFUDS-002-SBG0203-01	T	Solid	Moisture	
200-12042-4DU	Duplicate	T	Solid	Moisture	
200-12042-5	NFUDS-002-SBG0401-01	T	Solid	Moisture	
200-12042-6	NFUDS-002-SBG0402-01	T	Solid	Moisture	
200-12042-7	NFUDS-002-SBG0403-01	T	Solid	Moisture	
200-12042-8	NFUDS-002-SBG0801-01	T	Solid	Moisture	
200-12042-9	NFUDS-002-SBG0802-01	T	Solid	Moisture	
200-12042-10	NFUDS-002-SBG0803-01	T	Solid	Moisture	
200-12042-11	NFUDS-002-SBG0901-01	T	Solid	Moisture	
200-12042-12	NFUDS-002-SBG0902-01	T	Solid	Moisture	
200-12042-13	NFUDS-002-SBG0903-01	T	Solid	Moisture	
200-12042-14	NFUDS-002-SBG0903-02	T	Solid	Moisture	
200-12042-15	NFUDS-002-SBG1201-01	T	Solid	Moisture	
200-12042-16	NFUDS-002-SBG1202-01	T	Solid	Moisture	
200-12042-17	NFUDS-002-SBG1203-01	T	Solid	Moisture	
Analysis Batch:200-42999					
LCS 200-42999/4	Lab Control Sample	T	Solid	9045D	
200-12042-1	NFUDS-002-SBG0201-01	T	Solid	9045D	
200-12042-2	NFUDS-002-SBG0202-01	T	Solid	9045D	
200-12042-3	NFUDS-002-SBG0202-02	T	Solid	9045D	
200-12042-4	NFUDS-002-SBG0203-01	T	Solid	9045D	
200-12042-4DU	Duplicate	T	Solid	9045D	
200-12042-5	NFUDS-002-SBG0401-01	T	Solid	9045D	
200-12042-6	NFUDS-002-SBG0402-01	T	Solid	9045D	
200-12042-7	NFUDS-002-SBG0403-01	T	Solid	9045D	
200-12042-8	NFUDS-002-SBG0801-01	T	Solid	9045D	
200-12042-9	NFUDS-002-SBG0802-01	T	Solid	9045D	
200-12042-10	NFUDS-002-SBG0803-01	T	Solid	9045D	
200-12042-11	NFUDS-002-SBG0901-01	T	Solid	9045D	
200-12042-12	NFUDS-002-SBG0902-01	T	Solid	9045D	
200-12042-13	NFUDS-002-SBG0903-01	T	Solid	9045D	
200-12042-14	NFUDS-002-SBG0903-02	T	Solid	9045D	
200-12042-15	NFUDS-002-SBG1201-01	T	Solid	9045D	
200-12042-16	NFUDS-002-SBG1202-01	T	Solid	9045D	
200-12042-17	NFUDS-002-SBG1203-01	T	Solid	9045D	

Report Basis
T = Total

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
HPLC/IC					
Prep Batch: 200-42840					
LCS 200-42840/2-A	Lab Control Sample	T	Solid	8330	
MB 200-42840/1-A	Method Blank	T	Solid	8330	
200-12042-3	NFUDS-002-SBG0202-02	T	Solid	8330	
200-12042-4	NFUDS-002-SBG0203-01	T	Solid	8330	
200-12042-4MS	Matrix Spike	T	Solid	8330	
200-12042-4MSD	Matrix Spike Duplicate	T	Solid	8330	
200-12042-5	NFUDS-002-SBG0401-01	T	Solid	8330	
200-12042-6	NFUDS-002-SBG0402-01	T	Solid	8330	
200-12042-7	NFUDS-002-SBG0403-01	T	Solid	8330	
200-12042-8	NFUDS-002-SBG0801-01	T	Solid	8330	
200-12042-9	NFUDS-002-SBG0802-01	T	Solid	8330	
200-12042-10	NFUDS-002-SBG0803-01	T	Solid	8330	
200-12042-11	NFUDS-002-SBG0901-01	T	Solid	8330	
200-12042-12	NFUDS-002-SBG0902-01	T	Solid	8330	
200-12042-13	NFUDS-002-SBG0903-01	T	Solid	8330	
200-12042-14	NFUDS-002-SBG0903-02	T	Solid	8330	
200-12042-15	NFUDS-002-SBG1201-01	T	Solid	8330	
200-12042-16	NFUDS-002-SBG1202-01	T	Solid	8330	
200-12042-17	NFUDS-002-SBG1203-01	T	Solid	8330	
Analysis Batch:200-43097					
LCS 200-42840/2-A	Lab Control Sample	T	Solid	8330 Modified	200-42840
MB 200-42840/1-A	Method Blank	T	Solid	8330 Modified	200-42840
200-12042-3	NFUDS-002-SBG0202-02	T	Solid	8330 Modified	200-42840
200-12042-4	NFUDS-002-SBG0203-01	T	Solid	8330 Modified	200-42840
200-12042-4MS	Matrix Spike	T	Solid	8330 Modified	200-42840
200-12042-4MSD	Matrix Spike Duplicate	T	Solid	8330 Modified	200-42840
200-12042-5	NFUDS-002-SBG0401-01	T	Solid	8330 Modified	200-42840
200-12042-6	NFUDS-002-SBG0402-01	T	Solid	8330 Modified	200-42840
200-12042-7	NFUDS-002-SBG0403-01	T	Solid	8330 Modified	200-42840
200-12042-8	NFUDS-002-SBG0801-01	T	Solid	8330 Modified	200-42840
200-12042-9	NFUDS-002-SBG0802-01	T	Solid	8330 Modified	200-42840
200-12042-10	NFUDS-002-SBG0803-01	T	Solid	8330 Modified	200-42840
200-12042-11	NFUDS-002-SBG0901-01	T	Solid	8330 Modified	200-42840
200-12042-12	NFUDS-002-SBG0902-01	T	Solid	8330 Modified	200-42840
200-12042-13	NFUDS-002-SBG0903-01	T	Solid	8330 Modified	200-42840
200-12042-14	NFUDS-002-SBG0903-02	T	Solid	8330 Modified	200-42840
200-12042-15	NFUDS-002-SBG1201-01	T	Solid	8330 Modified	200-42840
200-12042-16	NFUDS-002-SBG1202-01	T	Solid	8330 Modified	200-42840
200-12042-17	NFUDS-002-SBG1203-01	T	Solid	8330 Modified	200-42840

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
Sdg Number: 200-12042-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
HPLC/IC					
Prep Batch: 200-43130					
LCS 200-43130/18-A	Lab Control Sample	T	Solid	8330	
MB 200-43130/17-A	Method Blank	T	Solid	8330	
200-12042-1	NFUDS-002-SBG0201-01	T	Solid	8330	
200-12042-2	NFUDS-002-SBG0202-01	T	Solid	8330	
Analysis Batch:200-43162					
LCS 200-43130/18-A	Lab Control Sample	T	Solid	8330 Modified	200-43130
MB 200-43130/17-A	Method Blank	T	Solid	8330 Modified	200-43130
200-12042-1	NFUDS-002-SBG0201-01	T	Solid	8330 Modified	200-43130
200-12042-2	NFUDS-002-SBG0202-01	T	Solid	8330 Modified	200-43130

Report Basis
T = Total

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
SDG: 200-12042-1

Laboratory Chronicle

Lab ID: 200-12042-1 **Client ID:** NFUDS-002-SBG0201-01

Sample Date/Time: 08/01/2012 10:45 Received Date/Time: 08/02/2012 10:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330	200-12042-A-1-C		200-43162	200-43130	08/08/2012 14:40	1	TAL BUR	EAN
A:8330 Modified	200-12042-A-1-C		200-43162	200-43130	08/09/2012 14:35	1	TAL BUR	WBR
P:3050B	200-12042-A-1-A		200-43487	200-42935	08/06/2012 09:29	1	TAL BUR	BL
A:6010C	200-12042-A-1-A		200-43487	200-42935	08/15/2012 19:30	1	TAL BUR	ETK
P:3050B	200-12042-A-1-A		200-43577	200-42935	08/06/2012 09:29	1	TAL BUR	BL
A:6010C	200-12042-A-1-A		200-43577	200-42935	08/17/2012 00:20	1	TAL BUR	BL
P:7471B	200-12042-B-1-A		200-43702	200-43662	08/20/2012 09:00	1	TAL BUR	VTP
A:7471B	200-12042-B-1-A		200-43702	200-43662	08/20/2012 16:01	1	TAL BUR	VTP
A:9045D	200-12042-A-1		200-42999		08/07/2012 14:55	1	TAL BUR	AJN
A:Moisture	200-12042-A-1		200-42970		08/07/2012 07:51	1	TAL BUR	AJN

Lab ID: 200-12042-2 **Client ID:** NFUDS-002-SBG0202-01

Sample Date/Time: 08/01/2012 10:55 Received Date/Time: 08/02/2012 10:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330	200-12042-A-2-C		200-43162	200-43130	08/08/2012 14:40	1	TAL BUR	EAN
A:8330 Modified	200-12042-A-2-C		200-43162	200-43130	08/09/2012 15:13	1	TAL BUR	WBR
P:3050B	200-12042-A-2-A		200-43487	200-42935	08/06/2012 09:29	1	TAL BUR	BL
A:6010C	200-12042-A-2-A		200-43487	200-42935	08/15/2012 19:35	1	TAL BUR	ETK
P:3050B	200-12042-A-2-A		200-43577	200-42935	08/06/2012 09:29	1	TAL BUR	BL
A:6010C	200-12042-A-2-A		200-43577	200-42935	08/17/2012 00:25	1	TAL BUR	BL
P:7471B	200-12042-B-2-A		200-43702	200-43662	08/20/2012 09:00	1	TAL BUR	VTP
A:7471B	200-12042-B-2-A		200-43702	200-43662	08/20/2012 16:03	1	TAL BUR	VTP
A:9045D	200-12042-A-2		200-42999		08/07/2012 14:55	1	TAL BUR	AJN
A:Moisture	200-12042-A-2		200-42970		08/07/2012 07:51	1	TAL BUR	AJN

Lab ID: 200-12042-3 **Client ID:** NFUDS-002-SBG0202-02

Sample Date/Time: 08/01/2012 10:55 Received Date/Time: 08/02/2012 10:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330	200-12042-A-3-A		200-43097	200-42840	08/02/2012 20:21	1	TAL BUR	TPB
A:8330 Modified	200-12042-A-3-A		200-43097	200-42840	08/08/2012 15:20	1	TAL BUR	WBR
P:3050B	200-12042-A-3-B		200-43487	200-42935	08/06/2012 09:29	1	TAL BUR	BL
A:6010C	200-12042-A-3-B		200-43487	200-42935	08/15/2012 19:40	1	TAL BUR	ETK
P:3050B	200-12042-A-3-B		200-43577	200-42935	08/06/2012 09:29	1	TAL BUR	BL
A:6010C	200-12042-A-3-B		200-43577	200-42935	08/17/2012 00:30	1	TAL BUR	BL
P:7471B	200-12042-A-3-C		200-43702	200-43662	08/20/2012 09:00	1	TAL BUR	VTP
A:7471B	200-12042-A-3-C		200-43702	200-43662	08/20/2012 16:06	1	TAL BUR	VTP
A:9045D	200-12042-A-3		200-42999		08/07/2012 14:55	1	TAL BUR	AJN
A:Moisture	200-12042-A-3		200-42970		08/07/2012 07:51	1	TAL BUR	AJN

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
SDG: 200-12042-1

Laboratory Chronicle

Lab ID: 200-12042-4 **Client ID: NFUDS-002-SBG0203-01**

Sample Date/Time: 08/01/2012 11:15 Received Date/Time: 08/02/2012 10:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330	200-12042-A-4-A		200-43097	200-42840	08/02/2012 20:21	1	TAL BUR	TPB
A:8330 Modified	200-12042-A-4-A		200-43097	200-42840	08/08/2012 15:58	1	TAL BUR	WBR
P:3050B	200-12042-A-4-D		200-43487	200-42935	08/06/2012 09:29	1	TAL BUR	BL
A:6010C	200-12042-A-4-D		200-43487	200-42935	08/15/2012 19:45	1	TAL BUR	ETK
P:3050B	200-12042-A-4-D		200-43577	200-42935	08/06/2012 09:29	1	TAL BUR	BL
A:6010C	200-12042-A-4-D		200-43577	200-42935	08/17/2012 00:35	1	TAL BUR	BL
P:7471B	200-12042-A-4-G		200-43702	200-43662	08/20/2012 09:00	1	TAL BUR	VTP
A:7471B	200-12042-A-4-G		200-43702	200-43662	08/20/2012 16:08	1	TAL BUR	VTP
A:9045D	200-12042-A-4		200-42999		08/07/2012 14:55	1	TAL BUR	AJN
A:Moisture	200-12042-A-4		200-42970		08/07/2012 07:51	1	TAL BUR	AJN

Lab ID: 200-12042-4 **Client ID: NFUDS-002-SBG0203-01**

Sample Date/Time: 08/01/2012 11:15 Received Date/Time: 08/02/2012 10:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330	200-12042-A-4-C MS		200-43097	200-42840	08/02/2012 20:21	1	TAL BUR	TPB
A:8330 Modified	200-12042-A-4-C MS		200-43097	200-42840	08/09/2012 01:20	1	TAL BUR	WBR
P:3050B	200-12042-A-4-F MS		200-43487	200-42935	08/06/2012 09:29	1	TAL BUR	BL
A:6010C	200-12042-A-4-F MS		200-43487	200-42935	08/15/2012 20:05	1	TAL BUR	ETK
P:3050B	200-12042-A-4-F MS		200-43577	200-42935	08/06/2012 09:29	1	TAL BUR	BL
A:6010C	200-12042-A-4-F MS		200-43577	200-42935	08/17/2012 00:55	1	TAL BUR	BL
P:7471B	200-12042-A-4-I MS		200-43702	200-43662	08/20/2012 09:00	1	TAL BUR	VTP
A:7471B	200-12042-A-4-I MS		200-43702	200-43662	08/20/2012 16:14	1	TAL BUR	VTP

Lab ID: 200-12042-4 **Client ID: NFUDS-002-SBG0203-01**

Sample Date/Time: 08/01/2012 11:15 Received Date/Time: 08/02/2012 10:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330	200-12042-A-4-B MSD		200-43097	200-42840	08/02/2012 20:21	1	TAL BUR	TPB
A:8330 Modified	200-12042-A-4-B MSD		200-43097	200-42840	08/09/2012 01:57	1	TAL BUR	WBR

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
SDG: 200-12042-1

Laboratory Chronicle

Lab ID: 200-12042-4 **Client ID:** NFUDS-002-SBG0203-01

Sample Date/Time: 08/01/2012 11:15 Received Date/Time: 08/02/2012 10:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3050B	200-12042-A-4-E DU		200-43487	200-42935	08/06/2012 09:29	1	TAL BUR	BL
A:6010C	200-12042-A-4-E DU		200-43487	200-42935	08/15/2012 20:00	1	TAL BUR	ETK
P:3050B	200-12042-A-4-E DU		200-43577	200-42935	08/06/2012 09:29	1	TAL BUR	BL
A:6010C	200-12042-A-4-E DU		200-43577	200-42935	08/17/2012 00:50	1	TAL BUR	BL
P:7471B	200-12042-A-4-H DU		200-43702	200-43662	08/20/2012 09:00	1	TAL BUR	VTP
A:7471B	200-12042-A-4-H DU		200-43702	200-43662	08/20/2012 16:10	1	TAL BUR	VTP
A:9045D	200-12042-A-4 DU		200-42999		08/07/2012 14:55	1	TAL BUR	AJN
A:Moisture	200-12042-A-4 DU		200-42970		08/07/2012 07:51	1	TAL BUR	AJN

Lab ID: 200-12042-4 SD **Client ID:** NFUDS-002-SBG0203-01

Sample Date/Time: 08/01/2012 11:15 Received Date/Time: 08/02/2012 10:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3050B	200-12042-A-4-D SD ^5		200-43487	200-42935	08/06/2012 09:29	5	TAL BUR	BL
A:6010C	200-12042-A-4-D SD ^5		200-43487	200-42935	08/15/2012 19:50	5	TAL BUR	ETK
P:3050B	200-12042-A-4-D PDS		200-43487	200-42935	08/06/2012 09:29	1	TAL BUR	BL
A:6010C	200-12042-A-4-D PDS		200-43487	200-42935	08/15/2012 19:55	1	TAL BUR	ETK
P:3050B	200-12042-A-4-D SD ^5		200-43577	200-42935	08/06/2012 09:29	5	TAL BUR	BL
A:6010C	200-12042-A-4-D SD ^5		200-43577	200-42935	08/17/2012 00:40	5	TAL BUR	BL
P:3050B	200-12042-A-4-D PDS		200-43577	200-42935	08/06/2012 09:29	1	TAL BUR	BL
A:6010C	200-12042-A-4-D PDS		200-43577	200-42935	08/17/2012 00:45	1	TAL BUR	BL

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
SDG: 200-12042-1

Laboratory Chronicle

Lab ID: 200-12042-5 **Client ID:** NFUDS-002-SBG0401-01

Sample Date/Time: 08/01/2012 08:30 Received Date/Time: 08/02/2012 10:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330	200-12042-B-5-A		200-43097	200-42840	08/02/2012 20:21	1	TAL BUR	TPB
A:8330 Modified	200-12042-B-5-A		200-43097	200-42840	08/08/2012 16:35	1	TAL BUR	WBR
P:3050B	200-12042-A-5-A		200-43487	200-42935	08/06/2012 09:29	1	TAL BUR	BL
A:6010C	200-12042-A-5-A		200-43487	200-42935	08/15/2012 20:25	1	TAL BUR	ETK
P:3050B	200-12042-A-5-A		200-43577	200-42935	08/06/2012 09:29	1	TAL BUR	BL
A:6010C	200-12042-A-5-A		200-43577	200-42935	08/17/2012 01:15	1	TAL BUR	BL
P:7471B	200-12042-A-5-B		200-43702	200-43662	08/20/2012 09:00	1	TAL BUR	VTP
A:7471B	200-12042-A-5-B		200-43702	200-43662	08/20/2012 16:17	1	TAL BUR	VTP
A:9045D	200-12042-A-5		200-42999		08/07/2012 14:55	1	TAL BUR	AJN
A:Moisture	200-12042-A-5		200-42970		08/07/2012 07:51	1	TAL BUR	AJN

Lab ID: 200-12042-6 **Client ID:** NFUDS-002-SBG0402-01

Sample Date/Time: 08/01/2012 08:35 Received Date/Time: 08/02/2012 10:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330	200-12042-A-6-A		200-43097	200-42840	08/02/2012 20:21	1	TAL BUR	TPB
A:8330 Modified	200-12042-A-6-A		200-43097	200-42840	08/08/2012 17:13	1	TAL BUR	WBR
P:3050B	200-12042-B-6-A		200-43487	200-42935	08/06/2012 09:29	1	TAL BUR	BL
A:6010C	200-12042-B-6-A		200-43487	200-42935	08/15/2012 20:30	1	TAL BUR	ETK
P:3050B	200-12042-B-6-A		200-43577	200-42935	08/06/2012 09:29	1	TAL BUR	BL
A:6010C	200-12042-B-6-A		200-43577	200-42935	08/17/2012 01:20	1	TAL BUR	BL
P:7471B	200-12042-B-6-B		200-43702	200-43662	08/20/2012 09:00	1	TAL BUR	VTP
A:7471B	200-12042-B-6-B		200-43702	200-43662	08/20/2012 16:24	1	TAL BUR	VTP
A:9045D	200-12042-B-6		200-42999		08/07/2012 14:55	1	TAL BUR	AJN
A:Moisture	200-12042-B-6		200-42970		08/07/2012 07:51	1	TAL BUR	AJN

Lab ID: 200-12042-7 **Client ID:** NFUDS-002-SBG0403-01

Sample Date/Time: 08/01/2012 08:45 Received Date/Time: 08/02/2012 10:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330	200-12042-B-7-A		200-43097	200-42840	08/02/2012 20:21	1	TAL BUR	TPB
A:8330 Modified	200-12042-B-7-A		200-43097	200-42840	08/08/2012 17:50	1	TAL BUR	WBR
P:3050B	200-12042-A-7-A		200-43487	200-42935	08/06/2012 09:29	1	TAL BUR	BL
A:6010C	200-12042-A-7-A		200-43487	200-42935	08/15/2012 20:35	1	TAL BUR	ETK
P:3050B	200-12042-A-7-A		200-43577	200-42935	08/06/2012 09:29	1	TAL BUR	BL
A:6010C	200-12042-A-7-A		200-43577	200-42935	08/17/2012 01:25	1	TAL BUR	BL
P:7471B	200-12042-B-7-B		200-43702	200-43662	08/20/2012 09:00	1	TAL BUR	VTP
A:7471B	200-12042-B-7-B		200-43702	200-43662	08/20/2012 16:26	1	TAL BUR	VTP
A:9045D	200-12042-A-7		200-42999		08/07/2012 14:55	1	TAL BUR	AJN
A:Moisture	200-12042-A-7		200-42970		08/07/2012 07:51	1	TAL BUR	AJN

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
SDG: 200-12042-1

Laboratory Chronicle

Lab ID: 200-12042-8 **Client ID:** NFUDS-002-SBG0801-01

Sample Date/Time: 08/01/2012 09:35 Received Date/Time: 08/02/2012 10:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330	200-12042-A-8-A		200-43097	200-42840	08/02/2012 20:21	1	TAL BUR	TPB
A:8330 Modified	200-12042-A-8-A		200-43097	200-42840	08/08/2012 18:28	1	TAL BUR	WBR
P:3050B	200-12042-B-8-A		200-43487	200-42935	08/06/2012 09:29	1	TAL BUR	BL
A:6010C	200-12042-B-8-A		200-43487	200-42935	08/15/2012 20:40	1	TAL BUR	ETK
P:3050B	200-12042-B-8-A		200-43577	200-42935	08/06/2012 09:29	1	TAL BUR	BL
A:6010C	200-12042-B-8-A		200-43577	200-42935	08/17/2012 01:30	1	TAL BUR	BL
P:7471B	200-12042-A-8-B		200-43702	200-43662	08/20/2012 09:00	1	TAL BUR	VTP
A:7471B	200-12042-A-8-B		200-43702	200-43662	08/20/2012 16:28	1	TAL BUR	VTP
A:9045D	200-12042-B-8		200-42999		08/07/2012 14:55	1	TAL BUR	AJN
A:Moisture	200-12042-B-8		200-42970		08/07/2012 07:51	1	TAL BUR	AJN

Lab ID: 200-12042-9 **Client ID:** NFUDS-002-SBG0802-01

Sample Date/Time: 08/01/2012 09:40 Received Date/Time: 08/02/2012 10:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330	200-12042-B-9-A		200-43097	200-42840	08/02/2012 20:21	1	TAL BUR	TPB
A:8330 Modified	200-12042-B-9-A		200-43097	200-42840	08/08/2012 19:05	1	TAL BUR	WBR
P:3050B	200-12042-A-9-A		200-43487	200-42935	08/06/2012 09:29	1	TAL BUR	BL
A:6010C	200-12042-A-9-A		200-43487	200-42935	08/15/2012 20:45	1	TAL BUR	ETK
P:3050B	200-12042-A-9-A		200-43577	200-42935	08/06/2012 09:29	1	TAL BUR	BL
A:6010C	200-12042-A-9-A		200-43577	200-42935	08/17/2012 01:35	1	TAL BUR	BL
P:7471B	200-12042-B-9-B		200-43702	200-43662	08/20/2012 09:00	1	TAL BUR	VTP
A:7471B	200-12042-B-9-B		200-43702	200-43662	08/20/2012 16:30	1	TAL BUR	VTP
A:9045D	200-12042-A-9		200-42999		08/07/2012 14:55	1	TAL BUR	AJN
A:Moisture	200-12042-A-9		200-42970		08/07/2012 07:51	1	TAL BUR	AJN

Lab ID: 200-12042-10 **Client ID:** NFUDS-002-SBG0803-01

Sample Date/Time: 08/01/2012 09:50 Received Date/Time: 08/02/2012 10:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330	200-12042-A-10-A		200-43097	200-42840	08/02/2012 20:21	1	TAL BUR	TPB
A:8330 Modified	200-12042-A-10-A		200-43097	200-42840	08/08/2012 20:20	1	TAL BUR	WBR
P:3050B	200-12042-B-10-A		200-43487	200-42935	08/06/2012 09:29	1	TAL BUR	BL
A:6010C	200-12042-B-10-A		200-43487	200-42935	08/15/2012 20:50	1	TAL BUR	ETK
P:3050B	200-12042-B-10-A		200-43577	200-42935	08/06/2012 09:29	1	TAL BUR	BL
A:6010C	200-12042-B-10-A		200-43577	200-42935	08/17/2012 01:40	1	TAL BUR	BL
P:7471B	200-12042-B-10-B		200-43702	200-43662	08/20/2012 09:00	1	TAL BUR	VTP
A:7471B	200-12042-B-10-B		200-43702	200-43662	08/20/2012 16:32	1	TAL BUR	VTP
A:9045D	200-12042-B-10		200-42999		08/07/2012 14:55	1	TAL BUR	AJN
A:Moisture	200-12042-B-10		200-42970		08/07/2012 07:51	1	TAL BUR	AJN

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
SDG: 200-12042-1

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Lab ID: 200-12042-11 **Client ID:** NFUDS-002-SBG0901-01

Sample Date/Time: 08/01/2012 12:00 Received Date/Time: 08/02/2012 10:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330	200-12042-B-11-A		200-43097	200-42840	08/02/2012 20:21	1	TAL BUR	TPB
A:8330 Modified	200-12042-B-11-A		200-43097	200-42840	08/08/2012 20:58	1	TAL BUR	WBR
P:3050B	200-12042-A-11-A		200-43487	200-42935	08/06/2012 09:29	1	TAL BUR	BL
A:6010C	200-12042-A-11-A		200-43487	200-42935	08/15/2012 20:55	1	TAL BUR	ETK
P:3050B	200-12042-A-11-A		200-43577	200-42935	08/06/2012 09:29	1	TAL BUR	BL
A:6010C	200-12042-A-11-A		200-43577	200-42935	08/17/2012 01:45	1	TAL BUR	BL
P:7471B	200-12042-A-11-B		200-43702	200-43662	08/20/2012 09:00	1	TAL BUR	VTP
A:7471B	200-12042-A-11-B		200-43702	200-43662	08/20/2012 16:35	1	TAL BUR	VTP
A:9045D	200-12042-A-11		200-42999		08/07/2012 14:55	1	TAL BUR	AJN
A:Moisture	200-12042-A-11		200-42970		08/07/2012 07:51	1	TAL BUR	AJN

Lab ID: 200-12042-12 **Client ID:** NFUDS-002-SBG0902-01

Sample Date/Time: 08/01/2012 12:05 Received Date/Time: 08/02/2012 10:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330	200-12042-A-12-A		200-43097	200-42840	08/02/2012 20:21	1	TAL BUR	TPB
A:8330 Modified	200-12042-A-12-A		200-43097	200-42840	08/08/2012 21:35	1	TAL BUR	WBR
P:3050B	200-12042-B-12-A		200-43487	200-42935	08/06/2012 09:29	1	TAL BUR	BL
A:6010C	200-12042-B-12-A		200-43487	200-42935	08/15/2012 21:00	1	TAL BUR	ETK
P:3050B	200-12042-B-12-A		200-43577	200-42935	08/06/2012 09:29	1	TAL BUR	BL
A:6010C	200-12042-B-12-A		200-43577	200-42935	08/17/2012 01:50	1	TAL BUR	BL
P:7471B	200-12042-A-12-B		200-43702	200-43662	08/20/2012 09:00	1	TAL BUR	VTP
A:7471B	200-12042-A-12-B		200-43702	200-43662	08/20/2012 16:38	1	TAL BUR	VTP
A:9045D	200-12042-B-12		200-42999		08/07/2012 14:55	1	TAL BUR	AJN
A:Moisture	200-12042-B-12		200-42970		08/07/2012 07:51	1	TAL BUR	AJN

Lab ID: 200-12042-13 **Client ID:** NFUDS-002-SBG0903-01

Sample Date/Time: 08/01/2012 12:15 Received Date/Time: 08/02/2012 10:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330	200-12042-A-13-A		200-43097	200-42840	08/02/2012 20:21	1	TAL BUR	TPB
A:8330 Modified	200-12042-A-13-A		200-43097	200-42840	08/08/2012 22:12	1	TAL BUR	WBR
P:3050B	200-12042-A-13-B		200-43487	200-42935	08/06/2012 09:29	1	TAL BUR	BL
A:6010C	200-12042-A-13-B		200-43487	200-42935	08/15/2012 21:05	1	TAL BUR	ETK
P:3050B	200-12042-A-13-B		200-43577	200-42935	08/06/2012 09:29	1	TAL BUR	BL
A:6010C	200-12042-A-13-B		200-43577	200-42935	08/17/2012 01:55	1	TAL BUR	BL
P:7471B	200-12042-A-13-C		200-43702	200-43662	08/20/2012 09:00	1	TAL BUR	VTP
A:7471B	200-12042-A-13-C		200-43702	200-43662	08/20/2012 16:40	1	TAL BUR	VTP
A:9045D	200-12042-A-13		200-42999		08/07/2012 14:55	1	TAL BUR	AJN
A:Moisture	200-12042-A-13		200-42970		08/07/2012 07:51	1	TAL BUR	AJN

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
SDG: 200-12042-1

Laboratory Chronicle

Lab ID: 200-12042-14 **Client ID: NFUDS-002-SBG0903-02**

Sample Date/Time: 08/01/2012 12:15 Received Date/Time: 08/02/2012 10:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330	200-12042-A-14-A		200-43097	200-42840	08/02/2012 20:21	1	TAL BUR	TPB
A:8330 Modified	200-12042-A-14-A		200-43097	200-42840	08/08/2012 22:50	1	TAL BUR	WBR
P:3050B	200-12042-A-14-B		200-43487	200-42935	08/06/2012 09:29	1	TAL BUR	BL
A:6010C	200-12042-A-14-B		200-43487	200-42935	08/15/2012 21:10	1	TAL BUR	ETK
P:3050B	200-12042-A-14-B		200-43577	200-42935	08/06/2012 09:29	1	TAL BUR	BL
A:6010C	200-12042-A-14-B		200-43577	200-42935	08/17/2012 02:00	1	TAL BUR	BL
P:7471B	200-12042-A-14-C		200-43702	200-43662	08/20/2012 09:00	1	TAL BUR	VTP
A:7471B	200-12042-A-14-C		200-43702	200-43662	08/20/2012 16:42	1	TAL BUR	VTP
A:9045D	200-12042-A-14		200-42999		08/07/2012 14:55	1	TAL BUR	AJN
A:Moisture	200-12042-A-14		200-42970		08/07/2012 07:51	1	TAL BUR	AJN

Lab ID: 200-12042-15 **Client ID: NFUDS-002-SBG1201-01**

Sample Date/Time: 08/01/2012 13:25 Received Date/Time: 08/02/2012 10:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330	200-12042-B-15-A		200-43097	200-42840	08/02/2012 20:21	1	TAL BUR	TPB
A:8330 Modified	200-12042-B-15-A		200-43097	200-42840	08/08/2012 23:27	1	TAL BUR	WBR
P:3050B	200-12042-A-15-A		200-43487	200-42935	08/06/2012 09:29	1	TAL BUR	BL
A:6010C	200-12042-A-15-A		200-43487	200-42935	08/15/2012 21:30	1	TAL BUR	ETK
P:3050B	200-12042-A-15-A		200-43577	200-42935	08/06/2012 09:29	1	TAL BUR	BL
A:6010C	200-12042-A-15-A		200-43577	200-42935	08/17/2012 02:21	1	TAL BUR	BL
P:7471B	200-12042-A-15-B		200-43702	200-43662	08/20/2012 09:00	1	TAL BUR	VTP
A:7471B	200-12042-A-15-B		200-43702	200-43662	08/20/2012 16:51	1	TAL BUR	VTP
A:9045D	200-12042-A-15		200-42999		08/07/2012 14:55	1	TAL BUR	AJN
A:Moisture	200-12042-A-15		200-42970		08/07/2012 07:51	1	TAL BUR	AJN

Lab ID: 200-12042-16 **Client ID: NFUDS-002-SBG1202-01**

Sample Date/Time: 08/01/2012 13:30 Received Date/Time: 08/02/2012 10:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330	200-12042-A-16-A		200-43097	200-42840	08/02/2012 20:21	1	TAL BUR	TPB
A:8330 Modified	200-12042-A-16-A		200-43097	200-42840	08/09/2012 00:05	1	TAL BUR	WBR
P:3050B	200-12042-B-16-A		200-43487	200-42935	08/06/2012 09:29	1	TAL BUR	BL
A:6010C	200-12042-B-16-A		200-43487	200-42935	08/15/2012 21:35	1	TAL BUR	ETK
P:3050B	200-12042-B-16-A		200-43577	200-42935	08/06/2012 09:29	1	TAL BUR	BL
A:6010C	200-12042-B-16-A		200-43577	200-42935	08/17/2012 02:26	1	TAL BUR	BL
P:7471B	200-12042-A-16-B		200-43702	200-43662	08/20/2012 09:00	1	TAL BUR	VTP
A:7471B	200-12042-A-16-B		200-43702	200-43662	08/20/2012 16:53	1	TAL BUR	VTP
A:9045D	200-12042-B-16		200-42999		08/07/2012 14:55	1	TAL BUR	AJN
A:Moisture	200-12042-B-16		200-42970		08/07/2012 07:51	1	TAL BUR	AJN

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
SDG: 200-12042-1

Laboratory Chronicle

Lab ID: 200-12042-17 **Client ID:** NFUDS-002-SBG1203-01

Sample Date/Time: 08/01/2012 13:45 Received Date/Time: 08/02/2012 10:30

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330	200-12042-B-17-A		200-43097	200-42840	08/02/2012 20:21	1	TAL BUR	TPB
A:8330 Modified	200-12042-B-17-A		200-43097	200-42840	08/09/2012 00:42	1	TAL BUR	WBR
P:3050B	200-12042-A-17-A		200-43487	200-42935	08/06/2012 09:29	1	TAL BUR	BL
A:6010C	200-12042-A-17-A		200-43487	200-42935	08/15/2012 21:40	1	TAL BUR	ETK
P:3050B	200-12042-A-17-A		200-43577	200-42935	08/06/2012 09:29	1	TAL BUR	BL
A:6010C	200-12042-A-17-A		200-43577	200-42935	08/17/2012 02:31	1	TAL BUR	BL
P:7471B	200-12042-B-17-B		200-43702	200-43662	08/20/2012 09:00	1	TAL BUR	VTP
A:7471B	200-12042-B-17-B		200-43702	200-43662	08/20/2012 16:56	1	TAL BUR	VTP
A:9045D	200-12042-A-17		200-42999		08/07/2012 14:55	1	TAL BUR	AJN
A:Moisture	200-12042-A-17		200-42970		08/07/2012 07:51	1	TAL BUR	AJN

Lab ID: MB **Client ID:** N/A

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330	MB 200-42840/1-A		200-43097	200-42840	08/02/2012 20:21	1	TAL BUR	TPB
A:8330 Modified	MB 200-42840/1-A		200-43097	200-42840	08/08/2012 14:06	1	TAL BUR	WBR
P:8330	MB 200-43130/17-A		200-43162	200-43130	08/08/2012 14:40	1	TAL BUR	EAN
A:8330 Modified	MB 200-43130/17-A		200-43162	200-43130	08/09/2012 12:43	1	TAL BUR	WBR
P:3050B	MB 200-42935/1-A		200-43487	200-42935	08/06/2012 09:29	1	TAL BUR	BL
A:6010C	MB 200-42935/1-A		200-43487	200-42935	08/15/2012 19:20	1	TAL BUR	ETK
P:3050B	MB 200-42935/1-A		200-43577	200-42935	08/06/2012 09:29	1	TAL BUR	BL
A:6010C	MB 200-42935/1-A		200-43577	200-42935	08/17/2012 00:10	1	TAL BUR	BL
P:7471B	MB 200-43662/11-A		200-43702	200-43662	08/20/2012 09:00	1	TAL BUR	VTP
A:7471B	MB 200-43662/11-A		200-43702	200-43662	08/20/2012 15:57	1	TAL BUR	VTP

Lab ID: LCS **Client ID:** N/A

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330	LCS 200-42840/2-A		200-43097	200-42840	08/02/2012 20:21	1	TAL BUR	TPB
A:8330 Modified	LCS 200-42840/2-A		200-43097	200-42840	08/08/2012 14:43	1	TAL BUR	WBR
P:8330	LCS 200-43130/18-A		200-43162	200-43130	08/08/2012 14:40	1	TAL BUR	EAN
A:8330 Modified	LCS 200-43130/18-A		200-43162	200-43130	08/09/2012 13:20	1	TAL BUR	WBR
P:3050B	LCS 200-42935/2-A		200-43487	200-42935	08/06/2012 09:29	1	TAL BUR	BL
A:6010C	LCS 200-42935/2-A		200-43487	200-42935	08/15/2012 19:25	1	TAL BUR	ETK
P:3050B	LCS 200-42935/2-A		200-43577	200-42935	08/06/2012 09:29	1	TAL BUR	BL
A:6010C	LCS 200-42935/2-A		200-43577	200-42935	08/17/2012 00:15	1	TAL BUR	BL
P:7471B	LCS 200-43662/12-A		200-43702	200-43662	08/20/2012 09:00	1	TAL BUR	VTP
A:7471B	LCS 200-43662/12-A		200-43702	200-43662	08/20/2012 15:59	1	TAL BUR	VTP
A:9045D	LCS 200-42999/4		200-42999		08/07/2012 14:55	1	TAL BUR	AJN

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
SDG: 200-12042-1

Laboratory Chronicle

Lab References:
TAL BUR = TestAmerica Burlington

Certification Summary

Client: Weston Solutions, Inc.
Project/Site: Nantucket Beach FUDS

TestAmerica Job ID: 200-12042-1
SDG: 200-12042-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Burlington	ACLASS	DoD ELAP		ADE-1492
TestAmerica Burlington	Connecticut	State Program	1	PH-0751
TestAmerica Burlington	DE Haz. Subst. Cleanup Act	State Program	3	NA
TestAmerica Burlington	Florida	NELAC	4	E87467
TestAmerica Burlington	Louisiana	NELAC	6	176292
TestAmerica Burlington	Maine	State Program	1	VT00008
TestAmerica Burlington	Minnesota	NELAC	5	050-999-436
TestAmerica Burlington	New Hampshire	NELAC	1	200610
TestAmerica Burlington	New Jersey	NELAC	2	VT972
TestAmerica Burlington	New York	NELAC	2	10391
TestAmerica Burlington	Pennsylvania	NELAC	3	68-00489
TestAmerica Burlington	Rhode Island	State Program	1	LAO00298
TestAmerica Burlington	USDA	Federal		P330-11-00093
TestAmerica Burlington	Vermont	State Program	1	VT-4000
TestAmerica Burlington	Virginia	NELAC	3	460209

Accreditation may not be offered or required for all methods and analytes reported in this package Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method 8330B

Nitroaromatics and Nitramines (HPLC) by Method 8330B

FORM II
HPLC/IC SURROGATE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Matrix: Solid Level: Low

GC Column (1): C-18 ID: 4.6 (mm)

Client Sample ID	Lab Sample ID	12DNB1 #
NFUDS-002-SBG0201-01	200-12042-1	96
NFUDS-002-SBG0202-01	200-12042-2	97
NFUDS-002-SBG0202-02	200-12042-3	95
NFUDS-002-SBG0203-01	200-12042-4	102
NFUDS-002-SBG0401-01	200-12042-5	96
NFUDS-002-SBG0402-01	200-12042-6	100
NFUDS-002-SBG0403-01	200-12042-7	105
NFUDS-002-SBG0801-01	200-12042-8	96
NFUDS-002-SBG0802-01	200-12042-9	92
NFUDS-002-SBG0803-01	200-12042-10	98
NFUDS-002-SBG0901-01	200-12042-11	99
NFUDS-002-SBG0902-01	200-12042-12	96
NFUDS-002-SBG0903-01	200-12042-13	98
NFUDS-002-SBG0903-02	200-12042-14	95
NFUDS-002-SBG1201-01	200-12042-15	101
NFUDS-002-SBG1202-01	200-12042-16	99
NFUDS-002-SBG1203-01	200-12042-17	99
	MB 200-42840/1-A	97
	MB 200-43130/17-A	101
	LCS 200-42840/2-A	100
	LCS 200-43130/18-A	100
NFUDS-002-SBG0203-01 MS	200-12042-4 MS	96
NFUDS-002-SBG0203-01 MSD	200-12042-4 MSD	98

	QC LIMITS
12DNB = 1,2-Dinitrobenzene	40-140

Column to be used to flag recovery values

FORM II 8330 Modified

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Matrix: Solid Level: Low Lab File ID: 08AUG121140_051.d

Lab ID: LCS 200-42840/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
HMX	1990	2090	105	75-120	
RDX	1990	2090	105	75-120	
1,3,5-Trinitrobenzene	1990	2020	101	75-120	
1,3-Dinitrobenzene	1990	2080	104	75-120	
Nitrobenzene	1990	2040	102	75-125	
Tetryl	1990	2040	102	80-115	
Nitroglycerin	39900	38600	97	60-150	
2,4,6-Trinitrotoluene	1990	2070	104	85-110	
4-Amino-2,6-dinitrotoluene	1990	2090	105	80-120	
2-Amino-4,6-dinitrotoluene	1990	2100	105	75-125	
2,6-Dinitrotoluene	1990	2020	101	75-125	
2,4-Dinitrotoluene	1990	2150	108	60-130	
2-Nitrotoluene	1990	2030	102	70-125	
4-Nitrotoluene	1990	2080	104	65-135	
3-Nitrotoluene	1990	2030	102	60-135	

Column to be used to flag recovery and RPD values

FORM III 8330 Modified

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Matrix: Solid Level: Low Lab File ID: 09AUG121108_041.d

Lab ID: LCS 200-43130/18-A Client ID:

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC	QC LIMITS REC	#
HMX	2000	2130	106	75-120	
RDX	2000	2150	107	75-120	
1,3,5-Trinitrobenzene	2000	2130	106	75-120	
1,3-Dinitrobenzene	2000	2150	107	75-120	
Nitrobenzene	2000	2120	106	75-125	
Tetryl	2000	2100	105	80-115	
Nitroglycerin	40100	41500	104	60-150	
2,4,6-Trinitrotoluene	2000	2130	106	85-110	
4-Amino-2,6-dinitrotoluene	2000	2140	107	80-120	
2-Amino-4,6-dinitrotoluene	2000	2180	109	75-125	
2,6-Dinitrotoluene	2000	2050	102	75-125	
2,4-Dinitrotoluene	2000	2240	112	60-130	
2-Nitrotoluene	2000	2070	104	70-125	
4-Nitrotoluene	2000	2160	108	65-135	M
3-Nitrotoluene	2000	2080	104	60-135	

Column to be used to flag recovery and RPD values

FORM III 8330 Modified

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Matrix: Solid Level: Low Lab File ID: 08AUG121140_221.d

Lab ID: 200-12042-4 MS Client ID: NFUDS-002-SBG0203-01 MS

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC	QC LIMITS REC	#
HMX	1980	12 U	1960	99	75-120	
RDX	1980	12 U	1950	98	75-120	
1,3,5-Trinitrobenzene	1980	12 U	1920	97	75-120	
1,3-Dinitrobenzene	1980	12 U	2000	101	75-120	
Nitrobenzene	1980	30 U	1920	97	75-125	
Tetryl	1980	24 U	1880	95	80-115	
Nitroglycerin	39700	720 U	36900	93	60-150	
2,4,6-Trinitrotoluene	1980	24 U	1940	98	85-110	
4-Amino-2,6-dinitrotoluene	1980	12 U	1970	100	80-120	
2-Amino-4,6-dinitrotoluene	1980	12 U	2000	101	75-125	
2,6-Dinitrotoluene	1980	12 U	1890	95	75-125	
2,4-Dinitrotoluene	1980	24 U	2030	102	60-130	
2-Nitrotoluene	1980	24 U	1940	98	70-125	
4-Nitrotoluene	1980	30 U	2010	102	65-135	
3-Nitrotoluene	1980	30 U	1940	98	60-135	

Column to be used to flag recovery and RPD values

FORM III 8330 Modified

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Matrix: Solid Level: Low Lab File ID: 08AUG121140_231.d

Lab ID: 200-12042-4 MSD Client ID: NFUDS-002-SBG0203-01 MSD

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
HMX	2000	1970	98	1	20	75-120	
RDX	2000	1980	99	2	20	75-120	
1,3,5-Trinitrobenzene	2000	1950	97	1	20	75-120	
1,3-Dinitrobenzene	2000	2030	101	2	20	75-120	
Nitrobenzene	2000	1970	99	3	20	75-125	
Tetryl	2000	1890	95	0	20	80-115	
Nitroglycerin	40000	37500	94	1	20	60-150	
2,4,6-Trinitrotoluene	2000	1970	99	1	20	85-110	
4-Amino-2,6-dinitrotoluene	2000	1990	99	1	20	80-120	
2-Amino-4,6-dinitrotoluene	2000	1990	100	0	20	75-125	
2,6-Dinitrotoluene	2000	1930	96	2	20	75-125	
2,4-Dinitrotoluene	2000	2040	102	1	20	60-130	
2-Nitrotoluene	2000	1940	97	0	20	70-125	
4-Nitrotoluene	2000	2030	101	1	20	65-135	
3-Nitrotoluene	2000	1990	99	2	20	60-135	

Column to be used to flag recovery and RPD values

FORM III 8330 Modified

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Lab Sample ID: MB 200-42840/1-A

Matrix: Solid Date Extracted: 08/02/2012 20:21

Lab File ID:(1) 08AUG121140_041.d Lab File ID:(2)

Date Analyzed:(1) 08/08/2012 14:06 Date Analyzed:(2)

Instrument ID:(1) CH1208 Instrument ID:(2)

GC Column:(1) C-18 ID: 4.6(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 200-42840/2-A	08/08/2012 14:43	
NFUDS-002-SBG0202-02	200-12042-3	08/08/2012 15:20	
NFUDS-002-SBG0203-01	200-12042-4	08/08/2012 15:58	
NFUDS-002-SBG0401-01	200-12042-5	08/08/2012 16:35	
NFUDS-002-SBG0402-01	200-12042-6	08/08/2012 17:13	
NFUDS-002-SBG0403-01	200-12042-7	08/08/2012 17:50	
NFUDS-002-SBG0801-01	200-12042-8	08/08/2012 18:28	
NFUDS-002-SBG0802-01	200-12042-9	08/08/2012 19:05	
NFUDS-002-SBG0803-01	200-12042-10	08/08/2012 20:20	
NFUDS-002-SBG0901-01	200-12042-11	08/08/2012 20:58	
NFUDS-002-SBG0902-01	200-12042-12	08/08/2012 21:35	
NFUDS-002-SBG0903-01	200-12042-13	08/08/2012 22:12	
NFUDS-002-SBG0903-02	200-12042-14	08/08/2012 22:50	
NFUDS-002-SBG1201-01	200-12042-15	08/08/2012 23:27	
NFUDS-002-SBG1202-01	200-12042-16	08/09/2012 00:05	
NFUDS-002-SBG1203-01	200-12042-17	08/09/2012 00:42	
NFUDS-002-SBG0203-01 MS	200-12042-4 MS	08/09/2012 01:20	
NFUDS-002-SBG0203-01 MSD	200-12042-4 MSD	08/09/2012 01:57	

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Lab Sample ID: MB 200-43130/17-A

Matrix: Solid Date Extracted: 08/08/2012 14:40

Lab File ID:(1) 09AUG121108_031.d Lab File ID:(2)

Date Analyzed:(1) 08/09/2012 12:43 Date Analyzed:(2)

Instrument ID:(1) CH1208 Instrument ID:(2)

GC Column:(1) C-18 ID: 4.6(mm) GC Column:(2) ID:

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 200-43130/18-A	08/09/2012 13:20	
NFUDS-002-SBG0201-01	200-12042-1	08/09/2012 14:35	
NFUDS-002-SBG0202-01	200-12042-2	08/09/2012 15:13	

FORM VIII
HPLC/IC ANALYTICAL SEQUENCE

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Instrument ID: CH1208 Calibration Start Date: 07/31/2012 15:48

GC Column: C-18 ID: 4.6(mm) Calibration End Date: 07/31/2012 18:56

Calibration ID: 16905

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				12DNB RT #		
INITIAL CALIBRATION SURROGATE MEAN RT				16.42		
UPPER LIMIT				16.52		
LOWER LIMIT				16.32		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
IC 200-42650/2		07/31/2012 15:48	31JUL121406_021.d	16.41		
IC 200-42650/3		07/31/2012 16:26	31JUL121406_031.d	16.41		
IC 200-42650/4		07/31/2012 17:03	31JUL121406_041.d	16.42		
ICRTAV 200-42650/5		07/31/2012 17:41	31JUL121406_051.d	16.41		
IC 200-42650/6		07/31/2012 18:18	31JUL121406_061.d	16.41		
IC 200-42650/7		07/31/2012 18:56	31JUL121406_071.d	16.42		
ICV 200-42650/10		07/31/2012 20:48	31JUL121406_101.d	16.42		

12DNB = 1,2-Dinitrobenzene

12DNB RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8330 MODIFIED

FORM VIII
HPLC/IC ANALYTICAL SEQUENCE

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Sample No.: CCVRT 200-43097/2 Date Analyzed: 08/08/2012 12:51

Instrument ID: CH1208 GC Column: C-18 ID: 4.6(mm)

Lab File ID (Standard): 08AUG121140_021.d Heated Purge: (Y/N) N

Calibration ID: 16905

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				12DNB RT #		
CONTINUING CALIBRATION SURROGATE				16.40		
UPPER LIMIT				16.50		
LOWER LIMIT				16.30		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 200-43097/2		08/08/2012 12:51	08AUG121140_021.d	16.40		
MB 200-42840/1-A		08/08/2012 14:06	08AUG121140_041.d	16.41		
LCS 200-42840/2-A		08/08/2012 14:43	08AUG121140_051.d	16.41		
200-12042-3	NFUDS-002-SBG0202-02	08/08/2012 15:20	08AUG121140_061.d	16.41		
200-12042-4	NFUDS-002-SBG0203-01	08/08/2012 15:58	08AUG121140_071.d	16.41		
200-12042-5	NFUDS-002-SBG0401-01	08/08/2012 16:35	08AUG121140_081.d	16.41		
200-12042-6	NFUDS-002-SBG0402-01	08/08/2012 17:13	08AUG121140_091.d	16.41		
200-12042-7	NFUDS-002-SBG0403-01	08/08/2012 17:50	08AUG121140_101.d	16.41		
200-12042-8	NFUDS-002-SBG0801-01	08/08/2012 18:28	08AUG121140_111.d	16.41		
200-12042-9	NFUDS-002-SBG0802-01	08/08/2012 19:05	08AUG121140_121.d	16.41		
CCV 200-43097/13		08/08/2012 19:43	08AUG121140_131.d	16.41		
200-12042-10	NFUDS-002-SBG0803-01	08/08/2012 20:20	08AUG121140_141.d	16.41		
200-12042-11	NFUDS-002-SBG0901-01	08/08/2012 20:58	08AUG121140_151.d	16.40		
200-12042-12	NFUDS-002-SBG0902-01	08/08/2012 21:35	08AUG121140_161.d	16.41		
200-12042-13	NFUDS-002-SBG0903-01	08/08/2012 22:12	08AUG121140_171.d	16.41		
200-12042-14	NFUDS-002-SBG0903-02	08/08/2012 22:50	08AUG121140_181.d	16.41		
200-12042-15	NFUDS-002-SBG1201-01	08/08/2012 23:27	08AUG121140_191.d	16.41		
200-12042-16	NFUDS-002-SBG1202-01	08/09/2012 00:05	08AUG121140_201.d	16.41		
200-12042-17	NFUDS-002-SBG1203-01	08/09/2012 00:42	08AUG121140_211.d	16.40		

12DNB = 1,2-Dinitrobenzene

12DNB RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8330 MODIFIED

FORM VIII
HPLC/IC ANALYTICAL SEQUENCE

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Sample No.: CCVRT 200-43097/2 Date Analyzed: 08/08/2012 12:51

Instrument ID: CH1208 GC Column: C-18 ID: 4.6(mm)

Lab File ID (Standard): 08AUG121140_021.d Heated Purge: (Y/N) N

Calibration ID: 16905

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				12DNB RT #		
CONTINUING CALIBRATION SURROGATE				16.40		
UPPER LIMIT				16.50		
LOWER LIMIT				16.30		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
200-12042-4 MS	NFUDS-002-SBG0203-01 MS	08/09/2012 01:20	08AUG121140_221.d	16.41		
200-12042-4 MSD	NFUDS-002-SBG0203-01 MSD	08/09/2012 01:57	08AUG121140_231.d	16.41		
CCV 200-43097/24		08/09/2012 02:35	08AUG121140_241.d	16.41		

12DNB = 1,2-Dinitrobenzene

12DNB RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8330 MODIFIED

FORM VIII
HPLC/IC ANALYTICAL SEQUENCE

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Sample No.: CCVRT 200-43162/2 Date Analyzed: 08/09/2012 12:05

Instrument ID: CH1208 GC Column: C-18 ID: 4.6(mm)

Lab File ID (Standard): 09AUG121108_021.d Heated Purge: (Y/N) N

Calibration ID: 16905

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				12DNB RT #		
CONTINUING CALIBRATION SURROGATE				16.41		
UPPER LIMIT				16.51		
LOWER LIMIT				16.31		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 200-43162/2		08/09/2012 12:05	09AUG121108_021.d	16.41		
MB 200-43130/17-A		08/09/2012 12:43	09AUG121108_031.d	16.40		
LCS 200-43130/18-A		08/09/2012 13:20	09AUG121108_041.d	16.40		
200-12042-1	NFUDS-002-SBG0201-01	08/09/2012 14:35	09AUG121108_061.d	16.41		
200-12042-2	NFUDS-002-SBG0202-01	08/09/2012 15:13	09AUG121108_071.d	16.41		
CCV 200-43162/11		08/09/2012 17:42	09AUG121108_111.d	16.40		

12DNB = 1,2-Dinitrobenzene

12DNB RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8330 MODIFIED

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Client Sample ID: NFUDS-002-SBG0201-01 Lab Sample ID: 200-12042-1

Matrix: Solid Lab File ID: 09AUG121108_061.d

Analysis Method: 8330 Modified Date Collected: 08/01/2012 10:45

Extraction Method: 8330 Date Extracted: 08/08/2012 14:40

Sample wt/vol: 10.01(g) Date Analyzed: 08/09/2012 14:35

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 150(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 43162 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
2691-41-0	HMX	12	U	100	12	4.5
121-82-4	RDX	12	U	100	12	12
99-35-4	1,3,5-Trinitrobenzene	12	U	100	12	5.0
99-65-0	1,3-Dinitrobenzene	12	U	100	12	5.9
98-95-3	Nitrobenzene	30	U	100	30	26
479-45-8	Tetryl	24	U	100	24	15
55-63-0	Nitroglycerin	720	U	2000	720	480
118-96-7	2,4,6-Trinitrotoluene	24	U	100	24	17
19406-51-0	4-Amino-2,6-dinitrotoluene	12	U	100	12	8.4
35572-78-2	2-Amino-4,6-dinitrotoluene	12	U	100	12	6.6
606-20-2	2,6-Dinitrotoluene	12	U	100	12	11
121-14-2	2,4-Dinitrotoluene	24	U	100	24	15
88-72-2	2-Nitrotoluene	24	U	100	24	14
99-99-0	4-Nitrotoluene	30	U	100	30	27
99-08-1	3-Nitrotoluene	30	U M	100	30	27

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	96		40-140

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-12042-1

SDG No.: 200-12042-1

Client Sample ID: NFUDS-002-SBG0202-01 | Lab Sample ID: 200-12042-2

Matrix: Solid | Lab File ID: 09AUG121108_071.d

Analysis Method: 8330 Modified | Date Collected: 08/01/2012 10:55

Extraction Method: 8330 | Date Extracted: 08/08/2012 14:40

Sample wt/vol: 10.00(g) | Date Analyzed: 08/09/2012 15:13

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 150(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 43162 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
2691-41-0	HMX	12	U	100	12	4.5
121-82-4	RDX	12	U	100	12	12
99-35-4	1,3,5-Trinitrobenzene	12	U	100	12	5.0
99-65-0	1,3-Dinitrobenzene	12	U	100	12	5.9
98-95-3	Nitrobenzene	30	U	100	30	26
479-45-8	Tetryl	24	U	100	24	15
55-63-0	Nitroglycerin	720	U	2000	720	480
118-96-7	2,4,6-Trinitrotoluene	24	U	100	24	17
19406-51-0	4-Amino-2,6-dinitrotoluene	12	U	100	12	8.4
35572-78-2	2-Amino-4,6-dinitrotoluene	12	U	100	12	6.6
606-20-2	2,6-Dinitrotoluene	12	U	100	12	11
121-14-2	2,4-Dinitrotoluene	24	U	100	24	15
88-72-2	2-Nitrotoluene	24	U	100	24	14
99-99-0	4-Nitrotoluene	30	U	100	30	27
99-08-1	3-Nitrotoluene	30	U M	100	30	27

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	97		40-140

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-12042-1

SDG No.: 200-12042-1

Client Sample ID: NFUDS-002-SBG0202-02 | Lab Sample ID: 200-12042-3

Matrix: Solid | Lab File ID: 08AUG121140_061.d

Analysis Method: 8330 Modified | Date Collected: 08/01/2012 10:55

Extraction Method: 8330 | Date Extracted: 08/02/2012 20:21

Sample wt/vol: 10.05(g) | Date Analyzed: 08/08/2012 15:20

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 150(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 43097 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
2691-41-0	HMX	12	U	100	12	4.5
121-82-4	RDX	12	U	100	12	12
99-35-4	1,3,5-Trinitrobenzene	12	U	100	12	5.0
99-65-0	1,3-Dinitrobenzene	12	U	100	12	5.9
98-95-3	Nitrobenzene	30	U	100	30	26
479-45-8	Tetryl	24	U	100	24	15
55-63-0	Nitroglycerin	720	U	2000	720	480
118-96-7	2,4,6-Trinitrotoluene	24	U M	100	24	17
19406-51-0	4-Amino-2,6-dinitrotoluene	12	U	100	12	8.4
35572-78-2	2-Amino-4,6-dinitrotoluene	12	U	100	12	6.6
606-20-2	2,6-Dinitrotoluene	12	U	100	12	11
121-14-2	2,4-Dinitrotoluene	24	U	100	24	15
88-72-2	2-Nitrotoluene	24	U	100	24	14
99-99-0	4-Nitrotoluene	30	U	100	30	27
99-08-1	3-Nitrotoluene	30	U M	100	30	27

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	95		40-140

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-12042-1

SDG No.: 200-12042-1

Client Sample ID: NFUDS-002-SBG0203-01 | Lab Sample ID: 200-12042-4

Matrix: Solid | Lab File ID: 08AUG121140_071.d

Analysis Method: 8330 Modified | Date Collected: 08/01/2012 11:15

Extraction Method: 8330 | Date Extracted: 08/02/2012 20:21

Sample wt/vol: 10.06(g) | Date Analyzed: 08/08/2012 15:58

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 150(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 43097 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
2691-41-0	HMX	12	U	99	12	4.5
121-82-4	RDX	12	U	99	12	12
99-35-4	1,3,5-Trinitrobenzene	12	U	99	12	5.0
99-65-0	1,3-Dinitrobenzene	12	U	99	12	5.9
98-95-3	Nitrobenzene	30	U	99	30	26
479-45-8	Tetryl	24	U	99	24	15
55-63-0	Nitroglycerin	720	U	2000	720	480
118-96-7	2,4,6-Trinitrotoluene	24	U	99	24	17
19406-51-0	4-Amino-2,6-dinitrotoluene	12	U	99	12	8.3
35572-78-2	2-Amino-4,6-dinitrotoluene	12	U	99	12	6.6
606-20-2	2,6-Dinitrotoluene	12	U	99	12	11
121-14-2	2,4-Dinitrotoluene	24	U	99	24	15
88-72-2	2-Nitrotoluene	24	U	99	24	14
99-99-0	4-Nitrotoluene	30	U M	99	30	27
99-08-1	3-Nitrotoluene	30	U M	99	30	27

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	102		40-140

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-12042-1

SDG No.: 200-12042-1

Client Sample ID: NFUDS-002-SBG0401-01 | Lab Sample ID: 200-12042-5

Matrix: Solid | Lab File ID: 08AUG121140_081.d

Analysis Method: 8330 Modified | Date Collected: 08/01/2012 08:30

Extraction Method: 8330 | Date Extracted: 08/02/2012 20:21

Sample wt/vol: 10.02(g) | Date Analyzed: 08/08/2012 16:35

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 150(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 43097 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
2691-41-0	HMX	12	U	100	12	4.5
121-82-4	RDX	12	U	100	12	12
99-35-4	1,3,5-Trinitrobenzene	12	U	100	12	5.0
99-65-0	1,3-Dinitrobenzene	12	U	100	12	5.9
98-95-3	Nitrobenzene	30	U	100	30	26
479-45-8	Tetryl	24	U	100	24	15
55-63-0	Nitroglycerin	720	U	2000	720	480
118-96-7	2,4,6-Trinitrotoluene	24	U	100	24	17
19406-51-0	4-Amino-2,6-dinitrotoluene	12	U	100	12	8.4
35572-78-2	2-Amino-4,6-dinitrotoluene	12	U	100	12	6.6
606-20-2	2,6-Dinitrotoluene	12	U	100	12	11
121-14-2	2,4-Dinitrotoluene	24	U	100	24	15
88-72-2	2-Nitrotoluene	24	U	100	24	14
99-99-0	4-Nitrotoluene	30	U	100	30	27
99-08-1	3-Nitrotoluene	30	U M	100	30	27

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	96		40-140

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-12042-1

SDG No.: 200-12042-1

Client Sample ID: NFUDS-002-SBG0402-01 | Lab Sample ID: 200-12042-6

Matrix: Solid | Lab File ID: 08AUG121140_091.d

Analysis Method: 8330 Modified | Date Collected: 08/01/2012 08:35

Extraction Method: 8330 | Date Extracted: 08/02/2012 20:21

Sample wt/vol: 10.03(g) | Date Analyzed: 08/08/2012 17:13

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 150(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 43097 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
2691-41-0	HMX	12	U	100	12	4.5
121-82-4	RDX	12	U	100	12	12
99-35-4	1,3,5-Trinitrobenzene	12	U	100	12	5.0
99-65-0	1,3-Dinitrobenzene	12	U	100	12	5.9
98-95-3	Nitrobenzene	30	U	100	30	26
479-45-8	Tetryl	24	U	100	24	15
55-63-0	Nitroglycerin	720	U	2000	720	480
118-96-7	2,4,6-Trinitrotoluene	24	U	100	24	17
19406-51-0	4-Amino-2,6-dinitrotoluene	12	U	100	12	8.4
35572-78-2	2-Amino-4,6-dinitrotoluene	12	U	100	12	6.6
606-20-2	2,6-Dinitrotoluene	12	U	100	12	11
121-14-2	2,4-Dinitrotoluene	24	U	100	24	15
88-72-2	2-Nitrotoluene	24	U	100	24	14
99-99-0	4-Nitrotoluene	30	U	100	30	27
99-08-1	3-Nitrotoluene	30	U M	100	30	27

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	100		40-140

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-12042-1

SDG No.: 200-12042-1

Client Sample ID: NFUDS-002-SBG0403-01 | Lab Sample ID: 200-12042-7

Matrix: Solid | Lab File ID: 08AUG121140_101.d

Analysis Method: 8330 Modified | Date Collected: 08/01/2012 08:45

Extraction Method: 8330 | Date Extracted: 08/02/2012 20:21

Sample wt/vol: 10.01(g) | Date Analyzed: 08/08/2012 17:50

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 150(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 43097 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
2691-41-0	HMX	12	U	100	12	4.5
121-82-4	RDX	12	U	100	12	12
99-35-4	1,3,5-Trinitrobenzene	12	U	100	12	5.0
99-65-0	1,3-Dinitrobenzene	12	U	100	12	5.9
98-95-3	Nitrobenzene	30	U	100	30	26
479-45-8	Tetryl	24	U	100	24	15
55-63-0	Nitroglycerin	720	U	2000	720	480
118-96-7	2,4,6-Trinitrotoluene	24	U	100	24	17
19406-51-0	4-Amino-2,6-dinitrotoluene	12	U	100	12	8.4
35572-78-2	2-Amino-4,6-dinitrotoluene	12	U	100	12	6.6
606-20-2	2,6-Dinitrotoluene	12	U	100	12	11
121-14-2	2,4-Dinitrotoluene	24	U	100	24	15
88-72-2	2-Nitrotoluene	24	U	100	24	14
99-99-0	4-Nitrotoluene	30	U	100	30	27
99-08-1	3-Nitrotoluene	30	U M	100	30	27

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	105		40-140

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-12042-1

SDG No.: 200-12042-1

Client Sample ID: NFUDS-002-SBG0801-01 | Lab Sample ID: 200-12042-8

Matrix: Solid | Lab File ID: 08AUG121140_111.d

Analysis Method: 8330 Modified | Date Collected: 08/01/2012 09:35

Extraction Method: 8330 | Date Extracted: 08/02/2012 20:21

Sample wt/vol: 10.01(g) | Date Analyzed: 08/08/2012 18:28

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 150(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 43097 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
2691-41-0	HMX	12	U	100	12	4.5
121-82-4	RDX	12	U	100	12	12
99-35-4	1,3,5-Trinitrobenzene	12	U	100	12	5.0
99-65-0	1,3-Dinitrobenzene	12	U	100	12	5.9
98-95-3	Nitrobenzene	30	U	100	30	26
479-45-8	Tetryl	24	U	100	24	15
55-63-0	Nitroglycerin	720	U	2000	720	480
118-96-7	2,4,6-Trinitrotoluene	24	U	100	24	17
19406-51-0	4-Amino-2,6-dinitrotoluene	12	U	100	12	8.4
35572-78-2	2-Amino-4,6-dinitrotoluene	12	U	100	12	6.6
606-20-2	2,6-Dinitrotoluene	12	U	100	12	11
121-14-2	2,4-Dinitrotoluene	24	U	100	24	15
88-72-2	2-Nitrotoluene	24	U	100	24	14
99-99-0	4-Nitrotoluene	30	U	100	30	27
99-08-1	3-Nitrotoluene	30	U M	100	30	27

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	96		40-140

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-12042-1

SDG No.: 200-12042-1

Client Sample ID: NFUDS-002-SBG0802-01 | Lab Sample ID: 200-12042-9

Matrix: Solid | Lab File ID: 08AUG121140_121.d

Analysis Method: 8330 Modified | Date Collected: 08/01/2012 09:40

Extraction Method: 8330 | Date Extracted: 08/02/2012 20:21

Sample wt/vol: 10.05(g) | Date Analyzed: 08/08/2012 19:05

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 150(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 43097 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
2691-41-0	HMX	12	U	100	12	4.5
121-82-4	RDX	12	U	100	12	12
99-35-4	1,3,5-Trinitrobenzene	12	U	100	12	5.0
99-65-0	1,3-Dinitrobenzene	12	U	100	12	5.9
98-95-3	Nitrobenzene	30	U	100	30	26
479-45-8	Tetryl	24	U	100	24	15
55-63-0	Nitroglycerin	720	U	2000	720	480
118-96-7	2,4,6-Trinitrotoluene	24	U	100	24	17
19406-51-0	4-Amino-2,6-dinitrotoluene	12	U	100	12	8.4
35572-78-2	2-Amino-4,6-dinitrotoluene	12	U	100	12	6.6
606-20-2	2,6-Dinitrotoluene	12	U	100	12	11
121-14-2	2,4-Dinitrotoluene	24	U	100	24	15
88-72-2	2-Nitrotoluene	24	U	100	24	14
99-99-0	4-Nitrotoluene	30	U	100	30	27
99-08-1	3-Nitrotoluene	30	U M	100	30	27

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	92		40-140

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-12042-1

SDG No.: 200-12042-1

Client Sample ID: NFUDS-002-SBG0803-01 | Lab Sample ID: 200-12042-10

Matrix: Solid | Lab File ID: 08AUG121140_141.d

Analysis Method: 8330 Modified | Date Collected: 08/01/2012 09:50

Extraction Method: 8330 | Date Extracted: 08/02/2012 20:21

Sample wt/vol: 10.01(g) | Date Analyzed: 08/08/2012 20:20

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 150(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 43097 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
2691-41-0	HMX	12	U	100	12	4.5
121-82-4	RDX	12	U	100	12	12
99-35-4	1,3,5-Trinitrobenzene	12	U	100	12	5.0
99-65-0	1,3-Dinitrobenzene	12	U	100	12	5.9
98-95-3	Nitrobenzene	30	U	100	30	26
479-45-8	Tetryl	24	U	100	24	15
55-63-0	Nitroglycerin	720	U	2000	720	480
118-96-7	2,4,6-Trinitrotoluene	24	U	100	24	17
19406-51-0	4-Amino-2,6-dinitrotoluene	12	U	100	12	8.4
35572-78-2	2-Amino-4,6-dinitrotoluene	12	U	100	12	6.6
606-20-2	2,6-Dinitrotoluene	12	U	100	12	11
121-14-2	2,4-Dinitrotoluene	24	U	100	24	15
88-72-2	2-Nitrotoluene	24	U	100	24	14
99-99-0	4-Nitrotoluene	30	U	100	30	27
99-08-1	3-Nitrotoluene	30	U	100	30	27

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	98		40-140

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-12042-1

SDG No.: 200-12042-1

Client Sample ID: NFUDS-002-SBG0901-01 | Lab Sample ID: 200-12042-11

Matrix: Solid | Lab File ID: 08AUG121140_151.d

Analysis Method: 8330 Modified | Date Collected: 08/01/2012 12:00

Extraction Method: 8330 | Date Extracted: 08/02/2012 20:21

Sample wt/vol: 10.01(g) | Date Analyzed: 08/08/2012 20:58

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 150(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 43097 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
2691-41-0	HMX	12	U	100	12	4.5
121-82-4	RDX	12	U	100	12	12
99-35-4	1,3,5-Trinitrobenzene	12	U	100	12	5.0
99-65-0	1,3-Dinitrobenzene	12	U	100	12	5.9
98-95-3	Nitrobenzene	30	U	100	30	26
479-45-8	Tetryl	24	U	100	24	15
55-63-0	Nitroglycerin	720	U	2000	720	480
118-96-7	2,4,6-Trinitrotoluene	24	U	100	24	17
19406-51-0	4-Amino-2,6-dinitrotoluene	12	U	100	12	8.4
35572-78-2	2-Amino-4,6-dinitrotoluene	12	U	100	12	6.6
606-20-2	2,6-Dinitrotoluene	12	U	100	12	11
121-14-2	2,4-Dinitrotoluene	24	U	100	24	15
88-72-2	2-Nitrotoluene	24	U	100	24	14
99-99-0	4-Nitrotoluene	30	U	100	30	27
99-08-1	3-Nitrotoluene	30	U	100	30	27

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	99		40-140

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-12042-1

SDG No.: 200-12042-1

Client Sample ID: NFUDS-002-SBG0902-01 | Lab Sample ID: 200-12042-12

Matrix: Solid | Lab File ID: 08AUG121140_161.d

Analysis Method: 8330 Modified | Date Collected: 08/01/2012 12:05

Extraction Method: 8330 | Date Extracted: 08/02/2012 20:21

Sample wt/vol: 10.02(g) | Date Analyzed: 08/08/2012 21:35

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 150(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 43097 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
2691-41-0	HMX	12	U	100	12	4.5
121-82-4	RDX	12	U	100	12	12
99-35-4	1,3,5-Trinitrobenzene	12	U	100	12	5.0
99-65-0	1,3-Dinitrobenzene	12	U	100	12	5.9
98-95-3	Nitrobenzene	30	U	100	30	26
479-45-8	Tetryl	24	U	100	24	15
55-63-0	Nitroglycerin	720	U	2000	720	480
118-96-7	2,4,6-Trinitrotoluene	24	U	100	24	17
19406-51-0	4-Amino-2,6-dinitrotoluene	12	U	100	12	8.4
35572-78-2	2-Amino-4,6-dinitrotoluene	12	U	100	12	6.6
606-20-2	2,6-Dinitrotoluene	12	U	100	12	11
121-14-2	2,4-Dinitrotoluene	24	U	100	24	15
88-72-2	2-Nitrotoluene	24	U	100	24	14
99-99-0	4-Nitrotoluene	30	U	100	30	27
99-08-1	3-Nitrotoluene	30	U M	100	30	27

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	96		40-140

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-12042-1

SDG No.: 200-12042-1

Client Sample ID: NFUDS-002-SBG0903-01 | Lab Sample ID: 200-12042-13

Matrix: Solid | Lab File ID: 08AUG121140_171.d

Analysis Method: 8330 Modified | Date Collected: 08/01/2012 12:15

Extraction Method: 8330 | Date Extracted: 08/02/2012 20:21

Sample wt/vol: 10.01(g) | Date Analyzed: 08/08/2012 22:12

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 150(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 43097 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
2691-41-0	HMX	12	U	100	12	4.5
121-82-4	RDX	12	U	100	12	12
99-35-4	1,3,5-Trinitrobenzene	12	U	100	12	5.0
99-65-0	1,3-Dinitrobenzene	12	U	100	12	5.9
98-95-3	Nitrobenzene	30	U	100	30	26
479-45-8	Tetryl	24	U	100	24	15
55-63-0	Nitroglycerin	720	U	2000	720	480
118-96-7	2,4,6-Trinitrotoluene	24	U	100	24	17
19406-51-0	4-Amino-2,6-dinitrotoluene	12	U	100	12	8.4
35572-78-2	2-Amino-4,6-dinitrotoluene	12	U	100	12	6.6
606-20-2	2,6-Dinitrotoluene	12	U	100	12	11
121-14-2	2,4-Dinitrotoluene	24	U	100	24	15
88-72-2	2-Nitrotoluene	24	U	100	24	14
99-99-0	4-Nitrotoluene	30	U	100	30	27
99-08-1	3-Nitrotoluene	30	U M	100	30	27

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	98		40-140

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-12042-1

SDG No.: 200-12042-1

Client Sample ID: NFUDS-002-SBG0903-02 | Lab Sample ID: 200-12042-14

Matrix: Solid | Lab File ID: 08AUG121140_181.d

Analysis Method: 8330 Modified | Date Collected: 08/01/2012 12:15

Extraction Method: 8330 | Date Extracted: 08/02/2012 20:21

Sample wt/vol: 10.03(g) | Date Analyzed: 08/08/2012 22:50

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 150(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 43097 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
2691-41-0	HMX	12	U	100	12	4.5
121-82-4	RDX	12	U	100	12	12
99-35-4	1,3,5-Trinitrobenzene	12	U	100	12	5.0
99-65-0	1,3-Dinitrobenzene	12	U	100	12	5.9
98-95-3	Nitrobenzene	30	U	100	30	26
479-45-8	Tetryl	24	U	100	24	15
55-63-0	Nitroglycerin	720	U	2000	720	480
118-96-7	2,4,6-Trinitrotoluene	24	U	100	24	17
19406-51-0	4-Amino-2,6-dinitrotoluene	12	U	100	12	8.4
35572-78-2	2-Amino-4,6-dinitrotoluene	12	U	100	12	6.6
606-20-2	2,6-Dinitrotoluene	12	U	100	12	11
121-14-2	2,4-Dinitrotoluene	24	U	100	24	15
88-72-2	2-Nitrotoluene	24	U	100	24	14
99-99-0	4-Nitrotoluene	30	U	100	30	27
99-08-1	3-Nitrotoluene	30	U M	100	30	27

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	95		40-140

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-12042-1

SDG No.: 200-12042-1

Client Sample ID: NFUDS-002-SBG1201-01 | Lab Sample ID: 200-12042-15

Matrix: Solid | Lab File ID: 08AUG121140_191.d

Analysis Method: 8330 Modified | Date Collected: 08/01/2012 13:25

Extraction Method: 8330 | Date Extracted: 08/02/2012 20:21

Sample wt/vol: 10.04(g) | Date Analyzed: 08/08/2012 23:27

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 150(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 43097 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
2691-41-0	HMX	12	U	100	12	4.5
121-82-4	RDX	12	U	100	12	12
99-35-4	1,3,5-Trinitrobenzene	12	U	100	12	5.0
99-65-0	1,3-Dinitrobenzene	12	U	100	12	5.9
98-95-3	Nitrobenzene	30	U	100	30	26
479-45-8	Tetryl	24	U	100	24	15
55-63-0	Nitroglycerin	720	U	2000	720	480
118-96-7	2,4,6-Trinitrotoluene	24	U	100	24	17
19406-51-0	4-Amino-2,6-dinitrotoluene	12	U	100	12	8.4
35572-78-2	2-Amino-4,6-dinitrotoluene	12	U	100	12	6.6
606-20-2	2,6-Dinitrotoluene	12	U	100	12	11
121-14-2	2,4-Dinitrotoluene	24	U	100	24	15
88-72-2	2-Nitrotoluene	24	U	100	24	14
99-99-0	4-Nitrotoluene	30	U	100	30	27
99-08-1	3-Nitrotoluene	30	U M	100	30	27

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	101		40-140

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-12042-1

SDG No.: 200-12042-1

Client Sample ID: NFUDS-002-SBG1202-01 | Lab Sample ID: 200-12042-16

Matrix: Solid | Lab File ID: 08AUG121140_201.d

Analysis Method: 8330 Modified | Date Collected: 08/01/2012 13:30

Extraction Method: 8330 | Date Extracted: 08/02/2012 20:21

Sample wt/vol: 10.03(g) | Date Analyzed: 08/09/2012 00:05

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 150(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 43097 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
2691-41-0	HMX	12	U	100	12	4.5
121-82-4	RDX	12	U	100	12	12
99-35-4	1,3,5-Trinitrobenzene	12	U	100	12	5.0
99-65-0	1,3-Dinitrobenzene	12	U	100	12	5.9
98-95-3	Nitrobenzene	30	U	100	30	26
479-45-8	Tetryl	24	U	100	24	15
55-63-0	Nitroglycerin	720	U	2000	720	480
118-96-7	2,4,6-Trinitrotoluene	24	U	100	24	17
19406-51-0	4-Amino-2,6-dinitrotoluene	12	U	100	12	8.4
35572-78-2	2-Amino-4,6-dinitrotoluene	12	U	100	12	6.6
606-20-2	2,6-Dinitrotoluene	12	U	100	12	11
121-14-2	2,4-Dinitrotoluene	24	U	100	24	15
88-72-2	2-Nitrotoluene	24	U	100	24	14
99-99-0	4-Nitrotoluene	30	U	100	30	27
99-08-1	3-Nitrotoluene	30	U M	100	30	27

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	99		40-140

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-12042-1

SDG No.: 200-12042-1

Client Sample ID: NFUDS-002-SBG1203-01 | Lab Sample ID: 200-12042-17

Matrix: Solid | Lab File ID: 08AUG121140_211.d

Analysis Method: 8330 Modified | Date Collected: 08/01/2012 13:45

Extraction Method: 8330 | Date Extracted: 08/02/2012 20:21

Sample wt/vol: 10.00(g) | Date Analyzed: 08/09/2012 00:42

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 150(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 43097 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
2691-41-0	HMX	12	U	100	12	4.5
121-82-4	RDX	12	U	100	12	12
99-35-4	1,3,5-Trinitrobenzene	12	U	100	12	5.0
99-65-0	1,3-Dinitrobenzene	12	U	100	12	5.9
98-95-3	Nitrobenzene	30	U	100	30	26
479-45-8	Tetryl	24	U	100	24	15
55-63-0	Nitroglycerin	720	U	2000	720	480
118-96-7	2,4,6-Trinitrotoluene	24	U	100	24	17
19406-51-0	4-Amino-2,6-dinitrotoluene	12	U	100	12	8.4
35572-78-2	2-Amino-4,6-dinitrotoluene	12	U	100	12	6.6
606-20-2	2,6-Dinitrotoluene	12	U	100	12	11
121-14-2	2,4-Dinitrotoluene	24	U	100	24	15
88-72-2	2-Nitrotoluene	24	U	100	24	14
99-99-0	4-Nitrotoluene	30	U	100	30	27
99-08-1	3-Nitrotoluene	30	U M	100	30	27

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	99		40-140

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12042-1 Analy Batch No.: 42650

SDG No.: 200-12042-1

Instrument ID: CH1208 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/31/2012 15:48 Calibration End Date: 07/31/2012 18:56 Calibration ID: 16905

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-42650/2	31JUL121406_021.d
Level 2	IC 200-42650/3	31JUL121406_031.d
Level 3	IC 200-42650/4	31JUL121406_041.d
Level 4	ICRTAV 200-42650/5	31JUL121406_051.d
Level 5	IC 200-42650/6	31JUL121406_061.d
Level 6	IC 200-42650/7	31JUL121406_071.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6					RT WINDOW	AVG RT
2,6-diamino-4-nitrotoluene	9.701	9.665	9.665	9.657	9.657	9.665					9.568 - 9.768	9.668
HMX	10.670	10.679	10.670	10.670	10.679	10.688					10.576 - 10.776	10.676
2,4-diamino-6-nitrotoluene	11.097	11.088	11.079	11.079	11.088	11.097					10.988 - 11.188	11.088
RDX	14.334	14.334	14.325	14.325	14.325	14.334					14.229 - 14.429	14.330
Picric acid	15.356	15.338	15.329	15.312	15.312	15.312					15.227 - 15.427	15.327
1,3,5-Trinitrobenzene	16.112	16.112	16.112	16.112	16.112	16.121					16.013 - 16.213	16.114
1,3-Dinitrobenzene	17.357	17.357	17.357	17.357	17.357	17.357					17.257 - 17.457	17.357
Nitrobenzene	18.237	18.228	18.237	18.237	18.228	18.237					18.134 - 18.334	18.234
Tetryl	18.486	18.495	18.495	18.495	18.486	18.495					18.392 - 18.592	18.492
Nitroglycerin	19.251	19.277	19.260	19.277	19.269	19.260					19.166 - 19.366	19.266
2,4,6-Trinitrotoluene	19.686	19.695	19.686	19.686	19.695	19.686					19.589 - 19.789	19.689
4-Amino-2,6-dinitrotoluene	20.140	20.140	20.140	20.140	20.140	20.131					20.040 - 20.240	20.139
2-Amino-4,6-dinitrotoluene	20.487	20.505	20.505	20.496	20.496	20.487					20.396 - 20.596	20.496
2,6-Dinitrotoluene	20.869	20.869	20.869	20.869	20.869	20.860					20.769 - 20.969	20.868
2,4-Dinitrotoluene	21.118	21.127	21.127	21.118	21.118	21.118					21.021 - 21.221	21.121
2-Nitrotoluene	22.639	22.647	22.674	22.656	22.656	22.656					22.547 - 22.747	22.655
4-Nitrotoluene	23.412	23.430	23.457	23.430	23.430	23.430					23.324 - 23.524	23.432
3-Nitrotoluene	24.177	24.159	24.159	24.159	24.159	24.150					24.068 - 24.268	24.161
PETN	24.942	24.942	24.968	24.950	24.950	24.942					24.849 - 25.049	24.949
1,2-Dinitrobenzene	16.414	16.414	16.423	16.414	16.414	16.423					16.317 - 16.517	16.417

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 200-12042-1 Analy Batch No.: 42650

SDG No.: 200-12042-1

Instrument ID: CH1208 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/31/2012 15:48 Calibration End Date: 07/31/2012 18:56 Calibration ID: 16905

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-42650/2	31JUL121406_021.d
Level 2	IC 200-42650/3	31JUL121406_031.d
Level 3	IC 200-42650/4	31JUL121406_041.d
Level 4	ICRTAV 200-42650/5	31JUL121406_051.d
Level 5	IC 200-42650/6	31JUL121406_061.d
Level 6	IC 200-42650/7	31JUL121406_071.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
2,6-diamino-4-nitrotoluene	683.00 692.14	667.68 699.40	681.40	693.78	Lin1	-384.04900	696.985039							1.0000		0.9900
HMX	418.70 425.40	423.12 429.26	431.12	426.68	Lin1	-84.599818	428.082128							1.0000		0.9900
2,4-diamino-6-nitrotoluene	506.50 554.69	526.36 564.00	571.28	549.49	Lin1	-557.38461	560.991769							1.0000		0.9900
RDX	311.10 332.98	318.16 337.59	328.62	333.60	Lin1	-331.67877	336.295839							1.0000		0.9900
Picric acid	592.50 402.51	464.60 403.97	414.80	405.85	Lin1	1679.92559	400.333583							1.0000		0.9900
1,3,5-Trinitrobenzene	883.20 834.58	854.00 839.01	846.10	836.37	Lin1	436.194861	836.663211							1.0000		0.9900
1,3-Dinitrobenzene	801.90 732.31	749.36 736.32	739.68	738.70	Lin1	552.078388	734.254638							1.0000		0.9900
Nitrobenzene	250.70 256.09	254.04 257.25	261.22	262.06	Lin1	-24.406548	257.576717							1.0000		0.9900
Tetryl	599.20 585.20	585.04 590.69	582.38	571.31	Lin1	-43.886880	586.865166							1.0000		0.9900
Nitroglycerin	4.2550 3.9526	3.6780 4.2564	4.0210	4.0238	Lin1	-80.676103	4.14406321							0.9990		0.9900
2,4,6-Trinitrotoluene	535.40 561.94	534.16 574.69	545.62	564.42	Lin1	-635.60420	570.501751							1.0000		0.9900
4-Amino-2,6-dinitrotoluene	631.00 663.02	628.36 679.13	639.64	671.33	Lin1	-794.62250	674.329263							1.0000		0.9900
2-Amino-4,6-dinitrotoluene	585.50 621.35	584.60 631.49	601.12	624.78	Lin1	-730.23164	628.585653							1.0000		0.9900
2,6-Dinitrotoluene	404.00 386.76	361.12 397.82	374.20	389.18	Lin1	-288.10141	393.580173							1.0000		0.9900
2,4-Dinitrotoluene	571.70 630.41	603.84 636.33	632.52	632.92	Lin1	-625.57310	635.469714							1.0000		0.9900

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 200-12042-1 Analy Batch No.: 42650

SDG No.: 200-12042-1

Instrument ID: CH1208 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/31/2012 15:48 Calibration End Date: 07/31/2012 18:56 Calibration ID: 16905

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
2-Nitrotoluene	195.90 191.52	192.44 183.49	194.92	184.13	Lin1	165.398249	185.767849							1.0000		0.9900
4-Nitrotoluene	121.60 117.56	122.52 118.23	119.02	118.88	Lin1	57.6143702	118.021464							1.0000		0.9900
3-Nitrotoluene	224.60 152.97	176.56 152.64	166.12	155.11	Lin1	698.358004	151.780309							1.0000		0.9900
PETN	3.3250 4.1483	3.7740 4.1915	3.9660	4.0173	Lin1	-194.15194	4.17548772							1.0000		0.9900
1,2-Dinitrobenzene	361.70 333.82	356.04 336.31	340.56	334.93	Lin1	320.543258	334.918622							1.0000		0.9900

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 200-12042-1 Analy Batch No.: 42650

SDG No.: 200-12042-1

Instrument ID: CH1208 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/31/2012 15:48 Calibration End Date: 07/31/2012 18:56 Calibration ID: 16905

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-42650/2	31JUL121406_021.d
Level 2	IC 200-42650/3	31JUL121406_031.d
Level 3	IC 200-42650/4	31JUL121406_041.d
Level 4	ICRTAV 200-42650/5	31JUL121406_051.d
Level 5	IC 200-42650/6	31JUL121406_061.d
Level 6	IC 200-42650/7	31JUL121406_071.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
2,6-diamino-4-nitrotoluene	Lin1	6830 699399	16692	34070	138755	346068	10.0 1000	25.0	50.0	200	500
HMX	Lin1	4187 429264	10578	21556	85336	212698	10.0 1000	25.0	50.0	200	500
2,4-diamino-6-nitrotoluene	Lin1	5065 563997	13159	28564	109897	277344	10.0 1000	25.0	50.0	200	500
RDX	Lin1	3111 337591	7954	16431	66720	166491	10.0 1000	25.0	50.0	200	500
Picric acid	Lin1	5925 403971	11615	20740	81170	201254	10.0 1000	25.0	50.0	200	500
1,3,5-Trinitrobenzene	Lin1	8832 839010	21350	42305	167274	417290	10.0 1000	25.0	50.0	200	500
1,3-Dinitrobenzene	Lin1	8019 736323	18734	36984	147740	366157	10.0 1000	25.0	50.0	200	500
Nitrobenzene	Lin1	2507 257254	6351	13061	52412	128043	10.0 1000	25.0	50.0	200	500
Tetryl	Lin1	5992 590693	14626	29119	114261	292600	10.0 1000	25.0	50.0	200	500
Nitroglycerin	Lin1	851 85127	1839	4021	16095	39526	200 20000	500	1000	4000	10000
2,4,6-Trinitrotoluene	Lin1	5354 574689	13354	27281	112884	280970	10.0 1000	25.0	50.0	200	500
4-Amino-2,6-dinitrotoluene	Lin1	6310 679134	15709	31982	134265	331510	10.0 1000	25.0	50.0	200	500
2-Amino-4,6-dinitrotoluene	Lin1	5855 631489	14615	30056	124956	310673	10.0 1000	25.0	50.0	200	500
2,6-Dinitrotoluene	Lin1	4040 397816	9028	18710	77836	193382	10.0 1000	25.0	50.0	200	500
2,4-Dinitrotoluene	Lin1	5717 636332	15096	31626	126584	315205	10.0 1000	25.0	50.0	200	500
2-Nitrotoluene	Lin1	1959 183488	4811	9746	36826	95758	10.0 1000	25.0	50.0	200	500

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 200-12042-1 Analy Batch No.: 42650

SDG No.: 200-12042-1

Instrument ID: CH1208 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/31/2012 15:48 Calibration End Date: 07/31/2012 18:56 Calibration ID: 16905

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
4-Nitrotoluene	Lin1	1216 118228	3063	5951	23776	58780	10.0 1000	25.0	50.0	200	500
3-Nitrotoluene	Lin1	2246 152644	4414	8306	31022	76486	10.0 1000	25.0	50.0	200	500
PETN	Lin1	665 83830	1887	3966	16069	41483	200 20000	500	1000	4000	10000
1,2-Dinitrobenzene	Lin1	3617 336309	8901	17028	66986	166912	10.0 1000	25.0	50.0	200	500

Curve Type Legend:
Lin1 = Linear 1/conc

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Lab Sample ID: ICV 200-42650/10 Calibration Date: 07/31/2012 20:48

Instrument ID: CH1208 Calib Start Date: 07/31/2012 15:48

GC Column: C-18 ID: 4.60(mm) Calib End Date: 07/31/2012 18:56

Lab File ID: 31JUL121406_101.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-diamino-4-nitrotoluene	Lin1		670.6		193	200	-3.5	30.0
HMX	Lin1		420.1		196	200	-1.8	30.0
2,4-diamino-6-nitrotoluene	Lin1		614.6		220	200	10.0	30.0
RDX	Lin1		353.3		211	200	5.5	30.0
Picric acid	Lin1		402.8		197	200	-1.5	30.0
1,3,5-Trinitrobenzene	Lin1		843.0		201	200	0.5	30.0
1,3-Dinitrobenzene	Lin1		845.5		230	200	14.8	30.0
Nitrobenzene	Lin1		281.3		219	200	9.3	30.0
Tetryl	Lin1		476.0		162	200	-18.8	30.0
Nitroglycerin	Lin1		4.132		4010	4000	0.2	30.0
2,4,6-Trinitrotoluene	Lin1		628.5		221	200	10.7	30.0
4-Amino-2,6-dinitrotoluene	Lin1		787.6		235	200	17.4	30.0
2-Amino-4,6-dinitrotoluene	Lin1		671.5		215	200	7.4	30.0
2,6-Dinitrotoluene	Lin1		421.0		215	200	7.3	30.0
2,4-Dinitrotoluene	Lin1		676.5		214	200	6.9	30.0
2-Nitrotoluene	Lin1		193.5		207	200	3.7	30.0
4-Nitrotoluene	Lin1		128.3		217	200	8.4	30.0
3-Nitrotoluene	Lin1		163.9		211	200	5.7	30.0
PETN	Lin1		4.208		4080	4000	1.9	30.0
1,2-Dinitrobenzene	Lin1		348.7		207	200	3.6	30.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Lab Sample ID: ICV 200-42650/10 Calibration Date: 07/31/2012 20:48

Instrument ID: CH1208 Calib Start Date: 07/31/2012 15:48

GC Column: C-18 ID: 4.60(mm) Calib End Date: 07/31/2012 18:56

Lab File ID: 31JUL121406_101.d

Analyte	RT	RT WINDOW	
		TO	FROM
2,6-diamino-4-nitrotoluene	9.66	9.57	9.77
HMX	10.69	10.58	10.78
2,4-diamino-6-nitrotoluene	11.10	10.99	11.19
RDX	14.33	14.23	14.43
Picric acid	15.32	15.23	15.43
1,3,5-Trinitrobenzene	16.12	16.01	16.21
1,3-Dinitrobenzene	17.36	17.26	17.46
Nitrobenzene	18.25	18.13	18.33
Tetryl	18.50	18.39	18.59
Nitroglycerin	19.27	19.17	19.37
2,4,6-Trinitrotoluene	19.70	19.59	19.79
4-Amino-2,6-dinitrotoluene	20.14	20.04	20.24
2-Amino-4,6-dinitrotoluene	20.50	20.40	20.60
2,6-Dinitrotoluene	20.87	20.77	20.97
2,4-Dinitrotoluene	21.13	21.02	21.22
2-Nitrotoluene	22.66	22.56	22.76
4-Nitrotoluene	23.43	23.33	23.53
3-Nitrotoluene	24.17	24.06	24.26
PETN	24.95	24.85	25.05
1,2-Dinitrobenzene	16.42	16.32	16.52

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Lab Sample ID: CCVRT 200-43097/2 Calibration Date: 08/08/2012 12:51

Instrument ID: CH1208 Calib Start Date: 07/31/2012 15:48

GC Column: C-18 ID: 4.60(mm) Calib End Date: 07/31/2012 18:56

Lab File ID: 08AUG121140_021.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-diamino-4-nitrotoluene	Lin1		689.1		198	200	-0.9	20.0
HMX	Lin1		426.3		199	200	-0.3	20.0
2,4-diamino-6-nitrotoluene	Lin1		544.4		195	200	-2.5	20.0
RDX	Lin1		334.3		200	200	-0.1	20.0
Picric acid	Lin1		403.3		197	200	-1.4	20.0
1,3,5-Trinitrobenzene	Lin1		837.1		200	200	-0.2	20.0
1,3-Dinitrobenzene	Lin1		739.6		201	200	0.4	20.0
Nitrobenzene	Lin1		253.5		197	200	-1.5	20.0
Tetryl	Lin1		573.7		196	200	-2.2	20.0
Nitroglycerin	Lin1		4.069		3950	4000	-1.3	20.0
2,4,6-Trinitrotoluene	Lin1		563.9		199	200	-0.6	20.0
4-Amino-2,6-dinitrotoluene	Lin1		670.2		200	200	-0.0	20.0
2-Amino-4,6-dinitrotoluene	Lin1		629.9		202	200	0.8	20.0
2,6-Dinitrotoluene	Lin1		377.4		192	200	-3.8	20.0
2,4-Dinitrotoluene	Lin1		655.6		207	200	3.7	20.0
2-Nitrotoluene	Lin1		182.7		196	200	-2.1	20.0
4-Nitrotoluene	Lin1		119.1		201	200	0.6	20.0
3-Nitrotoluene	Lin1		153.6		198	200	-1.1	20.0
PETN	Lin1		4.020		3900	4000	-2.6	20.0
1,2-Dinitrobenzene	Lin1		337.9		201	200	0.4	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Lab Sample ID: CCVRT 200-43097/2 Calibration Date: 08/08/2012 12:51

Instrument ID: CH1208 Calib Start Date: 07/31/2012 15:48

GC Column: C-18 ID: 4.60(mm) Calib End Date: 07/31/2012 18:56

Lab File ID: 08AUG121140_021.d

Analyte	RT	RT WINDOW	
		TO	FROM
2,6-diamino-4-nitrotoluene	9.66	9.56	9.76
HMX	10.66	10.56	10.76
2,4-diamino-6-nitrotoluene	11.08	10.98	11.18
RDX	14.32	14.22	14.42
Picric acid	15.29	15.19	15.39
1,3,5-Trinitrobenzene	16.09	15.99	16.19
1,3-Dinitrobenzene	17.33	17.23	17.43
Nitrobenzene	18.21	18.11	18.31
Tetryl	18.46	18.36	18.56
Nitroglycerin	19.23	19.13	19.33
2,4,6-Trinitrotoluene	19.66	19.56	19.76
4-Amino-2,6-dinitrotoluene	20.10	20.00	20.20
2-Amino-4,6-dinitrotoluene	20.46	20.36	20.56
2,6-Dinitrotoluene	20.83	20.73	20.93
2,4-Dinitrotoluene	21.07	20.97	21.17
2-Nitrotoluene	22.61	22.51	22.71
4-Nitrotoluene	23.38	23.28	23.48
3-Nitrotoluene	24.11	24.01	24.21
PETN	24.92	24.82	25.02
1,2-Dinitrobenzene	16.40	16.30	16.50

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Lab Sample ID: CCV 200-43097/13 Calibration Date: 08/08/2012 19:43

Instrument ID: CH1208 Calib Start Date: 07/31/2012 15:48

GC Column: C-18 ID: 4.60(mm) Calib End Date: 07/31/2012 18:56

Lab File ID: 08AUG121140_131.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-diamino-4-nitrotoluene	Lin1		692.1		199	200	-0.4	20.0
HMX	Lin1		429.7		201	200	0.5	20.0
2,4-diamino-6-nitrotoluene	Lin1		551.6		198	200	-1.2	20.0
RDX	Lin1		336.9		201	200	0.7	20.0
Picric acid	Lin1		406.5		199	200	-0.6	20.0
1,3,5-Trinitrobenzene	Lin1		841.4		201	200	0.3	20.0
1,3-Dinitrobenzene	Lin1		743.0		202	200	0.8	20.0
Nitrobenzene	Lin1		253.5		197	200	-1.5	20.0
Tetryl	Lin1		577.2		197	200	-1.6	20.0
Nitroglycerin	Lin1		3.995		3880	4000	-3.1	20.0
2,4,6-Trinitrotoluene	Lin1		567.5		200	200	0.0	20.0
4-Amino-2,6-dinitrotoluene	Lin1		677.1		202	200	1.0	20.0
2-Amino-4,6-dinitrotoluene	Lin1		631.7		202	200	1.1	20.0
2,6-Dinitrotoluene	Lin1		384.7		196	200	-1.9	20.0
2,4-Dinitrotoluene	Lin1		650.1		206	200	2.8	20.0
2-Nitrotoluene	Lin1		183.2		196	200	-1.8	20.0
4-Nitrotoluene	Lin1		119.3		202	200	0.8	20.0
3-Nitrotoluene	Lin1		152.5		196	200	-1.8	20.0
PETN	Lin1		4.071		3950	4000	-1.4	20.0
1,2-Dinitrobenzene	Lin1		337.2		200	200	0.2	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Lab Sample ID: CCV 200-43097/13 Calibration Date: 08/08/2012 19:43

Instrument ID: CH1208 Calib Start Date: 07/31/2012 15:48

GC Column: C-18 ID: 4.60(mm) Calib End Date: 07/31/2012 18:56

Lab File ID: 08AUG121140_131.d

Analyte	RT	RT WINDOW	
		TO	FROM
2,6-diamino-4-nitrotoluene	9.67	9.56	9.76
HMX	10.66	10.56	10.76
2,4-diamino-6-nitrotoluene	11.09	10.98	11.18
RDX	14.32	14.22	14.42
Picric acid	15.29	15.19	15.39
1,3,5-Trinitrobenzene	16.10	15.99	16.19
1,3-Dinitrobenzene	17.34	17.23	17.43
Nitrobenzene	18.21	18.11	18.31
Tetryl	18.48	18.36	18.56
Nitroglycerin	19.24	19.13	19.33
2,4,6-Trinitrotoluene	19.67	19.56	19.76
4-Amino-2,6-dinitrotoluene	20.11	20.00	20.20
2-Amino-4,6-dinitrotoluene	20.47	20.36	20.56
2,6-Dinitrotoluene	20.83	20.73	20.93
2,4-Dinitrotoluene	21.09	20.97	21.17
2-Nitrotoluene	22.62	22.51	22.71
4-Nitrotoluene	23.39	23.28	23.48
3-Nitrotoluene	24.12	24.01	24.21
PETN	24.90	24.82	25.02
1,2-Dinitrobenzene	16.41	16.30	16.50

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Lab Sample ID: CCV 200-43097/24 Calibration Date: 08/09/2012 02:35

Instrument ID: CH1208 Calib Start Date: 07/31/2012 15:48

GC Column: C-18 ID: 4.60(mm) Calib End Date: 07/31/2012 18:56

Lab File ID: 08AUG121140_241.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-diamino-4-nitrotoluene	Lin1		693.6		200	200	-0.2	20.0
HMX	Lin1		424.4		198	200	-0.8	20.0
2,4-diamino-6-nitrotoluene	Lin1		545.9		196	200	-2.2	20.0
RDX	Lin1		333.3		199	200	-0.4	20.0
Picric acid	Lin1		405.9		199	200	-0.7	20.0
1,3,5-Trinitrobenzene	Lin1		838.4		200	200	-0.0	20.0
1,3-Dinitrobenzene	Lin1		742.8		202	200	0.8	20.0
Nitrobenzene	Lin1		249.9		194	200	-2.9	20.0
Tetryl	Lin1		575.0		196	200	-2.0	20.0
Nitroglycerin	Lin1		3.965		3850	4000	-3.8	20.0
2,4,6-Trinitrotoluene	Lin1		563.1		199	200	-0.7	20.0
4-Amino-2,6-dinitrotoluene	Lin1		673.5		201	200	0.5	20.0
2-Amino-4,6-dinitrotoluene	Lin1		630.0		202	200	0.8	20.0
2,6-Dinitrotoluene	Lin1		386.7		197	200	-1.4	20.0
2,4-Dinitrotoluene	Lin1		643.2		203	200	1.7	20.0
2-Nitrotoluene	Lin1		179.0		192	200	-4.1	20.0
4-Nitrotoluene	Lin1		118.9		201	200	0.5	20.0
3-Nitrotoluene	Lin1		153.6		198	200	-1.1	20.0
PETN	Lin1		4.279		4150	4000	3.6	20.0
1,2-Dinitrobenzene	Lin1		337.3		200	200	0.2	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Lab Sample ID: CCV 200-43097/24 Calibration Date: 08/09/2012 02:35

Instrument ID: CH1208 Calib Start Date: 07/31/2012 15:48

GC Column: C-18 ID: 4.60(mm) Calib End Date: 07/31/2012 18:56

Lab File ID: 08AUG121140_241.d

Analyte	RT	RT WINDOW	
		TO	FROM
2,6-diamino-4-nitrotoluene	9.67	9.56	9.76
HMX	10.67	10.56	10.76
2,4-diamino-6-nitrotoluene	11.09	10.98	11.18
RDX	14.32	14.22	14.42
Picric acid	15.29	15.19	15.39
1,3,5-Trinitrobenzene	16.09	15.99	16.19
1,3-Dinitrobenzene	17.34	17.23	17.43
Nitrobenzene	18.21	18.11	18.31
Tetryl	18.47	18.36	18.56
Nitroglycerin	19.24	19.13	19.33
2,4,6-Trinitrotoluene	19.66	19.56	19.76
4-Amino-2,6-dinitrotoluene	20.10	20.00	20.20
2-Amino-4,6-dinitrotoluene	20.46	20.36	20.56
2,6-Dinitrotoluene	20.83	20.73	20.93
2,4-Dinitrotoluene	21.08	20.97	21.17
2-Nitrotoluene	22.61	22.51	22.71
4-Nitrotoluene	23.39	23.28	23.48
3-Nitrotoluene	24.11	24.01	24.21
PETN	24.92	24.82	25.02
1,2-Dinitrobenzene	16.41	16.30	16.50

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Lab Sample ID: CCVRT 200-43162/2 Calibration Date: 08/09/2012 12:05

Instrument ID: CH1208 Calib Start Date: 07/31/2012 15:48

GC Column: C-18 ID: 4.60(mm) Calib End Date: 07/31/2012 18:56

Lab File ID: 09AUG121108_021.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-diamino-4-nitrotoluene	Lin1		687.2		198	200	-1.1	20.0
HMX	Lin1		428.9		201	200	0.3	20.0
2,4-diamino-6-nitrotoluene	Lin1		548.2		196	200	-1.8	20.0
RDX	Lin1		332.9		199	200	-0.5	20.0
Picric acid	Lin1		403.9		198	200	-1.2	20.0
1,3,5-Trinitrobenzene	Lin1		840.8		200	200	0.2	20.0
1,3-Dinitrobenzene	Lin1		749.8		203	200	1.7	20.0
Nitrobenzene	Lin1		258.9		201	200	0.6	20.0
Tetryl	Lin1		574.1		196	200	-2.1	20.0
Nitroglycerin	Lin1		3.976		3860	4000	-3.6	20.0
2,4,6-Trinitrotoluene	Lin1		567.2		200	200	-0.0	20.0
4-Amino-2,6-dinitrotoluene	Lin1		673.0		201	200	0.4	20.0
2-Amino-4,6-dinitrotoluene	Lin1		630.8		202	200	0.9	20.0
2,6-Dinitrotoluene	Lin1		381.1		194	200	-2.8	20.0
2,4-Dinitrotoluene	Lin1		652.2		206	200	3.1	20.0
2-Nitrotoluene	Lin1		182.9		196	200	-2.0	20.0
4-Nitrotoluene	Lin1		119.5		202	200	1.0	20.0
3-Nitrotoluene	Lin1		153.5		198	200	-1.1	20.0
PETN	Lin1		4.016		3890	4000	-2.7	20.0
1,2-Dinitrobenzene	Lin1		337.2		200	200	0.2	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Lab Sample ID: CCVRT 200-43162/2 Calibration Date: 08/09/2012 12:05

Instrument ID: CH1208 Calib Start Date: 07/31/2012 15:48

GC Column: C-18 ID: 4.60(mm) Calib End Date: 07/31/2012 18:56

Lab File ID: 09AUG121108_021.d

Analyte	RT	RT WINDOW	
		TO	FROM
2,6-diamino-4-nitrotoluene	9.66	9.56	9.76
HMX	10.66	10.56	10.76
2,4-diamino-6-nitrotoluene	11.08	10.98	11.18
RDX	14.32	14.22	14.42
Picric acid	15.29	15.19	15.39
1,3,5-Trinitrobenzene	16.09	15.99	16.19
1,3-Dinitrobenzene	17.33	17.23	17.43
Nitrobenzene	18.21	18.11	18.31
Tetryl	18.47	18.37	18.57
Nitroglycerin	19.24	19.14	19.34
2,4,6-Trinitrotoluene	19.66	19.56	19.76
4-Amino-2,6-dinitrotoluene	20.10	20.00	20.20
2-Amino-4,6-dinitrotoluene	20.46	20.36	20.56
2,6-Dinitrotoluene	20.83	20.73	20.93
2,4-Dinitrotoluene	21.08	20.98	21.18
2-Nitrotoluene	22.62	22.52	22.72
4-Nitrotoluene	23.39	23.29	23.49
3-Nitrotoluene	24.12	24.02	24.22
PETN	24.91	24.81	25.01
1,2-Dinitrobenzene	16.41	16.31	16.51

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Lab Sample ID: CCV 200-43162/11 Calibration Date: 08/09/2012 17:42

Instrument ID: CH1208 Calib Start Date: 07/31/2012 15:48

GC Column: C-18 ID: 4.60(mm) Calib End Date: 07/31/2012 18:56

Lab File ID: 09AUG121108_111.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-diamino-4-nitrotoluene	Lin1		696.3		200	200	0.2	20.0
HMX	Lin1		425.9		199	200	-0.4	20.0
2,4-diamino-6-nitrotoluene	Lin1		546.2		196	200	-2.1	20.0
RDX	Lin1		333.4		199	200	-0.4	20.0
Picric acid	Lin1		406.1		199	200	-0.7	20.0
1,3,5-Trinitrobenzene	Lin1		839.6		200	200	0.0	20.0
1,3-Dinitrobenzene	Lin1		741.8		201	200	0.7	20.0
Nitrobenzene	Lin1		251.8		196	200	-2.2	20.0
Tetryl	Lin1		579.0		197	200	-1.3	20.0
Nitroglycerin	Lin1		3.957		3840	4000	-4.0	20.0
2,4,6-Trinitrotoluene	Lin1		563.7		199	200	-0.6	20.0
4-Amino-2,6-dinitrotoluene	Lin1		666.5		199	200	-0.6	20.0
2-Amino-4,6-dinitrotoluene	Lin1		630.6		202	200	0.9	20.0
2,6-Dinitrotoluene	Lin1		379.0		193	200	-3.3	20.0
2,4-Dinitrotoluene	Lin1		653.8		207	200	3.4	20.0
2-Nitrotoluene	Lin1		180.9		194	200	-3.1	20.0
4-Nitrotoluene	Lin1		115.2		195	200	-2.7	20.0
3-Nitrotoluene	Lin1		153.5		198	200	-1.2	20.0
PETN	Lin1		4.039		3920	4000	-2.1	20.0
1,2-Dinitrobenzene	Lin1		337.4		201	200	0.3	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Lab Sample ID: CCV 200-43162/11 Calibration Date: 08/09/2012 17:42

Instrument ID: CH1208 Calib Start Date: 07/31/2012 15:48

GC Column: C-18 ID: 4.60(mm) Calib End Date: 07/31/2012 18:56

Lab File ID: 09AUG121108_111.d

Analyte	RT	RT WINDOW	
		TO	FROM
2,6-diamino-4-nitrotoluene	9.67	9.56	9.76
HMX	10.66	10.56	10.76
2,4-diamino-6-nitrotoluene	11.08	10.98	11.18
RDX	14.31	14.22	14.42
Picric acid	15.29	15.19	15.39
1,3,5-Trinitrobenzene	16.09	15.99	16.19
1,3-Dinitrobenzene	17.33	17.23	17.43
Nitrobenzene	18.20	18.11	18.31
Tetryl	18.46	18.37	18.57
Nitroglycerin	19.23	19.14	19.34
2,4,6-Trinitrotoluene	19.65	19.56	19.76
4-Amino-2,6-dinitrotoluene	20.10	20.00	20.20
2-Amino-4,6-dinitrotoluene	20.45	20.36	20.56
2,6-Dinitrotoluene	20.83	20.73	20.93
2,4-Dinitrotoluene	21.07	20.98	21.18
2-Nitrotoluene	22.61	22.52	22.72
4-Nitrotoluene	23.38	23.29	23.49
3-Nitrotoluene	24.12	24.02	24.22
PETN	24.91	24.81	25.01
1,2-Dinitrobenzene	16.40	16.31	16.51

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Client Sample ID: Lab Sample ID: MB 200-42840/1-A

Matrix: Solid Lab File ID: 08AUG121140_041.d

Analysis Method: 8330 Modified Date Collected:

Extraction Method: 8330 Date Extracted: 08/02/2012 20:21

Sample wt/vol: 10.01(g) Date Analyzed: 08/08/2012 14:06

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 150(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 43097 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
2691-41-0	HMX	12	U	100	12	4.5
121-82-4	RDX	12	U	100	12	12
99-35-4	1,3,5-Trinitrobenzene	12	U	100	12	5.0
99-65-0	1,3-Dinitrobenzene	12	U	100	12	5.9
98-95-3	Nitrobenzene	30	U	100	30	26
479-45-8	Tetryl	24	U	100	24	15
55-63-0	Nitroglycerin	720	U	2000	720	480
118-96-7	2,4,6-Trinitrotoluene	24	U	100	24	17
19406-51-0	4-Amino-2,6-dinitrotoluene	12	U	100	12	8.4
35572-78-2	2-Amino-4,6-dinitrotoluene	12	U	100	12	6.6
606-20-2	2,6-Dinitrotoluene	12	U	100	12	11
121-14-2	2,4-Dinitrotoluene	24	U	100	24	15
88-72-2	2-Nitrotoluene	24	U	100	24	14
99-99-0	4-Nitrotoluene	30	U	100	30	27
99-08-1	3-Nitrotoluene	30	U M	100	30	27

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	97		40-140

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Client Sample ID: Lab Sample ID: MB 200-43130/17-A

Matrix: Solid Lab File ID: 09AUG121108_031.d

Analysis Method: 8330 Modified Date Collected:

Extraction Method: 8330 Date Extracted: 08/08/2012 14:40

Sample wt/vol: 9.93(g) Date Analyzed: 08/09/2012 12:43

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 150(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 43162 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
2691-41-0	HMX	12	U	100	12	4.5
121-82-4	RDX	12	U	100	12	12
99-35-4	1,3,5-Trinitrobenzene	12	U	100	12	5.0
99-65-0	1,3-Dinitrobenzene	12	U M	100	12	5.9
98-95-3	Nitrobenzene	30	U	100	30	26
479-45-8	Tetryl	24	U	100	24	15
55-63-0	Nitroglycerin	730	U	2000	730	490
118-96-7	2,4,6-Trinitrotoluene	24	U	100	24	17
19406-51-0	4-Amino-2,6-dinitrotoluene	12	U	100	12	8.5
35572-78-2	2-Amino-4,6-dinitrotoluene	12	U	100	12	6.6
606-20-2	2,6-Dinitrotoluene	12	U	100	12	11
121-14-2	2,4-Dinitrotoluene	24	U	100	24	15
88-72-2	2-Nitrotoluene	24	U	100	24	14
99-99-0	4-Nitrotoluene	30	U	100	30	27
99-08-1	3-Nitrotoluene	30	U M	100	30	27

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	101		40-140

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-12042-1

SDG No.: 200-12042-1

Client Sample ID: | Lab Sample ID: LCS 200-42840/2-A

Matrix: Solid | Lab File ID: 08AUG121140_051.d

Analysis Method: 8330 Modified | Date Collected:

Extraction Method: 8330 | Date Extracted: 08/02/2012 20:21

Sample wt/vol: 10.03(g) | Date Analyzed: 08/08/2012 14:43

Con. Extract Vol.: 100(mL) | Dilution Factor: 1

Injection Volume: 150(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 43097 | Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
2691-41-0	HMX	2090		100	12	4.5
121-82-4	RDX	2090		100	12	12
99-35-4	1,3,5-Trinitrobenzene	2020		100	12	5.0
99-65-0	1,3-Dinitrobenzene	2080		100	12	5.9
98-95-3	Nitrobenzene	2040		100	30	26
479-45-8	Tetryl	2040		100	24	15
55-63-0	Nitroglycerin	38600		2000	720	480
118-96-7	2,4,6-Trinitrotoluene	2070		100	24	17
19406-51-0	4-Amino-2,6-dinitrotoluene	2090		100	12	8.4
35572-78-2	2-Amino-4,6-dinitrotoluene	2100		100	12	6.6
606-20-2	2,6-Dinitrotoluene	2020		100	12	11
121-14-2	2,4-Dinitrotoluene	2150		100	24	15
88-72-2	2-Nitrotoluene	2030		100	24	14
99-99-0	4-Nitrotoluene	2080		100	30	27
99-08-1	3-Nitrotoluene	2030		100	30	27

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	100		40-140

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Client Sample ID: Lab Sample ID: LCS 200-43130/18-A

Matrix: Solid Lab File ID: 09AUG121108_041.d

Analysis Method: 8330 Modified Date Collected:

Extraction Method: 8330 Date Extracted: 08/08/2012 14:40

Sample wt/vol: 9.98(g) Date Analyzed: 08/09/2012 13:20

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 150(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 43162 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
2691-41-0	HMX	2130		100	12	4.5
121-82-4	RDX	2150		100	12	12
99-35-4	1,3,5-Trinitrobenzene	2130		100	12	5.0
99-65-0	1,3-Dinitrobenzene	2150		100	12	5.9
98-95-3	Nitrobenzene	2120		100	30	26
479-45-8	Tetryl	2100		100	24	15
55-63-0	Nitroglycerin	41500		2000	720	480
118-96-7	2,4,6-Trinitrotoluene	2130		100	24	17
19406-51-0	4-Amino-2,6-dinitrotoluene	2140		100	12	8.4
35572-78-2	2-Amino-4,6-dinitrotoluene	2180		100	12	6.6
606-20-2	2,6-Dinitrotoluene	2050		100	12	11
121-14-2	2,4-Dinitrotoluene	2240		100	24	15
88-72-2	2-Nitrotoluene	2070		100	24	14
99-99-0	4-Nitrotoluene	2160	M	100	30	27
99-08-1	3-Nitrotoluene	2080		100	30	27

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	100		40-140

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Client Sample ID: NFUDS-002-SBG0203-01 MS Lab Sample ID: 200-12042-4 MS

Matrix: Solid Lab File ID: 08AUG121140_221.d

Analysis Method: 8330 Modified Date Collected: 08/01/2012 11:15

Extraction Method: 8330 Date Extracted: 08/02/2012 20:21

Sample wt/vol: 10.08(g) Date Analyzed: 08/09/2012 01:20

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 150(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 43097 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
2691-41-0	HMX	1960		99	12	4.5
121-82-4	RDX	1950		99	12	12
99-35-4	1,3,5-Trinitrobenzene	1920		99	12	5.0
99-65-0	1,3-Dinitrobenzene	2000		99	12	5.9
98-95-3	Nitrobenzene	1920		99	30	26
479-45-8	Tetryl	1880		99	24	15
55-63-0	Nitroglycerin	36900		2000	710	480
118-96-7	2,4,6-Trinitrotoluene	1940		99	24	17
19406-51-0	4-Amino-2,6-dinitrotoluene	1970		99	12	8.3
35572-78-2	2-Amino-4,6-dinitrotoluene	2000		99	12	6.5
606-20-2	2,6-Dinitrotoluene	1890		99	12	11
121-14-2	2,4-Dinitrotoluene	2030		99	24	15
88-72-2	2-Nitrotoluene	1940		99	24	14
99-99-0	4-Nitrotoluene	2010		99	30	27
99-08-1	3-Nitrotoluene	1940		99	30	27

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	96		40-140

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Client Sample ID: NFUDS-002-SBG0203-01 MSD Lab Sample ID: 200-12042-4 MSD

Matrix: Solid Lab File ID: 08AUG121140_231.d

Analysis Method: 8330 Modified Date Collected: 08/01/2012 11:15

Extraction Method: 8330 Date Extracted: 08/02/2012 20:21

Sample wt/vol: 10.00(g) Date Analyzed: 08/09/2012 01:57

Con. Extract Vol.: 100(mL) Dilution Factor: 1

Injection Volume: 150(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 43097 Units: ug/Kg

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
2691-41-0	HMX	1970		100	12	4.5
121-82-4	RDX	1980		100	12	12
99-35-4	1,3,5-Trinitrobenzene	1950		100	12	5.0
99-65-0	1,3-Dinitrobenzene	2030		100	12	5.9
98-95-3	Nitrobenzene	1970		100	30	26
479-45-8	Tetryl	1890		100	24	15
55-63-0	Nitroglycerin	37500		2000	720	480
118-96-7	2,4,6-Trinitrotoluene	1970		100	24	17
19406-51-0	4-Amino-2,6-dinitrotoluene	1990		100	12	8.4
35572-78-2	2-Amino-4,6-dinitrotoluene	1990		100	12	6.6
606-20-2	2,6-Dinitrotoluene	1930		100	12	11
121-14-2	2,4-Dinitrotoluene	2040		100	24	15
88-72-2	2-Nitrotoluene	1940		100	24	14
99-99-0	4-Nitrotoluene	2030		100	30	27
99-08-1	3-Nitrotoluene	1990		100	30	27

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	98		40-140

TestAmerica Laboratories
Worklist Run Log Report

Worklist Name: 073112_CAL Worklist Num: 2241
Instrument: CH1208 Method: 8330_C18
Batch Directory: \\Btv-lims1\ChromData\CH1208\20120731-2241.b
Anaylysis Type: SemiVOA Creator: Robinson, Wallace B
Inj Volume: 150.00 Inj Vol Units: ul

Lab ID	Worklist ID	Sample Type	Cal Lvl	Inj Date/Time	File Name	Vial	Dil Fact	Client ID	Fraction
# 1 ICB	200-0002241-001	ICB		31-Jul-2012 15:11:00	31JUL121406_01	1	1.0		sv
# 2 IC 2	200-0002241-002	IC	2	31-Jul-2012 15:48:00	31JUL121406_02	2	1.0		sv
# 3 IC 3	200-0002241-003	IC	3	31-Jul-2012 16:26:00	31JUL121406_03	3	1.0		sv
# 4 IC 4	200-0002241-004	IC	4	31-Jul-2012 17:03:00	31JUL121406_04	4	1.0		sv
# 5 ICRTAV 5	200-0002241-005	ICRTAV	5	31-Jul-2012 17:41:00	31JUL121406_05	5	1.0		sv
# 6 IC 6	200-0002241-006	IC	6	31-Jul-2012 18:18:00	31JUL121406_06	6	1.0		sv
# 7 IC 7	200-0002241-007	IC	7	31-Jul-2012 18:56:00	31JUL121406_07	7	1.0		sv
# 8 CCVL	200-0002241-008	CCVL		31-Jul-2012 19:33:00	31JUL121406_08	8	1.0		sv
# 9 CCVL PETN	200-0002241-009	CCVL		31-Jul-2012 20:10:00	31JUL121406_09	9	1.0		sv
#10 ICV	200-0002241-010	ICV		31-Jul-2012 20:48:00	31JUL121406_10	10	1.0		sv

TestAmerica Laboratories
Worklist Run Log Report

Worklist Name: 080912_1 Worklist Num: 2281
Instrument: CH1208 Method: 8330_C18
Batch Directory: \\Btv-lims1\ChromData\CH1208\20120809-2281.b
Anaylysis Type: SemiVOA Creator: Robinson, Wallace B
Inj Volume: 150.00 Inj Vol Units: ul

Lab ID	Worklist ID	Sample Type	Cal Lvl	Inj Date/Time	File Name	Vial	Dil Fact	Client ID	Fraction
# 1 BLANK	200-0002281-001	Client		09-Aug-2012 11:28:00	09AUG121108_0	1	1.0		sv
# 2 CCV	200-0002281-002	CCV		09-Aug-2012 12:05:00	09AUG121108_0	2	1.0		sv
# 3 MB 200-43130/17-A	200-0002281-003	MB		09-Aug-2012 12:43:00	09AUG121108_0	3	1.0		sv
# 4 LCS 200-43130/18-A	200-0002281-004	LCS		09-Aug-2012 13:20:00	09AUG121108_0	4	1.0		sv
# 5 GB 200-43003/5-B	200-0002281-005	GB		09-Aug-2012 13:58:00	09AUG121108_0	5	1.0		sv
# 6 200-12042-A-1-C	200-0002281-006	Client		09-Aug-2012 14:35:00	09AUG121108_0	6	1.0	NFUDS-002-SBG0201	sv
# 7 200-12042-A-2-C	200-0002281-007	Client		09-Aug-2012 15:13:00	09AUG121108_0	7	1.0	NFUDS-002-SBG0202	sv
# 8 200-12041-A-1-B	200-0002281-008	Client		09-Aug-2012 15:50:00	09AUG121108_0	8	1.0	NFUDS-002-ISG02-01	sv
# 9 200-12041-A-2-B	200-0002281-009	Client		09-Aug-2012 16:28:00	09AUG121108_0	9	1.0	NFUDS-002-ISG04-01	sv
#10 200-12041-A-3-B	200-0002281-010	Client		09-Aug-2012 17:05:00	09AUG121108_1	10	1.0	NFUDS-002-ISG08-01	sv
#11 CCV	200-0002281-011	CCV		09-Aug-2012 17:42:00	09AUG121108_1	11	1.0		sv
#12 200-12041-A-4-B	200-0002281-012	Client		09-Aug-2012 18:20:00	09AUG121108_1	12	1.0	NFUDS-002-ISG08-R1	sv
#13 200-12041-A-5-B	200-0002281-013	Client		09-Aug-2012 18:57:00	09AUG121108_1	13	1.0	NFUDS-002-ISG08-R2	sv
#14 200-12041-A-6-B	200-0002281-014	Client		09-Aug-2012 19:35:00	09AUG121108_1	14	1.0	NFUDS-002-ISG09-01	sv
#15 200-12041-A-7-D	200-0002281-015	Client		09-Aug-2012 20:12:00	09AUG121108_1	15	1.0	NFUDS-002-ISG12-01	sv
#16 200-12041-A-7-E DU	200-0002281-016	DU		09-Aug-2012 20:50:00	09AUG121108_1	16	1.0	NFUDS-002-ISG12-01	sv
#17 200-12041-A-7-F TRL	200-0002281-017	TRL		09-Aug-2012 21:27:00	09AUG121108_1	17	1.0	NFUDS-002-ISG12-01	sv
#18 200-11813-A-2-B	200-0002281-018	Client		09-Aug-2012 22:05:00	09AUG121108_1	18	1.0	LOD1	sv
#19 200-11813-A-3-B	200-0002281-019	Client		09-Aug-2012 22:42:00	09AUG121108_1	18	1.0	LOD2	sv
#20 200-11813-A-4-B	200-0002281-020	Client		09-Aug-2012 23:20:00	09AUG121108_2	18	1.0	LOD3	sv
#21 200-11813-A-1-B	200-0002281-021	Client		09-Aug-2012 23:57:00	09AUG121108_2	18	1.0	LOQ1	sv
#22 CCV	200-0002281-022	CCV		10-Aug-2012 00:34:00	09AUG121108_2	18	1.0		sv

TestAmerica Laboratories
Worklist Run Log Report

Worklist Name: 080812_1 Worklist Num: 2277
Instrument: CH1208 Method: 8330_C18
Batch Directory: \\Btv-lims1\ChromData\CH1208\20120808-2277.b
Anaylysis Type: SemiVOA Creator: Robinson, Wallace B
Inj Volume: 150.00 Inj Vol Units: ul

Lab ID	Worklist ID	Sample Type	Cal Lvl	Inj Date/Time	File Name	Vial	Dil Fact	Client ID	Fraction
# 1 BLANK	200-0002277-001	Client		08-Aug-2012 12:13:00	08AUG121140_0	1	1.0		sv
# 2 CCV	200-0002277-002	CCV		08-Aug-2012 12:51:00	08AUG121140_0	2	1.0		sv
# 3 200-12030-A-5-A	200-0002277-003	Client		08-Aug-2012 13:28:00	08AUG121140_0	3	2.0	5447-0812-EW09-138	sv
# 4 MB 200-42840/1-A	200-0002277-004	MB		08-Aug-2012 14:06:00	08AUG121140_0	4	1.0		sv
# 5 LCS 200-42840/2-A	200-0002277-005	LCS		08-Aug-2012 14:43:00	08AUG121140_0	5	1.0		sv
# 6 200-12042-A-3-A	200-0002277-006	Client		08-Aug-2012 15:20:00	08AUG121140_0	6	1.0	NFUDS-002-SBG0202	sv
# 7 200-12042-A-4-A	200-0002277-007	Client		08-Aug-2012 15:58:00	08AUG121140_0	7	1.0	NFUDS-002-SBG0203	sv
# 8 200-12042-B-5-A	200-0002277-008	Client		08-Aug-2012 16:35:00	08AUG121140_0	8	1.0	NFUDS-002-SBG0401	sv
# 9 200-12042-A-6-A	200-0002277-009	Client		08-Aug-2012 17:13:00	08AUG121140_0	9	1.0	NFUDS-002-SBG0402	sv
#10 200-12042-B-7-A	200-0002277-010	Client		08-Aug-2012 17:50:00	08AUG121140_1	10	1.0	NFUDS-002-SBG0403	sv
#11 200-12042-A-8-A	200-0002277-011	Client		08-Aug-2012 18:28:00	08AUG121140_1	11	1.0	NFUDS-002-SBG0801	sv
#12 200-12042-B-9-A	200-0002277-012	Client		08-Aug-2012 19:05:00	08AUG121140_1	12	1.0	NFUDS-002-SBG0802	sv
#13 CCV	200-0002277-013	CCV		08-Aug-2012 19:43:00	08AUG121140_1	13	1.0		sv
#14 200-12042-A-10-A	200-0002277-014	Client		08-Aug-2012 20:20:00	08AUG121140_1	14	1.0	NFUDS-002-SBG0803	sv
#15 200-12042-B-11-A	200-0002277-015	Client		08-Aug-2012 20:58:00	08AUG121140_1	15	1.0	NFUDS-002-SBG0901	sv
#16 200-12042-A-12-A	200-0002277-016	Client		08-Aug-2012 21:35:00	08AUG121140_1	16	1.0	NFUDS-002-SBG0902	sv
#17 200-12042-A-13-A	200-0002277-017	Client		08-Aug-2012 22:12:00	08AUG121140_1	17	1.0	NFUDS-002-SBG0903	sv
#18 200-12042-A-14-A	200-0002277-018	Client		08-Aug-2012 22:50:00	08AUG121140_1	18	1.0	NFUDS-002-SBG0903	sv
#19 200-12042-B-15-A	200-0002277-019	Client		08-Aug-2012 23:27:00	08AUG121140_1	18	1.0	NFUDS-002-SBG1201	sv
#20 200-12042-A-16-A	200-0002277-020	Client		09-Aug-2012 00:05:00	08AUG121140_2	18	1.0	NFUDS-002-SBG1202	sv
#21 200-12042-B-17-A	200-0002277-021	Client		09-Aug-2012 00:42:00	08AUG121140_2	18	1.0	NFUDS-002-SBG1203	sv
#22 200-12042-A-4-C MS	200-0002277-022	MS		09-Aug-2012 01:20:00	08AUG121140_2	18	1.0	NFUDS-002-SBG0203	sv
#23 200-12042-A-4-B MSD	200-0002277-023	MSD		09-Aug-2012 01:57:00	08AUG121140_2	18	1.0	NFUDS-002-SBG0203	sv
#24 CCV	200-0002277-024	CCV		09-Aug-2012 02:35:00	08AUG121140_2	18	1.0		sv

HPLC- ICAL Review Checklist	Work List ID: 2241		~~Jobs:~~ WBR 8/1/12
Method: 8330B Prep Method: NA	Instrument Batch ID: 1208		
Primary Review: WBR	Date: 08/01/12		TALS Batch ID: 42650
Secondary Review:	Date: 8/2/12		TALS ICAL ID: 16905
Calibration	**Primary**	**Secondary**	**Comments**
Each analyte reviewed in each standard for identification and integration?	WBR		
Manual integrations assigned MI code?	WR		
Linearity passed control criteria			
ICV passed control criteria	WBR		
Chrom			
Correct TALS Ids used-IC & ICRT(LCUV)/ICRTAV(LCMSMS)	WBR		
All peak integrations checked	WR		
All peak identifications checked	WR		
Manual integrations correctly documented	WR		
Any disabled points documented/Min # of points used for curve type	WR		
ISTD responses checked (LCMSMS only)	WR		
RTs properly updated in Chrom	WR		
Calibration locked?	WR		
Low point quants ± 20%	WBR		
ICV (2nd source) ± 20%	WBR		
On scale chromatograms generated (as needed)	WR		
Manual integration summary reports (for NJDEP)	NA		
TALS			
Files uploaded to TALS	WR		
Graphics uploaded?	WR		
Batch saved & ICAL Linkages checked for "Success"	WBR		
Calibration checked and approved	WR		
Run Log			
All documents attached to this data set that were photocopied from a logbook were reviewed to verify legibility, completeness and compliance to the SOPs. Any errors or omissions found were corrected on the original document in the logbook and the photocopy was replaced with the new copy.			

Upload- /TALS/Lock in TALS/Lock in Chrom.

L:\Public\scans\GC\HPLC_ 073112:C18-CAL

12042-1 / 12030-1 DL

HPLC- Data/Batch Review Checklist			
Method: 8330B Prep Method/Batch: 42840	Work List ID: 2277		Jobs:
Primary Review: WBR	Instrument Batch ID: 1208		
Secondary Review:	Date: 8/9/12		TALS Batch ID: 43097
	Date:		TALS ICAL ID: 42650 / 16905
Chrom	**Primary**	**Secondary**	**Comments**
Review Integration and ID's	WBR		
Upload to TALS	WBR	XXXXXXXXXX	
Run Log			
Each reportable QC Data Types imported once?	WBR		
(BFB, CCVIS per batch/LCS, LCSD, MB, MS, MSD per clock)			
All samples imported?			
Dilution factors match analytical data?			
ICOC complete?	NA		
All documents attached to this data set that were photocopied from a logbook were reviewed to verify legibility, completeness and compliance to the SOPs. Any errors or omissions found were corrected on the original document in the logbook and the photocopy was replaced with the new copy.	WBR		12042-1 {NO Conf Req}
TALS Sample List Tab			
Graphics imported, PDAs imported and notes reviewed?	WBR		
Non-reportable samples: acceptable or rejected?			
Suffix: dilution (DL) re-analysis (RA) re-extract (RE)?			
Reportable Llms Sample ID's identified?			
QC Types replicated for multiple jobs?			
TALS Worksheet Tab			
Initial/final values and units entered appropriately for each method?	WBR		
Logbook notes recorded?			
TALS Reagents			
ICAL reagents entered properly in ICAL batch No. 42650 ?	WBR		
QC type standards entered in sequence properly?			
Container ID's and amounts used for all reagents entered?			
Reagents are non-expired at analysis date?			
Reagent amounts reflect final volume?			
TALS Batch Results			
Batch results used to confirm SW 846 Reporting Rules?	WBR		
Surrogates within limits?	WBR		
TALS Sample Results			
Calib ID _____ from most recent calibration?	WBR		
Reportable results set to Primary/Secondary/Acceptable appropriately?			
Reanalyzed/Diluted analytes set to Secondary/Acceptable?			
Spike amount represents actual spike amount?			
CCV %D is within limits?			
%Rec for is within limits for LCS/MS/MSD?			
Raw Data Flags match raw data?			
Expected Flags/Qualifiers present?			
TALS QC Links			
Each QC type and Samples linked properly?	WBR		
Batch No. of corresponding MB/LCS/MS/MSD if not the present batch? 12030- MB NA WBR ~~42452~~			
CCV linked?	WBR		
TALS QC Links			
NCM ID:	WBR		

23625

BR-FLC033:09.13.11:1
TestAmerica

23614 2,4DA / PA Not Target Cpds

12042 - 1

HPLC- Data/Batch Review Checklist	Work List ID: 1208		Jobs:
Method: 8330B Prep Method/Batch: 43130	Instrument Batch ID: 2282		
Primary Review: WR	Date: 8/10/12		TALS Batch ID: 43 48162
Secondary Review:	Date:		TALS ICAL ID: 42650 / 16905
Chrom	**Primary**	**Secondary**	**Comments**
Review Integration and ID's	WR		
Upload to TALS	WR	XXXXXXXXXX	
Run Log			
Each reportable QC Data Types imported once? (BFB, CCVIS per batch/LCS, LCSD, MB, MS, MSD per clock)	WR		(12042-1 NO Conf REQ)
All samples imported?			
Dilution factors match analytical data?			
ICOC complete?	—		
All documents attached to this data set that were photocopied from a logbook were reviewed to verify legibility, completeness and compliance to the SOPs. Any errors or omissions found were corrected on the original document in the logbook and the photocopy was replaced with the new copy.	WR		
TALS Sample List Tab			
Graphics imported, PDAs imported and notes reviewed?	WR		
Non-reportable samples: acceptable or rejected?			
Suffix: dilution (DL) re-analysis (RA) re-extract (RE)?			
Reportable Lims Sample ID's identified?			
QC Types replicated for multiple jobs?			
TALS Worksheet Tab			
Initial/final values and units entered appropriately for each method?	WR		
Logbook notes recorded?			
TALS Reagents			
ICAL reagents entered properly in ICAL batch No. _____?	WR		
QC type standards entered in sequence properly?			
Container ID's and amounts used for all reagents entered?			
Reagents are non-expired at analysis date?			
Reagent amounts reflect final volume?			
TALS Batch Results			
Batch results used to confirm SW 846 Reporting Rules?	WR		
Surrogates within limits?			
TALS Sample Results			
Calib ID _____ from most recent calibration?	WR		
Reportable results set to Primary/Secondary/Acceptable appropriately?			
Reanalyzed/Diluted analytes set to Secondary/Acceptable?			
Spike amount represents actual spike amount?			
CCV %D is within limits?			
%Rec for is within limits for LCS/MS/MSD?			
Raw Data Flags match raw data?			
Expected Flags/Qualifiers present?			
TALS QC Links			
Each QC type and Samples linked properly?	WR		
Batch No. of corresponding MB/LCS/MS/MSD if not the present batch? _____	—		
CCV linked?	WR		
TALS QC Links			
NCM ID:	WR		

Report Date: 09-Aug-2012 09:47:46 Chrom Revision: 2.0 31-Jul-2012 16:08:44

Preliminary Report

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Btv-lims1\ChromData\CH1208\20120808-2277.b\08AUG121140_041.d		
Lims ID:	MB 200-42840/1-A	Client ID:	
Inject. Date:	08-Aug-2012 14:06:00	Dil. Factor:	1.0000
Sample Type:	MB		
Sample ID:	200-0002277-004		
Misc. Info.:			
Operator:	WBR	Instrument ID:	CH1208
Vol. Injected:	150.0000	ALS Bottle#:	4
Lims Batch ID:	2277	Lims Sample ID:	4
Detector:	A-08AUG121140.R041		
Method:	\\Btv-lims1\ChromData\CH1208\20120808-2277.b\8330_C18.m		
Last Update:	09-Aug-2012 09:47:10	Calib Date:	31-Jul-2012 18:56:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Btv-lims1\ChromData\CH1208\20120731-2241.b\31JUL121406_071.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	XAWRK016		

	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
	1 2,6-diamino-4-nitrotoluene		9.657				1
	2 hexahydro-1,3,5-trinitroso-1,3,5		9.754				1
	3 HMX		10.661				1
	4 2,4-diamino-6-nitrotoluene		11.079				1
	5 hexahydro-1,3-dinitroso-5-nitro-		11.589				1
	6 MNX		13.261				1
	7 RDX		14.316				1
	8 2,4,6-Trinitrophenol		15.294				1
	9 1,3,5-Trinitrobenzene		16.094				1
$	10 1,2-Dinitrobenzene	16.405	16.397	0.008	64965	193.0	
	11 1,3-Dinitrobenzene		17.330				1
	12 Nitrobenzene		18.210				1
	13 Tetryl		18.459				1
	14 Nitroglycerin		19.233				1
	15 2,4,6-Trinitrotoluene		19.660				1
	16 4-Amino-2,6-dinitrotoluene		20.096				1
	17 2-Amino-4,6-dinitrotoluene		20.460				1
	18 2,6-Dinitrotoluene		20.825				1
	19 2,4-Dinitrotoluene		21.074				1
	20 o-Nitrotoluene		22.612				1
	21 p-Nitrotoluene		23.377				1
	22 m-Nitrotoluene	23.981	24.106	-0.125	483	-1.42	MA
	23 PETN		24.915				1

Report Date: 10-Aug-2012 08:19:46 Chrom Revision: 2.0 31-Jul-2012 16:08:44

Preliminary Report

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Btv-lims1\ChromData\CH1208\20120809-2281.b\09AUG121108_031.d		
Lims ID:	MB 200-43130/17-A	Client ID:	
Inject. Date:	09-Aug-2012 12:43:00	Dil. Factor:	1.0000
Sample Type:	MB		
Sample ID:	200-0002281-003		
Misc. Info.:			
Operator:	WBR	Instrument ID:	CH1208
Vol. Injected:	150.0000	ALS Bottle#:	3
Lims Batch ID:	2281	Lims Sample ID:	3
Detector:	A-09AUG121108.R031		
Method:	\\Btv-lims1\ChromData\CH1208\20120809-2281.b\8330_C18.m		
Last Update:	10-Aug-2012 08:19:34	Calib Date:	31-Jul-2012 18:56:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Btv-lims1\ChromData\CH1208\20120731-2241.b\31JUL121406_071.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	XAWRK011		

	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
1	2,6-diamino-4-nitrotoluene		9.657				1
2	hexahydro-1,3,5-trinitroso-1,3,5		9.754				1
3	HMX		10.661				1
4	2,4-diamino-6-nitrotoluene		11.079				1
5	hexahydro-1,3-dinitroso-5-nitro-		11.589				1
6	MNX		13.261				1
7	RDX		14.316				1
8	2,4,6-Trinitrophenol		15.294				1
9	1,3,5-Trinitrobenzene		16.094				1
$ 10	1,2-Dinitrobenzene	16.397	16.405	-0.008	68277	202.9	
11	1,3-Dinitrobenzene	17.303	17.330	-0.027	382	-0.2316	MA
12	Nitrobenzene		18.210				1
13	Tetryl		18.468				1
14	Nitroglycerin		19.242				1
15	2,4,6-Trinitrotoluene		19.660				1
16	4-Amino-2,6-dinitrotoluene		20.104				1
17	2-Amino-4,6-dinitrotoluene		20.460				1
18	2,6-Dinitrotoluene		20.834				1
19	2,4-Dinitrotoluene		21.083				1
20	o-Nitrotoluene		22.621				1
21	p-Nitrotoluene		23.385				1
22	m-Nitrotoluene	24.061	24.115	-0.054	299	-2.63	MA
23	PETN		24.906				1

Report Date: 10-Aug-2012 08:21:33 Chrom Revision: 2.0 31-Jul-2012 16:08:44

Preliminary Report

TestAmerica Laboratories
Target Compound Quantitation Report

Data File:	\\Btv-lims1\ChromData\CH1208\20120809-2281.b\09AUG121108_051.d		
Lims ID:	GB 200-43003/5-B	Client ID:	
Inject. Date:	09-Aug-2012 13:58:00	Dil. Factor:	1.0000
Sample Type:	GB		
Sample ID:	200-0002281-005		
Misc. Info.:			
Operator:	WBR	Instrument ID:	CH1208
Vol. Injected:	150.0000	ALS Bottle#:	5
Lims Batch ID:	2281	Lims Sample ID:	5
Detector:	A-09AUG121108.R051		
Method:	\\Btv-lims1\ChromData\CH1208\20120809-2281.b\8330_C18.m		
Last Update:	10-Aug-2012 08:21:04	Calib Date:	31-Jul-2012 18:56:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Btv-lims1\ChromData\CH1208\20120731-2241.b\31JUL121406_071.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Process Host:	XAWRK011		

First Level Reviewer: robinsonw Date: 10-Aug-2012 08:21:29

	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
	1 2,6-diamino-4-nitrotoluene		9.657				1
	2 hexahydro-1,3,5-trinitroso-1,3,5		9.754				1
	3 HMX		10.661				1
	4 2,4-diamino-6-nitrotoluene		11.079				1
	5 hexahydro-1,3-dinitroso-5-nitro-		11.589				1
	6 MNX		13.261				1
	7 RDX		14.316				1
	8 2,4,6-Trinitrophenol		15.294				1
	9 1,3,5-Trinitrobenzene		16.094				1
$	10 1,2-Dinitrobenzene	16.405	16.405	0.0	65125	193.5	
	11 1,3-Dinitrobenzene		17.330				1
	12 Nitrobenzene		18.210				1
	13 Tetryl		18.468				1
	14 Nitroglycerin		19.242				1
	15 2,4,6-Trinitrotoluene		19.660				1
	16 4-Amino-2,6-dinitrotoluene		20.104				1
	17 2-Amino-4,6-dinitrotoluene		20.460				1
	18 2,6-Dinitrotoluene		20.834				1
	19 2,4-Dinitrotoluene		21.083				1
	20 o-Nitrotoluene		22.621				1
	21 p-Nitrotoluene		23.385				1
	22 m-Nitrotoluene		24.115				1
	23 PETN		24.906				1

QC Flag Legend

Processing Flags
1 - Missing Peaks

TestAmerica Laboratories
Amount Summary Report

Worklist Name: 080812_1 Worklist Num: 2277
Instrument: CH1208 Method: 8330_C18
Batch Directory: \\Btv-lims1\ChromData\CH1208\20120808-2277.b
Anaylysis Type: SemiVOA
Inj Volume: 150.00 Inj Vol Units: ul

Lab ID/Worklist ID Analyte	Client Sample ID Limit Group	Amount	LOD	Max Amount
# 1 BLANK 200-0002277-001	LC_8330B_Limits			
22 m-Nitrotoluene	DL Report RDX only	4.1747	0.0000	1000
# 3 200-12030-A-5-A 200-0002277-003	5447-0812-EW09-138 LC_8330B_Limits			
7 RDX		501	0.0000	1000
15 2,4,6-Trinitrotolu		2.0922 X	0.0000	1000
16 4-Amino-2,6-dinitr		3.8625 X	0.0000	1000
# 6 200-12042-A-3-A 200-0002277-006	NFUDS-002-SBG0202-02 LC_8330B_Limits			
15 2,4,6-Trinitrotolu		1.4068 LQ	0.0000	1000
22 m-Nitrotoluene		0.2744 LQ	0.0000	1000
# 7 200-12042-A-4-A 200-0002277-007	NFUDS-002-SBG0203-01 LC_8330B_Limits			
21 p-Nitrotoluene		1.5199 LQ	0.0000	1000
22 m-Nitrotoluene		-1.8735 LQ	0.0000	1000
# 8 200-12042-B-5-A 200-0002277-008	NFUDS-002-SBG0401-01 LC_8330B_Limits			
22 m-Nitrotoluene		-1.1356 LQ	0.0000	1000
# 9 200-12042-A-6-A 200-0002277-009	NFUDS-002-SBG0402-01 LC_8330B_Limits			
22 m-Nitrotoluene		-1.2871 LQ	0.0000	1000
#10 200-12042-B-7-A 200-0002277-010	NFUDS-002-SBG0403-01 LC_8330B_Limits			
22 m-Nitrotoluene		-1.5045 LQ	0.0000	1000
#11 200-12042-A-8-A 200-0002277-011	NFUDS-002-SBG0801-01 LC_8330B_Limits			
22 m-Nitrotoluene		0.0042 LQ	0.0000	1000
#12 200-12042-B-9-A 200-0002277-012	NFUDS-002-SBG0802-01 LC_8330B_Limits			
22 m-Nitrotoluene		0.2941 LQ	0.0000	1000
#15 200-12042-B-11-A 200-0002277-015	NFUDS-002-SBG0901-01 LC_8330B_Limits			
20 o-Nitrotoluene		0.3208 LQ	0.0000	1000
22 m-Nitrotoluene		0.1492 LQ	0.0000	1000

8/10/12 WBR

Amount Summary Report

Lab ID/Worklist ID Analyte	Client Sample ID Limit Group	Amount	LOD	Max Amount
#16 200-12042-A-12-A 200-0002277-016	NFUDS-002-SBG0902-01 LC_8330B_Limits			
22 m-Nitrotoluene		-0.5163 LPA	0.0000	1000
#17 200-12042-A-13-A 200-0002277-017	NFUDS-002-SBG0903-01 LC_8330B_Limits			
22 m-Nitrotoluene		-3.0594 LPA	0.0000	1000
#18 200-12042-A-14-A 200-0002277-018	NFUDS-002-SBG0903-02 LC_8330B_Limits			
22 m-Nitrotoluene		-0.6744 LPA	0.0000	1000
#19 200-12042-B-15-A 200-0002277-019	NFUDS-002-SBG1201-01 LC_8330B_Limits			
22 m-Nitrotoluene		-1.6692 LPA	0.0000	1000
#20 200-12042-A-16-A 200-0002277-020	NFUDS-002-SBG1202-01 LC_8330B_Limits			
22 m-Nitrotoluene		-1.4848 LPA	0.0000	1000
#21 200-12042-B-17-A 200-0002277-021	NFUDS-002-SBG1203-01 LC_8330B_Limits			
22 m-Nitrotoluene		-2.2951 LPA	0.0000	1000

TestAmerica Laboratories
Amount Summary Report

Worklist Name: 080912_1 Worklist Num: 2281
Instrument: CH1208 Method: 8330_C18
Batch Directory: \\Btv-lims1\ChromData\CH1208\20120809-2281.b
Anaylysis Type: SemiVOA
Inj Volume: 150.00 Inj Vol Units: ul

Lab ID/Worklist ID Analyte	Client Sample ID Limit Group	Amount	LOD	Max Amount
# 1 BLANK 200-0002281-001	LC_8330B_Limits			
22 m-Nitrotoluene		6.0854	0.0000	1000
23 PETN		82.90	0.0000	20000
# 6 200-12042-A-1-C 200-0002281-006	NFUDS-002-SBG0201-01 LC_8330B_Limits			
22 m-Nitrotoluene		-2.0646	0.0000	1000
# 7 200-12042-A-2-C 200-0002281-007	NFUDS-002-SBG0202-01 LC_8330B_Limits			
22 m-Nitrotoluene		-1.3596	0.0000	1000

8/10/12 VB

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Instrument ID: CH1208 Start Date: 07/31/2012 15:11

Analysis Batch Number: 42650 End Date: 07/31/2012 20:48

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ICB 200-42650/1		07/31/2012 15:11	1		C-18 4.6(mm)
IC 200-42650/2		07/31/2012 15:48	1	31JUL121406_021.d	C-18 4.6(mm)
IC 200-42650/3		07/31/2012 16:26	1	31JUL121406_031.d	C-18 4.6(mm)
IC 200-42650/4		07/31/2012 17:03	1	31JUL121406_041.d	C-18 4.6(mm)
ICRTAV 200-42650/5		07/31/2012 17:41	1	31JUL121406_051.d	C-18 4.6(mm)
IC 200-42650/6		07/31/2012 18:18	1	31JUL121406_061.d	C-18 4.6(mm)
IC 200-42650/7		07/31/2012 18:56	1	31JUL121406_071.d	C-18 4.6(mm)
CCVL 200-42650/8		07/31/2012 19:33	1		C-18 4.6(mm)
CCVL 200-42650/9		07/31/2012 20:10	1		C-18 4.6(mm)
ICV 200-42650/10		07/31/2012 20:48	1	31JUL121406_101.d	C-18 4.6(mm)

8330 Modified

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Instrument ID: CH1208 Start Date: 08/08/2012 12:13

Analysis Batch Number: 43097 End Date: 08/09/2012 02:35

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		08/08/2012 12:13	1		C-18 4.6(mm)
CCVRT 200-43097/2		08/08/2012 12:51	1	08AUG121140_021.d	C-18 4.6(mm)
ZZZZZ		08/08/2012 13:28	2		C-18 4.6(mm)
MB 200-42840/1-A		08/08/2012 14:06	1	08AUG121140_041.d	C-18 4.6(mm)
LCS 200-42840/2-A		08/08/2012 14:43	1	08AUG121140_051.d	C-18 4.6(mm)
200-12042-3	NFUDS-002-SBG0202-02	08/08/2012 15:20	1	08AUG121140_061.d	C-18 4.6(mm)
200-12042-4	NFUDS-002-SBG0203-01	08/08/2012 15:58	1	08AUG121140_071.d	C-18 4.6(mm)
200-12042-5	NFUDS-002-SBG0401-01	08/08/2012 16:35	1	08AUG121140_081.d	C-18 4.6(mm)
200-12042-6	NFUDS-002-SBG0402-01	08/08/2012 17:13	1	08AUG121140_091.d	C-18 4.6(mm)
200-12042-7	NFUDS-002-SBG0403-01	08/08/2012 17:50	1	08AUG121140_101.d	C-18 4.6(mm)
200-12042-8	NFUDS-002-SBG0801-01	08/08/2012 18:28	1	08AUG121140_111.d	C-18 4.6(mm)
200-12042-9	NFUDS-002-SBG0802-01	08/08/2012 19:05	1	08AUG121140_121.d	C-18 4.6(mm)
CCV 200-43097/13		08/08/2012 19:43	1	08AUG121140_131.d	C-18 4.6(mm)
200-12042-10	NFUDS-002-SBG0803-01	08/08/2012 20:20	1	08AUG121140_141.d	C-18 4.6(mm)
200-12042-11	NFUDS-002-SBG0901-01	08/08/2012 20:58	1	08AUG121140_151.d	C-18 4.6(mm)
200-12042-12	NFUDS-002-SBG0902-01	08/08/2012 21:35	1	08AUG121140_161.d	C-18 4.6(mm)
200-12042-13	NFUDS-002-SBG0903-01	08/08/2012 22:12	1	08AUG121140_171.d	C-18 4.6(mm)
200-12042-14	NFUDS-002-SBG0903-02	08/08/2012 22:50	1	08AUG121140_181.d	C-18 4.6(mm)
200-12042-15	NFUDS-002-SBG1201-01	08/08/2012 23:27	1	08AUG121140_191.d	C-18 4.6(mm)
200-12042-16	NFUDS-002-SBG1202-01	08/09/2012 00:05	1	08AUG121140_201.d	C-18 4.6(mm)
200-12042-17	NFUDS-002-SBG1203-01	08/09/2012 00:42	1	08AUG121140_211.d	C-18 4.6(mm)
200-12042-4 MS	NFUDS-002-SBG0203-01 MS	08/09/2012 01:20	1	08AUG121140_221.d	C-18 4.6(mm)
200-12042-4 MSD	NFUDS-002-SBG0203-01 MSD	08/09/2012 01:57	1	08AUG121140_231.d	C-18 4.6(mm)
CCV 200-43097/24		08/09/2012 02:35	1	08AUG121140_241.d	C-18 4.6(mm)

8330 Modified

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Instrument ID: CH1208 Start Date: 08/09/2012 11:28

Analysis Batch Number: 43162 End Date: 08/10/2012 00:34

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		08/09/2012 11:28	1		C-18 4.6(mm)
CCVRT 200-43162/2		08/09/2012 12:05	1	09AUG121108_021.d	C-18 4.6(mm)
MB 200-43130/17-A		08/09/2012 12:43	1	09AUG121108_031.d	C-18 4.6(mm)
LCS 200-43130/18-A		08/09/2012 13:20	1	09AUG121108_041.d	C-18 4.6(mm)
ZZZZZ		08/09/2012 13:58	1		C-18 4.6(mm)
200-12042-1	NFUDS-002-SBG0201-01	08/09/2012 14:35	1	09AUG121108_061.d	C-18 4.6(mm)
200-12042-2	NFUDS-002-SBG0202-01	08/09/2012 15:13	1	09AUG121108_071.d	C-18 4.6(mm)
ZZZZZ		08/09/2012 15:50	1		C-18 4.6(mm)
ZZZZZ		08/09/2012 16:28	1		C-18 4.6(mm)
ZZZZZ		08/09/2012 17:05	1		C-18 4.6(mm)
CCV 200-43162/11		08/09/2012 17:42	1	09AUG121108_111.d	C-18 4.6(mm)
ZZZZZ		08/09/2012 18:20	1		C-18 4.6(mm)
ZZZZZ		08/09/2012 18:57	1		C-18 4.6(mm)
ZZZZZ		08/09/2012 19:35	1		C-18 4.6(mm)
ZZZZZ		08/09/2012 20:12	1		C-18 4.6(mm)
ZZZZZ		08/09/2012 20:50	1		C-18 4.6(mm)
ZZZZZ		08/09/2012 21:27	1		C-18 4.6(mm)
CCV 200-43162/22		08/10/2012 00:34	1		C-18 4.6(mm)

8330 Modified

HPLC/IC BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Batch Number: 42840 Batch Start Date: 08/02/12 20:21 Batch Analyst: Bourdeau, Timothy P

Batch Method: 8330 Batch End Date: 08/07/12 13:35

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	EX833010GSUi 00024	EX8330MTXSPi 00014	LCSUPPSPi 00043	
MB 200-42840/1		8330, 8330 Modified		10.01 g	100 mL	100 uL			
LCS 200-42840/2		8330, 8330 Modified		10.03 g	100 mL	100 uL	500 uL	500 uL	
200-12042-A-3	NFUDS-002-SBG020 2-02	8330, 8330 Modified	T	10.05 g	100 mL	100 uL			
200-12042-A-4	NFUDS-002-SBG020 3-01	8330, 8330 Modified	T	10.06 g	100 mL	100 uL			
200-12042-A-4 MSD	NFUDS-002-SBG020 3-01	8330, 8330 Modified	T	10.00 g	100 mL	100 uL	500 uL	500 uL	
200-12042-A-4 MS	NFUDS-002-SBG020 3-01	8330, 8330 Modified	T	10.08 g	100 mL	100 uL	500 uL	500 uL	
200-12042-B-5	NFUDS-002-SBG040 1-01	8330, 8330 Modified	T	10.02 g	100 mL	100 uL			
200-12042-A-6	NFUDS-002-SBG040 2-01	8330, 8330 Modified	T	10.03 g	100 mL	100 uL			
200-12042-B-7	NFUDS-002-SBG040 3-01	8330, 8330 Modified	T	10.01 g	100 mL	100 uL			
200-12042-A-8	NFUDS-002-SBG080 1-01	8330, 8330 Modified	T	10.01 g	100 mL	100 uL			
200-12042-B-9	NFUDS-002-SBG080 2-01	8330, 8330 Modified	T	10.05 g	100 mL	100 uL			
200-12042-A-10	NFUDS-002-SBG080 3-01	8330, 8330 Modified	T	10.01 g	100 mL	100 uL			
200-12042-B-11	NFUDS-002-SBG090 1-01	8330, 8330 Modified	T	10.01 g	100 mL	100 uL			
200-12042-A-12	NFUDS-002-SBG090 2-01	8330, 8330 Modified	T	10.02 g	100 mL	100 uL			
200-12042-A-13	NFUDS-002-SBG090 3-01	8330, 8330 Modified	T	10.01 g	100 mL	100 uL			
200-12042-A-14	NFUDS-002-SBG090 3-02	8330, 8330 Modified	T	10.03 g	100 mL	100 uL			
200-12042-B-15	NFUDS-002-SBG120 1-01	8330, 8330 Modified	T	10.04 g	100 mL	100 uL			
200-12042-A-16	NFUDS-002-SBG120 2-01	8330, 8330 Modified	T	10.03 g	100 mL	100 uL			
200-12042-B-17	NFUDS-002-SBG120 3-01	8330, 8330 Modified	T	10.00 g	100 mL	100 uL			

Batch Notes	
Batch Comment	ACN Lot #304589

HPLC/IC BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Batch Number: 42840 Batch Start Date: 08/02/12 20:21 Batch Analyst: Bourdeau, Timothy P

Batch Method: 8330 Batch End Date: 08/07/12 13:35

Basis	Basis Description
T	Total/NA

HPLC/IC BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Batch Number: 43130 Batch Start Date: 08/08/12 14:40 Batch Analyst: Nye, Elizabeth A

Batch Method: 8330 Batch End Date: 08/09/12 10:15

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	EX833010GSUi 00024	EX8330MTXSPi 00014	LCSUPPSPi 00043	
200-12042-A-1	NFUDS-002-SBG0201-01	8330, 8330 Modified	T	10.01 g	100 mL	100 uL			
200-12042-A-2	NFUDS-002-SBG0202-01	8330, 8330 Modified	T	10.00 g	100 mL	100 uL			
MB 200-43130/17		8330, 8330 Modified		9.93 g	100 mL	100 uL			
LCS 200-43130/18		8330, 8330 Modified		9.98 g	100 mL	100 uL	500 uL	500 uL	

Batch Notes	
Batch Comment	ACN Lot #304589; witnessed by MLT

Basis	Basis Description
T	Total/NA

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Burlington Job Number: 200-12042-1

SDG No.: 200-12042-1

Project: Nantucket Beach FUDS

Client Sample ID	Lab Sample ID
NFUDS-002-SBG0201-01	200-12042-1
NFUDS-002-SBG0202-01	200-12042-2
NFUDS-002-SBG0202-02	200-12042-3
NFUDS-002-SBG0203-01	200-12042-4
NFUDS-002-SBG0401-01	200-12042-5
NFUDS-002-SBG0402-01	200-12042-6
NFUDS-002-SBG0403-01	200-12042-7
NFUDS-002-SBG0801-01	200-12042-8
NFUDS-002-SBG0802-01	200-12042-9
NFUDS-002-SBG0803-01	200-12042-10
NFUDS-002-SBG0901-01	200-12042-11
NFUDS-002-SBG0902-01	200-12042-12
NFUDS-002-SBG0903-01	200-12042-13
NFUDS-002-SBG0903-02	200-12042-14
NFUDS-002-SBG1201-01	200-12042-15
NFUDS-002-SBG1202-01	200-12042-16
NFUDS-002-SBG1203-01	200-12042-17

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: NFUDS-002-SBG0201-01 Lab Sample ID: 200-12042-1

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG ID.: 200-12042-1

Matrix: Solid Date Sampled: 08/01/2012 10:45

Reporting Basis: DRY Date Received: 08/02/2012 10:30

% Solids: 92.5

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Aluminum	2800	14	13	12	mg/Kg			1	6010C
Antimony	1.1	4.3	1.1	0.35	mg/Kg	U		1	6010C
Arsenic	1.4	0.72	0.65	0.40	mg/Kg			1	6010C
Barium	4.4	14	1.4	0.37	mg/Kg	J		1	6010C
Beryllium	0.094	0.36	0.094	0.023	mg/Kg	J		1	6010C
Cadmium	0.18	0.36	0.18	0.058	mg/Kg	U		1	6010C
Calcium	70	360	110	37	mg/Kg	J		1	6010C
Chromium	3.5	0.72	0.29	0.079	mg/Kg			1	6010C
Cobalt	0.67	3.6	0.22	0.058	mg/Kg	J		1	6010C
Copper	0.88	1.8	0.58	0.16	mg/Kg	J		1	6010C
Iron	3500	14	13	9.4	mg/Kg			1	6010C
Lead	2.3	0.72	0.65	0.32	mg/Kg			1	6010C
Magnesium	390	360	36	10	mg/Kg			1	6010C
Manganese	21	1.1	0.65	0.32	mg/Kg			1	6010C
Nickel	1.8	2.9	0.72	0.21	mg/Kg	J		1	6010C
Potassium	230	360	36	11	mg/Kg	J		1	6010C
Selenium	1.7	2.5	1.7	0.63	mg/Kg	U		1	6010C
Silver	0.29	0.72	0.29	0.094	mg/Kg	U		1	6010C
Sodium	18	360	18	5.4	mg/Kg	J		1	6010C
Thallium	1.1	1.8	1.1	0.30	mg/Kg	U		1	6010C
Vanadium	5.5	3.6	0.36	0.094	mg/Kg			1	6010C
Zinc	5.4	1.4	1.1	0.40	mg/Kg			1	6010C
Mercury	0.0041	0.036	0.0041	0.0024	mg/Kg	U		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: NFUDS-002-SBG0202-01 Lab Sample ID: 200-12042-2

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG ID.: 200-12042-1

Matrix: Solid Date Sampled: 08/01/2012 10:55

Reporting Basis: DRY Date Received: 08/02/2012 10:30

% Solids: 94.9

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Aluminum	3500	14	12	12	mg/Kg			1	6010C
Antimony	1.0	4.1	1.0	0.34	mg/Kg	U		1	6010C
Arsenic	1.7	0.68	0.62	0.38	mg/Kg			1	6010C
Barium	3.6	14	1.4	0.36	mg/Kg	J		1	6010C
Beryllium	0.10	0.34	0.089	0.022	mg/Kg	J		1	6010C
Cadmium	0.17	0.34	0.17	0.055	mg/Kg	U		1	6010C
Calcium	120	340	100	35	mg/Kg	J		1	6010C
Chromium	4.6	0.68	0.27	0.075	mg/Kg			1	6010C
Cobalt	1.0	3.4	0.21	0.055	mg/Kg	J		1	6010C
Copper	0.91	1.7	0.55	0.15	mg/Kg	J		1	6010C
Iron	4000	14	12	8.9	mg/Kg			1	6010C
Lead	2.3	0.68	0.62	0.30	mg/Kg			1	6010C
Magnesium	570	340	34	9.6	mg/Kg			1	6010C
Manganese	26	1.0	0.62	0.31	mg/Kg			1	6010C
Nickel	2.7	2.7	0.68	0.20	mg/Kg			1	6010C
Potassium	300	340	34	10	mg/Kg	J		1	6010C
Selenium	1.6	2.4	1.6	0.60	mg/Kg	U		1	6010C
Silver	0.27	0.68	0.27	0.089	mg/Kg	U		1	6010C
Sodium	21	340	17	5.1	mg/Kg	J		1	6010C
Thallium	1.0	1.7	1.0	0.28	mg/Kg	U		1	6010C
Vanadium	6.6	3.4	0.34	0.089	mg/Kg			1	6010C
Zinc	5.5	1.4	1.0	0.38	mg/Kg			1	6010C
Mercury	0.0038	0.033	0.0038	0.0022	mg/Kg	U		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: NFUDS-002-SBG0202-02 Lab Sample ID: 200-12042-3

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG ID.: 200-12042-1

Matrix: Solid Date Sampled: 08/01/2012 10:55

Reporting Basis: DRY Date Received: 08/02/2012 10:30

% Solids: 94.6

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Aluminum	3500	12	10	9.8	mg/Kg			1	6010C
Antimony	0.87	3.5	0.87	0.28	mg/Kg	U		1	6010C
Arsenic	2.0	0.58	0.52	0.32	mg/Kg			1	6010C
Barium	3.8	12	1.2	0.30	mg/Kg	J		1	6010C
Beryllium	0.12	0.29	0.075	0.018	mg/Kg	J		1	6010C
Cadmium	0.14	0.29	0.14	0.046	mg/Kg	U		1	6010C
Calcium	130	290	87	29	mg/Kg	J		1	6010C
Chromium	4.5	0.58	0.23	0.064	mg/Kg			1	6010C
Cobalt	1.1	2.9	0.17	0.047	mg/Kg	J		1	6010C
Copper	1.1	1.4	0.46	0.13	mg/Kg	J		1	6010C
Iron	5100	12	10	7.5	mg/Kg			1	6010C
Lead	2.5	0.58	0.52	0.25	mg/Kg			1	6010C
Magnesium	610	290	29	8.1	mg/Kg			1	6010C
Manganese	42	0.87	0.52	0.26	mg/Kg			1	6010C
Nickel	2.7	2.3	0.58	0.17	mg/Kg			1	6010C
Potassium	290	290	29	8.7	mg/Kg			1	6010C
Selenium	1.3	2.0	1.3	0.50	mg/Kg	U		1	6010C
Silver	0.23	0.58	0.23	0.075	mg/Kg	U		1	6010C
Sodium	18	290	14	4.3	mg/Kg	J		1	6010C
Thallium	0.87	1.4	0.87	0.24	mg/Kg	U		1	6010C
Vanadium	6.6	2.9	0.29	0.075	mg/Kg			1	6010C
Zinc	7.3	1.2	0.87	0.32	mg/Kg			1	6010C
Mercury	0.0037	0.032	0.0037	0.0021	mg/Kg	U		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: NFUDS-002-SBG0203-01 Lab Sample ID: 200-12042-4

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG ID.: 200-12042-1

Matrix: Solid Date Sampled: 08/01/2012 11:15

Reporting Basis: DRY Date Received: 08/02/2012 10:30

% Solids: 97.8

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Aluminum	1900	15	14	13	mg/Kg		J	1	6010C
Antimony	1.1	4.5	1.1	0.37	mg/Kg	U		1	6010C
Arsenic	1.9	0.75	0.68	0.42	mg/Kg			1	6010C
Barium	2.8	15	1.5	0.39	mg/Kg	J		1	6010C
Beryllium	0.10	0.38	0.098	0.024	mg/Kg	J		1	6010C
Cadmium	0.19	0.38	0.19	0.060	mg/Kg	U		1	6010C
Calcium	68	380	110	38	mg/Kg	J	J	1	6010C
Chromium	3.3	0.75	0.30	0.083	mg/Kg			1	6010C
Cobalt	0.98	3.8	0.23	0.061	mg/Kg	J		1	6010C
Copper	1.3	1.9	0.60	0.17	mg/Kg	J		1	6010C
Iron	3300	15	14	9.8	mg/Kg		J	1	6010C
Lead	1.5	0.75	0.68	0.33	mg/Kg			1	6010C
Magnesium	440	380	38	11	mg/Kg		J	1	6010C
Manganese	23	1.1	0.68	0.34	mg/Kg			1	6010C
Nickel	2.4	3.0	0.75	0.22	mg/Kg	J		1	6010C
Potassium	280	380	38	11	mg/Kg	J	J	1	6010C
Selenium	1.7	2.6	1.7	0.65	mg/Kg	U		1	6010C
Silver	0.30	0.75	0.30	0.098	mg/Kg	U		1	6010C
Sodium	8.0	380	19	5.6	mg/Kg	J		1	6010C
Thallium	1.1	1.9	1.1	0.31	mg/Kg	U		1	6010C
Vanadium	3.9	3.8	0.38	0.098	mg/Kg			1	6010C
Zinc	5.9	1.5	1.1	0.42	mg/Kg			1	6010C
Mercury	0.0033	0.029	0.0033	0.0019	mg/Kg	U		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: NFUDS-002-SBG0401-01 Lab Sample ID: 200-12042-5

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG ID.: 200-12042-1

Matrix: Solid Date Sampled: 08/01/2012 08:30

Reporting Basis: DRY Date Received: 08/02/2012 10:30

% Solids: 91.0

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Aluminum	3200	16	14	13	mg/Kg			1	6010C
Antimony	1.2	4.7	1.2	0.38	mg/Kg	U		1	6010C
Arsenic	3.3	0.78	0.70	0.44	mg/Kg			1	6010C
Barium	4.0	16	1.6	0.41	mg/Kg	J		1	6010C
Beryllium	0.11	0.39	0.10	0.025	mg/Kg	J		1	6010C
Cadmium	0.19	0.39	0.19	0.062	mg/Kg	U		1	6010C
Calcium	120	390	120	40	mg/Kg	J		1	6010C
Chromium	4.2	0.78	0.31	0.086	mg/Kg			1	6010C
Cobalt	0.99	3.9	0.23	0.063	mg/Kg	J		1	6010C
Copper	1.2	1.9	0.62	0.17	mg/Kg	J		1	6010C
Iron	5900	16	14	10	mg/Kg			1	6010C
Lead	2.4	0.78	0.70	0.34	mg/Kg			1	6010C
Magnesium	420	390	39	11	mg/Kg			1	6010C
Manganese	36	1.2	0.70	0.35	mg/Kg			1	6010C
Nickel	2.4	3.1	0.78	0.23	mg/Kg	J		1	6010C
Potassium	250	390	39	12	mg/Kg	J		1	6010C
Selenium	1.8	2.7	1.8	0.68	mg/Kg	U		1	6010C
Silver	0.31	0.78	0.31	0.10	mg/Kg	U		1	6010C
Sodium	7.7	390	19	5.8	mg/Kg	J		1	6010C
Thallium	1.2	1.9	1.2	0.32	mg/Kg	U		1	6010C
Vanadium	6.2	3.9	0.39	0.10	mg/Kg			1	6010C
Zinc	8.7	1.6	1.2	0.44	mg/Kg			1	6010C
Mercury	0.0037	0.032	0.0037	0.0021	mg/Kg	U		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: NFUDS-002-SBG0402-01 Lab Sample ID: 200-12042-6

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG ID.: 200-12042-1

Matrix: Solid Date Sampled: 08/01/2012 08:35

Reporting Basis: DRY Date Received: 08/02/2012 10:30

% Solids: 91.0

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Aluminum	3000	16	14	14	mg/Kg			1	6010C
Antimony	1.2	4.8	1.2	0.39	mg/Kg	U		1	6010C
Arsenic	1.9	0.80	0.72	0.45	mg/Kg			1	6010C
Barium	5.6	16	1.6	0.42	mg/Kg	J		1	6010C
Beryllium	0.12	0.40	0.10	0.026	mg/Kg	J		1	6010C
Cadmium	0.20	0.40	0.20	0.064	mg/Kg	U		1	6010C
Calcium	76	400	120	41	mg/Kg	J		1	6010C
Chromium	4.3	0.80	0.32	0.088	mg/Kg			1	6010C
Cobalt	1.1	4.0	0.24	0.065	mg/Kg	J		1	6010C
Copper	1.1	2.0	0.64	0.18	mg/Kg	J		1	6010C
Iron	4400	16	14	10	mg/Kg			1	6010C
Lead	2.6	0.80	0.72	0.35	mg/Kg			1	6010C
Magnesium	450	400	40	11	mg/Kg			1	6010C
Manganese	36	1.2	0.72	0.36	mg/Kg			1	6010C
Nickel	2.3	3.2	0.80	0.23	mg/Kg	J		1	6010C
Potassium	260	400	40	12	mg/Kg	J		1	6010C
Selenium	1.8	2.8	1.8	0.70	mg/Kg	U		1	6010C
Silver	0.32	0.80	0.32	0.10	mg/Kg	U		1	6010C
Sodium	23	400	20	6.0	mg/Kg	J		1	6010C
Thallium	1.2	2.0	1.2	0.33	mg/Kg	U		1	6010C
Vanadium	6.5	4.0	0.40	0.10	mg/Kg			1	6010C
Zinc	20	1.6	1.2	0.45	mg/Kg			1	6010C
Mercury	0.0036	0.031	0.0036	0.0021	mg/Kg	U		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: NFUDS-002-SBG0403-01 Lab Sample ID: 200-12042-7

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG ID.: 200-12042-1

Matrix: Solid Date Sampled: 08/01/2012 08:45

Reporting Basis: DRY Date Received: 08/02/2012 10:30

% Solids: 97.2

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Aluminum	2100	16	14	14	mg/Kg			1	6010C
Antimony	1.2	4.8	1.2	0.39	mg/Kg	U		1	6010C
Arsenic	3.8	0.80	0.72	0.45	mg/Kg			1	6010C
Barium	4.4	16	1.6	0.42	mg/Kg	J		1	6010C
Beryllium	0.15	0.40	0.10	0.026	mg/Kg	J		1	6010C
Cadmium	0.20	0.40	0.20	0.064	mg/Kg	U		1	6010C
Calcium	61	400	120	41	mg/Kg	J		1	6010C
Chromium	4.1	0.80	0.32	0.088	mg/Kg			1	6010C
Cobalt	3.5	4.0	0.24	0.065	mg/Kg	J		1	6010C
Copper	2.0	2.0	0.64	0.18	mg/Kg			1	6010C
Iron	5300	16	14	10	mg/Kg			1	6010C
Lead	1.7	0.80	0.72	0.35	mg/Kg			1	6010C
Magnesium	700	400	40	11	mg/Kg			1	6010C
Manganese	79	1.2	0.72	0.36	mg/Kg			1	6010C
Nickel	3.9	3.2	0.80	0.23	mg/Kg			1	6010C
Potassium	350	400	40	12	mg/Kg	J		1	6010C
Selenium	1.8	2.8	1.8	0.70	mg/Kg	U		1	6010C
Silver	0.32	0.80	0.32	0.10	mg/Kg	U		1	6010C
Sodium	6.7	400	20	6.0	mg/Kg	J		1	6010C
Thallium	1.2	2.0	1.2	0.33	mg/Kg	U		1	6010C
Vanadium	5.9	4.0	0.40	0.10	mg/Kg			1	6010C
Zinc	14	1.6	1.2	0.45	mg/Kg			1	6010C
Mercury	0.0023	0.030	0.0034	0.0020	mg/Kg	J		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: NFUDS-002-SBG0801-01 Lab Sample ID: 200-12042-8

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG ID.: 200-12042-1

Matrix: Solid Date Sampled: 08/01/2012 09:35

Reporting Basis: DRY Date Received: 08/02/2012 10:30

% Solids: 87.0

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Aluminum	6300	13	12	11	mg/Kg			1	6010C
Antimony	1.0	4.0	1.0	0.33	mg/Kg	U		1	6010C
Arsenic	2.0	0.67	0.60	0.38	mg/Kg			1	6010C
Barium	5.2	13	1.3	0.35	mg/Kg	J		1	6010C
Beryllium	0.14	0.34	0.087	0.021	mg/Kg	J		1	6010C
Cadmium	0.17	0.34	0.17	0.054	mg/Kg	U		1	6010C
Calcium	43	340	100	34	mg/Kg	J		1	6010C
Chromium	5.9	0.67	0.27	0.074	mg/Kg			1	6010C
Cobalt	0.76	3.4	0.20	0.054	mg/Kg	J		1	6010C
Copper	0.94	1.7	0.54	0.15	mg/Kg	J		1	6010C
Iron	6200	13	12	8.7	mg/Kg			1	6010C
Lead	3.7	0.67	0.60	0.30	mg/Kg			1	6010C
Magnesium	400	340	34	9.4	mg/Kg			1	6010C
Manganese	32	1.0	0.60	0.30	mg/Kg			1	6010C
Nickel	2.5	2.7	0.67	0.19	mg/Kg	J		1	6010C
Potassium	200	340	34	10	mg/Kg	J		1	6010C
Selenium	1.5	2.4	1.5	0.58	mg/Kg	U		1	6010C
Silver	0.27	0.67	0.27	0.087	mg/Kg	U		1	6010C
Sodium	12	340	17	5.0	mg/Kg	J		1	6010C
Thallium	1.0	1.7	1.0	0.28	mg/Kg	U		1	6010C
Vanadium	9.4	3.4	0.34	0.087	mg/Kg			1	6010C
Zinc	7.9	1.3	1.0	0.38	mg/Kg			1	6010C
Mercury	0.0042	0.037	0.0042	0.0024	mg/Kg	U		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: NFUDS-002-SBG0802-01 Lab Sample ID: 200-12042-9

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG ID.: 200-12042-1

Matrix: Solid Date Sampled: 08/01/2012 09:40

Reporting Basis: DRY Date Received: 08/02/2012 10:30

% Solids: 95.5

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Aluminum	2000	16	14	14	mg/Kg			1	6010C
Antimony	1.2	4.8	1.2	0.39	mg/Kg	U		1	6010C
Arsenic	1.6	0.80	0.72	0.45	mg/Kg			1	6010C
Barium	3.0	16	1.6	0.42	mg/Kg	J		1	6010C
Beryllium	0.088	0.40	0.10	0.026	mg/Kg	J		1	6010C
Cadmium	0.20	0.40	0.20	0.064	mg/Kg	U		1	6010C
Calcium	70	400	120	41	mg/Kg	J		1	6010C
Chromium	3.8	0.80	0.32	0.088	mg/Kg			1	6010C
Cobalt	1.0	4.0	0.24	0.065	mg/Kg	J		1	6010C
Copper	0.70	2.0	0.64	0.18	mg/Kg	J		1	6010C
Iron	3300	16	14	10	mg/Kg			1	6010C
Lead	1.3	0.80	0.72	0.35	mg/Kg			1	6010C
Magnesium	450	400	40	11	mg/Kg			1	6010C
Manganese	34	1.2	0.72	0.36	mg/Kg			1	6010C
Nickel	2.6	3.2	0.80	0.23	mg/Kg	J		1	6010C
Potassium	240	400	40	12	mg/Kg	J		1	6010C
Selenium	1.8	2.8	1.8	0.70	mg/Kg	U		1	6010C
Silver	0.32	0.80	0.32	0.10	mg/Kg	U		1	6010C
Sodium	20	400	20	6.0	mg/Kg	U		1	6010C
Thallium	1.2	2.0	1.2	0.33	mg/Kg	U		1	6010C
Vanadium	4.5	4.0	0.40	0.10	mg/Kg			1	6010C
Zinc	4.5	1.6	1.2	0.45	mg/Kg			1	6010C
Mercury	0.0034	0.030	0.0034	0.0020	mg/Kg	U		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: NFUDS-002-SBG0803-01 Lab Sample ID: 200-12042-10

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG ID.: 200-12042-1

Matrix: Solid Date Sampled: 08/01/2012 09:50

Reporting Basis: DRY Date Received: 08/02/2012 10:30

% Solids: 96.4

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Aluminum	1700	13	12	11	mg/Kg			1	6010C
Antimony	0.98	3.9	0.98	0.32	mg/Kg	U		1	6010C
Arsenic	1.5	0.65	0.59	0.37	mg/Kg			1	6010C
Barium	4.0	13	1.3	0.34	mg/Kg	J		1	6010C
Beryllium	0.10	0.33	0.085	0.021	mg/Kg	J		1	6010C
Cadmium	0.16	0.33	0.16	0.052	mg/Kg	U		1	6010C
Calcium	170	330	98	33	mg/Kg	J		1	6010C
Chromium	2.8	0.65	0.26	0.072	mg/Kg			1	6010C
Cobalt	1.1	3.3	0.20	0.053	mg/Kg	J		1	6010C
Copper	1.0	1.6	0.52	0.14	mg/Kg	J		1	6010C
Iron	3100	13	12	8.5	mg/Kg			1	6010C
Lead	1.9	0.65	0.59	0.29	mg/Kg			1	6010C
Magnesium	500	330	33	9.1	mg/Kg			1	6010C
Manganese	45	0.98	0.59	0.29	mg/Kg			1	6010C
Nickel	1.8	2.6	0.65	0.19	mg/Kg	J		1	6010C
Potassium	290	330	33	9.8	mg/Kg	J		1	6010C
Selenium	1.5	2.3	1.5	0.57	mg/Kg	U		1	6010C
Silver	0.26	0.65	0.26	0.085	mg/Kg	U		1	6010C
Sodium	6.4	330	16	4.9	mg/Kg	J		1	6010C
Thallium	0.98	1.6	0.98	0.27	mg/Kg	U		1	6010C
Vanadium	4.8	3.3	0.33	0.085	mg/Kg			1	6010C
Zinc	5.2	1.3	0.98	0.37	mg/Kg			1	6010C
Mercury	0.0036	0.031	0.0036	0.0021	mg/Kg	U		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: NFUDS-002-SBG0901-01 Lab Sample ID: 200-12042-11

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG ID.: 200-12042-1

Matrix: Solid Date Sampled: 08/01/2012 12:00

Reporting Basis: DRY Date Received: 08/02/2012 10:30

% Solids: 88.7

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Aluminum	6000	17	16	15	mg/Kg			1	6010C
Antimony	1.3	5.2	1.3	0.43	mg/Kg	U		1	6010C
Arsenic	2.7	0.87	0.79	0.49	mg/Kg			1	6010C
Barium	4.9	17	1.7	0.45	mg/Kg	J		1	6010C
Beryllium	0.13	0.44	0.11	0.028	mg/Kg	J		1	6010C
Cadmium	0.22	0.44	0.22	0.070	mg/Kg	U		1	6010C
Calcium	53	440	130	45	mg/Kg	J		1	6010C
Chromium	6.1	0.87	0.35	0.096	mg/Kg			1	6010C
Cobalt	0.99	4.4	0.26	0.071	mg/Kg	J		1	6010C
Copper	1.0	2.2	0.70	0.19	mg/Kg	J		1	6010C
Iron	6100	17	16	11	mg/Kg			1	6010C
Lead	3.3	0.87	0.79	0.38	mg/Kg			1	6010C
Magnesium	490	440	44	12	mg/Kg			1	6010C
Manganese	35	1.3	0.79	0.39	mg/Kg			1	6010C
Nickel	3.1	3.5	0.87	0.25	mg/Kg	J		1	6010C
Potassium	250	440	44	13	mg/Kg	J		1	6010C
Selenium	2.0	3.1	2.0	0.76	mg/Kg	U		1	6010C
Silver	0.35	0.87	0.35	0.11	mg/Kg	U		1	6010C
Sodium	9.2	440	22	6.6	mg/Kg	J		1	6010C
Thallium	1.3	2.2	1.3	0.36	mg/Kg	U		1	6010C
Vanadium	8.7	4.4	0.44	0.11	mg/Kg			1	6010C
Zinc	7.9	1.7	1.3	0.49	mg/Kg			1	6010C
Mercury	0.0043	0.037	0.0043	0.0025	mg/Kg	U		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: NFUDS-002-SBG0902-01 Lab Sample ID: 200-12042-12

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG ID.: 200-12042-1

Matrix: Solid Date Sampled: 08/01/2012 12:05

Reporting Basis: DRY Date Received: 08/02/2012 10:30

% Solids: 95.6

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Aluminum	1900	16	15	14	mg/Kg			1	6010C
Antimony	1.2	4.9	1.2	0.40	mg/Kg	U		1	6010C
Arsenic	1.8	0.82	0.74	0.46	mg/Kg			1	6010C
Barium	3.0	16	1.6	0.43	mg/Kg	J		1	6010C
Beryllium	0.085	0.41	0.11	0.026	mg/Kg	J		1	6010C
Cadmium	0.21	0.41	0.21	0.066	mg/Kg	U		1	6010C
Calcium	95	410	120	42	mg/Kg	J		1	6010C
Chromium	3.5	0.82	0.33	0.091	mg/Kg			1	6010C
Cobalt	1.1	4.1	0.25	0.067	mg/Kg	J		1	6010C
Copper	0.88	2.1	0.66	0.18	mg/Kg	J		1	6010C
Iron	3200	16	15	11	mg/Kg			1	6010C
Lead	1.6	0.82	0.74	0.36	mg/Kg			1	6010C
Magnesium	430	410	41	12	mg/Kg			1	6010C
Manganese	31	1.2	0.74	0.37	mg/Kg			1	6010C
Nickel	2.3	3.3	0.82	0.24	mg/Kg	J		1	6010C
Potassium	250	410	41	12	mg/Kg	J		1	6010C
Selenium	1.9	2.9	1.9	0.72	mg/Kg	U		1	6010C
Silver	0.33	0.82	0.33	0.11	mg/Kg	U		1	6010C
Sodium	21	410	21	6.2	mg/Kg	U		1	6010C
Thallium	1.2	2.1	1.2	0.34	mg/Kg	U		1	6010C
Vanadium	4.4	4.1	0.41	0.11	mg/Kg			1	6010C
Zinc	4.1	1.6	1.2	0.46	mg/Kg			1	6010C
Mercury	0.0037	0.032	0.0037	0.0022	mg/Kg	U		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: NFUDS-002-SBG0903-01 Lab Sample ID: 200-12042-13

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG ID.: 200-12042-1

Matrix: Solid Date Sampled: 08/01/2012 12:15

Reporting Basis: DRY Date Received: 08/02/2012 10:30

% Solids: 96.7

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Aluminum	1200	14	12	11	mg/Kg			1	6010C
Antimony	1.0	4.1	1.0	0.33	mg/Kg	U		1	6010C
Arsenic	2.2	0.68	0.61	0.38	mg/Kg			1	6010C
Barium	2.3	14	1.4	0.35	mg/Kg	J		1	6010C
Beryllium	0.091	0.34	0.088	0.022	mg/Kg	J		1	6010C
Cadmium	0.17	0.34	0.17	0.054	mg/Kg	U		1	6010C
Calcium	73	340	100	34	mg/Kg	J		1	6010C
Chromium	2.6	0.68	0.27	0.074	mg/Kg			1	6010C
Cobalt	1.2	3.4	0.20	0.055	mg/Kg	J		1	6010C
Copper	0.75	1.7	0.54	0.15	mg/Kg	J		1	6010C
Iron	3300	14	12	8.8	mg/Kg			1	6010C
Lead	1.1	0.68	0.61	0.30	mg/Kg			1	6010C
Magnesium	280	340	34	9.5	mg/Kg	J		1	6010C
Manganese	36	1.0	0.61	0.30	mg/Kg			1	6010C
Nickel	1.9	2.7	0.68	0.20	mg/Kg	J		1	6010C
Potassium	210	340	34	10	mg/Kg	J		1	6010C
Selenium	1.6	2.4	1.6	0.59	mg/Kg	U		1	6010C
Silver	0.27	0.68	0.27	0.088	mg/Kg	U		1	6010C
Sodium	5.3	340	17	5.1	mg/Kg	J		1	6010C
Thallium	1.0	1.7	1.0	0.28	mg/Kg	U		1	6010C
Vanadium	4.6	3.4	0.34	0.088	mg/Kg			1	6010C
Zinc	4.8	1.4	1.0	0.38	mg/Kg			1	6010C
Mercury	0.0034	0.029	0.0034	0.0020	mg/Kg	U		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: NFUDS-002-SBG0903-02 Lab Sample ID: 200-12042-14

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG ID.: 200-12042-1

Matrix: Solid Date Sampled: 08/01/2012 12:15

Reporting Basis: DRY Date Received: 08/02/2012 10:30

% Solids: 97.3

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Aluminum	1400	16	14	14	mg/Kg			1	6010C
Antimony	1.2	4.8	1.2	0.39	mg/Kg	U		1	6010C
Arsenic	1.8	0.80	0.72	0.45	mg/Kg			1	6010C
Barium	2.9	16	1.6	0.41	mg/Kg	J		1	6010C
Beryllium	0.093	0.40	0.10	0.025	mg/Kg	J		1	6010C
Cadmium	0.20	0.40	0.20	0.064	mg/Kg	U		1	6010C
Calcium	130	400	120	41	mg/Kg	J		1	6010C
Chromium	2.5	0.80	0.32	0.088	mg/Kg			1	6010C
Cobalt	1.2	4.0	0.24	0.065	mg/Kg	J		1	6010C
Copper	0.83	2.0	0.64	0.18	mg/Kg	J		1	6010C
Iron	3400	16	14	10	mg/Kg			1	6010C
Lead	1.1	0.80	0.72	0.35	mg/Kg			1	6010C
Magnesium	370	400	40	11	mg/Kg	J		1	6010C
Manganese	40	1.2	0.72	0.36	mg/Kg			1	6010C
Nickel	1.8	3.2	0.80	0.23	mg/Kg	J		1	6010C
Potassium	240	400	40	12	mg/Kg	J		1	6010C
Selenium	1.8	2.8	1.8	0.69	mg/Kg	U		1	6010C
Silver	0.32	0.80	0.32	0.10	mg/Kg	U		1	6010C
Sodium	20	400	20	6.0	mg/Kg	U		1	6010C
Thallium	1.2	2.0	1.2	0.33	mg/Kg	U		1	6010C
Vanadium	3.9	4.0	0.40	0.10	mg/Kg	J		1	6010C
Zinc	4.2	1.6	1.2	0.45	mg/Kg			1	6010C
Mercury	0.0037	0.032	0.0037	0.0021	mg/Kg	U		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: NFUDS-002-SBG1201-01 Lab Sample ID: 200-12042-15

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG ID.: 200-12042-1

Matrix: Solid Date Sampled: 08/01/2012 13:25

Reporting Basis: DRY Date Received: 08/02/2012 10:30

% Solids: 88.3

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Aluminum	5800	16	14	14	mg/Kg			1	6010C
Antimony	1.2	4.8	1.2	0.39	mg/Kg	U		1	6010C
Arsenic	2.1	0.80	0.72	0.45	mg/Kg			1	6010C
Barium	4.5	16	1.6	0.42	mg/Kg	J		1	6010C
Beryllium	0.14	0.40	0.10	0.026	mg/Kg	J		1	6010C
Cadmium	0.20	0.40	0.20	0.064	mg/Kg	U		1	6010C
Calcium	64	400	120	41	mg/Kg	J		1	6010C
Chromium	6.0	0.80	0.32	0.088	mg/Kg			1	6010C
Cobalt	1.1	4.0	0.24	0.065	mg/Kg	J		1	6010C
Copper	0.93	2.0	0.64	0.18	mg/Kg	J		1	6010C
Iron	6100	16	14	10	mg/Kg			1	6010C
Lead	3.3	0.80	0.72	0.35	mg/Kg			1	6010C
Magnesium	490	400	40	11	mg/Kg			1	6010C
Manganese	33	1.2	0.72	0.36	mg/Kg			1	6010C
Nickel	3.0	3.2	0.80	0.23	mg/Kg	J		1	6010C
Potassium	230	400	40	12	mg/Kg	J		1	6010C
Selenium	1.8	2.8	1.8	0.70	mg/Kg	U		1	6010C
Silver	0.32	0.80	0.32	0.10	mg/Kg	U		1	6010C
Sodium	11	400	20	6.0	mg/Kg	J		1	6010C
Thallium	1.2	2.0	1.2	0.33	mg/Kg	U		1	6010C
Vanadium	8.9	4.0	0.40	0.10	mg/Kg			1	6010C
Zinc	6.7	1.6	1.2	0.45	mg/Kg			1	6010C
Mercury	0.0042	0.036	0.0042	0.0024	mg/Kg	U		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: NFUDS-002-SBG1202-01 Lab Sample ID: 200-12042-16

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG ID.: 200-12042-1

Matrix: Solid Date Sampled: 08/01/2012 13:30

Reporting Basis: DRY Date Received: 08/02/2012 10:30

% Solids: 96.4

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Aluminum	2000	17	16	15	mg/Kg			1	6010C
Antimony	1.3	5.2	1.3	0.42	mg/Kg	U		1	6010C
Arsenic	1.7	0.86	0.78	0.48	mg/Kg			1	6010C
Barium	3.1	17	1.7	0.45	mg/Kg	J		1	6010C
Beryllium	0.098	0.43	0.11	0.028	mg/Kg	J		1	6010C
Cadmium	0.22	0.43	0.22	0.069	mg/Kg	U		1	6010C
Calcium	120	430	130	44	mg/Kg	J		1	6010C
Chromium	4.5	0.86	0.35	0.095	mg/Kg			1	6010C
Cobalt	1.2	4.3	0.26	0.070	mg/Kg	J		1	6010C
Copper	1.0	2.2	0.69	0.19	mg/Kg	J		1	6010C
Iron	4500	17	16	11	mg/Kg			1	6010C
Lead	1.3	0.86	0.78	0.38	mg/Kg			1	6010C
Magnesium	490	430	43	12	mg/Kg			1	6010C
Manganese	29	1.3	0.78	0.39	mg/Kg			1	6010C
Nickel	2.5	3.5	0.86	0.25	mg/Kg	J		1	6010C
Potassium	310	430	43	13	mg/Kg	J		1	6010C
Selenium	2.0	3.0	2.0	0.75	mg/Kg	U		1	6010C
Silver	0.35	0.86	0.35	0.11	mg/Kg	U		1	6010C
Sodium	10	430	22	6.5	mg/Kg	J		1	6010C
Thallium	1.3	2.2	1.3	0.35	mg/Kg	U		1	6010C
Vanadium	4.7	4.3	0.43	0.11	mg/Kg			1	6010C
Zinc	4.4	1.7	1.3	0.48	mg/Kg			1	6010C
Mercury	0.0037	0.032	0.0037	0.0021	mg/Kg	U		1	7471B

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: NFUDS-002-SBG1203-01 Lab Sample ID: 200-12042-17

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG ID.: 200-12042-1

Matrix: Solid Date Sampled: 08/01/2012 13:45

Reporting Basis: DRY Date Received: 08/02/2012 10:30

% Solids: 96.9

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Aluminum	1600	16	14	13	mg/Kg			1	6010C
Antimony	1.2	4.7	1.2	0.39	mg/Kg	U		1	6010C
Arsenic	1.5	0.79	0.71	0.44	mg/Kg			1	6010C
Barium	3.3	16	1.6	0.41	mg/Kg	J		1	6010C
Beryllium	0.099	0.39	0.10	0.025	mg/Kg	J		1	6010C
Cadmium	0.20	0.39	0.20	0.063	mg/Kg	U		1	6010C
Calcium	49	390	120	40	mg/Kg	J		1	6010C
Chromium	2.7	0.79	0.31	0.087	mg/Kg			1	6010C
Cobalt	1.1	3.9	0.24	0.064	mg/Kg	J		1	6010C
Copper	1.0	2.0	0.63	0.17	mg/Kg	J		1	6010C
Iron	2900	16	14	10	mg/Kg			1	6010C
Lead	1.2	0.79	0.71	0.35	mg/Kg			1	6010C
Magnesium	370	390	39	11	mg/Kg	J		1	6010C
Manganese	32	1.2	0.71	0.35	mg/Kg			1	6010C
Nickel	1.9	3.1	0.79	0.23	mg/Kg	J		1	6010C
Potassium	280	390	39	12	mg/Kg	J		1	6010C
Selenium	1.8	2.8	1.8	0.69	mg/Kg	U		1	6010C
Silver	0.31	0.79	0.31	0.10	mg/Kg	U		1	6010C
Sodium	20	390	20	5.9	mg/Kg	U		1	6010C
Thallium	1.2	2.0	1.2	0.32	mg/Kg	U		1	6010C
Vanadium	3.8	3.9	0.39	0.10	mg/Kg	J		1	6010C
Zinc	4.5	1.6	1.2	0.44	mg/Kg			1	6010C
Mercury	0.0034	0.029	0.0034	0.0019	mg/Kg	U		1	7471B

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

ICV Source: MEICVw_00030 Concentration Units: ug/L

CCV Source: MECCVw_00052

Analyte	ICV 200-43487/5 08/15/2012 18:20				CCV 200-43487/10 08/15/2012 18:45				CCV 200-43487/14 08/15/2012 19:05			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	250		250	100	291		300	97	292		300	97
Arsenic	252		250	101	99.3		100	99	102		100	102
Barium	500		500	100	200		200	100	197	J	200	99
Cadmium	499		500	100	97.3		100	97	97.9		100	98
Calcium	25200		25000	101	30700		30000	102	30400		30000	101
Chromium	491		500	98	193		200	96	194		200	97
Cobalt	486		500	97	189		200	94	190		200	95
Copper	473		500	95	188		200	94	187		200	93
Iron	25500		25500	100	30400		30200	101	30400		30200	101
Lead	1020		1000	102	398		400	99	398		400	99
Magnesium	25400		25000	102	31000		30200	103	30500		30200	101
Manganese	481		500	96	191		200	96	190		200	95
Nickel	481		500	96	188		200	94	189		200	94
Potassium	25200		25000	101	30400		30200	101	30400		30200	100
Selenium	251		250	100	96.8		100	97	98.3		100	98
Silver	484		500	97	97.3		100	97	98.2		100	98
Sodium	25000		25000	100	30400		30200	101	30300		30200	100
Thallium	244		250	97	99.6		100	100	101		100	101
Zinc	510		500	102	196		200	98	199		200	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

ICV Source: MEICVw_00030 Concentration Units: ug/L

CCV Source: MECCVw_00052

Analyte	CCV 200-43487/27 08/15/2012 20:10				CCV 200-43487/40 08/15/2012 21:15				CCV 200-43487/46 08/15/2012 21:45			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	300		300	100	297		300	99	298		300	99
Arsenic	105		100	105	101		100	101	103		100	103
Barium	205		200	102	197	J	200	98	201		200	101
Cadmium	100		100	100	99.8		100	100	99.9		100	100
Calcium	30900		30000	103	30300		30000	101	30900		30000	103
Chromium	199		200	100	198		200	99	198		200	99
Cobalt	194		200	97	192		200	96	194		200	97
Copper	191		200	96	190		200	95	191		200	95
Iron	31100		30200	103	30900		30200	102	31000		30200	103
Lead	411		400	103	405		400	101	407		400	102
Magnesium	31200		30200	103	30500		30200	101	31200		30200	103
Manganese	195		200	98	193		200	97	194		200	97
Nickel	194		200	97	192		200	96	192		200	96
Potassium	31000		30200	103	30500		30200	101	31000		30200	103
Selenium	102		100	102	101		100	101	102		100	102
Silver	100		100	100	99.4		100	99	100		100	100
Sodium	30800		30200	102	30200		30200	100	31000		30200	103
Thallium	102		100	102	100		100	100	103		100	103
Zinc	205		200	102	203		200	101	204		200	102

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

ICV Source: ME6010CRIw_00024 Concentration Units: ug/L

CCV Source: ME6010CRIw_00024

Analyte	ICVL 200-43487/6 08/15/2012 18:25				CCVL 200-43487/15 08/15/2012 19:10				CCVL 200-43487/28 08/15/2012 20:15			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	62.8		60.0	105	64.1		60.0	107	65.5		60.0	109
Arsenic	10.1		10.0	101	10.5		10.0	105	11.2		10.0	112
Barium	206		200	103	207		200	103	215		200	108
Cadmium	5.29		5.00	106	5.00		5.00	100	5.28		5.00	106
Calcium	5190		5000	104	5220		5000	104	5410		5000	108
Chromium	10.5		10.0	105	10.4		10.0	104	10.8		10.0	108
Cobalt	50.0		50.0	100	50.2		50.0	100	52.3		50.0	105
Copper	25.2		25.0	101	25.0		25.0	100	26.1		25.0	105
Iron	202		200	101	208		200	104	227		200	114
Lead	9.49	J	10.0	95	9.0	U	10.0	86	9.55	J	10.0	95
Magnesium	5260		5000	105	5220		5000	104	5480		5000	110
Manganese	15.2		15.0	101	15.1		15.0	101	15.7		15.0	105
Nickel	41.4		40.0	103	40.8		40.0	102	42.5		40.0	106
Potassium	5140		5000	103	5240		5000	105	5400		5000	108
Selenium	35.2		35.0	101	33.8	J	35.0	97	32.5	J	35.0	93
Silver	10.8		10.0	108	10.8		10.0	108	11.0		10.0	110
Sodium	5140		5000	103	5180		5000	104	5410		5000	108
Thallium	25.4		25.0	102	24.4	J	25.0	97	24.7	J	25.0	99
Zinc	20.3		20.0	101	20.8		20.0	104	20.8		20.0	104

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

ICV Source: ME6010CRIw_00024 Concentration Units: ug/L

CCV Source: ME6010CRIw_00024

Analyte	CCVL 200-43487/41 08/15/2012 21:20				CCVL 200-43487/47 08/15/2012 21:50							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	63.1		60.0	105	64.5		60.0	108				
Arsenic	11.6		10.0	116	9.01	J	10.0	90				
Barium	208		200	104	209		200	105				
Cadmium	5.13		5.00	103	5.07		5.00	101				
Calcium	5300		5000	106	5320		5000	106				
Chromium	10.6		10.0	106	10.5		10.0	105				
Cobalt	51.2		50.0	102	50.2		50.0	100				
Copper	25.2		25.0	101	24.5	J	25.0	98				
Iron	229		200	114	225		200	112				
Lead	8.57	J	10.0	86	10.1		10.0	101				
Magnesium	5350		5000	107	5380		5000	108				
Manganese	15.4		15.0	103	15.2		15.0	101				
Nickel	41.8		40.0	105	40.9		40.0	102				
Potassium	5330		5000	107	5360		5000	107				
Selenium	36.0		35.0	103	34.4	J	35.0	98				
Silver	10.8		10.0	108	10.8		10.0	108				
Sodium	5300		5000	106	5330		5000	107				
Thallium	26.2		25.0	105	25.1		25.0	100				
Zinc	20.4		20.0	102	20.3		20.0	101				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

ICV Source: MEICVw_00030 Concentration Units: ug/L

CCV Source: MECCVw_00054

Analyte	ICV 200-43577/5 08/16/2012 23:35				CCV 200-43577/10 08/17/2012 00:00				CCV 200-43577/22 08/17/2012 01:00			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	25800		26000	99	30500		30200	101	30000		30200	99
Beryllium	510		500	102	99.6		100	100	97.8		100	98
Vanadium	496		500	99	196		200	98	195		200	97

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

ICV Source: MEICVw_00030 Concentration Units: ug/L

CCV Source: MECCVw_00054

Analyte	CCV 200-43577/35 08/17/2012 02:05				CCV 200-43577/41 08/17/2012 02:36							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	30300		30200	100	30800		30200	102				
Beryllium	99.1		100	99	100		100	100				
Vanadium	197		200	98	193		200	96				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

ICV Source: ME6010CRIw_00024 Concentration Units: ug/L

CCV Source: ME6010CRIw_00024

Analyte	ICVL 200-43577/6 08/16/2012 23:40				CCVL 200-43577/23 08/17/2012 01:05				CCVL 200-43577/36 08/17/2012 02:10			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	194	J	200	97	193	J	200	97	185	J	200	93
Beryllium	5.35		5.00	107	5.27		5.00	105	5.15		5.00	103
Vanadium	50.2		50.0	100	49.8	J	50.0	100	50.2		50.0	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

ICV Source: ME6010CRIw_00024 Concentration Units: ug/L

CCV Source: ME6010CRIw_00024

Analyte	CCVL 200-43577/42 08/17/2012 02:41											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	170	J	200	85								
Beryllium	5.16		5.00	103								
Vanadium	50.0		50.0	100								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

ICV Source: MEHGICVw_00019 Concentration Units: ug/L

CCV Source: MEHGCCVw_00507

Analyte	ICV 200-43662/7-A 08/20/2012 15:48				CCV 200-43662/9-A 08/20/2012 15:53				CCV 200-43662/9-A 08/20/2012 16:19			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	2.75		3.00	92	5.79		5.00	116	5.39		5.00	108

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

ICV Source: MEHGICVw_00019 Concentration Units: ug/L

CCV Source: MEHGCCVw_00507

Analyte	CCV 200-43662/9-A 08/20/2012 16:44				CCV 200-43662/9-A 08/20/2012 16:58							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	5.32		5.00	106	5.43		5.00	109				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Concentration Units: ug/L

Analyte	RL	ICBIS 200-43487/7 08/15/2012 18:30		CCB 200-43487/11 08/15/2012 18:50		CCB 200-43487/16 08/15/2012 19:15		CCB 200-43487/29 08/15/2012 20:20	
		Found	C	Found	C	Found	C	Found	C
Antimony	60	15	U	15	U	15	U	15	U
Arsenic	10	9.0	U	9.0	U	9.0	U	9.0	U
Barium	200	20	U	20	U	20	U	20	U
Cadmium	5.0	2.5	U	2.5	U	2.5	U	2.5	U
Calcium	5000	1500	U	1500	U	1500	U	1500	U
Chromium	10	4.0	U	4.0	U	4.0	U	4.0	U
Cobalt	50	3.0	U	3.0	U	3.0	U	3.0	U
Copper	25	8.0	U	8.0	U	8.0	U	8.0	U
Iron	200	180	U	180	U	180	U	180	U
Lead	10	9.0	U	9.0	U	9.0	U	9.0	U
Magnesium	5000	500	U	500	U	500	U	500	U
Manganese	15	9.0	U	9.0	U	9.0	U	9.0	U
Nickel	40	10	U	10	U	10	U	10	U
Potassium	5000	500	U	500	U	500	U	500	U
Selenium	35	23	U	23	U	23	U	23	U
Silver	10	4.0	U	4.0	U	4.0	U	4.0	U
Sodium	5000	250	U	250	U	250	U	250	U
Thallium	25	15	U	15	U	15	U	15	U
Zinc	20	15	U	15	U	15	U	15	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Concentration Units: ug/L

Analyte	RL	CCB 200-43487/42 08/15/2012 21:25		CCB 200-43487/48 08/15/2012 21:55					
		Found	C	Found	C	Found	C	Found	C
Antimony	60	15	U	15	U				
Arsenic	10	9.0	U	9.0	U				
Barium	200	20	U	20	U				
Cadmium	5.0	2.5	U	2.5	U				
Calcium	5000	1500	U	1500	U				
Chromium	10	4.0	U	4.0	U				
Cobalt	50	3.0	U	3.0	U				
Copper	25	8.0	U	8.0	U				
Iron	200	180	U	180	U				
Lead	10	9.0	U	9.0	U				
Magnesium	5000	500	U	500	U				
Manganese	15	9.0	U	9.0	U				
Nickel	40	10	U	10	U				
Potassium	5000	500	U	500	U				
Selenium	35	23	U	23	U				
Silver	10	4.0	U	4.0	U				
Sodium	5000	250	U	250	U				
Thallium	25	15	U	15	U				
Zinc	20	15	U	15	U				

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Concentration Units: ug/L

Analyte	RL	ICBIS 200-43577/7 08/16/2012 23:45		CCB 200-43577/11 08/17/2012 00:05		CCB 200-43577/24 08/17/2012 01:10		CCB 200-43577/37 08/17/2012 02:15	
		Found	C	Found	C	Found	C	Found	C
Aluminum	200	180	U	180	U	180	U	180	U
Beryllium	5.0	1.3	U	1.3	U	1.3	U	1.3	U
Vanadium	50	5.0	U	5.0	U	5.0	U	5.0	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Concentration Units: ug/L

Analyte	RL	CCB 200-43577/43 08/17/2012 02:46							
		Found	C	Found	C	Found	C	Found	C
Aluminum	200	180	U						
Beryllium	5.0	1.3	U						
Vanadium	50	5.0	U						

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Concentration Units: ug/L

Analyte	RL	ICB 200-43662/8-A 08/20/2012 15:51		CCB 200-43662/10-A 08/20/2012 15:55		CCB 200-43662/10-A 08/20/2012 16:22		CCB 200-43662/10-A 08/20/2012 16:47	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.10	U	0.10	U	0.10	U	0.10	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Concentration Units: ug/L

Analyte	RL	CCB 200-43662/10-A 08/20/2012 17:03							
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.10	U						

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Concentration Units: mg/Kg Lab Sample ID: MB 200-42935/1-A

Instrument Code: METICP7 Batch No.: 43487

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	1.5	U		6010C
7440-38-2	Arsenic	0.90	U		6010C
7440-39-3	Barium	2.0	U		6010C
7440-43-9	Cadmium	0.25	U		6010C
7440-70-2	Calcium	150	U		6010C
7440-47-3	Chromium	0.40	U		6010C
7440-48-4	Cobalt	0.30	U		6010C
7440-50-8	Copper	0.80	U		6010C
7439-89-6	Iron	18	U		6010C
7439-92-1	Lead	0.90	U		6010C
7439-95-4	Magnesium	50	U		6010C
7439-96-5	Manganese	0.90	U		6010C
7440-02-0	Nickel	1.0	U		6010C
7440-09-7	Potassium	50	U		6010C
7782-49-2	Selenium	2.3	U		6010C
7440-22-4	Silver	0.40	U		6010C
7440-23-5	Sodium	25	U		6010C
7440-28-0	Thallium	1.5	U		6010C
7440-66-6	Zinc	1.5	U		6010C

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Concentration Units: mg/Kg Lab Sample ID: MB 200-42935/1-A

Instrument Code: METICP7 Batch No.: 43577

CAS No.	Analyte	Concentration	C	Q	Method
7429-90-5	Aluminum	18	U		6010C
7440-41-7	Beryllium	0.13	U		6010C
7440-62-2	Vanadium	0.50	U		6010C

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Concentration Units: mg/Kg Lab Sample ID: MB 200-43662/11-A

Instrument Code: MEPCV3 II Batch No.: 43702

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.0038	U		7471B

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Lab Sample ID: ICSA 200-43487/8 Instrument ID: METICP7

Lab File ID: 081512-01.ttx ICS Source: ME6010ICSAw_00011

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**4.93**	
Arsenic		**1.68**	
Barium		**1.82**	
Cadmium		**1.21**	
Calcium	**500000**	**495333**	**99**
Chromium		**1.30**	
Cobalt		**0.606**	
Copper		**2.94**	
Iron	**200000**	**193354**	**97**
Lead		**6.87**	
Magnesium	**500000**	**524165**	**105**
Manganese		**-7.12**	
Nickel		**4.13**	
Potassium		**-100**	
Selenium		**6.84**	
Silver		**0.581**	
Sodium		**-30.0**	
Thallium		**-1.18**	
Zinc		**-6.55**	
Aluminum	*500000*	*523653*	*105*
Beryllium		*-0.190*	
Boron		*0.0437*	
Molybdenum		*-1.82*	
Phosphorus		*13.9*	
Silicon		*6.16*	
Strontium		*1.68*	
Tin		*0.607*	
Titanium		*2.65*	
Vanadium		*-5.06*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Lab Sample ID: ICSAB 200-43487/9 Instrument ID: METICP7

Lab File ID: 081512-01.ttx ICS Source: ME6010ICSABw_00016

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony	**600**	**605**	**101**
Arsenic	**100**	**101**	**101**
Barium	**500**	**483**	**97**
Cadmium	**1000**	**1013**	**101**
Calcium	**250000**	**248649**	**99**
Chromium	**500**	**485**	**97**
Cobalt	**500**	**466**	**93**
Copper	**500**	**496**	**99**
Iron	**100000**	**97788**	**98**
Lead	**50.0**	**56.0**	**112**
Magnesium	**250000**	**257076**	**103**
Manganese	**500**	**473**	**95**
Nickel	**1000**	**919**	**92**
Potassium		**-107**	
Selenium	**50.0**	**54.3**	**109**
Silver	**200**	**203**	**102**
Sodium		**-20.1**	
Thallium	**100**	**98.6**	**99**
Zinc	**1000**	**1009**	**101**
Aluminum	*250000*	*256047*	*102*
Beryllium	*500*	*509*	*102*
Boron	*1500*	*1530*	*102*
Molybdenum	*1000*	*1005*	*100*
Phosphorus	*500*	*547*	*109*
Silicon	*1000*	*1125*	*113*
Strontium	*250*	*236*	*94*
Tin	*1500*	*1470*	*98*
Titanium	*500*	*502*	*100*
Vanadium	*500*	*493*	*99*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Lab Sample ID: ICSA 200-43577/8 Instrument ID: METICP7

Lab File ID: 081612-03.ttx ICS Source: ME6010ICSAw_00011

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Aluminum	**500000**	**507405**	**101**
Beryllium		**0.0303**	
Vanadium		**-1.93**	
Antimony		*8.25*	
Arsenic		*-3.33*	
Barium		*0.261*	
Boron		*0.567*	
Cadmium		*0.977*	
Calcium	*500000*	*485395*	*97*
Chromium		*1.16*	
Cobalt		*0.547*	
Copper		*3.80*	
Iron	*200000*	*190195*	*95*
Lead		*6.35*	
Magnesium	*500000*	*517429*	*103*
Manganese		*-7.05*	
Molybdenum		*-0.489*	
Nickel		*3.29*	
Phosphorus		*5.65*	
Potassium		*-151*	
Selenium		*-2.10*	
Silicon		*6.35*	
Silver		*-0.335*	
Sodium		*-10.3*	
Strontium		*1.87*	
Thallium		*-1.81*	
Tin		*1.34*	
Titanium		*3.03*	
Zinc		*-5.88*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Lab Sample ID: ICSAB 200-43577/9 Instrument ID: METICP7

Lab File ID: 081612-03.ttx ICS Source: ME6010ICSABw_00017

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Aluminum	**250000**	**252998**	**101**
Beryllium	**500**	**496**	**99**
Vanadium	**500**	**492**	**98**
Antimony	*600*	*581*	*97*
Arsenic	*100*	*97.7*	*98*
Barium	*500*	*467*	*93*
Boron	*1500*	*1466*	*98*
Cadmium	*1000*	*970*	*97*
Calcium	*250000*	*246085*	*98*
Chromium	*500*	*472*	*94*
Cobalt	*500*	*450*	*90*
Copper	*500*	*504*	*101*
Iron	*100000*	*97251*	*97*
Lead	*50.0*	*57.3*	*115*
Magnesium	*250000*	*255814*	*102*
Manganese	*500*	*469*	*94*
Molybdenum	*1000*	*978*	*98*
Nickel	*1000*	*885*	*89*
Phosphorus	*500*	*519*	*104*
Potassium		*-70.1*	
Selenium	*50.0*	*44.5*	*89*
Silicon	*1000*	*1111*	*111*
Silver	*200*	*201*	*100*
Sodium		*8.10*	
Strontium	*250*	*240*	*96*
Thallium	*100*	*89.9*	*90*
Tin	*1500*	*1408*	*94*
Titanium	*500*	*501*	*100*
Zinc	*1000*	*974*	*97*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: NFUDS-002-SBG0203-01 MS
Lab ID: 200-12042-4 MS
Lab Name: TestAmerica Burlington
Job No.: 200-12042-1
SDG No.: 200-12042-1
Matrix: Solid
Concentration Units: mg/Kg
% Solids: 97.8

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Aluminum	2240		1900		147	247	80-120	4	6010C
Antimony	29.3		1.1	U	36.8	80	80-120		6010C
Arsenic	4.79		1.9		2.94	98	80-120		6010C
Barium	162		2.8	J	147	108	80-120		6010C
Beryllium	3.87		0.10	J	3.68	102	80-120		6010C
Cadmium	3.84		0.19	U	3.68	104	80-120		6010C
Calcium	279	J	68	J	147	143	80-120	J	6010C
Chromium	19.0		3.3		14.7	107	80-120		6010C
Cobalt	39.6		0.98	J	36.8	105	80-120		6010C
Copper	20.4		1.3	J	18.4	104	80-120		6010C
Iron	3630		3300		73.6	417	80-120	4	6010C
Lead	3.09		1.5		1.47	105	80-120		6010C
Magnesium	685		440		147	163	80-120	J	6010C
Manganese	62.8		23		36.8	108	80-120		6010C
Nickel	39.8		2.4	J	36.8	102	80-120		6010C
Potassium	566		280	J	147	195	80-120	J	6010C
Selenium	3.91		1.7	U	3.68	106	80-120		6010C
Silver	4.10		0.30	U	3.68	111	80-120		6010C
Sodium	176	J	8.0	J	147	114	80-120		6010C
Thallium	4.06		1.1	U	3.68	110	80-120		6010C
Vanadium	41.0		3.9		36.8	101	80-120		6010C
Zinc	44.9		5.9		36.8	106	80-120		6010C
Mercury	0.134		0.0033	U	0.146	92	80-120		7471B

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VA - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS

Client ID: NFUDS-002-SBG0203-01 PDS Lab ID: 200-12042-4 PDS

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Matrix: Solid Concentration Units: mg/Kg

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Aluminum	1970		1900		150	62	75-125	J	6010C
Antimony	35.3		1.1	U	37.6	94	75-125		6010C
Arsenic	4.68		1.9		3.01	93	75-125		6010C
Barium	143		2.8	J	150	93	75-125		6010C
Beryllium	3.75		0.10	J	3.76	97	75-125		6010C
Cadmium	3.53		0.19	U	3.76	94	75-125		6010C
Calcium	221	J	68	J	150	102	75-125		6010C
Chromium	17.2		3.3		15.0	93	75-125		6010C
Cobalt	36.1		0.98	J	37.6	93	75-125		6010C
Copper	18.9		1.3	J	18.8	94	75-125		6010C
Iron	3300		3300		75.2	-30	75-125	J	6010C
Lead	2.91		1.5		1.50	91	75-125		6010C
Magnesium	583		440		150	92	75-125		6010C
Manganese	57.9		23		37.6	93	75-125		6010C
Nickel	36.8		2.4	J	37.6	92	75-125		6010C
Potassium	430		280	J	150	101	75-125		6010C
Selenium	3.46		1.7	U	3.76	92	75-125		6010C
Silver	3.59		0.30	U	3.76	95	75-125		6010C
Sodium	167	J	8.0	J	150	106	75-125		6010C
Thallium	3.71		1.1	U	3.76	99	75-125		6010C
Vanadium	39.4		3.9		37.6	94	75-125		6010C
Zinc	41.6		5.9		37.6	95	75-125		6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VB - IN

6-IN
DUPLICATES
METALS

Client ID: NFUDS-002-SBG0203-01 DU
Lab ID: 200-12042-4 DU
Lab Name: TestAmerica Burlington
Job No.: 200-12042-1
SDG No.: 200-12042-1
% Solids for Sample: 97.7
% Solids for Duplicate: 97.7
Matrix: Solid
Concentration Units: mg/Kg

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Aluminum	14	1900		1700		10		6010C
Antimony	4.3	1.1	U	1.1	U	NC		6010C
Arsenic	0.71	1.9		1.51		22		6010C
Barium	14	2.8	J	2.84	J	2		6010C
Beryllium	0.36	0.10	J	0.0812	J	21		6010C
Cadmium	0.36	0.19	U	0.18	U	NC		6010C
Calcium	360	68	J	89.4	J	27		6010C
Chromium	0.71	3.3		3.44		5		6010C
Cobalt	3.6	0.98	J	0.804	J	20		6010C
Copper	1.8	1.3	J	0.959	J	31		6010C
Iron	14	3300		2880		14		6010C
Lead	0.71	1.5		1.28		18		6010C
Magnesium	360	440		415		7		6010C
Manganese	1.1	23		17.7		26	J	6010C
Nickel	2.8	2.4	J	1.98	J	18		6010C
Potassium	360	280	J	290	J	4		6010C
Selenium	2.5	1.7	U	1.6	U	NC		6010C
Silver	0.71	0.30	U	0.28	U	NC		6010C
Sodium	360	8.0	J	9.13	J	13		6010C
Thallium	1.8	1.1	U	1.1	U	NC		6010C
Vanadium	3.6	3.9		3.82		2		6010C
Zinc	1.4	5.9		4.44		29	J	6010C
Mercury	0.030	0.0033	U	0.0034	U	NC		7471B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 200-42935/2-A

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

Sample Matrix: Solid LCS Source: MESPIKE#1w_00026

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Antimony	50.0	54.6		109	80	120		6010C
Arsenic	24.0	26.4		110	80	120		6010C
Barium	200	222		111	80	120		6010C
Cadmium	25.0	27.6		110	80	120		6010C
Calcium	2000	2170		108	80	120		6010C
Chromium	20.0	22.1		110	80	120		6010C
Cobalt	50.0	54.6		109	80	120		6010C
Copper	25.0	27.0		108	80	120		6010C
Iron	100	112		112	80	120		6010C
Lead	22.0	24.4		111	80	120		6010C
Magnesium	2000	2160		108	80	120		6010C
Manganese	50.0	54.7		109	80	120		6010C
Nickel	50.0	53.5		107	80	120		6010C
Potassium	2000	2210		111	80	120		6010C
Selenium	25.0	27.0		108	80	120		6010C
Silver	25.0	28.8		115	80	120		6010C
Sodium	2000	2160		108	80	120		6010C
Thallium	25.0	26.7		107	80	120		6010C
Zinc	50.0	54.8		110	80	120		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 200-42935/2-A

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

Sample Matrix: Solid LCS Source: MESPIKE#1w_00026

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Aluminum	200	223		111	80	120		6010C
Beryllium	5.00	5.46		109	80	120		6010C
Vanadium	50.0	55.2		110	80	120		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 200-43662/12-A

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

Sample Matrix: Solid LCS Source: MEHGCCVw_00507

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Mercury	0.167	0.159		95	80	120		7471B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 200-12042-4

SDG No: 200-12042-1

Lab Name: TestAmerica Burlington Job No: 200-12042-1

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Aluminum	1900		1900		1.3	D	6010C
Antimony	1.1	U	5.6	U	NC		6010C
Arsenic	1.9		3.4	U	NC		6010C
Barium	2.8	J	3.52	J	NC	D	6010C
Beryllium	0.10	J	0.49	U	NC		6010C
Cadmium	0.19	U	0.94	U	NC		6010C
Calcium	68	J	560	U	NC		6010C
Chromium	3.3		3.35	J	NC	D	6010C
Cobalt	0.98	J	0.985	J	NC	D	6010C
Copper	1.3	J	4.87	J	NC	D	6010C
Iron	3300		3530		6.2	D	6010C
Lead	1.5		3.4	U	NC		6010C
Magnesium	440		451	J	NC	D	6010C
Manganese	23		24.5		6.1	D	6010C
Nickel	2.4	J	2.48	J	NC	D	6010C
Potassium	280	J	279	J	NC	D	6010C
Selenium	1.7	U	8.6	U	NC		6010C
Silver	0.30	U	1.5	U	NC		6010C
Sodium	8.0	J	94	U	NC		6010C
Thallium	1.1	U	5.6	U	NC		6010C
Vanadium	3.9		3.96	J	NC	D	6010C
Zinc	5.9		6.17	J	NC	D	6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Burlington Job Number: 200-12042-1

SDG Number: 200-12042-1

Matrix: Solid Instrument ID: METICP7

Method: 6010C DL Date: 07/19/2012 14:15

Prep Method: 3050B

Analyte	Wavelength/ Mass	LOQ (mg/Kg)	DL (mg/Kg)
Aluminum		20	17
Aluminum	396.152	20	17
Antimony		6	0.49
Antimony	206.833	6	0.49
Arsenic		1	0.56
Arsenic	189.042	1	0.56
Barium		20	0.52
Barium	233.527	20	0.52
Beryllium		0.5	0.032
Beryllium	313.042	0.5	0.032
Cadmium		0.5	0.08
Cadmium	228.802	0.5	0.08
Calcium		500	51
Calcium	318.128	500	51
Chromium		1	0.11
Chromium	205.552	1	0.11
Cobalt		5	0.081
Cobalt	228.616	5	0.081
Copper		2.5	0.22
Copper	324.754	2.5	0.22
Iron		20	13
Iron	271.441	20	13
Lead		1	0.44
Lead	220.353	1	0.44
Magnesium		500	14
Magnesium	279.079	500	14
Manganese		1.5	0.45
Manganese	257.610	1.5	0.45
Nickel		4	0.29
Nickel	231.604	4	0.29
Potassium		500	15
Potassium	766.490	500	15
Selenium		3.5	0.87
Selenium	196.090	3.5	0.87
Silver		1	0.13
Silver	328.068	1	0.13
Sodium		500	7.5
Sodium	589.592	500	7.5
Thallium		2.5	0.41
Thallium	190.856	2.5	0.41
Vanadium		5	0.13

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Burlington Job Number: 200-12042-1

SDG Number: 200-12042-1

Matrix: Solid Instrument ID: METICP7

Method: 6010C DL Date: 07/19/2012 14:15

Prep Method: 3050B

Analyte	Wavelength/ Mass	LOQ (mg/Kg)	DL (mg/Kg)
Vanadium	292.402	5	0.13
Zinc		2	0.56
Zinc	213.856	2	0.56

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Burlington Job Number: 200-12042-1

SDG Number: 200-12042-1

Matrix: Solid Instrument ID: METICP7

Method: 6010C XMDL Date: 04/10/2012 09:45

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Aluminum		200	170
Antimony		60	4.9
Arsenic		10	5.6
Barium		200	5.2
Beryllium		5	0.32
Cadmium		5	0.78
Calcium		5000	510
Chromium		10	1.1
Cobalt		50	0.81
Copper		25	2.2
Iron		200	130
Lead		10	4.4
Magnesium		5000	140
Manganese		15	4.5
Nickel		40	2.9
Potassium		5000	150
Selenium		35	8.7
Silver		10	1.3
Sodium		5000	75
Thallium		25	4.1
Vanadium		50	1.3
Zinc		20	5.6

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Burlington Job Number: 200-12042-1

SDG Number: 200-12042-1

Matrix: Solid Instrument ID: MEPCV3 II

Method: 7471B DL Date: 05/24/2011 11:59

Prep Method: 7471B

Analyte	Wavelength/ Mass	LOQ (mg/Kg)	DL (mg/Kg)
Mercury	253.7	0.033	0.0022

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Burlington Job Number: 200-12042-1

SDG Number: 200-12042-1

Matrix: Solid Instrument ID: MEPCV3 II

Method: 7471B XMDL Date: 03/13/2012 09:48

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury	253.7	0.2	0.06

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Burlington Job Number: 200-12042-1

SDG No.: 200-12042-1

ICP-AES Instrument ID: METICP7 Date: 01/04/2012

Analyte	Wave Length	Ag	Al	As	B	Ba	Be	Ca	Cd	Co	Cr	Cu	Fe	In	K
Aluminum	396.152														
Antimony	206.833										0.016442				
Arsenic	189.042		0.000011				0.000611				-0.014855				
Barium	233.527														
Beryllium	313.042														
Boron	208.959														
Cadmium	228.802			0.007049		-0.000075									
Calcium	318.128														
Chromium	205.552						-0.000659								
Cobalt	228.616														
Copper	324.754														
Indium	230.606														
Iron	271.441									0.071349					0.000979
Lead	220.353		-0.000068									-0.000611	0.000027		
Magnesium	279.079														
Manganese	257.610												0.000012		
Molybdenum	202.030														
Nickel	231.604														
Phosphorus	178.284														
Potassium	766.490														
Selenium	196.090												-0.000231		
Silicon	288.158														
Silver	328.068														
Sodium	589.592														
Strontium	407.771														
Thallium	190.856									0.002884					
Tin	189.989														
Titanium	334.904														
Vanadium	292.402												0.000030		
Zinc	213.856											0.000867	0.000083		

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Burlington Job Number: 200-12042-1

SDG No.: 200-12042-1

ICP-AES Instrument ID: METICP7 Date: 01/04/2012

Analyte	Wave Length	Mg	Mn	Mo	Na	Ni	P	Pb	Sb	Se	Si	Sn	Sr	Ti	Tl
Aluminum	396.152			0.043153											
Antimony	206.833											-0.006953			
Arsenic	189.042			0.001117											-0.006296
Barium	233.527														
Beryllium	313.042													-0.000632	
Boron	208.959			0.032223											
Cadmium	228.802														
Calcium	318.128														
Chromium	205.552			0.000103		-0.000202									
Cobalt	228.616			-0.002369										0.0019	
Copper	324.754														
Indium	230.606														
Iron	271.441														
Lead	220.353		0.000125	-0.003943		0.000175			0.000821					-0.000696	
Magnesium	279.079														
Manganese	257.610	0.000020													
Molybdenum	202.030														
Nickel	231.604			0.001565											
Phosphorus	178.284														
Potassium	766.490														
Selenium	196.090		0.000519												
Silicon	288.158											0.019661		0.0104	
Silver	328.068														
Sodium	589.592														
Strontium	407.771														
Thallium	190.856		0.000442											-0.001428	
Tin	189.989													-0.001449	
Titanium	334.904			0.000880											
Vanadium	292.402			-0.010850										0.000781	
Zinc	213.856	0.000032				0.004952								-0.000434	

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Burlington Job Number: 200-12042-1

SDG No.: 200-12042-1

ICP-AES Instrument ID: METICP7 Date: 01/04/2012

Analyte	Wave Length	V	Y	Zn											
Aluminum	396.152														
Antimony	206.833	-0.002158													
Arsenic	189.042														
Barium	233.527	-0.001101													
Beryllium	313.042	0.000804													
Boron	208.959														
Cadmium	228.802	0.000067													
Calcium	318.128														
Chromium	205.552														
Cobalt	228.616														
Copper	324.754														
Indium	230.606														
Iron	271.441	0.006103													
Lead	220.353	-0.000202													
Magnesium	279.079														
Manganese	257.610														
Molybdenum	202.030														
Nickel	231.604														
Phosphorus	178.284														
Potassium	766.490														
Selenium	196.090														
Silicon	288.158	0.010502													
Silver	328.068														
Sodium	589.592														
Strontium	407.771														
Thallium	190.856														
Tin	189.989														
Titanium	334.904														
Vanadium	292.402														
Zinc	213.856														

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Burlington Job No: 200-12042-1

SDG No.: 200-12042-1

Instrument ID: METICP7 Date: 01/11/2011 15:12

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Aluminum		1000000	6010C
Antimony		10000	6010C
Arsenic		5000	6010C
Barium		50000	6010C
Beryllium		25000	6010C
Cadmium		5000	6010C
Calcium		600000	6010C
Chromium		20000	6010C
Cobalt		20000	6010C
Copper		50000	6010C
Iron		1000000	6010C
Lead		100000	6010C
Magnesium		1000000	6010C
Manganese		50000	6010C
Nickel		50000	6010C
Potassium		100000	6010C
Selenium		5000	6010C
Silver		2000	6010C
Sodium		100000	6010C
Thallium		5000	6010C
Vanadium		50000	6010C
Zinc		50000	6010C

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Burlington Job No: 200-12042-1

SDG No.: 200-12042-1

Instrument ID: MEPCV3 II Date: 04/18/2011 17:05

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Mercury	10	10	7471B

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Prep Method: 3050B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
MB 200-42935/1-A	08/06/2012 09:29	42935	1.00		100
LCS 200-42935/2-A	08/06/2012 09:29	42935	1.00		100
200-12042-1	08/06/2012 09:29	42935	1.50		100
200-12042-2	08/06/2012 09:29	42935	1.54		100
200-12042-3	08/06/2012 09:29	42935	1.83		100
200-12042-4	08/06/2012 09:29	42935	1.36		100
200-12042-4 DU	08/06/2012 09:29	42935	1.44		100
200-12042-4 MS	08/06/2012 09:29	42935	1.39		100
200-12042-5	08/06/2012 09:29	42935	1.41		100
200-12042-6	08/06/2012 09:29	42935	1.37		100
200-12042-7	08/06/2012 09:29	42935	1.28		100
200-12042-8	08/06/2012 09:29	42935	1.71		100
200-12042-9	08/06/2012 09:29	42935	1.31		100
200-12042-10	08/06/2012 09:29	42935	1.59		100
200-12042-11	08/06/2012 09:29	42935	1.29		100
200-12042-12	08/06/2012 09:29	42935	1.27		100
200-12042-13	08/06/2012 09:29	42935	1.53		100
200-12042-14	08/06/2012 09:29	42935	1.29		100
200-12042-15	08/06/2012 09:29	42935	1.41		100
200-12042-16	08/06/2012 09:29	42935	1.20		100
200-12042-17	08/06/2012 09:29	42935	1.31		100

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Prep Method: 7471B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
MB 200-43662/11-A	08/20/2012 09:00	43662	0.30		50
LCS 200-43662/12-A	08/20/2012 09:00	43662	0.30		50
200-12042-1	08/20/2012 09:00	43662	0.30		50
200-12042-2	08/20/2012 09:00	43662	0.32		50
200-12042-3	08/20/2012 09:00	43662	0.33		50
200-12042-4	08/20/2012 09:00	43662	0.35		50
200-12042-4 DU	08/20/2012 09:00	43662	0.34		50
200-12042-4 MS	08/20/2012 09:00	43662	0.35		50
200-12042-5	08/20/2012 09:00	43662	0.34		50
200-12042-6	08/20/2012 09:00	43662	0.35		50
200-12042-7	08/20/2012 09:00	43662	0.34		50
200-12042-8	08/20/2012 09:00	43662	0.31		50
200-12042-9	08/20/2012 09:00	43662	0.35		50
200-12042-10	08/20/2012 09:00	43662	0.33		50
200-12042-11	08/20/2012 09:00	43662	0.30		50
200-12042-12	08/20/2012 09:00	43662	0.32		50
200-12042-13	08/20/2012 09:00	43662	0.35		50
200-12042-14	08/20/2012 09:00	43662	0.32		50
200-12042-15	08/20/2012 09:00	43662	0.31		50
200-12042-16	08/20/2012 09:00	43662	0.32		50
200-12042-17	08/20/2012 09:00	43662	0.35		50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Instrument ID: METICP7 Method: 6010C

Start Date: 08/15/2012 18:00 End Date: 08/15/2012 22:00

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ag	As	Ba	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Na	Ni	Pb	Sb	Se	Tl	Zn	
CALIBSTD 200-43487/1 IC	1		18:00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
STD7 200-43487/2 IC			18:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
STD8 200-43487/3 IC			18:10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
STD4 200-43487/4 IC			18:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
ICV 200-43487/5	1		18:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
ICVL 200-43487/6	1		18:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
ICBIS 200-43487/7	1		18:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
ICSA 200-43487/8	1		18:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
ICSAB 200-43487/9	1		18:40	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
CCV 200-43487/10	1		18:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
CCB 200-43487/11	1		18:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
ZZZZZZ			18:55																				
ZZZZZZ			19:00																				
CCV 200-43487/14	1		19:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
CCVL 200-43487/15	1		19:10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
CCB 200-43487/16	1		19:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
MB 200-42935/1-A	1	T	19:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
LCS 200-42935/2-A	1	T	19:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
200-12042-1	1	T	19:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
200-12042-2	1	T	19:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
200-12042-3	1	T	19:40	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
200-12042-4	1	T	19:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
200-12042-4 SD	5	T	19:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
200-12042-4 PDS	1	T	19:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
200-12042-4 DU	1	T	20:00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
200-12042-4 MS	1	T	20:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
CCV 200-43487/27	1		20:10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
CCVL 200-43487/28	1		20:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
CCB 200-43487/29	1		20:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
200-12042-5	1	T	20:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
200-12042-6	1	T	20:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
200-12042-7	1	T	20:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
200-12042-8	1	T	20:40	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
200-12042-9	1	T	20:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
200-12042-10	1	T	20:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
200-12042-11	1	T	20:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
200-12042-12	1	T	21:00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
200-12042-13	1	T	21:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
200-12042-14	1	T	21:10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
CCV 200-43487/40	1		21:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
CCVL 200-43487/41	1		21:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Instrument ID: METICP7 Method: 6010C

Start Date: 08/15/2012 18:00 End Date: 08/15/2012 22:00

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ag	As	Ba	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Na	Ni	Pb	Sb	Se	Tl	Zn	
CCB 200-43487/42	1		21:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
200-12042-15	1	T	21:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
200-12042-16	1	T	21:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
200-12042-17	1	T	21:40	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
CCV 200-43487/46	1		21:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
CCVL 200-43487/47	1		21:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
CCB 200-43487/48	1		21:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
ZZZZZZ			22:00																				

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Instrument ID: METICP7 Method: 6010C

Start Date: 08/16/2012 23:15 End Date: 08/17/2012 02:46

Lab Sample ID	D/F	Type	Time	Analytes																				
				Al	Be	V																		
CALIBSTD 200-43577/1 IC			23:15	X	X	X																		
STD7 200-43577/2 IC			23:20	X	X	X																		
STD8 200-43577/3 IC			23:25	X	X	X																		
STD4 200-43577/4 IC			23:30	X	X	X																		
ICV 200-43577/5	1		23:35	X	X	X																		
ICVL 200-43577/6	1		23:40	X	X	X																		
ICBIS 200-43577/7	1		23:45	X	X	X																		
ICSA 200-43577/8	1		23:50	X	X	X																		
ICSAB 200-43577/9	1		23:55	X	X	X																		
CCV 200-43577/10	1		00:00	X	X	X																		
CCB 200-43577/11	1		00:05	X	X	X																		
MB 200-42935/1-A	1	T	00:10	X	X	X																		
LCS 200-42935/2-A	1	T	00:15	X	X	X																		
200-12042-1	1	T	00:20	X	X	X																		
200-12042-2	1	T	00:25	X	X	X																		
200-12042-3	1	T	00:30	X	X	X																		
200-12042-4	1	T	00:35	X	X	X																		
200-12042-4 SD	5	T	00:40	X	X	X																		
200-12042-4 PDS	1	T	00:45	X	X	X																		
200-12042-4 DU	1	T	00:50	X	X	X																		
200-12042-4 MS	1	T	00:55	X	X	X																		
CCV 200-43577/22	1		01:00	X	X	X																		
CCVL 200-43577/23	1		01:05	X	X	X																		
CCB 200-43577/24	1		01:10	X	X	X																		
200-12042-5	1	T	01:15	X	X	X																		
200-12042-6	1	T	01:20	X	X	X																		
200-12042-7	1	T	01:25	X	X	X																		
200-12042-8	1	T	01:30	X	X	X																		
200-12042-9	1	T	01:35	X	X	X																		
200-12042-10	1	T	01:40	X	X	X																		
200-12042-11	1	T	01:45	X	X	X																		
200-12042-12	1	T	01:50	X	X	X																		
200-12042-13	1	T	01:55	X	X	X																		
200-12042-14	1	T	02:00	X	X	X																		
CCV 200-43577/35	1		02:05	X	X	X																		
CCVL 200-43577/36	1		02:10	X	X	X																		
CCB 200-43577/37	1		02:15	X	X	X																		
200-12042-15	1	T	02:21	X	X	X																		
200-12042-16	1	T	02:26	X	X	X																		
200-12042-17	1	T	02:31	X	X	X																		
CCV 200-43577/41	1		02:36	X	X	X																		

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Instrument ID: METICP7 Method: 6010C

Start Date: 08/16/2012 23:15 End Date: 08/17/2012 02:46

Lab Sample ID	D / F	Type	Time	Analytes																			
				Al	Be	V																	
CCVL 200-43577/42	1		02:41	X	X	X																	
CCB 200-43577/43	1		02:46	X	X	X																	

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Instrument ID: MEPCV3 II Method: 7471B

Start Date: 08/20/2012 15:35 End Date: 08/20/2012 17:03

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
IC 200-43662/1-A			15:35	X																			
IC 200-43662/2-A			15:38	X																			
IC 200-43662/3-A			15:40	X																			
IC 200-43662/4-A			15:42	X																			
IC 200-43662/5-A			15:44	X																			
IC 200-43662/6-A			15:46	X																			
ICV 200-43662/7-A	1		15:48	X																			
ICB 200-43662/8-A	1		15:51	X																			
CCV 200-43662/9-A	1		15:53	X																			
CCB 200-43662/10-A	1		15:55	X																			
MB 200-43662/11-A	1	T	15:57	X																			
LCS 200-43662/12-A	1	T	15:59	X																			
200-12042-1	1	T	16:01	X																			
200-12042-2	1	T	16:03	X																			
200-12042-3	1	T	16:06	X																			
200-12042-4	1	T	16:08	X																			
200-12042-4 DU	1	T	16:10	X																			
ZZZZZZ			16:12																				
200-12042-4 MS	1	T	16:14	X																			
200-12042-5	1	T	16:17	X																			
CCV 200-43662/9-A	1		16:19	X																			
CCB 200-43662/10-A	1		16:22	X																			
200-12042-6	1	T	16:24	X																			
200-12042-7	1	T	16:26	X																			
200-12042-8	1	T	16:28	X																			
200-12042-9	1	T	16:30	X																			
200-12042-10	1	T	16:32	X																			
200-12042-11	1	T	16:35	X																			
200-12042-12	1	T	16:38	X																			
200-12042-13	1	T	16:40	X																			
200-12042-14	1	T	16:42	X																			
CCV 200-43662/9-A	1		16:44	X																			
CCB 200-43662/10-A	1		16:47	X																			
200-12042-15	1	T	16:51	X																			
200-12042-16	1	T	16:53	X																			
200-12042-17	1	T	16:56	X																			
CCV 200-43662/9-A	1		16:58	X																			
CCB 200-43662/10-A			17:00																				
CCB 200-43662/10-A	1		17:03	X																			

Prep Types

T = Total/NA

METALS BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Batch Number: 42935 Batch Start Date: 08/06/12 09:29 Batch Analyst: Lyons, Benjamin

Batch Method: 3050B Batch End Date: 08/06/12 14:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	CalcMsg	InitialAmount	FinalAmount	ME5PPMAGw 00020	MEADDSPIKEw 00009	MELCSS#2w 00010
MB 200-42935/1		3050B, 6010C		CALC NOT SET TO RUN	1.00 g	100 mL			
LCS 200-42935/2		3050B, 6010C		CALC NOT SET TO RUN	1.00 g	100 mL	5 mL		1 mL
200-12042-A-1	NFUDS-002-SBG020 1-01	3050B, 6010C	T	CALC NOT SET TO RUN	1.50 g	100 mL			
200-12042-A-2	NFUDS-002-SBG020 2-01	3050B, 6010C	T	CALC NOT SET TO RUN	1.54 g	100 mL			
200-12042-A-3	NFUDS-002-SBG020 2-02	3050B, 6010C	T	CALC NOT SET TO RUN	1.83 g	100 mL			
200-12042-A-4	NFUDS-002-SBG020 3-01	3050B, 6010C	T	CALC NOT SET TO RUN	1.36 g	100 mL			
200-12042-A-4 DU	NFUDS-002-SBG020 3-01	3050B, 6010C	T	CALC NOT SET TO RUN	1.44 g	100 mL			
200-12042-A-4 MS	NFUDS-002-SBG020 3-01	3050B, 6010C	T	CALC NOT SET TO RUN	1.39 g	100 mL	1 mL	1 mL	
200-12042-A-5	NFUDS-002-SBG040 1-01	3050B, 6010C	T	CALC NOT SET TO RUN	1.41 g	100 mL			
200-12042-B-6	NFUDS-002-SBG040 2-01	3050B, 6010C	T	CALC NOT SET TO RUN	1.37 g	100 mL			
200-12042-A-7	NFUDS-002-SBG040 3-01	3050B, 6010C	T	CALC NOT SET TO RUN	1.28 g	100 mL			
200-12042-B-8	NFUDS-002-SBG080 1-01	3050B, 6010C	T	CALC NOT SET TO RUN	1.71 g	100 mL			
200-12042-A-9	NFUDS-002-SBG080 2-01	3050B, 6010C	T	CALC NOT SET TO RUN	1.31 g	100 mL			
200-12042-B-10	NFUDS-002-SBG080 3-01	3050B, 6010C	T	CALC NOT SET TO RUN	1.59 g	100 mL			
200-12042-A-11	NFUDS-002-SBG090 1-01	3050B, 6010C	T	CALC NOT SET TO RUN	1.29 g	100 mL			
200-12042-B-12	NFUDS-002-SBG090 2-01	3050B, 6010C	T	CALC NOT SET TO RUN	1.27 g	100 mL			
200-12042-A-13	NFUDS-002-SBG090 3-01	3050B, 6010C	T	CALC NOT SET TO RUN	1.53 g	100 mL			
200-12042-A-14	NFUDS-002-SBG090 3-02	3050B, 6010C	T	CALC NOT SET TO RUN	1.29 g	100 mL			
200-12042-A-15	NFUDS-002-SBG120 1-01	3050B, 6010C	T	CALC NOT SET TO RUN	1.41 g	100 mL			
200-12042-B-16	NFUDS-002-SBG120 2-01	3050B, 6010C	T	CALC NOT SET TO RUN	1.20 g	100 mL			
200-12042-A-17	NFUDS-002-SBG120 3-01	3050B, 6010C	T	CALC NOT SET TO RUN	1.31 g	100 mL			

Lab Sample ID	Client Sample ID	Method Chain	Basis	MESPIKE#1w 00026					

METALS BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Batch Number: 42935 Batch Start Date: 08/06/12 09:29 Batch Analyst: Lyons, Benjamin

Batch Method: 3050B Batch End Date: 08/06/12 14:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	MESPIKE#1w 00026					
MB 200-42935/1		3050B, 6010C							
LCS 200-42935/2		3050B, 6010C		1 mL					
200-12042-A-1	NFUDS-002-SBG020 1-01	3050B, 6010C	T						
200-12042-A-2	NFUDS-002-SBG020 2-01	3050B, 6010C	T						
200-12042-A-3	NFUDS-002-SBG020 2-02	3050B, 6010C	T						
200-12042-A-4	NFUDS-002-SBG020 3-01	3050B, 6010C	T						
200-12042-A-4 DU	NFUDS-002-SBG020 3-01	3050B, 6010C	T						
200-12042-A-4 MS	NFUDS-002-SBG020 3-01	3050B, 6010C	T	1 mL					
200-12042-A-5	NFUDS-002-SBG040 1-01	3050B, 6010C	T						
200-12042-B-6	NFUDS-002-SBG040 2-01	3050B, 6010C	T						
200-12042-A-7	NFUDS-002-SBG040 3-01	3050B, 6010C	T						
200-12042-B-8	NFUDS-002-SBG080 1-01	3050B, 6010C	T						
200-12042-A-9	NFUDS-002-SBG080 2-01	3050B, 6010C	T						
200-12042-B-10	NFUDS-002-SBG080 3-01	3050B, 6010C	T						
200-12042-A-11	NFUDS-002-SBG090 1-01	3050B, 6010C	T						
200-12042-B-12	NFUDS-002-SBG090 2-01	3050B, 6010C	T						
200-12042-A-13	NFUDS-002-SBG090 3-01	3050B, 6010C	T						
200-12042-A-14	NFUDS-002-SBG090 3-02	3050B, 6010C	T						
200-12042-A-15	NFUDS-002-SBG120 1-01	3050B, 6010C	T						
200-12042-B-16	NFUDS-002-SBG120 2-01	3050B, 6010C	T						
200-12042-A-17	NFUDS-002-SBG120 3-01	3050B, 6010C	T						

METALS BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Batch Number: 42935 Batch Start Date: 08/06/12 09:29 Batch Analyst: Lyons, Benjamin

Batch Method: 3050B Batch End Date: 08/06/12 14:00

Batch Notes	
Analyst	BL
Balance ID	763
Blank Soil Lot Number	D1069103
First End time	14:00
Hydrogen peroxide lot number	362800
Lot # of hydrochloric acid	369047
Logbook ID for diluted Nitric	367264
Lot # of Nitric Acid	366239
Hood ID or number	109a
Hot Block ID number	1+2
Nominal Amount Used	1.00 - 2.00 g
Oven, Bath or Block Temperature 1	90 Degrees C
Oven, Bath or Block Temperature 2	90 Degrees C
Pipette ID	WC5
Person's name who witnessed reagent drop	VP
First Start time	09:00
Temperature	90 + 90 Degrees C
ID number of the thermometer	153 +73
Digestion Tube/Cup Lot #	1202052
Uncorrected Temperature	89 Celsius
Uncorrected Temperature 2	91 Degrees C

Basis	Basis Description
T	Total/NA

METALS BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Batch Number: 43662 Batch Start Date: 08/20/12 09:00 Batch Analyst: Pham, Vu T

Batch Method: 7471B Batch End Date: 08/20/12 13:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MEHGCCVw 00507	MEHGICVw 00019		
IC 200-43662/1		7471B, 7471B		50 g	50 mL				
IC 200-43662/2		7471B, 7471B		50 g	50 mL	0.1 mL			
IC 200-43662/3		7471B, 7471B		50 g	50 mL	0.25 mL			
IC 200-43662/4		7471B, 7471B		50 g	50 mL	0.5 mL			
IC 200-43662/5		7471B, 7471B		50 g	50 mL	2.5 mL			
IC 200-43662/6		7471B, 7471B		50 g	50 mL	5 mL			
ICV 200-43662/7		7471B, 7471B		50 g	50 mL		5 mL		
ICB 200-43662/8		7471B, 7471B		50 g	50 mL				
CCV 200-43662/9		7471B, 7471B		50 g	50 mL	2.5 mL			
CCB 200-43662/10		7471B, 7471B		50 g	50 mL				
MB 200-43662/11		7471B, 7471B		0.30 g	50 mL				
LCS 200-43662/12		7471B, 7471B		0.30 g	50 mL	0.5 mL			
200-12042-B-1	NFUDS-002-SBG0201-01	7471B, 7471B	T	0.30 g	50 mL				
200-12042-B-2	NFUDS-002-SBG0202-01	7471B, 7471B	T	0.32 g	50 mL				
200-12042-A-3	NFUDS-002-SBG0202-02	7471B, 7471B	T	0.33 g	50 mL				
200-12042-A-4	NFUDS-002-SBG0203-01	7471B, 7471B	T	0.35 g	50 mL				
200-12042-A-4 DU	NFUDS-002-SBG0203-01	7471B, 7471B	T	0.34 g	50 mL				
200-12042-A-4 MS	NFUDS-002-SBG0203-01	7471B, 7471B	T	0.35 g	50 mL	0.5 mL			
200-12042-A-5	NFUDS-002-SBG0401-01	7471B, 7471B	T	0.34 g	50 mL				
200-12042-B-6	NFUDS-002-SBG0402-01	7471B, 7471B	T	0.35 g	50 mL				
200-12042-B-7	NFUDS-002-SBG0403-01	7471B, 7471B	T	0.34 g	50 mL				
200-12042-A-8	NFUDS-002-SBG0801-01	7471B, 7471B	T	0.31 g	50 mL				
200-12042-B-9	NFUDS-002-SBG0802-01	7471B, 7471B	T	0.35 g	50 mL				
200-12042-B-10	NFUDS-002-SBG0803-01	7471B, 7471B	T	0.33 g	50 mL				
200-12042-A-11	NFUDS-002-SBG0901-01	7471B, 7471B	T	0.30 g	50 mL				
200-12042-A-12	NFUDS-002-SBG0902-01	7471B, 7471B	T	0.32 g	50 mL				

METALS BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Batch Number: 43662 Batch Start Date: 08/20/12 09:00 Batch Analyst: Pham, Vu T

Batch Method: 7471B Batch End Date: 08/20/12 13:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MEHGCCVw 00507	MEHGICVw 00019		
200-12042-A-13	NFUDS-002-SBG090 3-01	7471B, 7471B	T	0.35 g	50 mL				
200-12042-A-14	NFUDS-002-SBG090 3-02	7471B, 7471B	T	0.32 g	50 mL				
200-12042-A-15	NFUDS-002-SBG120 1-01	7471B, 7471B	T	0.31 g	50 mL				
200-12042-A-16	NFUDS-002-SBG120 2-01	7471B, 7471B	T	0.32 g	50 mL				
200-12042-B-17	NFUDS-002-SBG120 3-01	7471B, 7471B	T	0.35 g	50 mL				

Batch Notes	
Hydroxylamine Hydrochloride Lot	360755
Aqua Regia Lot Number	361646
Balance ID	12902
Batch Comment	Witness by ZMS
Blank Soil Lot Number	0919120
Hood ID or number	109B & 109C
Hot Block ID number	7 & 8
Potassium Permanganate Lot Number	371835
Nominal Amount Used	0.30 g
Oven, Bath or Block Temperature 1	94 Celsius
Oven, Bath or Block Temperature 2	91 Celsius
Pipette ID	WC7 & HJ17902
SOP Number	BR-ME-004
ID number of the thermometer	74 & 100
Digestion Tube/Cup Lot #	1205258

Basis	Basis Description
T	Total/NA

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Burlington Job Number: 200-12042-1

SDG No.: 200-12042-1

Project: Nantucket Beach FUDS

Client Sample ID	Lab Sample ID
NFUDS-002-SBG0201-01	200-12042-1
NFUDS-002-SBG0202-01	200-12042-2
NFUDS-002-SBG0202-02	200-12042-3
NFUDS-002-SBG0203-01	200-12042-4
NFUDS-002-SBG0401-01	200-12042-5
NFUDS-002-SBG0402-01	200-12042-6
NFUDS-002-SBG0403-01	200-12042-7
NFUDS-002-SBG0801-01	200-12042-8
NFUDS-002-SBG0802-01	200-12042-9
NFUDS-002-SBG0803-01	200-12042-10
NFUDS-002-SBG0901-01	200-12042-11
NFUDS-002-SBG0902-01	200-12042-12
NFUDS-002-SBG0903-01	200-12042-13
NFUDS-002-SBG0903-02	200-12042-14
NFUDS-002-SBG1201-01	200-12042-15
NFUDS-002-SBG1202-01	200-12042-16
NFUDS-002-SBG1203-01	200-12042-17

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: NFUDS-002-SBG0201-01 Lab Sample ID: 200-12042-1

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG ID.: 200-12042-1

Matrix: Solid Date Sampled: 08/01/2012 10:45

Reporting Basis: WET Date Received: 08/02/2012 10:30

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
pH	4.88				SU		HF	1	9045D

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: NFUDS-002-SBG0202-01 Lab Sample ID: 200-12042-2

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG ID.: 200-12042-1

Matrix: Solid Date Sampled: 08/01/2012 10:55

Reporting Basis: WET Date Received: 08/02/2012 10:30

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
pH	5.30				SU		HF	1	9045D

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: NFUDS-002-SBG0202-02 Lab Sample ID: 200-12042-3

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG ID.: 200-12042-1

Matrix: Solid Date Sampled: 08/01/2012 10:55

Reporting Basis: WET Date Received: 08/02/2012 10:30

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
pH	5.31				SU		HF	1	9045D

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: NFUDS-002-SBG0203-01 Lab Sample ID: 200-12042-4

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG ID.: 200-12042-1

Matrix: Solid Date Sampled: 08/01/2012 11:15

Reporting Basis: WET Date Received: 08/02/2012 10:30

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
pH	5.20				SU		HF	1	9045D

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: NFUDS-002-SBG0401-01 Lab Sample ID: 200-12042-5

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG ID.: 200-12042-1

Matrix: Solid Date Sampled: 08/01/2012 08:30

Reporting Basis: WET Date Received: 08/02/2012 10:30

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
pH	4.53				SU		HF	1	9045D

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: NFUDS-002-SBG0402-01 Lab Sample ID: 200-12042-6

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG ID.: 200-12042-1

Matrix: Solid Date Sampled: 08/01/2012 08:35

Reporting Basis: WET Date Received: 08/02/2012 10:30

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
pH	4.61				SU		HF	1	9045D

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: NFUDS-002-SBG0403-01 Lab Sample ID: 200-12042-7

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG ID.: 200-12042-1

Matrix: Solid Date Sampled: 08/01/2012 08:45

Reporting Basis: WET Date Received: 08/02/2012 10:30

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
pH	5.09				SU		HF	1	9045D

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: NFUDS-002-SBG0801-01 Lab Sample ID: 200-12042-8

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG ID.: 200-12042-1

Matrix: Solid Date Sampled: 08/01/2012 09:35

Reporting Basis: WET Date Received: 08/02/2012 10:30

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
pH	4.24				SU		HF	1	9045D

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: NFUDS-002-SBG0802-01 Lab Sample ID: 200-12042-9

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG ID.: 200-12042-1

Matrix: Solid Date Sampled: 08/01/2012 09:40

Reporting Basis: WET Date Received: 08/02/2012 10:30

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
pH	4.34				SU		HF	1	9045D

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: NFUDS-002-SBG0803-01 Lab Sample ID: 200-12042-10

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG ID.: 200-12042-1

Matrix: Solid Date Sampled: 08/01/2012 09:50

Reporting Basis: WET Date Received: 08/02/2012 10:30

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
pH	4.61				SU		HF	1	9045D

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: NFUDS-002-SBG0901-01 Lab Sample ID: 200-12042-11

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG ID.: 200-12042-1

Matrix: Solid Date Sampled: 08/01/2012 12:00

Reporting Basis: WET Date Received: 08/02/2012 10:30

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
pH	4.30				SU		HF	1	9045D

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: NFUDS-002-SBG0902-01 Lab Sample ID: 200-12042-12

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG ID.: 200-12042-1

Matrix: Solid Date Sampled: 08/01/2012 12:05

Reporting Basis: WET Date Received: 08/02/2012 10:30

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
pH	4.29				SU		HF	1	9045D

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: NFUDS-002-SBG0903-01 Lab Sample ID: 200-12042-13

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG ID.: 200-12042-1

Matrix: Solid Date Sampled: 08/01/2012 12:15

Reporting Basis: WET Date Received: 08/02/2012 10:30

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
pH	4.40				SU		HF	1	9045D

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: NFUDS-002-SBG0903-02 Lab Sample ID: 200-12042-14

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG ID.: 200-12042-1

Matrix: Solid Date Sampled: 08/01/2012 12:15

Reporting Basis: WET Date Received: 08/02/2012 10:30

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
pH	4.42				SU		HF	1	9045D

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: NFUDS-002-SBG1201-01 Lab Sample ID: 200-12042-15

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG ID.: 200-12042-1

Matrix: Solid Date Sampled: 08/01/2012 13:25

Reporting Basis: WET Date Received: 08/02/2012 10:30

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
pH	4.28				SU		HF	1	9045D

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: NFUDS-002-SBG1202-01 Lab Sample ID: 200-12042-16

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG ID.: 200-12042-1

Matrix: Solid Date Sampled: 08/01/2012 13:30

Reporting Basis: WET Date Received: 08/02/2012 10:30

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
pH	4.57				SU		HF	1	9045D

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: NFUDS-002-SBG1203-01 Lab Sample ID: 200-12042-17

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG ID.: 200-12042-1

Matrix: Solid Date Sampled: 08/01/2012 13:45

Reporting Basis: WET Date Received: 08/02/2012 10:30

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
pH	4.59				SU		HF	1	9045D

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Analyst: AJN Batch Start Date: 08/07/2012

Reporting Units: SU Analytical Batch No.: 42999

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
16	CCV	14:55	pH	7.020	7.00	100	99-101		WCPH7s_00014
25	CCV	16:27	pH	7.050	7.00	101	99-101		WCPH7s_00014

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Matrix: Solid

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 42999 Date: 08/07/2012 14:55								
9045D	NFUDS-002-SBG0203-01	200-12042-4	pH	5.20	SU			
9045D	NFUDS-002-SBG0203-01	200-12042-4 DU	pH	5.160	SU	0.8	5	HF

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Burlington Job Number: 200-12042-1

SDG Number: 200-12042-1

Matrix: Solid Instrument ID: NOEQUIP

Method: Moisture LOQ Date: 04/01/2009 07:55

Analyte	Wavelength/ Mass	LOQ (%)	
Percent Solids		0.1	

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Instrument ID: WCpHmeter Method: 9045D

Start Date: 08/07/2012 14:55 End Date: 08/07/2012 16:27

Lab Sample ID	D / F	Type	Time	Analytes																			
				pH																			
IC 200-42999/1			14:55	X																			
IC 200-42999/2			14:55	X																			
IC 200-42999/3			14:55	X																			
LCS 200-42999/4	1	T	14:55	X																			
200-12042-1	1	T	14:55	X																			
200-12042-2	1	T	14:55	X																			
200-12042-3	1	T	14:55	X																			
200-12042-4	1	T	14:55	X																			
200-12042-4 DU	1	T	14:55	X																			
200-12042-5	1	T	14:55	X																			
200-12042-6	1	T	14:55	X																			
200-12042-7	1	T	14:55	X																			
200-12042-8	1	T	14:55	X																			
200-12042-9	1	T	14:55	X																			
200-12042-10	1	T	14:55	X																			
CCV 200-42999/16	1		14:55	X																			
200-12042-11	1	T	14:55	X																			
200-12042-12	1	T	14:55	X																			
200-12042-13	1	T	14:55	X																			
200-12042-14	1	T	14:55	X																			
200-12042-15	1	T	14:55	X																			
200-12042-16	1	T	14:55	X																			
200-12042-17	1	T	14:55	X																			
ZZZZZZ			14:55																				
CCV 200-42999/25	1		16:27	X																			

Prep Types
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Instrument ID: NOEQUIP Method: Moisture

Start Date: 08/07/2012 07:51 End Date: 08/07/2012 07:51

Lab Sample ID	D / F	Type	Time	Analytes																			
				% Sol																			
ZZZZZZ			07:51																				
ZZZZZZ			07:51																				
ZZZZZZ			07:51																				
ZZZZZZ			07:51																				
ZZZZZZ			07:51																				
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ZZZZZZ			07:51																				
ZZZZZZ			07:51																				
ZZZZZZ			07:51																				
200-12042-1	1	T	07:51	X																			
200-12042-2	1	T	07:51	X																			
200-12042-3	1	T	07:51	X																			
200-12042-4	1	T	07:51	X																			
200-12042-4 DU	1	T	07:51	X																			
200-12042-5	1	T	07:51	X																			
200-12042-6	1	T	07:51	X																			
200-12042-7	1	T	07:51	X																			
200-12042-8	1	T	07:51	X																			
200-12042-9	1	T	07:51	X																			
200-12042-10	1	T	07:51	X																			
200-12042-11	1	T	07:51	X																			
200-12042-12	1	T	07:51	X																			
200-12042-13	1	T	07:51	X																			
200-12042-14	1	T	07:51	X																			
200-12042-15	1	T	07:51	X																			
200-12042-16	1	T	07:51	X																			
200-12042-17	1	T	07:51	X																			
ZZZZZZ			07:51																				
ZZZZZZ			07:51																				
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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Instrument ID: NOEQUIP Method: Moisture

Start Date: 08/07/2012 07:51 End Date: 08/07/2012 07:51

Lab Sample ID	D / F	Type	Time	Analytes																				
				% Sol																				
ZZZZZZ			07:51																					
ZZZZZZ			07:51																					
ZZZZZZ			07:51																					
ZZZZZZ			07:51																					
ZZZZZZ			07:51																					
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ZZZZZZ			07:51																					
ZZZZZZ			07:51																					

Prep Types

T = Total/NA

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Batch Number: 42999 Batch Start Date: 08/07/12 14:55 Batch Analyst: Nelson, Andrea J

Batch Method: 9045D Batch End Date: 08/07/12 16:27

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	WCPH6s 00011	WCPH7s 00014		
LCS 200-42999/4		9045D		40 mL	40 mL	40 mL			
200-12042-A-1	NFUDS-002-SBG0201-01	9045D	T	40 mL	40 mL				
200-12042-A-2	NFUDS-002-SBG0202-01	9045D	T	40 mL	40 mL				
200-12042-A-3	NFUDS-002-SBG0202-02	9045D	T	40 mL	40 mL				
200-12042-A-4	NFUDS-002-SBG0203-01	9045D	T	40 mL	40 mL				
200-12042-A-4 DU	NFUDS-002-SBG0203-01	9045D	T	40 mL	40 mL				
200-12042-A-5	NFUDS-002-SBG0401-01	9045D	T	40 mL	40 mL				
200-12042-B-6	NFUDS-002-SBG0402-01	9045D	T	40 mL	40 mL				
200-12042-A-7	NFUDS-002-SBG0403-01	9045D	T	40 mL	40 mL				
200-12042-B-8	NFUDS-002-SBG0801-01	9045D	T	40 mL	40 mL				
200-12042-A-9	NFUDS-002-SBG0802-01	9045D	T	40 mL	40 mL				
200-12042-B-10	NFUDS-002-SBG0803-01	9045D	T	40 mL	40 mL				
CCV 200-42999/16		9045D		40 mL	40 mL		40 mL		
200-12042-A-11	NFUDS-002-SBG0901-01	9045D	T	40 mL	40 mL				
200-12042-B-12	NFUDS-002-SBG0902-01	9045D	T	40 mL	40 mL				
200-12042-A-13	NFUDS-002-SBG0903-01	9045D	T	40 mL	40 mL				
200-12042-A-14	NFUDS-002-SBG0903-02	9045D	T	40 mL	40 mL				
200-12042-A-15	NFUDS-002-SBG1201-01	9045D	T	40 mL	40 mL				
200-12042-B-16	NFUDS-002-SBG1202-01	9045D	T	40 mL	40 mL				
200-12042-A-17	NFUDS-002-SBG1203-01	9045D	T	40 mL	40 mL				
CCV 200-42999/25		9045D		40 mL	40 mL		40 mL		

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Batch Number: 42999 Batch Start Date: 08/07/12 14:55 Batch Analyst: Nelson, Andrea J

Batch Method: 9045D Batch End Date: 08/07/12 16:27

Batch Notes	
Balance ID	114192288
pH Buffer 1 ID	WCPH4s_00011
pH Buffer 2 ID	WCPH6s_00011
pH Buffer 3 ID	WCPH7s_00014
pH Buffer 4 ID	WCPH10s_00011
Electronic Slope	94.8-98.8
Instrument ID	UB503B365
Sufficient volume for sample dup	YES
ID number of the thermometer	1307145P

Basis	Basis Description
T	Total/NA

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Batch Number: 42970 Batch Start Date: 08/07/12 07:51 Batch Analyst: Nelson, Andrea J

Batch Method: Moisture Batch End Date: 08/08/12 07:25

Lab Sample ID	Client Sample ID	Method Chain	Basis	DISH#	DishWeight	SampleMassWet	SampleMassDry		
200-12042-A-1	NFUDS-002-SBG0201-01	Moisture	T	12	1.04 g	9.02 g	8.42 g		
200-12042-A-2	NFUDS-002-SBG0202-01	Moisture	T	13	1.02 g	7.72 g	7.38 g		
200-12042-A-3	NFUDS-002-SBG0202-02	Moisture	T	14	1.04 g	7.71 g	7.35 g		
200-12042-A-4	NFUDS-002-SBG0203-01	Moisture	T	15	1.02 g	8.21 g	8.05 g		
200-12042-A-4 DU	NFUDS-002-SBG0203-01	Moisture	T	16	1.01 g	8.45 g	8.28 g		
200-12042-A-5	NFUDS-002-SBG0401-01	Moisture	T	17	1.05 g	8.63 g	7.95 g		
200-12042-B-6	NFUDS-002-SBG0402-01	Moisture	T	18	1.04 g	7.82 g	7.21 g		
200-12042-A-7	NFUDS-002-SBG0403-01	Moisture	T	19	1.06 g	7.93 g	7.74 g		
200-12042-B-8	NFUDS-002-SBG0801-01	Moisture	T	20	1.04 g	8.22 g	7.29 g		
200-12042-A-9	NFUDS-002-SBG0802-01	Moisture	T	21	1.07 g	7.58 g	7.29 g		
200-12042-B-10	NFUDS-002-SBG0803-01	Moisture	T	22	1.05 g	8.28 g	8.02 g		
200-12042-A-11	NFUDS-002-SBG0901-01	Moisture	T	23	1.02 g	8.72 g	7.85 g		
200-12042-B-12	NFUDS-002-SBG0902-01	Moisture	T	24	1.04 g	8.54 g	8.21 g		
200-12042-A-13	NFUDS-002-SBG0903-01	Moisture	T	25	1.02 g	8.26 g	8.02 g		
200-12042-A-14	NFUDS-002-SBG0903-02	Moisture	T	26	1.03 g	7.34 g	7.17 g		
200-12042-A-15	NFUDS-002-SBG1201-01	Moisture	T	27	1.04 g	7.88 g	7.08 g		
200-12042-B-16	NFUDS-002-SBG1202-01	Moisture	T	28	1.00 g	7.76 g	7.52 g		
200-12042-A-17	NFUDS-002-SBG1203-01	Moisture	T	29	0.98 g	7.52 g	7.32 g		

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 200-12042-1

SDG No.: 200-12042-1

Batch Number: 42970 Batch Start Date: 08/07/12 07:51 Batch Analyst: Nelson, Andrea J

Batch Method: Moisture Batch End Date: 08/08/12 07:25

Batch Notes	
Balance ID	M78711 No Unit
Date samples were placed in the oven	08/07/2012
Oven Temp when samples are put in oven	103 Degrees C
Time samples were place in the oven	0836
Date samples were removed from oven	08/08/2012
Oven Temp when samples removed from oven	107 Degrees C
Time Samples were removed from oven	0710
Oven ID	2
ID number of the thermometer	140

Basis	Basis Description
T	Total/NA

Shipping and Receiving Documents

TestAmerica Burlington
30 Community Drive, Suite 11
South Burlington, VT 05403
Phone:(802)660-1990

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Marie Laflamme	Lab PM: Ryan Hammond	Carrier Tracking No(s):	COC No: 002 001
Client Contact: Marie Swiech-Laflamme	Phone: 603-315-6853	E-Mail:		Page: 1 of 3
Company: Weston Solutions, Inc				Job #:
Address: 45 Constitution Ave	Due Date Requested:			
City: Concord, NH	TAT Requested (days): 5 day TAT			
State, Zip: 03301	PO #:			
Phone: 603.656.5400	WO #: 03886.551.004.0011			
Email: MSL@WestonSolutions.com	Project #:			
Project Name: Nantucket FUDS RI	SSOW#:			
Site: Nantucket FUDS				

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
Other:

Sample Identification - Client ID	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Explosives 8330B	Metals 6010B	pH	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
NFUDS-002-ISG02-01	7/31/12	1500	C	S	N	N	X	X	X	1	Incremental Sample
NFUDS-002-ISG04-01	8/01/12	1540 0800	C							1	
NFUDS-002-ISG08-01	7/31/12	1540	C							1	
NFUDS-002-ISG08-R1	8/1/12	1445	C							1	
NFUDS-002-ISG08-R2	8/1/12	1515	C							1	
NFUDS-002-ISG09-01	7/31/12	1701	C							1	
NFUDS-002-ISG12-01	8/1/12	1145	C							1	
NFUDS-002-SBG0201-01	8/1/12	1045	G							2	0-2' BGS
NFUDS-002-SBG0202-01	8/1/12	1055	G							2	2-4' BGS
NFUDS-002-SBG0202-02	8/1/12	1055	G							1	2-4' BGS
NFUDS-002-SBG0203-01	8/1/12	1115	G		Y					3	4-10' BGS

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, (II), III, IV, Other (specify) PER QAPP

Special Instructions/QC Requirements:
Incremental samples require processing per 8330B

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Marie Laflamme	8/1/12 1600	Weston	FED EX		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
			[signature]	8/21/12 1030	TAB UK
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

TestAmerica Burlington
30 Community Drive, Suite 11
South Burlington, VT 05403
Phone:(802)660-1990

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Marfl	Lab PM: Ryan Hammond	Carrier Tracking No(s):	COC No: 001
Client Contact: Marie Swiech-Laflamme	Phone: 603-315-6853	E-Mail:		Page: 2 of 3
Company: Weston Solutions, Inc		Analysis Requested		Job #:
Address: 45 Constitution Ave	Due Date Requested:			Preservation Codes: A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
City: Concord	TAT Requested (days): 5 DAY TAT			
State, Zip: NH, 03301				
Phone: 603.656.5400	PO #:			Other:
Email: MSL@WestonSolutions.com	WO #: 03886.551.004.0011			
Project Name: Nantucket FUDS RI	Project #:			
Site: Nantucket FUDS	SSOW#:			

Sample Identification - Client ID	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Explosives 8330B	Metals 6010B	pH	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
NFUDS-002-SBG0401-01	8/1/12	0830	G	S	N	N	X	X	X	2	0-2'
NFUDS-002-SBG0402-01		0835								2	2-4'
NFUDS-002-SBG0403-01		0845								2	4-10'
NFUDS-002-SBG0801-01		0935								2	0-2'
NFUDS-002-SBG0802-01		0940								2	2-4'
NFUDS-002-SBG0803-01		0950								2	4-10'
NFUDS-002-SBG0901-01		1200								2	0-2'
NFUDS-002-SBG0902-01		1205								2	2-4'
NFUDS-002-SBG0903-01		1215								1	4-10'
NFUDS-002-SBG0903-02		1215								1	4-10'
NFUDS-002-SBG1201-01		1325								2	0-2'

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) PER QAPP

Special Instructions/QC Requirements: INCREMENTAL SAMPLES REQUIRE PROCESSING PER 8330B

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Marfl	8/1/12 1600	Weston	FED EX		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
				8/2/12 1030	TAL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Page 277 of 280

08/21/2012

TestAmerica Burlington
30 Community Drive, Suite 11
South Burlington, VT 05403
Phone:(802)660-1990

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information

Client Contact:	MARIE SWIECH-LAFLAMME
Company:	WESTON SOLUTIONS, INC
Address:	45 CONSTITUTION AVE
City:	CONCORD
State, Zip:	NH 03301
Phone:	603-656-5400
Email:	MSL@WESTONSOLUTIONS.COM
Project Name:	NANTUCKET FUDS RI
Site:	NANTUCKET FUDS
Sampler:	[signature]
Phone:	603-315-6853
Due Date Requested:	
TAT Requested (days):	5 DAY TAT
PO #:	
WO #:	03886.551.004.0011
Project #:	
SSOW#:	
Lab PM:	RYAN HAMMOND
E-Mail:	
Carrier Tracking No(s):	
COC No:	001
Page:	3 of 3
Job #:	

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
Other:

Sample Identification - Client ID	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Explosives 8330B	Metals 6010B	pH	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
NFUDS-002-SBG1202-01	8/1/12	1330	G	S	N	N	Y	Y	Y	2	2-4'
NFUDS-002-SBG1203-01	8/1/12	1345	G	S	N	N	Y	Y	Y	2	4-10'

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) PER QAPP

Special Instructions/QC Requirements: INCREMENTAL SAMPLES REQUIRE PROCESSING PER 8330B

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	8/1/12 1600	WESTON	FEDEX		
			[signature]	8/2/12 1030	TABUR

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks:

FedEx Express US Airbill

FedEx Tracking Number 8750 7410 5268 0200 Form ID No.

FedEx Retrieval Copy

1 From

Date 8/1/12 Sender's FedEx Account Number

Sender's Name MARIE SWIECH-LAFLAMME Phone 603 315-6853

Company WESTON SOLUTIONS, INC

Address 45 CONSTITUTION AVE

Dept./Floor/Suite/Room

City CONCORD State NH ZIP 03301

2 Your Internal Billing Reference

3 To

Recipient's Name RYAN HAMMOND Phone 802 660.1990

Company TEST AMERICA

Address 30 COMMUNITY DR SUITE 11

We cannot deliver to P.O. boxes or P.O. ZIP codes. Dept./Floor/Suite/Room

Address ~~SOUTH BURLINGTON~~

Use this line for the HOLD location address or for continuation of your shipping address

City SOUTH BURLINGTON State VT ZIP 05403

01 ☐ HOLD Weekday — FedEx location address REQUIRED. NOT available for FedEx First Overnight.

31 ☐ HOLD Saturday — FedEx location address REQUIRED. Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

8750 7410 5268

4a Express Package Service * To most locations — Packages up to 150 lbs.

01 ☑ FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

05 ☐ FedEx Standard Overnight — Next business afternoon.* Saturday Delivery NOT available.

06 ☐ FedEx First Overnight — Earliest next business morning delivery to select locations.*

03 ☐ FedEx 2Day — Second business day.* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

20 ☐ FedEx Express Saver — Third business day.* Saturday Delivery NOT available.

4b Express Freight Service ** To most locations — Packages over 150 lbs.

70 ☐ FedEx 1Day Freight — Next business day.** Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected. FedEx 1Day Freight Booking No.

80 ☐ FedEx 2Day Freight — Second business day.** Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

83 ☐ FedEx 3Day Freight — Third business day.** Saturday Delivery NOT available.

5 Packaging * Declared value limit $500

06 ☐ FedEx Envelope* 02 ☐ FedEx Pak* — Includes FedEx Small Pak and FedEx Large Pak. 03 ☐ FedEx Box 04 ☐ FedEx Tube 01 ☒ Other

6 Special Handling and Delivery Signature Options

03 ☐ SATURDAY DELIVERY

☐ No Signature Required — Package may be left without obtaining a signature for delivery.

10 ☐ Direct Signature — Someone at recipient's address may sign for delivery. Fee applies.

34 ☐ Indirect Signature — If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. Fee applies.

Does this shipment contain dangerous goods?

One box must be checked

☒ No 04 ☐ Yes — As per attached Shipper's Declaration. ☐ Yes — Shipper's Declaration not required. 06 ☐ Dry Ice — Dry Ice ____ kg

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box.

☐ Cargo Aircraft Only

7 Payment Bill to:

Enter FedEx Acct. No. or Credit Card No. below. Obtain recip. Acct. No.

1 ☐ Sender — Acct. No. in Section 1 will be billed. 2 ☑ Recipient 3 ☐ Third Party 4 ☐ Credit Card 5 ☐ Cash/Check

[redacted]

Total Packages 1 Total Weight ____ lbs. [redacted] Credit Card Auth.

*Our liability is limited to $100 unless you declare a higher value. See the current FedEx Service Guide for details.

606

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Login Sample Receipt Checklist

Client: Weston Solutions, Inc.

Job Number: 200-12042-1
SDG Number: 200-12042-1

Login Number: 12042
List Number: 1
Creator: Gagne, Eric

List Source: TestAmerica Burlington

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	698044, 698045 & 698046
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.4ºC IR GUN ID 176. CF -0.2
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Weston Solutions, Inc.
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Concord, NH 03301
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www.westonsolutions.com

Memorandum
17 October 2012

To: Ms. Carol Ann Charette, Project Manager
U.S. Army Corps of Engineers
New England District
696 Virginia Road
Concord, MA 01742

Mr. Todd Beckwith, P.E., Design Team Leader
U.S. Army Corps of Engineers
Baltimore District
10 S. Howard Street, Rm 10040-E
Baltimore, MD 21201

From: Mr. Christopher G. Kane, PMP, Senior Project Manager
Weston Solutions, Inc.,
45 Constitution Avenue
Concord, NH 03301

W.O. # 03886.551.004

Subject: Contract No. W912DR-09-D-0006, Delivery Order 0005
Military Munitions Response Program
Remedial Investigation through Decision Document
Project: Nantucket Beach Formerly Used Defense Site, Nantucket, Massachusetts
Title: Draft - Munitions Response Sites 1 and 2
Groundwater Data Evaluation Technical Memorandum
Action: Review for Approval

1.0 INTRODUCTION

Weston Solutions Inc. (WESTON®) is submitting a Draft Groundwater Data Evaluation Technical Memorandum for USACE approval of data evaluation and risk screening to assess munitions constituents (MC) in groundwater at Munitions Response Site (MRS) 1 and MRS 2. This assessment was conducted to support the on-going Military Munitions Response Program (MMRP) Remedial Investigation (RI) being undertaken at the Nantucket Beach Formerly Used Defense Site (FUDS), Nantucket, Massachusetts. The following attachments are provided as supplements to this Technical Memorandum:

- Attachment 1 – Figure
- Attachment 2 – Table
- Attachment 3 – Well Construction Data
- Attachment 4 – Data Validation Memorandum

- Attachment 5 – Final Analytical Data

The objectives of the groundwater assessment were to (1) evaluate the nature and extent of potential MC contamination associated with munitions debris (MD), which was identified during geophysical surface and subsurface investigations; and (2) assess potential risks posed to human health and the environment from any identified MC releases. Activities were conducted in accordance with planning documents for the RI [Final Work Plan, specifically Appendix J (UFP-QAPP) issued by WESTON in May 2012]. A complete summary of findings from the field investigation will be included in the RI Report.

2.0 TECHNICAL APPROACH

The field approach involved performing sampling and analysis of environmental media as a follow-on activity to the geophysical investigation of the subject area to assess potential MC associated with munitions and explosives of concern (MEC) and/or significant amounts of MD. Final resolution of all surface and subsurface investigations performed by UXO technicians during the RI identified 944 MD items located within the representative grids/transects investigated. No munitions-related material was identified as MEC during the RI. The maximum penetration depth for MD (2.25" rocket) observed in the field during RI intrusive investigations was 8 feet (ft) below ground surface (bgs).

Based on the results of the geophysical investigation, no MEC and/or field observations of a potential release (e.g., leaking munitions, stained soil) were documented to initiate characterization of groundwater at a suspected point-source. Therefore, groundwater sampling was conducted in accordance with planning documents via collection of samples from residential groundwater wells in the vicinity of MRS 1 and MRS 2 that were sampled during the SI. Parcel no. 91 2.4 was sampled to supplement data previously collected to characterize MRS 1. Parcel nos. 90 9, 91 1, and 91 118 were sampled to characterize MRS 2. See the attached figure (Attachment A) for the locations of residents within the FUDS that were included in the groundwater characterization effort.

Residential wells were sampled from exterior spigots after verification that there were no water treatment systems existing in the home, and following a 5-minute purge. Purge water was discharged with a hose to an on-property location as specified by the homeowner/or property representative. Samples were collected and shipped off-site for analysis by TestAmerica in Burlington, Vermont via EPA Method 6010C for metals, EPA Method 8330B for explosives and EPA Method 6850 for perchlorate. Sample results were received by WESTON, evaluated and validated (Tier II) in accordance with the UFP-QAPP. Validated analytical results were subject to a point-by-point comparison of chemical concentrations to screening levels selected to assess human health risks. Selected screening levels were previously established in the UFP-QAPP as part of the work plan for the RI.

To develop appropriate screening levels, the current and future use of groundwater was considered. The current and expected future use of groundwater underlying the site is residential use. Screening levels were developed to evaluate potential risks for this exposure scenario. Except for perchlorate, human health screening values for groundwater were selected from Oak Ridge National Laboratory (ORNL) Regional Screening Levels (RSL) (U.S. EPA, 2012) for tapwater and/or Federal Maximum Contaminant Levels (MCL); the most stringent of the RSLs

or MCLs were selected. For perchlorate, a more conservative State drinking water screening criterion has been established by the Massachusetts Department of Environmental Protection (MassDEP) and was adopted for data evaluation and risk screening of perchlorate concentrations in groundwater (MassDEP, 2006). Additionally, human health screening levels for non-carcinogens were reduced by a factor of 10 (one order of magnitude) to account for potential additive non-carcinogenic risk among multiple non-carcinogens that may affect the same non-carcinogenic endpoint.

As reported in the SI, the principle aquifer underlying two-thirds of the southeastern portion of Nantucket Island is comprised of shallow sediments consisting predominantly of sand and gravel from glacial outwash. The sediment is permeable and precipitation is absorbed with little or no direct runoff. The water table fluctuates less than four feet a year and the depth to the water table from the land surface is approximately 18 feet (USACE, 1997). This is consistent with observations made regarding soil characteristics within the FUDS during the RI. Groundwater was not encountered in any RI excavations, including the 10-ft bgs investigation holes excavated to characterize potential MC in soil, which were excavated 2 ft beyond the deepest MD item recovered during the RI. Since the deepest observed MD item was detected at 8-ft bgs during the RI, groundwater is not likely in direct contact with MD in either MRS.

Available well construction data from 1998 (Attachment 3) indicates that the residential well located within MRS 1 was installed to a depth of 85 ft bgs, with a static water measurement of 25 ft bgs observed during installation. Within MRS 2, well construction data was available for two of the parcels, 90 9 and 91 118, installed in 2002 and 2006, respectively. The well located on parcel 90 9 reached a depth of 64 ft bgs; with a static water level measurement of 24 ft bgs observed during installation. The well located on parcel 91 118 reached a depth of 60 ft bgs with a static water level measurement of 26 ft bgs observed during installation. It is assumed that the construction of the remaining MRS 2 well is similar as it is located between the two parcels described above.

According to the U.S. Geological Survey (USGS) National Water Information System (NWIS) Mapper, there are twelve groundwater well sites located along the southern and western borders of the FUDS. Water level measurements were collected sporadically from 1961 through 2010 from these wells, but typically indicate local flow direction from the northern uplands portion of the FUDS towards the Atlantic Ocean to the south (USGS, 2012).

There is public water service on the island provided by Wannacomet Water Company, however, the residences closest to the former targets use private groundwater wells. The current Numerical Ranking System map for the FUDS depicts the entire former property within a designated EPA sole source aquifer (MassGIS, 2012a). According to the Massachusetts Geographic Information System (MassGIS) web site, the FUDS is not located within the Wannacomet Massachusetts Zone II Wellhead Protection Area (Mass Zone II WPA), which is delineated to the west of the FUDS, or the Siasconset Mass Zone II WPA located east of the FUDS. There are no interim wellhead protection areas within two miles of the FUDS boundaries or either MRS. There are three wellhead protection areas that are located just west of MRS 1 and 2, within four miles of the FUDS boundary (MassGIS, 2012b).

Parcel ownership within the FUDS boundaries consists of both public and private entities (residents, Town of Nantucket, Nantucket Conservation Foundation, Nantucket Conservation Commission, the Nantucket Airport, and the Nantucket Housing Authority), with large portions owned and maintained for conservation purposes. Recreational access to property within the FUDS is allowed by non-residential parcel owners. The current use is not anticipated to change in the future.

A summary table is provided in Attachment 2 which presents the validated analytical data compared to the selected screening levels for the RI. As previously established in the UFP-QAPP, laboratory analytical methods were not able to achieve a limit of detection (LOD) below selected screening levels for several compounds. In these instances, non-detect results that were reported by the laboratory at LOD values not meeting selected screening levels are also highlighted in the table.

A memorandum prepared to detail data validation conducted for MC groundwater samples collected to characterize MRS 1 and MRS 2 is provided in Attachment 4, and final analytical data received from the laboratory is provided in Attachment 5.

A summary of the data evaluation and findings for risk assessment activities conducted to evaluate human health risks present in MRS 1 and MRS 2 related to MC in groundwater associated with historic use is provided in the following sections.

3.0 DATA EVALUATION

As shown in Table 1 (see Attachment 2), the majority of constituents analyzed by the laboratory yielded non-detect results or low level detections at detection limits that were below project screening levels. The only detected analyte reported above its respective screening level was copper, which was observed in samples collected from two of the residences located within MRS 2. Samples from one of the residences were duplicated in the field and copper was detected above the screening level in both samples. Copper was observed at concentrations between 89 and 100 µg/L, compared to the selected screening level of 62 µg/L.

There were no explosives detected in any of the samples. One of the two coolers shipped to the laboratory, containing sample containers for explosives analysis was slightly above temperature requirements upon receipt. The temperature of the cooler was documented at 8.8°C versus an upper quality limit of 6°C. However, the laboratory also noted that there was still solid ice remaining in the cooler. Temperature requirements for sample receipt at the laboratory outlined in the DoD Quality Systems Manual for Environmental Laboratories (QSM) (Version 4.2 subsection 5.8.3.1) indicates that samples that are hand delivered to the laboratory on the same day that they are collected may not meet temperature criteria. In these cases, the samples shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice. Although hand delivery of samples was not logistically possible due to the remote location of this FUDS, sample shipment was expedited to the extent possible and the total duration of time between sample collection until receipt in the laboratory was less than 24 hours. An estimated flag was added to the explosives results during validation to account for this issue, however data quality is considered non-impacted due to the short duration of time between sample collection and sample receipt, and evidence of ice in the cooler documented by the laboratory indicating that preservation was underway.

Perchlorate was reported by the laboratory at estimated positive detections between 0.027 and 0.097 µg/L in samples collected from all four residences. Validation indicates that recovery of the batch Laboratory Control Sample (LCS) was above quality criteria, introducing a potential high bias to these results. Regardless, estimated detections of perchlorate reported by the laboratory appear consistent with levels observed during the SI sampling in 2010, and remain approximately two orders of magnitude below the State-derived screening level of 2 µg/L.

Additionally highlighted in the attached table are occurrences within the data set where non-detect results reported at the laboratory LOD did not meet the selected screening levels. This was observed in the results obtained for several metal analytes, and nitroglycerin. These results are discussed in the context of chemical of potential concern (COPC) selection to assess human health risks below.

3.1 Human Health Risk Evaluation Selection of COPCs

Copper

As shown on Table 1, the range of detected copper was 89 to 100 µg/L with a selected screening level of 62 µg/L used for comparison. Copper is a non-carcinogen, and the selected risk screening level was reduced by an order of magnitude from the published screening level, to account for additive non-carcinogenic risk among multiple non-carcinogens that may affect the same non-carcinogenic endpoint. Based on both historical and current information available regarding suspect and known munitions used at this FUDS property, and lack of any other releases noted throughout the FUDS (i.e., Site Inspection results, RI visual inspections of surface and subsurface, MRS 1 full suite soil sampling, and MRS 2 MC soil sampling), this screening level reduction is likely over conservative and not needed. Without the reduction applied, the positive detections reported by the laboratory would meet the screening level of 620 ug/L as published by EPA. Additionally, copper is not a potential MC for this FUDS based on the type of munitions that were suspected, to be present, and confirmed via SI results, and RI characterization of the Nantucket Beach FUDS. Therefore, copper has not been determined to be a COPC for MRS 1 or MRS 2.

Analytical Level of Detection (LOD) Exceedances of Selected Screening Levels

In accordance with the QSM, the non-detect results obtained by the laboratory for a number of constituents analyzed in groundwater were reported at the LOD, which were found to be greater than respective screening levels. This observation was made for the following analytes reviewed during data evaluation; antimony, arsenic, cadmium, cobalt, lead, selenium, thallium, mercury and nitroglycerin. Of these constituents, only nitroglycerin is a potential MC for MRS 1 and MRS 2 based on suspected and confirmed munitions used at this FUDS.

Nitroglycerin is a non-carcinogen, therefore the selected risk screening level was reduced by an order of magnitude to 0.15 µg/L, from the published screening level of 1.5 µg/L, to account for additive non-carcinogenic risk among multiple non-carcinogens that may affect the same non-carcinogenic endpoint. As this is likely over conservative, the analytical results reported by the laboratory at a LOD of 1.4 µg/L would meet the EPA screening level for nitroglycerin.

The remaining metal analytes that were not detected by the laboratory, but reported at LODs above selected screening levels, are not potential MC for MRS 1 or MRS 2 based on suspected

and confirmed munitions identified at this FUDS. Furthermore, review of the final analytical data package provided by the laboratory (see Attachment 5) indicates that for the analysis of cadmium and mercury, method DLs reported by the laboratory did meet the selected screening levels for all samples evaluated. The remaining metal analytes (i.e., antimony, arsenic, cobalt, lead, selenium and thallium) were also undetected down to the method DLs, but the method DLs were reported at concentrations still exceeding selected screening levels. In the cases of cobalt, lead and selenium (all non-carcinogens), all screening levels have been reduced by an order of magnitude, and without the reduction, the non-detect results reported at the LOD do meet EPA screening levels. For antimony, also a non-carcinogen, the non-detect result observed down to the method DL would meet the screening level as published by EPA.

The selected screening level for arsenic is 0.045 µg/L based on the published EPA carcinogenic target risk ingestion screening level, which has been established at a much more conservative concentration than the federal MCL for arsenic of 10 µg/L. Arsenic was non-detected in any of the groundwater samples collected and was reported at a concentration equivalent to the laboratory's LOD of 9 µg/L, with a method DL of 4.4 µg/L. As indicated above, arsenic is not a suspected MC of concern for this FUDS based on suspected, and subsequently confirmed, types of rockets used for training at this former aerial rocket range. Additionally, there has been no evidence identified at this FUDS that would indicate an arsenic release is present.

For all considerations stated above, the analytical methods used for groundwater analysis were determined to be sufficient for RI risk screening purposes and none of the undetected chemicals analyzed by the laboratory and reported at LOD concentrations in excess of selected screening levels have been identified as COPCs for MRS 1 or MRS 2.

4.0 RECOMMENDATIONS

Based on the findings of this MC Groundwater Data Evaluation Memorandum, no significant exceedances of the screening levels selected to assess human health from ingestion of groundwater were observed for the MC evaluated, and no COPCs were identified for either MRS 1 or MRS 2. Therefore, no further sampling or investigation is proposed to support establishing the nature and extent of MC in groundwater for the RI Report. The data collected supports the proposed conclusion that no remedial action is necessary to protect public health at MRS 1 and MRS 2 from MC in groundwater based on current and intended future use of groundwater underlying the site.

5.0 REFERENCES

MassDEP. 2006b. The Occurrence and Sources of Perchlorate in Massachusetts. Updated April 2006. Accessed via http://www.mass.gov/dep/cleanup/sites/percsour.pdf.

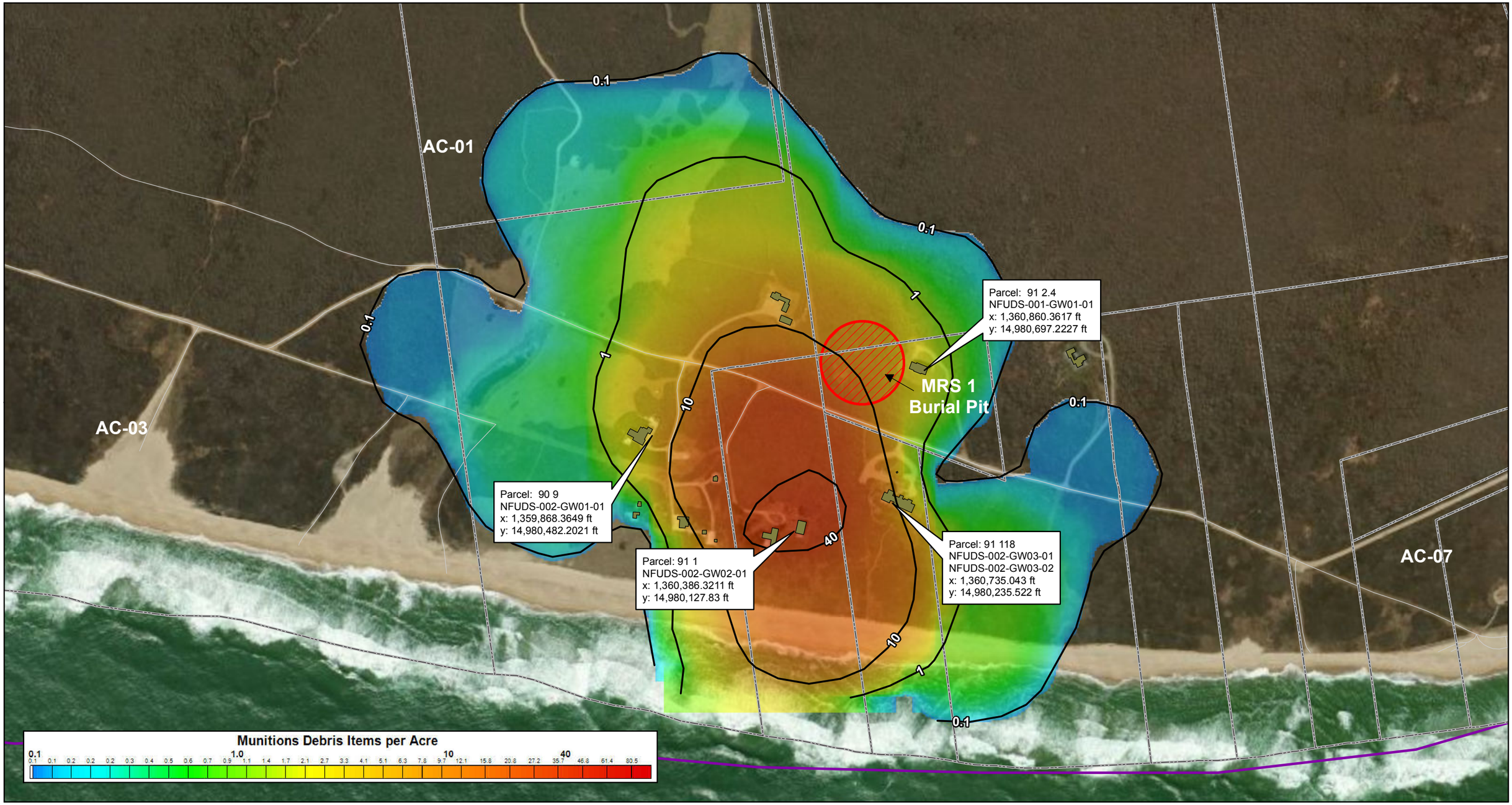
Massachusetts Graphical Information System (MassGIS) 2012a. Numerical Ranking System map accessed on 10 October 2012 via http://maps.massgis.state.ma.us/images/dep/mcp/mcp.htm.

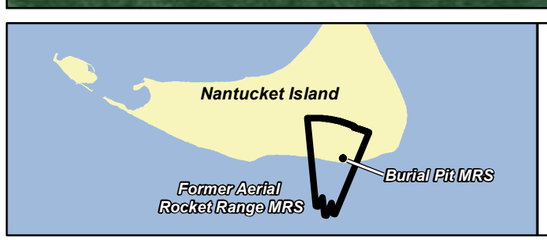
MassGIS. 2012b. Online mapping tool (OLIVER), accessed on 10 October 2012 via http://maps.massgis.state.ma.us/map_ol/oliver.php.

U.S. Geological Survey. 2012. National Water Information System Mapper (online mapping database), accessed 10 October 2012 via http://maps.waterdata.usgs.gov/mapper/index.html.

USACE. 1997. Archives Search Report (ASR) Findings for the former Nantucket Ordnance Site (Tom Nevers Area), Project Number D01MA045601, Nantucket Island, Massachusetts. September 1997.

ATTACHMENT 1
Figure





Anomaly Density Contour
Road
Building
Parcel Lines

Coordinate System:
UTM, Z19N, NAD83, US Foot

US Army Corps of Engineers

Nantucket Beach Formerly Used Defense Site

N

0 220 440 660 Feet

0 80 160 240 Meters

NOTES:
Aerial Data Source: ESRI Bing Imagery Service
Base Data: USACE (2004)

Groundwater Sampling Locations

10/11/2012 Revision: 0	nt_md_density_watersamples
Drawn: curtisf	PROJ: 03886.551.004

ATTACHMENT 2
Table

Table 1
MRS 1 and MRS 2
Munitions Constituents Characterization
Groundwater Sampling Summary
Nantucket Beach FUDS Remedial Investigation

Analytical Method	Compound	CAS No.	Human Health Risk Screening Level [1]	Field Sample ID:	NFUDS-001-GW01-01		NFUDS-002-GW01-01		NFUDS-002-GW02-01		NFUDS-002-GW03-01		NFUDS-002-GW03-02	
				Date:	8/31/2012		8/31/2012		8/31/2012		8/31/2012		8/31/2012	
				Lab Sample ID:	200-12542-1		200-12542-2		200-12542-3		200-12542-4		200-12542-5	
				Depth:	NA		NA		NA		NA		NA	
				Units:		Val. Qual.		Val. Qual.		Val. Qual.		Val. Qual.		Val. Qual.
Metals														
6010C	Aluminum, Total	7429-90-5	1600	ug/l	150	U	150	U	150	U	150	U	150	U
6010C	Antimony, Total	7440-36-0	0.6	ug/l	15	U	15	U	15	U	15	U	15	U
6010C	Arsenic, Total	7440-38-2	0.045	ug/l	9	U	9	U	9	U	9	U	9	U
6010C	Barium, Total	7440-39-3	200	ug/l	14	U	6.8	J	14	U	6.2	J	5.9	J
6010C	Beryllium, Total	7440-41-7	0.4	ug/l	0.35	U	0.35	U	0.35	U	0.35	U	0.35	U
6010C	Cadmium, Total	7440-43-9	0.5	ug/l	2.6	U	2.6	U	2.6	U	2.6	U	2.6	U
6010C	Calcium, Total	7440-70-2	--	ug/l	11000	J	1700	J	1900	J	1600	J	1600	J
6010C	Chromium, Total	7440-47-3	100	ug/l	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
6010C	Cobalt, Total	7440-48-4	0.47	ug/l	2	U	2	U	2	U	2	U	2	U
6010C	Copper, Total	7440-50-8	62	ug/l	1.7	J	89		23	J	97		100	
6010C	Iron, Total	7439-89-6	1100	ug/l	150	U	150	U	150	U	150	U	150	U
6010C	Lead, Total	7439-92-1	1.5	ug/l	9	U	9	U	9	U	9	U	9	U
6010C	Magnesium, Total	7439-95-4	--	ug/l	1000	J	2000	J	1400	J	1500	J	1500	J
6010C	Manganese, Total	7439-96-5	32	ug/l	8.5	U	3.1	J	8.5	U	8.5	U	8.5	U
6010C	Nickel, Total	7440-02-0	30	ug/l	7.5	U	7.5	U	7.5	U	7.5	U	7.5	U
6010C	Potassium, Total	7440-09-7	--	ug/l	520	J	870	J	520	J	520	J	520	J
6010C	Selenium, Total	7782-49-2	5	ug/l	23	U	23	U	23	U	23	U	23	U
6010C	Silver, Total	7440-22-4	7.1	ug/l	3.8	U	3.8	U	3.8	U	3.8	U	3.8	U
6010C	Sodium, Total	7440-23-5	--	ug/l	12000	J	11000		10000		9900		10000	
6010C	Thallium, Total	7440-28-0	0.016	ug/l	20	U	20	U	20	U	20	U	20	U
6010C	Vanadium, Total	7440-62-2	7.8	ug/l	3.8	U	3.8	U	3.8	U	3.8	U	3.8	U
6010C	Zinc, Total	7440-66-6	470	ug/l	2.8	U13	7.1	U13	12	J	8.3	J	8.3	J
7470A	Mercury, Total	7439-97-6	0.063	ug/l	0.1	U	0.1	U	0.11	U14	0.1	U	0.1	U
Explosives														
8330B	1,3,5-Trinitrobenzene	99-35-4	46	ug/l	0.024	UJ15	0.024	UJ15	0.024	U	0.024	UJ15	0.024	UJ15
8330B	1,3-Dinitrobenzene	99-65-0	0.15	ug/l	0.024	UJ15	0.024	UJ15	0.024	U	0.024	UJ15	0.024	UJ15
8330B	2,4,6-Trinitrotoluene	118-96-7	2.2	ug/l	0.048	UJ15	0.048	UJ15	0.048	U	0.048	UJ15	0.048	UJ15
8330B	2,4-diamino-6-nitrotoluene	6629-29-4	--	ug/l	0.048	UJ15	0.048	UJ15	0.048	U	0.048	UJ15	0.048	UJ15
8330B	2,4-Dinitrotoluene	121-14-2	0.14	ug/l	0.048	UJ15	0.048	UJ15	0.048	U	0.048	UJ15	0.048	UJ15
8330B	2,6-diamino-4-nitrotoluene	59229-75-3	--	ug/l	0.048	UJ15	0.048	UJ15	0.048	U	0.048	UJ15	0.048	UJ15
8330B	2,6-Dinitrotoluene	606-20-2	1.5	ug/l	0.024	UJ15	0.024	UJ15	0.024	U	0.024	UJ15	0.024	UJ15
8330B	2-Amino-4,6-dinitrotoluene	35572-78-2	3	ug/l	0.048	UJ15	0.048	UJ15	0.048	U	0.048	UJ15	0.048	UJ15
8330B	2-Nitrotoluene	88-72-2	0.27	ug/l	0.048	UJ15	0.048	UJ15	0.048	U	0.048	UJ15	0.048	UJ15
8330B	3-Nitrotoluene	99-08-1	0.13	ug/l	0.06	UJ15	0.06	UJ15	0.06	U	0.06	UJ15	0.06	UJ15
8330B	4-Amino-2,6-dinitrotoluene	19406-51-0	3	ug/l	0.024	UJ15	0.024	UJ15	0.024	U	0.024	UJ15	0.024	UJ15
8330B	4-Nitrotoluene	99-99-0	3.7	ug/l	0.06	UJ15	0.06	UJ15	0.06	U	0.06	UJ15	0.06	UJ15
8330B	HMX	2691-41-0	78	ug/l	0.024	UJ15	0.024	UJ15	0.024	U	0.024	UJ15	0.024	UJ15
8330B	Nitrobenzene	98-95-3	0.12	ug/l	0.048	UJ15	0.048	UJ15	0.048	U	0.048	UJ15	0.048	UJ15
8330B	Nitroglycerin	55-63-0	0.15	ug/l	1.4	UJ15	1.4	UJ15	1.4	U	1.4	UJ15	1.4	UJ15
8330B	PETN	78-11-5	--	ug/l	2	UJ15	2	UJ15	2	U	2	UJ15	2	UJ15
8330B	Picric acid	88-89-1	--	ug/l	0.048	UJ15	0.048	UJ15	0.048	U	0.048	UJ15	0.048	UJ15
8330B	RDX	121-82-4	0.61	ug/l	0.024	UJ15	0.024	UJ15	0.024	U	0.024	UJ15	0.024	UJ15
8330B	Tetryl	479-45-8	6.3	ug/l	0.048	UJ15	0.048	UJ15	0.048	U	0.048	UJ15	0.048	UJ15
Perchlorate														
6850	Perchlorate	14797-73-0	2	ug/l	0.027	J2	0.039	J2	0.097	J2	0.04	U	0.027	J2

Table 1
MRS 1 and MRS 2
Munitions Constituents Characterization
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Nantucket Beach FUDS Remedial Investigation

Notes:

Lab Qualifiers

J	The positive result reported for this analyte is a quantitative estimate.
U	The analyte was not detected in the sample. The numeric value represents the sample detection limit
Q	One or more quality control criteria failed.
R	The result for this analyte is unusable. The analyte may or may not be present.
UJ	The analyte was not detected in the sample. The detection limit should be considered estimated and may be inaccurate or imprecise.

Validation Qualifiers

J[2]	Estimate positive results for perchlorate due to LCS recovery above QC limits (potential high bias)
U[13]	Qualify the positive zinc results as undetected due to method blank contamination.
U[14]	Qualify the positive Hg results as undetected due to continuing calibration blank contamination.
J[15]/UJ[15]	Estimate positive and non-detected explosive results due to cooler temperature outside acceptance limits (bias can't be determined)

Screening Levels

[1] Except for perchlorate, human health screening values for groundwater were selected from EPA RSLs (U.S. EPA, 2012) for tapwater and/or Federal MCLs; the most stringent of the RSLs or MCLs were selected;
For perchlorate, a more conservative State drinkwater screening criterion has been established by MassDEP and was adopted for data evaluation and risk screening of perchlorate concentrations in groundwater (MassDEP, 2006).
Non-carcinogenic endpoint screening levels (except for perchlorate) were divided by ten (10) to account for potential occurrence of adverse health effects due to exposure to multiple noncarcinogens.

-- = screening level not available

Analytical results highlighed in **PINK** exceed the selected human health screening level

Analytical results highlighted in **YELLOW** were not detected by the laboratory but are reported at a limit of detection above the selected screening level

EPA = U.S. Environmental Protection Agency
MassDEP = Massachusetts Department of Environmental Protection
µg/L = micrograms per liter
LOD = limit of detection
RSL = Regional Screening Level
NA = Not applicable
HMX = Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine
PETN = Pentaerythritol tetranitrate
RDX = Hexahydro-1,3,5-trinitro-1,3,5-triazine
Tetryl = Methyl-2,4,6-trinitrophenylnitramine

ATTACHMENT 3
Well Construction Data

MassDEP
Well Completion Report

10/12/2012 8:01:48 AM

WELL LOCATION

GPS North: 0 GPS West: 0 Assessors Map:
Address: 6 New South Road Assessors Lot #:
Subdivision Name: 91/2.4 Permit number:
City/Town: NANTUCKET Date Issued:
Board of Heath permit obtained: Y

Work Performed	Proposed Use	Drilling Method Overburden	Drilling Method Bedrock
New Well	Domestic	Mud Rotary	

ADDITIONAL WELL INFORMATION

Developed :
Disinfected :
Total Well Depth : 85
Fracture Enhancement :
Well Seal Type :
Depth to Bedrock :

PERMANENT PUMP (IF AVAILABLE)

Pump description :
Type :
Nominal Pump Capacity :
Intake Depth :
Horsepower :
Comments : Well is located 200' North of New South Road, .4 miles West of Tom Nevers Road.

CASING

From (ft)	To (ft)	Type	Thickness	Diameter
0	80	Polyvinyl Chloride	Schedule 40	4

SCREEN

From (ft)	To (ft)	Type	Slot Size	Diameter
80	85		.020	4

WELL SEAL / FILTER PACK / ABANDONMENT MATERIAL

From (ft)	To (ft)	Material Description	Purpose

STATIC WATER LEVEL (ALL WELLS)

Date Measured	Depth Below Ground Surface (ft)
04/06/1998	25

WELL TEST DATA (ALL SECTIONS MANDATORY FOR PRODUCTION WELLS)

Date	Method	Yield (GPM)	Time Pumped (hrs & min)	Pumping Level (Ft. BGS)	Time To Recover (Hrs & Min)	Recovery (Ft. BGS)
04/06/1998		50	1:00	29	00:10	25

OVER BURDEN

From (ft)	To (ft)	Lithology	Color	Comment	Water Zone	Loss/Add of fluid	Drill Stem Drop	Drill Rate
0	0.6667			Top Soil	No			
0.6667	2			Hardening Overburden	No			
2	10	Coarse Sand			No			
10	22	Medium Sand			No			
22	35	Gravel			No			
35	55	Medium Sand			No			
55	65	Coarse Sand			No			
65	75	Fine Sand			No			
75	85	Sand And Gravel			No			

MassDEP
Well Completion Report

10/12/2012 8:04:03 AM

WELL LOCATION

GPS North: **GPS West:** **Assessors Map:** 90
Address: 1 New South Road **Assessors Lot #:** 9
Subdivision Name: **Permit number:**
City/Town: Nantucket **Date Issued:**
Board of Heath permit obtained:

Work Performed	Proposed Use	Drilling Method Overburden	Drilling Method Bedrock
New Well	Domestic		

ADDITIONAL WELL INFORMATION

Developed : Yes
Disinfected : No
Total Well Depth : 64
Fracture Enhancement : No
Well Seal Type : air
Depth to Bedrock : 0

PERMANENT PUMP (IF AVAILABLE)

Pump description :
Type :
Nominal Pump Capacity :
Intake Depth :
Horsepower :
Comments :

CASING

From (ft)	To (ft)	Type	Thickness	Diameter
0	64	Polyvinyl Chloride		4
0				

SCREEN

From (ft)	To (ft)	Type	Slot Size	Diameter
58	64	Slotted PVC	.015	4

WELL SEAL / FILTER PACK / ABANDONMENT MATERIAL

From (ft)	To (ft)	Material Description	Purpose

STATIC WATER LEVEL (ALL WELLS)

Date Measured	Depth Below Ground Surface (ft)
10/23/2002	24

WELL TEST DATA (ALL SECTIONS MANDATORY FOR PRODUCTION WELLS)

Date	Method	Yield (GPM)	Time Pumped (hrs & min)	Pumping Level (Ft. BGS)	Time To Recover (Hrs & Min)	Recovery (Ft. BGS)
10/23/2002	Air Lift	20	1:00:00	24	1:00:00	

OVER BURDEN

From (ft)	To (ft)	Lithology	Color	Comment	Water Zone	Loss/Add of fluid	Drill Stem Drop	Drill Rate

BEDROCK

From (ft)	To (ft)	Lithology	Comment	Water Zone	Drill Stem Drop	Extra Large	Drill Rate	Rust Stain	Loss/Add of fluid	# of Fract per ft

MassDEP

Well Completion Report

10/12/2012 8:05:44 AM

WELL LOCATION

GPS North: GPS West: Assessors Map:
Address: 10 New South Road Assessors Lot #:
Subdivision Name: Permit number:
City/Town: Nantucket Date Issued:
Board of Heath permit obtained: Y

Work Performed	Proposed Use	Drilling Method Overburden	Drilling Method Bedrock
New Well	Domestic	Auger	

ADDITIONAL WELL INFORMATION

Developed : Yes
Disinfected : Yes
Total Well Depth : 60
Fracture Enhancement :
Well Seal Type :
Depth to Bedrock : 0

PERMANENT PUMP (IF AVAILABLE)

Pump description :
Type :
Nominal Pump Capacity : 22
Intake Depth : 56
Horsepower : 1.5
Comments :

CASING

From (ft)	To (ft)	Type	Thickness	Diameter
0	57	Polyvinyl Chloride	Schedule 40	4
0				

SCREEN

From (ft)	To (ft)	Type	Slot Size	Diameter
57	60		.012	4

WELL SEAL / FILTER PACK / ABANDONMENT MATERIAL

From (ft)	To (ft)	Material Description	Purpose

STATIC WATER LEVEL (ALL WELLS)

Date Measured	Depth Below Ground Surface (ft)
08/23/2006	26

WELL TEST DATA (ALL SECTIONS MANDATORY FOR PRODUCTION WELLS)

Date	Method	Yield (GPM)	Time Pumped (hrs & min)	Pumping Level (Ft. BGS)	Time To Recover (Hrs & Min)	Recovery (Ft. BGS)
08/23/2006	Core	15	:30	27	< :01	26

OVER BURDEN

From (ft)	To (ft)	Lithology	Color	Comment	Water Zone	Loss/Add of fluid	Drill Stem Drop	Drill Rate
0	60	Coarse Sand		& MS, H2O @ 26'	Yes			

BEDROCK

From (ft)	To (ft)	Lithology	Comment	Water Zone	Drill Stem Drop	Extra Large	Drill Rate	Rust Stain	Loss/Add of fluid	# of Fract per ft

ATTACHMENT 4
Data Validation Memorandum

Weston Solutions, Inc.
45 Constitution Way
Concord, NH 03301-5079
603-656-5400 ● Fax 603-656-5401
www.westonsolutions.com

DATE: September 27, 2012

PROJECT: Nantucket Beach FUDS
03886.551.004

LABORATORY: TestAmerica Laboratories, Inc., South Burlington, VT

SDG: 200-12542-1

FROM: Diane Quigley
Senior Technical Manager

SAMPLES: NFUDS-001-GW01-01, NFUDS-002-GW01-01, NFUDS-002-GW02-01, NFUDS-002-GW03-01, NFUDS-002-GW03-02

This data validation report is based upon a review of analytical data generated for five groundwater samples collected on August 31, 2012 by Weston Solutions, Inc., (WESTON).

The samples were analyzed for total metals by SW-846 Method 6010C, total mercury by SW-846 Method 7471B, explosives by SW-846 Method 8330B, and perchlorate by SW-846 Method 6850.

Weston performed a modified Tier II data validation in accordance with the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Data Review, USEPA, 06/2008 and USEPA CLP National Functional Guidelines for Inorganic Superfund Data Review, January 2010.

The data were evaluated based on the following parameters:

* Overall Evaluation of Data and Potential Usability Issues
* Data Completeness
* Chain-of-Custody (COC) Documentation
  Holding Times and Sample Preservation
* GC/MS Tune

	Method Blanks/Field blanks/Instrument blanks
*	Initial and Continuing Calibrations
*	Surrogate Recoveries
	Matrix Spike Recoveries and Reproducibility
*	Field Duplicates
*	Laboratory Duplicates/Serial Dilution (Inorganics)
	Laboratory Control Samples (LCS)
*	Internal Standard Performance
*	Qualitative Identification
	Quantitation Limits

* – Denotes QC parameter was evaluated and criteria was met.

Overall Evaluation of Data and Potential Usability Issues

Metals

Zinc results in samples NFUDS-001-GW01-01 and NFUDS-002-GW01-01 were qualified as undetected (U^{13}) due to method blank contamination.

Mercury

The positive Hg result in sample NFUDS-002-GW02-01 was qualified as undetected (U^{14}) due to CCB contamination.

The laboratory flagged the non-detected Hg result in sample NFUDS-001-GW01-01 with a "J" due to a matrix spike recovery above the QC limits. The validator removed the "J" since non-detected results are not affected by high MS recoveries.

Explosives 8330

The temperature of the cooler carrying the explosive samples NFUDS-001-GW01-01, NFUDS-002-GW01-01, NFUDS-002-GW03-01 and NFUDS-002-GW03-02 arrived at the laboratory above the accepted criteria. The positive and non-detected explosive results in these four samples were estimated (J^{15}/UJ^{15}).

Perchlorate

The LCS recovery for perchlorate was slightly above QC limits. The laboratory qualified positive perchlorate results with a "Q" to indicate one or more quality control criteria failed. The validator changed the Q flag to a "J^{2}" to indicate perchlorate results are estimated due to potential high bias.

Holding Time and Sample Preservation

The laboratory noted in the case narrative that the temperature of the cooler (8.8^{o} C) carrying the explosive samples NFUDS-001-GW01-01, NFUDS-002-GW01-01, NFUDS-002-GW03-01 and NFUDS-002-GW03-02 arrived at the laboratory on ice but slightly above the accepted criteria of 4 $\pm$ 2° C. The positive and non-detected explosive results in these four samples were estimated (J^{1},UJ^{1}).

Method Blanks/Instrument Blanks

Metals

Zinc was detected in MB 200-44584/1-A (1.44 ug/l) below the LOQ but above the DL. Using the 5 x action rule, zinc results less than 7.2 ug/l were qualified as undetected (U^{13}). Zinc results in samples (NFUDS-001-GW01-01, NFUDS-002-GW01-01) were qualified U^{13}.

Mercury

Mercury was detected in CCB 200-44948/10A at .111ug/l. Using the 5 x action rule, positive Hg results less than .555 ug/l should be qualified as undetected. The positive Hg result in sample NFUDS-002-GW02-01 was qualified as undetected (U^{14}) due to CCB contamination.

Matrix Spike Recoveries and Precision

Metals

The metals matrix spike (MS) was performed on sample NFUDS-001-GW01-01. Calcium (122%), Sodium (122%) and Silver (127%) recovered above QC limits of 80-120%. The laboratory flagged the calcium and sodium results with a "4" to indicate original sample concentration was greater than 4 times the matrix spiked amount. No qualifications are necessary for calcium and sodium. The laboratory flagged the silver non-detected result in sample NFUDS-001-GW01-01 with a "J". The validator removed the "J' and reported the 3.8 U result unqualified since only positive results would have a potential high bias due to high spike recovery. Non-detected results are not affected. The post digestion spike had all recoveries within acceptance limits.

Mercury

The mercury matrix spike was performed on sample NFUDS-001-GW01-01 (117%) and was above QC limits of 85-115%. The laboratory flagged the non-detected Hg result in sample NFUDS-001-GW01-01 with a "J". The validator removed the "J" since only

positive results would have been affected by the high MS recovery. Since Hg was not detected in any of the samples, no qualifications were necessary.

Field Duplicates

Samples NFUDS-002-GW03-01 and NFUDS-002-GW03-02 were field duplicates. The %RPD criteria of less than 30% were met in all analyses.

Laboratory Control Samples

Perchlorate

The LCS recovery for perchlorate was slightly above QC limits. The laboratory qualified perchlorate results with a "Q". The validator changed the Q flag to a "J^2" to indicate positive perchlorate results are estimated due to potential high bias.

Limits of Quantitation

The laboratory qualified several compounds in several samples as "M" to indicate that manual integration of these compounds had been performed. The "M" qualifiers were removed during validation.

Data Validation Qualifier Code Glossary

Lab Validation Qualifier	Explanation
J	The positive result reported for this analyte is a quantitative estimate.
U	The analyte was not detected in the sample. The numeric value represents the sample detection limit
Q	One or more quality control criteria failed.
R	The result for this analyte is unusable. The analyte may or may not be present.
UJ	The analyte was not detected in the sample. The detection limit should be considered estimated and may be inaccurate or imprecise.

Data Reviewer's Validation Qualifier	Explanation
J^2	Estimate positive results for perchlorate due to LCS recovery above QC limits (potential high bias)
U^{13}	Qualify the positive zinc results as undetected due to method blank contamination.

U[14]	Qualify the positive Hg results as undetected due to continuing calibration blank contamination.
J[15]/UJ[15]	Estimate positive and non-detected explosive results due to cooler temperature outside acceptance limits (bias can't be determined)

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Client Sample ID: **NFUDS-001-GW01-01**

Lab Sample ID: 200-12542-1
Client Matrix: Water

Date Sampled: 08/31/2012 1215
Date Received: 09/01/2012 0950

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-44491	Instrument ID:	CH1488
Prep Method:	8330-Prep	Prep Batch:	200-44398	Initial Weight/Volume:	500 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	09/06/2012 1210			Injection Volume:	450 uL
Prep Date:	09/04/2012 1041			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	93		40 - 150

DFK 9/17/12

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Client Sample ID: **NFUDS-001-GW01-01**

Lab Sample ID: 200-12542-1
Client Matrix: Water

Date Sampled: 08/31/2012 1215
Date Received: 09/01/2012 0950

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method: 8330B
Prep Method: 8330-Prep
Dilution: 1.0
Analysis Date: 09/06/2012 1611
Prep Date: 09/04/2012 1041

Analysis Batch: 200-44487
Prep Batch: 200-44398

Instrument ID: CH1208
Initial Weight/Volume: 500 mL
Final Weight/Volume: 10000 uL
Injection Volume: 150 uL
Result Type: PRIMARY

validated UJ's finalized

Analyte	Result (ug/L)	Qualifier	DL	LOQ
2,6-diamino-4-nitrotoluene	0.048	U	0.014	0.20
HMX	0.024	U	0.011	0.20
2,4-diamino-6-nitrotoluene	0.048	U	0.014	0.20
RDX	0.024	U	0.021	0.20
Picric acid	0.048	U	0.036	0.20
1,3,5-Trinitrobenzene	0.024	U	0.0098	0.20
1,3-Dinitrobenzene	0.024	U M	0.016	0.20
Nitrobenzene	0.048	U	0.041	0.20
Tetryl	0.048	U	0.028	0.20
Nitroglycerin	1.4	U	1.2	4.0
2,4,6-Trinitrotoluene	0.048	U M	0.032	0.20
4-Amino-2,6-dinitrotoluene	0.024	U M	0.020	0.20
2-Amino-4,6-dinitrotoluene	0.048	U	0.026	0.20
2,6-Dinitrotoluene	0.024	U	0.018	0.20
2,4-Dinitrotoluene	0.048	U	0.028	0.20
2-Nitrotoluene	0.048	U	0.034	0.20
4-Nitrotoluene	0.060	U	0.054	0.20
3-Nitrotoluene	0.060	U M	0.054	0.20
PETN	2.0	U	2.0	10

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	97		40 - 150

DFC 9/17/12

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Client Sample ID: **NFUDS-002-GW01-01**

Lab Sample ID: 200-12542-2
Client Matrix: Water

Date Sampled: 08/31/2012 1015
Date Received: 09/01/2012 0950

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-44491	Instrument ID:	CH1488
Prep Method:	8330-Prep	Prep Batch:	200-44398	Initial Weight/Volume:	500 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	09/06/2012 1352			Injection Volume:	450 uL
Prep Date:	09/04/2012 1041			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	98	M	40 - 150

DFB 9/27/12

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Client Sample ID: **NFUDS-002-GW01-01**

Lab Sample ID: 200-12542-2
Client Matrix: Water

Date Sampled: 08/31/2012 1015
Date Received: 09/01/2012 0950

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method: 8330B
Prep Method: 8330-Prep
Dilution: 1.0
Analysis Date: 09/06/2012 1804
Prep Date: 09/04/2012 1041

Analysis Batch: 200-44487
Prep Batch: 200-44398

Instrument ID: CH1208
Initial Weight/Volume: 500 mL
Final Weight/Volume: 10000 uL
Injection Volume: 150 uL
Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	DL	LOQ
2,6-diamino-4-nitrotoluene	0.048	U	0.014	0.20
HMX	0.024	U	0.011	0.20
2,4-diamino-6-nitrotoluene	0.048	U	0.014	0.20
RDX	0.024	U	0.021	0.20
Picric acid	0.048	U	0.036	0.20
1,3,5-Trinitrobenzene	0.024	U	0.0098	0.20
1,3-Dinitrobenzene	0.024	U	0.016	0.20
Nitrobenzene	0.048	U	0.041	0.20
Tetryl	0.048	U	0.028	0.20
Nitroglycerin	1.4	U	1.2	4.0
2,4,6-Trinitrotoluene	0.048	U M	0.032	0.20
4-Amino-2,6-dinitrotoluene	0.024	U M	0.020	0.20
2-Amino-4,6-dinitrotoluene	0.048	U	0.026	0.20
2,6-Dinitrotoluene	0.024	U	0.018	0.20
2,4-Dinitrotoluene	0.048	U	0.028	0.20
2-Nitrotoluene	0.048	U	0.034	0.20
4-Nitrotoluene	0.060	U	0.054	0.20
3-Nitrotoluene	0.060	U	0.054	0.20
PETN	2.0	U M	2.0	10

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	102		40 - 150

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Client Sample ID: **NFUDS-002-GW02-01**

Lab Sample ID: 200-12542-3
Client Matrix: Water

Date Sampled: 08/31/2012 1100
Date Received: 09/01/2012 0950

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-44491	Instrument ID:	CH1488
Prep Method:	8330-Prep	Prep Batch:	200-44398	Initial Weight/Volume:	500 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	09/06/2012 1426			Injection Volume:	450 uL
Prep Date:	09/04/2012 1041			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	97	M	40 - 150

DFC 9/27/12

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Client Sample ID: **NFUDS-002-GW02-01**

Lab Sample ID: 200-12542-3
Client Matrix: Water

Date Sampled: 08/31/2012 1100
Date Received: 09/01/2012 0950

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-44487	Instrument ID:	CH1208
Prep Method:	8330-Prep	Prep Batch:	200-44398	Initial Weight/Volume:	500 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	09/06/2012 1841			Injection Volume:	150 uL
Prep Date:	09/04/2012 1041			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	DL	LOQ
2,6-diamino-4-nitrotoluene	0.048	U	0.014	0.20
HMX	0.024	U	0.011	0.20
2,4-diamino-6-nitrotoluene	0.048	U	0.014	0.20
RDX	0.024	U	0.021	0.20
Picric acid	0.048	U	0.036	0.20
1,3,5-Trinitrobenzene	0.024	U	0.0098	0.20
1,3-Dinitrobenzene	0.024	U	0.016	0.20
Nitrobenzene	0.048	U	0.041	0.20
Tetryl	0.048	U	0.028	0.20
Nitroglycerin	1.4	U	1.2	4.0
2,4,6-Trinitrotoluene	0.048	U M	0.032	0.20
4-Amino-2,6-dinitrotoluene	0.024	U M	0.020	0.20
2-Amino-4,6-dinitrotoluene	0.048	U	0.026	0.20
2,6-Dinitrotoluene	0.024	U	0.018	0.20
2,4-Dinitrotoluene	0.048	U	0.028	0.20
2-Nitrotoluene	0.048	U	0.034	0.20
4-Nitrotoluene	0.060	U	0.054	0.20
3-Nitrotoluene	0.060	U	0.054	0.20
PETN	2.0	U M	2.0	10

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	104		40 - 150

DRB 9/27/12

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Client Sample ID: **NFUDS-002-GW03-01**

Lab Sample ID: 200-12542-4
Client Matrix: Water

Date Sampled: 08/31/2012 1130
Date Received: 09/01/2012 0950

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-44491	Instrument ID:	CH1488
Prep Method:	8330-Prep	Prep Batch:	200-44398	Initial Weight/Volume:	500 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	09/06/2012 1501			Injection Volume:	450 uL
Prep Date:	09/04/2012 1041			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	99	M	40 - 150

DFC 9/27/12

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Client Sample ID: **NFUDS-002-GW03-01**

Lab Sample ID: 200-12542-4
Client Matrix: Water

Date Sampled: 08/31/2012 1130
Date Received: 09/01/2012 0950

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method: 8330B
Prep Method: 8330-Prep
Dilution: 1.0
Analysis Date: 09/06/2012 1918
Prep Date: 09/04/2012 1041

Analysis Batch: 200-44487
Prep Batch: 200-44398

Instrument ID: CH1208
Initial Weight/Volume: 500 mL
Final Weight/Volume: 10000 uL
Injection Volume: 150 uL
Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	DL	LOQ
2,6-diamino-4-nitrotoluene	0.048	U	0.014	0.20
HMX	0.024	U	0.011	0.20
2,4-diamino-6-nitrotoluene	0.048	U	0.014	0.20
RDX	0.024	U	0.021	0.20
Picric acid	0.048	U	0.036	0.20
1,3,5-Trinitrobenzene	0.024	U	0.0098	0.20
1,3-Dinitrobenzene	0.024	U M	0.016	0.20
Nitrobenzene	0.048	U	0.041	0.20
Tetryl	0.048	U	0.028	0.20
Nitroglycerin	1.4	U	1.2	4.0
2,4,6-Trinitrotoluene	0.048	U	0.032	0.20
4-Amino-2,6-dinitrotoluene	0.024	U M	0.020	0.20
2-Amino-4,6-dinitrotoluene	0.048	U	0.026	0.20
2,6-Dinitrotoluene	0.024	U	0.018	0.20
2,4-Dinitrotoluene	0.048	U	0.028	0.20
2-Nitrotoluene	0.048	U	0.034	0.20
4-Nitrotoluene	0.060	U	0.054	0.20
3-Nitrotoluene	0.060	U M	0.054	0.20
PETN	2.0	U M	2.0	10

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	101		40 - 150

DKC 9/27/12

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Client Sample ID: **NFUDS-002-GW03-02**

Lab Sample ID: 200-12542-5
Client Matrix: Water

Date Sampled: 08/31/2012 1130
Date Received: 09/01/2012 0950

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-44491	Instrument ID:	CH1488
Prep Method:	8330-Prep	Prep Batch:	200-44398	Initial Weight/Volume:	500 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	09/06/2012 1535			Injection Volume:	450 uL
Prep Date:	09/04/2012 1041			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	97	M	40 - 150

9/20/12 DLC

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Client Sample ID: **NFUDS-002-GW03-02**

Lab Sample ID: 200-12542-5
Client Matrix: Water

Date Sampled: 08/31/2012 1130
Date Received: 09/01/2012 0950

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-44487	Instrument ID:	CH1208
Prep Method:	8330-Prep	Prep Batch:	200-44398	Initial Weight/Volume:	500 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	09/06/2012 1956			Injection Volume:	150 uL
Prep Date:	09/04/2012 1041			Result Type:	PRIMARY

validation qual. UJ15

Analyte	Result (ug/L)	Qualifier	DL	LOQ
2,6-diamino-4-nitrotoluene	0.048	U	0.014	0.20
HMX	0.024	U	0.011	0.20
2,4-diamino-6-nitrotoluene	0.048	U	0.014	0.20
RDX	0.024	U	0.021	0.20
Picric acid	0.048	U	0.036	0.20
1,3,5-Trinitrobenzene	0.024	U	0.0098	0.20
1,3-Dinitrobenzene	0.024	U	0.016	0.20
Nitrobenzene	0.048	U	0.041	0.20
Tetryl	0.048	U	0.028	0.20
Nitroglycerin	1.4	U	1.2	4.0
2,4,6-Trinitrotoluene	0.048	U	0.032	0.20
4-Amino-2,6-dinitrotoluene	0.024	U M	0.020	0.20
2-Amino-4,6-dinitrotoluene	0.048	U	0.026	0.20
2,6-Dinitrotoluene	0.024	U	0.018	0.20
2,4-Dinitrotoluene	0.048	U	0.028	0.20
2-Nitrotoluene	0.048	U	0.034	0.20
4-Nitrotoluene	0.060	U M	0.054	0.20
3-Nitrotoluene	0.060	U	0.054	0.20
PETN	2.0	U M	2.0	10

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	99		40 - 150

DFC 9/27/12

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Client Sample ID: **NFUDS-001-GW01-01**

Lab Sample ID: 200-12542-1
Client Matrix: Water

Date Sampled: 08/31/2012 1215
Date Received: 09/01/2012 0950

6850 Perchlorate by LC/MS or LC/MS/MS

Analysis Method:	6850	Analysis Batch:	200-44707	Instrument ID:	LC3062
	N/A	Prep Batch:	N/A	Lab File ID:	P091112A06.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/11/2012 1136			Final Weight/Volume:	5 mL
Prep Date:	N/A			Injection Volume:	100 uL

validation Qualifiers

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Perchlorate	0.027	J M Q	0.015	0.20

DFG 9/7/12

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Client Sample ID: **NFUDS-002-GW01-01**

Lab Sample ID: 200-12542-2
Client Matrix: Water

Date Sampled: 08/31/2012 1015
Date Received: 09/01/2012 0950

6850 Perchlorate by LC/MS or LC/MS/MS

Analysis Method:	6850	Analysis Batch:	200-44707	Instrument ID:	LC3062
	N/A	Prep Batch:	N/A	Lab File ID:	P091112A07.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/11/2012 1151			Final Weight/Volume:	5 mL
Prep Date:	N/A			Injection Volume:	100 uL

validation

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Perchlorate	0.039	J M Q	J2 0.015	0.20

DRC 9/17/12

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Client Sample ID: **NFUDS-002-GW02-01**

Lab Sample ID: 200-12542-3
Client Matrix: Water

Date Sampled: 08/31/2012 1100
Date Received: 09/01/2012 0950

6850 Perchlorate by LC/MS or LC/MS/MS

Analysis Method:	6850	Analysis Batch:	200-44707	Instrument ID:	LC3062
	N/A	Prep Batch:	N/A	Lab File ID:	P091112A08.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/11/2012 1206			Final Weight/Volume:	5 mL
Prep Date:	N/A			Injection Volume:	100 uL

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Perchlorate	0.097	J Q	0.015	0.20

Validation Qualifiers
J2

DVG 9/27/12

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Client Sample ID: **NFUDS-002-GW03-01**

Lab Sample ID: 200-12542-4
Client Matrix: Water

Date Sampled: 08/31/2012 1130
Date Received: 09/01/2012 0950

6850 Perchlorate by LC/MS or LC/MS/MS

Analysis Method:	6850	Analysis Batch:	200-44707	Instrument ID:	LC3062
	N/A	Prep Batch:	N/A	Lab File ID:	P091112A09.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/11/2012 1221			Final Weight/Volume:	5 mL
Prep Date:	N/A			Injection Volume:	100 uL

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Perchlorate	0.040	U Q	0.015	0.20

DFG 9/27/12

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Client Sample ID: **NFUDS-002-GW03-02**

Lab Sample ID: 200-12542-5
Client Matrix: Water

Date Sampled: 08/31/2012 1130
Date Received: 09/01/2012 0950

6850 Perchlorate by LC/MS or LC/MS/MS

Analysis Method:	6850	Analysis Batch:	200-44707	Instrument ID:	LC3062
	N/A	Prep Batch:	N/A	Lab File ID:	P091112A10.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/11/2012 1237			Final Weight/Volume:	5 mL
Prep Date:	N/A			Injection Volume:	100 uL

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Perchlorate	0.027	J M Q	0.015	0.20

Validation Qualifiers J2

DRG 9/27/12

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Client Sample ID: **NFUDS-001-GW01-01**

Lab Sample ID: 200-12542-1
Client Matrix: Water

Date Sampled: 08/31/2012 1215
Date Received: 09/01/2012 0950

6010C Metals (ICP)

Analysis Method: 6010C
Prep Method: 3010A
Dilution: 1.0
Analysis Date: 09/08/2012 2212
Prep Date: 09/06/2012 1000

Analysis Batch: 200-44675
Prep Batch: 200-44584

Instrument ID: METICP7
Lab File ID: 090812-04.ttx
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Aluminum	150	U	39	200
Antimony	15	U	4.1	60
Arsenic	9.0	U	4.4	10
Barium	14	U	5.2	200
Beryllium	0.35	U	0.29	5.0
Cadmium	2.6	U	0.45	5.0
Calcium	11000	J	120	5000
Chromium	2.5	U	0.55	10
Cobalt	2.0	U	0.92	50
Copper	1.7	J	1.6	25
Iron	150	U	39	200
Lead	9.0	U	5.4	10
Magnesium	1000	J	64	5000
Manganese	8.5	U	1.9	15
Nickel	7.5	U	1.8	40
Potassium	520	J	180	5000
Selenium	23	U	6.1	35
Silver	3.8	U 3.84	2.1	10
Sodium	12000	J	51	5000
Thallium	20	U	2.6	25
Vanadium	3.8	U	1.6	50
Zinc	2.8	J U 13	0.75	20

Validation Qualifiers

7470A Mercury (CVAA)

Analysis Method: 7470A
Prep Method: 7470A
Dilution: 1.0
Analysis Date: 09/14/2012 1542
Prep Date: 09/14/2012 0900

Analysis Batch: 200-44963
Prep Batch: 200-44948

Instrument ID: MEPCV3 II
Lab File ID: 091412FF.PRN
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Mercury	0.10	U J U	0.060	0.20

Validation Qualifiers

remove "J"

DFG 9/27/12

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Client Sample ID: **NFUDS-002-GW01-01**

Lab Sample ID: 200-12542-2
Client Matrix: Water

Date Sampled: 08/31/2012 1015
Date Received: 09/01/2012 0950

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	200-44675	Instrument ID:	METICP7
Prep Method:	3010A	Prep Batch:	200-44584	Lab File ID:	090812-04.ttx
Dilution:	1.0			Initial Weight/Volume:	100 mL
Analysis Date:	09/08/2012 2245			Final Weight/Volume:	100 mL
Prep Date:	09/06/2012 1000				

validation Qualifiers

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Aluminum	150	U	39	200
Antimony	15	U	4.1	60
Arsenic	9.0	U	4.4	10
Barium	6.8	J	5.2	200
Beryllium	0.35	U	0.29	5.0
Cadmium	2.6	U	0.45	5.0
Calcium	1700	J	120	5000
Chromium	2.5	U	0.55	10
Cobalt	2.0	U	0.92	50
Copper	89		1.6	25
Iron	150	U	39	200
Lead	9.0	U	5.4	10
Magnesium	2000	J	64	5000
Manganese	3.1	J	1.9	15
Nickel	7.5	U	1.8	40
Potassium	870	J	180	5000
Selenium	23	U	6.1	35
Silver	3.8	U	2.1	10
Sodium	11000		51	5000
Thallium	20	U	2.6	25
Vanadium	3.8	U	1.6	50
Zinc	7.1	J	0.75	20

U13

7470A Mercury (CVAA)

Analysis Method:	7470A	Analysis Batch:	200-44963	Instrument ID:	MEPCV3 II
Prep Method:	7470A	Prep Batch:	200-44948	Lab File ID:	091412FF.PRN
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	09/14/2012 1549			Final Weight/Volume:	50 mL
Prep Date:	09/14/2012 0900				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Mercury	0.10	U	0.060	0.20

OFC 9/27/12

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Client Sample ID: **NFUDS-002-GW02-01**

Lab Sample ID: 200-12542-3
Client Matrix: Water

Date Sampled: 08/31/2012 1100
Date Received: 09/01/2012 0950

6010C Metals (ICP)

Analysis Method: 6010C
Prep Method: 3010A
Dilution: 1.0
Analysis Date: 09/08/2012 2252
Prep Date: 09/06/2012 1000

Analysis Batch: 200-44675
Prep Batch: 200-44584

Instrument ID: METICP7
Lab File ID: 090812-04.ttx
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Aluminum	150	U	39	200
Antimony	15	U	4.1	60
Arsenic	9.0	U	4.4	10
Barium	14	U	5.2	200
Beryllium	0.35	U	0.29	5.0
Cadmium	2.6	U	0.45	5.0
Calcium	1900	J	120	5000
Chromium	2.5	U	0.55	10
Cobalt	2.0	U	0.92	50
Copper	23	J	1.6	25
Iron	150	U	39	200
Lead	9.0	U	5.4	10
Magnesium	1400	J	64	5000
Manganese	8.5	U	1.9	15
Nickel	7.5	U	1.8	40
Potassium	520	J	180	5000
Selenium	23	U	6.1	35
Silver	3.8	U	2.1	10
Sodium	10000		51	5000
Thallium	20	U	2.6	25
Vanadium	3.8	U	1.6	50
Zinc	12	J	0.75	20

7470A Mercury (CVAA)

Analysis Method: 7470A
Prep Method: 7470A
Dilution: 1.0
Analysis Date: 09/14/2012 1551
Prep Date: 09/14/2012 0900

Analysis Batch: 200-44963
Prep Batch: 200-44948

Instrument ID: MEPCV3 II
Lab File ID: 091412FF.PRN
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

validation qualifier

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Mercury	0.11	J	0.060	0.20

9/7/12

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Client Sample ID: **NFUDS-002-GW03-01**

Lab Sample ID: 200-12542-4
Client Matrix: Water

Date Sampled: 08/31/2012 1130
Date Received: 09/01/2012 0950

6010C Metals (ICP)

Analysis Method: 6010C
Prep Method: 3010A
Dilution: 1.0
Analysis Date: 09/08/2012 2258
Prep Date: 09/06/2012 1000

Analysis Batch: 200-44675
Prep Batch: 200-44584

Instrument ID: METICP7
Lab File ID: 090812-04.ttx
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Aluminum	150	U	39	200
Antimony	15	U	4.1	60
Arsenic	9.0	U	4.4	10
Barium	6.2	J	5.2	200
Beryllium	0.35	U	0.29	5.0
Cadmium	2.6	U	0.45	5.0
Calcium	1600	J	120	5000
Chromium	2.5	U	0.55	10
Cobalt	2.0	U	0.92	50
Copper	97		1.6	25
Iron	150	U	39	200
Lead	9.0	U	5.4	10
Magnesium	1500	J	64	5000
Manganese	8.5	U	1.9	15
Nickel	7.5	U	1.8	40
Potassium	520	J	180	5000
Selenium	23	U	6.1	35
Silver	3.8	U	2.1	10
Sodium	9900		51	5000
Thallium	20	U	2.6	25
Vanadium	3.8	U	1.6	50
Zinc	8.3	J	0.75	20

7470A Mercury (CVAA)

Analysis Method: 7470A
Prep Method: 7470A
Dilution: 1.0
Analysis Date: 09/14/2012 1553
Prep Date: 09/14/2012 0900

Analysis Batch: 200-44963
Prep Batch: 200-44948

Instrument ID: MEPCV3 II
Lab File ID: 091412FF.PRN
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Mercury	0.10	U	0.060	0.20

DCC 9/27/12

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Client Sample ID: **NFUDS-002-GW03-02**

Lab Sample ID: 200-12542-5
Client Matrix: Water

Date Sampled: 08/31/2012 1130
Date Received: 09/01/2012 0950

6010C Metals (ICP)

Analysis Method: 6010C
Prep Method: 3010A
Dilution: 1.0
Analysis Date: 09/08/2012 2325
Prep Date: 09/06/2012 1000

Analysis Batch: 200-44675
Prep Batch: 200-44584

Instrument ID: METICP7
Lab File ID: 090812-04.ttx
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Aluminum	150	U	39	200
Antimony	15	U	4.1	60
Arsenic	9.0	U	4.4	10
Barium	5.9	J	5.2	200
Beryllium	0.35	U	0.29	5.0
Cadmium	2.6	U	0.45	5.0
Calcium	1600	J	120	5000
Chromium	2.5	U	0.55	10
Cobalt	2.0	U	0.92	50
Copper	100		1.6	25
Iron	150	U	39	200
Lead	9.0	U	5.4	10
Magnesium	1500	J	64	5000
Manganese	8.5	U	1.9	15
Nickel	7.5	U	1.8	40
Potassium	520	J	180	5000
Selenium	23	U	6.1	35
Silver	3.8	U	2.1	10
Sodium	10000		51	5000
Thallium	20	U	2.6	25
Vanadium	3.8	U	1.6	50
Zinc	8.3	J	0.75	20

7470A Mercury (CVAA)

Analysis Method: 7470A
Prep Method: 7470A
Dilution: 1.0
Analysis Date: 09/14/2012 1556
Prep Date: 09/14/2012 0900

Analysis Batch: 200-44963
Prep Batch: 200-44948

Instrument ID: MEPCV3 II
Lab File ID: 091412FF.PRN
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Mercury	0.10	U	0.060	0.20

DFG 9/19/12

ATTACHMENT 5
Final Analytical Data

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

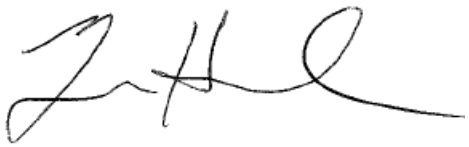
Job Number: 200-12542-1

SDG Number: 200-12542-1

Job Description: Nantucket Beach FUDS

For:
Weston Solutions, Inc.
45 Constitution Ave
Suite 100
Concord, NH 03301

Attention: Ms. Marie Swiech-Laflamme



Approved for release.
Ryan J Hammond
Project Manager I
9/19/2012 1:32 PM

Ryan J Hammond
Project Manager I
ryan.hammond@testamericainc.com
09/19/2012

The test results in this report relate only to sample(s) as received by the laboratory. These test results were derived under a quality system that adheres to the requirements of NELAC. Pursuant to NELAC, this report may not be produced in full without written approval from the laboratory

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CASE NARRATIVE

Client: Weston Solutions, Inc.

Project: Nantucket Beach FUDS

Report Number: 200-12542-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 09/01/2012; the samples arrived in good condition, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 4.6º C and 8.8º C.

The sample volumes received for explosive analysis for the following samples was received at the laboratory outside the required temperature criteria at a temperature of 8.8ºC: NFUDS-001-GW01-01 (200-12542-1), NFUDS-001-GW01-01 (200-12542-1 MS), NFUDS-001-GW01-01 (200-12542-1 MSD), NFUDS-002-GW01-01 (200-12542-2), NFUDS-002-GW03-01 (200-12542-4), NFUDS-002-GW03-02 (200-12542-5). The analysis of the samples continued per client request.

PERCHLORATES

Samples NFUDS-001-GW01-01, NFUDS-002-GW01-01, NFUDS-002-GW02-01, NFUDS-002-GW03-01 and NFUDS-002-GW03-02 were analyzed for Perchlorates in accordance with EPA SW-846 6850. The samples were analyzed on 09/11/2012.

The laboratory control sample (LCS) for batch 44707 exceeded control limits for the following analyte: Perchlorate. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits. The data have been qualified and reported.

No other difficulties were encountered during the perchlorate analyses.

All other quality control parameters were within the acceptance limits.

NITROAROMATICS AND NITRAMINES (HPLC)

Samples NFUDS-001-GW01-01, NFUDS-002-GW01-01, NFUDS-002-GW02-01, NFUDS-002-GW03-01 and NFUDS-002-GW03-02 were analyzed for Nitroaromatics and Nitramines (HPLC) in accordance with EPA SW-846 Method 8330B. The samples were prepared on 09/04/2012 and analyzed on 09/06/2012.

Refer to the QC report for details.

No other difficulties were encountered during the explosives analyses.

All other quality control parameters were within the acceptance limits.

METALS (ICP)

Samples NFUDS-001-GW01-01, NFUDS-002-GW01-01, NFUDS-002-GW02-01, NFUDS-002-GW03-01 and NFUDS-002-GW03-02 were analyzed for Metals (ICP) in accordance with EPA SW-846 Method 6010C. The samples were prepared on 09/06/2012 and analyzed on 09/08/2012.

Zinc was detected in method blank MB 200-44584/1-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged “J”. If the associated sample reported a result above the MDL and/or RL, the result has been “B” flagged. Refer to the QC report for details.

The matrix spike (MS) recoveries for sample NFUDS-001-GW01-01 in batch 44675 were outside control limits for the following elements: Calcium, Silver and Sodium. The associated laboratory control sample (LCS) recovery met acceptance criteria.

Refer to the QC report for details.

No other difficulties were encountered during the metals analyses.

All other quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples NFUDS-001-GW01-01, NFUDS-002-GW01-01, NFUDS-002-GW02-01, NFUDS-002-GW03-01 and NFUDS-002-GW03-02 were analyzed for total mercury in accordance with EPA SW-846 Methods 7470A. The samples were prepared and analyzed on 09/14/2012.

The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 44963 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

No difficulties were encountered during the mercury analyses.

All quality control parameters were within the acceptance limits.

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Instrument ID: CH1208 Analysis Batch Number: 42650

Lab Sample ID: IC 200-42650/2 Client Sample ID:

Date Analyzed: 07/31/12 15:48 Lab File ID: 31JUL121406_021.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4-Amino-2,6-dinitrotoluene	20.14	Baseline Event	robinsonw	07/31/12 20:50
2-Amino-4,6-dinitrotoluene	20.49	Baseline Event	robinsonw	07/31/12 20:50
2,6-Dinitrotoluene	20.87	Baseline Event	robinsonw	07/31/12 20:50
2,4-Dinitrotoluene	21.12	Baseline Event	robinsonw	07/31/12 20:50
2-Nitrotoluene	22.64	Baseline Event	robinsonw	08/01/12 16:38
4-Nitrotoluene	23.41	Baseline Event	robinsonw	08/01/12 16:38

Lab Sample ID: IC 200-42650/3 Client Sample ID:

Date Analyzed: 07/31/12 16:26 Lab File ID: 31JUL121406_031.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
3-Nitrotoluene	24.16	Baseline Event	robinsonw	08/01/12 16:39

Lab Sample ID: ICRTAV 200-42650/5 Client Sample ID:

Date Analyzed: 07/31/12 17:41 Lab File ID: 31JUL121406_051.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4-Nitrotoluene	23.43	Baseline Event	robinsonw	07/31/12 20:43

Lab Sample ID: IC 200-42650/6 Client Sample ID:

Date Analyzed: 07/31/12 18:18 Lab File ID: 31JUL121406_061.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Nitrotoluene	22.66	Baseline Event	robinsonw	07/31/12 20:43

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Instrument ID: CH1208 Analysis Batch Number: 42650

Lab Sample ID: ICV 200-42650/10 Client Sample ID:

Date Analyzed: 07/31/12 20:48 Lab File ID: 31JUL121406_101.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4-Nitrotoluene	23.43	Baseline Event	robinsonw	07/31/12 21:23

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Instrument ID: CH1208 Analysis Batch Number: 44487

Lab Sample ID: LCS 200-44398/2-A Client Sample ID:

Date Analyzed: 09/06/12 06:34 Lab File ID: 05SEP121550_241.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	16.42	Baseline Event	robinsonw	09/10/12 11:32
1,3-Dinitrobenzene	17.37	Baseline Event	robinsonw	09/10/12 11:32
Nitrobenzene	18.25	Baseline Event	robinsonw	09/10/12 11:32
Tetryl	18.50	Baseline Event	robinsonw	09/10/12 11:32
Nitroglycerin	19.27	Baseline Event	robinsonw	09/10/12 12:38
4-Nitrotoluene	23.46	Baseline Event	robinsonw	09/10/12 10:59

Lab Sample ID: 200-12542-1 Client Sample ID: NFUDS-001-GW01-01

Date Analyzed: 09/06/12 16:11 Lab File ID: 05SEP121550_361.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3-Dinitrobenzene	17.36	Peak not found by the data system	robinsonw	09/10/12 11:37
2,4,6-Trinitrotoluene	19.75	Peak not found by the data system	robinsonw	09/10/12 11:37
4-Amino-2,6-dinitrotoluene	20.18	Peak not found by the data system	robinsonw	09/10/12 11:37
3-Nitrotoluene	24.19	Peak not found by the data system	robinsonw	09/10/12 11:37

Lab Sample ID: 200-12542-1 MS Client Sample ID: NFUDS-001-GW01-01 MS

Date Analyzed: 09/06/12 16:49 Lab File ID: 05SEP121550_371.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
3-Nitrotoluene	24.17	Baseline Event	robinsonw	09/07/12 09:48

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Instrument ID: CH1208 Analysis Batch Number: 44487

Lab Sample ID: 200-12542-2 Client Sample ID: NFUDS-002-GW01-01

Date Analyzed: 09/06/12 18:04 Lab File ID: 05SEP121550_391.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4,6-Trinitrotoluene	19.72	Peak not found by the data system	robinsonw	09/10/12 11:38
4-Amino-2,6-dinitrotoluene	20.19	Peak not found by the data system	robinsonw	09/10/12 11:38
PETN	24.88	Peak not found by the data system	robinsonw	09/10/12 11:38

Lab Sample ID: 200-12542-3 Client Sample ID: NFUDS-002-GW02-01

Date Analyzed: 09/06/12 18:41 Lab File ID: 05SEP121550_401.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4,6-Trinitrotoluene	19.73	Peak not found by the data system	robinsonw	09/10/12 11:39
4-Amino-2,6-dinitrotoluene	20.20	Peak not found by the data system	robinsonw	09/10/12 11:39
PETN	24.92	Baseline Event	robinsonw	09/10/12 11:39

Lab Sample ID: 200-12542-4 Client Sample ID: NFUDS-002-GW03-01

Date Analyzed: 09/06/12 19:18 Lab File ID: 05SEP121550_411.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3-Dinitrobenzene	17.28	Peak not found by the data system	robinsonw	09/10/12 11:45
4-Amino-2,6-dinitrotoluene	20.20	Peak not found by the data system	robinsonw	09/10/12 11:45
3-Nitrotoluene	24.54	Peak not found by the data system	robinsonw	09/10/12 11:45
PETN	24.86	Peak not found by the data system	robinsonw	09/10/12 11:45

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Instrument ID: CH1208 Analysis Batch Number: 44487

Lab Sample ID: 200-12542-5 Client Sample ID: NFUDS-002-GW03-02

Date Analyzed: 09/06/12 19:56 Lab File ID: 05SEP121550_421.d GC Column: C-18 ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
4-Amino-2,6-dinitrotoluene	20.20	Baseline Event	robinsonw	09/10/12 11:46
4-Nitrotoluene	23.47	Peak not found by the data system	robinsonw	09/10/12 11:46
PETN	24.86	Peak not found by the data system	robinsonw	09/10/12 11:46

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Instrument ID: CH1488 Analysis Batch Number: 39219

Lab Sample ID: IC 200-39219/3 Client Sample ID:

Date Analyzed: 05/24/12 14:13 Lab File ID: 24MAY121229_031.d GC Column: Biphenyl ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4-diamino-6-nitrotoluene	4.54	Baseline Event	chirgwinb	05/25/12 09:44
2,6-diamino-4-nitrotoluene	4.54	Baseline Event	chirgwinb	05/25/12 09:44
HMX	5.37	Baseline Event	chirgwinb	05/25/12 09:44

Lab Sample ID: IC 200-39219/4 Client Sample ID:

Date Analyzed: 05/24/12 14:47 Lab File ID: 24MAY121229_041.d GC Column: Biphenyl ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4-diamino-6-nitrotoluene	4.54	Baseline Event	chirgwinb	05/25/12 09:44
2,6-diamino-4-nitrotoluene	4.54	Baseline Event	chirgwinb	05/25/12 09:44
HMX	5.35	Baseline Event	chirgwinb	05/25/12 09:44

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Instrument ID: CH1488 Analysis Batch Number: 44491

Lab Sample ID: CCVRT 200-44491/1 Client Sample ID:

Date Analyzed: 09/06/12 04:11 Lab File ID: 05SEP121553_221.d GC Column: Biphenyl ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	11.19	Baseline Event	robinsonw	09/06/12 09:59
4-Amino-2,6-dinitrotoluene	11.68	Baseline Event	robinsonw	09/06/12 09:59
2-Amino-4,6-dinitrotoluene	11.84	Baseline Event	robinsonw	09/06/12 09:59

Lab Sample ID: LCS 200-44398/2-A Client Sample ID:

Date Analyzed: 09/06/12 05:19 Lab File ID: 05SEP121553_241.d GC Column: Biphenyl ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4-diamino-6-nitrotoluene	4.62	Baseline Event	robinsonw	09/10/12 11:52
2,6-diamino-4-nitrotoluene	4.62	Unspecified	robinsonw	09/10/12 11:52
2-Amino-4,6-dinitrotoluene	11.95	Peak not found by the data system	robinsonw	09/10/12 11:52

Lab Sample ID: 200-12542-1 MS Client Sample ID: NFUDS-001-GW01-01 MS

Date Analyzed: 09/06/12 12:44 Lab File ID: 05SEP121553_371.d GC Column: Biphenyl ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4-diamino-6-nitrotoluene	4.63	Analyte misidentified by the data system	robinsonw	09/10/12 12:53
2,6-diamino-4-nitrotoluene	4.63	Unspecified	robinsonw	09/10/12 12:53
Picric acid	7.14	Baseline Event	robinsonw	09/10/12 12:07
Nitroglycerin	9.51	Baseline Event	robinsonw	09/10/12 12:07
1,2-Dinitrobenzene	11.22	Baseline Event	robinsonw	09/10/12 12:07
4-Amino-2,6-dinitrotoluene	11.70	Baseline Event	robinsonw	09/10/12 12:07
2-Amino-4,6-dinitrotoluene	11.92	Baseline Event	robinsonw	09/10/12 12:07

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Instrument ID: CH1488 Analysis Batch Number: 44491

Lab Sample ID: 200-12542-1 MSD Client Sample ID: NFUDS-001-GW01-01 MSD

Date Analyzed: 09/06/12 13:18 Lab File ID: 05SEP121553_381.d GC Column: Biphenyl ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2,4-diamino-6-nitrotoluene	4.62	Unspecified	robinsonw	09/10/12 12:54
2,6-diamino-4-nitrotoluene	4.62	Analyte misidentified by the data system	robinsonw	09/10/12 12:54

Lab Sample ID: 200-12542-2 Client Sample ID: NFUDS-002-GW01-01

Date Analyzed: 09/06/12 13:52 Lab File ID: 05SEP121553_391.d GC Column: Biphenyl ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	11.24	Baseline Event	robinsonw	09/10/12 12:09
4-Amino-2,6-dinitrotoluene	11.60	Peak not found by the data system	robinsonw	09/10/12 12:09

Lab Sample ID: 200-12542-3 Client Sample ID: NFUDS-002-GW02-01

Date Analyzed: 09/06/12 14:26 Lab File ID: 05SEP121553_401.d GC Column: Biphenyl ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	11.22	Baseline Event	robinsonw	09/10/12 12:10
4-Amino-2,6-dinitrotoluene	11.56	Peak not found by the data system	robinsonw	09/10/12 12:10

Lab Sample ID: 200-12542-4 Client Sample ID: NFUDS-002-GW03-01

Date Analyzed: 09/06/12 15:01 Lab File ID: 05SEP121553_411.d GC Column: Biphenyl ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	11.21	Baseline Event	robinsonw	09/10/12 12:11
4-Amino-2,6-dinitrotoluene	11.57	Peak not found by the data system	robinsonw	09/10/12 12:11

HPLC/IC MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Instrument ID: CH1488 Analysis Batch Number: 44491

Lab Sample ID: 200-12542-5 Client Sample ID: NFUDS-002-GW03-02

Date Analyzed: 09/06/12 15:35 Lab File ID: 05SEP121553_421.d GC Column: Biphenyl ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,2-Dinitrobenzene	11.24	Baseline Event	robinsonw	09/10/12 12:12
4-Amino-2,6-dinitrotoluene	11.64	Peak not found by the data system	robinsonw	09/10/12 12:12
3-Nitrotoluene	16.14	Unspecified	robinsonw	09/10/12 12:12
4-Nitrotoluene	16.14	Peak not found by the data system	robinsonw	09/10/12 12:12

LCMS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Instrument ID: LC3062 Analysis Batch Number: 44707

Lab Sample ID: 200-12542-1 Client Sample ID: NFUDS-001-GW01-01

Date Analyzed: 09/11/12 11:36 Lab File ID: P091112A06.d GC Column: IC-Pak ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perchlorate	9.30	Peak not found by the data system	chirgwinb	09/12/12 15:34

Lab Sample ID: 200-12542-2 Client Sample ID: NFUDS-002-GW01-01

Date Analyzed: 09/11/12 11:51 Lab File ID: P091112A07.d GC Column: IC-Pak ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perchlorate	9.37	Peak not found by the data system	chirgwinb	09/12/12 15:33

Lab Sample ID: 200-12542-5 Client Sample ID: NFUDS-002-GW03-02

Date Analyzed: 09/11/12 12:37 Lab File ID: P091112A10.d GC Column: IC-Pak ID: 4.6(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perchlorate	9.41	Peak not found by the data system	chirgwinb	09/12/12 15:32

SAMPLE SUMMARY

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
200-12542-1	NFUDS-001-GW01-01	Water	08/31/2012 1215	09/01/2012 0950
200-12542-1MS	NFUDS-001-GW01-01	Water	08/31/2012 1215	09/01/2012 0950
200-12542-1MSD	NFUDS-001-GW01-01	Water	08/31/2012 1215	09/01/2012 0950
200-12542-1DU	NFUDS-001-GW01-01	Water	08/31/2012 1215	09/01/2012 0950
200-12542-2	NFUDS-002-GW01-01	Water	08/31/2012 1015	09/01/2012 0950
200-12542-3	NFUDS-002-GW02-01	Water	08/31/2012 1100	09/01/2012 0950
200-12542-4	NFUDS-002-GW03-01	Water	08/31/2012 1130	09/01/2012 0950
200-12542-5	NFUDS-002-GW03-02	Water	08/31/2012 1130	09/01/2012 0950

METHOD SUMMARY

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Nitroaromatics and Nitramines (HPLC)	TAL BUR	SW846 8330B	
Solid-Phase Extraction (Explosives)	TAL BUR		SW846 8330-Prep
Perchlorate by LC/MS or LC/MS/MS	TAL BUR	EPA 6850	
Metals (ICP)	TAL BUR	SW846 6010C	
Preparation, Total Metals	TAL BUR		SW846 3010A
Mercury (CVAA)	TAL BUR	SW846 7470A	
Preparation, Mercury	TAL BUR		SW846 7470A

Lab References:

TAL BUR = TestAmerica Burlington

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Method	Analyst	Analyst ID
SW846 6010C	Kvasnak, Ethan T	ETK
SW846 7470A	Pham, Vu T	VTP
EPA 6850	Chirgwin, Bradley W	BWC
SW846 8330B	Robinson, Wallace B	WBR

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Client Sample ID: **NFUDS-001-GW01-01**

Lab Sample ID: 200-12542-1
Client Matrix: Water

Date Sampled: 08/31/2012 1215
Date Received: 09/01/2012 0950

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-44491	Instrument ID:	CH1488
Prep Method:	8330-Prep	Prep Batch:	200-44398	Initial Weight/Volume:	500 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	09/06/2012 1210			Injection Volume:	450 uL
Prep Date:	09/04/2012 1041			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	93		40 - 150

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Client Sample ID: **NFUDS-001-GW01-01**

Lab Sample ID: 200-12542-1
Client Matrix: Water

Date Sampled: 08/31/2012 1215
Date Received: 09/01/2012 0950

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-44487	Instrument ID:	CH1208
Prep Method:	8330-Prep	Prep Batch:	200-44398	Initial Weight/Volume:	500 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	09/06/2012 1611			Injection Volume:	150 uL
Prep Date:	09/04/2012 1041			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	DL	LOQ
2,6-diamino-4-nitrotoluene	0.048	U	0.014	0.20
HMX	0.024	U	0.011	0.20
2,4-diamino-6-nitrotoluene	0.048	U	0.014	0.20
RDX	0.024	U	0.021	0.20
Picric acid	0.048	U	0.036	0.20
1,3,5-Trinitrobenzene	0.024	U	0.0098	0.20
1,3-Dinitrobenzene	0.024	U M	0.016	0.20
Nitrobenzene	0.048	U	0.041	0.20
Tetryl	0.048	U	0.028	0.20
Nitroglycerin	1.4	U	1.2	4.0
2,4,6-Trinitrotoluene	0.048	U M	0.032	0.20
4-Amino-2,6-dinitrotoluene	0.024	U M	0.020	0.20
2-Amino-4,6-dinitrotoluene	0.048	U	0.026	0.20
2,6-Dinitrotoluene	0.024	U	0.018	0.20
2,4-Dinitrotoluene	0.048	U	0.028	0.20
2-Nitrotoluene	0.048	U	0.034	0.20
4-Nitrotoluene	0.060	U	0.054	0.20
3-Nitrotoluene	0.060	U M	0.054	0.20
PETN	2.0	U	2.0	10

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	97		40 - 150

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Client Sample ID: **NFUDS-002-GW01-01**

Lab Sample ID: 200-12542-2
Client Matrix: Water

Date Sampled: 08/31/2012 1015
Date Received: 09/01/2012 0950

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-44491	Instrument ID:	CH1488
Prep Method:	8330-Prep	Prep Batch:	200-44398	Initial Weight/Volume:	500 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	09/06/2012 1352			Injection Volume:	450 uL
Prep Date:	09/04/2012 1041			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	98	M	40 - 150

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Client Sample ID: **NFUDS-002-GW01-01**

Lab Sample ID: 200-12542-2
Client Matrix: Water

Date Sampled: 08/31/2012 1015
Date Received: 09/01/2012 0950

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-44487	Instrument ID:	CH1208
Prep Method:	8330-Prep	Prep Batch:	200-44398	Initial Weight/Volume:	500 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	09/06/2012 1804			Injection Volume:	150 uL
Prep Date:	09/04/2012 1041			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	DL	LOQ
2,6-diamino-4-nitrotoluene	0.048	U	0.014	0.20
HMX	0.024	U	0.011	0.20
2,4-diamino-6-nitrotoluene	0.048	U	0.014	0.20
RDX	0.024	U	0.021	0.20
Picric acid	0.048	U	0.036	0.20
1,3,5-Trinitrobenzene	0.024	U	0.0098	0.20
1,3-Dinitrobenzene	0.024	U	0.016	0.20
Nitrobenzene	0.048	U	0.041	0.20
Tetryl	0.048	U	0.028	0.20
Nitroglycerin	1.4	U	1.2	4.0
2,4,6-Trinitrotoluene	0.048	U M	0.032	0.20
4-Amino-2,6-dinitrotoluene	0.024	U M	0.020	0.20
2-Amino-4,6-dinitrotoluene	0.048	U	0.026	0.20
2,6-Dinitrotoluene	0.024	U	0.018	0.20
2,4-Dinitrotoluene	0.048	U	0.028	0.20
2-Nitrotoluene	0.048	U	0.034	0.20
4-Nitrotoluene	0.060	U	0.054	0.20
3-Nitrotoluene	0.060	U	0.054	0.20
PETN	2.0	U M	2.0	10

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	102		40 - 150

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Client Sample ID: **NFUDS-002-GW02-01**

Lab Sample ID: 200-12542-3
Client Matrix: Water

Date Sampled: 08/31/2012 1100
Date Received: 09/01/2012 0950

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-44491	Instrument ID:	CH1488
Prep Method:	8330-Prep	Prep Batch:	200-44398	Initial Weight/Volume:	500 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	09/06/2012 1426			Injection Volume:	450 uL
Prep Date:	09/04/2012 1041			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	97	M	40 - 150

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Client Sample ID: **NFUDS-002-GW02-01**

Lab Sample ID: 200-12542-3
Client Matrix: Water

Date Sampled: 08/31/2012 1100
Date Received: 09/01/2012 0950

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-44487	Instrument ID:	CH1208
Prep Method:	8330-Prep	Prep Batch:	200-44398	Initial Weight/Volume:	500 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	09/06/2012 1841			Injection Volume:	150 uL
Prep Date:	09/04/2012 1041			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	DL	LOQ
2,6-diamino-4-nitrotoluene	0.048	U	0.014	0.20
HMX	0.024	U	0.011	0.20
2,4-diamino-6-nitrotoluene	0.048	U	0.014	0.20
RDX	0.024	U	0.021	0.20
Picric acid	0.048	U	0.036	0.20
1,3,5-Trinitrobenzene	0.024	U	0.0098	0.20
1,3-Dinitrobenzene	0.024	U	0.016	0.20
Nitrobenzene	0.048	U	0.041	0.20
Tetryl	0.048	U	0.028	0.20
Nitroglycerin	1.4	U	1.2	4.0
2,4,6-Trinitrotoluene	0.048	U M	0.032	0.20
4-Amino-2,6-dinitrotoluene	0.024	U M	0.020	0.20
2-Amino-4,6-dinitrotoluene	0.048	U	0.026	0.20
2,6-Dinitrotoluene	0.024	U	0.018	0.20
2,4-Dinitrotoluene	0.048	U	0.028	0.20
2-Nitrotoluene	0.048	U	0.034	0.20
4-Nitrotoluene	0.060	U	0.054	0.20
3-Nitrotoluene	0.060	U	0.054	0.20
PETN	2.0	U M	2.0	10

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	104		40 - 150

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Client Sample ID: **NFUDS-002-GW03-01**

Lab Sample ID: 200-12542-4
Client Matrix: Water

Date Sampled: 08/31/2012 1130
Date Received: 09/01/2012 0950

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-44491	Instrument ID:	CH1488
Prep Method:	8330-Prep	Prep Batch:	200-44398	Initial Weight/Volume:	500 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	09/06/2012 1501			Injection Volume:	450 uL
Prep Date:	09/04/2012 1041			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	99	M	40 - 150

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Client Sample ID: **NFUDS-002-GW03-01**

Lab Sample ID: 200-12542-4
Client Matrix: Water

Date Sampled: 08/31/2012 1130
Date Received: 09/01/2012 0950

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-44487	Instrument ID:	CH1208
Prep Method:	8330-Prep	Prep Batch:	200-44398	Initial Weight/Volume:	500 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	09/06/2012 1918			Injection Volume:	150 uL
Prep Date:	09/04/2012 1041			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	DL	LOQ
2,6-diamino-4-nitrotoluene	0.048	U	0.014	0.20
HMX	0.024	U	0.011	0.20
2,4-diamino-6-nitrotoluene	0.048	U	0.014	0.20
RDX	0.024	U	0.021	0.20
Picric acid	0.048	U	0.036	0.20
1,3,5-Trinitrobenzene	0.024	U	0.0098	0.20
1,3-Dinitrobenzene	0.024	U M	0.016	0.20
Nitrobenzene	0.048	U	0.041	0.20
Tetryl	0.048	U	0.028	0.20
Nitroglycerin	1.4	U	1.2	4.0
2,4,6-Trinitrotoluene	0.048	U	0.032	0.20
4-Amino-2,6-dinitrotoluene	0.024	U M	0.020	0.20
2-Amino-4,6-dinitrotoluene	0.048	U	0.026	0.20
2,6-Dinitrotoluene	0.024	U	0.018	0.20
2,4-Dinitrotoluene	0.048	U	0.028	0.20
2-Nitrotoluene	0.048	U	0.034	0.20
4-Nitrotoluene	0.060	U	0.054	0.20
3-Nitrotoluene	0.060	U M	0.054	0.20
PETN	2.0	U M	2.0	10

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	101		40 - 150

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Client Sample ID: **NFUDS-002-GW03-02**

Lab Sample ID: 200-12542-5
Client Matrix: Water

Date Sampled: 08/31/2012 1130
Date Received: 09/01/2012 0950

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-44491	Instrument ID:	CH1488
Prep Method:	8330-Prep	Prep Batch:	200-44398	Initial Weight/Volume:	500 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	09/06/2012 1535			Injection Volume:	450 uL
Prep Date:	09/04/2012 1041			Result Type:	SECONDARY

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	97	M	40 - 150

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Client Sample ID: **NFUDS-002-GW03-02**

Lab Sample ID: 200-12542-5
Client Matrix: Water

Date Sampled: 08/31/2012 1130
Date Received: 09/01/2012 0950

8330B Nitroaromatics and Nitramines (HPLC)

Analysis Method:	8330B	Analysis Batch:	200-44487	Instrument ID:	CH1208
Prep Method:	8330-Prep	Prep Batch:	200-44398	Initial Weight/Volume:	500 mL
Dilution:	1.0			Final Weight/Volume:	10000 uL
Analysis Date:	09/06/2012 1956			Injection Volume:	150 uL
Prep Date:	09/04/2012 1041			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	DL	LOQ
2,6-diamino-4-nitrotoluene	0.048	U	0.014	0.20
HMX	0.024	U	0.011	0.20
2,4-diamino-6-nitrotoluene	0.048	U	0.014	0.20
RDX	0.024	U	0.021	0.20
Picric acid	0.048	U	0.036	0.20
1,3,5-Trinitrobenzene	0.024	U	0.0098	0.20
1,3-Dinitrobenzene	0.024	U	0.016	0.20
Nitrobenzene	0.048	U	0.041	0.20
Tetryl	0.048	U	0.028	0.20
Nitroglycerin	1.4	U	1.2	4.0
2,4,6-Trinitrotoluene	0.048	U	0.032	0.20
4-Amino-2,6-dinitrotoluene	0.024	U M	0.020	0.20
2-Amino-4,6-dinitrotoluene	0.048	U	0.026	0.20
2,6-Dinitrotoluene	0.024	U	0.018	0.20
2,4-Dinitrotoluene	0.048	U	0.028	0.20
2-Nitrotoluene	0.048	U	0.034	0.20
4-Nitrotoluene	0.060	U M	0.054	0.20
3-Nitrotoluene	0.060	U	0.054	0.20
PETN	2.0	U M	2.0	10

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dinitrobenzene	99		40 - 150

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Client Sample ID: **NFUDS-001-GW01-01**

Lab Sample ID: 200-12542-1
Client Matrix: Water

Date Sampled: 08/31/2012 1215
Date Received: 09/01/2012 0950

6850 Perchlorate by LC/MS or LC/MS/MS

Analysis Method:	6850	Analysis Batch:	200-44707	Instrument ID:	LC3062
	N/A	Prep Batch:	N/A	Lab File ID:	P091112A06.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/11/2012 1136			Final Weight/Volume:	5 mL
Prep Date:	N/A			Injection Volume:	100 uL

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Perchlorate	0.027	J M Q	0.015	0.20

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Client Sample ID: **NFUDS-002-GW01-01**

Lab Sample ID: 200-12542-2
Client Matrix: Water

Date Sampled: 08/31/2012 1015
Date Received: 09/01/2012 0950

6850 Perchlorate by LC/MS or LC/MS/MS

Analysis Method:	6850	Analysis Batch:	200-44707	Instrument ID:	LC3062
	N/A	Prep Batch:	N/A	Lab File ID:	P091112A07.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/11/2012 1151			Final Weight/Volume:	5 mL
Prep Date:	N/A			Injection Volume:	100 uL

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Perchlorate	0.039	J M Q	0.015	0.20

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Client Sample ID: **NFUDS-002-GW02-01**

Lab Sample ID: 200-12542-3
Client Matrix: Water

Date Sampled: 08/31/2012 1100
Date Received: 09/01/2012 0950

6850 Perchlorate by LC/MS or LC/MS/MS

Analysis Method:	6850	Analysis Batch:	200-44707	Instrument ID:	LC3062
	N/A	Prep Batch:	N/A	Lab File ID:	P091112A08.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/11/2012 1206			Final Weight/Volume:	5 mL
Prep Date:	N/A			Injection Volume:	100 uL

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Perchlorate	0.097	J Q	0.015	0.20

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Client Sample ID: **NFUDS-002-GW03-01**

Lab Sample ID: 200-12542-4
Client Matrix: Water

Date Sampled: 08/31/2012 1130
Date Received: 09/01/2012 0950

6850 Perchlorate by LC/MS or LC/MS/MS

Analysis Method:	6850	Analysis Batch:	200-44707	Instrument ID:	LC3062
	N/A	Prep Batch:	N/A	Lab File ID:	P091112A09.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/11/2012 1221			Final Weight/Volume:	5 mL
Prep Date:	N/A			Injection Volume:	100 uL

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Perchlorate	0.040	U Q	0.015	0.20

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Client Sample ID: **NFUDS-002-GW03-02**

Lab Sample ID: 200-12542-5
Client Matrix: Water

Date Sampled: 08/31/2012 1130
Date Received: 09/01/2012 0950

6850 Perchlorate by LC/MS or LC/MS/MS

Analysis Method:	6850	Analysis Batch:	200-44707	Instrument ID:	LC3062
	N/A	Prep Batch:	N/A	Lab File ID:	P091112A10.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/11/2012 1237			Final Weight/Volume:	5 mL
Prep Date:	N/A			Injection Volume:	100 uL

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Perchlorate	0.027	J M Q	0.015	0.20

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Client Sample ID: **NFUDS-001-GW01-01**

Lab Sample ID: 200-12542-1
Client Matrix: Water

Date Sampled: 08/31/2012 1215
Date Received: 09/01/2012 0950

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	200-44675	Instrument ID:	METICP7
Prep Method:	3010A	Prep Batch:	200-44584	Lab File ID:	090812-04.ttx
Dilution:	1.0			Initial Weight/Volume:	100 mL
Analysis Date:	09/08/2012 2212			Final Weight/Volume:	100 mL
Prep Date:	09/06/2012 1000				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Aluminum	150	U	39	200
Antimony	15	U	4.1	60
Arsenic	9.0	U	4.4	10
Barium	14	U	5.2	200
Beryllium	0.35	U	0.29	5.0
Cadmium	2.6	U	0.45	5.0
Calcium	11000	J	120	5000
Chromium	2.5	U	0.55	10
Cobalt	2.0	U	0.92	50
Copper	1.7	J	1.6	25
Iron	150	U	39	200
Lead	9.0	U	5.4	10
Magnesium	1000	J	64	5000
Manganese	8.5	U	1.9	15
Nickel	7.5	U	1.8	40
Potassium	520	J	180	5000
Selenium	23	U	6.1	35
Silver	3.8	U J	2.1	10
Sodium	12000	J	51	5000
Thallium	20	U	2.6	25
Vanadium	3.8	U	1.6	50
Zinc	2.8	J	0.75	20

7470A Mercury (CVAA)

Analysis Method:	7470A	Analysis Batch:	200-44963	Instrument ID:	MEPCV3 II
Prep Method:	7470A	Prep Batch:	200-44948	Lab File ID:	091412FF.PRN
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	09/14/2012 1542			Final Weight/Volume:	50 mL
Prep Date:	09/14/2012 0900				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Mercury	0.10	U J	0.060	0.20

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Client Sample ID: **NFUDS-002-GW01-01**

Lab Sample ID: 200-12542-2
Client Matrix: Water

Date Sampled: 08/31/2012 1015
Date Received: 09/01/2012 0950

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	200-44675	Instrument ID:	METICP7
Prep Method:	3010A	Prep Batch:	200-44584	Lab File ID:	090812-04.ttx
Dilution:	1.0			Initial Weight/Volume:	100 mL
Analysis Date:	09/08/2012 2245			Final Weight/Volume:	100 mL
Prep Date:	09/06/2012 1000				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Aluminum	150	U	39	200
Antimony	15	U	4.1	60
Arsenic	9.0	U	4.4	10
Barium	6.8	J	5.2	200
Beryllium	0.35	U	0.29	5.0
Cadmium	2.6	U	0.45	5.0
Calcium	1700	J	120	5000
Chromium	2.5	U	0.55	10
Cobalt	2.0	U	0.92	50
Copper	89		1.6	25
Iron	150	U	39	200
Lead	9.0	U	5.4	10
Magnesium	2000	J	64	5000
Manganese	3.1	J	1.9	15
Nickel	7.5	U	1.8	40
Potassium	870	J	180	5000
Selenium	23	U	6.1	35
Silver	3.8	U	2.1	10
Sodium	11000		51	5000
Thallium	20	U	2.6	25
Vanadium	3.8	U	1.6	50
Zinc	7.1	J	0.75	20

7470A Mercury (CVAA)

Analysis Method:	7470A	Analysis Batch:	200-44963	Instrument ID:	MEPCV3 II
Prep Method:	7470A	Prep Batch:	200-44948	Lab File ID:	091412FF.PRN
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	09/14/2012 1549			Final Weight/Volume:	50 mL
Prep Date:	09/14/2012 0900				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Mercury	0.10	U	0.060	0.20

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Client Sample ID: **NFUDS-002-GW02-01**

Lab Sample ID: 200-12542-3
Client Matrix: Water

Date Sampled: 08/31/2012 1100
Date Received: 09/01/2012 0950

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	200-44675	Instrument ID:	METICP7
Prep Method:	3010A	Prep Batch:	200-44584	Lab File ID:	090812-04.ttx
Dilution:	1.0			Initial Weight/Volume:	100 mL
Analysis Date:	09/08/2012 2252			Final Weight/Volume:	100 mL
Prep Date:	09/06/2012 1000				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Aluminum	150	U	39	200
Antimony	15	U	4.1	60
Arsenic	9.0	U	4.4	10
Barium	14	U	5.2	200
Beryllium	0.35	U	0.29	5.0
Cadmium	2.6	U	0.45	5.0
Calcium	1900	J	120	5000
Chromium	2.5	U	0.55	10
Cobalt	2.0	U	0.92	50
Copper	23	J	1.6	25
Iron	150	U	39	200
Lead	9.0	U	5.4	10
Magnesium	1400	J	64	5000
Manganese	8.5	U	1.9	15
Nickel	7.5	U	1.8	40
Potassium	520	J	180	5000
Selenium	23	U	6.1	35
Silver	3.8	U	2.1	10
Sodium	10000		51	5000
Thallium	20	U	2.6	25
Vanadium	3.8	U	1.6	50
Zinc	12	J	0.75	20

7470A Mercury (CVAA)

Analysis Method:	7470A	Analysis Batch:	200-44963	Instrument ID:	MEPCV3 II
Prep Method:	7470A	Prep Batch:	200-44948	Lab File ID:	091412FF.PRN
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	09/14/2012 1551			Final Weight/Volume:	50 mL
Prep Date:	09/14/2012 0900				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Mercury	0.11	J	0.060	0.20

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Client Sample ID: **NFUDS-002-GW03-01**

Lab Sample ID: 200-12542-4
Client Matrix: Water

Date Sampled: 08/31/2012 1130
Date Received: 09/01/2012 0950

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	200-44675	Instrument ID:	METICP7
Prep Method:	3010A	Prep Batch:	200-44584	Lab File ID:	090812-04.ttx
Dilution:	1.0			Initial Weight/Volume:	100 mL
Analysis Date:	09/08/2012 2258			Final Weight/Volume:	100 mL
Prep Date:	09/06/2012 1000				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Aluminum	150	U	39	200
Antimony	15	U	4.1	60
Arsenic	9.0	U	4.4	10
Barium	6.2	J	5.2	200
Beryllium	0.35	U	0.29	5.0
Cadmium	2.6	U	0.45	5.0
Calcium	1600	J	120	5000
Chromium	2.5	U	0.55	10
Cobalt	2.0	U	0.92	50
Copper	97		1.6	25
Iron	150	U	39	200
Lead	9.0	U	5.4	10
Magnesium	1500	J	64	5000
Manganese	8.5	U	1.9	15
Nickel	7.5	U	1.8	40
Potassium	520	J	180	5000
Selenium	23	U	6.1	35
Silver	3.8	U	2.1	10
Sodium	9900		51	5000
Thallium	20	U	2.6	25
Vanadium	3.8	U	1.6	50
Zinc	8.3	J	0.75	20

7470A Mercury (CVAA)

Analysis Method:	7470A	Analysis Batch:	200-44963	Instrument ID:	MEPCV3 II
Prep Method:	7470A	Prep Batch:	200-44948	Lab File ID:	091412FF.PRN
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	09/14/2012 1553			Final Weight/Volume:	50 mL
Prep Date:	09/14/2012 0900				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Mercury	0.10	U	0.060	0.20

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Client Sample ID: **NFUDS-002-GW03-02**

Lab Sample ID: 200-12542-5
Client Matrix: Water

Date Sampled: 08/31/2012 1130
Date Received: 09/01/2012 0950

6010C Metals (ICP)

Analysis Method:	6010C	Analysis Batch:	200-44675	Instrument ID:	METICP7
Prep Method:	3010A	Prep Batch:	200-44584	Lab File ID:	090812-04.ttx
Dilution:	1.0			Initial Weight/Volume:	100 mL
Analysis Date:	09/08/2012 2325			Final Weight/Volume:	100 mL
Prep Date:	09/06/2012 1000				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Aluminum	150	U	39	200
Antimony	15	U	4.1	60
Arsenic	9.0	U	4.4	10
Barium	5.9	J	5.2	200
Beryllium	0.35	U	0.29	5.0
Cadmium	2.6	U	0.45	5.0
Calcium	1600	J	120	5000
Chromium	2.5	U	0.55	10
Cobalt	2.0	U	0.92	50
Copper	100		1.6	25
Iron	150	U	39	200
Lead	9.0	U	5.4	10
Magnesium	1500	J	64	5000
Manganese	8.5	U	1.9	15
Nickel	7.5	U	1.8	40
Potassium	520	J	180	5000
Selenium	23	U	6.1	35
Silver	3.8	U	2.1	10
Sodium	10000		51	5000
Thallium	20	U	2.6	25
Vanadium	3.8	U	1.6	50
Zinc	8.3	J	0.75	20

7470A Mercury (CVAA)

Analysis Method:	7470A	Analysis Batch:	200-44963	Instrument ID:	MEPCV3 II
Prep Method:	7470A	Prep Batch:	200-44948	Lab File ID:	091412FF.PRN
Dilution:	1.0			Initial Weight/Volume:	50 mL
Analysis Date:	09/14/2012 1556			Final Weight/Volume:	50 mL
Prep Date:	09/14/2012 0900				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Mercury	0.10	U	0.060	0.20

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Surrogate Recovery Report

8330B Nitroaromatics and Nitramines (HPLC)

Client Matrix: Water

Lab Sample ID	Client Sample ID	12DNB2 %Rec	12DNB1 %Rec
200-12542-1	NFUDS-001-GW01-01		97
200-12542-1	NFUDS-001-GW01-01	93	
200-12542-2	NFUDS-002-GW01-01		102
200-12542-2	NFUDS-002-GW01-01	98M	
200-12542-3	NFUDS-002-GW02-01		104
200-12542-3	NFUDS-002-GW02-01	97M	
200-12542-4	NFUDS-002-GW03-01		101
200-12542-4	NFUDS-002-GW03-01	99M	
200-12542-5	NFUDS-002-GW03-02		99
200-12542-5	NFUDS-002-GW03-02	97M	
MB 200-44398/1-A			103
MB 200-44398/1-A		96	
LCS 200-44398/2-A			106M
LCS 200-44398/2-A		97	
200-12542-1 MS	NFUDS-001-GW01-01 MS		103
200-12542-1 MS	NFUDS-001-GW01-01 MS	98M	
200-12542-1 MSD	NFUDS-001-GW01-01 MSD		104
200-12542-1 MSD	NFUDS-001-GW01-01 MSD	101	

Surrogate	Acceptance Limits
12DNB = 1,2-Dinitrobenzene	40-150

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Surrogate	% Rec	Acceptance Limits
1,2-Dinitrobenzene	96	40 - 150

Method Blank - Batch: 200-44398

Method: 8330B
Preparation: 8330-Prep

Lab Sample ID:	MB 200-44398/1-A	Analysis Batch:	200-44487	Instrument ID:	CH1208
Client Matrix:	Water	Prep Batch:	200-44398	Lab File ID:	05SEP121550_231.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	500 mL
Analysis Date:	09/06/2012 0556	Units:	ug/L	Final Weight/Volume:	10000 uL
Prep Date:	09/04/2012 1041			Injection Volume:	150 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	DL	LOQ
2,6-diamino-4-nitrotoluene	0.048	U	0.014	0.20
HMX	0.024	U	0.011	0.20
2,4-diamino-6-nitrotoluene	0.048	U	0.014	0.20
RDX	0.024	U	0.021	0.20
Picric acid	0.048	U	0.036	0.20
1,3,5-Trinitrobenzene	0.024	U	0.0098	0.20
1,3-Dinitrobenzene	0.024	U	0.016	0.20
Nitrobenzene	0.048	U	0.041	0.20
Tetryl	0.048	U	0.028	0.20
Nitroglycerin	1.4	U	1.2	4.0
2,4,6-Trinitrotoluene	0.048	U	0.032	0.20
4-Amino-2,6-dinitrotoluene	0.024	U	0.020	0.20
2-Amino-4,6-dinitrotoluene	0.048	U	0.026	0.20
2,6-Dinitrotoluene	0.024	U	0.018	0.20
2,4-Dinitrotoluene	0.048	U	0.028	0.20
2-Nitrotoluene	0.048	U	0.034	0.20
4-Nitrotoluene	0.060	U	0.054	0.20
3-Nitrotoluene	0.060	U	0.054	0.20
PETN	2.0	U	2.0	10

Surrogate	% Rec	Acceptance Limits
1,2-Dinitrobenzene	103	40 - 150

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Surrogate	% Rec	Acceptance Limits
1,2-Dinitrobenzene	97	40 - 150

Lab Control Sample - Batch: 200-44398

Method: 8330B
Preparation: 8330-Prep

Lab Sample ID:	LCS 200-44398/2-A	Analysis Batch:	200-44487	Instrument ID:	CH1208
Client Matrix:	Water	Prep Batch:	200-44398	Lab File ID:	05SEP121550_241.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	500 mL
Analysis Date:	09/06/2012 0634	Units:	ug/L	Final Weight/Volume:	10000 uL
Prep Date:	09/04/2012 1041			Injection Volume:	150 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2,6-diamino-4-nitrotoluene	4.00	4.10	103	75 - 105	J
HMX	4.00	4.24	106	75 - 110	
2,4-diamino-6-nitrotoluene	4.00	3.87	97	70 - 105	J
RDX	4.00	4.20	105	80 - 110	
Picric acid	4.00	3.95	99	75 - 105	
1,3,5-Trinitrobenzene	4.00	4.20	105	80 - 110	
1,3-Dinitrobenzene	4.00	4.19	105	80 - 115	M
Nitrobenzene	4.00	4.30	107	80 - 115	M
Tetryl	4.00	3.69	92	70 - 110	J M
Nitroglycerin	80.0	91.8	115	75 - 125	M
2,4,6-Trinitrotoluene	4.00	4.30	107	75 - 110	
4-Amino-2,6-dinitrotoluene	4.00	4.38	110	75 - 120	
2-Amino-4,6-dinitrotoluene	4.00	4.27	107	85 - 110	
2,6-Dinitrotoluene	4.00	4.32	108	80 - 120	
2,4-Dinitrotoluene	4.00	4.10	103	85 - 115	J
2-Nitrotoluene	4.00	3.97	99	75 - 110	
4-Nitrotoluene	4.00	4.17	104	80 - 115	J M
3-Nitrotoluene	4.00	4.04	101	85 - 115	J
PETN	80.0	87.9	110	70 - 125	

Surrogate	% Rec		Acceptance Limits
1,2-Dinitrobenzene	106	M	40 - 150

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Surrogate	MS % Rec		MSD % Rec	Acceptance Limits
1,2-Dinitrobenzene	98	M	101	40 - 150

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 200-44398

Method: 8330B
Preparation: 8330-Prep

MS Lab Sample ID:	200-12542-1	Analysis Batch:	200-44487	Instrument ID:	CH1208
Client Matrix:	Water	Prep Batch:	200-44398	Lab File ID:	05SEP121550_371.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	500 mL
Analysis Date:	09/06/2012 1649			Final Weight/Volume:	10000 uL
Prep Date:	09/04/2012 1041			Injection Volume:	150 uL
Leach Date:	N/A			Column ID:	PRIMARY

MSD Lab Sample ID:	200-12542-1	Analysis Batch:	200-44487	Instrument ID:	CH1208
Client Matrix:	Water	Prep Batch:	200-44398	Lab File ID:	05SEP121550_381.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	500 mL
Analysis Date:	09/06/2012 1726			Final Weight/Volume:	10000 uL
Prep Date:	09/04/2012 1041			Injection Volume:	150 uL
Leach Date:	N/A			Column ID:	PRIMARY

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
2,6-diamino-4-nitrotoluene	101	101	75 - 105	1	20	J	J
HMX	104	105	75 - 110	1	20		
2,4-diamino-6-nitrotoluene	95	97	70 - 105	1	20	J	J
RDX	103	104	80 - 110	1	20		
Picric acid	90	88	75 - 105	2	20		
1,3,5-Trinitrobenzene	101	102	80 - 110	1	20		
1,3-Dinitrobenzene	103	105	80 - 115	2	20		
Nitrobenzene	102	105	80 - 115	3	20		
Tetryl	78	78	70 - 110	0	20	J	J
Nitroglycerin	101	103	75 - 125	2	20		
2,4,6-Trinitrotoluene	99	101	75 - 110	2	20		
4-Amino-2,6-dinitrotoluene	105	107	75 - 120	2	20		
2-Amino-4,6-dinitrotoluene	103	105	85 - 110	2	20		
2,6-Dinitrotoluene	107	109	80 - 120	2	20		
2,4-Dinitrotoluene	100	102	85 - 115	2	20	J	J
2-Nitrotoluene	99	101	75 - 110	2	20		
4-Nitrotoluene	104	104	80 - 115	0	20	J	J
3-Nitrotoluene	100	102	85 - 115	1	20	J M	J
PETN	111	107	70 - 125	3	20		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
1,2-Dinitrobenzene	103	104	40 - 150

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 200-44398

Method: 8330B
Preparation: 8330-Prep

MS Lab Sample ID:	200-12542-1	Units: ug/L	MSD Lab Sample ID:	200-12542-1	
Client Matrix:	Water		Client Matrix:	Water	
Dilution:	1.0		Dilution:	1.0	
Analysis Date:	09/06/2012 1649		Analysis Date:	09/06/2012 1726	
Prep Date:	09/04/2012 1041		Prep Date:	09/04/2012 1041	
Leach Date:	N/A		Leach Date:	N/A	

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
2,6-diamino-4-nitrotoluene	0.048	U	4.00	4.00	4.02	J	4.06	J
HMX	0.024	U	4.00	4.00	4.16		4.20	
2,4-diamino-6-nitrotoluene	0.048	U	4.00	4.00	3.81	J	3.87	J
RDX	0.024	U	4.00	4.00	4.10		4.16	
Picric acid	0.048	U	4.00	4.00	3.60		3.54	
1,3,5-Trinitrobenzene	0.024	U	4.00	4.00	4.06		4.10	
1,3-Dinitrobenzene	0.024	U	4.00	4.00	4.12		4.18	
Nitrobenzene	0.048	U	4.00	4.00	4.08		4.18	
Tetryl	0.048	U	4.00	4.00	3.12	J	3.13	J
Nitroglycerin	1.4	U	80.0	80.0	80.8		82.1	
2,4,6-Trinitrotoluene	0.048	U	4.00	4.00	3.95		4.02	
4-Amino-2,6-dinitrotoluene	0.024	U	4.00	4.00	4.19		4.26	
2-Amino-4,6-dinitrotoluene	0.048	U	4.00	4.00	4.13		4.19	
2,6-Dinitrotoluene	0.024	U	4.00	4.00	4.28		4.37	
2,4-Dinitrotoluene	0.048	U	4.00	4.00	3.99	J	4.08	J
2-Nitrotoluene	0.048	U	4.00	4.00	3.96		4.04	
4-Nitrotoluene	0.060	U	4.00	4.00	4.16	J	4.16	J
3-Nitrotoluene	0.060	U	4.00	4.00	4.01	J M	4.06	J
PETN	2.0	U	80.0	80.0	88.6		85.8	

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Method Blank - Batch: 200-44707

Method: 6850
Preparation: N/A

Lab Sample ID:	MB 200-44707/4	Analysis Batch:	200-44707	Instrument ID:	LC3062
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	P091112A04.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	09/11/2012 1105	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	N/A			Injection Volume:	100 uL
Leach Date:	N/A				

Analyte	Result	Qual	DL	LOQ
Perchlorate	0.040	U	0.015	0.20

LC Interference Check Standard - Batch: 200-44707

Method: 6850
Preparation: N/A

Lab Sample ID:	INF 200-44707/3	Analysis Batch:	200-44707	Instrument ID:	LC3062
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	P091112A03.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	09/11/2012 1050	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	N/A			Injection Volume:	100 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Perchlorate	0.200	0.252	126	70 - 130	

Lab Control Sample - Batch: 200-44707

Method: 6850
Preparation: N/A

Lab Sample ID:	LCS 200-44707/5	Analysis Batch:	200-44707	Instrument ID:	LC3062
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	P091112A05.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	09/11/2012 1120	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	N/A			Injection Volume:	100 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Perchlorate	0.200	0.244	122	80 - 120	Q

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 200-44707

Method: 6850
Preparation: N/A

MS Lab Sample ID:	200-12542-1	Analysis Batch:	200-44707	Instrument ID:	LC3062
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	P091112A11.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	09/11/2012 1252			Final Weight/Volume:	5 mL
Prep Date:	N/A			Injection Volume:	100 uL
Leach Date:	N/A				

MSD Lab Sample ID:	200-12542-1	Analysis Batch:	200-44707	Instrument ID:	LC3062
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	P091112A12.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	09/11/2012 1307			Final Weight/Volume:	5 mL
Prep Date:	N/A			Injection Volume:	100 uL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Perchlorate	101	108	80 - 120	6	15		

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 200-44707

Method: 6850
Preparation: N/A

MS Lab Sample ID:	200-12542-1	Units:	ug/L	MSD Lab Sample ID:	200-12542-1
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	09/11/2012 1252			Analysis Date:	09/11/2012 1307
Prep Date:	N/A			Prep Date:	N/A
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Perchlorate	0.027	J	0.200	0.200	0.230	0.243

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Method Blank - Batch: 200-44584

Method: 6010C
Preparation: 3010A

Lab Sample ID:	MB 200-44584/1-A	Analysis Batch:	200-44675	Instrument ID:	METICP7
Client Matrix:	Water	Prep Batch:	200-44584	Lab File ID:	090812-04.ttx
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	09/08/2012 2159	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	09/06/2012 1000				
Leach Date:	N/A				

Analyte	Result	Qual	DL	LOQ
Aluminum	150	U	39	200
Antimony	15	U	4.1	60
Arsenic	9.0	U	4.4	10
Barium	14	U	5.2	200
Beryllium	0.35	U	0.29	5.0
Cadmium	2.6	U	0.45	5.0
Calcium	990	U	120	5000
Chromium	2.5	U	0.55	10
Cobalt	2.0	U	0.92	50
Copper	13	U	1.6	25
Iron	150	U	39	200
Lead	9.0	U	5.4	10
Magnesium	1500	U	64	5000
Manganese	8.5	U	1.9	15
Nickel	7.5	U	1.8	40
Potassium	400	U	180	5000
Selenium	23	U	6.1	35
Silver	3.8	U	2.1	10
Sodium	900	U	51	5000
Thallium	20	U	2.6	25
Vanadium	3.8	U	1.6	50
Zinc	1.44	J	0.75	20

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Lab Control Sample - Batch: 200-44584

Method: 6010C
Preparation: 3010A

Lab Sample ID:	LCS 200-44584/2-A	Analysis Batch:	200-44675	Instrument ID:	METICP7
Client Matrix:	Water	Prep Batch:	200-44584	Lab File ID:	090812-04.ttx
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	09/08/2012 2206	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	09/06/2012 1000				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	51000	51000	100	80 - 120	
Antimony	2000	1910	96	80 - 120	
Arsenic	1050	1040	99	80 - 120	
Barium	500	485	97	80 - 120	
Beryllium	500	512	102	80 - 120	
Cadmium	525	503	96	80 - 120	
Calcium	50000	50400	101	80 - 120	
Chromium	500	481	96	80 - 120	
Cobalt	500	474	95	80 - 120	
Copper	500	506	101	80 - 120	
Iron	95500	96000	101	80 - 120	
Lead	1020	1010	99	80 - 120	
Magnesium	50000	50700	101	80 - 120	
Manganese	500	483	97	80 - 120	
Nickel	500	468	94	80 - 120	
Potassium	50000	50200	100	80 - 120	
Selenium	525	490	93	80 - 120	
Silver	500	489	98	80 - 120	
Sodium	50000	50600	101	80 - 120	
Thallium	550	505	92	80 - 120	
Vanadium	500	502	100	80 - 120	
Zinc	500	498	100	80 - 120	

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Post Digestion Spike - Batch: 200-44584

Method: 6010C
Preparation: 3010A

Lab Sample ID:	200-12542-1	Analysis Batch:	200-44675	Instrument ID:	METICP7
Client Matrix:	Water	Prep Batch:	200-44584	Lab File ID:	090812-04.ttx
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	09/08/2012 2225	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	09/06/2012 1000				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	150	U	2000	2050	103	80 - 120	
Antimony	15	U	500	480	96	80 - 120	
Arsenic	9.0	U	40.0	38.5	96	80 - 120	
Barium	14	U	2000	1990	99	80 - 120	
Beryllium	0.35	U	50.0	51.1	102	80 - 120	
Cadmium	2.6	U	50.0	49.3	99	80 - 120	
Calcium	11000		2000	12600	96	80 - 120	
Chromium	2.5	U	200	199	100	80 - 120	
Cobalt	2.0	U	500	497	99	80 - 120	
Copper	1.7	J	250	254	101	80 - 120	
Iron	150	U	1000	1030	103	80 - 120	
Lead	9.0	U	20.0	22.4	112	80 - 120	
Magnesium	1000	J	2000	3180	106	80 - 120	J
Manganese	8.5	U	500	502	100	80 - 120	
Nickel	7.5	U	500	487	97	80 - 120	
Potassium	520	J	2000	2790	113	80 - 120	J
Selenium	23	U	50.0	46.8	94	80 - 120	
Silver	3.8	U	50.0	50.7	101	80 - 120	
Sodium	12000		2000	13500	102	80 - 120	
Thallium	20	U	50.0	40.0	80	80 - 120	
Vanadium	3.8	U	500	505	101	80 - 120	
Zinc	2.8	J	500	498	99	80 - 120	

Matrix Spike - Batch: 200-44584

Method: 6010C
Preparation: 3010A

Lab Sample ID:	200-12542-1	Analysis Batch:	200-44675	Instrument ID:	METICP7
Client Matrix:	Water	Prep Batch:	200-44584	Lab File ID:	090812-04.ttx
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	09/08/2012 2239	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	09/06/2012 1000				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	150	U	2000	2070	104	80 - 120	
Antimony	15	U	500	483	97	80 - 120	
Arsenic	9.0	U	40.0	40.8	102	80 - 120	
Barium	14	U	2000	2050	103	80 - 120	
Beryllium	0.35	U	50.0	51.1	102	80 - 120	

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Matrix Spike - Batch: 200-44584

Method: 6010C
Preparation: 3010A

Lab Sample ID:	200-12542-1	Analysis Batch:	200-44675	Instrument ID:	METICP7
Client Matrix:	Water	Prep Batch:	200-44584	Lab File ID:	090812-04.ttx
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	09/08/2012 2239	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	09/06/2012 1000				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Cadmium	2.6	U	50.0	48.9	98	80 - 120	
Calcium	11000		2000	13100	122	80 - 120	4
Chromium	2.5	U	200	201	101	80 - 120	
Cobalt	2.0	U	500	502	100	80 - 120	
Copper	1.7	J	250	258	102	80 - 120	
Iron	150	U	1000	1050	105	80 - 120	
Lead	9.0	U	20.0	21.6	108	80 - 120	
Magnesium	1000	J	2000	3150	105	80 - 120	J
Manganese	8.5	U	500	505	101	80 - 120	
Nickel	7.5	U	500	493	99	80 - 120	
Potassium	520	J	2000	2680	108	80 - 120	J
Selenium	23	U	50.0	47.0	94	80 - 120	
Silver	3.8	U	50.0	63.7	127	80 - 120	J
Sodium	12000		2000	13900	122	80 - 120	4
Thallium	20	U	50.0	39.8	80	80 - 120	
Vanadium	3.8	U	500	512	102	80 - 120	
Zinc	2.8	J	500	500	99	80 - 120	

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Serial Dilution - Batch: 200-44584

Method: 6010C
Preparation: 3010A

Lab Sample ID:	200-12542-1	Analysis Batch:	200-44675	Instrument ID:	METICP7
Client Matrix:	Water	Prep Batch:	200-44584	Lab File ID:	090812-04.ttx
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	09/08/2012 2219	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	09/06/2012 1000				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	%Diff	Limit	Qual
Aluminum	150	U	750	NC	10	U
Antimony	15	U	75	NC	10	U
Arsenic	9.0	U	45	NC	10	U
Barium	14	U	70	NC	10	U
Beryllium	0.35	U	1.8	NC	10	U
Cadmium	2.6	U	13	NC	10	U
Calcium	11000		10700	0.26	10	J D
Chromium	2.5	U	13	NC	10	U
Cobalt	2.0	U	10	NC	10	U
Copper	1.7	J	65	NC	10	U
Iron	150	U	750	NC	10	U
Lead	9.0	U	45	NC	10	U
Magnesium	1000	J	1050	NC	10	J D
Manganese	8.5	U	43	NC	10	U
Nickel	7.5	U	38	NC	10	U
Potassium	520	J	2000	NC	10	U
Selenium	23	U	120	NC	10	U
Silver	3.8	U	19	NC	10	U
Sodium	12000		11400	0.50	10	J D
Thallium	20	U	100	NC	10	U
Vanadium	3.8	U	19	NC	10	U
Zinc	2.8	J	5.62	NC	10	J D

Duplicate - Batch: 200-44584

Method: 6010C
Preparation: 3010A

Lab Sample ID:	200-12542-1	Analysis Batch:	200-44675	Instrument ID:	METICP7
Client Matrix:	Water	Prep Batch:	200-44584	Lab File ID:	090812-04.ttx
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	09/08/2012 2232	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	09/06/2012 1000				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Aluminum	150	U	150	NC	20	U
Antimony	15	U	15	NC	20	U
Arsenic	9.0	U	9.0	NC	20	U
Barium	14	U	14	NC	20	U
Beryllium	0.35	U	0.35	NC	20	U
Cadmium	2.6	U	2.6	NC	20	U
Calcium	11000		10600	0.6	20	

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Duplicate - Batch: 200-44584

Method: 6010C
Preparation: 3010A

Lab Sample ID:	200-12542-1	Analysis Batch:	200-44675	Instrument ID:	METICP7
Client Matrix:	Water	Prep Batch:	200-44584	Lab File ID:	090812-04.ttx
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	09/08/2012 2232	Units:	ug/L	Final Weight/Volume:	100 mL
Prep Date:	09/06/2012 1000				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Chromium	2.5	U	2.5	NC	20	U
Cobalt	2.0	U	2.0	NC	20	U
Copper	1.7	J	13	NC	20	U
Iron	150	U	150	NC	20	U
Lead	9.0	U	9.0	NC	20	U
Magnesium	1000	J	1030	1	20	J
Manganese	8.5	U	8.5	NC	20	U
Nickel	7.5	U	7.5	NC	20	U
Potassium	520	J	525	0.5	20	J
Selenium	23	U	23	NC	20	U
Silver	3.8	U	3.8	NC	20	U
Sodium	12000		11500	0.3	20	
Thallium	20	U	20	NC	20	U
Vanadium	3.8	U	3.8	NC	20	U
Zinc	2.8	J	2.08	29	20	J

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Method Blank - Batch: 200-44948

Method: 7470A
Preparation: 7470A

Lab Sample ID:	MB 200-44948/11-A	Analysis Batch:	200-44963	Instrument ID:	MEPCV3 II
Client Matrix:	Water	Prep Batch:	200-44948	Lab File ID:	091412FF.PRN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	09/14/2012 1536	Units:	ug/L	Final Weight/Volume:	50 mL
Prep Date:	09/14/2012 0900				
Leach Date:	N/A				

Analyte	Result	Qual	DL	LOQ
Mercury	0.10	U	0.060	0.20

Lab Control Sample - Batch: 200-44948

Method: 7470A
Preparation: 7470A

Lab Sample ID:	LCS 200-44948/12-A	Analysis Batch:	200-44963	Instrument ID:	MEPCV3 II
Client Matrix:	Water	Prep Batch:	200-44948	Lab File ID:	091412FF.PRN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	09/14/2012 1539	Units:	ug/L	Final Weight/Volume:	50 mL
Prep Date:	09/14/2012 0900				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	1.00	1.12	112	85 - 115	

Matrix Spike - Batch: 200-44948

Method: 7470A
Preparation: 7470A

Lab Sample ID:	200-12542-1	Analysis Batch:	200-44963	Instrument ID:	MEPCV3 II
Client Matrix:	Water	Prep Batch:	200-44948	Lab File ID:	091412FF.PRN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	09/14/2012 1547	Units:	ug/L	Final Weight/Volume:	50 mL
Prep Date:	09/14/2012 0900				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.10	U	1.00	1.17	117	85 - 115	J

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Duplicate - Batch: 200-44948

Method: 7470A
Preparation: 7470A

Lab Sample ID:	200-12542-1	Analysis Batch:	200-44963	Instrument ID:	MEPCV3 II
Client Matrix:	Water	Prep Batch:	200-44948	Lab File ID:	091412FF.PRN
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	09/14/2012 1544	Units:	ug/L	Final Weight/Volume:	50 mL
Prep Date:	09/14/2012 0900				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Mercury	0.10	U	0.10	NC	20	U

DATA REPORTING QUALIFIERS

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

Lab Section	Qualifier	Description
HPLC/IC		
	J	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
	M	Manual integrated compound.
	U	Undetected at the Limit of Detection.
LCMS		
	J	Estimated: The analyte was positively identified; the quantitation is an estimation
	M	Manual integrated compound.
	Q	One or more quality control criteria failed.
	U	Undetected at the Limit of Detection.
Metals		
	J	Estimated: The analyte was positively identified; the quantitation is an estimation
	J	Estimated: The quantitation is an estimation due to discrepancies in meeting certain analyte-specific quality control criteria.
	4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
	D	The reported value is from a dilution.
	U	Undetected at the Limit of Detection.

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 200-44584					
LCS 200-44584/2-A	Lab Control Sample	T	Water	3010A	
MB 200-44584/1-A	Method Blank	T	Water	3010A	
200-12542-1	NFUDS-001-GW01-01	T	Water	3010A	
200-12542-1DU	Duplicate	T	Water	3010A	
200-12542-1MS	Matrix Spike	T	Water	3010A	
200-12542-2	NFUDS-002-GW01-01	T	Water	3010A	
200-12542-3	NFUDS-002-GW02-01	T	Water	3010A	
200-12542-4	NFUDS-002-GW03-01	T	Water	3010A	
200-12542-5	NFUDS-002-GW03-02	T	Water	3010A	
Analysis Batch:200-44675					
LCS 200-44584/2-A	Lab Control Sample	T	Water	6010C	200-44584
MB 200-44584/1-A	Method Blank	T	Water	6010C	200-44584
200-12542-1	NFUDS-001-GW01-01	T	Water	6010C	200-44584
200-12542-1DU	Duplicate	T	Water	6010C	200-44584
200-12542-1MS	Matrix Spike	T	Water	6010C	200-44584
200-12542-2	NFUDS-002-GW01-01	T	Water	6010C	200-44584
200-12542-3	NFUDS-002-GW02-01	T	Water	6010C	200-44584
200-12542-4	NFUDS-002-GW03-01	T	Water	6010C	200-44584
200-12542-5	NFUDS-002-GW03-02	T	Water	6010C	200-44584
Prep Batch: 200-44948					
LCS 200-44948/12-A	Lab Control Sample	T	Water	7470A	
MB 200-44948/11-A	Method Blank	T	Water	7470A	
200-12542-1	NFUDS-001-GW01-01	T	Water	7470A	
200-12542-1DU	Duplicate	T	Water	7470A	
200-12542-1MS	Matrix Spike	T	Water	7470A	
200-12542-2	NFUDS-002-GW01-01	T	Water	7470A	
200-12542-3	NFUDS-002-GW02-01	T	Water	7470A	
200-12542-4	NFUDS-002-GW03-01	T	Water	7470A	
200-12542-5	NFUDS-002-GW03-02	T	Water	7470A	
Analysis Batch:200-44963					
LCS 200-44948/12-A	Lab Control Sample	T	Water	7470A	200-44948
MB 200-44948/11-A	Method Blank	T	Water	7470A	200-44948
200-12542-1	NFUDS-001-GW01-01	T	Water	7470A	200-44948
200-12542-1DU	Duplicate	T	Water	7470A	200-44948
200-12542-1MS	Matrix Spike	T	Water	7470A	200-44948
200-12542-2	NFUDS-002-GW01-01	T	Water	7470A	200-44948
200-12542-3	NFUDS-002-GW02-01	T	Water	7470A	200-44948
200-12542-4	NFUDS-002-GW03-01	T	Water	7470A	200-44948
200-12542-5	NFUDS-002-GW03-02	T	Water	7470A	200-44948

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Report Basis					
T = Total					
LCMS					
Analysis Batch:200-44707					
LCS 200-44707/5	Lab Control Sample	T	Water	6850	
MB 200-44707/4	Method Blank	T	Water	6850	
200-12542-1	NFUDS-001-GW01-01	T	Water	6850	
200-12542-1MS	Matrix Spike	T	Water	6850	
200-12542-1MSD	Matrix Spike Duplicate	T	Water	6850	
200-12542-2	NFUDS-002-GW01-01	T	Water	6850	
200-12542-3	NFUDS-002-GW02-01	T	Water	6850	
200-12542-4	NFUDS-002-GW03-01	T	Water	6850	
200-12542-5	NFUDS-002-GW03-02	T	Water	6850	

Report Basis
T = Total

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
Sdg Number: 200-12542-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
HPLC/IC					
Prep Batch: 200-44398					
LCS 200-44398/2-A	Lab Control Sample	T	Water	8330-Prep	
MB 200-44398/1-A	Method Blank	T	Water	8330-Prep	
200-12542-1	NFUDS-001-GW01-01	T	Water	8330-Prep	
200-12542-1MS	Matrix Spike	T	Water	8330-Prep	
200-12542-1MSD	Matrix Spike Duplicate	T	Water	8330-Prep	
200-12542-2	NFUDS-002-GW01-01	T	Water	8330-Prep	
200-12542-3	NFUDS-002-GW02-01	T	Water	8330-Prep	
200-12542-4	NFUDS-002-GW03-01	T	Water	8330-Prep	
200-12542-5	NFUDS-002-GW03-02	T	Water	8330-Prep	
Analysis Batch:200-44487					
LCS 200-44398/2-A	Lab Control Sample	T	Water	8330B	200-44398
MB 200-44398/1-A	Method Blank	T	Water	8330B	200-44398
200-12542-1	NFUDS-001-GW01-01	T	Water	8330B	200-44398
200-12542-1MS	Matrix Spike	T	Water	8330B	200-44398
200-12542-1MSD	Matrix Spike Duplicate	T	Water	8330B	200-44398
200-12542-2	NFUDS-002-GW01-01	T	Water	8330B	200-44398
200-12542-3	NFUDS-002-GW02-01	T	Water	8330B	200-44398
200-12542-4	NFUDS-002-GW03-01	T	Water	8330B	200-44398
200-12542-5	NFUDS-002-GW03-02	T	Water	8330B	200-44398
Analysis Batch:200-44491					
LCS 200-44398/2-A	Lab Control Sample	T	Water	8330B	200-44398
MB 200-44398/1-A	Method Blank	T	Water	8330B	200-44398
200-12542-1	NFUDS-001-GW01-01	T	Water	8330B	200-44398
200-12542-1MS	Matrix Spike	T	Water	8330B	200-44398
200-12542-1MSD	Matrix Spike Duplicate	T	Water	8330B	200-44398
200-12542-2	NFUDS-002-GW01-01	T	Water	8330B	200-44398
200-12542-3	NFUDS-002-GW02-01	T	Water	8330B	200-44398
200-12542-4	NFUDS-002-GW03-01	T	Water	8330B	200-44398
200-12542-5	NFUDS-002-GW03-02	T	Water	8330B	200-44398

Report Basis
T = Total

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
SDG: 200-12542-1

Laboratory Chronicle

Lab ID: 200-12542-1 **Client ID:** NFUDS-001-GW01-01

Sample Date/Time: 08/31/2012 12:15 Received Date/Time: 09/01/2012 09:50

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330-Prep	200-12542-D-1-A		200-44491	200-44398	09/04/2012 10:41	1	TAL BUR	EAN
A:8330B	200-12542-D-1-A		200-44491	200-44398	09/06/2012 12:10	1	TAL BUR	WBR
P:8330-Prep	200-12542-D-1-A		200-44487	200-44398	09/04/2012 10:41	1	TAL BUR	EAN
A:8330B	200-12542-D-1-A		200-44487	200-44398	09/06/2012 16:11	1	TAL BUR	WBR
A:6850	200-12542-A-1		200-44707		09/11/2012 11:36	1	TAL BUR	BWC
P:3010A	200-12542-B-1-A		200-44675	200-44584	09/06/2012 10:00	1	TAL BUR	VTP
A:6010C	200-12542-B-1-A		200-44675	200-44584	09/08/2012 22:12	1	TAL BUR	ETK
P:7470A	200-12542-B-1-C		200-44963	200-44948	09/14/2012 09:00	1	TAL BUR	VTP
A:7470A	200-12542-B-1-C		200-44963	200-44948	09/14/2012 15:42	1	TAL BUR	VTP

Lab ID: 200-12542-1 **Client ID:** NFUDS-001-GW01-01

Sample Date/Time: 08/31/2012 12:15 Received Date/Time: 09/01/2012 09:50

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330-Prep	200-12542-D-1-C MS		200-44491	200-44398	09/04/2012 10:41	1	TAL BUR	EAN
A:8330B	200-12542-D-1-C MS		200-44491	200-44398	09/06/2012 12:44	1	TAL BUR	WBR
P:8330-Prep	200-12542-D-1-C MS		200-44487	200-44398	09/04/2012 10:41	1	TAL BUR	EAN
A:8330B	200-12542-D-1-C MS		200-44487	200-44398	09/06/2012 16:49	1	TAL BUR	WBR
A:6850	200-12542-A-1 MS		200-44707		09/11/2012 12:52	1	TAL BUR	BWC
P:3010A	200-12542-B-1-B MS		200-44675	200-44584	09/06/2012 10:00	1	TAL BUR	VTP
A:6010C	200-12542-B-1-B MS		200-44675	200-44584	09/08/2012 22:39	1	TAL BUR	ETK
P:7470A	200-12542-B-1-D MS		200-44963	200-44948	09/14/2012 09:00	1	TAL BUR	VTP
A:7470A	200-12542-B-1-D MS		200-44963	200-44948	09/14/2012 15:47	1	TAL BUR	VTP

Lab ID: 200-12542-1 **Client ID:** NFUDS-001-GW01-01

Sample Date/Time: 08/31/2012 12:15 Received Date/Time: 09/01/2012 09:50

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330-Prep	200-12542-D-1-B MSD		200-44491	200-44398	09/04/2012 10:41	1	TAL BUR	EAN
A:8330B	200-12542-D-1-B MSD		200-44491	200-44398	09/06/2012 13:18	1	TAL BUR	WBR
P:8330-Prep	200-12542-D-1-B MSD		200-44487	200-44398	09/04/2012 10:41	1	TAL BUR	EAN
A:8330B	200-12542-D-1-B MSD		200-44487	200-44398	09/06/2012 17:26	1	TAL BUR	WBR
A:6850	200-12542-A-1 MSD		200-44707		09/11/2012 13:07	1	TAL BUR	BWC

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
SDG: 200-12542-1

Laboratory Chronicle

Lab ID: 200-12542-1 **Client ID:** NFUDS-001-GW01-01

Sample Date/Time: 08/31/2012 12:15 Received Date/Time: 09/01/2012 09:50

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3010A	200-12542-A-1-A DU		200-44675	200-44584	09/06/2012 10:00	1	TAL BUR	VTP
A:6010C	200-12542-A-1-A DU		200-44675	200-44584	09/08/2012 22:32	1	TAL BUR	ETK
P:7470A	200-12542-A-1-B DU		200-44963	200-44948	09/14/2012 09:00	1	TAL BUR	VTP
A:7470A	200-12542-A-1-B DU		200-44963	200-44948	09/14/2012 15:44	1	TAL BUR	VTP

Lab ID: 200-12542-1 SD **Client ID:** NFUDS-001-GW01-01

Sample Date/Time: 08/31/2012 12:15 Received Date/Time: 09/01/2012 09:50

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3010A	200-12542-B-1-A SD ^5		200-44675	200-44584	09/06/2012 10:00	5	TAL BUR	VTP
A:6010C	200-12542-B-1-A SD ^5		200-44675	200-44584	09/08/2012 22:19	5	TAL BUR	ETK
P:3010A	200-12542-B-1-A PDS		200-44675	200-44584	09/06/2012 10:00	1	TAL BUR	VTP
A:6010C	200-12542-B-1-A PDS		200-44675	200-44584	09/08/2012 22:25	1	TAL BUR	ETK

Lab ID: 200-12542-2 **Client ID:** NFUDS-002-GW01-01

Sample Date/Time: 08/31/2012 10:15 Received Date/Time: 09/01/2012 09:50

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330-Prep	200-12542-D-2-A		200-44491	200-44398	09/04/2012 10:41	1	TAL BUR	EAN
A:8330B	200-12542-D-2-A		200-44491	200-44398	09/06/2012 13:52	1	TAL BUR	WBR
P:8330-Prep	200-12542-D-2-A		200-44487	200-44398	09/04/2012 10:41	1	TAL BUR	EAN
A:8330B	200-12542-D-2-A		200-44487	200-44398	09/06/2012 18:04	1	TAL BUR	WBR
A:6850	200-12542-A-2		200-44707		09/11/2012 11:51	1	TAL BUR	BWC
P:3010A	200-12542-B-2-A		200-44675	200-44584	09/06/2012 10:00	1	TAL BUR	VTP
A:6010C	200-12542-B-2-A		200-44675	200-44584	09/08/2012 22:45	1	TAL BUR	ETK
P:7470A	200-12542-B-2-B		200-44963	200-44948	09/14/2012 09:00	1	TAL BUR	VTP
A:7470A	200-12542-B-2-B		200-44963	200-44948	09/14/2012 15:49	1	TAL BUR	VTP

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
SDG: 200-12542-1

Laboratory Chronicle

Lab ID: 200-12542-3 **Client ID: NFUDS-002-GW02-01**

Sample Date/Time: 08/31/2012 11:00 Received Date/Time: 09/01/2012 09:50

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330-Prep	200-12542-D-3-A		200-44491	200-44398	09/04/2012 10:41	1	TAL BUR	EAN
A:8330B	200-12542-D-3-A		200-44491	200-44398	09/06/2012 14:26	1	TAL BUR	WBR
P:8330-Prep	200-12542-D-3-A		200-44487	200-44398	09/04/2012 10:41	1	TAL BUR	EAN
A:8330B	200-12542-D-3-A		200-44487	200-44398	09/06/2012 18:41	1	TAL BUR	WBR
A:6850	200-12542-A-3		200-44707		09/11/2012 12:06	1	TAL BUR	BWC
P:3010A	200-12542-B-3-A		200-44675	200-44584	09/06/2012 10:00	1	TAL BUR	VTP
A:6010C	200-12542-B-3-A		200-44675	200-44584	09/08/2012 22:52	1	TAL BUR	ETK
P:7470A	200-12542-B-3-B		200-44963	200-44948	09/14/2012 09:00	1	TAL BUR	VTP
A:7470A	200-12542-B-3-B		200-44963	200-44948	09/14/2012 15:51	1	TAL BUR	VTP

Lab ID: 200-12542-4 **Client ID: NFUDS-002-GW03-01**

Sample Date/Time: 08/31/2012 11:30 Received Date/Time: 09/01/2012 09:50

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330-Prep	200-12542-D-4-A		200-44491	200-44398	09/04/2012 10:41	1	TAL BUR	EAN
A:8330B	200-12542-D-4-A		200-44491	200-44398	09/06/2012 15:01	1	TAL BUR	WBR
P:8330-Prep	200-12542-D-4-A		200-44487	200-44398	09/04/2012 10:41	1	TAL BUR	EAN
A:8330B	200-12542-D-4-A		200-44487	200-44398	09/06/2012 19:18	1	TAL BUR	WBR
A:6850	200-12542-A-4		200-44707		09/11/2012 12:21	1	TAL BUR	BWC
P:3010A	200-12542-B-4-A		200-44675	200-44584	09/06/2012 10:00	1	TAL BUR	VTP
A:6010C	200-12542-B-4-A		200-44675	200-44584	09/08/2012 22:58	1	TAL BUR	ETK
P:7470A	200-12542-B-4-B		200-44963	200-44948	09/14/2012 09:00	1	TAL BUR	VTP
A:7470A	200-12542-B-4-B		200-44963	200-44948	09/14/2012 15:53	1	TAL BUR	VTP

Lab ID: 200-12542-5 **Client ID: NFUDS-002-GW03-02**

Sample Date/Time: 08/31/2012 11:30 Received Date/Time: 09/01/2012 09:50

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330-Prep	200-12542-D-5-A		200-44491	200-44398	09/04/2012 10:41	1	TAL BUR	EAN
A:8330B	200-12542-D-5-A		200-44491	200-44398	09/06/2012 15:35	1	TAL BUR	WBR
P:8330-Prep	200-12542-D-5-A		200-44487	200-44398	09/04/2012 10:41	1	TAL BUR	EAN
A:8330B	200-12542-D-5-A		200-44487	200-44398	09/06/2012 19:56	1	TAL BUR	WBR
A:6850	200-12542-A-5		200-44707		09/11/2012 12:37	1	TAL BUR	BWC
P:3010A	200-12542-B-5-A		200-44675	200-44584	09/06/2012 10:00	1	TAL BUR	VTP
A:6010C	200-12542-B-5-A		200-44675	200-44584	09/08/2012 23:25	1	TAL BUR	ETK
P:7470A	200-12542-B-5-B		200-44963	200-44948	09/14/2012 09:00	1	TAL BUR	VTP
A:7470A	200-12542-B-5-B		200-44963	200-44948	09/14/2012 15:56	1	TAL BUR	VTP

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
SDG: 200-12542-1

Laboratory Chronicle

Lab ID: **MB** **Client ID:** **N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330-Prep	MB 200-44398/1-A		200-44491	200-44398	09/04/2012 10:41	1	TAL BUR	EAN
A:8330B	MB 200-44398/1-A		200-44491	200-44398	09/06/2012 04:45	1	TAL BUR	WBR
P:8330-Prep	MB 200-44398/1-A		200-44487	200-44398	09/04/2012 10:41	1	TAL BUR	EAN
A:8330B	MB 200-44398/1-A		200-44487	200-44398	09/06/2012 05:56	1	TAL BUR	WBR
A:6850	MB 200-44707/4		200-44707		09/11/2012 11:05	1	TAL BUR	BWC
P:3010A	MB 200-44584/1-A		200-44675	200-44584	09/06/2012 10:00	1	TAL BUR	VTP
A:6010C	MB 200-44584/1-A		200-44675	200-44584	09/08/2012 21:59	1	TAL BUR	ETK
P:7470A	MB 200-44948/11-A		200-44963	200-44948	09/14/2012 09:00	1	TAL BUR	VTP
A:7470A	MB 200-44948/11-A		200-44963	200-44948	09/14/2012 15:36	1	TAL BUR	VTP

Lab ID: **LCS** **Client ID:** **N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:8330-Prep	LCS 200-44398/2-A		200-44491	200-44398	09/04/2012 10:41	1	TAL BUR	EAN
A:8330B	LCS 200-44398/2-A		200-44491	200-44398	09/06/2012 05:19	1	TAL BUR	WBR
P:8330-Prep	LCS 200-44398/2-A		200-44487	200-44398	09/04/2012 10:41	1	TAL BUR	EAN
A:8330B	LCS 200-44398/2-A		200-44487	200-44398	09/06/2012 06:34	1	TAL BUR	WBR
A:6850	LCS 200-44707/5		200-44707		09/11/2012 11:20	1	TAL BUR	BWC
P:3010A	LCS 200-44584/2-A		200-44675	200-44584	09/06/2012 10:00	1	TAL BUR	VTP
A:6010C	LCS 200-44584/2-A		200-44675	200-44584	09/08/2012 22:06	1	TAL BUR	ETK
P:7470A	LCS 200-44948/12-A		200-44963	200-44948	09/14/2012 09:00	1	TAL BUR	VTP
A:7470A	LCS 200-44948/12-A		200-44963	200-44948	09/14/2012 15:39	1	TAL BUR	VTP

Lab References:
TAL BUR = TestAmerica Burlington

Certification Summary

Client: Weston Solutions, Inc.
Project/Site: Nantucket Beach FUDS

TestAmerica Job ID: 200-12542-1
SDG: 200-12542-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Burlington	ACLASS	DoD ELAP		ADE-1492
TestAmerica Burlington	Connecticut	State Program	1	PH-0751
TestAmerica Burlington	DE Haz. Subst. Cleanup Act	State Program	3	NA
TestAmerica Burlington	Florida	NELAC	4	E87467
TestAmerica Burlington	Louisiana	NELAC	6	176292
TestAmerica Burlington	Maine	State Program	1	VT00008
TestAmerica Burlington	Minnesota	NELAC	5	050-999-436
TestAmerica Burlington	New Hampshire	NELAC	1	200610
TestAmerica Burlington	New Jersey	NELAC Primary AB	2	VT972
TestAmerica Burlington	New York	NELAC	2	10391
TestAmerica Burlington	Pennsylvania	NELAC	3	68-00489
TestAmerica Burlington	Rhode Island	State Program	1	LAO00298
TestAmerica Burlington	USDA	Federal		P330-11-00093
TestAmerica Burlington	Vermont	State Program	1	VT-4000
TestAmerica Burlington	Virginia	NELAC	3	460209

Accreditation may not be offered or required for all methods and analytes reported in this package Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method 8330B

Nitroaromatics and Nitramines (HPLC) by Method 8330B

FORM II
HPLC/IC SURROGATE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Matrix: Water Level: Low

GC Column (1): C-18 ID: 4.6 (mm) GC Column (2): Biphenyl 4.6 (mm)

Client Sample ID	Lab Sample ID	12DNB2 #	12DNB1 #
NFUDS-001-GW01-01	200-12542-1		97
NFUDS-001-GW01-01	200-12542-1	93	
NFUDS-002-GW01-01	200-12542-2		102
NFUDS-002-GW01-01	200-12542-2	98 M	
NFUDS-002-GW02-01	200-12542-3		104
NFUDS-002-GW02-01	200-12542-3	97 M	
NFUDS-002-GW03-01	200-12542-4		101
NFUDS-002-GW03-01	200-12542-4	99 M	
NFUDS-002-GW03-02	200-12542-5		99
NFUDS-002-GW03-02	200-12542-5	97 M	
	MB 200-44398/1-A		103
	MB 200-44398/1-A	96	
	LCS 200-44398/2-A		106 M
	LCS 200-44398/2-A	97	
NFUDS-001-GW01-01 MS	200-12542-1 MS		103
NFUDS-001-GW01-01 MS	200-12542-1 MS	98 M	
NFUDS-001-GW01-01 MSD	200-12542-1 MSD		104
NFUDS-001-GW01-01 MSD	200-12542-1 MSD	101	

	QC LIMITS
12DNB = 1,2-Dinitrobenzene	40-150

Column to be used to flag recovery values

FORM II 8330B

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Matrix: Water Level: Low Lab File ID: 05SEP121550_241.d

Lab ID: LCS 200-44398/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
2,6-diamino-4-nitrotoluene	4.00	4.10	103	75-105	J
HMX	4.00	4.24	106	75-110	
2,4-diamino-6-nitrotoluene	4.00	3.87	97	70-105	J
RDX	4.00	4.20	105	80-110	
Picric acid	4.00	3.95	99	75-105	
1,3,5-Trinitrobenzene	4.00	4.20	105	80-110	
1,3-Dinitrobenzene	4.00	4.19	105	80-115	M
Nitrobenzene	4.00	4.30	107	80-115	M
Tetryl	4.00	3.69	92	70-110	J M
Nitroglycerin	80.0	91.8	115	75-125	M
2,4,6-Trinitrotoluene	4.00	4.30	107	75-110	
4-Amino-2,6-dinitrotoluene	4.00	4.38	110	75-120	
2-Amino-4,6-dinitrotoluene	4.00	4.27	107	85-110	
2,6-Dinitrotoluene	4.00	4.32	108	80-120	
2,4-Dinitrotoluene	4.00	4.10	103	85-115	J
2-Nitrotoluene	4.00	3.97	99	75-110	
4-Nitrotoluene	4.00	4.17	104	80-115	J M
3-Nitrotoluene	4.00	4.04	101	85-115	J
PETN	80.0	87.9	110	70-125	

Column to be used to flag recovery and RPD values

FORM III 8330B

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Matrix: Water Level: Low Lab File ID: 05SEP121550_371.d

Lab ID: 200-12542-1 MS Client ID: NFUDS-001-GW01-01 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
2,6-diamino-4-nitrotoluene	4.00	0.048 U	4.02	101	75-105	J
HMX	4.00	0.024 U	4.16	104	75-110	
2,4-diamino-6-nitrotoluene	4.00	0.048 U	3.81	95	70-105	J
RDX	4.00	0.024 U	4.10	103	80-110	
Picric acid	4.00	0.048 U	3.60	90	75-105	
1,3,5-Trinitrobenzene	4.00	0.024 U	4.06	101	80-110	
1,3-Dinitrobenzene	4.00	0.024 U	4.12	103	80-115	
Nitrobenzene	4.00	0.048 U	4.08	102	80-115	
Tetryl	4.00	0.048 U	3.12	78	70-110	J
Nitroglycerin	80.0	1.4 U	80.8	101	75-125	
2,4,6-Trinitrotoluene	4.00	0.048 U	3.95	99	75-110	
4-Amino-2,6-dinitrotoluene	4.00	0.024 U	4.19	105	75-120	
2-Amino-4,6-dinitrotoluene	4.00	0.048 U	4.13	103	85-110	
2,6-Dinitrotoluene	4.00	0.024 U	4.28	107	80-120	
2,4-Dinitrotoluene	4.00	0.048 U	3.99	100	85-115	J
2-Nitrotoluene	4.00	0.048 U	3.96	99	75-110	
4-Nitrotoluene	4.00	0.060 U	4.16	104	80-115	J
3-Nitrotoluene	4.00	0.060 U	4.01	100	85-115	J M
PETN	80.0	2.0 U	88.6	111	70-125	

Column to be used to flag recovery and RPD values

FORM III 8330B

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Matrix: Water Level: Low Lab File ID: 05SEP121550_381.d

Lab ID: 200-12542-1 MSD Client ID: NFUDS-001-GW01-01 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
2,6-diamino-4-nitrotoluene	4.00	4.06	101	1	20	75-105	J
HMX	4.00	4.20	105	1	20	75-110	
2,4-diamino-6-nitrotoluene	4.00	3.87	97	1	20	70-105	J
RDX	4.00	4.16	104	1	20	80-110	
Picric acid	4.00	3.54	88	2	20	75-105	
1,3,5-Trinitrobenzene	4.00	4.10	102	1	20	80-110	
1,3-Dinitrobenzene	4.00	4.18	105	2	20	80-115	
Nitrobenzene	4.00	4.18	105	3	20	80-115	
Tetryl	4.00	3.13	78	0	20	70-110	J
Nitroglycerin	80.0	82.1	103	2	20	75-125	
2,4,6-Trinitrotoluene	4.00	4.02	101	2	20	75-110	
4-Amino-2,6-dinitrotoluene	4.00	4.26	107	2	20	75-120	
2-Amino-4,6-dinitrotoluene	4.00	4.19	105	2	20	85-110	
2,6-Dinitrotoluene	4.00	4.37	109	2	20	80-120	
2,4-Dinitrotoluene	4.00	4.08	102	2	20	85-115	J
2-Nitrotoluene	4.00	4.04	101	2	20	75-110	
4-Nitrotoluene	4.00	4.16	104	0	20	80-115	J
3-Nitrotoluene	4.00	4.06	102	1	20	85-115	J
PETN	80.0	85.8	107	3	20	70-125	

Column to be used to flag recovery and RPD values

FORM III 8330B

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Lab Sample ID: MB 200-44398/1-A

Matrix: Water Date Extracted: 09/04/2012 10:41

Lab File ID:(1) 05SEP121550_231.d Lab File ID:(2) 05SEP121553_231.d

Date Analyzed:(1) 09/06/2012 05:56 Date Analyzed:(2) 09/06/2012 04:45

Instrument ID:(1) CH1208 Instrument ID:(2) CH1488

GC Column:(1) C-18 ID: 4.6(mm) GC Column:(2) Biphenyl ID: 4.6(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
	LCS 200-44398/2-A	09/06/2012 06:34	09/06/2012 05:19
NFUDS-001-GW01-01	200-12542-1	09/06/2012 16:11	09/06/2012 12:10
NFUDS-001-GW01-01 MS	200-12542-1 MS	09/06/2012 16:49	09/06/2012 12:44
NFUDS-001-GW01-01 MSD	200-12542-1 MSD	09/06/2012 17:26	09/06/2012 13:18
NFUDS-002-GW01-01	200-12542-2	09/06/2012 18:04	09/06/2012 13:52
NFUDS-002-GW02-01	200-12542-3	09/06/2012 18:41	09/06/2012 14:26
NFUDS-002-GW03-01	200-12542-4	09/06/2012 19:18	09/06/2012 15:01
NFUDS-002-GW03-02	200-12542-5	09/06/2012 19:56	09/06/2012 15:35

FORM VIII
HPLC/IC ANALYTICAL SEQUENCE

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Instrument ID: CH1208 Calibration Start Date: 07/31/2012 15:48

GC Column: C-18 ID: 4.6(mm) Calibration End Date: 07/31/2012 18:56

Calibration ID: 16905

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				12DNB RT #		
INITIAL CALIBRATION SURROGATE MEAN RT				16.42		
UPPER LIMIT				16.52		
LOWER LIMIT				16.32		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
IC 200-42650/2		07/31/2012 15:48	31JUL121406_021.d	16.41		
IC 200-42650/3		07/31/2012 16:26	31JUL121406_031.d	16.41		
IC 200-42650/4		07/31/2012 17:03	31JUL121406_041.d	16.42		
ICRTAV 200-42650/5		07/31/2012 17:41	31JUL121406_051.d	16.41		
IC 200-42650/6		07/31/2012 18:18	31JUL121406_061.d	16.41		
IC 200-42650/7		07/31/2012 18:56	31JUL121406_071.d	16.42		
ICV 200-42650/10		07/31/2012 20:48	31JUL121406_101.d	16.42		

12DNB = 1,2-Dinitrobenzene

12DNB RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8330B

FORM VIII
HPLC/IC ANALYTICAL SEQUENCE

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Sample No.: CCVRT 200-44487/1 Date Analyzed: 09/06/2012 05:19

Instrument ID: CH1208 GC Column: C-18 ID: 4.6(mm)

Lab File ID (Standard): 05SEP121550_221.d Heated Purge: (Y/N) N

Calibration ID: 16905

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				12DNB RT #		
CONTINUING CALIBRATION SURROGATE				16.42		
UPPER LIMIT				16.52		
LOWER LIMIT				16.32		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 200-44487/1		09/06/2012 05:19	05SEP121550_221.d	16.42		
MB 200-44398/1-A		09/06/2012 05:56	05SEP121550_231.d	16.43		
LCS 200-44398/2-A		09/06/2012 06:34	05SEP121550_241.d	16.42		
CCV 200-44487/12		09/06/2012 14:19	05SEP121550_331.d	16.42		
200-12542-1	NFUDS-001-GW01-01	09/06/2012 16:11	05SEP121550_361.d	16.43		
200-12542-1 MS	NFUDS-001-GW01-01 MS	09/06/2012 16:49	05SEP121550_371.d	16.42		
200-12542-1 MSD	NFUDS-001-GW01-01 MSD	09/06/2012 17:26	05SEP121550_381.d	16.43		
200-12542-2	NFUDS-002-GW01-01	09/06/2012 18:04	05SEP121550_391.d	16.42		
200-12542-3	NFUDS-002-GW02-01	09/06/2012 18:41	05SEP121550_401.d	16.43		
200-12542-4	NFUDS-002-GW03-01	09/06/2012 19:18	05SEP121550_411.d	16.43		
200-12542-5	NFUDS-002-GW03-02	09/06/2012 19:56	05SEP121550_421.d	16.43		
CCV 200-44487/22		09/06/2012 20:33	05SEP121550_431.d	16.42		

12DNB = 1,2-Dinitrobenzene

12DNB RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8330B

FORM VIII
HPLC/IC ANALYTICAL SEQUENCE

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Instrument ID: CH1488 Calibration Start Date: 05/24/2012 13:39

GC Column: Biphenyl ID: 4.6(mm) Calibration End Date: 05/24/2012 16:30

Calibration ID: 15651

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				12DNB RT #		
INITIAL CALIBRATION SURROGATE MEAN RT				11.21		
UPPER LIMIT				11.31		
LOWER LIMIT				11.11		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
IC 200-39219/2		05/24/2012 13:39	24MAY121229_021.d	11.20		
IC 200-39219/3		05/24/2012 14:13	24MAY121229_031.d	11.21		
IC 200-39219/4		05/24/2012 14:47	24MAY121229_041.d	11.21		
ICRTAV 200-39219/5		05/24/2012 15:21	24MAY121229_051.d	11.20		
IC 200-39219/6		05/24/2012 15:55	24MAY121229_061.d	11.21		
IC 200-39219/7		05/24/2012 16:30	24MAY121229_071.d	11.21		
ICV 200-39219/10		05/24/2012 18:12	24MAY121229_101.d	11.20		

12DNB = 1,2-Dinitrobenzene

12DNB RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8330B

FORM VIII
HPLC/IC ANALYTICAL SEQUENCE

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Sample No.: CCVRT 200-44491/1 Date Analyzed: 09/06/2012 04:11

Instrument ID: CH1488 GC Column: Biphenyl ID: 4.6(mm)

Lab File ID (Standard): 05SEP121553_221.d Heated Purge: (Y/N) N

Calibration ID: 15651

THE ANALYTICAL SEQUENCE OF BLANKS, SAMPLES, STANDARDS, MS/MSDs AND LCSs IS GIVEN BELOW:

				12DNB RT #		
CONTINUING CALIBRATION SURROGATE				11.19		
UPPER LIMIT				11.29		
LOWER LIMIT				11.09		
LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	LAB FILE ID			
CCVRT 200-44491/1		09/06/2012 04:11	05SEP121553_221.d	11.19		
MB 200-44398/1-A		09/06/2012 04:45	05SEP121553_231.d	11.23		
LCS 200-44398/2-A		09/06/2012 05:19	05SEP121553_241.d	11.25		
CCV 200-44491/12		09/06/2012 10:27	05SEP121553_331.d	11.19		
200-12542-1	NFUDS-001-GW01-01	09/06/2012 12:10	05SEP121553_361.d	11.23		
200-12542-1 MS	NFUDS-001-GW01-01 MS	09/06/2012 12:44	05SEP121553_371.d	11.22		
200-12542-1 MSD	NFUDS-001-GW01-01 MSD	09/06/2012 13:18	05SEP121553_381.d	11.21		
200-12542-2	NFUDS-002-GW01-01	09/06/2012 13:52	05SEP121553_391.d	11.24		
200-12542-3	NFUDS-002-GW02-01	09/06/2012 14:26	05SEP121553_401.d	11.22		
200-12542-4	NFUDS-002-GW03-01	09/06/2012 15:01	05SEP121553_411.d	11.21		
200-12542-5	NFUDS-002-GW03-02	09/06/2012 15:35	05SEP121553_421.d	11.24		
CCV 200-44491/22		09/06/2012 16:09	05SEP121553_431.d	11.18		

12DNB = 1,2-Dinitrobenzene

12DNB RT Limit = ± 0.1 minutes of surrogate RT

Column used to flag values outside QC limits

FORM VIII 8330B

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Client Sample ID: NFUDS-001-GW01-01 MS Lab Sample ID: 200-12542-1 MS

Instrument ID (1): CH1208 Instrument ID (2): CH1488

Date Analyzed (1): 09/06/2012 16:49 Date Analyzed (2): 09/06/2012 12:44

GC Column (1): C-18 ID: 4.6(mm) GC Column (2): Biphenyl ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
2,6-diamino-4-nitrotoluene	1		9.68	9.57	9.77	4.02		64.9
	2		4.63	4.40	4.60	7.89		
HMX	1		10.68	10.58	10.78	4.16		5.5
	2		5.37	5.31	5.51	3.94		
2,4-diamino-6-nitrotoluene	1		11.10	10.99	11.19	3.81		69.6
	2		4.63	4.40	4.60	7.89		
RDX	1		14.33	14.23	14.43	4.10		1.9
	2		6.47	6.33	6.53	4.18		
Picric acid	1		15.33	15.22	15.42	3.60		4.9
	2		7.14	6.93	7.33	3.43		
1,3,5-Trinitrobenzene	1		16.12	16.01	16.21	4.06		3.8
	2		18.00	17.87	18.07	3.91		
1,3-Dinitrobenzene	1		17.37	17.26	17.46	4.12		4.6
	2		13.55	13.41	13.61	3.93		
Nitrobenzene	1		18.24	18.14	18.34	4.08		0.2
	2		10.82	10.68	10.88	4.08		
Tetryl	1		18.50	18.40	18.60	3.12		77.6
	2		19.04	18.92	19.12	7.08		
Nitroglycerin	1		19.27	19.17	19.37	80.8		3.1
	2		9.51	9.38	9.58	78.3		
2,4,6-Trinitrotoluene	1		19.70	19.60	19.80	3.95		4.0
	2		21.36	21.25	21.45	3.79		
4-Amino-2,6-dinitrotoluene	1		20.14	20.06	20.26	4.19		5.2
	2		11.70	11.58	11.78	3.97		
2-Amino-4,6-dinitrotoluene	1		20.51	20.41	20.61	4.13		4.1
	2		11.92	11.74	11.94	3.96		
2,6-Dinitrotoluene	1		20.87	20.78	20.98	4.28		5.8
	2		16.79	16.65	16.85	4.04		
2,4-Dinitrotoluene	1		21.13	21.04	21.24	3.99		55.9
	2		19.04	18.92	19.12	7.08		
2-Nitrotoluene	1		22.67	22.58	22.78	3.96		4.0
	2		14.85	14.71	14.91	3.80		
4-Nitrotoluene	1		23.44	23.36	23.56	4.16		56.9
	2		16.14	15.98	16.18	7.47		
3-Nitrotoluene	1		24.17	24.09	24.29	4.01		60.3
	2		16.14	15.98	16.18	7.47		
PETN	1		24.97	24.89	25.09	88.6		3.3
	2		15.26	15.15	15.35	85.7		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Client Sample ID: NFUDS-001-GW01-01 MSD Lab Sample ID: 200-12542-1 MSD

Instrument ID (1): CH1208 Instrument ID (2): CH1488

Date Analyzed (1): 09/06/2012 17:26 Date Analyzed (2): 09/06/2012 13:18

GC Column (1): C-18 ID: 4.6(mm) GC Column (2): Biphenyl ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
2,6-diamino-4-nitrotoluene	1		9.69	9.57	9.77	4.06		66.6
	2		4.62	4.40	4.60	8.11		
HMX	1		10.68	10.58	10.78	4.20		4.0
	2		5.36	5.31	5.51	4.04		
2,4-diamino-6-nitrotoluene	1		11.11	10.99	11.19	3.87		70.9
	2		4.62	4.40	4.60	8.11		
RDX	1		14.34	14.23	14.43	4.16		0.6
	2		6.46	6.33	6.53	4.18		
Picric acid	1		15.33	15.22	15.42	3.54		3.2
	2		7.12	6.93	7.33	3.42		
1,3,5-Trinitrobenzene	1		16.13	16.01	16.21	4.10		2.8
	2		17.98	17.87	18.07	3.98		
1,3-Dinitrobenzene	1		17.38	17.26	17.46	4.18		2.6
	2		13.54	13.41	13.61	4.07		
Nitrobenzene	1		18.26	18.14	18.34	4.18		6.7
	2		10.81	10.68	10.88	3.91		
Tetryl	1		18.51	18.40	18.60	3.13		79.0
	2		19.02	18.92	19.12	7.21		
Nitroglycerin	1		19.29	19.17	19.37	82.1		2.3
	2		9.49	9.38	9.58	83.9		
2,4,6-Trinitrotoluene	1		19.71	19.60	19.80	4.02		3.3
	2		21.35	21.25	21.45	3.89		
4-Amino-2,6-dinitrotoluene	1		20.17	20.06	20.26	4.26		3.3
	2		11.68	11.58	11.78	4.12		
2-Amino-4,6-dinitrotoluene	1		20.53	20.41	20.61	4.19		4.6
	2		11.91	11.74	11.94	4.01		
2,6-Dinitrotoluene	1		20.90	20.78	20.98	4.37		8.4
	2		16.77	16.65	16.85	4.02		
2,4-Dinitrotoluene	1		21.15	21.04	21.24	4.08		55.4
	2		19.02	18.92	19.12	7.21		
2-Nitrotoluene	1		22.69	22.58	22.78	4.04		10.5
	2		14.84	14.71	14.91	3.64		
4-Nitrotoluene	1		23.47	23.36	23.56	4.16		56.3
	2		16.12	15.98	16.18	7.42		
3-Nitrotoluene	1		24.20	24.09	24.29	4.06		58.6
	2		16.12	15.98	16.18	7.42		
PETN	1		24.98	24.89	25.09	85.8		9.3
	2		15.25	15.15	15.35	78.2		

FORM X
IDENTIFICATION SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Client Sample ID: Lab Sample ID: LCS 200-44398/2-A

Instrument ID (1): CH1208 Instrument ID (2): CH1488

Date Analyzed (1): 09/06/2012 06:34 Date Analyzed (2): 09/06/2012 05:19

GC Column (1): C-18 ID: 4.6(mm) GC Column (2): Biphenyl ID: 4.6(mm)

ANALYTE	COL	PEAK	RT	RT WINDOW		CONCENTRATION		RPD
				FROM	TO	PEAK	MEAN	
2,6-diamino-4-nitrotoluene	1		9.68	9.57	9.77	4.10		62.6
	2		4.62	4.40	4.60	7.85		
HMX	1		10.68	10.58	10.78	4.24		8.2
	2		5.36	5.31	5.51	3.90		
2,4-diamino-6-nitrotoluene	1		11.11	10.99	11.19	3.87		67.9
	2		4.62	4.40	4.60	7.85		
RDX	1		14.33	14.23	14.43	4.20		3.3
	2		6.47	6.33	6.53	4.06		
Picric acid	1		15.33	15.22	15.42	3.95		6.6
	2		7.16	6.93	7.33	3.70		
1,3,5-Trinitrobenzene	1		16.12	16.01	16.21	4.20		7.5
	2		18.02	17.87	18.07	3.90		
1,3-Dinitrobenzene	1		17.37	17.26	17.46	4.19		7.2
	2		13.59	13.41	13.61	3.90		
Nitrobenzene	1		18.25	18.14	18.34	4.30		13.2
	2		10.85	10.68	10.88	3.77		
Tetryl	1		18.50	18.40	18.60	3.69		66.3
	2		19.07	18.92	19.12	7.35		
Nitroglycerin	1		19.27	19.17	19.37	91.8		17.8
	2		9.52	9.38	9.58	76.8		
2,4,6-Trinitrotoluene	1		19.70	19.60	19.80	4.30		12.1
	2		21.40	21.25	21.45	3.81		
4-Amino-2,6-dinitrotoluene	1		20.15	20.06	20.26	4.38		9.1
	2		11.73	11.58	11.78	4.00		
2-Amino-4,6-dinitrotoluene	1		20.51	20.41	20.61	4.27		11.5
	2		11.95	11.74	11.94	3.80		
2,6-Dinitrotoluene	1		20.88	20.78	20.98	4.32		8.3
	2		16.82	16.65	16.85	3.98		
2,4-Dinitrotoluene	1		21.14	21.04	21.24	4.10		56.8
	2		19.07	18.92	19.12	7.35		
2-Nitrotoluene	1		22.67	22.58	22.78	3.97		5.2
	2		14.89	14.71	14.91	3.77		
4-Nitrotoluene	1		23.46	23.36	23.56	4.17		56.7
	2		16.18	15.98	16.18	7.48		
3-Nitrotoluene	1		24.19	24.09	24.29	4.04		59.6
	2		16.18	15.98	16.18	7.48		
PETN	1		24.97	24.89	25.09	87.9		6.4
	2		15.30	15.15	15.35	82.4		

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Client Sample ID: NFUDS-001-GW01-01 Lab Sample ID: 200-12542-1

Matrix: Water Lab File ID: 05SEP121553_361.d

Analysis Method: 8330B Date Collected: 08/31/2012 12:15

Extraction Method: 8330-Prep Date Extracted: 09/04/2012 10:41

Sample wt/vol: 500(mL) Date Analyzed: 09/06/2012 12:10

Con. Extract Vol.: 10000(uL) Dilution Factor: 1

Injection Volume: 450(uL) GC Column: Biphenyl ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 44491 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	93		40-150

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-12542-1

SDG No.: 200-12542-1

Client Sample ID: NFUDS-001-GW01-01 | Lab Sample ID: 200-12542-1

Matrix: Water | Lab File ID: 05SEP121550_361.d

Analysis Method: 8330B | Date Collected: 08/31/2012 12:15

Extraction Method: 8330-Prep | Date Extracted: 09/04/2012 10:41

Sample wt/vol: 500(mL) | Date Analyzed: 09/06/2012 16:11

Con. Extract Vol.: 10000(uL) | Dilution Factor: 1

Injection Volume: 150(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 44487 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
59229-75-3	2,6-diamino-4-nitrotoluene	0.048	U	0.20	0.048	0.014
2691-41-0	HMX	0.024	U	0.20	0.024	0.011
6629-29-4	2,4-diamino-6-nitrotoluene	0.048	U	0.20	0.048	0.014
121-82-4	RDX	0.024	U	0.20	0.024	0.021
88-89-1	Picric acid	0.048	U	0.20	0.048	0.036
99-35-4	1,3,5-Trinitrobenzene	0.024	U	0.20	0.024	0.0098
99-65-0	1,3-Dinitrobenzene	0.024	U M	0.20	0.024	0.016
98-95-3	Nitrobenzene	0.048	U	0.20	0.048	0.041
479-45-8	Tetryl	0.048	U	0.20	0.048	0.028
55-63-0	Nitroglycerin	1.4	U	4.0	1.4	1.2
118-96-7	2,4,6-Trinitrotoluene	0.048	U M	0.20	0.048	0.032
19406-51-0	4-Amino-2,6-dinitrotoluene	0.024	U M	0.20	0.024	0.020
35572-78-2	2-Amino-4,6-dinitrotoluene	0.048	U	0.20	0.048	0.026
606-20-2	2,6-Dinitrotoluene	0.024	U	0.20	0.024	0.018
121-14-2	2,4-Dinitrotoluene	0.048	U	0.20	0.048	0.028
88-72-2	2-Nitrotoluene	0.048	U	0.20	0.048	0.034
99-99-0	4-Nitrotoluene	0.060	U	0.20	0.060	0.054
99-08-1	3-Nitrotoluene	0.060	U M	0.20	0.060	0.054
78-11-5	PETN	2.0	U	10	2.0	2.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	97		40-150

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Client Sample ID: NFUDS-002-GW01-01 Lab Sample ID: 200-12542-2

Matrix: Water Lab File ID: 05SEP121553_391.d

Analysis Method: 8330B Date Collected: 08/31/2012 10:15

Extraction Method: 8330-Prep Date Extracted: 09/04/2012 10:41

Sample wt/vol: 500(mL) Date Analyzed: 09/06/2012 13:52

Con. Extract Vol.: 10000(uL) Dilution Factor: 1

Injection Volume: 450(uL) GC Column: Biphenyl ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 44491 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	98	*M*	40-150

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Client Sample ID: NFUDS-002-GW01-01 Lab Sample ID: 200-12542-2

Matrix: Water Lab File ID: 05SEP121550_391.d

Analysis Method: 8330B Date Collected: 08/31/2012 10:15

Extraction Method: 8330-Prep Date Extracted: 09/04/2012 10:41

Sample wt/vol: 500(mL) Date Analyzed: 09/06/2012 18:04

Con. Extract Vol.: 10000(uL) Dilution Factor: 1

Injection Volume: 150(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 44487 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
59229-75-3	2,6-diamino-4-nitrotoluene	0.048	U	0.20	0.048	0.014
2691-41-0	HMX	0.024	U	0.20	0.024	0.011
6629-29-4	2,4-diamino-6-nitrotoluene	0.048	U	0.20	0.048	0.014
121-82-4	RDX	0.024	U	0.20	0.024	0.021
88-89-1	Picric acid	0.048	U	0.20	0.048	0.036
99-35-4	1,3,5-Trinitrobenzene	0.024	U	0.20	0.024	0.0098
99-65-0	1,3-Dinitrobenzene	0.024	U	0.20	0.024	0.016
98-95-3	Nitrobenzene	0.048	U	0.20	0.048	0.041
479-45-8	Tetryl	0.048	U	0.20	0.048	0.028
55-63-0	Nitroglycerin	1.4	U	4.0	1.4	1.2
118-96-7	2,4,6-Trinitrotoluene	0.048	U M	0.20	0.048	0.032
19406-51-0	4-Amino-2,6-dinitrotoluene	0.024	U M	0.20	0.024	0.020
35572-78-2	2-Amino-4,6-dinitrotoluene	0.048	U	0.20	0.048	0.026
606-20-2	2,6-Dinitrotoluene	0.024	U	0.20	0.024	0.018
121-14-2	2,4-Dinitrotoluene	0.048	U	0.20	0.048	0.028
88-72-2	2-Nitrotoluene	0.048	U	0.20	0.048	0.034
99-99-0	4-Nitrotoluene	0.060	U	0.20	0.060	0.054
99-08-1	3-Nitrotoluene	0.060	U	0.20	0.060	0.054
78-11-5	PETN	2.0	U M	10	2.0	2.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	102		40-150

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Client Sample ID: NFUDS-002-GW02-01 Lab Sample ID: 200-12542-3

Matrix: Water Lab File ID: 05SEP121553_401.d

Analysis Method: 8330B Date Collected: 08/31/2012 11:00

Extraction Method: 8330-Prep Date Extracted: 09/04/2012 10:41

Sample wt/vol: 500(mL) Date Analyzed: 09/06/2012 14:26

Con. Extract Vol.: 10000(uL) Dilution Factor: 1

Injection Volume: 450(uL) GC Column: Biphenyl ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 44491 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	97	*M*	40-150

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-12542-1

SDG No.: 200-12542-1

Client Sample ID: NFUDS-002-GW02-01 | Lab Sample ID: 200-12542-3

Matrix: Water | Lab File ID: 05SEP121550_401.d

Analysis Method: 8330B | Date Collected: 08/31/2012 11:00

Extraction Method: 8330-Prep | Date Extracted: 09/04/2012 10:41

Sample wt/vol: 500(mL) | Date Analyzed: 09/06/2012 18:41

Con. Extract Vol.: 10000(uL) | Dilution Factor: 1

Injection Volume: 150(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 44487 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
59229-75-3	2,6-diamino-4-nitrotoluene	0.048	U	0.20	0.048	0.014
2691-41-0	HMX	0.024	U	0.20	0.024	0.011
6629-29-4	2,4-diamino-6-nitrotoluene	0.048	U	0.20	0.048	0.014
121-82-4	RDX	0.024	U	0.20	0.024	0.021
88-89-1	Picric acid	0.048	U	0.20	0.048	0.036
99-35-4	1,3,5-Trinitrobenzene	0.024	U	0.20	0.024	0.0098
99-65-0	1,3-Dinitrobenzene	0.024	U	0.20	0.024	0.016
98-95-3	Nitrobenzene	0.048	U	0.20	0.048	0.041
479-45-8	Tetryl	0.048	U	0.20	0.048	0.028
55-63-0	Nitroglycerin	1.4	U	4.0	1.4	1.2
118-96-7	2,4,6-Trinitrotoluene	0.048	U M	0.20	0.048	0.032
19406-51-0	4-Amino-2,6-dinitrotoluene	0.024	U M	0.20	0.024	0.020
35572-78-2	2-Amino-4,6-dinitrotoluene	0.048	U	0.20	0.048	0.026
606-20-2	2,6-Dinitrotoluene	0.024	U	0.20	0.024	0.018
121-14-2	2,4-Dinitrotoluene	0.048	U	0.20	0.048	0.028
88-72-2	2-Nitrotoluene	0.048	U	0.20	0.048	0.034
99-99-0	4-Nitrotoluene	0.060	U	0.20	0.060	0.054
99-08-1	3-Nitrotoluene	0.060	U	0.20	0.060	0.054
78-11-5	PETN	2.0	U M	10	2.0	2.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	104		40-150

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Client Sample ID: NFUDS-002-GW03-01 Lab Sample ID: 200-12542-4

Matrix: Water Lab File ID: 05SEP121553_411.d

Analysis Method: 8330B Date Collected: 08/31/2012 11:30

Extraction Method: 8330-Prep Date Extracted: 09/04/2012 10:41

Sample wt/vol: 500(mL) Date Analyzed: 09/06/2012 15:01

Con. Extract Vol.: 10000(uL) Dilution Factor: 1

Injection Volume: 450(uL) GC Column: Biphenyl ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 44491 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	99	*M*	40-150

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-12542-1

SDG No.: 200-12542-1

Client Sample ID: NFUDS-002-GW03-01 | Lab Sample ID: 200-12542-4

Matrix: Water | Lab File ID: 05SEP121550_411.d

Analysis Method: 8330B | Date Collected: 08/31/2012 11:30

Extraction Method: 8330-Prep | Date Extracted: 09/04/2012 10:41

Sample wt/vol: 500(mL) | Date Analyzed: 09/06/2012 19:18

Con. Extract Vol.: 10000(uL) | Dilution Factor: 1

Injection Volume: 150(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 44487 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
59229-75-3	2,6-diamino-4-nitrotoluene	0.048	U	0.20	0.048	0.014
2691-41-0	HMX	0.024	U	0.20	0.024	0.011
6629-29-4	2,4-diamino-6-nitrotoluene	0.048	U	0.20	0.048	0.014
121-82-4	RDX	0.024	U	0.20	0.024	0.021
88-89-1	Picric acid	0.048	U	0.20	0.048	0.036
99-35-4	1,3,5-Trinitrobenzene	0.024	U	0.20	0.024	0.0098
99-65-0	1,3-Dinitrobenzene	0.024	U M	0.20	0.024	0.016
98-95-3	Nitrobenzene	0.048	U	0.20	0.048	0.041
479-45-8	Tetryl	0.048	U	0.20	0.048	0.028
55-63-0	Nitroglycerin	1.4	U	4.0	1.4	1.2
118-96-7	2,4,6-Trinitrotoluene	0.048	U	0.20	0.048	0.032
19406-51-0	4-Amino-2,6-dinitrotoluene	0.024	U M	0.20	0.024	0.020
35572-78-2	2-Amino-4,6-dinitrotoluene	0.048	U	0.20	0.048	0.026
606-20-2	2,6-Dinitrotoluene	0.024	U	0.20	0.024	0.018
121-14-2	2,4-Dinitrotoluene	0.048	U	0.20	0.048	0.028
88-72-2	2-Nitrotoluene	0.048	U	0.20	0.048	0.034
99-99-0	4-Nitrotoluene	0.060	U	0.20	0.060	0.054
99-08-1	3-Nitrotoluene	0.060	U M	0.20	0.060	0.054
78-11-5	PETN	2.0	U M	10	2.0	2.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	101		40-150

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Client Sample ID: NFUDS-002-GW03-02 Lab Sample ID: 200-12542-5

Matrix: Water Lab File ID: 05SEP121553_421.d

Analysis Method: 8330B Date Collected: 08/31/2012 11:30

Extraction Method: 8330-Prep Date Extracted: 09/04/2012 10:41

Sample wt/vol: 500(mL) Date Analyzed: 09/06/2012 15:35

Con. Extract Vol.: 10000(uL) Dilution Factor: 1

Injection Volume: 450(uL) GC Column: Biphenyl ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 44491 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	97	*M*	40-150

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Client Sample ID: NFUDS-002-GW03-02 Lab Sample ID: 200-12542-5

Matrix: Water Lab File ID: 05SEP121550_421.d

Analysis Method: 8330B Date Collected: 08/31/2012 11:30

Extraction Method: 8330-Prep Date Extracted: 09/04/2012 10:41

Sample wt/vol: 500(mL) Date Analyzed: 09/06/2012 19:56

Con. Extract Vol.: 10000(uL) Dilution Factor: 1

Injection Volume: 150(uL) GC Column: C-18 ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 44487 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
59229-75-3	2,6-diamino-4-nitrotoluene	0.048	U	0.20	0.048	0.014
2691-41-0	HMX	0.024	U	0.20	0.024	0.011
6629-29-4	2,4-diamino-6-nitrotoluene	0.048	U	0.20	0.048	0.014
121-82-4	RDX	0.024	U	0.20	0.024	0.021
88-89-1	Picric acid	0.048	U	0.20	0.048	0.036
99-35-4	1,3,5-Trinitrobenzene	0.024	U	0.20	0.024	0.0098
99-65-0	1,3-Dinitrobenzene	0.024	U	0.20	0.024	0.016
98-95-3	Nitrobenzene	0.048	U	0.20	0.048	0.041
479-45-8	Tetryl	0.048	U	0.20	0.048	0.028
55-63-0	Nitroglycerin	1.4	U	4.0	1.4	1.2
118-96-7	2,4,6-Trinitrotoluene	0.048	U	0.20	0.048	0.032
19406-51-0	4-Amino-2,6-dinitrotoluene	0.024	U M	0.20	0.024	0.020
35572-78-2	2-Amino-4,6-dinitrotoluene	0.048	U	0.20	0.048	0.026
606-20-2	2,6-Dinitrotoluene	0.024	U	0.20	0.024	0.018
121-14-2	2,4-Dinitrotoluene	0.048	U	0.20	0.048	0.028
88-72-2	2-Nitrotoluene	0.048	U	0.20	0.048	0.034
99-99-0	4-Nitrotoluene	0.060	U M	0.20	0.060	0.054
99-08-1	3-Nitrotoluene	0.060	U	0.20	0.060	0.054
78-11-5	PETN	2.0	U M	10	2.0	2.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	99		40-150

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12542-1 Analy Batch No.: 42650

SDG No.: 200-12542-1

Instrument ID: CH1208 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/31/2012 15:48 Calibration End Date: 07/31/2012 18:56 Calibration ID: 16905

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-42650/2	31JUL121406_021.d
Level 2	IC 200-42650/3	31JUL121406_031.d
Level 3	IC 200-42650/4	31JUL121406_041.d
Level 4	ICRTAV 200-42650/5	31JUL121406_051.d
Level 5	IC 200-42650/6	31JUL121406_061.d
Level 6	IC 200-42650/7	31JUL121406_071.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6					RT WINDOW	AVG RT
2,6-diamino-4-nitrotoluene	9.701	9.665	9.665	9.657	9.657	9.665					9.568 - 9.768	9.668
HMX	10.670	10.679	10.670	10.670	10.679	10.688					10.576 - 10.776	10.676
2,4-diamino-6-nitrotoluene	11.097	11.088	11.079	11.079	11.088	11.097					10.988 - 11.188	11.088
RDX	14.334	14.334	14.325	14.325	14.325	14.334					14.229 - 14.429	14.330
Picric acid	15.356	15.338	15.329	15.312	15.312	15.312					15.227 - 15.427	15.327
1,3,5-Trinitrobenzene	16.112	16.112	16.112	16.112	16.112	16.121					16.013 - 16.213	16.114
1,3-Dinitrobenzene	17.357	17.357	17.357	17.357	17.357	17.357					17.257 - 17.457	17.357
Nitrobenzene	18.237	18.228	18.237	18.237	18.228	18.237					18.134 - 18.334	18.234
Tetryl	18.486	18.495	18.495	18.495	18.486	18.495					18.392 - 18.592	18.492
Nitroglycerin	19.251	19.277	19.260	19.277	19.269	19.260					19.166 - 19.366	19.266
2,4,6-Trinitrotoluene	19.686	19.695	19.686	19.686	19.695	19.686					19.589 - 19.789	19.689
4-Amino-2,6-dinitrotoluene	20.140	20.140	20.140	20.140	20.140	20.131					20.040 - 20.240	20.139
2-Amino-4,6-dinitrotoluene	20.487	20.505	20.505	20.496	20.496	20.487					20.396 - 20.596	20.496
2,6-Dinitrotoluene	20.869	20.869	20.869	20.869	20.869	20.860					20.769 - 20.969	20.868
2,4-Dinitrotoluene	21.118	21.127	21.127	21.118	21.118	21.118					21.021 - 21.221	21.121
2-Nitrotoluene	22.639	22.647	22.674	22.656	22.656	22.656					22.547 - 22.747	22.655
4-Nitrotoluene	23.412	23.430	23.457	23.430	23.430	23.430					23.324 - 23.524	23.432
3-Nitrotoluene	24.177	24.159	24.159	24.159	24.159	24.150					24.068 - 24.268	24.161
PETN	24.942	24.942	24.968	24.950	24.950	24.942					24.849 - 25.049	24.949
1,2-Dinitrobenzene	16.414	16.414	16.423	16.414	16.414	16.423					16.317 - 16.517	16.417

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 200-12542-1 Analy Batch No.: 42650

SDG No.: 200-12542-1

Instrument ID: CH1208 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/31/2012 15:48 Calibration End Date: 07/31/2012 18:56 Calibration ID: 16905

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-42650/2	31JUL121406_021.d
Level 2	IC 200-42650/3	31JUL121406_031.d
Level 3	IC 200-42650/4	31JUL121406_041.d
Level 4	ICRTAV 200-42650/5	31JUL121406_051.d
Level 5	IC 200-42650/6	31JUL121406_061.d
Level 6	IC 200-42650/7	31JUL121406_071.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
2,6-diamino-4-nitrotoluene	683.00 692.14	667.68 699.40	681.40	693.78	Lin1	-384.04900	696.985039							1.0000		0.9900
HMX	418.70 425.40	423.12 429.26	431.12	426.68	Lin1	-84.599818	428.082128							1.0000		0.9900
2,4-diamino-6-nitrotoluene	506.50 554.69	526.36 564.00	571.28	549.49	Lin1	-557.38461	560.991769							1.0000		0.9900
RDX	311.10 332.98	318.16 337.59	328.62	333.60	Lin1	-331.67877	336.295839							1.0000		0.9900
Picric acid	592.50 402.51	464.60 403.97	414.80	405.85	Lin1	1679.92559	400.333583							1.0000		0.9900
1,3,5-Trinitrobenzene	883.20 834.58	854.00 839.01	846.10	836.37	Lin1	436.194861	836.663211							1.0000		0.9900
1,3-Dinitrobenzene	801.90 732.31	749.36 736.32	739.68	738.70	Lin1	552.078388	734.254638							1.0000		0.9900
Nitrobenzene	250.70 256.09	254.04 257.25	261.22	262.06	Lin1	-24.406548	257.576717							1.0000		0.9900
Tetryl	599.20 585.20	585.04 590.69	582.38	571.31	Lin1	-43.886880	586.865166							1.0000		0.9900
Nitroglycerin	4.2550 3.9526	3.6780 4.2564	4.0210	4.0238	Lin1	-80.676103	4.14406321							0.9990		0.9900
2,4,6-Trinitrotoluene	535.40 561.94	534.16 574.69	545.62	564.42	Lin1	-635.60420	570.501751							1.0000		0.9900
4-Amino-2,6-dinitrotoluene	631.00 663.02	628.36 679.13	639.64	671.33	Lin1	-794.62250	674.329263							1.0000		0.9900
2-Amino-4,6-dinitrotoluene	585.50 621.35	584.60 631.49	601.12	624.78	Lin1	-730.23164	628.585653							1.0000		0.9900
2,6-Dinitrotoluene	404.00 386.76	361.12 397.82	374.20	389.18	Lin1	-288.10141	393.580173							1.0000		0.9900
2,4-Dinitrotoluene	571.70 630.41	603.84 636.33	632.52	632.92	Lin1	-625.57310	635.469714							1.0000		0.9900

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 200-12542-1 Analy Batch No.: 42650

SDG No.: 200-12542-1

Instrument ID: CH1208 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/31/2012 15:48 Calibration End Date: 07/31/2012 18:56 Calibration ID: 16905

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
2-Nitrotoluene	195.90 191.52	192.44 183.49	194.92	184.13	Lin1	165.398249	185.767849							1.0000		0.9900
4-Nitrotoluene	121.60 117.56	122.52 118.23	119.02	118.88	Lin1	57.6143702	118.021464							1.0000		0.9900
3-Nitrotoluene	224.60 152.97	176.56 152.64	166.12	155.11	Lin1	698.358004	151.780309							1.0000		0.9900
PETN	3.3250 4.1483	3.7740 4.1915	3.9660	4.0173	Lin1	-194.15194	4.17548772							1.0000		0.9900
1,2-Dinitrobenzene	361.70 333.82	356.04 336.31	340.56	334.93	Lin1	320.543258	334.918622							1.0000		0.9900

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 200-12542-1 Analy Batch No.: 42650

SDG No.: 200-12542-1

Instrument ID: CH1208 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/31/2012 15:48 Calibration End Date: 07/31/2012 18:56 Calibration ID: 16905

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-42650/2	31JUL121406_021.d
Level 2	IC 200-42650/3	31JUL121406_031.d
Level 3	IC 200-42650/4	31JUL121406_041.d
Level 4	ICRTAV 200-42650/5	31JUL121406_051.d
Level 5	IC 200-42650/6	31JUL121406_061.d
Level 6	IC 200-42650/7	31JUL121406_071.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
2,6-diamino-4-nitrotoluene	Lin1	6830 699399	16692	34070	138755	346068	10.0 1000	25.0	50.0	200	500
HMX	Lin1	4187 429264	10578	21556	85336	212698	10.0 1000	25.0	50.0	200	500
2,4-diamino-6-nitrotoluene	Lin1	5065 563997	13159	28564	109897	277344	10.0 1000	25.0	50.0	200	500
RDX	Lin1	3111 337591	7954	16431	66720	166491	10.0 1000	25.0	50.0	200	500
Picric acid	Lin1	5925 403971	11615	20740	81170	201254	10.0 1000	25.0	50.0	200	500
1,3,5-Trinitrobenzene	Lin1	8832 839010	21350	42305	167274	417290	10.0 1000	25.0	50.0	200	500
1,3-Dinitrobenzene	Lin1	8019 736323	18734	36984	147740	366157	10.0 1000	25.0	50.0	200	500
Nitrobenzene	Lin1	2507 257254	6351	13061	52412	128043	10.0 1000	25.0	50.0	200	500
Tetryl	Lin1	5992 590693	14626	29119	114261	292600	10.0 1000	25.0	50.0	200	500
Nitroglycerin	Lin1	851 85127	1839	4021	16095	39526	200 20000	500	1000	4000	10000
2,4,6-Trinitrotoluene	Lin1	5354 574689	13354	27281	112884	280970	10.0 1000	25.0	50.0	200	500
4-Amino-2,6-dinitrotoluene	Lin1	6310 679134	15709	31982	134265	331510	10.0 1000	25.0	50.0	200	500
2-Amino-4,6-dinitrotoluene	Lin1	5855 631489	14615	30056	124956	310673	10.0 1000	25.0	50.0	200	500
2,6-Dinitrotoluene	Lin1	4040 397816	9028	18710	77836	193382	10.0 1000	25.0	50.0	200	500
2,4-Dinitrotoluene	Lin1	5717 636332	15096	31626	126584	315205	10.0 1000	25.0	50.0	200	500
2-Nitrotoluene	Lin1	1959 183488	4811	9746	36826	95758	10.0 1000	25.0	50.0	200	500

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 200-12542-1 Analy Batch No.: 42650

SDG No.: 200-12542-1

Instrument ID: CH1208 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/31/2012 15:48 Calibration End Date: 07/31/2012 18:56 Calibration ID: 16905

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
4-Nitrotoluene	Lin1	1216 118228	3063	5951	23776	58780	10.0 1000	25.0	50.0	200	500
3-Nitrotoluene	Lin1	2246 152644	4414	8306	31022	76486	10.0 1000	25.0	50.0	200	500
PETN	Lin1	665 83830	1887	3966	16069	41483	200 20000	500	1000	4000	10000
1,2-Dinitrobenzene	Lin1	3617 336309	8901	17028	66986	166912	10.0 1000	25.0	50.0	200	500

Curve Type Legend:
Lin1 = Linear 1/conc

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12542-1 Analy Batch No.: 39219

SDG No.: 200-12542-1

Instrument ID: CH1488 GC Column: Biphenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2012 13:39 Calibration End Date: 05/24/2012 16:30 Calibration ID: 15651

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-39219/2	24MAY121229_021.d
Level 2	IC 200-39219/3	24MAY121229_031.d
Level 3	IC 200-39219/4	24MAY121229_041.d
Level 4	ICRTAV 200-39219/5	24MAY121229_051.d
Level 5	IC 200-39219/6	24MAY121229_061.d
Level 6	IC 200-39219/7	24MAY121229_071.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6					RT WINDOW	AVG RT
2,4-diamino-6-nitrotoluene	4.508	4.535	4.544	4.526	4.535	4.553					4.408 - 4.608	4.534
2,6-diamino-4-nitrotoluene	4.508	4.535	4.544	4.526	4.535	4.553					4.408 - 4.608	4.534
HMX	5.344	5.371	5.353	5.353	5.344	5.371					5.244 - 5.444	5.356
RDX	6.411	6.438	6.411	6.411	6.411	6.429					6.319 - 6.519	6.419
Picric acid	7.060	7.034	7.052	7.025	7.016	7.025					6.835 - 7.235	7.035
Nitroglycerin	9.497	9.497	9.506	9.497	9.497	9.497					9.398 - 9.598	9.499
Nitrobenzene	10.795	10.813	10.813	10.804	10.804	10.813					10.707 - 10.907	10.807
4-Amino-2,6-dinitrotoluene	11.667	11.675	11.675	11.667	11.675	11.675					11.572 - 11.772	11.672
2-Amino-4,6-dinitrotoluene	11.880	11.889	11.889	11.880	11.880	11.880					11.783 - 11.983	11.883
1,3-Dinitrobenzene	13.552	13.561	13.552	13.561	13.552	13.561					13.456 - 13.656	13.557
2-Nitrotoluene	14.832	14.841	14.850	14.850	14.850	14.859					14.737 - 14.937	14.847
PETN	15.303	15.348	15.330	15.321	15.312	15.321					15.226 - 15.426	15.323
3-Nitrotoluene	16.104	16.130	16.113	16.139	16.130	16.130					16.024 - 16.224	16.124
4-Nitrotoluene	16.104	16.130	16.113	16.139	16.130	16.130					16.024 - 16.224	16.124
2,6-Dinitrotoluene	16.788	16.806	16.815	16.806	16.806	16.815					16.706 - 16.906	16.806
1,3,5-Trinitrobenzene	18.060	18.069	18.078	18.051	18.024	18.016					17.950 - 18.150	18.050
2,4-Dinitrotoluene	19.047	19.074	19.083	19.074	19.065	19.074					18.969 - 19.169	19.070
Tetryl	19.047	19.074	19.083	19.074	19.065	19.074					18.969 - 19.169	19.070
2,4,6-Trinitrotoluene	21.403	21.412	21.430	21.421	21.412	21.412					21.315 - 21.515	21.415
1,2-Dinitrobenzene	11.195	11.213	11.213	11.204	11.213	11.213					11.109 - 11.309	11.209

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 200-12542-1 Analy Batch No.: 39219

SDG No.: 200-12542-1

Instrument ID: CH1488 GC Column: Biphenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2012 13:39 Calibration End Date: 05/24/2012 16:30 Calibration ID: 15651

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-39219/2	24MAY121229_021.d
Level 2	IC 200-39219/3	24MAY121229_031.d
Level 3	IC 200-39219/4	24MAY121229_041.d
Level 4	ICRTAV 200-39219/5	24MAY121229_051.d
Level 5	IC 200-39219/6	24MAY121229_061.d
Level 6	IC 200-39219/7	24MAY121229_071.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
2,4-diamino-6-nitrotoluene	720.75 1062.6	886.44 1093.0	961.37	1115.3	Lin1	-8529.1035	1092.65312							1.0000		0.9900
2,6-diamino-4-nitrotoluene	720.75 1062.6	886.44 1093.0	961.37	1115.3	Lin1	-8529.1035	1092.65312							1.0000		0.9900
HMX	727.80 820.10	740.64 865.48	751.82	873.32	Lin1	-2086.8186	854.956253							0.9990		0.9900
RDX	519.80 577.09	554.04 587.84	551.82	629.09	Lin1	-715.92951	589.991360							0.9990		0.9900
Picric acid	601.90 718.03	640.32 754.88	678.86	771.42	Lin1	-1931.3880	748.315030							0.9990		0.9900
Nitroglycerin	7.0200 7.8381	8.5220 7.9269	7.8270	8.7470	Lin1	-11.513131	7.99627672							0.9990		0.9900
Nitrobenzene	642.80 455.74	495.44 462.59	486.06	484.53	Lin1	1593.90183	459.897249							1.0000		0.9900
4-Amino-2,6-dinitrotoluene	1278.6 1162.4	1135.6 1147.7	1195.2	1268.4	Lin1	1247.25648	1163.06749							0.9990		0.9900
2-Amino-4,6-dinitrotoluene	1353.0 1162.9	1191.0 1235.5	1223.9	1263.2	Lin1	822.799284	1215.21412							0.9990		0.9900
1,3-Dinitrobenzene	1440.7 1294.1	1303.0 1330.7	1351.2	1408.2	Lin1	1003.06639	1326.57681							0.9990		0.9900
2-Nitrotoluene	318.80 318.10	345.88 325.87	324.80	329.18	Lin1	114.848681	323.887904							1.0000		0.9900
PETN	8.0700 7.7916	9.2940 8.1422	8.6310	7.9120	Lin1	210.385630	8.01226012							0.9990		0.9900
3-Nitrotoluene	290.20 252.34	256.92 260.13	249.99	258.74	Lin1	304.661096	257.121578							1.0000		0.9900
4-Nitrotoluene	290.20 252.34	256.92 260.13	249.99	258.74	Lin1	304.661096	257.121578							1.0000		0.9900
2,6-Dinitrotoluene	781.10 733.68	738.28 760.08	737.84	774.96	Lin1	31.7137335	753.434015							1.0000		0.9900

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 200-12542-1 Analy Batch No.: 39219

SDG No.: 200-12542-1

Instrument ID: CH1488 GC Column: Biphenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2012 13:39 Calibration End Date: 05/24/2012 16:30 Calibration ID: 15651

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3	LVL 4		B	M1	M2								
1,3,5-Trinitrobenzene	1571.4 1440.1	1483.0 1488.3	1464.9	1518.7	Lin1	668.272965	1475.68536							1.0000		0.9900
2,4-Dinitrotoluene	1066.5 1035.5	1065.6 1072.7	1050.5	1055.7	Lin1	-153.34806	1059.91179							1.0000		0.9900
Tetryl	1066.5 1035.5	1065.6 1072.7	1050.5	1055.7	Lin1	-153.34806	1059.91179							1.0000		0.9900
2,4,6-Trinitrotoluene	1076.0 873.91	894.08 906.83	912.46	950.33	Lin1	1306.62773	899.015257							0.9990		0.9900
1,2-Dinitrobenzene	686.20 580.85	596.76 599.09	606.34	606.75	Lin1	696.833276	593.153502							1.0000		0.9900

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 200-12542-1 Analy Batch No.: 39219

SDG No.: 200-12542-1

Instrument ID: CH1488 GC Column: Biphenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2012 13:39 Calibration End Date: 05/24/2012 16:30 Calibration ID: 15651

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-39219/2	24MAY121229_021.d
Level 2	IC 200-39219/3	24MAY121229_031.d
Level 3	IC 200-39219/4	24MAY121229_041.d
Level 4	ICRTAV 200-39219/5	24MAY121229_051.d
Level 5	IC 200-39219/6	24MAY121229_061.d
Level 6	IC 200-39219/7	24MAY121229_071.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
2,4-diamino-6-nitrotoluene	Lin1	14415 2185993	44322	96137	446125	1062605	20.0 2000	50.0	100	400	1000
2,6-diamino-4-nitrotoluene	Lin1	14415 2185993	44322	96137	446125	1062605	20.0 2000	50.0	100	400	1000
HMX	Lin1	7278 865479	18516	37591	174663	410049	10.0 1000	25.0	50.0	200	500
RDX	Lin1	5198 587837	13851	27591	125817	288545	10.0 1000	25.0	50.0	200	500
Picric acid	Lin1	6019 754883	16008	33943	154284	359017	10.0 1000	25.0	50.0	200	500
Nitroglycerin	Lin1	1404 158537	4261	7827	34988	78381	200 20000	500	1000	4000	10000
Nitrobenzene	Lin1	6428 462585	12386	24303	96906	227872	10.0 1000	25.0	50.0	200	500
4-Amino-2,6-dinitrotoluene	Lin1	12786 1147731	28389	59761	253683	581209	10.0 1000	25.0	50.0	200	500
2-Amino-4,6-dinitrotoluene	Lin1	13530 1235482	29774	61196	252643	581469	10.0 1000	25.0	50.0	200	500
1,3-Dinitrobenzene	Lin1	14407 1330717	32576	67559	281647	647052	10.0 1000	25.0	50.0	200	500
2-Nitrotoluene	Lin1	3188 325871	8647	16240	65835	159048	10.0 1000	25.0	50.0	200	500
PETN	Lin1	1614 162844	4647	8631	31648	77916	200 20000	500	1000	4000	10000
3-Nitrotoluene	Lin1	5804 520269	12846	24999	103495	252339	20.0 2000	50.0	100	400	1000
4-Nitrotoluene	Lin1	5804 520269	12846	24999	103495	252339	20.0 2000	50.0	100	400	1000
2,6-Dinitrotoluene	Lin1	7811 760081	18457	36892	154991	366838	10.0 1000	25.0	50.0	200	500
1,3,5-Trinitrobenzene	Lin1	15714 1488284	37074	73247	303740	720049	10.0 1000	25.0	50.0	200	500

FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 200-12542-1 Analy Batch No.: 39219

SDG No.: 200-12542-1

Instrument ID: CH1488 GC Column: Biphenyl ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/24/2012 13:39 Calibration End Date: 05/24/2012 16:30 Calibration ID: 15651

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
		LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
2,4-Dinitrotoluene	Lin1	21329 2145498	53281	105052	422297	1035508	20.0 2000	50.0	100	400	1000
Tetryl	Lin1	21329 2145498	53281	105052	422297	1035508	20.0 2000	50.0	100	400	1000
2,4,6-Trinitrotoluene	Lin1	10760 906827	22352	45623	190066	436954	10.0 1000	25.0	50.0	200	500
1,2-Dinitrobenzene	Lin1	6862 599085	14919	30317	121350	290427	10.0 1000	25.0	50.0	200	500

Curve Type Legend:
Lin1 = Linear 1/conc

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Lab Sample ID: ICV 200-42650/10 Calibration Date: 07/31/2012 20:48

Instrument ID: CH1208 Calib Start Date: 07/31/2012 15:48

GC Column: C-18 ID: 4.60(mm) Calib End Date: 07/31/2012 18:56

Lab File ID: 31JUL121406_101.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-diamino-4-nitrotoluene	Lin1		670.6		193	200	-3.5	30.0
HMX	Lin1		420.1		196	200	-1.8	30.0
2,4-diamino-6-nitrotoluene	Lin1		614.6		220	200	10.0	30.0
RDX	Lin1		353.3		211	200	5.5	30.0
Picric acid	Lin1		402.8		197	200	-1.5	30.0
1,3,5-Trinitrobenzene	Lin1		843.0		201	200	0.5	30.0
1,3-Dinitrobenzene	Lin1		845.5		230	200	14.8	30.0
Nitrobenzene	Lin1		281.3		219	200	9.3	30.0
Tetryl	Lin1		476.0		162	200	-18.8	30.0
Nitroglycerin	Lin1		4.132		4010	4000	0.2	30.0
2,4,6-Trinitrotoluene	Lin1		628.5		221	200	10.7	30.0
4-Amino-2,6-dinitrotoluene	Lin1		787.6		235	200	17.4	30.0
2-Amino-4,6-dinitrotoluene	Lin1		671.5		215	200	7.4	30.0
2,6-Dinitrotoluene	Lin1		421.0		215	200	7.3	30.0
2,4-Dinitrotoluene	Lin1		676.5		214	200	6.9	30.0
2-Nitrotoluene	Lin1		193.5		207	200	3.7	30.0
4-Nitrotoluene	Lin1		128.3		217	200	8.4	30.0
3-Nitrotoluene	Lin1		163.9		211	200	5.7	30.0
PETN	Lin1		4.208		4080	4000	1.9	30.0
1,2-Dinitrobenzene	Lin1		348.7		207	200	3.6	30.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Lab Sample ID: ICV 200-42650/10 Calibration Date: 07/31/2012 20:48

Instrument ID: CH1208 Calib Start Date: 07/31/2012 15:48

GC Column: C-18 ID: 4.60(mm) Calib End Date: 07/31/2012 18:56

Lab File ID: 31JUL121406_101.d

Analyte	RT	RT WINDOW	
		TO	FROM
2,6-diamino-4-nitrotoluene	9.66	9.57	9.77
HMX	10.69	10.58	10.78
2,4-diamino-6-nitrotoluene	11.10	10.99	11.19
RDX	14.33	14.23	14.43
Picric acid	15.32	15.23	15.43
1,3,5-Trinitrobenzene	16.12	16.01	16.21
1,3-Dinitrobenzene	17.36	17.26	17.46
Nitrobenzene	18.25	18.13	18.33
Tetryl	18.50	18.39	18.59
Nitroglycerin	19.27	19.17	19.37
2,4,6-Trinitrotoluene	19.70	19.59	19.79
4-Amino-2,6-dinitrotoluene	20.14	20.04	20.24
2-Amino-4,6-dinitrotoluene	20.50	20.40	20.60
2,6-Dinitrotoluene	20.87	20.77	20.97
2,4-Dinitrotoluene	21.13	21.02	21.22
2-Nitrotoluene	22.66	22.56	22.76
4-Nitrotoluene	23.43	23.33	23.53
3-Nitrotoluene	24.17	24.06	24.26
PETN	24.95	24.85	25.05
1,2-Dinitrobenzene	16.42	16.32	16.52

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Lab Sample ID: CCVRT 200-44487/1 Calibration Date: 09/06/2012 05:19

Instrument ID: CH1208 Calib Start Date: 07/31/2012 15:48

GC Column: C-18 ID: 4.60(mm) Calib End Date: 07/31/2012 18:56

Lab File ID: 05SEP121550_221.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-diamino-4-nitrotoluene	Lin1		703.2		202	200	1.2	20.0
HMX	Lin1		435.5		204	200	1.8	20.0
2,4-diamino-6-nitrotoluene	Lin1		556.2		199	200	-0.4	20.0
RDX	Lin1		334.9		200	200	0.0	20.0
Picric acid	Lin1		406.8		199	200	-0.5	20.0
1,3,5-Trinitrobenzene	Lin1		854.1		204	200	1.8	20.0
1,3-Dinitrobenzene	Lin1		752.7		204	200	2.1	20.0
Nitrobenzene	Lin1		261.6		203	200	1.6	20.0
Tetryl	Lin1		597.1		204	200	1.8	20.0
Nitroglycerin	Lin1		4.136		4010	4000	0.3	20.0
2,4,6-Trinitrotoluene	Lin1		575.4		203	200	1.4	20.0
4-Amino-2,6-dinitrotoluene	Lin1		681.5		203	200	1.6	20.0
2-Amino-4,6-dinitrotoluene	Lin1		637.1		204	200	1.9	20.0
2,6-Dinitrotoluene	Lin1		415.4		212	200	5.9	20.0
2,4-Dinitrotoluene	Lin1		617.4		195	200	-2.4	20.0
2-Nitrotoluene	Lin1		183.8		197	200	-1.5	20.0
4-Nitrotoluene	Lin1		120.3		203	200	1.7	20.0
3-Nitrotoluene	Lin1		158.5		204	200	2.1	20.0
PETN	Lin1		4.387		4250	4000	6.2	20.0
1,2-Dinitrobenzene	Lin1		338.9		201	200	0.7	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Lab Sample ID: CCVRT 200-44487/1 Calibration Date: 09/06/2012 05:19

Instrument ID: CH1208 Calib Start Date: 07/31/2012 15:48

GC Column: C-18 ID: 4.60(mm) Calib End Date: 07/31/2012 18:56

Lab File ID: 05SEP121550_221.d

Analyte	RT	RT WINDOW	
		TO	FROM
2,6-diamino-4-nitrotoluene	9.67	9.57	9.77
HMX	10.68	10.58	10.78
2,4-diamino-6-nitrotoluene	11.09	10.99	11.19
RDX	14.33	14.23	14.43
Picric acid	15.32	15.22	15.42
1,3,5-Trinitrobenzene	16.11	16.01	16.21
1,3-Dinitrobenzene	17.36	17.26	17.46
Nitrobenzene	18.24	18.14	18.34
Tetryl	18.50	18.40	18.60
Nitroglycerin	19.27	19.17	19.37
2,4,6-Trinitrotoluene	19.70	19.60	19.80
4-Amino-2,6-dinitrotoluene	20.16	20.06	20.26
2-Amino-4,6-dinitrotoluene	20.51	20.41	20.61
2,6-Dinitrotoluene	20.88	20.78	20.98
2,4-Dinitrotoluene	21.14	21.04	21.24
2-Nitrotoluene	22.68	22.58	22.78
4-Nitrotoluene	23.46	23.36	23.56
3-Nitrotoluene	24.19	24.09	24.29
PETN	24.99	24.89	25.09
1,2-Dinitrobenzene	16.42	16.32	16.52

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Lab Sample ID: CCV 200-44487/12 Calibration Date: 09/06/2012 14:19

Instrument ID: CH1208 Calib Start Date: 07/31/2012 15:48

GC Column: C-18 ID: 4.60(mm) Calib End Date: 07/31/2012 18:56

Lab File ID: 05SEP121550_331.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-diamino-4-nitrotoluene	Lin1		698.5		201	200	0.5	20.0
HMX	Lin1		433.9		203	200	1.5	20.0
2,4-diamino-6-nitrotoluene	Lin1		548.1		196	200	-1.8	20.0
RDX	Lin1		337.6		202	200	0.9	20.0
Picric acid	Lin1		405.6		198	200	-0.8	20.0
1,3,5-Trinitrobenzene	Lin1		852.7		203	200	1.7	20.0
1,3-Dinitrobenzene	Lin1		750.6		204	200	1.8	20.0
Nitrobenzene	Lin1		262.0		204	200	1.8	20.0
Tetryl	Lin1		594.0		202	200	1.2	20.0
Nitroglycerin	Lin1		4.130		4010	4000	0.1	20.0
2,4,6-Trinitrotoluene	Lin1		572.3		202	200	0.9	20.0
4-Amino-2,6-dinitrotoluene	Lin1		678.5		202	200	1.2	20.0
2-Amino-4,6-dinitrotoluene	Lin1		635.1		203	200	1.6	20.0
2,6-Dinitrotoluene	Lin1		412.7		210	200	5.2	20.0
2,4-Dinitrotoluene	Lin1		621.9		197	200	-1.6	20.0
2-Nitrotoluene	Lin1		185.4		199	200	-0.7	20.0
4-Nitrotoluene	Lin1		121.8		206	200	2.9	20.0
3-Nitrotoluene	Lin1		156.2		201	200	0.6	20.0
PETN	Lin1		4.406		4270	4000	6.7	20.0
1,2-Dinitrobenzene	Lin1		336.9		200	200	0.1	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Lab Sample ID: CCV 200-44487/12 Calibration Date: 09/06/2012 14:19

Instrument ID: CH1208 Calib Start Date: 07/31/2012 15:48

GC Column: C-18 ID: 4.60(mm) Calib End Date: 07/31/2012 18:56

Lab File ID: 05SEP121550_331.d

Analyte	RT	RT WINDOW	
		TO	FROM
2,6-diamino-4-nitrotoluene	9.67	9.57	9.77
HMX	10.68	10.58	10.78
2,4-diamino-6-nitrotoluene	11.10	10.99	11.19
RDX	14.33	14.23	14.43
Picric acid	15.32	15.22	15.42
1,3,5-Trinitrobenzene	16.11	16.01	16.21
1,3-Dinitrobenzene	17.36	17.26	17.46
Nitrobenzene	18.24	18.14	18.34
Tetryl	18.50	18.40	18.60
Nitroglycerin	19.27	19.17	19.37
2,4,6-Trinitrotoluene	19.70	19.60	19.80
4-Amino-2,6-dinitrotoluene	20.15	20.06	20.26
2-Amino-4,6-dinitrotoluene	20.51	20.41	20.61
2,6-Dinitrotoluene	20.87	20.78	20.98
2,4-Dinitrotoluene	21.14	21.04	21.24
2-Nitrotoluene	22.67	22.58	22.78
4-Nitrotoluene	23.45	23.36	23.56
3-Nitrotoluene	24.18	24.09	24.29
PETN	24.98	24.89	25.09
1,2-Dinitrobenzene	16.42	16.32	16.52

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Lab Sample ID: CCV 200-44487/22 Calibration Date: 09/06/2012 20:33

Instrument ID: CH1208 Calib Start Date: 07/31/2012 15:48

GC Column: C-18 ID: 4.60(mm) Calib End Date: 07/31/2012 18:56

Lab File ID: 05SEP121550_431.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,6-diamino-4-nitrotoluene	Lin1		705.4		203	200	1.5	20.0
HMX	Lin1		433.3		203	200	1.3	20.0
2,4-diamino-6-nitrotoluene	Lin1		546.2		196	200	-2.1	20.0
RDX	Lin1		337.1		201	200	0.7	20.0
Picric acid	Lin1		406.8		199	200	-0.5	20.0
1,3,5-Trinitrobenzene	Lin1		855.0		204	200	1.9	20.0
1,3-Dinitrobenzene	Lin1		751.1		204	200	1.9	20.0
Nitrobenzene	Lin1		259.3		201	200	0.7	20.0
Tetryl	Lin1		593.5		202	200	1.2	20.0
Nitroglycerin	Lin1		4.122		4000	4000	-0.0	20.0
2,4,6-Trinitrotoluene	Lin1		575.3		203	200	1.4	20.0
4-Amino-2,6-dinitrotoluene	Lin1		683.0		204	200	1.9	20.0
2-Amino-4,6-dinitrotoluene	Lin1		637.3		204	200	2.0	20.0
2,6-Dinitrotoluene	Lin1		414.2		211	200	5.6	20.0
2,4-Dinitrotoluene	Lin1		624.0		197	200	-1.3	20.0
2-Nitrotoluene	Lin1		181.0		194	200	-3.0	20.0
4-Nitrotoluene	Lin1		120.0		203	200	1.4	20.0
3-Nitrotoluene	Lin1		152.7		197	200	-1.7	20.0
PETN	Lin1		4.395		4260	4000	6.4	20.0
1,2-Dinitrobenzene	Lin1		337.6		201	200	0.3	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Lab Sample ID: CCV 200-44487/22 Calibration Date: 09/06/2012 20:33

Instrument ID: CH1208 Calib Start Date: 07/31/2012 15:48

GC Column: C-18 ID: 4.60(mm) Calib End Date: 07/31/2012 18:56

Lab File ID: 05SEP121550_431.d

Analyte	RT	RT WINDOW	
		TO	FROM
2,6-diamino-4-nitrotoluene	9.67	9.57	9.77
HMX	10.69	10.58	10.78
2,4-diamino-6-nitrotoluene	11.10	10.99	11.19
RDX	14.33	14.23	14.43
Picric acid	15.33	15.22	15.42
1,3,5-Trinitrobenzene	16.12	16.01	16.21
1,3-Dinitrobenzene	17.37	17.26	17.46
Nitrobenzene	18.25	18.14	18.34
Tetryl	18.50	18.40	18.60
Nitroglycerin	19.28	19.17	19.37
2,4,6-Trinitrotoluene	19.70	19.60	19.80
4-Amino-2,6-dinitrotoluene	20.17	20.06	20.26
2-Amino-4,6-dinitrotoluene	20.52	20.41	20.61
2,6-Dinitrotoluene	20.89	20.78	20.98
2,4-Dinitrotoluene	21.15	21.04	21.24
2-Nitrotoluene	22.69	22.58	22.78
4-Nitrotoluene	23.47	23.36	23.56
3-Nitrotoluene	24.20	24.09	24.29
PETN	25.00	24.89	25.09
1,2-Dinitrobenzene	16.42	16.32	16.52

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Lab Sample ID: ICV 200-39219/10 Calibration Date: 05/24/2012 18:12

Instrument ID: CH1488 Calib Start Date: 05/24/2012 13:39

GC Column: Biphenyl ID: 4.60(mm) Calib End Date: 05/24/2012 16:30

Lab File ID: 24MAY121229_101.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4-diamino-6-nitrotoluene	Lin1		1068		399	400	-0.3	30.0
2,6-diamino-4-nitrotoluene	Lin1		1068		399	400	-0.3	30.0
HMX	Lin1		818.2		194	200	-3.1	30.0
RDX	Lin1		601.5		205	200	2.6	30.0
Picric acid	Lin1		719.8		195	200	-2.5	30.0
Nitroglycerin	Lin1		7.981		3990	4000	-0.2	30.0
Nitrobenzene	Lin1		477.2		204	200	2.0	30.0
4-Amino-2,6-dinitrotoluene	Lin1		1218		208	200	4.2	30.0
2-Amino-4,6-dinitrotoluene	Lin1		1319		216	200	8.2	30.0
1,3-Dinitrobenzene	Lin1		1472		221	200	10.6	30.0
2-Nitrotoluene	Lin1		324.9		200	200	0.1	30.0
PETN	Lin1		7.674		3800	4000	-4.9	30.0
3-Nitrotoluene	Lin1		255.6		396	400	-0.9	30.0
4-Nitrotoluene	Lin1		255.6		396	400	-0.9	30.0
2,6-Dinitrotoluene	Lin1		768.5		204	200	2.0	30.0
1,3,5-Trinitrobenzene	Lin1		1483		200	200	0.2	30.0
2,4-Dinitrotoluene	Lin1		1080		408	400	1.9	30.0
Tetryl	Lin1		1080		408	400	1.9	30.0
2,4,6-Trinitrotoluene	Lin1		968.2		214	200	7.0	30.0
1,2-Dinitrobenzene	Lin1		606.0		203	200	1.6	30.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Lab Sample ID: ICV 200-39219/10 Calibration Date: 05/24/2012 18:12

Instrument ID: CH1488 Calib Start Date: 05/24/2012 13:39

GC Column: Biphenyl ID: 4.60(mm) Calib End Date: 05/24/2012 16:30

Lab File ID: 24MAY121229_101.d

Analyte	RT	RT WINDOW	
		TO	FROM
2,4-diamino-6-nitrotoluene	4.49	4.43	4.63
2,6-diamino-4-nitrotoluene	4.49	4.43	4.63
HMX	5.37	5.26	5.46
RDX	6.41	6.32	6.52
Picric acid	7.05	6.84	7.24
Nitroglycerin	9.49	9.40	9.60
Nitrobenzene	10.80	10.71	10.91
4-Amino-2,6-dinitrotoluene	11.67	11.57	11.77
2-Amino-4,6-dinitrotoluene	11.85	11.78	11.98
1,3-Dinitrobenzene	13.55	13.46	13.66
2-Nitrotoluene	14.85	14.75	14.95
PETN	15.33	15.22	15.42
3-Nitrotoluene	16.12	16.02	16.22
4-Nitrotoluene	16.12	16.02	16.22
2,6-Dinitrotoluene	16.82	16.71	16.91
1,3,5-Trinitrobenzene	18.06	17.95	18.15
2,4-Dinitrotoluene	19.08	18.97	19.17
Tetryl	19.08	18.97	19.17
2,4,6-Trinitrotoluene	21.43	21.32	21.52
1,2-Dinitrobenzene	11.20	11.11	11.31

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Lab Sample ID: CCVRT 200-44491/1 Calibration Date: 09/06/2012 04:11

Instrument ID: CH1488 Calib Start Date: 05/24/2012 13:39

GC Column: Biphenyl ID: 4.60(mm) Calib End Date: 05/24/2012 16:30

Lab File ID: 05SEP121553_221.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4-diamino-6-nitrotoluene	Lin1		1155		431	400	7.7	20.0
2,6-diamino-4-nitrotoluene	Lin1		1155		431	400	7.7	20.0
HMX	Lin1		956.7		226	200	13.1	20.0
RDX	Lin1		627.3		214	200	6.9	20.0
Picric acid	Lin1		874.4		236	200	18.1	20.0
Nitroglycerin	Lin1		8.723		4360	4000	9.1	20.0
Nitrobenzene	Lin1		491.4		210	200	5.1	20.0
4-Amino-2,6-dinitrotoluene	Lin1		1236		211	200	5.7	20.0
2-Amino-4,6-dinitrotoluene	Lin1		1439		236	200	18.1	20.0
1,3-Dinitrobenzene	Lin1		1496		225	200	12.4	20.0
2-Nitrotoluene	Lin1		326.1		201	200	0.5	20.0
PETN	Lin1		8.739		4340	4000	8.4	20.0
3-Nitrotoluene	Lin1		267.4		415	400	3.7	20.0
4-Nitrotoluene	Lin1		267.4		415	400	3.7	20.0
2,6-Dinitrotoluene	Lin1		826.1		219	200	9.6	20.0
1,3,5-Trinitrobenzene	Lin1		1660		225	200	12.3	20.0
2,4-Dinitrotoluene	Lin1		1193		450	400	12.6	20.0
Tetryl	Lin1		1193		450	400	12.6	20.0
2,4,6-Trinitrotoluene	Lin1		1019		225	200	12.6	20.0
1,2-Dinitrobenzene	Lin1		672.3		226	200	12.8	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Lab Sample ID: CCVRT 200-44491/1 Calibration Date: 09/06/2012 04:11

Instrument ID: CH1488 Calib Start Date: 05/24/2012 13:39

GC Column: Biphenyl ID: 4.60(mm) Calib End Date: 05/24/2012 16:30

Lab File ID: 05SEP121553_221.d

Analyte	RT	RT WINDOW	
		TO	FROM
2,4-diamino-6-nitrotoluene	4.50	4.40	4.60
2,6-diamino-4-nitrotoluene	4.50	4.40	4.60
HMX	5.41	5.31	5.51
RDX	6.43	6.33	6.53
Picric acid	7.13	6.93	7.33
Nitroglycerin	9.48	9.38	9.58
Nitrobenzene	10.78	10.68	10.88
4-Amino-2,6-dinitrotoluene	11.68	11.58	11.78
2-Amino-4,6-dinitrotoluene	11.84	11.74	11.94
1,3-Dinitrobenzene	13.51	13.41	13.61
2-Nitrotoluene	14.81	14.71	14.91
PETN	15.25	15.15	15.35
3-Nitrotoluene	16.08	15.98	16.18
4-Nitrotoluene	16.08	15.98	16.18
2,6-Dinitrotoluene	16.75	16.65	16.85
1,3,5-Trinitrobenzene	17.97	17.87	18.07
2,4-Dinitrotoluene	19.02	18.92	19.12
Tetryl	19.02	18.92	19.12
2,4,6-Trinitrotoluene	21.35	21.25	21.45
1,2-Dinitrobenzene	11.19	11.09	11.29

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Lab Sample ID: CCV 200-44491/12 Calibration Date: 09/06/2012 10:27

Instrument ID: CH1488 Calib Start Date: 05/24/2012 13:39

GC Column: Biphenyl ID: 4.60(mm) Calib End Date: 05/24/2012 16:30

Lab File ID: 05SEP121553_331.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4-diamino-6-nitrotoluene	Lin1		1153		430	400	7.5	20.0
2,6-diamino-4-nitrotoluene	Lin1		1153		430	400	7.5	20.0
HMX	Lin1		944.4		223	200	11.7	20.0
RDX	Lin1		648.7		221	200	10.6	20.0
Picric acid	Lin1		848.2		229	200	14.6	20.0
Nitroglycerin	Lin1		8.557		4280	4000	7.1	20.0
Nitrobenzene	Lin1		485.1		208	200	3.8	20.0
4-Amino-2,6-dinitrotoluene	Lin1		1234		211	200	5.6	20.0
2-Amino-4,6-dinitrotoluene	Lin1		1425		234	200	16.9	20.0
1,3-Dinitrobenzene	Lin1		1487		223	200	11.7	20.0
2-Nitrotoluene	Lin1		315.2		194	200	-2.8	20.0
PETN	Lin1		8.540		4240	4000	5.9	20.0
3-Nitrotoluene	Lin1		258.3		401	400	0.2	20.0
4-Nitrotoluene	Lin1		258.3		401	400	0.2	20.0
2,6-Dinitrotoluene	Lin1		816.2		217	200	8.3	20.0
1,3,5-Trinitrobenzene	Lin1		1669		226	200	12.9	20.0
2,4-Dinitrotoluene	Lin1		1198		452	400	13.0	20.0
Tetryl	Lin1		1198		452	400	13.0	20.0
2,4,6-Trinitrotoluene	Lin1		1012		224	200	11.9	20.0
1,2-Dinitrobenzene	Lin1		657.5		221	200	10.3	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Lab Sample ID: CCV 200-44491/12 Calibration Date: 09/06/2012 10:27

Instrument ID: CH1488 Calib Start Date: 05/24/2012 13:39

GC Column: Biphenyl ID: 4.60(mm) Calib End Date: 05/24/2012 16:30

Lab File ID: 05SEP121553_331.d

Analyte	RT	RT WINDOW	
		TO	FROM
2,4-diamino-6-nitrotoluene	4.51	4.40	4.60
2,6-diamino-4-nitrotoluene	4.51	4.40	4.60
HMX	5.41	5.31	5.51
RDX	6.43	6.33	6.53
Picric acid	7.13	6.93	7.33
Nitroglycerin	9.47	9.38	9.58
Nitrobenzene	10.78	10.68	10.88
4-Amino-2,6-dinitrotoluene	11.68	11.58	11.78
2-Amino-4,6-dinitrotoluene	11.84	11.74	11.94
1,3-Dinitrobenzene	13.52	13.41	13.61
2-Nitrotoluene	14.81	14.71	14.91
PETN	15.26	15.15	15.35
3-Nitrotoluene	16.10	15.98	16.18
4-Nitrotoluene	16.10	15.98	16.18
2,6-Dinitrotoluene	16.77	16.65	16.85
1,3,5-Trinitrobenzene	17.97	17.87	18.07
2,4-Dinitrotoluene	19.03	18.92	19.12
Tetryl	19.03	18.92	19.12
2,4,6-Trinitrotoluene	21.36	21.25	21.45
1,2-Dinitrobenzene	11.19	11.09	11.29

FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Lab Sample ID: CCV 200-44491/22 Calibration Date: 09/06/2012 16:09

Instrument ID: CH1488 Calib Start Date: 05/24/2012 13:39

GC Column: Biphenyl ID: 4.60(mm) Calib End Date: 05/24/2012 16:30

Lab File ID: 05SEP121553_431.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2,4-diamino-6-nitrotoluene	Lin1		1171		437	400	9.1	20.0
2,6-diamino-4-nitrotoluene	Lin1		1171		437	400	9.1	20.0
HMX	Lin1		954.8		226	200	12.9	20.0
RDX	Lin1		637.4		217	200	8.6	20.0
Picric acid	Lin1		844.8		228	200	14.2	20.0
Nitroglycerin	Lin1		8.279		4140	4000	3.6	20.0
Nitrobenzene	Lin1		470.9		201	200	0.7	20.0
4-Amino-2,6-dinitrotoluene	Lin1		1198		205	200	2.5	20.0
2-Amino-4,6-dinitrotoluene	Lin1		1424		234	200	16.8	20.0
1,3-Dinitrobenzene	Lin1		1471		221	200	10.5	20.0
2-Nitrotoluene	Lin1		311.6		192	200	-4.0	20.0
PETN	Lin1		8.717		4330	4000	8.1	20.0
3-Nitrotoluene	Lin1		252.6		392	400	-2.1	20.0
4-Nitrotoluene	Lin1		252.6		392	400	-2.1	20.0
2,6-Dinitrotoluene	Lin1		811.9		215	200	7.7	20.0
1,3,5-Trinitrobenzene	Lin1		1644		222	200	11.2	20.0
2,4-Dinitrotoluene	Lin1		1184		447	400	11.7	20.0
Tetryl	Lin1		1184		447	400	11.7	20.0
2,4,6-Trinitrotoluene	Lin1		1014		224	200	12.0	20.0
1,2-Dinitrobenzene	Lin1		648.2		217	200	8.7	20.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Lab Sample ID: CCV 200-44491/22 Calibration Date: 09/06/2012 16:09

Instrument ID: CH1488 Calib Start Date: 05/24/2012 13:39

GC Column: Biphenyl ID: 4.60(mm) Calib End Date: 05/24/2012 16:30

Lab File ID: 05SEP121553_431.d

Analyte	RT	RT WINDOW	
		TO	FROM
2,4-diamino-6-nitrotoluene	4.52	4.40	4.60
2,6-diamino-4-nitrotoluene	4.52	4.40	4.60
HMX	5.40	5.31	5.51
RDX	6.42	6.33	6.53
Picric acid	7.11	6.93	7.33
Nitroglycerin	9.46	9.38	9.58
Nitrobenzene	10.77	10.68	10.88
4-Amino-2,6-dinitrotoluene	11.66	11.58	11.78
2-Amino-4,6-dinitrotoluene	11.84	11.74	11.94
1,3-Dinitrobenzene	13.50	13.41	13.61
2-Nitrotoluene	14.80	14.71	14.91
PETN	15.24	15.15	15.35
3-Nitrotoluene	16.08	15.98	16.18
4-Nitrotoluene	16.08	15.98	16.18
2,6-Dinitrotoluene	16.75	16.65	16.85
1,3,5-Trinitrobenzene	17.96	17.87	18.07
2,4-Dinitrotoluene	19.01	18.92	19.12
Tetryl	19.01	18.92	19.12
2,4,6-Trinitrotoluene	21.35	21.25	21.45
1,2-Dinitrobenzene	11.18	11.09	11.29

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Client Sample ID: Lab Sample ID: MB 200-44398/1-A

Matrix: Water Lab File ID: 05SEP121553_231.d

Analysis Method: 8330B Date Collected:

Extraction Method: 8330-Prep Date Extracted: 09/04/2012 10:41

Sample wt/vol: 500(mL) Date Analyzed: 09/06/2012 04:45

Con. Extract Vol.: 10000(uL) Dilution Factor: 1

Injection Volume: 450(uL) GC Column: Biphenyl ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 44491 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	96		40-150

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-12542-1

SDG No.: 200-12542-1

Client Sample ID: | Lab Sample ID: MB 200-44398/1-A

Matrix: Water | Lab File ID: 05SEP121550_231.d

Analysis Method: 8330B | Date Collected:

Extraction Method: 8330-Prep | Date Extracted: 09/04/2012 10:41

Sample wt/vol: 500(mL) | Date Analyzed: 09/06/2012 05:56

Con. Extract Vol.: 10000(uL) | Dilution Factor: 1

Injection Volume: 150(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 44487 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
59229-75-3	2,6-diamino-4-nitrotoluene	0.048	U	0.20	0.048	0.014
2691-41-0	HMX	0.024	U	0.20	0.024	0.011
6629-29-4	2,4-diamino-6-nitrotoluene	0.048	U	0.20	0.048	0.014
121-82-4	RDX	0.024	U	0.20	0.024	0.021
88-89-1	Picric acid	0.048	U	0.20	0.048	0.036
99-35-4	1,3,5-Trinitrobenzene	0.024	U	0.20	0.024	0.0098
99-65-0	1,3-Dinitrobenzene	0.024	U	0.20	0.024	0.016
98-95-3	Nitrobenzene	0.048	U	0.20	0.048	0.041
479-45-8	Tetryl	0.048	U	0.20	0.048	0.028
55-63-0	Nitroglycerin	1.4	U	4.0	1.4	1.2
118-96-7	2,4,6-Trinitrotoluene	0.048	U	0.20	0.048	0.032
19406-51-0	4-Amino-2,6-dinitrotoluene	0.024	U	0.20	0.024	0.020
35572-78-2	2-Amino-4,6-dinitrotoluene	0.048	U	0.20	0.048	0.026
606-20-2	2,6-Dinitrotoluene	0.024	U	0.20	0.024	0.018
121-14-2	2,4-Dinitrotoluene	0.048	U	0.20	0.048	0.028
88-72-2	2-Nitrotoluene	0.048	U	0.20	0.048	0.034
99-99-0	4-Nitrotoluene	0.060	U	0.20	0.060	0.054
99-08-1	3-Nitrotoluene	0.060	U	0.20	0.060	0.054
78-11-5	PETN	2.0	U	10	2.0	2.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	103		40-150

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Client Sample ID: Lab Sample ID: LCS 200-44398/2-A

Matrix: Water Lab File ID: 05SEP121553_241.d

Analysis Method: 8330B Date Collected:

Extraction Method: 8330-Prep Date Extracted: 09/04/2012 10:41

Sample wt/vol: 500(mL) Date Analyzed: 09/06/2012 05:19

Con. Extract Vol.: 10000(uL) Dilution Factor: 1

Injection Volume: 450(uL) GC Column: Biphenyl ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 44491 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	97		40-150

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-12542-1

SDG No.: 200-12542-1

Client Sample ID: | Lab Sample ID: LCS 200-44398/2-A

Matrix: Water | Lab File ID: 05SEP121550_241.d

Analysis Method: 8330B | Date Collected:

Extraction Method: 8330-Prep | Date Extracted: 09/04/2012 10:41

Sample wt/vol: 500(mL) | Date Analyzed: 09/06/2012 06:34

Con. Extract Vol.: 10000(uL) | Dilution Factor: 1

Injection Volume: 150(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 44487 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
59229-75-3	2,6-diamino-4-nitrotoluene	4.10	J	0.20	0.048	0.014
2691-41-0	HMX	4.24		0.20	0.024	0.011
6629-29-4	2,4-diamino-6-nitrotoluene	3.87	J	0.20	0.048	0.014
121-82-4	RDX	4.20		0.20	0.024	0.021
88-89-1	Picric acid	3.95		0.20	0.048	0.036
99-35-4	1,3,5-Trinitrobenzene	4.20		0.20	0.024	0.0098
99-65-0	1,3-Dinitrobenzene	4.19	M	0.20	0.024	0.016
98-95-3	Nitrobenzene	4.30	M	0.20	0.048	0.041
479-45-8	Tetryl	3.69	J M	0.20	0.048	0.028
55-63-0	Nitroglycerin	91.8	M	4.0	1.4	1.2
118-96-7	2,4,6-Trinitrotoluene	4.30		0.20	0.048	0.032
19406-51-0	4-Amino-2,6-dinitrotoluene	4.38		0.20	0.024	0.020
35572-78-2	2-Amino-4,6-dinitrotoluene	4.27		0.20	0.048	0.026
606-20-2	2,6-Dinitrotoluene	4.32		0.20	0.024	0.018
121-14-2	2,4-Dinitrotoluene	4.10	J	0.20	0.048	0.028
88-72-2	2-Nitrotoluene	3.97		0.20	0.048	0.034
99-99-0	4-Nitrotoluene	4.17	J M	0.20	0.060	0.054
99-08-1	3-Nitrotoluene	4.04	J	0.20	0.060	0.054
78-11-5	PETN	87.9		10	2.0	2.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	106	M	40-150

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Client Sample ID: NFUDS-001-GW01-01 MS Lab Sample ID: 200-12542-1 MS

Matrix: Water Lab File ID: 05SEP121553_371.d

Analysis Method: 8330B Date Collected: 08/31/2012 12:15

Extraction Method: 8330-Prep Date Extracted: 09/04/2012 10:41

Sample wt/vol: 500(mL) Date Analyzed: 09/06/2012 12:44

Con. Extract Vol.: 10000(uL) Dilution Factor: 1

Injection Volume: 450(uL) GC Column: Biphenyl ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 44491 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	98	*M*	40-150

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-12542-1

SDG No.: 200-12542-1

Client Sample ID: NFUDS-001-GW01-01 MS | Lab Sample ID: 200-12542-1 MS

Matrix: Water | Lab File ID: 05SEP121550_371.d

Analysis Method: 8330B | Date Collected: 08/31/2012 12:15

Extraction Method: 8330-Prep | Date Extracted: 09/04/2012 10:41

Sample wt/vol: 500(mL) | Date Analyzed: 09/06/2012 16:49

Con. Extract Vol.: 10000(uL) | Dilution Factor: 1

Injection Volume: 150(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 44487 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
59229-75-3	2,6-diamino-4-nitrotoluene	4.02	J	0.20	0.048	0.014
2691-41-0	HMX	4.16		0.20	0.024	0.011
6629-29-4	2,4-diamino-6-nitrotoluene	3.81	J	0.20	0.048	0.014
121-82-4	RDX	4.10		0.20	0.024	0.021
88-89-1	Picric acid	3.60		0.20	0.048	0.036
99-35-4	1,3,5-Trinitrobenzene	4.06		0.20	0.024	0.0098
99-65-0	1,3-Dinitrobenzene	4.12		0.20	0.024	0.016
98-95-3	Nitrobenzene	4.08		0.20	0.048	0.041
479-45-8	Tetryl	3.12	J	0.20	0.048	0.028
55-63-0	Nitroglycerin	80.8		4.0	1.4	1.2
118-96-7	2,4,6-Trinitrotoluene	3.95		0.20	0.048	0.032
19406-51-0	4-Amino-2,6-dinitrotoluene	4.19		0.20	0.024	0.020
35572-78-2	2-Amino-4,6-dinitrotoluene	4.13		0.20	0.048	0.026
606-20-2	2,6-Dinitrotoluene	4.28		0.20	0.024	0.018
121-14-2	2,4-Dinitrotoluene	3.99	J	0.20	0.048	0.028
88-72-2	2-Nitrotoluene	3.96		0.20	0.048	0.034
99-99-0	4-Nitrotoluene	4.16	J	0.20	0.060	0.054
99-08-1	3-Nitrotoluene	4.01	J M	0.20	0.060	0.054
78-11-5	PETN	88.6		10	2.0	2.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	103		40-150

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Client Sample ID: NFUDS-001-GW01-01 MSD Lab Sample ID: 200-12542-1 MSD

Matrix: Water Lab File ID: 05SEP121553_381.d

Analysis Method: 8330B Date Collected: 08/31/2012 12:15

Extraction Method: 8330-Prep Date Extracted: 09/04/2012 10:41

Sample wt/vol: 500(mL) Date Analyzed: 09/06/2012 13:18

Con. Extract Vol.: 10000(uL) Dilution Factor: 1

Injection Volume: 450(uL) GC Column: Biphenyl ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 44491 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	101		40-150

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington | Job No.: 200-12542-1

SDG No.: 200-12542-1

Client Sample ID: NFUDS-001-GW01-01 MSD | Lab Sample ID: 200-12542-1 MSD

Matrix: Water | Lab File ID: 05SEP121550_381.d

Analysis Method: 8330B | Date Collected: 08/31/2012 12:15

Extraction Method: 8330-Prep | Date Extracted: 09/04/2012 10:41

Sample wt/vol: 500(mL) | Date Analyzed: 09/06/2012 17:26

Con. Extract Vol.: 10000(uL) | Dilution Factor: 1

Injection Volume: 150(uL) | GC Column: C-18 ID: 4.6(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 44487 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
59229-75-3	2,6-diamino-4-nitrotoluene	4.06	J	0.20	0.048	0.014
2691-41-0	HMX	4.20		0.20	0.024	0.011
6629-29-4	2,4-diamino-6-nitrotoluene	3.87	J	0.20	0.048	0.014
121-82-4	RDX	4.16		0.20	0.024	0.021
88-89-1	Picric acid	3.54		0.20	0.048	0.036
99-35-4	1,3,5-Trinitrobenzene	4.10		0.20	0.024	0.0098
99-65-0	1,3-Dinitrobenzene	4.18		0.20	0.024	0.016
98-95-3	Nitrobenzene	4.18		0.20	0.048	0.041
479-45-8	Tetryl	3.13	J	0.20	0.048	0.028
55-63-0	Nitroglycerin	82.1		4.0	1.4	1.2
118-96-7	2,4,6-Trinitrotoluene	4.02		0.20	0.048	0.032
19406-51-0	4-Amino-2,6-dinitrotoluene	4.26		0.20	0.024	0.020
35572-78-2	2-Amino-4,6-dinitrotoluene	4.19		0.20	0.048	0.026
606-20-2	2,6-Dinitrotoluene	4.37		0.20	0.024	0.018
121-14-2	2,4-Dinitrotoluene	4.08	J	0.20	0.048	0.028
88-72-2	2-Nitrotoluene	4.04		0.20	0.048	0.034
99-99-0	4-Nitrotoluene	4.16	J	0.20	0.060	0.054
99-08-1	3-Nitrotoluene	4.06	J	0.20	0.060	0.054
78-11-5	PETN	85.8		10	2.0	2.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
528-29-0	1,2-Dinitrobenzene	104		40-150

TestAmerica Laboratories
Worklist Run Log Report

Worklist Name: 073112_CAL Worklist Num: 2241
Instrument: CH1208 Method: 8330_C18
Batch Directory: \\Btv-lims1\ChromData\CH1208\20120731-2241.b
Anaylysis Type: SemiVOA Creator: Robinson, Wallace B
Inj Volume: 150.00 Inj Vol Units: ul

Lab ID	Worklist ID	Sample Type	Cal Lvl	Inj Date/Time	File Name	Vial	Dil Fact	Client ID	Fraction
# 1 ICB	200-0002241-001	ICB		31-Jul-2012 15:11:00	31JUL121406_01	1	1.0		sv
# 2 IC 2	200-0002241-002	IC	2	31-Jul-2012 15:48:00	31JUL121406_02	2	1.0		sv
# 3 IC 3	200-0002241-003	IC	3	31-Jul-2012 16:26:00	31JUL121406_03	3	1.0		sv
# 4 IC 4	200-0002241-004	IC	4	31-Jul-2012 17:03:00	31JUL121406_04	4	1.0		sv
# 5 ICRTAV 5	200-0002241-005	ICRTAV	5	31-Jul-2012 17:41:00	31JUL121406_05	5	1.0		sv
# 6 IC 6	200-0002241-006	IC	6	31-Jul-2012 18:18:00	31JUL121406_06	6	1.0		sv
# 7 IC 7	200-0002241-007	IC	7	31-Jul-2012 18:56:00	31JUL121406_07	7	1.0		sv
# 8 CCVL	200-0002241-008	CCVL		31-Jul-2012 19:33:00	31JUL121406_08	8	1.0		sv
# 9 CCVL PETN	200-0002241-009	CCVL		31-Jul-2012 20:10:00	31JUL121406_09	9	1.0		sv
#10 ICV	200-0002241-010	ICV		31-Jul-2012 20:48:00	31JUL121406_10	10	1.0		sv

TestAmerica Laboratories
Worklist Run Log Report

Worklist Name: 090512_2 Worklist Num: 2369
Instrument: CH1208 Method: 8330_C18
Batch Directory: \\Btv-lims1\ChromData\CH1208\20120905-2369.b
Anaylysis Type: SemiVOA Creator: Robinson, Wallace B
Inj Volume: 150.00 Inj Vol Units: ul

Lab ID	Worklist ID	Sample Type	Cal Lvl	Inj Date/Time	File Name	Vial	Dil Fact	Client ID	Fraction
# 1 CCV	200-0002369-001	CCV		06-Sep-2012 05:19:00	05SEP121550_22	18	1.0		sv
# 2 MB 200-44398/1-A	200-0002369-002	MB		06-Sep-2012 05:56:00	05SEP121550_23	18	1.0		sv
# 3 LCS 200-44398/2-A	200-0002369-003	LCS		06-Sep-2012 06:34:00	05SEP121550_24	18	1.0		sv
# 4 200-12525-D-2-A	200-0002369-004	Client		06-Sep-2012 07:11:00	05SEP121550_25	18	1.0	SCW-004-072012	sv
# 5 200-12525-D-3-A	200-0002369-005	Client		06-Sep-2012 07:49:00	05SEP121550_26	18	1.0	SCW-005-072012	sv
# 6 200-12525-D-4-A	200-0002369-006	Client		06-Sep-2012 08:26:00	05SEP121550_27	18	1.0	SCW-006-072012	sv
# 7 200-12525-D-5-A	200-0002369-007	Client		06-Sep-2012 09:04:00	05SEP121550_28	18	1.0	SCW-206-072012	sv
# 8 200-12525-D-6-A	200-0002369-008	Client		06-Sep-2012 09:41:00	05SEP121550_29	18	1.0	SW-012-072012	sv
# 9 200-12525-D-7-A	200-0002369-009	Client		06-Sep-2012 10:19:00	05SEP121550_30	18	1.0	SW-013-072012	sv
#10 200-12525-D-8-A	200-0002369-010	Client		06-Sep-2012 13:04:00	05SEP121550_31	18	1.0	SW-008-072012	sv
#11 200-12525-D-8-C MS	200-0002369-011	MS		06-Sep-2012 13:42:00	05SEP121550_32	18	1.0	SW-008-072012	sv
#12 CCV	200-0002369-012	CCV		06-Sep-2012 14:19:00	05SEP121550_33	18	1.0		sv
#13 200-12525-D-8-B MSD	200-0002369-013	MSD		06-Sep-2012 14:56:00	05SEP121550_34	18	1.0	SW-008-072012	sv
#14 200-12525-D-9-A	200-0002369-014	Client		06-Sep-2012 15:34:00	05SEP121550_35	18	1.0	SW-010-072012	sv
#15 200-12542-D-1-A	200-0002369-015	Client		06-Sep-2012 16:11:00	05SEP121550_36	18	1.0	NFUDS-001-GW01-01	sv
#16 200-12542-D-1-C MS	200-0002369-016	MS		06-Sep-2012 16:49:00	05SEP121550_37	18	1.0	NFUDS-001-GW01-01	sv
#17 200-12542-D-1-B MSD	200-0002369-017	MSD		06-Sep-2012 17:26:00	05SEP121550_38	18	1.0	NFUDS-001-GW01-01	sv
#18 200-12542-D-2-A	200-0002369-018	Client		06-Sep-2012 18:04:00	05SEP121550_39	18	1.0	NFUDS-002-GW01-01	sv
#19 200-12542-D-3-A	200-0002369-019	Client		06-Sep-2012 18:41:00	05SEP121550_40	18	1.0	NFUDS-002-GW02-01	sv
#20 200-12542-D-4-A	200-0002369-020	Client		06-Sep-2012 19:18:00	05SEP121550_41	18	1.0	NFUDS-002-GW03-01	sv
#21 200-12542-D-5-A	200-0002369-021	Client		06-Sep-2012 19:56:00	05SEP121550_42	18	1.0	NFUDS-002-GW03-02	sv
#22 CCV	200-0002369-022	CCV		06-Sep-2012 20:33:00	05SEP121550_43	18	1.0		sv

TestAmerica Laboratories
Worklist Run Log Report

Worklist Name: 052412_CAL Worklist Num: 1941
Instrument: CH1488 Method: 8330_Biphenyl
Batch Directory: \\BTV-LIMS1\ChromData\CH1488\20120524-1941.b
Anaylysis Type: SemiVOA Creator: Chirgwin, Bradley W
Inj Volume: 450.00 Inj Vol Units: ul

Lab ID	Worklist ID	Sample Type	Cal Lvl	Inj Date/Time	File Name	Vial	Dil Fact	Client ID	Fraction
# 1 ICB	200-0001941-001	ICB		24-May-2012 13:04:00	24MAY121229_0	1	1.0		sv
# 2 IC 2	200-0001941-002	IC	2	24-May-2012 13:39:00	24MAY121229_0	2	1.0		sv
# 3 IC 3	200-0001941-003	IC	3	24-May-2012 14:13:00	24MAY121229_0	3	1.0		sv
# 4 IC 4	200-0001941-004	IC	4	24-May-2012 14:47:00	24MAY121229_0	4	1.0		sv
# 5 ICRTAV 5	200-0001941-005	ICRTAV	5	24-May-2012 15:21:00	24MAY121229_0	5	1.0		sv
# 6 IC 6	200-0001941-006	IC	6	24-May-2012 15:55:00	24MAY121229_0	6	1.0		sv
# 7 IC 7	200-0001941-007	IC	7	24-May-2012 16:30:00	24MAY121229_0	7	1.0		sv
# 8 CCVL	200-0001941-008	CCVL		24-May-2012 17:04:00	24MAY121229_0	8	1.0		sv
# 9 CCVL PETN	200-0001941-009	CCVL		24-May-2012 17:38:00	24MAY121229_0	9	1.0		sv
#10 ICV	200-0001941-010	ICV		24-May-2012 18:12:00	24MAY121229_1	10	1.0		sv

TestAmerica Laboratories
Worklist Run Log Report

Worklist Name: 090512_1 Worklist Num: 2372
Instrument: CH1488 Method: 8330_Biphenyl
Batch Directory: \\BTV-LIMS1\ChromData\CH1488\20120905-2372.b
Anaylysis Type: SemiVOA Creator: Robinson, Wallace B
Inj Volume: 450.00 Inj Vol Units: ul

Lab ID	Worklist ID	Sample Type	Cal Lvl	Inj Date/Time	File Name	Vial	Dil Fact	Client ID	Fraction
# 1 CCV	200-0002372-001	CCV		06-Sep-2012 04:11:00	05SEP121553_22	10	1.0		sv
# 2 MB 200-44398/1-A	200-0002372-002	MB		06-Sep-2012 04:45:00	05SEP121553_23	10	1.0		sv
# 3 LCS 200-44398/2-A	200-0002372-003	LCS		06-Sep-2012 05:19:00	05SEP121553_24	10	1.0		sv
# 4 200-12525-D-2-A	200-0002372-004	Client		06-Sep-2012 05:53:00	05SEP121553_25	10	1.0	SCW-004-072012	sv
# 5 200-12525-D-3-A	200-0002372-005	Client		06-Sep-2012 06:28:00	05SEP121553_26	10	1.0	SCW-005-072012	sv
# 6 200-12525-D-4-A	200-0002372-006	Client		06-Sep-2012 07:02:00	05SEP121553_27	10	1.0	SCW-006-072012	sv
# 7 200-12525-D-5-A	200-0002372-007	Client		06-Sep-2012 07:36:00	05SEP121553_28	10	1.0	SCW-206-072012	sv
# 8 200-12525-D-6-A	200-0002372-008	Client		06-Sep-2012 08:10:00	05SEP121553_29	10	1.0	SW-012-072012	sv
# 9 200-12525-D-7-A	200-0002372-009	Client		06-Sep-2012 08:44:00	05SEP121553_30	10	1.0	SW-013-072012	sv
#10 200-12525-D-8-A	200-0002372-010	Client		06-Sep-2012 09:19:00	05SEP121553_31	10	1.0	SW-008-072012	sv
#11 200-12525-D-8-C MS	200-0002372-011	MS		06-Sep-2012 09:53:00	05SEP121553_32	10	1.0	SW-008-072012	sv
#12 CCV	200-0002372-012	CCV		06-Sep-2012 10:27:00	05SEP121553_33	10	1.0		sv
#13 200-12525-D-8-B MSD	200-0002372-013	MSD		06-Sep-2012 11:01:00	05SEP121553_34	10	1.0	SW-008-072012	sv
#14 200-12525-D-9-A	200-0002372-014	Client		06-Sep-2012 11:35:00	05SEP121553_35	10	1.0	SW-010-072012	sv
#15 200-12542-D-1-A	200-0002372-015	Client		06-Sep-2012 12:10:00	05SEP121553_36	10	1.0	NFUDS-001-GW01-01	sv
#16 200-12542-D-1-C MS	200-0002372-016	MS		06-Sep-2012 12:44:00	05SEP121553_37	10	1.0	NFUDS-001-GW01-01	sv
#17 200-12542-D-1-B MSD	200-0002372-017	MSD		06-Sep-2012 13:18:00	05SEP121553_38	10	1.0	NFUDS-001-GW01-01	sv
#18 200-12542-D-2-A	200-0002372-018	Client		06-Sep-2012 13:52:00	05SEP121553_39	10	1.0	NFUDS-002-GW01-01	sv
#19 200-12542-D-3-A	200-0002372-019	Client		06-Sep-2012 14:26:00	05SEP121553_40	10	1.0	NFUDS-002-GW02-01	sv
#20 200-12542-D-4-A	200-0002372-020	Client		06-Sep-2012 15:01:00	05SEP121553_41	10	1.0	NFUDS-002-GW03-01	sv
#21 200-12542-D-5-A	200-0002372-021	Client		06-Sep-2012 15:35:00	05SEP121553_42	10	1.0	NFUDS-002-GW03-02	sv
#22 CCV	200-0002372-022	CCV		06-Sep-2012 16:09:00	05SEP121553_43	10	1.0		sv

Report Date: 10-Sep-2012 10:56:29 Chrom Revision: 2.0 21-Aug-2012 09:09:58

Preliminary Report

TestAmerica Burlington

Target Compound Quantitation Report

Data File:	\\Btv-lims1\ChromData\CH1208\20120905-2369.b\05SEP121550_231.d		
Lims ID:	MB 200-44398/1-A	Client ID:	
Inject. Date:	06-Sep-2012 05:56:00	Dil. Factor:	1.0000
Sample Type:	MB		
Sample ID:	200-0002369-002		
Misc. Info.:			
Operator:	WBR	Instrument ID:	CH1208
Injection Vol:	150.0 ul	ALS Bottle#:	18
Lims Batch ID:	2369	Lims Sample ID:	2
Detector:	A-05SEP121550.R231		
Method:	\\Btv-lims1\ChromData\CH1208\20120905-2369.b\8330_C18.m		
Last Update:	07-Sep-2012 07:49:27	Calib Date:	31-Jul-2012 18:56:00
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Btv-lims1\ChromData\CH1208\20120731-2241.b\31JUL121406_071.d		
Limit Group:	LC_8330B_Limits		
Integrator:	Falcon		
Column Type:		Column Dia:	
Process Host:	XAWRK019		

	Compound	RT	EXP RT	DLT RT	Response	On-Col Amt ug/L	Flags
1	2,6-diamino-4-nitrotoluene		9.665				
2	hexahydro-1,3,5-trinitroso-1,3,5		9.754				1
3	HMX		10.679				1
4	2,4-diamino-6-nitrotoluene		11.088				1
5	hexahydro-1,3-dinitroso-5-nitro-		11.589				1
6	MNX		13.261				1
7	RDX		14.325				1
8	2,4,6-Trinitrophenol		15.321				1
9	1,3,5-Trinitrobenzene		16.112				1
$ 10	1,2-Dinitrobenzene	16.432	16.423	0.009	69431	206.3	
11	1,3-Dinitrobenzene		17.357				1
12	Nitrobenzene		18.237				1
13	Tetryl		18.504				1
14	Nitroglycerin		19.269				1
15	2,4,6-Trinitrotoluene	19.731	19.704	0.027	361	1.75	MA
16	4-Amino-2,6-dinitrotoluene	20.184	20.158	0.026	331	1.67	MA
17	2-Amino-4,6-dinitrotoluene		20.513				1
18	2,6-Dinitrotoluene		20.878				1
19	2,4-Dinitrotoluene		21.136				1
20	o-Nitrotoluene		22.683				1
21	p-Nitrotoluene		23.457				1
22	m-Nitrotoluene	24.177	24.186	-0.009	88	-4.02	MA
23	PETN	24.879	24.986	-0.107	275	112.4	MA

TestAmerica Laboratories
Amount Summary Report

Worklist Name: 090512_2 Worklist Num: 2369
Instrument: CH1208 Method: 8330_C18
Batch Directory: \\Btv-lims1\ChromData\CH1208\20120905-2369.b
Anaylysis Type: SemiVOA
Inj Volume: 150.00 Inj Vol Units: ul

12525 NO PPA REQ

Lab ID/Worklist ID Analyte	Client Sample ID Limit Group	Amount	LOD	Max Amount
# 4 200-12525-D-2-A 200-0002369-004	SCW-004-072012 LC_8330B_Limits			
7 RDX		1.3372	0.0000	1000
15 2,4,6-Trinitrotolu		1.5120	0.0000	1000
16 4-Amino-2,6-dinitr		1.8190	0.0000	1000
17 2-Amino-4,6-dinitr		1.3431	0.0000	1000
# 5 200-12525-D-3-A 200-0002369-005	SCW-005-072012 LC_8330B_Limits			
7 RDX		1.5691	0.0000	1000
9 1,3,5-Trinitrobenz		0.3775	0.0000	1000
16 4-Amino-2,6-dinitr		1.9332	0.0000	1000
# 6 200-12525-D-4-A 200-0002369-006	SCW-006-072012 LC_8330B_Limits			
9 1,3,5-Trinitrobenz		0.1922	0.0000	1000
16 4-Amino-2,6-dinitr		2.1824	0.0000	1000
# 7 200-12525-D-5-A 200-0002369-007	SCW-206-072012 LC_8330B_Limits			
16 4-Amino-2,6-dinitr		1.8605	0.0000	1000
# 8 200-12525-D-6-A 200-0002369-008	SW-012-072012 LC_8330B_Limits			
7 RDX		44.26	0.0000	1000
16 4-Amino-2,6-dinitr		2.8022	0.0000	1000
19 2,4-Dinitrotoluene		3.3732	0.0000	1000
# 9 200-12525-D-7-A 200-0002369-009	SW-013-072012 LC_8330B_Limits			
7 RDX + 4am		41.42	0.0000	1000
#10 200-12525-D-8-A 200-0002369-010	SW-008-072012 LC_8330B_Limits			
3 HMX NT		7.2313	0.0000	1000
7 RDX		66.36	0.0000	1000
8 2,4,6-Trinitrophen NT		6.1476	0.0000	1000
9 1,3,5-Trinitrobenz		0.3081	0.0000	1000
11 1,3-Dinitrobenzene NT		3.7098	0.0000	1000
12 Nitrobenzene NT		0.5102	0.0000	1000
13 Tetryl NT		1.7958	0.0000	1000
16 4-Amino-2,6-dinitr		3.5333	0.0000	1000
20 o-Nitrotoluene NT		4.4389	0.0000	1000
21 p-Nitrotoluene NT		9.5185	0.0000	1000

(ND)
TNT 1.370
Tam 1.842
2 POINT <DL/<DL

Amount Summary Report

Lab ID/Worklist ID Analyte	Client Sample ID Limit Group	Amount	LOD	Max Amount
22 m-Nitrotoluene		10.91	0.0000	1000
#14 200-12525-D-9-A 200-0002369-014	SW-010-072012 LC_8330B_Limits			
7 RDX		61.49	0.0000	1000
9 1,3,5-Trinitrobenz		-0.1174	0.0000	1000
19 2,4-Dinitrotoluene		6.8163	0.0000	1000
#15 200-12542-D-1-A 200-0002369-015	NFUDS-001-GW01-01 LC_8330B_Limits			
11 1,3-Dinitrobenzene		-0.4577	0.0000	1000
15 2,4,6-Trinitrotolu		1.8293	0.0000	1000
16 4-Amino-2,6-dinitr		1.5002	0.0000	1000
22 m-Nitrotoluene		-1.7747	0.0000	1000
23 PETN		175	0.0000	20000
#18 200-12542-D-2-A 200-0002369-018	NFUDS-002-GW01-01 LC_8330B_Limits			
15 2,4,6-Trinitrotolu		1.8503	0.0000	1000
16 4-Amino-2,6-dinitr		1.7404	0.0000	1000
23 PETN		316	0.0000	20000
#19 200-12542-D-3-A 200-0002369-019	NFUDS-002-GW02-01 LC_8330B_Limits			
15 2,4,6-Trinitrotolu		1.6768	0.0000	1000
16 4-Amino-2,6-dinitr		1.5358	0.0000	1000
22 m-Nitrotoluene		-2.0184	0.0000	1000
23 PETN		255	0.0000	20000
#20 200-12542-D-4-A 200-0002369-020	NFUDS-002-GW03-01 LC_8330B_Limits			
11 1,3-Dinitrobenzene		-0.4632	0.0000	1000
15 2,4,6-Trinitrotolu		1.8854	0.0000	1000
16 4-Amino-2,6-dinitr		1.6114	0.0000	1000
22 m-Nitrotoluene		-2.3413	0.0000	1000
23 PETN		198	0.0000	20000
#21 200-12542-D-5-A 200-0002369-021	NFUDS-002-GW03-02 LC_8330B_Limits			
15 2,4,6-Trinitrotolu		1.7627	0.0000	1000
16 4-Amino-2,6-dinitr		1.8220	0.0000	1000
21 p-Nitrotoluene		3.0027	0.0000	1000
23 PETN		225	0.0000	20000

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Instrument ID: CH1208 Start Date: 07/31/2012 15:11

Analysis Batch Number: 42650 End Date: 07/31/2012 20:48

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ICB 200-42650/1		07/31/2012 15:11	1		C-18 4.6(mm)
IC 200-42650/2		07/31/2012 15:48	1	31JUL121406_021.d	C-18 4.6(mm)
IC 200-42650/3		07/31/2012 16:26	1	31JUL121406_031.d	C-18 4.6(mm)
IC 200-42650/4		07/31/2012 17:03	1	31JUL121406_041.d	C-18 4.6(mm)
ICRTAV 200-42650/5		07/31/2012 17:41	1	31JUL121406_051.d	C-18 4.6(mm)
IC 200-42650/6		07/31/2012 18:18	1	31JUL121406_061.d	C-18 4.6(mm)
IC 200-42650/7		07/31/2012 18:56	1	31JUL121406_071.d	C-18 4.6(mm)
CCVL 200-42650/8		07/31/2012 19:33	1		C-18 4.6(mm)
CCVL 200-42650/9		07/31/2012 20:10	1		C-18 4.6(mm)
ICV 200-42650/10		07/31/2012 20:48	1	31JUL121406_101.d	C-18 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Instrument ID: CH1208 Start Date: 09/06/2012 05:19

Analysis Batch Number: 44487 End Date: 09/06/2012 20:33

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 200-44487/1		09/06/2012 05:19	1	05SEP121550_221.d	C-18 4.6(mm)
MB 200-44398/1-A		09/06/2012 05:56	1	05SEP121550_231.d	C-18 4.6(mm)
LCS 200-44398/2-A		09/06/2012 06:34	1	05SEP121550_241.d	C-18 4.6(mm)
ZZZZZ		09/06/2012 07:11	1		C-18 4.6(mm)
ZZZZZ		09/06/2012 07:49	1		C-18 4.6(mm)
ZZZZZ		09/06/2012 08:26	1		C-18 4.6(mm)
ZZZZZ		09/06/2012 09:04	1		C-18 4.6(mm)
ZZZZZ		09/06/2012 09:41	1		C-18 4.6(mm)
ZZZZZ		09/06/2012 10:19	1		C-18 4.6(mm)
ZZZZZ		09/06/2012 13:04	1		C-18 4.6(mm)
ZZZZZ		09/06/2012 13:42	1		C-18 4.6(mm)
CCV 200-44487/12		09/06/2012 14:19	1	05SEP121550_331.d	C-18 4.6(mm)
ZZZZZ		09/06/2012 14:56	1		C-18 4.6(mm)
ZZZZZ		09/06/2012 15:34	1		C-18 4.6(mm)
200-12542-1	NFUDS-001-GW01-01	09/06/2012 16:11	1	05SEP121550_361.d	C-18 4.6(mm)
200-12542-1 MS	NFUDS-001-GW01-01 MS	09/06/2012 16:49	1	05SEP121550_371.d	C-18 4.6(mm)
200-12542-1 MSD	NFUDS-001-GW01-01 MSD	09/06/2012 17:26	1	05SEP121550_381.d	C-18 4.6(mm)
200-12542-2	NFUDS-002-GW01-01	09/06/2012 18:04	1	05SEP121550_391.d	C-18 4.6(mm)
200-12542-3	NFUDS-002-GW02-01	09/06/2012 18:41	1	05SEP121550_401.d	C-18 4.6(mm)
200-12542-4	NFUDS-002-GW03-01	09/06/2012 19:18	1	05SEP121550_411.d	C-18 4.6(mm)
200-12542-5	NFUDS-002-GW03-02	09/06/2012 19:56	1	05SEP121550_421.d	C-18 4.6(mm)
CCV 200-44487/22		09/06/2012 20:33	1	05SEP121550_431.d	C-18 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Instrument ID: CH1488 Start Date: 05/24/2012 13:04

Analysis Batch Number: 39219 End Date: 05/24/2012 18:12

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ICB 200-39219/1		05/24/2012 13:04	1		Biphenyl 4.6(mm)
IC 200-39219/2		05/24/2012 13:39	1	24MAY121229_021.d	Biphenyl 4.6(mm)
IC 200-39219/3		05/24/2012 14:13	1	24MAY121229_031.d	Biphenyl 4.6(mm)
IC 200-39219/4		05/24/2012 14:47	1	24MAY121229_041.d	Biphenyl 4.6(mm)
ICRTAV 200-39219/5		05/24/2012 15:21	1	24MAY121229_051.d	Biphenyl 4.6(mm)
IC 200-39219/6		05/24/2012 15:55	1	24MAY121229_061.d	Biphenyl 4.6(mm)
IC 200-39219/7		05/24/2012 16:30	1	24MAY121229_071.d	Biphenyl 4.6(mm)
CCVL 200-39219/8		05/24/2012 17:04	1		Biphenyl 4.6(mm)
CCVL 200-39219/9		05/24/2012 17:38	1		Biphenyl 4.6(mm)
ICV 200-39219/10		05/24/2012 18:12	1	24MAY121229_101.d	Biphenyl 4.6(mm)

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Instrument ID: CH1488 Start Date: 09/06/2012 04:11

Analysis Batch Number: 44491 End Date: 09/06/2012 16:09

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVRT 200-44491/1		09/06/2012 04:11	1	05SEP121553_221.d	Biphenyl 4.6(mm)
MB 200-44398/1-A		09/06/2012 04:45	1	05SEP121553_231.d	Biphenyl 4.6(mm)
LCS 200-44398/2-A		09/06/2012 05:19	1	05SEP121553_241.d	Biphenyl 4.6(mm)
ZZZZZ		09/06/2012 05:53	1		Biphenyl 4.6(mm)
ZZZZZ		09/06/2012 06:28	1		Biphenyl 4.6(mm)
ZZZZZ		09/06/2012 07:02	1		Biphenyl 4.6(mm)
ZZZZZ		09/06/2012 07:36	1		Biphenyl 4.6(mm)
ZZZZZ		09/06/2012 08:10	1		Biphenyl 4.6(mm)
ZZZZZ		09/06/2012 08:44	1		Biphenyl 4.6(mm)
ZZZZZ		09/06/2012 09:19	1		Biphenyl 4.6(mm)
ZZZZZ		09/06/2012 09:53	1		Biphenyl 4.6(mm)
CCV 200-44491/12		09/06/2012 10:27	1	05SEP121553_331.d	Biphenyl 4.6(mm)
ZZZZZ		09/06/2012 11:01	1		Biphenyl 4.6(mm)
ZZZZZ		09/06/2012 11:35	1		Biphenyl 4.6(mm)
200-12542-1	NFUDS-001-GW01-01	09/06/2012 12:10	1	05SEP121553_361.d	Biphenyl 4.6(mm)
200-12542-1 MS	NFUDS-001-GW01-01 MS	09/06/2012 12:44	1	05SEP121553_371.d	Biphenyl 4.6(mm)
200-12542-1 MSD	NFUDS-001-GW01-01 MSD	09/06/2012 13:18	1	05SEP121553_381.d	Biphenyl 4.6(mm)
200-12542-2	NFUDS-002-GW01-01	09/06/2012 13:52	1	05SEP121553_391.d	Biphenyl 4.6(mm)
200-12542-3	NFUDS-002-GW02-01	09/06/2012 14:26	1	05SEP121553_401.d	Biphenyl 4.6(mm)
200-12542-4	NFUDS-002-GW03-01	09/06/2012 15:01	1	05SEP121553_411.d	Biphenyl 4.6(mm)
200-12542-5	NFUDS-002-GW03-02	09/06/2012 15:35	1	05SEP121553_421.d	Biphenyl 4.6(mm)
CCV 200-44491/22		09/06/2012 16:09	1	05SEP121553_431.d	Biphenyl 4.6(mm)

HPLC/IC BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Batch Number: 44398 Batch Start Date: 09/04/12 10:41 Batch Analyst: Nye, Elizabeth A

Batch Method: 8330-Prep Batch End Date: 09/04/12 13:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	EX8330MTXSPi 00014	EX8330SUi 00026	LCSUPPSPi 00043	AnalysisComment
MB 200-44398/1		8330-Prep, 8330B		500 mL	10000 uL		50 uL		
LCS 200-44398/2		8330-Prep, 8330B		500 mL	10000 uL	50 uL	50 uL	50 uL	
200-12542-D-1	NFUDS-001-GW01-01	8330-Prep, 8330B	T	500 mL	10000 uL		50 uL		Bottles 12542-D-1 and 12542-D-1MS were split for QC.
200-12542-D-1 MSD	NFUDS-001-GW01-01	8330-Prep, 8330B	T	500 mL	10000 uL	50 uL	50 uL	50 uL	Bottles 12542-D-1 and 12542-D-1MS were split for QC.
200-12542-D-1 MS	NFUDS-001-GW01-01	8330-Prep, 8330B	T	500 mL	10000 uL	50 uL	50 uL	50 uL	Bottles 12542-D-1 and 12542-D-1MS were split for QC.
200-12542-D-2	NFUDS-002-GW01-01	8330-Prep, 8330B	T	500 mL	10000 uL		50 uL		
200-12542-D-3	NFUDS-002-GW02-01	8330-Prep, 8330B	T	500 mL	10000 uL		50 uL		
200-12542-D-4	NFUDS-002-GW03-01	8330-Prep, 8330B	T	500 mL	10000 uL		50 uL		
200-12542-D-5	NFUDS-002-GW03-02	8330-Prep, 8330B	T	500 mL	10000 uL		50 uL		

Batch Notes	
Balance ID	L92017
Date Dilution Performed	9/4/12
Analytst performing Dilution	EAN
Date of Final Volume	9/4/12
Vendor lot number	369221
Prep Solvent Volume Used	5 mL
Person's name who witnessed reagent drop	MLT
Solvent	Acetonitrile
SPE Cartridge Lot #	003732115A

HPLC/IC BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Batch Number: 44398 Batch Start Date: 09/04/12 10:41 Batch Analyst: Nye, Elizabeth A

Batch Method: 8330-Prep Batch End Date: 09/04/12 13:00

Basis	Basis Description
T	Total/NA

6850

Perchlorate by LC/MS or LC/MS/MS

FORM III
LCMS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Matrix: Water Level: Low Lab File ID: P091112A05.d

Lab ID: LCS 200-44707/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Perchlorate	0.200	0.244	122	80-120	Q

Column to be used to flag recovery and RPD values

FORM III 6850

FORM III
LCMS MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Matrix: Water Level: Low Lab File ID: P091112A11.d

Lab ID: 200-12542-1 MS Client ID: NFUDS-001-GW01-01 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Perchlorate	0.200	0.027 J	0.230	101	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM III
LCMS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Matrix: Water Level: Low Lab File ID: P091112A12.d

Lab ID: 200-12542-1 MSD Client ID: NFUDS-001-GW01-01 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Perchlorate	0.200	0.243	108	6	15	80-120	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM III
LCMS LC INTERFERENCE CHECK STANDARD RECOVERY

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Matrix: Water Level: Low Lab File ID: P091112A03.d

Lab ID: INF 200-44707/3 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	INF CONCENTRATION (ug/L)	INF % REC	QC LIMITS REC	#
Perchlorate	0.200	0.252	126	70-130	

Column to be used to flag recovery and RPD values

FORM III 6850

FORM IV
LCMS METHOD BLANK SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Lab File ID: P091112A04.d Lab Sample ID: MB 200-44707/4

Matrix: Water Date Extracted:

Instrument ID: LC3062 Date Analyzed: 09/11/2012 11:05

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 200-44707/5	P091112A05.d	09/11/2012 11:20
NFUDS-001-GW01-01	200-12542-1	P091112A06.d	09/11/2012 11:36
NFUDS-002-GW01-01	200-12542-2	P091112A07.d	09/11/2012 11:51
NFUDS-002-GW02-01	200-12542-3	P091112A08.d	09/11/2012 12:06
NFUDS-002-GW03-01	200-12542-4	P091112A09.d	09/11/2012 12:21
NFUDS-002-GW03-02	200-12542-5	P091112A10.d	09/11/2012 12:37
NFUDS-001-GW01-01 MS	200-12542-1 MS	P091112A11.d	09/11/2012 12:52
NFUDS-001-GW01-01 MSD	200-12542-1 MSD	P091112A12.d	09/11/2012 13:07
	CCB 200-44707/14	P091112A14.d	09/11/2012 13:38

FORM VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Instrument ID: LC3062 Calibration Start Date: 08/16/2012 16:48

GC Column: IC-Pak AnionH/R ID: 4.6(mm) Calibration End Date: 08/16/2012 17:50

Calibration ID: 17170

		18OP					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		73671	9.68				
UPPER LIMIT		147342	10.68				
LOWER LIMIT		36836	8.68				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 200-43542/7		75176	9.65				
CCV 200-44707/1		62888	9.31				
CCVL 200-44707/2		57943	9.41				
INF 200-44707/3		61308	8.71				
MB 200-44707/4		73428	9.34				
LCS 200-44707/5		61976	9.35				
200-12542-1	NFUDS-001-GW01-01	75207	9.33				
200-12542-2	NFUDS-002-GW01-01	57354	9.30				
200-12542-3	NFUDS-002-GW02-01	71090	9.34				
200-12542-4	NFUDS-002-GW03-01	51632	9.41				
200-12542-5	NFUDS-002-GW03-02	63359	9.38				
200-12542-1 MS	NFUDS-001-GW01-01 MS	63007	9.34				
200-12542-1 MSD	NFUDS-001-GW01-01 MSD	67629	9.40				
CCVL 200-44707/13		68962	9.40				
CCB 200-44707/14		69181	9.38				
CCV 200-44707/15		76337	9.41				

18OP = 18-O Perchlorate

Area Limit = 50%-200% of internal standard area
RT Limit = ± 1 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 6850

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Client Sample ID: NFUDS-001-GW01-01 Lab Sample ID: 200-12542-1

Matrix: Water Lab File ID: P091112A06.d

Analysis Method: 6850 Date Collected: 08/31/2012 12:15

Extraction Method: Date Extracted:

Sample wt/vol: 5(mL) Date Analyzed: 09/11/2012 11:36

Con. Extract Vol.: 5(mL) Dilution Factor: 1

Injection Volume: 100(uL) GC Column: IC-Pak AnionH/R ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 44707 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
14797-73-0	Perchlorate	0.027	J M Q	0.20	0.040	0.015

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Client Sample ID: NFUDS-002-GW01-01 Lab Sample ID: 200-12542-2

Matrix: Water Lab File ID: P091112A07.d

Analysis Method: 6850 Date Collected: 08/31/2012 10:15

Extraction Method: Date Extracted:

Sample wt/vol: 5(mL) Date Analyzed: 09/11/2012 11:51

Con. Extract Vol.: 5(mL) Dilution Factor: 1

Injection Volume: 100(uL) GC Column: IC-Pak AnionH/R ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 44707 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
14797-73-0	Perchlorate	0.039	J M Q	0.20	0.040	0.015

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Client Sample ID: NFUDS-002-GW02-01 Lab Sample ID: 200-12542-3

Matrix: Water Lab File ID: P091112A08.d

Analysis Method: 6850 Date Collected: 08/31/2012 11:00

Extraction Method: Date Extracted:

Sample wt/vol: 5(mL) Date Analyzed: 09/11/2012 12:06

Con. Extract Vol.: 5(mL) Dilution Factor: 1

Injection Volume: 100(uL) GC Column: IC-Pak AnionH/R ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 44707 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
14797-73-0	Perchlorate	0.097	J Q	0.20	0.040	0.015

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Client Sample ID: NFUDS-002-GW03-01 Lab Sample ID: 200-12542-4

Matrix: Water Lab File ID: P091112A09.d

Analysis Method: 6850 Date Collected: 08/31/2012 11:30

Extraction Method: Date Extracted:

Sample wt/vol: 5(mL) Date Analyzed: 09/11/2012 12:21

Con. Extract Vol.: 5(mL) Dilution Factor: 1

Injection Volume: 100(uL) GC Column: IC-Pak AnionH/R ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 44707 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
14797-73-0	Perchlorate	0.040	U Q	0.20	0.040	0.015

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Client Sample ID: NFUDS-002-GW03-02 Lab Sample ID: 200-12542-5

Matrix: Water Lab File ID: P091112A10.d

Analysis Method: 6850 Date Collected: 08/31/2012 11:30

Extraction Method: Date Extracted:

Sample wt/vol: 5(mL) Date Analyzed: 09/11/2012 12:37

Con. Extract Vol.: 5(mL) Dilution Factor: 1

Injection Volume: 100(uL) GC Column: IC-Pak AnionH/R ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 44707 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
14797-73-0	Perchlorate	0.027	J M Q	0.20	0.040	0.015

FORM VI
LCMS INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Burlington Job No.: 200-12542-1 Analy Batch No.: 43542

SDG No.: 200-12542-1

Instrument ID: LC3062 GC Column: IC-Pak ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/16/2012 16:48 Calibration End Date: 08/16/2012 17:50 Calibration ID: 17170

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-43542/2	P081612CL02.d
Level 2	IC 200-43542/3	P081612CL03.d
Level 3	ICISAV 200-43542/4	P081612CL04.d
Level 4	IC 200-43542/5	P081612CL05.d
Level 5	IC 200-43542/6	P081612CL06.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Perchlorate	0.9285	0.9755	0.9571	0.9560	0.9405	Lin1	0.0042	0.9444							1.0000		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
LCMS INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Burlington Job No.: 200-12542-1 Analy Batch No.: 43542

SDG No.: 200-12542-1

Instrument ID: LC3062 GC Column: IC-Pak ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 08/16/2012 16:48 Calibration End Date: 08/16/2012 17:50 Calibration ID: 17170

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-43542/2	P081612CL02.d
Level 2	IC 200-43542/3	P081612CL03.d
Level 3	ICISAV 200-43542/4	P081612CL04.d
Level 4	IC 200-43542/5	P081612CL05.d
Level 5	IC 200-43542/6	P081612CL06.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5
Perchlorate	18OP	Lin1	14706	40466	82900	210721	433614	0.200	0.500	1.00	3.00	10.0

Curve Type Legend:
Lin1 = Linear 1/conc ISTD

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Lab Sample ID: ICV 200-43542/7 Calibration Date: 08/16/2012 18:05

Instrument ID: LC3062 Calib Start Date: 08/16/2012 16:48

GC Column: IC-Pak AnionH/R ID: 4.60(mm) Calib End Date: 08/16/2012 17:50

Lab File ID: P081612CL07.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Lin1		0.9696		5.13	5.00	2.6	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Lab Sample ID: CCV 200-44707/1 Calibration Date: 09/11/2012 10:19

Instrument ID: LC3062 Calib Start Date: 08/16/2012 16:48

GC Column: IC-Pak AnionH/R ID: 4.60(mm) Calib End Date: 08/16/2012 17:50

Lab File ID: P091112A01.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Lin1		0.9166		0.966	1.00	-3.4	15.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Lab Sample ID: CCVL 200-44707/2 Calibration Date: 09/11/2012 10:34

Instrument ID: LC3062 Calib Start Date: 08/16/2012 16:48

GC Column: IC-Pak AnionH/R ID: 4.60(mm) Calib End Date: 08/16/2012 17:50

Lab File ID: P091112A02.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Lin1		1.217		0.0986	0.0800	23.2	30.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Lab Sample ID: CCVL 200-44707/13 Calibration Date: 09/11/2012 13:23

Instrument ID: LC3062 Calib Start Date: 08/16/2012 16:48

GC Column: IC-Pak AnionH/R ID: 4.60(mm) Calib End Date: 08/16/2012 17:50

Lab File ID: P091112A13.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Lin1		1.225		0.0993	0.0800	24.1	30.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Lab Sample ID: CCV 200-44707/15 Calibration Date: 09/11/2012 13:53

Instrument ID: LC3062 Calib Start Date: 08/16/2012 16:48

GC Column: IC-Pak AnionH/R ID: 4.60(mm) Calib End Date: 08/16/2012 17:50

Lab File ID: P091112A15.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perchlorate	Lin1		0.9615		1.01	1.00	1.4	15.0

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Client Sample ID: Lab Sample ID: MB 200-44707/4

Matrix: Water Lab File ID: P091112A04.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 5(mL) Date Analyzed: 09/11/2012 11:05

Con. Extract Vol.: 5(mL) Dilution Factor: 1

Injection Volume: 100(uL) GC Column: IC-Pak AnionH/R ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 44707 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
14797-73-0	Perchlorate	0.040	U	0.20	0.040	0.015

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Client Sample ID: Lab Sample ID: CCB 200-44707/14

Matrix: Water Lab File ID: P091112A14.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 5(mL) Date Analyzed: 09/11/2012 13:38

Con. Extract Vol.: 5(mL) Dilution Factor: 1

Injection Volume: 100(uL) GC Column: IC-Pak AnionH/R ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 44707 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
14797-73-0	Perchlorate	0.040	U	0.20	0.040	0.015

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Client Sample ID: Lab Sample ID: LCS 200-44707/5

Matrix: Water Lab File ID: P091112A05.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 5(mL) Date Analyzed: 09/11/2012 11:20

Con. Extract Vol.: 5(mL) Dilution Factor: 1

Injection Volume: 100(uL) GC Column: IC-Pak AnionH/R ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 44707 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
14797-73-0	Perchlorate	0.244	Q	0.20	0.040	0.015

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Client Sample ID: Lab Sample ID: INF 200-44707/3

Matrix: Water Lab File ID: P091112A03.d

Analysis Method: 6850 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 5(mL) Date Analyzed: 09/11/2012 10:50

Con. Extract Vol.: 5(mL) Dilution Factor: 1

Injection Volume: 100(uL) GC Column: IC-Pak AnionH/R ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 44707 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
14797-73-0	Perchlorate	0.252		0.20	0.040	0.015

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Client Sample ID: NFUDS-001-GW01-01 MS Lab Sample ID: 200-12542-1 MS

Matrix: Water Lab File ID: P091112A11.d

Analysis Method: 6850 Date Collected: 08/31/2012 12:15

Extraction Method: Date Extracted:

Sample wt/vol: 5(mL) Date Analyzed: 09/11/2012 12:52

Con. Extract Vol.: 5(mL) Dilution Factor: 1

Injection Volume: 100(uL) GC Column: IC-Pak AnionH/R ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 44707 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
14797-73-0	Perchlorate	0.230		0.20	0.040	0.015

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Client Sample ID: NFUDS-001-GW01-01 MSD Lab Sample ID: 200-12542-1 MSD

Matrix: Water Lab File ID: P091112A12.d

Analysis Method: 6850 Date Collected: 08/31/2012 12:15

Extraction Method: Date Extracted:

Sample wt/vol: 5(mL) Date Analyzed: 09/11/2012 13:07

Con. Extract Vol.: 5(mL) Dilution Factor: 1

Injection Volume: 100(uL) GC Column: IC-Pak AnionH/R ID: 4.6(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 44707 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
14797-73-0	Perchlorate	0.243		0.20	0.040	0.015

TestAmerica Laboratories
Worklist Run Log Report

Worklist Name: 081612 ICAL Worklist Num: 2308
Instrument: LC3062 Method: perc_LC3062
Batch Directory: \\BTV-LIMS1\ChromData\LC3062\20120816-2308.b
Anaylysis Type: SemiVOA Creator: Robinson, Wallace B
Inj Volume: 100.00 Inj Vol Units: ul
Run Reagents:
LCPercWISi_00008, Amount Added: 50.00 , Units: uL

Lab ID	Worklist ID	Sample Type	Cal Lvl	Inj Date/Time	File Name	Vial	Dil Fact	Client ID	Fraction
# 1 ICB	200-0002308-001	ICB		16-Aug-2012 16:33:19	P081612CL01.d	1	1.0		sv
# 2 IC	200-0002308-002	IC	1	16-Aug-2012 16:48:53	P081612CL02.d	2	1.0		sv
# 3 IC	200-0002308-003	IC	2	16-Aug-2012 17:04:08	P081612CL03.d	3	1.0		sv
# 4 ICISAV	200-0002308-004	ICISAV	3	16-Aug-2012 17:19:17	P081612CL04.d	4	1.0		sv
# 5 IC	200-0002308-005	IC	4	16-Aug-2012 17:34:44	P081612CL05.d	5	1.0		sv
# 6 IC	200-0002308-006	IC	5	16-Aug-2012 17:50:04	P081612CL06.d	6	1.0		sv
# 7 ICV	200-0002308-007	ICV		16-Aug-2012 18:05:11	P081612CL07.d	7	1.0		sv

TestAmerica Laboratories
Worklist Run Log Report

Worklist Name: 091112A Worklist Num: 2391
Instrument: LC3062 Method: perc_LC3062
Batch Directory: \\BTV-LIMS1\ChromData\LC3062\20120911-2391.b
Anaylysis Type: SemiVOA Creator: Robinson, Wallace B
Inj Volume: 100.00 Inj Vol Units: ul
Run Reagents:
LCPercWISi_00007, Amount Added: 50.00 , Units: uL

Lab ID	Worklist ID	Sample Type	Cal Lvl	Inj Date/Time	File Name	Vial	Dil Fact	Client ID	Fraction
# 1 CCV	200-0002391-001	CCV		11-Sep-2012 10:19:31	P091112A01.d	1	1.0		sv
# 2 CCVL	200-0002391-002	CCVL		11-Sep-2012 10:34:48	P091112A02.d	2	1.0		sv
# 3 INF	200-0002391-003	INF		11-Sep-2012 10:50:06	P091112A03.d	3	1.0		sv
# 4 MB	200-0002391-004	MB		11-Sep-2012 11:05:25	P091112A04.d	4	1.0		sv
# 5 LCS	200-0002391-005	LCS		11-Sep-2012 11:20:46	P091112A05.d	5	1.0		sv
# 6 200-12542-A-1	200-0002391-006	Client		11-Sep-2012 11:36:04	P091112A06.d	6	1.0	NFUDS-001-GW01-01	sv
# 7 200-12542-A-2	200-0002391-007	Client		11-Sep-2012 11:51:19	P091112A07.d	7	1.0	NFUDS-002-GW01-01	sv
# 8 200-12542-A-3	200-0002391-008	Client		11-Sep-2012 12:06:38	P091112A08.d	8	1.0	NFUDS-002-GW02-01	sv
# 9 200-12542-A-4	200-0002391-009	Client		11-Sep-2012 12:21:54	P091112A09.d	9	1.0	NFUDS-002-GW03-01	sv
#10 200-12542-A-5	200-0002391-010	Client		11-Sep-2012 12:37:15	P091112A10.d	10	1.0	NFUDS-002-GW03-02	sv
#11 200-12542-A-1 MS	200-0002391-011	MS		11-Sep-2012 12:52:31	P091112A11.d	11	1.0	NFUDS-001-GW01-01	sv
#12 200-12542-A-1 MSD	200-0002391-012	MSD		11-Sep-2012 13:07:51	P091112A12.d	12	1.0	NFUDS-001-GW01-01	sv
#13 CCVL	200-0002391-013	CCVL		11-Sep-2012 13:23:10	P091112A13.d	13	1.0		sv
#14 CCB	200-0002391-014	CCB		11-Sep-2012 13:38:26	P091112A14.d	14	1.0		sv
#15 CCV	200-0002391-015	CCV		11-Sep-2012 13:53:46	P091112A15.d	15	1.0		sv

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Instrument ID: LC3062 Start Date: 08/16/2012 16:33

Analysis Batch Number: 43542 End Date: 08/16/2012 18:05

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ICB 200-43542/1		08/16/2012 16:33	1		IC-Pak AnionH/R 4.6(mm)
IC 200-43542/2		08/16/2012 16:48	1	P081612CL02.d	IC-Pak AnionH/R 4.6(mm)
IC 200-43542/3		08/16/2012 17:04	1	P081612CL03.d	IC-Pak AnionH/R 4.6(mm)
ICISAV 200-43542/4		08/16/2012 17:19	1	P081612CL04.d	IC-Pak AnionH/R 4.6(mm)
IC 200-43542/5		08/16/2012 17:34	1	P081612CL05.d	IC-Pak AnionH/R 4.6(mm)
IC 200-43542/6		08/16/2012 17:50	1	P081612CL06.d	IC-Pak AnionH/R 4.6(mm)
ICV 200-43542/7		08/16/2012 18:05	1	P081612CL07.d	IC-Pak AnionH/R 4.6(mm)

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Instrument ID: LC3062 Start Date: 09/11/2012 10:19

Analysis Batch Number: 44707 End Date: 09/11/2012 13:53

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 200-44707/1		09/11/2012 10:19	1	P091112A01.d	IC-Pak AnionH/R 4.6(mm)
CCVL 200-44707/2		09/11/2012 10:34	1	P091112A02.d	IC-Pak AnionH/R 4.6(mm)
INF 200-44707/3		09/11/2012 10:50	1	P091112A03.d	IC-Pak AnionH/R 4.6(mm)
MB 200-44707/4		09/11/2012 11:05	1	P091112A04.d	IC-Pak AnionH/R 4.6(mm)
LCS 200-44707/5		09/11/2012 11:20	1	P091112A05.d	IC-Pak AnionH/R 4.6(mm)
200-12542-1	NFUDS-001-GW01-01	09/11/2012 11:36	1	P091112A06.d	IC-Pak AnionH/R 4.6(mm)
200-12542-2	NFUDS-002-GW01-01	09/11/2012 11:51	1	P091112A07.d	IC-Pak AnionH/R 4.6(mm)
200-12542-3	NFUDS-002-GW02-01	09/11/2012 12:06	1	P091112A08.d	IC-Pak AnionH/R 4.6(mm)
200-12542-4	NFUDS-002-GW03-01	09/11/2012 12:21	1	P091112A09.d	IC-Pak AnionH/R 4.6(mm)
200-12542-5	NFUDS-002-GW03-02	09/11/2012 12:37	1	P091112A10.d	IC-Pak AnionH/R 4.6(mm)
200-12542-1 MS	NFUDS-001-GW01-01 MS	09/11/2012 12:52	1	P091112A11.d	IC-Pak AnionH/R 4.6(mm)
200-12542-1 MSD	NFUDS-001-GW01-01 MSD	09/11/2012 13:07	1	P091112A12.d	IC-Pak AnionH/R 4.6(mm)
CCVL 200-44707/13		09/11/2012 13:23	1	P091112A13.d	IC-Pak AnionH/R 4.6(mm)
CCB 200-44707/14		09/11/2012 13:38	1	P091112A14.d	IC-Pak AnionH/R 4.6(mm)
CCV 200-44707/15		09/11/2012 13:53	1	P091112A15.d	IC-Pak AnionH/R 4.6(mm)

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Burlington Job Number: 200-12542-1

SDG No.: 200-12542-1

Project: Nantucket Beach FUDS

Client Sample ID	Lab Sample ID
NFUDS-001-GW01-01	200-12542-1
NFUDS-002-GW01-01	200-12542-2
NFUDS-002-GW02-01	200-12542-3
NFUDS-002-GW03-01	200-12542-4
NFUDS-002-GW03-02	200-12542-5

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: NFUDS-001-GW01-01 Lab Sample ID: 200-12542-1

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG ID.: 200-12542-1

Matrix: Water Date Sampled: 08/31/2012 12:15

Reporting Basis: WET Date Received: 09/01/2012 09:50

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Aluminum	150	200	150	39	ug/L	U		1	6010C
Antimony	15	60	15	4.1	ug/L	U		1	6010C
Arsenic	9.0	10	9.0	4.4	ug/L	U		1	6010C
Barium	14	200	14	5.2	ug/L	U		1	6010C
Beryllium	0.35	5.0	0.35	0.29	ug/L	U		1	6010C
Cadmium	2.6	5.0	2.6	0.45	ug/L	U		1	6010C
Calcium	11000	5000	990	120	ug/L		J	1	6010C
Chromium	2.5	10	2.5	0.55	ug/L	U		1	6010C
Cobalt	2.0	50	2.0	0.92	ug/L	U		1	6010C
Copper	1.7	25	13	1.6	ug/L	J		1	6010C
Iron	150	200	150	39	ug/L	U		1	6010C
Lead	9.0	10	9.0	5.4	ug/L	U		1	6010C
Magnesium	1000	5000	1500	64	ug/L	J		1	6010C
Manganese	8.5	15	8.5	1.9	ug/L	U		1	6010C
Nickel	7.5	40	7.5	1.8	ug/L	U		1	6010C
Potassium	520	5000	400	180	ug/L	J		1	6010C
Selenium	23	35	23	6.1	ug/L	U		1	6010C
Silver	3.8	10	3.8	2.1	ug/L	U	J	1	6010C
Sodium	12000	5000	900	51	ug/L		J	1	6010C
Thallium	20	25	20	2.6	ug/L	U		1	6010C
Vanadium	3.8	50	3.8	1.6	ug/L	U		1	6010C
Zinc	2.8	20	15	0.75	ug/L	J		1	6010C
Mercury	0.10	0.20	0.10	0.060	ug/L	U	J	1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: NFUDS-002-GW01-01 Lab Sample ID: 200-12542-2

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG ID.: 200-12542-1

Matrix: Water Date Sampled: 08/31/2012 10:15

Reporting Basis: WET Date Received: 09/01/2012 09:50

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Aluminum	150	200	150	39	ug/L	U		1	6010C
Antimony	15	60	15	4.1	ug/L	U		1	6010C
Arsenic	9.0	10	9.0	4.4	ug/L	U		1	6010C
Barium	6.8	200	14	5.2	ug/L	J		1	6010C
Beryllium	0.35	5.0	0.35	0.29	ug/L	U		1	6010C
Cadmium	2.6	5.0	2.6	0.45	ug/L	U		1	6010C
Calcium	1700	5000	990	120	ug/L	J		1	6010C
Chromium	2.5	10	2.5	0.55	ug/L	U		1	6010C
Cobalt	2.0	50	2.0	0.92	ug/L	U		1	6010C
Copper	89	25	13	1.6	ug/L			1	6010C
Iron	150	200	150	39	ug/L	U		1	6010C
Lead	9.0	10	9.0	5.4	ug/L	U		1	6010C
Magnesium	2000	5000	1500	64	ug/L	J		1	6010C
Manganese	3.1	15	8.5	1.9	ug/L	J		1	6010C
Nickel	7.5	40	7.5	1.8	ug/L	U		1	6010C
Potassium	870	5000	400	180	ug/L	J		1	6010C
Selenium	23	35	23	6.1	ug/L	U		1	6010C
Silver	3.8	10	3.8	2.1	ug/L	U		1	6010C
Sodium	11000	5000	900	51	ug/L			1	6010C
Thallium	20	25	20	2.6	ug/L	U		1	6010C
Vanadium	3.8	50	3.8	1.6	ug/L	U		1	6010C
Zinc	7.1	20	15	0.75	ug/L	J		1	6010C
Mercury	0.10	0.20	0.10	0.060	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: NFUDS-002-GW02-01 Lab Sample ID: 200-12542-3

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG ID.: 200-12542-1

Matrix: Water Date Sampled: 08/31/2012 11:00

Reporting Basis: WET Date Received: 09/01/2012 09:50

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Aluminum	150	200	150	39	ug/L	U		1	6010C
Antimony	15	60	15	4.1	ug/L	U		1	6010C
Arsenic	9.0	10	9.0	4.4	ug/L	U		1	6010C
Barium	14	200	14	5.2	ug/L	U		1	6010C
Beryllium	0.35	5.0	0.35	0.29	ug/L	U		1	6010C
Cadmium	2.6	5.0	2.6	0.45	ug/L	U		1	6010C
Calcium	1900	5000	990	120	ug/L	J		1	6010C
Chromium	2.5	10	2.5	0.55	ug/L	U		1	6010C
Cobalt	2.0	50	2.0	0.92	ug/L	U		1	6010C
Copper	23	25	13	1.6	ug/L	J		1	6010C
Iron	150	200	150	39	ug/L	U		1	6010C
Lead	9.0	10	9.0	5.4	ug/L	U		1	6010C
Magnesium	1400	5000	1500	64	ug/L	J		1	6010C
Manganese	8.5	15	8.5	1.9	ug/L	U		1	6010C
Nickel	7.5	40	7.5	1.8	ug/L	U		1	6010C
Potassium	520	5000	400	180	ug/L	J		1	6010C
Selenium	23	35	23	6.1	ug/L	U		1	6010C
Silver	3.8	10	3.8	2.1	ug/L	U		1	6010C
Sodium	10000	5000	900	51	ug/L			1	6010C
Thallium	20	25	20	2.6	ug/L	U		1	6010C
Vanadium	3.8	50	3.8	1.6	ug/L	U		1	6010C
Zinc	12	20	15	0.75	ug/L	J		1	6010C
Mercury	0.11	0.20	0.10	0.060	ug/L	J		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: NFUDS-002-GW03-01 Lab Sample ID: 200-12542-4

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG ID.: 200-12542-1

Matrix: Water Date Sampled: 08/31/2012 11:30

Reporting Basis: WET Date Received: 09/01/2012 09:50

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Aluminum	150	200	150	39	ug/L	U		1	6010C
Antimony	15	60	15	4.1	ug/L	U		1	6010C
Arsenic	9.0	10	9.0	4.4	ug/L	U		1	6010C
Barium	6.2	200	14	5.2	ug/L	J		1	6010C
Beryllium	0.35	5.0	0.35	0.29	ug/L	U		1	6010C
Cadmium	2.6	5.0	2.6	0.45	ug/L	U		1	6010C
Calcium	1600	5000	990	120	ug/L	J		1	6010C
Chromium	2.5	10	2.5	0.55	ug/L	U		1	6010C
Cobalt	2.0	50	2.0	0.92	ug/L	U		1	6010C
Copper	97	25	13	1.6	ug/L			1	6010C
Iron	150	200	150	39	ug/L	U		1	6010C
Lead	9.0	10	9.0	5.4	ug/L	U		1	6010C
Magnesium	1500	5000	1500	64	ug/L	J		1	6010C
Manganese	8.5	15	8.5	1.9	ug/L	U		1	6010C
Nickel	7.5	40	7.5	1.8	ug/L	U		1	6010C
Potassium	520	5000	400	180	ug/L	J		1	6010C
Selenium	23	35	23	6.1	ug/L	U		1	6010C
Silver	3.8	10	3.8	2.1	ug/L	U		1	6010C
Sodium	9900	5000	900	51	ug/L			1	6010C
Thallium	20	25	20	2.6	ug/L	U		1	6010C
Vanadium	3.8	50	3.8	1.6	ug/L	U		1	6010C
Zinc	8.3	20	15	0.75	ug/L	J		1	6010C
Mercury	0.10	0.20	0.10	0.060	ug/L	U		1	7470A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: NFUDS-002-GW03-02 Lab Sample ID: 200-12542-5

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG ID.: 200-12542-1

Matrix: Water Date Sampled: 08/31/2012 11:30

Reporting Basis: WET Date Received: 09/01/2012 09:50

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Aluminum	150	200	150	39	ug/L	U		1	6010C
Antimony	15	60	15	4.1	ug/L	U		1	6010C
Arsenic	9.0	10	9.0	4.4	ug/L	U		1	6010C
Barium	5.9	200	14	5.2	ug/L	J		1	6010C
Beryllium	0.35	5.0	0.35	0.29	ug/L	U		1	6010C
Cadmium	2.6	5.0	2.6	0.45	ug/L	U		1	6010C
Calcium	1600	5000	990	120	ug/L	J		1	6010C
Chromium	2.5	10	2.5	0.55	ug/L	U		1	6010C
Cobalt	2.0	50	2.0	0.92	ug/L	U		1	6010C
Copper	100	25	13	1.6	ug/L			1	6010C
Iron	150	200	150	39	ug/L	U		1	6010C
Lead	9.0	10	9.0	5.4	ug/L	U		1	6010C
Magnesium	1500	5000	1500	64	ug/L	J		1	6010C
Manganese	8.5	15	8.5	1.9	ug/L	U		1	6010C
Nickel	7.5	40	7.5	1.8	ug/L	U		1	6010C
Potassium	520	5000	400	180	ug/L	J		1	6010C
Selenium	23	35	23	6.1	ug/L	U		1	6010C
Silver	3.8	10	3.8	2.1	ug/L	U		1	6010C
Sodium	10000	5000	900	51	ug/L			1	6010C
Thallium	20	25	20	2.6	ug/L	U		1	6010C
Vanadium	3.8	50	3.8	1.6	ug/L	U		1	6010C
Zinc	8.3	20	15	0.75	ug/L	J		1	6010C
Mercury	0.10	0.20	0.10	0.060	ug/L	U		1	7470A

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

ICV Source: MEICVw_00030 Concentration Units: ug/L

CCV Source: MECCVw_00055

Analyte	ICV 200-44675/5 09/08/2012 21:14				CCV 200-44675/10 09/08/2012 21:46				CCV 200-44675/22 09/08/2012 23:05			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	26000		26000	100	30400		30200	101	30300		30200	100
Antimony	246		250	98	289		300	96	285		300	95
Arsenic	252		250	101	105		100	105	103		100	103
Barium	494		500	99	196	J	200	98	199	J	200	99
Beryllium	515		500	103	101		100	101	101		100	101
Cadmium	502		500	100	98.6		100	99	98.4		100	98
Calcium	24900		25000	100	30500		30000	102	30700		30000	102
Chromium	491		500	98	194		200	97	195		200	98
Cobalt	492		500	98	192		200	96	192		200	96
Copper	501		500	100	201		200	100	200		200	100
Iron	25800		25500	101	30700		30200	102	30900		30200	102
Lead	1020		1000	102	403		400	101	404		400	101
Magnesium	25100		25000	100	30600		30200	101	30800		30200	102
Manganese	493		500	99	197		200	98	196		200	98
Nickel	487		500	97	191		200	95	192		200	96
Potassium	25800		25000	103	30600		30200	101	30500		30200	101
Selenium	247		250	99	100		100	100	98.4		100	98
Silver	502		500	100	101		100	101	101		100	101
Sodium	25400		25000	102	30700		30200	102	30600		30200	101
Thallium	235		250	94	98.2		100	98	98.5		100	98
Vanadium	502		500	100	199		200	100	199		200	100
Zinc	518		500	104	204		200	102	205		200	103

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

ICV Source: MEICVw_00030 Concentration Units: ug/L

CCV Source: MECCVw_00055

Analyte	CCV 200-44675/35 09/09/2012 00:30											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	29800		30200	99								
Antimony	274		300	91								
Arsenic	104		100	104								
Barium	202		200	101								
Beryllium	101		100	101								
Cadmium	95.8		100	96								
Calcium	31400		30000	105								
Chromium	193		200	96								
Cobalt	188		200	94								
Copper	193		200	97								
Iron	30700		30200	102								
Lead	402		400	101								
Magnesium	31300		30200	104								
Manganese	192		200	96								
Nickel	187		200	93								
Potassium	29800		30200	99								
Selenium	92.8		100	93								
Silver	98.8		100	99								
Sodium	29900		30200	99								
Thallium	97.3		100	97								
Vanadium	198		200	99								
Zinc	203		200	102								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

ICV Source: ME6010CRIw_00027 Concentration Units: ug/L

CCV Source: ME6010CRIw_00027

Analyte	ICVL 200-44675/6 09/08/2012 21:20				CCVL 200-44675/23 09/08/2012 23:11				CCVL 200-44675/36 09/09/2012 00:37			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	210		200	105	200		200	100	203		200	102
Antimony	61.1		60.0	102	59.4	J	60.0	99	56.8	J	60.0	95
Arsenic	12.7		10.0	127	7.25	J	10.0	72	9.46	J	10.0	95
Barium	199	J	200	99	195	J	200	97	203		200	102
Beryllium	5.09		5.00	102	5.05		5.00	101	5.12		5.00	102
Cadmium	5.10		5.00	102	5.06		5.00	101	5.01		5.00	100
Calcium	5020		5000	100	5070		5000	101	5300		5000	106
Chromium	10.3		10.0	103	10.1		10.0	101	10.4		10.0	104
Cobalt	48.8	J	50.0	98	48.1	J	50.0	96	48.0	J	50.0	96
Copper	24.9	J	25.0	100	25.1		25.0	100	24.9	J	25.0	100
Iron	219		200	110	215		200	108	208		200	104
Lead	10.6		10.0	106	9.67	J	10.0	97	10.7		10.0	107
Magnesium	4970	J	5000	99	4960	J	5000	99	5160		5000	103
Manganese	15.1		15.0	100	14.8	J	15.0	99	14.5	J	15.0	97
Nickel	40.5		40.0	101	39.1	J	40.0	98	38.6	J	40.0	96
Potassium	5010		5000	100	4930	J	5000	99	4920	J	5000	98
Selenium	34.3	J	35.0	98	35.4		35.0	101	32.6	J	35.0	93
Silver	10.1		10.0	101	10.3		10.0	103	9.79	J	10.0	98
Sodium	5020		5000	100	4950	J	5000	99	4980	J	5000	100
Thallium	22.1	J	25.0	88	22.7	J	25.0	91	20.9	J	25.0	83
Vanadium	49.0	J	50.0	98	49.3	J	50.0	99	49.3	J	50.0	99
Zinc	22.3		20.0	111	23.5		20.0	117	22.4		20.0	112

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

ICV Source: MEHGICVw_00020 Concentration Units: ug/L

CCV Source: MEHGCCVw_00521

Analyte	ICV 200-44948/7-A 09/14/2012 15:26				CCV 200-44948/9-A 09/14/2012 15:32				CCV 200-44948/9-A 09/14/2012 15:58			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	3.02		3.00	101	5.07		5.00	101	4.97		5.00	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Concentration Units: ug/L

Analyte	RL	ICBIS 200-44675/7 09/08/2012 21:27		CCB 200-44675/11 09/08/2012 21:52		CCB 200-44675/24 09/08/2012 23:18		CCB 200-44675/37 09/09/2012 00:43	
		Found	C	Found	C	Found	C	Found	C
Aluminum	200	150	U	150	U	150	U	150	U
Antimony	60	15	U	15	U	15	U	15	U
Arsenic	10	9.0	U	9.0	U	9.0	U	9.0	U
Barium	200	14	U	14	U	14	U	14	U
Beryllium	5.0	0.35	U	0.35	U	0.35	U	0.35	U
Cadmium	5.0	2.6	U	2.6	U	2.6	U	2.6	U
Calcium	5000	990	U	990	U	990	U	990	U
Chromium	10	2.5	U	2.5	U	2.5	U	2.5	U
Cobalt	50	2.0	U	2.0	U	2.0	U	2.0	U
Copper	25	13	U	13	U	13	U	13	U
Iron	200	150	U	150	U	150	U	150	U
Lead	10	9.0	U	9.0	U	9.0	U	9.0	U
Magnesium	5000	1500	U	1500	U	1500	U	1500	U
Manganese	15	8.5	U	8.5	U	8.5	U	8.5	U
Nickel	40	7.5	U	7.5	U	7.5	U	7.5	U
Potassium	5000	400	U	400	U	400	U	400	U
Selenium	35	23	U	23	U	23	U	23	U
Silver	10	3.8	U	3.8	U	3.8	U	3.8	U
Sodium	5000	900	U	900	U	900	U	900	U
Thallium	25	20	U	20	U	20	U	20	U
Vanadium	50	3.8	U	3.8	U	3.8	U	3.8	U
Zinc	20	15	U	15	U	15	U	15	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Concentration Units: ug/L

Analyte	RL	ICB 200-44948/8-A 09/14/2012 15:30		CCB 200-44948/10-A 09/14/2012 15:34		CCB 200-44948/10-A 09/14/2012 16:09			
		Found	C	Found	C	Found	C	Found	C
Mercury	0.20	0.10	U	0.10	U	0.111	J		

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Concentration Units: ug/L Lab Sample ID: MB 200-44584/1-A

Instrument Code: METICP7 Batch No.: 44675

CAS No.	Analyte	Concentration	C	Q	Method
7429-90-5	Aluminum	150	U		6010C
7440-36-0	Antimony	15	U		6010C
7440-38-2	Arsenic	9.0	U		6010C
7440-39-3	Barium	14	U		6010C
7440-41-7	Beryllium	0.35	U		6010C
7440-43-9	Cadmium	2.6	U		6010C
7440-70-2	Calcium	990	U		6010C
7440-47-3	Chromium	2.5	U		6010C
7440-48-4	Cobalt	2.0	U		6010C
7440-50-8	Copper	13	U		6010C
7439-89-6	Iron	150	U		6010C
7439-92-1	Lead	9.0	U		6010C
7439-95-4	Magnesium	1500	U		6010C
7439-96-5	Manganese	8.5	U		6010C
7440-02-0	Nickel	7.5	U		6010C
7440-09-7	Potassium	400	U		6010C
7782-49-2	Selenium	23	U		6010C
7440-22-4	Silver	3.8	U		6010C
7440-23-5	Sodium	900	U		6010C
7440-28-0	Thallium	20	U		6010C
7440-62-2	Vanadium	3.8	U		6010C
7440-66-6	Zinc	1.44	J		6010C

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Concentration Units: ug/L Lab Sample ID: MB 200-44948/11-A

Instrument Code: MEPCV3 II Batch No.: 44963

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	0.10	U		7470A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Lab Sample ID: ICSA 200-44675/8 Instrument ID: METICP7

Lab File ID: 090812-04.ttx ICS Source: ME6010ICSAw_00011

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Aluminum	**500000**	**524741**	**105**
Antimony		**6.21**	
Arsenic		**6.53**	
Barium		**0.526**	
Beryllium		**0.0144**	
Cadmium		**0.661**	
Calcium	**500000**	**509899**	**102**
Chromium		**1.15**	
Cobalt		**0.366**	
Copper		**4.05**	
Iron	**200000**	**194292**	**97**
Lead		**1.31**	
Magnesium	**500000**	**548211**	**110**
Manganese		**-7.14**	
Nickel		**6.17**	
Potassium		**-103**	
Selenium		**1.48**	
Silver		**0.715**	
Sodium		**-1.95**	
Thallium		**6.22**	
Vanadium		**-0.128**	
Zinc		**0.556**	
Boron		*-1.45*	
Molybdenum		*-2.27*	
Phosphorus		*2.50*	
Strontium		*2.06*	
Tin		*1.31*	
Titanium		*2.40*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Lab Sample ID: ICSAB 200-44675/9 Instrument ID: METICP7

Lab File ID: 090812-04.ttx ICS Source: ME6010ICSABw_00018

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Aluminum	**250000**	**261567**	**105**
Antimony	**600**	**577**	**96**
Arsenic	**100**	**100**	**100**
Barium	**500**	**492**	**98**
Beryllium	**500**	**516**	**103**
Cadmium	**1000**	**979**	**98**
Calcium	**250000**	**257292**	**103**
Chromium	**500**	**475**	**95**
Cobalt	**500**	**463**	**93**
Copper	**500**	**539**	**108**
Iron	**100000**	**99438**	**99**
Lead	**50.0**	**54.0**	**108**
Magnesium	**250000**	**268842**	**108**
Manganese	**500**	**485**	**97**
Nickel	**1000**	**908**	**91**
Potassium		**-55.0**	
Selenium	**50.0**	**47.4**	**95**
Silver	**200**	**210**	**105**
Sodium		**12.1**	
Thallium	**100**	**95.1**	**95**
Vanadium	**500**	**503**	**101**
Zinc	**1000**	**982**	**98**
Boron	*1500*	*1498*	*100*
Molybdenum	*1000*	*987*	*99*
Phosphorus	*500*	*501*	*100*
Strontium	*250*	*259*	*104*
Tin	*1500*	*1449*	*97*
Titanium	*500*	*509*	*102*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: NFUDS-001-GW01-01 MS Lab ID: 200-12542-1 MS

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Matrix: Water Concentration Units: ug/L

% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Aluminum	2070		150	U	2000	104	80-120		6010C
Antimony	483		15	U	500	97	80-120		6010C
Arsenic	40.8		9.0	U	40.0	102	80-120		6010C
Barium	2050		14	U	2000	103	80-120		6010C
Beryllium	51.1		0.35	U	50.0	102	80-120		6010C
Cadmium	48.9		2.6	U	50.0	98	80-120		6010C
Calcium	13100		11000		2000	122	80-120	4	6010C
Chromium	201		2.5	U	200	101	80-120		6010C
Cobalt	502		2.0	U	500	100	80-120		6010C
Copper	258		1.7	J	250	102	80-120		6010C
Iron	1050		150	U	1000	105	80-120		6010C
Lead	21.6		9.0	U	20.0	108	80-120		6010C
Magnesium	3150	J	1000	J	2000	105	80-120		6010C
Manganese	505		8.5	U	500	101	80-120		6010C
Nickel	493		7.5	U	500	99	80-120		6010C
Potassium	2680	J	520	J	2000	108	80-120		6010C
Selenium	47.0		23	U	50.0	94	80-120		6010C
Silver	63.7		3.8	U	50.0	127	80-120	J	6010C
Sodium	13900		12000		2000	122	80-120	4	6010C
Thallium	39.8		20	U	50.0	80	80-120		6010C
Vanadium	512		3.8	U	500	102	80-120		6010C
Zinc	500		2.8	J	500	99	80-120		6010C
Mercury	1.17		0.10	U	1.00	117	85-115	J	7470A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS

Client ID: NFUDS-001-GW01-01 PDS Lab ID: 200-12542-1 PDS

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Matrix: Water Concentration Units: ug/L

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Aluminum	2050		150	U	2000	103	80-120		6010C
Antimony	480		15	U	500	96	80-120		6010C
Arsenic	38.5		9.0	U	40.0	96	80-120		6010C
Barium	1990		14	U	2000	99	80-120		6010C
Beryllium	51.1		0.35	U	50.0	102	80-120		6010C
Cadmium	49.3		2.6	U	50.0	99	80-120		6010C
Calcium	12600		11000		2000	96	80-120		6010C
Chromium	199		2.5	U	200	100	80-120		6010C
Cobalt	497		2.0	U	500	99	80-120		6010C
Copper	254		1.7	J	250	101	80-120		6010C
Iron	1030		150	U	1000	103	80-120		6010C
Lead	22.4		9.0	U	20.0	112	80-120		6010C
Magnesium	3180	J	1000	J	2000	106	80-120		6010C
Manganese	502		8.5	U	500	100	80-120		6010C
Nickel	487		7.5	U	500	97	80-120		6010C
Potassium	2790	J	520	J	2000	113	80-120		6010C
Selenium	46.8		23	U	50.0	94	80-120		6010C
Silver	50.7		3.8	U	50.0	101	80-120		6010C
Sodium	13500		12000		2000	102	80-120		6010C
Thallium	40.0		20	U	50.0	80	80-120		6010C
Vanadium	505		3.8	U	500	101	80-120		6010C
Zinc	498		2.8	J	500	99	80-120		6010C

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VB - IN

6-IN
DUPLICATES
METALS

Client ID: NFUDS-001-GW01-01 DU | Lab ID: 200-12542-1 DU

Lab Name: TestAmerica Burlington | Job No.: 200-12542-1

SDG No.: 200-12542-1

% Solids for Sample: | % Solids for Duplicate:

Matrix: Water | Concentration Units: ug/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Aluminum	200	150	U	150	U	NC		6010C
Antimony	60	15	U	15	U	NC		6010C
Arsenic	10	9.0	U	9.0	U	NC		6010C
Barium	200	14	U	14	U	NC		6010C
Beryllium	5.0	0.35	U	0.35	U	NC		6010C
Cadmium	5.0	2.6	U	2.6	U	NC		6010C
Calcium	5000	11000		10600		0.6		6010C
Chromium	10	2.5	U	2.5	U	NC		6010C
Cobalt	50	2.0	U	2.0	U	NC		6010C
Copper	25	1.7	J	13	U	NC		6010C
Iron	200	150	U	150	U	NC		6010C
Lead	10	9.0	U	9.0	U	NC		6010C
Magnesium	5000	1000	J	1030	J	1		6010C
Manganese	15	8.5	U	8.5	U	NC		6010C
Nickel	40	7.5	U	7.5	U	NC		6010C
Potassium	5000	520	J	525	J	0.5		6010C
Selenium	35	23	U	23	U	NC		6010C
Silver	10	3.8	U	3.8	U	NC		6010C
Sodium	5000	12000		11500		0.3		6010C
Thallium	25	20	U	20	U	NC		6010C
Vanadium	50	3.8	U	3.8	U	NC		6010C
Zinc	20	2.8	J	2.08	J	29		6010C
Mercury	0.20	0.10	U	0.10	U	NC		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 200-44584/2-A

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

Sample Matrix: Water LCS Source: MELCSWw_00041

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Aluminum	51000	51000		100	80	120		6010C
Antimony	2000	1910		96	80	120		6010C
Arsenic	1050	1040		99	80	120		6010C
Barium	500	485		97	80	120		6010C
Beryllium	500	512		102	80	120		6010C
Cadmium	525	503		96	80	120		6010C
Calcium	50000	50400		101	80	120		6010C
Chromium	500	481		96	80	120		6010C
Cobalt	500	474		95	80	120		6010C
Copper	500	506		101	80	120		6010C
Iron	95500	96000		101	80	120		6010C
Lead	1020	1010		99	80	120		6010C
Magnesium	50000	50700		101	80	120		6010C
Manganese	500	483		97	80	120		6010C
Nickel	500	468		94	80	120		6010C
Potassium	50000	50200		100	80	120		6010C
Selenium	525	490		93	80	120		6010C
Silver	500	489		98	80	120		6010C
Sodium	50000	50600		101	80	120		6010C
Thallium	550	505		92	80	120		6010C
Vanadium	500	502		100	80	120		6010C
Zinc	500	498		100	80	120		6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 200-44948/12-A

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

Sample Matrix: Water LCS Source: MEHGCCVw_00521

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Mercury	1.00	1.12		112	85	115		7470A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 200-12542-1

SDG No: 200-12542-1

Lab Name: TestAmerica Burlington Job No: 200-12542-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Aluminum	150	U	750	U	NC		6010C
Antimony	15	U	75	U	NC		6010C
Arsenic	9.0	U	45	U	NC		6010C
Barium	14	U	70	U	NC		6010C
Beryllium	0.35	U	1.8	U	NC		6010C
Cadmium	2.6	U	13	U	NC		6010C
Calcium	11000		10700	J	0.26	D	6010C
Chromium	2.5	U	13	U	NC		6010C
Cobalt	2.0	U	10	U	NC		6010C
Copper	1.7	J	65	U	NC		6010C
Iron	150	U	750	U	NC		6010C
Lead	9.0	U	45	U	NC		6010C
Magnesium	1000	J	1050	J	NC	D	6010C
Manganese	8.5	U	43	U	NC		6010C
Nickel	7.5	U	38	U	NC		6010C
Potassium	520	J	2000	U	NC		6010C
Selenium	23	U	120	U	NC		6010C
Silver	3.8	U	19	U	NC		6010C
Sodium	12000		11400	J	0.50	D	6010C
Thallium	20	U	100	U	NC		6010C
Vanadium	3.8	U	19	U	NC		6010C
Zinc	2.8	J	5.62	J	NC	D	6010C

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Burlington Job Number: 200-12542-1

SDG Number: 200-12542-1

Matrix: Water Instrument ID: METICP7

Method: 6010C DL Date: 05/13/2011 11:04

Prep Method: 3010A

Analyte	Wavelength/ Mass	LOQ (ug/L)	DL (ug/L)
Aluminum		200	39
Aluminum	396.152	200	39
Antimony		60	4.1
Antimony	206.833	60	4.1
Arsenic		10	4.4
Arsenic	189.042	10	4.4
Barium		200	5.2
Barium	233.527	200	5.2
Beryllium		5	0.29
Beryllium	313.042	5	0.29
Cadmium		5	0.45
Cadmium	228.802	5	0.45
Calcium		5000	120
Calcium	318.128	5000	120
Chromium		10	0.55
Chromium	205.552	10	0.55
Cobalt		50	0.92
Cobalt	228.616	50	0.92
Copper		25	1.6
Copper	324.754	25	1.6
Iron		200	39
Iron	271.441	200	39
Lead		10	5.4
Lead	220.353	10	5.4
Magnesium		5000	64
Magnesium	279.079	5000	64
Manganese		15	1.9
Manganese	257.610	15	1.9
Nickel		40	1.8
Nickel	231.604	40	1.8
Potassium		5000	180
Potassium	766.490	5000	180
Selenium		35	6.1
Selenium	196.090	35	6.1
Silver		10	2.1
Silver	328.068	10	2.1
Sodium		5000	51
Sodium	589.592	5000	51
Thallium		25	2.6
Thallium	190.856	25	2.6
Vanadium		50	1.6

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Burlington Job Number: 200-12542-1

SDG Number: 200-12542-1

Matrix: Water Instrument ID: METICP7

Method: 6010C DL Date: 05/13/2011 11:04

Prep Method: 3010A

Analyte	Wavelength/ Mass	LOQ (ug/L)	DL (ug/L)
Vanadium	292.402	50	1.6
Zinc		20	0.75
Zinc	213.856	20	0.75

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Burlington Job Number: 200-12542-1

SDG Number: 200-12542-1

Matrix: Water Instrument ID: METICP7

Method: 6010C XMDL Date: 05/13/2011 11:09

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Aluminum		200	39
Antimony		60	4.1
Arsenic		10	4.4
Barium		200	5.2
Beryllium		5	0.29
Cadmium		5	0.45
Calcium		5000	120
Chromium		10	0.55
Cobalt		50	0.92
Copper		25	1.6
Iron		200	39
Lead		10	5.4
Magnesium		5000	64
Manganese		15	1.9
Nickel		40	1.8
Potassium		5000	180
Selenium		35	6.1
Silver		10	2.1
Sodium		5000	51
Thallium		25	2.6
Vanadium		50	1.6
Zinc		20	0.75

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Burlington Job Number: 200-12542-1

SDG Number: 200-12542-1

Matrix: Water Instrument ID: MEPCV3 II

Method: 7470A DL Date: 03/13/2012 09:46

Prep Method: 7470A

Analyte	Wavelength/ Mass	LOQ (ug/L)	DL (ug/L)
Mercury		0.2	0.06
Mercury	253.7	0.2	0.06

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Burlington Job Number: 200-12542-1

SDG Number: 200-12542-1

Matrix: Water Instrument ID: MEPCV3 II

Method: 7470A XMDL Date: 03/13/2012 09:46

Analyte	Wavelength/ Mass	XRL (ug/L)	XMDL (ug/L)
Mercury	253.7	0.2	0.06

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Burlington Job Number: 200-12542-1

SDG No.: 200-12542-1

ICP-AES Instrument ID: METICP7 Date: 01/04/2012

Analyte	Wave Length	Ag	Al	As	B	Ba	Be	Ca	Cd	Co	Cr	Cu	Fe	In	K
Aluminum	396.152														
Antimony	206.833										0.016442				
Arsenic	189.042		0.000011				0.000611				-0.014855				
Barium	233.527														
Beryllium	313.042														
Boron	208.959														
Cadmium	228.802			0.007049		-0.000075									
Calcium	318.128														
Chromium	205.552						-0.000659								
Cobalt	228.616														
Copper	324.754														
Indium	230.606														
Iron	271.441									0.071349					0.000979
Lead	220.353		-0.000068									-0.000611	0.000027		
Magnesium	279.079														
Manganese	257.610												0.000012		
Molybdenum	202.030														
Nickel	231.604														
Phosphorus	178.284														
Potassium	766.490														
Selenium	196.090												-0.000231		
Silicon	288.158														
Silver	328.068														
Sodium	589.592														
Strontium	407.771														
Thallium	190.856									0.002884					
Tin	189.989														
Titanium	334.904														
Vanadium	292.402												0.000030		
Zinc	213.856											0.000867	0.000083		

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Burlington Job Number: 200-12542-1

SDG No.: 200-12542-1

ICP-AES Instrument ID: METICP7 Date: 01/04/2012

Analyte	Wave Length	Mg	Mn	Mo	Na	Ni	P	Pb	Sb	Se	Si	Sn	Sr	Ti	Tl
Aluminum	396.152			0.043153											
Antimony	206.833											-0.006953			
Arsenic	189.042			0.001117											-0.006296
Barium	233.527														
Beryllium	313.042													-0.000632	
Boron	208.959			0.032223											
Cadmium	228.802														
Calcium	318.128														
Chromium	205.552			0.000103		-0.000202									
Cobalt	228.616			-0.002369										0.0019	
Copper	324.754														
Indium	230.606														
Iron	271.441														
Lead	220.353		0.000125	-0.003943		0.000175			0.000821					-0.000696	
Magnesium	279.079														
Manganese	257.610	0.000020													
Molybdenum	202.030														
Nickel	231.604			0.001565											
Phosphorus	178.284														
Potassium	766.490														
Selenium	196.090		0.000519												
Silicon	288.158											0.019661		0.0104	
Silver	328.068														
Sodium	589.592														
Strontium	407.771														
Thallium	190.856		0.000442											-0.001428	
Tin	189.989													-0.001449	
Titanium	334.904			0.000880											
Vanadium	292.402			-0.010850										0.000781	
Zinc	213.856	0.000032				0.004952								-0.000434	

X-IN

10-IN
ICP-AES INTERELEMENT CORRECTION FACTORS
METALS

Lab Name: TestAmerica Burlington Job Number: 200-12542-1

SDG No.: 200-12542-1

ICP-AES Instrument ID: METICP7 Date: 01/04/2012

Analyte	Wave Length	V	Y	Zn											
Aluminum	396.152														
Antimony	206.833	-0.002158													
Arsenic	189.042														
Barium	233.527	-0.001101													
Beryllium	313.042	0.000804													
Boron	208.959														
Cadmium	228.802	0.000067													
Calcium	318.128														
Chromium	205.552														
Cobalt	228.616														
Copper	324.754														
Indium	230.606														
Iron	271.441	0.006103													
Lead	220.353	-0.000202													
Magnesium	279.079														
Manganese	257.610														
Molybdenum	202.030														
Nickel	231.604														
Phosphorus	178.284														
Potassium	766.490														
Selenium	196.090														
Silicon	288.158	0.010502													
Silver	328.068														
Sodium	589.592														
Strontium	407.771														
Thallium	190.856														
Tin	189.989														
Titanium	334.904														
Vanadium	292.402														
Zinc	213.856														

X-IN

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Burlington Job No: 200-12542-1

SDG No.: 200-12542-1

Instrument ID: METICP7 Date: 01/11/2011 15:12

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Aluminum		1000000	6010C
Antimony		10000	6010C
Arsenic		5000	6010C
Barium		50000	6010C
Beryllium		25000	6010C
Cadmium		5000	6010C
Calcium		600000	6010C
Chromium		20000	6010C
Cobalt		20000	6010C
Copper		50000	6010C
Iron		1000000	6010C
Lead		100000	6010C
Magnesium		1000000	6010C
Manganese		50000	6010C
Nickel		50000	6010C
Potassium		100000	6010C
Selenium		5000	6010C
Silver		2000	6010C
Sodium		100000	6010C
Thallium		5000	6010C
Vanadium		50000	6010C
Zinc		50000	6010C

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Burlington Job No: 200-12542-1

SDG No.: 200-12542-1

Instrument ID: MEPCV3 II Date: 01/01/2011 09:52

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	Method
Mercury	10	10	7470A

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Prep Method: 3010A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 200-44584/1-A	09/06/2012 10:00	44584		100	100
LCS 200-44584/2-A	09/06/2012 10:00	44584		100	100
200-12542-1	09/06/2012 10:00	44584		100	100
200-12542-1 DU	09/06/2012 10:00	44584		100	100
200-12542-1 MS	09/06/2012 10:00	44584		100	100
200-12542-2	09/06/2012 10:00	44584		100	100
200-12542-3	09/06/2012 10:00	44584		100	100
200-12542-4	09/06/2012 10:00	44584		100	100
200-12542-5	09/06/2012 10:00	44584		100	100

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Prep Method: 7470A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 200-44948/11-A	09/14/2012 09:00	44948		50	50
LCS 200-44948/12-A	09/14/2012 09:00	44948		50	50
200-12542-1	09/14/2012 09:00	44948		50	50
200-12542-1 DU	09/14/2012 09:00	44948		50	50
200-12542-1 MS	09/14/2012 09:00	44948		50	50
200-12542-2	09/14/2012 09:00	44948		50	50
200-12542-3	09/14/2012 09:00	44948		50	50
200-12542-4	09/14/2012 09:00	44948		50	50
200-12542-5	09/14/2012 09:00	44948		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Instrument ID: METICP7 Method: 6010C

Start Date: 09/08/2012 20:48 End Date: 09/09/2012 01:55

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ag	Al	As	Ba	Be	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Na	Ni	Pb	Sb	Se	Tl
CALIBSTD 200-44675/1 IC			20:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
STD7 200-44675/2 IC			20:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
STD8 200-44675/3 IC			21:01	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
STD4 200-44675/4 IC			21:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICV 200-44675/5	1		21:14	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICVL 200-44675/6	1		21:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICBIS 200-44675/7	1		21:27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICSA 200-44675/8	1		21:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICSAB 200-44675/9	1		21:40	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV 200-44675/10	1		21:46	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 200-44675/11	1		21:52	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MB 200-44584/1-A	1	T	21:59	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
LCS 200-44584/2-A	1	T	22:06	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
200-12542-1	1	T	22:12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
200-12542-1 SD	5	T	22:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
200-12542-1 PDS	1	T	22:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
200-12542-1 DU	1	T	22:32	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
200-12542-1 MS	1	T	22:39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
200-12542-2	1	T	22:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
200-12542-3	1	T	22:52	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
200-12542-4	1	T	22:58	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV 200-44675/22	1		23:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCVL 200-44675/23	1		23:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 200-44675/24	1		23:18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
200-12542-5	1	T	23:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ZZZZZZ			23:31																				
ZZZZZZ			23:38																				
ZZZZZZ			23:44																				
ZZZZZZ			23:51																				
ZZZZZZ			23:58																				
ZZZZZZ			00:04																				
ZZZZZZ			00:11																				
ZZZZZZ			00:17																				
ZZZZZZ			00:24																				
CCV 200-44675/35	1		00:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCVL 200-44675/36	1		00:37	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB 200-44675/37	1		00:43	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ZZZZZZ			00:50																				
ZZZZZZ			00:56																				
ZZZZZZ			01:03																				
ZZZZZZ			01:09																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Instrument ID: METICP7 Method: 6010C

Start Date: 09/08/2012 20:48 End Date: 09/09/2012 01:55

Lab Sample ID	D / F	Type	Time	Analytes																				
				Ag	Al	As	Ba	Be	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Na	Ni	Pb	Sb	Se	Tl
ZZZZZZ			01:16																					
ZZZZZZ			01:22																					
ZZZZZZ			01:29																					
ZZZZZZ			01:36																					
CCV 200-44675/46			01:42																					
CCVL 200-44675/47			01:49																					
CCB 200-44675/48			01:55																					

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Instrument ID: METICP7 Method: 6010C

Start Date: 09/08/2012 20:48 End Date: 09/09/2012 01:55

Lab Sample ID	D / F	Type	Time	Analytes																			
				V	Zn																		
CALIBSTD 200-44675/1 IC			20:48	X	X																		
STD7 200-44675/2 IC			20:54	X	X																		
STD8 200-44675/3 IC			21:01	X	X																		
STD4 200-44675/4 IC			21:07	X	X																		
ICV 200-44675/5	1		21:14	X	X																		
ICVL 200-44675/6	1		21:20	X	X																		
ICBIS 200-44675/7	1		21:27	X	X																		
ICSA 200-44675/8	1		21:33	X	X																		
ICSAB 200-44675/9	1		21:40	X	X																		
CCV 200-44675/10	1		21:46	X	X																		
CCB 200-44675/11	1		21:52	X	X																		
MB 200-44584/1-A	1	T	21:59	X	X																		
LCS 200-44584/2-A	1	T	22:06	X	X																		
200-12542-1	1	T	22:12	X	X																		
200-12542-1 SD	5	T	22:19	X	X																		
200-12542-1 PDS	1	T	22:25	X	X																		
200-12542-1 DU	1	T	22:32	X	X																		
200-12542-1 MS	1	T	22:39	X	X																		
200-12542-2	1	T	22:45	X	X																		
200-12542-3	1	T	22:52	X	X																		
200-12542-4	1	T	22:58	X	X																		
CCV 200-44675/22	1		23:05	X	X																		
CCVL 200-44675/23	1		23:11	X	X																		
CCB 200-44675/24	1		23:18	X	X																		
200-12542-5	1	T	23:25	X	X																		
ZZZZZZ			23:31																				
ZZZZZZ			23:38																				
ZZZZZZ			23:44																				
ZZZZZZ			23:51																				
ZZZZZZ			23:58																				
ZZZZZZ			00:04																				
ZZZZZZ			00:11																				
ZZZZZZ			00:17																				
ZZZZZZ			00:24																				
CCV 200-44675/35	1		00:30	X	X																		
CCVL 200-44675/36	1		00:37	X	X																		
CCB 200-44675/37	1		00:43	X	X																		
ZZZZZZ			00:50																				
ZZZZZZ			00:56																				
ZZZZZZ			01:03																				
ZZZZZZ			01:09																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Instrument ID: METICP7 Method: 6010C

Start Date: 09/08/2012 20:48 End Date: 09/09/2012 01:55

Lab Sample ID	D / F	Type	Time	Analytes																			
				V	Zn																		
ZZZZZZ			01:16																				
ZZZZZZ			01:22																				
ZZZZZZ			01:29																				
ZZZZZZ			01:36																				
CCV 200-44675/46			01:42																				
CCVL 200-44675/47			01:49																				
CCB 200-44675/48			01:55																				

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Instrument ID: MEPCV3 II Method: 7470A

Start Date: 09/14/2012 15:13 End Date: 09/14/2012 16:09

Lab Sample ID	D / F	Type	Time	Analytes																			
				Hg																			
IC 200-44948/1-A	1		15:13	X																			
IC 200-44948/2-A	1		15:15	X																			
IC 200-44948/3-A	1		15:18	X																			
IC 200-44948/4-A	1		15:20	X																			
IC 200-44948/5-A	1		15:22	X																			
IC 200-44948/6-A	1		15:24	X																			
ICV 200-44948/7-A	1		15:26	X																			
ICB 200-44948/8-A			15:28																				
ICB 200-44948/8-A	1		15:30	X																			
CCV 200-44948/9-A	1		15:32	X																			
CCB 200-44948/10-A	1		15:34	X																			
MB 200-44948/11-A	1	T	15:36	X																			
LCS 200-44948/12-A	1	T	15:39	X																			
200-12542-1	1	T	15:42	X																			
200-12542-1 DU	1	T	15:44	X																			
200-12542-1 MS	1	T	15:47	X																			
200-12542-2	1	T	15:49	X																			
200-12542-3	1	T	15:51	X																			
200-12542-4	1	T	15:53	X																			
200-12542-5	1	T	15:56	X																			
CCV 200-44948/9-A	1		15:58	X																			
CCB 200-44948/10-A			16:01																				
CCB 200-44948/10-A	1		16:09	X																			

Prep Types

T = Total/NA

METALS BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Batch Number: 44584 Batch Start Date: 09/06/12 10:00 Batch Analyst: Pham, Vu T

Batch Method: 3010A Batch End Date: 09/06/12 17:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ME5PPMAGw 00020	MEADDSPIKEw 00009	MELCSWw 00041	MESPIKE#1w 00028
MB 200-44584/1		3010A, 6010C		100 mL	100 mL				
LCS 200-44584/2		3010A, 6010C		100 mL	100 mL			50 mL	
200-12542-B-1	NFUDS-001-GW01-01	3010A, 6010C	T	100 mL	100 mL				
200-12542-A-1 DU	NFUDS-001-GW01-01	3010A, 6010C	T	100 mL	100 mL				
200-12542-B-1 MS	NFUDS-001-GW01-01	3010A, 6010C	T	100 mL	100 mL	1 mL	1 mL		1 mL
200-12542-B-2	NFUDS-002-GW01-01	3010A, 6010C	T	100 mL	100 mL				
200-12542-B-3	NFUDS-002-GW02-01	3010A, 6010C	T	100 mL	100 mL				
200-12542-B-4	NFUDS-002-GW03-01	3010A, 6010C	T	100 mL	100 mL				
200-12542-B-5	NFUDS-002-GW03-02	3010A, 6010C	T	100 mL	100 mL				

Batch Notes	
First End time	1730
Lot # of hydrochloric acid	364058
Lot # of Nitric Acid	384037
Hot Block ID number	1 & 2
Oven, Bath or Block Temperature 1	92 Degrees C
Oven, Bath or Block Temperature 2	95 Degrees C
Pipette ID	wc7 & gh17905
Person who witnessed spiking	ANN
First Start time	1000
ID number of the thermometer	153 & 73
Digestion Tube/Cup Lot #	1205258
Uncorrected Temperature	93 Degrees C
Uncorrected Temperature 2	94 Degrees C

Basis	Basis Description
T	Total/NA

METALS BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Batch Number: 44948 Batch Start Date: 09/14/12 09:00 Batch Analyst: Pham, Vu T

Batch Method: 7470A Batch End Date: 09/14/12 13:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MEHGCCVw 00521	MEHGICVw 00020		
IC 200-44948/1		7470A, 7470A		50 mL	50 mL				
IC 200-44948/2		7470A, 7470A		50 mL	50 mL	0.1 mL			
IC 200-44948/3		7470A, 7470A		50 mL	50 mL	0.25 mL			
IC 200-44948/4		7470A, 7470A		50 mL	50 mL	0.5 mL			
IC 200-44948/5		7470A, 7470A		50 mL	50 mL	2.5 mL			
IC 200-44948/6		7470A, 7470A		50 mL	50 mL	5 mL			
ICV 200-44948/7		7470A, 7470A		50 mL	50 mL		5 mL		
ICB 200-44948/8		7470A, 7470A		50 mL	50 mL				
CCV 200-44948/9		7470A, 7470A		50 mL	50 mL	2.5 mL			
CCB 200-44948/10		7470A, 7470A		50 mL	50 mL				
MB 200-44948/11		7470A, 7470A		50 mL	50 mL				
LCS 200-44948/12		7470A, 7470A		50 mL	50 mL	0.5 mL			
200-12542-B-1	NFUDS-001-GW01-01	7470A, 7470A	T	50 mL	50 mL				
200-12542-A-1 DU	NFUDS-001-GW01-01	7470A, 7470A	T	50 mL	50 mL				
200-12542-B-1 MS	NFUDS-001-GW01-01	7470A, 7470A	T	50 mL	50 mL	0.5 mL			
200-12542-B-2	NFUDS-002-GW01-01	7470A, 7470A	T	50 mL	50 mL				
200-12542-B-3	NFUDS-002-GW02-01	7470A, 7470A	T	50 mL	50 mL				
200-12542-B-4	NFUDS-002-GW03-01	7470A, 7470A	T	50 mL	50 mL				
200-12542-B-5	NFUDS-002-GW03-02	7470A, 7470A	T	50 mL	50 mL				

METALS BATCH WORKSHEET

Lab Name: TestAmerica Burlington Job No.: 200-12542-1

SDG No.: 200-12542-1

Batch Number: 44948 Batch Start Date: 09/14/12 09:00 Batch Analyst: Pham, Vu T

Batch Method: 7470A Batch End Date: 09/14/12 13:30

Batch Notes	
Hydroxylamine Hydrochloride Lot	360755
Batch Comment	Witness by ZMS
Sulfuric Acid Lot Number	332837
Lot # of Nitric Acid	387990
Hood ID or number	109A & 109B
Hot Block ID number	8
Potassium Persulfate Lot Number	360422
Potassium Permanganate Lot Number	371836
Oven, Bath or Block Temperature 1	94 Celsius
Pipette ID	WC1 & GH17905
SOP Number	BR-ME-015
Temperature	95
ID number of the thermometer	100
Digestion Tube/Cup Lot #	MF06LKK01
Uncorrected Temperature	95 Celsius

Basis	Basis Description
T	Total/NA

Shipping and Receiving Documents

TestAmerica Burlington
30 Community Drive, Suite 11
South Burlington, VT 05403
Phone:(802)660-1990

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Mark Laflamme	Lab PM: Ryan Hammond	Carrier Tracking No(s):	COC No: 001
Client Contact: Marie Swiech-LaFlamme	Phone: 603-315-6853	E-Mail:		Page: 1 of 1
Company: Weston Solutions, Inc				Job #:
Address: 45 Constitution Ave	Due Date Requested:			
City: Concord, NH	TAT Requested (days): 5-day TAT			
State, Zip: 03301	PO #:			
Phone: 603-656-5400	WO #: 038886.551.004.0011			
Email: MSL@WestonSolutions.com	Project #:			
Project Name: RI	SSOW#:			
Site: Nantucket Beach FUDS, MA				

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Metals 6010C	Explosives 8330B	Perchlorate (8330B) (Field Filtered)	Total Number of containers	Special Instructions/Note:
			Preservation Code:								
NFUDS-001-GW01-01	8/31/12	1215	G	W	Y	Y	X	X	X	12	
NFUDS-002-GW01-01		1015				N				4	
NFUDS-002-GW02-01		1100				N				4	
NFUDS-002-GW03-01		1130				N				4	
NFUDS-002-GW03-02	↓	1130	↓	↓	↓	N	↓	↓	↓	4	

MSL 8/31/12

Page 207 of 209

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Mark Laflamme	8/31/12 1500	Weston	FED EX		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 9/1/12 0950	Company TAB WBZ
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks:

09/10/2012

30 COMMUNITY DR

6

From

Date [illegible]

Sender's Name [illegible] SWIECH-LAFLAMME Phone 603 315-6853

Company [illegible] SOLUTIONS, INC

Address [illegible] CONSTITUTION AVE

Dept/Floor/Suite/Room

City [illegible] State NH ZIP 03301

Your Internal Billing Reference

To

Recipient's Name [illegible] Phone 802 660-1990

Company TEST AMERICA

Address 30 COMMUNITY DR SUITE 11

We cannot deliver to P.O. boxes or P.O. ZIP codes. Dept/Floor/Suite/Room

Address

Use this line for the HOLD location address or for continuation of your shipping address.

City SOUTH BURLINGTON State VT ZIP 05403

HOLD Weekday FedEx location address REQUIRED. NOT available for FedEx First Overnight.

HOLD Saturday FedEx location address REQUIRED. Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

8005 5316 0876

Form ID No.

4 Expr

NOTE:

Next

FedE Earliest location Monda

FedE Next b delivere is selec

FedE Next b Saturda

5 Pack

FedE

6 Spe

SATU NOT av

No Si Package obtaining

SATURDAY

TRK# 0200 8005 5316 0876

PRIORITY OVERN

X0 BTVA

05

VT – US

Does this shipment contain dangerous goods?

No Yes As per attached Shipper's Declaration Yes Shipper's Declaration not required Dry Ice Dry Ice, 9, UN

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box.

7 Payment Bill to:

Enter FedEx Acct. No. or Credit Card No. below.

Sender Acct. No. in Section 1 will be billed Recipient Third Party Cr

Total Packages 1 Total Weight 4.55 lbs Credit Car

Our liability is limited to US$100 unless you declare a higher value. See the current FedEx Service Guide f

FedEx Express

FedEx Saturc

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FedEx Express New Package US Airbill

FedEx Tracking Number 8005 5316 0865

1 From

Date 8/31/12

Sender's Name [illegible] SWIECH-LAFLAMME Phone 603 315-6853

Company [illegible] SOLUTIONS, INC.

Address US CONSTITUTION AVE

Dept/Floor/Suite/Roo

City CONCORD State NH ZIP 03301

2 Your Internal Billing Reference

3 To

Recipient's Name [illegible] Phone 802 660-1990

Company TEST AMERICA

Address 30 COMMUNITY DR SUITE 11

We cannot deliver to P.O. boxes or P.O. ZIP codes. Dept/Floor/Suite/Room

Address

Use this line for the HOLD location address or for continuation of your shipping address.

City SOUTH BURLINGTON State VT ZIP 05403

HOLD Weekday FedEx location address REQUIRED. NOT available for FedEx First Overnight.

HOLD Saturday FedEx location address REQUIRED. Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

8005 5316 0865

SATURDAY

TRK# 0200 8005 5316 0865

PRIORITY OVERNIG

A

054

B

X0 BTVA

VT – US

No Signature Required Package may be left without obtaining a signature for delivery

Direct Signature Someone at recipient's address may sign for delivery. Fee applies.

Indirect Signature If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. Fee applies.

Does this shipment contain dangerous goods?

No Yes As per attached Shipper's Declaration Yes Shipper's Declaration not required Dry Ice Dry Ice, 9, UN 1845 x kg

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box.

Cargo Aircraft Only

7 Payment Bill to:

Enter FedEx Acct. No. or Credit Card No. below.

Sender Acct. No. in Section 1 will be billed Recipient Third Party Credit Card Cash/Check

Total Packages 1 Total Weight 57.5 lbs Credit Card Auth.

Our liability is limited to US$100 unless you declare a higher value. See the current FedEx Service Guide for details.

644

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EX 1.800.463.3339

Login Sample Receipt Checklist

Client: Weston Solutions, Inc.

Job Number: 200-12542-1
SDG Number: 200-12542-1

Login Number: 12542
List Number: 1
Creator: Marion, Greg T

List Source: TestAmerica Burlington

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	584864,863,862,861
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	False	One cooler temperature is outside required temperature criteria.
Cooler Temperature is recorded.	True	4.6,8.8ºC IR GUN ID 176/CF=-0.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

APPENDIX B

DAILY REPORTS

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site
a.k.a. Tom Nevers Rocket Projectile Target;
Tom Nevers Area, Formerly Used Defense Site
Project Number D01MA045601

Contract No.:/DO No.:/Report No.:/DCN No.	WORK ORDER NO.:	DATE
W912DR-09-D-006 / 005 / 001 / MAMMS05-030112-AAGT	03886.551.005.0012	01 March 2012 - Thursday

WEATHER: Variable by location during mobilization - severe weather across New England due to snow and/or rain and high winds (>30 mph)

WORK LOCATION: Concord NH to Nantucket Massachusetts

VISITORS(Name/firm):

None

WESTON STAFF (Name/Position)

Mark Saunders /Project Geophysicist

Ed Benton/Construction Supervisor

SUBCONTRACT STAFF (Name/Position)

- ☐ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☒ Equipment Transport (mob/demob to/from site-List).
- ☐ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments: Mob day. Mobilized in from Concord, NH Weston office to Halifax to pick up road signs and electronic trailer sign with Ed Benton. Continued to Hyannis, MA for departure via ferry to Nantucket, MA.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

Field supplies (e.g.; traffic control signage, barricades, pedestrian signage, message boards, radios, hand tools, etc.) mobilized by WESTON via vehicular transport on the Steamship Authority ferry.

PROBLEMS/RESOLUTIONS:

Delayed ferry transportation to Nantucket until evening due to inclement weather and impacts to the Steamship Authority schedule.

DATA TRACKING:

Ground Reconnaissance:

Items Confirmed:

Analog Survey Transects:

Items Found Today:

DGM Grids:

DGM Grids Reacquired:

Data Acquired from Sub:	
Data Provided to USACE:	
Data Accepted by USACE:	
Comments: None.	
FURTHER DISCUSSION (List Topic and Comment): Plan for Friday is to set out message boards announcing low flying aircraft in area from March 05 – 24 2012. Drive the island and get bearings.	
PREPARED BY: Mark Saunders	**SIGNATURE:** 

Attach applicable logs and reports below (QC Report, photo log, etc.)

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site
a.k.a. Tom Nevers Rocket Projectile Target;
Tom Nevers Area, Formerly Used Defense Site
Project Number D01MA045601

Contract No.:/DO No.:/Report No.:/DCN No.	WORK ORDER NO.:	DATE
W912DR-09-D-006 / 005 / 002 / MAMMS05-030212-AAGU	03886.551.005.0011	02 March 2012 - Friday

WEATHER: Overcast; High 39° F/ Low 33 °F; Winds from the NE 17-25 mph
Source: www.wunderground.com

WORK LOCATION: MRS 1 and MRS 2

VISITORS(Name/firm):
None

WESTON STAFF (Name/Position)
Mark Saunders /Project Geophysicist
Ed Benton/Construction supervisor

SUBCONTRACT STAFF (Name/Position)

WORK COMPLETED:

- ☐ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☒ Equipment Transport (mob/demob to/from site-List).
- ☐ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments:

- Transported the road signage to the storage unit.
- Dropped off the message boards to their designated drop points.
- Message board one was placed 0.2 miles west of the intersection of Skinners and Milestone road facing east. The second was placed after the roundabout onto milestone road facing West. The signs both read " Low Flying Aircraft – March 05-24 2012"
- Went to the Nantucket Police Department to introduce myself to the Lieutenant MacVicar but he is on vacation talked with Michele the main dispatcher and she talked about police details and stressed they needed 90 minutes before they are needed or not required for the day.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

None

PROBLEMS/RESOLUTIONS:

None

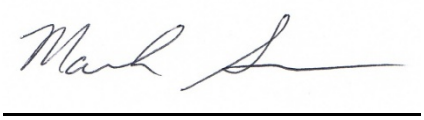
DATA TRACKING:

Ground Reconnaissance:

Items Confirmed:

Analog Survey Transects:

Items Found Today:
DGM Grids: Pre-seed tests trip survey with G-858
DGM Grids Reacquired:
Data Acquired from Sub:
Data Provided to USACE:
Data Accepted by USACE:
Comments: None
FURTHER DISCUSSION (List Topic and Comment): • Will work with Jeff Gamey from Battelle and assist in the pre-seed test strip survey and also go to the Wigwam Area and New South Street homes and hang door tags about upcoming work

PREPARED BY:	**SIGNATURE:**
Mark Saunders	

Attach applicable logs and reports below (QC Report, photo log, etc.)

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601

Contract No.:/DO No.:/Report No.:/DCN No.	WORK ORDER NO.:	DATE
W912DR-09-D-006 / 005 / 003 / MAMMS05-030312-AAGV	03886.551.005.0011	03 March 2012 - Saturday

WEATHER: Overcast/periods of fog/rain (0.12 in); High 51° F/ Low 37 °F; Winds from the SSW 19-29 mph

Source: www.wunderground.com

WORK LOCATION: MRS 1, MRS 2 and Nantucket Airport

VISITORS(Name/firm):

None

WESTON STAFF (Name/Position)	SUBCONTRACT STAFF (Name/Position)
Mark Saunders /Project Geophysicist	Jeff Gamey (Battelle Geophysicist)

WORK COMPLETED:

- ☐ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☒ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☐ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments:

- Placed door hanger on the Wigwam Area and New South Street homes announcing upcoming work in the area.
- Assisted Battelle (Jeff Gamey) with conducting pre-seed background survey on the airport property with G-858 magnetometer. Battelle surveyed an area 10 meters wide by 200 meters long and collected the data with the G-858 cesium magnetometer in gradient mode.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

None

PROBLEMS/RESOLUTIONS:

- Received a call today from Dispatcher Michele from the Nantucket police. She informed me that one of our road trailer signs was moved by an individual last night. They refused to give any more information except that they knew who it was and it is being taking care of. I picked the trailer sign up from a gas station down the street where it was dropped and examined it for any damage. There appeared to be no damage and the unit functioned as required. I transported the sign back to the location of Skinners and Milestone roads. Chris Kane will be bringing some trailer locks with him to the island to prevent this again in the future

DATA TRACKING:

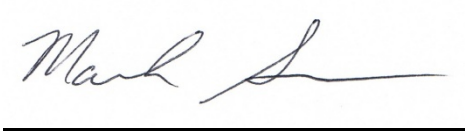
Ground Reconnaissance:

Items Confirmed:

Analog Survey Transects:

Items Found Today:

DGM Grids: Pre-seed tests trip survey with G-858
DGM Grids Reacquired:
Data Acquired from Sub:
Data Provided to USACE:
Data Accepted by USACE:
Comments: None
FURTHER DISCUSSION (List Topic and Comment): • Plan for Sunday is to meet with Marie and get oriented with the sign placement and trail and road closures. Meet with Battelle and go over logisitics.

PREPARED BY:	**SIGNATURE:**
Mark Saunders	

Attach applicable logs and reports below (QC Report, photo log, etc.)

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601

Contract No.:/DO No.:/Report No.:/DCN No.	WORK ORDER NO.:	DATE
W912DR-09-D-006 / 005 / 004 / MAMMS05-030412-AAGW	03886.551.005.0011	04 March 2012 - Sunday

WEATHER: Overcast/periods of rain (0.05 in); High 44 °F/ Low 33 °F; Winds from the WSW 9-13 mph

Source: www.wunderground.com

WORK LOCATION: MRS 2, MRS 1, Nantucket Airport

VISITORS(Name/firm):

None

WESTON STAFF (Name/Position)	SUBCONTRACT STAFF (Name/Position)
Marie Swiech – Laflamme / Site Manager/SSHO	William Doll / Geophysicist
Mark Saunders – Project Geophysicist	Jeff Gamey / Geophysicist

WORK COMPLETED:

- ☐ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☒ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☒ Equipment Transport (mob/demob to/from site-List).
- ☐ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments:

- WESTON (Marie Swiech-Laflamme) and Battelle (William Doll) mobilized to site with remaining field supplies.
- WESTON and Battelle continued site preparation activities including seeding activities and hanging door knob hangers on remaining residences within the FUDS boundaries.
- WESTON visited local police to review traffic/access control plans and requirements, but Lt. MacVicar was not available. Lt. MacVicar will contact WESTON on 05 March 2012.
- WESTON and Battelle conference at end of day to discuss technical approach.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

- Remaining field supplies mobilized by WESTON and Battelle via vehicular transport on the Steamship Authority ferry.

PROBLEMS/RESOLUTIONS:

- While hanging doorknob hangers; encountered resident at parcel no. 90 5 along Waquoit Rd. Resident did not wish to speak with field personnel. Resident requested WESTON to leave the doorknob hanger with USACE contact information and indicated that he would contact Carol A. Charette. WESTON did inform him that activities are scheduled to commence on 06 March 2012.
- Mobilization and site preparation activities for Battelle delayed due to weather restricting helicopter travel to the FUDS. Helicopter was grounded in Ithaca and will not arrive until mid-day 05 March 2012 to be equipped with geophysical equipment.

DATA TRACKING:

Ground Reconnaissance:

Items Confirmed:

Analog Survey Transects:

Items Found Today:
DGM Grids:
DGM Grids Reacquired:
Data Acquired from Sub:
Data Provided to USACE:
Data Accepted by USACE:
Comments: • WESTON reviewed background survey data collected from seed strip location with Battelle. • WESTON reviewed and approved the plan for seed item placement along test strip.
FURTHER DISCUSSION (List Topic and Comment): • Due to shifting prevailing wind direction, the orientation of polygons being used to define work areas for traffic and access control to facilitate the survey may need to be reoriented and reconfigured for access controls. Battelle will follow-up with the airport manager on prevailing wind directions, confirm with helicopter pilot when he arrives onsite on 05 March 2012 and inform WESTON immediately such that appropriate adjustments can be made to the technical approach for traffic/access control during the survey.

PREPARED BY:	**SIGNATURE:**
Marie Swiech-Laflamme / Site Manager/SSHO	

Attach applicable logs and reports below (QC Report, photo log, etc.)

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601

Contract No.:/DO No.:/Report No.:/DCN No.	WORK ORDER NO.:	DATE
W912DR-09-D-006 / 005 / 005 / MAMMS05-030512-AAGX	03886.551.004.0011	05 March 2012 - Monday

WEATHER: Mostly clear, High 39 °F/ Low 32 °F; Winds from the WNW 12-25 mph
Source: www.wunderground.com

WORK LOCATION: MRS 2, MRS 1, Nantucket Airport
WORK HOURS: 0800-hrs to 1800-hrs

VISITORS(Name/firm):
David King / CENAB / QA Geophysicist

WESTON STAFF (Name/Position)	SUBCONTRACT STAFF (Name/Position)
Marie Swiech – Laflamme / Site Manager/SSHO	William Doll / Battelle / Geophysicist
Mark Saunders – Project Geophysicist	Jeff Gamey / Battelle / Geophysicist
	Doug Christie / National / Pilot
	Marcus Watson / National / System Operator
	Derrick Mewhinney / National / Engineer

WORK COMPLETED:

- ☐ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☒ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
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- ☒ Equipment Transport (mob/demob to/from site-List).
- ☐ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments:

- WESTON met with Lt. MacVicar (local police) to review traffic/access control plans and detail requirements.
- WESTON continuing to contact residents by phone and/or in-person to our activities and upcoming traffic/access control in their area.
- Battelle processing pre-seed background survey data, conducting seeding and post-seed survey activities.
- Helicopter and crew arrive on Nantucket at ~1500-hrs.
- Battelle begins equipping helicopter for aerial survey (installed brackets).
- WESTON, Battelle (with National Helicopters) conference at end of day to discuss technical approach.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

- Helicopter arrived at Nantucket Airport at ~1500-hrs with crew.

PROBLEMS/RESOLUTIONS:

- Helicopter departure delayed due to weather this morning from Ithaca; based on arrival time, survey activities are estimated to begin on 07 March 2012.
- Recon in work area by Battelle indicates that Milestone Rd will be problematic for include in survey due to high trees overhanging the roadway, adjacent power lines and a storm drain running down the center of the road. WESTON to consider how to address during ground-based activities if this area is identified as a data gap during review of survey data.

DATA TRACKING:

Ground Reconnaissance:
Items Confirmed:
Analog Survey Transects:
Items Found Today:
DGM Grids:
DGM Grids Reacquired:
Data Acquired from Sub:
Data Provided to USACE:
Data Accepted by USACE:
Comments: • Pre-seed background survey and post-survey data submitted to WESTON for review; note: data files transmitted at ~2330-hrs, WESTON review and data submittal to USACE to be conducted on 06 March 2012.

FURTHER DISCUSSION (List Topic and Comment):

- Tomorrow's activities to include helicopter outfitting with geophysical survey equipment followed by compensation/reconnaissance flight over project area.
- National Helicopter pilot to meet with FAA communication tower point of contact to gain clearance for flight plans/operations.
- WESTON to review pre-seed and post-seed survey data collected by Battelle.
- WESTON to complete contacting impacted public and prepare for traffic/access control activities needed to support survey.
- Survey estimated to commence on 07 March 2012 pending weather conditions.

PREPARED BY:	**SIGNATURE:**
Marie Swiech-Laflamme / Site Manager/SSHO	

Attach applicable logs and reports below (QC Report, photo log, etc.)

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601

Contract No.:/DO No.:/Report No.:/DCN No.	WORK ORDER NO.:	DATE
W912DR-09-D-006 / 005 / 006 / MAMMS05-030612-AAGY	03886.551.004.0011	06 March 2012 - Tuesday

WEATHER: Clear, High 39 °F/ Low 34 °F; Winds from the NW 15-20 mph
Source: Nantucket Airport Weather Station via www.wunderground.com

WORK LOCATION: MRS 2, MRS 1, Nantucket Airport
WORK HOURS: 0730-hrs to 1800-hrs

VISITORS(Name/firm):
David King / CENAB / QA Geophysicist

WESTON STAFF (Name/Position)	SUBCONTRACT STAFF (Name/Position)
Marie Swiech – Laflamme / Site Manager/SSHO	William Doll / Battelle / Geophysicist
Mark Saunders – Project Geophysicist	Jeff Gamey / Battelle / Geophysicist
	Doug Christie / National / Pilot
	Marcus Watson / National / System Operator
	Derrick Mewhinney / National / Engineer

WORK COMPLETED:

- ☐ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☒ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☐ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☒ Aerial Mag
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments:

- WESTON continuing to contact residents by phone and/or in-person to our activities and upcoming traffic/access control in their area. Verified that door knockers were still in-place at key residents within the FUDS and updated with daily point of contact information for Marie Swiech-Laflamme during active aerial operations.
- WESTON contacted businesses located at the end of New South Road within airport property to provide traffic control and contact information.
- WESTON confirmed police details to support survey activities tomorrow.
- Battelle completed equipping helicopter for aerial survey, conducted a compensation flight to assess noise interference and completed an initial survey of the test stip.
- National Helicopters pilot conducted required coordination with flight tower at airport to obtain flight clearance and approval of flight plans.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

- None

PROBLEMS/RESOLUTIONS:

- None

DATA TRACKING:

Ground Reconnaissance:
Items Confirmed:
Analog Survey Transects:
Items Found Today:
DGM Grids:
DGM Grids Reacquired:
Data Acquired from Sub: • Pre-seed and post-seed survey QC data (delivered to WESTON) • Compensation flight and initial test strip flight completed (data to be delivered to WESTON tomorrow)
Data Provided to USACE:
Data Accepted by USACE:
Comments: • WESTON examined seed data delivered by Battelle and agreed with USACE QA that data was of good quality. One issue found by WESTON that will be relayed to Battelle is that the metadata for their databases need to be accurately completed (i.e., correct coordinate projection needs to be applied to all datasets, which should be NAD83 UTM Zone 19N US Feet).
FURTHER DISCUSSION (List Topic and Comment): • Battelle arranged clearance with Airport Operations Manager (Jeff Marks) for USACE and WESTON personnel to observe flight over test strip tomorrow morning. Escort to be provided by Jeff Marks. • Survey estimated to commence on 07 March 2012 pending weather conditions.

PREPARED BY:	**SIGNATURE:**
Marie Swiech-Laflamme / Site Manager/SSHO	

Attach applicable logs and reports below (QC Report, photo log, etc.)

Photo Log

Photo 030612-01
Outfitting Helicopter (photo provided by Battelle)



Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601

Contract No.:/DO No.:/Report No.:/DCN No.	WORK ORDER NO.:	DATE
W912DR-09-D-006 / 005 / 007 / MAMMS05-030712-AAGZ	03886.551.004.0011	07 March 2012 - Wednesday

WEATHER: Clear, High 48 °F/ Low 35 °F; Winds from the SSW 12-21, G 26 mph
Source: Nantucket Airport Weather Station via www.wunderground.com

WORK LOCATION: MRS 2, Nantucket Airport
WORK HOURS: 0700-hrs to 1500-hrs

VISITORS(Name/firm):
David King / CENAB / QA Geophysicist
Carol Ann Charette / CENAE / Project Manager
Christopher G. Kane, PMP / WESTON / Project Manager

WESTON STAFF (Name/Position)	SUBCONTRACT STAFF (Name/Position)
Marie Swiech – Laflamme / Site Manager/SSHO	William Doll / Battelle / Geophysicist
Mark Saunders – Project Geophysicist	Jeff Gamey / Battelle / Geophysicist
	Doug Christie / National / Pilot
	Marcus Watson / National / System Operator
	Derrick Mewhinney / National / Engineer
	Detail Officers (3) / Nantucket Police Department

WORK COMPLETED:

- ☐ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☒ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☐ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☒ Aerial Mag
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments:

- WESTON provided traffic and access control for roads and foot paths leading to survey area (South of Milestone Rd, East of Russell's Way and North of Wigwam Rd).
- Delayed survey (35-55 minutes) start due to malfunction of direction bar on helicopter needed for accurate positioning.
- Battelle completed test strip flight and arrival at survey area on-site.
- Conducted public relations meeting at Nantucket Airport with Town Selectmen (Patty Roggeveen), photographer for Nantucket Real Estate Magazine (Kit Noble) and Jim Lentowski of NCF. Provided overview of project and information on technology behind Battelle's geophysical equipment and the capabilities of their system to detect metallic objects in the subsurface. Event included a visit to the helicopter on the runway, tour of equipment and photo session.
- WESTON continued maintaining contact and communication with key stakeholders.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

- None

PROBLEMS/RESOLUTIONS:

- Gusting winds at 30+ mph grounded helicopter at 1100-hrs. No survey data collected.

DATA TRACKING:

Ground Reconnaissance:

Items Confirmed:

Analog Survey Transects:

Items Found Today:

DGM Grids:

DGM Grids Reacquired:

Data Acquired by Battelle:

- Initial daily test strip survey

Data Provided to WESTON:

- None

Data Provided to USACE:

- None

Data Accepted by USACE:

- None

Comments:

- WESTON to request all test strip flight data from Battelle.

FURTHER DISCUSSION (List Topic and Comment):

- High winds expected to continue through tomorrow with gusts up to 30+ mph.

PREPARED BY:	**SIGNATURE:**
Marie Swiech-Laflamme / Site Manager/SSHO	

Attach applicable logs and reports below (QC Report, photo log, etc.)

Photo Log

Photo 030712-01
Helicopter equipped with geophysical survey booms/sensors



Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601

Contract No.:/DO No.:/Report No.:/DCN No.	WORK ORDER NO.:	DATE
W912DR-09-D-006 / 005 / 008 / MAMMS05-030812-AAHA	03886.551.004.0011	08 March 2012 - Thursday

WEATHER: Clear, High 54 °F/ Low 48 °F; Winds from the SSW 23, G 34 mph
Source: Nantucket Airport Weather Station via www.wunderground.com

WORK LOCATION: Nantucket Airport
WORK HOURS: 0600-hrs to 1600-hrs (intermittent)

VISITORS(Name/firm):
David King / CENAB / QA Geophysicist
Carol Ann Charette / CENAE / Project Manager

WESTON STAFF (Name/Position)	SUBCONTRACT STAFF (Name/Position)
Marie Swiech – Laflamme / Site Manager/SSHO	William Doll / Battelle / Geophysicist
Mark Saunders – Project Geophysicist	Jeff Gamey / Battelle / Geophysicist
	Doug Christie / National / Pilot
	Marcus Watson / National / System Operator
	Derrick Mewhinney / National / Engineer

WORK COMPLETED:

- ☐ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☐ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments:

- Gusty winds grounded flight operations today.
- Battelle switched out one of the magnetometers on their array.
- WESTON continued maintaining contact and communication with key stakeholders; attempted contact with home owner that reported alleged target west of airport, left message.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

- None

PROBLEMS/RESOLUTIONS:

- Gusting winds at 30+ mph grounded helicopter. No survey data collected.

DATA TRACKING:

Ground Reconnaissance:

Items Confirmed:
Analog Survey Transects:
Items Found Today:
DGM Grids:
DGM Grids Reacquired:
Data Acquired by Battelle: • None
Data Provided to WESTON: • Test strip QC data collected on 07 March 2012.
Data Provided to USACE: • Pre and post-seed survey data posted to Teamlink.
Data Accepted by USACE: • None
Comments: • WESTON and USACE review data processing procedures with Battelle.
FURTHER DISCUSSION (List Topic and Comment): • Work activities may shift to beach and north of Milestone Road due to forecasted wind direction.

PREPARED BY:	**SIGNATURE:**
Marie Swiech-Laflamme / Site Manager/SSHO	

Attach applicable logs and reports below (QC Report, photo log, etc.)

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601

Contract No.:/DO No.:/Report No.:/DCN No.	WORK ORDER NO.:	DATE
W912DR-09-D-006 / 005 / 009 / MAMMS05-030912-AAHB	03886.551.004.0011	09 March 2012 - Friday

WEATHER: Partly cloudy/clear (morning precip = 0.05 in), High 51 °F/ Low 36 °F; Winds from the W 20-30, G 38 mph
Source: Nantucket Airport Weather Station via www.wunderground.com

WORK LOCATION: Nantucket Airport

WORK HOURS: 0730-hrs to 1800-hrs (intermittent)
Flight delayed due to wind advisory until after 1300-hrs. Aerial survey in progress from 1300-hrs to 1650-hrs.

VISITORS(Name/firm):
David King / CENAB / QA Geophysicist
Carol Ann Charette / CENAE / Project Manager

WESTON STAFF (Name/Position)	SUBCONTRACT STAFF (Name/Position)
Marie Swiech – Laflamme / Site Manager/SSHO	William Doll / Battelle / Geophysicist
Mark Saunders – Project Geophysicist	Jeff Gamey / Battelle / Geophysicist
	Doug Christie / National / Pilot
	Marcus Watson / National / System Operator
	Derrick Mewhinney / National / Engineer
	Police details (Mike and Keith) / Nantucket Police Department

WORK COMPLETED:

- ☐ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☒ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☐ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☒ Aerial Mag
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments:

- Gusty winds grounded flight operations until 1300-hrs today.
- WESTON completed coordinating traffic and access control to fly west-east survey areas including beach and north of Milestone Road.
- Winds from the west dictated survey areas today aligned west to east (i.e., beach and north of Milestone Road).
- WESTON obtained permit approval from MassDOT for traffic control required to survey Milestone Road.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

- None

PROBLEMS/RESOLUTIONS:

- Gusting winds at 30+ mph grounded helicopter until 1300-hrs. WESTON utilized down time to prepare for traffic and access control at 3 different potential survey areas so that multiple options were available for the afternoon's survey based on prevailing wind direction and speed.

DATA TRACKING:

Ground Reconnaissance:
Items Confirmed:
Analog Survey Transects:
Items Found Today:
DGM Grids:
DGM Grids Reacquired:
Data Acquired by Battelle: • Completed survey along beach investigation area. • Completed survey of ~20% (12 of 59 flight lines) of the area north of Milestone Road.
Data Provided to WESTON: • None
Data Provided to USACE: • 07 March 2012 test strip QC data.
Data Accepted by USACE: • None
Comments: • Rate of data acquisition by Battelle once airborne was determined to be good by WESTON's Geophysicist (Mark Saunders). Time between flights (for helicopter refueling) was adequate to allow WESTON to mobilize between work areas and shift traffic/access control equipment and personnel. No unexpected delays were noted between flights as a result of either the WESTON or Battelle's teams' activities.
FURTHER DISCUSSION (List Topic and Comment): • None

PREPARED BY:	**SIGNATURE:**
Marie Swiech-Laflamme / Site Manager/SSHO	

Attach applicable logs and reports below (QC Report, photo log, etc.)

Photo Log

030912-01
Traffic control signage



030912-03
Access control signage



030912-11
Survey of beach



030912-20
Survey of bluffs



030912-19
Survey top of bluffs



030912-23
Survey north of Milestone Road



Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601

Contract No.:/DO No.:/Report No.:/DCN No.	WORK ORDER NO.:	DATE
W912DR-09-D-006 / 005 / 010 / MAMMS05-031012-AAHC	03886.551.004.0011	10 March 2012 - Saturday

WEATHER: Partly cloudy/clear (morning precip = 0.05 in), High 51 °F/ Low 36 °F; Winds from the W 20-30, G 38 mph

Source: Nantucket Airport Weather Station via www.wunderground.com

WORK LOCATION: Nantucket Airport

WORK HOURS: 0730-hrs to 1200-hrs (intermittent)

0730 Flight delayed due to gusting winds up to 40 mph, regrouped and reassessed at 1000-hrs and 1200-hrs, precipitation and winds did not abate for safe flight conditions today – activities cancelled at 1200-hrs.

VISITORS(Name/firm):

David King / CENAB / QA Geophysicist

Carol Ann Charette / CENAE / Project Manager (off-site at 1030-hrs)

WESTON STAFF (Name/Position)	SUBCONTRACT STAFF (Name/Position)
Marie Swiech – Laflamme / Site Manager/SSHO	William Doll / Battelle / Geophysicist
Mark Saunders – Project Geophysicist	Jeff Gamey / Battelle / Geophysicist
	Doug Christie / National / Pilot
	Marcus Watson / National / System Operator
	Derrick Mewhinney / National / Engineer

WORK COMPLETED:

- ☐ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☐ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments:

- Gusty winds grounded flight operations all day.
- WESTON and USACE visited residents within FUDS that have been unresponsive during USACE obtainment of ROEs, contact made with daughter of parcel 90 5.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

- None

PROBLEMS/RESOLUTIONS:

- Gusting winds up to 40 mph grounded helicopter all day.

DATA TRACKING:

Ground Reconnaissance:

Items Confirmed:
Analog Survey Transects:
Items Found Today:
DGM Grids:
DGM Grids Reacquired:
Data Acquired by Battelle: • None.
Data Provided to WESTON: • 09 Mach 2012 survey data collected along beach and north of Milestone Road. Beach area surveyed – 83.2 acres North of Milestone Rd area surveyed – 71.6 acres.
Data Provided to USACE: • 09 March 2012 survey QC data posted to Teamlink site.
Data Accepted by USACE: • None
Comments: • Data plots provided by Battelle for project team review. WESTON to deliver base map file to Battelle such that digital mapping of survey data can be correlated to position within FUDS boundary.
FURTHER DISCUSSION (List Topic and Comment): • None

PREPARED BY:	**SIGNATURE:**
Marie Swiech-Laflamme / Site Manager/SSHO	

Attach applicable logs and reports below (QC Report, photo log, etc.)

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601

Contract No.:/DO No.:/Report No.:/DCN No.	WORK ORDER NO.:	DATE
W912DR-09-D-006 / 005 / 011 / MAMMS05-031112-AAHD	03886.551.004.0011	11 March 2012 - Sunday

WEATHER: Clear, High 46 °F/ Low 25 °F; Winds from the SW 15-25, G 30+ mph

Source: Nantucket Airport Weather Station (KACK) via www.wunderground.com

WORK LOCATION: MRS2, Nantucket Airport

WORK HOURS: 0630-hrs to 1130-hrs

Flight 1 survey time – 0735 to 0910-hrs

Flight 2 survey time – 0935 to 1035

Second flight of day terminated at 1035 due to increasing wind speeds and gusts.

VISITORS(Name/firm):

David King / CENAB / QA Geophysicist

WESTON STAFF (Name/Position)	SUBCONTRACT STAFF (Name/Position)
Marie Swiech – Laflamme / Site Manager/SSHO	William Doll / Battelle / Geophysicist
Mark Saunders – Project Geophysicist	Jeff Gamey / Battelle / Geophysicist
	Doug Christie / National / Pilot
	Marcus Watson / National / System Operator
	Derrick Mewhinney / National / Engineer
	2 police details officers (Ryan and John) / Nantucket Police Department

WORK COMPLETED:

- ☐ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☐ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☒ Aerial Mag
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments:

- WESTON provided traffic and access control for area south of Milestone Rd, east of Russell's Way and north of Wigwam Rd.
- Began aerial survey of secured area.
- WESTON updated text on message boards placed at the east and west ends of Milestone Road to indicate "Low Flying Chopper" instead of "Low Flying Aircraft" per request USACE (Carol A. Charette).
- WESTON met with John Rockett of the Nantucket PD (scheduling detail officer) to discuss details for remaining survey work. Coordinated common start time and meeting location for the duration.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

- None

PROBLEMS/RESOLUTIONS:

- Gusting winds at 30+ mph grounded helicopter during second flight at 1035-hrs.

DATA TRACKING:

Ground Reconnaissance:

Items Confirmed:

Analog Survey Transects:

Items Found Today:

DGM Grids:

DGM Grids Reacquired:

Data Acquired by Battelle:

- Began geophysical survey of area south of Milestone Rd, east of Russell's Way and north of Wigwam Rd. Completed ~20% of survey in this grid prior to helicopter grounding due to high winds.

Data Provided to WESTON:

- None

Data Provided to USACE:

- None

Data Accepted by USACE:

- None

Comments:

- Data coverage map provided to USACE to facilitate tracking aerial survey progress.

FURTHER DISCUSSION (List Topic and Comment):

- None

PREPARED BY:	**SIGNATURE:**
Marie Swiech-Laflamme / Site Manager/SSHO	

Attach applicable logs and reports below (QC Report, photo log, etc.)

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601

Contract No.:/DO No.:/Report No.:/DCN No.	WORK ORDER NO.:	DATE
W912DR-09-D-006 / 005 / 012 / MAMMS05-031212-AAHE	03886.551.004.0011	12 March 2012 - Monday

WEATHER: Clear, High 54 °F/ Low 43 °F; Winds from the WSW 14-20, G 25 mph

Source: Nantucket Airport Weather Station (KACK) via www.wunderground.com

WORK LOCATION: MRS2, Nantucket Airport

WORK HOURS: 0630-hrs to 1545-hrs

Flight 1 survey time – 0810 to 0940-hrs

Flight 2 survey time – 1034 to 1220-hrs

Reassessed wind conditions at 1400-hrs and 1500-hrs, no improvement observed permitting further aerial survey today.

VISITORS(Name/firm):

David King / CENAB / QA Geophysicist

WESTON STAFF (Name/Position)	SUBCONTRACT STAFF (Name/Position)
Marie Swiech – Laflamme / Site Manager/SSHO	William Doll / Battelle / Geophysicist
Mark Saunders – Project Geophysicist	Jeff Gamey / Battelle / Geophysicist
	Doug Christie / National / Pilot
	Marcus Watson / National / System Operator
	Derrick Mewhinney / National / Engineer
	2 police details officers / Nantucket Police Department

WORK COMPLETED:

- ☐ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☐ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☒ Aerial Mag
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments:

- WESTON provided traffic and access control for area north of Milestone Rd.
- Completed aerial survey of secured area north of Milestone Rd.
- Area of FUDS surveyed as of 12 March 2012 ~ 456 acres.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

- None

PROBLEMS/RESOLUTIONS:

- Gusting winds at 25 mph grounded helicopter following second flight at 1230-hrs.

DATA TRACKING:

Ground Reconnaissance:

Items Confirmed:

Analog Survey Transects:

Items Found Today:

DGM Grids:

DGM Grids Reacquired:

Data Acquired by Battelle:

- Completed geophysical survey of area north of Milestone Rd.
  Area surveyed = 203.2 acres.

Data Provided to WESTON:

- None

Data Provided to USACE:

- 11 March 2012 survey data collected south of Milestone Rd., east of Russell's Way and north of Wigwam Rd.
  Area surveyed = 98.3 acres.

Data Accepted by USACE:

- QA of IVS data completed by USACE requiring further action by WESTON/Battelle to resolve 2 comments (activity completed 11 March 2012 after WESTON submission of Daily Report).

Comments:

- Battelle conducted maintenance on 2 magnetometers (late evening activity on 11 March 2012) and switched out a loose cable with subsequent static test to address noise interference observed when changing altitudes and/or when array was impacted by gusty winds – data quality determined to be unaffected by Battelle and WESTON.
- Aerial survey progress map provided to project team via Teamlink by WESTON for discussion at weekly status update teleconference (to be conducted on 13 March 2012 at 1000-hrs).

FURTHER DISCUSSION (List Topic and Comment):

- None

PREPARED BY:	**SIGNATURE:**
Marie Swiech-Laflamme / Site Manager/SSHO	

Attach applicable logs and reports below (QC Report, photo log, etc.)

Photo Log

031212-01
Survey in-progress



031212-02
Survey in-progress



031212-03
Helicopter with magnetometer array



Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601

Contract No.:/DO No.:/Report No.:/DCN No.	WORK ORDER NO.:	DATE
W912DR-09-D-006 / 005 / 013 / MAMMS05-031312-AAHF	03886.551.004.0011	13 March 2012 - Tuesday

WEATHER: Overcast/intermittent rain/afternoon fog (0.06in precipitation), High 48 °F/ Low 44 °F; Winds from the SW 10-15 mph

Source: Nantucket Airport Weather Station (KACK) via www.wunderground.com

WORK LOCATION: MRS2, Nantucket Airport

WORK HOURS: 0630-hrs to 1400-hrs

Flight 1 survey time – 0735 to 0905-hrs

Rain delay between Flight 1 and Flight 2 – both teams in stand-by, reevaluating conditions every 30 minutes.

Flight 2 survey time – 1155 to 1345-hrs

Airport aviation advisory issued for fog at the end of Flight 2 [Instrument Flight Rules (IFR) applicable to all aircraft]. Evaluation of conditions concluded that the fog would not dissipate in time to allow further surveying today.

VISITORS(Name/firm):

David King / CENAB / QA Geophysicist

WESTON STAFF (Name/Position)	SUBCONTRACT STAFF (Name/Position)
Marie Swiech – Laflamme / Site Manager/SSHO	William Doll / Battelle / Geophysicist
Mark Saunders – Project Geophysicist	Jeff Gamey / Battelle / Geophysicist
	Doug Christie / National / Pilot
	Marcus Watson / National / System Operator
	Derek Mewhinney / National / Engineer
	2 police details officers / Nantucket Police Department

WORK COMPLETED:

- ☐ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☐ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☒ Aerial Mag
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments:

- WESTON provided traffic and access control for area south of Milestone Rd, east of Russell's Way and North of Wigwam Rd.
- Completed aerial survey of secured area south of Milestone Rd, east of Russell's Way and North of Wigwam Rd.
- WESTON and Battelle (Bill Doll) participated in weekly status update teleconference with WESTON, CENAB and CENAE project team.
- WESTON attempted contacting parcel owner west of the Airport again that has reported a potential target structure located on their property, left phone message and visited home to leave contact information and request to inspect property.
- Area of FUDS surveyed as of 13 March 2012 ~ 684 acres.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

- 4 additional radios to facilitate communication needs.

PROBLEMS/RESOLUTIONS:

- Instrument Flight Rules (IFR) issued for all aircraft at 1345-hrs. Team evaluated weather conditions and aviation tower forecasts and determined that no further flights would be possible today.

DATA TRACKING:

Ground Reconnaissance:

- Not applicable.

Items Confirmed:

- Not applicable.

Analog Survey Transects:

- Not applicable.

Items Found Today:

- Not applicable.

DGM Grids:

- Not applicable.

DGM Grids Reacquired:

- Not applicable.

Data Acquired by Battelle:

- Completed geophysical survey of area south of Milestone Rd., east of Russell's Way and north of Wigwam Rd. Area surveyed = 228 acres.

Data Provided to WESTON:

- 12 March 2012 survey data collected north of Milestone Rd. Area surveyed = 203.2 acres.

Data Provided to USACE:

- 12 March 2012 survey data collected north of Milestone Rd. Area surveyed = 203.2 acres.

Data Accepted by USACE:

- None.

Comments:

- Battelle conducted required maintenance on the helicopter including compression wash.
- Based on weekly status update teleconference discussion, WESTON to prepare email (submitted to USACE on 13 March 2012) summarizing procedures for evaluating data gaps in aerial survey data and outlining decision logic that will be used to determine if further action (i.e., re-flight) is necessary.
- USACE and WESTON met with Battelle to confirm procedures for identifying and addressing data gaps while processing preliminary data in real-time.
- Based on teleconference discussion, WESTON will prepare maps to post to Teamlink illustrating survey area coverage and preliminary survey data as results become available.

FURTHER DISCUSSION (List Topic and Comment):

- None.

PREPARED BY:	**SIGNATURE:**
Marie Swiech-Laflamme / Site Manager/SSHO	

Attach applicable logs and reports below (QC Report, photo log, etc.)

Photo Log

031312-01
Survey in-progress



031312-02
Survey in-progress



Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601

Contract No.:/DO No.:/Report No.:/DCN No.	WORK ORDER NO.:	DATE
W912DR-09-D-006 / 005 / 014 / MAMMS05-031412-AAHG	03886.551.004.0011	14 March 2012 - Wednesday

WEATHER: Overcast with fog (0.0in precipitation), High 50 °F/ Low 42 °F; Winds from the NW 8-21 mph, Gusts up to 28 mph

Source: Nantucket Airport Weather Station (KACK) via www.wunderground.com

WORK LOCATION: MRS2, Nantucket Airport

WORK HOURS: 0630-hrs to 1800-hrs

Airport aviation advisory issued for fog [Instrument Flight Rules (IFR) applicable to all aircraft].
Evaluation of conditions conducted every 30-120 minutes throughout day, conditions improved as of 1500-hrs.

Flight 1 survey time – 1630 to 1735-hrs

Winds increasing in speed to 17 mph with gusts up to 23 mph and onset of fog/low cloud cover terminated activities at 1735-hrs.

VISITORS(Name/firm):

David King / CENAB / QA Geophysicist

WESTON STAFF (Name/Position)	SUBCONTRACT STAFF (Name/Position)
Marie Swiech – Laflamme / Site Manager/SSHO	William Doll / Battelle / Geophysicist
Mark Saunders – Project Geophysicist	Jeff Gamey / Battelle / Geophysicist
	Doug Christie / National / Pilot
	Marcus Watson / National / System Operator
	Derek Mewhinney / National / Engineer
	2 police details officers / Nantucket Police Department

WORK COMPLETED:

- ☐ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☐ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☒ Aerial Mag
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments:

- WESTON provided traffic and access control for area south of Milestone Rd. and west of Russell's Way.
- Began aerial survey of secured area south of Milestone Rd, and west of Russell's Way.
- WESTON visited local library (Nantucket Atheneum) to coordinate Administrative Record file location. Will follow-up by providing specifications for storage (i.e., anticipated size of file records, type of documents, length of time for retention, etc.).
- Area of FUDS surveyed as of 14 March 2012 ~ 684 acres + area surveyed on 14 March 2012 (unknown at time of report distribution).

MATERIALS DELIVERED (Amount, Condition, and Purpose):

- None

PROBLEMS/RESOLUTIONS:

- Instrument Flight Rules (IFR) issued for all aircraft in the morning due to fog. Team evaluated weather conditions and aviation tower forecasts every 30-120 minutes until conditions were amenable to flight (~1500-hrs).

DATA TRACKING:

Ground Reconnaissance:

- Not applicable.

Items Confirmed:

- Not applicable.

Analog Survey Transects:

- Not applicable.

Items Found Today:

- Not applicable.

DGM Grids:

- Not applicable.

DGM Grids Reacquired:

- Not applicable.

Data Acquired by Battelle:

- Began geophysical survey of area south of Milestone Rd., and west of Russell's Way.
  Area surveyed = unknown at time of report distribution.

Data Provided to WESTON:

- 13 March 2012 survey QC data collected north of Milestone Rd.
  Area surveyed = 228.3 acres.

Data Provided to USACE:

- 13 March 2012 survey QC data collected north of Milestone Rd.
  Area surveyed = 228.3 acres.

Data Accepted by USACE:

- None.

Comments:

- None.

FURTHER DISCUSSION (List Topic and Comment):

- None.

PREPARED BY:	**SIGNATURE:**
Marie Swiech-Laflamme / Site Manager/SSHO	

Attach applicable logs and reports below (QC Report, photo log, etc.)

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601

Contract No.:/DO No.:/Report No.:/DCN No.	WORK ORDER NO.:	DATE
W912DR-09-D-006 / 005 / 015 / MAMMS05-031512-AAHH	03886.551.004.0011	15 March 2012 - Thursday

WEATHER: Partly cloudy (0.0in precipitation), High 46 °F/ Low 37 °F; Winds from the NNE 12-17 mph, Gusts up to 24 mph

Source: Nantucket Airport Weather Station (KACK) via www.wunderground.com

WORK LOCATION: MRS2, Nantucket Airport

WORK HOURS: 0630-hrs to 2100-hrs (Intermittent)

Flight 1 survey time – 0927 to 1110-hrs
Flight 2 survey time – 1215 to 1500-hrs
Flight 3 survey time – 1505 to 1610-hrs

MSL observes magazine delivery and placement – 2000 to 2100-hrs.

VISITORS(Name/firm):

David King / CENAB / QA Geophysicist

WESTON STAFF (Name/Position)	SUBCONTRACT STAFF (Name/Position)
Marie Swiech – Laflamme / Site Manager/SSHO	William Doll / Battelle / Geophysicist
Mark Saunders – Project Geophysicist	Jeff Gamey / Battelle / Geophysicist
	Doug Christie / National / Pilot
	Marcus Watson / National / System Operator
	Derek Mewhinney / National / Engineer
	2 police details officers / Nantucket Police Department

WORK COMPLETED:

- ☐ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☐ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☒ Aerial Mag
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments:

- Delayed start due to navigational instrumentation failure (corrected by Battelle) and shift in work location due to shifting winds from western portion of FUDS to the eastern portion of the FUDS.
- WESTON provided traffic and access control for eastern portion of FUDS, west of Tom Nevers Rd, south of Milestone Rd., and east of Russell's Way.
- Began aerial survey of secured area and completed 3 flights.
- WESTON oversaw delivery and placement of the explosive storage magazine on airport property (between 2000-2100-hrs), at Sun Island Road airport gate no. 16. Magazine placed approximately 30 ft from existing structure in accordance with approved Explosive Site Plan.
- Per request USACE, Battelle submitted resumes to WESTON (will forward to USACE on 16 March 2012) for personnel that will be replacing Bill Doll and Jeff Gamey if activities progress beyond 24 March 2012.
- Area of FUDS surveyed as of 13 March 2012 ~ 738 acres
  Note: area surveyed on 14 March 2012 was unknown at the time of report distribution but will be included on the next day's summary of activities.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

- Limited arc explosive storage magazine (size: 7' x 7' x 7 / weight: ~10,000 lbs) received in good condition for munitions disposal donor charge storage during ground-based RI activities.

PROBLEMS/RESOLUTIONS:

- Received call from USACE (Carol Ann Charette) to inform crew of complaint called in from resident that lives in the Tom Nevers Area (parcel no. 76.1.3 245) that she was concerned that the helicopter was flying too low and too close to homes. WESTON (MSL and C.Kane) and USACE discussed, WESTON informed USACE that all work has been observed to have been conducted in accordance with work plans and FAA regulations, however, MSL noted to C.Charette and C.Kane that visual depth perception can be misleading when viewing the helicopter from a distance.

DATA TRACKING:

Ground Reconnaissance:

- Not applicable.

Items Confirmed:

- Not applicable.

Analog Survey Transects:

- Not applicable.

Items Found Today:

- Not applicable.

DGM Grids:

- Not applicable.

DGM Grids Reacquired:

- Not applicable.

Data Acquired by Battelle:

- Began geophysical survey of area south of Milestone Rd., east of Russell's Way and west of Tom Nevers Rd. Area surveyed = unknown at time of report distribution.

Data Provided to WESTON:

- 14 March 2012 survey QC data collected north of Milestone Rd. Area surveyed = 53.5 acres.

Data Provided to USACE:

- 14 March 2012 survey QC data collected north of Milestone Rd. Area surveyed = 53.5 acres.

Data Accepted by USACE:

- None.

Comments:

- Per request by USACE, WESTON submitted two memos to USACE to describe 1) QC data review metrics for speed, altitude and coverage area; and 2) to document root cause analysis for data point drop outs noted by Battelle in data package 03112012.

FURTHER DISCUSSION (List Topic and Comment):

- None.

PREPARED BY:	**SIGNATURE:**
Marie Swiech-Laflamme / Site Manager/SSHO	

Attach applicable logs and reports below (QC Report, photo log, etc.)

Photo Log

031512-01
Survey in-progress



031512-02
Survey in-progress



031512-03
Explosive storage magazine delivered and placed on airport property, near airport gate no. 16 off Sun Island Road (distance from building ~30 ft).



Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

Contract No.:/DO No.:/Report No.:/DCN No.	WORK ORDER NO.:	DATE
W912DR-09-D-006 / 005 / 016 / MAMMS05-031612-AAHI	03886.551.004.0011	16 March 2012 - Friday

WEATHER: Overcast with periods of light rain (0.0in precipitation), High 44 °F/ Low 35 °F; Winds from the E 5-12 mph, humidity 89-100%.

Source: Nantucket Airport Weather Station (KACK) via www.wunderground.com

WORK LOCATION: MRS2, Nantucket Airport

WORK HOURS: 0630-hrs to 1530-hrs

Flight 1 survey time – 0815 to 1021-hrs
Flight 2 survey time – 1110 to 1230-hrs
Flight 2 terminated due to precipitation – standby mode for 1 Hr waiting for conditions to improve.

Flight 3 survey time – 1330 to 1450-hrs
Flight 3 terminated due to precipitation and low visibility conditions.

VISITORS(Name/firm):

David King / CENAB / QA Geophysicist

WESTON STAFF (Name/Position)	SUBCONTRACT STAFF (Name/Position)
Marie Swiech – Laflamme / Site Manager/SSHO	William Doll / Battelle / Geophysicist
Mark Saunders – Project Geophysicist	Jeff Gamey / Battelle / Geophysicist
	Doug Christie / National / Pilot
	Marcus Watson / National / System Operator
	Derek Mewhinney / National / Engineer
	2 police details officers / Nantucket Police Department

WORK COMPLETED:

- ☐ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☐ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☒ Aerial Mag
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments:

- Field team conducted teleconference with C.Kane (WESTON) and C.Charette (USACE) to discuss yesterday concern expressed by resident of Tom Nevers Area. Team discussed work approach and confirmed that all activities have been conducted in accordance with approved plans and FAA requirements. As we will need to refly an area in this housing area, we will contact this resident prior to working in this area again to alleviate concern.
- WESTON provided traffic and access control for western portion of FUDS, between New South Rd. and Russell's Way and north of beach.
- Began aerial survey of secured area and completed 3 flights.
- Area of FUDS surveyed as of 15 March 2012 ~ 901 acres of a total of 2,267 acres
  Estimate percent complete = 40%
  Note: area surveyed on 16 March 2012 was unknown at the time of report distribution but will be included on the next day's summary of activities.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

- None

PROBLEMS/RESOLUTIONS:

- None

DATA TRACKING:

Ground Reconnaissance:
- Not applicable.

Items Confirmed:
- Not applicable.

Analog Survey Transects:
- Not applicable.

Items Found Today:
- Not applicable.

DGM Grids:
- Not applicable.

DGM Grids Reacquired:
- Not applicable.

Data Acquired by Battelle:

- Began geophysical survey of area in eastern portion of FUDS between New South Rd. and Russell's Way and north of beach. Area surveyed = unknown at time of report distribution.

Data Provided to WESTON:

- 15 March 2012 survey QC data collected north of Milestone Rd.
  Area surveyed = 163.2 acres.

Data Provided to USACE:

- None.

Data Accepted by USACE:

- None.

Comments:

- QC data from 15 March 2012 held for submission to USACE for revision by Battelle to remove data collected without positioning that will require re-surveying.

FURTHER DISCUSSION (List Topic and Comment):

- None.

PREPARED BY:	**SIGNATURE:**
Marie Swiech-Laflamme / Site Manager/SSHO	

Attach applicable logs and reports below (QC Report, photo log, etc.)

Photo Log

031612-01
Survey in-progress



031612-02
Survey in-progress



031612-03
Survey in-progress.



Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

Contract No.:/DO No.:/Report No.:/DCN No.	WORK ORDER NO.:	DATE
W912DR-09-D-006 / 005 / 017 / MAMMS05-031612-AAHJ	03886.551.004.0011	17 March 2012 - Saturday

WEATHER: Partly cloudy (0.0in precipitation), High 52 °F/ Low 35 °F; Winds from the N 7-15 mph,
Source: Nantucket Airport Weather Station (KACK) via www.wunderground.com

WORK LOCATION: MRS2, Nantucket Airport

WORK HOURS: 0630-hrs to 1530-hrs

Flight 1 survey time – 0812 to 1001-hrs
Flight 2 survey time – 1050 to 1240-hrs
Flight 3 survey time – 1335 to 1415-hrs
Flight 3 terminated due to increasing winds gusting > 20 mph.

VISITORS(Name/firm):

David King / CENAB / QA Geophysicist

WESTON STAFF (Name/Position)	SUBCONTRACT STAFF (Name/Position)
Marie Swiech – Laflamme / Site Manager/SSHO	William Doll / Battelle / Geophysicist
Mark Saunders – Project Geophysicist	Jeff Gamey / Battelle / Geophysicist
	Doug Christie / National / Pilot
	Marcus Watson / National / System Operator
	Derek Mewhinney / National / Engineer

WORK COMPLETED:

- ☐ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☐ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☒ Aerial Mag
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments:

- WESTON provided traffic and access control for central and eastern portion of FUDS, between Russell's Way and Tom Nevers Rd.
- Began aerial survey of secured area and completed 3 flights.
- WESTON (MSL) visited resident in the Tom Nevers area (Pamela Bartlett of 15 Arlington Rd.) who called USACE (C.Charette) to express concern over our flight plans. We discussed our activities, plans, approvals and local, state and federal stakeholder involvement. She was very receptive, interested and amenable to our work approach. She thanked MSL for coming by and taking the time to speak with to address her concerns in person. MSL invited her to observe our activities but she politely declined.
- Area of FUDS surveyed as of 17 March 2012 ~ 1552 acres of a total of 2,267 acres
  Estimate percent complete = 68%

MATERIALS DELIVERED (Amount, Condition, and Purpose):

- None

PROBLEMS/RESOLUTIONS:

- None

DATA TRACKING:

Ground Reconnaissance:
- Not applicable.

Items Confirmed:
- Not applicable.

Analog Survey Transects:
- Not applicable.

Items Found Today:
- Not applicable.

DGM Grids:
- Not applicable.

DGM Grids Reacquired:
- Not applicable.

Data Acquired by Battelle:

- Continued geophysical survey in central and western portion of FUDS between Russell's Way and Tom Nevers Road.
- Conducted reflight in Tom Nevers Area for positioning data lost from 15 March 2012.
  Area surveyed = 299.7 acres.

Data Provided to WESTON:

- 16 March 2012 survey QC data collected north of Milestone Rd.
  Area surveyed = 350.5 acres.

Data Provided to USACE:

- 15 and 16 March survey QC data packages.
- Submitted survey databases for all data collected through 14 March 2012.

Data Accepted by USACE:

- None.

Comments:

- None

FURTHER DISCUSSION (List Topic and Comment):

- None.

PREPARED BY:	**SIGNATURE:**
Marie Swiech-Laflamme / Site Manager/SSHO	

Attach applicable logs and reports below (QC Report, photo log, etc.)

Photo Log

031712-01
Survey in-progress



031712-02
Survey in-progress



031712-03
Survey in-progress.



031712-04
Aligning machine for survey



Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

Contract No.:/DO No.:/Report No.:/DCN No.	WORK ORDER NO.:	DATE
W912DR-09-D-006 / 005 / 018 / MAMMS05-031812-AAHK	03886.551.004.0011	18 March 2012 - Sunday

WEATHER: Clear (0.0in precipitation), High 52 °F/ Low 35 °F; Winds from the SW 9-17 mph, Gusts > 20 mph
Source: Nantucket Airport Weather Station (KACK) via www.wunderground.com

WORK LOCATION: MRS2, MRS 1, Nantucket Airport

WORK HOURS: 0630-hrs to 1530-hrs

Flight 1 survey time – 0750 to 0940-hrs
Flight 2 survey time – 1030 to 1220-hrs
Flight 3 survey time – 1350 to 1420-hrs
Flight 3 terminated due to increasing winds gusting > 20 mph.

VISITORS(Name/firm):

David King / CENAB / QA Geophysicist

Kit Noble / The N (local publication) / Photographer

WESTON STAFF (Name/Position)	SUBCONTRACT STAFF (Name/Position)
Marie Swiech – Laflamme / Site Manager/SSHO	William Doll / Battelle / Geophysicist
Mark Saunders – Project Geophysicist	Jeff Gamey / Battelle / Geophysicist
	Doug Christie / National / Pilot
	Marcus Watson / National / System Operator
	Police Details (2 officers) / Nantucket Police Department

WORK COMPLETED:

- ☐ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☐ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☒ Aerial Mag
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments:

- WESTON provided traffic and access control for central and eastern portion of FUDS, between Russell's Way and Tom Nevers Rd.
- Continued aerial survey of secured area and completed 3 flights.
- Kit Noble of the N (local publication) was on-site between 1330 and 1420-hrs to photograph activities for an article being prepared by the magazine.
- Area of FUDS surveyed as of 17 March 2012 ~ 1552 acres of a total of 2,267 acres
  Estimate percent complete = 68%
  Acreage from 18 March 2012 unknown at time of report distribution.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

- None

PROBLEMS/RESOLUTIONS:

- Kit Noble requested from WESTON a chance to shadow us for the day to write their article, MSL responded that we would relay the request through USACE.

DATA TRACKING:

Ground Reconnaissance:

- Not applicable.

Items Confirmed:

- Not applicable.

Analog Survey Transects:

- Not applicable.

Items Found Today:

- Not applicable.

DGM Grids:

- Not applicable.

DGM Grids Reacquired:

- Not applicable.

Data Acquired by Battelle:

- Continued geophysical survey in central and western portion of FUDS between Russell's Way and Tom Nevers Road. Area surveyed = unknown at time of report distribution.

Data Provided to WESTON:

- 17 March 2012 survey QC data.
  Area surveyed = 299.7 acres.

Data Provided to USACE:

- 17 March survey QC data packages.

Data Accepted by USACE:

- None.

Comments:

- None

FURTHER DISCUSSION (List Topic and Comment):

- None.

PREPARED BY:	**SIGNATURE:**
Marie Swiech-Laflamme / Site Manager/SSHO	

Attach applicable logs and reports below (QC Report, photo log, etc.)

Photo Log

031812-01
Survey in-progress



031812-02
Photo opportunity for local publication



031812-03
Survey in-progress.



Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

Contract No.:/DO No.:/Report No.:/DCN No.	WORK ORDER NO.:	DATE
W912DR-09-D-006 / 005 / 019 / MAMMS05-031912-AAHL	03886.551.004.0011	19 March 2012 - Monday

WEATHER: Clear (0.0in precipitation), High 52 °F/ Low 35 °F; Winds from the SW 9-17 mph, Gusts > 20 mph
Source: Nantucket Airport Weather Station (KACK) via www.wunderground.com

WORK LOCATION: MRS 2, Nantucket Airport

WORK HOURS: 0630-hrs to 1500-hrs

Flight 1 survey time – 0812 to 1003-hrs
Flight 2 survey time – 1125 to 1308-hrs
Winds increasing at end of Flight 2 (gusts at 22 mph), went to stand-by mode until 1500-hrs; weather report received from aviation tower at 1500-hrs indicating that winds would not dissipate until after 1700-hrs; cancelled Flight 3; winds gusting up to 22 mph.

VISITORS(Name/firm):

David King / CENAB / QA Geophysicist

Kit Noble / The N (local publication) / Photographer

WESTON STAFF (Name/Position)	SUBCONTRACT STAFF (Name/Position)
Marie Swiech – Laflamme / Site Manager/SSHO	William Doll / Battelle / Geophysicist
Mark Saunders – Project Geophysicist	Jeff Gamey / Battelle / Geophysicist
	Doug Christie / National / Pilot
	Marcus Watson / National / System Operator
	Chris Scheftic / National / Engineer
	Police Details (2 officers) / Nantucket Police Department

WORK COMPLETED:

- ☐ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☐ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☒ Aerial Mag
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments:

- WESTON provided traffic and access control for north and south of Milestone Rd., south of Wigwam Rd. and along beach.
- Continued aerial survey of secured area and completed 2 flights.
- Kit Noble of the N (local publication) was on-site (Nantucket Airport) to photograph activities for an article being prepared by the magazine.
- Area of FUDS surveyed as of 18 March 2012 ~ 1,879 acres of a total of 2,267 acres
  Estimate percent complete = 83%
  Acreage from 19 March 2012 unknown at time of report distribution.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

- None

PROBLEMS/RESOLUTIONS:

- Request from USACE (C.Charette) to refly beach using a contoured flight plan along the toe and top of bluffs. This reflight was conducted today due to favorable wind direction.
- WESTON provided C.Charette's contact information to Kit Noble of the N magazine for future interview.

DATA TRACKING:

Ground Reconnaissance:

- Not applicable.

Items Confirmed:

- Not applicable.

Analog Survey Transects:

- Not applicable.

Items Found Today:

- Not applicable.

DGM Grids:

- Not applicable.

DGM Grids Reacquired:

- Not applicable.

Data Acquired by Battelle:

- Continued geophysical survey; south of Milestone Rd., and south of Wigwam Rd. Conducted reflights north of Milestone Rd., and performed contour flights along the toe of slope and top of the bluffs (per request USACE).
  Area surveyed = unknown at time of report distribution.

Data Provided to WESTON:

- 18 March 2012 survey QC data.
  Area surveyed = 327.1 acres.

Data Provided to USACE:

- 17 March and 18 March survey QC data packages.
- Redelivered DVD with all geosoft maps and grids for all data collected prior to 15 March 2012.

Data Accepted by USACE:

- None.

Comments:

- None

FURTHER DISCUSSION (List Topic and Comment):

- Terrain along Milestone Rd. has been determined not to be conducive to Wide Area Assessment technique being used due to tall, overhanging trees and overhead utilities that will result in flight at altitude above optimum parameter for data collection. Project team should discuss on teleconference status update tomorrow morning (1000-hrs) to determine if an attempt would be beneficial considering the low probability of collecting useful data, increased safety risks and logistic required to conduct traffic control for Milestone road.

PREPARED BY:	**SIGNATURE:**
Marie Swiech-Laflamme / Site Manager/SSHO	

Attach applicable logs and reports below (QC Report, photo log, etc.)

Photo Log

031912-01
Banking turn



031912-02
Undershot of magnetometer array



Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

Contract No.:/DO No.:/Report No.:/DCN No.	WORK ORDER NO.:	DATE
W912DR-09-D-006 / 005 / 020 / MAMMS05-032012-AAHM	03886.551.004.0011	20 March 2012 - Tuesday

WEATHER: Partly cloudy/periods of heavy fog, High 64 °F/ Low 39 °F; Winds from the SW 5-13 mph
Source: Nantucket Airport Weather Station (KACK) via www.wunderground.com

WORK LOCATION: MRS 2, Nantucket Airport

WORK HOURS: 0630-hrs to 1730-hrs

Flight 1 survey time – 1025 to 1112-hrs
Flight 1 terminated due to heavy fog cover over survey area.
Flight 2 survey time – 1215 to 1312-hrs
Flight 2 terminated due to heavy fog cover over survey area
Flight 3 survey time – 1500 to 1650-hrs

VISITORS(Name/firm):

David King / CENAB / QA Geophysicist

WESTON STAFF (Name/Position)	SUBCONTRACT STAFF (Name/Position)
Marie Swiech – Laflamme / Site Manager/SSHO	William Doll / Battelle / Geophysicist
Mark Saunders – Project Geophysicist	Jeff Gamey / Battelle / Geophysicist
	Doug Christie / National / Pilot
	Marcus Watson / National / System Operator
	Chris Scheftic / National / Engineer
	Police Details (2 officers) / Nantucket Police Department

WORK COMPLETED:

- ☐ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☐ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☒ Aerial Mag
- ☒ Aerial Mag Accessible Anomaly Evaluation
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments:

- WESTON provided traffic and access control in central portion of FUDS near target area, north and south of Milestone Rd., and area east of Russell's Way.
- Continued aerial survey of secured area and completed 3 flights.
- Area of FUDS surveyed as of 19 March 2012 ~ 2,083 acres of a total of 2,267 acres
  Estimate percent complete = 92%
  Acreage from 20 March 2012 unknown at time of report distribution.
- WESTON began aerial mag accessible anomaly evaluation for detected anomalies in accessible portions of the FUDS (along beach and open areas in southeast portion of FUDS) that do not require UXO tech support to provide anomaly avoidance for ground truthing. Activities included collection of GPS data and attribute information for anomalies determined to be non-munitions related. This information is being shared with Battelle to facilitate selection of target cluster areas for subsequent ground-based geophysical investigation.
- David Bell (Battelle) arrived onsite this evening to begin overlap with W.Doll.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

- None

PROBLEMS/RESOLUTIONS:

- Extreme fog event off the southern coastline terminated both Flight 1 and Flight 2 ahead of schedule; work areas and flight approach lines were adapted throughout the day to continue aerial data collection in safe flying conditions.
- Decisions made by project team at Weekly Status Update Teleconference held at 1000-hrs (WESTON/Battelle participants from field activities included Marie Swiech-Laflamme, Mark Saunders and William Doll) determined that continued activities will not include an attempt to survey along Milestone Rd., due to high tree cover bordering in both sides, and overhead utility wires along the south side that will result in flight over this area at altitudes above optimum for data collection.

DATA TRACKING:

Ground Reconnaissance:

- Not applicable.

Items Confirmed:

- Not applicable.

Analog Survey Transects:

- Not applicable.

Items Found Today:

- Not applicable.

DGM Grids:

- Not applicable.

DGM Grids Reacquired:

- Not applicable.

Data Acquired by Battelle:

- Continued geophysical survey; in central portion of FUDS near target area, and northwest portion of FUDS over New South Rd., and east of Russell's Way. Conducted reflights north of Milestone Rd.
  Area surveyed = unknown at time of report distribution.

Data Provided to WESTON:

- 19 March 2012 survey QC data.
  Area surveyed = 204 acres.

Data Provided to USACE:

- 19 March survey QC data packages.
- Survey data deliverable for data collected between 15 March and 19 March 2012.

Data Accepted by USACE:

- None.

Comments:

- None

FURTHER DISCUSSION (List Topic and Comment):

- None.

PREPARED BY:	**SIGNATURE:**
Marie Swiech-Laflamme / Site Manager/SSHO	

Attach applicable logs and reports below (QC Report, photo log, etc.)

Photo Log

032012-01
Extreme fog event in southern, central portion of FUDS near former target areas.



032012-02
Flying above high vegetation along Milestone Rd. to the north.



Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

Contract No.:/DO No.:/Report No.:/DCN No.	WORK ORDER NO.:	DATE
W912DR-09-D-006 / 005 / 021 / MAMMS05-032112-AAHN	03886.551.004.0011	21 March 2012 - Wednesday

WEATHER: Partly cloudy/periods of heavy fog, High 64 °F/ Low 46 °F; Winds from the SW 8-14 mph
Source: Nantucket Airport Weather Station (KACK) via www.wunderground.com

WORK LOCATION: MRS 2, Nantucket Airport

WORK HOURS: 0630-hrs to 1700-hrs

Flight 1 survey time – 1220 to 1325-hrs
Flight 1 delayed due to dense, fog in the morning.
Flight 2 survey time – 1430 to 1620-hrs

VISITORS(Name/firm):

David King / CENAB / QA Geophysicist

WESTON STAFF (Name/Position)	SUBCONTRACT STAFF (Name/Position)
Marie Swiech – Laflamme / Site Manager/SSHO	David Bell / Battelle / Engineer
Mark Saunders – Project Geophysicist	William Doll / Battelle / Geophysicist
Brian Guthrie – Project Geophysicist	Jeff Gamey / Battelle / Geophysicist
	Doug Christie / National / Pilot
	Marcus Watson / National / System Operator
	Chris Scheftic / National / Engineer
	Police Details (2 officers) / Nantucket Police Department

WORK COMPLETED:

- ☐ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☐ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☒ Aerial Mag
- ☒ Aerial Mag Accessible Anomaly Evaluation
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments:

- WESTON provided traffic and access control north of Milestone, south of Wigwam and in the northwest portion of the FUDS along New South Rd.
- Continued aerial survey of secured area and completed 2 flights.
- Area of FUDS surveyed as of 19 March 2012 ~ 2,083 acres of a total of 2,267 acres
  Estimate percent complete = 92%
  *Survey data collected on 20 March 2012 requires reflights (see problems/resolutions section below).
  Acreage from 21 March 2012 unknown at time of report distribution.
- WESTON continued aerial mag accessible anomaly evaluation for detected anomalies in accessible portions of the FUDS (in Tom Nevers Area) that do not require UXO tech support to provide anomaly avoidance for ground truthing. Activities included collection of GPS data and attribute information for anomalies determined to be non-munitions related. This information is being shared with Battelle to facilitate selection of target cluster areas for subsequent ground-based geophysical investigation.
- William Doll (Battelle) left Nantucket at 1500-hrs, David Bell has assumed lead role for Battelle team.
- Brian Guthrie (WESTON Geophysicist) on-site to begin overlap with Mark Saunders.
- WESTON conducted site walk with potential bidders on land clearing required to facilitate ground-based geophysics.
- WESTON was contacted by local TV channel (channel 17 - Geno Tv) about filming helicopter/survey footage and interviewing the field team. WESTON provided contact information for USACE to Geno for further information. Based on teleconference conducted with C.Charette (USACE), C.Kane (WESTON), Tim Dugan (USACE), D.King (USACE) and M.Swiech-Laflamme

(WESTON), WESTON/Battelle will accommodate media to the extent that it does not impact our work and will limit communication to the project-specific information that has been disseminated in public releases. D.King will provide on-site government representation.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

- None

PROBLEMS/RESOLUTIONS:

- Extreme fog event over entire island and FUDS delayed the start of Flight 1 until after 1200-hrs.
- *Survey data collected on 20 March 2012 was incomplete (missing GPS positioning data) and will require resurveying.

DATA TRACKING:

Ground Reconnaissance:
- Not applicable.

Items Confirmed:
- Not applicable.

Analog Survey Transects:
- Not applicable.

Items Found Today:
- Not applicable.

DGM Grids:
- Not applicable.

DGM Grids Reacquired:
- Not applicable.

Data Acquired by Battelle:

- Continued geophysical survey; in northwest portion of FUDS over New South Rd., and east of Russell's Way. Conducted reflights north of Milestone Rd and south of Wigwam Rd.
  Area surveyed = unknown at time of report distribution.

Data Provided to WESTON:

- None due to incomplete data collection on 20 March 2012.

Data Provided to USACE:

- None.

Data Accepted by USACE:

- QA package completed by D.King for data collected on 11 March and 14 March 2012.

Comments:

- None

FURTHER DISCUSSION (List Topic and Comment):

- None.

PREPARED BY:	**SIGNATURE:**
Marie Swiech-Laflamme / Site Manager/SSHO	

Attach applicable logs and reports below (QC Report, photo log, etc.)

Photo Log

032112-01
Surveying over New South Rd. adjacent to airport



Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

Contract No.:/DO No.:/Report No.:/DCN No.	WORK ORDER NO.:	DATE
W912DR-09-D-006 / 005 / 022 / MAMMS05-032212-AAHO	03886.551.004.0011	22 March 2012 - Thursday

WEATHER: Overcast/periods of heavy fog, High 59 °F/ Low 48 °F; Winds from the WSW 13-22 mph, Gusts up to 28 mph
Source: Nantucket Airport Weather Station (KACK) via www.wunderground.com

WORK LOCATION: MRS 2, Nantucket Airport

WORK HOURS: 0630-hrs to 1600-hrs

Ground crew and flight crew on standby all day until 1600-hrs. Weather conditions were assessed every 30-90 minutes, until a final determination to terminate daily activities was made at 1600-hrs. .

VISITORS(Name/firm):

David King / CENAB / QA Geophysicist

WESTON STAFF (Name/Position)	SUBCONTRACT STAFF (Name/Position)
Marie Swiech – Laflamme / Site Manager/SSHO	David Bell / Battelle / Engineer
Mark Saunders – Project Geophysicist	William Doll / Battelle / Geophysicist
Brian Guthrie – Project Geophysicist	Jeff Gamey / Battelle / Geophysicist
	Doug Christie / National / Pilot
	Marcus Watson / National / System Operator
	Chris Scheftic / National / Engineer

WORK COMPLETED:

- ☐ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☐ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☒ Aerial Mag Accessible Anomaly Evaluation
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments:

- Area of FUDS surveyed as of 21 March 2012 ~ 2,218 acres of a total of 2,267 acres
  Estimate percent complete = 98%
- WESTON continued aerial mag accessible anomaly evaluation for detected anomalies in accessible portions of the FUDS (North of Milestone Rd.) that do not require UXO tech support to provide anomaly avoidance for ground truthing. Activities included collection of GPS data and attribute information for anomalies determined to be non-munitions related. This information is being shared with Battelle to facilitate selection of target cluster areas for subsequent ground-based geophysical investigation.
- Mark Saunders (WESTON), and Chris Scheftic (National) off-island at 1100-hrs.
- Brian Guthrie (WESTON Geophysicist) has assumed role of project geophysicist for WESTON in-place of Mark Saunders.
- WESTON, USACE, Battelle and National met with Geno Geng of Geno Tv channel 17 (local) at Hanger 2 at the Nantucket Airport. Geno interviewed crew members and collected video footage of helicopter and equipment being used. WESTON provided Geno with copies of public news released that have been disseminated through the CENAE PAO for his reference.
- Darcy McCabe (National) arrived on-site this evening to perform mechanical engineering services for helicopter.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

- None

PROBLEMS/RESOLUTIONS:

- Extreme fog event over Nantucket and high winds precluded survey activities today. Crews assumed standby and assessed changing conditions all day until 1600-hrs. At no time were conditions observed to be safe for flight. .

DATA TRACKING:

Ground Reconnaissance:
- Not applicable.

Items Confirmed:
- Not applicable.

Analog Survey Transects:
- Not applicable.

Items Found Today:
- Not applicable.

DGM Grids:
- Not applicable.

DGM Grids Reacquired:
- Not applicable.

Data Acquired by Battelle:

- None due to inclement weather conditions.

Data Provided to WESTON:

- 21 March 2012 survey QC data.
  Area surveyed = 135.1 acres

Data Provided to USACE:

- 21 March 2012 survey QC data.

Data Accepted by USACE:

- QA package completed by D.King for data collected on 12 March and 13 March 2012.

Comments:

- None

FURTHER DISCUSSION (List Topic and Comment):

- None.

PREPARED BY:	**SIGNATURE:**
Marie Swiech-Laflamme / Site Manager/SSHO	

Attach applicable logs and reports below (QC Report, photo log, etc.)

Photo Log

032212-01
Pushing out the machine for meeting with Geno Tv.



032201-02
Geno Tv interviewing David King (USACE)



032212-03
Geno Tv interviewing David Bell (Battelle)



Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

Contract No.:/DO No.:/Report No.:/DCN No.	WORK ORDER NO.:	DATE
W912DR-09-D-006 / 005 / 023 / MAMMS05-032312-AAHP	03886.551.004.0011	23 March 2012 - Friday

WEATHER: Partly cloudy/light AM precipitation (0.0 in), High 66 °F/ Low 48 °F; Winds from the WNW 13-18 mph, Gusts up to 24 mph
Source: Nantucket Airport Weather Station (KACK) via www.wunderground.com

WORK LOCATION: MRS 2, Nantucket Airport

WORK HOURS: 0630-hrs to 1700-hrs

Flight 1 survey time – 0900 to 1109-hrs
Flight 1 delayed start due to AM precipitation.
Flight 2 survey time – 1245 to 1456-hrs
Flight 2 delayed start due to gusting winds at 20+ mph.
Flight 3 survey time – 1517 to 1545-hrs
Flight 3 terminated due to shifting wind directions that precluded surveying in any of the remaining survey areas along the preloaded flight line directions.

VISITORS(Name/firm):

David King / CENAB / QA Geophysicist

WESTON STAFF (Name/Position)	SUBCONTRACT STAFF (Name/Position)
Marie Swiech – Laflamme / Site Manager/SSHO	David Bell / Battelle / Engineer
Brian Guthrie – Project Geophysicist	Jeff Gamey / Battelle / Geophysicist
	Doug Christie / National / Pilot
	Marcus Watson / National / System Operator
	Darcy McCabe / National / Engineer
	Police Detail officers (Keith and Bill) / Nantucket Police Department

WORK COMPLETED:

- ☐ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☐ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☒ Aerial Mag
- ☒ Aerial Mag Accessible Anomaly Evaluation
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments:

- WESTON provided traffic and access control in central portion of FUDS, and along Russell's Way.
- Continued aerial survey of secured area and completed 3 flights.
- Area of FUDS surveyed as of 21 March 2012 ~ 2,218 acres of a total of 2,267 acres
  Estimate percent complete = 98%
  No survey data was collected on 22 March 2012 due to inclement weather, and 23 March 2012 aerial mag coverage was unavailable at the time of report distribution.
- WESTON continued aerial mag accessible anomaly evaluation for detected anomalies in accessible portions of the FUDS (North of Milestone Rd., Tom Nevers Area and southwest corner of FUDS) that do not require UXO tech support to provide anomaly avoidance for ground truthing. Activities included collection of GPS data and attribute information for anomalies determined to be non-munitions related.
- Conducted teleconference from the field with Project Team (WESTON, CENAE and CENAB) on current status and projection for aerial mag survey completion.
- Jacob Sheehan (Battelle) arrived on-site this evening to begin overlap with Jeff Gamey to perform on-site data processing.
- WESTON began process of revising the traffic control permit for Milestone Road for ground-based, rather than airborne geophysical activities.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

- None.

PROBLEMS/RESOLUTIONS:

- None.

DATA TRACKING:

Ground Reconnaissance:
- Not applicable.

Items Confirmed:
- Not applicable.

Analog Survey Transects:
- Not applicable.

Items Found Today:
- Not applicable.

DGM Grids:
- Not applicable.

DGM Grids Reacquired:
- Not applicable.

Data Acquired by Battelle:
- None due to inclement weather conditions.

Data Provided to WESTON:
- None as survey data was not collected on 22 March 2012.

Data Provided to USACE:
- None as survey data was not collected on 22 March 2012.

Data Accepted by USACE:
- QA package completed by D.King for data collected on 15 March 2012, through 19 March 2012.

Comments:
- None

FURTHER DISCUSSION (List Topic and Comment):

- None.

PREPARED BY:	**SIGNATURE:**
Marie Swiech-Laflamme / Site Manager/SSHO	

Attach applicable logs and reports below (QC Report, photo log, etc.)

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

Contract No.:/DO No.:/Report No.:/DCN No.	WORK ORDER NO.:	DATE
W912DR-09-D-006 / 005 / 024 / MAMMS05-032412-AAHQ	03886.551.004.0011	24 March 2012 - Saturday

WEATHER: Mostly cloudy, High 53 °F/ Low 43 °F; Winds from the E 10-13 mph, Gusts up to 20 mph
Source: Nantucket Airport Weather Station (KACK) via www.wunderground.com

WORK LOCATION: MRS 2, Nantucket Airport

WORK HOURS: 0630-hrs to 1600-hrs

Flight 1 survey time – 0810 to 0950-hrs
Flight 2 survey time – 1105 to 1210-hrs
Flight 2 terminated due to gusting winds at 20+ mph.
Flight 3 survey time – 1335 to 1345-hrs
Flight 3 terminated due to gusting winds at 20+ mph.

VISITORS(Name/firm):

David King / CENAB / QA Geophysicist
Geno Geng (and Harry Geng) / GenoTv
Nantucket Auto Body

WESTON STAFF (Name/Position)	SUBCONTRACT STAFF (Name/Position)
Marie Swiech – Laflamme / Site Manager/SSHO	David Bell / Battelle / Project Manager
Brian Guthrie – Project Geophysicist	Jeff Gamey / Battelle / Geophysicist
	Jacob Sheehan / Battelle/Zonge / Geophysicist
	Doug Christie / National / Pilot
	Marcus Watson / National / System Operator
	Darcy McCabe / National / Engineer
	Police Detail officers (Keith and Bill) / Nantucket Police Department

WORK COMPLETED:

- ☐ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☐ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☒ Aerial Mag
- ☒ Aerial Mag Accessible Anomaly Evaluation
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments:

- WESTON provided traffic and access control in central portion of FUDS, and along Russell's Way.
- Continued aerial survey of secured area and completed 2 flights, with a short third flight (terminated due to wind).
- Total acreage surveyed as of 23 March 2012 is 2,446 acres (includes required reflights).
- WESTON continued aerial mag accessible anomaly evaluation for detected anomalies in accessible portions of the FUDS (southwest corner of FUDS) that do not require UXO tech support to provide anomaly avoidance for ground truthing. Activities included collection of GPS data and attribute information for anomalies determined to be non-munitions related.
- Jeff Gamey (Battelle) off-island at 1030-hrs. Jacob Sheehan (Battelle/Zonge) has assumed role of on-site data processing.
- Geno (and his son Harry) were on-site between 1100 and 1130-hrs to film survey in progress for broadcast on local TV station (Channel 17).
- Nantucket Auto Body on-site between 1240 and 1250-hrs to tow USACE vehicle from soft sand.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

- None.

PROBLEMS/RESOLUTIONS:

- None.

DATA TRACKING:

Ground Reconnaissance:
- Not applicable.

Items Confirmed:
- Not applicable.

Analog Survey Transects:
- Not applicable.

Items Found Today:
- Not applicable.

DGM Grids:
- Not applicable.

DGM Grids Reacquired:
- Not applicable.

Data Acquired by Battelle:

- Conducted all required reflights (to date) and continued surveying in central, eastern portion of FUDS, near Target No. 3.

Data Provided to WESTON:

- QC data packages for 23 March 2012.
  Area surveyed = 228.4 acres

Data Provided to USACE:

- QC data packages for 23 March 2012.
- Submitted DVD with survey data deliverables for data collected on 21 March and 23 March 2012 (no data collected 22 March).

Data Accepted by USACE:

- None.

Comments:

- None

FURTHER DISCUSSION (List Topic and Comment):

- None.

PREPARED BY:	**SIGNATURE:**
Marie Swiech-Laflamme / Site Manager/SSHO	

Attach applicable logs and reports below (QC Report, photo log, etc.)

Photo Log

032412-01
Geno Tv on-site filming survey activities



032412-02
Survey in-progress over Russell’s Way



032412-03
Survey in-progress over Russell’s Way



Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

Contract No.:/DO No.:/Report No.:/DCN No.	WORK ORDER NO.:	DATE
W912DR-09-D-006 / 005 / 025 / MAMMS05-032512-AAHR	03886.551.004.0011	25 March 2012 - Sunday

WEATHER: Overcast, rain (0.30 in.), High 48 °F/ Low 42 °F; Winds from the SW 11-18 mph, Gusts up to 22 mph
Source: Nantucket Airport Weather Station (KACK) via www.wunderground.com

WORK LOCATION: MRS 2, Nantucket Airport

WORK HOURS: 0630-hrs to 1530-hrs

Flight 1 survey time – 0749 to 0815-hrs
Flight 1 terminated due to rain.
Reassessment of weather conditions made as a team (including radar review and updates from aviation tower) every 30-90 minutes throughout day with no indication of improvement.

VISITORS(Name/firm):

David King / CENAB / QA Geophysicist

WESTON STAFF (Name/Position)	SUBCONTRACT STAFF (Name/Position)
Marie Swiech – Laflamme / Site Manager/SSHO	David Bell / Battelle / Project Manager
Brian Guthrie – Project Geophysicist	Jacob Sheehan / Battelle/Zonge / Geophysicist
	Doug Christie / National / Pilot
	Marcus Watson / National / System Operator
	Darcy McCabe / National / Engineer
	Police Detail officers (Mike and John) / Nantucket Police Department (4 hrs)

WORK COMPLETED:

- ☐ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☐ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☒ Aerial Mag
- ☒ Aerial Mag Accessible Anomaly Evaluation
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments:

- WESTON provided traffic and access control in central portion of FUDS, and along Russell's Way.
- Continued aerial survey of secured area and completed 1 partial flight (terminated due to rain).
- Total acreage surveyed as of 24 March 2012 is 2,588.6 acres (includes required reflights).
- Estimate percent complete = 95% (2,157 acres surveyed out of 2,267 acres).
- WESTON continued aerial mag accessible anomaly evaluation for detected anomalies in accessible portions of the FUDS (southwest corner of FUDS) that do not require UXO tech support to provide anomaly avoidance for ground truthing. Activities included collection of GPS data and attribute information for anomalies determined to be non-munitions related.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

- None.

PROBLEMS/RESOLUTIONS:

- Heavy precipitation event today/team reassessed conditions every 30-90 minutes throughout day with no improvement noted permitting safe flight conditions.
- Forecast outlook for 26 and 27 March (Monday and Tuesday) indicates very windy conditions (up to and greater than 35 mph)/Team strategized contingency plans to complete activities given typical wind conditions observed on island, in addition to forecasted wind directions/speeds for the next two days. Generated multiple flight patterns for the two remaining blocks requiring initial survey (total of 110 acres remaining to be surveyed).

DATA TRACKING:

Ground Reconnaissance:

- Not applicable.

Items Confirmed:

- Not applicable.

Analog Survey Transects:

- Not applicable.

Items Found Today:

- Not applicable.

DGM Grids:

- Not applicable.

DGM Grids Reacquired:

- Not applicable.

Data Acquired by Battelle:

- Continued surveying in central, eastern portion of FUDS, near Target No. 3.

Data Provided to WESTON:

- QC data package for 24 March 2012.
  Area surveyed = 142.2 acres

Data Provided to USACE:

- QC data package for 24 March 2012.
- Submitted DVD with survey data submittal for 24 March 2012.

Data Accepted by USACE:

- QA package completed by D.King for data collected on 21 March 2012 and 23 March 2012.

Comments:

- None

FURTHER DISCUSSION (List Topic and Comment):

- None.

PREPARED BY:	**SIGNATURE:**
Marie Swiech-Laflamme / Site Manager/SSHO	

Attach applicable logs and reports below (QC Report, photo log, etc.)

Photo Log

032512-01
Survey in-progress over New South Rd, near former Target No. 3.



Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

Contract No.:/DO No.:/Report No.:/DCN No.	WORK ORDER NO.:	DATE
W912DR-09-D-006 / 005 / 026 / MAMMS05-032612-AAJH	03886.551.004.0011	26 March 2012 - Monday

WEATHER: Overcast, High 52 °F/ Low 35 °F; Winds from the NNW 16-31 mph, Gusts up to 43 mph
Source: Nantucket Airport Weather Station (KACK) via www.wunderground.com

WORK LOCATION: MRS 2, Nantucket Airport

WORK HOURS: 0630-hrs to 1530-hrs

Flight 1 survey time – 0915 to 1040-hrs
Flight 1 delayed start due to IFR (Instrument Flight Rules) condition at airport and denial for request for takeoff prior to 0900-hrs due to low cloud ceiling and mist.
Sustained wind speed and gusts began increasing at the end of Flight 1 and precluded further aerial mag survey activities for the day. Reassessment of weather conditions were completed every 30-90 minutes throughout day with no indication of improvement.

VISITORS(Name/firm):

David King / CENAB / QA Geophysicist

WESTON STAFF (Name/Position)	SUBCONTRACT STAFF (Name/Position)
Marie Swiech – Laflamme / Site Manager/SSHO	David Bell / Battelle / Project Manager
Brian Guthrie – Project Geophysicist	Jacob Sheehan / Battelle/Zonge / Geophysicist
	Doug Christie / National / Pilot
	Marcus Watson / National / System Operator
	Darcy McCabe / National / Engineer
	Police Detail officers (Brett and Bob) / Nantucket Police Department (4 hrs)

WORK COMPLETED:

- ☐ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☐ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☒ Aerial Mag
- ☒ Aerial Mag Accessible Anomaly Evaluation
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments:

- WESTON provided traffic and access control in central portion of FUDS, and along Russell's Way.
- Continued aerial survey of secured area and completed 1 flight.
- Total acreage surveyed as of 26 March 2012 is 2,640.7 acres (includes required reflights).
- Estimate percent complete = 96% (2,182 acres surveyed out of 2,267 acres) as of 26 March 2012.
- WESTON continued aerial mag accessible anomaly evaluation for detected anomalies in accessible portions of the FUDS (southwest corner of FUDS) that do not require UXO tech support to provide anomaly avoidance for ground truthing. Activities included collection of GPS data and attribute information for anomalies determined to be non-munitions related.
- WESTON began site evaluation to locate potential locations for site facilities required to support future ground-based RI activities.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

- None.

PROBLEMS/RESOLUTIONS:

- Extreme winds (gusts at 40+ mph)/team on stand-by mode with reassessment on conditions made throughout the day with no notable improvement permitting safe flight.

DATA TRACKING:

Ground Reconnaissance:
- Not applicable.

Items Confirmed:
- Not applicable.

Analog Survey Transects:
- Not applicable.

Items Found Today:
- Not applicable.

DGM Grids:
- Not applicable.

DGM Grids Reacquired:
- Not applicable.

Data Acquired by Battelle:

- Continued surveying in central, eastern portion of FUDS, near Target No. 3.

Data Provided to WESTON:

- QC data package for 25 March 2012.
  Area surveyed = 17.81 acres

Data Provided to USACE:

- QC data package for 25 March 2012.

Data Accepted by USACE:

- None.

Comments:

- None

FURTHER DISCUSSION (List Topic and Comment):

- None.

PREPARED BY:	**SIGNATURE:**
Marie Swiech-Laflamme / Site Manager/SSHO	

Attach applicable logs and reports below (QC Report, photo log, etc.)

Photo Log

032612-01
Survey in-progress in central portion of FUDS.



032612-02
Survey in-progress in central portion of FUDS.



Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

Contract No.:/DO No.:/Report No.:/DCN No.	WORK ORDER NO.:	DATE
W912DR-09-D-006 / 005 / 027 / MAMMS05-032712-AAJI	03886.551.004.0011	27 March 2012 – Tuesday

WEATHER: Clear, High 44 °F/ Low 30 °F; Winds from the NNW 13-26 mph, Gusts up to 36 mph
Source: Nantucket Airport Weather Station (KACK) via www.wunderground.com

WORK LOCATION: None

WORK HOURS: 0700-hrs to 1600-hrs (stand by time only)

Sustained wind speed greater than 20 mph with gusts greater than 30 mph precluded airborne survey activities. Reassessment of weather conditions were completed every 30-90 minutes throughout day with no indication of improvement.

VISITORS(Name/firm):

David King / CENAB / QA Geophysicist

WESTON STAFF (Name/Position)	SUBCONTRACT STAFF (Name/Position)
Marie Swiech – Laflamme / Site Manager/SSHO	David Bell / Battelle / Project Manager
Brian Guthrie – Project Geophysicist	Jacob Sheehan / Battelle/Zonge / Geophysicist
	Doug Christie / National / Pilot
	Marcus Watson / National / System Operator
	Darcy McCabe / National / Engineer

WORK COMPLETED:

- ☐ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☐ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☒ Aerial Mag Accessible Anomaly Evaluation
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments:

- WESTON continued aerial mag accessible anomaly evaluation for detected anomalies in accessible portions of the FUDS (southwest corner of FUDS and beach) that do not require UXO tech support to provide anomaly avoidance for ground truthing. Activities included collection of GPS data and attribute information for anomalies determined to be non-munitions related.
- WESTON continued site evaluation to locate potential staging area for site facilities required to support future ground-based RI activities. Preliminary identification of an open area with utility access in Tom Nevers Area. WESTON to confirm parcel ownership as NCF and begin coordination for use of property. WESTON to confirm background noise at this location to support siting for ground-based IVS.
- WESTON coordinated with FedEX and airport (Jeff Marks) about using the FBO as a location for explosive delivery during intrusive activities. The FBO address can be used, but preferred method will be having shipment held for pick-up at FedEX location by WESTON SUXOS/UXOSO. Preliminary approval received from FedEX, awaiting final approval from mainland office prior to providing shipping address/instructions to explosive supplier.
- WESTON contacted key residents to discuss flight activities along New South Road, which are anticipated to be conducted tomorrow. All parties contacted were amendable to plans and were given instructions to stay within homes during this time.MSL to provide notification prior to flying the roadway.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

- None.

PROBLEMS/RESOLUTIONS:

- Extreme winds (gusts at 40+ mph)/team on stand-by mode with reassessment on conditions made throughout the day with no notable improvement permitting safe flight.
- Weather forecasts indicate that winds will subside overnight and good flying conditions are expected until ~1100-hrs tomorrow. Therefore, teams prepare to begin flying at sunrise (0630-hrs) and are moving up start time to 0545-hrs to capitalize on good weather. Additionally, Battelle will be mobilizing data processing equipment to the Airport to maximize potential for conducting data quality assessment and identification of any final reflights in time to complete data collection tomorrow.

DATA TRACKING:

Ground Reconnaissance:

- Not applicable.

Items Confirmed:

- Not applicable.

Analog Survey Transects:

- Not applicable.

Items Found Today:

- Not applicable.

DGM Grids:

- Not applicable.

DGM Grids Reacquired:

- Not applicable.

Data Acquired by Battelle:

- None.

Data Provided to WESTON:

- QC data package for 26 March 2012.
  Area surveyed = 52.11 acres

Data Provided to USACE:

- QC data package for 26 March 2012.

Data Accepted by USACE:

- QA package completed by D.King for data collected on 24 March 2012.

Comments:

- None

FURTHER DISCUSSION (List Topic and Comment):

- None.

PREPARED BY:	**SIGNATURE:**
Marie Swiech-Laflamme / Site Manager/SSHO	

Attach applicable logs and reports below (QC Report, photo log, etc.)

Photo Log

032712-01
Potential staging area in Tom Nevers Area.



Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

Contract No.:/DO No.:/Report No.:/DCN No.	WORK ORDER NO.:	DATE
W912DR-09-D-006 / 005 / 028 / MAMMS05-032812-AAJJ	03886.551.004.0011	28 March 2012 – Wednesday

WEATHER: Overcast/showers (precip. 0.3 in), High 50 °F/ Low 33 °F; Winds from the SSW 8-25 mph, Gusts up to 33 mph
Source: Nantucket Airport Weather Station (KACK) via www.wunderground.com

WORK LOCATION: MRS 2, MRS 1, Nantucket Airport

WORK HOURS: 0600-hrs to 1500-hrs

Flight 1 survey time – 0710 to 0850-hrs
Flight 2 survey time – 0915 to 1000-hrs
Flight 2 completed and data was processed and reviewed for quality and coverage. Indication of data gap initiated Flight 3.
Flight 3 survey time – 1205 to 1215-hrs
Flight 3 terminated due to increasing wind speed with gusts up to 27 mph and imminent precipitation. Continued precipitation and gusting winds precluded continuing survey activities today. Reassessment of weather conditions made as a team (including radar review and updates from aviation tower), every 30-90 minutes throughout day with no indication of improvement.

VISITORS(Name/firm):

David King / CENAB / QA Geophysicist

Robert Cocuzzo / N Magazine / Reporter

WESTON STAFF (Name/Position)	SUBCONTRACT STAFF (Name/Position)
Marie Swiech – Laflamme / Site Manager/SSHO	David Bell / Battelle / Project Manager
Brian Guthrie – Project Geophysicist	Jacob Sheehan / Battelle/Zonge / Geophysicist
	Doug Christie / National / Pilot
	Marcus Watson / National / System Operator
	Darcy McCabe / National / Engineer
	Police details (Bill and Ryan) / Nantucket Police Department

WORK COMPLETED:

- ☐ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☐ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☒ Aerial Mag
- ☒ Aerial Mag Accessible Anomaly Evaluation
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments:

- WESTON provided traffic and access control in central portion of FUDS.
- Continued aerial survey of secured area and completed 2 flights and a partial flight 3 (terminated due to wind and rain).
- Total acreage surveyed as of 28 March 2012 is ~2,747.7 acres (includes required reflights).
- Estimate percent complete = 98% (2,226 acres surveyed out of 2,267 acres).
- WESTON escorted report Rob Cocuzzo (N magazine – local publication) into work area per request USACE to observe survey activities in-progress.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

- None.

PROBLEMS/RESOLUTIONS:

- Inclement weather including wind (gusting above 30 mph) and rain moved in at ~1215-hrs/team on stand-by mode with reassessment on conditions made throughout the day with no notable improvement permitting safe flight.

DATA TRACKING:

Ground Reconnaissance:
- Not applicable.

Items Confirmed:
- Not applicable.

Analog Survey Transects:
- Not applicable.

Items Found Today:
- Not applicable.

DGM Grids:
- Not applicable.

DGM Grids Reacquired:
- Not applicable.

Data Acquired by Battelle:

- Continued surveying in central portion of FUDS, near Target No. 1 and MRS 1 along New South Rd.
- Conducted reflights for 2 passes of data collection along beach at shoreline and over shallow water at max. low tide per request USACE

Data Provided to WESTON:

- QC data package for 28 March 2012.
  Area surveyed = 159.1 acres
  Submitted very late in the evening (WESTON to process and submit to USACE tomorrow)

Data Provided to USACE:

- None.

Data Accepted by USACE:

- None.

Comments:

- None

FURTHER DISCUSSION (List Topic and Comment):

- None.

PREPARED BY:	**SIGNATURE:**
Marie Swiech-Laflamme / Site Manager/SSHO	

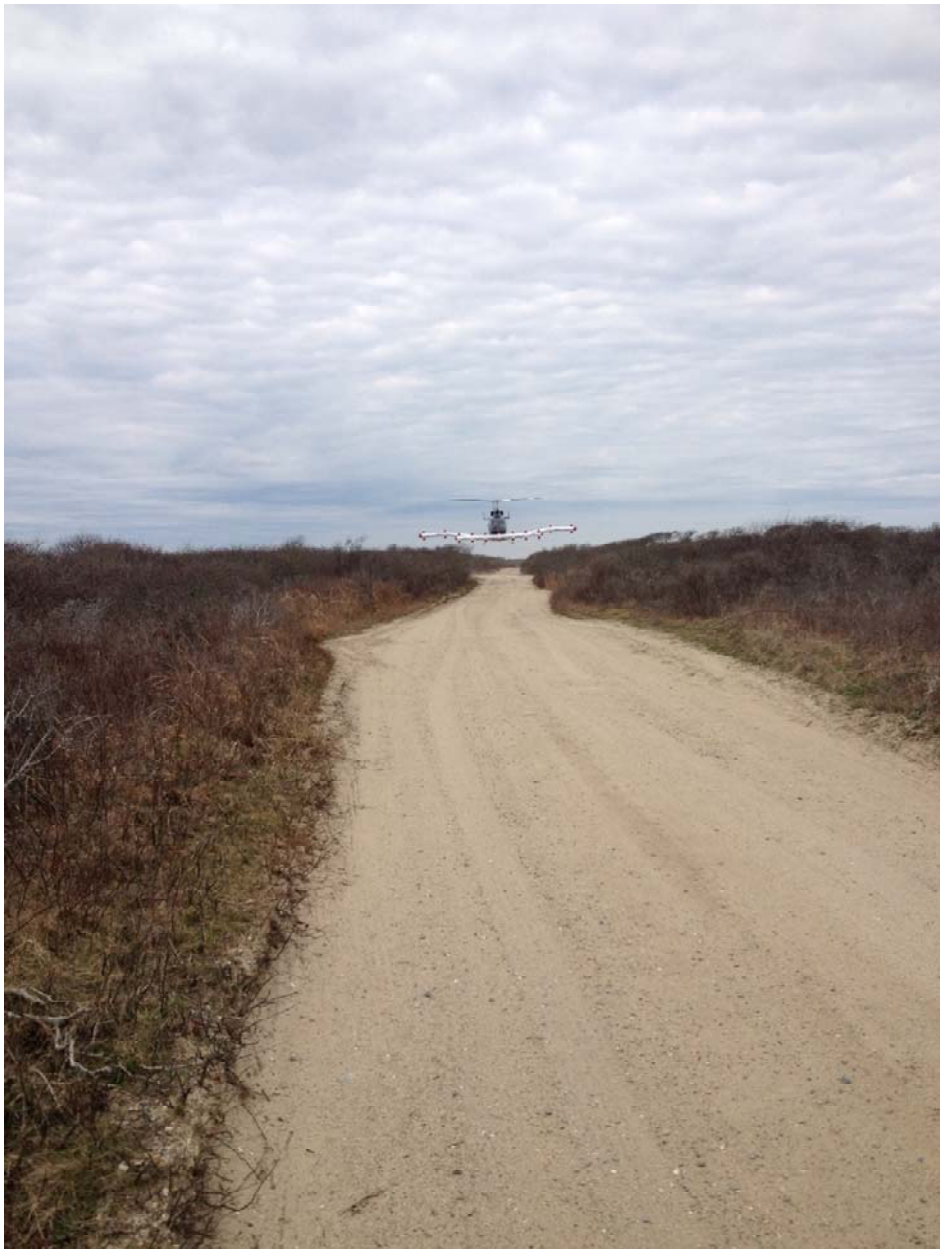
Attach applicable logs and reports below (QC Report, photo log, etc.)

Photo Log

032812-01
Survey in-progress in central portion of FUDS.



032812-02
Survey in-progress over New South Rd.



032812-03
Survey in-progress in vicinity of MRS 1.



032812-04
Reflight over beach at low tide.



Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

Contract No.:/DO No.:/Report No.:/DCN No.	WORK ORDER NO.:	DATE
W912DR-09-D-006 / 005 / 029 / MAMMS05-032912-AAJK	03886.551.004.0011	29 March 2012 – Thursday

WEATHER: Overcast/showers (precip. 0.04 in), High 48 °F/ Low 41 °F; Winds from the NW 11-26 mph, Gusts up to 34 mph
Source: Nantucket Airport Weather Station (KACK) via www.wunderground.com

WORK LOCATION: MRS 2, Nantucket Airport

WORK HOURS: 0630-hrs to 1600-hrs

Flight 1 survey time – 0802 to 0809-hrs
Flight 1 terminated due to rain showers obstructing pilot visibility.
Flight 2 survey time – 1004 to 1010-hrs
Flight 2 terminated due to increasing wind speed with gusts up to 32 mph. Reassessment of weather conditions made as a team (including radar review and updates from aviation tower), every 30-90 minutes throughout day with no indication of improvement.

VISITORS(Name/firm):

None

WESTON STAFF (Name/Position)	SUBCONTRACT STAFF (Name/Position)
Marie Swiech – Laflamme / Site Manager/SSHO	David Bell / Battelle / Project Manager
Brian Guthrie – Project Geophysicist	Jacob Sheehan / Battelle/Zonge / Geophysicist
	Doug Christie / National / Pilot
	Marcus Watson / National / System Operator
	Darcy McCabe / National / Engineer
	Police details (John and Travis) / Nantucket Police Department (4 hours)

WORK COMPLETED:

- ☐ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☐ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☒ Aerial Mag
- ☒ Aerial Mag Accessible Anomaly Evaluation
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments:

- WESTON provided traffic and access control in central portion of FUDS.
- Continued aerial survey of secured area and attempted 2 flights, both terminated due to inclement weather (rain/wind).
- Total acreage surveyed as of 28 March 2012 is ~2,747.7 acres (includes required reflights).
- Estimate percent complete = 98% (2,226 acres surveyed out of 2,267 acres).
- WESTON continued aerial mag accessible anomaly evaluation for detected anomalies in accessible portions of the FUDS (along beach) that do not require UXO tech support to provide anomaly avoidance for ground truthing. Activities included collection of GPS data and attribute information for anomalies determined to be non-munitions related.
- WESTON identified a munition item on ground surface, above bluffs on parcel 90.9 at ~1700-hrs. WESTON began notification USACE and WESTON POCs were notified along with residential point of contact for property. The item was confirmed by Al Larkins (WESTON MEC QC Manager) to be a 2.25" sub caliber aircraft rocket with one of the following rocket motors; Mk 10, Mk 11, Mk12 or Mk 13. There warhead is solid with the only explosive hazard being possibly the rocket motor but it is probably expended because it was fired.
- WESTON confirmed with on-island FedEx location that they will be able to hold receipt of donor explosives shipped to the Site for intrusive/disposal actions necessary to support ground-based activities. WESTON will arrange for direct pick-up from FedEx of incoming Class 1 DG shipments as needed on a daily basis (indication from FedEx that on-island distribution occurs at 1100-hrs daily). This approach is expected to limit over-the-road transport of DG required to support the RI as the storage magazine is located approximately 1 mile away from the FedEx distribution center.

- WESTON was contacted by the caretaker of 30 Okorwaw Avenue (property located west of airport outside of FUDS boundaries) on behalf of homeowner who reported a structure (potentially removed) on their property that resembles a "target". MSL was granted permission to inspect the property, but could not make a positive identification of target structure.
- D. King (USACE) off-island at 0630-hrs this morning – final QA of survey data to be conducted remotely.
- WESTON, Battelle and National provided background on personnel and equipment being utilized to complete the airborne survey to USACE (C.Charette) for review, revision and approval through CENAE PAO and final release to N Magazine to provide requested input for story underdevelopment.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

- None.

PROBLEMS/RESOLUTIONS:

- Inclement weather including wind (gusting above 30 mph) and rain/several attempts were made to conduct aerial mag survey activities today, but weather precluded safe flight and/or quality data collection/teams on stand-by mode with reassessment on conditions made throughout the day with no notable improvement permitting safe flight.
- WESTON identified an exposed munition item on key stakeholder property (parcel 90.9)/both internal and external notification process was enacted to initiate response actions.

DATA TRACKING:

Ground Reconnaissance:
- Not applicable.

Items Confirmed:
- Not applicable.

Analog Survey Transects:
- Not applicable.

Items Found Today:
- Not applicable.

DGM Grids:
- Not applicable.

DGM Grids Reacquired:
- Not applicable.

Data Acquired by Battelle:
- None

Data Provided to WESTON:
- None.

Data Provided to USACE:
- QC data package for 28 March 2012.

Data Accepted by USACE:
- None.

Comments:
- None

FURTHER DISCUSSION (List Topic and Comment):

- None.

PREPARED BY:	**SIGNATURE:**
Marie Swiech-Laflamme / Site Manager/SSHO	

Attach applicable logs and reports below (QC Report, photo log, etc.)

Photo Log

032912-01

Identified munition lying on surface of property adjacent to beach on parcel 90.9. Demarcated to facilitate future response actions (using non-intrusive means) per request property owner representative.

- **Munition item description**: 2.25" sub caliber aircraft rocket with one of the following rocket motors; Mk 10, Mk 11, Mk12 or Mk 13. There warhead is solid with the only explosive hazard being possibly the rocket motor but it is probably expended because it was fired.



Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

Contract No.:/DO No.:/Report No.:/DCN No.	WORK ORDER NO.:	DATE
W912DR-09-D-006 / 005 / 030 / MAMMS05-033012-AAJL	03886.551.004.0011	30 March 2012 – Friday

WEATHER: Partly cloudy (precip. 0.00 in), High 48 °F/ Low 36 °F; Winds from the NNW 13-17 mph, Gusts up to 28 mph
Source: Nantucket Airport Weather Station (KACK) via www.wunderground.com

WORK LOCATION: MRS 2, MRS 1, Nantucket Airport

WORK HOURS: 0630-hrs to 1630-hrs

Flight 1 survey time – 0745 to 0930-hrs
Flight 2 survey time – 1400 to 1430-hrs
Flight 2 conducted to capture final reflights and to survey MRS 1 and Target No. 1.

VISITORS(Name/firm):

Robert Cocuzzo / N Magazine

WESTON STAFF (Name/Position)	SUBCONTRACT STAFF (Name/Position)
Marie Swiech – Laflamme / Site Manager/SSHO	David Bell / Battelle / Project Manager
Brian Guthrie – Project Geophysicist	Jacob Sheehan / Battelle/Zonge / Geophysicist
	Doug Christie / National / Pilot
	Marcus Watson / National / System Operator
	Darcy McCabe / National / Engineer
	Police details (John and Doug) / Nantucket Police Department (4 hours)

WORK COMPLETED:

- ☐ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☐ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☒ Aerial Mag
- ☐ Aerial Mag Accessible Anomaly Evaluation
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments:

- WESTON provided traffic and access control in central portion of FUDS.
- Completed aerial survey of secured area, conducted 2 flights.
- Total acreage surveyed as of 30 March 2012 is ~2,814.3 acres (includes required reflights).
- Estimate percent complete = 100% (2,267 acres surveyed out of 2,267 acres).
- WESTON, Battelle and National conducted interview between 1600-hrs and 1630-hrs with Robert Cocuzzo for N Magazine with government representatives including C.Charette and T.Dugan (CENAE PAO) provided via teleconference. Article is scheduled for release in June.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

- None.

PROBLEMS/RESOLUTIONS:

- None.

DATA TRACKING:

Ground Reconnaissance:
- Not applicable.

Items Confirmed:
- Not applicable.

Analog Survey Transects:
- Not applicable.

Items Found Today:
- Not applicable.

DGM Grids:
- Not applicable.

DGM Grids Reacquired:
- Not applicable.

Data Acquired by Battelle:

- Completed survey within central portion of FUDS, in the vicinity of MRS 1 and Target No. 1.
  Acres surveyed = 66.6

Data Provided to WESTON:

- QC data package and survey data for 30 March 2012.

Data Provided to USACE:

- QC data package and survey data for 30 March 2012.

Data Accepted by USACE:

- QA package completed by D.King for data collected on 25 March, 26 March, 28 March and 30 March 2012.

Comments:

- None

FURTHER DISCUSSION (List Topic and Comment):

- Airborne survey complete! Confirmation received from D.King at 0611-hrs (31 March 2012) that data is acceptable. Crews to begin demobilization activities 31 March 2012.

PREPARED BY:	**SIGNATURE:**
Marie Swiech-Laflamme / Site Manager/SSHO	

Attach applicable logs and reports below (QC Report, photo log, etc.)

Photo Log

033012-01

Survey in-progress over New South Rd. in the vicinity of MRS 1 and Target No. 1.



Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

Contract No.:/DO No.:/Report No.:/DCN No.	WORK ORDER NO.:	DATE
W912DR-09-D-006 / 005 / 031 / MAMMS05-033112-AAJV	03886.551.004.0011	31 March 2012 – Saturday

WEATHER: Overcast/rain (precip. 0.12 in), High 43 °F/ Low 34 °F; Winds from the E 11-16 mph, Gusts up to 23 mph
Source: Nantucket Airport Weather Station (KACK) via www.wunderground.com

WORK LOCATION: Nantucket Airport

WORK HOURS: 0930-hrs to 1530-hrs

VISITORS(Name/firm):

None

WESTON STAFF (Name/Position)	SUBCONTRACT STAFF (Name/Position)
Marie Swiech – Laflamme / Site Manager/SSHO	David Bell / Battelle / Project Manager
Brian Guthrie – Project Geophysicist	Jacob Sheehan / Battelle/Zonge / Geophysicist
	Doug Christie / National / Pilot
	Marcus Watson / National / System Operator
	Darcy McCabe / National / Engineer

WORK COMPLETED:

- ☐ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☐ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Aerial Mag Accessible Anomaly Evaluation
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments:

- WESTON and Battelle conducted de-installation of the magnetometer array from the helicopter in preparation of demobilization tomorrow.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

- None.

PROBLEMS/RESOLUTIONS:

- None.

DATA TRACKING:

Ground Reconnaissance:

- Not applicable.

Items Confirmed:

- Not applicable.

Analog Survey Transects: • Not applicable.
Items Found Today: • Not applicable.
DGM Grids: • Not applicable.
DGM Grids Reacquired: • Not applicable.
Data Acquired by Battelle: • None.
Data Provided to WESTON: • None.
Data Provided to USACE: • None.
Data Accepted by USACE: • QA package completed by D.King for data collected on 30 March 2012.
Comments: • None
FURTHER DISCUSSION (List Topic and Comment): • None.

PREPARED BY:	**SIGNATURE:**
Marie Swiech-Laflamme / Site Manager/SSHO	

Attach applicable logs and reports below (QC Report, photo log, etc.)

Photo Log

033112-01

De-installation of the magnetometer array.



Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

Contract No.:/DO No.:/Report No.:/DCN No.	WORK ORDER NO.:	DATE
W912DR-09-D-006 / 005 / 032 / MAMMS05-040112-AAJW	03886.551.004.0011	01 April 2012 – Sunday

WEATHER: Partly cloudy/afternoon showers (precip. 0.04 in), High 48 °F/ Low 32 °F; Winds from the NNE 7-10 mph
Source: Nantucket Airport Weather Station (KACK) via www.wunderground.com

WORK LOCATION: Nantucket to various end-points (demobilization)

WORK HOURS: 0630-hrs +

VISITORS(Name/firm):

None

WESTON STAFF (Name/Position)	SUBCONTRACT STAFF (Name/Position)
Marie Swiech – Laflamme / Site Manager/SSHO	David Bell / Battelle / Project Manager
Brian Guthrie – Project Geophysicist	Jacob Sheehan / Battelle/Zonge / Geophysicist
	Doug Christie / National / Pilot
	Marcus Watson / National / System Operator
	Darcy McCabe / National / Engineer

WORK COMPLETED:

- ☐ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☐ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Aerial Mag Accessible Anomaly Evaluation
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments:

- Demobilization of all crew members, except Jacob Sheehan, who departs the island via airplane at 0730-hrs on 02 April 2012.
- David Bell departed island at 0630-hrs via ferry.
- National Helicopter and crew departed island at 0900-hrs.
- WESTON departed island at 1200-hrs via ferry and returned message boards off-island to vendor.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

- None.

PROBLEMS/RESOLUTIONS:

- None.

DATA TRACKING:

Ground Reconnaissance:

- Not applicable.

Items Confirmed: • Not applicable.
Analog Survey Transects: • Not applicable.
Items Found Today: • Not applicable.
DGM Grids: • Not applicable.
DGM Grids Reacquired: • Not applicable.
Data Acquired by Battelle: • None.
Data Provided to WESTON: • None.
Data Provided to USACE: • None.
Data Accepted by USACE: • None.
Comments: • None
FURTHER DISCUSSION (List Topic and Comment): • None.

PREPARED BY:	**SIGNATURE:**
Marie Swiech-Laflamme / Site Manager/SSHO	

Attach applicable logs and reports below (QC Report, photo log, etc.)

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

Contract No.:/DO No.:/Report No.:/DCN No.	WORK ORDER NO.:	DATE
W912DR-09-D-006 / 005 / 026 / MAMMS05-032612-AAJH	03886.551.004.0011	11 May 2012 - Friday

WEATHER: Sunny High 57 °F/ Low 50 °F; Winds from the NNW 16-22 mph, Gusts up to 27 mph
Source: Nantucket Airport Weather Station (KACK) via Weather Bug Application

WORK LOCATION: Munitions Bunker, Nantucket Airport

WORK HOURS: 00700-hrs to 1530-hrs

Installation of four grounding rods and associated grounding wire 0800-11:00.
Testing of the grounding system 11:00-12:45
Installation of an additional 4 grounding rods and associated wire 12:50- 1420
Test of entire system following the installation of 4 more grounding rods. 1425 – 1435
Backfill 1435 – 1500
Site Cleanup 1500- 1520
Off-site 1525

VISITORS(Name/firm):

Brian Ryder / Ryder Electric
Jeff Marks – Nantucket Airport

WESTON STAFF (Name/Position)	SUBCONTRACT STAFF (Name/Position)
Steve Kirejczyk / Site Manager/SSHO	Nate Connor/Ryder Electric/Electrician
	Andrew MacIver/Ryder Electric/Electrician
	Mike Fulton/Ryder Electric/Electrician (4 hours)
	Airport Escort/John/Maintenance Manager

WORK COMPLETED:

- ☐ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☒ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Aerial Mag Accessible Anomaly Evaluation
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments:

- Ryder Electric on-site and installed a total of eight grounding rods and approximately 70 feet of grounding wire around the explosives bunker.
- Tested the resistance of the grounding system installed following the installation of four grounding rods and achieved 260 ohms. Ryder Electric installed another four grounding rods and achieved 1.5 ohms which was below the goal of 25 ohms.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

- **Ryder delivered a total of (8) 10 Foot grounding rods along with a 350 foot roll of copper grounding wire. All in good condition.**

PROBLEMS/RESOLUTIONS:

- The megger meter that was supplied to Ryder electric from the Airport did not work. It was difficult to verify the resistance of the newly installed grounding system.
- Ryder obtained a Nilsson Soil Resistance Meter Model 400 from the island electric company. This meter is the correct meter for the application and made it possible to measure the complete system.

DATA TRACKING:

Ground Reconnaissance:
- Not applicable.

Items Confirmed:
- Not applicable.

Analog Survey Transects:
- Not applicable.

Items Found Today:
- Not applicable.

DGM Grids:
- Not applicable.

DGM Grids Reacquired:
- Not applicable.

Data Acquired by Battelle:
- Not Applicable.

Data Provided to WESTON:
- Not Applicable.

Data Provided to USACE:
- Not Applicable.

Data Accepted by USACE:
- None.

Comments:
- None

FURTHER DISCUSSION (List Topic and Comment):

- None.

PREPARED BY:	**SIGNATURE:**
Steve Kirejczyk / Site Manager/SSHO	

Attach applicable logs and reports below (QC Report, photo log, etc.)

Photo Log

051112-01
Grounding Rod at 12 Inches below grade.



051112-02
Explosive Magazine with 12” trench around it. .



051112-03

Typical Connection of wire to rods with “Acorn clamps”.



051112-04

Completed work with Grounding grid installed.



Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-006/005/034/ MAMMS05-052912-AALX	03886-551-004	29 May 2012

WEATHER: Sunny, 70 F AM, Cloudy, 85 F PM, Sunny, winds 5-15 mph

WORK LOCATION: Russell Way, New South Road, Tom Nevers Road, Milestone Road

VISITORS(Name/firm):

Geoff Thayer (Toscana)

WESTON STAFF (Name/Position)	SUBCONTRACT STAFF (Name/Position)
1. Brian Junck (Senior Geophysicist)	1. Geoff Thayer (Toscana)
2. Brian Guthrey (Project Geophysicist)	2.
3. Donald Mears (Senior UXO Supervisor)	3.
4. Dennis Houseknecht (UXO QC/Safety)	4.
5. Katie Morrison (Biologist/Project Technician)	5.
6. Chris Kane (Project Manager)	6.

WORK COMPLETED:

- ☐ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☒ Equipment Transport (mob/demob to/from site-List).
- ☐ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments: No sitework (WESTON mobilized the site, performed site orientation for staff, drove all major roads encompassing the site, reviewed 18 May 2012 Work Plan document, and attended Nantucket Conservation Foundation presentation on Harriers and Plovers.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

Trimble XH GPS, Trimble Pro GPS, 2 computers, 5 Schonstedts, EM61 System, cart, gurney, 2 vehicles

PROBLEMS/RESOLUTIONS:

-Weston site team reviewed all major stakeholder property boundaries, Rights of Entry limitations, site terrain vs. analog/DGM approach.
-Weston had previously arranged to view Eel Point for Plover viewing but NCF requested that Weston avoid due to holiday weekend traffic at Eel Point.

DATA TRACKING:

Ground Reconnaissance: None

Items Confirmed: None

Analog Survey Transects: None

Items Found Today: None

DGM Grids: None
DGM Grids Reacquired: None
Data Acquired from Sub: None
Data Provided to USACE: N/A
Data Accepted by USACE: N/A
Comments: Weston inspected the site along Milestone Road and Russells Way to view vegetation conditions for clearing.
FURTHER DISCUSSION (List Topic and Comment): **None**

PREPARED BY:	**SIGNATURE:**
Donald Mears (SUXOS)	

Attach applicable logs and reports below (QC Report, photo log, etc.)

DAILY QC REPORT

Project: Nantucket Beach, Former Nantucket Ordnance Site

Site Location: Nantucket, MA	Date: 5/29/12

Describe daily QC activities:

SUXOS and Safety/QC were escorted to the site by Brian Guthrie and given an indoctrination tour. No work was conducted; no QC activities performed. A planning meeting/discussion with PM and Geo Team was held.

Grid QC:

N/A

Transect QC:

N/A

Definable Feature of Work (identify control phase: preparatory, initial, follow-up, final)	**Inspection Performed**	**Result/Recommendation** (document deficiency, nonconformance, lesson learned)

Attach additional pages as necessary.

Approved By:

Dennis Houseknecht (UXO QC/Safety)

Approval Date:

31 May 2012

Environmental Protection Daily Report

Nantucket Beach, Former Nantucket Ordnance Site
a.k.a. Tom Nevers Rocket Projectile Target;
Tom Nevers Area, Formerly Used Defense Site
Project Number D01MA045601
Remedial Investigation

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-006 / 005 / 001	03886.551.004	29 May 2012

ENVIRONMENTAL PROTECTION MONITOR (Name/Position)

WESTON	SUBCONTRACTORS
Katherine Morrison / Project Scientist	None

WORK LOCATION: MRS 2

WORK COMPLETED:

- ☒ Shorebird Monitoring/Impact Mitigation.
- ☒ Northern Harrier Monitoring/Impact Mitigation.
- ☐ American Burying Beetle Monitoring/Impact Mitigation.
- ☐ Marine Mammal Monitoring/Impact Mitigation.
- ☐ Vegetation Impact Monitoring/Mitigation
- ☐ Wetlands Impact Mitigation
- ☐ Site Water Runon/Runoff Control
- ☐ Site Restoration

Comments:

- Site-specific training attended by all site personnel at Nantucket Conservation Foundation office on shorebird and harrier species and nest identification. Site visit to nesting area in accordance with work plan could not be conducted today due to recent heavy disturbance at the nesting site, and NCF recommendation that the sensitive ecosystem may be further agitated by a visit today.

MONITORING OBSERVATIONS (species/activities observed):

- No species observed.

MITIGATION MEASURES IMPLEMENTED:

- No mitigation measures were required.

DATA/REPORTS ACQUIRED FROM SUBCONTRACTOR (sub/data/report type):

- None.

All supplemental reporting/observations submitted by subcontractors to be attached to this report.

FURTHER DISCUSSION (List Topic and Comment):

- Subsequent field site visit will be sought through NCF for WESTON bird monitor to observe nesting conditions.

PREPARED BY:	SIGNATURE:
Katherine Morrison	

Attach applicable documentation below (subcontractor reports, photo log, etc.)

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-006/005/035/ MAMMS05-052912-AALY	03886-551-004	30 May 2012

WEATHER: Sunny, 70 F AM, Cloudy, 85 F PM, Sunny, winds 5-15 mph

WORK LOCATION: Russell Way, New South Road, Tom Nevers Road, Milestone Road

VISITORS(Name/firm):

Geoff Thayer (Toscana)

WESTON STAFF (Name/Position)	SUBCONTRACT STAFF (Name/Position)
1. Brian Junck (Senior Geophysicist)	1. Geoff Thayer (Toscana)
2. Brian Guthrey (Project Geophysicist)	2.
3. Ronald Mears (Senior UXO Supervisor)	3.
4. Dennis Houseknecht (UXO QC/Safety)	4.
5. Katie Morrison (Biologist/Project Technician)	5.
6. Chris Kane (Project Manager)	6.

WORK COMPLETED:

- ☐ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☐ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments: No sitework (WESTON mobilized the site, performed site orientation for staff, drove all major roads encompassing the site, reviewed 18 May 2012 Work Plan document, and attended Nantucket Conservation Foundation presentation on Harriers and Plovers.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

Trimble XH GPS, Trimble Pro GPS, 2 computers, 5 Schonstedts, EM61 System, cart, gurney, EM31 System, 2 vehicles

PROBLEMS/RESOLUTIONS:

-Weston site team reviewed all major stakeholder property boundaries, Rights of Entry limitations (only 40% of investigation area ROE's signed), site terrain vs. analog/DGM approach.

-Weston had previously arranged to view Eel Point for Plover viewing but NCF requested that Weston avoid due to holiday weekend traffic at Eel Point (birds were stressed)

DATA TRACKING:

Ground Reconnaissance: None

Items Confirmed: None

Analog Survey Transects: None

Items Found Today: None

DGM Grids: None
DGM Grids Reacquired: None
Data Acquired from Sub: None
Data Provided to USACE: N/A
Data Accepted by USACE: N/A
Comments: Weston inspected the site along Milestone Road and Russells Way to view vegetation conditions for clearing.
FURTHER DISCUSSION (List Topic and Comment): **None**

PREPARED BY:	**SIGNATURE:**
Donald Mears (SUXOS)	

Attach applicable logs and reports below (QC Report, photo log, etc.)

DAILY QC REPORT

Project: Nantucket Beach, Former Nantucket Ordnance Site

Site Location: Nantucket, MA	Date: 5/30/12

Describe daily QC activities:

Escorted the Geo team and Environmental Scientist and provided UXO avoidance duties while marking transects to be cut by the vegetation removal crew in Area 1.

Grid QC:

N/A

Transect QC:

N/A

Definable Feature of Work (identify control phase: preparatory, initial, follow-up, final)	**Inspection Performed**	**Result/Recommendation** (document deficiency, nonconformance, lesson learned)

Attach additional pages as necessary.

Approved By: Approval Date:

Dennis Houseknecht (UXO QC/Safety) 31 May 2012

Environmental Protection Daily Report

Nantucket Beach, Former Nantucket Ordnance Site
a.k.a. Tom Nevers Rocket Projectile Target;
Tom Nevers Area, Formerly Used Defense Site
Project Number D01MA045601
Remedial Investigation

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-006 / 005 / 002	03886.551.004	30 May 2012

ENVIRONMENTAL PROTECTION MONITOR (Name/Position)

WESTON	SUBCONTRACTORS
Katherine Morrison / Project Scientist	None

WORK LOCATION: MRS 2

WORK COMPLETED:

- ☒ Shorebird Monitoring/Impact Mitigation.
- ☒ Northern Harrier Monitoring/Impact Mitigation.
- ☐ American Burying Beetle Monitoring/Impact Mitigation.
- ☐ Marine Mammal Monitoring/Impact Mitigation.
- ☐ Vegetation Impact Monitoring/Mitigation
- ☐ Wetlands Impact Mitigation
- ☐ Site Water Runon/Runoff Control
- ☐ Site Restoration

Comments:

- Conducted harrier monitoring in upland portion of FUDS (Area 1) during transect pre-marking and surface anomaly clearance prior to vegetation clearing.

MONITORING OBSERVATIONS (species/activities observed):

- No species observed.

MITIGATION MEASURES IMPLEMENTED:

- No mitigation measures were required.

DATA/REPORTS ACQUIRED FROM SUBCONTRACTOR (sub/data/report type):

- None.

All supplemental reporting/observations submitted by subcontractors to be attached to this report.

FURTHER DISCUSSION (List Topic and Comment):

- None.

PREPARED BY:	SIGNATURE:
Katherine Morrison	

Attach applicable documentation below (subcontractor reports, photo log, etc.)

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-006/005/036/ MAMMS05-053112-AALZ	03886-551-004	31 May 2012

WEATHER: AM-Sunny, 66 F, PM- Sunny, 87 F PM, Winds 5-12 mph

WORK LOCATION: Russell Way, New South Road, Tom Nevers Road, Milestone Road

VISITORS(Name/firm):

WESTON STAFF (Name/Position)

1. Brian Junck (Senior Geophysicist)
2. Brian Guthrie (Project Geophysicist)
3. Donald Mears (Senior UXO Supervisor)
4. Dennis Houseknecht (UXO QC/Safety)
5. Marc Atherton (UXO Tech II)
6. Katie Morrison (Biologist/Project Technician)
7. Chris Kane (Project Manager)

SUBCONTRACT STAFF (Name/Position)

1. Wayne McCarthy (Nantucket Surveyors)

WORK COMPLETED:

- ☐ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☐ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments: Nantucket Surveyors placed 4 survey control points. Explosives received, transferred, inventoried, and stored at the explosive magazine at Nantucket airport.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

Explosives as follows: Shaped Charges, 50 each; Detonator, 50 each; Detonating Cord, 500 ft

PROBLEMS/RESOLUTIONS:

Rights of Entry limitations (only 40% of investigation area ROE's signed)

Dive team medical certs have not been approved.

DATA TRACKING:

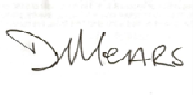
Ground Reconnaissance: None

Items Confirmed: None

Analog Survey Transects: None

Items Found Today: None

DGM Grids: None
DGM Grids Reacquired: None
Data Acquired from Sub: None
Data Provided to USACE: N/A
Data Accepted by USACE: N/A
Comments: Weston inspected the site along Milestone Road and Russells Way to view vegetation conditions for clearing and environmental monitoring.
FURTHER DISCUSSION (List Topic and Comment): **None**

PREPARED BY: **Donald Mears (SUXOS)**	**SIGNATURE:** 

Attach applicable logs and reports below (QC Report, photo log, etc.)

DAILY QC REPORT

Project: Nantucket Beach, Former Nantucket Ordnance Site

Site Location: Nantucket, MA	Date: 5/31/12

Describe daily QC activities:

Escorted the surveyor to New South Road and the beach area adjacent to Target No. 1 and 2 to establish and install four control points for base station set up. Nantucket surveyors tied in all four control points to coordinate system and relayed info to WESTON.

Assisted the SUXOS in the receiving and storage of explosives. The explosives were delivered to the magazine located within the Nantucket Memorial Airport property.

Grid QC:

N/A

Transect QC:

N/A

Definable Feature of Work (identify control phase: preparatory, initial, follow-up, final)	**Inspection Performed**	**Result/Recommendation** (document deficiency, nonconformance, lesson learned)

Attach additional pages as necessary.

Approved By: Approval Date:

Dennis Houseknecht (UXO QC/Safety) 31 May 2012

Environmental Protection Daily Report

Nantucket Beach, Former Nantucket Ordnance Site
a.k.a. Tom Nevers Rocket Projectile Target;
Tom Nevers Area, Formerly Used Defense Site
Project Number D01MA045601
Remedial Investigation

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-006 / 005 / 003	03886.551.004	31 May 2012

ENVIRONMENTAL PROTECTION MONITOR (Name/Position)

WESTON	SUBCONTRACTORS
Katherine Morrison / Project Scientist	None

WORK LOCATION: MRS 2

WORK COMPLETED:

- ☒ Shorebird Monitoring/Impact Mitigation.
- ☒ Northern Harrier Monitoring/Impact Mitigation.
- ☐ American Burying Beetle Monitoring/Impact Mitigation.
- ☒ Marine Mammal Monitoring/Impact Mitigation.
- ☐ Vegetation Impact Monitoring/Mitigation
- ☐ Wetlands Impact Mitigation
- ☐ Site Water Runon/Runoff Control
- ☐ Site Restoration

Comments:

- Conducted harrier monitoring in upland northwest portion of FUDS (Area 1) during transect pre-marking and surface anomaly clearance prior to vegetation clearing.
- Began initial WESTON survey for nesting shorebirds along the beach in MRS 2.
- Monitored for marine mammals when surveying along beach.

MONITORING OBSERVATIONS (species/activities observed):

- No species observed.

MITIGATION MEASURES IMPLEMENTED:

- No mitigation measures were required.

DATA/REPORTS ACQUIRED FROM SUBCONTRACTOR (sub/data/report type):

- None

All supplemental reporting/observations submitted by subcontractors to be attached to this report.

FURTHER DISCUSSION (List Topic and Comment):

- None

PREPARED BY:	SIGNATURE:
Katherine Morrison	

Attach applicable documentation below (subcontractor reports, photo log, etc.)

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-006/005/037/ MAMMS05-060112-AAMA	03886-551-004	1 June 2012

WEATHER: AM-Cloudy, 56 F, PM Sunny, 64 F, winds 5-10 mph

WORK LOCATION: Russell Way, New South Road, Tom Nevers Road, Milestone Road

VISITORS(Name/firm):

WESTON STAFF (Name/Position)

1. Brian Junck (Senior Geophysicist)
2. Brian Guthrie (Project Geophysicist)
3. Donald Mears (Senior UXO Supervisor)
4. Dennis Houseknecht (UXO QC/Safety)
5. Marc Atherton (UXO Tech II)
6. Katie Morrison (Biologist/Project Technician)
7. Marie Swiech-Laflamme (Project Scientist)

SUBCONTRACT STAFF (Name/Position)

1.

WORK COMPLETED:

- ☐ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☐ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments: Moved team equipment from airport storage unit to the field storage unit at Tom Nevers. Conducted a beach recon for environmental monitoring. Scanned the perspective IVS area for anomalies.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

Two day boxes for transporting explosives, one blasting machine, 1000+feet of firing wire, 10 explosive placards and one galvanometer. Picked up two 55 gallon drums and transported to the conex.

PROBLEMS/RESOLUTIONS:

Coordinating with NCF to locate additional access points to the beach for the VRH dive team.

DATA TRACKING:

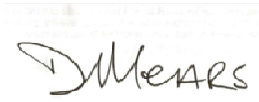
Ground Reconnaissance: None

Items Confirmed: None

Analog Survey Transects: None

Items Found Today: None

DGM Grids: None
DGM Grids Reacquired: None
Data Acquired from Sub: None
Data Provided to USACE: N/A
Data Accepted by USACE: N/A
Comments: Weston inspected the site along Milestone Road and Russells Way to view vegetation conditions for clearing and environmental monitoring.
FURTHER DISCUSSION (List Topic and Comment): **None**

PREPARED BY:	**SIGNATURE:**
Donald Mears (SUXOS)	

Attach applicable logs and reports below (QC Report, photo log, etc.)

DAILY QC REPORT

Project: Nantucket Beach, Former Nantucket Ordnance Site

Site Location: Nantucket, MA	Date: 6/1/2012

Describe daily QC activities:

Scanned the perspective IVS area to ensure it is free of anomalies prior to installing the seed items.
Transferred equipment from the storage shed to the conex box located in the Tom Nevers area.
Picked up two 55 gallon drums and transported to the conex. Cleaned residue from the inside of the drums before storing.
Attempted to locate two families to obtain ROE. Neither party was present at their residence.

Grid QC:

N/A

Transect QC:

N/A

Definable Feature of Work (identify control phase: preparatory, initial, follow-up, final)	**Inspection Performed**	**Result/Recommendation** (document deficiency, nonconformance, lesson learned)

Attach additional pages as necessary.

Approved By: Approval Date:

Dennis Houseknecht (UXO QC/Safety) 1 June 2012

Environmental Protection Daily Report

Nantucket Beach, Former Nantucket Ordnance Site
a.k.a. Tom Nevers Rocket Projectile Target;
Tom Nevers Area, Formerly Used Defense Site
Project Number D01MA045601
Remedial Investigation

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-006 / 005 / 004	03886.551.004	1 June 2012

ENVIRONMENTAL PROTECTION MONITOR (Name/Position)

WESTON	SUBCONTRACTORS
Katherine Morrison / Project Scientist	None

WORK LOCATION: MRS 2

WORK COMPLETED:

- ☒ Shorebird Monitoring/Impact Mitigation.
- ☒ Northern Harrier Monitoring/Impact Mitigation.
- ☐ American Burying Beetle Monitoring/Impact Mitigation.
- ☒ Marine Mammal Monitoring/Impact Mitigation.
- ☐ Vegetation Impact Monitoring/Mitigation
- ☐ Wetlands Impact Mitigation
- ☐ Site Water Runon/Runoff Control
- ☐ Site Restoration

Comments:

- Conducted harrier monitoring in upland northwest portion of FUDS (Area 1) during transect pre-marking and surface anomaly clearance prior to vegetation clearing.
- Completed initial WESTON survey for nesting shorebirds along the beach in MRS 2.
- Monitored for marine mammals when surveying along beach.

MONITORING OBSERVATIONS (species/activities observed):

- Roseate Tern observed sitting on beach at ~0800-hrs.
- A nest/signs of nesting, were not observed.

MITIGATION MEASURES IMPLEMENTED:

- WESTON maintained proper distance from the bird…

DATA/REPORTS ACQUIRED FROM SUBCONTRACTOR (sub/data/report type):

- None.

All supplemental reporting/observations submitted by subcontractors to be attached to this report.

FURTHER DISCUSSION (List Topic and Comment):

- None.

PREPARED BY:	SIGNATURE:
Katherine Morrison	

Attach applicable documentation below (subcontractor reports, photo log, etc.)

Photo Log

Photo 001_060112
Tern observed on beach.

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-0006/0005/038 MAMMS05-060412-AAMF	03886-551-004	4 June 2012

WEATHER: AM-Light Rain, 56 F, PM Rain/Windy, 56 F, Winds 21-33 mph

WORK LOCATION: Russell's Way, New South Road, Tom Nevers Road, Milestone Road

VISITORS(Name/firm): David King(Geophysicist, USACE-Baltimore)

WESTON STAFF (Name/Position)

1. Brian Junck (Senior Geophysicist)
2. Brian Guthrie (Project Geophysicist)
3. Donald Mears (Senior UXO Supervisor)
4. Dennis Houseknecht (UXO QC/Safety)
5. Marc Atherton (UXO Tech II)
6. Katie Morrison (Biologist/Project Technician)

SUBCONTRACT STAFF (Name/Position)

1.

WORK COMPLETED:

- ☐ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☐ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments: Started the inventory of project equipment. Conducted EM-61 Mk 2 static and spike test today at the proposed IVS site.

Weston performed a recon and marking of four transects along Milestone Road and Russell's Way to view vegetation conditions for clearing and environmental monitoring.

The Geo team placed four transects in Area I.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

Over the weekend picked up two rental vehicles (one SUV and one small pick-up truck) at Hyannis and returned by ferry. Turned in the island rental vehicle.

PROBLEMS/RESOLUTIONS:

NCF approved an alternate location for access to the beach for the dive team. Updated map showing access points will be prepared.

DATA TRACKING:

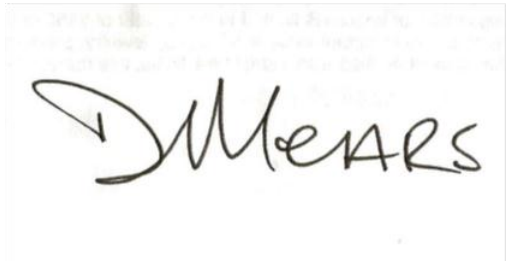
Ground Reconnaissance: None

Items Confirmed: None

Analog Survey Transects: None

Items Found Today: None

DGM Grids: None
DGM Grids Reacquired: None
Data Acquired from Sub: None
Data Provided to USACE: N/A
Data Accepted by USACE: N/A
Comments:
FURTHER DISCUSSION (List Topic and Comment): **None**

PREPARED BY: **Donald Mears (SUXOS)**	**SIGNATURE:** 

Attach applicable logs and reports below (QC Report, photo log, etc.)

DAILY QC REPORT

Project: Nantucket Beach, Former Nantucket Ordnance Site

Site Location: Nantucket Island, MA	Date: 6/4/2012

Describe daily QC activities:

Observed EM-61 Mk 2 static and spike test today at the proposed IVS site.

Grid QC:

N/A

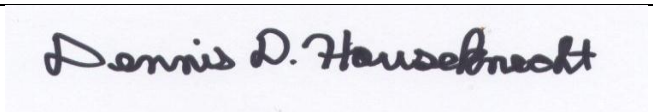
Transect QC:

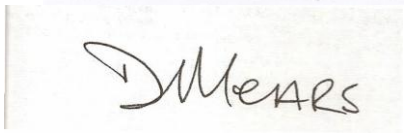
N/A

Definable Feature of Work (identify control phase: preparatory, initial, follow-up, final)	**Inspection Performed**	**Result/Recommendation** (document deficiency, nonconformance, lesson learned)
Verify planning docs approved and available. Some ROE permits still pending.	Work Plan/APP/SSHP proofed.	Some minor inconsistencies exist.
Verify work personnel are available and are qualified to perform the work.	Satisfactory	
PPE properly worn	Satisfactory	
Confirm control points are suitable for use.	Satisfactory	
Confirm all personnel have appropriate PPE and supplies.	Satisfactory	

Attach additional pages as necessary.

Prepared By: Dennis Houseknecht





Approved By:
Approval Date: 6 June, 2012









Environmental Protection Daily Report

Nantucket Beach, Former Nantucket Ordnance Site
a.k.a. Tom Nevers Rocket Projectile Target;
Tom Nevers Area, Formerly Used Defense Site
Project Number D01MA045601
Remedial Investigation

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-006 / 005 /	03886.551.004.0011	4 June 2012

ENVIRONMENTAL PROTECTION MONITOR (Name/Position)

WESTON

Katherine Morrison / Project Scientist

WORK LOCATION: MRS 2

WORK COMPLETED:

☒ Shorebird Monitoring/Impact Mitigation.
☒ Northern Harrier Monitoring/Impact Mitigation.
☐ American Burying Beetle Monitoring/Impact Mitigation.
☐ Marine Mammal Monitoring/Impact Mitigation.
☐ Vegetation Impact Monitoring/Mitigation
☐ Wetlands Impact Mitigation
☐ Site Water Runon/Runoff Control
☐ Site Restoration

Comments:

- Conducted harrier monitoring in upland portion of FUDS (Area 1) during transect pre-marking and surface anomaly clearance prior to vegetation clearing.

MONITORING OBSERVATIONS (species/activities observed):

- No species observed.

MITIGATION MEASURES IMPLEMENTED:

- No mitigation measures were required.

FURTHER DISCUSSION (List Topic and Comment):

- None

PREPARED BY:	SIGNATURE:
Katherine Morrison	

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-0006/0005/039 MAMMS05-060512-AAMG	03886-551-004	5 June 2012

WEATHER: AM-Cloudy, 58 F, PM Cloudy/Windy, 57 F, Winds 22-30 mph

WORK LOCATION: Russell's Way, New South Road, Tom Nevers Road, Milestone Road

VISITORS(Name/firm): David King(Geophysicist , USACE-Baltimore), Lowell Martin (OESS, USACE-Baltimore)

WESTON STAFF (Name/Position)

1. Brian Junck (Senior Geophysicist)
2. Brian Guthrie (Project Geophysicist)
3. Donald Mears (Senior UXO Supervisor)
4. Dennis Houseknecht (UXO QC/Safety)
5. Marc Atherton (UXO Tech II)
6. Katie Morrison (Biologist/Project Technician)
7. Chris Kane (Project Manager)

SUBCONTRACT STAFF (Name/Position)

1. VR Habilis (John Bigos-Dive Supervisor)
2. VR Habilis (Taylor King-Diver)
3. VR Habilis (Heath Nettleton-Standby Diver)
4. VR Habilis (Mike Shaw-Tender)
5. VR Habilis (Jason Kettle-Tender)
6. VR Habilis (John Hatcher-Tender)

WORK COMPLETED:

- ☒ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☒ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments: UXOSO/UXOQCS conducted work plan and site safety plan review with VRH dive personnel. VRH dive team completed dive inspection performed by OESS.

A walkthrough was conducted with the property owner of parcel 91 1 within AC-01. Grid and transects locations, as well as brush cutting access points were discussed. The property owner requested that the positions of Grids AC-01-G04, G08 and G12 be adjusted due to brush cutting concerns.

Reconnaissance was conducted at AC-05. David King (CENAB) was present during the reconnaissance. High density anomaly areas were visually inspected, and locations of DGM grids were visited. Aside from pin flags and signage associated with NCF test plots, no surficial cultural items were observed within the high density areas. NCF previously requested that grid AC-05-G03 be relocated outside of their testing area. A suitable area to the east, still within the anomaly cluster, was located and will be submitted for approval.

Weston performed a recon and marking of eight transects along Milestone Road and Russell's Way to view vegetation conditions for clearing and environmental monitoring. Transects flagged today: A01-T02(3400 ft), A01-T03(3900 ft), A01-T04(2700 ft), A01-T05(2800 ft), A01-T10(1200 ft), A01-T11(840 ft), A01-T12(840 ft), A01-T13(900 ft).

MATERIALS DELIVERED (Amount, Condition, and Purpose):

PROBLEMS/RESOLUTIONS:

Rights of Entry agreements are not in place for multiple properties which is impacting sequencing and schedule.

DATA TRACKING:

Ground Reconnaissance: Performed ground recon in AC-05 but no data collected as no cultural or munitions items were found.

Items Confirmed: None

Analog Survey Transects: None

Items Found Today: None

DGM Grids: None

DGM Grids Reacquired: None

Data Acquired from Sub: None

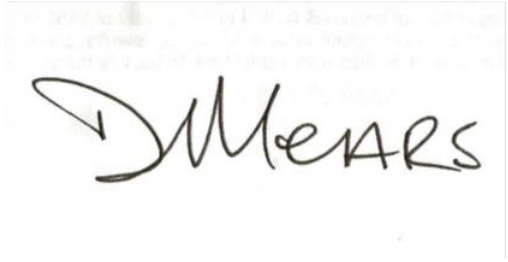
Data Provided to USACE: N/A

Data Accepted by USACE: N/A

Comments:

FURTHER DISCUSSION (List Topic and Comment):

None

PREPARED BY:	**SIGNATURE:**
Donald Mears (SUXOS)	

Attach applicable logs and reports below (QC Report, photo log, etc.)

DAILY QC REPORT

Project: Nantucket Beach, Former Nantucket Ordnance Site

Site Location: Nantucket Island, MA	Date: 6/5/2012

Describe daily QC activities:

Briefed VR Habilis Team on the Work Plan, Accident Prevention Plan and Site Safety and Health Plan.
Observed dive site set up and qualification dive along with the USACE OESS Lowell Martin. All went well although A strong current made for difficult execution of the transect.
Met the USACE OESS, Lowell (Jr.) Martin and we both witnessed the "qual" dive. The PM and I also drove him around the site for a brief tour. We will cover the Work Plan, Accident Prevention Plan, and Site Safety and Health Plan tomorrow morning.

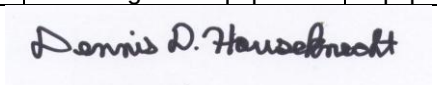
Grid QC:

N/A

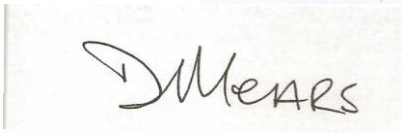
Transect QC:

Definable Feature of Work	**Inspection Description**	**Inspection performed** (identify control phase: preparatory, initial, follow-up, final)	**Result/Recommendation** (document deficiency, nonconformance, lesson learned)
Site Setup/Mobilization (VR Habilis)	Verify planning docs approved and available.	Preparatory (Once only)	Satisfactory
Site Setup/Mobilization (VR Habilis)	Verify work personnel are available and are qualified to perform the work.	Preparatory (Once only)	Satisfactory
Site Setup/Mobilization (VR Habilis)	Verify all personnel have signed the WP and APP acknowledgement forms.	Preparatory (Once only)	Satisfactory
Site Setup/Mobilization (VR Habilis)	Calibrate and test equipment initially to confirm it is functional	Prepatory (Once as equipment arrives on site.)	Satisfactory
Marine Based Geophysical survey and Recovery Activities	Verify dive team has appropriate qualifications including safety/training and state licensing and equipment	Preparatory (Once at start of survey activity and daily for equipment.)	Satisfactory

Prepared by: Dennis Houseknecht



Approved By:



Approval Date: 5 June, 2012



Figure 1 Marking Vegetation Transects



Figure 2 Qual Dive, VR Habilis



Figure 3 Attaching Engineer tape for vegetation removal team.

Environmental Protection Daily Report

Nantucket Beach, Former Nantucket Ordnance Site
a.k.a. Tom Nevers Rocket Projectile Target;
Tom Nevers Area, Formerly Used Defense Site
Project Number D01MA045601
Remedial Investigation

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-006 / 005 /	03886.551.004.0011	5 June 2012

ENVIRONMENTAL PROTECTION MONITOR (Name/Position)

WESTON

Katherine Morrison / Project Scientist

WORK LOCATION: MRS 2

WORK COMPLETED:

☒ Shorebird Monitoring/Impact Mitigation.
☒ Northern Harrier Monitoring/Impact Mitigation.
☐ American Burying Beetle Monitoring/Impact Mitigation.
☐ Marine Mammal Monitoring/Impact Mitigation.
☐ Vegetation Impact Monitoring/Mitigation
☐ Wetlands Impact Mitigation
☐ Site Water Runon/Runoff Control
☐ Site Restoration

Comments:

- Conducted harrier monitoring in upland portion of FUDS (Area 1) during transect pre-marking and surface anomaly clearance prior to vegetation clearing.
- Seals were observed in the ocean at dive location 4.

MONITORING OBSERVATIONS (species/activities observed):

- No species observed.

MITIGATION MEASURES IMPLEMENTED:

- No mitigation measures were required.

FURTHER DISCUSSION (List Topic and Comment):

- IVS is located in wetland area.

PREPARED BY:	SIGNATURE:
Katherine Morrison	

Attach applicable documentation below (subcontractor reports, photo log, etc.)



IVS Proposed Location



VHabilis

SAFETY MEETING AND DAILY PLANNING FORM

Project Name: Nantucket RI/FS 2012

Project Location: PEBBLE BEACH

- Review previous shift's work including safety concerns, near misses or unrecognized hazards
- Review scope of work for the current work shift
- Review safety hazards for the activities planned for the work shift (check appropriate boxes)

	Chemical		Electrical		Eye
	Biological		Heat / Cold Stress		Hearing (noise)
	Confined Space		Fall protection		Emergency procedures
	Ladder		Protective clothing		Pinch points
	Scaffolds		Respirators		Knife use
	Overhead obstructions		Equipment and machinery		Slip, Trip, Fall, Cut, and Puncture
X	Other: Ticks	X	Stop Work Authority		

- Review tools, equipment and procedures to be used (i.e., safety, maintenance or inspection requirements)
- Review pre-work inspections to be conducted
- Review emergency plan
- Review end-of-shift work area(s) condition requirements (i.e., cleanup, tools, staging for next shift, etc.)

Name Printed / Initial	Name Printed / Initial
1 .BIGOS	11.
2 SHAW	12.
3. NETTLETON	13.
4. KING	14.
5. HATCHER	15.
6. KETTLE	16
7.	17.
8.	18.
9.	19.
10.	20.

Supervisor Name: Shaw/Bigos

Signature:

Date/Day/Time: 05 Jun 2012 Tues

APPENDIX G

VRH DAILY DIVE LOG & REPETITIVE DIVE WORKSHEET

Job Name NANTUCKET RIFS Location T-2 BEACH AREA
Job No. _____ Date 6/5/12 Start Time 0800 Secure Time 1700
Diving task & job description: Breathing medium and apparatus used:
DDC CHECK-OUT DIVE

Date&Time of last previous Dive +48

CREW AND POSITION

DIVE SUP J. BIGOS DVR T. KING STBY H. NETTLETON
TEN M. SHAW, J. KETTLE + J. HATCHER

DIVING CONDITIONS

Weather COOL Air Temp 65 Water Temp 56
Current STRONG Visibility POOR Tide Schedule: MWH 11:40 MLW 17:13
Emergency Air Pressure 2000 PSI + 2400 PSI Initials JB

		1	2	3	4	5
T. KING Diver #1	Leave Surface	1415				
	Leave Bottom	1437				
	Reach Surface	1437				
	Bottom Time	22				
	Depth/Penetration	10'				
Bail-Out PSI 2600	Schedule	NO'D				
	Repet Group	A				
	Surface Interval					
	NewGroup/RNT					

		1	2	3	4	5
H. NETTLETON Diver #2	Leave Surface					
	Leave Bottom					
	Reach Surface					
	Bottom Time					
	Depth/Penetration					
Bail-Out PSI 2600	Schedule					
	Repet Group					
	Surface Interval					
	New Group/RNT					

Table & Schedule used USN '57 Depth and Duration of any decompression stops. N/A

Signature John Bigos Date 6/5/12

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-0006/0005/040 MAMMS05-060612-AAMH	03886-551-004	6 June 2012

WEATHER: AM-Sunny, 55 F, PM Sunny, 64 F, Winds 5-10 mph

WORK LOCATION: Russell's Way, New South Road, Tom Nevers Road, Milestone Road

VISITORS(Name/firm): David King(Geophysicist , USACE-Baltimore), Lowell Martin (OESS, USACE-Baltimore), Jeff Carlson(NCC)

WESTON STAFF (Name/Position)

1. Brian Junck (Senior Geophysicist)
2. Brian Guthrie (Project Geophysicist)
3. Donald Mears (Senior UXO Supervisor)
4. Dennis Houseknecht (UXO QC/Safety)
5. Marc Atherton (UXO Tech II)
6. Katie Morrison (Biologist/Project Technician)

SUBCONTRACT STAFF (Name/Position)

1. VR Habilis (John Bigos-Dive Supervisor)
2. VR Habilis (Taylor King-Diver)
3. VR Habilis (Heath Nettleton-Standby Diver)
4. VR Habilis (Mike Shaw-Tender)
5. VR Habilis (Jason Kettle-Tender)
6. VR Habilis (John Hatcher-Tender)

WORK COMPLETED:

- ☒ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☒ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments: UXOSO/UXOQCS conducted work plan and site safety plan review with OESS.

VRH Dive team completed transects 18(342.38 ft) & 17(342.38 ft). One item found (2 inch chain) in transect #18.

Weston met with Jeff Carlson from NCC today to walk through two work areas that were potentially within delineated wetland boundaries. These areas were the proposed location for the Instrument Verification Strip to be used for the Geophysical System Verification program, and a DGM grid located in AC-02. Both areas were approved by Jeff as being suitable to work in.

Weston performed a recon and marking of six transects along Milestone Road and Russell's Way to view vegetation conditions for clearing and environmental monitoring. Transects flagged today: A01-T06(980 ft), A01-T07(980 ft), A01-T08(1200 ft), A02-T01(1220), A02-T02(1266 ft), A02-T033(928 ft).

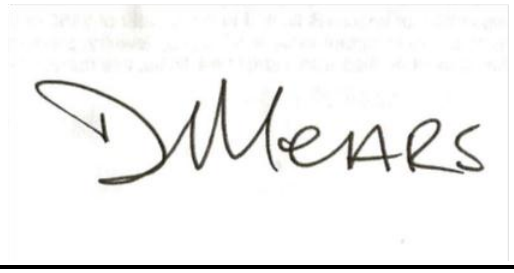
MATERIALS DELIVERED (Amount, Condition, and Purpose):

PROBLEMS/RESOLUTIONS:

Rights of Entry agreements are not in place for multiple properties which is impacting sequencing and schedule.

DATA TRACKING:
Ground Reconnaissance:
Items Confirmed: None
Analog Survey Transects: None
Items Found Today: None
DGM Grids: None
DGM Grids Reacquired: None
Data Acquired from Sub: None
Data Provided to USACE: N/A
Data Accepted by USACE: N/A
Comments:

FURTHER DISCUSSION (List Topic and Comment):
None

PREPARED BY:	**SIGNATURE:**
Donald Mears (SUXOS)	

Attach applicable logs and reports below (QC Report, photo log, etc.)

DAILY QC REPORT

Project: **Nantucket Beach, Former Nantucket Ordnance Site**

Site Location: **Nantucket Island, MA**	*Date*: **6/6/2012**

Describe daily QC activities: No formal QC activities took place today. Anticipate commencing Ground Recon tomorrow along with the installation of the IVS.

Briefed Lowell Martin (Jr.) the USACE OESS on our Work Plan, Accident Prevention Plan and Site Safety and Health Plan. We discussed various subjects and he recommended some modifications and/or concerns. They include:

1) Leaving open excavations in MRS-1 to allow for soil sampling. Deeper excavations could induce a trip or fall hazard and possibly sprain or break and ankle or leg.
2) Concern about the Geo team doing the installation of blind seeds. After discussing this with the Geo Lead, he clarified he is not part of the data collection team as stated on page 3-39 in the Work Plan.
3) Would it be prudent to contact a utility location service prior to the commencement of intrusive activity to preclude or greatly reduce the possibility of severing buried utility lines or pipes.
4) Do we had an AHA on site for mechanized excavations. The answer in no, but one could easily be obtained and incorporated into the work plan if and when a change to include heavy equipment does come about.
5) Inquired as to whether the dive team possessed absorbent material to be used in the event of a fuel spill during refueling operations. The Diving Supervisor, John Bigos stated they did have them on site and were available during refueling operations.

Grid QC:

N/A

Transect QC:

Definable Feature of Work	**Inspection Description**	**Inspection performed** (identify control phase: preparatory, initial, follow-up, final)	**Result/Recommendation** (document deficiency, nonconformance, lesson learned)

Submitted by: Dennis Houseknecht



Approved By: 

Approval Date: 6 June, 2012

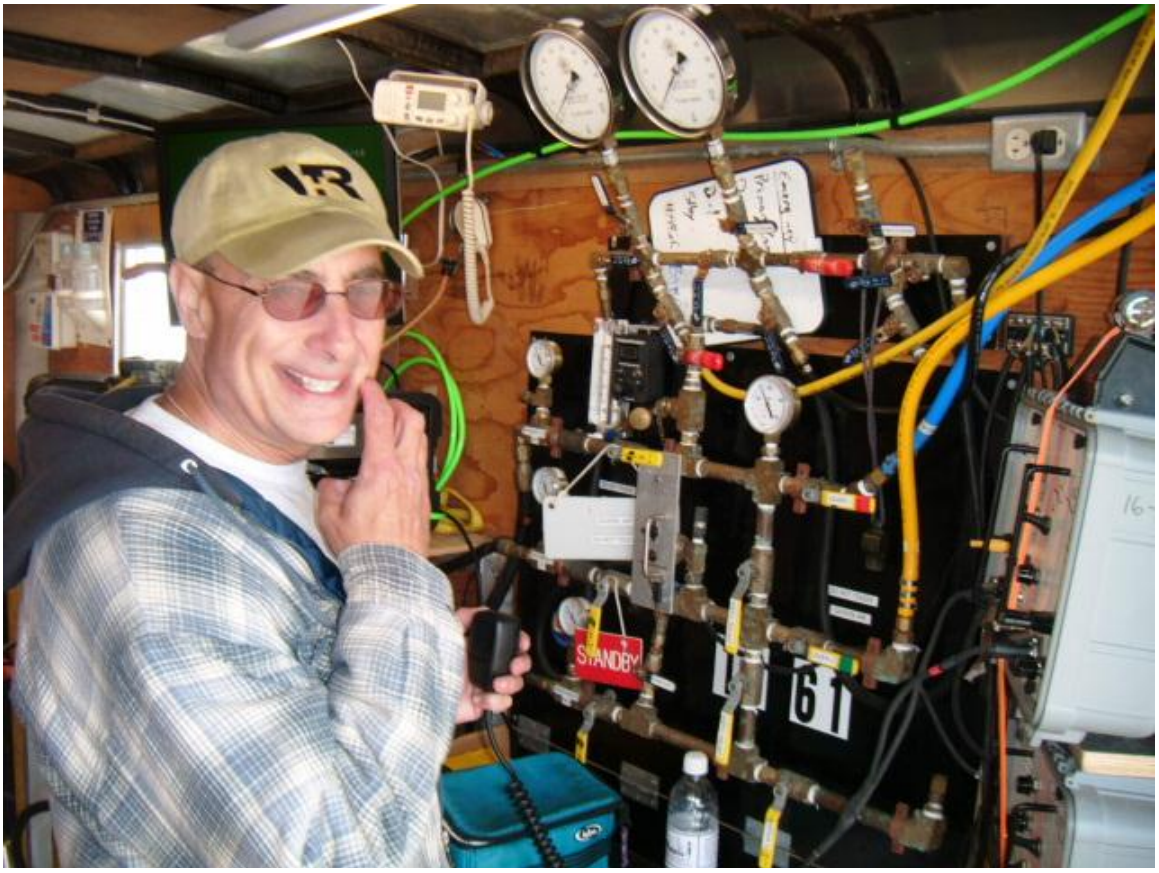


Figure 1 Diving Supervisor John Bigos at the dive control console.



Figure 2 Diver Heath Nettleton taking a water break between dives.



Figure 3 Metallic object recovered during dive; turned out to be a length of 2" chain links.



Figure 4 Geophysicist Brian Guthrie with the EM-31.

Environmental Protection Daily Report

Nantucket Beach, Former Nantucket Ordnance Site
a.k.a. Tom Nevers Rocket Projectile Target;
Tom Nevers Area, Formerly Used Defense Site
Project Number D01MA045601
Remedial Investigation

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-006 / 005 /	03886.551.004.0011	6 June 2012

ENVIRONMENTAL PROTECTION MONITOR (Name/Position)

WESTON

Katherine Morrison / Project Scientist

WORK LOCATION: MRS 2

WORK COMPLETED:

☒ Shorebird Monitoring/Impact Mitigation.
☒ Northern Harrier Monitoring/Impact Mitigation.
☐ American Burying Beetle Monitoring/Impact Mitigation.
☒ Marine Mammal Monitoring/Impact Mitigation.
☐ Vegetation Impact Monitoring/Mitigation
☐ Wetlands Impact Mitigation
☐ Site Water Runon/Runoff Control
☐ Site Restoration

Comments:

- Conducted harrier monitoring in upland portion of FUDS (Area 1) during transect pre-marking and surface anomaly clearance prior to vegetation clearing.
- Conducted beach monitoring in sections at Underwater Transects #16, 17, and 18 for plovers and terns.
-

MONITORING OBSERVATIONS (species/activities observed):

- No species observed.

MITIGATION MEASURES IMPLEMENTED:

- No mitigation measures were required.

FURTHER DISCUSSION (List Topic and Comment):

- None

PREPARED BY:	SIGNATURE:
Katherine Morrison	



SAFETY MEETING AND DAILY PLANNING FORM

Project Name: Nantucket RI/FS 2012

Project Location: PEBBLE BEACH

- Review previous shift's work including safety concerns, near misses or unrecognized hazards
- Review scope of work for the current work shift
- Review safety hazards for the activities planned for the work shift (check appropriate boxes)

	Chemical		Electrical		Eye
	Biological		Heat / Cold Stress		Hearing (noise)
	Confined Space		Fall protection		Emergency procedures
	Ladder		Protective clothing		Pinch points
	Scaffolds		Respirators		Knife use
	Overhead obstructions		Equipment and machinery		Slip, Trip, Fall, Cut, and Puncture
X	Other: hydration	X	Stop Work Authority		

- Review tools, equipment and procedures to be used (i.e., safety, maintenance or inspection requirements)
- Review pre-work inspections to be conducted
- Review emergency plan
- Review end-of-shift work area(s) condition requirements (i.e., cleanup, tools, staging for next shift, etc.)

Name Printed / Initial	Name Printed / Initial
1 .BIGOS	11.
2 SHAW	12.
3. NETTLETON	13.
4. KING	14.
5. HATCHER	15.
6. KETTLE	16
7.	17.
8.	18.
9.	19.
10.	20.

Supervisor Name: Bigos/Shaw

Signature:

Date/Day/Time: 06 Jan 2012 Wed

APPENDIX G

VRH DAILY DIVE LOG & REPETITIVE DIVE WORKSHEET

Job Name Nantucket RI/FS 2012 Location Tom Nevers beach
Job No. 18027 Date 06 JUN 2012 Start Time 0700 Secure Time
Diving task & job description: Breathing medium and apparatus used
Intrusive UXO / magnetic anomaly search. SS air KM-47, SL-27 schensted, Quincy 325
Date&Time of last previous Dive 05 JUN 2012 1500

CREW AND POSITION

Bigas site/Dive Sup, Shaw Team Leader/Tender, King Stdby, Nettleton diver Hatcher, tender

DIVING CONDITIONS

Weather Sunny breezy Air Temp 60 Water Temp 61
Current STRONG TO EAST Visibility POOR Tide Schedule: MWH 1234 MLW 1806
Emergency Air Pressure 1700, 2nd 2300 Initials mk

		1	2	3	4	5
H. Nettleton (Diver #1)	Leave Surface	0956	1044			
	Leave Bottom	1027	1223			
	Reach Surface	1027	1223			
	Bottom Time	31	(99) 130			
	Depth/Penetration	9'	14'			
Bail-Out PSI 2600	Schedule	NO 'D'	NO 'D'			
	Repet Group	A	E			
	Surface Interval	17				
	New Group/RNT	A				

		1	2	3	4	5
Diver #2 T. King	Leave Surface	1253				
	Leave Bottom	1407				
	Reach Surface	1407				
	Bottom Time	74				
	Depth/Penetration	16'				
Bail-Out PSI 2400	Schedule	NO 'D'				
	Repet Group	D				
	Surface Interval					
	New Group/RNT					

Table & Schedule used NO 'D' Depth and Duration of any decompression stops. N/A

Signature Michael Shaw Date 06 Jun 2012

#18

VHabilis Veteran-run work

OTHER DEBRIS PRODUCTION REPORT

Project Name: NANTUCKET RI/FS 2012 Report No: 001

Project No: 18027 Location: Tom Nevers Transect 18 Date: 06 Jun 2012

I. Definable Feature of Work

☐ Project Management	☐ Geophysical Mapping	☐ Data Management	☐ Brush Clearing
☒ Intrusive Investigation	☐ UXO Avoidance	☐ Demolition	☐ Survey
☐ Surface Clearance	☐ Anomaly Reacquisition	☒ Transect Activity	☐ Scrap Processing
☐ GIS Management	☐ Mobilization/Demobilization	☒ Diving	☐ Other:

II. Type of Work

☒ UXO ☐ NON-UXO

II. TEAM MEMBERS/ TEAM LEADER

John Bigos, Michael Shaw, Heath Nettleton, John Hatcher, Jason Kettle Taylor King

III. Activities: # of Grids, transects, anomalies or other features of work completed.

Rpt #	Item	Distance	Depth	Photo Ref #
001	Chain	160'	2"	0038

TL Name: Michael Shaw | Signature: Michael Shaw | Date: 06 Jun 2012

X. UXOQC/ PM Review

☐ Acceptable ☐ Unacceptable NCR #:

Comments:.

Name: Ron Madden | Signature: | Date:

XI. Distribution

☐ PM ☐ SUXOS ☐ UXOSO ☐ UXO Quality Manager ☐ Management

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-0006/0005/041 MAMMS05-060612-AAMI	03886-551-004	7 June 2012

WEATHER: AM-Sunny, 54 F, PM Sunny, 68 F, Winds 5-10 mph

WORK LOCATION: Russell's Way, New South Road, Tom Nevers Road, Milestone Road

VISITORS(Name/firm): David King(Geophysicist , USACE-Baltimore), Lowell Martin (OESS, USACE-Baltimore)

WESTON STAFF (Name/Position)

1. Brian Junck (Senior Geophysicist)
2. Brian Guthrie (Project Geophysicist)
3. Donald Mears (Senior UXO Supervisor)
4. Dennis Houseknecht (UXO QC/Safety)
5. Marc Atherton (UXO Tech II)
6. Katie Morrison (Biologist/Project Technician)

SUBCONTRACT STAFF (Name/Position)

1. VR Habilis (John Bigos-Dive Supervisor)
2. VR Habilis (Taylor King-Diver)
3. VR Habilis (Heath Nettleton-Standby Diver)
4. VR Habilis (Mike Shaw-Tender)
5. VR Habilis (Jason Kettle-Tender)
6. VR Habilis (John Hatcher-Tender)

WORK COMPLETED:

- ☒ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☒ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments:

Installation of the Instrument Verification Strip (IVS) was conducted in the morning. The installed IVS was subsequently surveyed with the EM61-MK2. David King (CENAB) was present during the IVS installation and geophysical surveys of the IVS.

Reconnaissance was conducted at AC-02, AC-07, and AC-09. David King (CENAB) was present during the reconnaissance. High density anomaly areas were visually inspected, and the entirety of the anomaly clusters, within parcels in which ROEs are in-hand and were traversed.

Six Grids in AC-05 were installed and seeded by the UXOQCS.

VRH Dive team completed transect #16 and 110 ft of transects #15 (total for today 452.38 ft). Two items(piece of metal-VRH photo #40 and boat railing-VHR photo #39) found on transect #16

MATERIALS DELIVERED (Amount, Condition, and Purpose):

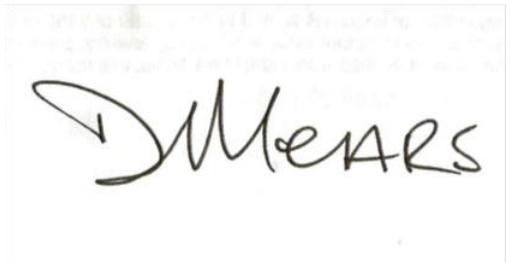
Received EM-31

PROBLEMS/RESOLUTIONS:
Rights of Entry agreements are not in place for multiple properties which is impacting sequencing and schedule.

DATA TRACKING:

Ground Reconnaissance:
Items Confirmed: None
Analog Survey Transects: None
Items Found Today: None
DGM Grids: None
DGM Grids Reacquired: None
Data Acquired from Sub: None
Data Provided to USACE: N/A
Data Accepted by USACE: N/A
Comments:

FURTHER DISCUSSION (List Topic and Comment):
None

PREPARED BY:	**SIGNATURE:**
Donald Mears (SUXOS)	

Attach applicable logs and reports below (QC Report, photo log, etc.)

DAILY QC REPORT

Project: **Nantucket Beach, Former Nantucket Ordnance Site**

Site Location: **Nantucket Island, MA**	*Date*: **6/7/2012**

Describe daily QC activities: See table below:

Grid QC:

N/A

Transect QC:

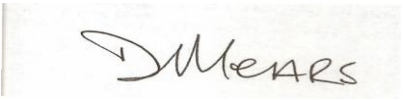
Definable Feature of Work	**Inspection Description**	**Inspection performed** (identify control phase: preparatory, initial, follow-up, final)	**Result/Recommendation** (document deficiency, nonconformance, lesson learned)
Ground Reconnaissance	Ensure equipment is available and properly maintained.	Preliminary	Satisfactory
	PPE is properly worn	Daily	Satisfactory
Ground Based Geophysical survey activities	Verify survey team has appropriate qualifications including safety/training and state licensing.	(Once)	Satisfactory
	Confirm location of established control points are suitable for use.	As being established	Satisfactory
	Corner points for DGM grids requiring survey have been located and marked as described.	As grid points are being surveyed.	Satisfactory
	Each DGM grid has at least one seed item as described in the WP.	As grid points are being surveyed	Satisfactory
	Instrument verification strip was constructed IAW the WP	Once during IVS construction	Satisfactory
	Confirm digital functionality tests are performed before and after use surveys and results are verified against metrics established in the WP.	Daily and following repair.	Satisfactory

	The IVS procedures documented in the WP are being performed by each DGM team before and after surveys	Daily	Satisfactory

Submitted by: Dennis Houseknecht



Approved By:



Approval Date: 7 June, 2012



Figure 1Brian Guthrie setting up the EM-61 for initial run through the IVS.



Figure 2 Brian Guthrie putting the EM-61 through its paces on the initial run through the IVS.



Figure 3 ISO seed emplacement in the IVS



Figure 4 The Geo Team conducting Ground Reconnaissance

Environmental Protection Daily Report

Nantucket Beach, Former Nantucket Ordnance Site
a.k.a. Tom Nevers Rocket Projectile Target;
Tom Nevers Area, Formerly Used Defense Site
Project Number D01MA045601
Remedial Investigation

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-006 / 005 /	03886.551.004.0011	7 June 2012

ENVIRONMENTAL PROTECTION MONITOR (Name/Position)

WESTON

Katherine Morrison / Project Scientist

WORK LOCATION: MRS 2

WORK COMPLETED:

☒ Shorebird Monitoring/Impact Mitigation.
☒ Northern Harrier Monitoring/Impact Mitigation.
☐ American Burying Beetle Monitoring/Impact Mitigation.
☒ Marine Mammal Monitoring/Impact Mitigation.
☐ Vegetation Impact Monitoring/Mitigation
☐ Wetlands Impact Mitigation
☐ Site Water Runon/Runoff Control
☐ Site Restoration

Comments:

- Conducted harrier monitoring in upland portion of FUDS (Area 1) during transect pre-marking and surface anomaly clearance prior to vegetation clearing.
- Staked out Underwater Transect #'s 12, 13, 14, 15 and monitored the shore line for sea life and sea birds before divers began their mission.
- No harrier or plover activity during AC-07, 02, 09 anomoly recon.
-

MONITORING OBSERVATIONS (species/activities observed):

- No species observed.

MITIGATION MEASURES IMPLEMENTED:

- No mitigation measures were required.

FURTHER DISCUSSION (List Topic and Comment):

- None

PREPARED BY:	SIGNATURE:
Katherine Morrison	






AC-07


AC-09

SAFETY MEETING AND DAILY PLANNING FORM

Project Name: Nantucket RI/FS 2012

Project Location: ~~PEBBLE BEACH~~ Nantucket Beach

- Review previous shift's work including safety concerns, near misses or unrecognized hazards
- Review scope of work for the current work shift
- Review safety hazards for the activities planned for the work shift (check appropriate boxes)

	Chemical		Electrical		Eye
	Biological		Heat / Cold Stress		Hearing (noise)
	Confined Space		Fall protection		Emergency procedures
	Ladder		Protective clothing		Pinch points
	Scaffolds		Respirators		Knife use
	Overhead obstructions		Equipment and machinery		Slip, Trip, Fall, Cut, and Puncture
	Other:	X	Stop Work Authority		

- Review tools, equipment and procedures to be used (i.e., safety, maintenance or inspection requirements)
- Review pre-work inspections to be conducted
- Review emergency plan
- Review end-of-shift work area(s) condition requirements (i.e., cleanup, tools, staging for next shift, etc.)

Name Printed / Initial	Name Printed / Initial
1 .BIGOS	11.
2 SHAW	12.
3. NETTLETON	13.
4. KING	14.
5. HATCHER	15.
6. KETTLE	16
7.	17.
8.	18.
9.	19.
10.	20.

Supervisor Name: Bigos/Shaw

Signature:

Date/Day/Time: 07 Jun 2012 Thurs

APPENDIX G

VRH DAILY DIVE LOG & REPETITIVE DIVE WORKSHEET

Job Name NANTUCKET DIFS Location NANTUCKET BEACH
Job No. _____ Date 6/7/12 Start Time 0700 Secure Time _____
Diving task & job description: Breathing medium and apparatus used
SEARCH FOR UXO W/ SCHONSTEDT WHILE DIVING THROUGH THE SURF
Date&Time of last previous Dive +48

CREW AND POSITION
DIVE SUP J.BIGOS DVR M.SHAW STBY H.NETTLETON
TEN J.KETTLE & T.KING

DIVING CONDITIONS
Weather 60° WARM Air Temp 60°-65° Water Temp 59°
Current WEST TO EAST STRONG Visibility POOR Tide Schedule: MWH 1328 MLW 0645
Emergency Air Pressure HP 1700 O2 2000 Initials MS

M.SHAW Diver #1		1	2	3	4	5
	Leave Surface	0836	0901	0934		
	Leave Bottom	0848	0910	0952		
	Reach Surface	0848	0910	0952		
	Bottom Time	12	(9)21	(21) 34		
	Depth/Penetration	7'	7'	7'		
Bail-Out PSI 2500	Schedule	NO 'D'	NO 'D'	NO 'D'		
	Repet Group	A	A	A		
	Surface Interval	13	29			
	New Group/RNT	A	A			

H.NETTLETON Diver #2		1	2	3	4	5
	Leave Surface	1235	1437			
	Leave Bottom	1345	1529			
	Reach Surface	1345	1529			
	Bottom Time	70	(70) 122			
	Depth/Penetration	15'	7'			
Bail-Out PSI 2400	Schedule	NO 'D'	NO 'D'			
	Repet Group	D	F			
	Surface Interval	52				
	New Group/RNT	D				

Table & Schedule used NO D Depth and Duration of any decompression stops. N/A

Signature John Bigos Date 6/7/12

OTHER DEBRIS PRODUCTION REPORT

Project Name: NANTUCKET RI/FS 2012 Report No: 002

Project No: Location: Tom Nevers Date:

I. Definable Feature of Work

☐ Project Management	☐ Geophysical Mapping	☐ Data Management	☐ Brush Clearing
☒ Intrusive Investigation	☐ UXO Avoidance	☐ Demolition	☐ Survey
☐ Surface Clearance	☐ Anomaly Reacquisition	☒ Transect Activity	☐ Scrap Processing
☐ GIS Management	☐ Mobilization/Demobilization	☒ Diving	☐ Other:

II. Type of Work

☒ UXO ☐ NON-UXO

II. TEAM MEMBERS/ TEAM LEADER

John Bigos, Michael Shaw, Heath Nettleton, John Hatcher, Jason Kettle Taylor King

III. Activities: # of Grids, transects, anomalies or other features of work completed.

Rpt #	Item	Distance	Depth	Photo Ref #
002	Qtr size piece of metal	~~525'~~	7"	0040
003	Boat railing	~~295'~~ 322	6"	0039

TL Name: Michael Shaw Signature: Michael Shaw Date: 07Jun12

X. UXOQC/ PM Review

☐ Acceptable ☐ Unacceptable NCR #:

Comments:.

Name: Ron Madden Signature: Date:

XI. Distribution

☐ PM ☐ SUXOS ☐ UXOSO ☐ UXO Quality Manager ☐ Management

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-0006/0005/042 MAMMS05-060812-AAMJ	03886-551-004	8 June 2012

WEATHER: AM-Cloudy, 56 F, PM Cloudy/Beach Fog, 65 F, Winds 10-15 mph

WORK LOCATION: Russell's Way, New South Road, Tom Nevers Road, Milestone Road

VISITORS(Name/firm): David King(Geophysicist , USACE-Baltimore), Lowell Martin (OESS, USACE-Baltimore),Katie Kaize (Nantucket Magazine)

WESTON STAFF (Name/Position)

1. Brian Junck (Senior Geophysicist)
2. Brian Guthrie (Project Geophysicist)
3. Donald Mears (Senior UXO Supervisor)
4. Dennis Houseknecht (UXO QC/Safety)
5. Marc Atherton (UXO Tech II)
6. Katie Morrison (Biologist/Project Technician)

SUBCONTRACT STAFF (Name/Position)

1. VR Habilis (John Bigos-Dive Supervisor)
2. VR Habilis (Taylor King-Diver)
3. VR Habilis (Heath Nettleton-Standby Diver)
4. VR Habilis (Mike Shaw-Tender)
5. VR Habilis (Jason Kettle-Tender)
6. VR Habilis (John Hatcher-Tender)
7. Toscana (Geoff Thayer)

WORK COMPLETED:

- ☒ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☒ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments: UXOSO briefed and escorted a photographer from the Nantucket Magazine who conducted a "photo shoot" of the VRH dive operations.

Team performed reconnaissance and marked out DGM survey transects in AC-04. DGM grids and transects were also marked out in AC-01 on the parcel 91 1.

WESTON met with Jennifer Karberg from NCF to review the new location of grid AC-05-G03 east of NCFs research area. New grid location is satisfactory. Two grids were staked and seeded in AC-05.

VRH Dive team completed transect #15(70 ft 1 CD and 1 unrecoverable deeper than 4 ft in soft sand), transect #14(181.7 ft 1 CD), transect #13(181.7 ft no contacts) and partially completed transect #12(65 ft) Total for today's dive operations were 499.1 ft and 2 CD & 1 small contact unrecoverable.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

PROBLEMS/RESOLUTIONS:

Rights of Entry agreements are not in place for multiple properties which is impacting sequencing and schedule.

DATA TRACKING:

Items Confirmed: None

Analog Survey Transects: None

Items Found Today: None

DGM Grids: None

DGM Grids Reacquired: None

Data Acquired from Sub: None

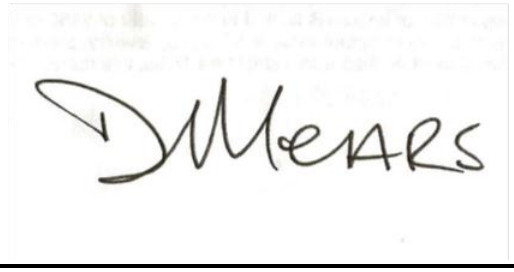
Data Provided to USACE: N/A

Data Accepted by USACE: N/A

Comments:

FURTHER DISCUSSION (List Topic and Comment):

None

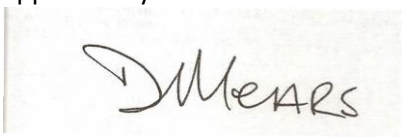
PREPARED BY:	**SIGNATURE:**
Donald Mears (SUXOS)	

Attach applicable logs and reports below (QC Report, photo log, etc.)

Daily Quality Control Report

Project: Nantucket Beach, Former Nantucket Ordnance Site	
Site Location: Nantucket Island, MA	Date: Friday, June 08, 2012
Describe daily QC activities: Observed diving operations at several intervals throughout the day. Escorted Brian Junck to anomaly cluster AC-05 to reposition grid stakes on grids 1 & 2 and plant blind seed (ISO's) for the DGM team in grids 1 & 2. ***Grid QC***: N/A ***Transect QC***: N/A	

Definable Feature of Work	***Inspection Description***	***Inspection performed*** *(control, preparatory, initial, follow-up, final)/frequency*	***Result/Recommendation*** *(deficiency, nonconformance, lesson learned)*
Ground Reconnaissance	Ensure equipment is available and properly maintained.	Follow up	Satisfactory
	PPE is properly worn	Follow up	Satisfactory
Ground Based Geophysical survey activities	Corner points for DGM grids requiring survey have been located and marked as described.	Follow up	Satisfactory
	Each DGM grid has at least one seed item as described in the WP.	Follow up	Satisfactory
Marine Based Geophysical Survey and Recovery Activities	Verify dive team has appropriate qualifications including safety training and state licensing and equipment.	Follow up	Satisfactory
	Confirm location of control points for water transects with RTK base station.	Initial	Satisfactory
	Instruments checked to	Follow up	Satisfactory

	confirm functionality before mag & dig activities.		
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory
	Observe mag & dig operations for accuracy and completeness	Initial	Satisfactory
	Confirm UXO dive teams are recording/logging all required parameters during item recovery.	Initial	Satisfactory
Submitted by: 			
Approved by: 		Approval date: 6/8/2012	



- **Figure 1 Diver using an "air lift" to investigate an anomaly.**



- **Figure 2 Photographer Katie Kaizer from the *Nantucket Magazine* doing a photo shoot of the V.R. Habilis dive team.**



- **Figure 3 Diver Jason Kettle exiting the surf.**



■ **Figure 4 Geophysicist Brian Junck surveying a "blind seed" item for the DGM team following emplacement by UXO technician.**

Environmental Protection Daily Report

Nantucket Beach, Former Nantucket Ordnance Site
a.k.a. Tom Nevers Rocket Projectile Target;
Tom Nevers Area, Formerly Used Defense Site
Project Number D01MA045601
Remedial Investigation

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-006 / 005 /	03886.551.004.0011	8 June 2012

ENVIRONMENTAL PROTECTION MONITOR (Name/Position)

WESTON

Katherine Morrison / Project Scientist

WORK LOCATION: MRS 2

WORK COMPLETED:

☒ Shorebird Monitoring/Impact Mitigation.
☒ Northern Harrier Monitoring/Impact Mitigation.
☐ American Burying Beetle Monitoring/Impact Mitigation.
☒ Marine Mammal Monitoring/Impact Mitigation.
☐ Vegetation Impact Monitoring/Mitigation
☐ Wetlands Impact Mitigation
☐ Site Water Runon/Runoff Control
☐ Site Restoration

Comments:

- Conducted harrier monitoring in upland portion of FUDS (Area 1) during transect pre-marking and surface anomaly clearance prior to vegetation clearing.
- Staked out Underwater Transect # 19 and monitored the shore line for sea life and sea birds before divers began their mission.
- Parcel 91 1 property grids and transects flagged out.
- Harrier spotted in Tom Nevers with no evidence of nesting activity.
-

MONITORING OBSERVATIONS (species/activities observed):

- Male harrier spotted in Tom Nevers with no evident nesting activity.

MITIGATION MEASURES IMPLEMENTED:

- No mitigation measures were required.

FURTHER DISCUSSION (List Topic and Comment):

- None

PREPARED BY:	SIGNATURE:
Katherine Morrison	





SAFETY MEETING AND DAILY PLANNING FORM

Project Name: Nantucket RI/FS 2012

Project Location: Nantucket Beach

- Review previous shift's work including safety concerns, near misses or unrecognized hazards
- Review scope of work for the current work shift
- Review safety hazards for the activities planned for the work shift (check appropriate boxes)

	Chemical		Electrical		Eye
	Biological		Heat / Cold Stress		Hearing (noise)
	Confined Space		Fall protection		Emergency procedures
	Ladder		Protective clothing		Pinch points
	Scaffolds		Respirators		Knife use
	Overhead obstructions		Equipment and machinery		Slip, Trip, Fall, Cut, and Puncture
	Other:		Stop Work Authority		

- Review tools, equipment and procedures to be used (i.e., safety, maintenance or inspection requirements)
- Review pre-work inspections to be conducted
- Review emergency plan
- Review end-of-shift work area(s) condition requirements (i.e., cleanup, tools, staging for next shift, etc.)

Name Printed / Initial	Name Printed / Initial
1 .BIGOS	11.
2 SHAW	12.
3. NETTLETON	13.
4. KING	14.
5. HATCHER	15.
6. KETTLE	16
7.	17.
8.	18.
9.	19.
10.	20.

Supervisor Name: Bigos/Shaw

Signature:

Date/Day/Time: 08JUN 12 Fri

APPENDIX G

VRH DAILY DIVE LOG & REPETITIVE DIVE WORKSHEET

Job Name NANTUCKET RIFS Location NANTUCKET BEACH
Job No. _____ Date 6/8/12 Start Time 0700 Secure Time _____
Diving task & job description: Breathing medium and apparatus used:
SEARCH FOR UXO USING SCHONSTEDT FROM BEACH THROUGH SURF
Date&Time of last previous Dive +4d

CREW AND POSITION
DIVE SUP. J.BIGOS, DVR. J.KETTLE, STBY T. KING
TEN M.SHAW, J.HATCHER, H.NETTLETON

DIVING CONDITIONS
Weather FOGGY Air Temp 6 Water Temp 590
Current MED Visibility POOR Tide Schedule: MWH 1422 MLW 0737
Emergency Air Pressure 1750 Initials JB

J.KETTLE Diver #1		1	2	3	4	5
	Leave Surface	0901	1048	1205	1355	
	Leave Bottom	0945	1131	1241	1501	
	Reach Surface	0945	1131	1241	1501	
	Bottom Time	44	(43) 87	(36) 123	(23) 189	
	Depth/Penetration	7'	7'	7'	7'	
Bail-Out PSI	Schedule	NO 'D'	NO 'D'	NO 'D'	NO 'D'	
	Repet Group	A	B	C		
2450	Surface Interval	63	34	74		
	New Group/RNT	A	B	C		

T. KING Diver #2		1	2	3	4	5
	Leave Surface					
	Leave Bottom					
	Reach Surface					
	Bottom Time					
	Depth/Penetration					
Bail-Out PSI	Schedule					
	Repet Group					
2550	Surface Interval					
	New Group/RNT					

Table & Schedule used N O D Depth and Duration of any decompression stops. N/A

Signature John Bigos Date 6/8/12

15, 14

OTHER DEBRIS PRODUCTION REPORT

Project Name: NANTUCKET RI/FS 2012 Nantucket to Beach Report No: 004-006
Project No: 18027 Location: ~~Tom Nevers~~ 15, 14 Date: 08 JUN 2012

I. Definable Feature of Work

☐ Project Management	☐ Geophysical Mapping	☐ Data Management	☐ Brush Clearing
☒ Intrusive Investigation	☐ UXO Avoidance	☐ Demolition	☐ Survey
☐ Surface Clearance	☐ Anomaly Reacquisition	☒ Transect Activity	☐ Scrap Processing
☐ GIS Management	☐ Mobilization/Demobilization	☒ Diving	☐ Other:

II. Type of Work

☒ UXO ☐ NON-UXO

II. TEAM MEMBERS/ TEAM LEADER

John Bigos, Michael Shaw, Heath Nettleton, John Hatcher, Jason Kettle Taylor King

III. Activities: **# of Grids, transects, anomalies or other features of work completed.**

Rpt #	Item	Distance	Depth	Photo Ref #
004	Item depth in excess of 4' unrecoverable	~~greater than~~ 110'	74'	
005	4"x3" "hot rock verified ferrous on beach	180'	6"	
006	8" piece of wire	~~surface~~ 155'	surface	

NFE

TL Name: ~~Michael Shaw~~ John Hatcher Signature: Date: 8 JUN 12

X. UXOQC/ PM Review

☐ Acceptable ☐ Unacceptable NCR #:

Comments:.

Name: ~~Michael Shaw~~ Michael Shaw Signature: Michael Shaw Date: 08 Jun 12

XI. Distribution

☐ PM ☐ SUXOS ☐ UXOSO ☐ UXO Quality Manager ☐ Management

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-0006/0005/043 MAMMS05-061112-AAMK	03886-551-004	11 June 2012

WEATHER: AM-Cloudy, 53 F, PM Sunny, 65 F, Winds 10-15 mph

WORK LOCATION: Russell's Way, New South Road, Tom Nevers Road, Milestone Road

VISITORS(Name/firm): David King(Geophysicist , USACE-Baltimore), Lowell Martin (OESS, USACE-Baltimore),

WESTON STAFF (Name/Position)

1. Brian Junck (Senior Geophysicist)
2. Brian Guthrie (Project Geophysicist)
3. Donald Mears (Senior UXO Supervisor)
4. Dennis Houseknecht (UXO QC/Safety)
5. Marc Atherton (UXO Tech II)
6. Katie Morrison (Biologist/Project Technician)

SUBCONTRACT STAFF (Name/Position)

1. VR Habilis (John Bigos-Dive Supervisor)
2. VR Habilis (Taylor King-Diver)
3. VR Habilis (Heath Nettleton-Standby Diver)
4. VR Habilis (Mike Shaw-Tender)
5. VR Habilis (Jason Kettle-Tender)
6. VR Habilis (John Hatcher-Tender)
7. Toscana (Eric Rogers)

WORK COMPLETED:

- ☒ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☒ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☒ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☒ Clearing/Vegetation Removal

Comments:

Toscana escorted by the UXO Tech II started and completed clearing of vegetation on the parcel 91 1. Photos are included in QC report.

Boundary for MRS-1 was marked out in the field in preparation for brush cutting operations.

VRH Dive team operations:

Transect #19 extension completed to 510-feet; No anomalies. (Additional 328-feet cleared beyond contract requirement)

Transect #17 extension completed to 515-feet; 1 anomaly located at 348-feet from shore. (Additional 173-feet cleared beyond contract requirement) **** Item was small and believed to have blown through the airlift; item was not found and excavation was cleared.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

PROBLEMS/RESOLUTIONS:

Rights of Entry agreements are not in place for multiple properties which is impacting sequencing and schedule.

DATA TRACKING:

Items Confirmed: None

Analog Survey Transects: None

Items Found Today: None

DGM Grids: DGM data was collected in grids AC-05-03, AC-05-04, and AC-05-08.

DGM Grids Reacquired: None

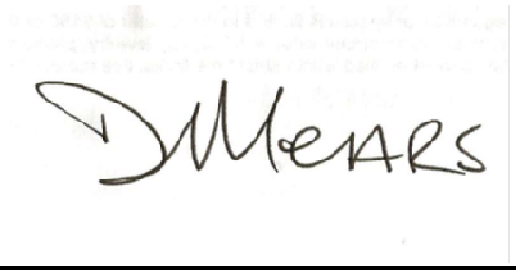
Data Acquired from Sub: See attached subcontractor's report

Data Provided to USACE: N/A

Data Accepted by USACE: N/A

Comments:

FURTHER DISCUSSION (List Topic and Comment): Per our discussion on today's conference call Priorities for Tuesday dive ops: #1 - finish 17 (if needed)#2 - transect 15 - search from 182' to 600'#3 - transect 25 - 0 to 600'#4 - transect 24 - 0 to 300'#5 - transect 23 - 0 to 300'

PREPARED BY:	**SIGNATURE:**
Donald Mears (SUXOS)	

Attach applicable logs and reports below (QC Report, photo log, etc.)

Daily Quality Control Report

Project: Nantucket Beach, Former Nantucket Ordnance Site

Site Location: Nantucket Island, MA	Date: Friday, June 11, 2012

Describe daily QC activities: Observed DGM activities in AC-05 grids. Observed diving operations throughout the day. Briefed the equipment operator from Toscana prior to commencing vegetation removal activities and observed vegetation removal on parcel 91 1(grids 2, 4, and 8 and 3 transects.
Diving operations were suspended twice today; once due to excessively strong currents and the other was due to an unconfirmed dorsal fin (possible shark) sighting by two of the on-shore divers.

Grid QC: N/A

Transect QC: N/A

Definable Feature of Work	***Inspection Description***	***Inspection performed*** *(control, preparatory, initial, follow-up, final)/frequency*	***Result/Recommendation*** *(deficiency, nonconformance, lesson learned)*
Ground Reconnaissance	Confirm brush is sufficiently thinned so that digital surveys can be conducted while compliance of the EPP is maintained.	Preparatory/Initial	Satisfactory
	Ensure equipment is available, properly operated and maintained.	Preparatory/Initial	Satisfactory
Ground Based Geophysical survey activities	Confirm digital functionality tests are preformed before and after surveys and results are verified against metrics established in the WP.	Follow up	Satisfactory
	The IVS procedures documented in the WP are being performed by each DGM team before and after surveys.	Follow up	Satisfactory
Marine Based Geophysical Survey and Recovery Activities	Verify dive team has appropriate qualifications including safety training and state licensing and equipment.	Follow up	Satisfactory

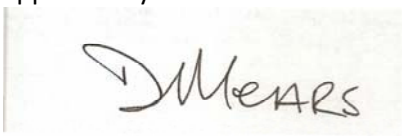
	Instruments checked to confirm functionality before mag & dig activities.	Follow up	Satisfactory
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory
	Observe mag & dig operations for accuracy and completeness	Follow up	Satisfactory
	Confirm UXO dive teams are recording/logging all required parameters during item recovery.	Follow up	Satisfactory
Submitted by: 			
Approved by: 		Approval date: 6/11/2012	



Figure 1 Before Vegetation Removal



Figure 2 After vegetation removal



Figure 3 Conducting DGM in AC-05



Figure 4 Beginning vegetation removal in MRS-1

Environmental Protection Daily Report

Nantucket Beach, Former Nantucket Ordnance Site
a.k.a. Tom Nevers Rocket Projectile Target;
Tom Nevers Area, Formerly Used Defense Site
Project Number D01MA045601
Remedial Investigation

WORK ORDER NO.:	DATE	
03886.551.004.0011	11 June 2012	

ENVIRONMENTAL PROTECTION MONITOR (Name/Position)

WESTON

Katherine Morrison / Project Scientist

WORK LOCATION: AC-05

WORK COMPLETED:

☒Shorebird Monitoring/Impact Mitigation.
☒ Northern Harrier Monitoring/Impact Mitigation.
☐ American Burying Beetle Monitoring/Impact Mitigation.
☒ Marine Mammal Monitoring/Impact Mitigation.
☐ Vegetation Impact Monitoring/Mitigation
☐ Wetlands Impact Mitigation
☐ Site Water Runon/Runoff Control
☐ Site Restoration

Comments:

- Conducted harrier monitoring in MRS 1 during transect pre-marking and surface anomaly clearance prior to vegetation clearing.
- Monitored shoreline on Underwater Transect19 and 20 for sea life and sea birds before divers began their mission.
- Parcel # 91 1 property clear cut.
-

MONITORING OBSERVATIONS (species/activities observed):

- No species observed

MITIGATION MEASURES IMPLEMENTED:

- No mitigation measures were required.

FURTHER DISCUSSION (List Topic and Comment):

- None

PREPARED BY:	SIGNATURE:
Katherine Morrison	

SAFETY MEETING AND DAILY PLANNING FORM

Project Name: Nantucket RI/FS 2012

Project Location: Nantucket Beach

- Review previous shift's work including safety concerns, near misses or unrecognized hazards
- Review scope of work for the current work shift
- Review safety hazards for the activities planned for the work shift (check appropriate boxes)

	Chemical		Electrical		Eye
	Biological		Heat / Cold Stress		Hearing (noise)
	Confined Space		Fall protection		Emergency procedures
	Ladder		Protective clothing		Pinch points
	Scaffolds		Respirators		Knife use
	Overhead obstructions		Equipment and machinery	X	Slip, Trip, Fall, Cut, and Puncture
	Other:	X	Stop Work Authority		

- Review tools, equipment and procedures to be used (i.e., safety, maintenance or inspection requirements)
- Review pre-work inspections to be conducted
- Review emergency plan
- Review end-of-shift work area(s) condition requirements (i.e., cleanup, tools, staging for next shift, etc.)

Name Printed / Initial	Name Printed / Initial
1 .BIGOS	11.
2 SHAW	12.
3. NETTLETON	13.
4. KING	14.
5. HATCHER	15.
6. KETTLE	16
7.	17.
8.	18.
9.	19.
10.	20.

Supervisor Name: Bigos/Shaw

Signature:

Date/Day/Time: 11 Jun 2012

APPENDIX G

VRH DAILY DIVE LOG & REPETITIVE DIVE WORKSHEET

Job Name NANTUCKET RI/FS Location NANTUCKET BEACH
Job No. _____ Date 6/10/12 Start Time 0700 Secure Time _____
Diving task & job description: Breathing medium and apparatus used:
SEARCH FOR UXO THROUGH SURF ZONE ON A TRANSECT w/ SCHONSTEDT. RECOVER
Date&Time of last previous Dive +48

CREW AND POSITION

DIVE SUPERVISOR J. BIGOS DIVER T.KING STBY J.HATCHER TEN M.SHAW, J.KETTLE & H.NETTLETON

DIVING CONDITIONS

Weather COOL SE WIND Air Temp 55- Water Temp 59°
Current SLACK #1+2 Visibility GOOD Tide Schedule: MWH 1705 MLW 1016
Emergency Air Pressure 1700 Initials JB

		1	2	3	4	5
T. KING Diver #1	Leave Surface	0850	1025	1204	1408	1530
	Leave Bottom	1002	1104	1252	1411	1745
	Reach Surface	1002	1104	1252	1411	1745
Bail-Out PSI 2500	Bottom Time	72	(72) 111	(48) 159	3 162	(135) 297
	Depth/Penetration	18'	18'	9'	5'	18'
	Schedule	NO 'D'	NO 'D'	NO 'D'	NO 'D'	NO 'D'
	Repet Group	D	F	G	G	J
	Surface Interval	23	60	76	79	
	New Group/RNT	D	F	G	G	
J. HATCHER Diver #2	Leave Surface	1	2	3	4	5
	Leave Bottom					
	Reach Surface					
Bail-Out PSI 2600	Bottom Time					
	Depth/Penetration					
	Schedule					
	Repet Group					
	Surface Interval					
	New Group/RNT					

Table & Schedule used NO D Depth and Duration of any decompression stops N/A

Signature John Bigos Date 6/10/12

#17

Habilis
Veteran-run work

OTHER DEBRIS PRODUCTION REPORT

Project Name: NANTUCKET RI/FS 2012 Report No: 007
Project No: 19027 Location: Nantucket Beach Transect 17 Date: 11 Jun 2012

I. Definable Feature of Work

☐ Project Management	☐ Geophysical Mapping	☐ Data Management	☐ Brush Clearing
☒ Intrusive Investigation	☐ UXO Avoidance	☐ Demolition	☐ Survey
☐ Surface Clearance	☐ Anomaly Reacquisition	☒ Transect Activity	☐ Scrap Processing
☐ GIS Management	☐ Mobilization/Demobilization	☒ Diving	☐ Other:

II. Type of Work

☒ UXO ☐ NON-UXO

II. TEAM MEMBERS/ TEAM LEADER

John Bigos, Michael Shaw, Heath Nettleton, John Hatcher, Jason Kettle Taylor King

III. Activities: # of Grids, transects, anomalies or other features of work completed.

Rpt #	Item	Distance	Depth	Photo Ref #
007	Small item believed to have blown through airlift unable to reacquire	@348'	>5'	N/A

TL Name: John Hatcher Signature: [signature] Date: 11JUN12

X. UXOQC/ PM Review

☐ Acceptable ☐ Unacceptable NCR #:

Comments:.

Name: Michael Shaw Signature: Michael Shaw Date: 11 Jun 12

XI. Distribution

☐ PM ☐ SUXOS ☐ UXOSO ☐ UXO Quality Manager ☐ Management

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-0006/0005/044 MAMMS05-061112-AAML	03886-551-004	12 June 2012

WEATHER: AM-Cloudy, 55 F, PM Sunny, 64 F, Winds 10-15 mph

WORK LOCATION: Russell's Way, New South Road, Tom Nevers Road, Milestone Road

VISITORS(Name/firm): David King(Geophysicist , USACE-Baltimore), Lowell Martin (OESS, USACE-Baltimore), Gerard Quealy (On Target Locator Services)

WESTON STAFF (Name/Position)

1. Brian Junck (Senior Geophysicist)
2. Brian Guthrie (Project Geophysicist)
3. Donald Mears (Senior UXO Supervisor)
4. Dennis Houseknecht (UXO QC/Safety)
5. Marc Atherton (UXO Tech II)
6. Katie Morrison (Biologist/Project Technician
7. Jason Brawner (UXO Tech I)
8. Jeremy Dortch (UXO Tech I)

SUBCONTRACT STAFF (Name/Position)

1. VR Habilis (John Bigos-Dive Supervisor)
2. VR Habilis (Taylor King-Diver)
3. VR Habilis (Heath Nettleton-Standby Diver)
4. VR Habilis (Mike Shaw-Tender)
5. VR Habilis (Jason Kettle-Tender)
6. VR Habilis (John Hatcher-Tender)
7. Toscana (Eric Rogers)

WORK COMPLETED:

- ☒ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☒ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☒ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☒ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☒ Clearing/Vegetation Removal

Comments:

Toscana escorted by the UXO Tech II started and completed clearing of vegetation on MRS 1. Photo is included in QC report.

Three grids in AC-01 and one grid in AC-02 were seeded by the UXOQCS

VRH Dive team operations:
Transect # 15 (Extended to 510' from original 181.7'.) 328.3ft 0 Anomalies Found

Transect # 25 505 ft : 2 Hot Rocks Found at 172' & 390'

Total : Feet 833.3 ft 2 Anomalies

MATERIALS DELIVERED (Amount, Condition, and Purpose):

PROBLEMS/RESOLUTIONS:

Rights of Entry agreements are not in place for multiple properties which is impacting sequencing and schedule.

DATA TRACKING:

Items Confirmed: None

Analog Survey Transects: None

Items Found Today: None

DGM Grids: DGM data was collected in grids AC-05-01, AC-05-02, AC-05-05, AC-05-06, and AC-05-07, and transects AC-01-T03, AC-01-T04, and AC-01-T06.

DGM Grids Reacquired: None

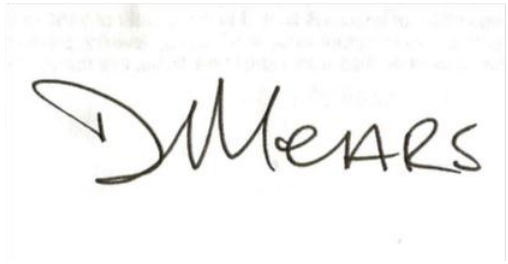
Data Acquired from Sub: See attached subcontractor's (VRH) report

Data Provided to USACE: N/A

Data Accepted by USACE: N/A

Comments:

FURTHER DISCUSSION (List Topic and Comment): Per our discussion on Tuesday's conference call the Priorities for Wednesday dive ops are #1- Transect 25 - 0 to 600 ft #2- Transect 24-0 to 300 ft #3-Transect 23 -0 to 300 ft #4-Transect 26- 0 to 300 ft (if nothing is found on transect #25) 0 to 600 ft (if anything is found on transect #25)

PREPARED BY:	**SIGNATURE:**
Donald Mears (SUXOS)	

Attach applicable logs and reports below (QC Report, photo log, etc.)

Daily Quality Control Report

Project: Nantucket Beach, Former Nantucket Ordnance Site

Site Location: Nantucket Island, MA	Date: June 12, 2012

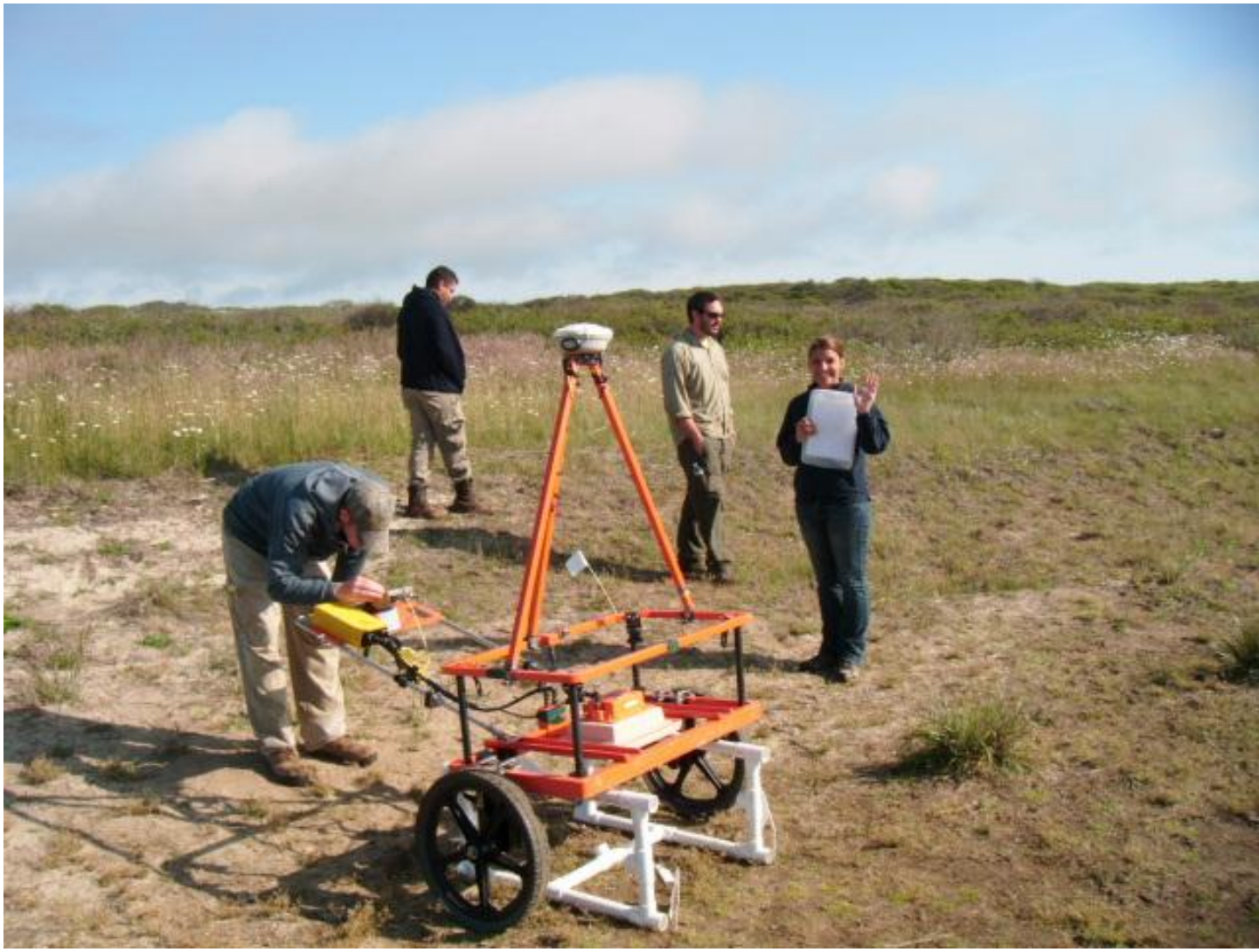
Describe daily QC activities: Observed DGM activities in AC-05 grids. Observed vegetation removal activities on MRS-1 and assisted the Geo Lead in planting blind seeds and installing grid stakes in AC-01 grids 2, 4 and 8 on parcel 91 1. Observed DGM in AC-05 grid 5. Diving operations were again delayed by strong currents.
During grid stake implantation, we noticed that some of the grid corners were outside of the cut brush area. The vegetation removal crew was called back to correct the discrepancy.

Grid QC: N/A

Transect QC: N/A

Definable Feature of Work	***Inspection Description***	***Inspection performed*** *(control, preparatory, initial, follow-up, final)/frequency*	***Result/Recommendation*** *(deficiency, nonconformance, lesson learned)*
Ground Reconnaissance	Confirm brush is sufficiently thinned so that digital surveys can be conducted while compliance of the EPP is maintained.	Follow up	Satisfactory
	Ensure equipment is available, properly operated and maintained.	Follow up	Satisfactory
Ground Based Geophysical survey activities	Confirm digital functionality tests are preformed before and after surveys and results are verified against metrics established in the WP.	Follow up	Satisfactory
	The IVS procedures documented in the WP are being performed by each DGM team before and after surveys.	Follow up	Satisfactory
	Instruments checked to confirm functionality before mag & dig activities.	Follow up	Satisfactory
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory
	Observe mag & dig operations for	Follow up	Satisfactory

	accuracy and completeness		
	Confirm UXO dive teams are recording/logging all required parameters during item recovery.	Follow up	Satisfactory
Submitted by: D. Heuschmidt			
Approved by: DMEARS		Approval date: 6/12/2012	



Daily EM-61 Check out at IVS.



MRS-1 After vegetation removal



Diver check out.

Environmental Protection Daily Report

Nantucket Beach, Former Nantucket Ordnance Site
a.k.a. Tom Nevers Rocket Projectile Target;
Tom Nevers Area, Formerly Used Defense Site
Project Number D01MA045601
Remedial Investigation

WORK ORDER NO.:	**DATE**	
03886.551.004.0011	12 June 2012	

ENVIRONMENTAL PROTECTION MONITOR (Name/Position)

WESTON

Katherine Morrison / Project Scientist

WORK LOCATION: AC-05

WORK COMPLETED:

☒ Shorebird Monitoring/Impact Mitigation.
☒ Northern Harrier Monitoring/Impact Mitigation.
☐ American Burying Beetle Monitoring/Impact Mitigation.
☒ Marine Mammal Monitoring/Impact Mitigation.
☐ Vegetation Impact Monitoring/Mitigation
☐ Wetlands Impact Mitigation
☐ Site Water Runon/Runoff Control
☐ Site Restoration

Comments:

- Conducted harrier monitoring in MRS 1 during transect pre-marking and surface anomaly clearance prior to vegetation clearing.
- Staked out Underwater Transects 20, 21, 22, 23 24, 25 and monitored shoreline for sea life and sea birds before divers began their mission.
- Conducted AC-01 DGM survey transects for Parcel # 91 1.
- Female Harrier spotted in AC-05 with no evidence of nest.

MONITORING OBSERVATIONS (species/activities observed):

- Female Harrier spotted with no evidence of nest.

MITIGATION MEASURES IMPLEMENTED:

- No mitigation measures were required.

FURTHER DISCUSSION (List Topic and Comment):

- None

PREPARED BY:	**SIGNATURE:**
Katherine Morrison	

SAFETY MEETING AND DAILY PLANNING FORM

Project Name: Nantucket RI/FS 2012

Project Location: Nantucket Beach

- Review previous shift's work including safety concerns, near misses or unrecognized hazards
- Review scope of work for the current work shift
- Review safety hazards for the activities planned for the work shift (check appropriate boxes)

	Chemical		Electrical		Eye
	Biological		Heat / Cold Stress		Hearing (noise)
	Confined Space		Fall protection		Emergency procedures
	Ladder		Protective clothing		Pinch points
	Scaffolds		Respirators		Knife use
	Overhead obstructions		Equipment and machinery		Slip, Trip, Fall, Cut, and Puncture
	Other:		Stop Work Authority		

- Review tools, equipment and procedures to be used (i.e., safety, maintenance or inspection requirements)
- Review pre-work inspections to be conducted
- Review emergency plan
- Review end-of-shift work area(s) condition requirements (i.e., cleanup, tools, staging for next shift, etc.)

Name Printed / Initial	Name Printed / Initial
1 .BIGOS	11.
2 SHAW	12.
3. NETTLETON	13.
4. KING	14.
5. HATCHER	15.
6. KETTLE	16
7.	17.
8.	18.
9.	19.
10.	20.

Supervisor Name: Bigos/Shaw

Signature:

Date/Day/Time: 12 Jun 2012

APPENDIX G

VRH DAILY DIVE LOG & REPETITIVE DIVE WORKSHEET

Job Name NANTUCKET RI/FS Location NANTUCKET BEACH
Job No. _____ Date 6/12/12 Start Time 0800 Secure Time _____
Diving task & job description: Breathing medium and apparatus usedt
SEARCH FOR UXO USING Schonstedt THROUG H
SURF, RECOVER BY HAND OF USING AIRLIFT
Date&Time of last previous Dive +48

CREW AND POSITION

DIVE SUP. J. BIGOS DVR J. HATCHER STBY H. NETTLETON
TEN M. SHAW, T. KING + J. KETTLE

DIVING CONDITIONS

Weather CLOUDY Air Temp >60° Water Temp 59°
Current SLACK TIDE Visibility GOOD Tide Schedule: MWH 1759 MLW 1110
Emergency Air Pressure 1700 Initials JB

J. HATCHER Diver #1		1	2	3	4	5
	Leave Surface	0954				
	Leave Bottom	1104				
	Reach Surface	1109				
	Bottom Time	75				
	Depth/Penetration	191				
Bail-Out PSI 2400	Schedule	NO 'D'				
	Repet Group	D				
	Surface Interval					
	NewGroup/RNT					

H. NETTLETON Diver #2		1	2	3	4	5
	Leave Surface	1627	1800			
	Leave Bottom	1750	1831			
	Reach Surface	1750	1831			
	Bottom Time	77	(31) 108			
	Depth/Penetration	17	18'			
Bail-Out PSI 2550	Schedule	NO 'D'	NO 'D'			
	Repet Group	D	F			
	Surface Interval	10				
	New Group/RNT	D				

Table & Schedule used NO. D Depth and Duration of any decompression stops. _____

Signature John Bigos Date 6/12/12

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#25

OTHER DEBRIS PRODUCTION REPORT

Project Name: NANTUCKET RI/FS 2012 Report No: 008

Project No: Location: Nantucket Beach Transect 25 Date: 12Jun12

I. Definable Feature of Work

☐ Project Management	☐ Geophysical Mapping	☐ Data Management	☐ Brush Clearing
☒ Intrusive Investigation	☐ UXO Avoidance	☐ Demolition	☐ Survey
☐ Surface Clearance	☐ Anomaly Reacquisition	☒ Transect Activity	☐ Scrap Processing
☐ GIS Management	☐ Mobilization/Demobilization	☒ Diving	☐ Other:

II. Type of Work

☒ UXO ☐ NON-UXO

II. TEAM MEMBERS/ TEAM LEADER

John Bigos, Michael Shaw, Heath Nettleton, John Hatcher, Jason Kettle Taylor King

III. Activities: # of Grids, transects, anomalies or other features of work completed.

Rpt #	Item	Distance	Depth	Photo Ref #
Transect 25	X1360231.91987000000	Y14979724.22000000000		
008	softball size hot rock verified ferrous on beach	@172'	2"	0043
009	5" long egg shaped hot rock. Verified ferrous on beach	@390'	2"	0044

Transect 25 completed at 1831 on 12Jun 2012 with the following totals:

OD/CD - 2

Anomalies total - 2

NFETP

TL Name: John Hatcher Signature: [signature] Date: 12Jun12

X. UXOQC/ PM Review

☐ Acceptable ☐ Unacceptable NCR #:

Comments:.

Name: Michael Shaw Signature: [signature] Date: 12Jun

XI. Distribution

☐ PM ☐ SUXOS ☐ UXOSO ☐ UXO Quality Manager ☐ Management

DAILY DIVING PRODUCTION

DATE	TRANSECT	DISTANCE	MD	MEC	CD/OD	ANOMALIES TOTAL
6/12	15	328,3'	0	0	0	0
6/12	25	505.	0	0	TWO HOT ROCKS	2
TOTAL		833,3'	0	0	2 HOT ROCKS	TOTAL 2

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-0006/0005/045 MAMMS05-061312-AAMM	03886-551-004	13 June 2012

WEATHER: AM-Light Rain, 55 F, PM Steady Rain, 64 F, Winds 5-10 mph

WORK LOCATION: Russell's Way, New South Road, Tom Nevers Road, Milestone Road

VISITORS(Name/firm): David King(Geophysicist , USACE-Baltimore), Lowell Martin (OESS, USACE-Baltimore), Gerard Quealy (On Target Locator Services)

WESTON STAFF (Name/Position)

1. Brian Junck (Senior Geophysicist)
2. Brian Guthrie (Project Geophysicist)
3. Katie Morrison (Biologist/Project Technician)
4. Donald Mears (Senior UXO Supervisor)
5. Dennis Houseknecht (UXO QC/Safety)
6. Marc Atherton (UXO Tech II)
7. Jeremy Dortch (UXO Tech I)
8. Jason Brawner (UXO Tech I)

SUBCONTRACT STAFF (Name/Position)

1. VR Habilis (John Bigos-Dive Supervisor)
2. VR Habilis (Taylor King-Diver)
3. VR Habilis (Heath Nettleton-Standby Diver)
4. VR Habilis (Mike Shaw-Tender)
5. VR Habilis (Jason Kettle-Tender)
6. VR Habilis (John Hatcher-Tender)
7. Toscana (John Sherman)

WORK COMPLETED:

- ☒ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☒ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☒ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☒ Clearing/Vegetation Removal

Comments:
Toscana escorted by the UXO Tech II started clearing of vegetation in AC-04.

WESTON conducted a site walk on parcel 91 1 and parcel 90 9. Seven grids and 4.5 transects were marked out.

VRH Dive team operations:

Transect # 23 300 ft 0 Anomalies Found

Transect # 24 300 ft 1 Anomaly at 140 ft (6"x1/2", rusty handle, found at a depth of 4", VRH photo#0045)

Transect # 26 300 ft 0 Anomalies

Total : Feet 900 ft 1 Anomaly

MATERIALS DELIVERED (Amount, Condition, and Purpose):

PROBLEMS/RESOLUTIONS:

Rights of Entry agreements are not in place for multiple properties which is impacting sequencing and schedule.

DATA TRACKING:

Items Confirmed: None

Analog Survey Transects: None

Items Found Today: None

DGM Grids: None

DGM Grids Reacquired: None

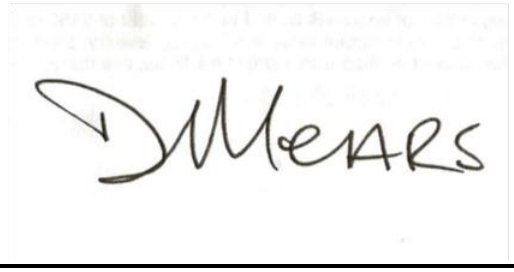
Data Acquired from Sub: See attached subcontractor's (VRH) report

Data Provided to USACE: N/A

Data Accepted by USACE: N/A

Comments:

FURTHER DISCUSSION (List Topic and Comment): Per our discussion on the conference call the priorities for Thursday's Dive Ops (14 June 2012): #1 - Transect 9 - 0 to 300' or max extent based on findings.#2 - Transect 10 - 0 to 300' or max extent based on findings.#3 - Transect 11 - 0 to 300' or max extent based on findings.

PREPARED BY:	**SIGNATURE:**
Donald Mears (SUXOS)	

Attach applicable logs and reports below (QC Report, photo log, etc.)



Figure 1 Weston team setting up equipment



Figure 2 Removing dive helmet

Daily Quality Control Report

Project: Nantucket Beach, Former Nantucket Ordnance Site	
Site Location: Nantucket Island, MA	Date: June 13, 2012

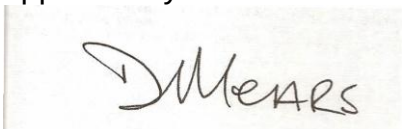
Describe daily QC activities: Observed vegetation removal activities in analog transects off of Russell's Way. Re-inspected vegetation removal in grids 2, 4 and 8 in AC-05 and noticed the south boundary of grid 2 needed additional cutting. Diving operations commenced early to take advantage of slack tide.
Observed grid corner acquisition and marking in AC-01.

Grid QC: N/A

Transect QC: N/A

Definable Feature of Work	***Inspection Description***	***Inspection performed*** *(control, preparatory, initial, follow-up, final)/frequency*	***Result/Recommendation*** *(deficiency, nonconformance, lesson learned)*
Ground Reconnaissance	Confirm brush is sufficiently thinned so that digital surveys can be conducted while compliance of the EPP is maintained.	Follow up	Satisfactory
	Ensure equipment is available, properly operated and maintained.	Follow up	Satisfactory
Ground Based Geophysical survey activities	Confirm digital functionality tests are preformed before and after surveys and results are verified against metrics established in the WP.	Follow up	Satisfactory
	The IVS procedures documented in the WP are being performed by each DGM team before	Follow up	Satisfactory

	and after surveys.		
	Instruments checked to confirm functionality before mag & dig activities.	Follow up	Satisfactory
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory
	Observe mag & dig operations for accuracy and completeness	Follow up	Satisfactory
Marine Based Geophysical Survey and Recovery Operations	Verify dive team has appropriate qualifications including safety/training and state licensing and equipment.	Follow Up	Satisfactory
	Instruments checked to confirm functionality before mag & dig activities.	Follow up	Satisfactory
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory
	Confirm UXO dive teams are recording/logging all required parameters during item recovery.	Follow up	Satisfactory

Submitted by: 	
Approved by: 	Approval date: 6/13/2012



- **Figure 1 Typical brush/vegetation prior to cutting operations.**



Figure 2 Analog transect off of Russell's Way

Environmental Protection Daily Report

Nantucket Beach, Former Nantucket Ordnance Site
a.k.a. Tom Nevers Rocket Projectile Target;
Tom Nevers Area, Formerly Used Defense Site
Project Number D01MA045601
Remedial Investigation

WORK ORDER NO.:	**DATE**	
03886.551.004.0011	13 June 2012	

ENVIRONMENTAL PROTECTION MONITOR (Name/Position)

WESTON

Katherine Morrison / Project Scientist

WORK LOCATION: AC-05

WORK COMPLETED:

☒Shorebird Monitoring/Impact Mitigation.
☒ Northern Harrier Monitoring/Impact Mitigation.
☐ American Burying Beetle Monitoring/Impact Mitigation.
☒ Marine Mammal Monitoring/Impact Mitigation.
☐ Vegetation Impact Monitoring/Mitigation
☐ Wetlands Impact Mitigation
☐ Site Water Runon/Runoff Control
☐ Site Restoration

Comments:

- Conducted harrier monitoring in MRS 1 during transect pre-marking and surface anomaly clearance prior to vegetation clearing.
- Staked out Underwater Transects 9, 10, 11 and monitored shoreline for sea life and sea birds before divers began their mission.
- Conducted AC-01 DGM survey transects for Parcel # 91 1.
- Seals spotted on the beach by Underwater Transect 25.
-

MONITORING OBSERVATIONS (species/activities observed):

- Seals spotted by Underwater Transect 25.

MITIGATION MEASURES IMPLEMENTED:

- No mitigation measures were required.

FURTHER DISCUSSION (List Topic and Comment):

- None

PREPARED BY:	**SIGNATURE:**
Katherine Morrison	

SAFETY MEETING AND DAILY PLANNING FORM

Project Name: Nantucket RI/FS 2012

Project Location: Nantucket Beach

- Review previous shift's work including safety concerns, near misses or unrecognized hazards
- Review scope of work for the current work shift
- Review safety hazards for the activities planned for the work shift (check appropriate boxes)

	Chemical		Electrical	X	Eye
	Biological		Heat / Cold Stress		Hearing (noise)
	Confined Space		Fall protection		Emergency procedures
	Ladder		Protective clothing		Pinch points
	Scaffolds		Respirators		Knife use
	Overhead obstructions		Equipment and machinery		Slip, Trip, Fall, Cut, and Puncture
	Other:	X	Stop Work Authority		

- Review tools, equipment and procedures to be used (i.e., safety, maintenance or inspection requirements)
- Review pre-work inspections to be conducted
- Review emergency plan
- Review end-of-shift work area(s) condition requirements (i.e., cleanup, tools, staging for next shift, etc.)

Name Printed / Initial	Name Printed / Initial
1 .BIGOS	11.
2 SHAW	12.
3. NETTLETON	13.
4. KING	14.
5. HATCHER	15.
6. KETTLE	16
7.	17.
8.	18.
9.	19.
10.	20.

Supervisor Name: Bigos/Shaw

Signature:

Date/Day/Time: 13 Jun 2012

APPENDIX G

VRH DAILY DIVE LOG & REPETITIVE DIVE WORKSHEET

Job Name NANTUCKET RI/FS Location NANTUCKET BE
Job No. _____ Date 6/13/12 Start Time 0530 Secure Time _____
Diving task & job description: Breathing medium and apparatus used:
SEARCH FOR UXO USING SCHONSTEDT THROUGH SURF ZONE
Date&Time of last previous Dive +48

CREW AND POSITION

DIVE SUP. J.BIGOS DVR M.SHAW STBY T.KING
TEN: J.KETTLE, J.HATCHER + HEATH NETTLETON

DIVING CONDITIONS

Weather LT. RAIN CLOUDY Air Temp 60° Water Temp 54°
Current SLACK THEN STRONG Visibility GOOD Tide Schedule: MWH 0625 MLW 1204
Emergency Air Pressure 1700 Initials JB

M. SHAW — Diver #1 — Bail-Out PSI 2250

	1	2	3	4	5
Leave Surface	0747	0813	[redacted]	0919	
Leave Bottom	0806	0933		1026	
Reach Surface	0806	0933		1026	
Bottom Time	19	(19) 39		106	
Depth/Penetration	15'	15'		14'	
Schedule	NO 'D'	NO 'D'		NO 'D'	
Repet Group	A	B		E	
Surface Interval	7	46			
NewGroup/RNT	A	1			

T. KING — Diver #2 — Bail-Out PSI 2550

	1	2	3	4	5
Leave Surface	1217				
Leave Bottom	1322				
Reach Surface	1322				
Bottom Time	65				
Depth/Penetration	11'				
Schedule	NO 'D'				
Repet Group	C				
Surface Interval					
New Group/RNT					

Table & Schedule used NO 'D' Depth and Duration of any decompression stops. N/A
Signature John Bigos Date 6/13/12

TRANSECT #23 (300' TRANSECT)

VHabilis Veteran-run work

OTHER DEBRIS PRODUCTION REPORT

Project Name: NANTUCKET RI/FS 2012 Report No: 10

Project No: Location: Nantucket Beach #23 Date: 6/13/12

I. Definable Feature of Work

☐ Project Management	☐ Geophysical Mapping	☐ Data Management	☐ Brush Clearing
☑ Intrusive Investigation	☐ UXO Avoidance	☐ Demolition	☐ Survey
☐ Surface Clearance	☐ Anomaly Reacquisition	☑ Transect Activity	☐ Scrap Processing
☐ GIS Management	☐ Mobilization/Demobilization	☑ Diving	☐ Other:

II. Type of Work

☑ UXO ☐ NON-UXO

II. TEAM MEMBERS/ TEAM LEADER

John Bigos, Michael Shaw, Heath Nettleton, John Hatcher, Jason Kettle Taylor King

III. Activities: # of Grids, transects, anomalies or other features of work completed.

Rpt #	Item	Distance	Depth	Photo Ref #
010	6"LG. ½"W "RUSTY HANDLE"	140'	4"	0045

UT-23

X 1359584.80389000000 Y 14979831.45970000000

Transect 23 completed @ 1026 on 13Jun2012 with the following totals:

CO/OO - 1.

Total Anomolies this Tr-1

NFETP

TL Name: John Hatcher Signature: [signature] Date: 13Jun12

X. UXOQC/ PM Review

☐ Acceptable ☐ Unacceptable NCR #:

Comments:.

Name: Michael Shaw Signature: Michael Shaw Date: 13Jun2012

XI. Distribution

☐ PM ☐ SUXOS ☐ UXOSO ☐ UXO Quality Manager ☐ Management

TRANSECT UT-23

VR Habilis
Veteran-run work

DAILY DIVING PRODUCTION

DATE	TRANSECT	DISTANCE	MD	MEC	CD/OD	ANOMALIES ~~ANOMALIES~~ TOTAL
6/13	#24	300'	0	0	0	0
6/13	#23	300'	0	0	1 140' 4"DP	1
6/13	#26	300'	0	0	0	0
TOTAL	3 TRANSECT	900'	0	0	1	1

TRANSECTS
#23, #24, #26
6/13/12

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-0006/0005/046 MAMMS05-061412-AAMN	03886-551-004	14 June 2012

WEATHER: AM Cloudy, 54 F, PM Cloudy, 62 F, Winds 7-10 mph

WORK LOCATION: Russell's Way, New South Road, Tom Nevers Road, Milestone Road

VISITORS(Name/firm): Carol Ann Charette (USACE Project Manager), Joanne Deardon (MassDEP Project Manager)
David King(Geophysicist , USACE-Baltimore), Lowell Martin (OESS, USACE-Baltimore), Gerard Quealy (On Target Locator Services)

WESTON STAFF (Name/Position)

1. Brian Junck (Senior Geophysicist)
2. Brian Guthrie (Project Geophysicist)
3. Katie Morrison (Biologist/Project Technician)
4. Donald Mears (Senior UXO Supervisor)
5. Dennis Houseknecht (UXO QC/Safety)
6. Marc Atherton (UXO Tech II)
7. Jeremy Dortch (UXO Tech I)
8. Jason Brawner (UXO Tech I)
9. Chris Kane (Project Manager)
10. Ryan Steigerwalt (Senior Project Geophysicist)
11. Marie Swiech-Laflamme (Senior Project Scientist)

SUBCONTRACT STAFF (Name/Position)

1. VR Habilis (John Bigos-Dive Supervisor)
2. VR Habilis (Taylor King-Diver)
3. VR Habilis (Heath Nettleton-Standby Diver)
4. VR Habilis (Mike Shaw-Tender)
5. VR Habilis (Jason Kettle-Tender)
6. VR Habilis (John Hatcher-Tender)
7. Toscana (John Sherman/Geoff Thayer)

WORK COMPLETED:

- ☒ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☒ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☒ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☒ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☒ Clearing/Vegetation Removal

Comments:
Toscana escorted by the UXO Tech II continued the clearing of vegetation in AC-04.

WESTON walked and marked the parcel 90 9 in preparation for vegetation clearing.

WESTON conducted AC-01-04 and AC-01-04 DGM survey transects for Parcel # 91 1.

Dive team operations: VHR started diving operations along transect #9. An anomaly was located at 180 ft and was being investigated. The diver was unable to maintain position due to surf and currents and will have to be required and investigated at a later date when

conditions permit. High surf conditions prevented the completed of the operations on transect #9. Total 295 ft 1 anomaly.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

PROBLEMS/RESOLUTIONS:
Rights of Entry agreements are not in place for multiple properties which is impacting sequencing and schedule.

DATA TRACKING:

Items Confirmed: None

Analog Survey Transects: None

Items Found Today: None

DGM Grids: WESTON conducted AC-01-04 and AC-01-04 DGM survey transects

DGM Grids Reacquired: None

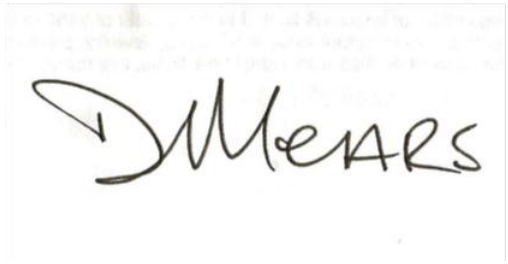
Data Acquired from Sub: See attached VRH subcontractor report.

Data Provided to USACE: N/A

Data Accepted by USACE: N/A

Comments:

FURTHER DISCUSSION (List Topic and Comment): The priorities for Friday's Dive Ops (15 June 2012): #1 - Transect 9 - 0 to 300' or max extent based on findings.#2 - Transect 10 - 0 to 300' or max extent based on findings.#3 - Transect 11 - 0 to 300' or max extent based on findings.

PREPARED BY:	**SIGNATURE:**
Donald Mears (SUXOS)	

Attach applicable logs and reports below (QC Report, photo log, etc.)



Figure 1 Brush cutting operations



Figure 2 After brush cutting operations

Daily Quality Control Report

Project: Nantucket Beach, Former Nantucket Ordnance Site	
Site Location: Nantucket Island, MA	Date: June 14, 2012

Describe daily QC activities: Observed vegetation removal activities along Russell's Way.
Observed diving operations along transect #9. High surf conditions precluded the completion of the mag & dig portion. An anomaly was located at 180' and was being investigated (hand digging). The diver was unable to maintain position due to surf and currents and will have to be reacquired in investigated at a later date when conditions permit.
Re-inspected vegetation removal in grid 2 AC-01 to ensure sufficient vegetation was removed to allow DGM. Observed digital transect mapping in AC-01.
Grid QC: N/A
Transect QC: N/A

Definable Feature of Work	***Inspection Description***	***Inspection performed*** *(control, preparatory, initial, follow-up, final)/frequency*	***Result/Recommendation*** *(deficiency, nonconformance, lesson learned)*
Ground Reconnaissance	Confirm brush is sufficiently thinned so that digital surveys can be conducted while compliance of the EPP is maintained.	Follow up	Satisfactory
	Ensure equipment is available, properly operated and maintained.	Follow up	Satisfactory
Ground Based Geophysical survey activities	Confirm digital functionality tests are preformed before and after surveys and results are verified against metrics established in the WP.	Follow up	Satisfactory
	The IVS procedures documented in the WP are being performed by each	Follow up	Satisfactory

	DGM team before and after surveys.		
	Instruments checked to confirm functionality before mag & dig activities.	Follow up	Satisfactory
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory
	Observe mag & dig operations for accuracy and completeness	Follow up	Satisfactory
Marine Based Geophysical Survey and Recovery Operations	Verify dive team has appropriate qualifications including safety/training and state licensing and equipment.	Follow Up	Satisfactory
	Instruments checked to confirm functionality before mag & dig activities.	Follow up	Satisfactory
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory
	Confirm UXO dive teams are recording/logging all required parameters during item recovery.	Follow up	Satisfactory

Submitted by: D. Heuseknecht	
Approved by: DMears	Approval date: 6/14/2012



Figure 1 Surf conditions at Transect #9



Figure 2 Diver entering the surf.



- **Figure 3 Schonstedt 52Cx ferrous metal detector modified for underwater use.**



- **Figure 4 DGM in AC-01 grid 4**



- **Figure 5 DGM along transect in AC01**



- **Figure 6 Digital transect at AC-01**

Environmental Protection Daily Report

Nantucket Beach, Former Nantucket Ordnance Site
a.k.a. Tom Nevers Rocket Projectile Target;
Tom Nevers Area, Formerly Used Defense Site
Project Number D01MA045601
Remedial Investigation

WORK ORDER NO.:	**DATE**	
03886.551.004.0011	14 June 2012	

ENVIRONMENTAL PROTECTION MONITOR (Name/Position)

WESTON

Katherine Morrison / Project Scientist

WORK LOCATION: AC-05

WORK COMPLETED:

☒ Shorebird Monitoring/Impact Mitigation.
☒ Northern Harrier Monitoring/Impact Mitigation.
☐ American Burying Beetle Monitoring/Impact Mitigation.
☒ Marine Mammal Monitoring/Impact Mitigation.
☐ Vegetation Impact Monitoring/Mitigation
☐ Wetlands Impact Mitigation
☐ Site Water Runon/Runoff Control
☐ Site Restoration

Comments:

- Conducted harrier monitoring in MRS 1 during transect pre-marking and surface anomaly clearance prior to vegetation clearing.
- Monitored Underwater Transects 9,10,11 for sea life and sea birds before divers began their mission.
- Conducted AC-01-04 and AC-01-04 DGM survey transects for Parcel # 91 1.
- AC-01-T05 and AC-01-T07 transects on Parcel # 90 9.
-

MONITORING OBSERVATIONS (species/activities observed):

- No species observed.

MITIGATION MEASURES IMPLEMENTED:

- No mitigation measures were required.

FURTHER DISCUSSION (List Topic and Comment):

- None

PREPARED BY:	**SIGNATURE:**
Katherine Morrison	

SAFETY MEETING AND DAILY PLANNING FORM

Project Name: Nantucket RI/FS 2012

Project Location: Nantucket Beach

- Review previous shift's work including safety concerns, near misses or unrecognized hazards
- Review scope of work for the current work shift
- Review safety hazards for the activities planned for the work shift (check appropriate boxes)

	Chemical		Electrical		Eye
	Biological		Heat / Cold Stress		Hearing (noise)
	Confined Space		Fall protection	X	Emergency procedures
	Ladder		Protective clothing		Pinch points
	Scaffolds		Respirators		Knife use
	Overhead obstructions		Equipment and machinery		Slip, Trip, Fall, Cut, and Puncture
	Other:	X	Stop Work Authority		

- Review tools, equipment and procedures to be used (i.e., safety, maintenance or inspection requirements)
- Review pre-work inspections to be conducted
- Review emergency plan
- Review end-of-shift work area(s) condition requirements (i.e., cleanup, tools, staging for next shift, etc.)

Name Printed / Initial	Name Printed / Initial
1 .BIGOS	11.
2 SHAW	12.
3. NETTLETON	13.
4. KING	14.
5. HATCHER	15.
6. KETTLE	16
7.	17.
8.	18.
9.	19.
10.	20.

Supervisor Name: Bigos/Shaw

Signature:

Date/Day/Time: 14 JUN 2012

APPENDIX G

VRH DAILY DIVE LOG & REPETITIVE DIVE WORKSHEET

Job Name NANTUCKET RI/FS Location NANTUCKET BEACH

Job No. _____ Date 6/14/12 Start Time 0700 Secure Time _____

Diving task & job description: Breathing medium and apparatus used

SEARCH FOR UXO USING SCHONSTEDT THROUGH SURF

Date&Time of last previous Dive +48

CREW AND POSITION

DIVE SUP. J. BIGOS DVR T. KING STBY J. HATCHER
TEN M. SHAW, H. NETTLETON + J. HETTLE

DIVING CONDITIONS

Weather CLOUDY Air Temp 60° Water Temp 60°

Current 3-4' SURF + Visibility INCREASING POOR Tide Schedule: MWH 0722 MLW [redacted] 1253

Emergency Air Pressure HP 1700 Initials JB

T. KING Diver #1		1	2	3	4	5
	Leave Surface	0845				
	Leave Bottom	0956				
	Reach Surface	0956				
	Bottom Time	71				
	Depth/Penetration	11'				
Bail-Out PSI 2450	Schedule	NO 'D'				
	Repet Group	C				
	Surface Interval					
	NewGroup/RNT					

J. HATCHER Diver #2		1	2	3	4	5
	Leave Surface					
	Leave Bottom					
	Reach Surface					
	Bottom Time					
	Depth/Penetration					
Bail-Out PSI 2300	Schedule					
	Repet Group					
	Surface Interval					
	New Group/RNT					

Table & Schedule used NO 'D' Depth and Duration of any decompression stops N/A

Signature John Bigos Date 6/14/12

Habilis
Veteran-run work

DAILY DIVING PRODUCTION

DATE	TRANSECT	DISTANCE	MD	MEC	CD/OD	ANAMOLIES
6/14	#9	295'	0	0	1 UNKNOWN RETURN	1
					TOO ROUGH TO DIG	
					CALL WEATHER	
TOTAL		295'	0	0	1	1

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-0006/0005/047 MAMMS05-061512-AAMO	03886-551-004	15 June 2012

WEATHER: AM Sunny, 59 F, PM Sunny, 66 F, Winds 7-10 mph

WORK LOCATION: Russell's Way, New South Road, Tom Nevers Road, Milestone Road

VISITORS(Name/firm): David King(Geophysicist , USACE-Baltimore), Lowell Martin (OESS, USACE-Baltimore), Gerard Quealy (On Target Locator Services)

WESTON STAFF (Name/Position)

1. Brian Junck (Senior Geophysicist)
2. Brian Guthrie (Project Geophysicist)
3. Katie Morrison (Biologist/Project Technician)
4. Donald Mears (Senior UXO Supervisor)
5. Dennis Houseknecht (UXO QC/Safety)
6. Marc Atherton (UXO Tech II)
7. Jeremy Dortch (UXO Tech I)
8. Jason Brawner (UXO Tech I)
9. Marie Swiech-Laflamme (Senior Project Scientist)

SUBCONTRACT STAFF (Name/Position)

1. VR Habilis (John Bigos-Dive Supervisor)
2. VR Habilis (Taylor King-Diver)
3. VR Habilis (Heath Nettleton-Standby Diver)
4. VR Habilis (Mike Shaw-Tender)
5. VR Habilis (Jason Kettle-Tender)
6. VR Habilis (John Hatcher-Tender)
7. Toscana (John Sherman)

WORK COMPLETED:

- ☒ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☒ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☒ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☒ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☒ Clearing/Vegetation Removal

Comments: WESTON and the Geophysicist, USACE-Baltimore met with the parcel 91 118 owner to discuss work activities proposed for their property. At this time, the owner is willing to grant ROE to the beach and landscaped portion of their yard for WESTON to conduct all activities (including digging). However, access to conduct any clearing of high vegetation will not be allowed, precluding collection of DGM or intrusive ops in the grid and transects we've proposed in these areas.

Toscana escorted by the UXO Tech II completed the clearing of vegetation in AC-04 and started clearing operations on parcel 90 9.

DGM survey conducted on AC-01-G15, AC-01-G18, and AC-01-G20 for Parcel 90 9.

VRH Dive team operations: During VRH pre-dive checks a video system failure was detected. They conducted a diagnostic test and isolated the failure to the video cable that's mated into the diver's umbilical. The video cable failed a continuity check. VRH has shipped a new replacement cable via FedEx, priority overnight with guaranteed Saturday delivery on Nantucket. VRH technicians will be working on installing the new cable over the weekend and plan to be operational Monday morning.

Photos for today activities are included in the QC's report.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

PROBLEMS/RESOLUTIONS:
Rights of Entry agreements are not in place for multiple properties which is impacting sequencing and schedule.

DATA TRACKING:

Items Confirmed: None

Analog Survey Transects: None

Items Found Today: None

DGM Grids: AC-01-G15, AC-01-G18, and AC-01-G20 for Parcel 90 9.

DGM Grids Reacquired: None

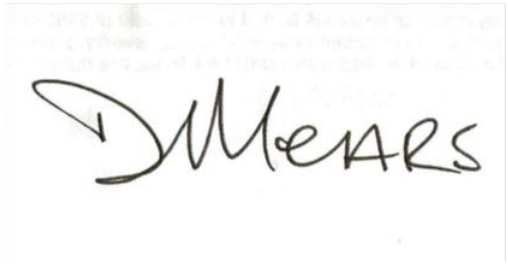
Data Acquired from Sub: None No dive operations due to equipment failure.

Data Provided to USACE: N/A

Data Accepted by USACE: N/A

Comments:

FURTHER DISCUSSION (List Topic and Comment): The priorities for Monday Dive Ops (18 June 2012): #1 - Transect 9 - 0 to 300' or max extent based on findings.#2 - Transect 10 - 0 to 300' or max extent based on findings.#3 - Transect 11 - 0 to 300' or max extent based on findings.

PREPARED BY:	**SIGNATURE:**
Donald Mears (SUXOS)	

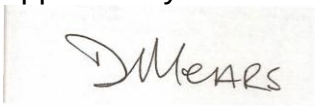
Attach applicable logs and reports below (QC Report, photo log, etc.)

Daily Quality Control Report

Project: Nantucket Beach, Former Nantucket Ordnance Site	
Site Location: Nantucket Island, MA	Date: June 15, 2012

Describe daily QC activities: Observed vegetation removal activities along Russell's Way.
No diving operations today due to a non-functional video cable from the divers helmet to the video display/recorder. A replacement is expected today or Saturday.
Observed vegetation removal in AC-01. Observed digital transect mapping in AC-01.
Observed grid stake placement and blind seed placement in AC-01 grids.
Grid QC: N/A
Transect QC: N/A

Definable Feature of Work	***Inspection Description***	***Inspection performed***	***Result/Recommendation***
Ground Reconnaissance	Confirm brush is sufficiently thinned so that digital surveys can be conducted while compliance of the EPP is maintained.	Follow up	Satisfactory
	Ensure equipment is available, properly operated and maintained.	Follow up	Satisfactory
Ground Based Geophysical survey activities	Confirm digital functionality tests are preformed before and after surveys and results are verified against metrics established in the WP.	Follow up	Satisfactory
	The IVS procedures documented in the WP are being performed by each DGM team before and after surveys.	Follow up	Satisfactory
	Instruments checked to confirm functionality before mag & dig activities.	Follow up	Satisfactory

	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory
Marine Based Geophysical Survey and Recovery Operations	Verify dive team has appropriate qualifications including safety/training and state licensing and equipment.	Not conducted today	N/A
	Instruments checked to confirm functionality before mag & dig activities.	Not conducted today	N/A
	Confirm all personnel have the appropriate PPE and supplies.	Not conducted today	N/A
	Confirm UXO dive teams are recording/logging all required parameters during item recovery.	Not conducted today	N/A
Submitted by: 			
Approved by: 		Approval date: 6/15/2012	



- **Figure 1 Geo team setting up the base station.**



- **Figure 2 Analog Transect along Russell's Way.**



- **Figure 3 DGM in AC-01.**



- **Figure 4 Brush clearance in progress on AC-01.**

Environmental Protection Daily Report

Nantucket Beach, Former Nantucket Ordnance Site
a.k.a. Tom Nevers Rocket Projectile Target;
Tom Nevers Area, Formerly Used Defense Site
Project Number D01MA045601
Remedial Investigation

WORK ORDER NO.:	**DATE**	
03886.551.004.0011	15 June 2012	

ENVIRONMENTAL PROTECTION MONITOR (Name/Position)

WESTON

Katherine Morrison / Project Scientist

WORK LOCATION: AC-01

WORK COMPLETED:

☒ Shorebird Monitoring/Impact Mitigation.
☒ Northern Harrier Monitoring/Impact Mitigation.
☐ American Burying Beetle Monitoring/Impact Mitigation.
☒ Marine Mammal Monitoring/Impact Mitigation.
☐ Vegetation Impact Monitoring/Mitigation
☐ Wetlands Impact Mitigation
☐ Site Water Runon/Runoff Control
☐ Site Restoration

Comments:

- Conducted harrier monitoring in AC-01 during transect pre-marking in and surface anomaly clearance prior to vegetation clearing.
- Monitored Underwater transects 9, 10 ,11 for sea life and sea birds before divers began their mission.
- DGM survey conducted on AC-01-G15, AC-01-G18, and AC-01-G20 for Parcel 90 9.
- Female harrier spotted around AC-01-G15 on Parcel 90 9 with no evidence of nest.

MONITORING OBSERVATIONS (species/activities observed):

- Female harrier spotted around AC-01-G15 on Parcel 91 1 with no evidence of nest.

MITIGATION MEASURES IMPLEMENTED:

- No mitigation measures were required.

FURTHER DISCUSSION (List Topic and Comment):

- None

PREPARED BY:	**SIGNATURE:**
Katherine Morrison	

VRH Dive Activities 15 June 2012

VRH team arrived on site at the normally scheduled time and conducted the daily tailgate safety brief.

VRH team was present during the daily Weston safety briefing held at Tom Nevers Field.

Dive and weather conditions are favorable at first light.

After full dive station set up, the divers helmet camera feed went black. Extensive trouble shooting identified a video cable malfunction. Team continued to strip the 600-foot umbilical of the faulty video cable and conduct a visual inspection/cleaning of the umbilical. This is a labor intensive and time consuming task.

Team coordinated with VRH Logistics and a replacement cable is in stock.

Plans are to ship the replacement overnight FedEx to a receiving facility in Hyannis and send VRH personnel from Nantucket to receive the replacement cable on Saturday so that repairs will be complete by Monday morning and cause no further delays.

Team members not working on the umbilical were conducting training on the Archer GPS (Trimble equivalent) to acquire transect starting points for future transects.

Team secures work tasks for the day with 8 hours logged.

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-0006/0005/048 MAMMS05-061812-AAMP	03886-551-004	18 June 2012

WEATHER: AM Cloudy, 54 F, PM Cloudy, 63 F, Winds 10-12 mph

WORK LOCATION: Russell's Way, New South Road, Tom Nevers Road, Milestone Road

VISITORS(Name/firm): Lowell Martin (OESS, USACE-Baltimore), Gerard Quealy (On Target Locator Services)

WESTON STAFF (Name/Position)

1. Brian Junck (Senior Geophysicist)
2. Brian Guthrie (Project Geophysicist)
3. Katie Morrison (Biologist/Project Technician)
4. Donald Mears (Senior UXO Supervisor)
5. Dennis Houseknecht (UXO QC/Safety)
6. Timothy Rodriguez (UXO Tech III)
7. Noah Bullock (Tech II)
8. Marc Atherton (UXO Tech II)
9. Jeremy Dortch (UXO Tech I)
10. Jason Brawner (UXO Tech I)

SUBCONTRACT STAFF (Name/Position)

1. VR Habilis (John Bigos-Dive Supervisor)
2. VR Habilis (Taylor King-Diver)
3. VR Habilis (Heath Nettleton-Standby Diver)
4. VR Habilis (Jason Kettle-Tender)
5. VR Habilis (John Hatcher-Tender)
6. Toscana (John Sherman/Eric Rogers)

WORK COMPLETED:

- ☒ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☒ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☒ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☒ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☒ Clearing/Vegetation Removal

Comments:

Toscana escorted by the UXO Tech II completed brush cutting in AC-01-G05, G13, G17, Transects- T10, T11, T12, T13, and T14.

DGM survey conducted on two grids in parcel 90 9

DGM transects done on parcels 91 1 and 90 9.

Photos for today's activities are included in the QC report.

VRH Dive team operations:
Transect # 9 5 ft 1 Anomaly at 180 ft (hot rock at a depth of 8") VHR completed this transect that was started on 15 June 2012

Transect # 10 300 ft 0 Anomalies

Transect # 11 300 ft 0 Anomalies

Transect # 12 235 ft 0 Anomaly VHR completed this transect that was started on 8 Jun e 2012

Total : 840 ft 1 Anomaly (Hot rock)

MATERIALS DELIVERED (Amount, Condition, and Purpose):

PROBLEMS/RESOLUTIONS:
Rights of Entry agreements are not in place for multiple properties which is impacting sequencing and schedule.

DATA TRACKING:

Items Confirmed: None

Analog Survey Transects: None

Items Found Today: None

DGM Grids: AC-01-G16 and AC-01-G19 for Parcel 90 9. AC-01-T01, AC-01-T02, AC-03-T01, and AC-03-T02 for Parcels 91 1 and 90 9.

DGM Grids Reacquired: None

Data Acquired from Sub: See attached VRH subcontractor

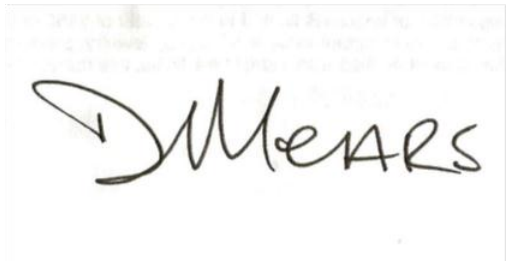
Data Provided to USACE: Data was submitted for Transects AC-01-T01/T02, AC-02-T01/T02 and AC-03-T01/T02, as well as the IVS and QC data for 06/18/2012.

Data Accepted by USACE: N/A

Comments:

FURTHER DISCUSSION (List Topic and Comment): The priorities for Tuesday Dive Ops (19 June 2012): #1 - Transect 27 - 0 to 300.

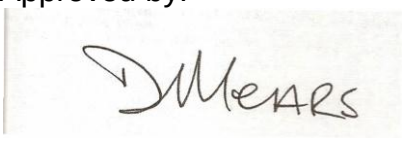
Pending USACE approval: Transect # 23A 0-100 ft, Transect 23B 0-100 ft, Transect 23C 0-100, Transect 24A 0-100 ft, Transect 24B 0-100 ft, Transect 24C 0-100 ft

PREPARED BY:	**SIGNATURE:**
Donald Mears (SUXOS)	

Daily Quality Control Report

Project: Nantucket Beach, Former Nantucket Ordnance Site			
Site Location: Nantucket Island, MA		Date: June 18, 2012	
Describe daily QC activities: Observed vegetation removal activities in AC-01 and transects along New South Road. Observed diving operations along transects 9 and 10. Observed DGM in AC-01 grid 19. Assisted Geo Lead putting in blind seed items in AC-01 grids 5, 6 and 10. ***Grid QC***: N/A ***Transect QC***: N/A			
Definable Feature of Work	***Inspection Description***	***Inspection performed*** *(control, preparatory, initial, follow-up, final)/frequency*	***Result/Recommendation*** *(deficiency, nonconformance, lesson learned)*
Ground Reconnaissance	Confirm brush is sufficiently thinned so that digital surveys can be conducted while compliance of the EPP is maintained.	Follow up	Satisfactory
	Ensure equipment is available, properly operated and maintained.	Follow up	Satisfactory
Ground Based Geophysical survey activities	Confirm digital functionality tests are preformed before and after surveys and results are verified against metrics established in the WP.	Follow up	Satisfactory
	The IVS procedures documented in the WP are being performed by each DGM team before and after surveys.	Follow up	Satisfactory
	Instruments	Follow up	Satisfactory

	checked to confirm functionality before mag & dig activities.		
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory
	Observe mag & dig operations for accuracy and completeness	Follow up	Satisfactory
Marine Based Geophysical Survey and Recovery Operations	Verify dive team has appropriate qualifications including safety/training and state licensing and equipment.	Follow Up	Satisfactory
	Instruments checked to confirm functionality before mag & dig activities.	Follow up	Satisfactory
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory
	Confirm UXO dive teams are recording/logging all required parameters during item recovery.	Follow up	Satisfactory

Submitted by: 	
Approved by: 	Approval date: 6/18/2012



- **Figure 1 Stand-by diver and primary diver in the water.**



- **Figure 2 Recovering the diver.**



- **Figure 3 Conducting DGM in grid 19 of Anomaly Cluster 01.**



- **Figure 4 Analog transect before vegetation removal.**



- **Figure 5 Analog transect after vegetation removal.**



- **Figure 6 Geophy**

Environmental Protection Daily Report

Nantucket Beach, Former Nantucket Ordnance Site
a.k.a. Tom Nevers Rocket Projectile Target;
Tom Nevers Area, Formerly Used Defense Site
Project Number D01MA045601
Remedial Investigation

WORK ORDER NO.:	DATE	
03886.551.004.0011	18 June 2012	

ENVIRONMENTAL PROTECTION MONITOR (Name/Position)

WESTON

Katherine Morrison / Project Scientist

WORK LOCATION: AC-01

WORK COMPLETED:

☒ Shorebird Monitoring/Impact Mitigation.
☒ Northern Harrier Monitoring/Impact Mitigation.
☐ American Burying Beetle Monitoring/Impact Mitigation.
☒ Marine Mammal Monitoring/Impact Mitigation.
☐ Vegetation Impact Monitoring/Mitigation
☐ Wetlands Impact Mitigation
☐ Site Water Runon/Runoff Control
☐ Site Restoration

Comments:

- Conducted harrier monitoring in AC-01 and surface anomaly clearance prior to vegetation clearing.
- Monitored Underwater transects 9, 10 ,11 for sea life and sea birds before divers began their mission.
- DGM survey conducted on AC-01-G16 and AC-01-G19 for Parcel 90 9.
- DGM transects done on AC-01-T01, AC-01-T02, AC-03-T01, and AC-03-T02 for Parcels 91 1 and 90 9.
- Male harrier spotted around AC-01-G16 on Parcel 90 9 with no evidence of nest.

MONITORING OBSERVATIONS (species/activities observed):

- Male harrier spotted around AC-01-G16 on Parcel 90 9with no evidence of nest.

MITIGATION MEASURES IMPLEMENTED:

- No mitigation measures were required.

FURTHER DISCUSSION (List Topic and Comment):

- None

PREPARED BY:	SIGNATURE:
Katherine Morrison	

SAFETY MEETING AND DAILY PLANNING FORM

Project Name: Nantucket RI/FS 2012

Project Location: Nantucket Beach

- Review previous shift's work including safety concerns, near misses or unrecognized hazards
- Review scope of work for the current work shift
- Review safety hazards for the activities planned for the work shift (check appropriate boxes)

	Chemical		Electrical	✓	Eye
	Biological	✓	Heat / Cold Stress	✓	Hearing (noise)
	Confined Space		Fall protection	✓	Emergency procedures
✓	Ladder	✓	Protective clothing	✓	Pinch points
	Scaffolds		Respirators	✓	Knife use
	Overhead obstructions	✓	Equipment and machinery	✓	Slip, Trip, Fall, Cut, and Puncture
	Other:	✓	Stop Work Authority		

- Review tools, equipment and procedures to be used (i.e., safety, maintenance or inspection requirements)
- Review pre-work inspections to be conducted
- Review emergency plan
- Review end-of-shift work area(s) condition requirements (i.e., cleanup, tools, staging for next shift, etc.)

Name Printed / Initial	Name Printed / Initial
1 .BIGOS JB	11.
2 SHAW N/A	12.
3. NETTLETON	13.
4. KING	14.
5. HATCHER	15.
6. KETTLE	16
7.	17.
8.	18.
9.	19.
10.	20.

Supervisor Name: Bigos/~~Shaw~~

Signature: John Bigos

Date/Day/Time: 07 15

APPENDIX G

VRH DAILY DIVE LOG & REPETITIVE DIVE WORKSHEET

Job Name NANTUCKET RI/ES Location NANTUCKET BEACH
Job No. _____ Date 6/18/12 Start Time 0700 Secure Time _____
Diving task & job description: Breathing medium and apparatus used:
SEARCH FOR DRO ALONG JACK-STAY LINE THROUGH SURF W/ SCHONSTEDT
Date&Time of last previous Dive +48 /

CREW AND POSITION

DIVE SUP J. BIGOS DVR. J. HATCHER STBY H. NETTLETON TEN J. KETTLE + T. KING

DIVING CONDITIONS

Weather OVERCAST E WIND Air Temp 60° Water Temp 59°-60°
Current SLACK Visibility 3-5' Tide Schedule: MWH 1034 MLW 1558
Emergency Air Pressure 1700 Initials JB

J. HATCHER
KM47 Diver #1
16-202
Bail-Out PSI 2300

	1	2	3	4	5
Leave Surface	0855	1208			
Leave Bottom	0931	1254			
Reach Surface	0931	1254			
Bottom Time	36	(46) 82			
Depth/Penetration	8'	14'			
Schedule	NO D	NO D			
Repet Group	A	C			
Surface Interval	157				
NewGroup/RNT	A				

H. NETTLETON
KM27 Diver #2
16-203
Bail-Out PSI 2500

	1	2	3	4	5
Leave Surface	1333	1456	1456		
Leave Bottom	1409	1549	1549		
Reach Surface	1409	1549	1549		
Bottom Time	36	(36) 99	(36) 89		
Depth/Penetration	11'	11'	11'		
Schedule	NO D	NO D	NO D		
Repet Group	A	A	D		
Surface Interval	47	—			
New Group/RNT	A				

Table & Schedule used NO D Depth and Duration of any decompression stops _____

Signature John Bigos Date 6/18/12

UT- #09

VHabilis Veteran-run work

OTHER DEBRIS PRODUCTION REPORT

Project Name: NANTUCKET RI/FS 2012 Report No: 011

Project No: Location: Nantucket Beach #9 Date: 6/18/12

I. Definable Feature of Work

☐ Project Management	☐ Geophysical Mapping	☐ Data Management	☐ Brush Clearing
☑ Intrusive Investigation	☐ UXO Avoidance	☐ Demolition	☐ Survey
☐ Surface Clearance	☑ Anomaly Reacquisition	☑ Transect Activity	☐ Scrap Processing
☐ GIS Management	☐ Mobilization/Demobilization	☑ Diving	☐ Other:

II. Type of Work

☑ UXO ☐ NON-UXO

II. TEAM MEMBERS/ TEAM LEADER

John Bigos, Michael Shaw, Heath Nettleton, John Hatcher, Jason Kettle Taylor King

III. Activities: # of Grids, transects, anomalies or other features of work completed.

Rpt #	Item	Distance	Depth	Photo Ref #
011	"HOT ROCK"	180'	8"	0052

UT-09 COMPLETE (300', 1 ANOMALIE)

NFE

UT-09

X: 13554456.00977 Y: 14980682.0479

TL Name: John Hatcher Signature: [signature] Date: 6/18/12

X. UXOQC/ PM Review

☐ Acceptable ☐ Unacceptable NCR #:

Comments:.

Name: Michael Shaw N/A Signature: Date:

XI. Distribution

☐ PM ☐ SUXOS ☐ UXOSO ☐ UXO Quality Manager ☐ Management

Habilis
Veteran-run work

DIVING DAILY PRODUCTION

	TRANSECT	DISTANCE	MD	CD/OD	TOTAL ANOMALIES
6/18	UT-09	5'	0	HOT ROCK 1 8" DEEP 180° OUT	1
6/18	UT-10	300'	0	0	0
6/18	UT-11	300'	0	0	0
6/18	UT-12	235	0	0	0
	UT-12 NOTE:	0-65' DONE	ON #12	BUOY LEFT	ON CONTACT
	UT-12	65' CONTACT	NOT ABLE	TO RE AQUIRE	
	TOTAL	840'	0	1 HOT ROCK	1

18Th. **JUNE 2012**

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-0006/0005/049 MAMMS05-061912-AAMQ	03886-551-004	19 June 2012

WEATHER: AM Cloudy, 60 F, PM Sunny, 6 F, Winds 5-10 mph

WORK LOCATION: Russell's Way, New South Road, Tom Nevers Road, Milestone Road

VISITORS(Name/firm): Lowell Martin (OESS, USACE-Baltimore), Gerard Quealy (On Target Locator Services)

WESTON STAFF (Name/Position)

1. Brian Junck (Senior Geophysicist)
2. Brian Guthrie (Project Geophysicist)
3. Katie Morrison (Biologist/Project Technician)
4. Donald Mears (Senior UXO Supervisor)
5. Dennis Houseknecht (UXO QC/Safety)
6. Timothy Rodriguez (UXO Tech III)
7. Marc Atherton (UXO Tech II)
8. Jeremy Dortch (UXO Tech I)
9. Jason Brawner (UXO Tech I)

SUBCONTRACT STAFF (Name/Position)

1. VR Habilis (John Bigos-Dive Supervisor)
2. VR Habilis (Taylor King-Diver)
3. VR Habilis (Heath Nettleton-Standby Diver)
4. VR Habilis (Jason Kettle-Tender)
5. VR Habilis (John Hatcher-Tender)
6. Toscana (John Sherman/Eric Rogers)
7. VR Habilis (Mike Shaw-Tender)

WORK COMPLETED:

- ☒ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☒ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☒ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☒ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☒ Clearing/Vegetation Removal

Comments: During the vegetation removal operations in AC-01 G12 two Mk 6 5" HVAR rocket warheads were located. Demolition operations were conducted and a blow in place (BIP) procedure was performed on both rockets. Both rockets were practice.

Toscana escorted by the UXO Tech II completed cutting in AC-01-G12.

DGM survey conducted on AC-01-G10 and AC-01-G11 for Parcel 90 9 and AC-01-G02 for Parcel 91 1.

VRH Dive team operations: Transect # 27 Complete 300 ft & 2 Anomalies Both Anomalies found at 270 ft. 1 CD (Fence Post 5.5 ft deep) 1 Hot Rock (6' ft deep).

Total Feet Today 300' : 2 Anomalies

MATERIALS DELIVERED (Amount, Condition, and Purpose):

PROBLEMS/RESOLUTIONS:
Rights of Entry agreements are not in place for multiple properties which is impacting sequencing and schedule.

DATA TRACKING:

Items Confirmed: None

Analog Survey Transects: None

Items Found Today: None

DGM Grids: AC-01-G10 and AC-01-G11 for Parcel 90 9 and AC-01-G02 for Parcel 91 1.

DGM Grids Reacquired: None

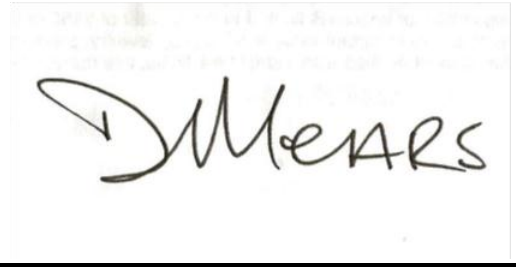
Data Acquired from Sub: See attached VRH subcontractor

Data Provided to USACE: Data was submitted for grids AC-01-G15, G16, G18, G19, and G20.

Data Accepted by USACE: N/A

Comments:

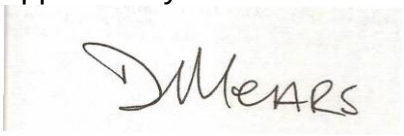
FURTHER DISCUSSION (List Topic and Comment): The priorities for Tuesday Dive Ops (20 June 2012): Transect # 23A 0-100 ft, Transect 23B 0-100 ft, Transect 23C 0-100, Transect 24A 0-100 ft, Transect 24B 0-100 ft, Transect 24C 0-100 ft

PREPARED BY:	**SIGNATURE:**
Donald Mears (SUXOS)	

Daily Quality Control Report

Project: Nantucket Beach, Former Nantucket Ordnance Site			
Site Location: Nantucket Island, MA		Date: June 19, 2012	
Describe daily QC activities: Observed vegetation removal activities in AC-01. Observed diving operations along transect 27. Observed demolition operations in AC-01 grid 12. Two Mk 6 5" HVAR rocket warheads were located and BIP. Both were practice rounds. ***Grid QC***: N/A ***Transect QC***: N/A			
Definable Feature of Work	***Inspection Description***	***Inspection performed*** *(control, preparatory, initial, follow-up, final)/frequency*	***Result/Recommendation*** *(deficiency, nonconformance, lesson learned)*
Ground Reconnaissance	Confirm brush is sufficiently thinned so that digital surveys can be conducted while compliance of the EPP is maintained.	Follow up	Satisfactory
	Ensure equipment is available, properly operated and maintained.	Follow up	Satisfactory
Ground Based Geophysical survey activities	Confirm digital functionality tests are preformed before and after surveys and results are verified against metrics established in the WP.	Follow up	Satisfactory
	The IVS procedures documented in the WP are being performed by each DGM team before and after surveys.	Follow up	Satisfactory
	Instruments checked to confirm	Follow up	Satisfactory

	functionality before mag & dig activities.		
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory
	Observe mag & dig operations for accuracy and completeness	Follow up	Satisfactory
Marine Based Geophysical Survey and Recovery Operations	Verify dive team has appropriate qualifications including safety/training and state licensing and equipment.	Follow Up	Satisfactory
	Instruments checked to confirm functionality before mag & dig activities.	Follow up	Satisfactory
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory
	Confirm UXO dive teams are recording/logging all required parameters during item recovery.	Follow up	Satisfactory
Munitions and explosives of concern intrusive activities	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory
	Verify the determination of acceptable to move MED/MPPEH for consolidation is appropriate.	Initial	Satisfactory
	Verify disposal procedures are being conducted IAW the WP.	Initial	Satisfactory

Submitted by: 	
Approved by: 	Approval date: 6/19/2012



- **Figure 1 Dive Station enveloped by early morning fog.**



- Figure 2 Diver's umbilical's inside dive trailer.



- **Figure 3 5" High Velocity Aerial Rocket (HVAR) MK6 Series (Practice)**



- **Figure 4 Demo set up with two "jet perforators".**



- **Figure 5 The demo shot with engineering controls in place.**



- **Figure 6 The results from demo activities.**

Environmental Protection Daily Report

Nantucket Beach, Former Nantucket Ordnance Site
a.k.a. Tom Nevers Rocket Projectile Target;
Tom Nevers Area, Formerly Used Defense Site
Project Number D01MA045601
Remedial Investigation

WORK ORDER NO.:	**DATE**	
03886.551.004.0011	19 June 2012	

ENVIRONMENTAL PROTECTION MONITOR (Name/Position)

WESTON

Katherine Morrison / Project Scientist

WORK LOCATION: AC-01

WORK COMPLETED:

☒ Shorebird Monitoring/Impact Mitigation.
☒ Northern Harrier Monitoring/Impact Mitigation.
☐ American Burying Beetle Monitoring/Impact Mitigation.
☒ Marine Mammal Monitoring/Impact Mitigation.
☐ Vegetation Impact Monitoring/Mitigation
☐ Wetlands Impact Mitigation
☐ Site Water Runon/Runoff Control
☐ Site Restoration

Comments:

- Conducted harrier monitoring in AC-01 and surface anomaly clearance prior to vegetation clearing.
- Staked out and monitored Underwater transects 23 A, B, C, 24 A, B, C, 26 and 27 for sea life and sea birds before divers began their mission.
- DGM survey conducted on AC-01-G10 and AC-01-G11 for Parcel 90 9 and AC-01-G02 for Parcel 91 1.
- Male harrier spotted around AC-01-G10 on Parcel 90 9 with no evidence of nest.

MONITORING OBSERVATIONS (species/activities observed):

- Male harrier spotted around AC-01-G10 on Parcel 90 9with no evidence of nest.

MITIGATION MEASURES IMPLEMENTED:

- No mitigation measures were required.

FURTHER DISCUSSION (List Topic and Comment):

- None

PREPARED BY:	**SIGNATURE:**
Katherine Morrison	

SAFETY MEETING AND DAILY PLANNING FORM

Project Name: Nantucket RI/FS 2012

Project Location: Nantucket Beach

- Review previous shift's work including safety concerns, near misses or unrecognized hazards
- Review scope of work for the current work shift
- Review safety hazards for the activities planned for the work shift (check appropriate boxes)

	Chemical		Electrical		Eye
	Biological		Heat / Cold Stress		Hearing (noise)
	Confined Space		Fall protection		Emergency procedures
	Ladder		Protective clothing		Pinch points
	Scaffolds		Respirators		Knife use
	Overhead obstructions		Equipment and machinery		Slip, Trip, Fall, Cut, and Puncture
X	Other: complacency	X	Stop Work Authority		

- Review tools, equipment and procedures to be used (i.e., safety, maintenance or inspection requirements)
- Review pre-work inspections to be conducted
- Review emergency plan
- Review end-of-shift work area(s) condition requirements (i.e., cleanup, tools, staging for next shift, etc.)

Name Printed / Initial	Name Printed / Initial
1 .BIGOS	11.
2 SHAW	12.
3. NETTLETON	13.
4. KING	14.
5. HATCHER	15.
6. KETTLE	16
7.	17.
8.	18.
9.	19.
10.	20.

Supervisor Name: Bigos/Shaw

Signature:

Date/Day/Time: 19 Jun 2012

APPENDIX G

VRH DAILY DIVE LOG & REPETITIVE DIVE WORKSHEET

Job Name NANTUCKET RIFS Location NANTUCKET BEACH

Job No. _____ Date 6/19/12 Start Time 0700 Secure Time _____

Diving task & job description: Breathing medium and apparatus used:

DIVE SUP. J. BIGOS SEARCH FOR UXO W/SCHONSTEDT THROUGH SURF ALONG JACK-STAY LINE

Date&Time of last previous Dive +48

CREW AND POSITION

DIVE SUP J. BIGOS, DVR J. KETTLE STBY T. KING
TEN M. SHAW, H. NETTLETON, J. HATCHER

DIVING CONDITIONS

Weather COOL OVERCAST Air Temp 60° Water Temp 59°

Current ~~MED~~ STRONG Visibility POOR Tide Schedule: MWH 1115 MLW 1639

Emergency Air Pressure 1700 Initials JD

J. KETTLE Diver #1		1	2	3	4	5
16-202 KM47	Leave Surface	0905	1103	1342		
	Leave Bottom	1025	1318	1440		
	Reach Surface	1025	1318	1440		
	Bottom Time	~~80~~	(80) 215	(38) 273		
	Depth/Penetration	7	9'	9'		
Bail-Out PSI 2200	Schedule	NO 'D'	NO 'D'	NO 'D'		
	Repet Group	B	F	G		
	Surface Interval	38	24			
	New Group/RNT	B	F			

T. KING Diver #2		1	2	3	4	5
16-203 KM27	Leave Surface					
	Leave Bottom					
	Reach Surface					
	Bottom Time					
	Depth/Penetration					
Bail-Out PSI 2500	Schedule					
	Repet Group					
	Surface Interval					
	New Group/RNT					

Table & Schedule used NO 'D' Depth and Duration of any decompression stops. N/A

Signature John Bigos Date 6/19/12

UT #27

VHabilis Veteran-run work

OTHER DEBRIS PRODUCTION REPORT

0012 0013

Project Name: NANTUCKET RI/FS 2012 Report No: ~~19Jun2012~~

Project No: 18027 Location: Nantucket Beach Transect 27 Date: 19Jun2012

I. Definable Feature of Work

☐ Project Management	☐ Geophysical Mapping	☐ Data Management	☐ Brush Clearing
☒ Intrusive Investigation	☐ UXO Avoidance	☐ Demolition	☐ Survey
☐ Surface Clearance	☐ Anomaly Reacquisition	☒ Transect Activity	☐ Scrap Processing
☐ GIS Management	☐ Mobilization/Demobilization	☒ Diving	☐ Other:

II. Type of Work

☒ UXO ☐ NON-UXO

II. TEAM MEMBERS/ TEAM LEADER

John Bigos, Michael Shaw, Heath Nettleton, John Hatcher, Jason Kettle Taylor King

III. Activities: # of Grids, transects, anomalies or other features of work completed.

Rpt #	Item	Distance	Depth	Photo Ref #
UT#27	X181.70862607900	Y1360883.98918000000		
0012	5' long fencepost	@270'	5.5'	0053
0013	6"x4" hotrock	@270	6'	0054

UT#27 completed @ 1440 on 19Jun2012 with the following totals-

OD/CD - 2

NFETP

TL Name: ~~John Hatcher~~ Heath Nettleton Signature: Date:

X. UXOQC/ PM Review

☑ Acceptable ☐ Unacceptable NCR #:

Comments:.

Name: Michael Shaw Signature: Michael Shaw Date: 19Jun2012

XI. Distribution

☐ PM ☐ SUXOS ☐ UXOSO ☐ UXO Quality Manager ☐ Management

VHRabilis
Veteran-run work

DIVING DAILY PRODUCTION

	TRANSECT	DISTANCE	MD	CD/OD	TOTAL ANAMOLIES
6/14	27	300'	0	1 FENCE POST	1 HOT ROCK
	TOTAL	300'	0	1	2

19 Th JUNE 2012

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-0006/0005/050 MAMMS05-062012-AAMR	03886-551-004	20 June 2012

WEATHER: AM Sunny, 65 F, PM Sunny/HOT, 74 F, Winds 10-12 mph

WORK LOCATION: Russell's Way, New South Road, Tom Nevers Road, Milestone Road

VISITORS(Name/firm): Lowell Martin (OESS, USACE-Baltimore), Gerard Quealy (On Target Locator Services)

WESTON STAFF (Name/Position)

1. Brian Junck (Senior Geophysicist)
2. Brian Guthrie (Project Geophysicist)
3. Katie Morrison (Biologist/Project Technician)
4. Donald Mears (Senior UXO Supervisor)
5. Dennis Houseknecht (UXO QC/Safety)
6. Timothy Rodriguez (UXO Tech III)
7. Noah Bullock (Tech II)
8. Marc Atherton (Tech II)
9. Jeremy Dortch (UXO Tech I)
10. Jason Brawner (UXO Tech I)

SUBCONTRACT STAFF (Name/Position)

1. VR Habilis (John Bigos-Dive Supervisor)
2. VR Habilis (Taylor King-Diver)
3. VR Habilis (Heath Nettleton-Standby Diver)
4. VR Habilis (Jason Kettle-Tender)
5. VR Habilis (John Hatcher-Tender)
6. VR Habilis (Mike Shaw-Tender)
7. Toscana (John Sherman/Eric Rogers)

WORK COMPLETED:

- ☒ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☒ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☒ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☒ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☒ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☒ Clearing/Vegetation Removal

Comments:

One Mk 6 5" HVAR rocket warhead was located on beach (AC-01). Demolition operations were conducted and a blow in place (BIP) procedure completed. The rocket was practice.

Toscana escorted by the UXO Tech II completed cutting in AO1 TO2 and started operations in AO1 TO3.

DGM survey conducted in MRS-01.

Photos for today activities are included in the QC report.

VRH Dive team operations:

Transect # 23 A 100' & 0 Anomalies Complete
Transect # 23 B 100' & 0 Anomalies Complete
Transect # 23 C 100' & 0 Anomalies Complete

Transect # 24 A 100' & 0 Anomalies Complete
Transect # 24 B 100' & 0 Anomalies Complete
Transect # 24 C 100' & 0 Anomalies Complete

Total Feet 600 & 0 Anomalies

MATERIALS DELIVERED (Amount, Condition, and Purpose):

PROBLEMS/RESOLUTIONS:
Rights of Entry agreements are not in place for multiple properties which is impacting sequencing and schedule.

DATA TRACKING:

Items Confirmed: One Mk 6 5" HVAR rocket warhead (practice)

Analog Survey Transects: None

Items Found Today: One Mk 6 5" HVAR rocket (practice) warhead was located on beach (AC-01). Demolition operations were conducted and a blow in place (BIP) procedure completed.

DGM Grids: MRS-01.

DGM Grids Reacquired: None

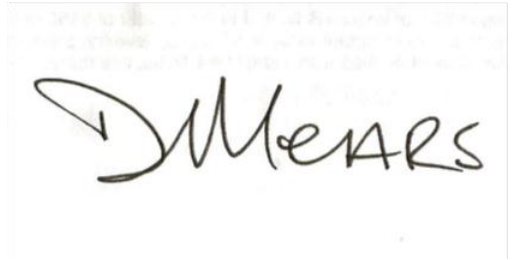
Data Acquired from Sub: See attached VRH subcontractor

Data Provided to USACE: AC-01-G02, G10, G11, T03, T04, T05, T07

Data Accepted by USACE: N/A

Comments:

FURTHER DISCUSSION (List Topic and Comment): The priorities for Thursday Dive Ops (21 June 2012): #1 Transect 28 0-200 ft, #2 Transect 29A 0-200 ft, and Transect 34A 0-200 ft.

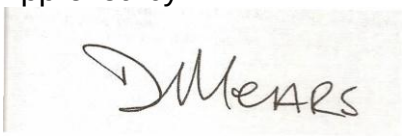
PREPARED BY:	**SIGNATURE:**
Donald Mears (SUXOS)	

Daily Quality Control Report

Project: Nantucket Beach, Former Nantucket Ordnance Site	
Site Location: Nantucket Island, MA	Date: June 20, 2012
Describe daily QC activities: Observed diving operations along transect 23 C and 24B. Observed demolition operations in (beach) transect #2. One Mk 6 5" HVAR rocket warhead was located and successfully BIP. No high order detonation occurred. ***Grid QC***: N/A ***Transect QC***: 2	

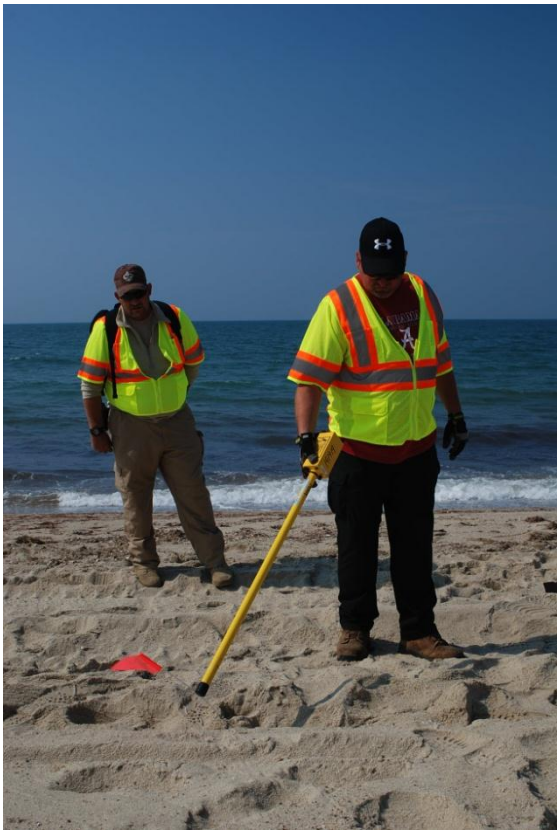
Definable Feature of Work	***Inspection Description***	***Inspection performed*** *(control, preparatory, initial, follow-up, final)/frequency*	***Result/Recommendation*** *(deficiency, nonconformance, lesson learned)*
Ground Reconnaissance	Confirm brush is sufficiently thinned so that digital surveys can be conducted while compliance of the EPP is maintained.	Follow up	Satisfactory
	Ensure equipment is available, properly operated and maintained.	Follow up	Satisfactory
Ground Based Geophysical survey activities	Confirm digital functionality tests are preformed before and after surveys and results are verified against metrics established in the WP.	Follow up	Satisfactory
	The IVS procedures documented in the WP are being performed by each DGM team before and after surveys.	Follow up	Satisfactory
	Instruments checked to confirm functionality before	Follow up	Satisfactory

	mag & dig activities.		
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory
	Observe mag & dig operations for accuracy and completeness	Follow up	Satisfactory
Marine Based Geophysical Survey and Recovery Operations	Verify dive team has appropriate qualifications including safety/training and state licensing and equipment.	Follow Up	Satisfactory
	Instruments checked to confirm functionality before mag & dig activities.	Follow up	Satisfactory
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory
	Confirm UXO dive teams are recording/logging all required parameters during item recovery.	Follow up	Satisfactory
Munitions and explosives of concern intrusive activities	Ensure the appropriate exclusion zones are established and maintained in active work areas.	Initial	Satisfactory
	Observe anomaly reacquisition/intrusive work accuracy and completeness.	Initial	Satisfactory
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory
	Verify the determination of acceptable to move MED/MPPEH for consolidation is appropriate.	Initial	Satisfactory
	Verify disposal procedures are being conducted IAW the WP.	Initial	Satisfactory
Submitted by: D. Heuschneider			

Approved by: 	Approval date: 6/20/2012



- **Figure 1 The Geo reacquisition team followed by the UXO "dig team".**



- **Figure 2 The dig team locating the exact position of the anomaly.**



- **Figure 3 Recovering the diver.**



- **Figure 4 5" HVAR warhead MK 6 (practice)**



- **Figure 5 Performing a continuity test on a blasting cap.**



- **Figure 6 Securing the blasting cap under a sand bag.**

Environmental Protection Daily Report

Nantucket Beach, Former Nantucket Ordnance Site
a.k.a. Tom Nevers Rocket Projectile Target;
Tom Nevers Area, Formerly Used Defense Site
Project Number D01MA045601
Remedial Investigation

WORK ORDER NO.:	**DATE**	
03886.551.004.0011	20 June 2012	

ENVIRONMENTAL PROTECTION MONITOR (Name/Position)

WESTON

Katherine Morrison / Project Scientist

WORK LOCATION: AC-01

WORK COMPLETED:

☒ Shorebird Monitoring/Impact Mitigation.
☒ Northern Harrier Monitoring/Impact Mitigation.
☐ American Burying Beetle Monitoring/Impact Mitigation.
☒ Marine Mammal Monitoring/Impact Mitigation.
☐ Vegetation Impact Monitoring/Mitigation
☐ Wetlands Impact Mitigation
☐ Site Water Runon/Runoff Control
☐ Site Restoration

Comments:

- Conducted harrier monitoring in AC-01 and surface anomaly clearance prior to vegetation clearing.
- Monitored Underwater transects 23 A, B, C, 24 A, B, C, 26 and 27 for sea life and sea birds before divers began their mission.
- DGM 31 survey conducted MRS-01.
- Flagged out dig sites for beach transects AC-01-T01, AC-01-T02, AC-03-T01.
- Male harrier spotted on beach transect AC-01-T02 on Parcel 91 1 with no evidence of nest.

MONITORING OBSERVATIONS (species/activities observed):

- Male harrier spotted on beach transect AC-01-T02 on Parcel 91 1 with no evidence of nest.

MITIGATION MEASURES IMPLEMENTED:

- No mitigation measures were required.

FURTHER DISCUSSION (List Topic and Comment):

- None

PREPARED BY:	**SIGNATURE:**
Katherine Morrison	

SAFETY MEETING AND DAILY PLANNING FORM

Project Name: Nantucket RI/FS 2012

Project Location: Nantucket Beach

- Review previous shift's work including safety concerns, near misses or unrecognized hazards
- Review scope of work for the current work shift
- Review safety hazards for the activities planned for the work shift (check appropriate boxes)

	Chemical		Electrical		Eye
	Biological		Heat / Cold Stress		Hearing (noise)
	Confined Space		Fall protection		Emergency procedures
	Ladder	X	Protective clothing		Pinch points
	Scaffolds		Respirators		Knife use
	Overhead obstructions		Equipment and machinery		Slip, Trip, Fall, Cut, and Puncture
	Other:	X	Stop Work Authority	X	sunscreen

- Review tools, equipment and procedures to be used (i.e., safety, maintenance or inspection requirements)
- Review pre-work inspections to be conducted
- Review emergency plan
- Review end-of-shift work area(s) condition requirements (i.e., cleanup, tools, staging for next shift, etc.)

Name Printed / Initial	Name Printed / Initial
1 .BIGOS	11.
2 SHAW	12.
3. NETTLETON	13.
4. KING	14.
5. HATCHER	15.
6. KETTLE	16
7.	17.
8.	18.
9.	19.
10.	20.

Supervisor Name: Bigos/Shaw

Signature:

Date/Day/Time: 20 Jan 2012 Wed

APPENDIX G

VRH DAILY DIVE LOG & REPETITIVE DIVE WORKSHEET

Job Name NANTUCKET RI/ES Location NANTUCKET BEACH
Job No. _____ Date 6/20/12 Start Time 0700 Secure Time _____
Diving task & job description: Breathing medium and apparatus used
SEARCH FOR ORO USING SCHONSTEDT
FROM JACK-STAY LINE THROUGH SURF
Date&Time of last previous Dive +48

CREW AND POSITION
DIVE SUP J.BIGOS, DVR T.KING STBY T.HATCHER
TEN H.WETTLETON, J.KETTLE, M.SHAW

DIVING CONDITIONS
Weather SW WIND + SEAS Air Temp 65° Water Temp 59°
Current STRONG Visibility POOR Tide Schedule: MWH 1155 MLW 1720
Emergency Air Pressure 1700 Initials JB

T. KING — Diver #1 — KM 47 16-202 — Bail-Out PSI 2200

	1	2	3	4	5
Leave Surface	0847	1020	1131	1254	1335
Leave Bottom	0947	1058	1201	1321	1404
Reach Surface	0947	1058	1201	1321	1404
Bottom Time	60	(38) 98	(30) 128	(27) 155	(29) 184
Depth/Penetration	10'	7'	7'	7'	7'
Schedule	NO 'D'	NO 'D'	NO 'D'	NO 'D'	NO 'D'
Repet Group	B	D	E	E	F
Surface Interval	33	33	53	14	
New Group/RNT	B	D	E	E	

T. KING — [redacted] — Diver #2 — 16-203 KM27 — STBY J.HATCHER — Bail-Out PSI 2300

	1	2	3	4	5
Leave Surface	1418				
Leave Bottom	1453				
Reach Surface	1453				
Bottom Time	(35) 219				
Depth/Penetration	7'				
Schedule	NO 'D'				
Repet Group	G				
Surface Interval					
New Group/RNT					

Table & Schedule used USN Depth and Duration of any decompression stops N/A
Signature John Bigos Date 6/20/12

VHRabilis
Veteran-run work

DIVING DAILY PRODUCTION

TRANSECT	DISTANCE	MD	CD/OD	TOTAL ~~ANOMALIES~~ ANOMALIES
23 A	100'	0	0	0
23 B	100'	0	0	0
23 C	100'	0	0	0
24 A	100'	0	0	0
24 B	100'	0	0	0
24 C	100'	0	0	0
TOTAL	600'	0	0	0

20TH **JUNE 2012**

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-0006/0005/051 MAMMS05-062112-AAMS	03886-551-004	21 June 2012

WEATHER: AM Sunny, 66 F, PM Sunny, 70 F, Winds 10-14 mph

WORK LOCATION: Russell's Way, New South Road, Tom Nevers Road, Milestone Road

VISITORS(Name/firm): Lowell Martin (OESS, USACE-Baltimore), Gerard Quealy (On Target Locator Services)

WESTON STAFF (Name/Position)

1. Brian Junck (Senior Geophysicist)
2. Brian Guthrie (Project Geophysicist)
3. Katie Morrison (Biologist/Project Technician)
4. Donald Mears (Senior UXO Supervisor)
5. Dennis Houseknecht (UXO QC/Safety)
6. Timothy Rodriguez (UXO Tech III)
7. Noah Bullock (Tech II)
8. Marc Atherton (UXO Tech II)
9. Jeremy Dortch (UXO Tech I)
10. Jason Brawner (UXO Tech I)

SUBCONTRACT STAFF (Name/Position)

1. VR Habilis (John Bigos-Dive Supervisor)
2. VR Habilis (Taylor King-Diver)
3. VR Habilis (Heath Nettleton-Standby Diver)
4. VR Habilis (Jason Kettle-Tender)
5. VR Habilis (John Hatcher-Tender)
6. VR Hablies (Mike Shaw-Tender)
7. Toscana (John Sherman/Eric Rogers)

WORK COMPLETED:

- ☒ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☒ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☒ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☒ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☒ Clearing/Vegetation Removal

Comments: Dig team started intrusive anomaly investigation in AC-03.

Toscana escorted by the UXO Tech II started cutting in A01 TO4.

DGM survey conducted in MRS-1.

DGM survey conducted on AC-01-G05 and AC-01-G06 on Parcel 90 9.

Photos for today activities are included in the QC report.

VRH Dive team operations:

Transect # 28 Complete 200' & 0 Anomalies
Transect # 29 A Complete 200' & 0 Anomalies
Transect # 34 A Complete 200' & 1 Anomaly Un recovered (At 90' large timber with metal bolts >8' long too large to recover, USACE OES agrees & Weston Safety)

Totals 600 feet & 1 Unrecovered Anomaly

MATERIALS DELIVERED (Amount, Condition, and Purpose):
Four White's Metal Detectors MXT (for intrusive anomaly investigation)
Remote Firing Device (for demolition operations)

PROBLEMS/RESOLUTIONS:
Rights of Entry agreements are not in place for multiple properties which is impacting sequencing and schedule.

DATA TRACKING:

Items Confirmed: None

Analog Survey Transects: None

Items Found Today: None

DGM Grids: DGM survey conducted on AC-01-G05 and AC-01-G06 on Parcel 90 9. DGM 31 survey conducted MRS-01.

DGM Grids Reacquired: None

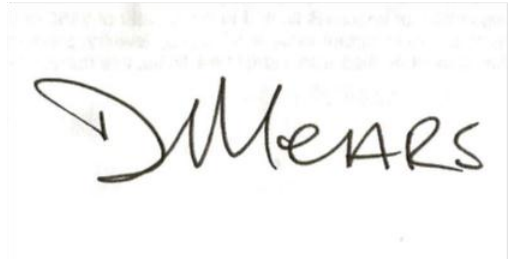
Data Acquired from Sub: See attached VRH subcontractor

Data Provided to USACE: EM31 Data for MRS1

Data Accepted by USACE: N/A

Comments:

FURTHER DISCUSSION (List Topic and Comment): The priorities for Friday Dive Ops (22 June 2012): Transect 36 - 0 to 300 ft, Transect 35A 0-300 ft, Transect 33A 0-300 ft, Transect 32 0-300 ft, Transect 31 0-300 ft, Transect 30A 0-300 ft, Transect 22A 0-300 ft, Transect 21A 0-300 ft and Transect 20A 0-300 ft.

PREPARED BY:	**SIGNATURE:**
Donald Mears (SUXOS)	

Daily Quality Control Report

Project: Nantucket Beach, Former Nantucket Ordnance Site	
Site Location: Nantucket Island, MA	Date: June 21, 2012

Describe daily QC activities: Conducted beach walk with Project Scientist; no nests nor birds seen. Observed diving operations along transect 28. Observed geophysical operations EM-31 in MRS-1. Observed intrusive anomaly investigation in AC-03.

Grid QC: AC-03

Transect QC:

Definable Feature of Work	***Inspection Description***	***Inspection performed*** *(control, preparatory, initial, follow-up, final)/frequency*	***Result/Recommendation*** *(deficiency, nonconformance, lesson learned)*
Ground Reconnaissance	Confirm brush is sufficiently thinned so that digital surveys can be conducted while compliance of the EPP is maintained.	Follow up	Satisfactory
	Ensure equipment is available, properly operated and maintained.	Follow up	Satisfactory
Ground Based Geophysical survey activities	Confirm digital functionality tests are preformed before and after surveys and results are verified against metrics established in the WP.	Follow up	Satisfactory
	The IVS procedures documented in the WP are being performed by each DGM team before and after surveys.	Follow up	Satisfactory
	Instruments checked to confirm	Follow up	Satisfactory

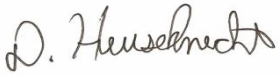
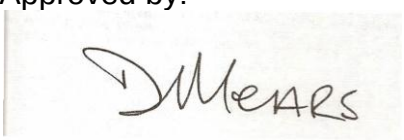
	functionality before mag & dig activities.		
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory
	Observe mag & dig operations for accuracy and completeness	Follow up	Satisfactory
Marine Based Geophysical Survey and Recovery Operations	Verify dive team has appropriate qualifications including safety/training and state licensing and equipment.	Follow Up	Satisfactory
	Instruments checked to confirm functionality before mag & dig activities.	Follow up	Satisfactory
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory
	Confirm UXO dive teams are recording/logging all required parameters during item recovery.	Follow up	Satisfactory
Munitions and explosives of concern intrusive activities	Ensure the appropriate exclusion zones are established and maintained in active work areas.	Follow up	Satisfactory
	Observe anomaly reacquisition/intrusive work accuracy and completeness.	Follow up	Satisfactory
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory
Submitted by: 			
Approved by: 	Approval date: 6/21/2012		



Figure 1 The UXO dig team conducting anomaly investigation in AC-03.



Figure 2 Fence post recovered in AC-03.



■ **Figure 3**

Geo team preparing to conduct an EM-31 survey in MRS-1.



- **Figure 4 The dig team conducting reacquire in AC-03.**

Environmental Protection Daily Report

Nantucket Beach, Former Nantucket Ordnance Site
a.k.a. Tom Nevers Rocket Projectile Target;
Tom Nevers Area, Formerly Used Defense Site
Project Number D01MA045601
Remedial Investigation

WORK ORDER NO.:	**DATE**	
03886.551.004.0011	21 June 2012	

ENVIRONMENTAL PROTECTION MONITOR (Name/Position)

WESTON

Katherine Morrison / Project Scientist

WORK LOCATION: AC-01

WORK COMPLETED:

☒ Shorebird Monitoring/Impact Mitigation.
☒ Northern Harrier Monitoring/Impact Mitigation.
☐ American Burying Beetle Monitoring/Impact Mitigation.
☒ Marine Mammal Monitoring/Impact Mitigation.
☐ Vegetation Impact Monitoring/Mitigation
☐ Wetlands Impact Mitigation
☐ Site Water Runon/Runoff Control
☐ Site Restoration

Comments:

- Conducted harrier monitoring in AC-01 and surface anomaly clearance prior to vegetation clearing.
- Monitored Underwater transects 28 through 36 for sea life and sea birds before divers began their mission.
- DGM 31 survey conducted MRS-01.
- DGM survey conducted on AC-01-G05 and AC-01-G06 on Parcel 90 9.

MONITORING OBSERVATIONS (species/activities observed):

- No species observed.

MITIGATION MEASURES IMPLEMENTED:

- No mitigation measures were required.

FURTHER DISCUSSION (List Topic and Comment):

- None

PREPARED BY:	**SIGNATURE:**
Katherine Morrison	

SAFETY MEETING AND DAILY PLANNING FORM

Project Name: Nantucket RI/FS 2012

Project Location: Nantucket Beach

- Review previous shift's work including safety concerns, near misses or unrecognized hazards
- Review scope of work for the current work shift
- Review safety hazards for the activities planned for the work shift (check appropriate boxes)

	Chemical		Electrical		Eye
	Biological		Heat / Cold Stress		Hearing (noise)
	Confined Space		Fall protection		Emergency procedures
	Ladder		Protective clothing		Pinch points
	Scaffolds		Respirators		Knife use
	Overhead obstructions	X	Equipment and machinery		Slip, Trip, Fall, Cut, and Puncture
	Other:	X	Stop Work Authority		

- Review tools, equipment and procedures to be used (i.e., safety, maintenance or inspection requirements)
- Review pre-work inspections to be conducted
- Review emergency plan
- Review end-of-shift work area(s) condition requirements (i.e., cleanup, tools, staging for next shift, etc.)

Name Printed / Initial	Name Printed / Initial
1 .BIGOS	11.
2 SHAW	12.
3. NETTLETON	13.
4. KING	14.
5. HATCHER	15.
6. KETTLE	16
7.	17.
8.	18.
9.	19.
10.	20.

Supervisor Name: Bigos/Shaw

Signature:

Date/Day/Time: 21/May/20h

APPENDIX G

VRH DAILY DIVE LOG & REPETITIVE DIVE WORKSHEET

Job Name NANTUCKET RI/FS Location NANTUCKET BEACH
Job No. _____ Date 6/21/12 Start Time 0700 Secure Time _____
Diving task & job description: Breathing medium and apparatus used:
SEARCH FOR UXO USING SCHONSTEDT THROUGH SURF FROM JACK-STAY LINE
Date&Time of last previous Dive + 48

CREW AND POSITION
DIVE SUP J.BIGOS DVR. M.SHAW STBY J.HATCHER
TEN J.KETTLE, H.NETTLETON + T.KING

DIVING CONDITIONS
Weather HOT Air Temp >70° Water Temp 60°
Current STRONG Visibility GOOD Tide Schedule: MWH 1234 MLW 1802
Emergency Air Pressure 1700 Initials JB

M.SHAW
KM 47 Diver #1
16-202
Bail-Out PSI 2250

	1	2	3	4	5
Leave Surface	0912				
Leave Bottom	0924				
Reach Surface	0924				
Bottom Time	12				
Depth/Penetration	5'				
Schedule	NO D'				
Repet Group	A				
Surface Interval					
New Group/RNT					

~~J. HATCHER~~ H.NETTLETON
KM 27 Diver #2
16-203
Bail-Out PSI 2300

	1	2	3	4	5
Leave Surface	0947	1028	1225		
Leave Bottom	1015	1107	1304		
Reach Surface	1015	1107	1304		
Bottom Time	28	39 (67)	(39) 106		
Depth/Penetration	7'	7'	7'		
Schedule	NO D	NO D.	NO D'		
Repet Group	A	B	C		
Surface Interval	13	78			
New Group/RNT	A	B			

Table & Schedule used NO D' Depth and Duration of any decompression stops N/A
Signature John Bigos Date 6/21/12

APPENDIX G

VRH DAILY DIVE LOG & REPETITIVE DIVE WORKSHEET

Job Name NANTUCKET RI/FS Location NANTUCKET BEACH

Job No. _____ Date 6/21/12 Start Time 0700 Secure Time _____

Diving task & job description: Breathing medium and apparatus usedt

SEARCH FOR UXO USING SCHONSTEDT THROUGH SURF FROM JACK-STAY LINE

Date&Time of last previous Dive +48

CREW AND POSITION

DIVE SUP J. BIGOS DIVER J. HATCHER STBY H. NETTLETON
TEN M. SHAW, J. KETTLE + T. KING

DIVING CONDITIONS

Weather HOT + SUNNY Air Temp 80° Water Temp 60°

Current MED Visibility GOOD Tide Schedule: MWH 1234 MLW 1802

Emergency Air Pressure 1700 Initials JJB

J. HATCHER
KM 47 Diver #1
16-202

Bail-Out PSI 2250

	1	2	3	4	5
Leave Surface	1415				
Leave Bottom	1556				
Reach Surface	1556				
Bottom Time	101				
Depth/Penetration	7'				
Schedule	NO 'D'				
Repet Group	B				
Surface Interval					
NewGroup/RNT					

H. NETTLETON
KM 27 Diver #2
16-203

Bail-Out PSI 2300

	1	2	3	4	5
Leave Surface					
Leave Bottom					
Reach Surface					
Bottom Time					
Depth/Penetration					
Schedule					
Repet Group					
Surface Interval					
New Group/RNT					

Table & Schedule used USN Depth and Duration of any decompression stops. N/A

Signature John Bigos Date 6/21/12

UT 34A

Habilis
Veteran-run work

OTHER DEBRIS PRODUCTION REPORT

Project Name: NANTUCKET RI/FS 2012 Report No: 014

Project No: 18027 Location: Nantucket Beach #34A Date: 21 Jun 2012

I. Definable Feature of Work

☐ Project Management	☐ Geophysical Mapping	☐ Data Management	☐ Brush Clearing
☒ Intrusive Investigation	☐ UXO Avoidance	☐ Demolition	☐ Survey
☐ Surface Clearance	☐ Anomaly Reacquisition	☒ Transect Activity	☐ Scrap Processing
☐ GIS Management	☐ Mobilization/Demobilization	☒ Diving	☐ Other:

II. Type of Work

☒ UXO ☐ NON-UXO

II. TEAM MEMBERS/ TEAM LEADER

John Bigos, Michael Shaw, Heath Nettleton, John Hatcher, Jason Kettle Taylor King

III. Activities: # of Grids, transects, anomalies or other features of work completed.

Rpt #	Item	Distance	Depth	Photo Ref #
Transect 34A		X1363337.48	Y1497976810	
014	Large timber w/bolts unrecoverable due to size USACE OES concurs	@ 90'	Surface	

Transect 34A completed @ 1550 with the following totals-

CD/OD-1

NFETP

TL Name: ~~John Hatcher~~ Heath Nettleton Signature: Date: 21 Jun 2012

X. UXOQC/ PM Review

☒ Acceptable ☐ Unacceptable NCR #:

Comments:.

Name: Michael Shaw Signature: Michael Shaw Date:

XI. Distribution

☐ PM ☐ SUXOS ☐ UXOSO ☐ UXO Quality Manager ☐ Management

VHabilis
Veteran-run work

DIVING DAILY PRODUCTION

TRANSECT	DISTANCE	MD	CD/OD	TOTAL ~~ANOMALIES~~ ANOMALIES
28	200'	0	0	0
29A	200'	0	0	0
34A	200	0	1 TIMBER 90" UNRECOVERABLE TO' LARGE	1
	600'	0	1	1

21ST JUNE 2012

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-0006/0005/052 MAMMS05-062212-AAMT	03886-551-004	22 June 2012

WEATHER: AM Sunny, 64 F, PM Sunny, 70 F, Winds 10-15 mph

WORK LOCATION: Russell's Way, New South Road, Tom Nevers Road, Milestone Road

VISITORS(Name/firm): Lowell Martin (OESS, USACE-Baltimore), Gerard Quealy (On Target Locator Services)

WESTON STAFF (Name/Position)

1. Brian Junck (Senior Geophysicist)
2. Brian Guthrie (Project Geophysicist)
3. Katie Morrison (Biologist/Project Technician)
4. Donald Mears (Senior UXO Supervisor)
5. Dennis Houseknecht (UXO QC/Safety)
6. Timothy Rodriguez (UXO Tech III)
7. Noah Bullock (Tech II)
8. Marc Atherton (UXO Tech II)
9. Jeremy Dortch (UXO Tech I)
10. Jason Brawner (UXO Tech I)

SUBCONTRACT STAFF (Name/Position)

1. VR Habilis (John Bigos-Dive Supervisor)
2. VR Habilis (Taylor King-Diver)
3. VR Habilis (Heath Nettleton-Standby Diver)
4. VR Habilis (Jason Kettle-Tender)
5. VR Habilis (John Hatcher-Tender)
6. VR Habilis (Mike Shaw-Tender)
7. Toscana (John Sherman/Eric Rogers)

WORK COMPLETED:

- ☒ Surveyor activities.
- ☒ Mag and Dig activities (List grid or location).
- ☒ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☒ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☒ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☒ Clearing/Vegetation Removal

Comments: Dig team conducting intrusive anomaly investigation in AC-06.

Toscana escorted by the UXO Tech II completed cutting in A01 T04 and started operations in A01 T05

DGM survey conducted on AC-01-T14, AC-01-T13, AC-01-T13, AC-01-T12, AC-01-T10, AC-01-T09, and AC-01-T08 on Parcel number 90 9.

DGM grid AC-02-G01.

Photos of today activities are included in the QC report.

VRH Dive team operations:

Transect # 36 0-300 ft, 1 anomaly at 77ft distance out. The hole kept filling in at 4ft deep. The diver spent an hour plus airlifting the contact. Dive Supervisor and Weston SUXOS agreed to leave the item in place and move on.

Transect # 35A 0-300 ft 0 Anomalies

Total: 600 feet Completed and 1 Unrecovered Anomaly from Transect # 36

MATERIALS DELIVERED (Amount, Condition, and Purpose):

PROBLEMS/RESOLUTIONS:
Rights of Entry agreements are not in place for multiple properties which is impacting sequencing and schedule.

DATA TRACKING:

Items Confirmed: None

Analog Survey Transects: None

Items Found Today: None

DGM Grids: for AC-01-T14, AC-01-T13, AC-01-T13, AC-01-T12, AC-01-T10, AC-01-T09, and AC-01-T08 on Parcel number 90 9. AC-02-G01

DGM Grids Reacquired: None

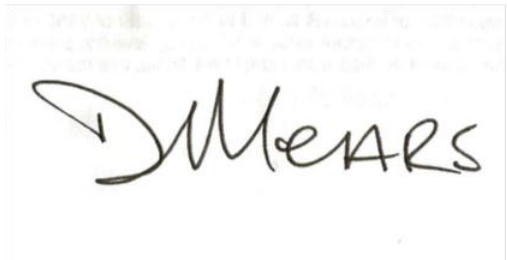
Data Acquired from Sub: See attached VRH subcontractor

Data Provided to USACE: AC-01-G05, G06, T01, T02, T08, T11, T12, T13, T14, AC-02-G01

Data Accepted by USACE: N/A

Comments:

FURTHER DISCUSSION (List Topic and Comment): The priorities for Monday Dive Ops (25 June 2012): Transect 33A 0-300 ft, Transect 32 0-300 ft, Transect 31 0-300 ft, Transect 30A 0-300 ft, Transect 22A 0-300 ft, Transect 21A 0-300 ft and Transect 20A 0-300 ft.

PREPARED BY:	**SIGNATURE:**
Donald Mears (SUXOS)	

Attach applicable logs and reports below (QC Report, photo log, etc.)

Daily Quality Control Report

Project: Nantucket Beach, Former Nantucket Ordnance Site	
Site Location: Nantucket Island, MA	Date: June 22, 2012

Describe daily QC activities: Observed diving operations along transects 35A and 36. Observed geophysical transect mapping operations in AC-02. Observed intrusive anomaly investigation in AC-06.

Grid QC: AC-06

Transect QC:

Definable Feature of Work	***Inspection Description***	***Inspection performed***	***Result/Recommendation***
Ground Reconnaissance	Confirm brush is sufficiently thinned so that digital surveys can be conducted while compliance of the EPP is maintained.	Follow up	Satisfactory
	Ensure equipment is available, properly operated and maintained.	Follow up	Satisfactory
Ground Based Geophysical survey activities	Confirm digital functionality tests are preformed before and after surveys and results are verified against metrics established in the WP.	Follow up	Satisfactory
	The IVS procedures documented in the WP are being performed by each DGM team before and after surveys.	Follow up	Satisfactory
	Instruments checked to confirm functionality before mag & dig activities.	Follow up	Satisfactory
	Confirm all personnel	Follow up	Satisfactory

	have the appropriate PPE and supplies.		
	Observe mag & dig operations for accuracy and completeness	Follow up	Satisfactory
Marine Based Geophysical Survey and Recovery Operations	Verify dive team has appropriate qualifications including safety/training and state licensing and equipment.	Follow Up	Satisfactory
	Instruments checked to confirm functionality before mag & dig activities.	Follow up	Satisfactory
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory
	Confirm UXO dive teams are recording/logging all required parameters during item recovery.	Follow up	Satisfactory
Munitions and explosives of concern intrusive activities	Ensure the appropriate exclusion zones are established and maintained in active work areas.	Follow up	Satisfactory
	Observe anomaly reacquisition/intrusive work accuracy and completeness.	Follow up	Satisfactory
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory
Submitted by: D. Heusebrock			
Approved by: DMEARS		Approval date: 6/22/2012	



■ **Figure 1 Dive Station**



- **Figure 2 Dig team investigating anomalies in aerial AC-06.**



- **Figure 3 Data collection in AC-02**



- **Figure 4 Vegetation clearance along westernmost transects.**

Environmental Protection Daily Report

Nantucket Beach, Former Nantucket Ordnance Site
a.k.a. Tom Nevers Rocket Projectile Target;
Tom Nevers Area, Formerly Used Defense Site
Project Number D01MA045601
Remedial Investigation

WORK ORDER NO.:	**DATE**	
03886.551.004.0011	22 June 2012	

ENVIRONMENTAL PROTECTION MONITOR (Name/Position)

WESTON

Katherine Morrison / Project Scientist

WORK LOCATION: AC-01

WORK COMPLETED:

☒ Shorebird Monitoring/Impact Mitigation.
☒ Northern Harrier Monitoring/Impact Mitigation.
☐ American Burying Beetle Monitoring/Impact Mitigation.
☒ Marine Mammal Monitoring/Impact Mitigation.
☐ Vegetation Impact Monitoring/Mitigation
☐ Wetlands Impact Mitigation
☐ Site Water Runon/Runoff Control
☐ Site Restoration

Comments:

- Conducted harrier monitoring in AC-01 and surface anomaly clearance prior to vegetation clearing.
- Monitored Underwater transects 35A and 36 for sea life and sea birds before divers began their mission..
- DGM transects for AC-01-T14, AC-01-T13, AC-01-T13, AC-01-T12, AC-01-T10, AC-01-T09, and AC-01-T08 on Parcel number 90 9.
- DGM grid AC-02-G01.

MONITORING OBSERVATIONS (species/activities observed):

- No species observed.

MITIGATION MEASURES IMPLEMENTED:

- No mitigation measures were required.

FURTHER DISCUSSION (List Topic and Comment):

- None

PREPARED BY:	**SIGNATURE:**
Katherine Morrison	

SAFETY MEETING AND DAILY PLANNING FORM

Project Name: Nantucket RI/FS 2012

Project Location: Nantucket Beach

- Review previous shift's work including safety concerns, near misses or unrecognized hazards
- Review scope of work for the current work shift
- Review safety hazards for the activities planned for the work shift (check appropriate boxes)

	Chemical		Electrical		Eye
	Biological		Heat / Cold Stress		Hearing (noise)
	Confined Space		Fall protection		Emergency procedures
	Ladder		Protective clothing		Pinch points
	Scaffolds		Respirators		Knife use
	Overhead obstructions		Equipment and machinery		Slip, Trip, Fall, Cut, and Puncture
	Other:	X	Stop Work Authority	X	Driving Safety

- Review tools, equipment and procedures to be used (i.e., safety, maintenance or inspection requirements)
- Review pre-work inspections to be conducted
- Review emergency plan
- Review end-of-shift work area(s) condition requirements (i.e., cleanup, tools, staging for next shift, etc.)

Name Printed / Initial	Name Printed / Initial
1 .BIGOS	11.
2 SHAW	12.
3. NETTLETON	13.
4. KING	14.
5. HATCHER	15.
6. KETTLE	16
7.	17.
8.	18.
9.	19.
10.	20.

Supervisor Name: Bigos/Shaw

Signature:

Date/Day/Time: 22 Jun 2012

APPENDIX G

VRH DAILY DIVE LOG & REPETITIVE DIVE WORKSHEET

Job Name NANTUCKET RI/FS Location NANTUCKET BEACH
Job No. _____ Date 6/22/12 Start Time 0700 Secure Time _____
Diving task & job description: Breathing medium and apparatus used:
SEARCH FOR UXO USING SCHONSTEDT THROUGH SURF FROM JACK-STAY LINE
Date&Time of last previous Dive +48

CREW AND POSITION

DIVE SUP J.BIGGS DVR J.KETTLE STBY T.KING
TEN J.HATCHER, H.NETTLETON + M.SHAW

DIVING CONDITIONS

Weather HOT, SUNNY Air Temp >80° Water Temp 60°
Current STRONG Visibility GOOD Tide Schedule: MWH 1313 MLW 1844
Emergency Air Pressure 1700 Initials JB

J.KETTLE Diver #1 KM4716-202		1	2	3	4	5
	Leave Surface	0852	1004			
	Leave Bottom	0931	1146			
	Reach Surface	0931	1146			
	Bottom Time	39	102|141			
	Depth/Penetration	7'	8'			
Bail-Out PSI 2200	Schedule	NO 'D'	NO 'D'			
	Repet Group	A	C			
	Surface Interval	33				
	New Group/RNT	A				

T.KING Diver #2 KM2716-203		1	2	3	4	5
	Leave Surface	1307				
	Leave Bottom	1519				
	Reach Surface	1519				
	Bottom Time	132				
	Depth/Penetration	10'				
Bail-Out PSI 2600	Schedule	NO 'D'				
	Repet Group	E				
	Surface Interval					
	New Group/RNT					

Table & Schedule used NO D Depth and Duration of any decompression stops N/A

Signature John Biggs Date 6/22/12

VHRabilis
Veteran-run work

DIVING DAILY PRODUCTION

TRANSECT	DISTANCE	MD	CD/OD	TOTAL ~~ANOMALIES~~ ANOMALIES
36	300'	0	1*	1 UNRECOVERED AT 77'
36 NOTE		CALLED HOLE TO CONTACT	WESTON + FILLING IN	TOLD THEY CAN'T GET
35A	300'	0	0	0
TOTAL	600'	0	1*	1*

JUNE 2012

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-0006/0005/053 MAMMS05-062512-AAMU	03886-551-004	25 June 2012

WEATHER: AM Light Rain, 60 F, PM Rain, 70 F, Winds 15 mph

WORK LOCATION: Russell's Way, New South Road, Tom Nevers Road, Milestone Road

VISITORS(Name/firm): Lowell Martin (OESS, USACE-Baltimore), Gerard Quealy (On Target Locator Services)

WESTON STAFF (Name/Position)

1. Brian Junck (Senior Geophysicist)
2. Brian Guthrie (Project Geophysicist)
3. Katie Morrison (Biologist/Project Technician)
4. Donald Mears (Senior UXO Supervisor)
5. Dennis Houseknecht (UXO QC/Safety)
6. Timothy Rodriguez (UXO Tech III)
7. Noah Bullock (UXO Tech II)
8. Marc Atherton (UXO Tech II)
9. Jason Brawner (UXO Tech I)

SUBCONTRACT STAFF (Name/Position)

1. VR Habilis (John Bigos-Dive Supervisor)
2. VR Habilis (Taylor King-Diver)
3. VR Habilis (Heath Nettleton-Standby Diver)
4. VR Habilis (Jason Kettle-Tender)
5. VR Habilis (John Hatcher-Tender)
6. VR Habilis (Mike Shaw-Tender)
7. Toscana (John Sherman/Eric Rogers)

WORK COMPLETED:

- ☒ Surveyor activities.
- ☒ Mag and Dig activities (List grid or location).
- ☒ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☒ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☒ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☒ Clearing/Vegetation Removal

Comments: Dig team completed intrusive anomaly investigation in AC-06. Dig team started intrusive anomaly investigation in AC-01-G08. They dug three holes to a depth of 4' at which point they stop. An excavator will be needed to complete operations in this location.

Toscana escorted by the UXO Tech II completed cutting in A01 T06.

DGM survey conducted on AC-01-G13.

All field activities were stopped at 1400 hours due to bad weather. Training and administrative duties were performed for the rest of the work day.

Photos for today activities are included in the QC report.

VRH Dive team operations:

Transect # 32 0-300 ft, 0 anomalies. Dive operations stopped at 1115 hours due to poor weather conditions and rough surf.

Dive team attempted to dive on transect # 31 but the diver could not get out due to the increasing seas.

Total: 300 ft 0 Anomalies

MATERIALS DELIVERED (Amount, Condition, and Purpose):

PROBLEMS/RESOLUTIONS:
Rights of Entry agreements are not in place for multiple properties which is impacting sequencing and schedule.

DATA TRACKING:

Items Confirmed: None

Analog Survey Transects: None

Items Found Today: None

DGM Grids: DGM survey conducted on AC-01-G13.

DGM Grids Reacquired: None

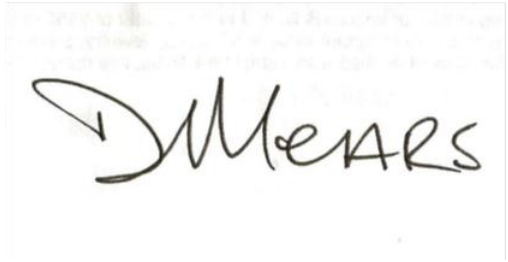
Data Acquired from Sub: See attached VRH subcontractor

Data Provided to USACE: None

Data Accepted by USACE: N/A

Comments:

FURTHER DISCUSSION (List Topic and Comment): The priorities for Tuesday Dive Ops (26 June 2012): Transect 33A 0-300 ft, Transect 31 0-300 ft, Transect 30A 0-300 ft, Transect 22A 0-300 ft, Transect 21A 0-300 ft and Transect 20A 0-300 ft.

PREPARED BY:	**SIGNATURE:**
Donald Mears (SUXOS)	

Attach applicable logs and reports below (QC Report, photo log, etc.)

Daily Quality Control Report

Project: Nantucket Beach, Former Nantucket Ordnance Site	
Site Location: Nantucket Island, MA	Date: June 25, 2012

Describe daily QC activities: Observed diving operations along transects 32. Diving operations terminated prior to completion of transect 31 due to building sea state. Observed geophysical transect mapping operations in AC-01. Observed intrusive anomaly investigation in AC-06 and AC-01 grid 8. Assisted Geo Lead planting seed items and placing corner stakes in AC-01 grids 12, 13, 14 and 17.

Grid QC: AC-06 various anomalies

Transect QC:

Definable Feature of Work	***Inspection Description***	***Inspection performed***	***Result/Recommendation***
Ground Reconnaissance	Confirm brush is sufficiently thinned so that digital surveys can be conducted while compliance of the EPP is maintained.	Follow up	Satisfactory
	Ensure equipment is available, properly operated and maintained.	Follow up	Satisfactory
Ground Based Geophysical survey activities	Confirm digital functionality tests are preformed before and after surveys and results are verified against metrics established in the WP.	Follow up	Satisfactory
	The IVS procedures documented in the WP are being performed by each DGM team before and after surveys.	Follow up	Satisfactory
	Instruments checked to confirm functionality before	Follow up	Satisfactory

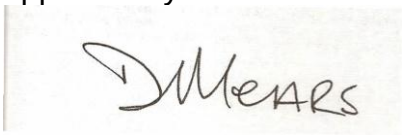
	mag & dig activities.		
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory
	Observe mag & dig operations for accuracy and completeness	Follow up	Satisfactory
Marine Based Geophysical Survey and Recovery Operations	Verify dive team has appropriate qualifications including safety/training and state licensing and equipment.	Follow Up	Satisfactory
	Instruments checked to confirm functionality before mag & dig activities.	Follow up	Satisfactory
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory
	Confirm UXO dive teams are recording/logging all required parameters during item recovery.	Follow up	Satisfactory
Munitions and explosives of concern intrusive activities	Ensure the appropriate exclusion zones are established and maintained in active work areas.	Follow up	Satisfactory
	Observe anomaly reacquisition/intrusive work accuracy and completeness.	Follow up	Satisfactory
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory
Submitted by: 			
Approved by: 	Approval date: 6/25/2012		



Figure 1 Blind seed emplacement in grid AC-01-G12



Figure 2 Recovering the diver after completion of transect #32.



- **Figure 3 Excavating a deep anomaly in grid AC-01-G08.**



- **Figure 4 Vegetation removal along transects on west side of site.**

Environmental Protection Daily Report

Nantucket Beach, Former Nantucket Ordnance Site
a.k.a. Tom Nevers Rocket Projectile Target;
Tom Nevers Area, Formerly Used Defense Site
Project Number D01MA045601
Remedial Investigation

WORK ORDER NO.:	**DATE**	
03886.551.004.0011	25 June 2012	

ENVIRONMENTAL PROTECTION MONITOR (Name/Position)

WESTON

Katherine Morrison / Project Scientist

WORK LOCATION: AC-01

WORK COMPLETED:

☒ Shorebird Monitoring/Impact Mitigation.
☒ Northern Harrier Monitoring/Impact Mitigation.
☐ American Burying Beetle Monitoring/Impact Mitigation.
☒ Marine Mammal Monitoring/Impact Mitigation.
☐ Vegetation Impact Monitoring/Mitigation
☐ Wetlands Impact Mitigation
☐ Site Water Runon/Runoff Control
☐ Site Restoration

Comments:

- Conducted harrier monitoring in AC-01 and surface anomaly clearance prior to vegetation clearing.
- Monitored and staked out Underwater transects 30A-32 for sea life and sea birds before divers began their mission.
- DGM survey conducted on AC-01-G13.

MONITORING OBSERVATIONS (species/activities observed):

- No species observed.

MITIGATION MEASURES IMPLEMENTED:

- No mitigation measures were required.

FURTHER DISCUSSION (List Topic and Comment):

- None

PREPARED BY:	**SIGNATURE:**
Katherine Morrison	

SAFETY MEETING AND DAILY PLANNING FORM

Project Name: Nantucket RI/FS 2012

Project Location: Nantucket Beach

- Review previous shift's work including safety concerns, near misses or unrecognized hazards
- Review scope of work for the current work shift
- Review safety hazards for the activities planned for the work shift (check appropriate boxes)

	Chemical		Electrical	X	Eye
	Biological		Heat / Cold Stress		Hearing (noise)
	Confined Space		Fall protection		Emergency procedures
	Ladder		Protective clothing		Pinch points
	Scaffolds		Respirators		Knife use
	Overhead obstructions		Equipment and machinery		Slip, Trip, Fall, Cut, and Puncture
	Other:	X	Stop Work Authority		

- Review tools, equipment and procedures to be used (i.e., safety, maintenance or inspection requirements)
- Review pre-work inspections to be conducted
- Review emergency plan
- Review end-of-shift work area(s) condition requirements (i.e., cleanup, tools, staging for next shift, etc.)

Name Printed / Initial	Name Printed / Initial
1 .BIGOS	11.
2 SHAW	12.
3. NETTLETON	13.
4. KING	14.
5. HATCHER	15.
6. KETTLE	16
7.	17.
8.	18.
9.	19.
10.	20.

Supervisor Name: Bigos/Shaw

Signature:

Date/Day/Time: 25 Jun 2012

APPENDIX G

VRH DAILY DIVE LOG & REPETITIVE DIVE WORKSHEET

Job Name NANTUCKET RI/FS Location NANTUCKET BEACH

Job No. _____ Date 6/25/12 Start Time 0700 Secure Time _____

Diving task & job description: Breathing medium and apparatus used:
SEARCH FOR UXO USING SCHONSTEDT FROM JACK-STAY LINE

Date&Time of last previous Dive +48

CREW AND POSITION

DIVE SUP. J.BIGOS DVR M.SHAW STBY H.NETTLETON TEN J.KETTLE + T.KING

DIVING CONDITIONS

Weather SWIND 65° Air Temp 65° Water Temp 60°

Current SLACK Visibility GOOD Tide Schedule: MWH 1522 MLW 0842

Emergency Air Pressure 1700 Initials JB

M.SHAW KM Diver #1 47 16-202		1	2	3	4	5
	Leave Surface	0848	1054			
	Leave Bottom	1006	1100			
	Reach Surface	1006	1100			
	Bottom Time	78	(6) 84			
	Depth/Penetration	7'	5'			
Bail-Out PSI 2100	Schedule	NO 'D'	NO 'D'			
	Repet Group	B	B			
	Surface Interval	48				
	NewGroup/RNT	B				

H.NETTLETON KM 27 Diver #2 16-203		1	2	3	4	5
	Leave Surface					
	Leave Bottom					
	Reach Surface					
	Bottom Time					
	Depth/Penetration					
Bail-Out PSI 2450	Schedule					
	Repet Group					
	Surface Interval					
	New Group/RNT					

Table & Schedule used NO D Depth and Duration of any decompression stops. N/A

Signature John Bigos Date 6/25/12

VHabilis
Veteran-run work

DIVING DAILY PRODUCTION

TRANSECT	DISTANCE	MD	CD/OD	TOTAL ANAMOLIES
UT-32	300'	0	0	0
31	TOO ROUGH	INBOUND	STORM	
TOTAL	300'	0	0	0

25TH JUNE 2012

National Weather Service

NWS Marine Forecast

Cell Phone Weather/Marine Page (wap) URL: cell.weather.gov
PDA Weather/Marine Page URL: mobile.weather.gov

ANZ200-260500-
116 PM EDT MON JUN 25 2012

.SYNOPSIS FOR MASSACHUSETTS AND RHODE ISLAND COASTAL WATERS...
LOW PRES AND AN ASSOCIATED COLD FRONT WILL MOVE ACROSS THE WATERS LATE TODAY THROUGH EARLY TUE...THEN WILL PUSH ALONG THE MAINE COAST TUE NIGHT AND WED. THE LOW THEN STALLS OVER MAINE THROUGH THU BEFORE SLOWLY MOVING INTO THE CANADIAN MARITIMES LATE THIS WEEK.

FOR INFORMATION ON POSSIBLE HAZARDOUS WEATHER BEYOND THE 24-36 HOUR FORECAST PERIOD...PLEASE VISIT WWW.WEATHER.GOV/BOSTON AND FOLLOW THE HAZARDOUS OUTLOOKS LINK AT THE TOP OF THE BLUE BAR ON THE LEFT.

$$

ANZ255-260500-
COASTAL WATERS EXTENDING OUT TO 25 NM SOUTH OF MARTHAS VINEYARD AND NANTUCKET-
116 PM EDT MON JUN 25 2012

SMALL CRAFT ADVISORY IN EFFECT THROUGH LATE TONIGHT

THIS AFTERNOON
S WINDS 10 TO 15 KT. SEAS 3 TO 5 FT. PATCHY FOG. SHOWERS WITH TSTMS LIKELY. VSBY 1 TO 3 NM.

TONIGHT
S WINDS 10 TO 15 KT WITH GUSTS UP TO 20 KT... BECOMING SW AFTER MIDNIGHT. SEAS 3 TO 5 FT. PATCHY FOG. SHOWERS WITH TSTMS LIKELY. VSBY 1 NM OR LESS.

TUE
W WINDS 10 TO 15 KT. GUSTS UP TO 20 KT IN THE AFTERNOON. SEAS 3 TO 5 FT. PATCHY DENSE FOG. VSBY 1 NM OR LESS.

TUE NIGHT
W WINDS 10 TO 15 KT WITH GUSTS UP TO 20 KT...

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-0006/0005/054 MAMMS05-062612-AAMV	03886-551-004	26 June 2012

WEATHER: AM Cloudy, 69 F, PM Cloudy, 60 F, Winds 15-20 mph

WORK LOCATION: Russell's Way, New South Road, Tom Nevers Road, Milestone Road

VISITORS(Name/firm): Gerard Quealy (On Target Locator Services)

WESTON STAFF (Name/Position)

1. Brian Junck (Senior Geophysicist)
2. Brian Guthrie (Project Geophysicist)
3. Katie Morrison (Biologist/Project Technician)
4. Donald Mears (Senior UXO Supervisor)
5. Dennis Houseknecht (UXO QC/Safety)
6. Timothy Rodriguez (UXO Tech III)
7. Noah Bullock (UXO Tech II)
8. Marc Atherton (UXO Tech II)
9. Jason Brawner (UXO Tech I)
10. Marie Swiech-Laflamme (Project Scientist)

SUBCONTRACT STAFF (Name/Position)

1. VR Habilis (John Bigos-Dive Supervisor)
2. VR Habilis (Taylor King-Diver)
3. VR Habilis (Heath Nettleton-Standby Diver)
4. VR Habilis (Jason Kettle-Tender)
5. VR Habilis (John Hatcher-Tender)
6. VR Habilis (Mike Shaw-Tender)
7. Toscana (John Sherman/Eric Rogers)

WORK COMPLETED:

- ☒ Surveyor activities.
- ☒ Mag and Dig activities (List grid or location).
- ☒ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☒ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☒ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☒ Clearing/Vegetation Removal

Comments: The dig team conducted intrusive anomaly investigation in AC-01-G02. The team located four MK 1 3.5" rocket warhead (inert/solid steel); one MK 1 5" rocket warhead (inert) and one MK 6 5" rocket warhead (inert). The munitions were moved to AC-01-G12 and demolition operations were conducted. All the munitions were practice.

Toscana escorted by the UXO Tech II completed cutting in A01 T07 (all the way south of Milestone Rd), AO1 T08 (all the way south of Milestone Rd) and A01 T09 (complete).

DGM grid survey conducted on AC-01-G09, AC-01-G12, and AC-01-G14.

DGM transect survey conducted on AC-01-T06.

Photos for today activities are included in the QC report.

VRH Dive team operations:

Transect # 31 0-300 ft, 0 anomalies

Transect # 30A 0-300 ft, 0 anomalies

Transect # 20A 0-300 ft, 0 anomalies

Total: 900 ft 0 Anomalies

MATERIALS DELIVERED (Amount, Condition, and Purpose):

PROBLEMS/RESOLUTIONS:

Rights of Entry agreements are not in place for multiple properties which is impacting sequencing and schedule.

DATA TRACKING:

Items Confirmed: None

Analog Survey Transects: None

Items Found Today: None

DGM Grids: DGM grid survey conducted on AC-01-G09, AC-01-G12, and AC-01-G14.
DGM transect survey conducted on AC-01-T06.

DGM Grids Reacquired: None

Data Acquired from Sub: See attached VRH subcontractor

Data Provided to USACE:

Data Accepted by USACE: We received QARs from the Geophysicist , USACE-Baltimore for the following grids/transects:

AC 01 G05

AC 01 G06

AC 02 G01

AC 01 T01

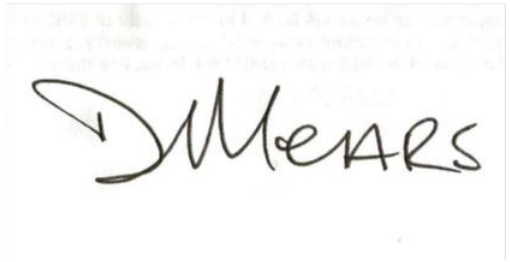
AC 01 T02

AC 01 T12

AC 01 T13

AC 01 T14

Comments:

FURTHER DISCUSSION (List Topic and Comment): The priorities for Wednesday Dive Ops (27 June 2012): Transect 33A 0-300 ft, Transect 22A 0-300 ft, Transect 21A 0-300 ft,	
PREPARED BY: **Donald Mears (SUXOS)**	**SIGNATURE:** 

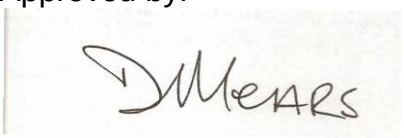
Daily Quality Control Report

Project: Nantucket Beach, Former Nantucket Ordnance Site	
Site Location: Nantucket Island, MA	Date: June 26, 2012

Describe daily QC activities: Observed intrusive anomaly investigation in AC-01 grid 2. The UXO team recovered 4 each MK 1 3.5" rocket warhead (inert/solid steel); 1 each MK 1 5" rocket warhead (inert) and 1 each MK 6 5" rocket warhead (inert). Assisted Geo Lead planting seed items and placing corner stakes in AC-01 grid 9.

Grid QC: AC-01-G02
Transect QC:

Definable Feature of Work	***Inspection Description***	***Inspection performed***	***Result/Recommendation***
Ground Reconnaissance	Confirm brush is sufficiently thinned so that digital surveys can be conducted while compliance of the EPP is maintained.	Follow up	Satisfactory
	Ensure equipment is available, properly operated and maintained.	Follow up	Satisfactory
Ground Based Geophysical survey activities	Confirm digital functionality tests are preformed before and after surveys and results are verified against metrics established in the WP.	Follow up	Satisfactory
	The IVS procedures documented in the WP are being performed by each DGM team before and after surveys.	Follow up	Satisfactory
	Instruments checked to confirm functionality before mag & dig activities.	Follow up	Satisfactory
	Confirm all personnel	Follow up	Satisfactory

	have the appropriate PPE and supplies.		
	Observe mag & dig operations for accuracy and completeness	Follow up	Satisfactory
	Observe anomaly reacquisition/intrusive work accuracy and completeness.	Follow up	Satisfactory
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory
Submitted by: 			
Approved by: 		Approval date: 6/26/2012	



- **Figure 1 MK 1 5" Rocket Warhead (Practice)**



- **Figure 2 Base of MK 1 5" Rocket Warhead**



- **Figure 3 MK 1 3.5" Rocket Warheads (Practice)/(Inert)**



- **Figure 4 Inserting Detonating Cord into Perforator**

Environmental Protection Daily Report

Nantucket Beach, Former Nantucket Ordnance Site
a.k.a. Tom Nevers Rocket Projectile Target;
Tom Nevers Area, Formerly Used Defense Site
Project Number D01MA045601
Remedial Investigation

WORK ORDER NO.:	**DATE**	
03886.551.004.0011	26 June 2012	

ENVIRONMENTAL PROTECTION MONITOR (Name/Position)

WESTON

Katherine Morrison / Project Scientist

WORK LOCATION: AC-01

WORK COMPLETED:

☒ Shorebird Monitoring/Impact Mitigation.
☒ Northern Harrier Monitoring/Impact Mitigation.
☐ American Burying Beetle Monitoring/Impact Mitigation.
☒ Marine Mammal Monitoring/Impact Mitigation.
☐ Vegetation Impact Monitoring/Mitigation
☐ Wetlands Impact Mitigation
☐ Site Water Runon/Runoff Control
☐ Site Restoration

Comments:

- Conducted harrier monitoring in AC-01 and surface anomaly clearance prior to vegetation clearing.
- Monitored Underwater transects 30A-33a for sea life and sea birds before divers began their mission.
- DGM grid survey conducted on AC-01-G09, AC-01-G12, and AC-01-G14.
- DGM transect survey conducted on AC-01-T06.

MONITORING OBSERVATIONS (species/activities observed):

- No species observed.

MITIGATION MEASURES IMPLEMENTED:

- No mitigation measures were required.

FURTHER DISCUSSION (List Topic and Comment):

- None

PREPARED BY:	**SIGNATURE:**
Katherine Morrison	

SAFETY MEETING AND DAILY PLANNING FORM

Project Name: Nantucket RI/FS 2012

Project Location: Nantucket Beach

- Review previous shift's work including safety concerns, near misses or unrecognized hazards
- Review scope of work for the current work shift
- Review safety hazards for the activities planned for the work shift (check appropriate boxes)

	Chemical		Electrical		Eye
	Biological		Heat / Cold Stress		Hearing (noise)
	Confined Space		Fall protection		Emergency procedures
	Ladder		Protective clothing		Pinch points
	Scaffolds		Respirators		Knife use
	Overhead obstructions		Equipment and machinery		Slip, Trip, Fall, Cut, and Puncture
	Other:	✓	Stop Work Authority		

- Review tools, equipment and procedures to be used (i.e., safety, maintenance or inspection requirements)
- Review pre-work inspections to be conducted
- Review emergency plan
- Review end-of-shift work area(s) condition requirements (i.e., cleanup, tools, staging for next shift, etc.)

Name Printed / Initial	Name Printed / Initial
1 .BIGOS	11.
2 SHAW	12.
3. NETTLETON	13.
4. KING	14.
5. HATCHER	15.
6. KETTLE	16
7.	17.
8.	18.
9.	19.
10.	20.

Supervisor Name: Bigos/Shaw

Signature:

Date/Day/Time: 26 Jun 2012 Tues

APPENDIX G

VRH DAILY DIVE LOG & REPETITIVE DIVE WORKSHEET

Job Name NANTUCKET RIVES Location NANTUCKET BEACH

Job No. _____ Date 6/26/12 Start Time 0700 Secure Time _____

Diving task & job description: Breathing medium and apparatus used:
SEARCH FOR UXO USING SCHONSTERT
THROUGH SURF FROM JACK-STAY LINE

Date&Time of last previous Dive +48

CREW AND POSITION

DIVE SUP J. BIGOS DVR J. HATCHER STBY J. KETTLE
TEN H. NETTLETON, M. SHAN + T. KING

DIVING CONDITIONS

Weather OVERCAST Air Temp 69° Water Temp 60°

Current STRONG 3-5' Visibility GOOD Tide Schedule: MWH 1610 MLW 0930

Emergency Air Pressure 1700 Initials JB

J. HATCHER — Diver #1 — KM-47 16-202 — Bail-Out PSI 2100

	1	2	3	4	5
Leave Surface	0827	1013			
Leave Bottom	0946	1135			
Reach Surface	0946	1135			
Bottom Time	79	(82) 161			
Depth/Penetration	10'	10'			
Schedule	NO 'D'	NO 'D'			
Repet Group	C	E			
Surface Interval	27				
New Group/RNT	C				

J. KETTLE — Diver #2 — KM 27 16-203 — Bail-Out PSI 2700

	1	2	3	4	5
Leave Surface	1340				
Leave Bottom	1506				
Reach Surface	1506				
Bottom Time	86				
Depth/Penetration	10'				
Schedule	NO 'D'				
Repet Group	C				
Surface Interval					
New Group/RNT					

Table & Schedule used NO D Depth and Duration of any decompression stops N/A

Signature John Bigos Date 6/26/12

VHRabilis
Veteran-run work

DIVING DAILY PRODUCTION

TRANSECT	DISTANCE	MD	CD/OD	TOTAL ANAMOLIES
31	300'	0	0	0
30A	300'	0	0	0
20A	300'	0	0	0
TOTAL	900'	0	0	0

26TH. **JUNE 2012**

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-0006/0005/055 MAMMS05-062712-AAMW	03886-551-004	27 June 2012

WEATHER: AM Partly Sunny, 63 F, PM Partly Sunny, 73 F, **Winds 15-30 mph**

WORK LOCATION: Russell's Way, New South Road, Tom Nevers Road, Milestone Road

VISITORS(Name/firm): Gerard Quealy (On Target Locator Services) Andrew Mckenna(Foster/Maria Mitchell Association/Director of Nat'l Resources) Lou Perrotti(Maria Mitchell Association/American Burying Beetle Specialist)

WESTON STAFF (Name/Position)

1. Brian Junck (Senior Geophysicist)
2. Brian Guthrie (Project Geophysicist)
3. Katie Morrison (Biologist/Project Technician)
4. Donald Mears (Senior UXO Supervisor)
5. Dennis Houseknecht (UXO QC/Safety)
6. Timothy Rodriguez (UXO Tech III)
7. Noah Bullock (UXO Tech II)
8. Marc Atherton (UXO Tech II)
9. Jason Brawner (UXO Tech I)
10. Marie Swiech-Laflamme (Project Scientist)

SUBCONTRACT STAFF (Name/Position)

1. VR Habilis (John Bigos-Dive Supervisor)
2. VR Habilis (Taylor King-Diver)
3. VR Habilis (Heath Nettleton-Standby Diver)
4. VR Habilis (Jason Kettle-Tender)
5. VR Habilis (John Hatcher-Tender)
6. VR Habilis (Mike Shaw-Tender)
7. Toscana (John Sherman/Eric Rogers)

WORK COMPLETED:

- ☒ Surveyor activities.
- ☒ Mag and Dig activities (List grid or location).
- ☒ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☒ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☒ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☒ Clearing/Vegetation Removal

Comments: The dig team conducted intrusive anomaly investigations in seven grids and one transect (AC-01-G20,AC-01-G19,AC-01-G18,AC-01-G15,AC-01-G11,AC-01-G16, AC-01-G10 and AC-01-T07). No munitions were located.

Toscana escorted by the UXO Tech II completed cutting in AC-01-G21, AC-01-G07 and AC-01-G03.

DGM grid survey conducted on AC-01-G17, AC-01-G07, and AC-01-G03.

DGM transect survey AC-01-T10.

Site visit conducted with Maria Mitchell Association personnel regarding potential impact to the American Burying Beetle (ABB) from RI activities. No concerns or issues were identified that would require a change to the non-impact assessment previously provided by A. Mckenna-Foster based on planned work activities and known habitat areas for the ABB. A. Mckenna-Foster and L.Perrotti request notification and photographic documentation if an ABB is identified during intrusive ops. WESTON will comply as needed during all intrusive activities.

WESTON provided notification to the State of Massachusetts Radiation Control Program (Dept. of Health and Human Services) regarding onsite use of XRF for field soil screening during MRS 1 HTW investigation (planned for 28 June 2012).

Photos for today activities are included in the QC report.

VRH Dive team operations:

Dive operations stopped at 1050 hours due to rough seas.

Transect # 22A 0-300 ft, 0 anomalies

Total: 300 ft 0 Anomalies

MATERIALS DELIVERED (Amount, Condition, and Purpose):

PROBLEMS/RESOLUTIONS:
Rights of Entry agreements are not in place for multiple properties which is impacting sequencing and schedule.

DATA TRACKING:

Items Confirmed: None

Analog Survey Transects: None

Items Found Today: None

DGM Grids: DGM grid survey conducted on AC-01-G17, AC-01-G07, and AC-01-G03. DGM transect survey AC-01-T10.

DGM Grids Reacquired: None

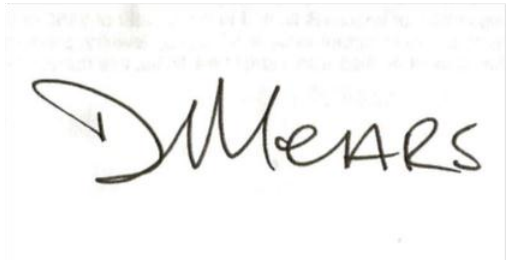
Data Acquired from Sub: See attached VRH subcontractor

Data Provided to USACE: None

Data Accepted by USACE: None

Comments:

FURTHER DISCUSSION (List Topic and Comment): The priorities for Thursday Dive Ops (28 June 2012): Transect 19A 0-300 ft, Transect 33A 0-300 ft.

PREPARED BY:	**SIGNATURE:**
Donald Mears (SUXOS)	

Daily Quality Control Report

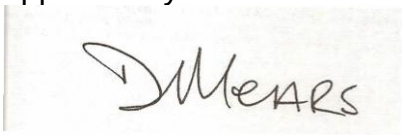
Project: Nantucket Beach, Former Nantucket Ordnance Site	
Site Location: Nantucket Island, MA	Date: June 27, 2012

Describe daily QC activities: Observed diving operations along transects 22A. Diving operations terminated after completion of 22A due to building sea state. Observed geophysical transect mapping operations in AC-01 grids 5 & 7. Observed intrusive anomaly investigation in AC-01. Assisted Geo planting seed items and placing corner stakes in three AC-01 grids.

Grid QC: AC-01 grids 11, 15, 16, 18, 19 and 20.

Transect QC: T5 & T7.

Definable Feature of Work	***Inspection Description***	***Inspection performed***	***Result/Recommendation***
Ground Reconnaissance	Confirm brush is sufficiently thinned so that digital surveys can be conducted while compliance of the EPP is maintained.	Follow up	Satisfactory
	Ensure equipment is available, properly operated and maintained.	Follow up	Satisfactory
Ground Based Geophysical survey activities	Confirm digital functionality tests are preformed before and after surveys and results are verified against metrics established in the WP.	Follow up	Satisfactory
	The IVS procedures documented in the WP are being performed by each DGM team before and after surveys.	Follow up	Satisfactory
	Instruments checked to confirm functionality before	Follow up	Satisfactory

	mag & dig activities.		
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory
	Observe mag & dig operations for accuracy and completeness	Follow up	Satisfactory
Marine Based Geophysical Survey and Recovery Operations	Verify dive team has appropriate qualifications including safety/training and state licensing and equipment.	Follow Up	Satisfactory
	Instruments checked to confirm functionality before mag & dig activities.	Follow up	Satisfactory
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory
	Confirm UXO dive teams are recording/logging all required parameters during item recovery.	Follow up	Satisfactory
Munitions and explosives of concern intrusive activities	Ensure the appropriate exclusion zones are established and maintained in active work areas.	Follow up	Satisfactory
	Observe anomaly reacquisition/intrusive work accuracy and completeness.	Follow up	Satisfactory
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory
Submitted by: 			
Approved by: 	Approval date: 6/272012		



- **Figure 1 Clearing anomalies in grid A01-G19**



- **Figure 2 Setting up dive stations at Transect 22A.**



- **Figure 3 Mapping grid AC01-G05**



- **Figure 4 Building seas prevented completion of the diving day.**

Environmental Protection Daily Report

Nantucket Beach, Former Nantucket Ordnance Site
a.k.a. Tom Nevers Rocket Projectile Target;
Tom Nevers Area, Formerly Used Defense Site
Project Number D01MA045601
Remedial Investigation

WORK ORDER NO.:	DATE	
03886.551.004.0011	27 June 2012	

ENVIRONMENTAL PROTECTION MONITOR (Name/Position)

WESTON

Katherine Morrison / Project Scientist

WORK LOCATION: AC-01

WORK COMPLETED:

☒ Shorebird Monitoring/Impact Mitigation.
☒ Northern Harrier Monitoring/Impact Mitigation.
☐ American Burying Beetle Monitoring/Impact Mitigation.
☒ Marine Mammal Monitoring/Impact Mitigation.
☐ Vegetation Impact Monitoring/Mitigation
☐ Wetlands Impact Mitigation
☐ Site Water Runon/Runoff Control
☐ Site Restoration

Comments:

- Conducted harrier monitoring in AC-01 and surface anomaly clearance prior to vegetation clearing.
- Monitored Underwater transects 20A-22a for sea life and sea birds before divers began their mission.
- DGM grid survey conducted on AC-01-G17, AC-01-G07, and AC-01-G03.
- DGM transect survey AC-01-T10.
- Male and female harrier interacting in Parcel 90 9 around IVS station, possible sign of nesting activity.

MONITORING OBSERVATIONS (species/activities observed):

- Male and female harriers interacting in Parcel 90 9 around IVS station, possible sign of nesting activity.

MITIGATION MEASURES IMPLEMENTED:

- No mitigation measures were required.

FURTHER DISCUSSION (List Topic and Comment):

- None

PREPARED BY:	SIGNATURE:
Katherine Morrison	

SAFETY MEETING AND DAILY PLANNING FORM

Project Name: Nantucket RI/FS 2012

Project Location: Nantucket Beach

- Review previous shift's work including safety concerns, near misses or unrecognized hazards
- Review scope of work for the current work shift
- Review safety hazards for the activities planned for the work shift (check appropriate boxes)

	Chemical		Electrical		Eye
	Biological		Heat / Cold Stress	✓	Hearing (noise)
	Confined Space	✓	Fall protection	✓	Emergency procedures
	Ladder	✓	Protective clothing		Pinch points
	Scaffolds		Respirators		Knife use
	Overhead obstructions		Equipment and machinery		Slip, Trip, Fall, Cut, and Puncture
	Other:	✓	Stop Work Authority		

- Review tools, equipment and procedures to be used (i.e., safety, maintenance or inspection requirements)
- Review pre-work inspections to be conducted
- Review emergency plan
- Review end-of-shift work area(s) condition requirements (i.e., cleanup, tools, staging for next shift, etc.)

Name Printed / Initial	Name Printed / Initial
1 .BIGOS	11.
2 SHAW	12.
3. NETTLETON	13.
4. KING	14.
5. HATCHER	15.
6. KETTLE	16
7.	17.
8.	18.
9.	19.
10.	20.

Supervisor Name: Bigos/Shaw

Signature:

Date/Day/Time: 27 Jun 2012

APPENDIX G

VRH DAILY DIVE LOG & REPETITIVE DIVE WORKSHEET

Job Name NANTUCKET RI/FS Location NANTUCKET BEACH
Job No. _____ Date 6/27/12 Start Time 0630 Secure Time _____
Diving task & job description: Breathing medium and apparatus used:
SEARCH FOR UXO USING SCHONSTEDT THROWN
SURF FROM STACK-STAY WIN'
Date&Time of last previous Dive +48

CREW AND POSITION
DIVE SUP J. BIGOS DVR T. KING STBY J. KETTLE
TEN J. HATCHER, M. SHAW + H. NETTLETON

DIVING CONDITIONS
Weather WINDY + SURF 3-5' Air Temp 69° Water Temp 60°
Current STRONG Visibility 6000 Tide Schedule: MWH 1702 MLW 1021
Emergency Air Pressure 1700 Initials JB

T. KING KM47 Diver #1 16-202	1	2	3	4	5
Leave Surface	0823				
Leave Bottom	0951				
Reach Surface	0951				
Bottom Time	88				
Depth/Penetration	12'				
Schedule	NO'D'				
Repet Group	C				
Surface Interval					
New Group/RNT					
Bail-Out PSI 2000					

J. KETTLE Diver #2 KM 27 16-203	1	2	3	4	5
Leave Surface					
Leave Bottom					
Reach Surface					
Bottom Time					
Depth/Penetration					
Schedule					
Repet Group					
Surface Interval					
New Group/RNT					
Bail-Out PSI 2400					

Table & Schedule used USN RN Depth and Duration of any decompression stops N/A

Signature John Bigos Date 6/27/12

VHabilis
Veteran-run work

DIVING DAILY PRODUCTION

TRANSECT	DISTANCE	MD	CD/OD	TOTAL ANAMOLIES
22A	300'	0	0	0
TOTAL	300'	0	0	0

27TH JUNE 2012

FZUS51 KBOX 272013
CWFBOX
COASTAL WATERS FORECAST
NATIONAL WEATHER SERVICE TAUNTON MA
413 PM EDT WED JUN 27 2012
COASTAL WATERS FROM THE MERRIMACK RIVER MA TO WATCH HILL RI OUT TO
25 NM
ANZ255-280815-
COASTAL WATERS EXTENDING OUT TO 25 NM SOUTH OF MARTHAS VINEYARD
AND NANTUCKET-
413 PM EDT WED JUN 27 2012

SMALL CRAFT ADVISORY IN EFFECT UNTIL 3 AM EDT THURSDAY

TONIGHT
W WINDS 10 TO 15 KT. SEAS 3 TO 5 FT.

THU
W WINDS 10 TO 15 KT. SEAS 3 TO 5 FT.

THU NIGHT
SW WINDS 10 TO 15 KT. SEAS 4 TO 6 FT.

FRI
SW WINDS 10 TO 15 KT...INCREASING TO 15 TO 20 KT IN THE
AFTERNOON. SEAS 4 TO 7 FT.

FRI NIGHT
SW WINDS 15 TO 20 KT...DIMINISHING TO 10 TO 15 KT
AFTER MIDNIGHT. SEAS 4 TO 7 FT.

SAT
SW WINDS AROUND 10 KT. SEAS 3 TO 5 FT.

SAT NIGHT
SW WINDS 10 TO 15 KT. SEAS 3 TO 5 FT.

SUN
SW WINDS 10 TO 15 KT WITH GUSTS UP TO 20 KT. SEAS 3 TO
5 FT.

SUN NIGHT
W WINDS 10 TO 15 KT WITH GUSTS UP TO 20 KT. SEAS
4 TO 6 FT.

MON
W WINDS 5 TO 10 KT. SEAS 4 TO 6 FT.

MON NIGHT
SW WINDS 5 TO 10 KT. SEAS 4 TO 5 FT.
SEAS ARE REPORTED AS SIGNIFICANT WAVE HEIGHT...WHICH IS THE
AVERAGE OF THE HIGHEST THIRD OF THE WAVES. INDIVIDUAL WAVE
HEIGHTS MAY BE MORE THAN TWICE THE SIGNIFICANT WAVE HEIGHT.

National Weather Service
Generated 2048 UTC, Wednesday, Jun 27, 2012
Document URL http://weather.noaa.gov/cgi-bin/fmtbltn.pl?file=forecasts/marine/coastal/an/anz255.txt

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-0006/0005/056 MAMMS05-062812-AAMX	03886-551-004	28 June 2012

WEATHER: AM Partly Sunny, 63 F, PM Partly Sunny, 73 F, **Winds 15-30 mph**

WORK LOCATION: Russell's Way, New South Road, Tom Nevers Road, Milestone Road

VISITORS(Name/firm): Gerard Quealy (On Target Locator Services) Eric Schurm (Nantucket Trees)

WESTON STAFF (Name/Position)

1. Brian Junck (Senior Geophysicist)
2. Brian Guthrie (Project Geophysicist)
3. Katie Morrison (Biologist/Project Technician)
4. Donald Mears (Senior UXO Supervisor)
5. Dennis Houseknecht (UXO QC/Safety)
6. Timothy Rodriguez (UXO Tech III)
7. Noah Bullock (UXO Tech II)
8. Marc Atherton (UXO Tech II)
9. Jason Brawner (UXO Tech I)
10. Marie Swiech-Laflamme (Project Scientist)

SUBCONTRACT STAFF (Name/Position)

1. VR Habilis (John Bigos-Dive Supervisor)
2. VR Habilis (Taylor King-Diver)
3. VR Habilis (Heath Nettleton-Standby Diver)
4. VR Habilis (Jason Kettle-Tender)
5. VR Habilis (John Hatcher-Tender)
6. VR Habilis (Mike Shaw-Tender)
7. Toscana (John Sherman/Eric Rogers)
8. Toscana (Geoff Thayer)

WORK COMPLETED:

- ☒ Surveyor activities.
- ☒ Mag and Dig activities (List grid or location).
- ☒ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☒ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☒ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☒ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☒ Clearing/Vegetation Removal

Comments: The dig team conducted intrusive anomaly investigations in two grids and two transects (AC-01-G05, AC-01-G06 and AC-01-T12, AC-01-T13). The team located one MK 6 5" rocket warhead (inert) in AC-01-05. The rocket was moved to AC-01-G12 and demolition operations were conducted. The rocket was practice.

Toscana escorted by the UXO Tech II completed cutting in AC-01-T11, AC-01-T12, AC-01-T13, AC-01-T14, AC-01-T15, AC-01-T16, AC-01-T17, AC-01-T18 and AC-01-T19 (all south to Milestone Road).

DGM grid survey conducted on AC-01-G21.

DGM transect survey AC-04.

MRS 1

Excavated Test Pit No. 1 through 4 in MRS 1 to between 7 and 8 ft below ground surface. Test pit soil characteristics were documented and field screening for volatiles and metals via PID and XRF detector, respectively, was conducted for each soil unit. No visual, olfactory or field screening indications of release were noted. Due to demolition activities this afternoon in the vicinity of MRS 1, sample collection and backfilling will be conducted on 29 June 2012. All test pits were demarcated for safety overnight.

A landscaper from Nantucket Trees was onsite between 1630 and 1700-hrs to evaluate vegetation debris removal at the parcel 91 1. After evaluation of debris left in-place, the landscaper indicated that removal would be detrimental to promoting regrowth because the root system would be impacted by any of the types of equipment available to remove debris (e.g., york rake). Additionally, removal of the root structure in its entirety would encourage reestablishment of invasive species rather than native plants. The current state of the debris is ideal to retaining moisture and building an organic rich topsoil to encourage regrowth. Also, the type of clearing completed encourages re-establishment of local wild flowers that are desirable on the island. WESTON's Project Scientist and the landscaper discuss these specifics with property owners and determine to conduct additional research to evaluate the cost/benefit of removing debris before initiating activities. WESTON's Project Scientist to follow-up with the property owners on Monday, 02 July 2012.

Photos for today activities are included in the QC report.

VRH Dive team operations:

Transect # 19A 0-300 ft, 0 anomalies

Dive team could not dive on 33A due to beach and surf conditions.

Total: 300 ft 0 Anomalies

MATERIALS DELIVERED (Amount, Condition, and Purpose):

PROBLEMS/RESOLUTIONS:

Rights of Entry agreements are not in place for multiple properties which is impacting sequencing and schedule.

DATA TRACKING:

Items Confirmed: None

Analog Survey Transects: None

Items Found Today: None

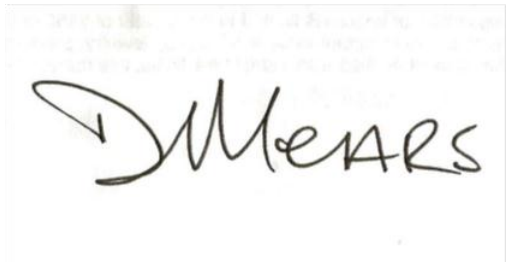
DGM Grids: DGM grid survey conducted on AC-01-G21. DGM transect survey AC-04.

DGM Grids Reacquired: None

Data Acquired from Sub: See attached VRH subcontractor

Data Provided to USACE: Data for grids AC-01-G03, G09, G12, G13, G14, G17 and T06

Data Accepted by USACE: QAR for AC-03-T01 and T02.

Comments:	
FURTHER DISCUSSION (List Topic and Comment): No Dive ops scheduled. VRH has started DEMOB operations.	
PREPARED BY: **Donald Mears (SUXOS)**	**SIGNATURE:** 

Project: Nantucket Beach, Former Nantucket Ordnance Site	
Site Location: Nantucket Island, MA	Date: June 28, 2012

Describe daily QC activities: Observed geophysical transect mapping operations in AC-01. Observed intrusive anomaly investigation in AC-01. Assisted the Project Scientist in sampling four test pits in MRS-1. The dive team completed their final transect (19A) and are in the process of demobilizing.

Grid QC: AC-01 grids 5 & 6.
Transect QC: T12 & T 13.

Definable Feature of Work	***Inspection Description***	***Inspection performed***	***Result/Recommendation***
Ground Reconnaissance	Confirm brush is sufficiently thinned so that digital surveys can be conducted while compliance of the EPP is maintained.	Follow up	Satisfactory
	Ensure equipment is available, properly operated and maintained.	Follow up	Satisfactory
Ground Based Geophysical survey activities	Confirm digital functionality tests are preformed before and after surveys and results are verified against metrics established in the WP.	Follow up	Satisfactory
	The IVS procedures documented in the WP are being performed by each DGM team before and after surveys.	Follow up	Satisfactory
	Instruments checked to confirm functionality before mag & dig activities.	Follow up	Satisfactory
	Confirm all personnel	Follow up	Satisfactory

	have the appropriate PPE and supplies.		
	Observe mag & dig operations for accuracy and completeness	Follow up	Satisfactory
Munitions and explosives of concern intrusive activities	Ensure the appropriate exclusion zones are established and maintained in active work areas.	Follow up	Satisfactory
	Verify the determination of acceptable to move MEC/MPPEH for consolidation is appropriate.	Follow up	Satisfactory
	Observe mag & dig operations for accuracy and completeness.	Follow up	Satisfactory
	Confirm UXO teams are recording/logging all required parameters during item recovery.	Follow up	Satisfactory
	Verify all seed items have been recovered within a specific grid or area.	Follow up	Satisfactory
	Conduct anomaly/area verification sampling when removal activities are complete in a grid or area.	Follow up	Satisfactory
	Observe anomaly reacquisition/intrusive work accuracy and completeness.	Follow up	Satisfactory
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory
Submitted by: D. Heusebrock			
Approved by:		Approval date: 6/28/2012	

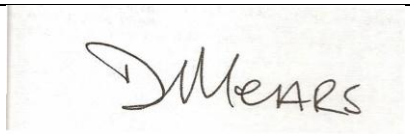
	



Figure 1 Digging Test pits in MRS-1



Figure 2 Project Scientist conducting soil sampling.



- **Figure 3Project Scientist conducting soil sampling.**



- **Figure 4 Project Scientist conducting soil sampling.**

Environmental Protection Daily Report

Nantucket Beach, Former Nantucket Ordnance Site
a.k.a. Tom Nevers Rocket Projectile Target;
Tom Nevers Area, Formerly Used Defense Site
Project Number D01MA045601
Remedial Investigation

WORK ORDER NO.:	**DATE**	
03886.551.004.0011	28 June 2012	

ENVIRONMENTAL PROTECTION MONITOR (Name/Position)

WESTON

Katherine Morrison / Project Scientist

WORK LOCATION: AC-01/ AC-04

WORK COMPLETED:

☒Shorebird Monitoring/Impact Mitigation.
☒ Northern Harrier Monitoring/Impact Mitigation.
☐ American Burying Beetle Monitoring/Impact Mitigation.
☒ Marine Mammal Monitoring/Impact Mitigation.
☐ Vegetation Impact Monitoring/Mitigation
☐ Wetlands Impact Mitigation
☐ Site Water Runon/Runoff Control
☐ Site Restoration

Comments:

- Conducted harrier monitoring in AC-01 and surface anomaly clearance prior to vegetation clearing.
- Staked out and monitored underwater transects 19a for sea life and sea birds before divers began their mission.
- DGM grid survey conducted on AC-01-G21.
- DGM transect survey AC-04.

MONITORING OBSERVATIONS (species/activities observed):

- No species observed.

MITIGATION MEASURES IMPLEMENTED:

- No mitigation measures were required.

FURTHER DISCUSSION (List Topic and Comment):

- None

PREPARED BY:	**SIGNATURE:**
Katherine Morrison	

SAFETY MEETING AND DAILY PLANNING FORM

Project Name: Nantucket RI/FS 2012

Project Location: Nantucket Beach

- Review previous shift's work including safety concerns, near misses or unrecognized hazards
- Review scope of work for the current work shift
- Review safety hazards for the activities planned for the work shift (check appropriate boxes)

	Chemical		Electrical		Eye
	Biological		Heat / Cold Stress		Hearing (noise)
	Confined Space		Fall protection		Emergency procedures
	Ladder		Protective clothing		Pinch points
	Scaffolds		Respirators		Knife use
	Overhead obstructions		Equipment and machinery		Slip, Trip, Fall, Cut, and Puncture
	Other:		Stop Work Authority		

- Review tools, equipment and procedures to be used (i.e., safety, maintenance or inspection requirements)
- Review pre-work inspections to be conducted
- Review emergency plan
- Review end-of-shift work area(s) condition requirements (i.e., cleanup, tools, staging for next shift, etc.)

Name Printed / Initial	Name Printed / Initial
1 .BIGOS	11.
2 SHAW	12.
3. NETTLETON	13.
4. KING	14.
5. HATCHER	15.
6. KETTLE	16
7.	17.
8.	18.
9.	19.
10.	20.

Supervisor Name: Bigos/Shaw

Signature:

Date/Day/Time: 28 Jun 2012

APPENDIX G

VRH DAILY DIVE LOG & REPETITIVE DIVE WORKSHEET

Job Name NANTUCKET RI/FS Location NANTUCKET BEACH
Job No. _____ Date 6/28/12 Start Time 0630 Secure Time _____
Diving task & job description: Breathing medium and apparatus usedt

SEARCH FOR UXO USING SCHONSTEDT

Date&Time of last previous Dive +48

CREW AND POSITION

DIVE SUP J. BIGOS, DVR J. KETTLE STBY
TEN J. HATCHER, T. KING, M. SHAW

DIVING CONDITIONS

Weather SW WINT Air Temp 69° Water Temp 60°

Current MED Visibility GOOD Tide Schedule: MWH 1757 MLW 1116

Emergency Air Pressure 1700 Initials JB

J. KETTLE Diver #1 KM 4716-202		1	2	3	4	5
	Leave Surface	0840				
	Leave Bottom	0948				
	Reach Surface	0948				
	Bottom Time	68				
	Depth/Penetration	12'				
Bail-Out PSI 2000	Schedule	NO D				
	Repet Group	C				
	Surface Interval					
	NewGroup/RNT					

H. NETTLETON Diver #2 KM 27 16-203		1	2	3	4	5
	Leave Surface					
	Leave Bottom					
	Reach Surface					
	Bottom Time					
	Depth/Penetration					
Bail-Out PSI 2500	Schedule					
	Repet Group					
	Surface Interval					
	New Group/RNT					

Table & Schedule used NO D Depth and Duration of any decompression stops. N/A

Signature John Bigos Date 6/28/12

VHabilis
Veteran-run work

DIVING DAILY PRODUCTION

TRANSECT	DISTANCE	MD	CD/OD	TOTAL ANAMOLIES
19A	300'	0	0	0
TOTAL	300'	0	0	0

28TH JUNE 2012

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-0006/0005/057 MAMMS05-062912-AAMY	03886-551-004	29 June 2012

WEATHER: AM Partly Sunny, 63 F, PM Sunny, 75 F, Winds 10-15 mph

WORK LOCATION: Russell's Way, New South Road, Tom Nevers Road, Milestone Road

VISITORS(Name/firm): Gerard Quealy (On Target Locator Services)

WESTON STAFF (Name/Position)

1. Brian Junck (Senior Geophysicist)
2. Brian Guthrie (Project Geophysicist)
3. Katie Morrison (Biologist/Project Technician)
4. Donald Mears (Senior UXO Supervisor)
5. Dennis Houseknecht (UXO QC/Safety)
6. Timothy Rodriguez (UXO Tech III)
7. Noah Bullock (UXO Tech II)
8. Marc Atherton (UXO Tech II)
9. Jason Brawner (UXO Tech I)
10. Marie Swiech-Laflamme (Project Scientist)

SUBCONTRACT STAFF (Name/Position)

1. VR Habilis (John Bigos-Dive Supervisor)
2. VR Habilis (Taylor King-Diver)
3. VR Habilis (Heath Nettleton-Standby Diver)
4. VR Habilis (Jason Kettle-Tender)
5. VR Habilis (John Hatcher-Tender)
6. VR Habilis (Mike Shaw-Tender)
7. Toscana (John Sherman/Eric Rogers)
8. Toscana (Geoff Thayer)

WORK COMPLETED:

- ☒ Surveyor activities.
- ☒ Mag and Dig activities (List grid or location).
- ☒ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☒ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☒ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☒ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☒ Clearing/Vegetation Removal

Comments: The dig team conducted intrusive anomaly investigations in MRS-1. The team located five 2.25" SCAR MK 3 Mod 2 rockets. All the munitions were practice.

Toscana escorted by the UXO Tech II completed cutting in all the approved grids and transects south of Milestone Road.

DGM transect survey AC-05-T01.

MRS 1:
Collected 4, 8-point composite samples from MRS 1 test pits for HTW analysis of potential constituents. Samples were shipped off island to Test America in Burlington, VT for analysis in accordance with project UFP-QAPP.

Backfilled test pits to mimic pre-existing conditions.

WESTON hand delivered ROE to 20 Waquoit Rd (parcel no. 90 5).

Photos for today activities are included in the QC report.

VRH Dive team operations: Packing out team equipment and started DEMOB of personnel.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

PROBLEMS/RESOLUTIONS:

DATA TRACKING:

Items Confirmed: None

Analog Survey Transects: None

Items Found Today: None

DGM Grids: DGM transect survey AC-05-T01.

DGM Grids Reacquired: None

Data Acquired from Sub: None

Data Provided to USACE: None

Data Accepted by USACE: None

Comments:

FURTHER DISCUSSION (List Topic and Comment): Continue intrusive anomaly investigations in MRS-1. Complete clearing/vegetation removal operations next week.

PREPARED BY:	**SIGNATURE:**
Donald Mears (SUXOS)	

Daily Quality Control Report

Project: Nantucket Beach, Former Nantucket Ordnance Site			
Site Location: Nantucket Island, MA		Date: June 29, 2012	
Describe daily QC activities: Observed intrusive anomaly investigation in MRS-1. Assisted the Project Scientist sampling test pits in MRS-1. ***Grid QC***: AC-02 grid 1. ***Transect QC***:			
Definable Feature of Work	***Inspection Description***	***Inspection performed***	***Result/Recommendation***
Ground Reconnaissance	Confirm brush is sufficiently thinned so that digital surveys can be conducted while compliance of the EPP is maintained.	Follow up	Satisfactory
	Ensure equipment is available, properly operated and maintained.	Follow up	Satisfactory
Ground Based Geophysical survey activities	Confirm digital functionality tests are preformed before and after surveys and results are verified against metrics established in the WP.	Follow up	Satisfactory
	The IVS procedures documented in the WP are being performed by each DGM team before and after surveys.	Follow up	Satisfactory
	Instruments checked to confirm functionality before mag & dig activities.	Follow up	Satisfactory
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory
	Observe mag & dig	Follow up	Satisfactory

	operations for accuracy and completeness		
Munitions and explosives of concern intrusive activities	Ensure the appropriate exclusion zones are established and maintained in active work areas.	Follow up	Satisfactory
	Observe mag & dig operations for accuracy and completeness.	Follow up	Satisfactory
	Confirm UXO teams are recording/logging all required parameters during item recovery.	Follow up	Satisfactory
	Verify all seed items have been recovered within a specific grid or area.	Follow up	Satisfactory
	Conduct anomaly/area verification sampling when removal activities are complete in a grid or area.	Follow up	Satisfactory
	Observe anomaly reacquisition/intrusive work accuracy and completeness.	Follow up	Satisfactory
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory
Submitted by: D. Heusebrock			
Approved by: DMEARS		Approval date: 6/29/2012	



- **Figure 1 Investigating an anomaly in MRS-1**



- **Figure 2 MK 3 Mod 2 Sub-caliber Aircraft Rocket (SCAR) recovered in MRS-1**



- **Figure 3 Site of Test Pit excavated in MRS-1.**



- **Figure 4 Site of two test pits excavated in MRS-1.x**

Environmental Protection Daily Report

Nantucket Beach, Former Nantucket Ordnance Site
a.k.a. Tom Nevers Rocket Projectile Target;
Tom Nevers Area, Formerly Used Defense Site
Project Number D01MA045601
Remedial Investigation

WORK ORDER NO.:	**DATE**	
03886.551.004.0011	29 June 2012	

ENVIRONMENTAL PROTECTION MONITOR (Name/Position)

WESTON

Katherine Morrison / Project Scientist

WORK LOCATION: AC-01/ AC-05

WORK COMPLETED:

☒ Shorebird Monitoring/Impact Mitigation.
☒ Northern Harrier Monitoring/Impact Mitigation.
☐ American Burying Beetle Monitoring/Impact Mitigation.
☒ Marine Mammal Monitoring/Impact Mitigation.
☐ Vegetation Impact Monitoring/Mitigation
☐ Wetlands Impact Mitigation
☐ Site Water Runon/Runoff Control
☐ Site Restoration

Comments:

- Conducted harrier monitoring in AC-01 and surface anomaly clearance prior to vegetation clearing.
- DGM transect survey AC-05-T01.

MONITORING OBSERVATIONS (species/activities observed):

- No species observed.

MITIGATION MEASURES IMPLEMENTED:

- No mitigation measures were required.

FURTHER DISCUSSION (List Topic and Comment):

- None

PREPARED BY:	**SIGNATURE:**
Katherine Morrison	

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-0006/0005/058 MAMMS05-070212-AAPL	03886-551-004	2 July 2012

WEATHER: AM Partly Sunny, 62 F, PM Sunny, 75 F, Winds 5-10 mph

WORK LOCATION: Russell's Way, New South Road, Tom Nevers Road, Milestone Road

VISITORS(Name/firm): Gerard Quealy (On Target Locator Services)

WESTON STAFF (Name/Position)

1. Brian Junck (Senior Geophysicist)
2. Brian Guthrie (Project Geophysicist)
3. Katie Morrison (Biologist/Project Technician)
4. Donald Mears (Senior UXO Supervisor)
5. Dennis Houseknecht (UXO QC/Safety)
6. Timothy Rodriguez (UXO Tech III)
7. Noah Bullock (UXO Tech II)
8. Marc Atherton (UXO Tech II)
9. Jason Brawner (UXO Tech I)
10. Al Larkins (MEC QC Manager)

SUBCONTRACT STAFF (Name/Position)

1. VR Habilis (Mike Shaw UXO Tech III/Demo Leader)
2. Toscana (John Sherman/Eric Rogers)

WORK COMPLETED:

- ☒ Surveyor activities.
- ☒ Mag and Dig activities (List grid or location).
- ☒ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☒ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☒ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☒ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☒ Clearing/Vegetation Removal

Comments: The dig team continued intrusive anomaly investigations in MRS-1. The team located one MK 6 5" rocket warhead (inert) on the surface. They also located three MK 1 3.5" rocket warhead (inert/solid steel) one on the surface, one at a depth of 8' and one at a depth of 50" and one MK 3 MOD 2 2.25" SCAR rocket. Demolition operations were conducted on the MK 6 5" rocket warhead and one MK1 3.5" rocket warhead (only one MK 1 3.5 warhead was vented due to its difference appearance) in AC-01-G12. The rockets were practice

Toscana escorted by the UXO Tech II completed cutting in all the approved grids and transects north of Milestone Road.

DGM transect survey AC-05-T03, AC-02-T01, AC-02-T02, AC-02-T03-T03, AC-01-T15, and AC-01-T16.

DGM grid survey AC-01-G01.

Photos for today activities are included in the QC report.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

PROBLEMS/RESOLUTIONS:

DATA TRACKING:

Items Confirmed: None

Analog Survey Transects: None

Items Found Today: None

DGM Grids: DGM transect survey AC-05-T03, AC-02-T01, AC-02-T02, AC-02-T03-T03, AC-01-T15, and AC-01-T16.
DGM grid survey AC-01-G01.

DGM Grids Reacquired: None

Data Acquired from Sub: None

Data Provided to USACE: None

Data Accepted by USACE: Received QARs for the following datasets:

AC-01-G03

AC-01-G09

AC-01-G12

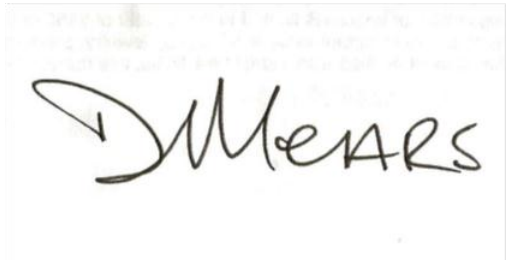
AC-01-G13

AC-01-G14

AC-01-G17

AC-01-T06

Comments:

FURTHER DISCUSSION (List Topic and Comment): Continue intrusive anomaly investigations in MRS-1.	
PREPARED BY: **Donald Mears (SUXOS)**	**SIGNATURE:** 

Project: Nantucket Beach, Former Nantucket Ordnance Site	
Site Location: Nantucket Island, MA	Date: July 2, 2012
Describe daily QC activities: Observed intrusive anomaly investigation in MRS-1. Observed brush cutting operations in AC-05 and Geophysical mapping in AC-01 and AC-05. ***Grid QC***: ***Transect QC***:	

Definable Feature of Work	***Inspection Description***	***Inspection performed***	***Result/Recommendation***
Ground Reconnaissance	Confirm brush is sufficiently thinned so that digital surveys can be conducted while compliance of the EPP is maintained.	Follow up	Satisfactory
	Ensure equipment is available, properly operated and maintained.	Follow up	Satisfactory
Ground Based Geophysical survey activities	Confirm digital functionality tests are preformed before and after surveys and results are verified against metrics established in the WP.	Follow up	Satisfactory
	The IVS procedures documented in the WP are being performed by each DGM team before and after surveys.	Follow up	Satisfactory
	Instruments checked to confirm functionality before mag & dig activities.	Follow up	Satisfactory
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory

	Observe mag & dig operations for accuracy and completeness	Follow up	Satisfactory
Munitions and explosives of concern intrusive activities	Ensure the appropriate exclusion zones are established and maintained in active work areas.	Follow up	Satisfactory
	Observe mag & dig operations for accuracy and completeness.	Follow up	Satisfactory
	Confirm UXO teams are recording/logging all required parameters during item recovery.	Follow up	Satisfactory
	Verify all seed items have been recovered within a specific grid or area.	Follow up	Satisfactory
	Conduct anomaly/area verification sampling when removal activities are complete in a grid or area.	Follow up	Satisfactory
	Observe anomaly reacquisition/intrusive work accuracy and completeness.	Follow up	Satisfactory
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory

Submitted by: D. Heuseknecht	
Approved by: DMears	Approval date: 7/2/2012



Figure 1 Beach Transects



Figure 2 Digital transects in AC-05



- **Figure 3 Anomaly excavation in MRS-1**



- **Figure 4 3.5" Rocket MK 1 recovered from MRS-1.**

Environmental Protection Daily Report

Nantucket Beach, Former Nantucket Ordnance Site
a.k.a. Tom Nevers Rocket Projectile Target;
Tom Nevers Area, Formerly Used Defense Site
Project Number D01MA045601
Remedial Investigation

WORK ORDER NO.:	**DATE**	
03886.551.004.0011	2 July 2012	

ENVIRONMENTAL PROTECTION MONITOR (Name/Position)

WESTON

Katherine Morrison / Project Scientist

WORK LOCATION: AC-01/ AC-05

WORK COMPLETED:

☒ Shorebird Monitoring/Impact Mitigation.
☒ Northern Harrier Monitoring/Impact Mitigation.
☐ American Burying Beetle Monitoring/Impact Mitigation.
☒ Marine Mammal Monitoring/Impact Mitigation.
☐ Vegetation Impact Monitoring/Mitigation
☐ Wetlands Impact Mitigation
☐ Site Water Runon/Runoff Control
☐ Site Restoration

Comments:

- Conducted harrier monitoring in AC-01 and surface anomaly clearance prior to vegetation clearing.
- DGM transect survey AC-05-T03, AC-02-T01, AC-02-T02, AC-02-T03-T03, AC-01-T15, and AC-01-T16.
- DGM grid survey AC-01-G01.
- Female harrier spotted in AC-01-G01 with no evidence of nesting activities

MONITORING OBSERVATIONS (species/activities observed):

- Female harrier spotted in AC-01-G01 with no evidence of nesting activities

MITIGATION MEASURES IMPLEMENTED:

- No mitigation measures were required.

FURTHER DISCUSSION (List Topic and Comment):

- None

PREPARED BY:	**SIGNATURE:**
Katherine Morrison	

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-0006/0005/060 MAMMS05-070512-AAPn	03886-551-004	**3** July 2012

WEATHER: AM Partly Sunny, 63 F, PM Sunny, 74 F, Winds 15-20 mph

WORK LOCATION: Russell's Way, New South Road, Tom Nevers Road, Milestone Road

VISITORS(Name/firm):

WESTON STAFF (Name/Position)

1. Brian Junck (Senior Geophysicist)
2. Brian Guthrie (Project Geophysicist)
3. Katie Morrison (Biologist/Project Technician)
4. Donald Mears (Senior UXO Supervisor)
5. Dennis Houseknecht (UXO QC/Safety)
6. Timothy Rodriguez (UXO Tech III)
7. Noah Bullock (UXO Tech II)
8. Marc Atherton (UXO Tech II)
9. Jason Brawner (UXO Tech I)

SUBCONTRACT STAFF (Name/Position)

1. VR Habilis (Mike Shaw UXO Tech III/Demo Leader)

WORK COMPLETED:

- ☒ Surveyor activities.
- ☒ Mag and Dig activities (List grid or location).
- ☒ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☒ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☒ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☒ Clearing/Vegetation Removal

Comments: The dig team completed intrusive anomaly investigations in MRS-1. Today inn MRS-1, team located five 2.25" SCAR rockets and one 3.5" rocket. None of these munitions required demolition operations. The dig team started intrusive anomaly investigations in AC-01-G09 and they located three 3.5" rockets and one 2.25" SCAR rocket. None of the munitions located in AC-01-G09 required demolition operations.

Toscana escorted by the UXO Tech II completed cutting in AC-02-T04. All the approved grids and transects are clear of vegetation.

DGM transect survey AC-01-T15 and AC-02-T04.

Photos for today activities are included in the QC report.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

PROBLEMS/RESOLUTIONS:

DATA TRACKING:

Items Confirmed: None

Analog Survey Transects: None

Items Found Today: None

DGM Grids: DGM transect survey AC-01-T15 and AC-02-T04.

DGM Grids Reacquired: None

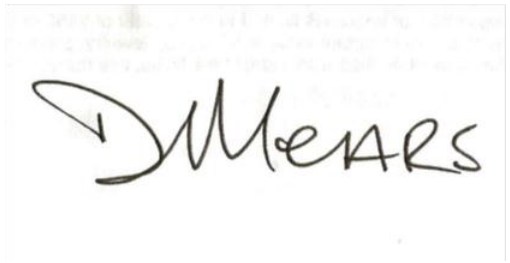
Data Acquired from Sub: None

Data Provided to USACE: None

Data Accepted by USACE: None

Comments:

FURTHER DISCUSSION (List Topic and Comment): Conduct mag and dig operations in transects north of Milestone Road.

PREPARED BY:	**SIGNATURE:**
Donald Mears (SUXOS)	

Daily Quality Control Report

Project: Nantucket Beach, Former Nantucket Ordnance Site			
Site Location: Nantucket Island, MA		Date: July 3, 2012	
Describe daily QC activities: Observed intrusive anomaly investigation in MRS-1 and AC-01 G09. Observed brush cutting operations in AC-02 and geophysical mapping along beach transect. ***Grid QC***: MRS-1 ***Transect QC***:			
Definable Feature of Work	***Inspection Description***	***Inspection performed***	***Result/Recommendation***
Ground Reconnaissance	Confirm brush is sufficiently thinned so that digital surveys can be conducted while compliance of the EPP is maintained.	Follow up	Satisfactory
	Ensure equipment is available, properly operated and maintained.	Follow up	Satisfactory
Ground Based Geophysical survey activities	Confirm digital functionality tests are preformed before and after surveys and results are verified against metrics established in the WP.	Follow up	Satisfactory
	The IVS procedures documented in the WP are being performed by each DGM team before and after surveys.	Follow up	Satisfactory
	Instruments checked to confirm functionality before mag & dig activities.	Follow up	Satisfactory
	Confirm all personnel have the appropriate	Follow up	Satisfactory

	PPE and supplies.		
	Observe mag & dig operations for accuracy and completeness	Follow up	Satisfactory
Munitions and explosives of concern intrusive activities	Ensure the appropriate exclusion zones are established and maintained in active work areas.	Follow up	Satisfactory
	Observe mag & dig operations for accuracy and completeness.	Follow up	Satisfactory
	Confirm UXO teams are recording/logging all required parameters during item recovery.	Follow up	Satisfactory
	Verify all seed items have been recovered within a specific grid or area.	Follow up	Satisfactory
	Conduct anomaly/area verification sampling when removal activities are complete in a grid or area.	Follow up	Satisfactory
	Observe anomaly reacquisition/intrusive work accuracy and completeness.	Follow up	Satisfactory
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory
Submitted by: D. Heusebrock			
Approved by: DMEARS		Approval date: 7/3/2012	



- **Figure 1 Anomaly clearance in MRS-1**



- **Figure 2 Anomaly clearance in MRS-1**



- **Figure 3 Final phase of brush removal**



- **Figure 4 3.5" Rocket Mk 1**

Environmental Protection Daily Report

Nantucket Beach, Former Nantucket Ordnance Site
a.k.a. Tom Nevers Rocket Projectile Target;
Tom Nevers Area, Formerly Used Defense Site
Project Number D01MA045601
Remedial Investigation

WORK ORDER NO.:	**DATE**	
03886.551.004.0011	3 July 2012	

ENVIRONMENTAL PROTECTION MONITOR (Name/Position)

WESTON

Katherine Morrison / Project Scientist

WORK LOCATION: AC-01/AC-02

WORK COMPLETED:

☒ Shorebird Monitoring/Impact Mitigation.
☒ Northern Harrier Monitoring/Impact Mitigation.
☐ American Burying Beetle Monitoring/Impact Mitigation.
☒ Marine Mammal Monitoring/Impact Mitigation.
☐ Vegetation Impact Monitoring/Mitigation
☐ Wetlands Impact Mitigation
☐ Site Water Runon/Runoff Control
☐ Site Restoration

Comments:

- Conducted harrier monitoring in AC-01 and surface anomaly clearance.
- DGM transect survey AC-01-T15 and AC-02-T04.

MONITORING OBSERVATIONS (species/activities observed):

- No species observed.

MITIGATION MEASURES IMPLEMENTED:

- No mitigation measures were required.

FURTHER DISCUSSION (List Topic and Comment):

- None

PREPARED BY:	**SIGNATURE:**
Katherine Morrison	

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-0006/0005/060 MAMMS05-070412-AAQN	03886-551-004	4 July 2012

WEATHER: AM Rain, 63 F, PM Sunny, 76 F, Winds 5-10 mph

WORK LOCATION: Russell's Way, New South Road, Tom Nevers Road, Milestone Road

VISITORS(Name/firm):

WESTON STAFF (Name/Position)

1. Brian Junck (Senior Geophysicist)
2. Brian Guthrie (Project Geophysicist)
3. Katie Morrison (Biologist/Project Technician)
4. Donald Mears (Senior UXO Supervisor)
5. Dennis Houseknecht (UXO QC/Safety)
6. Timothy Rodriguez (UXO Tech III)
7. Noah Bullock (UXO Tech II)
8. Marc Atherton (UXO Tech II)
9. Jason Brawner (UXO Tech I)

SUBCONTRACT STAFF (Name/Position)

WORK COMPLETED:

- ☐ Surveyor activities.
- ☒ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☒ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments: The dig team conducted mag and dig activities in the analog transects north of Milestone Road. They completed mag and dig operations in ten transects (AC-01-T01, AC-01-T07, AC-01-T08, AC-01-T10, AC-01-T11, AC-01-T12, AC-01-T13, AC-01-T14, AC-01-T15 and AC-01-T16. Only items located were CD and hot rock. All transects north of Milestone Road are complete.

Photos for today activities are included in the QC report.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

PROBLEMS/RESOLUTIONS:

DATA TRACKING:

Items Confirmed: None

Analog Survey Transects: None

Items Found Today: None

DGM Grids: None

DGM Grids Reacquired: None

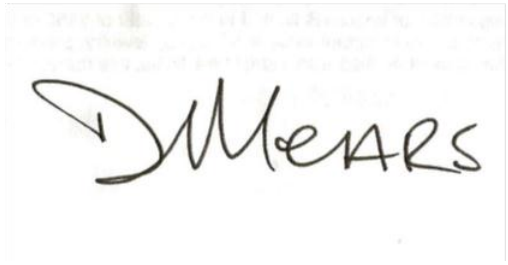
Data Acquired from Sub: None

Data Provided to USACE: None

Data Accepted by USACE: None

Comments:

FURTHER DISCUSSION (List Topic and Comment):

PREPARED BY:	**SIGNATURE:**
Donald Mears (SUXOS)	

Daily Quality Control Report

Project: Nantucket Beach, Former Nantucket Ordnance Site			
Site Location: Nantucket Island, MA		Date: July 4, 2012	
Describe daily QC activities: Observed intrusive anomaly investigation in AC-01 analog transects 1, 7, 8,10,11,12,13,14,15 and 16 along the NORTH side of Milestone Rd. ONLY. ***Grid QC***: ***Transect QC***: 1, 7, 8, 10,11,12,13,14 and 15 North of Milestone ONLY.			
Definable Feature of Work	***Inspection Description***	***Inspection performed***	***Result/Recommendation***
Ground Reconnaissance	Ensure equipment is available, properly operated and maintained.	Follow up	Satisfactory
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory
	Ensure the appropriate exclusion zones are established and maintained in active work areas.	Follow up	Satisfactory
	Confirm UXO teams are recording/logging all required parameters during item recovery.	Follow up	Satisfactory
Munitions and explosives of concern intrusive activities	Verify all seed items have been recovered within a specific grid or area.	N/A	
	Conduct anomaly/area verification sampling when removal activities are complete in a grid or area.	Follow up	Satisfactory
	Observe anomaly reacquisition/intrusive work accuracy and completeness.	Follow up	Satisfactory

	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory
Submitted by: D. Heusebruch			
Approved by: DMEARS		Approval date: 7/4/2012	



Figure 1 Analog transects north side of Milestone Rd.



- **Figure 2 Analog transects north side of Milestone Rd.**



- **Figure 3 Analog transects north side of Milestone Rd.**

No Environmental Protection Daily Report for 4 July 2012

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-0006/0005/061 MAMMS05-070512-AAPN	03886-551-004	5 July 2012

WEATHER: AM Partly Sunny, 63 F, PM Sunny, 74 F, Winds 15-20 mph

WORK LOCATION: Russell's Way, New South Road, Tom Nevers Road, Milestone Road

VISITORS(Name/firm):

WESTON STAFF (Name/Position)

1. Brian Junck (Senior Geophysicist)
2. Brian Guthrie (Project Geophysicist)
3. Katie Morrison (Biologist/Project Technician)
4. Donald Mears (Senior UXO Supervisor)
5. Dennis Houseknecht (UXO QC/Safety)
6. Timothy Rodriguez (UXO Tech III)
7. Noah Bullock (UXO Tech II)
8. Marc Atherton (UXO Tech II)
9. Jason Brawner (UXO Tech I)

SUBCONTRACT STAFF (Name/Position)

1. VR Habilis (Mike Shaw UXO Tech III/Demo Leader)

WORK COMPLETED:

- ☐ Surveyor activities.
- ☒ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☒ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments: The dig team completed intrusive anomaly investigations in AC-01-G09. Today in AC-01-G09, the team located three 5" rockets. The dig team also started intrusive anomaly investigations in AC-01-T06 and they located one 5" rocket. Demolitions operations were conducted on all these munitions. All munitions were practice.

The GEO team conducted a recon in AC-08.

Photos for today activities are included in the QC report.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

PROBLEMS/RESOLUTIONS:

DATA TRACKING:

Items Confirmed: None

Analog Survey Transects: None

Items Found Today: None

DGM Grids: None

DGM Grids Reacquired: None

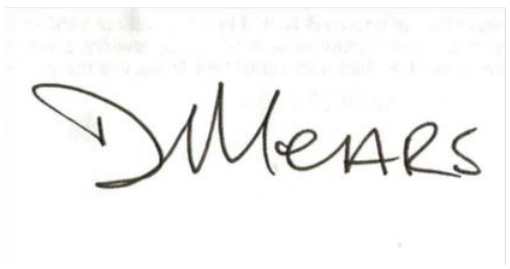
Data Acquired from Sub: None

Data Provided to USACE: None

Data Accepted by USACE: None

Comments:

FURTHER DISCUSSION (List Topic and Comment):

PREPARED BY:	**SIGNATURE:**
Donald Mears (SUXOS)	

Daily Quality Control Report

Project: Nantucket Beach, Former Nantucket Ordnance Site			
Site Location: Nantucket Island, MA		Date: July 5, 2012	
Describe daily QC activities: Observed intrusive anomaly investigation in AC-01 grid 09 and digital transect AC-01 T06. ***Grid QC***: ***Transect QC***:			
Definable Feature of Work	***Inspection Description***	***Inspection performed***	***Result/Recommendation***
Ground Reconnaissance	Ensure equipment is available, properly operated and maintained.	Follow up	Satisfactory
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory
	Ensure the appropriate exclusion zones are established and maintained in active work areas.	Follow up	Satisfactory
	Confirm UXO teams are recording/logging all required parameters during item recovery.	Follow up	Satisfactory
Munitions and explosives of concern intrusive activities	Verify all seed items have been recovered within a specific grid or area.	N/A	
	Conduct anomaly/area verification sampling when removal activities are complete in a grid or area.		
	Observe anomaly reacquisition/intrusive work accuracy and completeness.	Follow up	Satisfactory
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory

Submitted by: D. Heusebrecht			
Approved by: DMeARS	Approval date: 7/5/2012		



Figure 1 Mechanical excavation in AC-01-G09



Figure 2 Nose of a MK 6 5" Rocket protruding.



- **Figure 3 MK 1 5" Rocket warhead from transect AC-01-T6**

Environmental Protection Daily Report

Nantucket Beach, Former Nantucket Ordnance Site
a.k.a. Tom Nevers Rocket Projectile Target;
Tom Nevers Area, Formerly Used Defense Site
Project Number D01MA045601
Remedial Investigation

WORK ORDER NO.:	**DATE**	
03886.551.004.0011	5 July 2012	

ENVIRONMENTAL PROTECTION MONITOR (Name/Position)

WESTON

Katherine Morrison / Project Scientist

WORK LOCATION: AC-08

WORK COMPLETED:

☒ Shorebird Monitoring/Impact Mitigation.
☒ Northern Harrier Monitoring/Impact Mitigation.
☐ American Burying Beetle Monitoring/Impact Mitigation.
☒ Marine Mammal Monitoring/Impact Mitigation.
☐ Vegetation Impact Monitoring/Mitigation
☐ Wetlands Impact Mitigation
☐ Site Water Runon/Runoff Control
☐ Site Restoration

Comments:

- Recon in AC-08.
- Begin packing equipment.
- Assisted in Demo Ops while monitoring for harrier nesting evidence.

MONITORING OBSERVATIONS (species/activities observed):

- No species observed.

MITIGATION MEASURES IMPLEMENTED:

- No mitigation measures were required.

FURTHER DISCUSSION (List Topic and Comment):

- None

PREPARED BY:	**SIGNATURE:**
Katherine Morrison	

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-0006/0005/062 MAMMS05-070612-AAPO	03886-551-004	6 July 2012

WEATHER: AM Partly Sunny, 66 F, PM Sunny, 77 F, Winds 5-10 mph

WORK LOCATION: Russell's Way, New South Road, Tom Nevers Road, Milestone Road

VISITORS(Name/firm):

WESTON STAFF (Name/Position)

1. Brian Junck (Senior Geophysicist)
2. Brian Guthrie (Project Geophysicist)
3. Katie Morrison (Biologist/Project Technician)
4. Donald Mears (Senior UXO Supervisor)
5. Dennis Houseknecht (UXO QC/Safety)
6. Timothy Rodriguez (UXO Tech III)
7. Noah Bullock (UXO Tech II)
8. Marc Atherton (UXO Tech II)
9. Jason Brawner (UXO Tech I)

SUBCONTRACT STAFF (Name/Position)

1. VR Habilis (Mike Shaw UXO Tech III/Demo Leader)

WORK COMPLETED:

- ☐ Surveyor activities.
- ☒ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☒ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments: The dig team completed intrusive anomaly investigations in AC-01-T06. Today in AC-01-T06, the team located four 3.5" rocket motors at depths ranging from 40" to 60" and three 2.25" rockets SCAR at depths up to 48". The dig team also started intrusive anomaly investigations in AC-01-G-14 and they located one 3.5" rocket warhead. In additional, the dig team conducted intrusive operations in AC-01-G03 where located four 3.5" rocket warheads and one 3.5" rocket motor.

All munitions were practice. Digging procedures were very slow for today's operations due to the heavy volume of road traffic adjacent to the grids.

Photos for today activities are included in the QC report.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

PROBLEMS/RESOLUTIONS:

DATA TRACKING:

Items Confirmed: None

Analog Survey Transects: None

Items Found Today: None

DGM Grids: None

DGM Grids Reacquired: None

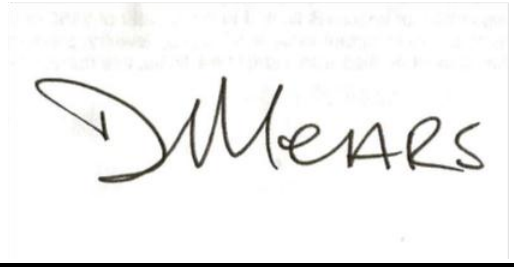
Data Acquired from Sub: None

Data Provided to USACE: None

Data Accepted by USACE: None

Comments:

FURTHER DISCUSSION (List Topic and Comment):

PREPARED BY:	**SIGNATURE:**
Donald Mears (SUXOS)	

Daily Quality Control Report

Project: Nantucket Beach, Former Nantucket Ordnance Site	
Site Location: Nantucket Island, MA	Date: July 6, 2012
Describe daily QC activities: Observed intrusive anomaly investigation in AC-01 grids 3, 14, 17and digital transect AC-01 T06. ***Grid QC***: **AC-01-G14.** ***Transect QC***: **AC-01-T06.** Located several instances of MD scrap meeting failure criteria in AC-01-T06 targets 5 & 11. The transect has been revisited/reworked by the dig team and removed two 2.25" SCAR rockets from target #5. Re-inspection of entire transect revealed no further discrepancies. Procedures were reviewed with the team leader to improve the process.	

Definable Feature of Work	***Inspection Description***	***Inspection performed***	***Result/Recommendation***
Ground Reconnaissance	Ensure equipment is available, properly operated and maintained.	Follow up	Satisfactory
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory
	Ensure the appropriate exclusion zones are established and maintained in active work areas.	Follow up	Satisfactory
	Confirm UXO teams are recording/logging all required parameters during item recovery.	Follow up	Satisfactory
Munitions and explosives of concern intrusive activities	Verify all seed items have been recovered within a specific grid or area.	Follow up	Satisfactory
	Conduct anomaly/area verification sampling when removal activities are complete in a grid or area.	Follow up	Unsatisfactory/Satisfactory
	Observe anomaly reacquisition/intrusive work accuracy and completeness.	Follow up	Satisfactory

	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory
Submitted by: D. Heusebruch			
Approved by: DMEARS		Approval date: 7/6/2012	



Figure 1 Anomaly investigation in AC-01-T06



- **Figure 2 3.5" Rocket warhead recovered from AC-01-G14 (target #5).**



- **Figure 3 Anomaly investigation in AC-01-G14.**

Environmental Protection Daily Report

Nantucket Beach, Former Nantucket Ordnance Site
a.k.a. Tom Nevers Rocket Projectile Target;
Tom Nevers Area, Formerly Used Defense Site
Project Number D01MA045601
Remedial Investigation

WORK ORDER NO.:	DATE	
03886.551.004.0011	6 July 2012	

ENVIRONMENTAL PROTECTION MONITOR (Name/Position)

WESTON

Katherine Morrison / Project Scientist

WORK LOCATION: AC-01

WORK COMPLETED:

☒ Shorebird Monitoring/Impact Mitigation.
☒ Northern Harrier Monitoring/Impact Mitigation.
☐ American Burying Beetle Monitoring/Impact Mitigation.
☒ Marine Mammal Monitoring/Impact Mitigation.
☐ Vegetation Impact Monitoring/Mitigation
☐ Wetlands Impact Mitigation
☐ Site Water Runon/Runoff Control
☐ Site Restoration

Comments:

- Organizing and packing equipment.
- Work Plan organization at the library
- Assisted with Reac and monitored for Harrier nesting activity.

MONITORING OBSERVATIONS (species/activities observed):

- No species observed.

MITIGATION MEASURES IMPLEMENTED:

- No mitigation measures were required.

FURTHER DISCUSSION (List Topic and Comment):

- None

PREPARED BY:	SIGNATURE:
Katherine Morrison	

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-0006/0005/063 MAMMS05-070912-AAPP	03886-551-004	9 July 2012

WEATHER: AM Partly Sunny, 59 F, PM Sunny, 78 F, Winds 10 mph

WORK LOCATION: Russell's Way, New South Road, Tom Nevers Road, Milestone Road

VISITORS(Name/firm): Gerard Quealy (On Target Locator Services)

WESTON STAFF (Name/Position)

1. Katie Morrison (Biologist/Project Technician)
2. Donald Mears (Senior UXO Supervisor)
3. Dennis Houseknecht (UXO QC/Safety)
4. Timothy Rodriguez (UXO Tech III)
5. Noah Bullock (UXO Tech II)
6. Marc Atherton (UXO Tech II)
7. Jason Brawner (UXO Tech I)

SUBCONTRACT STAFF (Name/Position)

1. VR Habilis (Mike Shaw UXO Tech III/Demo Leader)

WORK COMPLETED:

- ☐ Surveyor activities.
- ☒ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☒ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments:

The dig team completed intrusive anomaly investigations in AC-01-G13, AC-01-T05, and AC-01-T09. They also completed AC-01-G03 and located one 5" HVAR rocket, AC-01-T04 and located one 5" HVAR rocket and AC-01-01-G07 and located one 5" HVAR rocket. Demo procedures were conducted on the three 5" HVAR rockets. All munitions were practice.

During the course of today's intrusive investigations the dig team also located and removed twelve 2.25" SCAR rockets.

Photos for today activities are included in the QC report.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

PROBLEMS/RESOLUTIONS:

DATA TRACKING:

Items Confirmed: None

Analog Survey Transects: None

Items Found Today: None

DGM Grids: None

DGM Grids Reacquired: None

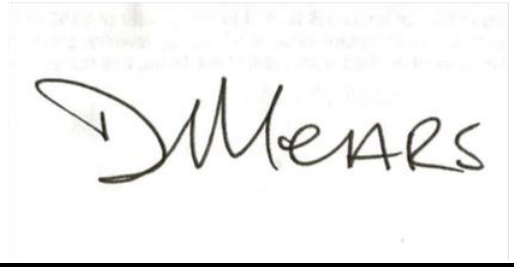
Data Acquired from Sub: None

Data Provided to USACE: None

Data Accepted by USACE: QARs for;
AC 01 G01, AC 01 T09, AC 01 T10, AC 01 T15, AC 01 T16, AC 01 G07, AC 01 G21
AC 02 T01, AC 02 T02, and AC 02 T03AC 02 T03
AC 02 T03AC
AC 04 T01, AC 04 T02, AC 04 T03, and AC 04 T04AC 05
AC 05 T01, AC 05 T02, and AC 05 T03,

Comments:

FURTHER DISCUSSION (List Topic and Comment):

PREPARED BY:	**SIGNATURE:**
Donald Mears (SUXOS)	

Daily Quality Control Report

Project: Nantucket Beach, Former Nantucket Ordnance Site			
Site Location: Nantucket Island, MA		Date: July 9, 2012	
Describe daily QC activities: Observed intrusive anomaly investigation in AC-01 grids 3, 7, 13 and 21 and digital transect AC-01 T04, 5, 6, 9 & 10. ***Grid QC***: **AC-01-G03, 07, 13 and 21.** ***Transect QC***: **AC-01-T04,T05 & T09.**			
Definable Feature of Work	***Inspection Description***	***Inspection performed***	***Result/Recommendation***
Ground Reconnaissance	Ensure equipment is available, properly operated and maintained.	Follow up	Satisfactory
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory
	Ensure the appropriate exclusion zones are established and maintained in active work areas.	Follow up	Satisfactory
	Confirm UXO teams are recording/logging all required parameters during item recovery.	Follow up	Satisfactory
Munitions and explosives of concern intrusive activities	Verify all seed items have been recovered within a specific grid or area.	Follow up	Satisfactory
	Conduct anomaly/area verification sampling when removal activities are complete in a grid or area.	Follow up	Satisfactory
	Observe anomaly reacquisition/intrusive work accuracy and completeness.	Follow up	Satisfactory

	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory
Submitted by: D. Heuseknecht			
Approved by: DMears		Approval date: 7/9/2012	



Figure 1 Team Leader verifying excavation is anomaly free before backfilling.



Figure 2 5" Rocket warhead protruding up from the ground.



Figure 3 5" rocket warhead on 3.5" rocket motor.

Environmental Protection Daily Report

Nantucket Beach, Former Nantucket Ordnance Site
a.k.a. Tom Nevers Rocket Projectile Target;
Tom Nevers Area, Formerly Used Defense Site
Project Number D01MA045601
Remedial Investigation

WORK ORDER NO.:	**DATE**	
03886.551.004.0011	9 July 2012	

ENVIRONMENTAL PROTECTION MONITOR (Name/Position)

WESTON

Katherine Morrison / Project Scientist

WORK LOCATION: AC-01

WORK COMPLETED:

☒ Shorebird Monitoring/Impact Mitigation.
☒ Northern Harrier Monitoring/Impact Mitigation.
☐ American Burying Beetle Monitoring/Impact Mitigation.
☒ Marine Mammal Monitoring/Impact Mitigation.
☐ Vegetation Impact Monitoring/Mitigation
☐ Wetlands Impact Mitigation
☐ Site Water Runon/Runoff Control
☐ Site Restoration

Comments:

- Organizing and packing equipment.
- Assisted with Demo operations.
- Assisted with Reac and monitored for Harrier nesting activity .

MONITORING OBSERVATIONS (species/activities observed):

- No species observed.

MITIGATION MEASURES IMPLEMENTED:

- No mitigation measures were required.

FURTHER DISCUSSION (List Topic and Comment):

- None

PREPARED BY:	**SIGNATURE:**
Katherine Morrison	

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-0006/0005/064 MAMMS05-071012-AAPQ	03886-551-004	10 July 2012

WEATHER: AM Partly Sunny, 60 F, PM Sunny, 78 F, Winds 5-10 mph

WORK LOCATION: Russell's Way, New South Road, Tom Nevers Road, Milestone Road

VISITORS(Name/firm): Gerard Quealy (On Target Locator Services)

WESTON STAFF (Name/Position)

1. Katie Morrison (Biologist/Project Technician)
2. Donald Mears (Senior UXO Supervisor)
3. Dennis Houseknecht (UXO QC/Safety)
4. Timothy Rodriguez (UXO Tech III)
5. Noah Bullock (UXO Tech II)
6. Marc Atherton (UXO Tech II)
7. Jason Brawner (UXO Tech I)

SUBCONTRACT STAFF (Name/Position)

1. VR Habilis (Mike Shaw UXO Tech III/Demo Leader)

WORK COMPLETED:

- ☐ Surveyor activities.
- ☒ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☒ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments: The dig team completed intrusive anomaly investigations in the following grids and transects
AC-01-G17
AC-01-T10
AC-01-T11
AC-01-T16

AC-02-T03
AC-02-T04
AC-04-T01
AC-05-G01
AC-05-G02
AC-05-G03
AC-05-G04
AC-05-G05
AC-05-G06
AC-05-G07
AC-05-G08
AC-05-T01
AC-05-T02
AC-05-T03

They also dug in AC-01-G12 (17 flags remaining all excavator digs) Total digs for today: 60

The dig team located six 3.5" rockets, six 2.25 rockets SCAR, one 5" HVAR rocket with inert filler (no action required), one piece of frag 2' by 8" (Photo in QC report Transect AC-01-T11 Target #1), one survey maker, one set of rocket fins and nice items of culture debris.

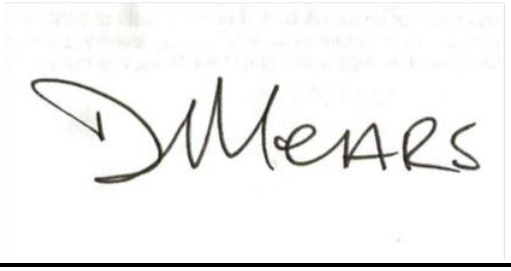
Photos for today activities are included in the QC report.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

PROBLEMS/RESOLUTIONS:

DATA TRACKING:

Items Confirmed: None
Analog Survey Transects: None
Items Found Today: None
DGM Grids: None
DGM Grids Reacquired: None
Data Acquired from Sub: None
Data Provided to USACE: None
Data Accepted by USACE: None

Comments:	
FURTHER DISCUSSION (List Topic and Comment):	
PREPARED BY: **Donald Mears (SUXOS)**	**SIGNATURE:** 

Daily Quality Control Report

Project: Nantucket Beach, Former Nantucket Ordnance Site			
Site Location: Nantucket Island, MA		Date: July 10, 2012	
Describe daily QC activities: Observed intrusive anomaly investigation in AC-01 T10, T11 and G12. ***Grid QC***: **AC-01-G09, AC-01-G10 & AC-01-G17; also AC05 grids 1 thru 8.** ***Transect QC***: **AC-01-T10, 11 & T16; also AC-04-T01.**			
Definable Feature of Work	***Inspection Description***	***Inspection performed***	***Result/Recommendation***
Ground Reconnaissance	Ensure equipment is available, properly operated and maintained.	Follow up	Satisfactory
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory
	Ensure the appropriate exclusion zones are established and maintained in active work areas.	Follow up	Satisfactory
	Confirm UXO teams are recording/logging all required parameters during item recovery.	Follow up	Satisfactory
Munitions and explosives of concern intrusive activities	Verify all seed items have been recovered within a specific grid or area.	Follow up	Satisfactory
	Conduct anomaly/area verification sampling when removal activities are complete in a grid or area.	Follow up	Satisfactory
	Observe anomaly reacquisition/intrusive work accuracy and completeness.	Follow up	Satisfactory

	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory

Submitted by: D. Heuselmecht

Approved by: DMeARS	Approval date: 7/10/2012



Fragment located in transect AC-01-T11 target #1.



3.5" rocket pieces from AC-01-T10.



Clearing the excavation of all metal

Environmental Protection Daily Report

Nantucket Beach, Former Nantucket Ordnance Site
a.k.a. Tom Nevers Rocket Projectile Target;
Tom Nevers Area, Formerly Used Defense Site
Project Number D01MA045601
Remedial Investigation

WORK ORDER NO.:	**DATE**	
03886.551.004.0011	10 July 2012	

ENVIRONMENTAL PROTECTION MONITOR (Name/Position)

WESTON

Katherine Morrison / Project Scientist

WORK LOCATION: AC-01

WORK COMPLETED:

☒ Shorebird Monitoring/Impact Mitigation.
☒ Northern Harrier Monitoring/Impact Mitigation.
☐ American Burying Beetle Monitoring/Impact Mitigation.
☒ Marine Mammal Monitoring/Impact Mitigation.
☐ Vegetation Impact Monitoring/Mitigation
☐ Wetlands Impact Mitigation
☐ Site Water Runon/Runoff Control
☐ Site Restoration

Comments:

- Organizing and packing equipment.
- Assisted with Reac and monitored for Harrier nesting activity .

MONITORING OBSERVATIONS (species/activities observed):

- No species observed.

MITIGATION MEASURES IMPLEMENTED:

- No mitigation measures were required.

FURTHER DISCUSSION (List Topic and Comment):

- None

PREPARED BY:	**SIGNATURE:**
Katherine Morrison	

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-0006/0005/065 MAMMS05-071112-AAPR	03886-551-004	11 July 2012

WEATHER: AM Partly Sunny, 60 F, PM Sunny, 78 F, Winds 5-10 mph

WORK LOCATION: Russell's Way, New South Road, Tom Nevers Road, Milestone Road

VISITORS(Name/firm): Gerard Quealy (On Target Locator Services)

WESTON STAFF (Name/Position)

1. Katie Morrison (Biologist/Project Technician)
2. Donald Mears (Senior UXO Supervisor)
3. Dennis Houseknecht (UXO QC/Safety)
4. Timothy Rodriguez (UXO Tech III)
5. Noah Bullock (UXO Tech II)
6. Marc Atherton (UXO Tech II)
7. Jason Brawner (UXO Tech I)

SUBCONTRACT STAFF (Name/Position)

1. VR Habilis (Mike Shaw UXO Tech III/Demo Leader)

WORK COMPLETED:

- ☐ Surveyor activities.
- ☒ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☒ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments: The dig team conducted intrusive anomaly investigations in the following grids and transects:
AC-01-G12 (1 flag remains/need excavator dig)
AC-01-T03 (transect not complete/needs 12 excavator digs)
AC-02-G02 (grid not complete)
AC-02-T03 (completed)

The dig team located the following items:

AC-01-G12: three 3.5" rocket warheads, nine 2.25" rockets SCAR, three 3.5" rocket motors, and four pieces of scrap
AC-01-T03: eight 3.5" rocket warheads, four 2.25" rockets SCAR, six 3.5" rocket motors and ten pieces of scrap
AC-01-G02: five 3.5" rocket warheads, three 3.5" rocket motors and two pieces of scrap

Photos for today activities are included in the QC report.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

One Kubota RTV 900 4x4 utility vehicle was delivered to the work site. This vehicle will support the mag and dig operations on the long transects south of Milestone Road.

Received 50 each Shaped Charges (RDX, 19.5) for demolition operations.

Received two schonstedts (hand held metal detectors) for the dig team.

PROBLEMS/RESOLUTIONS:

DATA TRACKING:

Items Confirmed: None

Analog Survey Transects: None

Items Found Today: None

DGM Grids: None

DGM Grids Reacquired: None

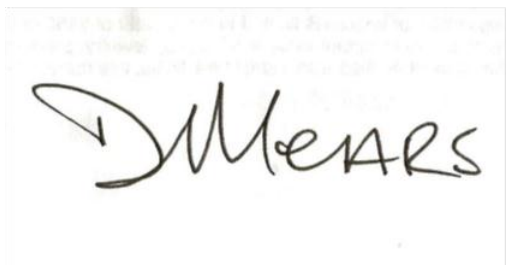
Data Acquired from Sub: None

Data Provided to USACE: None

Data Accepted by USACE: None

Comments:

FURTHER DISCUSSION (List Topic and Comment):

PREPARED BY:	**SIGNATURE:**
Donald Mears (SUXOS)	

Daily Quality Control Report

Project: Nantucket Beach, Former Nantucket Ordnance Site			
Site Location: Nantucket Island, MA		Date: July 11, 2012	
Describe daily QC activities: Observed intrusive anomaly investigation in AC01-T02 & T03, and AC-02-T02/T03. Also AC01-G12. ***Grid QC***: ***Transect QC***: AC-02-T02/T03. (Too many targets remain at depth in AC-01-T03 to perform QC.)			
Definable Feature of Work	***Inspection Description***	***Inspection performed***	***Result/Recommendation***
Munitions and explosives of concern intrusive activities	Verify all seed items have been recovered within a specific grid or area.	Follow up	Satisfactory
	Conduct anomaly/area verification sampling when removal activities are complete in a grid or area.	Follow up	Satisfactory
	Observe anomaly reacquisition/intrusive work accuracy and completeness.	Follow up	Satisfactory
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory
Submitted by: D. Heuseknecht			
Approved by: DMears		Approval date: 7/11/2012	



- **Investigating targets in AC-01-T03.**



- **AC-01-T03**



- **2.25” Sub-caliber aerial rocket (SCAR) recovered in AC-01-G12**

Environmental Protection Daily Report

Nantucket Beach, Former Nantucket Ordnance Site
a.k.a. Tom Nevers Rocket Projectile Target;
Tom Nevers Area, Formerly Used Defense Site
Project Number D01MA045601
Remedial Investigation

WORK ORDER NO.:	**DATE**	
03886.551.004.0011	11 July 2012	

ENVIRONMENTAL PROTECTION MONITOR (Name/Position)

WESTON

Katherine Morrison / Project Scientist

WORK LOCATION: AC-01

WORK COMPLETED:

☒ Shorebird Monitoring/Impact Mitigation.
☒ Northern Harrier Monitoring/Impact Mitigation.
☐ American Burying Beetle Monitoring/Impact Mitigation.
☒ Marine Mammal Monitoring/Impact Mitigation.
☐ Vegetation Impact Monitoring/Mitigation
☐ Wetlands Impact Mitigation
☐ Site Water Runon/Runoff Control
☐ Site Restoration

Comments:

- Organizing and packing equipment.
- Assisted with Reac and monitored for Harrier nesting activity.

MONITORING OBSERVATIONS (species/activities observed):

- No species observed.

MITIGATION MEASURES IMPLEMENTED:

- No mitigation measures were required.

FURTHER DISCUSSION (List Topic and Comment):

- None

PREPARED BY:	**SIGNATURE:**
Katherine Morrison	

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-0006/0005/066 MAMMS05-071212-AAPS	03886-551-004	12 July 2012

WEATHER: AM Partly Sunny, 62 F, PM Sunny, 75 F, Winds 10-15 mph

WORK LOCATION: Russell's Way, New South Road, Tom Nevers Road, Milestone Road

VISITORS(Name/firm):

WESTON STAFF (Name/Position)

1. Katie Morrison (Biologist/Project Technician)
2. Donald Mears (Senior UXO Supervisor)
3. Dennis Houseknecht (UXO QC/Safety)
4. Timothy Rodriguez (UXO Tech III)
5. Noah Bullock (UXO Tech II)
6. Marc Atherton (UXO Tech II)
7. Jason Brawner (UXO Tech I)

SUBCONTRACT STAFF (Name/Position)

1. VR Habilis (Mike Shaw UXO Tech III/Demo Leader)
2. Toscana (John Sherman/Eric Rogers)

WORK COMPLETED:

- ☐ Surveyor activities.
- ☒ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☒ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☒ Clearing/Vegetation Removal

Comments:

The dig team conducted intrusive anomaly investigations in the following grids:

AC-01-G12 (Completed. Located one 5" HVAR rocket)

AC-01-G02 (grid not complete) Located three 5" HVAR rockets, five 2.25" SCAR rockets, six 3.5" rockets, ten pieces of MD and eight pieces of scrap.

AC-02-G04 (grid not complete) Located two 3.5" rockets and three 2.25" SCAR rockets.

Demolitions procedures were conducted on five 5" HVAR rocket. All the rockets were practice.

Toscana escorted by the UXO Tech II completed clearing/vegetation removal in the analog transects AC-01-0T2, AC-01-T03, AC-01-T04, AC-01-T05 and AC-01-T06 north of Milestone Road. They also completed operations in analog transects AC-01-T01, AC-01-T02 and AC-01-T03 which are south of Milestone Road.

Photos for today activities are included in the QC report.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

PROBLEMS/RESOLUTIONS:

DATA TRACKING:

Items Confirmed: None

Analog Survey Transects: None

Items Found Today: None

DGM Grids: None

DGM Grids Reacquired: None

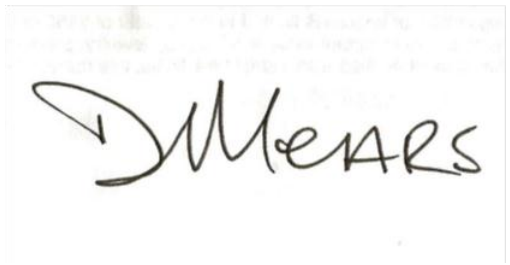
Data Acquired from Sub: None

Data Provided to USACE: None

Data Accepted by USACE: None

Comments:

FURTHER DISCUSSION (List Topic and Comment):

PREPARED BY:	**SIGNATURE:**
Donald Mears (SUXOS)	

Daily Quality Control Report

Project: Nantucket Beach, Former Nantucket Ordnance Site			
Site Location: Nantucket Island, MA		Date: July 12, 2012	
Describe daily QC activities: Observed intrusive anomaly investigation in AC01-G02, G04 and G12. ***Grid QC***: None today ***Transect QC***: None today			
Definable Feature of Work	***Inspection Description***	***Inspection performed***	***Result/Recommendation***
Munitions and explosives of concern intrusive activities	Verify all seed items have been recovered within a specific grid or area.	Follow up	Satisfactory
	Conduct anomaly/area verification sampling when removal activities are complete in a grid or area.	Follow up	Satisfactory
	Observe anomaly reacquisition/intrusive work accuracy and completeness.	Follow up	Satisfactory
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory
Submitted by: D. Heuschneider			
Approved by: DMears		Approval date: 7/12/2012	



Figure 1 SCAR rockets recovered from grid AC-01-02



- **Figure 3 SUXOS observing team production.**

Environmental Protection Daily Report

Nantucket Beach, Former Nantucket Ordnance Site
a.k.a. Tom Nevers Rocket Projectile Target;
Tom Nevers Area, Formerly Used Defense Site
Project Number D01MA045601
Remedial Investigation

WORK ORDER NO.:	**DATE**	
03886.551.004.0011	12 July 2012	

ENVIRONMENTAL PROTECTION MONITOR (Name/Position)

WESTON

Katherine Morrison / Project Scientist

WORK LOCATION: AC-01

WORK COMPLETED:

☒ Shorebird Monitoring/Impact Mitigation.
☒ Northern Harrier Monitoring/Impact Mitigation.
☐ American Burying Beetle Monitoring/Impact Mitigation.
☒ Marine Mammal Monitoring/Impact Mitigation.
☐ Vegetation Impact Monitoring/Mitigation
☐ Wetlands Impact Mitigation
☐ Site Water Runon/Runoff Control
☐ Site Restoration

Comments:

- Organizing and packing equipment.
- Training on new PDA and GPS units..
- Assisted with Reac and monitored for Harrier nesting activity.

MONITORING OBSERVATIONS (species/activities observed):

- No species observed.

MITIGATION MEASURES IMPLEMENTED:

- No mitigation measures were required.

FURTHER DISCUSSION (List Topic and Comment):

- None

PREPARED BY:	**SIGNATURE:**
Katherine Morrison	

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-0006/0005/067 MAMMS05-071312-AAPT	03886-551-004	13 July 2012

WEATHER: AM Partly Sunny, 63 F, PM Sunny, 77 F, Winds 5-10 mph

WORK LOCATION: Russell's Way, New South Road, Tom Nevers Road, Milestone Road

VISITORS(Name/firm):

WESTON STAFF (Name/Position)

1. Katie Morrison (Biologist/Project Technician)
2. Donald Mears (Senior UXO Supervisor)
3. Dennis Houseknecht (UXO QC/Safety)
4. Timothy Rodriguez (UXO Tech III)
5. Noah Bullock (UXO Tech II)
6. Marc Atherton (UXO Tech II)
7. Jason Brawner (UXO Tech I)

SUBCONTRACT STAFF (Name/Position)

1. VR Habilis (Mike Shaw UXO Tech III/Demo Leader)

WORK COMPLETED:

- ☐ Surveyor activities.
- ☒ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☒ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments: The dig team conducted intrusive anomaly investigations in the following grids and transects:
AC-09 (23 flags could not be dug due to being in the water, in wetlands or vegetation was too thick)
AC-01-T08 (not complete two flags need excavator)
AC-01-G02 (not complete needs excavator on all remaining digs) NOTE: Team dug to 8' on some items, some holes were layered with munitions (a rocket several inches of dirt and then another rocket), some holes took up to an hour to clear

The dig team located the following items:
AC-09: Located only CD in this area.
AC-01-T08:Located on MD that included rocket fins
AC-01-G02: Located Six 5" HVAR rockets, thirteen 3.5" rocket warheads/motors, twenty 2.25" SCAR rockets, ten pieces of MD and seven pieces of scrap

.
Demo Operations:

Seven 5" HVAR rockets (all practice)

Photos for today activities are included in the QC report.

MATERIALS DELIVERED (Amount, Condition, and Purpose):
Received 40 each Electric Detonators for demolition operations.

PROBLEMS/RESOLUTIONS:

DATA TRACKING:

Items Confirmed: None

Analog Survey Transects: None

Items Found Today: None

DGM Grids: None

DGM Grids Reacquired: None

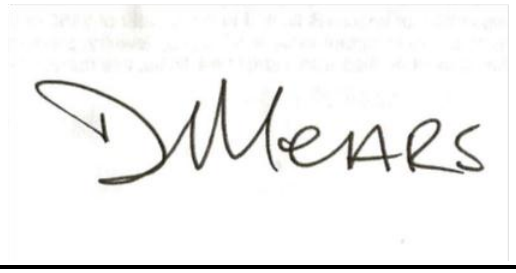
Data Acquired from Sub: None

Data Provided to USACE: None

Data Accepted by USACE: None

Comments:

FURTHER DISCUSSION (List Topic and Comment):

PREPARED BY:	**SIGNATURE:**
Donald Mears (SUXOS)	

Daily Quality Control Report

Project: Nantucket Beach, Former Nantucket Ordnance Site			
Site Location: Nantucket Island, MA		Date: July 13, 2012	
Describe daily QC activities: Observed intrusive anomaly investigation in AC-01-G02 and G04. ***Grid QC***: AC-01-G12 and AC-09. ***Transect QC***: None today			
Definable Feature of Work	***Inspection Description***	***Inspection performed***	***Result/Recommendation***
Munitions and explosives of concern intrusive activities	Verify all seed items have been recovered within a specific grid or area.	Follow up	Satisfactory
	Conduct anomaly/area verification sampling when removal activities are complete in a grid or area.	Follow up	Satisfactory
	Observe anomaly reacquisition/intrusive work accuracy and completeness.	Follow up	Satisfactory
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory
Submitted by: D. Heuschneider			
Approved by: D Mears		Approval date: 7/13/2012	



- **Figure 1 Reacquiring targets in AC-09**



- **Figure 2 Sample of the MD recovered from AC01-G02.**



- **Figure 3 5" rocket warhead MK 1 after demo shot.**



- **Figure 4 MK 6 5" warhead nose down.**

Environmental Protection Daily Report

Nantucket Beach, Former Nantucket Ordnance Site
a.k.a. Tom Nevers Rocket Projectile Target;
Tom Nevers Area, Formerly Used Defense Site
Project Number D01MA045601
Remedial Investigation

WORK ORDER NO.:	DATE	
03886.551.004.0011	13 July 2012	

ENVIRONMENTAL PROTECTION MONITOR (Name/Position)

WESTON

Katherine Morrison / Project Scientist

WORK LOCATION: AC-01

WORK COMPLETED:

☒ Shorebird Monitoring/Impact Mitigation.
☒ Northern Harrier Monitoring/Impact Mitigation.
☐ American Burying Beetle Monitoring/Impact Mitigation.
☒ Marine Mammal Monitoring/Impact Mitigation.
☐ Vegetation Impact Monitoring/Mitigation
☐ Wetlands Impact Mitigation
☐ Site Water Runon/Runoff Control
☐ Site Restoration

Comments:

- Organizing and packing equipment.
- Training on new PDA and GPS units.
- Assisted with Demo Operations.
- Assisted with Reac and monitored for Harrier nesting activity.

MONITORING OBSERVATIONS (species/activities observed):

- No species observed.

MITIGATION MEASURES IMPLEMENTED:

- No mitigation measures were required.

FURTHER DISCUSSION (List Topic and Comment):

- A small hydraulic leak was identified on the mini excavator in AC-01-G02 on parcel 91 1 at 0910 hours on 7/13/2012 .The equipment was taken out of service, the spill (less than a gallon) along with all soil media were immediately containerized and the vendor notified for handling and disposal.

PREPARED BY:	SIGNATURE:
Katherine Morrison	

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-0006/0005/068 MAMMS05-071612-AAPU	03886-551-004	16 July 2012

WEATHER: AM Partly Sunny, 64 F, PM Sunny, 79 F, Winds 5-10 mph

WORK LOCATION: Russell's Way, New South Road, Tom Nevers Road, Milestone Road

VISITORS(Name/firm):

WESTON STAFF (Name/Position)

1. Katie Morrison (Biologist/Project Technician)
2. Donald Mears (Senior UXO Supervisor)
3. Dennis Houseknecht (UXO QC/Safety)
4. Timothy Rodriguez (UXO Tech III)
5. Noah Bullock (UXO Tech II)
6. Marc Atherton (UXO Tech II)
7. Jason Brawner (UXO Tech
8. Chris Kane (Project Manager)

SUBCONTRACT STAFF (Name/Position)

1. VR Habilis (Mike Shaw UXO Tech III/Demo Leader)

I)

WORK COMPLETED:

- ☐ Surveyor activities.
- ☒ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☒ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments: The dig team conducted intrusive anomaly investigations in the following grid:

AC-01-G02 (All the digs were done by the excavator and were very deep. For the most part to a depth of 6' or deeper)

Nine Targets were cleared.

The dig team located the following items:

AC-01-G02 **Eight** 3.5" rocket warheads/motors, **Seventeen** 2.25" SCAR rockets and **Seventy-Five** pieces of scrap (See photo Figure #1 in QC report) Total weight approximately 800 pounds.

Mag and dig operations were conducted in the following transects:
A01-T02 (North of Milestone Road)
A01-T03 (North of Milestone Road)
A01-T04 (North of Milestone Road)
AO1-T05 (North of Milestone Road)
A01-T06 (North of Milestone Road)
A01-T01 (South of Milestone Road)
A01-T10 (South of Milestone Road)
A01-T11 (South of Milestone Road)
A01-T12 (South of Milestone Road)
A01-T13 (South of Milestone Road)
A01-T14 (South of Milestone Road)
A01-T15 (South of Milestone Road)
A01-T16 (South of Milestone Road)
A01-T17 (South of Milestone Road)
A01-T18 (South of Milestone Road)
A01-T19 (South of Milestone Road)
A01-T20 (South of Milestone Road)
A01-T21 (South of Milestone Road)
A01-T22 (South of Milestone Road)
A01-T23 (South of Milestone Road)
A01-T24 (South of Milestone Road)
A02-T02 (South of Milestone Road)
A02-T03 (South of Milestone Road)
A02-T04 (South of Milestone Road)

.

Photos for today activities are included in the QC report.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

PROBLEMS/RESOLUTIONS:

DATA TRACKING:

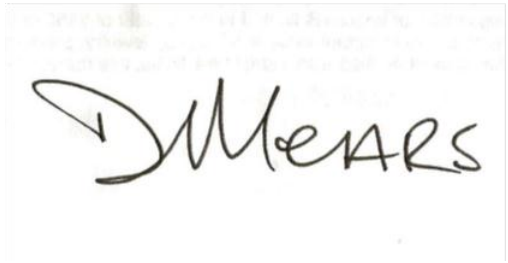
Items Confirmed: None

Analog Survey Transects: None

Items Found Today: None

DGM Grids: None

DGM Grids Reacquired: None
Data Acquired from Sub: None
Data Provided to USACE: None
Data Accepted by USACE: None
Comments:
FURTHER DISCUSSION (List Topic and Comment):

PREPARED BY:	**SIGNATURE:**
Donald Mears (SUXOS)	

Daily Quality Control Report

Project: Nantucket Beach, Former Nantucket Ordnance Site			
Site Location: Nantucket Island, MA		Date: July 16, 2012	
Describe daily QC activities: Observed intrusive anomaly investigation in AC01-G02 and transects in AO-01 and AO-02. ***Grid QC***: ***Transect QC***: AO2 T1 – T3 and AO1-T2 thru T6, and T10 thru T24.			
Definable Feature of Work	***Inspection Description***	***Inspection performed***	***Result/Recommendation***
Munitions and explosives of concern intrusive activities	Verify all seed items have been recovered within a specific grid or area.	Follow up	Satisfactory
	Conduct anomaly/area verification sampling when removal activities are complete in a grid or area.	Follow up	Satisfactory
	Observe anomaly reacquisition/intrusive work accuracy and completeness.	Follow up	Satisfactory
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory
Submitted by: D. Heuseknecht			
Approved by: DMears		Approval date: 7/16/2012	



- **Figure 1 Scrap removed from 9 targets in grid AC-01G02**



- **Figure 2 Clearing analog transects**



- **Figure 3 Tea Kettle recovered along analog transect**



- **Figure 4 Tea Kettle on analog transect**

Environmental Protection Daily Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation

WORK ORDER NO.:	DATE	
03886.551.004.0011	16 July 2012	

ENVIRONMENTAL PROTECTION MONITOR (Name/Position)

WESTON

Katherine Morrison / Project Scientist

WORK LOCATION: Area 1

WORK COMPLETED:

☒ Shorebird Monitoring/Impact Mitigation.
☒ Northern Harrier Monitoring/Impact Mitigation.
☐ American Burying Beetle Monitoring/Impact Mitigation.
☒ Marine Mammal Monitoring/Impact Mitigation.
☐ Vegetation Impact Monitoring/Mitigation
☐ Wetlands Impact Mitigation
☐ Site Water Runon/Runoff Control
☐ Site Restoration

Comments:

- Organizing and packing equipment.
- Assisted with analog transects Area 2 A02-T01, A02-T02 and A02-T03, Area 1 A01-T2 thru T6 and Area 1 A01-T010 through T24 (while monitoring for Harrier activity.

MONITORING OBSERVATIONS (species/activities observed):

- No species observed.

MITIGATION MEASURES IMPLEMENTED:

- No mitigation measures were required.

FURTHER DISCUSSION (List Topic and Comment):

- None

PREPARED BY:	SIGNATURE:
Katherine Morrison	

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-0006/0005/069 MAMMS05-071712-AAPV	03886-551-004	17 July 2012

WEATHER: AM Partly Sunny, 69 F, PM Sunny, 80 F, Winds10-20 mph

WORK LOCATION: Russell's Way, New South Road, Tom Nevers Road, Milestone Road

VISITORS(Name/firm):

WESTON STAFF (Name/Position)

1. Katie Morrison (Biologist/Project Technician)
2. Donald Mears (Senior UXO Supervisor)
3. Dennis Houseknecht (UXO QC/Safety)
4. Timothy Rodriguez (UXO Tech III)
5. Noah Bullock (UXO Tech II)
6. Marc Atherton (UXO Tech II)
7. Jason Brawner (UXO Tech
8. Chris Kane (Project Manager)

SUBCONTRACT STAFF (Name/Position)

1. VR Habilis (Mike Shaw UXO Tech III/Demo Leader)

I)

WORK COMPLETED:

- ☐ Surveyor activities.
- ☒ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☒ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments: The dig team conducted intrusive anomaly investigations in the following grids:

AC-01-G02 (All the digs were done by the excavator)
AC-01-G08 (All the digs were done by the excavator)
AC-01-G04 (All the digs were done by the excavator)

Targets were cleared. 23

The dig team located the following items:

AC-01-G02
Thirteen 2.25" SCAR rockets**, One** 3.5" rocket motor**, One** 3.5" rocket warhead and 40 pounds of scrap

AC-01-G08
Ten 2.25" SCAR rockets, **One** 3.5" rocket motor and 50 pounds of scrap

AC-01-G04
One 2.25" SCAR rocket and **One** 3.5" rocket motor and 50 pounds of scrap

Mag and dig operations were conducted in the following transects:
A01-T02 (South of Milestone Road)
A01-T03 (South of Milestone Road)
A01-T04 (South of Milestone Road)
A01-T05 (South of Milestone Road)
A01-T13 (South of Milestone Road)
A01-T06 (South of Milestone Road)

.

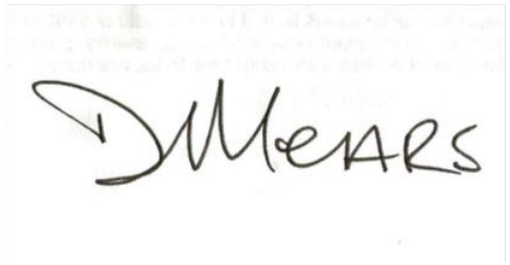
Photos for today activities are included in the QC report.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

PROBLEMS/RESOLUTIONS:

DATA TRACKING:

Items Confirmed: None
Analog Survey Transects: None
Items Found Today: None
DGM Grids: None
DGM Grids Reacquired: None
Data Acquired from Sub: None
Data Provided to USACE: None
Data Accepted by USACE: None

Comments:	
FURTHER DISCUSSION (List Topic and Comment):	
PREPARED BY: **Donald Mears (SUXOS)**	**SIGNATURE:** 

Daily Quality Control Report

Project: Nantucket Beach, Former Nantucket Ordnance Site			
Site Location: Nantucket Island, MA		Date: July 17, 2012	
Describe daily QC activities: ***Grid QC***: ***Transect QC***: AC-01 T02 - 06.			
Definable Feature of Work	***Inspection Description***	***Inspection performed***	***Result/Recommendation***
Munitions and explosives of concern intrusive activities	Verify all seed items have been recovered within a specific grid or area.	Follow up	Satisfactory
	Conduct anomaly/area verification sampling when removal activities are complete in a grid or area.	Follow up	Satisfactory
	Observe anomaly reacquisition/intrusive work accuracy and completeness.	Follow up	Satisfactory
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory
Submitted by: D. Heuschneider			
Approved by: DMEARS		Approval date: 7/17/2012	



- **Figure 1 MD scrap removed from 4 targets on grid AC-01-G08**



- **Figure 2 MD scrap removed from grid AC-01-G02**



- **Figure 3 Analog transect AC-01 T02**

Environmental Protection Daily Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation

WORK ORDER NO.:	DATE	
03886.551.004.0011	17 July 2012	

ENVIRONMENTAL PROTECTION MONITOR (Name/Position)

WESTON

Katherine Morrison / Project Scientist

WORK LOCATION: Area 1

WORK COMPLETED:

☒ Shorebird Monitoring/Impact Mitigation.
☒ Northern Harrier Monitoring/Impact Mitigation.
☐ American Burying Beetle Monitoring/Impact Mitigation.
☒ Marine Mammal Monitoring/Impact Mitigation.
☐ Vegetation Impact Monitoring/Mitigation
☐ Wetlands Impact Mitigation
☐ Site Water Runon/Runoff Control
☐ Site Restoration

Comments:

- Organizing and packing equipment.
- Assisted with Reac in AC-01-G04 and AC-01-G02 while monitoring for Harrier nests.
- Administrative tasks for the project.

MONITORING OBSERVATIONS (species/activities observed):

- No species observed.

MITIGATION MEASURES IMPLEMENTED:

- No mitigation measures were required.

FURTHER DISCUSSION (List Topic and Comment):

- None

PREPARED BY:	SIGNATURE:
Katherine Morrison	

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-0006/0005/070 MAMMS05-071812-AAPW	03886-551-004	18 July 2012

WEATHER: AM Partly Sunny, 69 F, PM Sunny, 80 F, Winds10-20 mph

WORK LOCATION: Russell's Way, New South Road, Tom Nevers Road, Milestone Road

VISITORS(Name/firm):

WESTON STAFF (Name/Position)

1. Katie Morrison (Biologist/Project Technician)
2. Donald Mears (Senior UXO Supervisor)
3. Dennis Houseknecht (UXO QC/Safety)
4. Timothy Rodriguez (UXO Tech III)
5. Noah Bullock (UXO Tech II)
6. Marc Atherton (UXO Tech II)
7. Jason Brawner (UXO Tech I)
8. Chris Kane (Project Manager)

SUBCONTRACT STAFF (Name/Position)

1. VR Habilis (Mike Shaw UXO Tech III/Demo Leader)

WORK COMPLETED:

- ☐ Surveyor activities.
- ☒ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☒ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments: The dig team conducted intrusive anomaly investigations in the following grids and transect:

AC-01-T08 (Completed)
AC 09 (Not complete, Seven flags were in either the water, wetlands or in vegetation too thick)
AC-01-G04 (Not complete, Digs are deep and holes are layered with rockets and scrap. All require excavator work)
AC-01-G08 (Not complete, Digs are deep and require excavator work)

Targets were cleared. 39

The dig team located the following items in the below listed transect and grids:

AC-01-T08
Two 2.25" SCAR rockets
AC-01-G04

Twenty 2.25" SCAR rockets, Twenty Four rocket motors, Three 3.5" rocket warhead, Ten pieces of MD. Total weight: 194 pounds
AC-01-G08

One 3.5" rocket motor

Mag and dig operations were conducted in the following transects:
A01-T07 (South of Milestone Road)
A01-T08 (South of Milestone Road)
A01-T09 (South of Milestone Road)

All the analog transects along Milestone Road are complete.

Photos for today activities are included in the QC report.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

PROBLEMS/RESOLUTIONS:

DATA TRACKING:

Items Confirmed: None

Analog Survey Transects: None

Items Found Today: None

DGM Grids: None

DGM Grids Reacquired: None

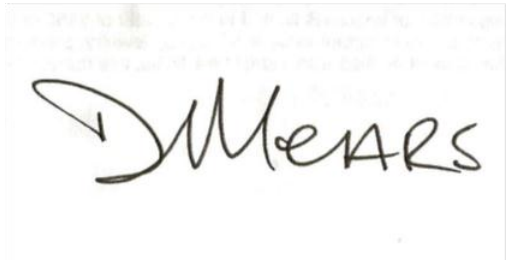
Data Acquired from Sub: None

Data Provided to USACE: None

Data Accepted by USACE: None

Comments:

FURTHER DISCUSSION (List Topic and Comment):

PREPARED BY:	**SIGNATURE:**
Donald Mears (SUXOS)	

Daily Quality Control Report

Project: Nantucket Beach, Former Nantucket Ordnance Site			
Site Location: Nantucket Island, MA		Date: July 18, 2012	
Describe daily QC activities: Observed intrusive investigation in grids AC-01 G04 and G08 and in AC09. ***Grid QC***: ***Transect QC***: AC-01 T07, T08 andT09. This completes all analog transects.			
Definable Feature of Work	***Inspection Description***	***Inspection performed***	***Result/Recommendation***
Munitions and explosives of concern intrusive activities	Verify all seed items have been recovered within a specific grid or area.	Follow up	Satisfactory
	Conduct anomaly/area verification sampling when removal activities are complete in a grid or area.	Follow up	Satisfactory
	Observe anomaly reacquisition/intrusive work accuracy and completeness.	Follow up	Satisfactory
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory
Submitted by: D. Heuschneider			
Approved by: DMears		Approval date: 7/18/2012	



- **Figure 1 Hand excavating a 3.5" rocket.**



- **Figure 2 Team leader checking excavation for completion.**



- **Figure 3 MD scrap removed from grid AC-01 G04**



- **Figure 4 Manual excavation in grid AC-01-G08**

Environmental Protection Daily Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site
Project Number D01MA045601
Remedial Investigation

WORK ORDER NO.:	DATE	
03886.551.004.0011	18 July 2012	

ENVIRONMENTAL PROTECTION MONITOR (Name/Position)

WESTON

Katherine Morrison / Project Scientist

WORK LOCATION: Area 1

WORK COMPLETED:

☒ Shorebird Monitoring/Impact Mitigation.
☒ Northern Harrier Monitoring/Impact Mitigation.
☐ American Burying Beetle Monitoring/Impact Mitigation.
☒ Marine Mammal Monitoring/Impact Mitigation.
☐ Vegetation Impact Monitoring/Mitigation
☐ Wetlands Impact Mitigation
☐ Site Water Runon/Runoff Control
☐ Site Restoration

Comments:

- Organizing and packing equipment.
- Assisted with Reac in AC-09 while monitoring for Harrier nests.
- Administrative tasks for the project.

MONITORING OBSERVATIONS (species/activities observed):

- No species observed.

MITIGATION MEASURES IMPLEMENTED:

- No mitigation measures were required.

FURTHER DISCUSSION (List Topic and Comment):

- None

PREPARED BY:	SIGNATURE:
Katherine Morrison	

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-0006/0005/071 MAMMS05-071912-AAPX	03886-551-004	19 July 2012

WEATHER: AM Partly Sunny, 65 F, PM Sunny, 77 F, Winds 22 mph

WORK LOCATION: Russell's Way, New South Road, Tom Nevers Road, Milestone Road

VISITORS(Name/firm):

WESTON STAFF (Name/Position)

1. Katie Morrison (Biologist/Project Technician)
2. Donald Mears (Senior UXO Supervisor)
3. Timothy Rodriguez (UXO QC/Safety)
4. Thomas Calix (UXO Tech III)
5. Noah Bullock (UXO Tech II)
6. Marc Atherton (UXO Tech II)
7. Jason Brawner (UXO Tech

SUBCONTRACT STAFF (Name/Position)

1. VR Habilis (Mike Shaw UXO Tech III/Demo Leader)

WORK COMPLETED:

- ☐ Surveyor activities.
- ☒ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☒ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments: The dig team conducted intrusive anomaly investigations in the following grids:

AC-01-G04 (Not complete, Digs are deep and holes are layered with rockets and scrap. All require excavator work)
AC-01-G08 (Not complete, Digs are deep and require excavator work)
Targets cleared: 33
The dig team located the following items in the below listed grids:

AC-01-G04
Eleven 2.25" SCAR rockets, Eighteen 3.5" rocket warheads/rocket motors, Sixty- Three pieces of MD
AC-01-G08
One 2.25" SCAR rockets, Five 3.5" rocket warheads/rocket motors, Five pieces of MD and Nine pieces of scrap

Photos not included in QC report.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

Second excavator on site.
Received demo shipment (1,000 feet of detonating cord)

PROBLEMS/RESOLUTIONS:

DATA TRACKING:

Items Confirmed: None

Analog Survey Transects: None

Items Found Today: None

DGM Grids: None

DGM Grids Reacquired: None

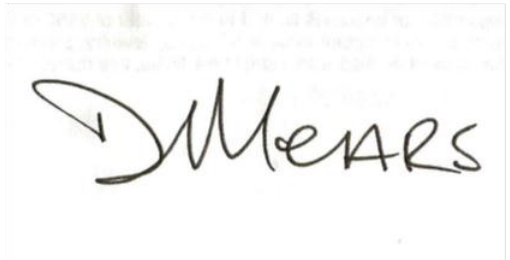
Data Acquired from Sub: None

Data Provided to USACE: None

Data Accepted by USACE: None

Comments:

FURTHER DISCUSSION (List Topic and Comment):

PREPARED BY:	**SIGNATURE:**
Donald Mears (SUXOS)	

Daily Quality Control Report

Project: Nantucket Beach, Former Nantucket Ordnance Site			
Site Location: Nantucket Island, MA		Date: July 19, 2012	
Describe daily QC activities: Observed intrusive investigation in grids AC-01 G04 and G08. ***Grid QC***: ***Transect QC***:			
Definable Feature of Work	***Inspection Description***	***Inspection performed***	***Result/Recommendation***
Munitions and explosives of concern intrusive activities	Verify all seed items have been recovered within a specific grid or area.	Follow up	Satisfactory
	Conduct anomaly/area verification sampling when removal activities are complete in a grid or area.	Follow up	Satisfactory
	Observe anomaly reacquisition/intrusive work accuracy and completeness.	Follow up	Satisfactory
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory

:

Submitted by:

Approved by:	Approval date: 7/19/2012



Figure 1 Team Leader checking hole in AC-01-G04



Figure 2 Team Locating Target in AC-01-G08

Environmental Protection Daily Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation

WORK ORDER NO.:	DATE	
03886.551.004.0011	19 July 2012	

ENVIRONMENTAL PROTECTION MONITOR (Name/Position)

WESTON

Katherine Morrison / Project Scientist

WORK LOCATION: Area 1

WORK COMPLETED:

☒ Shorebird Monitoring/Impact Mitigation.
☒ Northern Harrier Monitoring/Impact Mitigation.
☐ American Burying Beetle Monitoring/Impact Mitigation.
☒ Marine Mammal Monitoring/Impact Mitigation.
☐ Vegetation Impact Monitoring/Mitigation
☐ Wetlands Impact Mitigation
☐ Site Water Runon/Runoff Control
☐ Site Restoration

Comments:

- Organizing and packing equipment.
- Assisted with Reac in AC-01-G08 while monitoring for Harrier nests.
- Administrative tasks for the project.

MONITORING OBSERVATIONS (species/activities observed):

- No species observed.

MITIGATION MEASURES IMPLEMENTED:

- No mitigation measures were required.

FURTHER DISCUSSION (List Topic and Comment):

- None

PREPARED BY:	SIGNATURE:
Katherine Morrison	

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-0006/0005/072 MAMMS05-072012-AAPY	03886-551-004	20 July 2012

WEATHER: AM Rain, 66 F, PM Rain/Cloudy, 70 F, Winds 10-15 mph

WORK LOCATION: Russell's Way, New South Road, Tom Nevers Road, Milestone Road

VISITORS(Name/firm):

WESTON STAFF (Name/Position)

1. Katie Morrison (Biologist/Project Technician)
2. Donald Mears (Senior UXO Supervisor)
3. Timothy Rodriguez (UXO QC/Safety)
4. Thomas Calix (UXO Tech III)
5. Noah Bullock (UXO Tech II)
6. Marc Atherton (UXO Tech II)
7. Jason Brawner (UXO Tech I)
8. Charlie Richardson (UXO Tech I)

SUBCONTRACT STAFF (Name/Position)

1. VR Habilis (Mike Shaw UXO Tech III/Demo Leader)

WORK COMPLETED:

- ☐ Surveyor activities.
- ☒ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☒ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments: The dig team conducted intrusive anomaly investigations in the following grids:

AC-01-G04 (Not complete, Digs are deep and holes are layered with rockets and scrap. All require excavator work)
AC-01-G08 (Not complete, Digs are deep and require excavator work) Holes contained numerous items of rockets and MD/Scrap.

Targets cleared: 55

The dig team located the following items in the below listed grids:
AC-01-G04
Three 2.25" SCAR rockets, **Fifteen** 3.5" rocket warheads/rocket motors, **One Hundred Fifteen** pieces of MD/scrap

AC-01-G08
Twelve 2.25" SCAR rockets, **Twenty** 3.5" rocket warheads/rocket motors, **Five** pieces of MD and **Nine** pieces of scrap

Photos are included in QC report.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

PROBLEMS/RESOLUTIONS:

DATA TRACKING:

Items Confirmed: None

Analog Survey Transects: None

Items Found Today: None

DGM Grids: None

DGM Grids Reacquired: None

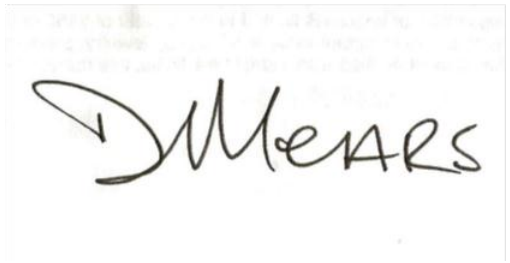
Data Acquired from Sub: None

Data Provided to USACE: None

Data Accepted by USACE: None

Comments:

FURTHER DISCUSSION (List Topic and Comment):

PREPARED BY:	**SIGNATURE:**
Donald Mears (SUXOS)	

Daily Quality Control Report

Project: Nantucket Beach, Former Nantucket Ordnance Site			
Site Location: Nantucket Island, MA		Date: July 20, 2012	
Describe daily QC activities: Observed intrusive investigation in grids AC-01 G04 and G08. ***Grid QC***: ***Transect QC***:			
Definable Feature of Work	***Inspection Description***	***Inspection performed***	***Result/Recommendation***
Munitions and explosives of concern intrusive activities	Verify all seed items have been recovered within a specific grid or area.	Follow up	Satisfactory
	Conduct anomaly/area verification sampling when removal activities are complete in a grid or area.	Follow up	Satisfactory
	Observe anomaly reacquisition/intrusive work accuracy and completeness.	Follow up	Satisfactory
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory
:			

Submitted by:

Approved by:	Approval date: 7/20/2012



Figure 1 Second Excavator working in Grid AC-01-08



Figure 2 Approximately 1500 lbs. of MD from AC-01-04

Environmental Protection Daily Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation

WORK ORDER NO.:	DATE	
03886.551.004.0011	20 July 2012	

ENVIRONMENTAL PROTECTION MONITOR (Name/Position)

WESTON

Katherine Morrison / Project Scientist

WORK LOCATION: Area 1

WORK COMPLETED:

☒ Shorebird Monitoring/Impact Mitigation.
☒ Northern Harrier Monitoring/Impact Mitigation.
☐ American Burying Beetle Monitoring/Impact Mitigation.
☒ Marine Mammal Monitoring/Impact Mitigation.
☐ Vegetation Impact Monitoring/Mitigation
☐ Wetlands Impact Mitigation
☐ Site Water Runon/Runoff Control
☐ Site Restoration

Comments:

- Organizing and packing equipment.
- Assisted with Reac in AC-01-G08 and AC-01-G04 while monitoring for Harrier nests.
- Administrative tasks for the project.

MONITORING OBSERVATIONS (species/activities observed):

- No species observed.

MITIGATION MEASURES IMPLEMENTED:

- No mitigation measures were required.

FURTHER DISCUSSION (List Topic and Comment):

- None

PREPARED BY:	SIGNATURE:
Katherine Morrison	

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-0006/0005/073 MAMMS05-072312-AARD	03886-551-004	23 July 2012

WEATHER: AM Cloudy, 69 F, PM Patches of Sun/Cloudy, 75 F, Winds 10-15 mph

WORK LOCATION: Russell's Way, New South Road, Tom Nevers Road, Milestone Road

VISITORS(Name/firm):

WESTON STAFF (Name/Position)

1. Katie Morrison (Biologist/Project Technician)
2. Donald Mears (Senior UXO Supervisor)
3. Timothy Rodriguez (UXO QC/Safety)
4. Thomas Calix (UXO Tech III)
5. Noah Bullock (UXO Tech II)
6. Marc Atherton (UXO Tech II)
7. Jason Brawner (UXO Tech I)
8. Charlie Richardson (UXO Tech I)

SUBCONTRACT STAFF (Name/Position)

1. VR Habilis (Mike Shaw UXO Tech III/Demo Leader)

WORK COMPLETED:

- ☐ Surveyor activities.
- ☒ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☒ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments: The dig team conducted intrusive anomaly investigations in the following grids:

AC 01 G02 (**Completed**)
AC-01-G04 (Not complete, Digs are deep and holes are layered with rockets and scrap. All require excavator work)
AC-01-G08 (Not complete, Digs are deep and require excavator work) Holes contained numerous items of rockets and MD/Scrap.

Targets cleared: **61**

The dig team located the following items in the below listed grids:

AC 01-G02
Seven 5" HVAR rockets
AC-01-G04
Nine 2.25" SCAR rockets, **Seventeen** 3.5" rocket warheads/rocket motors, **Sixty** pieces of MD/scrap
AC-01-G08
Two 2.25" SCAR rockets, **Seventeen** 3.5" rocket warheads/rocket motors, **Sixty-One** pieces of MD and **Twenty-Two** pieces of scrap

Demolitions Operations:
Seven 5" rockets (All practice)

Photos are included in QC report.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

PROBLEMS/RESOLUTIONS:

DATA TRACKING:

Items Confirmed: None

Analog Survey Transects: None

Items Found Today: None

DGM Grids: None

DGM Grids Reacquired: None

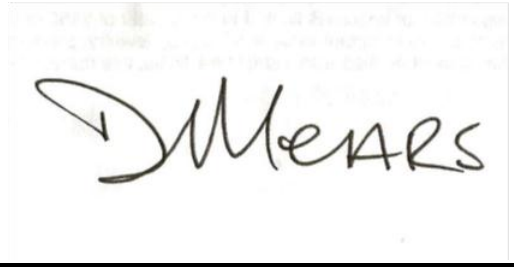
Data Acquired from Sub: None

Data Provided to USACE: None

Data Accepted by USACE: None

Comments:

FURTHER DISCUSSION (List Topic and Comment):

PREPARED BY:	**SIGNATURE:**
Donald Mears (SUXOS)	

Daily Quality Control Report

Project: Nantucket Beach, Former Nantucket Ordnance Site			
Site Location: Nantucket Island, MA		Date: July 23, 2012	
Describe daily QC activities: Observed intrusive investigation in grids AC-01 G02,G04,G08 and Demo Ops. ***Grid QC***: ***Transect QC***:			
Definable Feature of Work	***Inspection Description***	***Inspection performed***	***Result/Recommendation***
Munitions and explosives of concern intrusive activities	Verify all seed items have been recovered within a specific grid or area.	Follow up	Satisfactory
	Conduct anomaly/area verification sampling when removal activities are complete in a grid or area.	Follow up	Satisfactory
	Observe anomaly reacquisition/intrusive work accuracy and completeness.	Follow up	Satisfactory
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory

:

Submitted by:

Approved by:	Approval date: 7/23/2012



- **Figure 1 Team preparing for Demo operations.**



- **Figure 2 3.5" Rocket with INERT painted on Warhead from AC-01-G08.**

Environmental Protection Daily Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site
Project Number D01MA045601
Remedial Investigation

WORK ORDER NO.:	DATE	
03886.551.004.0011	23 July 2012	

ENVIRONMENTAL PROTECTION MONITOR (Name/Position)

WESTON

Katherine Morrison / Project Scientist

WORK LOCATION: Area 1

WORK COMPLETED:

☒ Shorebird Monitoring/Impact Mitigation.
☒ Northern Harrier Monitoring/Impact Mitigation.
☐ American Burying Beetle Monitoring/Impact Mitigation.
☒ Marine Mammal Monitoring/Impact Mitigation.
☐ Vegetation Impact Monitoring/Mitigation
☐ Wetlands Impact Mitigation
☐ Site Water Runon/Runoff Control
☐ Site Restoration

Comments:

- Organizing and packing equipment.
- Assisted with Reac in AC-09.
- Assisted with Demo operations.

MONITORING OBSERVATIONS (species/activities observed):

- No species observed.

MITIGATION MEASURES IMPLEMENTED:

- No mitigation measures were required.

FURTHER DISCUSSION (List Topic and Comment):

- None

PREPARED BY:	SIGNATURE:
Katherine Morrison	

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-0006/0005/074 MAMMS05-072412-AARE	03886-551-004	24 July 2012

WEATHER: AM Rain/Cloudy, 69 F, PM Sunny, 79 F, Winds 10-15 mph

WORK LOCATION: Russell's Way, New South Road, Tom Nevers Road, Milestone Road

VISITORS(Name/firm):

WESTON STAFF (Name/Position)

1. Katie Morrison (Biologist/Project Technician)
2. Donald Mears (Senior UXO Supervisor)
3. Timothy Rodriguez (UXO QC/Safety)
4. Thomas Calix (UXO Tech III)
5. Noah Bullock (UXO Tech II)
6. Marc Atherton (UXO Tech II)
7. Jason Brawner (UXO Tech I)
8. Charlie Richardson (UXO Tech I)

SUBCONTRACT STAFF (Name/Position)

1. VR Habilis (Mike Shaw UXO Tech III/Demo Leader)

WORK COMPLETED:

- ☐ Surveyor activities.
- ☒ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☒ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments: The dig team conducted intrusive anomaly investigations in the following grids:
AC-01-G04 (Not complete, Digs are deep and holes are layered with rockets and scrap. All require excavator work)
AC-01-G08 (Not complete, Digs are deep and require excavator work) Holes contained numerous items of rockets and MD/Scrap.

Targets cleared: **51**

The dig team located the following items in the below listed grids:
AC-01-G04
Seventeen 2.25" SCAR rockets, **Twenty-Four** 3.5" rocket warheads/rocket motors, **Sixty-Four** pieces of MD/scrap, **One** piece of CD

AC-01-G08
Seven 2.25" SCAR rockets, **Seven** 3.5" rocket warheads/rocket motors, **Twenty-Nine** pieces of scrap

Photos **are not** included in QC report. Problems with the camera settings.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

PROBLEMS/RESOLUTIONS:

DATA TRACKING:

Items Confirmed: None

Analog Survey Transects: None

Items Found Today: None

DGM Grids: None

DGM Grids Reacquired: None

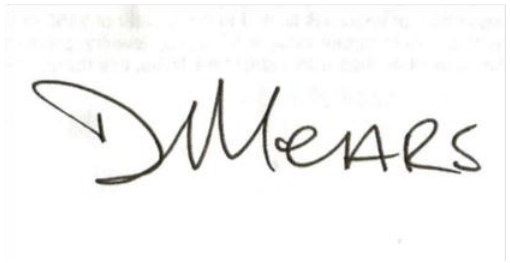
Data Acquired from Sub: None

Data Provided to USACE: None

Data Accepted by USACE: None

Comments:

FURTHER DISCUSSION (List Topic and Comment):

PREPARED BY:	**SIGNATURE:**
Donald Mears (SUXOS)	

Daily Quality Control Report

Project: Nantucket Beach, Former Nantucket Ordnance Site			
Site Location: Nantucket Island, MA		Date: July 24, 2012	
Describe daily QC activities: Observed intrusive investigation in grids AC-01-G04,G08 ***Grid QC***: ***Transect QC***:			
Definable Feature of Work	***Inspection Description***	***Inspection performed***	***Result/Recommendation***
Munitions and explosives of concern intrusive activities	Verify all seed items have been recovered within a specific grid or area.	Follow up	Satisfactory
	Conduct anomaly/area verification sampling when removal activities are complete in a grid or area.	Follow up	Satisfactory
	Observe anomaly reacquisition/intrusive work accuracy and completeness.	Follow up	Satisfactory
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory
:			

Submitted by:

Approved by:	Approval date: 7/24/2012

Environmental Protection Daily Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation

WORK ORDER NO.:	DATE	
03886.551.004.0011	24 July 2012	

ENVIRONMENTAL PROTECTION MONITOR (Name/Position)

WESTON

Katherine Morrison / Project Scientist

WORK LOCATION: Area 1

WORK COMPLETED:

☒ Shorebird Monitoring/Impact Mitigation.
☒ Northern Harrier Monitoring/Impact Mitigation.
☐ American Burying Beetle Monitoring/Impact Mitigation.
☒ Marine Mammal Monitoring/Impact Mitigation.
☐ Vegetation Impact Monitoring/Mitigation
☐ Wetlands Impact Mitigation
☐ Site Water Runon/Runoff Control
☐ Site Restoration

Comments:

- Organizing and packing equipment.
- Assisted with Reac in AC-01-G04 while monitoring for Harriers.

MONITORING OBSERVATIONS (species/activities observed):

- No species observed.

MITIGATION MEASURES IMPLEMENTED:

- No mitigation measures were required.

FURTHER DISCUSSION (List Topic and Comment):

- None

PREPARED BY:	SIGNATURE:
Katherine Morrison	

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-0006/0005/075 MAMMS05-072512-AARF	03886-551-004	25 July 2012

WEATHER: AM Cloudy, 69 F, PM Sunny, 75 F, Winds 10-15 mph

WORK LOCATION: Russell's Way, New South Road, Tom Nevers Road, Milestone Road

VISITORS(Name/firm):

WESTON STAFF (Name/Position)

1. Katie Morrison (Biologist/Project Technician)
2. Donald Mears (Senior UXO Supervisor)
3. Timothy Rodriguez (UXO QC/Safety)
4. Thomas Calix (UXO Tech III)
5. Noah Bullock (UXO Tech II)
6. Marc Atherton (UXO Tech II)
7. Jason Brawner (UXO Tech I)
8. Charlie Richardson (UXO Tech I)
9. Chris Kane (Project Manager)
10. Bruce Campbell (Federal Program Manager)

SUBCONTRACT STAFF (Name/Position)

1. VR Habilis (Mike Shaw UXO Tech III/Demo Leader)

WORK COMPLETED:

- ☐ Surveyor activities.
- ☒ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☒ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments: The dig team conducted intrusive anomaly investigations in the following grids:
AC-01-G04 (Not complete, Digs are deep and holes are layered with rockets and scrap. All require excavator work)
AC-01-G08 (**Completed**).

Targets cleared: **39**

The dig team located the following items in the below listed grids:

AC-01-G04
Nine 2.25" SCAR rockets, **Eleven** 3.5" rocket warheads/rocket motors, **Sixty- Nine** pieces of MD/scrap,

AC-01-G08
Ten 2.25" SCAR rockets, **Thirteen** 3.5" rocket warheads/rocket motors, **Seventy-Six** pieces of MD/scrap,

Photos are included in QC report.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

PROBLEMS/RESOLUTIONS:

DATA TRACKING:

Items Confirmed: None

Analog Survey Transects: None

Items Found Today: None

DGM Grids: None

DGM Grids Reacquired: None

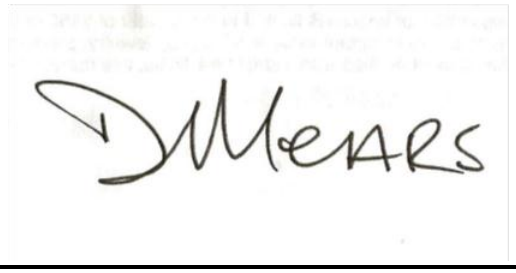
Data Acquired from Sub: None

Data Provided to USACE: None

Data Accepted by USACE: None

Comments:

FURTHER DISCUSSION (List Topic and Comment):

PREPARED BY:	**SIGNATURE:**
Donald Mears (SUXOS)	

Daily Quality Control Report

Project: Nantucket Beach, Former Nantucket Ordnance Site			
Site Location: Nantucket Island, MA		Date: July 25, 2012	
Describe daily QC activities: Observed intrusive investigation in grids AC-01-G04,G08 and Demo operations ***Grid QC***: ***Transect QC***:			
Definable Feature of Work	***Inspection Description***	***Inspection performed***	***Result/Recommendation***
Munitions and explosives of concern intrusive activities	Verify all seed items have been recovered within a specific grid or area.	Follow up	Satisfactory
	Conduct anomaly/area verification sampling when removal activities are complete in a grid or area.	Follow up	Satisfactory
	Observe anomaly reacquisition/intrusive work accuracy and completeness.	Follow up	Satisfactory
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory

:

Submitted by:

Approved by:	Approval date: 7/25/2012



- **Figure 1 Perforators on 5" HVAR Projectile (before)**



- **Figure 2 Results of Perforators on 5" HVAR Projectile (After)**



- **Figure 3 Digging Operation continue during Demolitions Operations**

Environmental Protection Daily Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site
Project Number D01MA045601
Remedial Investigation

WORK ORDER NO.:	**DATE**	
03886.551.004.0011	25 July 2012	

ENVIRONMENTAL PROTECTION MONITOR (Name/Position)

WESTON

Katherine Morrison / Project Scientist

WORK LOCATION: Area 1

WORK COMPLETED:

☒ Shorebird Monitoring/Impact Mitigation.
☒ Northern Harrier Monitoring/Impact Mitigation.
☐ American Burying Beetle Monitoring/Impact Mitigation.
☒ Marine Mammal Monitoring/Impact Mitigation.
☐ Vegetation Impact Monitoring/Mitigation
☐ Wetlands Impact Mitigation
☐ Site Water Runon/Runoff Control
☐ Site Restoration

Comments:

- Organizing and packing equipment.
- Assisted with Reac in AC-01-G04 while monitoring for Harriers.

MONITORING OBSERVATIONS (species/activities observed):

- No species observed.

MITIGATION MEASURES IMPLEMENTED:

- No mitigation measures were required.

FURTHER DISCUSSION (List Topic and Comment):

- None

PREPARED BY:	SIGNATURE:
Katherine Morrison	

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-0006/0005/076 MAMMS05-072612-AARG	03886-551-004	26 July 2012

WEATHER: AM /Cloudy, 70 F, PM Sunny, 75 F, Winds 10-15 mph

WORK LOCATION: Russell's Way, New South Road, Tom Nevers Road, Milestone Road

VISITORS(Name/firm):

Dan Saevitz (Wigwam Homeowners Association)

WESTON STAFF (Name/Position)

1. Katie Morrison (Biologist/Project Technician)
2. Donald Mears (Senior UXO Supervisor)
3. Timothy Rodriguez (UXO QC/Safety)
4. Thomas Calix (UXO Tech III)
5. Marc Atherton (UXO Tech II)
6. Jason Brawner (UXO Tech I)
7. Charles Richardson (UXO Tech I)
8. Chris Kane (Project Manager)

SUBCONTRACT STAFF (Name/Position)

1. VR Habilis (Mike Shaw UXO Tech III/Demo Leader)

WORK COMPLETED:

- ☐ Surveyor activities.
- ☒ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☒ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments: The dig team conducted intrusive anomaly investigations in the following grids:
AC-01-G04 (Not complete, Digs are deep and holes are layered with rockets and scrap. All require excavator work)
AC 09 (**COMPLETED)**
AC 01 T03 **(COMPLETED) (This transect is the along the bluff on parcel 91 1. Due to environmental concerns all digs were stopped at a 2' depth)**

Targets cleared: **22** (AC 01 G04 only)

The dig team located the following items in the below listed grid:
AC-01-G04
Twenty-Nine 2.25" SCAR rockets, **Twenty-Three** 3.5" rocket warheads/rocket motors, **Three Hundred Thirty** pieces of MD/scrap

Almost four hundred items pulled out of holes in AC-01 G04.
Demolition Operations:

Six 5" HVAR rockets (All practice)

Photos are included in QC report.

Member of Wigwam Homeowners Association met with Project Manager to discuss transects near the Wigwam area.

MATERIALS DELIVERED (Amount, Condition, and Purpose)

PROBLEMS/RESOLUTIONS:

DATA TRACKING:

Items Confirmed: None

Analog Survey Transects: None

Items Found Today: None

DGM Grids: None

DGM Grids Reacquired: None

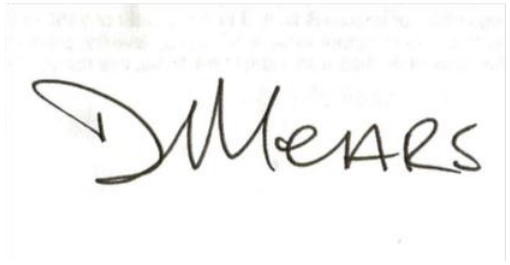
Data Acquired from Sub: None

Data Provided to USACE: None

Data Accepted by USACE: None

Comments:

FURTHER DISCUSSION (List Topic and Comment):

PREPARED BY:	**SIGNATURE:**
Donald Mears (SUXOS)	

Daily Quality Control Report

Project: Nantucket Beach, Former Nantucket Ordnance Site			
Site Location: Nantucket Island, MA		Date: July 26, 2012	
Describe daily QC activities: Observed intrusive investigation in grids AC-01-G04,G08 and Demo operations ***Grid QC***: AC-09 & AC-01-G08 ***Transect QC***:			
Definable Feature of Work	***Inspection Description***	***Inspection performed***	***Result/Recommendation***
Munitions and explosives of concern intrusive activities	Verify all seed items have been recovered within a specific grid or area.	Follow up	Satisfactory
	Conduct anomaly/area verification sampling when removal activities are complete in a grid or area.	Follow up	Satisfactory
	Observe anomaly reacquisition/intrusive work accuracy and completeness.	Follow up	Satisfactory
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory

:

Submitted by:

Approved by:	Approval date: 7/26/2012



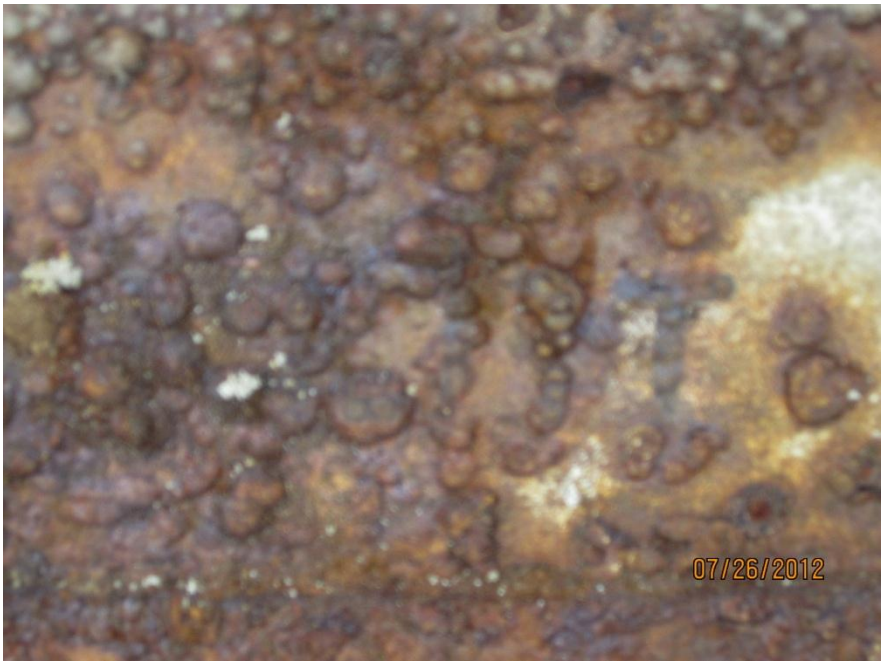
- **Figure 1 Two Teams and Mini Excavators in AC-01-G04**



- **Figure 2 Tech 2 Clearing Target Hole AC-01-G04**



- **Figure 3 SCAR 2.25" Rocket Painted Blue AC-01-G04**



- **Figure 4 3.5" Rocket with INERT marked on fins AC-01-G04**

Environmental Protection Daily Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation

WORK ORDER NO.:	DATE	
03886.551.004.0011	26 July 2012	

ENVIRONMENTAL PROTECTION MONITOR (Name/Position)

WESTON

Katherine Morrison / Project Scientist

WORK LOCATION: Area 1

WORK COMPLETED:

☒ Shorebird Monitoring/Impact Mitigation.
☒ Northern Harrier Monitoring/Impact Mitigation.
☐ American Burying Beetle Monitoring/Impact Mitigation.
☒ Marine Mammal Monitoring/Impact Mitigation.
☐ Vegetation Impact Monitoring/Mitigation
☐ Wetlands Impact Mitigation
☐ Site Water Runon/Runoff Control
☐ Site Restoration

Comments:

- Organizing and packing equipment.
- Assisted with Reac in AC-01-G04 while monitoring for Harriers.
- Assisted with Reac in AC-09
- Assisted with Demo operations.

MONITORING OBSERVATIONS (species/activities observed):

- No species observed.

MITIGATION MEASURES IMPLEMENTED:

- No mitigation measures were required.

FURTHER DISCUSSION (List Topic and Comment):

- None

PREPARED BY:	SIGNATURE:
Katherine Morrison	

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-0006/0005/077 MAMMS05-072712-AARH	03886-551-004	27 July 2012

WEATHER: AM /Cloudy, 66 F, PM Sunny, 75 F, Winds 10-15 mph

WORK LOCATION: Russell's Way, New South Road, Tom Nevers Road, Milestone Road

VISITORS(Name/firm):

Tom Lennon (NCF)

WESTON STAFF (Name/Position)

1. Katie Morrison (Biologist/Project Technician)
2. Donald Mears (Senior UXO Supervisor)
3. Timothy Rodriguez (UXO QC/Safety)
4. Thomas Calix (UXO Tech III)
5. Noah Bullock (UXO Tech II)
6. Marc Atherton (UXO Tech II)
7. Jason Brawner (UXO Tech I)
8. Charlie Richardson (UXO Tech I)
9. Chris Kane (Project Manager)

SUBCONTRACT STAFF (Name/Position)

1. VR Habilis (Mike Shaw UXO Tech III/Demo Leader)

WORK COMPLETED:

- ☐ Surveyor activities.
- ☒ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☒ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments: The dig team conducted intrusive anomaly investigations in the following grids:
AC-01-G04 (Not complete, Digs are deep and holes are layered with rockets and scrap. All require excavator work)

Targets cleared: 36

The dig team located the following items in the below listed grid:
AC-01-G04
Thirty-One 2.25" SCAR rockets, **Thirty-Three** 3.5" rocket warheads/rocket motors, **Four Hundred Fifty-One** pieces of MD/scrap

Photos are included in QC report.

MATERIALS DELIVERED (Amount, Condition, and Purpose):
Second conex container for storing MD/scrap.

PROBLEMS/RESOLUTIONS:

DATA TRACKING:

Items Confirmed: None

Analog Survey Transects: None

Items Found Today: None

DGM Grids: None

DGM Grids Reacquired: None

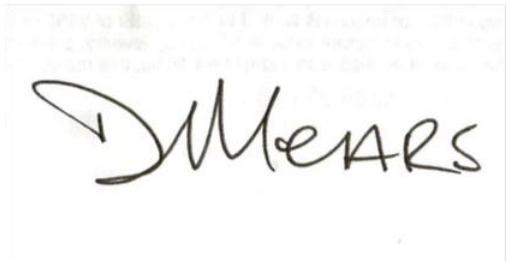
Data Acquired from Sub: None

Data Provided to USACE: None

Data Accepted by USACE: None

Comments:

FURTHER DISCUSSION (List Topic and Comment):

PREPARED BY:	**SIGNATURE:**
Donald Mears (SUXOS)	

Daily Quality Control Report

Project: Nantucket Beach, Former Nantucket Ordnance Site			
Site Location: Nantucket Island, MA		Date: July 27, 2012	
Describe daily QC activities: Observed intrusive investigation in grids AC-01-G04 ***Grid QC***: ***Transect QC***:			
Definable Feature of Work	***Inspection Description***	***Inspection performed***	***Result/Recommendation***
Munitions and explosives of concern intrusive activities	Verify all seed items have been recovered within a specific grid or area.	Follow up	Satisfactory
	Conduct anomaly/area verification sampling when removal activities are complete in a grid or area.	Follow up	Satisfactory
	Observe anomaly reacquisition/intrusive work accuracy and completeness.	Follow up	Satisfactory
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory

:

Submitted by:

Approved by:	Approval date: 7/27/2012



- **Figure 1 AC-01-G04, 85-90% of grid dug up with mini excavators**



- **Figure 2 AC-01-G04, Scrap pile #1**



- **Figure 3 AC-01-G04, Scrap pile #2**



- **Figure 4 AC-01-G04, Scrap pile #3**

Environmental Protection Daily Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation

WORK ORDER NO.:	DATE	
03886.551.004.0011	27 July 2012	

ENVIRONMENTAL PROTECTION MONITOR (Name/Position)

WESTON

Katherine Morrison / Project Scientist

WORK LOCATION: Area 1

WORK COMPLETED:

☒ Shorebird Monitoring/Impact Mitigation.
☒ Northern Harrier Monitoring/Impact Mitigation.
☐ American Burying Beetle Monitoring/Impact Mitigation.
☒ Marine Mammal Monitoring/Impact Mitigation.
☐ Vegetation Impact Monitoring/Mitigation
☐ Wetlands Impact Mitigation
☐ Site Water Runon/Runoff Control
☐ Site Restoration

Comments:

- Organizing and packing equipment.
- Assisted with Reac in AC-01-G04 while monitoring for Harriers.

MONITORING OBSERVATIONS (species/activities observed):

- No species observed.

MITIGATION MEASURES IMPLEMENTED:

- No mitigation measures were required.

FURTHER DISCUSSION (List Topic and Comment):

- None

PREPARED BY:	SIGNATURE:
Katherine Morrison	

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-0006/0005/078 MAMMS05-073012-AARL	03886-551-004	30 July 2012

WEATHER: AM /Cloudy, 61 F, PM Sunny, 72 F, Winds 10-15 mph

WORK LOCATION: Russell's Way, New South Road, Tom Nevers Road, Milestone Road

VISITORS(Name/firm):

WESTON STAFF (Name/Position)

1. Katie Morrison (Biologist/Project Technician)
2. Donald Mears (Senior UXO Supervisor)
3. Timothy Rodriguez (UXO QC/Safety)
4. Thomas Calix (UXO Tech III)
5. Marc Atherton (UXO Tech II)
6. Jason Brawner (UXO Tech I)

SUBCONTRACT STAFF (Name/Position)

1. VR Habilis (Mike Shaw UXO Tech III/Demo Leader)

- ☐ Surveyor activities.
- ☒ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☒ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments: The dig team conducted intrusive anomaly investigations in the following grid:
AC-01-G04 (Not complete, Digs are deep and holes are layered with rockets and scrap. All require excavator work)

Targets cleared: **23**

The dig team located the following items in the below listed grid:
AC-01-G04
Twenty-Three 2.25" SCAR rockets, **Fourteen** 3.5" rocket warheads/rocket motors, **One Hundred Forty-Eight** pieces of MD/scrap

Photos are included in QC report.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

PROBLEMS/RESOLUTIONS:

DATA TRACKING:

Items Confirmed: None

Analog Survey Transects: None

Items Found Today: None

DGM Grids: None

DGM Grids Reacquired: None

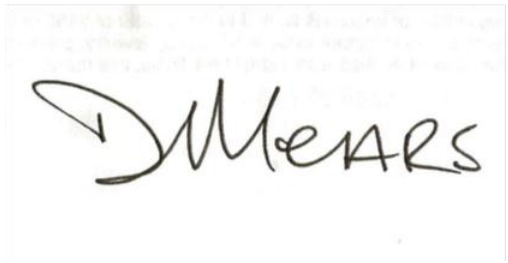
Data Acquired from Sub: None

Data Provided to USACE: None

Data Accepted by USACE: None

Comments:

FURTHER DISCUSSION (List Topic and Comment):

PREPARED BY:	**SIGNATURE:**
Donald Mears (SUXOS)	

Daily Quality Control Report

Project: Nantucket Beach, Former Nantucket Ordnance Site			
Site Location: Nantucket Island, MA		Date: July 30, 2012	
Describe daily QC activities: Observed intrusive investigation in grids AC-01-G04 ***Grid QC***: AC-01-G02 ***Transect QC***:			
Definable Feature of Work	***Inspection Description***	***Inspection performed***	***Result/Recommendation***
Munitions and explosives of concern intrusive activities	Verify all seed items have been recovered within a specific grid or area.	Follow up	Satisfactory
	Conduct anomaly/area verification sampling when removal activities are complete in a grid or area.	Follow up	Satisfactory
	Observe anomaly reacquisition/intrusive work accuracy and completeness.	Follow up	Satisfactory
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory

:

Submitted by:

Approved by:	Approval date: 7/30/2012



- **Figure 1 Team working on finishing AC-01-G04**



- **Figure 2 Approximately 6K pounds of MD/scrap loaded into conex.**

Environmental Protection Daily Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation

WORK ORDER NO.:	DATE	
03886.551.004.0011	30 July 2012	

ENVIRONMENTAL PROTECTION MONITOR (Name/Position)

WESTON

Katherine Morrison / Project Scientist

WORK LOCATION: Area 1

WORK COMPLETED:

☒ Shorebird Monitoring/Impact Mitigation.
☒ Northern Harrier Monitoring/Impact Mitigation.
☐ American Burying Beetle Monitoring/Impact Mitigation.
☒ Marine Mammal Monitoring/Impact Mitigation.
☐ Vegetation Impact Monitoring/Mitigation
☐ Wetlands Impact Mitigation
☐ Site Water Runon/Runoff Control
☐ Site Restoration

Comments:

- Organizing and packing equipment.
- Assisted with Reac in AC-01-G04 while monitoring for Harriers.

MONITORING OBSERVATIONS (species/activities observed):

- No species observed.

MITIGATION MEASURES IMPLEMENTED:

- No mitigation measures were required.

FURTHER DISCUSSION (List Topic and Comment):

- None

PREPARED BY:	SIGNATURE:
Katherine Morrison	

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-0006/0005/079 MAMMS05-073112-AARM	03886-551-004	31 July 2012

WEATHER: AM /Cloudy, 63 F, PM Rain, 72 F, Winds 10-17 mph

WORK LOCATION: Russell's Way, New South Road, Tom Nevers Road, Milestone Road

VISITORS(Name/firm):

Tony Riccio (WESTON/Federal Program Sales Manager)

WESTON STAFF (Name/Position)

1. Katie Morrison (Biologist/Project Technician)
2. Donald Mears (Senior UXO Supervisor)
3. Timothy Rodriguez (UXO QC/Safety)
4. Thomas Calix (UXO Tech III)
5. Marc Atherton (UXO Tech II)
6. Jason Brawner (UXO Tech I)
7. Chris Kane (Project Manager)
8. Marie Swiech-Laflamme (Project Scientist)

SUBCONTRACT STAFF (Name/Position)

1. VR Habilis (Mike Shaw UXO Tech III/Demo Leader)

- ☐ Surveyor activities.
- ☒ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☒ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☒ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments: The dig team conducted intrusive anomaly investigations in the following grid:
AC-01-G04 (Not complete, Digs are deep and holes are layered with rockets and scrap. All require excavator work)

Targets cleared: 12

The dig team located the following items in the below listed grid:
AC-01-G04
Twelve 5" HVAR rockets

Demolition Operations: **Twelve** 5" HVAR rockets (All practice)

Began MC Sampling activities – marked out sampling locations and collected incremental samples from surface soil from G02, G08 (including 2 QC replicates) and G09

Photos are included in QC report.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

PROBLEMS/RESOLUTIONS:

DATA TRACKING:

Items Confirmed: None

Analog Survey Transects: None

Items Found Today: None

DGM Grids: None

DGM Grids Reacquired: None

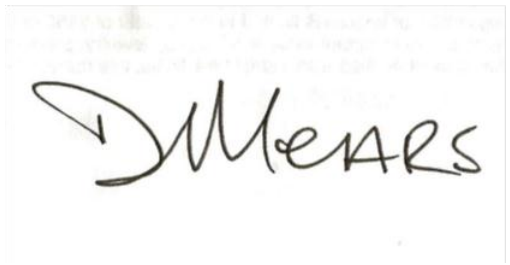
Data Acquired from Sub: None

Data Provided to USACE: None

Data Accepted by USACE: None

Comments:

FURTHER DISCUSSION (List Topic and Comment):

PREPARED BY:	**SIGNATURE:**
Donald Mears (SUXOS)	

Daily Quality Control Report

Project: Nantucket Beach, Former Nantucket Ordnance Site			
Site Location: Nantucket Island, MA		Date: July 31, 2012	
Describe daily QC activities: Observed intrusive investigation in grids AC-01-G04, Demo operations and sorted MD ***Grid QC***: ***Transect QC***:			
Definable Feature of Work	***Inspection Description***	***Inspection performed***	***Result/Recommendation***
Munitions and explosives of concern intrusive activities	Verify all seed items have been recovered within a specific grid or area.	Follow up	Satisfactory
	Conduct anomaly/area verification sampling when removal activities are complete in a grid or area.	Follow up	Satisfactory
	Observe anomaly reacquisition/intrusive work accuracy and completeness.	Follow up	Satisfactory
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory

:

Submitted by:

Approved by:	Approval date: 7/31/2012



Figure 1 MD and Scrap stacking up in conex

Environmental Protection Daily Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation

WORK ORDER NO.:	DATE	
03886.551.004.0011	31 July 2012	

ENVIRONMENTAL PROTECTION MONITOR (Name/Position)

WESTON

Katherine Morrison / Project Scientist

WORK LOCATION: Area 1

WORK COMPLETED:

☒ Shorebird Monitoring/Impact Mitigation.
☒ Northern Harrier Monitoring/Impact Mitigation.
☐ American Burying Beetle Monitoring/Impact Mitigation.
☒ Marine Mammal Monitoring/Impact Mitigation.
☐ Vegetation Impact Monitoring/Mitigation
☐ Wetlands Impact Mitigation
☐ Site Water Runon/Runoff Control
☐ Site Restoration

Comments:

- Organizing and packing equipment.

MONITORING OBSERVATIONS (species/activities observed):

- No species observed.

MITIGATION MEASURES IMPLEMENTED:

- No mitigation measures were required.

FURTHER DISCUSSION (List Topic and Comment):

- None

PREPARED BY:	SIGNATURE:
Katherine Morrison	

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-0006/0005/080 MAMMS05-080112-AARN	03886-551-004	1 Aug 2012

WEATHER: AM /Cloudy, 63 F, PM Sunny, 74 F, Winds 10-17 mph

WORK LOCATION: Russell's Way, New South Road, Tom Nevers Road, Milestone Road

VISITORS(Name/firm):

WESTON STAFF (Name/Position)

1. Katie Morrison (Biologist/Project Technician)
2. Donald Mears (Senior UXO Supervisor)
3. Timothy Rodriguez (UXO QC/Safety)
4. Thomas Calix (UXO Tech III)
5. Marc Atherton (UXO Tech II)
6. Jason Brawner (UXO Tech I)
7. Chris Kane (Project Manager)
8. Marie Swiech-Laflamme (Project Scientist)

SUBCONTRACT STAFF (Name/Position)

1. VR Habilis (Mike Shaw UXO Tech III/Demo Leader)

- ☐ Surveyor activities.
- ☒ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☐ Equipment Transport (mob/demob to/from site-List).
- ☒ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☒ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments: The dig team conducted intrusive anomaly investigations in the following grid:
AC-01-G04 (Not complete, Digs are deep and holes are layered with rockets and scrap. All require excavator work)

Dig team collected and moved MD/scrap from grids to the storage container.

WESTON completed MC sampling event including Incremental Sampling of surface soil in G04 and G12, and subsurface discrete sampling in G02, G04, G08, G09 and G12 of depth intervals 0-2 ft bgs, 2-4 ft bgs and 4-10 ft bgs at the locations with the highest observed density of MD in each grid. Samples were shipped off-site to the laboratory for analyses including explosives, metals and pH.

Photos are included in QC report.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

PROBLEMS/RESOLUTIONS:

DATA TRACKING:

Items Confirmed: None

Analog Survey Transects: None

Items Found Today: None

DGM Grids: None

DGM Grids Reacquired: None

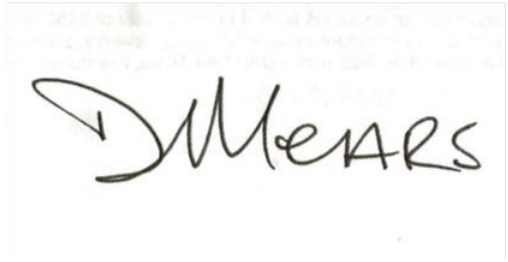
Data Acquired from Sub: None

Data Provided to USACE: None

Data Accepted by USACE: None

Comments:

FURTHER DISCUSSION (List Topic and Comment):

PREPARED BY:	**SIGNATURE:**
Donald Mears (SUXOS)	

Daily Quality Control Report

Project: Nantucket Beach, Former Nantucket Ordnance Site			
Site Location: Nantucket Island, MA		Date: August 01, 2012	
Describe daily QC activities: Observed intrusive investigation in grids AC-01-G04, Sorted MD and loaded conex ***Grid QC***: ***Transect QC***:			
Definable Feature of Work	***Inspection Description***	***Inspection performed***	***Result/Recommendation***
Munitions and explosives of concern intrusive activities	Verify all seed items have been recovered within a specific grid or area.	Follow up	Satisfactory
	Conduct anomaly/area verification sampling when removal activities are complete in a grid or area.	Follow up	Satisfactory
	Observe anomaly reacquisition/intrusive work accuracy and completeness.	Follow up	Satisfactory
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory

:

Submitted by:

Approved by:	Approval date: 8/01/2012



Figure 1 Conex with MD/scrap

Environmental Protection Daily Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site
Project Number D01MA045601
Remedial Investigation

WORK ORDER NO.:	DATE	
03886.551.004.0011	01 Aug 2012	

ENVIRONMENTAL PROTECTION MONITOR (Name/Position)

WESTON

Katherine Morrison / Project Scientist

WORK LOCATION: Area 1

WORK COMPLETED:

☒ Shorebird Monitoring/Impact Mitigation.
☒ Northern Harrier Monitoring/Impact Mitigation.
☐ American Burying Beetle Monitoring/Impact Mitigation.
☒ Marine Mammal Monitoring/Impact Mitigation.
☐ Vegetation Impact Monitoring/Mitigation
☐ Wetlands Impact Mitigation
☐ Site Water Runon/Runoff Control
☐ Site Restoration

Comments:

- Organizing and packing equipment.

MONITORING OBSERVATIONS (species/activities observed):

- No species observed.

MITIGATION MEASURES IMPLEMENTED:

- No mitigation measures were required.

FURTHER DISCUSSION (List Topic and Comment):

- None

PREPARED BY:	SIGNATURE:
Katherine Morrison	

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-0006/0005/081 MAMMS05-080212-AARO	03886-551-004	2 Aug 2012

WEATHER: AM /Cloudy, 68 F, PM Sunny, 75 F, Winds 5-10 mph

WORK LOCATION: Russell's Way, New South Road, Tom Nevers Road, Milestone Road

VISITORS(Name/firm):

WESTON STAFF (Name/Position)

1. Katie Morrison (Biologist/Project Technician)
2. Donald Mears (Senior UXO Supervisor)
3. Timothy Rodriguez (UXO QC/Safety)
4. Thomas Calix (UXO Tech III)
5. Marc Atherton (UXO Tech II)
6. Jason Brawner (UXO Tech I)
7. Marie Swiech-Laflamme (Project Scientist)

SUBCONTRACT STAFF (Name/Position)

1. VR Habilis (Mike Shaw UXO Tech III/Demo Leader)

- ☐ Surveyor activities.
- ☒ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☒ Equipment Transport (mob/demob to/from site-List).
- ☒ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments: The dig team conducted intrusive anomaly investigations in the following grid:
AC-01-G04 (**Completed) All grids (except AC 01 G01 parcel 91 118) and transects have been cleared.**

The dig team located the following items in the below listed grid:

AC-01-G04
Twelve 5" HVAR rockets

Demolition Operations:
Twelve 5" HVAR rockets (All practice)

Dig team collected and moved MD/scrap from grids to the storage container.

Photos are included in QC report.

WESTON has started demob activities. Equipment is being transported off island.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

PROBLEMS/RESOLUTIONS:

DATA TRACKING:

Items Confirmed: None

Analog Survey Transects: None

Items Found Today: None

DGM Grids: None

DGM Grids Reacquired: None

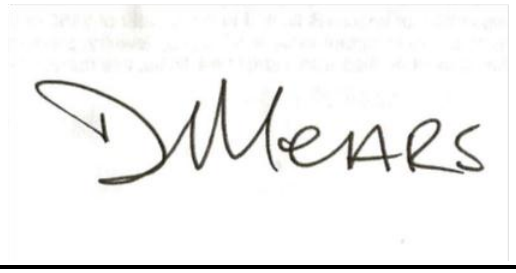
Data Acquired from Sub: None

Data Provided to USACE: None

Data Accepted by USACE: None

Comments:

FURTHER DISCUSSION (List Topic and Comment):

PREPARED BY:	**SIGNATURE:**
Donald Mears (SUXOS)	

Daily Quality Control Report

Project: Nantucket Beach, Former Nantucket Ordnance Site			
Site Location: Nantucket Island, MA		Date: August 02, 2012	
Describe daily QC activities: Observed intrusive investigation in grids AC-01-G04, Sorted MD and loaded conex and observed Demo operations ***Grid QC***: AC-01-04, AC-01-G12 ***Transect QC***:			
Definable Feature of Work	***Inspection Description***	***Inspection performed***	***Result/Recommendation***
Munitions and explosives of concern intrusive activities	Verify all seed items have been recovered within a specific grid or area.	Follow up	Satisfactory
	Conduct anomaly/area verification sampling when removal activities are complete in a grid or area.	Follow up	Satisfactory
	Observe anomaly reacquisition/intrusive work accuracy and completeness.	Follow up	Satisfactory
	Confirm all personnel have the appropriate PPE and supplies.	Follow up	Satisfactory

:

Submitted by:

Approved by:	Approval date: 8/02/2012



Figure 1 MD and Scrap loaded ready to seal for shipment.

Environmental Protection Daily Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation

WORK ORDER NO.:	DATE	
03886.551.004.0011	02 Aug 2012	

ENVIRONMENTAL PROTECTION MONITOR (Name/Position)

WESTON

Katherine Morrison / Project Scientist

WORK LOCATION: Area 1

WORK COMPLETED:

☐ Shorebird Monitoring/Impact Mitigation.
☐ Northern Harrier Monitoring/Impact Mitigation.
☐ American Burying Beetle Monitoring/Impact Mitigation.
☐ Marine Mammal Monitoring/Impact Mitigation.
☐ Vegetation Impact Monitoring/Mitigation
☐ Wetlands Impact Mitigation
☐ Site Water Runon/Runoff Control
☐ Site Restoration

Comments:

- Organizing and packing equipment.

MONITORING OBSERVATIONS (species/activities observed):

- No species observed.

MITIGATION MEASURES IMPLEMENTED:

- No mitigation measures were required.

FURTHER DISCUSSION (List Topic and Comment):

- None

PREPARED BY:	SIGNATURE:
Katherine Morrison	

Daily Summary Report

Nantucket Beach, Former Nantucket Ordnance Site a.k.a. Tom Nevers Rocket Projectile Target; Tom Nevers Area, Formerly Used Defense Site Project Number D01MA045601 Remedial Investigation through Decision Document

CONTRACT NO. / D.O. NO.:/REPORT NO.	WORK ORDER NO.:	DATE
W912DR-09-D-0006/0005/082 MAMMS05-080312-AARP	03886-551-004	3 Aug 2012

WEATHER: AM /Cloudy, 65 F, PM Sunny, 78 F, Winds 5-10 mph

WORK LOCATION: Russell's Way, New South Road, Tom Nevers Road, Milestone Road

VISITORS(Name/firm):

WESTON STAFF (Name/Position)

1. Donald Mears (Senior UXO Supervisor
2. Thomas Calix (UXO Tech III)
3. Jason Brawner (UXO Tech I)
4. Marie Swiech-Laflamme (Project Scientist)

SUBCONTRACT STAFF (Name/Position)

1. VR Habilis (Mike Shaw UXO Tech III/Demo Leader)

- ☐ Surveyor activities.
- ☐ Mag and Dig activities (List grid or location).
- ☐ DGM activities (List grids).
- ☐ Reacquisition of DGM anomaly targets (List grids).
- ☐ Grid QC List (List completed grids).
- ☐ Grid QA (CENAB-List completed grids).
- ☐ Explosives Receipt
- ☐ Test Pitting
- ☐ Blow In Place
- ☐ Munitions Constituents Sampling.
- ☐ UXO Technician Escort activities.
- ☒ Equipment Transport (mob/demob to/from site-List).
- ☒ Equipment Maintenance
- ☐ Equipment Issues (List below).
- ☐ Investigation Sampling
- ☐ Aerial Mag
- ☐ Background Soil Sampling
- ☐ Clearing/Vegetation Removal

Comments:

WESTON in the second day of demob activities. Equipment is being transported off island.

Coordinating the shipment of the MD/scrap to an off island scrap dealer.

MATERIALS DELIVERED (Amount, Condition, and Purpose):

PROBLEMS/RESOLUTIONS:

DATA TRACKING:

Items Confirmed: None

Analog Survey Transects: None

Items Found Today: None

DGM Grids: None

DGM Grids Reacquired: None

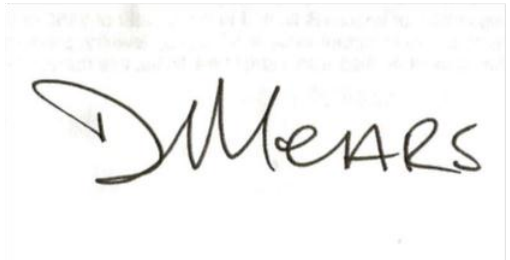
Data Acquired from Sub: None

Data Provided to USACE: None

Data Accepted by USACE: None

Comments:

FURTHER DISCUSSION (List Topic and Comment):

PREPARED BY:	**SIGNATURE:**
Donald Mears (SUXOS)	

APPENDIX C

PERMITS

The COMMONWEALTH OF MASSACHUSETTS
BOARD OF UNDERWATER ARCHAEOLOGICAL RESOURCES
EXECUTIVE OFFICE OF ENERGY AND ENVIRONMENTAL AFFAIRS
251 Causeway Street, Suite 800, Boston, MA 02114-2136
Tel. (617) 626-1200 Fax (617) 626-1240 Web Site: www.mass.gov/czm/buar/index.htm

May 31, 2012

David S. Robinson, M.A., R.P.A.
Fathom Research, LLC
Quest Center, Suite 315
1213 Purchase Street
New Bedford, MA 02740

RE: Special Use Permit 12-001, Remedial Investigation, Nantucket Beach Rocket Range, Nantucket

Dear Mr. Robinson:

This letter confirms the vote taken by the Massachusetts Board of Underwater Archaeological Resources on 29 September 2011 to issue a Special Use Permit, 12-001, to Fathom Research, LLC for on-call marine archaeological services (marine archaeological survey, inspection, and documentation) related to the remedial investigation munitions and explosives, munitions constituents, and munitions debris hazards at the Nantucket Beach Rocket Range, formerly used defense site, in Nantucket as detailed on the figures accompanying the application (Figure 1 and 2). The duration of this permit is one year from the date of issuance with its expiration date as 31 May 2013.

This permit is herein granted dependent upon Fathom Research LLC's compliance with the Board's Regulations (312 CMR 2.00). All work must be conducted in accordance with Board directives, standard conditions and the Scope of Services included in the application. Activities allowed under this permit include remote sensing, archaeological site examination and recovery to determine the presence or absence of potential submerged archaeological resources and undertake necessary recovery and documentation of these resources in the permit area. For projects subject to Section 106 of the National Historic Preservation Act of 1966, as amended (36 CFR 800), permittees are directed to consult with and provide their proposed research design and methodology to the State Historic Preservation Office/Massachusetts Historical Commission and the lead federal agency in accordance with 36 CFR 800.4, prior to conducting the field investigation. This permit does not relieve the permittee or any other person of the necessity of complying with all other federal, state and local statutes, regulations, by-laws and ordinances.

If you should have any questions or need further assistance, do not hesitate to contact the Board at the address above or by telephone at (617) 626-1141.

Sincerely,

Victor T. Mastone
Director

Cc: Brona Simon, MHC
Marcus Paiva, Carol Charette, Todd Beckwith, ACOE (via email attachment)
Bettina Washington, Wampanoag Tribe (via email attachment)
Robert Boeri and Steve McKenna, mCZM (via email attachment)
Christopher Kane, Weston Solutions (via email attachment)

Printed on Recycled Paper

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MASS. DOT
DISTRICTS OFFICE

Deval L. Patrick, Governor
Timothy P. Murray, Lt. Governor
Richard A. Davey, Secretary & CEO
Frank DePaola, Administrator

massDOT
Massachusetts Department of Transportation
Highway Division

Permit #: 5-2012-0048

PERMIT - NANTUCKET

Subject to all terms, conditions, and restrictions printed, attached or written below, and on the reverse side hereof, permission is hereby granted to WESTON SOLUTIONS, INC., Chris Kane, 45 Constitution Avenue, Suite 100, Concord, NH 03301 to enter upon the State Highway in the Town of NANTUCKET on Route M locally known as Milestone Road for the purpose of performing an aerial Survey using a helicopter to collect geophysical data over the former aerial rocket range on Nantucket Beach. The purpose of this work is to perform a remedial investigation for the United States Army Corps of Engineers.

The survey will entail flying over an area of approximately 2500 acres at altitudes ranging between 1.5 meters and 2 meters above ground level in flight times that are approximately 10 meters wide. The survey over Milestone Road will be two (2) miles long.

Message Boards and police details will be used at the Town Rotary and in Siasconset at Skinners Way as indicated in the sketches with tile" Nantucket Beach Formerly used Defense Site, dated 02/02/2012". Traffic will be stopped at these intersections to allow the helicopter to make each flight line pass for approximately five (5) minutes.

A maximum of two (2) flight line passes will be required for this work.

Message Boards will state "Flying Helicopter at Milestone Road, Be prepared to Stop"

The Grantee(s) must notify local media (newspapers, radio) of this proposed event.

A letter from the Town and County of Nantucket dated February 28, 2012 and the U.S. Department of Transportation Federal Aviation Administration approving the aerial survey project are attached and made an integral part of this permit.

BEFORE ANY WORK IS TO BE DONE WITHIN THE STATE HIGHWAY LAYOUT THE GRANTEE(S) MUST CALL THE DISTRICT PERMIT ENGINEER AT (508) 884-4306, SO THAT THE PROPOSED WORK SCHEDULE CAN BE APPROVED. THE GRANTEE MUST CONTINUE TO CONTACT THE DISTRICT THOUGHOUT THE PROJECT DURATION ON A WEEKLY BASIS, BY THE CLOSE OF BUSINESS ON THURSDAY TO REQUEST THE FOLLOWING WEEK'S PROPOSED WORK SCHEDULE.

All work is to be done as described herein and as shown on the attached traffic management plans.

Selective trimming will be allowed for sight clearing. However, tree cutting will not be allowed.

No work shall be performed on this project on Saturdays, Sundays, and Holidays, or on the Friday after a Holiday. Work is also restricted on the day before and the day after a long Holiday weekend without prior written approval by the District Highway Director.

"FOLLOWING CONDITIONS APPLY TO PERMITS"

Conditions Relating Particularly to Permits for the Laying of Pipes, Conduits, etc.

After any pipes, conduits, drains or other underground structures are laid, or any excavation is made in the roadway, the trenches or openings shall be properly backfilled with suitable material, the back-filling shall be thoroughly tamped, and the surface of the road over said structures shall be left even with the adjoining ground. If the work is done in cold weather no frozen material shall be used for back-filling.

Wherever the hardened surface of the roadway, gutters, or any part of the surface of the highway is disturbed it shall be replaced in as good condition as before it was disturbed, and if new materials are required they shall correspond with those already in place on the road.

Where service pipes are to cross the highway the connections shall be made without disturbing the hardened surface of the roadway, by driving the pipes under the roadway, or the service pipes shall be carried under and across the road in a larger pipe, unless otherwise ordered by the Director.

The Grantee shall maintain the surface of the roadway over said structures as long as MassDOT may deem necessary, until all signs of the trenches shall have been eliminated.

Conditions Relating Particularly to Permits for the Erection of Poles, Wires, and Overhead Structures, and the Cutting and Trimming of Trees

In the erection of pole lines, unless otherwise herein provided, no trees located within the limits of the State Highway shall be cut or trimmed. No guy wires shall be attached to trees without a special permit from MassDOT, and in no event shall they be so attached as to girdle the trees or in any way interfere with their growth. The wires shall be so protected at all time and places that they shall not interfere with or injure the trees either inside or outside the location of the highway.

Where the cutting or trimming of trees is authorized by this permit, only such cutting and trimming shall be done as may be designated by the Director.

In the construction or reconstruction of pole lines no guy wires shall be erected nearer to the surface of the ground than six feet; provided, however, that the owners of such lines may maintain such guy wires at a lower elevation than six feet from the ground until such time as MassDOT shall notify them to remove said wires or to the elevation first stated.

In order to protect the trees through which any wires may pass, said wires shall be insulated and such other tree guards used as may be directed by the Director.

Where high tension wires are erected under this permit, they shall be so located that, under conditions of maximum severity as regards a coating of ice or snow, there shall be a space of at least eight feet between such high tension wires and other wires.

The Grantee shall, within sixty days from the date of completion of the work, file in the office of MassDOT a plan showing the location of each pole erected in accordance with the permit, said plan to be of such size and in such form as MassDOT may direct.

General and Additional Conditions

Whenever the word "MassDOT" is used herein it shall mean the Massachusetts Department of Transportation of the Commonwealth of Massachusetts.

Whenever the word "Director" is used herein it shall mean the District Highway Director or other authorized representative of MassDOT.

Whenever the word "Grantee" is used herein it shall mean the person or persons, corporation or municipality to whom this permit is granted, or their legal representatives.

During the progress of the work all structures under ground and above ground shall be properly protected from damage or injury; such barriers shall be erected and maintained as may be necessary for the protection of the traveling public; the same shall be properly lighted at night; and the Grantee shall be responsible for the damages to persons or property due to or resulting from any work done under this permit.

Except as herein authorized, no excavation shall be made or obstacle placed within the limits of the State highways in such a manner as to interfere unnecessarily with the travel over said road.

If any grading of sidewalk work done under this permit interferes with the drainage of the State highway in any way, such catch basins and outlets shall be constructed as may be necessary, in the opinion of the Director, to take proper care of such drainage.

Wherever the hardened surface of the roadway is disturbed and the Director may consider it necessary or advisable to do so, said surface will be restored by the employees of MassDOT, at such time as MassDOT may direct, and the expense thereof shall be borne by the Grantee, who shall purchase and deliver on the road the materials necessary for said work if and when directed by the Director. All payments to the supplier and to laborers, inspectors, etc., employed by MassDOT for or on account of the work herein contemplated shall be made by said Grantee forthwith on receipt of written orders, pay rolls, or vouchers approved by MassDOT.

IF THE GRANTEE DOES ANY WORK CONTRARY TO THE ORDERS OF THE DIRECTOR, AND, AFTER DUE NOTICE, FAILS TO CORRECT SUCH WORK OR TO REMOVE STRUCTURES OR MATERIALS ORDERED TO BE REMOVED, OR FAILS TO COMPLETE WITHIN THE SPECIFIED TIME THE WORK AUTHORIZED BY THIS PERMIT, MASSDOT MAY, WITH OR WITHOUT NOTICE, CORRECT OR COMPLETE SUCH WORK IN WHOLE OR IN PART, OR REMOVE SUCH STRUCTURES OR MATERIALS, AND THE GRANTEE SHALL REIMBURSE MASSDOT FOR ANY EXPENSE INCURRED IN CORRECTING AND/OR COMPLETING THE WORK OR REMOVING THE STRUCTURES OR MATERIALS.

ALL OF THE WORK HEREIN CONTEMPLATED SHALL BE DONE UNDER THE SUPERVISION AND TO THE SATISFACTION OF THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION, AND THE ENTIRE EXPENSE THEREOF SHALL BE BORNE BY THE GRANTEE.

On the completion of the work herein contemplated all rubbish and debris shall be removed and the roadway and roadsides shall be left neat and presentable and satisfactory to the Director.

MassDOT hereby reserves the right to order the change of location or the removal of any structure or structures authorized by this permit at any time, said change or removal to be made by and at the expense of the Grantee or its / their successors or assigns.

This permit may be modified or revoked at any time by MassDOT without rendering said MassDOT or the Commonwealth of Massachusetts liable in any way.

The Grantee shall pay the salary, subsistence and travel expenses of any inspector appointed by MassDOT to supervise the work herein contemplated.

All of the above conditions shall be applicable to the work herein authorized, unless the same are inconsistent with the conditions on the face of the permit, in which case the conditions written or printed on the face of the permit shall apply.

The acceptance of this permit or the doing of any work thereunder shall constitute an agreement by the Grantee to comply with all of the conditions and restrictions printed or written herein.

No equipment, trucks, etc., shall occupy any part of the travelled way except between the hours of 9:00a.m. and 3:00p.m., Monday - Friday. In no case will operations exceed the specified hours. This includes the placement of traffic control devices, equipment or anything that restricts the flow of traffic through the work zone. Any change in work hours will require prior written approval by the District Highway Director.

If any portion of the roadway will be blocked with equipment/personnel to facilitate the proposed work, the Grantee(s) will be required to refer and adhere to a Traffic Management Plan "T.M.P." according to MassDOT, Highway Division Standards and to the Manual on Uniform Traffic Control Devices "M.U.T.C.D." (2003 Edition) with proper signing, traffic control device placement and police details.

It is imperative that all operations are managed so that motorists travel "delay" is minimized. At any time during the operation when a traffic delay of over twelve (12) minutes occurs and the situation is worsening, the Resident Engineer or Contractor will begin to suspend operations. Continuously increasing delays of over twelve (12) minutes are not to be permitted.

Traffic "stopped" for more than five (5) minutes is not permitted.

A police officer is required for traffic management as determined by MassDOT, Highway Division.

In the event of inclement weather or dense fog, which lessens the visibility of advanced warning signs, vehicles and workers, the Grantee(s) will suspend all operations so as not to interfere with the safety of the motoring public and the operations of work. In the event of snow or icing conditions, all vehicles and equipment must be removed from the roadway and/or shoulder area so as not to interfere with Snow and Ice Operations.

The Grantee(s) must contact the District Permits Section at (508) 884-4211 prior to commencing any work within the State Highway Layout. The Grantee(s) must advise this office of the proposed work schedule and the location whenever work is proposed in the layout.

The Grantee(s) must contact the "Dig Safe" Center at 1-800-322-4844 prior to doing any excavation, to obtain a "Dig Safe" number.

No hardened surface of the State Highway may be disturbed.

Care must be taken so as not to interfere with underground structures that exist in this area.

Any areas disturbed within the State Highway Layout shall be graded, loamed and seeded to the Engineer's satisfaction.

The Grantee(s) must not disturb or remove any MassDOT, Highway Division Bound(s) (MHB) associated with this project. If so disturbed or missing, the bound(s) must be reset/replaced by a Registered Land Surveyor. All procedures and materials must be in compliance with Massachusetts Design and Construction Standards. A copy of the paid bill must be submitted to this office upon completion of said work.

All debris and litter remaining from the proposed construction shall be removed by the Grantee(s) and the area left clean daily.

Signs and traffic control devices are required in the work area.

All required signs and traffic warning devices shall be furnished by the applicant. All signs and devices shall be in accordance with the Massachusetts Manual on Uniform Traffic Control Devices. The number and location of all signs and devices shall be as deemed necessary by the Engineer for the safe and efficient performance of the work and safety of the travelling public.

All warning devices shall be subject to removal, replacement and repositioning by the applicant as often as deemed necessary by the Engineer.

Cones or non-reflectorized warning devices shall not be left in operating position on the highway when the daytime operations have ceased. If it becomes necessary for MassDOT, Highway Division to remove any construction warning devices or their appurtenances from the project due to negligence by the applicant, all costs for this work will be charged to the applicant.

All vehicles, except passenger cars, which are assigned to the permitted project and which operate on the site at speeds of 25 M.P.H. or less shall have an official SLOW MOVING VEHICLE emblem displayed and subject to Chapter 90 Section 7 of the Massachusetts General Laws. All vehicles and equipment on this project must be equipped with back-up alarms.

All personnel who are working on the travelled way or breakdown lanes shall wear approved safety vests and hard hats.

All of said work shall comply with the terms and conditions herein, and must be done as directed by and to the satisfaction of the Engineer.

All work done under this contract shall be in conformance with the Massachusetts Highway Department Standard Specifications for Highways and Bridges dated 1988 and the English Supplemental Specifications dated February 25, 2010; the Standard Special Provisions contained in this book, the 1977 Construction Standards and the Supplemental Drawings dated April 2003; the 2003 Manual on Uniform Traffic Control Devices with Massachusetts Amendments; the 1990 Standard Drawings for Signs and Supports; the 1968 Standard Drawings for Traffic Signals and Highway Lighting; the latest edition of American Standard for Nursery Stock; the Plans and these Special Provisions.

The Grantee(s) shall indemnify and save harmless the Commonwealth and MassDOT, Highway Division against all suits, claims or liability of every name and nature arising at the time out of or in consequence of the acts of the Grantee(s) in the performance of the work covered by this Permit and/or failure to comply with the terms and conditions of this Permit whether by themselves or their employees or subcontractors.

A COPY OF THIS PERMIT MUST BE ON THE JOB SITE AT ALL TIMES FOR INSPECTION. FAILURE TO HAVE THIS PERMIT AVAILABLE AT THE SITE WILL RESULT IN SUSPENSION OF THE RIGHTS GRANTED BY THE PERMIT.

No work shall be done under this Permit until the Grantee has communicated with and received instructions from MassDOT, Highway Division's District Highway Director at 1000 County Street, Taunton, MA 02780.

The Permit shall be void unless the work herein contemplated shall have been completed before MARCH 8, 2013.

Dated at Taunton this 8TH day of MARCH, 2012.

MassDOT-Highway Division,

By

Mary-Joe Perry
District Highway Director

FSJ: fsj
cc: Kara Buzanoski, Nantucket DPW, 188 Madaket Road, Nantucket, MA 02554

massDOT
Massachusetts Department of Transportation
Highway Division

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FEB 14 2012

Application for Permit to Access State Highway

This Access Permit Application, including the attached Access Permit Submittal Checklist, must be completed in full by the Applicant. Instructions for this page are located on page 2. Descriptions of the two types of access permits and related categories are located on page 6. MassDOT will make the final determination regarding Access Permit Application type and category.

1. Town/City: Nantucket
2. State Highway route number and/or name: Milestone Road -
3. Locus/Property Address: NA
4. Description of property and/or facility for which access is sought (attach additional sheets if necessary):
   NA
5. Description of work to be performed within State Highway Layout (attach additional sheets if necessary):
   Airborne magnetometer digital geophysical mapping survey with a helicopter. See Traffic Management Plan for more detail.
6. Dig Safe number: NA
7. Applicant Information [1] (See footnote below.)
   Name: Weston Solutions, Inc.
   Mailing Address: 45 Constitution Ave - Suite 100, Concord, NH 03301
   Telephone: 603-656-5428
   Fax: 603-656-5401
   E-Mail: C-Kane@WestonSolutions.com
   Signature:
   Print Name: Chris Kane
   Date: 2/1/12
8. Property Owner
   Name: NA
   Mailing address:
   Telephone:
   Fax:
   E-Mail:
   Signature:
   Print Name:
   Date:

Return completed application, including Submittal Checklist, to the District Highway Director for your town/city. Refer to reverse side for appropriate address.

For office use only. Do not write below this line.

1. Application number: 5-2012-0048
2. Date received: FEB 14 2012
3. Fee amount (non-refundable) :
4. Completeness Pre-Review date:
5. MEPA required (yes or no):
   ENF-EOEEA Cert. #
   EIR-EOEEA Cert. #
   Other-EOEEA Cert. #
6. Section 61 Finding date:
7. Mass. Historic Action (yes or no):
8. Plans returned to DHD:
9. Permit Type/Category:
10. Application complete date:
11. Permit written date:
12. Permit issued date: 3-8-12
13. Permit denied:
14. Permit Recording date at Registry of Deeds

[1] If an agent is representing an Applicant, the application must include a notarized letter from the Applicant outlining the specified duties and responsibilities of the agent. Where work is proposed on a utility, the utility department must sign the application as the Applicant(s).

massDOT
Massachusetts Department of Transportation
Highway Division

Access Permit Submittal Checklist

GREY: DOT USE ONLY

This checklist provides the Applicant with a list of required submittals to obtain an Access Permit. However, additional submittals may be required to issue an Access Permit. All Applicants must fill out Part A and one additional part that correlates to the selected application type. To help identify the application type, please see the descriptions on page 6. Check each box that pertains to your application. MassDOT will make the final determination regarding Access Permit Application type and category.

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PART A: ALL APPLICANTS MUST FILL OUT

1. APPLICATION TYPE – CHECK ONE

- [x] **NON-VEHICULAR:**
  - [x] Non-Vehicular – Fill out Part B
- [ ] **VEHICULAR**
  - [ ] Category I – Minor Vehicle Access Permits: Fill out Part C-1
  - [ ] Category II – Major Vehicle Access Permits: Fill out Part C-1 and Part C-II
  - [ ] Category III – Complex Vehicle Access Permits: Fill out Part C-1 and Part C-III

2. APPLICATION TYPE (Check all applicable boxes)

- [ ] Application Complete
- [ ] Permit corresponds to appropriate MassDOT District
- [ ] Non-refundable check or money order on correct amount payable to: **MassDOT**
- [ ] Evidence certifying property owner(s) consent
- [ ] Notarized Applicant Letter outlining agent's duties and responsibilities (if applicable)
- [ ] Utility department sign-off as the Applicant(s) (if applicable)

PART B: NON-VEHICULAR PERMITS

- [ ] **IF NO PHYSICAL MODIFICATION** *to state highway layout – i.e. parade, road race, traffic counts, etc.*

  Required submittals:
  - [ ] Map of route
  - [x] Traffic Management Plan (designed in accordance with the Road Flagger & Police Regulations: 701 CMR 7.00)
  - [ ] Detour Plan(s) with municipal approval (if applicable)

- [ ] **IF DRAINAGE:**
  - [ ] If requesting connection or discharge to any MassDOT drainage system, contact District Personnel for additional information regarding required submittals.

- [ ] **IF CONSTRUCTION, RELOCATION OR REPAIR OF UTILITIES:**

  Required submittals:
  - [ ] EXISTING PROJECT: reference(s) to the documents and plans already filed with MassDOT for the affected project
  - [ ] NEW PROJECT/UTILITY WORK:

    Required submittals:
    - [ ] Engineered Plan(s) including method of crossing Highway
    - [ ] Traffic Management Plan (if applicable)
      (Designed in accordance with the Road Flagger & Police Regulations: 701 CMR 7.00)
    - [ ] Detour Plan(s) with municipal approval (if applicable)
    - [ ] Tree Cutting or Landscaping Plan (if applicable)
    - [ ] Vegetative Plan including plant species and maturity size (if applicable)
    - [ ] Blasting Plan (contact District Personnel for additional information)

GREY: MHD USE ONLY

PART C-I : VEHICULAR PERMITS

(Not Applicable)

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CATEGORY I – Minor Vehicular Access Permits

Required Submittals:

- ☐ Engineering Plans
- ☐ ENF - (Environmental Notification Form) Certificate (if applicable)

IF RESIDENTIAL DRIVEWAY:

- ☐ Detailed plan/sketch showing the drive location in relation to the property lines, MassHighway baselines, distance from nearest mile marker, and an easily identifiable fixed object (distance from telephone poles, mail boxes, other drives, etc.).
- ☐ If severe topographic conditions exist, an engineered plan showing the driveway layout, profile and storm water management may be necessary to show that the edge of the proposed drive is protected during and after construction to prevent sediment and debris from entering upon the State Highway Layout (SHLO).

IF COMMERCIAL DRIVEWAY: (where no MEPA review is required)

Required Submittals:

- ☐ **Two (2) 40 scale plans that include:**
  - ☐ A. Route Number, Road Name, Property Address
  - ☐ B. Property Corners and Bounds
  - ☐ C. Lot Line Dimensions, Bearings and Distances
  - ☐ D. State Highway Layout Lines (both sides) and Nearest Massachusetts Highway Bounds (if found).
  - ☐ E. State Highway Baseline and both edges of roadway including any sidewalks and type of edging, if any, and shoulder information (grass, gravel etc.).
  - ☐ F. Any existing drive to be altered or closed shall be indicated. Existing and proposed dimensions should be included for altered drives.
  - ☐ G. Information on all proposed drives including radii, widths, handicap ramps, etc. must be shown.
  - ☐ H. All existing and proposed buildings, utilities, trees, stonewalls, fences etc., should be labeled and shown in their correct location.
  - ☐ I. It is required that all stands, buildings, gasoline pumps and structures of any kind be placed at least 12 feet back from the State Highway Layout Line, since conducting of business within a State Highway Layout is forbidden.
  - ☐ J. Complete detail on drainage; all drives should be constructed on a downgrade from the edge of the highway surface or shoulder to the State Highway Layout Line.
  - ☐ K. Engineered plans will be required to show that storm flows are not directed into the SHLO, using contour lines, where applicant/owner property elevations are raised from the edge of the highway.
  - ☐ L. The plans should identify measures to protect the edge of the proposed drive during and after construction to prevent sediment and debris from entering upon the SHLO.

IF NEW STREET/SUBDIVISION ROAD:

Minor Intersection and Roadway Reconstruction (where no MEPA review is required)

Required Submittals:

- ☐ All Commercial Driveway requirements (above) apply in addition to the following: Evidence of acceptance, including its line, grade and proposed drainage, by a local planning board, or other City or Town official with such authority.
- ☐ A street/road profile from its nearest high point and plan of drainage.

Please be advised:

- It will be required that all such future street approaches be constructed on a downgrade, where possible, from the edge of highway surface or shoulder to the State Highway Layout Line.
- Common driveway criteria may apply and must be shown on plans as mentioned above.

GREY: MHD USE ONLY

PART C-II : VEHICULAR PERMITS

(Not Applicable)

CATEGORY II – Major Vehicular Access Permits

Required Submittals:

- ☐ Engineering Plans based on the standards in the Manual On Uniform Traffic Control Devices (MUTCD), MassHighway's Project Development & Design Guide or its successor, MassHighway's Standard Specifications for Highway and Bridges, and any current technical policies or engineering directives issued by MassHighway. All PS&E design submissions must be both in hard copy (one set) and electronic format. Electronic format includes PDF files transmitted to DHD or designee via USB Flash Drive, DVD or posted to a FTP site.
- ☐ In cases where a proposed access is to be shared by multiple development sites, the Applicant(s) will provide evidence of the rights of access between the parties involved prior to the issuance of the Access Permit.
- ☐ MEPA Certificate
- ☐ Section 61 Finding

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PERMITS OFFICE

PART C-III : VEHICULAR PERMITS

CATEGORY III – Complex Vehicular Permits

Required Submittals:

- ☐ Engineering Plans based on the standards in the Manual On Uniform Traffic Control Devices (MUTCD), MassHighway's Project Development & Design Guide or its successor, MassHighway's Standard Specifications for Highway and Bridges, and any current technical policies or engineering directives issued by MassHighway. All PS&E design submissions must be both in hard copy (one set) and electronic format. Electronic format includes PDF files transmitted to DHD or designee via USB Flash Drive, DVD or posted to a FTP site.
- ☐ In cases where a proposed access is to be shared by multiple development sites, the Applicant(s) will provide evidence of the rights of access between the parties involved prior to the issuance of the Access Permit.
- ☐ MEPA Certificate
- ☐ Section 61 Finding

Recording of Access Permits

Applicants must record any Vehicular Access Permit and plans or any Non-vehicular Access Permit and plans involving drainage at the appropriate registry of deeds. Any Permit issued by MassHighway that requires recording will not be effective until recorded at the appropriate Registry of Deeds and a notice of recording is submitted to the District Highway Director (DHD). Changes may require the re-recording of permits and related documents. In those cases, permits will not be effective until re-recorded at the Registry of Deeds and a notice of recording is submitted to the DHD.

RECEIVED
FEB 14 2012

Traffic Management Plan

Weston Solutions, Inc. (WESTON®) is performing a remedial investigation at the Nantucket Beach Formerly Used Defense Site located on Nantucket Island, Massachusetts for the United States (U.S.) Army Corps of Engineers, Baltimore and New England District Offices. This Traffic Management Plan is being submitted with the attached MassDOT Application for Permit to Access State Highway and the attached Access Permit Submittal Checklist in order to address the temporary closing of Milestone Road as part of the investigation.

The investigation includes performing an aerial survey using a helicopter to collect geophysical data over the former aerial rocket range on Nantucket. The land portion of the survey is located within a Munitions Response Site (MRS 2) and is shown in the attached figure (Road Map-Figure 8). The helicopter which will be stationed at the Nantucket Municipal Airport will fly to the survey area daily. The survey will entail flying over an area of approximately 2500 acres at altitudes ranging between 1.5 meters and 2 meters above ground level in flight lines that are approximately 10 meters wide.

A small segment of this investigation involves flying over Milestone Road which is a State Highway. WESTON is requesting a Permit to Access State Highway for that portion of Milestone Road (approximately 2 miles) to accomplish the flight lines adjacent to Milestone Road. The limits of the work extend from a location just west of Old South Road intersection with Milestone Road to a location just east of Tom Nevers Road intersection with Milestone Road. Figure 8 shows the limits of work on Milestone Road.

WESTON is proposing to utilize message boards to alert motorists of the upcoming work. Message boards will be placed at the town rotary and in Siasconset at Skinners Way. (See attached Figure 9). WESTON proposes on using a police detail to stop traffic at the eastern most limit of work on Milestone Road and another police detail at the western most limit of work on Milestone Road in order to allow the helicopter to make each flight line pass. The approximate time for traffic stoppage would be 5-10 minutes for each flight line pass.

The work will be accomplished (depending on weather) in 1-2 days in March 2012 (likely the first or second week) between the hours of 9:00 AM and 3:00 PM. WESTON will contact MassDOT after permit approval within 2 days of actual work. WESTON will also coordinate with local authorities based on permit conditions.

→ 2 flight line passes will be required and traffic will be stopped for appx. 5 min.

→ Message boards will state "flying Helicopter at Milestone Road, Be prepared to stop"

Advised to applicant 2-23-12

TOWN AND COUNTY OF NANTUCKET

16 Broad Street
Nantucket, Massachusetts 02554

Telephone (508) 228-7255
Facsimile (508) 228-7272
www.nantucket-ma.gov

February 28, 2012

RECEIVED
FEB 29 2012
PERMITS OFFICE

MassDOT, Highway Division, District 5
Attn: Florcie S. Jerome
Permits Office
1000 County Street
Taunton, MA 02780

Re: Nantucket – Milestone Road – Permit # 5-2012-0048

Dear Ms. Jerome:

At the Nantucket Board of Selectmen's meeting on February 15, 2012, a representative from the Army Corps of Engineers made a presentation to the Board in conjunction with Weston Solutions, Inc., regarding the upcoming aerial survey project. The Board members had no issues with the temporary stoppage of traffic for 1-2 days on the Milestone Road, so long as the public is adequately notified and diverted as necessary in advance of the stoppages. The Board agrees that the survey will be conducted between March 1 and March 24, 2012 and that the area of the aerial survey will be over/adjacent to Milestone Road.

If you have any questions, please contact me at 508-228-7255.

Sincerely,

C. Elizabeth Gibson
Town and County Manager

Cc: Christopher G. Kane, PMP, Weston Solutions, Inc.
Board of Selectmen

U.S. Department
of Transportation
**Federal Aviation
Administration**

Boston Flight Standards District Office

One Cranberry Hill
Fourth Floor, Suite 402
Lexington, MA 02421-7394
Phone: (781) 357-4900
Fax : (781) 357-4899

RECEIVED
MAR - 8 2012
PERMITS OFFICE

Florcie S. Jerome
MassDOT, Highway Division, District 5
Permits Office
1000 County Street
Taunton, MA 02780

Dear Ms. Jerome

This letter is in regards to the MassDOT, Highway Division, District 5 planned aerial survey during the period March 1, 2012 to March 24, 2012 over the Milestone Road area of Nantucket as depicted on the provided Aerial Vertical Magnetic Gradient Survey Flight Areas diagram, dated 1/31/2012.

This area is within the Nantucket Airport Class D airspace. As such any flight operations are required to be coordinated with and have the specific approval of the Nantucket Air Traffic Control Tower.

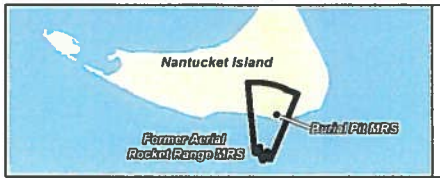
Flight operations must be conducted in accordance with all the Code of Federal Regulations Part 91. Specifically 14 CFR 91.119. All flight operations must be conducted without hazard to persons or property on the ground.

All roads with in the survey flight areas must be free of vehicular traffic or personnel and controlled by appropriate law enforcement agencies.

Sincerely,

Robert K. Berlyn
Aviation Safety Inspector





Flight Areas

- Area A
- Area B
- Area C

- FUDS Boundary
- MRS 1 – Burial Pit
- MRS 2 – Aerial Rocket Range
- Temporary Road Closure

US Army Corps of Engineers

Nantucket Beach Formerly Used Defense Site

WESTON SOLUTIONS

FIGURE 9
Message Board/Sign Location
Nantucket, MA

N

0 1,300 2,600 3,900 Feet

0 500 1,000 1,500 Meters

NOTES:
Aerial Data Source: ESRI iCubed Imagery Prime World 2D (2004)
Base Data: USACE (2004)

2/2/2012	NT_MsgBrd_SignLoc.mxd
Drawn: zieglera	PROJ: 03886.551.004

FEB 14 2012



Flight Areas

- Area A
- Area B
- Area C

- FUDS Boundary
- MRS 1 – Burial Pit
- MRS 2 – Aerial Rocket Range
- Temporary Road Closure

US Army Corps of Engineers

Nantucket Beach Formerly Used Defense Site

WESTON SOLUTIONS

FIGURE 8
Area Road Map
Nantucket, MA

N

0 920 1,840 2,760 Feet

0 340 680 1,020 Meters

NOTES:
Aerial Data Source: ESRI iCubed Imagery Prime World 2D (2004)
Base Data: USACE (2004)

1/31/2012	NT_RoadMap.mxd
Drawn: zieglera	PROJ: 03886.551.004

FEB 14 2012

NUMBER
5

THE COMMONWEALTH OF MASSACHUSETTS

FEE
$30.00

Town of Westport

This is to Certify that Mid City Scrap Iron + Salvage
NAME

548 State Rd. Westport, MA
ADDRESS

IS HEREBY GRANTED A PERMIT

For The Collection of Junk, old Metals, Precious Metals and Second-Hand Articles in accordance with Chap. 140 Sec. 54 of M.G.L., Subject to Sections 202-205 inclusive and Town By-Law Article 57.

This permit is granted in conformity with the Statutes and ordinances relating thereto, and expires May 1, 2013 unless sooner suspended or revoked.

May 17, 2012

Marlene M. Lemaire

FORM 451 H&W HOBBS & WARREN™

APPENDIX D

LOCATION SURVEY DATA

APPENDIX D
Location Survey Data
Nantucket Beach FUDS Remedial Investigation
Nantucket, MA

Easting	Northing	Point ID	Comment
1359399.92	14980983.16	CP-01	Survey Control
1359145.17	14980575.51	CP-02	Survey Control
1357619.57	14980358.80	CP-03	Survey Control
1359864.74	14979908.82	CP-04	Survey Control
1360764.11	14980148.81	AC-01-G01	Grid Corner
1360784.11	14980148.81	AC-01-G01	Grid Corner
1360764.11	14980168.81	AC-01-G01	Grid Corner
1360784.11	14980168.81	AC-01-G01	Grid Corner
1360517.37	14979900.58	AC-01-G02	Grid Corner
1360430.62	14979950.33	AC-01-G02	Grid Corner
1360567.12	14979987.32	AC-01-G02	Grid Corner
1360480.38	14980037.08	AC-01-G02	Grid Corner
1360935.14	14979832.00	AC-01-G03	Grid Corner
1361035.14	14979832.00	AC-01-G03	Grid Corner
1360935.14	14979932.00	AC-01-G03	Grid Corner
1361035.14	14979932.00	AC-01-G03	Grid Corner
1360264.06	14980311.54	AC-01-G04	Grid Corner
1360364.06	14980311.55	AC-01-G04	Grid Corner
1360264.06	14980411.55	AC-01-G04	Grid Corner
1360364.06	14980411.55	AC-01-G04	Grid Corner
1359460.77	14980311.23	AC-01-G05	Grid Corner
1359560.77	14980311.23	AC-01-G05	Grid Corner
1359460.77	14980411.23	AC-01-G05	Grid Corner
1359560.77	14980411.23	AC-01-G05	Grid Corner
1359180.98	14980266.30	AC-01-G06	Grid Corner
1359280.98	14980266.30	AC-01-G06	Grid Corner
1359180.98	14980366.30	AC-01-G06	Grid Corner
1359280.98	14980366.30	AC-01-G06	Grid Corner
1361237.15	14980157.91	AC-01-G07	Grid Corner
1361287.15	14980157.91	AC-01-G07	Grid Corner
1361237.15	14980207.91	AC-01-G07	Grid Corner
1361287.15	14980207.91	AC-01-G07	Grid Corner
1360344.23	14980436.32	AC-01-G08	Grid Corner
1360252.16	14980475.34	AC-01-G08	Grid Corner
1360383.25	14980528.39	AC-01-G08	Grid Corner
1360291.18	14980567.41	AC-01-G08	Grid Corner
1360054.02	14980490.26	AC-01-G09	Grid Corner
1360113.50	14980498.20	AC-01-G09	Grid Corner
1360031.97	14980655.47	AC-01-G09	Grid Corner
1360091.45	14980663.40	AC-01-G09	Grid Corner
1359544.06	14980592.38	AC-01-G10	Grid Corner
1359644.06	14980592.38	AC-01-G10	Grid Corner
1359544.06	14980692.38	AC-01-G10	Grid Corner

APPENDIX D
Location Survey Data
Nantucket Beach FUDS Remedial Investigation
Nantucket, MA

Easting	Northing	Point ID	Comment
1359644.06	14980692.38	AC-01-G10	Grid Corner
1359350.56	14980554.14	AC-01-G11	Grid Corner
1359450.56	14980554.14	AC-01-G11	Grid Corner
1359350.56	14980654.14	AC-01-G11	Grid Corner
1359450.56	14980654.14	AC-01-G11	Grid Corner
1360334.19	14980710.61	AC-01-G12	Grid Corner
1360434.19	14980710.61	AC-01-G12	Grid Corner
1360334.19	14980810.61	AC-01-G12	Grid Corner
1360434.19	14980810.61	AC-01-G12	Grid Corner
1360719.75	14980849.45	AC-01-G13	Grid Corner
1360819.75	14980849.45	AC-01-G13	Grid Corner
1360719.75	14980949.45	AC-01-G13	Grid Corner
1360819.75	14980949.45	AC-01-G13	Grid Corner
1360054.09	14980905.39	AC-01-G14	Grid Corner
1360154.09	14980905.39	AC-01-G14	Grid Corner
1360054.09	14981005.39	AC-01-G14	Grid Corner
1360154.09	14981005.39	AC-01-G14	Grid Corner
1359540.62	14980954.52	AC-01-G15	Grid Corner
1359640.62	14980954.52	AC-01-G15	Grid Corner
1359540.62	14981054.52	AC-01-G15	Grid Corner
1359640.62	14981054.52	AC-01-G15	Grid Corner
1359218.47	14980836.36	AC-01-G16	Grid Corner
1359318.47	14980836.36	AC-01-G16	Grid Corner
1359218.47	14980936.36	AC-01-G16	Grid Corner
1359318.47	14980936.36	AC-01-G16	Grid Corner
1360121.96	14981197.68	AC-01-G17	Grid Corner
1360221.96	14981197.68	AC-01-G17	Grid Corner
1360121.96	14981297.68	AC-01-G17	Grid Corner
1360221.96	14981297.68	AC-01-G17	Grid Corner
1359783.67	14981214.45	AC-01-G18	Grid Corner
1359883.67	14981214.45	AC-01-G18	Grid Corner
1359783.67	14981314.45	AC-01-G18	Grid Corner
1359883.67	14981314.45	AC-01-G18	Grid Corner
1359561.69	14981176.50	AC-01-G19	Grid Corner
1359661.69	14981176.50	AC-01-G19	Grid Corner
1359561.69	14981276.50	AC-01-G19	Grid Corner
1359661.69	14981276.50	AC-01-G19	Grid Corner
1360017.86	14981484.75	AC-01-G20	Grid Corner
1360117.86	14981484.75	AC-01-G20	Grid Corner
1360017.86	14981584.75	AC-01-G20	Grid Corner
1360117.86	14981584.75	AC-01-G20	Grid Corner
1361417.05	14980290.01	AC-01-G21	Grid Corner
1361517.05	14980290.01	AC-01-G21	Grid Corner

APPENDIX D
Location Survey Data
Nantucket Beach FUDS Remedial Investigation
Nantucket, MA

Easting	Northing	Point ID	Comment
1361417.05	14980390.01	AC-01-G21	Grid Corner
1361517.05	14980390.01	AC-01-G21	Grid Corner
1355594.81	14980802.29	AC-02-G01	Grid Corner
1355694.81	14980802.29	AC-02-G01	Grid Corner
1355594.81	14980902.29	AC-02-G01	Grid Corner
1355694.81	14980902.29	AC-02-G01	Grid Corner
1361528.73	14988603.63	AC-05-G01	Grid Corner
1361578.73	14988603.63	AC-05-G01	Grid Corner
1361528.73	14988653.63	AC-05-G01	Grid Corner
1361578.73	14988653.63	AC-05-G01	Grid Corner
1361468.30	14988727.73	AC-05-G02	Grid Corner
1361518.30	14988727.73	AC-05-G02	Grid Corner
1361468.30	14988777.73	AC-05-G02	Grid Corner
1361518.30	14988777.73	AC-05-G02	Grid Corner
1359803.44	14989349.79	AC-05-G03	Grid Corner
1359853.44	14989349.79	AC-05-G03	Grid Corner
1359803.44	14989399.79	AC-05-G03	Grid Corner
1359853.44	14989399.79	AC-05-G03	Grid Corner
1359595.88	14989671.78	AC-05-G04	Grid Corner
1359645.88	14989671.78	AC-05-G04	Grid Corner
1359595.88	14989721.78	AC-05-G04	Grid Corner
1359645.88	14989721.78	AC-05-G04	Grid Corner
1358455.73	14989922.11	AC-05-G05	Grid Corner
1358505.73	14989922.11	AC-05-G05	Grid Corner
1358455.73	14989972.11	AC-05-G05	Grid Corner
1358505.73	14989972.11	AC-05-G05	Grid Corner
1358040.89	14989410.19	AC-05-G06	Grid Corner
1358090.89	14989410.19	AC-05-G06	Grid Corner
1358040.89	14989460.19	AC-05-G06	Grid Corner
1358090.89	14989460.19	AC-05-G06	Grid Corner
1357758.08	14989647.36	AC-05-G07	Grid Corner
1357808.08	14989647.36	AC-05-G07	Grid Corner
1357758.08	14989697.36	AC-05-G07	Grid Corner
1357808.08	14989697.36	AC-05-G07	Grid Corner
1357612.18	14990136.83	AC-05-G08	Grid Corner
1357662.18	14990136.83	AC-05-G08	Grid Corner
1357612.18	14990186.83	AC-05-G08	Grid Corner
1357662.18	14990186.83	AC-05-G08	Grid Corner
1360926.33	14979702.42	AC-01-T01	Transect End Point
1358884.04	14980020.88	AC-01-T01	Transect End Point
1360920.26	14979750.58	AC-01-T02	Transect End Point
1358877.94	14980069.04	AC-01-T02	Transect End Point
1360198.19	14979912.03	AC-01-T03	Transect End Point

APPENDIX D
Location Survey Data
Nantucket Beach FUDS Remedial Investigation
Nantucket, MA

Easting	Northing	Point ID	Comment
1360595.57	14979850.06	AC-01-T03	Transect End Point
1360553.79	14980146.16	AC-01-T04	Transect End Point
1360468.50	14980163.19	AC-01-T04	Transect End Point
1359116.55	14980584.72	AC-01-T05	Transect End Point
1359623.93	14980426.16	AC-01-T05	Transect End Point
1360501.33	14980503.66	AC-01-T06	Transect End Point
1359994.30	14980705.92	AC-01-T06	Transect End Point
1359959.50	14980713.97	AC-01-T07	Transect End Point
1359163.73	14980725.78	AC-01-T07	Transect End Point
1360198.62	14980805.54	AC-01-T08	Transect End Point
1358928.55	14980824.39	AC-01-T08	Transect End Point
1360081.59	14980878.79	AC-01-T09	Transect End Point
1359649.04	14980885.21	AC-01-T09	Transect End Point
1359100.00	14981098.70	AC-01-T10	Transect End Point
1360431.57	14981090.13	AC-01-T10	Transect End Point
1359506.02	14981374.52	AC-01-T11	Transect End Point
1360393.94	14981374.52	AC-01-T11	Transect End Point
1359536.54	14981469.14	AC-01-T12	Transect End Point
1360387.50	14981469.14	AC-01-T12	Transect End Point
1359613.62	14981616.63	AC-01-T13	Transect End Point
1360402.01	14981605.73	AC-01-T13	Transect End Point
1359823.13	14981755.06	AC-01-T14	Transect End Point
1360552.49	14981755.06	AC-01-T14	Transect End Point
1360934.53	14979639.63	AC-01-T15	Transect End Point
1359030.35	14979936.55	AC-01-T15	Transect End Point
1359029.82	14980135.52	AC-01-T16	Transect End Point
1358670.55	14980191.54	AC-01-T16	Transect End Point
1354535.06	14980882.82	AC-02-T01	Transect End Point
1355920.26	14980650.79	AC-02-T01	Transect End Point
1354531.36	14980929.60	AC-02-T02	Transect End Point
1355916.56	14980697.57	AC-02-T02	Transect End Point
1355264.72	14981120.70	AC-02-T03	Transect End Point
1354868.71	14981120.70	AC-02-T03	Transect End Point
1354581.86	14981173.94	AC-02-T04	Transect End Point
1355384.55	14981173.94	AC-02-T04	Transect End Point
1357578.06	14980311.15	AC-03-T01	Transect End Point
1358351.60	14980130.77	AC-03-T01	Transect End Point
1357588.30	14980344.24	AC-03-T02	Transect End Point
1358352.39	14980170.94	AC-03-T02	Transect End Point
1355554.60	14984784.25	AC-04-T01	Transect End Point
1356128.65	14984826.82	AC-04-T01	Transect End Point
1355669.88	14985532.03	AC-04-T02	Transect End Point
1355736.38	14984933.56	AC-04-T02	Transect End Point

APPENDIX D
Location Survey Data
Nantucket Beach FUDS Remedial Investigation
Nantucket, MA

Easting	Northing	Point ID	Comment
1355842.35	14985558.56	AC-04-T03	Transect End Point
1355908.85	14984960.09	AC-04-T03	Transect End Point
1355459.47	14985672.16	AC-04-T04	Transect End Point
1356033.52	14985714.74	AC-04-T04	Transect End Point

Note: Project coordinate system: NAD83 UTM, U.S.ft.

APPENDIX E

GEOPHYSICAL DATA

Nantucket Beach FUDS Digital Geophysical Mapping

Location: MRS 1 – EM31-MK2 DGM Surveys

Data Collection Date:

EM31-MK2: 06/20/12 - 06/21/12

DATA

EM31-MK2 data are provided in raw and processed formats. Processed data include Geosoft database and map files.

FILE AND FOLDER STRUCTURE

Data deliverable formats are divided into 4 directories:

-Mapping Data (electronic and hardcopy)
-Raw Data (electronic only)
-QC Data (electronic and hardcopy)
-PDFs (electronic and hardcopy-Mapping and QC Data)

Mapping Data in Geosoft Format are provided in the following structure:

-Geosoft mapping data by survey area

Raw data are provided in the "Raw Data" directory, organized by date.

Raw data are provided in the following formats:

-EM31-MK2 XYZ format (*.XYZ)

QC Data are provided in the "QC Data" directory, organized by date

-Geosoft format QC data by date

PDF plots of Mapping and QC Datasets are provided in the PDFs directory



Inphase Response (ppm)

-6 -3 -1 0 1 2 3 4 6 7 8 9 11

50 0 50 100

US survey foot

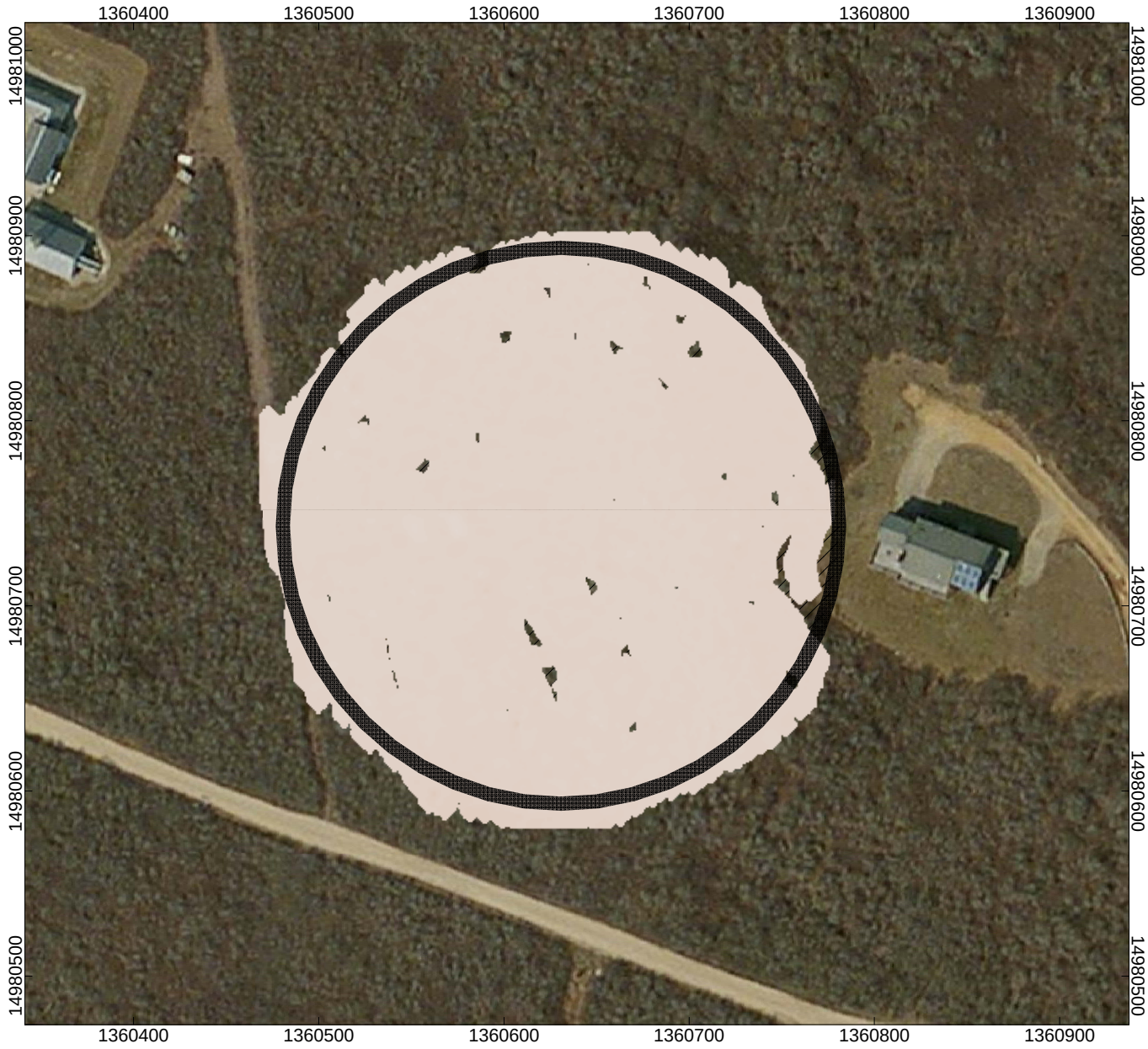
NAD83 / UTM zone 19N

MRS-1
EM31-MK2 Survey
Inphase Response

Nantucket, MA

LEGEND

- Geophysical Target
- MRS 1 Boundary
- Obstruction/Non-Removeable Brush



Conductivity (ms/m)

-5 4 5 6 6 7 8 8 9 9 10 11 12 13 15 18 25 35

50 0 50 100

US survey foot

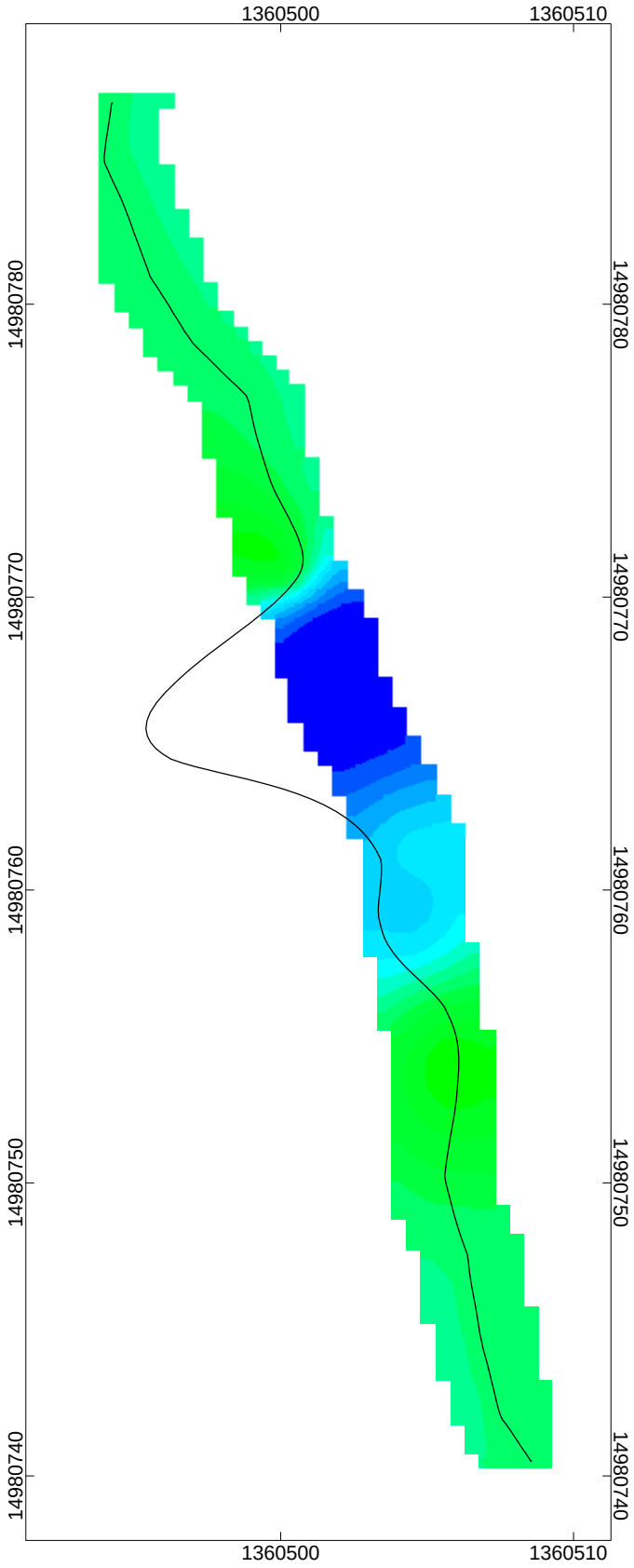
NAD83 / UTM zone 19N

MRS-1
EM31-MK2 Survey
Conductivity Response

Nantucket, MA

LEGEND

- Geophysical Target
- MRS 1 Boundary
- Obstruction/Non-Removeable Brush



Inphase Response (ppm)

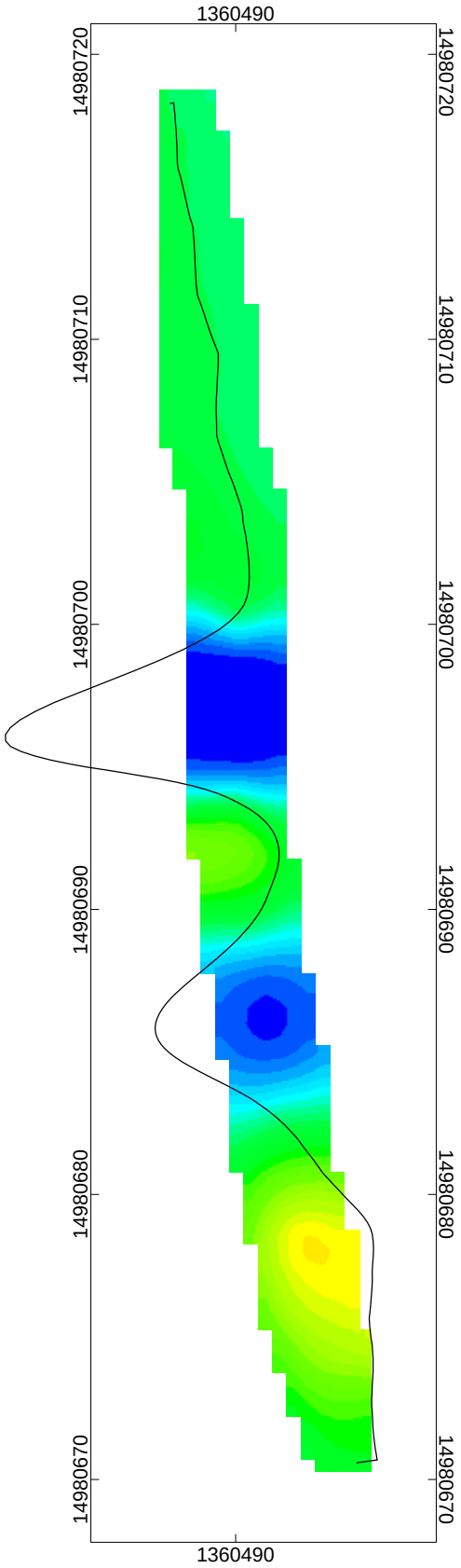
-6 -3 -1 0 1 2 3 4 6 7 8 9 11

5 0 5

US survey foot

WGS 84 / UTM zone 19N

EM31-MK2 Survey
Dynamic Spike - 06/20/12am
Inphase Response



Inphase Response (ppm)

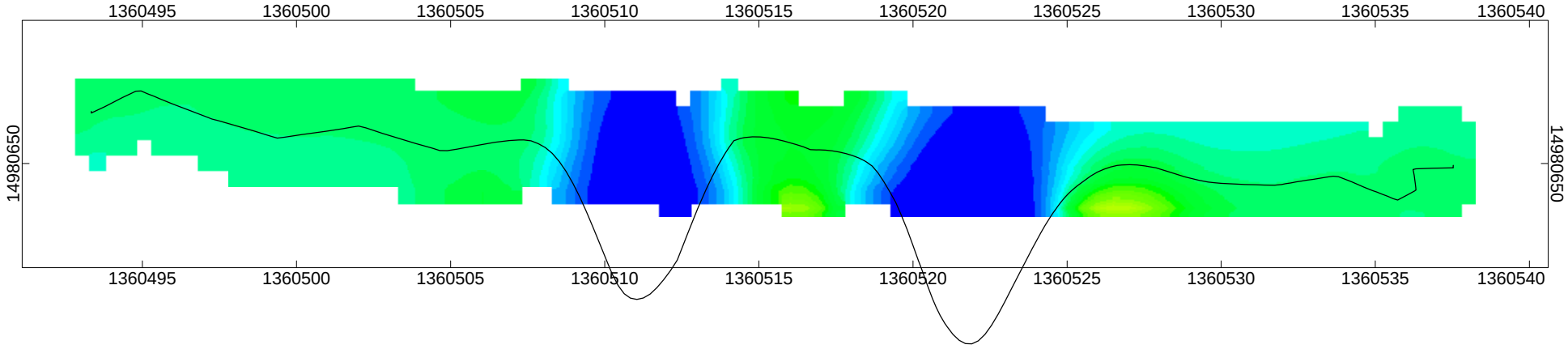
-6 -3 -1 0 1 2 3 4 6 7 8 9 11

5 0 5

US survey foot

WGS 84 / UTM zone 19N

EM31-MK2 Survey
Dynamic Spike - 06/20/12pm
Inphase Response



Inphase Response (ppm)

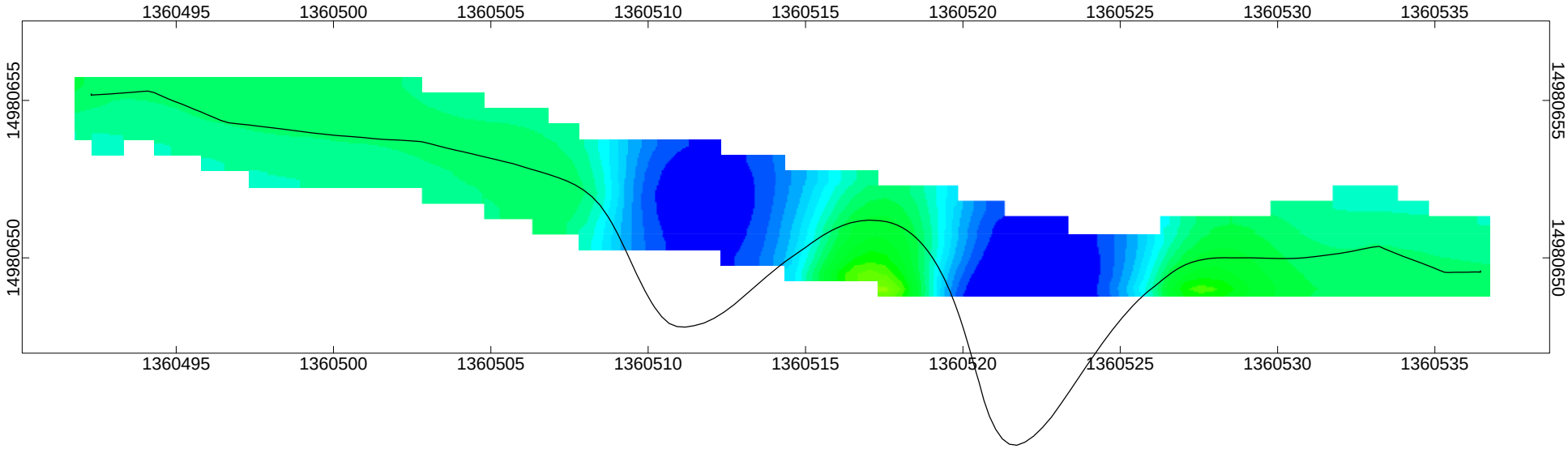
-6 -3 -1 0 1 2 3 4 6 7 8 9 11

2.5 0 2.5 5 7.5

US survey foot

WGS 84 / UTM zone 19N

EM31-MK2 Survey
Dynamic Spike - 06/21/12am
Inphase Response



Inphase Response (ppm)

-6 -3 -1 0 1 2 3 4 6 7 8 9 11

2.5 0 2.5 5 7.5

US survey foot

WGS 84 / UTM zone 19N

EM31-MK2 Survey
Dynamic Spike - 06/21/12pm
Inphase Response

Nantucket Beach FUDS Digital Geophysical Mapping

Location: MRS 2 – EM61-MK2 DGM Grid and Transect Surveys

Data Collection Date:

EM61-MK2: 06/07/12 - 07/03/12

DATA

EM61-MK2 data are provided in raw and processed formats. Processed data include Geosoft database and map files.

FILE AND FOLDER STRUCTURE

Data are organized by anomaly cluster (AC-01, AC-02, etc..) with each containing subfolders for each grid/transect. Also included are IVS and Quality Control data organized by date.

Data deliverable formats are divided into 3 directories per grid/transect:

-Mapping Data (electronic and hardcopy)
-Raw Data (electronic only)
-QC Data (electronic and hardcopy)
-PDFs (electronic and hardcopy-Mapping and QC Data)

Mapping Data in Geosoft Format are provided in the following structure:

-Geosoft mapping data by survey area

Raw data are provided in the “Raw Data” directory, organized by Date.

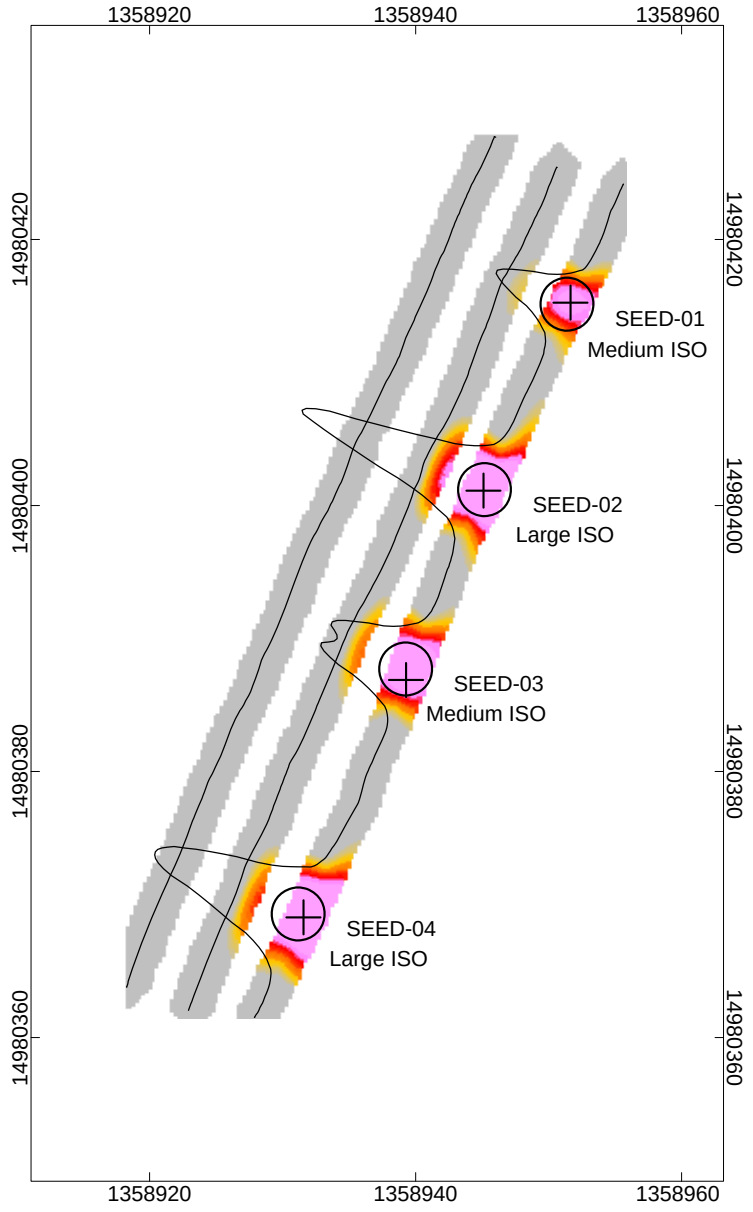
Raw data are provided in the following formats:

-EM61-MK2 XYZ format (*.XYZ)

QC and IVS Data are provided in the “Quality Control” directory, organized by date

-Geosoft format QC data by date

PDF plots of Mapping and QC Datasets are provided in the PDFs directory



EM61-MK2 IVS

06/11/2012 - AM

IVS Location - MRS 2
Nantucket, MA

LEGEND

IVS Seed Item

Geophysical Target

CH3 Response (mV)

-3 -1 -0 1 2 4 6 8 11 20 43

10 0 10

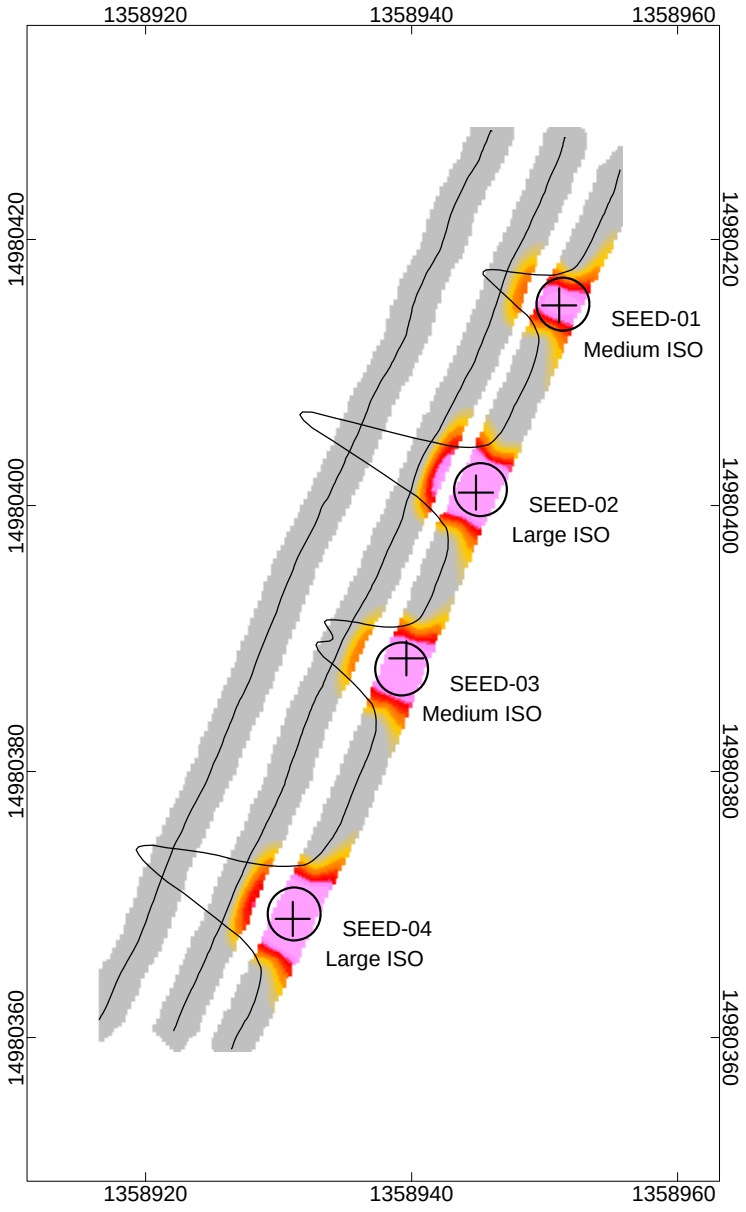
US survey foot

WGS 84 / UTM zone 18N

EM61-MK2 IVS

IVS Location - MRS 2

Nantucket, MA



EM61-MK2 IVS

06/11/2012 - PM

IVS Location - MRS 2
Nantucket, MA

LEGEND

IVS Seed Item

Geophysical Target

CH3 Response (mV)

-3 -1 -0 1 2 4 6 8 11 20 43

10 0 10

US survey foot

WGS 84 / UTM zone 18N

EM61-MK2 IVS

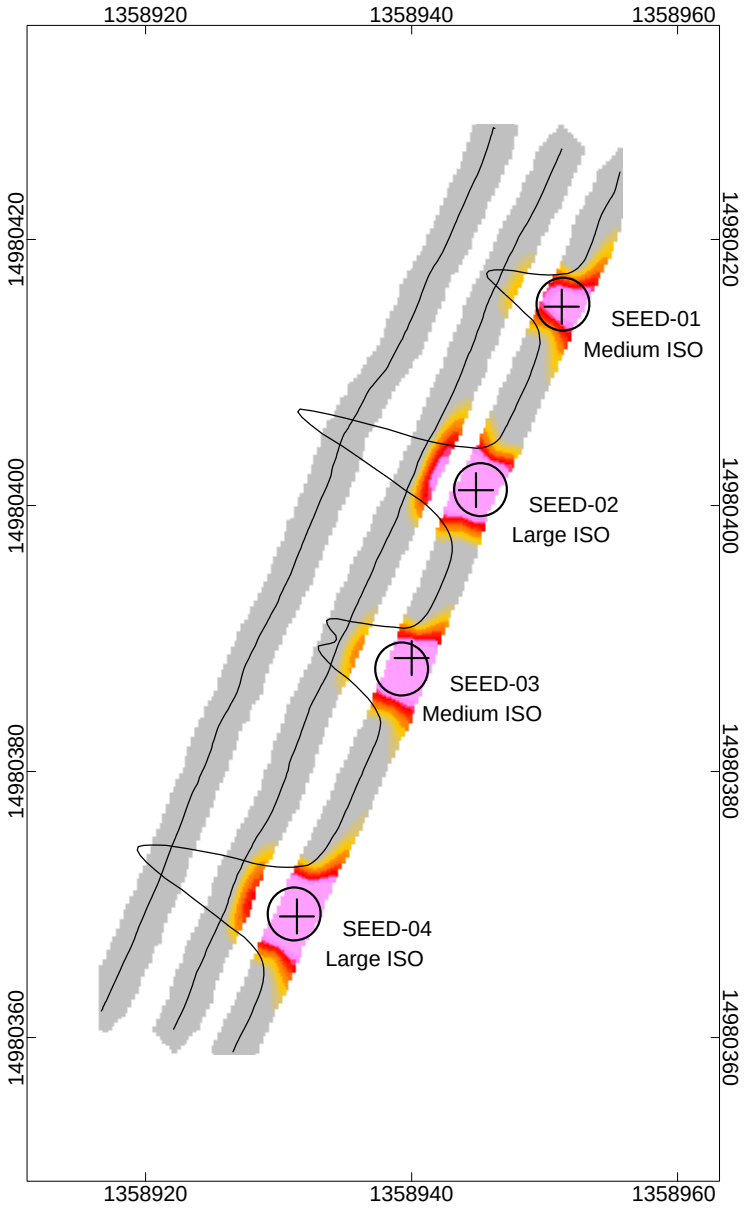
IVS Location - MRS 2

Nantucket, MA

EM61-MK2 IVS

06/12/2012 - AM

IVS Location - MRS 2
Nantucket, MA



LEGEND

IVS Seed Item

Geophysical Target

CH3 Response (mV)

-3 -1 -0 1 2 4 6 8 11 20 43

10 0 10

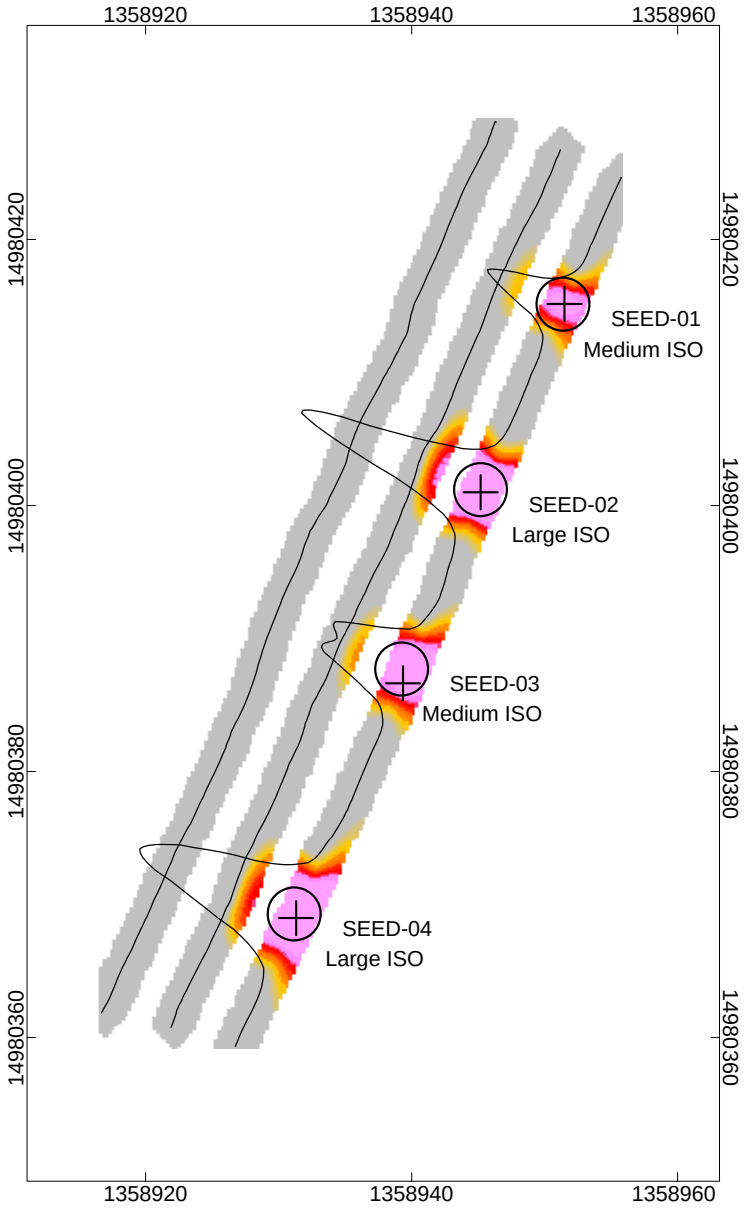
US survey foot

WGS 84 / UTM zone 18N

EM61-MK2 IVS

IVS Location - MRS 2

Nantucket, MA



EM61-MK2 IVS

06/12/2012 - PM

IVS Location - MRS 2
Nantucket, MA

LEGEND

IVS Seed Item

Geophysical Target

CH3 Response (mV)

-3 -1 -0 1 2 4 6 8 11 20 43

10 0 10

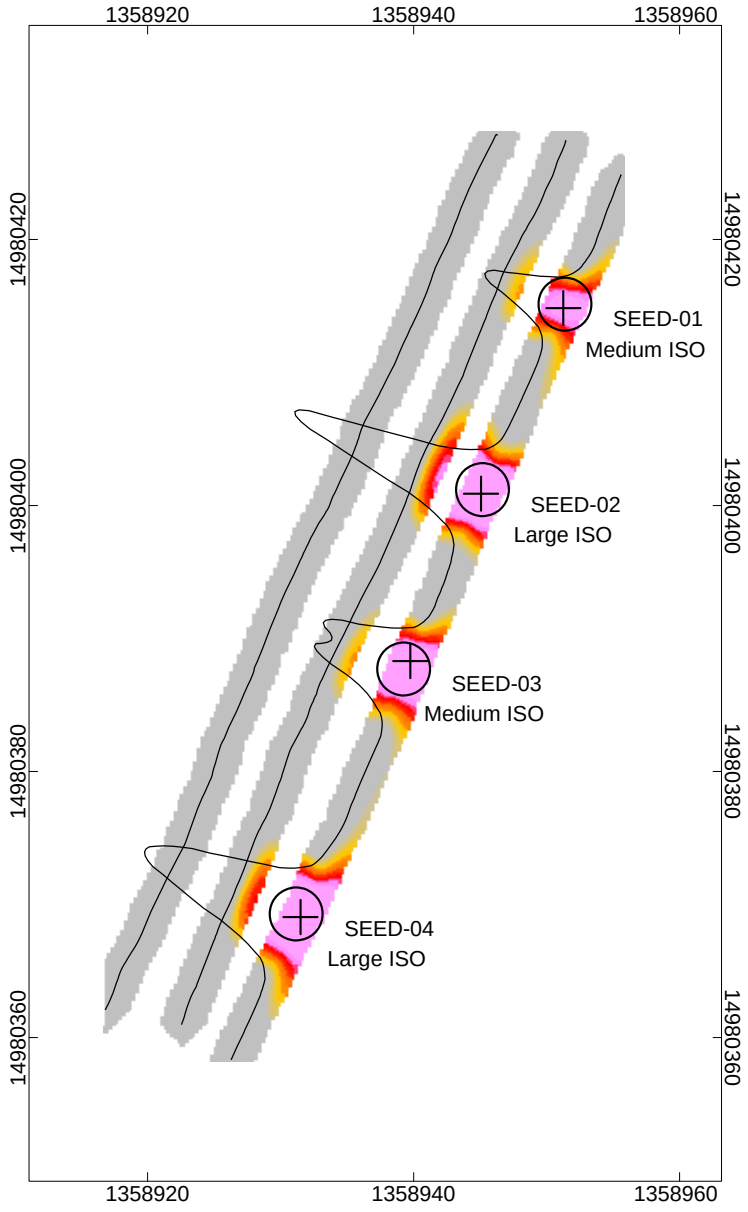
US survey foot

WGS 84 / UTM zone 18N

EM61-MK2 IVS

IVS Location - MRS 2

Nantucket, MA



EM61-MK2 IVS

06/14/2012 - AM

IVS Location - MRS 2
Nantucket, MA

LEGEND

IVS Seed Item

Geophysical Target

CH3 Response (mV)

-3 -1 -0 1 2 4 6 8 11 20 43

10 0 10

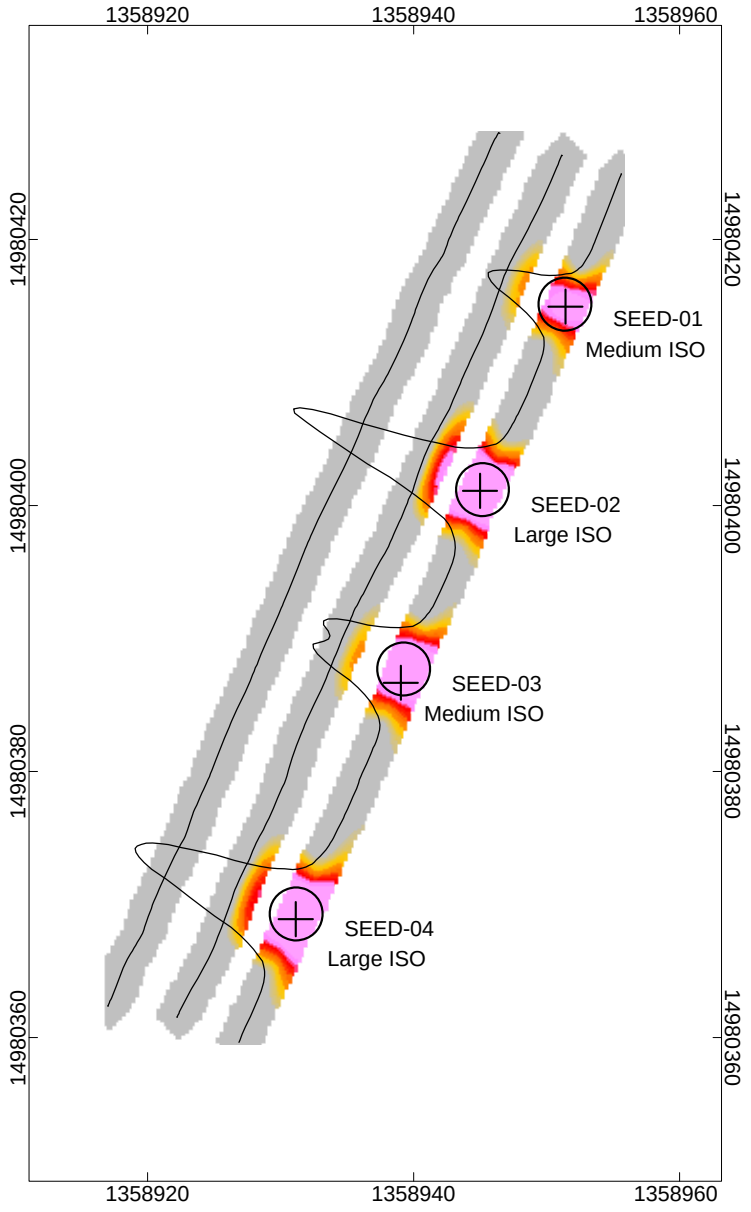
US survey foot

WGS 84 / UTM zone 18N

EM61-MK2 IVS

IVS Location - MRS 2

Nantucket, MA



EM61-MK2 IVS

06/14/2012 - PM

IVS Location - MRS 2
Nantucket, MA

LEGEND

IVS Seed Item

Geophysical Target

CH3 Response (mV)

-3 -1 -0 1 2 4 6 8 11 20 43

10 0 10

US survey foot

WGS 84 / UTM zone 18N

EM61-MK2 IVS

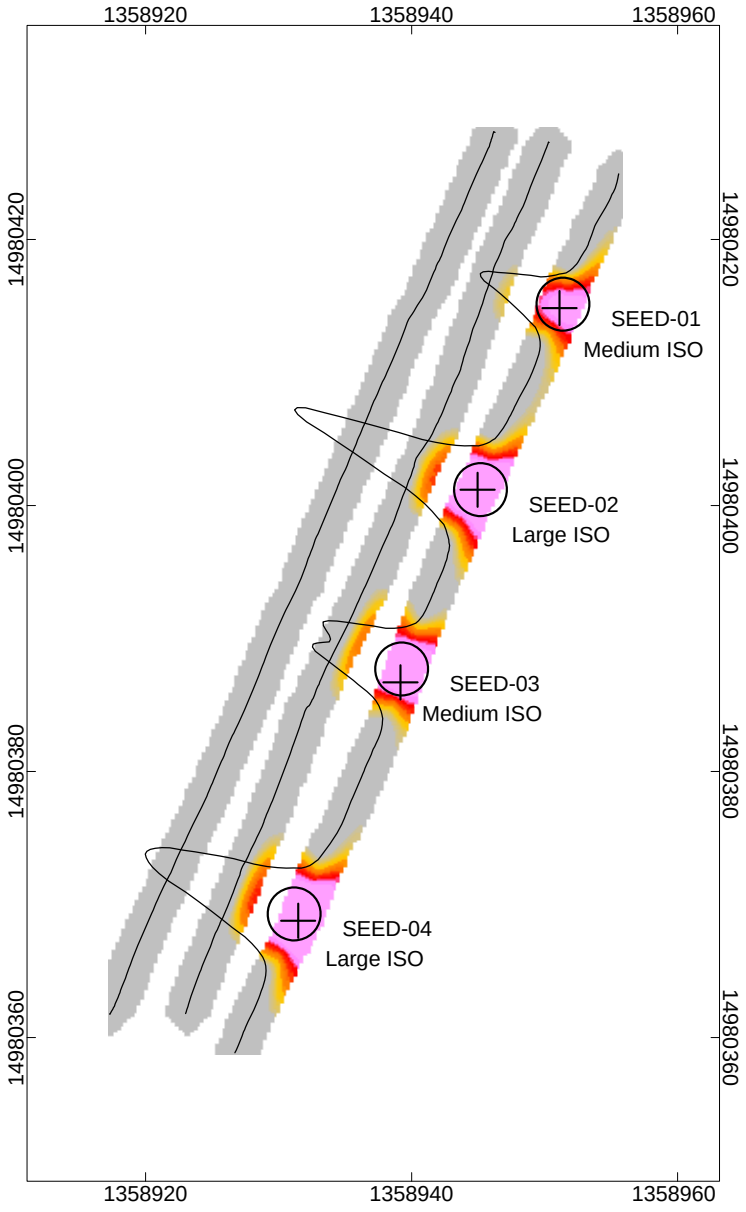
IVS Location - MRS 2

Nantucket, MA

EM61-MK2 IVS

06/15/2012 - AM

IVS Location - MRS 2
Nantucket, MA



LEGEND

IVS Seed Item

Geophysical Target

CH3 Response (mV)

-3 -1 -0 1 2 4 6 8 11 20 43

10 0 10

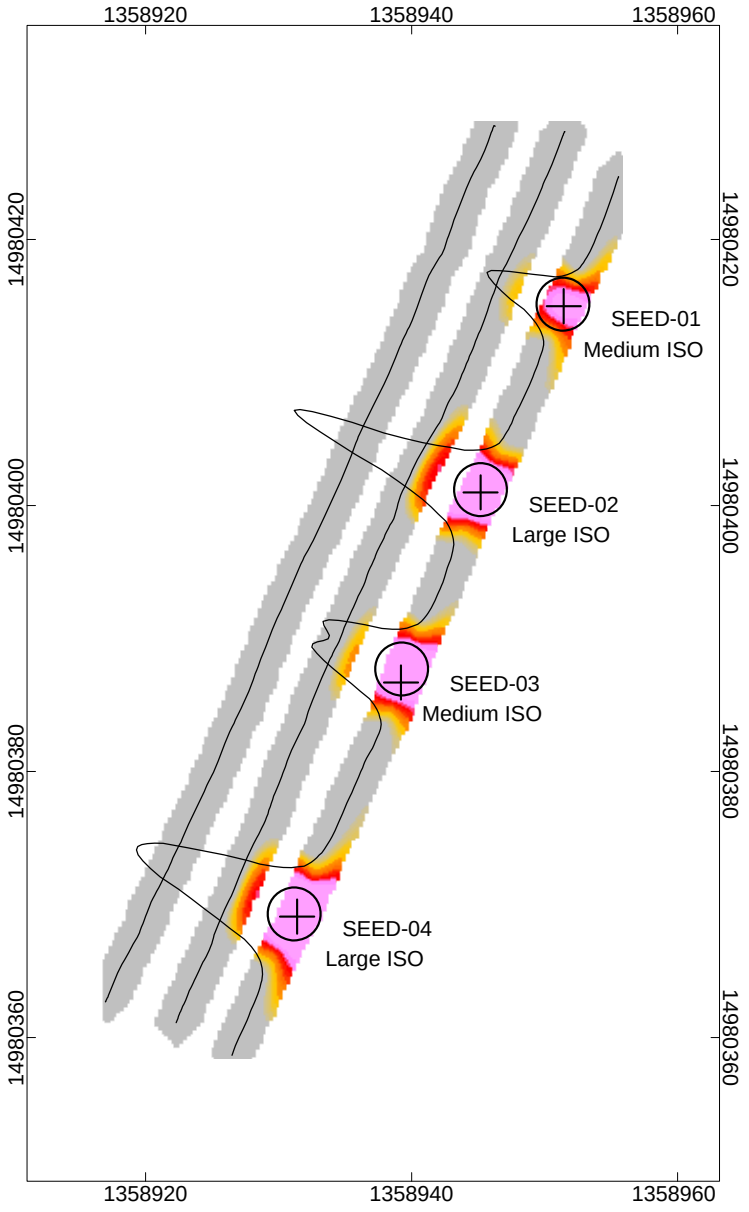
US survey foot

WGS 84 / UTM zone 18N

EM61-MK2 IVS

IVS Location - MRS 2

Nantucket, MA



EM61-MK2 IVS

06/15/2012 - PM

IVS Location - MRS 2
Nantucket, MA

LEGEND

IVS Seed Item

Geophysical Target

CH3 Response (mV)

-3 -1 -0 1 2 4 6 8 11 20 43

10 0 10

US survey foot

WGS 84 / UTM zone 18N

EM61-MK2 IVS

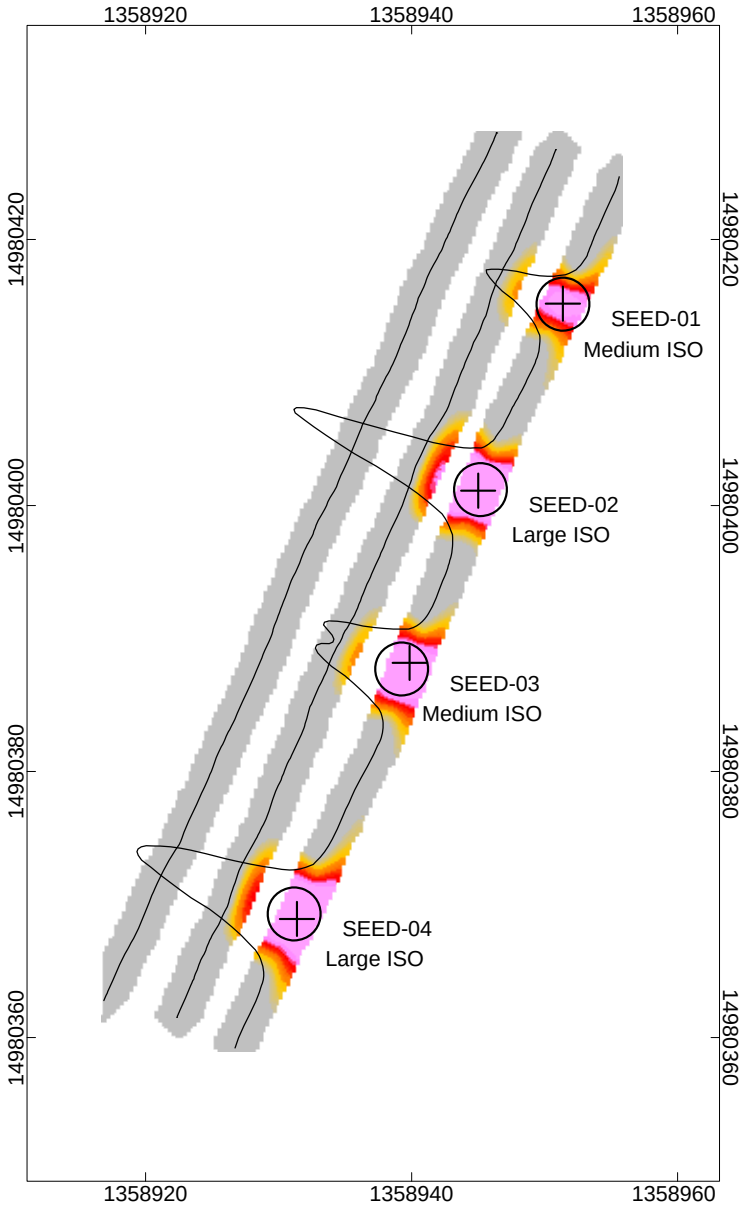
IVS Location - MRS 2

Nantucket, MA

EM61-MK2 IVS

06/18/2012 - AM

IVS Location - MRS 2
Nantucket, MA



LEGEND

IVS Seed Item

Geophysical Target

CH3 Response (mV)

-3 -1 -0 1 2 4 6 8 11 20 43

10 0 10

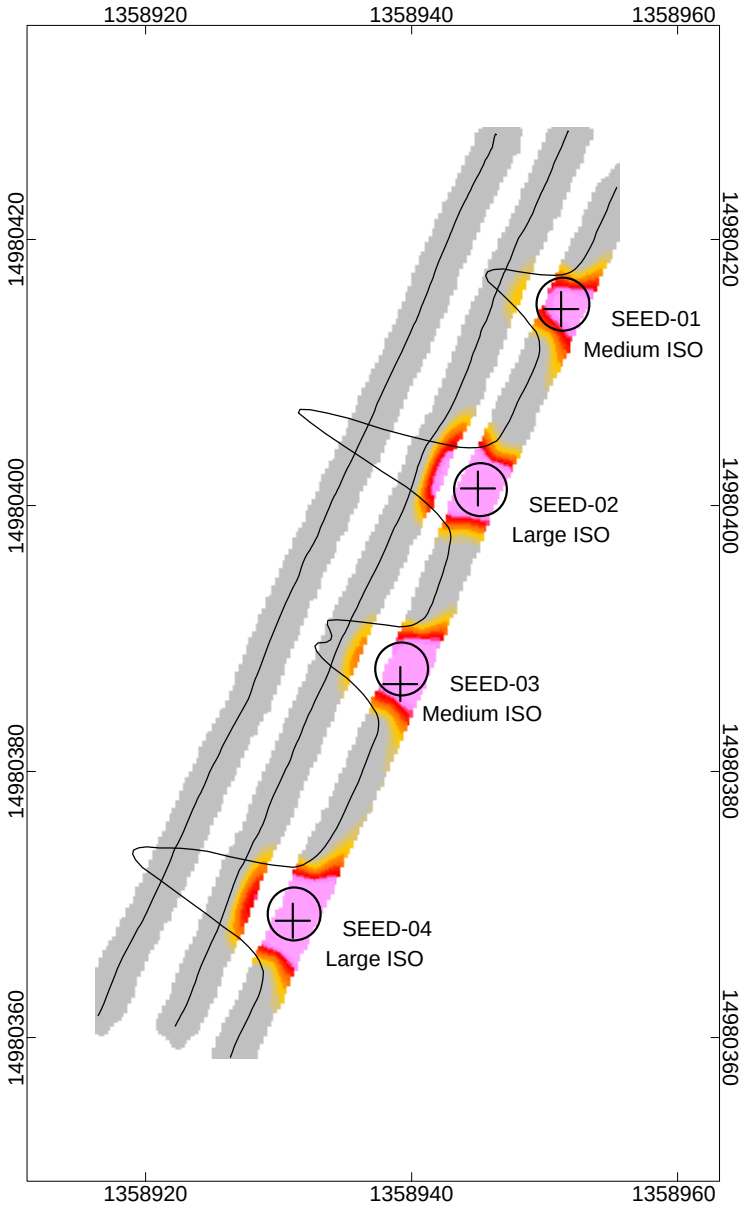
US survey foot

WGS 84 / UTM zone 18N

EM61-MK2 IVS

IVS Location - MRS 2

Nantucket, MA



EM61-MK2 IVS

06/18/2012 - PM

IVS Location - MRS 2
Nantucket, MA

LEGEND

IVS Seed Item

Geophysical Target

CH3 Response (mV)

-3 -1 -0 1 2 4 6 8 11 20 43

10 0 10

US survey foot

WGS 84 / UTM zone 18N

EM61-MK2 IVS

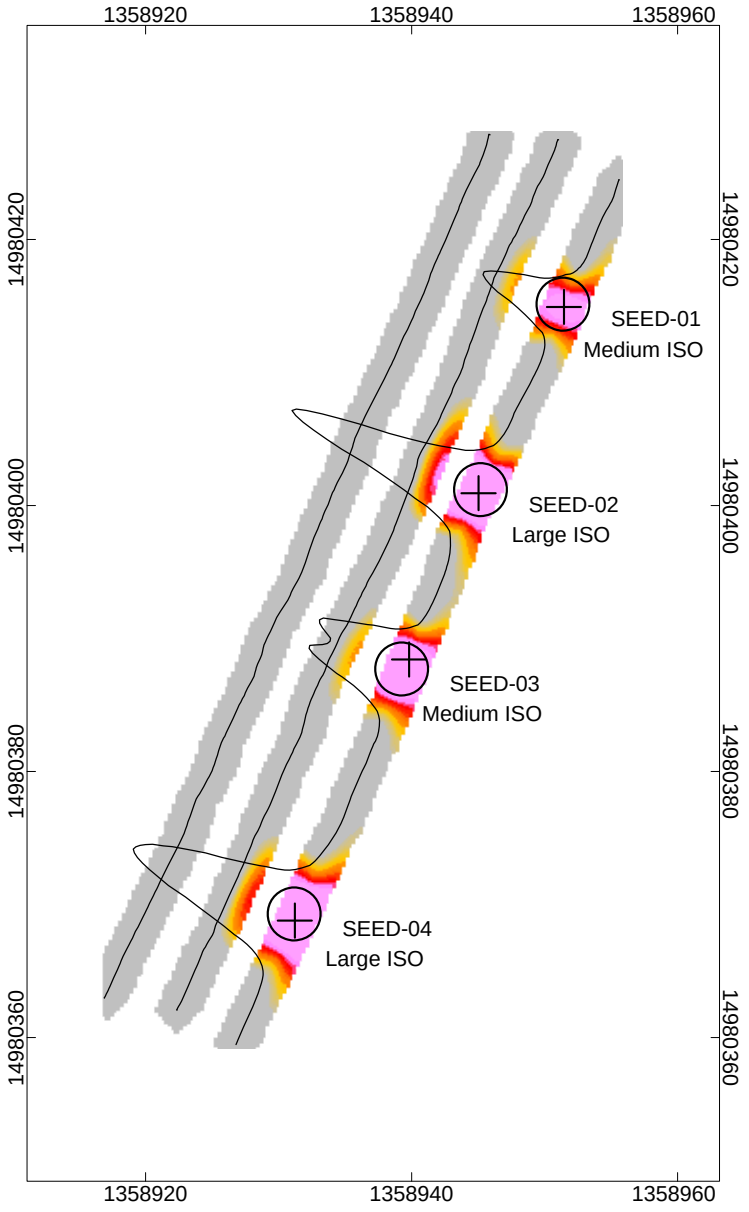
IVS Location - MRS 2

Nantucket, MA

EM61-MK2 IVS

06/19/2012 - AM

IVS Location - MRS 2
Nantucket, MA



LEGEND

IVS Seed Item

Geophysical Target

CH3 Response (mV)

-3 -1 -0 1 2 4 6 8 11 20 43

10 0 10

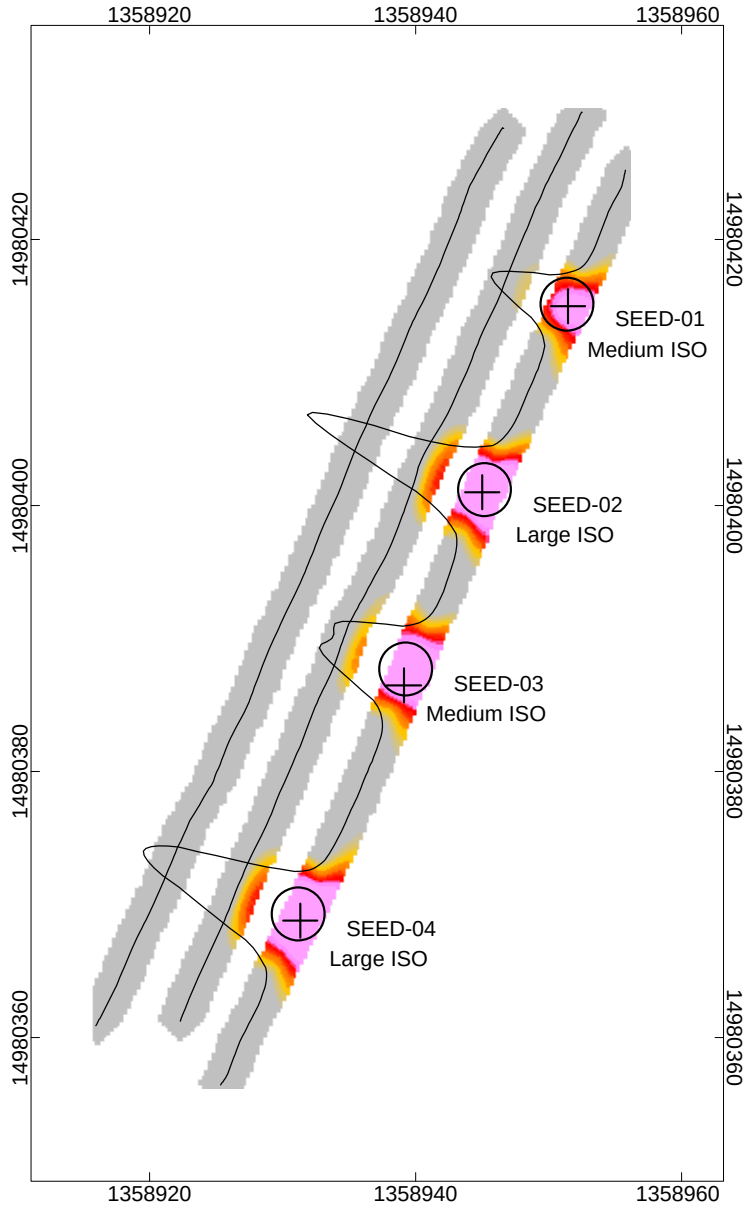
US survey foot

WGS 84 / UTM zone 18N

EM61-MK2 IVS

IVS Location - MRS 2

Nantucket, MA



EM61-MK2 IVS

06/19/2012 - PM

IVS Location - MRS 2
Nantucket, MA

LEGEND

IVS Seed Item

Geophysical Target

CH3 Response (mV)

-3 -1 -0 1 2 4 6 8 11 20 43

10 0 10

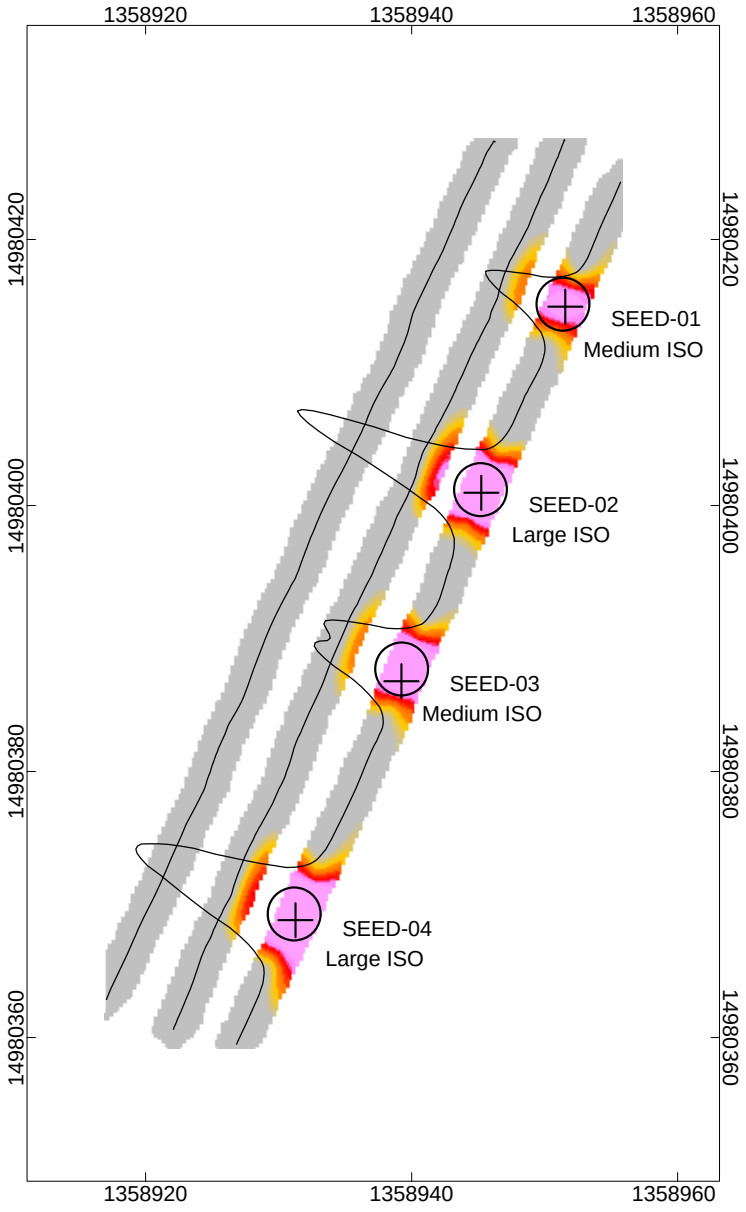
US survey foot

WGS 84 / UTM zone 18N

EM61-MK2 IVS

IVS Location - MRS 2

Nantucket, MA



EM61-MK2 IVS

06/21/2012 - AM

IVS Location - MRS 2
Nantucket, MA

LEGEND

IVS Seed Item

Geophysical Target

CH3 Response (mV)

-3 -1 -0 1 2 4 6 8 11 20 43

10 0 10

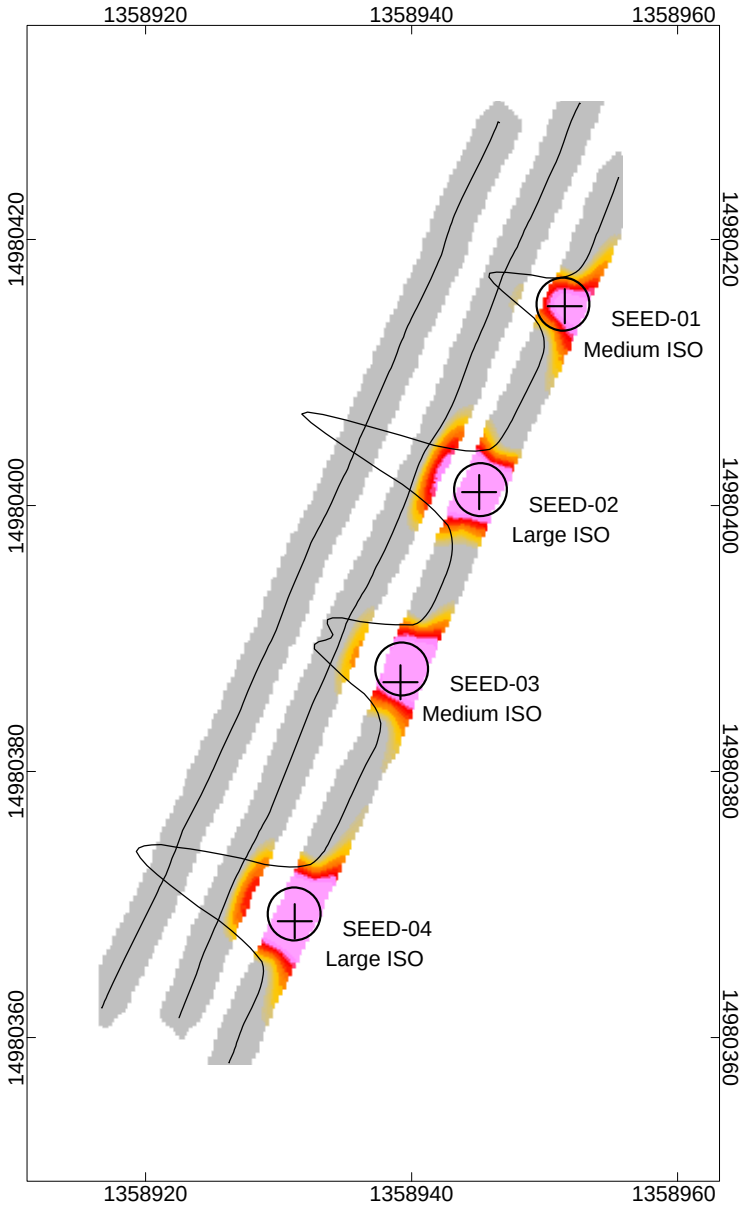
US survey foot

WGS 84 / UTM zone 18N

EM61-MK2 IVS

IVS Location - MRS 2

Nantucket, MA



EM61-MK2 IVS

06/21/2012 - PM

IVS Location - MRS 2
Nantucket, MA

LEGEND

IVS Seed Item

Geophysical Target

CH3 Response (mV)

-3 -1 -0 1 2 4 6 8 11 20 43

10 0 10

US survey foot

WGS 84 / UTM zone 18N

EM61-MK2 IVS

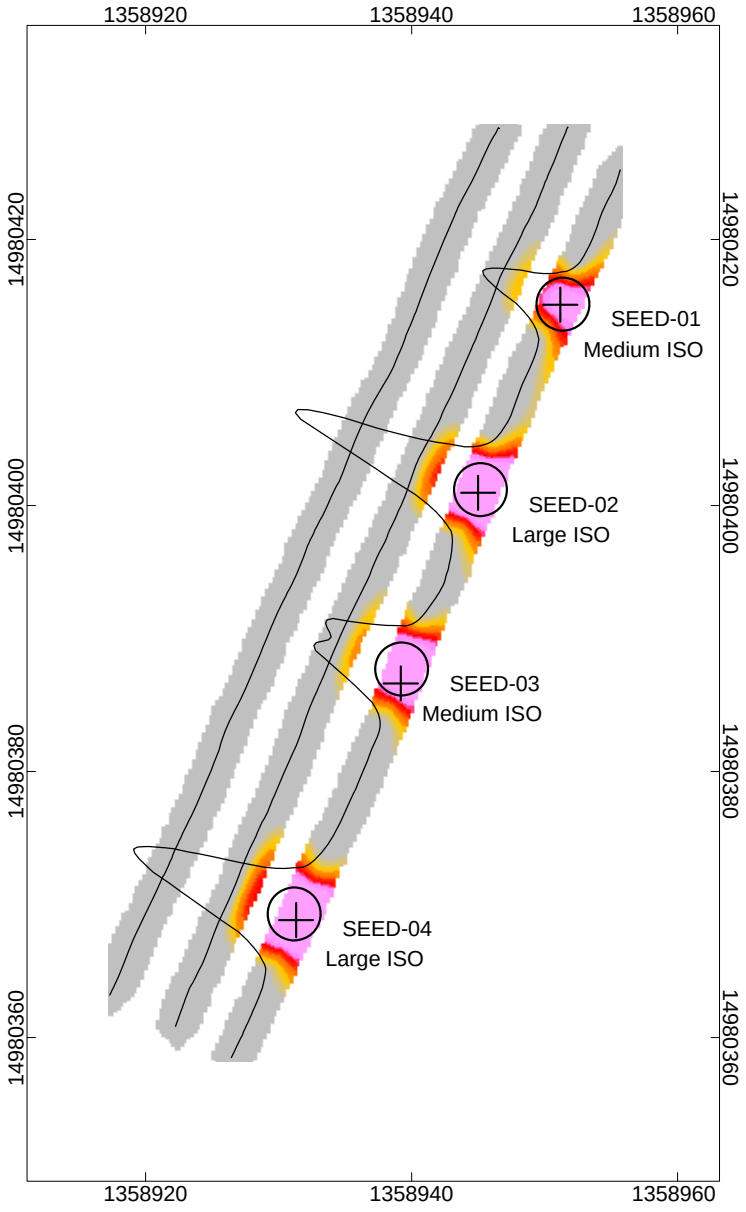
IVS Location - MRS 2

Nantucket, MA

EM61-MK2 IVS

06/22/2012 - AM

IVS Location - MRS 2
Nantucket, MA



LEGEND

IVS Seed Item

Geophysical Target

CH3 Response (mV)

-3 -1 -0 1 2 4 6 8 11 20 43

10 0 10

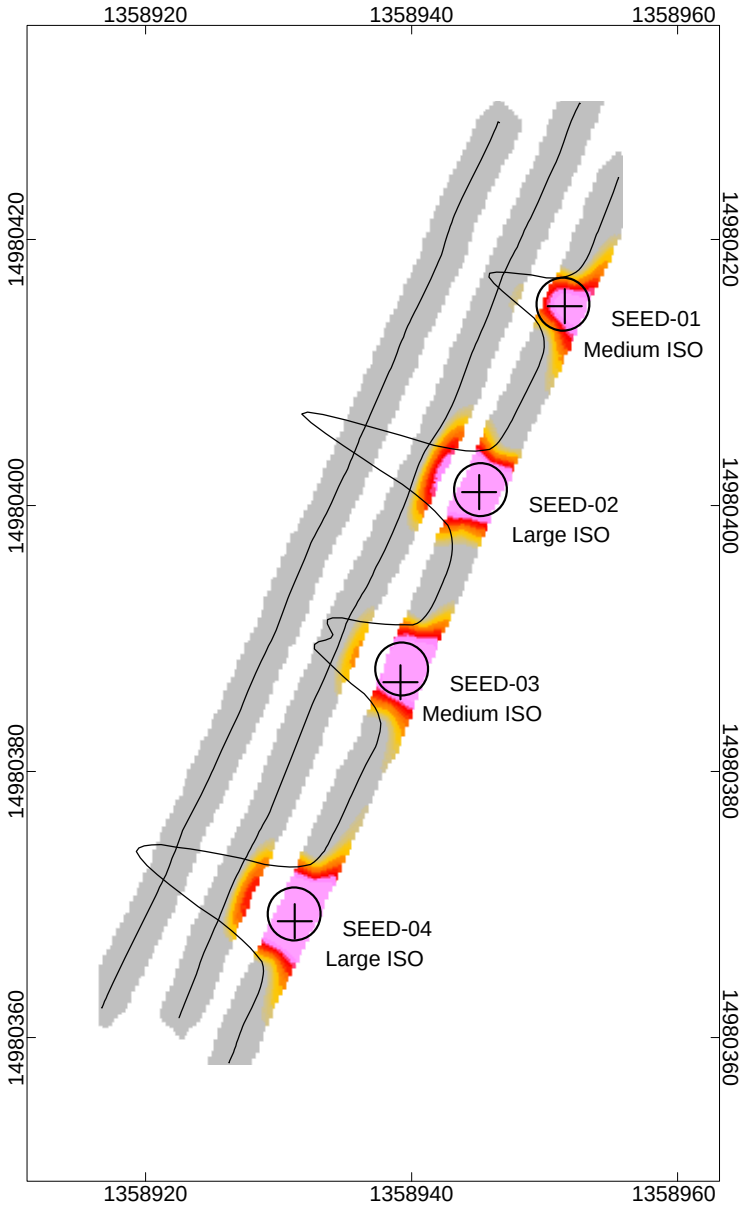
US survey foot

WGS 84 / UTM zone 18N

EM61-MK2 IVS

IVS Location - MRS 2

Nantucket, MA



EM61-MK2 IVS

06/22/2012 - PM

IVS Location - MRS 2
Nantucket, MA

LEGEND

IVS Seed Item

Geophysical Target

CH3 Response (mV)

-3 -1 -0 1 2 4 6 8 11 20 43

10 0 10

US survey foot

WGS 84 / UTM zone 18N

EM61-MK2 IVS

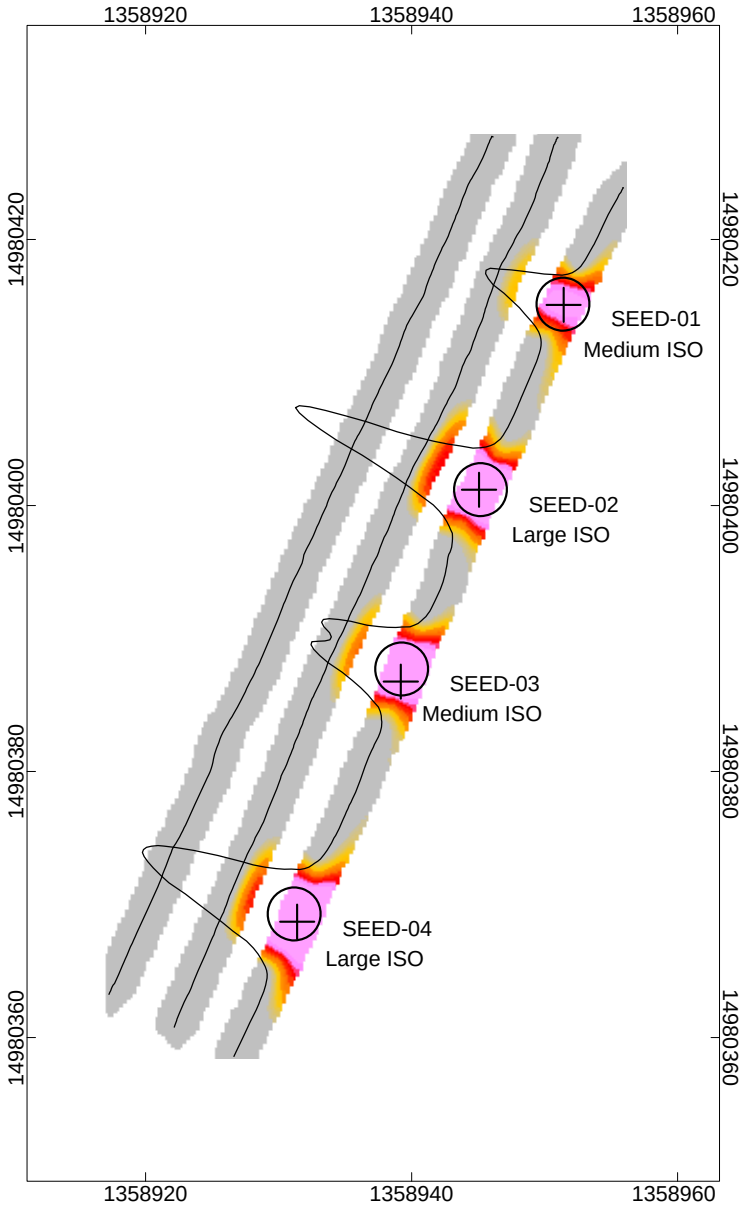
IVS Location - MRS 2

Nantucket, MA

EM61-MK2 IVS

06/25/2012 - AM

IVS Location - MRS 2
Nantucket, MA



LEGEND

IVS Seed Item

Geophysical Target

CH3 Response (mV)

-3 -1 -0 1 2 4 6 8 11 20 43

10 0 10

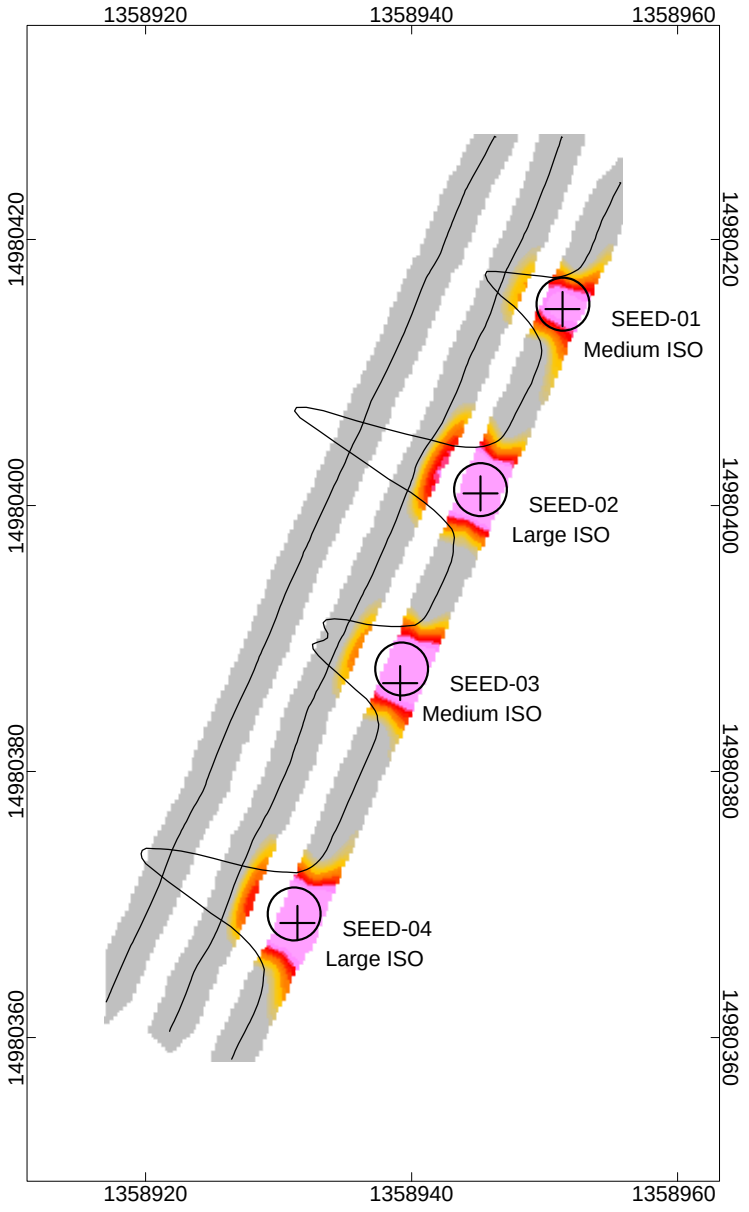
US survey foot

WGS 84 / UTM zone 18N

EM61-MK2 IVS

IVS Location - MRS 2

Nantucket, MA



EM61-MK2 IVS

06/25/2012 - PM

IVS Location - MRS 2
Nantucket, MA

LEGEND

IVS Seed Item

Geophysical Target

CH3 Response (mV)

-3 -1 -0 1 2 4 6 8 11 20 43

10 0 10

US survey foot

WGS 84 / UTM zone 18N

EM61-MK2 IVS

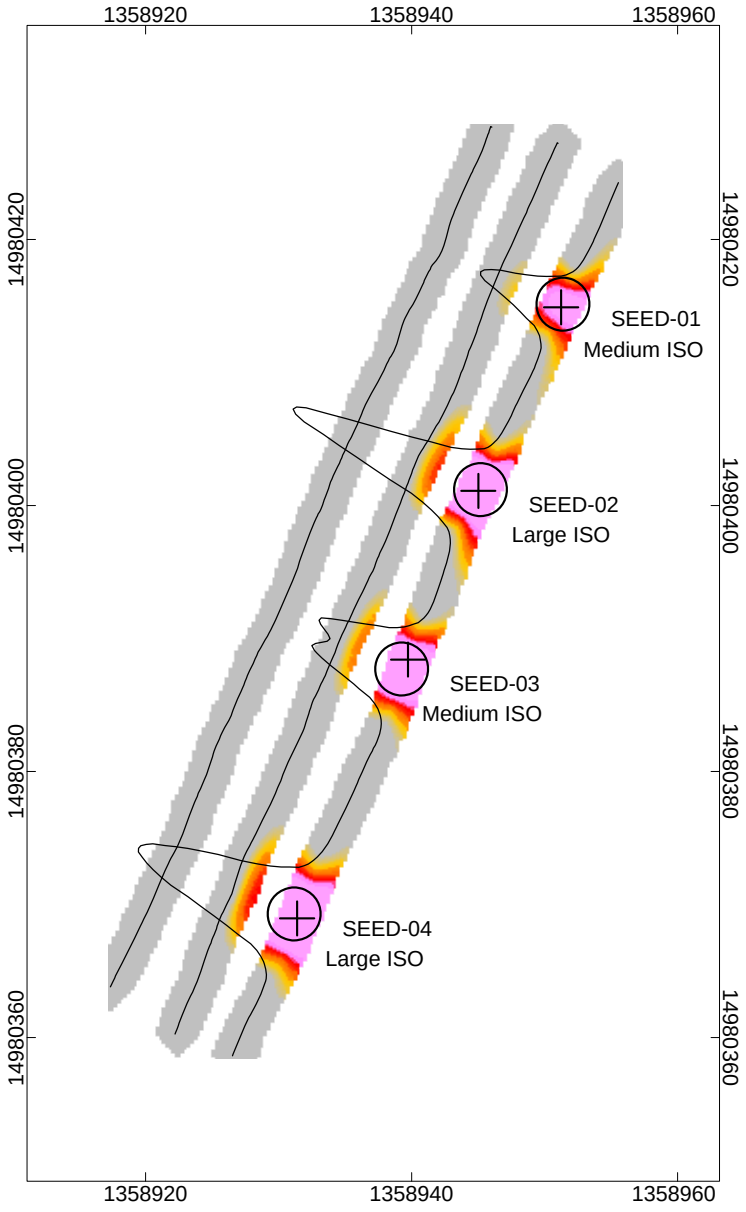
IVS Location - MRS 2

Nantucket, MA

EM61-MK2 IVS

06/26/2012 - AM

IVS Location - MRS 2
Nantucket, MA



LEGEND

IVS Seed Item

Geophysical Target

CH3 Response (mV)

-3 -1 -0 1 2 4 6 8 11 20 43

10 0 10

US survey foot

WGS 84 / UTM zone 18N

EM61-MK2 IVS

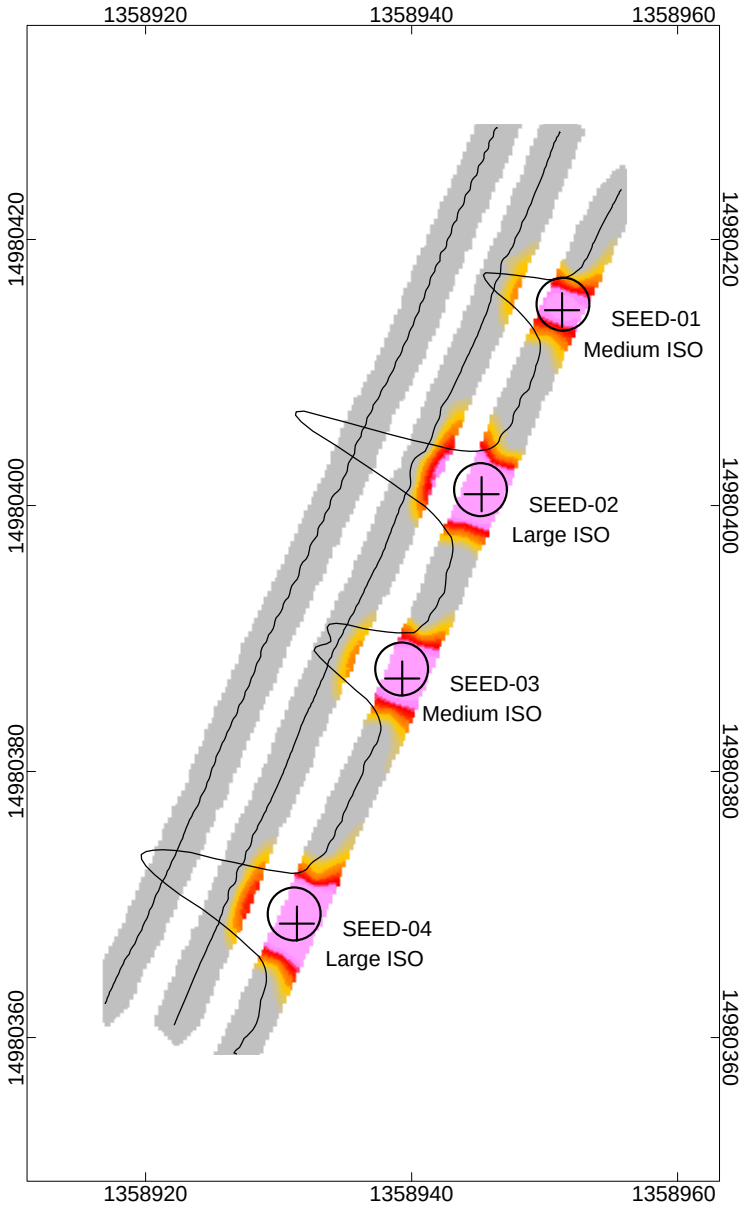
IVS Location - MRS 2

Nantucket, MA

EM61-MK2 IVS

06/26/2012 - PM

IVS Location - MRS 2
Nantucket, MA



LEGEND

IVS Seed Item

Geophysical Target

CH3 Response (mV)

-3 -1 -0 1 2 4 6 8 11 20 43

10 0 10

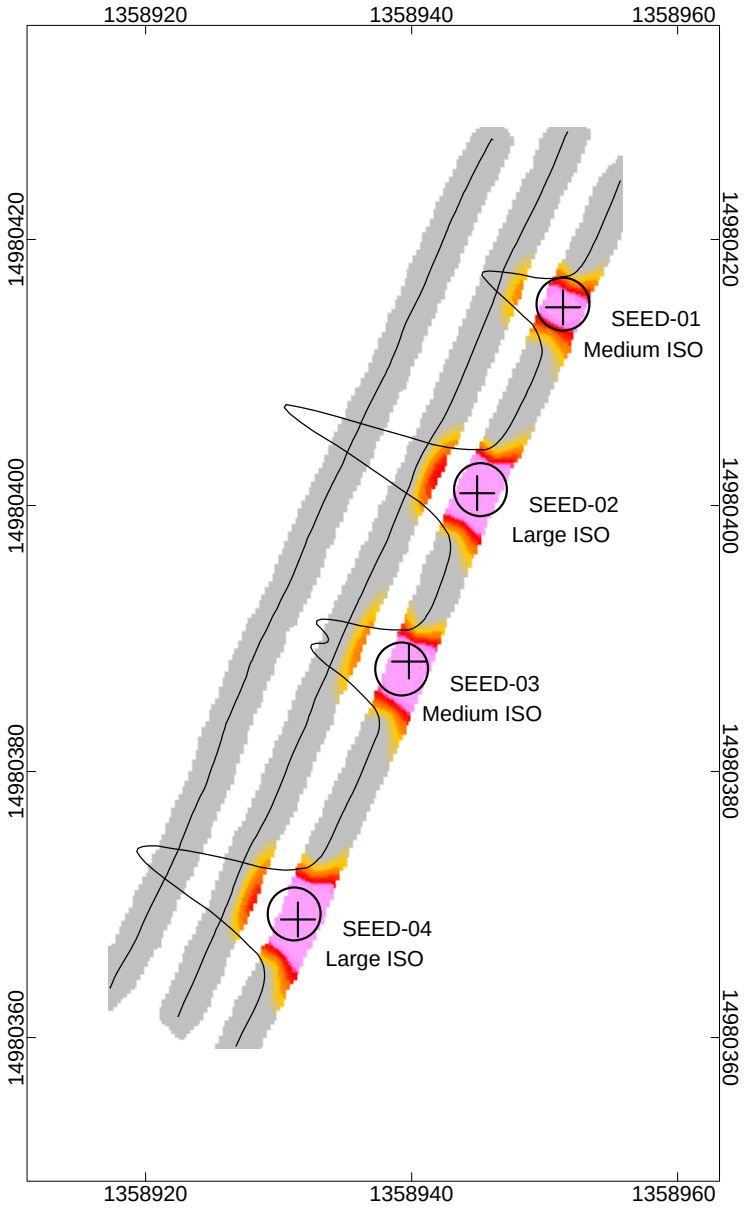
US survey foot

WGS 84 / UTM zone 18N

EM61-MK2 IVS

IVS Location - MRS 2

Nantucket, MA



EM61-MK2 IVS

06/27/2012 - AM

IVS Location - MRS 2
Nantucket, MA

LEGEND

IVS Seed Item

Geophysical Target

CH3 Response (mV)

-3 -1 -0 1 2 4 6 8 11 20 43

10 0 10

US survey foot

WGS 84 / UTM zone 18N

EM61-MK2 IVS

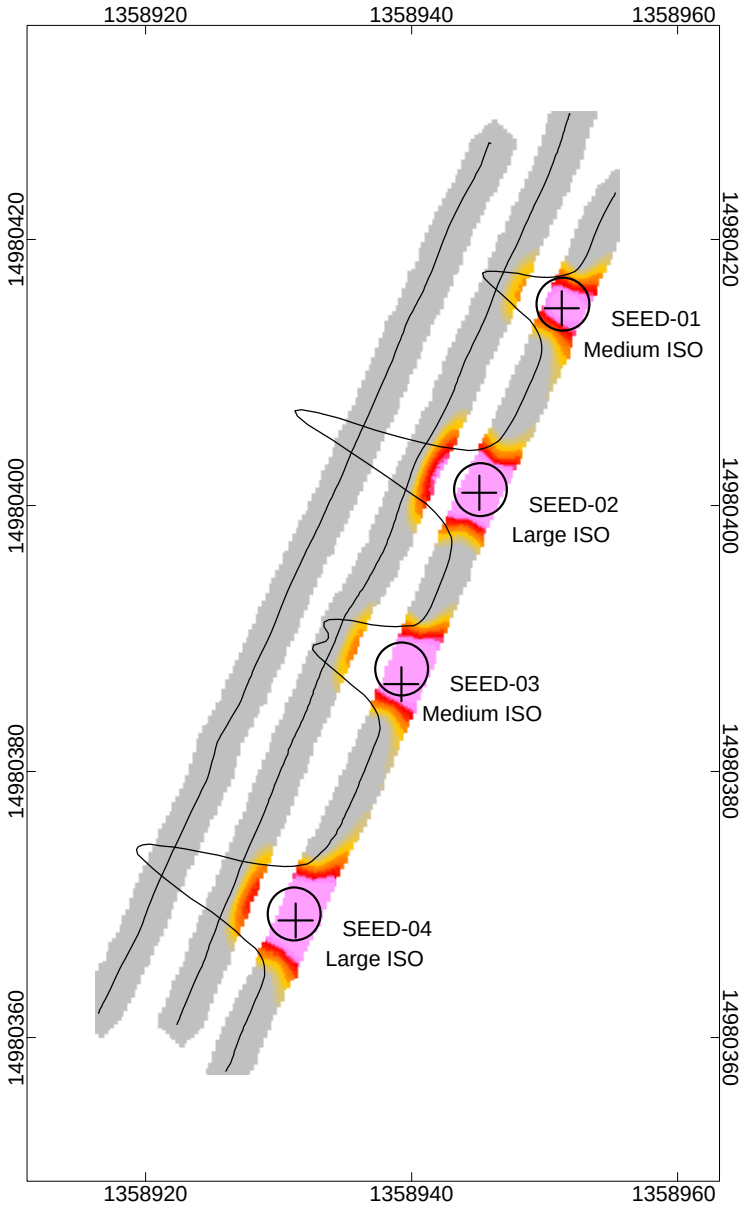
IVS Location - MRS 2

Nantucket, MA

EM61-MK2 IVS

06/27/2012 - PM

IVS Location - MRS 2
Nantucket, MA



LEGEND

IVS Seed Item

Geophysical Target

CH3 Response (mV)

-3 -1 -0 1 2 4 6 8 11 20 43

10 0 10

US survey foot

WGS 84 / UTM zone 18N

EM61-MK2 IVS

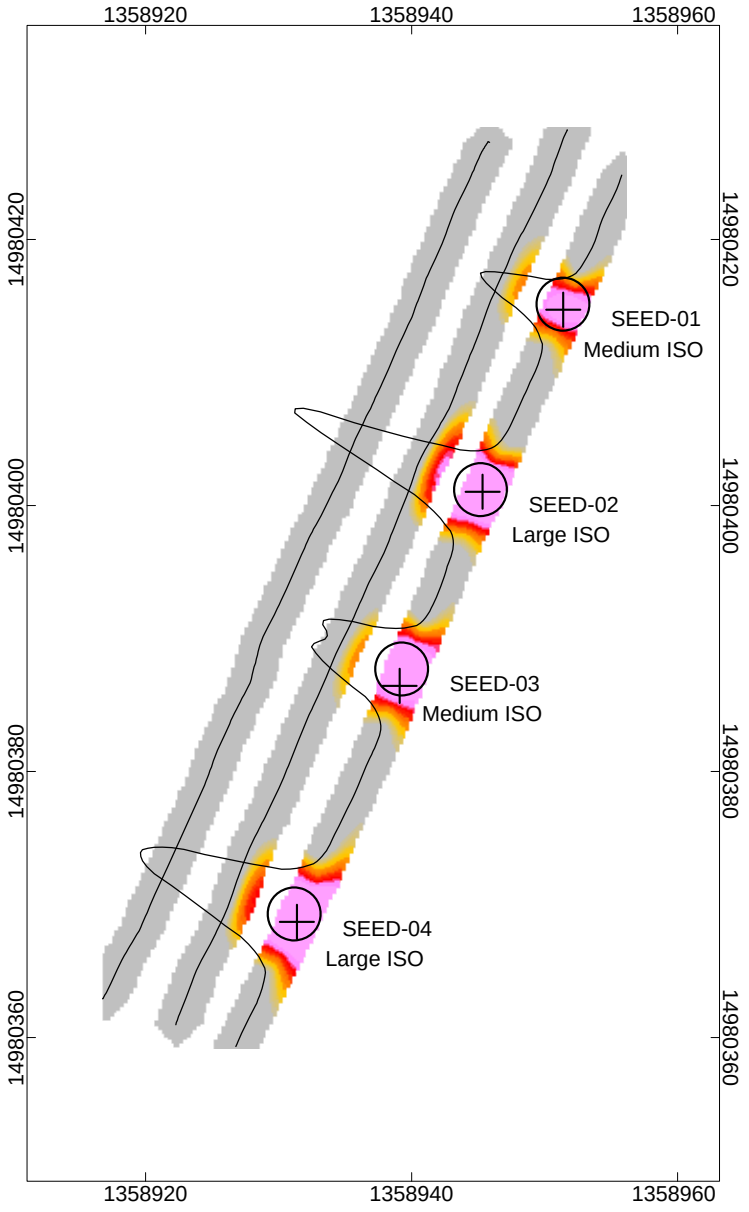
IVS Location - MRS 2

Nantucket, MA

EM61-MK2 IVS

06/28/2012 - AM

IVS Location - MRS 2
Nantucket, MA



LEGEND

IVS Seed Item

Geophysical Target

CH3 Response (mV)

-3 -1 -0 1 2 4 6 8 11 20 43

10 0 10

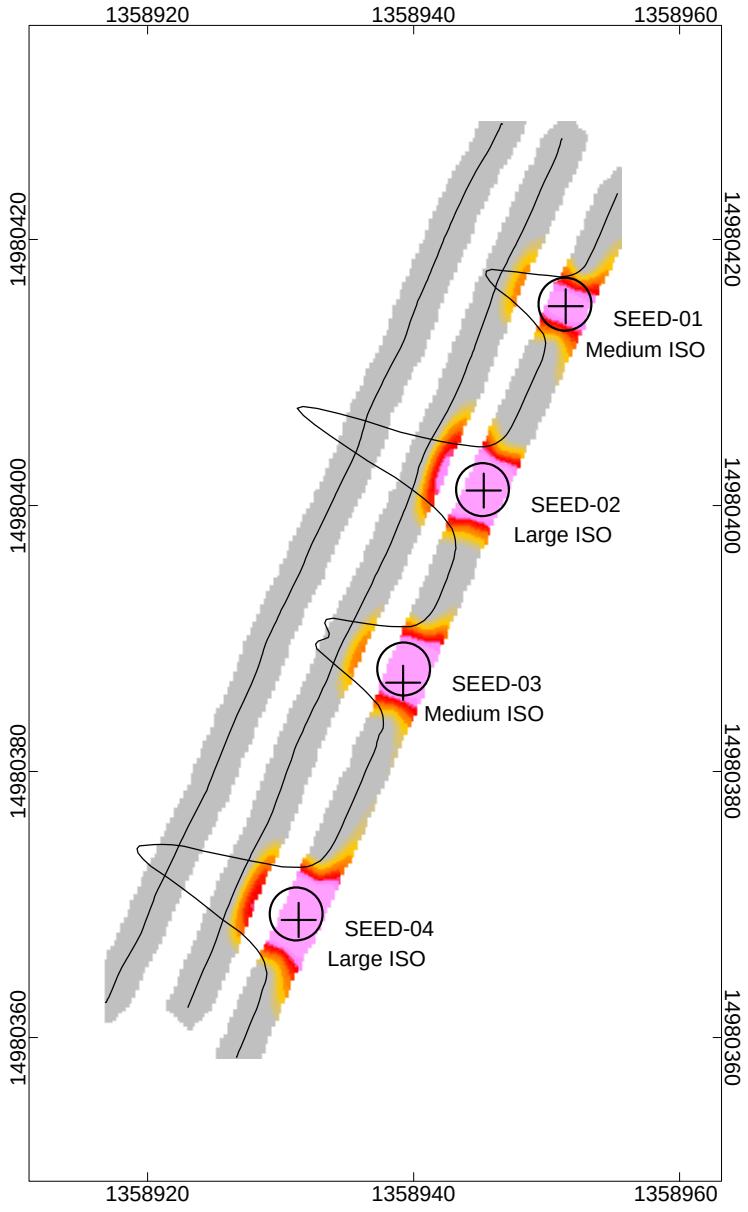
US survey foot

WGS 84 / UTM zone 18N

EM61-MK2 IVS

IVS Location - MRS 2

Nantucket, MA



EM61-MK2 IVS

06/28/2012 - PM

IVS Location - MRS 2
Nantucket, MA

LEGEND

IVS Seed Item

Geophysical Target

CH3 Response (mV)

-3 -1 -0 1 2 4 6 8 11 20 43

10 0 10

US survey foot

WGS 84 / UTM zone 18N

EM61-MK2 IVS

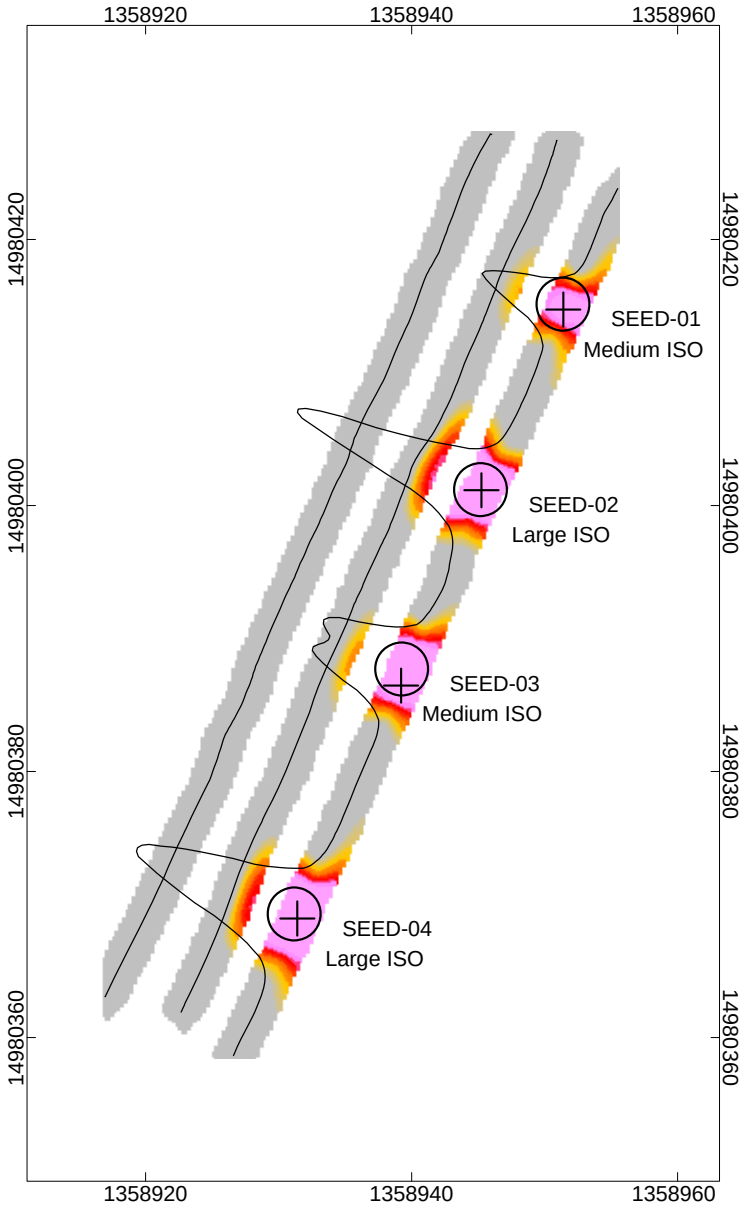
IVS Location - MRS 2

Nantucket, MA

EM61-MK2 IVS

06/29/2012 - AM

IVS Location - MRS 2
Nantucket, MA



LEGEND

IVS Seed Item

Geophysical Target

CH3 Response (mV)

-3 -1 -0 1 2 4 6 8 11 20 43

10 0 10

US survey foot

WGS 84 / UTM zone 18N

EM61-MK2 IVS

IVS Location - MRS 2

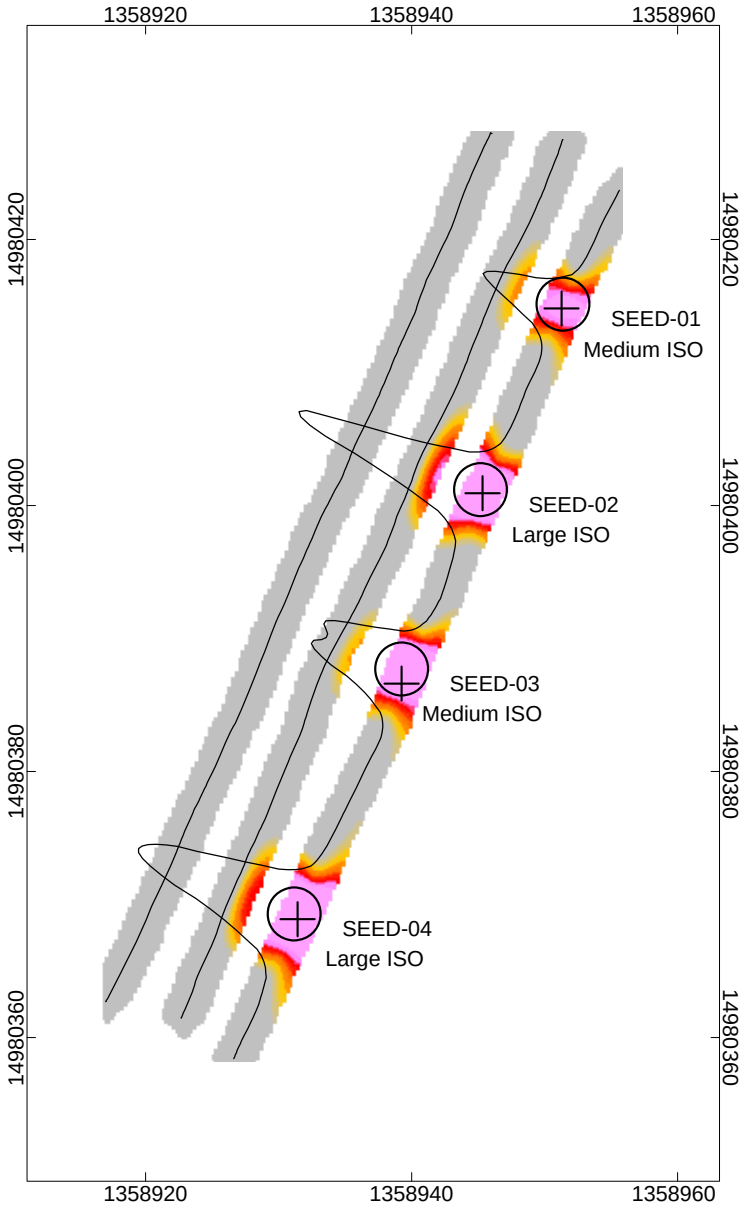
Nantucket, MA

EM61-MK2 IVS

06/29/2012 - PM

IVS Location - MRS 2

Nantucket, MA



LEGEND

IVS Seed Item

Geophysical Target

CH3 Response (mV)

-3 -1 -0 1 2 4 6 8 11 20 43

10 0 10

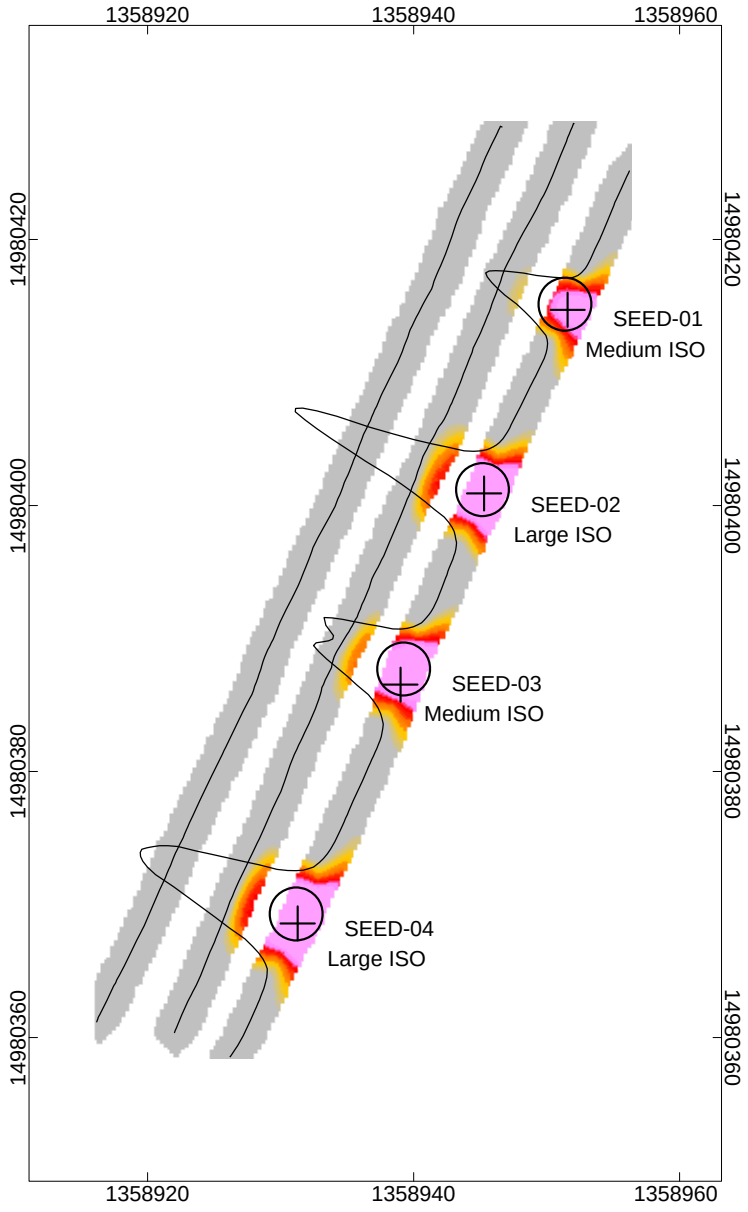
US survey foot

WGS 84 / UTM zone 18N

EM61-MK2 IVS

IVS Location - MRS 2

Nantucket, MA



EM61-MK2 IVS

07/02/2012 - AM

IVS Location - MRS 2
Nantucket, MA

LEGEND

IVS Seed Item

Geophysical Target

CH3 Response (mV)

-3 -1 -0 1 2 4 6 8 11 20 43

10 0 10

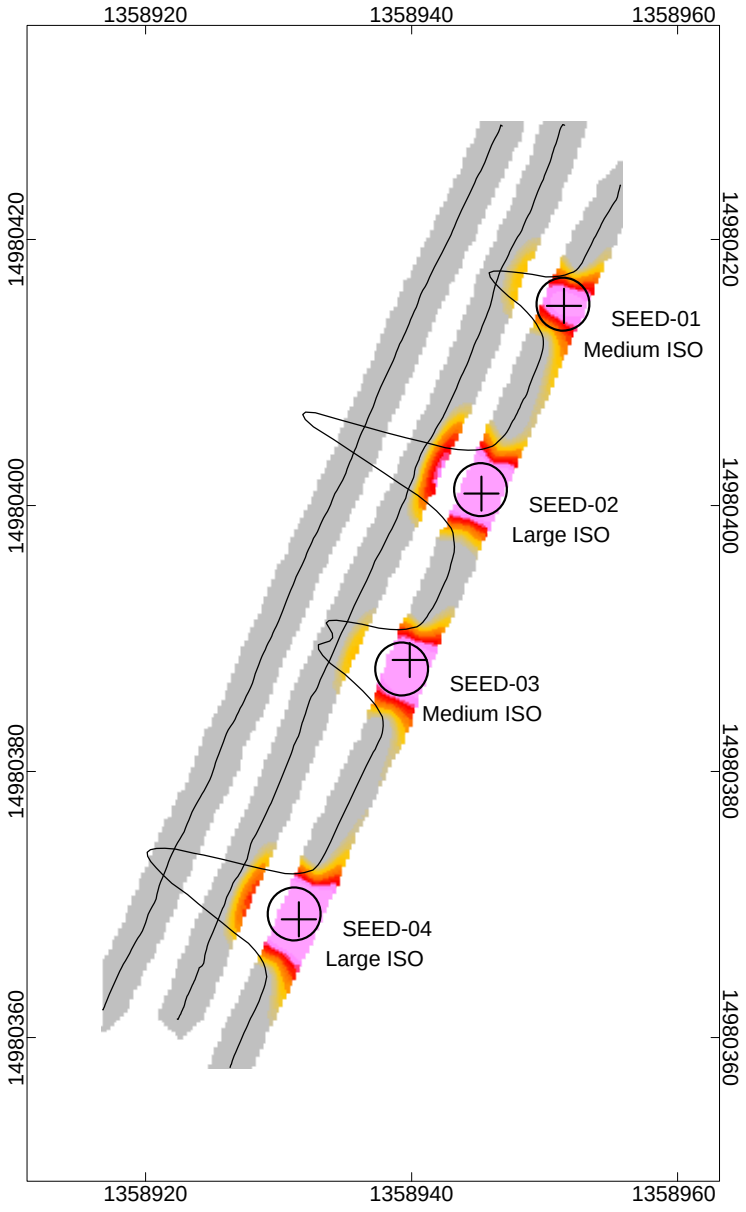
US survey foot

WGS 84 / UTM zone 18N

EM61-MK2 IVS

IVS Location - MRS 2

Nantucket, MA



EM61-MK2 IVS

07/02/2012 - PM

IVS Location - MRS 2
Nantucket, MA

LEGEND

IVS Seed Item

Geophysical Target

CH3 Response (mV)

-3 -1 -0 1 2 4 6 8 11 20 43

10 0 10

US survey foot

WGS 84 / UTM zone 18N

EM61-MK2 IVS

IVS Location - MRS 2

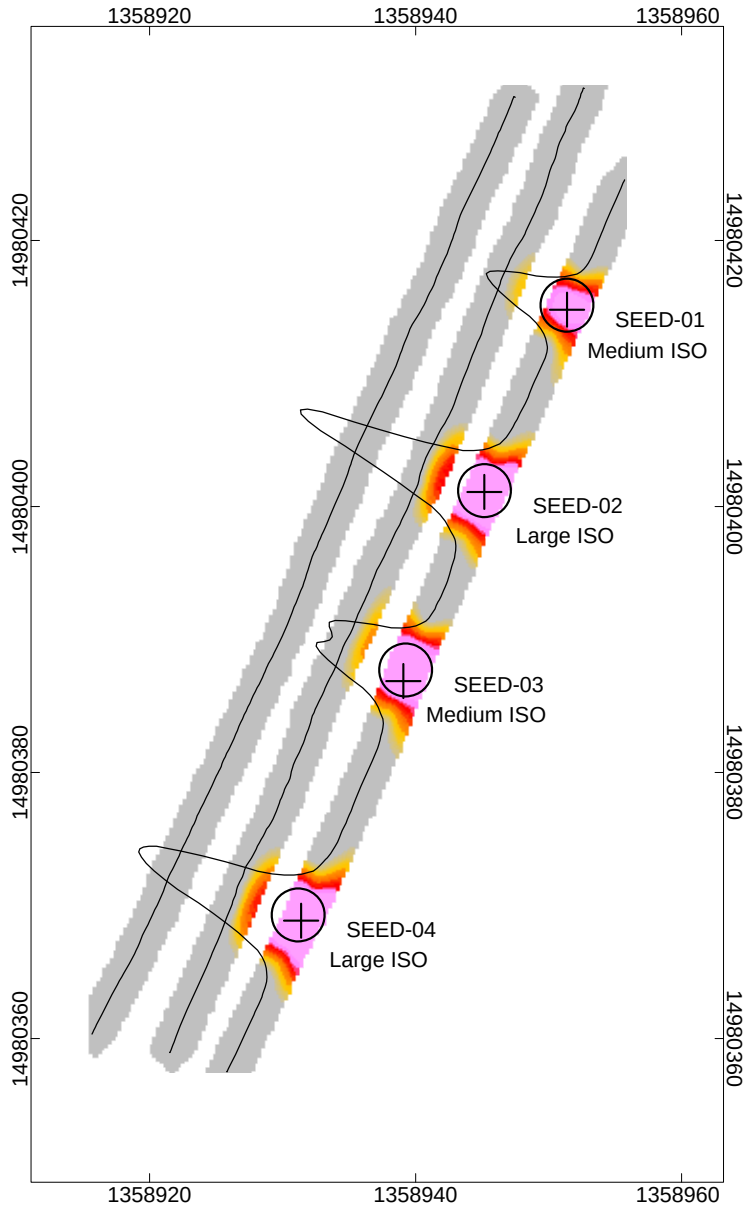
Nantucket, MA

EM61-MK2 IVS

07/03/2012 - AM

IVS Location - MRS 2

Nantucket, MA



LEGEND

IVS Seed Item

Geophysical Target

CH3 Response (mV)

-3 -1 -0 1 2 4 6 8 11 20 43

10 0 10

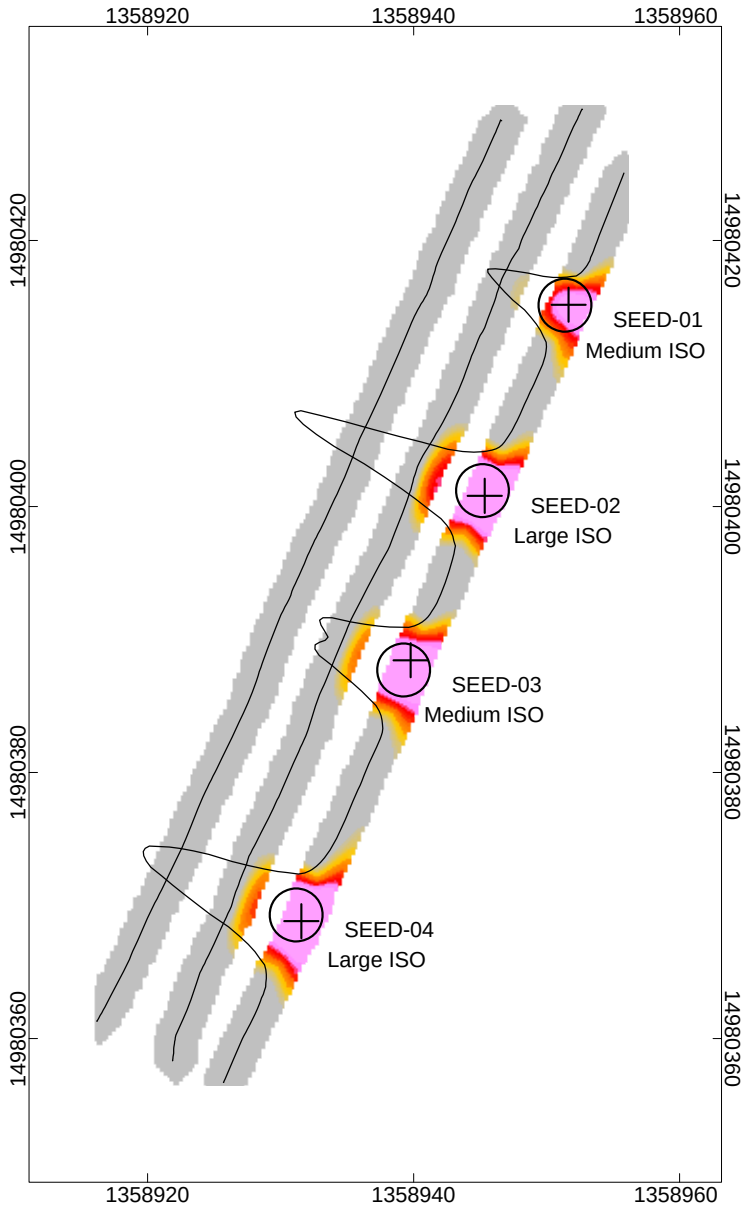
US survey foot

WGS 84 / UTM zone 18N

EM61-MK2 IVS

IVS Location - MRS 2

Nantucket, MA



EM61-MK2 IVS

07/03/2012 - PM

IVS Location - MRS 2
Nantucket, MA

LEGEND

IVS Seed Item

Geophysical Target

CH3 Response (mV)

-3 -1 -0 1 2 4 6 8 11 20 43

10 0 10

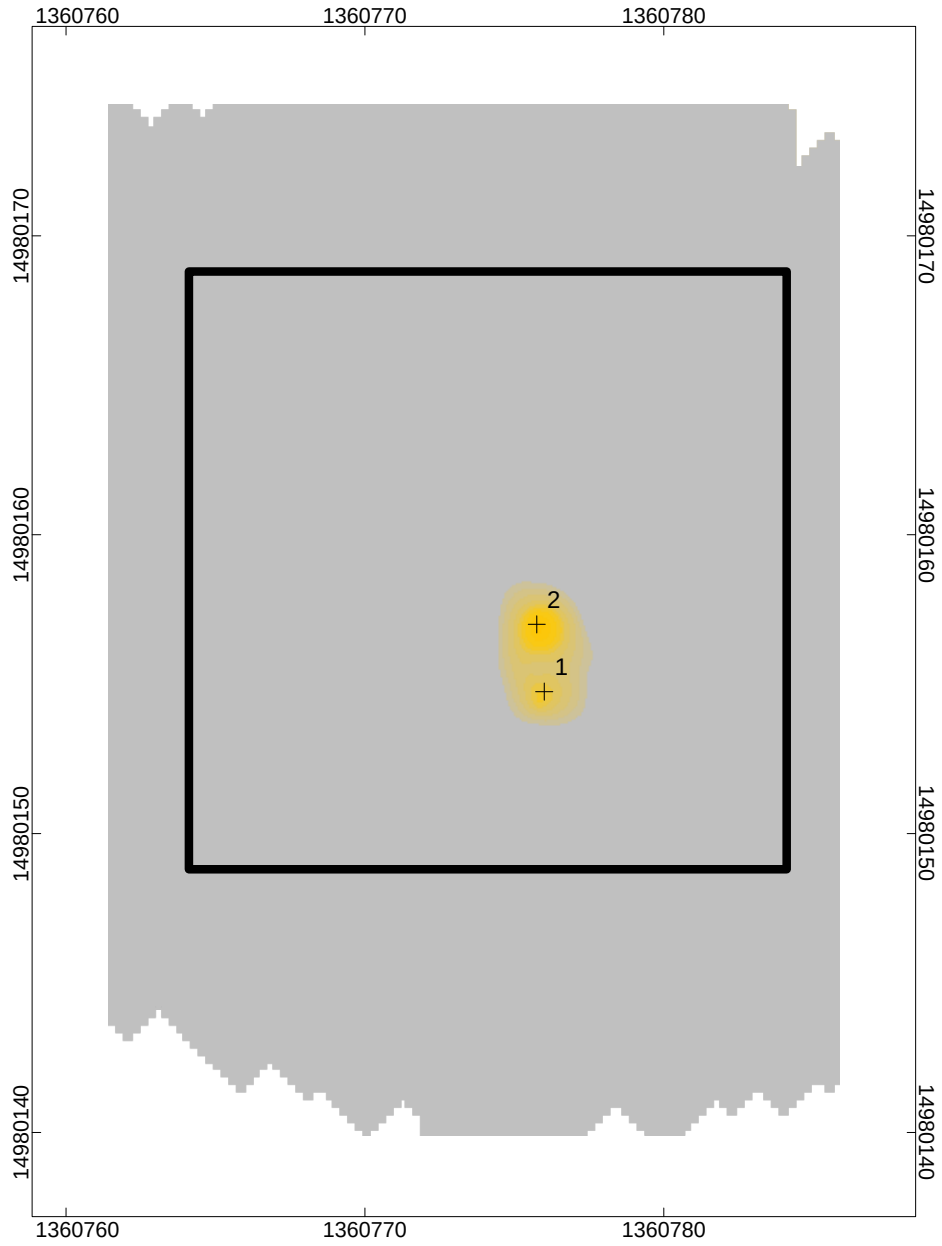
US survey foot

WGS 84 / UTM zone 18N

EM61-MK2 IVS

IVS Location - MRS 2

Nantucket, MA



AC-01-G01
MRS 2

EM61-MK2
Nantucket, MA

LEGEND

- Geophysical Target
- Seed Item
- Grid Boundary
- Obstruction/Non-Removeable Brush

CH3 Response (mV)

0 1 2 4 6 8 11 20 43

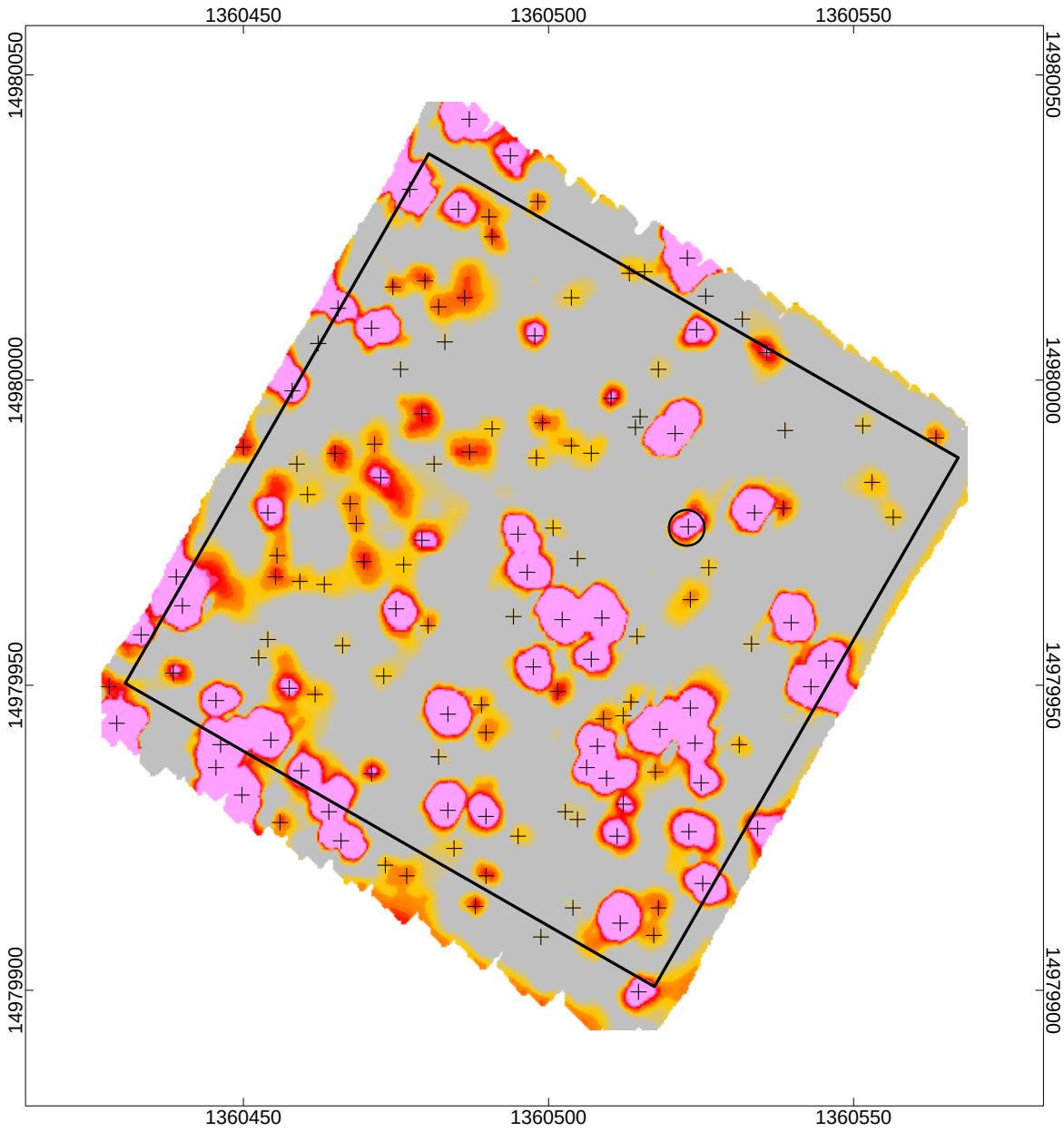
10 0 10 20 30

US survey foot

WGS 84 / UTM zone 19N

EM61-MK2

Nantucket, MA



AC-01-G02

MRS 2

EM61-MK2
Nantucket, MA

LEGEND

- Geophysical Target
- Seed Item
- Grid Boundary
- Tree/Vegetation

CH3 Response (mV)

0 1 2 4 6 8 11 20 43

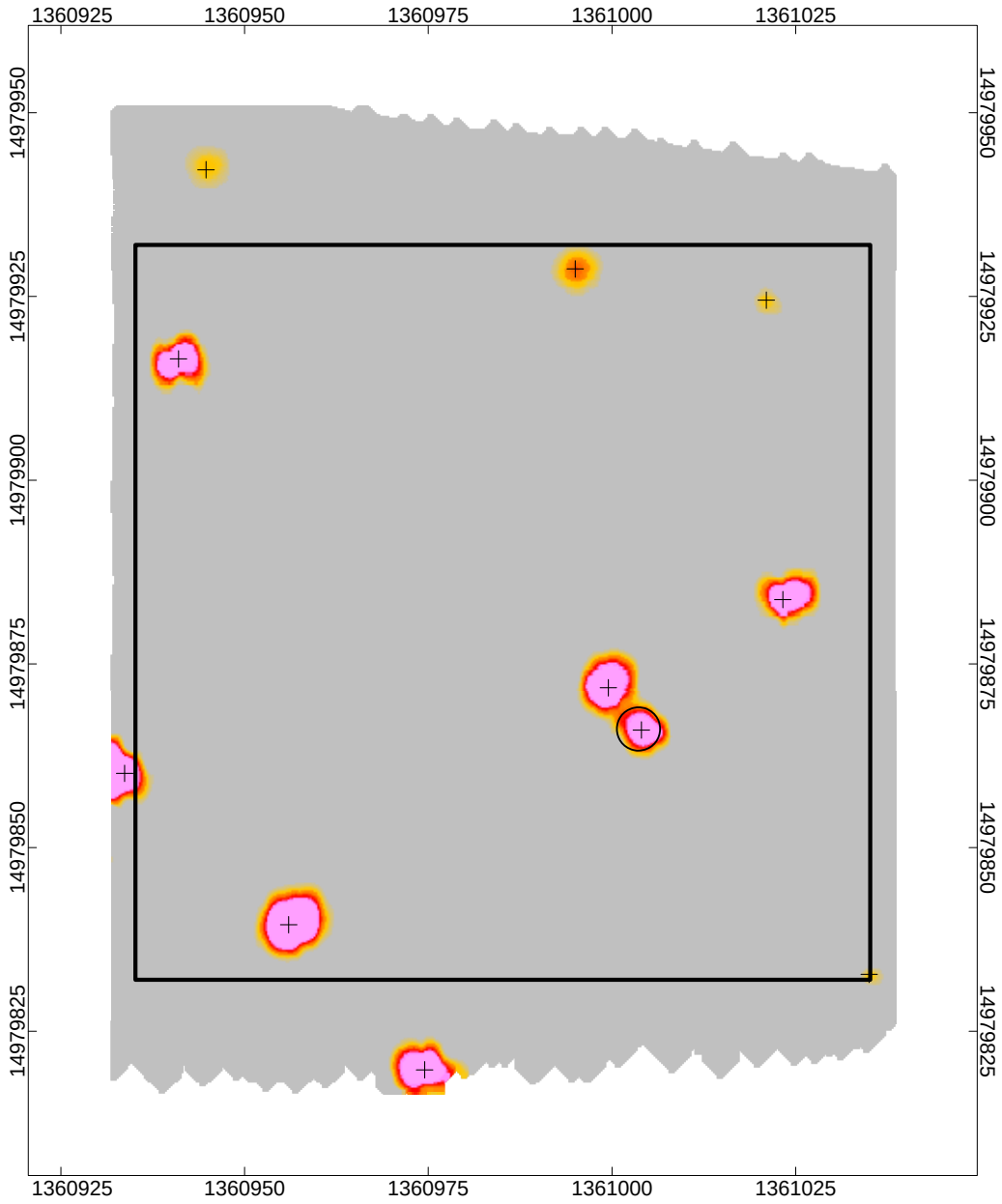
25 0 25

US survey foot

WGS 84 / UTM zone 19N

EM61-MK2

Nantucket, MA



AC-01-G03
MRS 2

EM61-MK2
Nantucket, MA

LEGEND

- Geophysical Target
- Seed Item
- Grid Boundary
- Obstruction/Non-Removeable Brush

CH3 Response (mV)

0 1 2 4 6 8 11 20 43

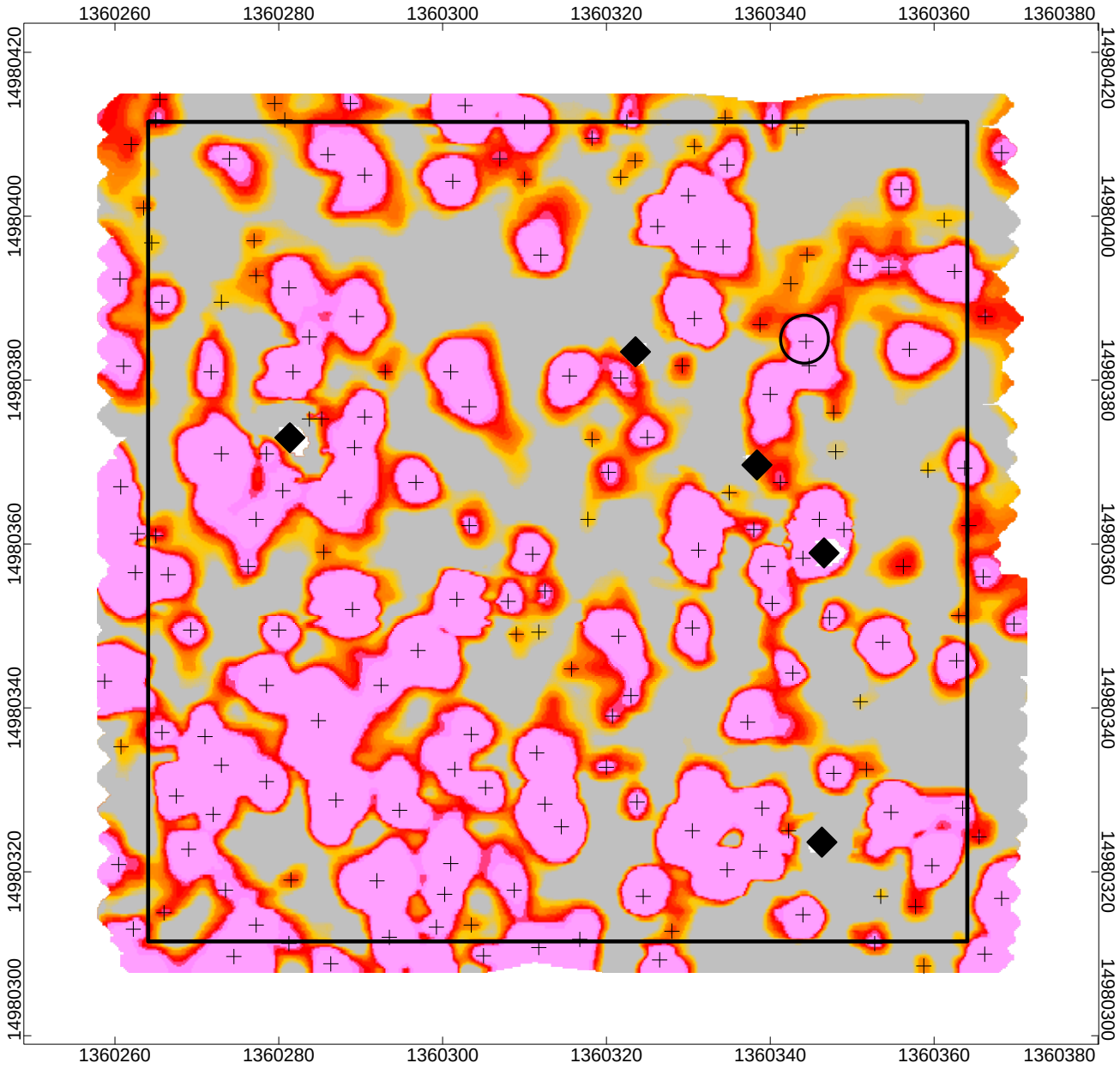
25 0 25 50

US survey foot

WGS 84 / UTM zone 19N

EM61-MK2

Nantucket, MA



AC-01-G04

MRS 2

EM61-MK2
Nantucket, MA

LEGEND

- Geophysical Target
- Seed Item
- Grid Boundary
- Tree/Vegetation

CH3 Response (mV)

0 1 2 4 6 8 11 20 43

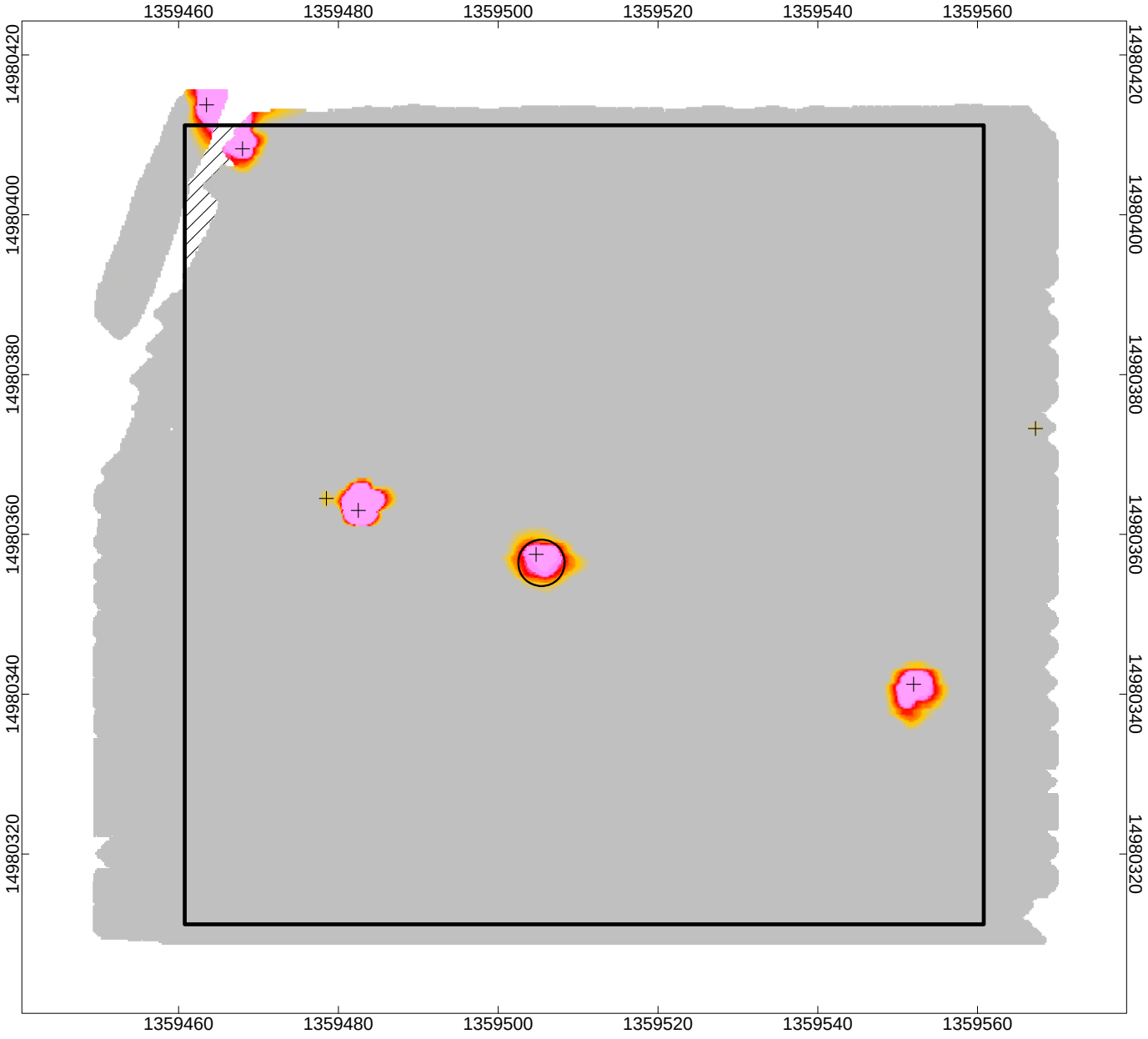
10 0 10 20 30

US survey foot

WGS 84 / UTM zone 19N

EM61-MK2

Nantucket, MA



AC-01-G05
MRS 2

EM61-MK2
Nantucket, MA

LEGEND

- Geophysical Target
- Seed Item
- Grid Boundary
- Obstruction/Non-Removeable Brush

CH3 Response (mV)

0 1 2 4 6 8 11 20 43

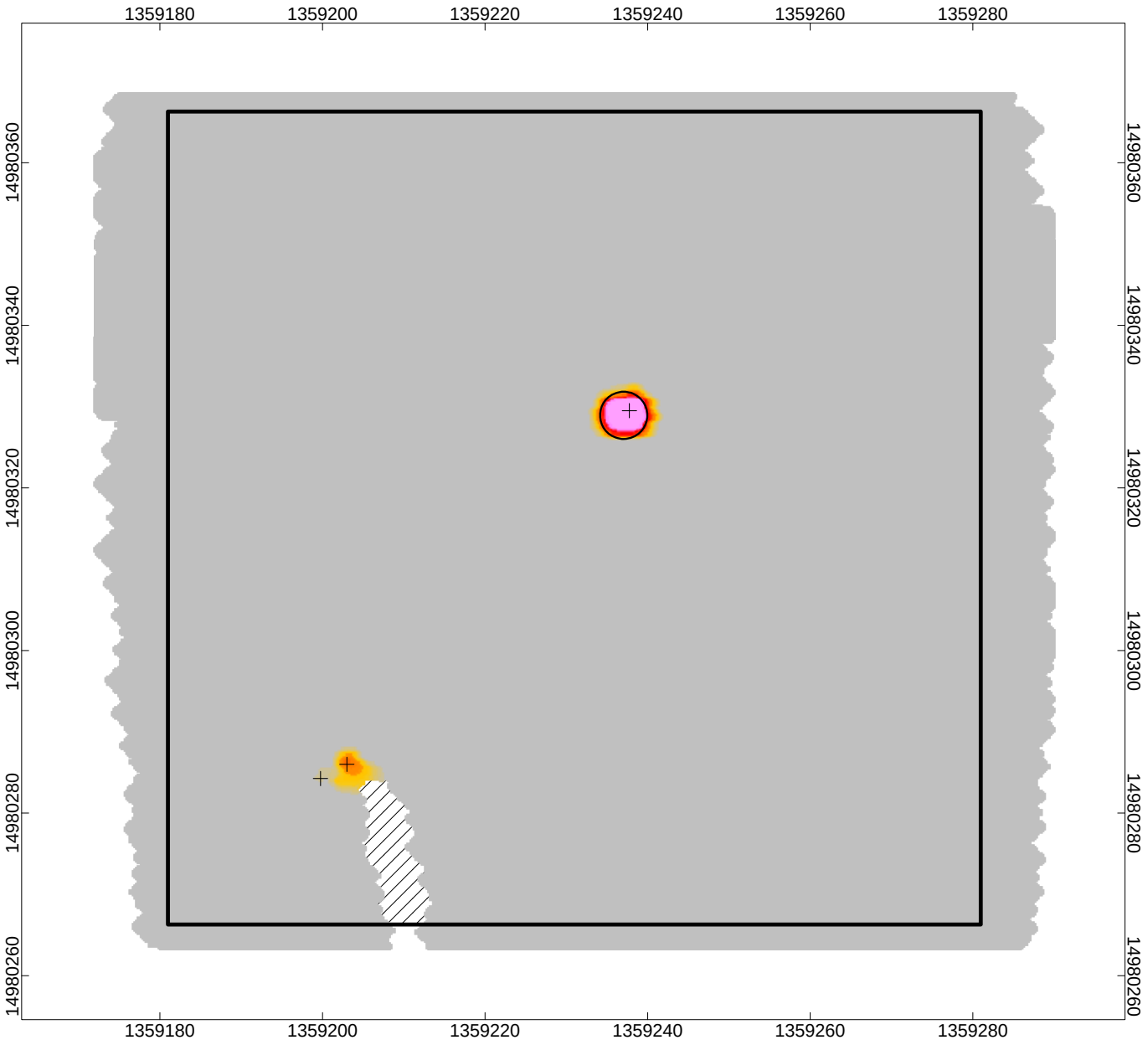
10 0 10 20 30

US survey foot

WGS 84 / UTM zone 19N

EM61-MK2

Nantucket, MA



AC-01-G06

MRS 2

EM61-MK2
Nantucket, MA

LEGEND

- Geophysical Target
- Seed Item
- Grid Boundary
- Obstruction/Non-Removeable Brush

CH3 Response (mV)

0 1 2 4 6 8 11 20 43

10 0 10 20 30

US survey foot

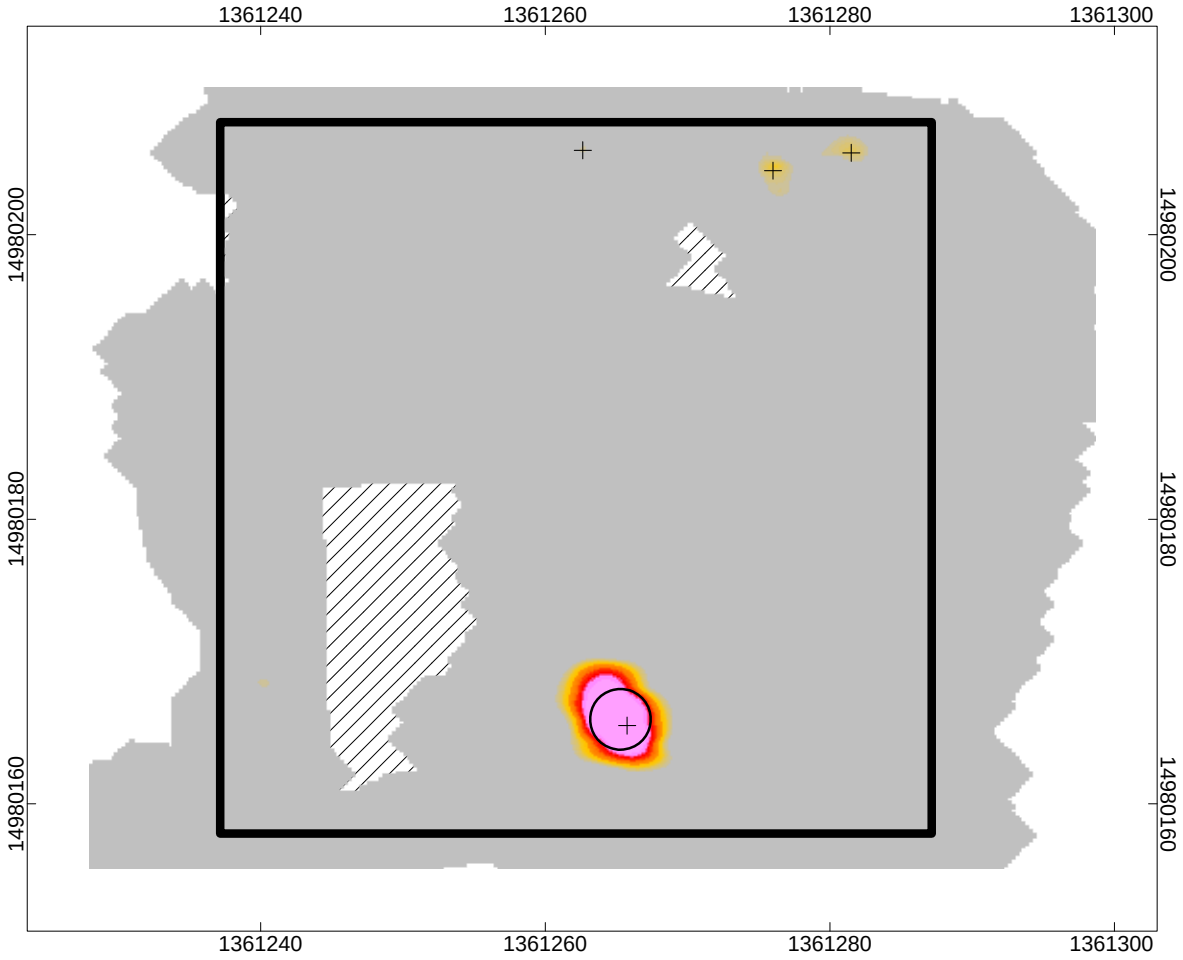
WGS 84 / UTM zone 19N

EM61-MK2

Nantucket, MA

AC-01-G07
MRS 2

EM61-MK2
Nantucket, MA



LEGEND

- Geophysical Target
- Seed Item
- Grid Boundary
- Obstruction/Non-Removeable Brush

CH3 Response (mV)

0 1 2 4 6 8 11 20 43

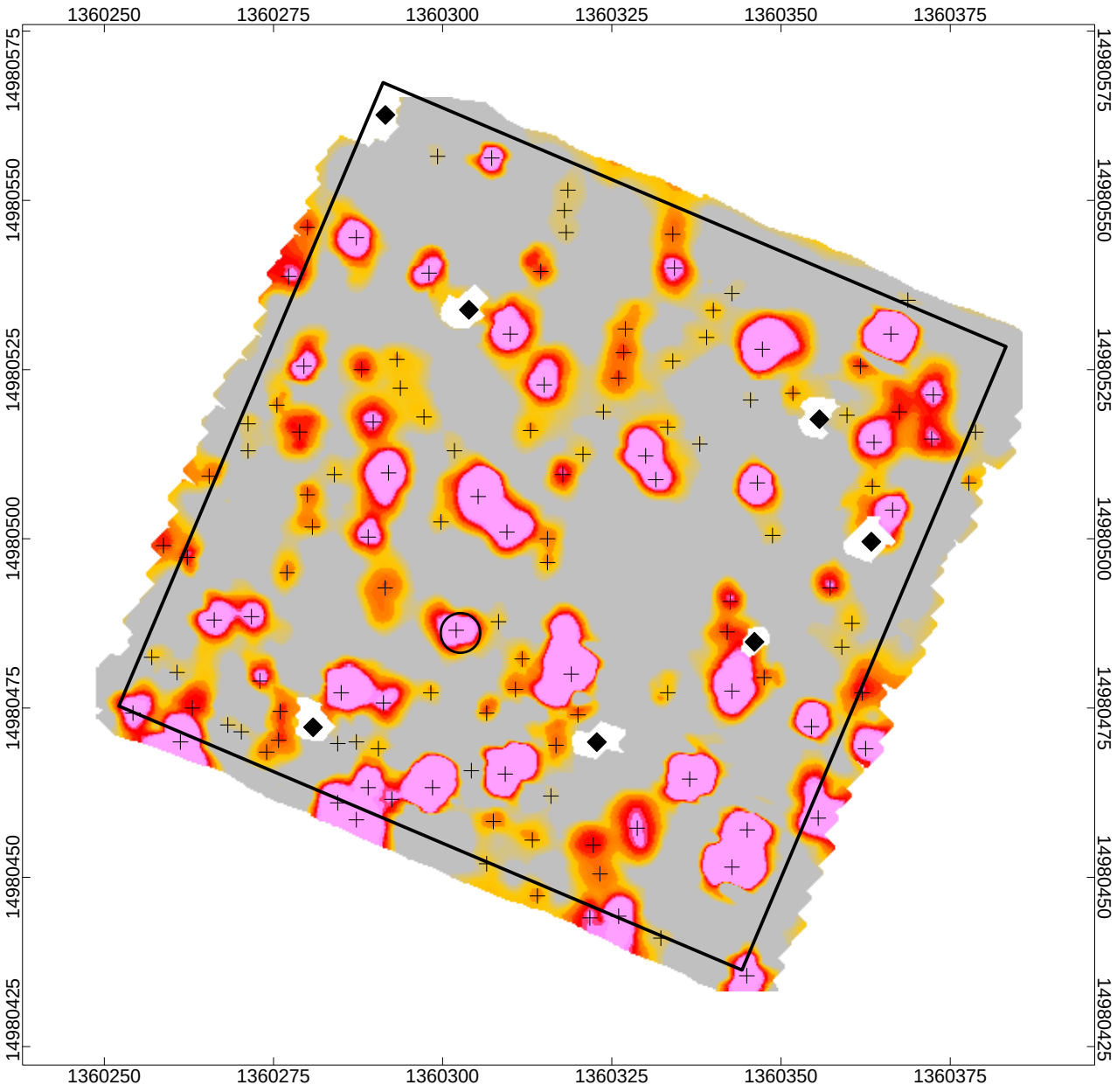
10 0 10 20

US survey foot

WGS 84 / UTM zone 19N

EM61-MK2

Nantucket, MA



AC-01-G08
MRS 2

EM61-MK2
Nantucket, MA

LEGEND

- Geophysical Target
- Seed Item
- Grid Boundary
- Tree/Vegetation

CH3 Response (mV)

0 1 2 4 6 8 11 20 43

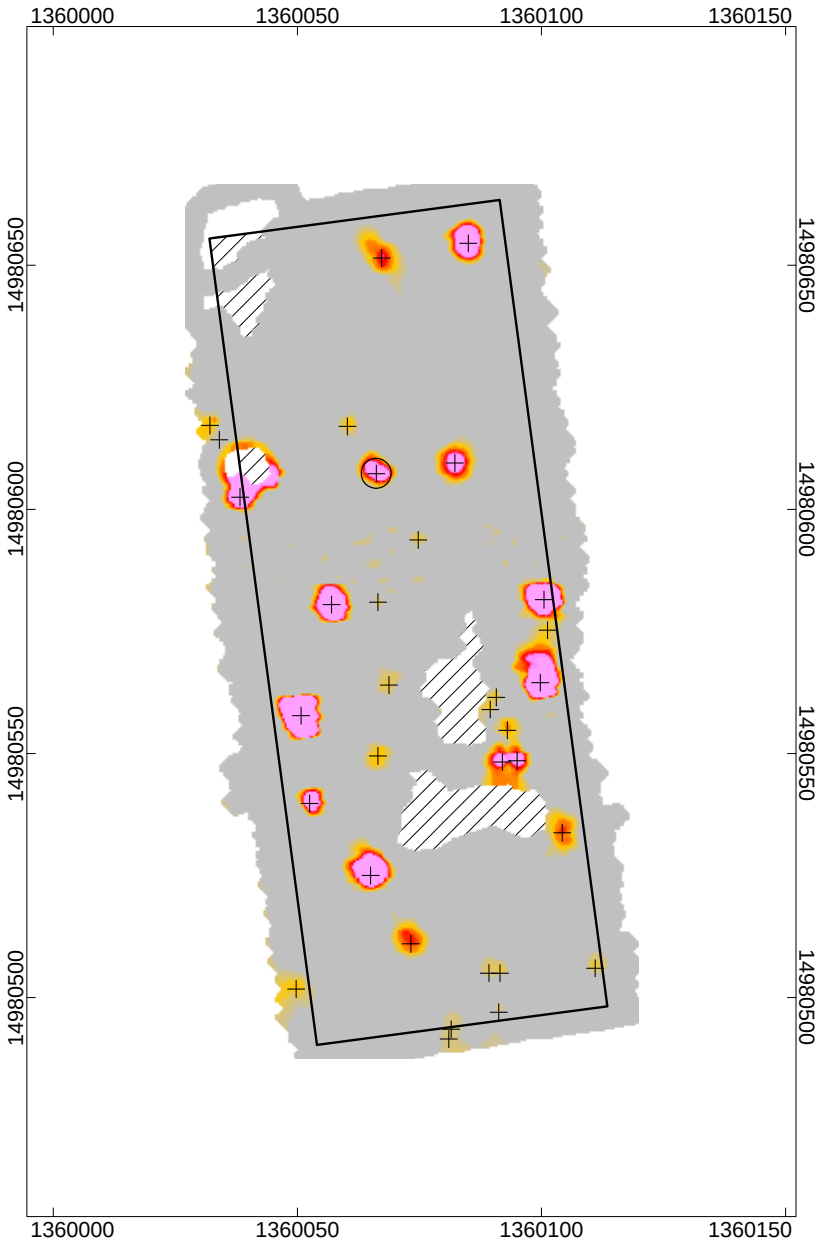
10 0 10 20 30

US survey foot

WGS 84 / UTM zone 19N

EM61-MK2

Nantucket, MA



AC-01-G09
MRS 2

EM61-MK2
Nantucket, MA

LEGEND

- Geophysical Target
- Seed Item
- Grid Boundary
- Obstruction/Non-Removeable Brush

CH3 Response (mV)

0 1 2 4 6 8 11 20 43

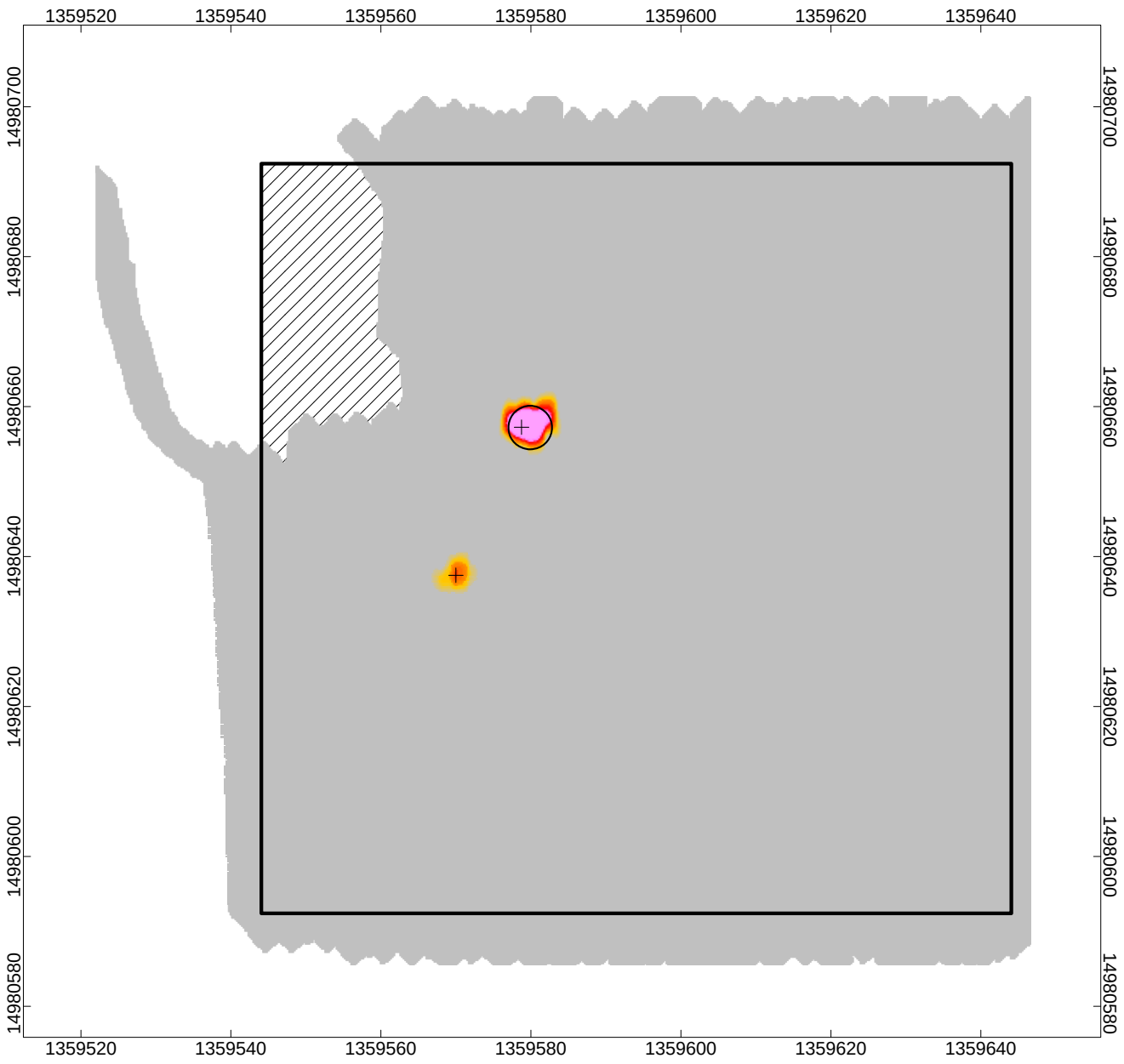
25 0 25 50

US survey foot

WGS 84 / UTM zone 19N

EM61-MK2

Nantucket, MA



AC-01-G10

MRS 2

EM61-MK2
Nantucket, MA

LEGEND

- Geophysical Target
- Seed Item
- Grid Boundary
- Obstruction/Non-Removeable Brush

CH3 Response (mV)

0 1 2 4 6 8 11 20 43

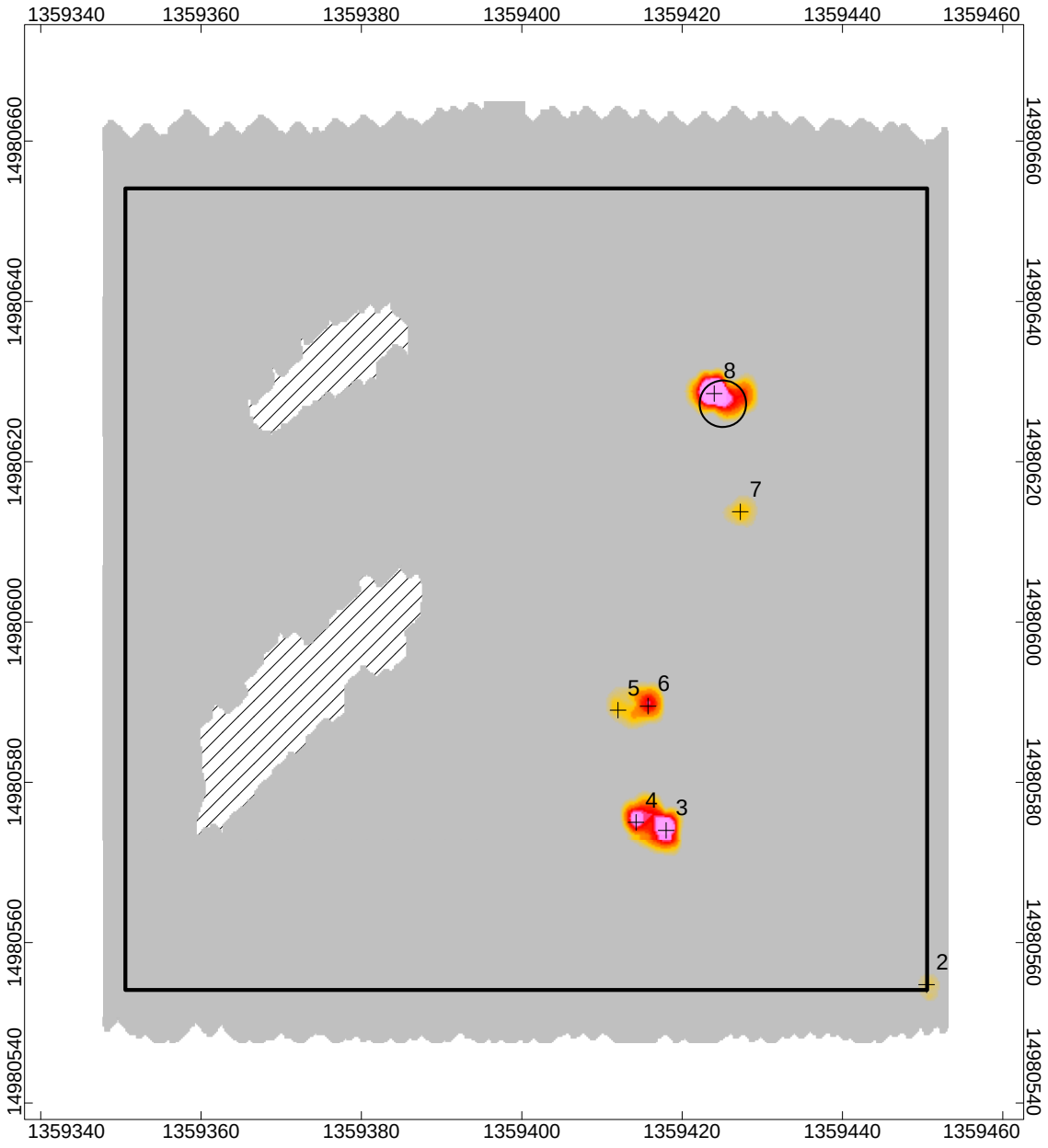
10 0 10 20 30

US survey foot

WGS 84 / UTM zone 19N

EM61-MK2

Nantucket, MA



AC-01-G11

MRS 2

EM61-MK2
Nantucket, MA

LEGEND

- Geophysical Target
- Seed Item
- Grid Boundary
- Obstruction/Non-Removeable Brush

CH3 Response (mV)

0 1 2 4 6 8 11 20 43

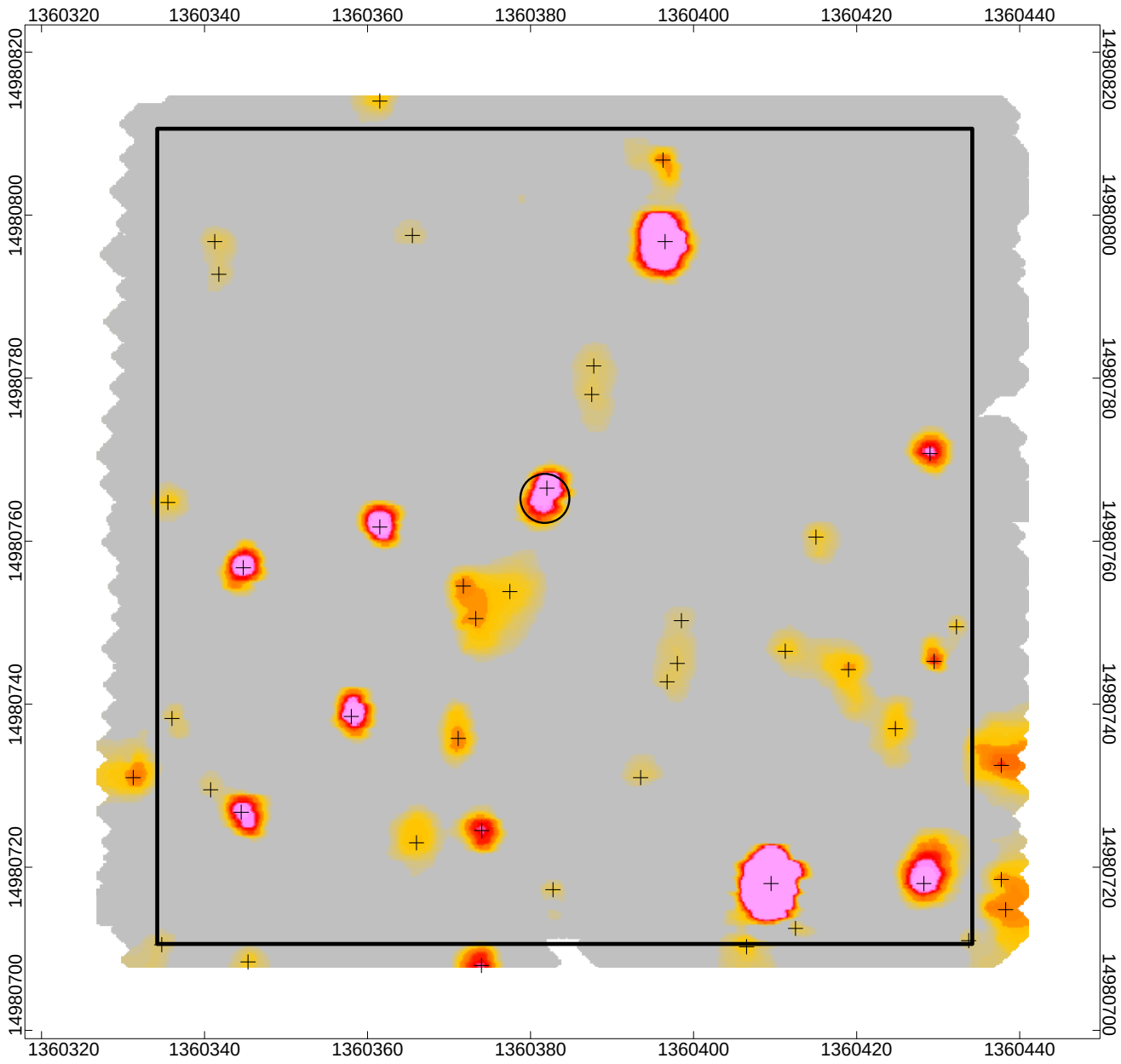
10 0 10 20 30

US survey foot

WGS 84 / UTM zone 19N

EM61-MK2

Nantucket, MA



AC-01-G12

MRS 2

EM61-MK2
Nantucket, MA

LEGEND

- Geophysical Target
- Seed Item
- Grid Boundary
- Obstruction/Non-Removeable Brush

CH3 Response (mV)

0 1 2 4 6 8 11 20 43

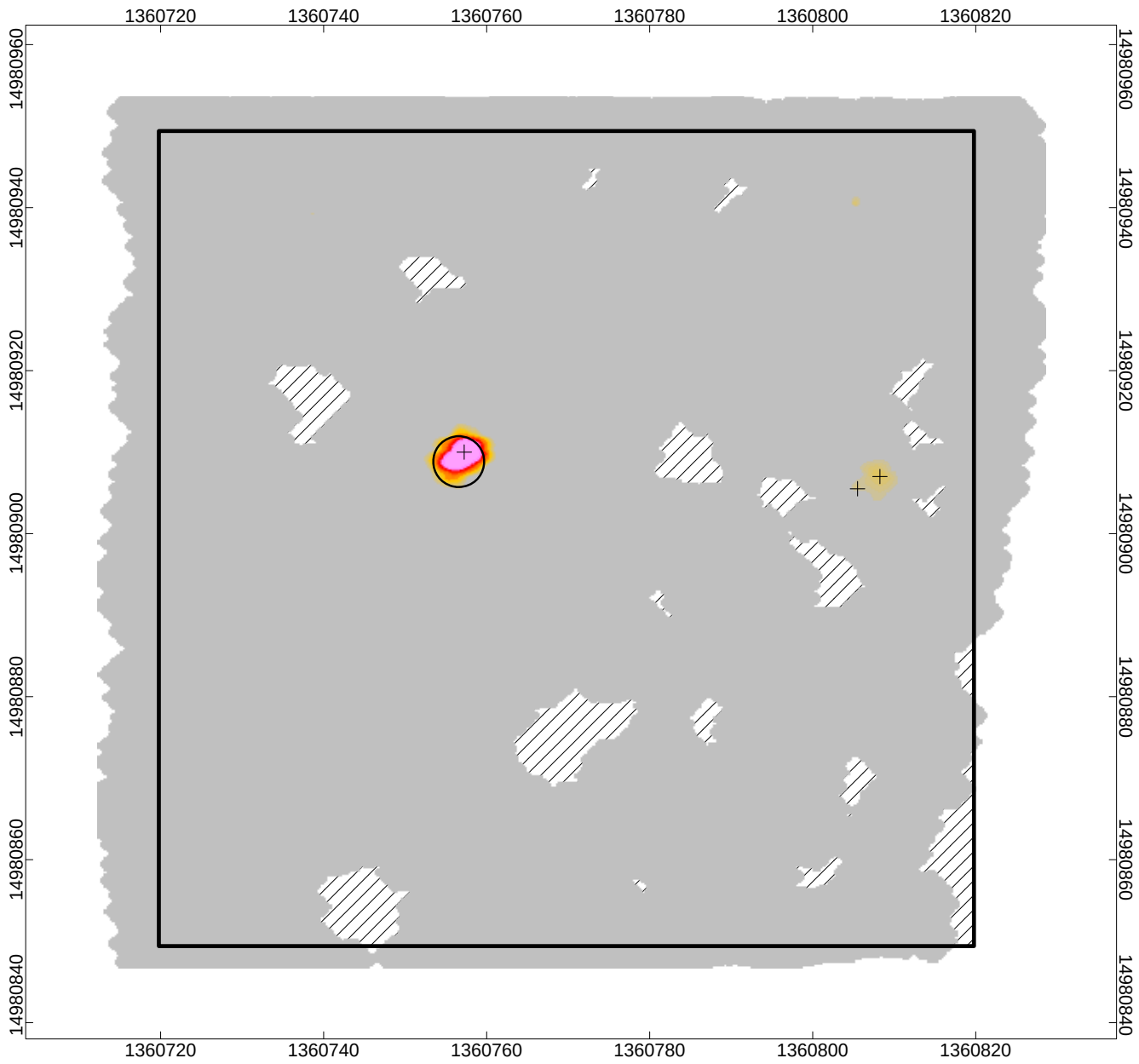
10 0 10 20 30

US survey foot

WGS 84 / UTM zone 19N

EM61-MK2

Nantucket, MA



AC-01-G13
MRS 2

EM61-MK2
Nantucket, MA

LEGEND

- Geophysical Target
- Seed Item
- Grid Boundary
- Obstruction/Non-Removeable Brush

CH3 Response (mV)

0 1 2 4 6 8 11 20 43

10 0 10 20 30

US survey foot

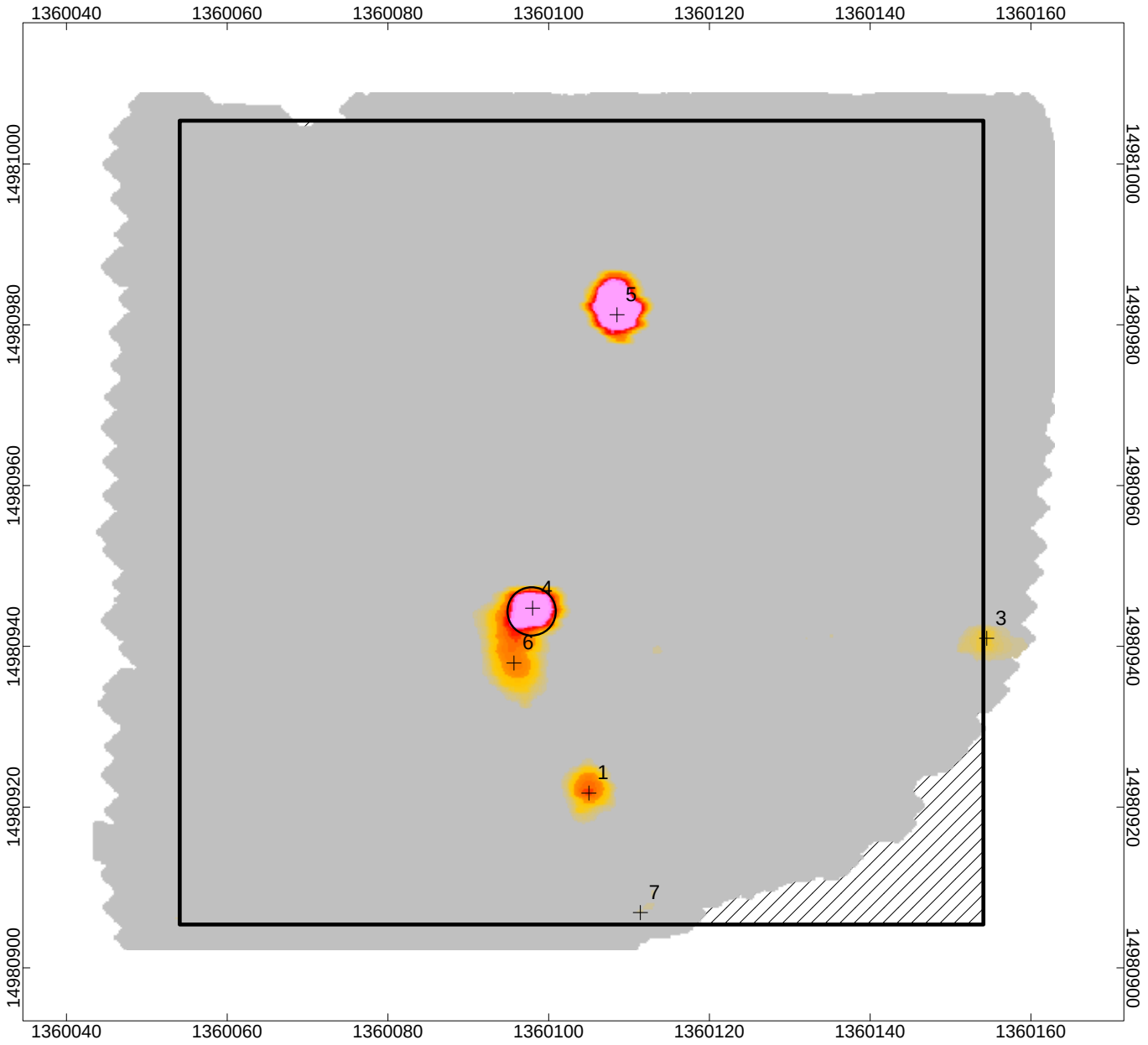
WGS 84 / UTM zone 19N

EM61-MK2

Nantucket, MA

AC-01-G14
MRS 2

EM61-MK2
Nantucket, MA



LEGEND

- Geophysical Target
- Seed Item
- Grid Boundary
- Obstruction/Non-Removeable Brush

CH3 Response (mV)

0 1 2 4 6 8 11 20 43

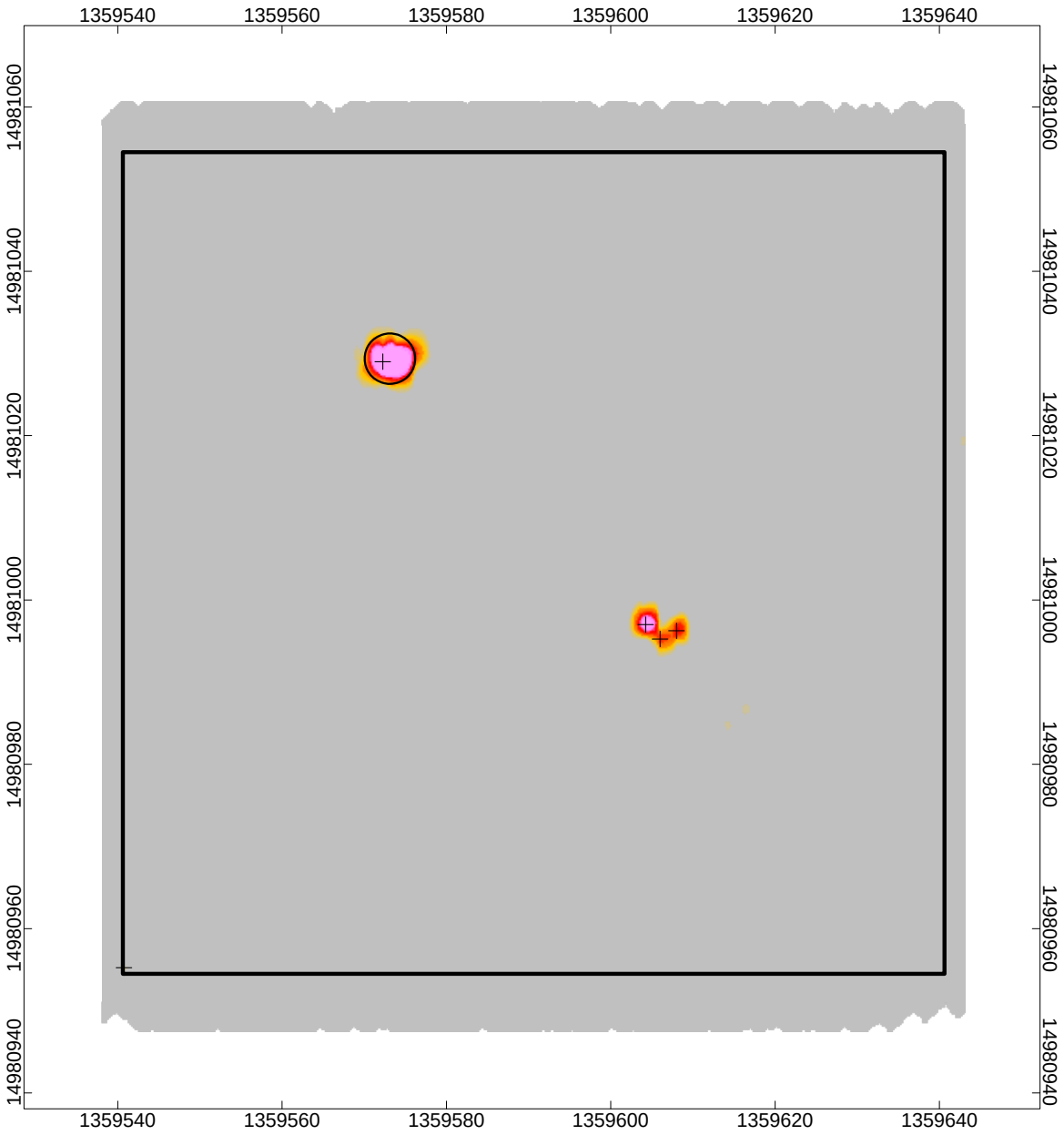
10 0 10 20 30

US survey foot

WGS 84 / UTM zone 19N

EM61-MK2

Nantucket, MA



AC-01-G15

MRS 2

EM61-MK2
Nantucket, MA

LEGEND

- Geophysical Target
- Seed Item
- Grid Boundary

CH3 Response (mV)

0 1 2 4 6 8 11 20 43

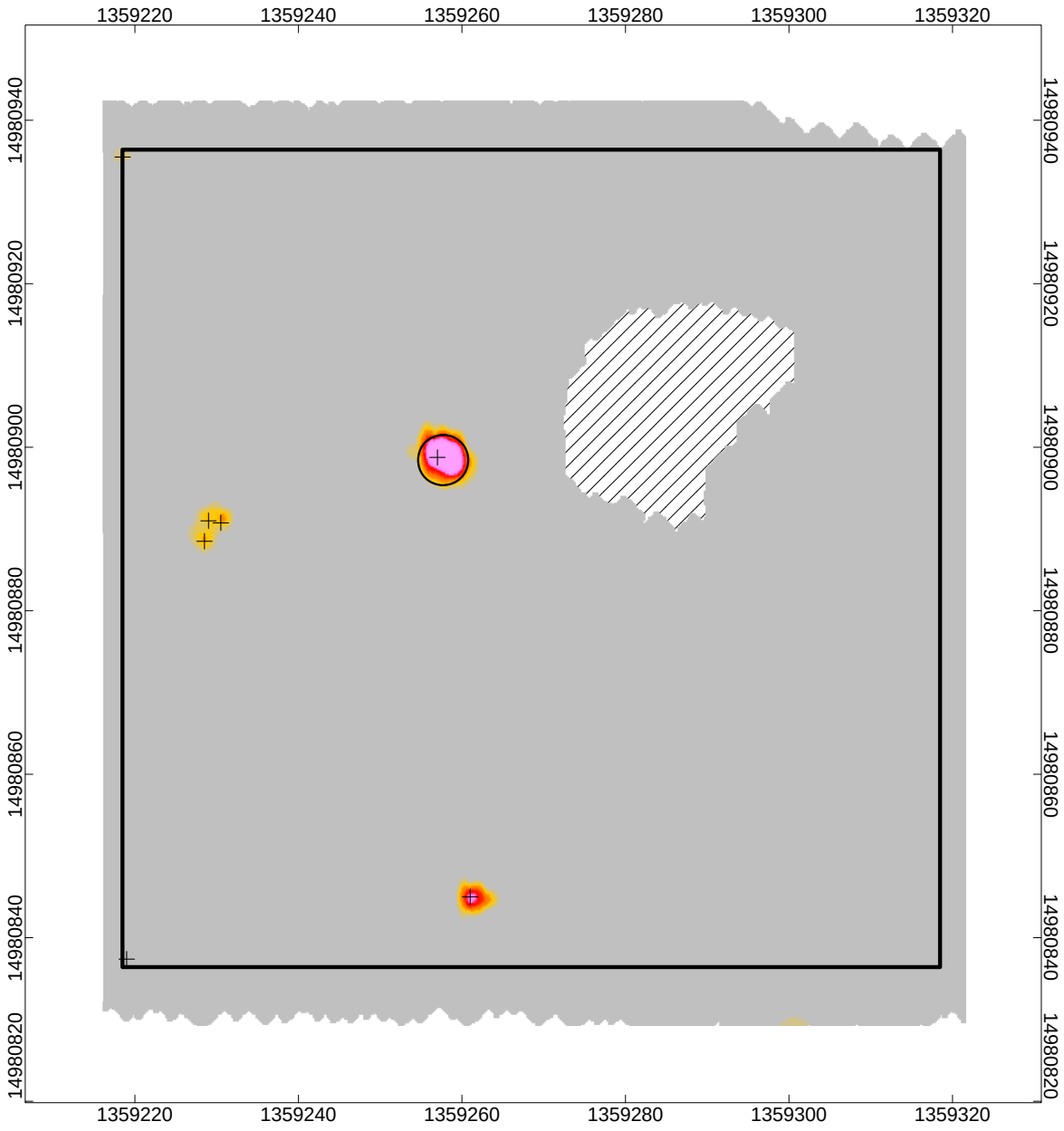
10 0 10 20 30

US survey foot

WGS 84 / UTM zone 19N

EM61-MK2

Nantucket, MA



AC-01-G16
MRS 2

EM61-MK2
Nantucket, MA

LEGEND

- Geophysical Target
- Seed Item
- Grid Boundary
- Obstruction/Non-Removeable Brush

CH3 Response (mV)

0 1 2 4 6 8 11 20 43

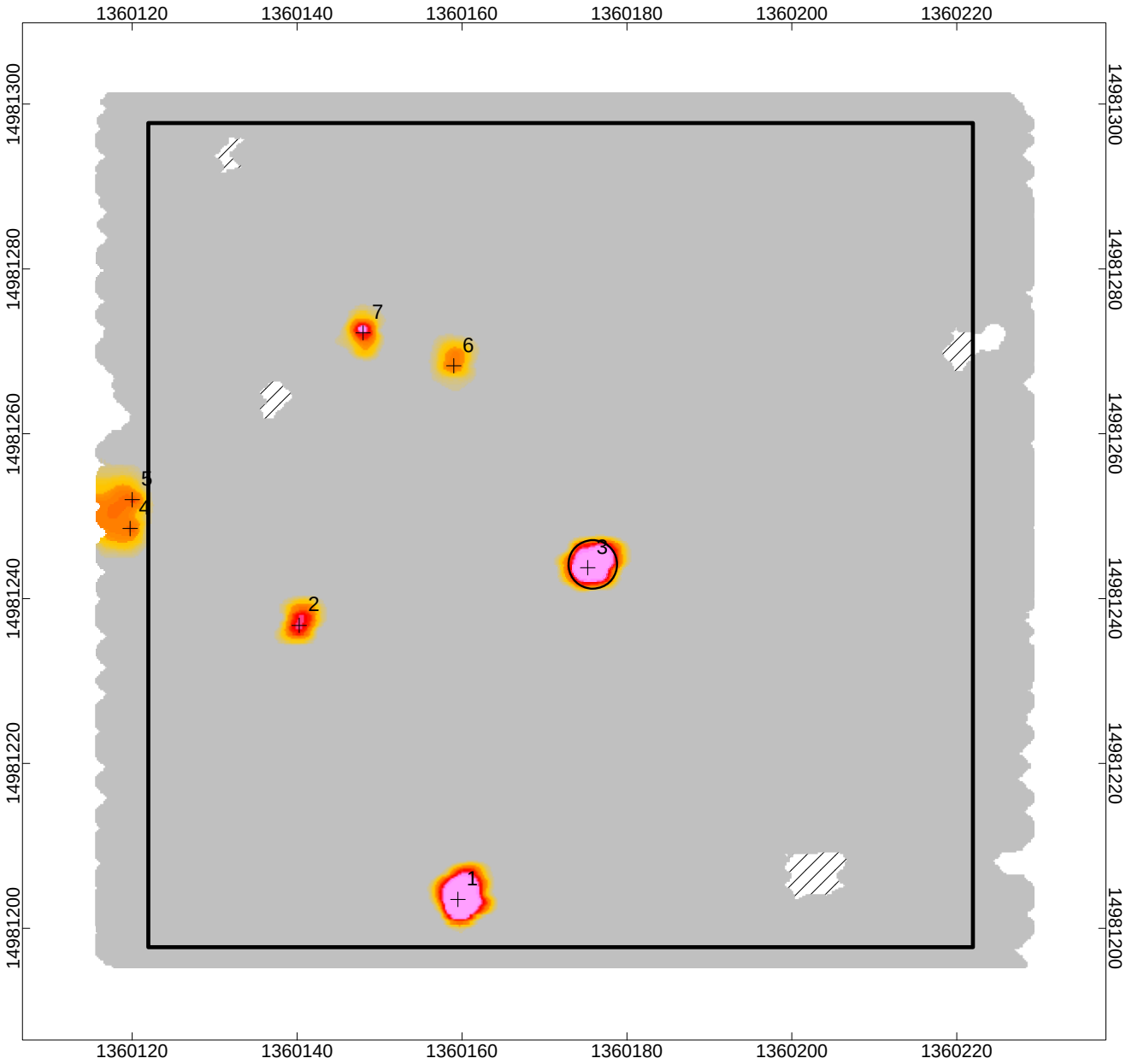
10 0 10 20 30

US survey foot

WGS 84 / UTM zone 19N

EM61-MK2

Nantucket, MA



AC-01-G17

MRS 2

EM61-MK2
Nantucket, MA

LEGEND

- Geophysical Target
- Seed Item
- Grid Boundary
- Obstruction/Non-Removeable Brush

CH3 Response (mV)

0 1 2 4 6 8 11 20 43

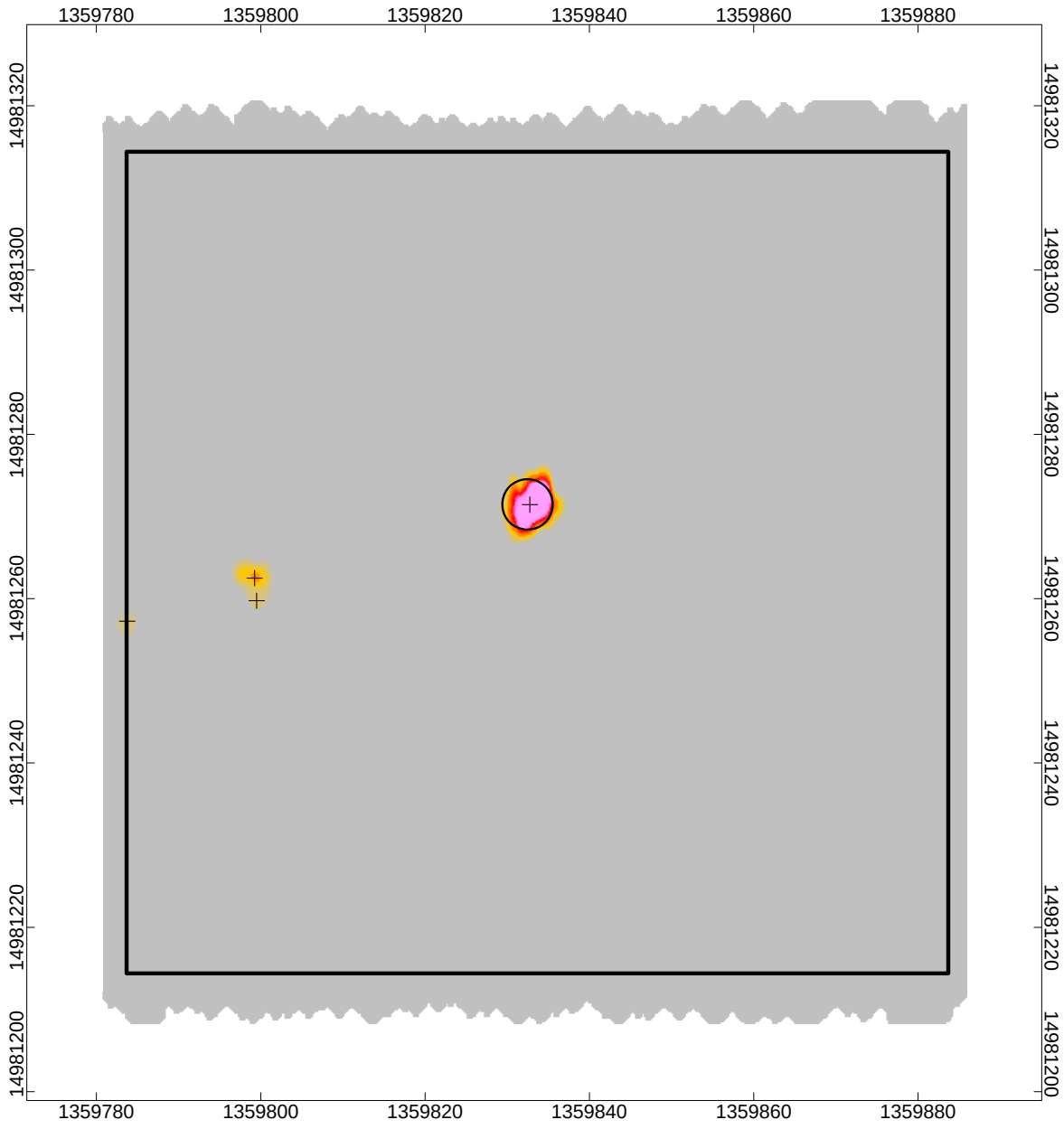
25 0 25 50

US survey foot

WGS 84 / UTM zone 19N

EM61-MK2

Nantucket, MA



AC-01-G18

MRS 2

EM61-MK2
Nantucket, MA

LEGEND

- Geophysical Target
- Seed Item
- Grid Boundary
- Obstruction/Non-Removeable Brush

CH3 Response (mV)

0 1 2 4 6 8 11 20 43

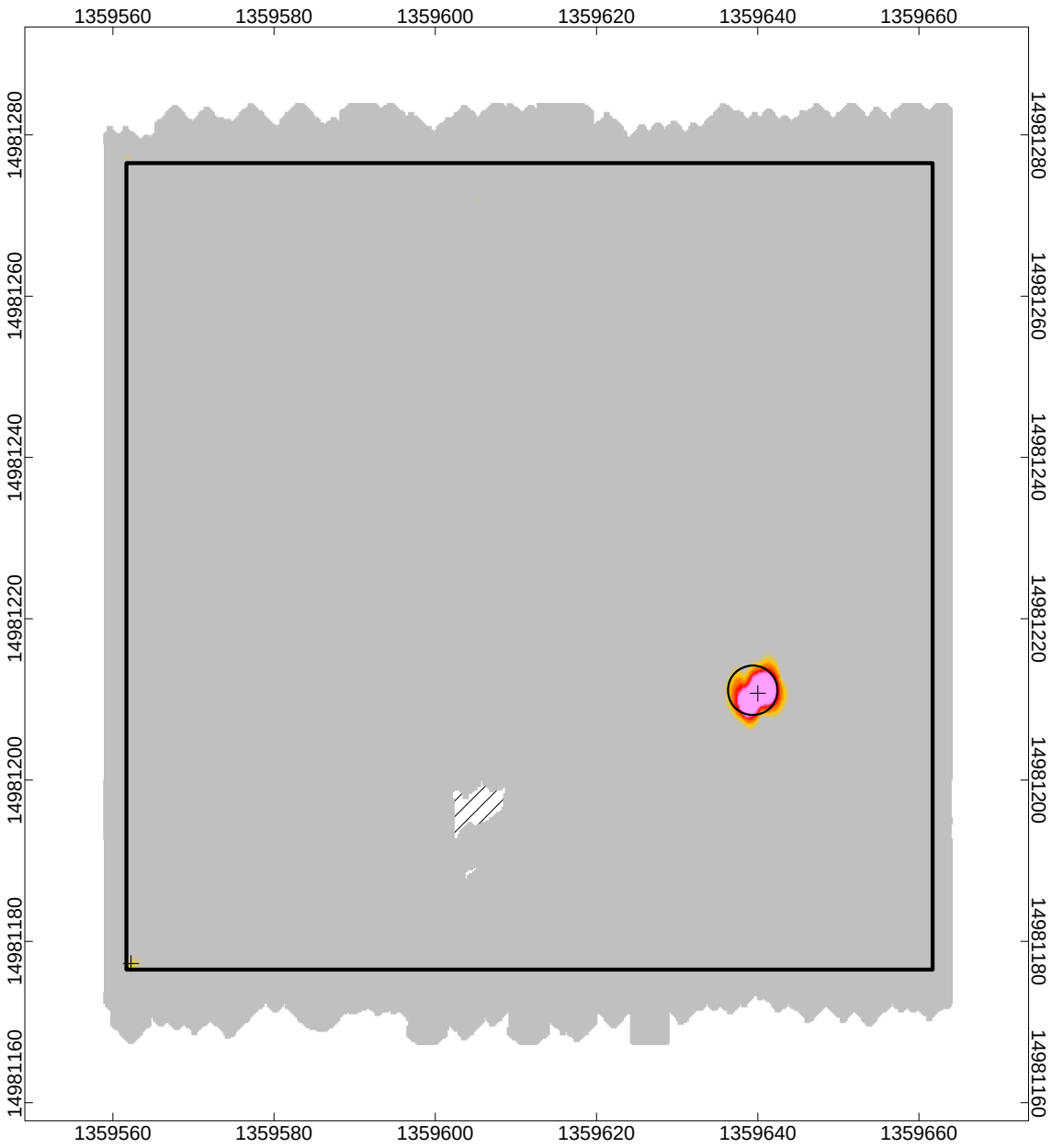
10 0 10 20 30

US survey foot

WGS 84 / UTM zone 19N

EM61-MK2

Nantucket, MA



AC-01-G19
MRS 2

EM61-MK2
Nantucket, MA

LEGEND

- Geophysical Target
- Seed Item
- Grid Boundary
- Obstruction/Non-Removeable Brush

CH3 Response (mV)

0 1 2 4 6 8 11 20 43

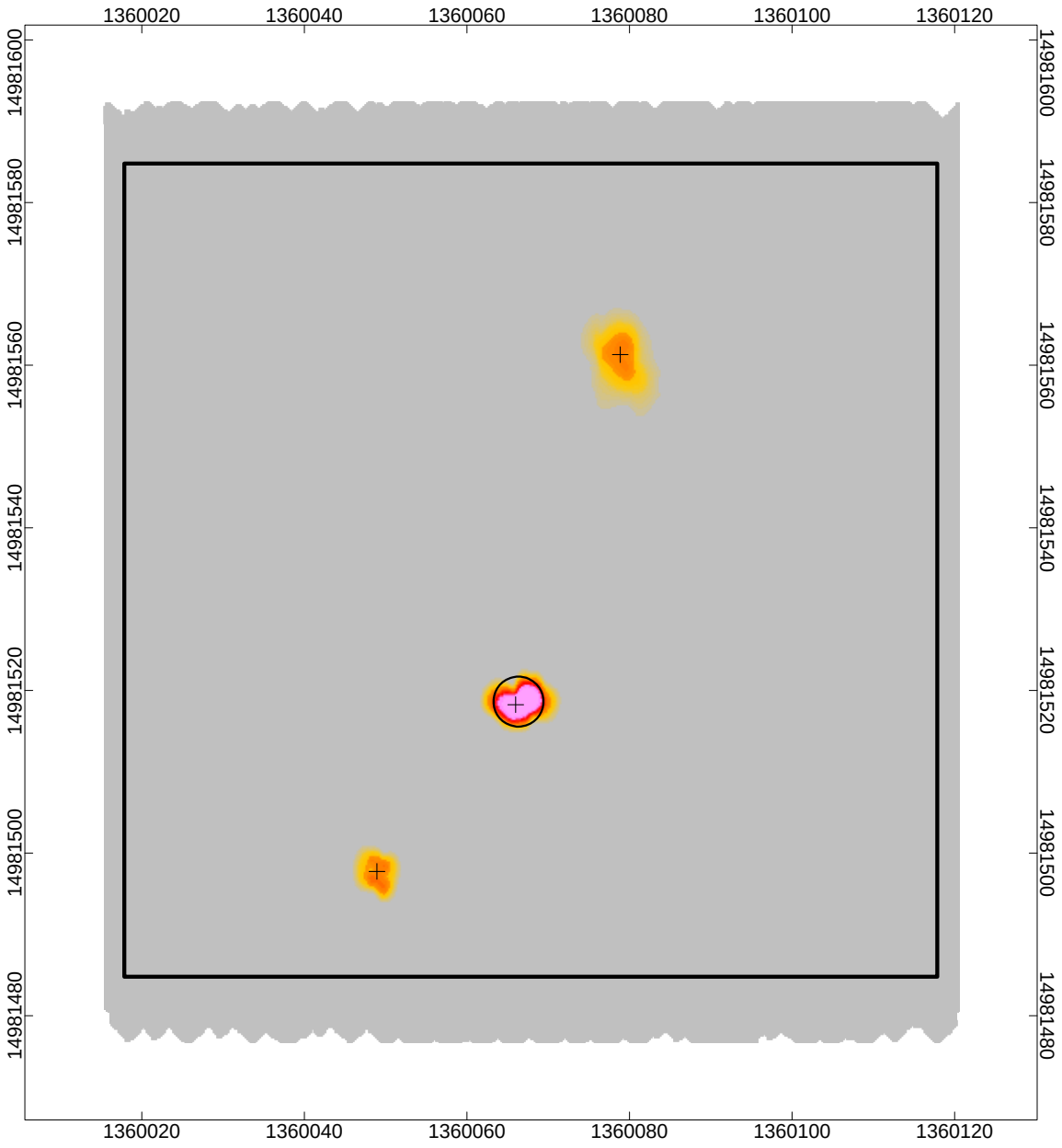
10 0 10 20 30

US survey foot

WGS 84 / UTM zone 19N

EM61-MK2

Nantucket, MA



AC-01-G20

MRS 2

EM61-MK2
Nantucket, MA

LEGEND

- Geophysical Target
- Seed Item
- Grid Boundary
- Obstruction/Non-Removeable Brush

CH3 Response (mV)

0 1 2 4 6 8 11 20 43

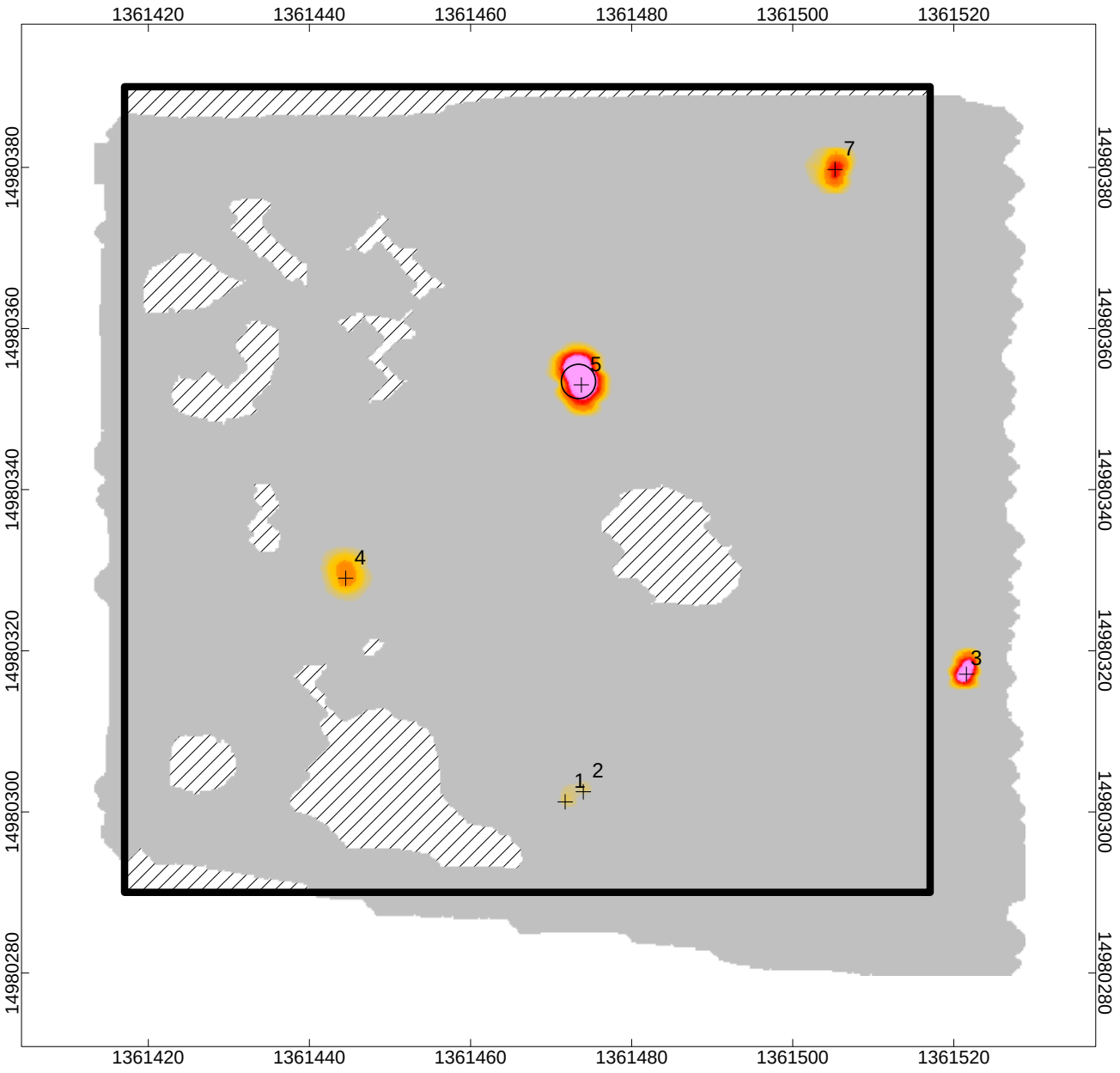
10 0 10 20 30

US survey foot

WGS 84 / UTM zone 19N

EM61-MK2

Nantucket, MA



AC-01-G21
MRS 2

EM61-MK2
Nantucket, MA

LEGEND

- Geophysical Target
- Seed Item
- Grid Boundary
- Obstruction/Non-Removeable Brush

CH3 Response (mV)

0 1 2 4 6 8 11 20 43

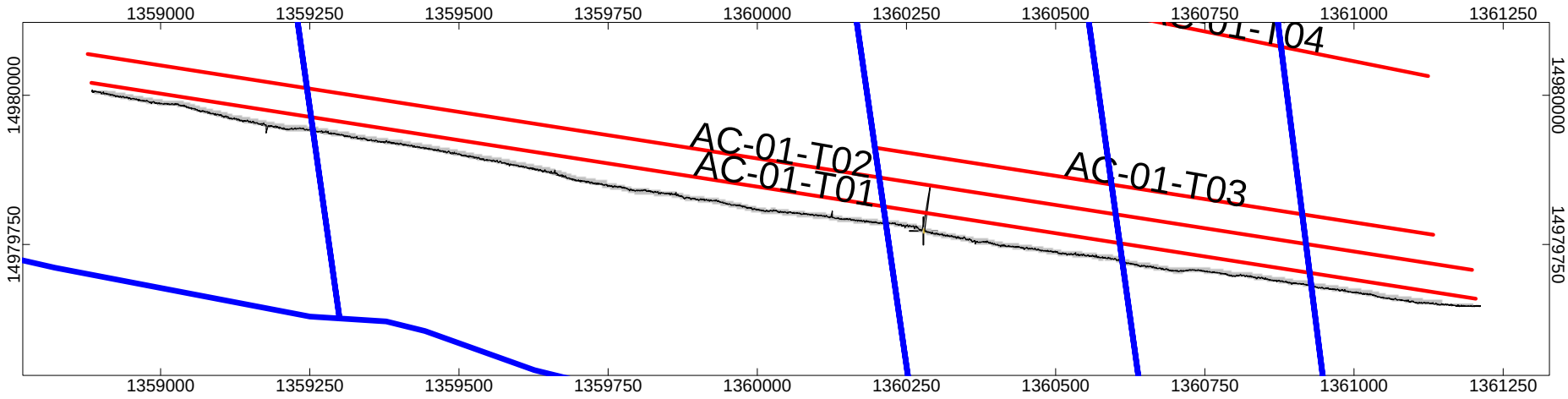
10 0 10 20 30

US survey foot

WGS 84 / UTM zone 19N

EM61-MK2

Nantucket, MA



LEGEND

250 0 250

US survey foot

WGS 84 / UTM zone 19N

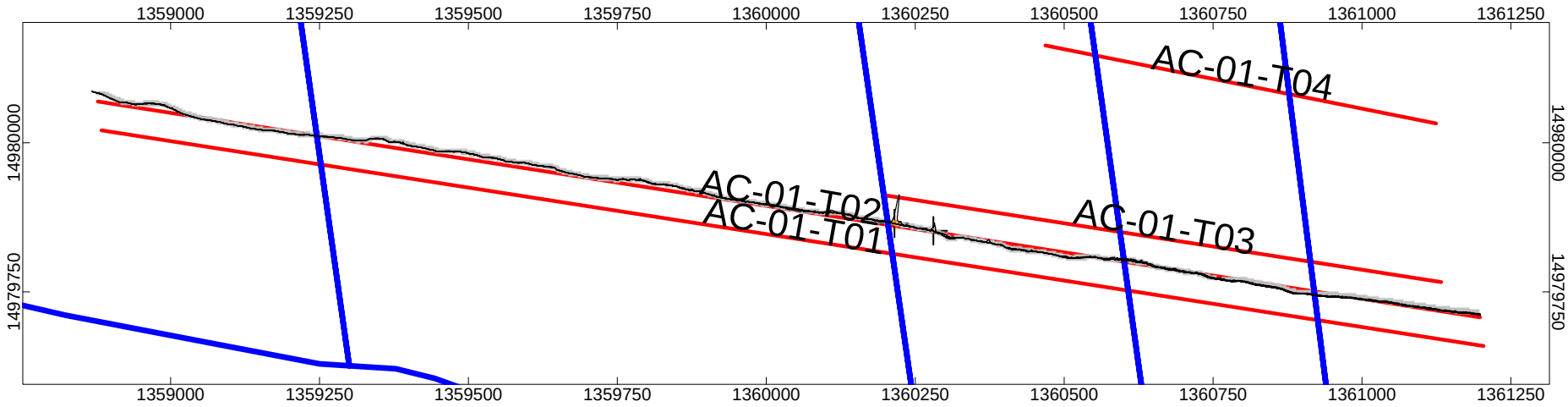
AC-01-T01

MRS 2

- Geophysical Target
- Seed Item
- Parcel Boundary
- Proposed Transect Location
- Tree/Vegetation/Obstruction

CH3 Response (mV)

0 1 2 4 6 8 11 20 43



LEGEND

AC-01-T02

MRS 2

250 0 250

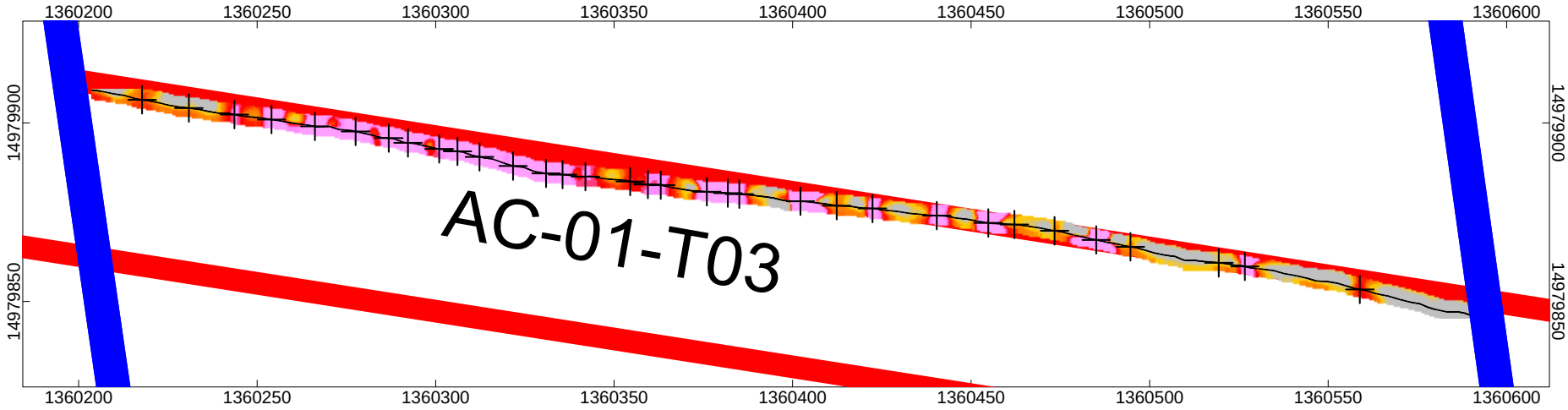
US survey foot

WGS 84 / UTM zone 19N

- Geophysical Target
- Seed Item
- Parcel Boundary
- Proposed Transect Location
- Tree/Vegetation/Obstruction

CH3 Response (mV)

0 1 2 4 6 8 11 20 43



LEGEND

AC-01-T03

MRS 2

25 0 25 50

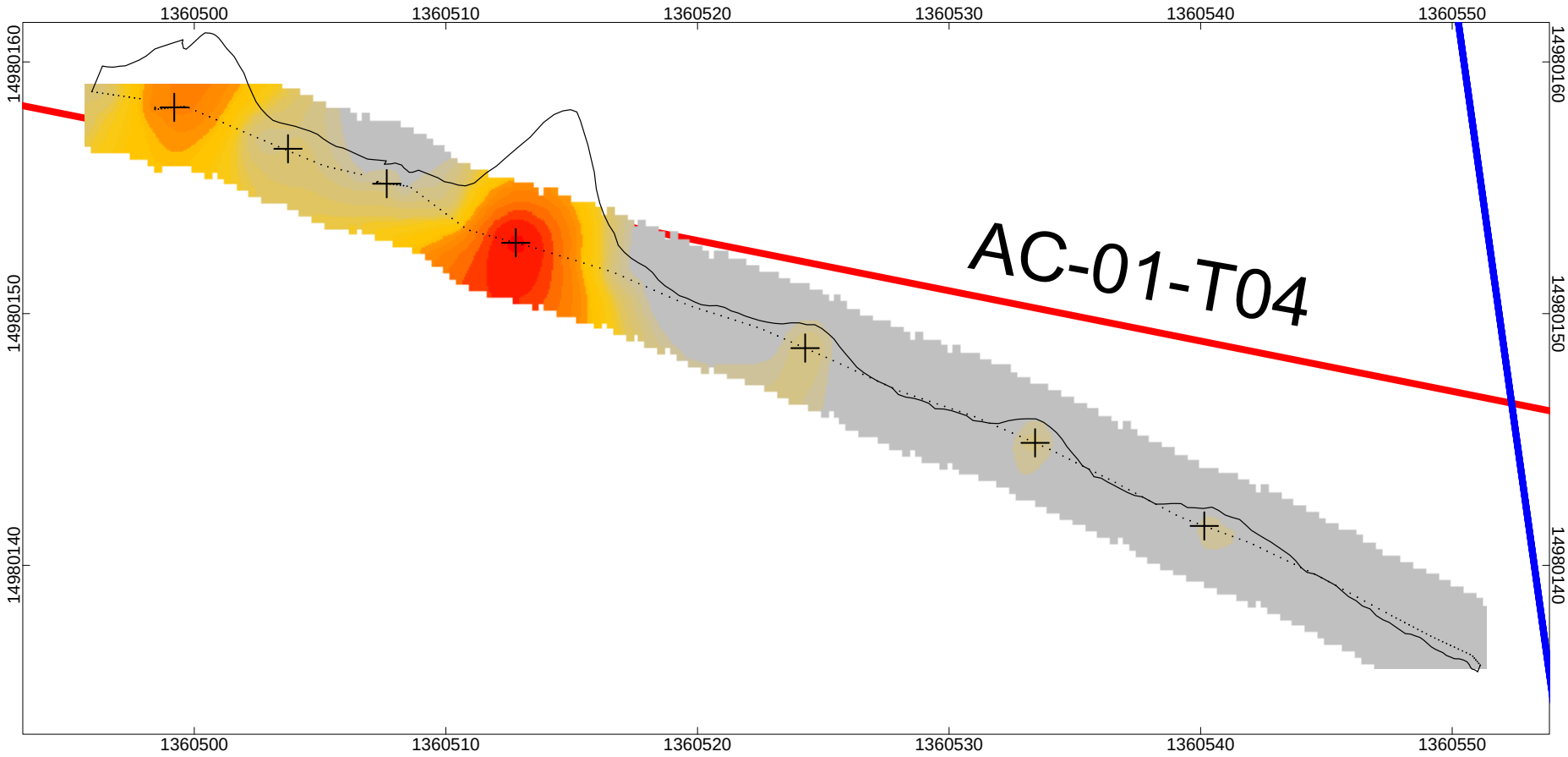
US survey foot

WGS 84 / UTM zone 19N

- Geophysical Target
- Seed Item
- Parcel Boundary
- Proposed Transect Location
- Tree/Vegetation/Obstruction

CH3 Response (mV)

0 1 2 4 6 8 11 20 43



LEGEND

AC-01-T04

MRS 2

5 0 5

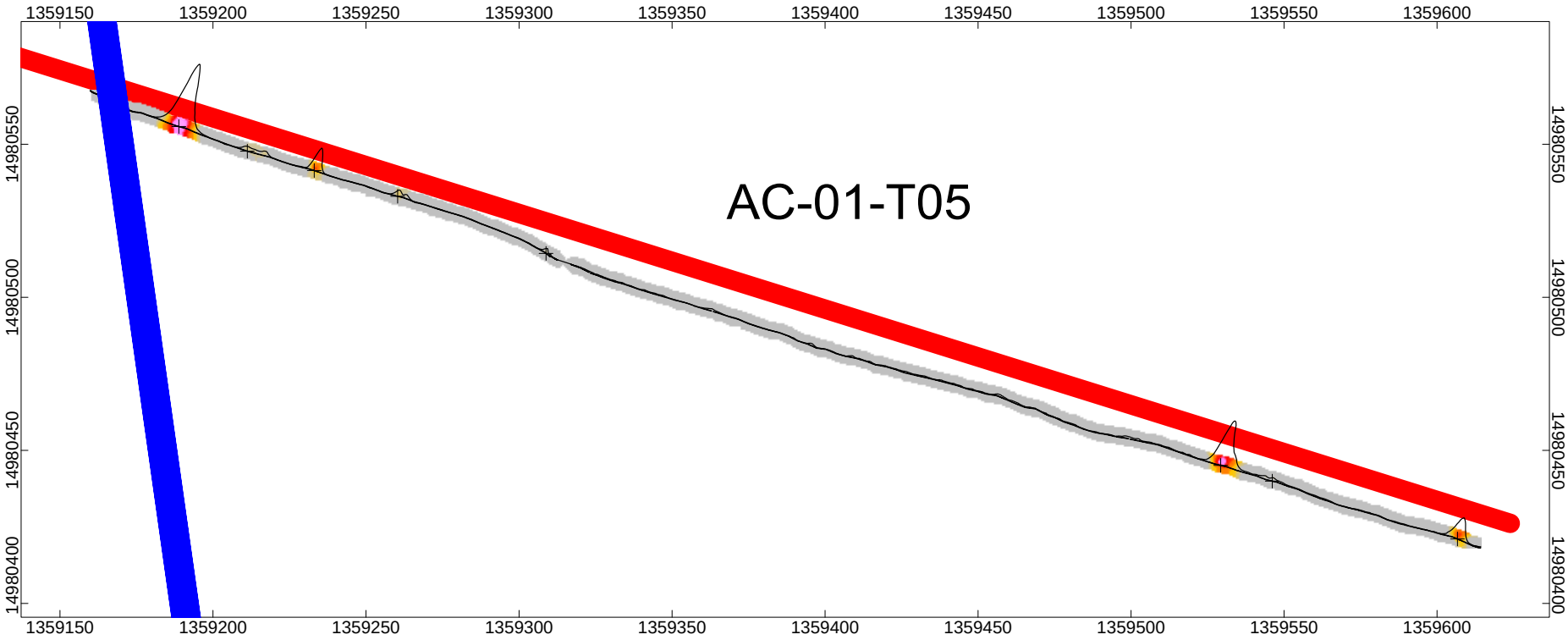
US survey foot

WGS 84 / UTM zone 19N

- Geophysical Target
- Seed Item
- Parcel Boundary
- Proposed Transect Location
- Tree/Vegetation/Obstruction

CH3 Response (mV)

0 1 2 4 6 8 11 20 43



LEGEND

AC-01-T05

MRS 2

25 0 25 50 75

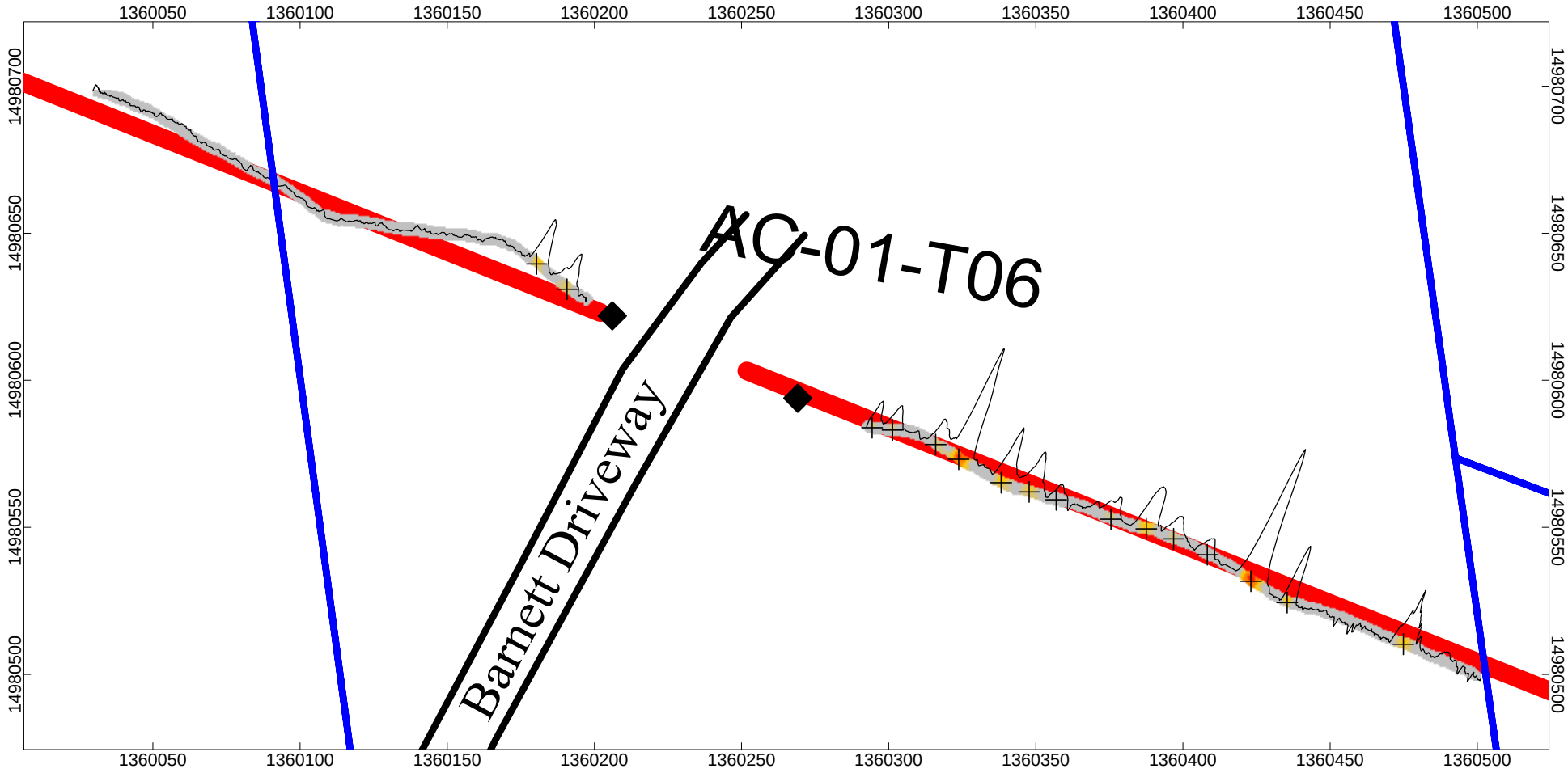
US survey foot

WGS 84 / UTM zone 19N

- Geophysical Target
- Seed Item
- Parcel Boundary
- Proposed Transect Location
- Tree/Vegetation/Obstruction

CH3 Response (mV)

0 1 2 4 6 8 11 20 43



LEGEND

25 0 25 50 75

US survey foot

WGS 84 / UTM zone 19N

AC-01-T06

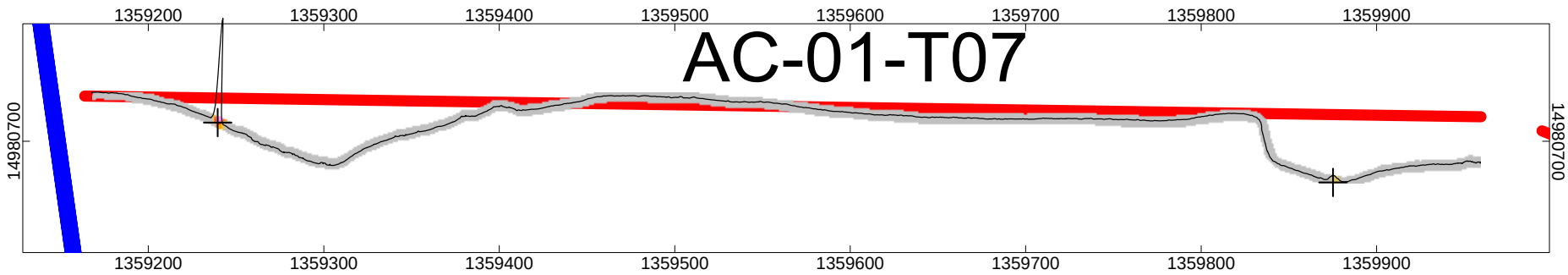
MRS 2

- Geophysical Target
- Seed Item
- Parcel Boundary
- Proposed Transect Location
- Tree/Vegetation/Obstruction

CH3 Response (mV)

0 1 2 4 6 8 11 20 43

N



LEGEND

50 0 50 100

US survey foot

WGS 84 / UTM zone 19N

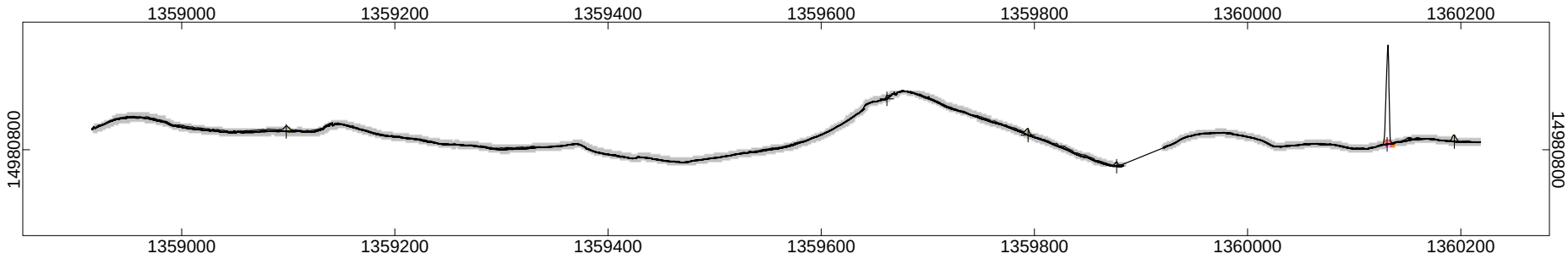
AC-01-T07

MRS 2

- Geophysical Target
- Seed Item
- Parcel Boundary
- Proposed Transect Location
- Tree/Vegetation/Obstruction

CH3 Response (mV)

0 1 2 4 6 8 11 20 43



LEGEND

AC-01-T08

MRS 2

100 0 100 200

US survey foot

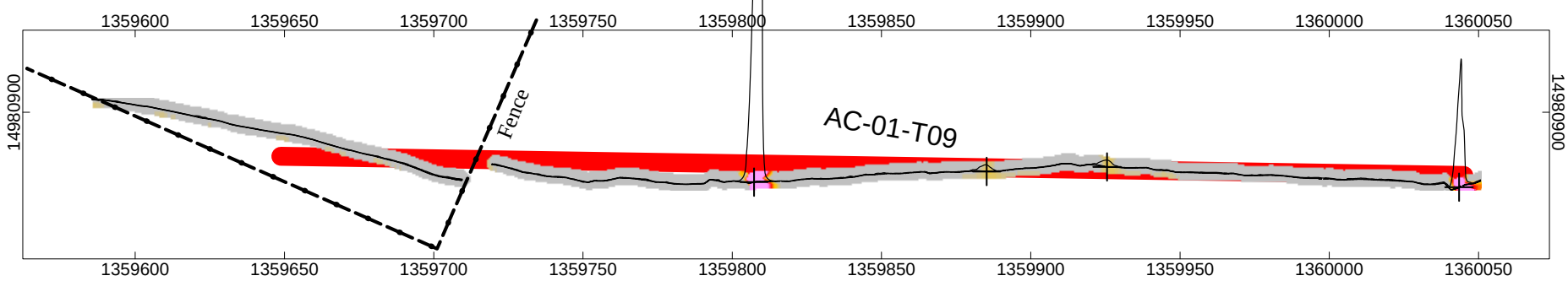
WGS 84 / UTM zone 19N

- Geophysical Target
- Seed Item
- Parcel Boundary
- Proposed Transect Location
- Tree/Vegetation/Obstruction

CH3 Response (mV)

0 1 2 4 6 8 11 20 43

N



LEGEND

AC-01-T09

MRS 2

25 0 25 50 75

US survey foot

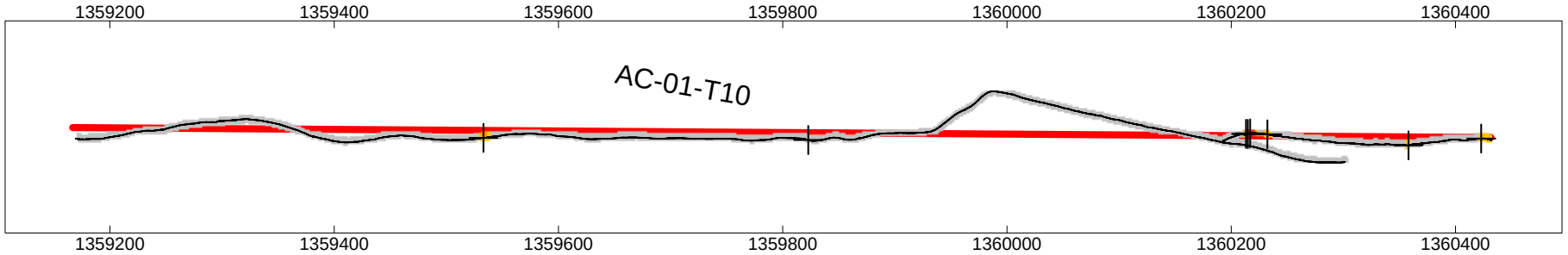
WGS 84 / UTM zone 19N

- Geophysical Target
- Seed Item
- Parcel Boundary
- Proposed Transect Location
- Tree/Vegetation/Obstruction

CH3 Response (mV)

0 1 2 4 6 8 11 20 43

N



LEGEND

100 0 100 200

US survey foot

WGS 84 / UTM zone 19N

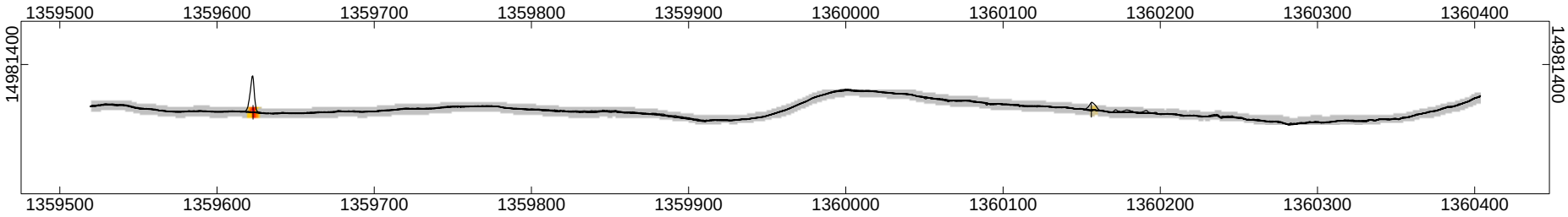
AC-01-T10

MRS 2

- Geophysical Target
- Seed Item
- Parcel Boundary
- Proposed Transect Location
- Tree/Vegetation/Obstruction

CH3 Response (mV)

0 1 2 4 6 8 11 20 43



LEGEND

AC-01-T11

MRS 2

50 0 50 100 150

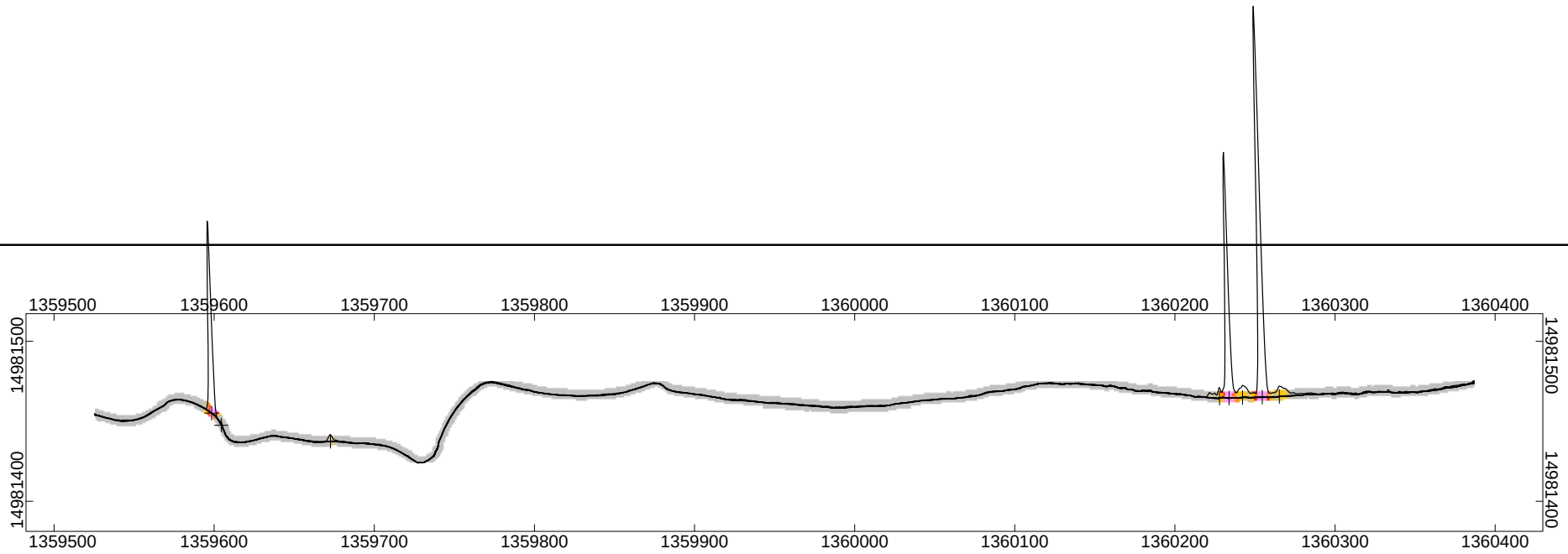
US survey foot

WGS 84 / UTM zone 19N

- Geophysical Target
- Seed Item
- Parcel Boundary
- Proposed Transect Location
- Tree/Vegetation/Obstruction

CH3 Response (mV)

0 1 2 4 6 8 11 20 43



LEGEND

AC-01-T12

MRS 2

50 0 50 100 150

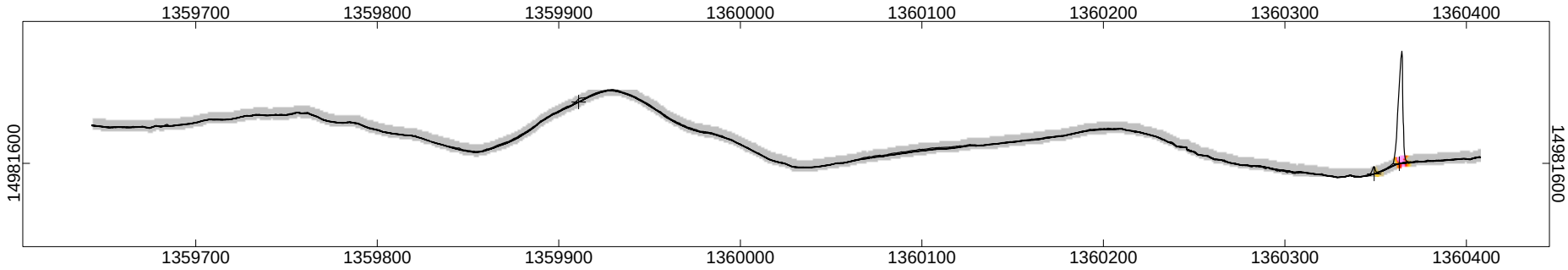
US survey foot

WGS 84 / UTM zone 19N

- Geophysical Target
- Seed Item
- Parcel Boundary
- Proposed Transect Location
- Tree/Vegetation/Obstruction

CH3 Response (mV)

0 1 2 4 6 8 11 20 43



LEGEND

AC-01-T13

MRS 2

50 0 50 100

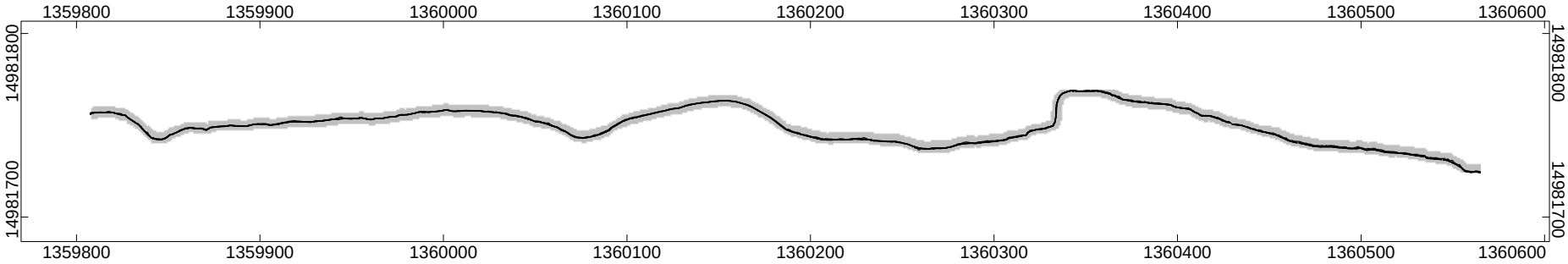
US survey foot

WGS 84 / UTM zone 19N

- Geophysical Target
- Seed Item
- Parcel Boundary
- Proposed Transect Location
- Tree/Vegetation/Obstruction

CH3 Response (mV)

0 1 2 4 6 8 11 20 43



LEGEND

AC-01-T14

MRS 2

50 0 50 100

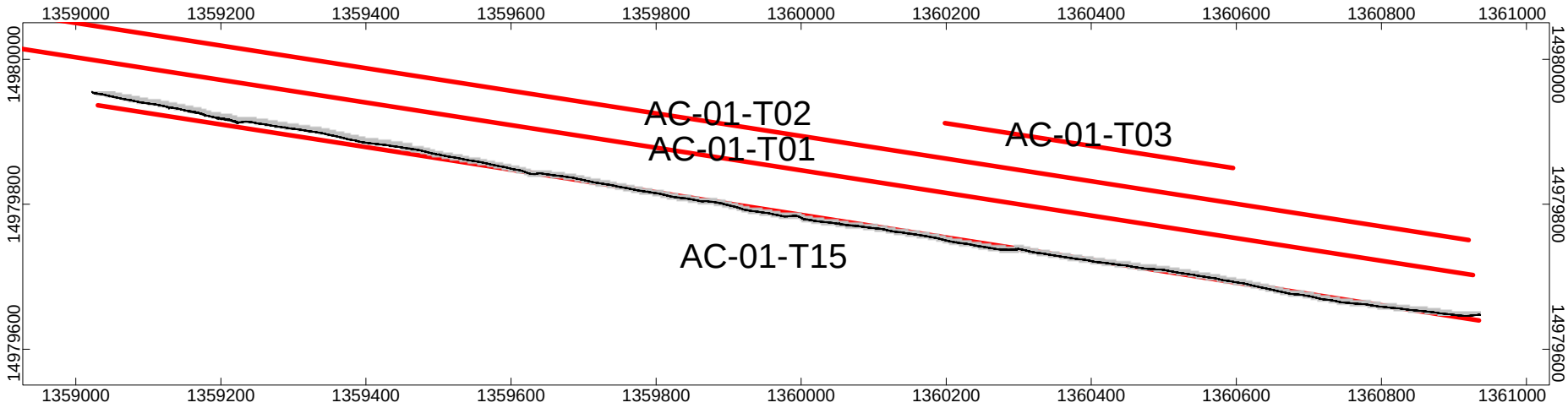
US survey foot

WGS 84 / UTM zone 19N

- Geophysical Target
- Seed Item
- Parcel Boundary
- Proposed Transect Location
- Tree/Vegetation/Obstruction

CH3 Response (mV)

0 1 2 4 6 8 11 20 43



LEGEND

AC-01-T15

MRS 2

100 0 100 200 300

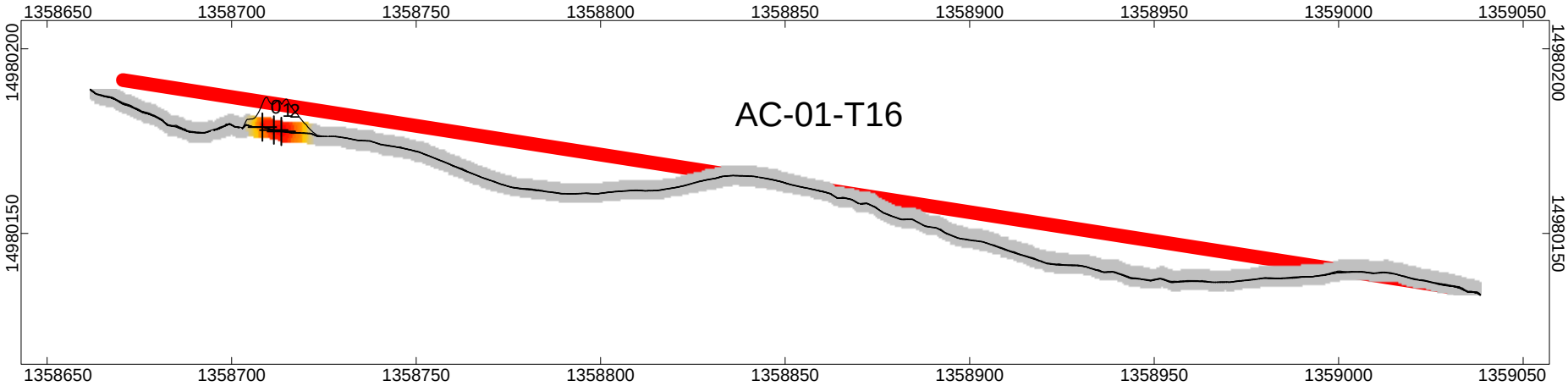
US survey foot

WGS 84 / UTM zone 19N

- Geophysical Target
- Seed Item
- Parcel Boundary
- Proposed Transect Location
- Tree/Vegetation/Obstruction

CH3 Response (mV)

0 1 2 4 6 8 11 20 43



LEGEND

AC-01-T16

MRS 2

25 0 25 50

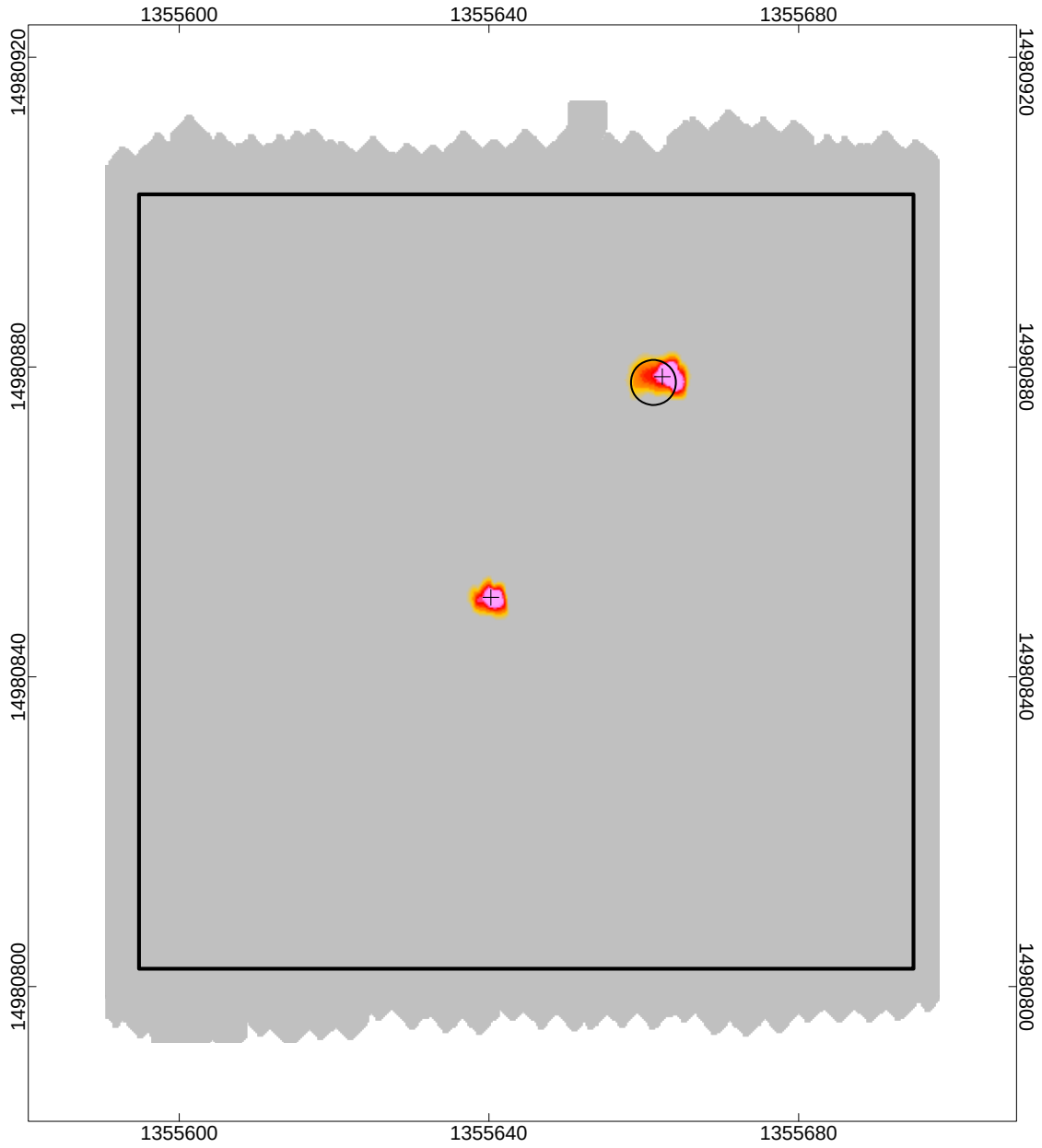
US survey foot

WGS 84 / UTM zone 19N

- Geophysical Target
- Seed Item
- Parcel Boundary
- Proposed Transect Location
- Tree/Vegetation/Obstruction

CH3 Response (mV)

0 1 2 4 6 8 11 20 43



AC-02-G01

MRS 2

EM61-MK2
Nantucket, MA

LEGEND

- Geophysical Target
- Seed Item
- Grid Boundary
- Obstruction/Non-Removeable Brush

CH3 Response (mV)

0 1 2 4 6 8 11 20 43

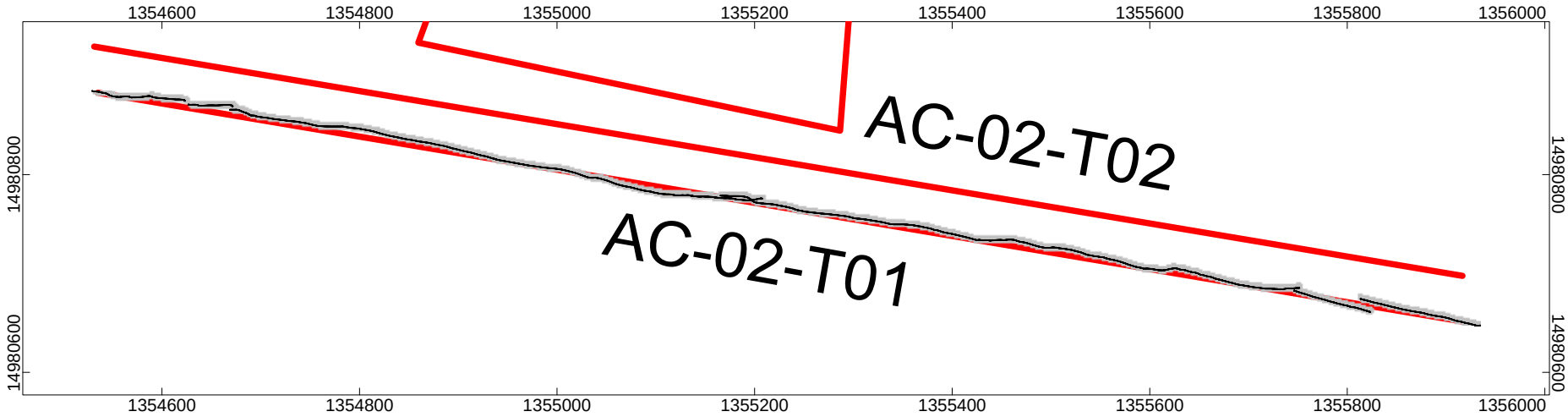
10 0 10 20 30

US survey foot

WGS 84 / UTM zone 19N

EM61-MK2

Nantucket, MA



LEGEND

AC-02-T01

MRS 2

100 0 100 200

US survey foot

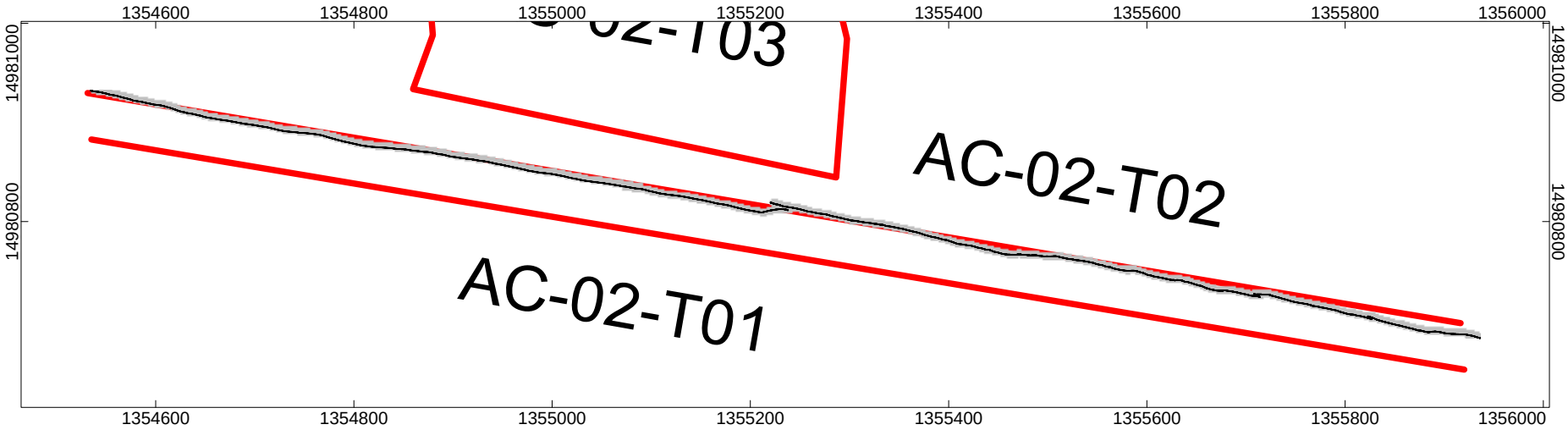
WGS 84 / UTM zone 19N

- Geophysical Target
- Seed Item
- Parcel Boundary
- Proposed Transect Location
- Tree/Vegetation/Obstruction

CH3 Response (mV)

0 1 2 4 6 8 11 20 43

N



LEGEND

AC-02-T02

MRS 2

100 0 100 200

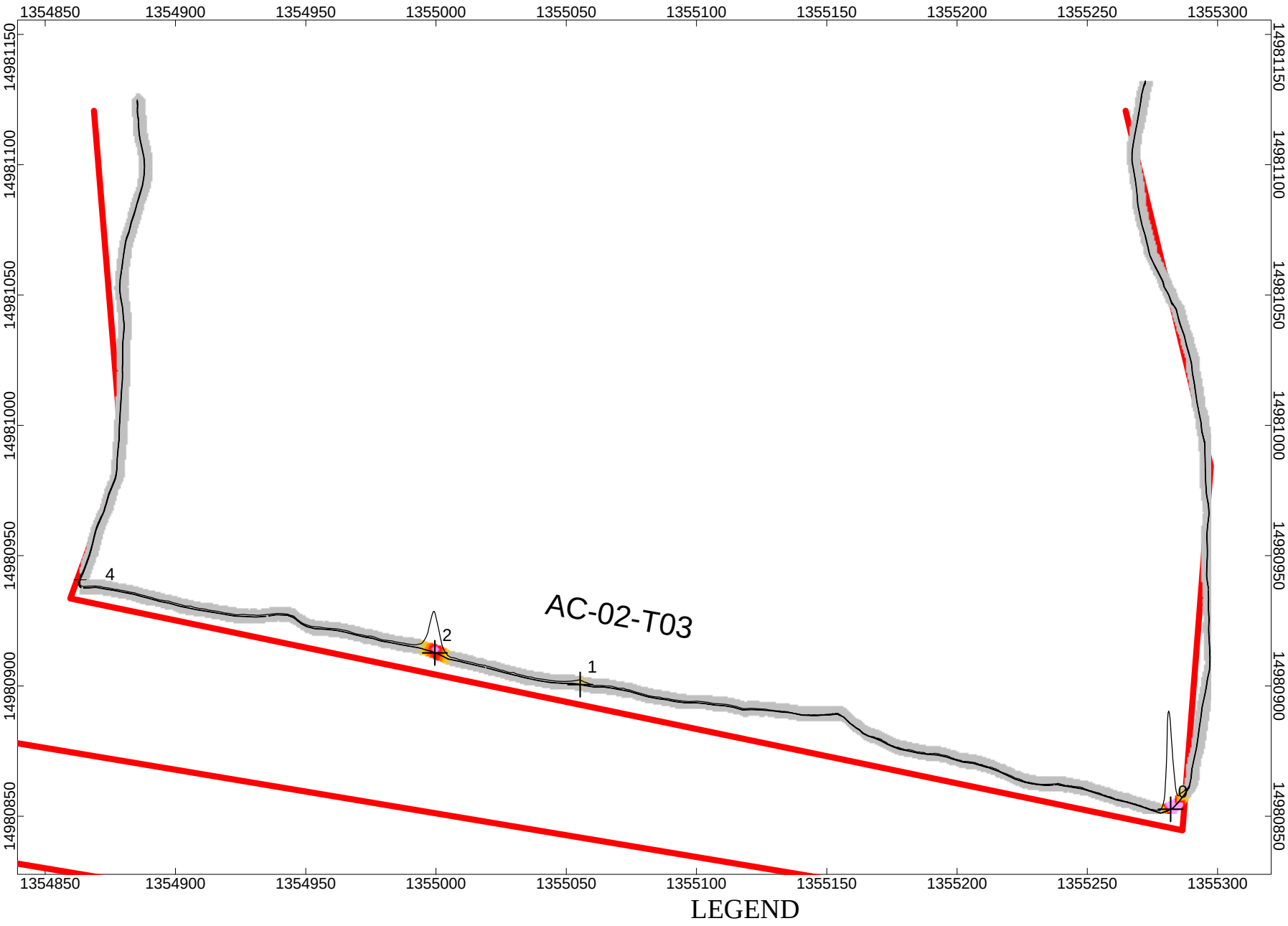
US survey foot

WGS 84 / UTM zone 19N

- Geophysical Target
- Seed Item
- Parcel Boundary
- Proposed Transect Location
- Tree/Vegetation/Obstruction

CH3 Response (mV)

0 1 2 4 6 8 11 20 43



LEGEND

AC-02-T03

MRS 2

25 0 25 50 75

US survey foot

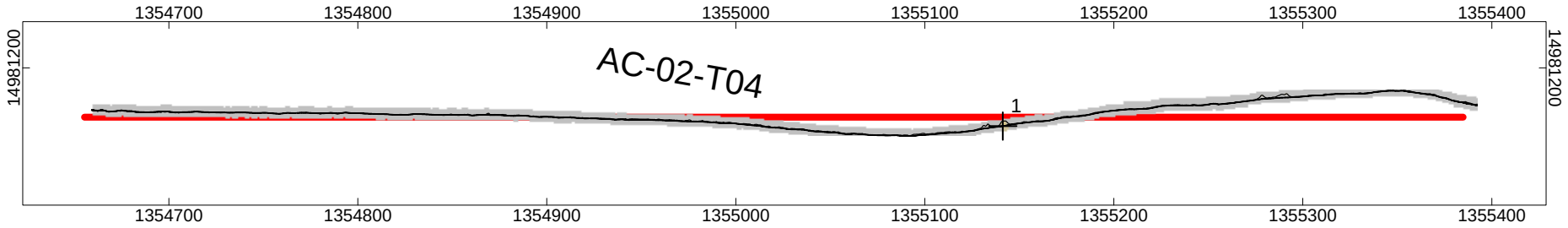
WGS 84 / UTM zone 19N

- Geophysical Target
- Seed Item
- Parcel Boundary
- Proposed Transect Location
- Tree/Vegetation/Obstruction

CH3 Response (mV)

0 1 2 4 6 8 11 20 43

N



LEGEND

AC-02-T04

MRS 2

50 0 50 100

US survey foot

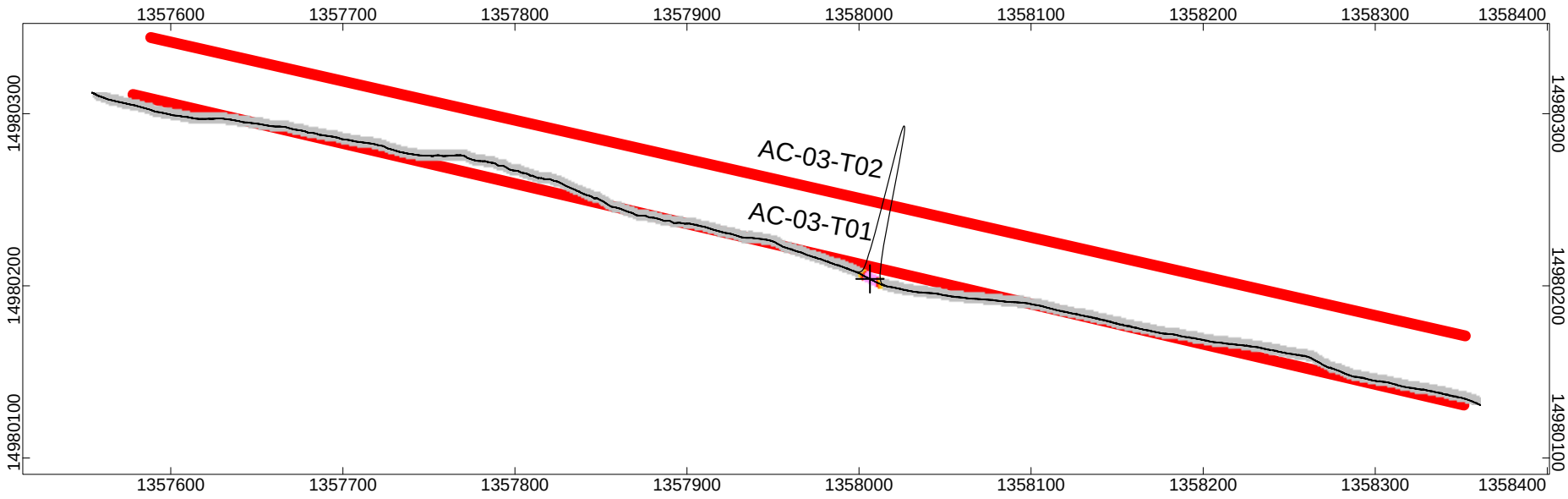
WGS 84 / UTM zone 19N

- Geophysical Target
- Seed Item
- Parcel Boundary
- Proposed Transect Location
- Tree/Vegetation/Obstruction

CH3 Response (mV)

0 1 2 4 6 8 11 20 43

N



LEGEND

AC-03-T01

MRS 2

50 0 50 100 150

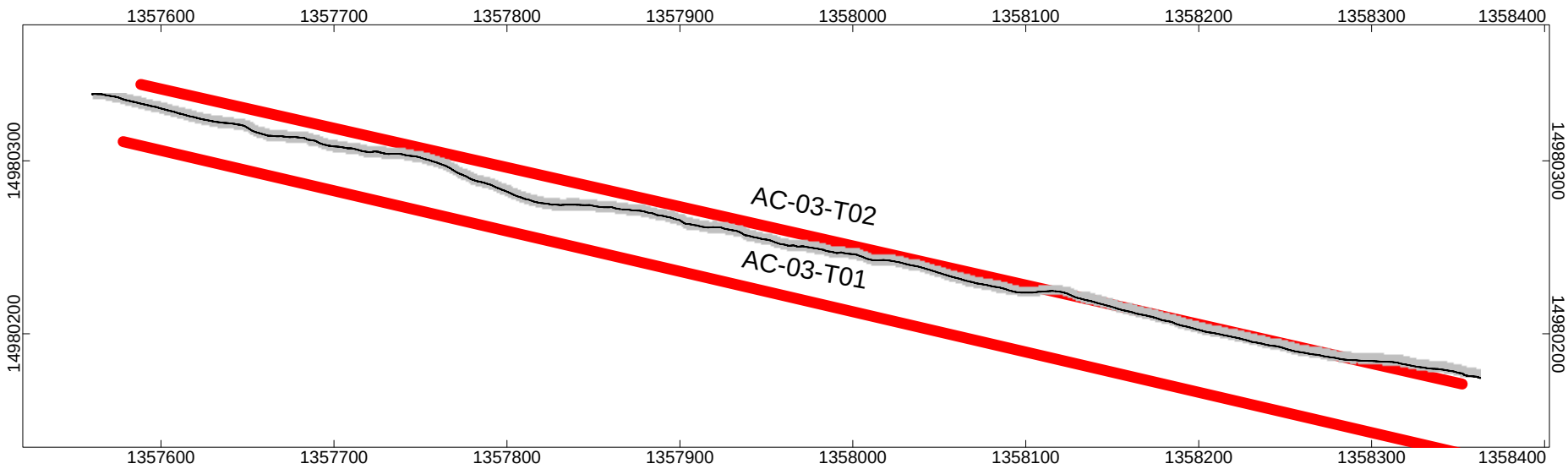
US survey foot

WGS 84 / UTM zone 19N

- Geophysical Target
- Seed Item
- Parcel Boundary
- Proposed Transect Location
- Tree/Vegetation/Obstruction

CH3 Response (mV)

0 1 2 4 6 8 11 20 43



LEGEND

AC-03-T02

MRS 2

50 0 50 100

US survey foot

WGS 84 / UTM zone 19N

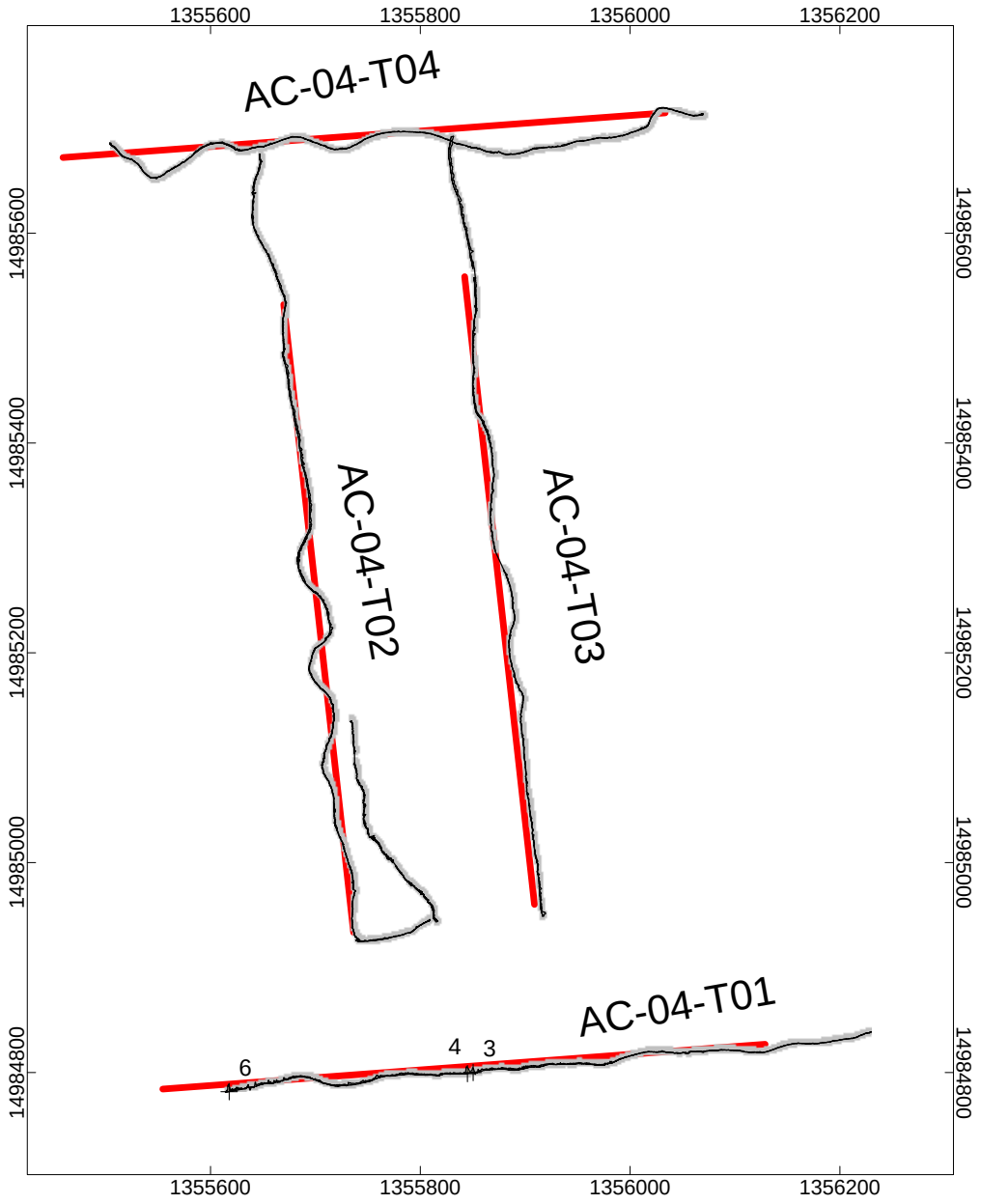
- Geophysical Target
- Seed Item
- Parcel Boundary
- Proposed Transect Location
- Tree/Vegetation/Obstruction

CH3 Response (mV)

0 1 2 4 6 8 11 20 43

AC-04
T01, T02, T03, T04
MRS 2

EM61-MK2
Nantucket, MA



LEGEND

- Geophysical Target
- Seed Item
- Grid Boundary
- Obstruction/Non-Removeable Brush

CH3 Response (mV)

0 1 2 4 6 8 11 20 43

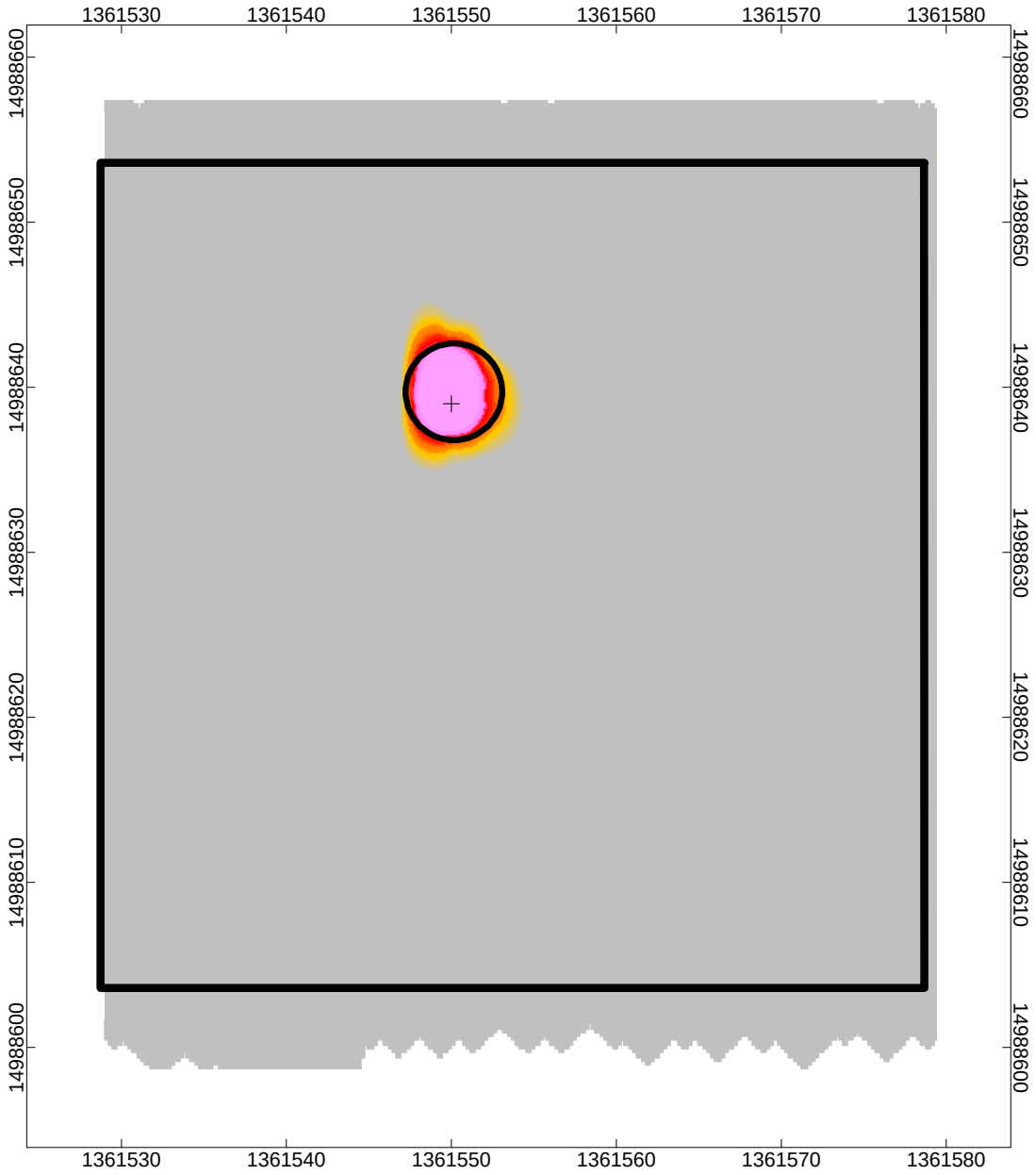
10 0 10 20 30

US survey foot

WGS 84 / UTM zone 19N

EM61-MK2

Nantucket, MA



AC-05-G01

MRS 2

EM61-MK2
Nantucket, MA

LEGEND

- Geophysical Target
- Seed Item
- Grid Boundary

CH3 Response (mV)

0 1 2 4 6 8 11 20 43

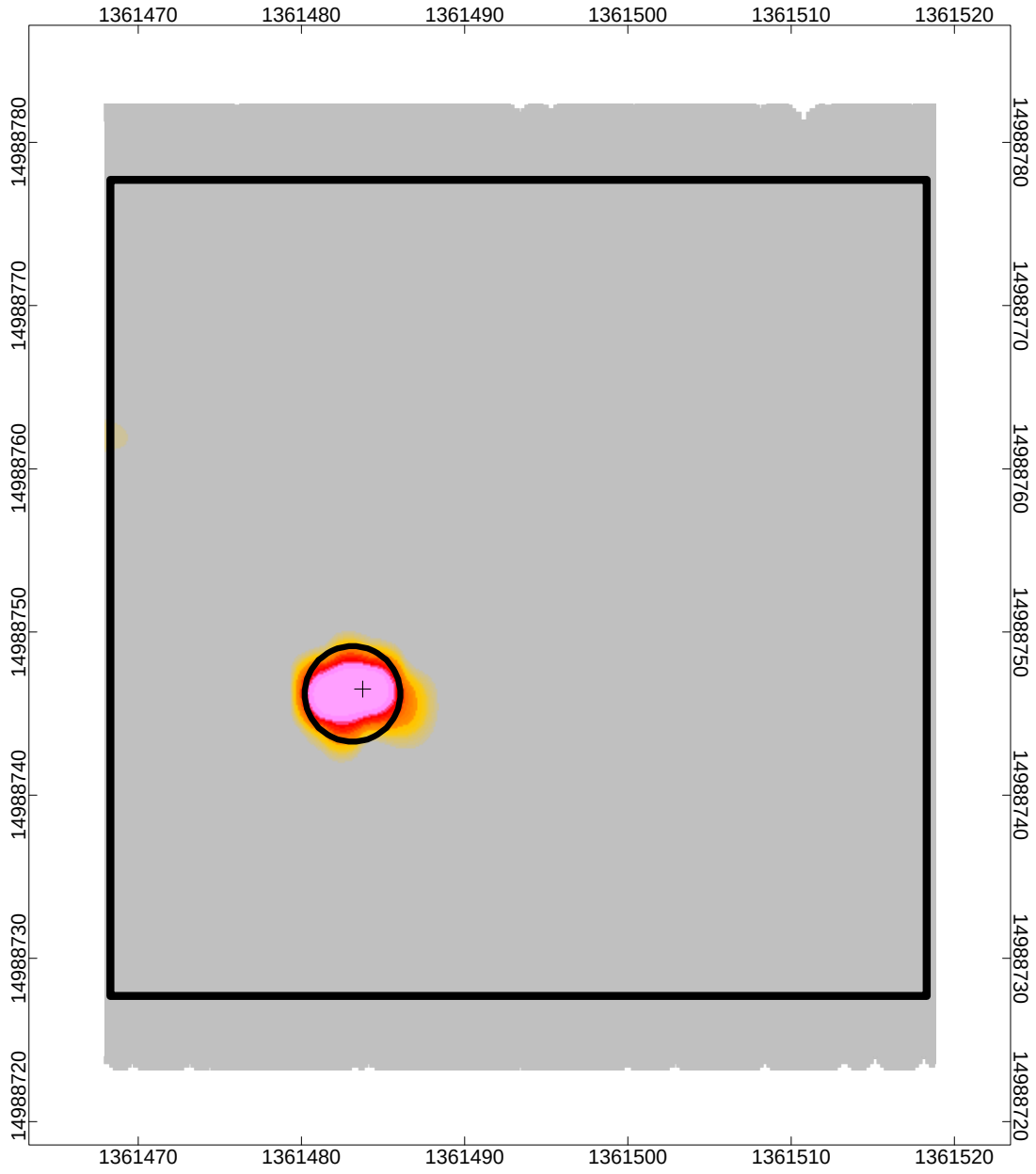
5 0 5 10 15

US survey foot

WGS 84 / UTM zone 19N

EM61-MK2

Nantucket, MA



AC-05-G02
MRS 2

EM61-MK2
Nantucket, MA

LEGEND

- Geophysical Target
- Seed Item
- Grid Boundary

CH3 Response (mV)

0 1 2 4 6 8 11 20 43

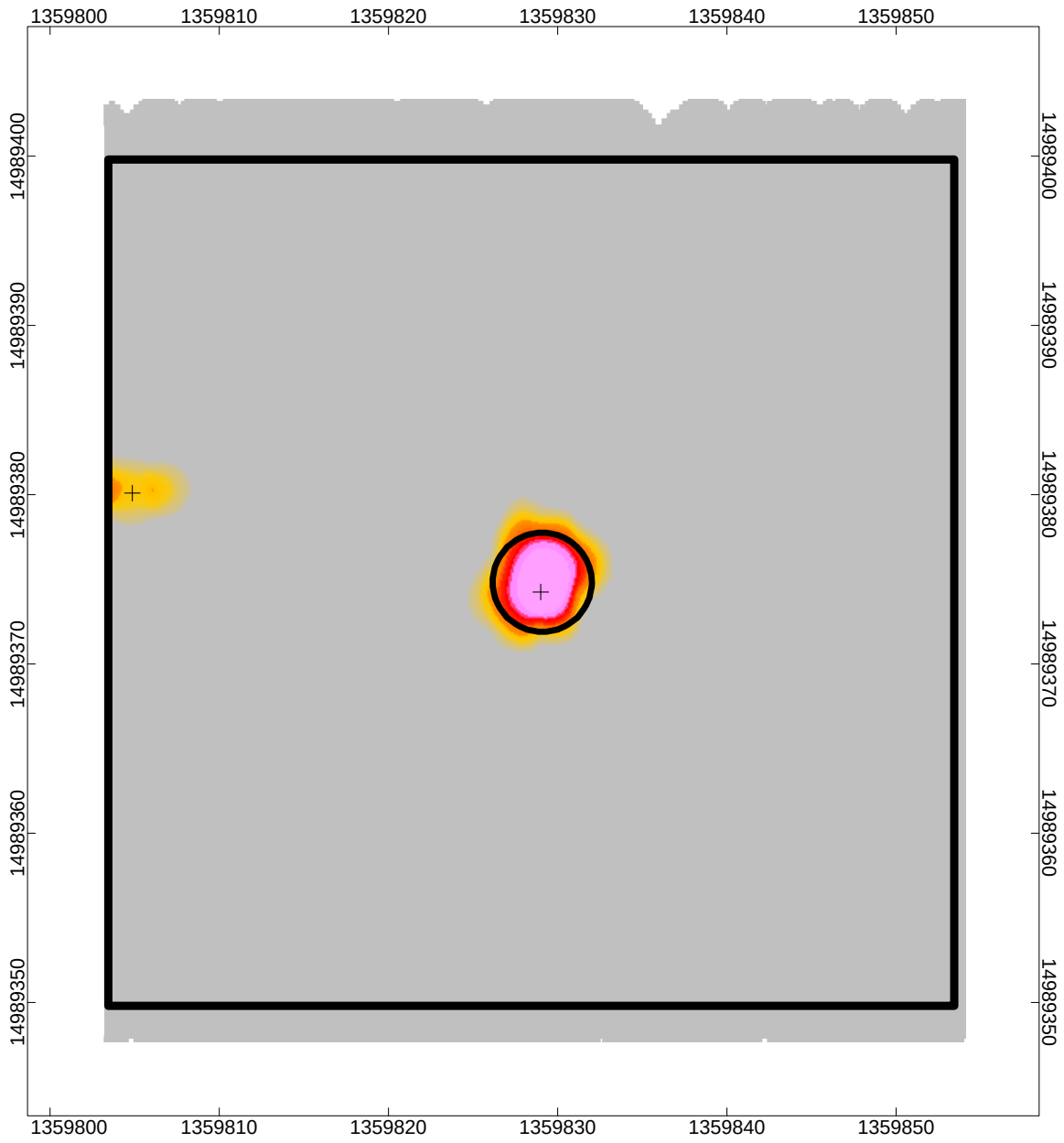
5 0 5 10 15

US survey foot

WGS 84 / UTM zone 19N

EM61-MK2

Nantucket, MA



AC-05-G03

MRS 2

EM61-MK2
Nantucket, MA

LEGEND

- Geophysical Target
- Seed Item
- Grid Boundary

CH3 Response (mV)

0 1 2 4 6 8 11 20 43

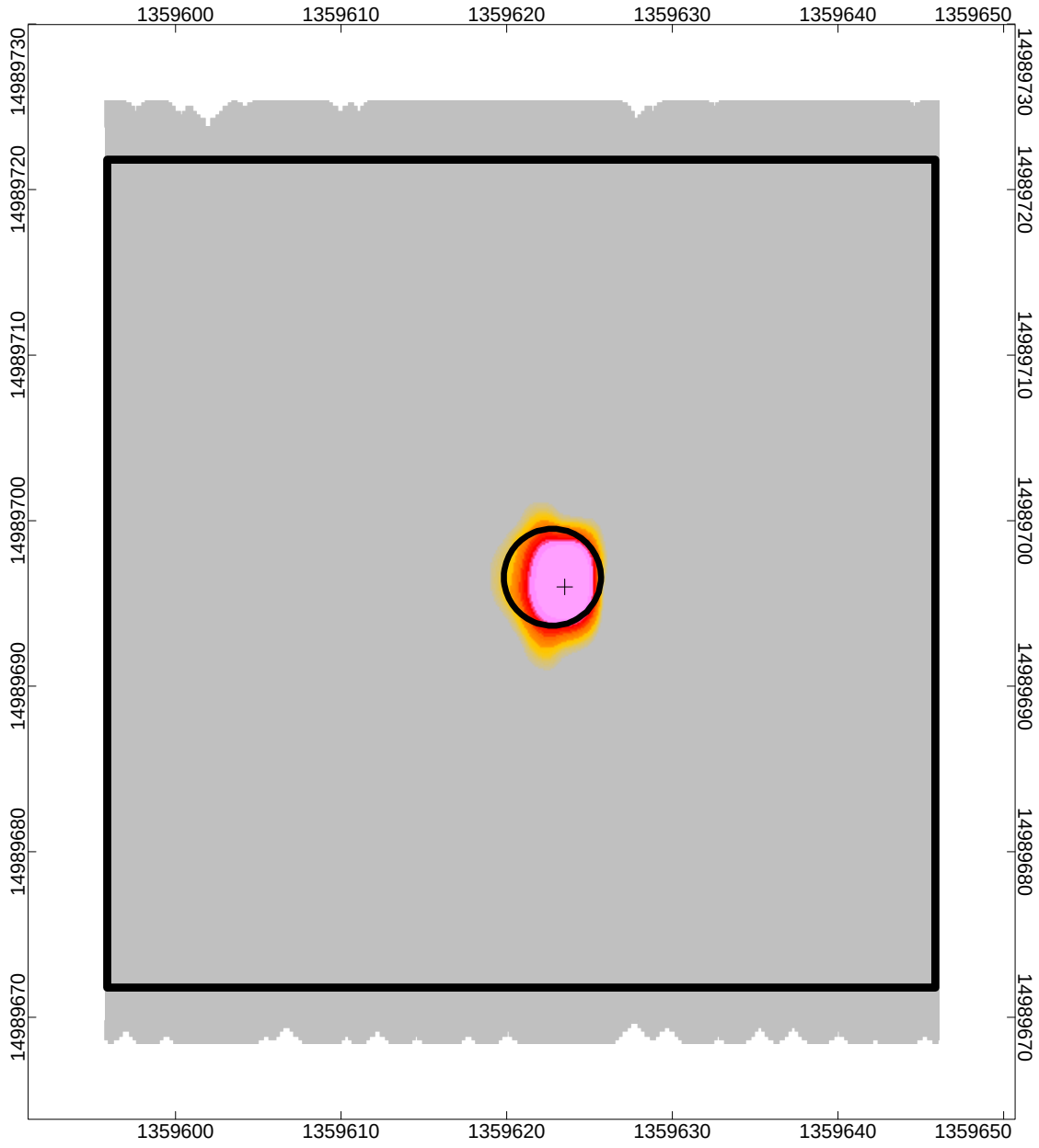
5 0 5 10 15

US survey foot

WGS 84 / UTM zone 19N

EM61-MK2

Nantucket, MA



AC-05-G04

MRS 2

EM61-MK2
Nantucket, MA

LEGEND

- Geophysical Target
- Seed Item
- Grid Boundary

CH3 Response (mV)

0 1 2 4 6 8 11 20 43

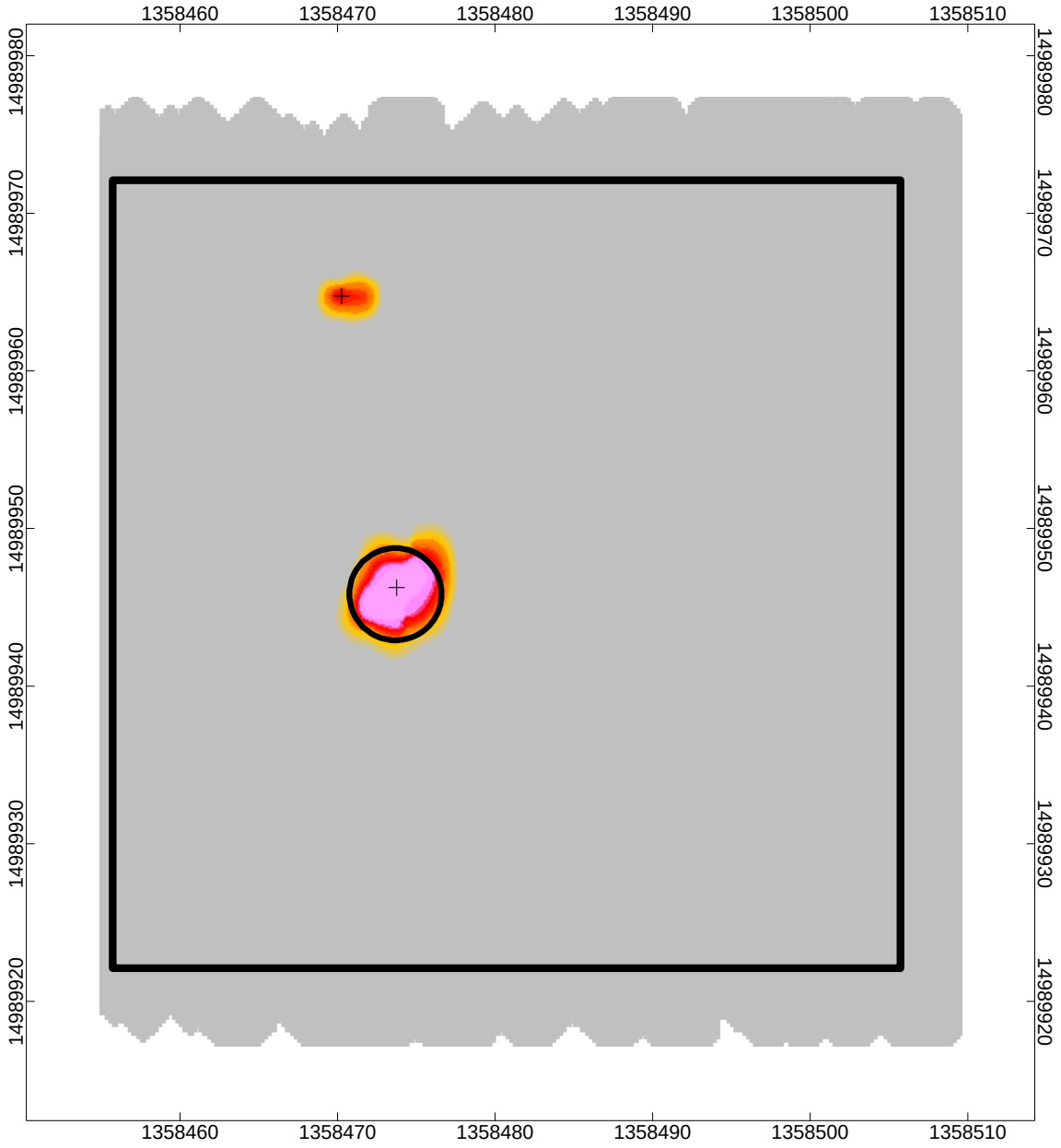
5 0 5 10 15

US survey foot

WGS 84 / UTM zone 19N

EM61-MK2

Nantucket, MA



AC-05-G05

MRS 2

EM61-MK2
Nantucket, MA

LEGEND

- Geophysical Target
- Seed Item
- Grid Boundary

CH3 Response (mV)

0 1 2 4 6 8 11 20 43

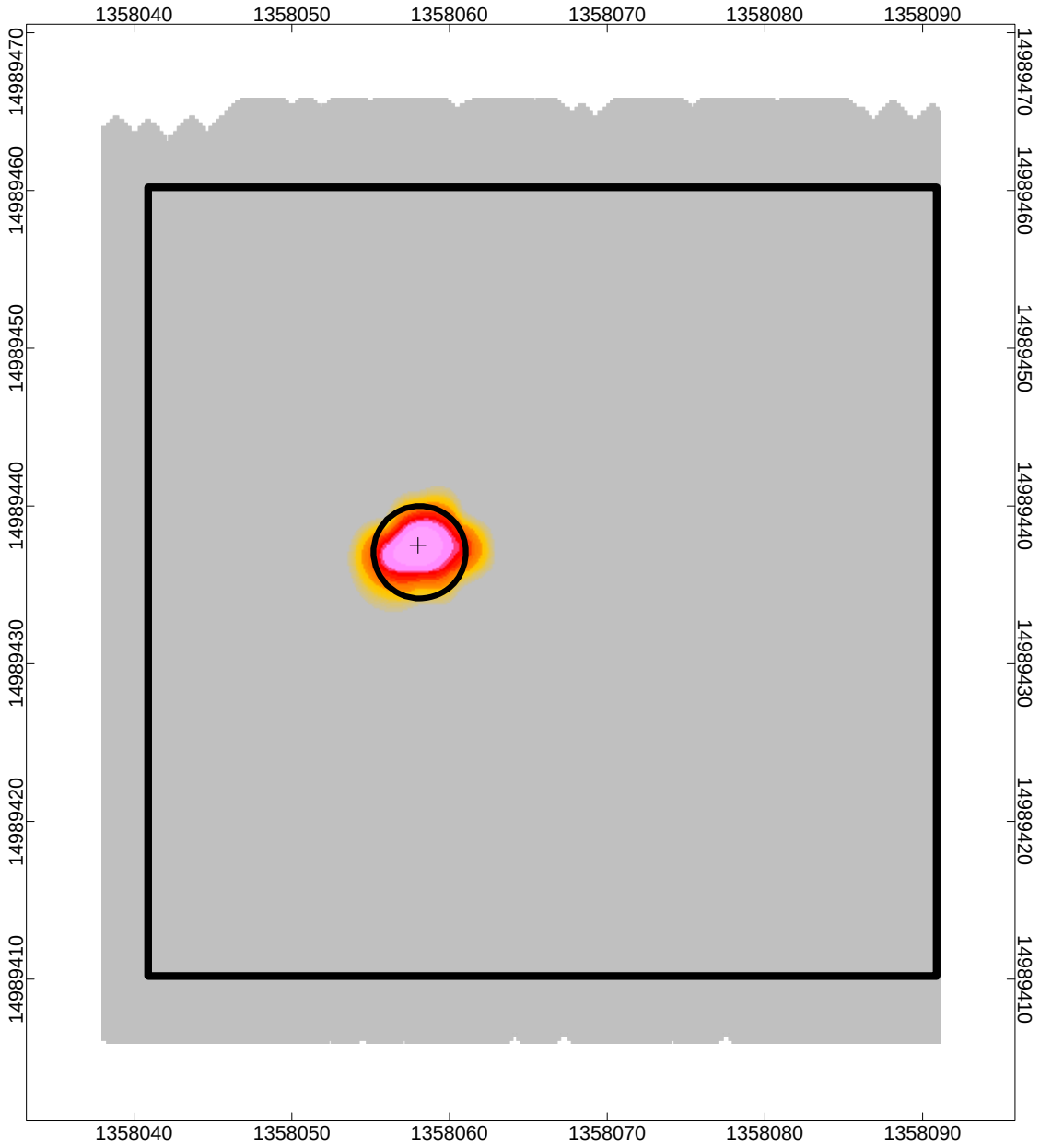
5 0 5 10 15

US survey foot

WGS 84 / UTM zone 19N

EM61-MK2

Nantucket, MA



AC-05-G06
MRS 2

EM61-MK2
Nantucket, MA

LEGEND

- Geophysical Target
- Seed Item
- Grid Boundary

CH3 Response (mV)

0 1 2 4 6 8 11 20 43

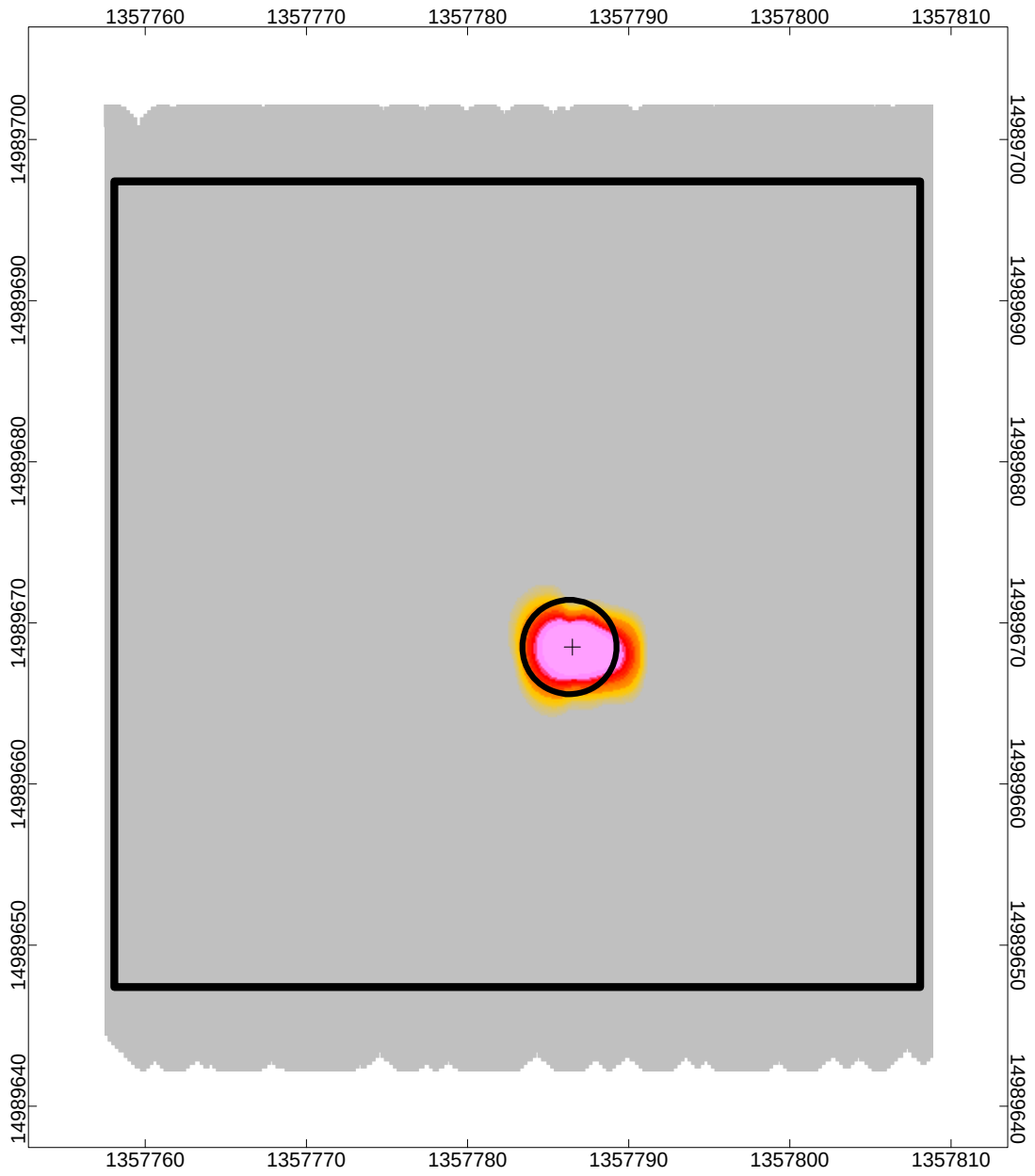
5 0 5 10 15

US survey foot

WGS 84 / UTM zone 19N

EM61-MK2

Nantucket, MA



AC-05-G07
MRS 2

EM61-MK2
Nantucket, MA

LEGEND

- Geophysical Target
- Seed Item
- Grid Boundary

CH3 Response (mV)

0 1 2 4 6 8 11 20 43

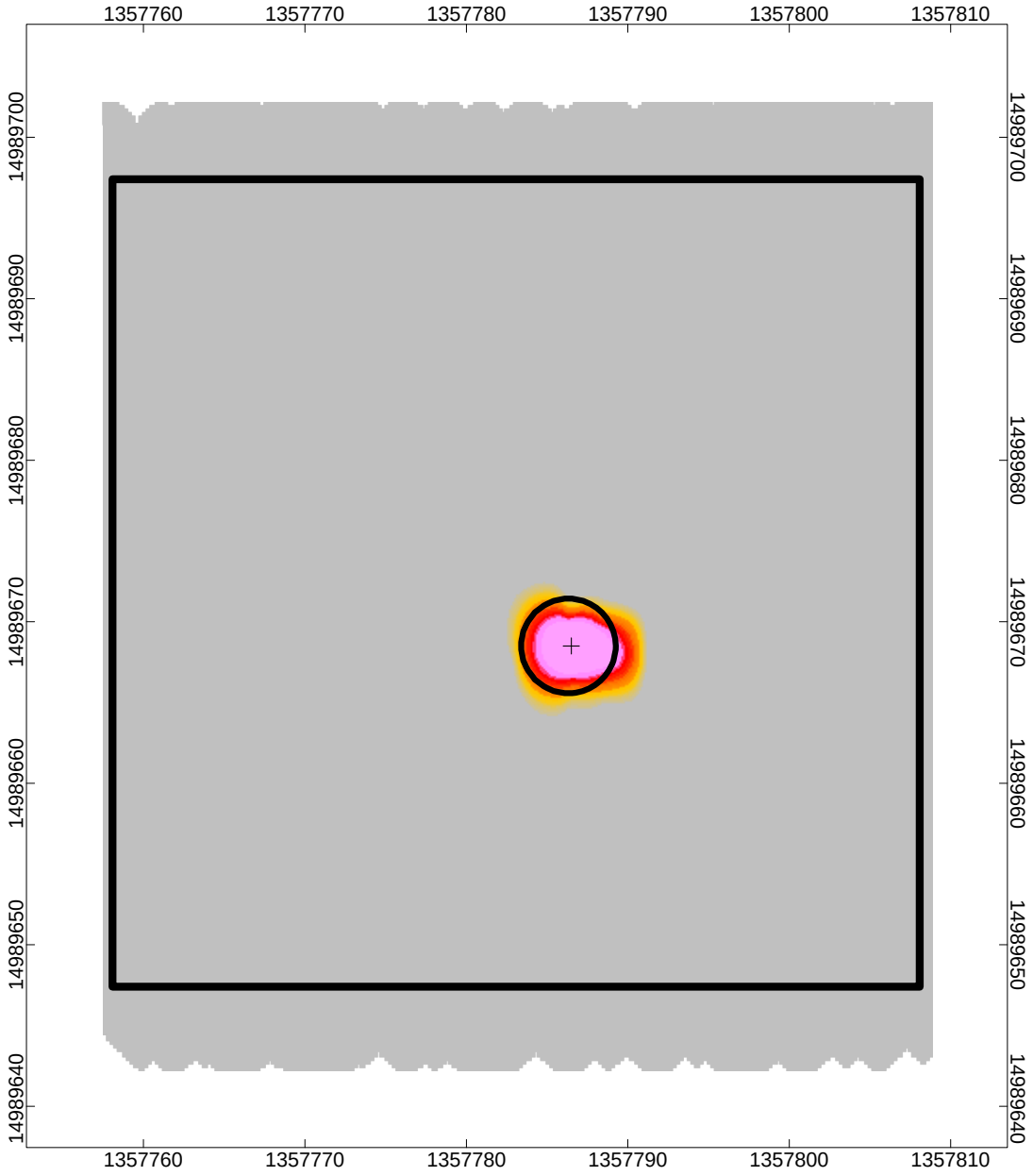
5 0 5 10 15

US survey foot

WGS 84 / UTM zone 19N

EM61-MK2

Nantucket, MA



AC-05-G08
MRS 2

EM61-MK2
Nantucket, MA

LEGEND

Geophysical Target
Seed Item
Grid Boundary

CH3 Response (mV)

0 1 2 4 6 8 11 20 43

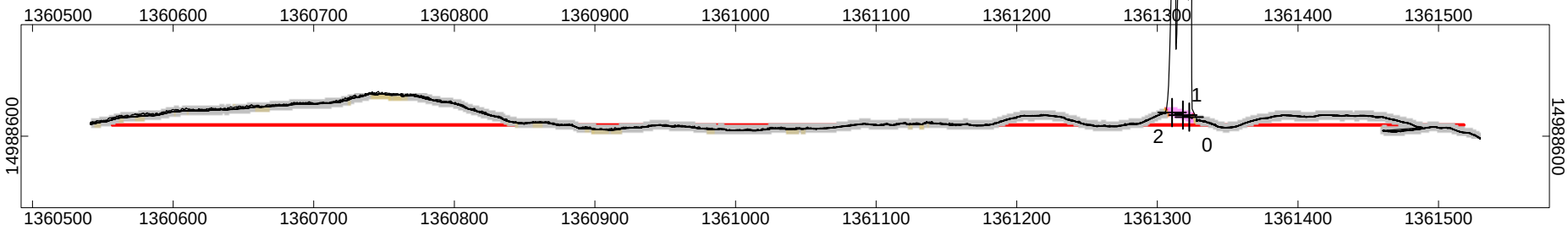
5 0 5 10 15

US survey foot

WGS 84 / UTM zone 19N

EM61-MK2

Nantucket, MA



LEGEND

AC-05-T01

MRS 2

50 0 50 100 150

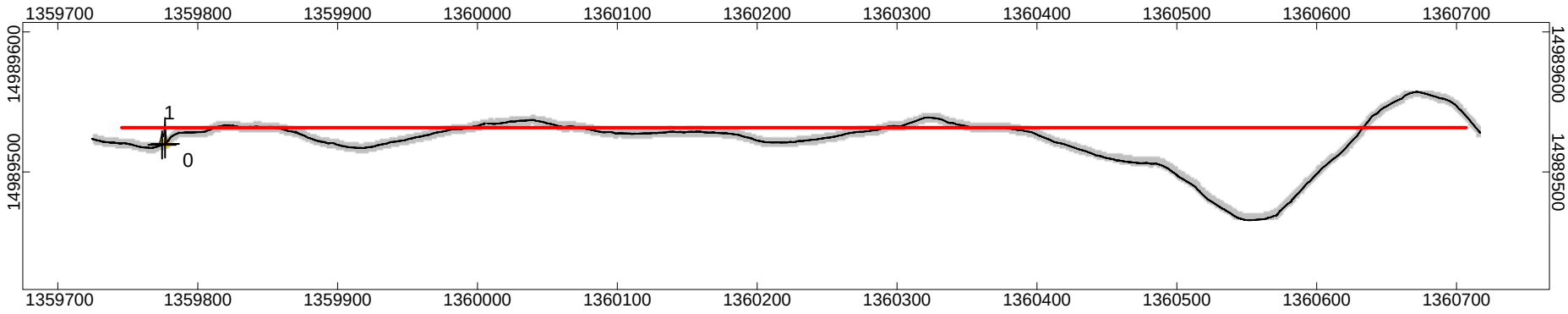
US survey foot

WGS 84 / UTM zone 19N

- Geophysical Target
- Seed Item
- Parcel Boundary
- Proposed Transect Location
- Tree/Vegetation/Obstruction

CH3 Response (mV)

0 1 2 4 6 8 11 20 43



LEGEND

AC-05-T02

MRS 2

50 0 50 100 150

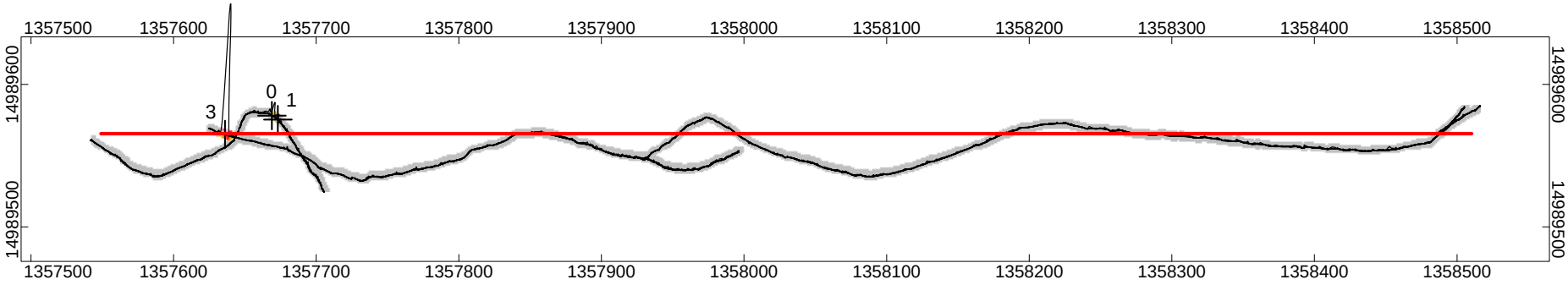
US survey foot

WGS 84 / UTM zone 19N

- Geophysical Target
- Seed Item
- Parcel Boundary
- Proposed Transect Location
- Tree/Vegetation/Obstruction

CH3 Response (mV)

0 1 2 4 6 8 11 20 43



LEGEND

AC-05-T03

MRS 2

50 0 50 100 150

US survey foot

WGS 84 / UTM zone 19N

- Geophysical Target
- Seed Item
- Parcel Boundary
- Proposed Transect Location
- Tree/Vegetation/Obstruction

CH3 Response (mV)

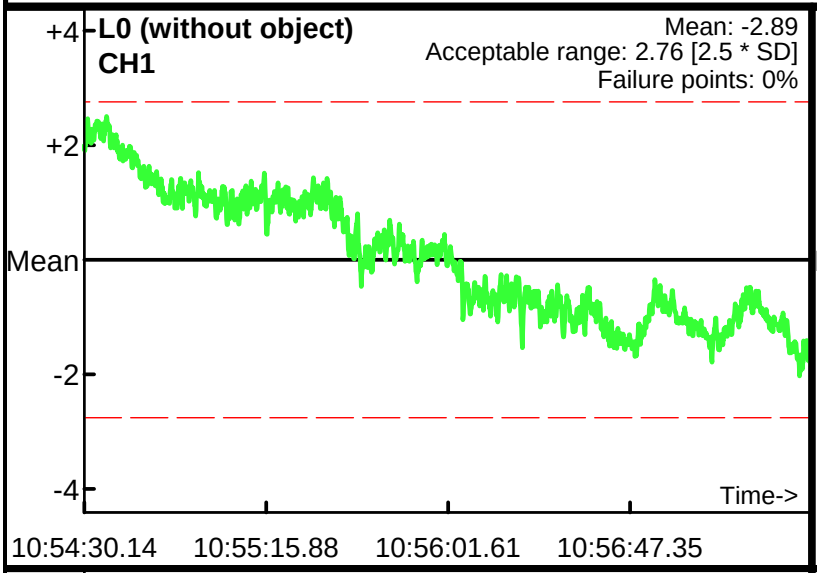
0 1 2 4 6 8 11 20 43

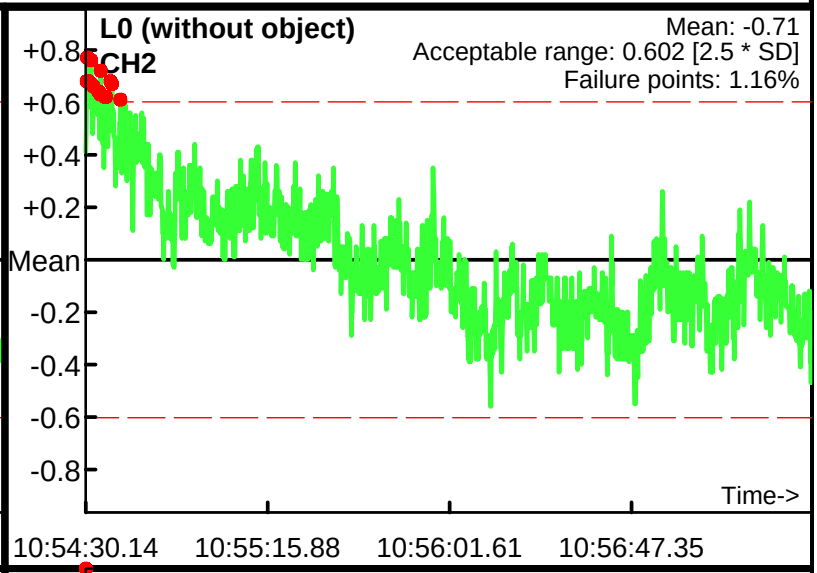
Static Calibration Test

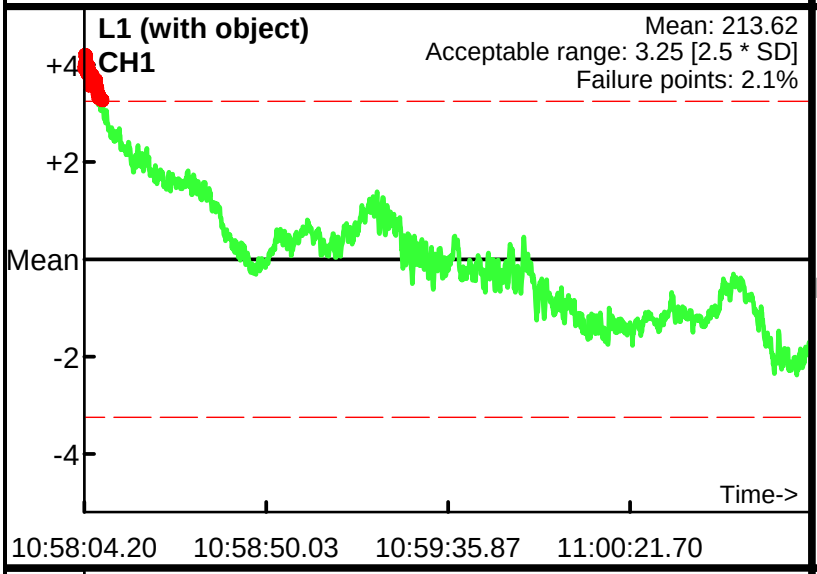
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

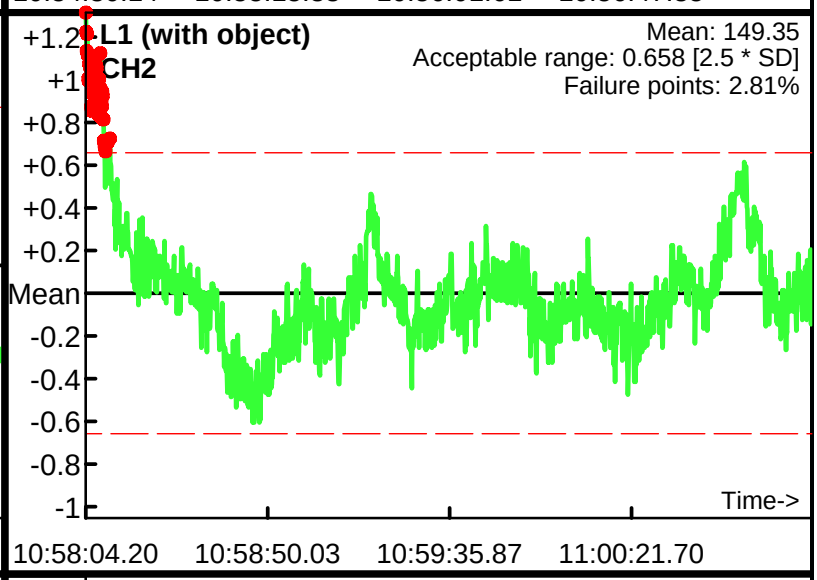
Allowable failure (%): 5%
Outside range
Acceptable limits

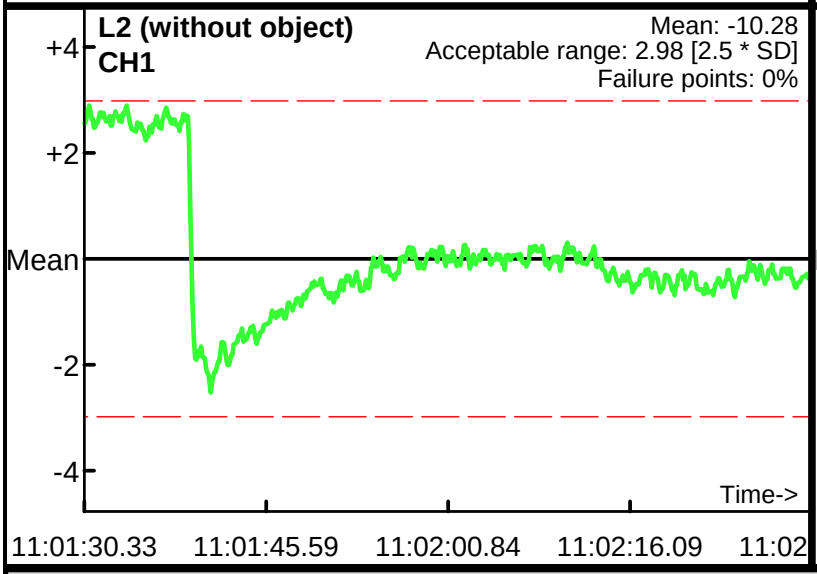
AM test
Operator: BG
Date: 6/11/2012

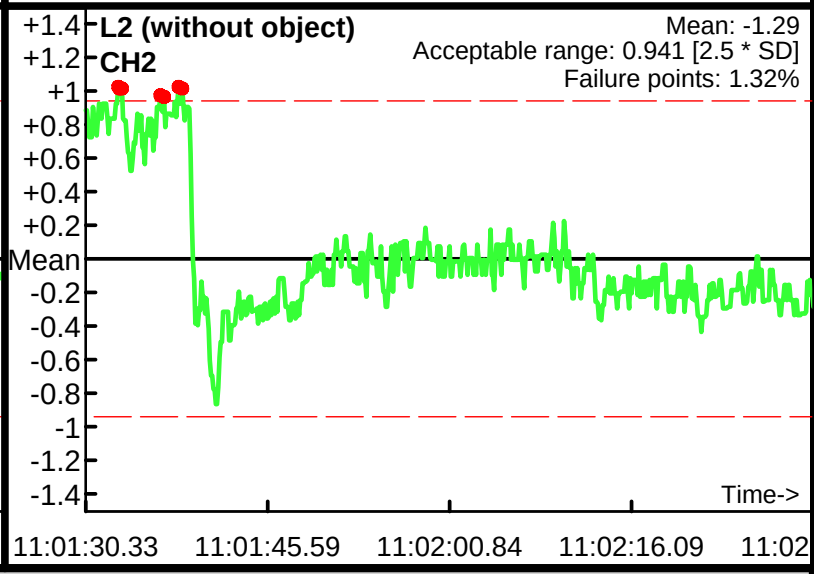












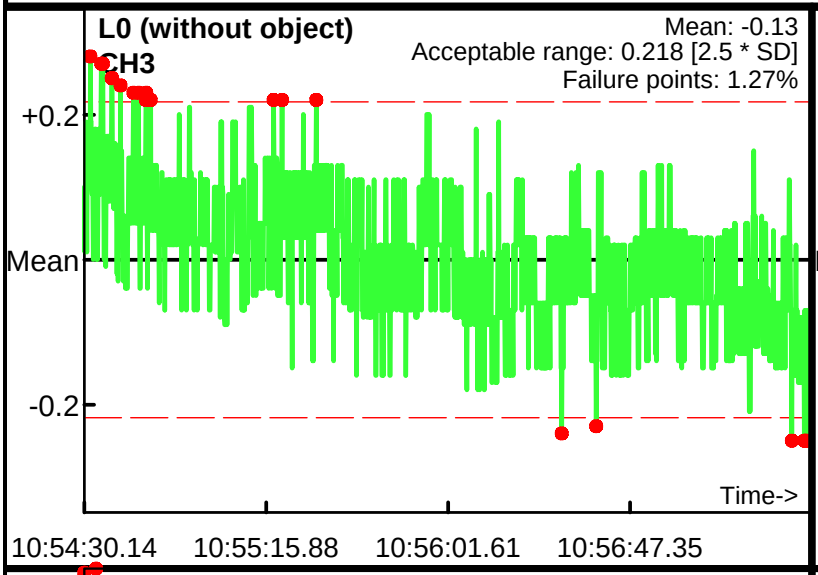
Database: .\061112AM.gdb
Line Name: L0 L1 L2

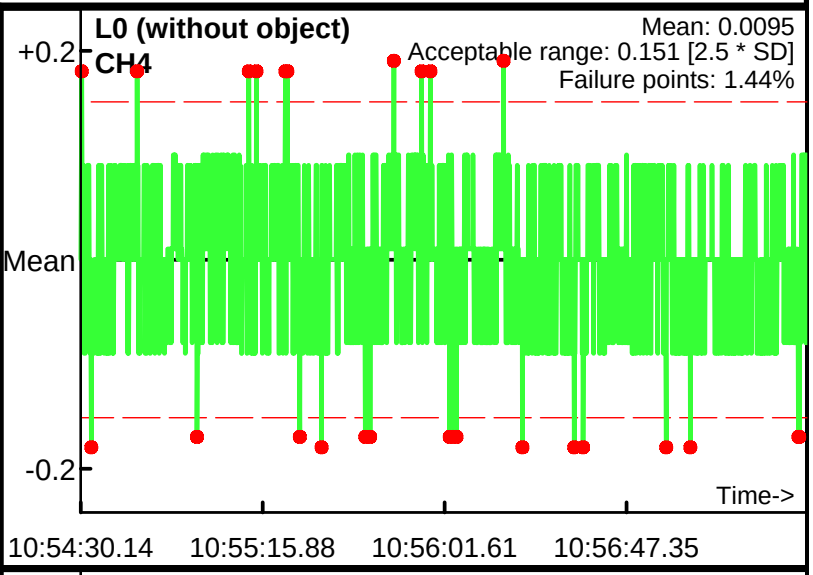
Static Calibration Test

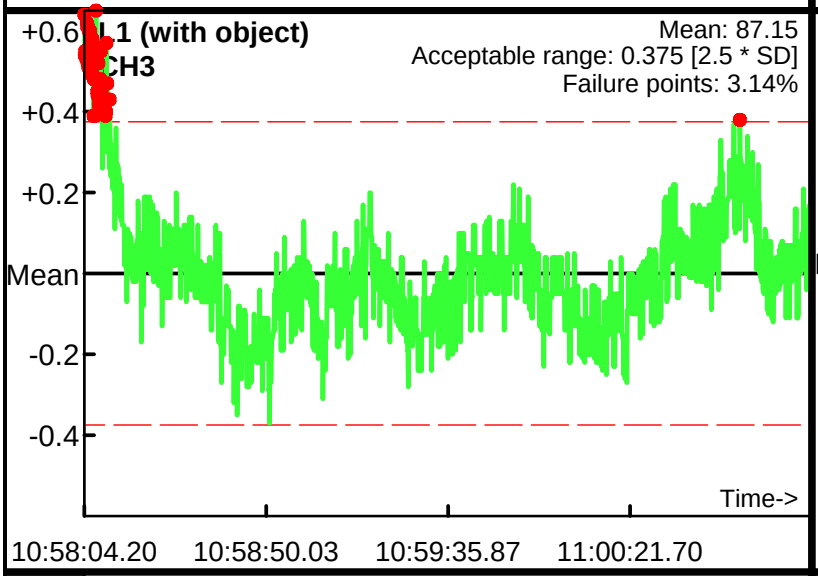
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

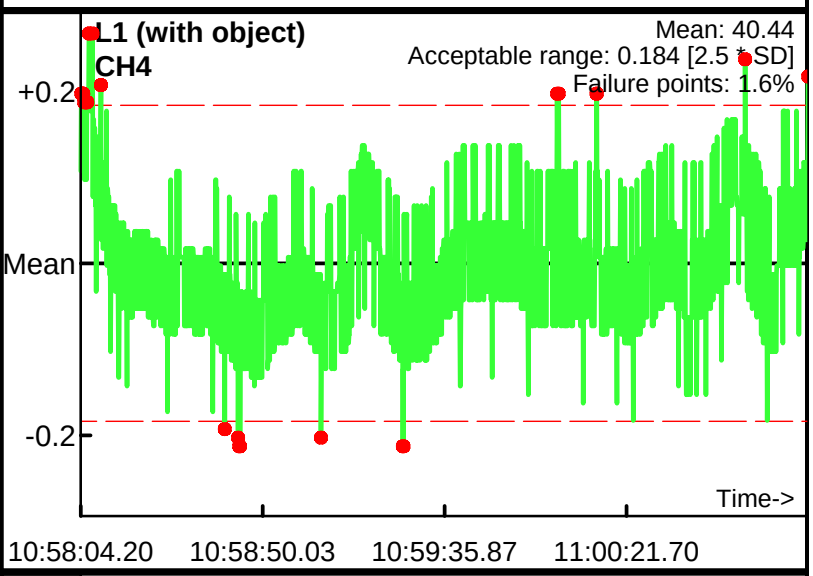
Allowable failure (%): 5%
Outside range
Acceptable limits

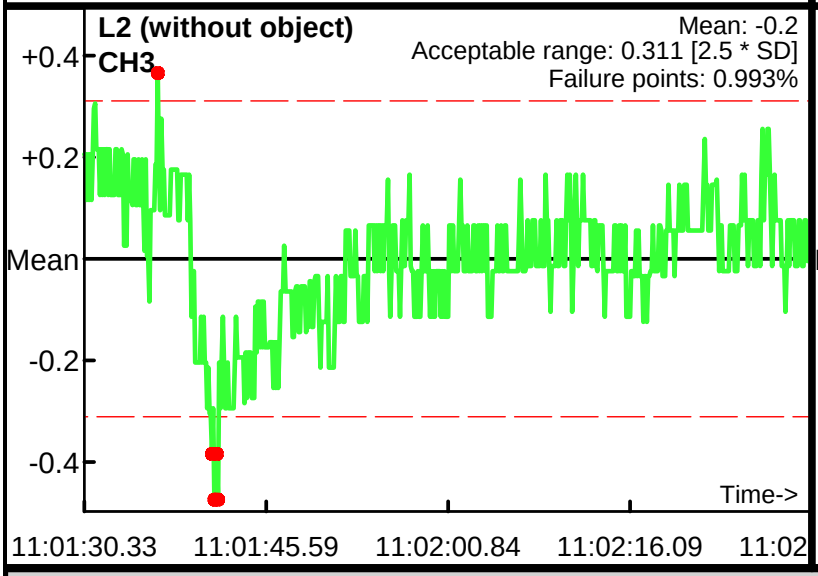
AM test
Operator: BG
Date: 6/11/2012

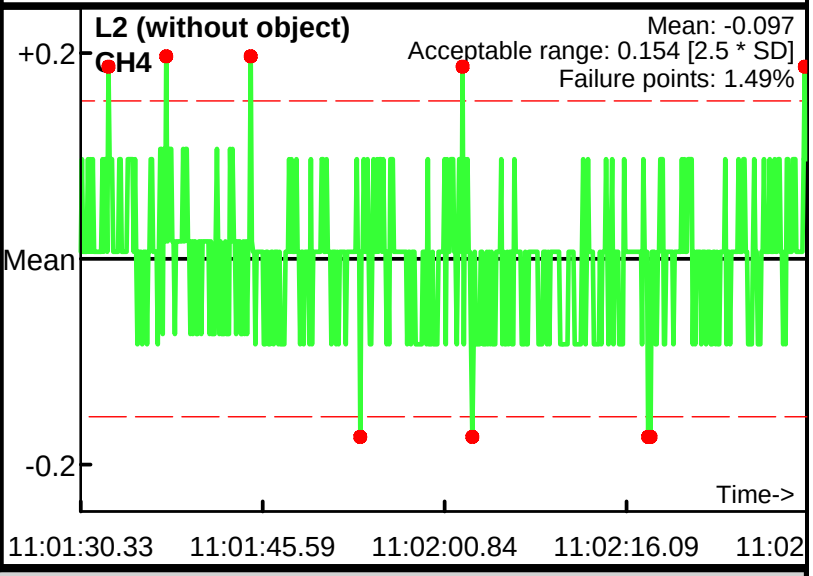












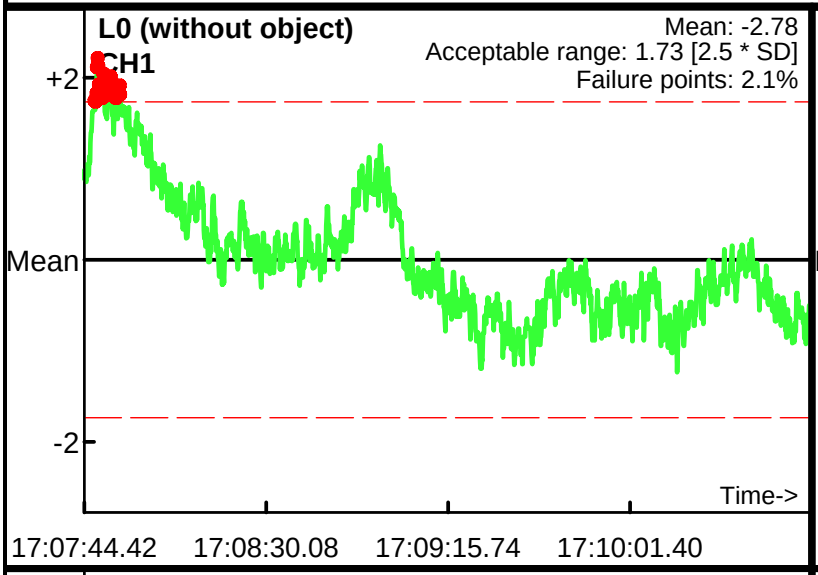
Database: .\061112AM.gdb
Line Name: L0 L1 L2

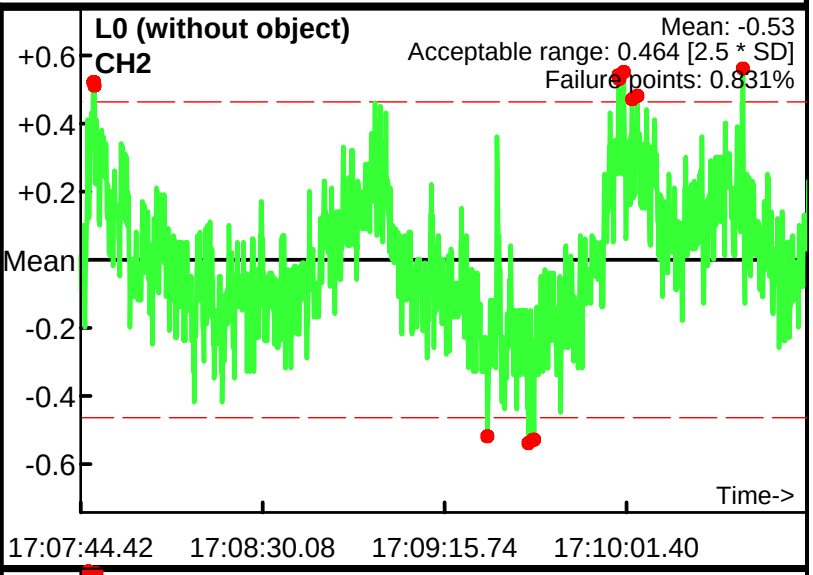
Static Calibration Test

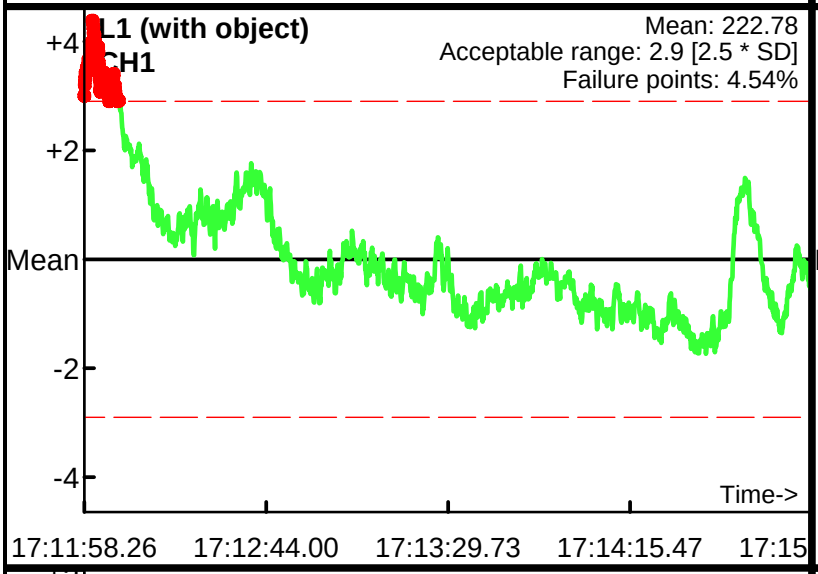
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

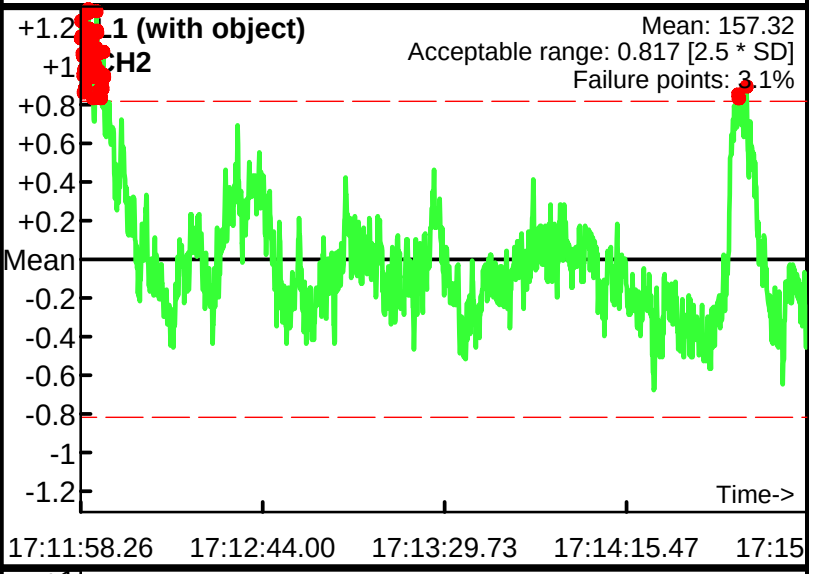
Allowable failure (%): 5%
Outside range
Acceptable limits

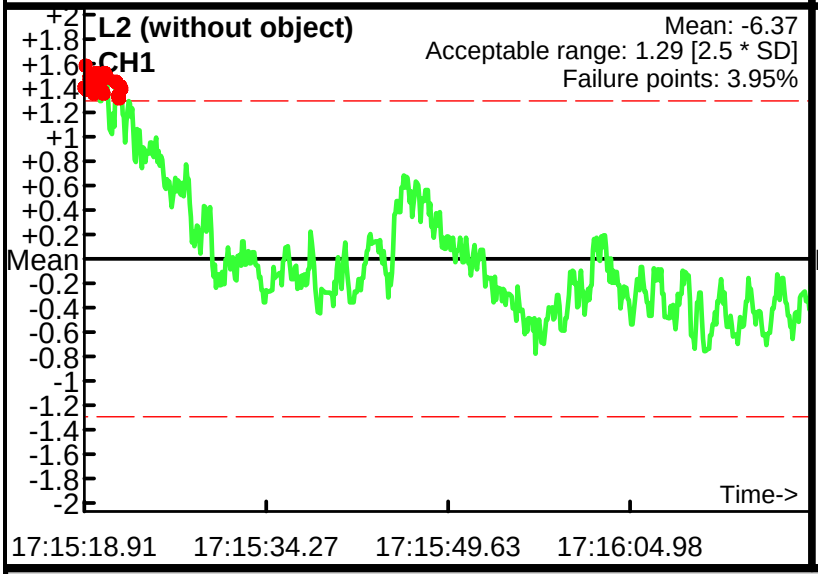
AM test
Operator: BG
Date: 6/11/2012

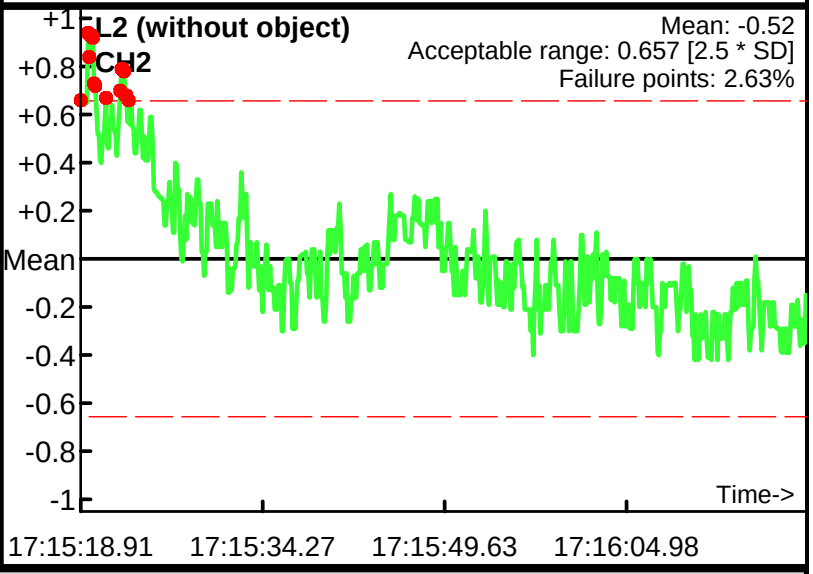












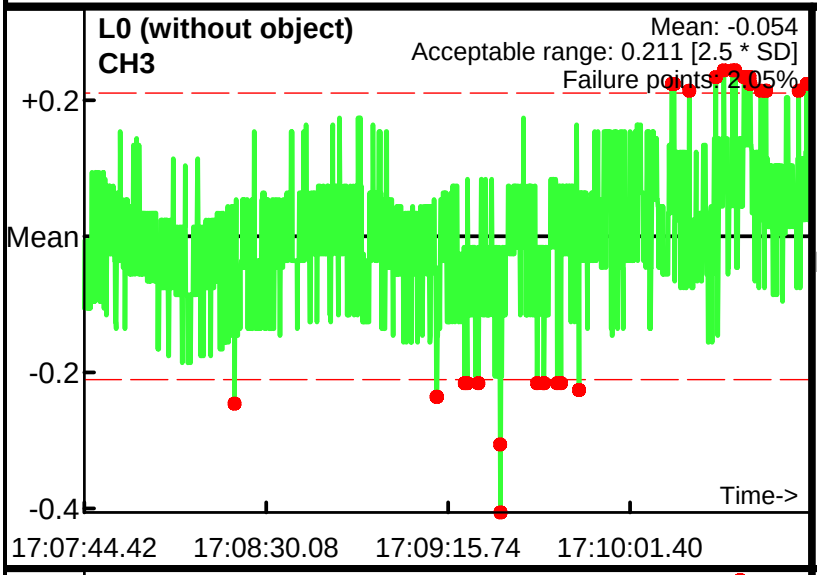
Database: .\061112PM.gdb
Line Name: L0 L1 L2

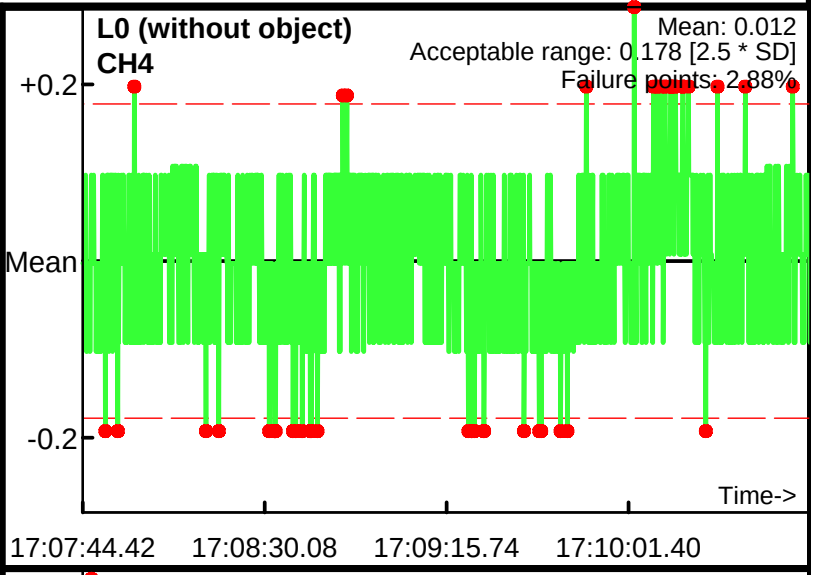
Static Calibration Test

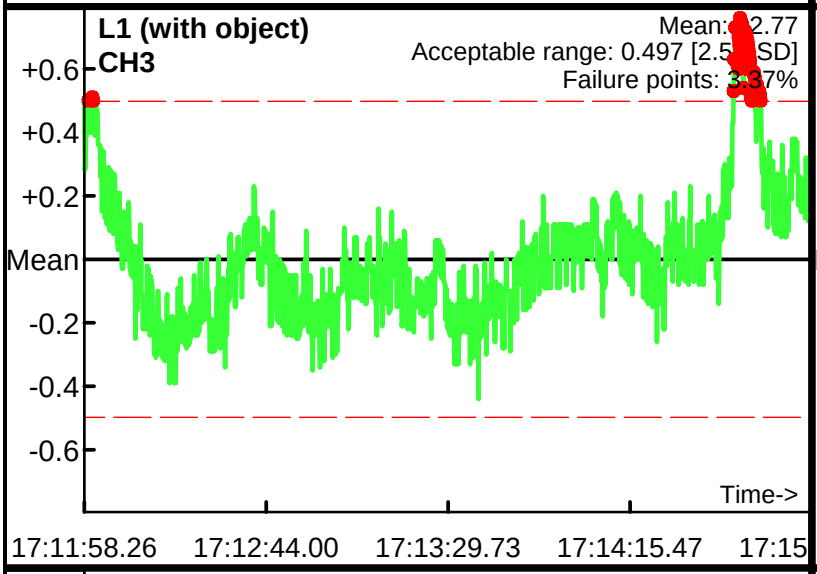
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

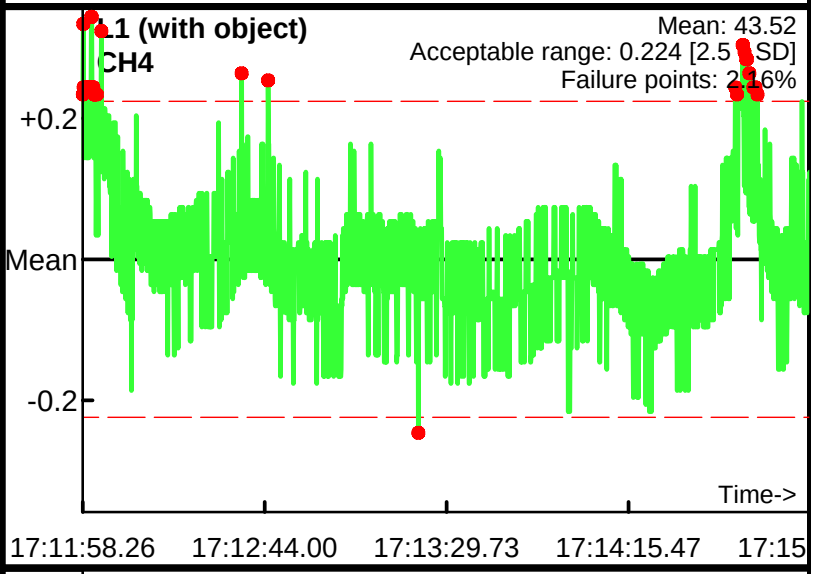
Allowable failure (%): 5%
Outside range
Acceptable limits

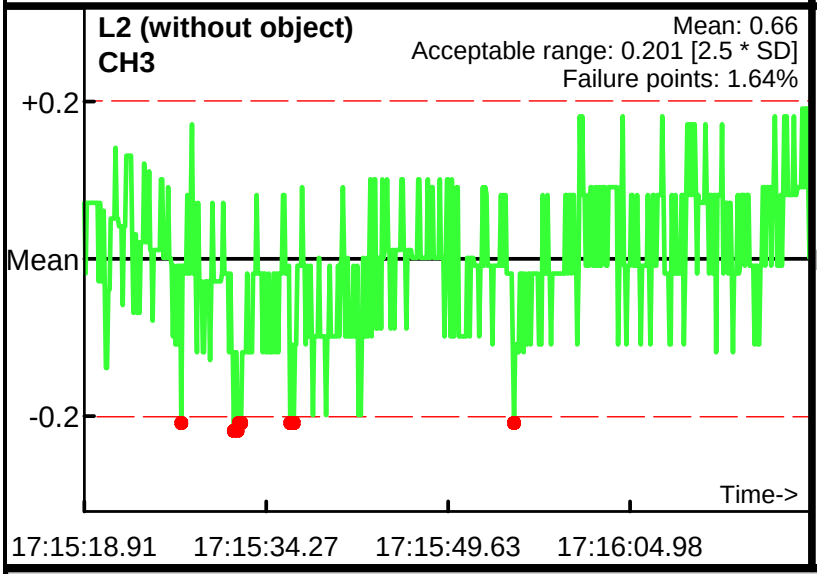
AM test
Operator: BG
Date: 6/11/2012

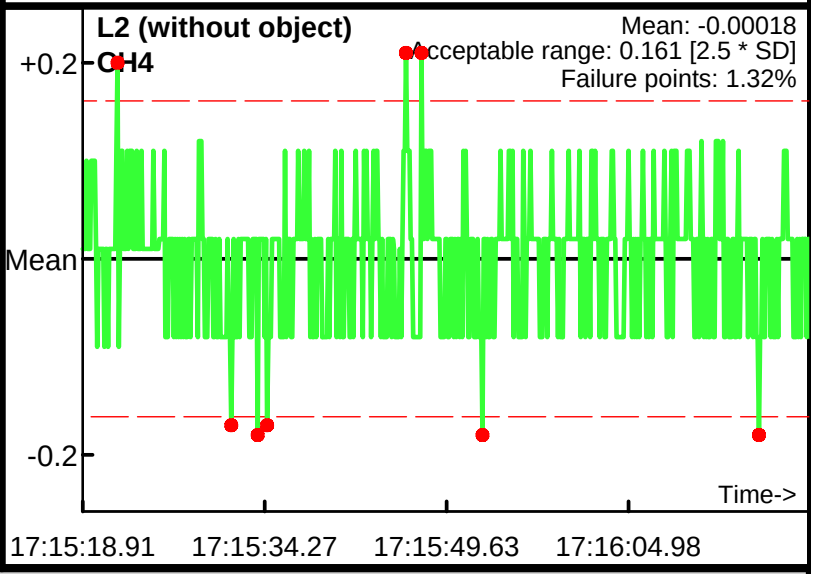












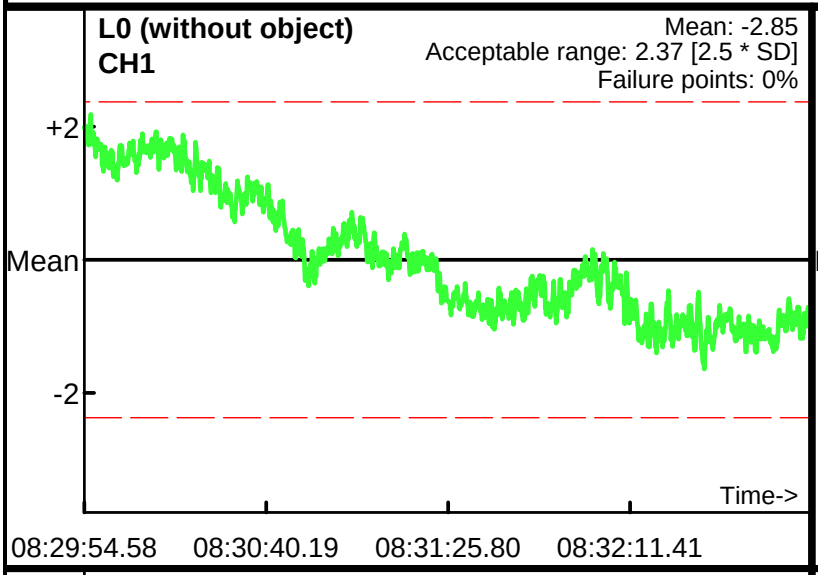
Database: .\061112PM.gdb
Line Name: L0 L1 L2

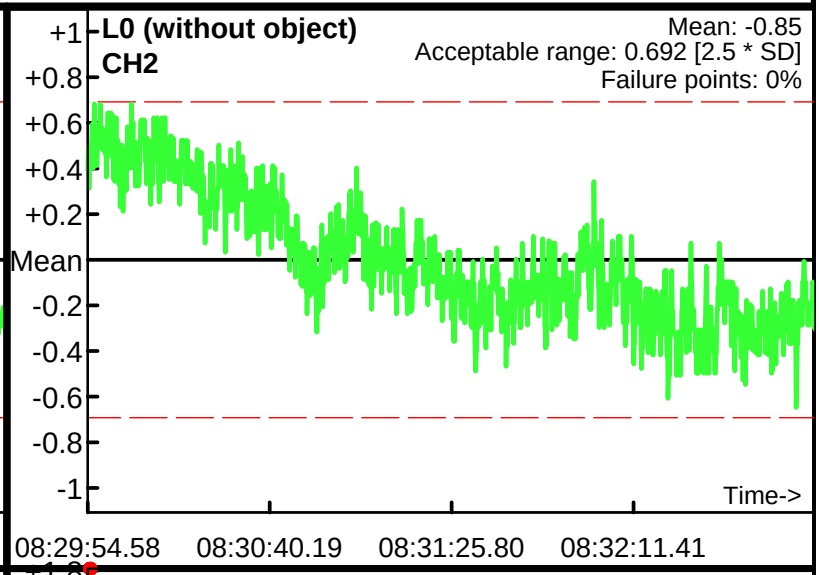
Static Calibration Test

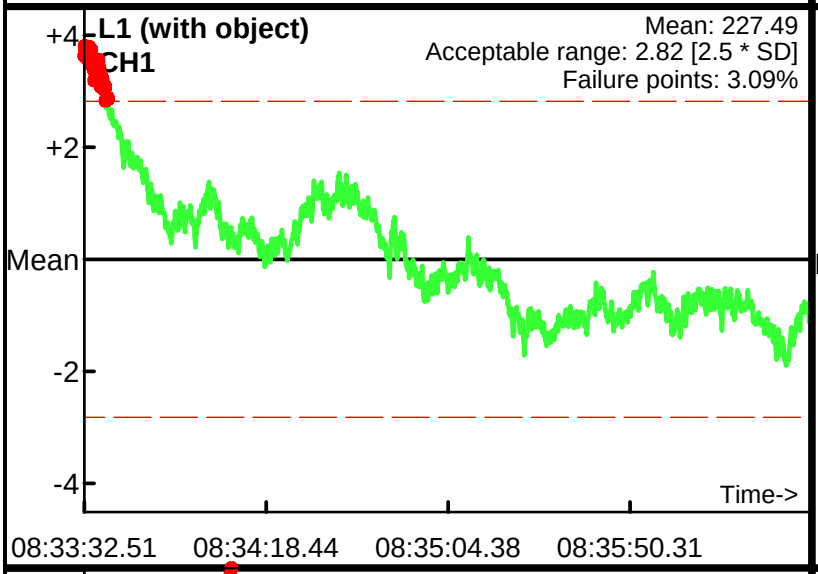
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

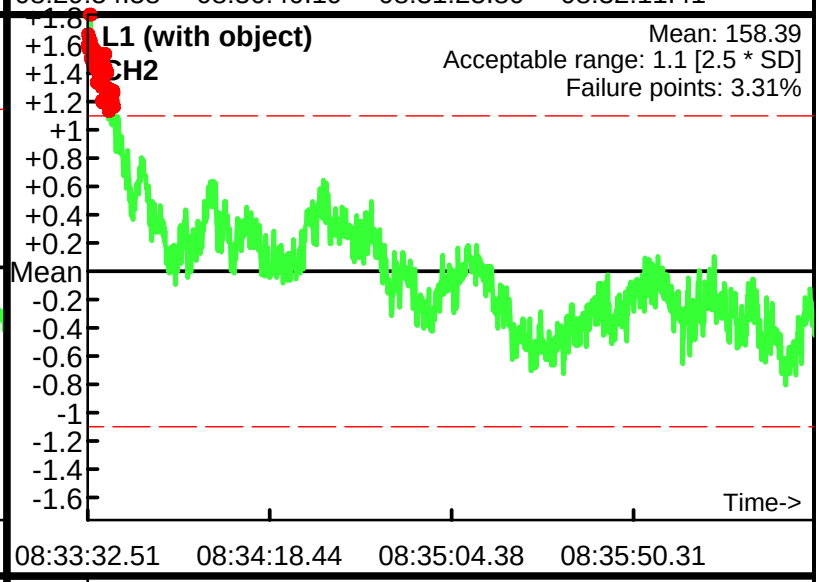
Allowable failure (%): 5%
Outside range
Acceptable limits

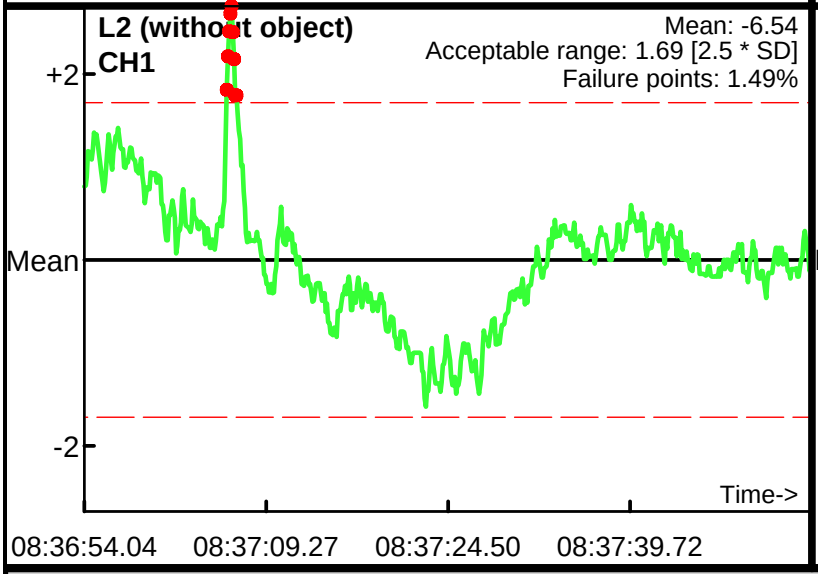
AM test
Operator: BG
Date: 6/12/2012

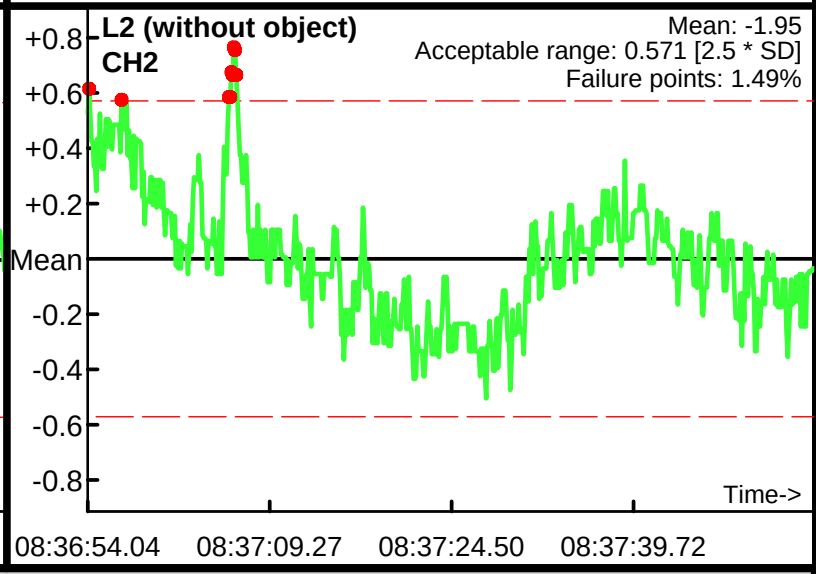












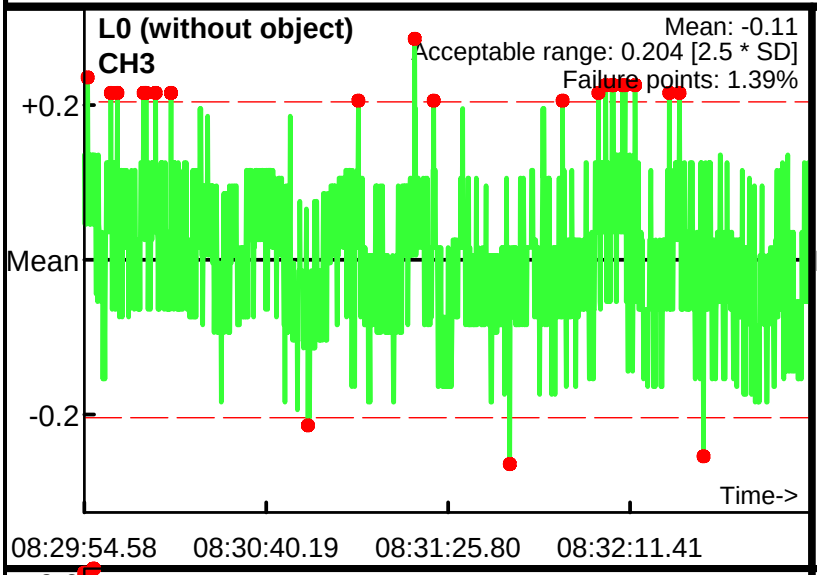
Database: .\061212AM.gdb
Line Name: L0 L1 L2

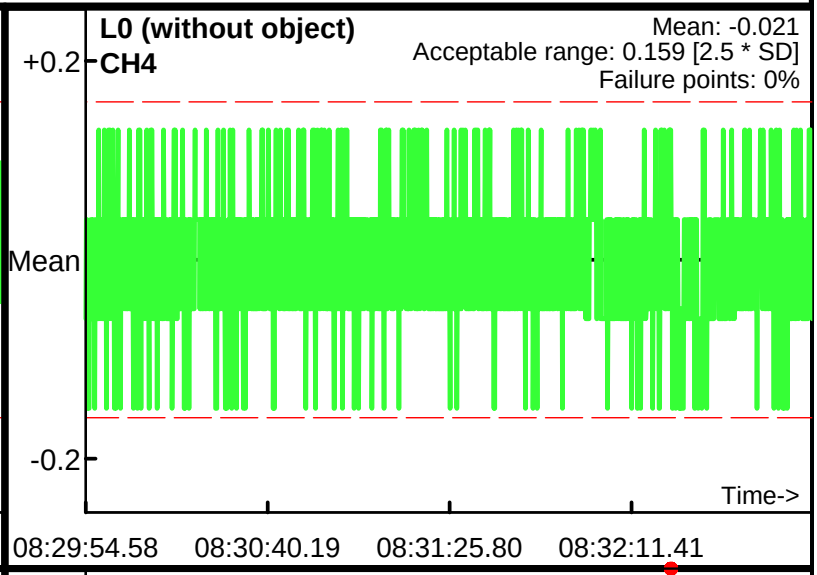
Static Calibration Test

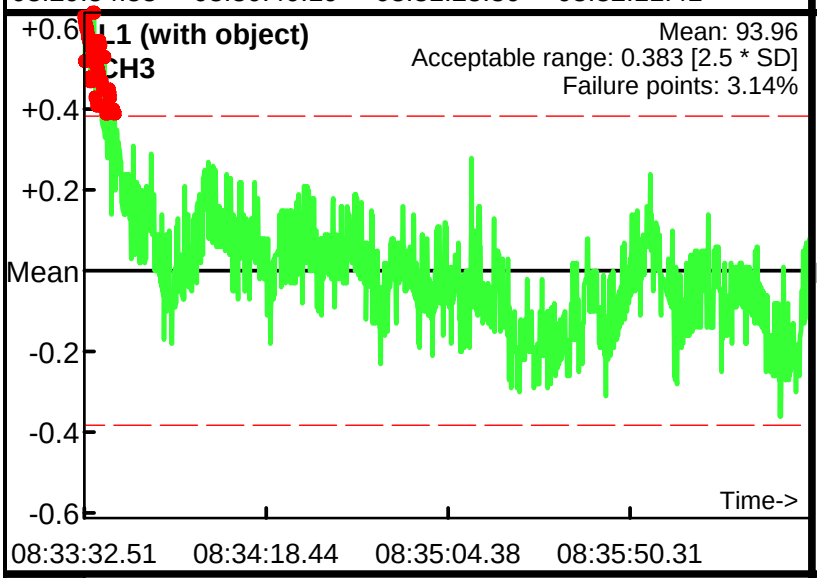
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

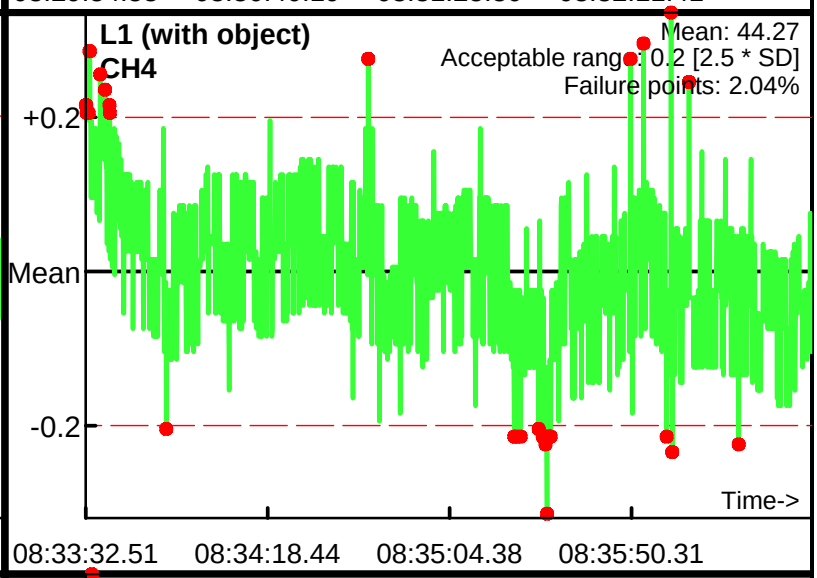
Allowable failure (%): 5%
Outside range
Acceptable limits

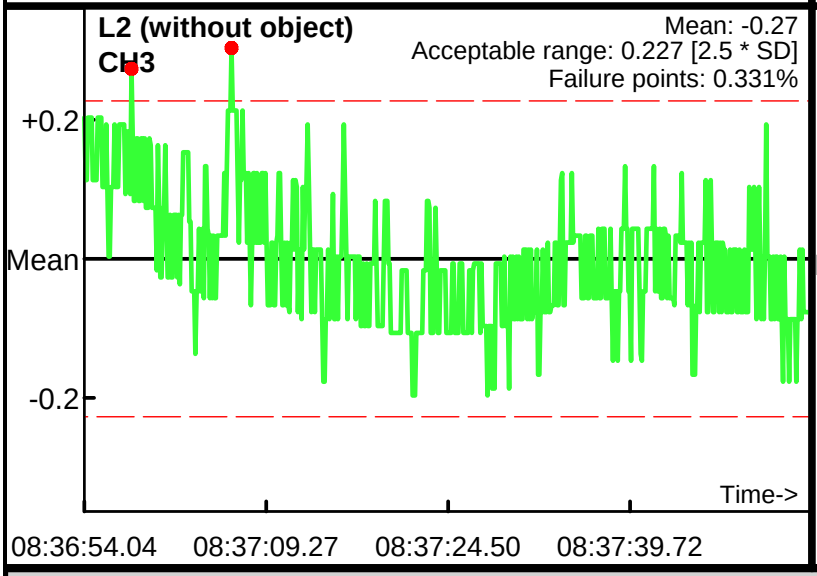
AM test
Operator: BG
Date: 6/12/2012

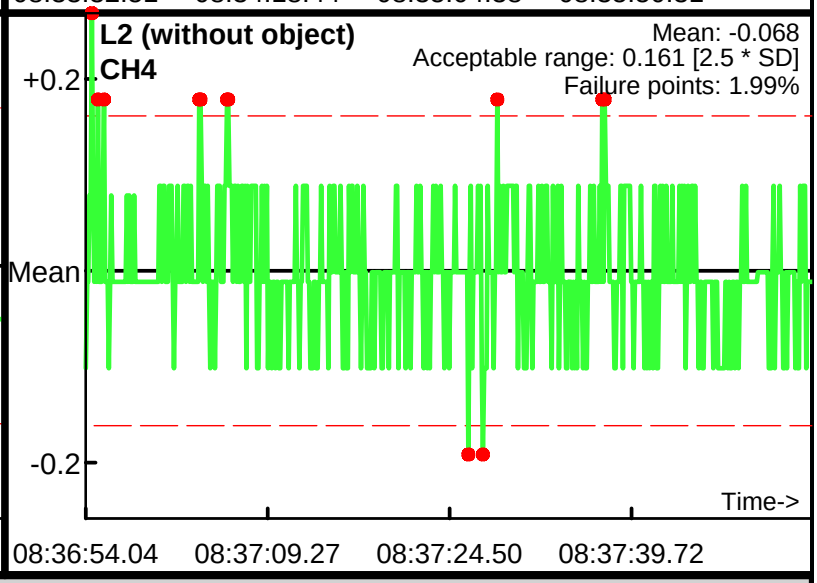












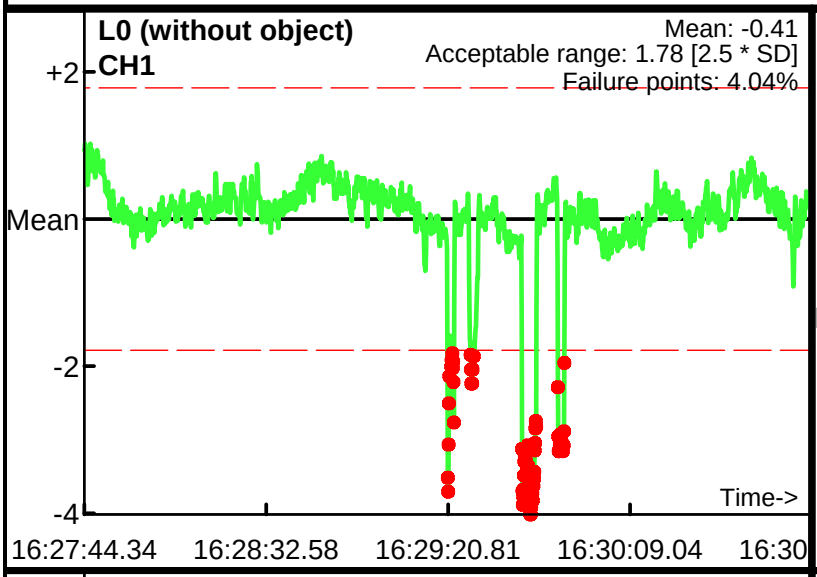
Database: .\061212AM.gdb
Line Name: L0 L1 L2

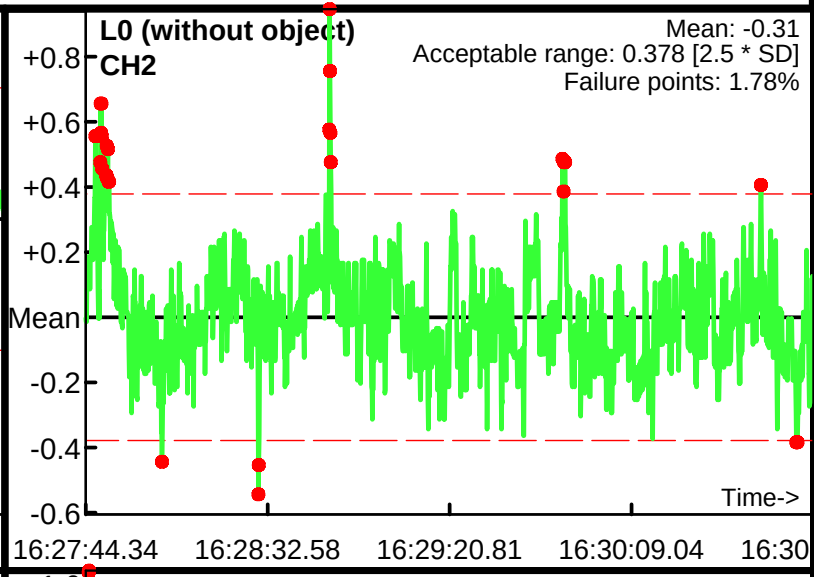
Static Calibration Test

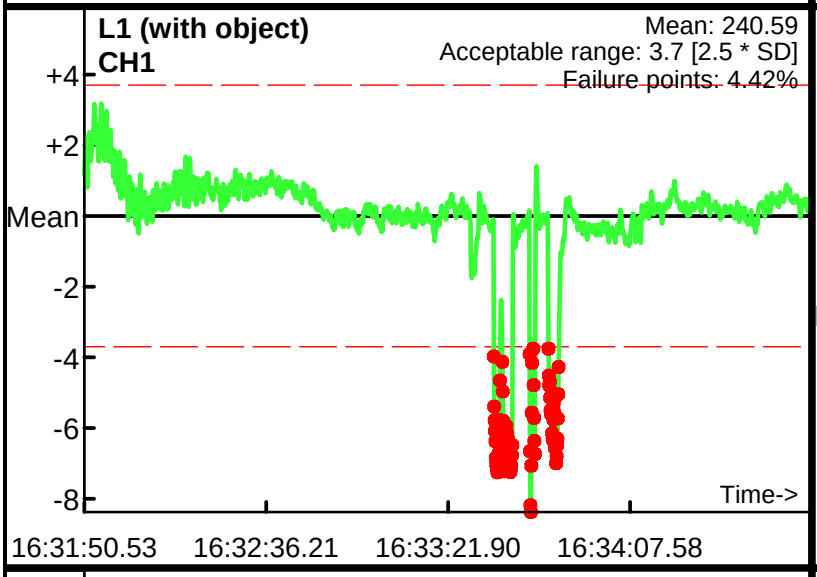
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

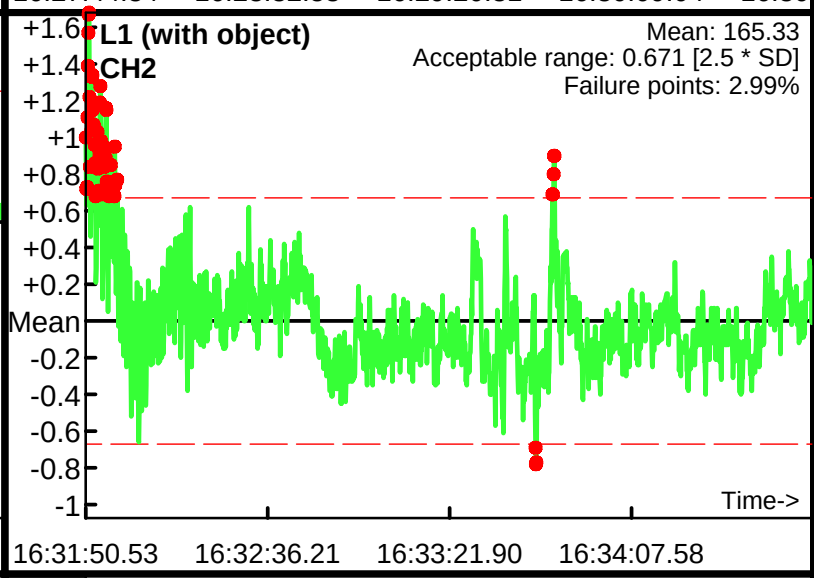
Allowable failure (%): 5%
Outside range
Acceptable limits

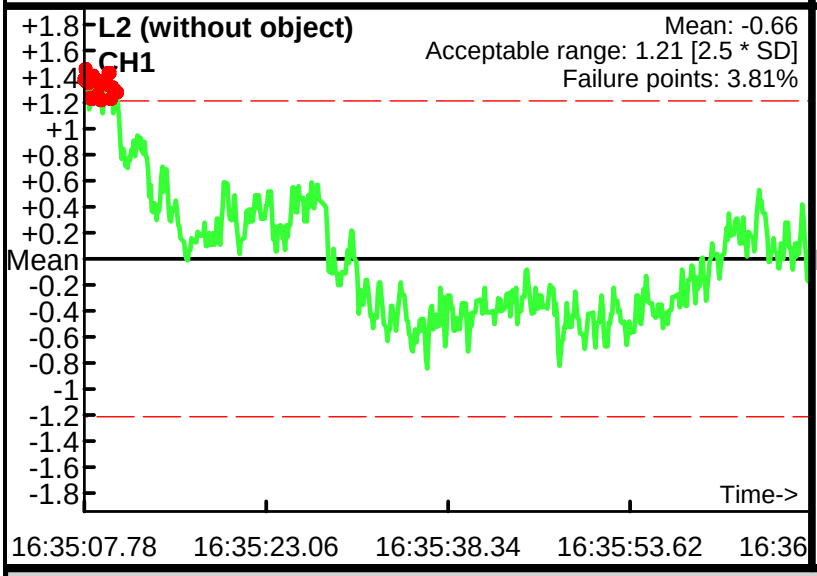
AM test
Operator: BG
Date: 6/12/2012

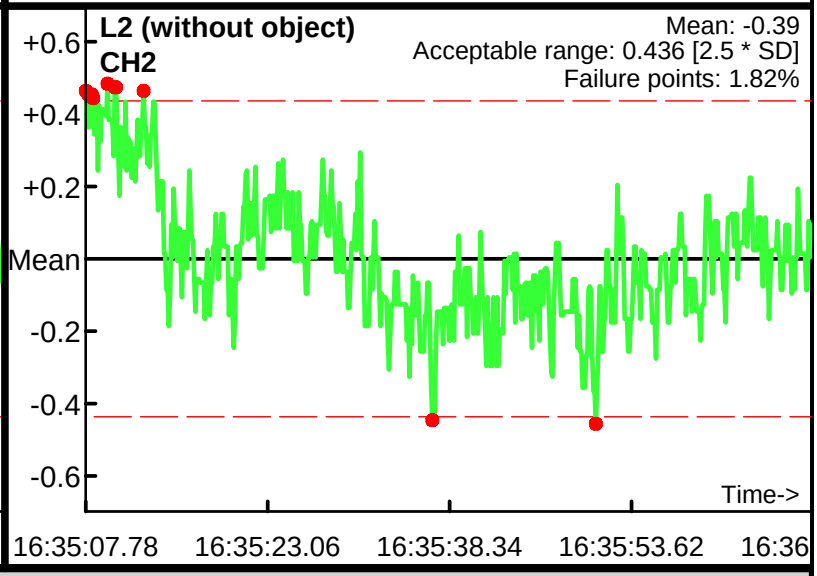












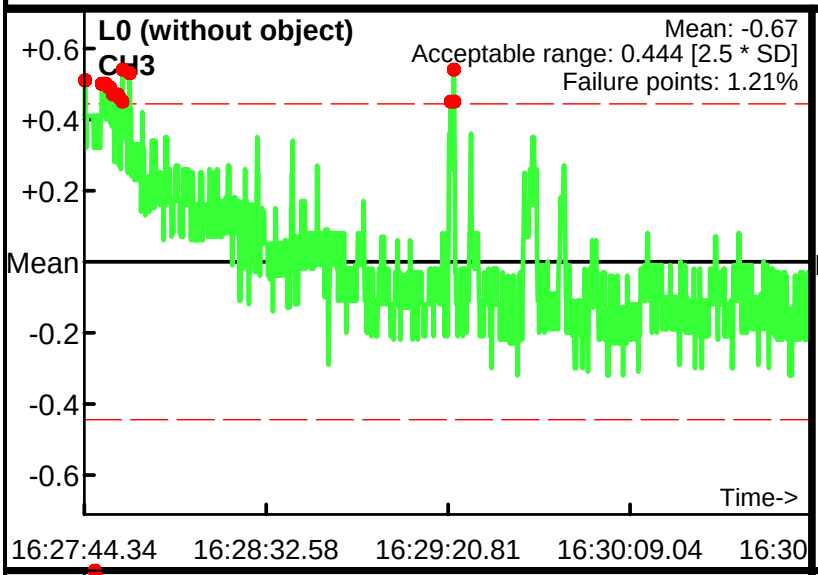
Database: .\061212PM.gdb
Line Name: L0 L1 L2

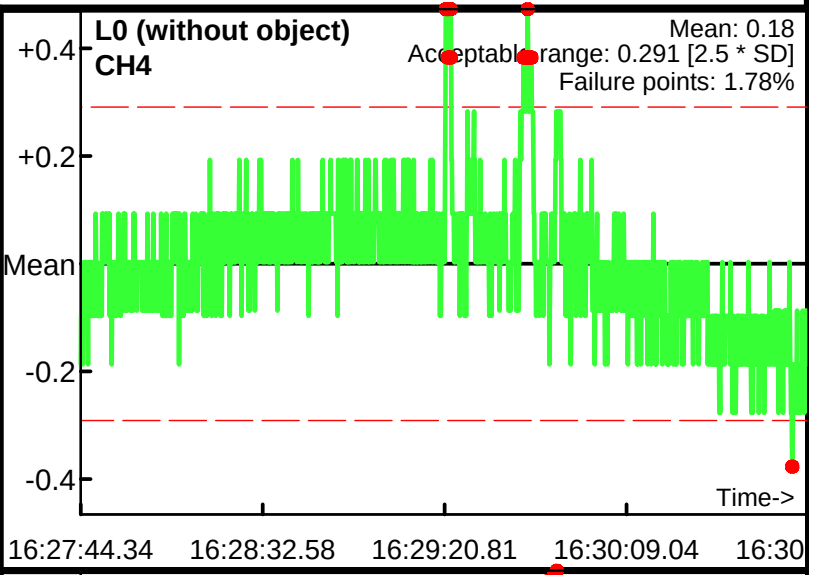
Static Calibration Test

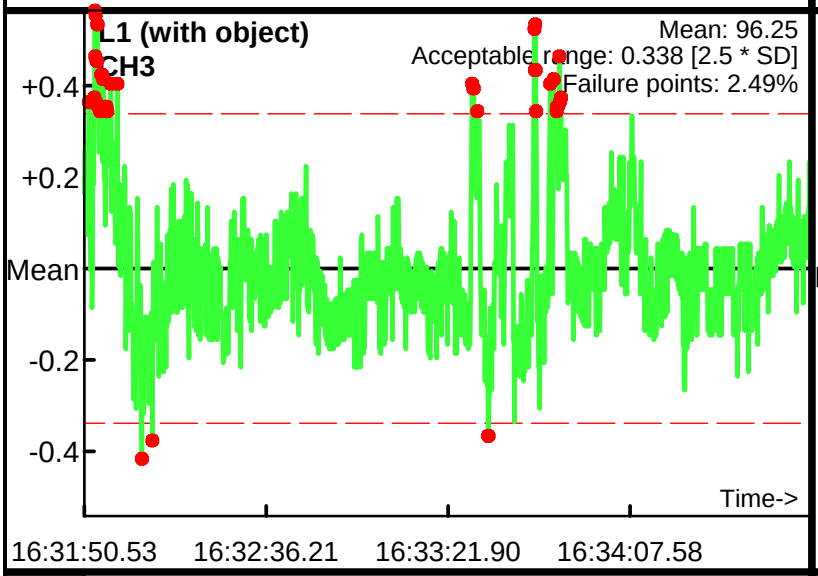
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

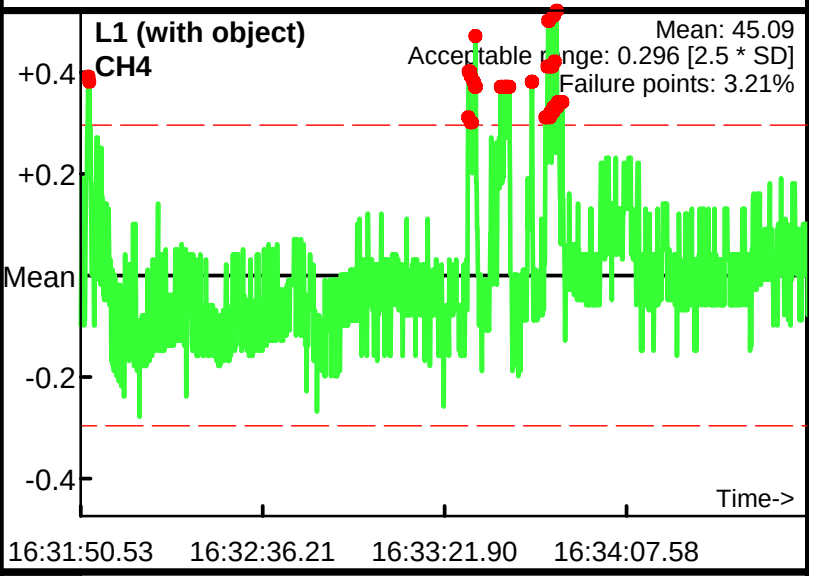
Allowable failure (%): 5%
Outside range
Acceptable limits

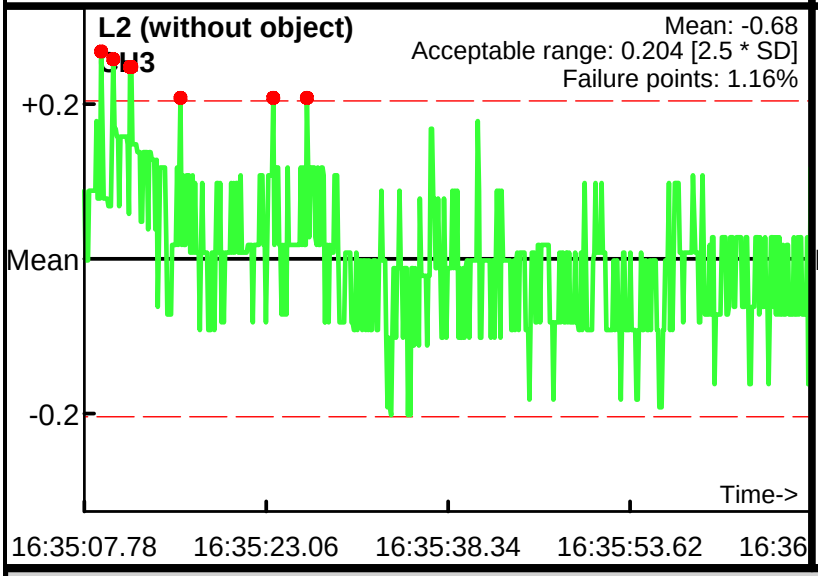
AM test
Operator: BG
Date: 6/12/2012

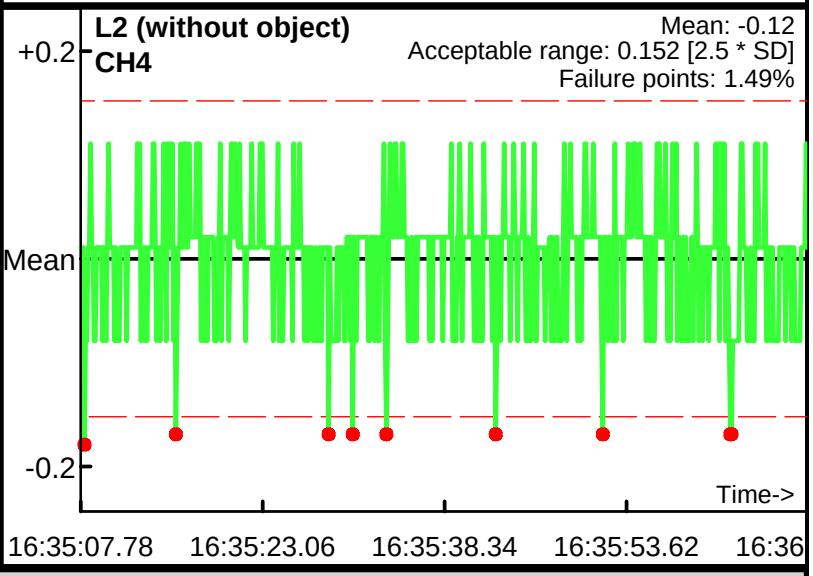












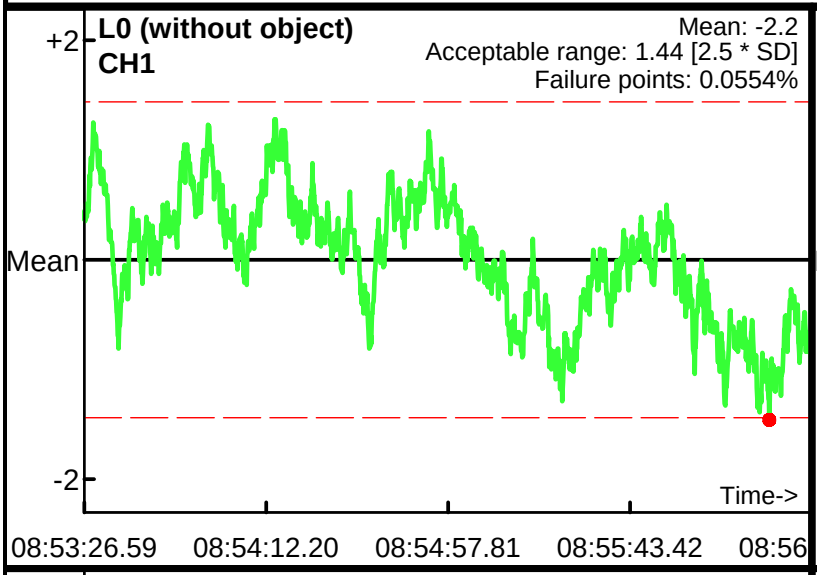
Database: .\061212PM.gdb
Line Name: L0 L1 L2

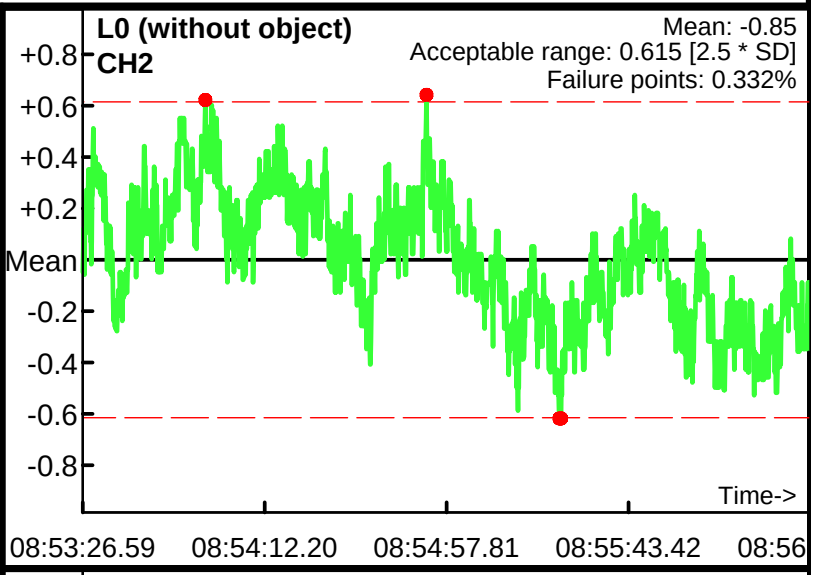
Static Calibration Test

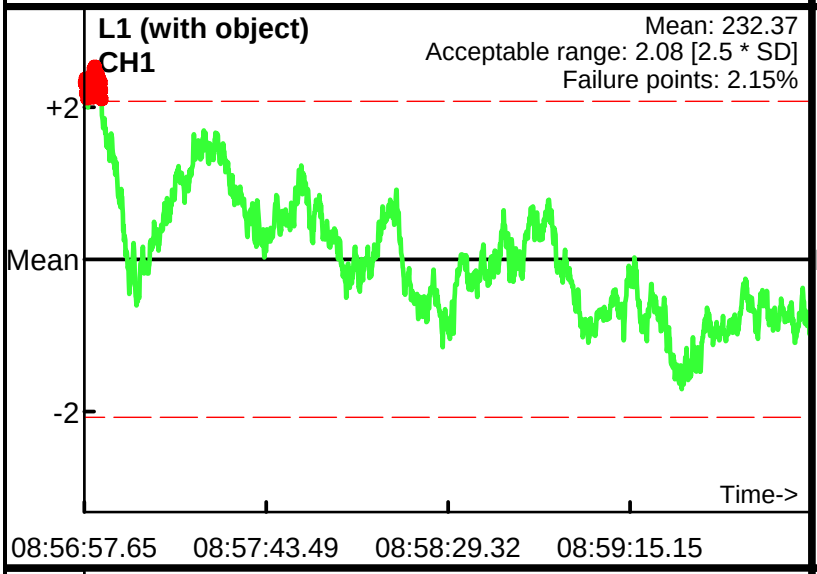
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

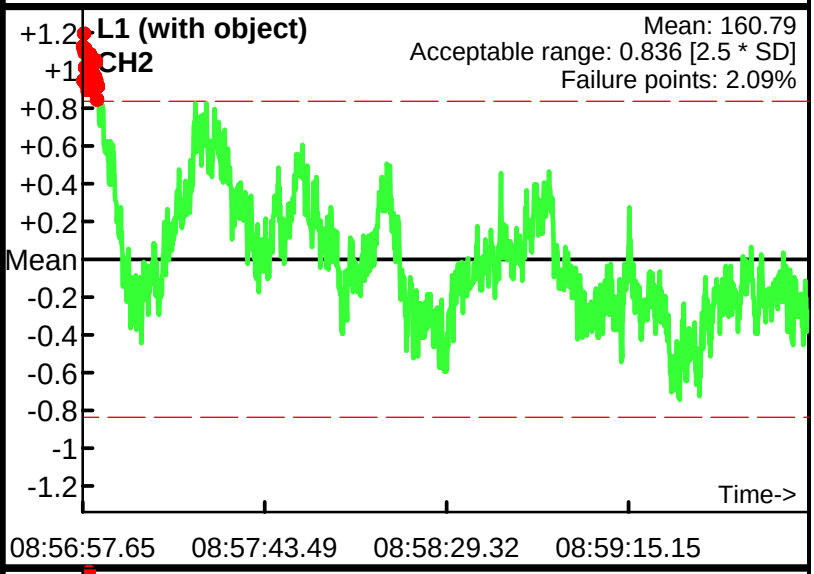
Allowable failure (%): 5%
Outside range
Acceptable limits

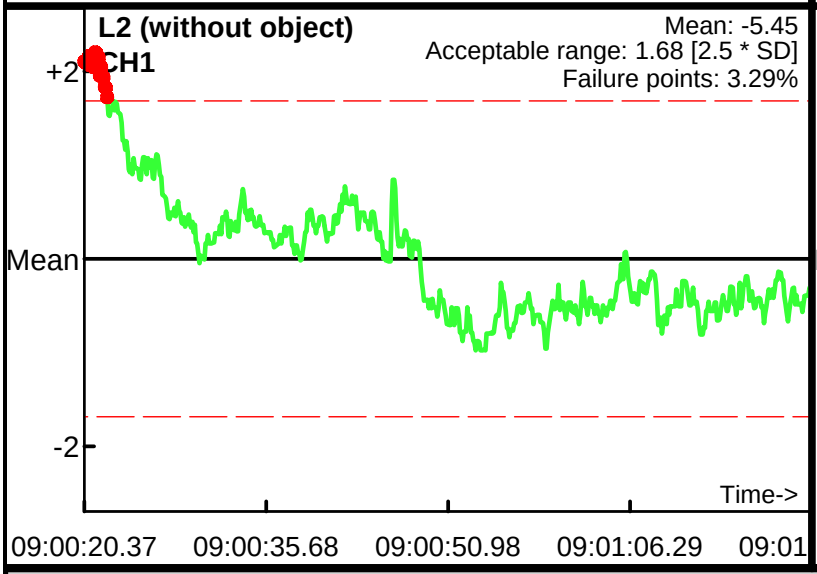
AM test
Operator: BG
Date: 6/14/2012

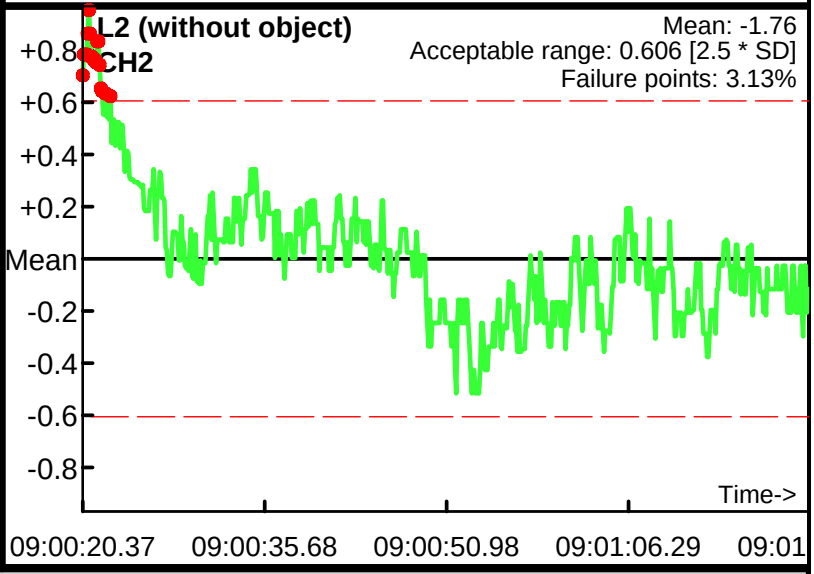












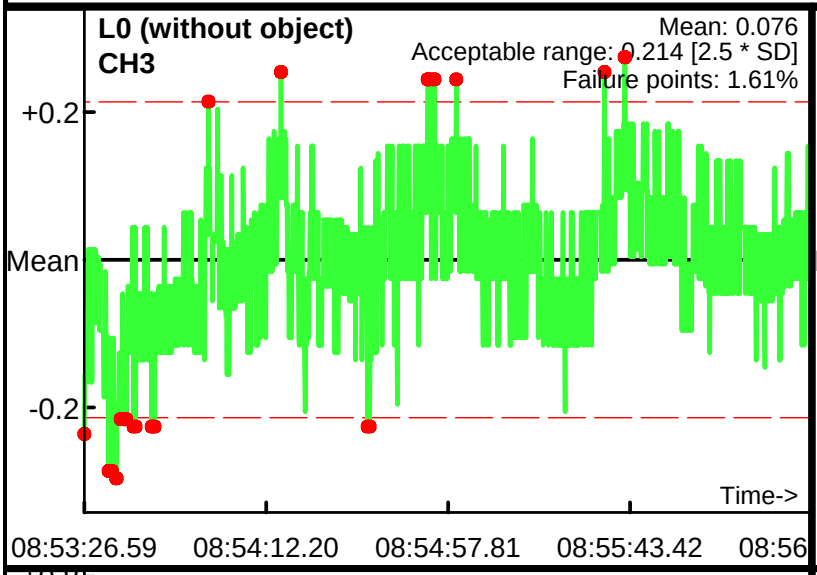
Database: .\061412AM.gdb
Line Name: L0 L1 L2

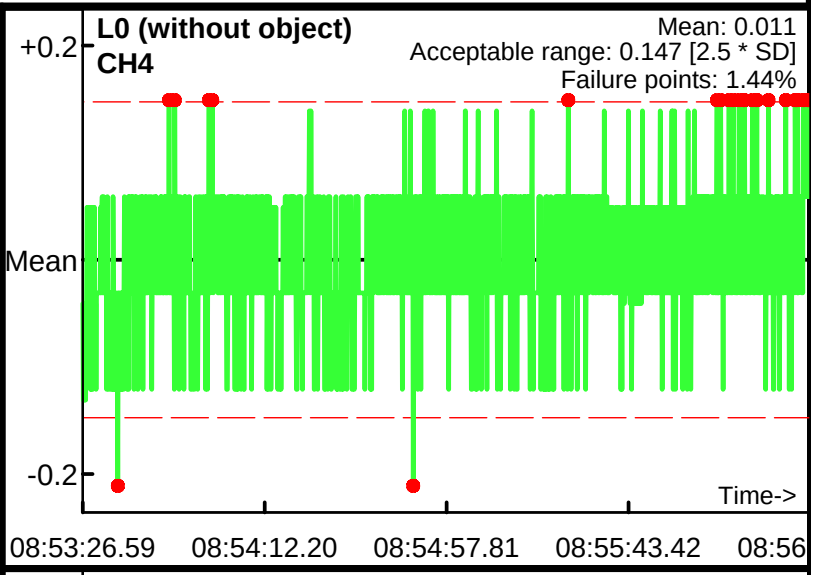
Static Calibration Test

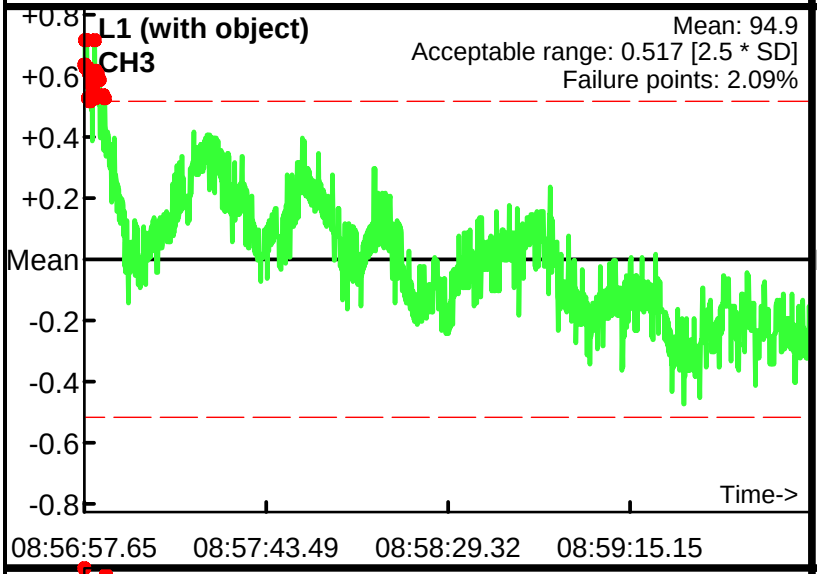
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

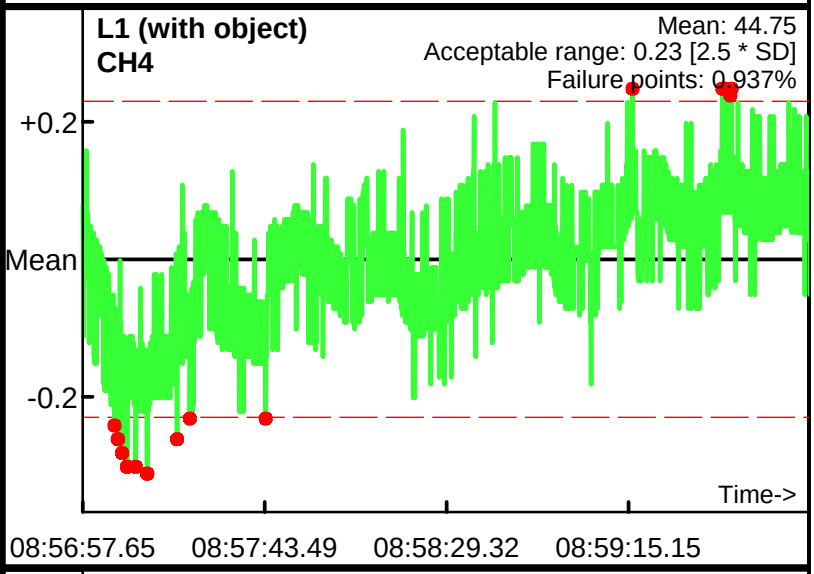
Allowable failure (%): 5%
Outside range
Acceptable limits

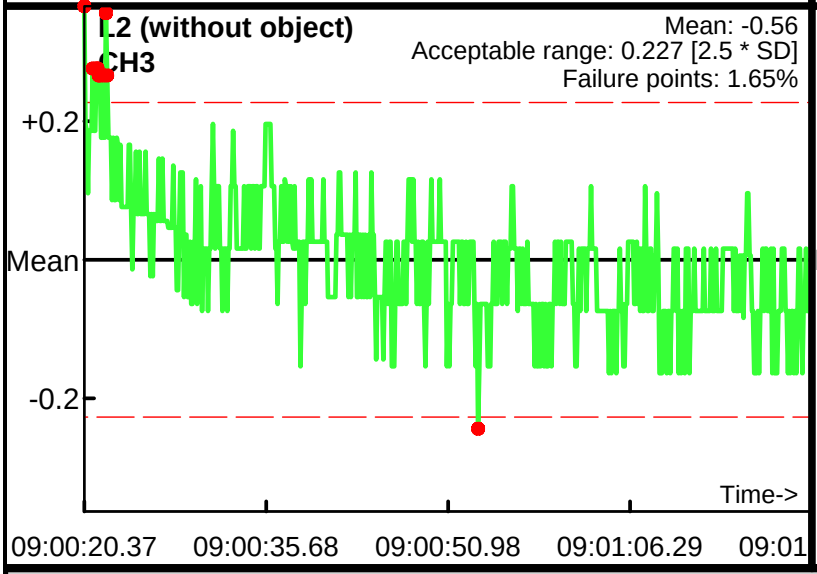
AM test
Operator: BG
Date: 6/14/2012

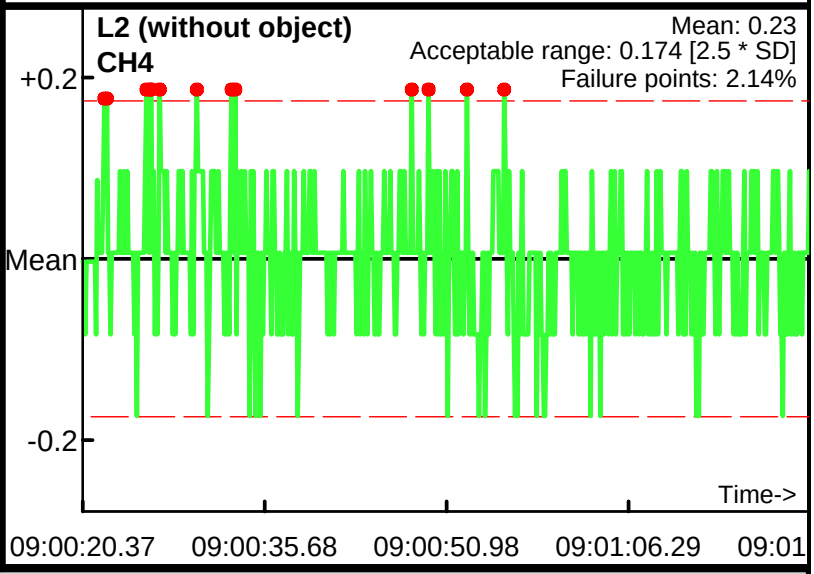










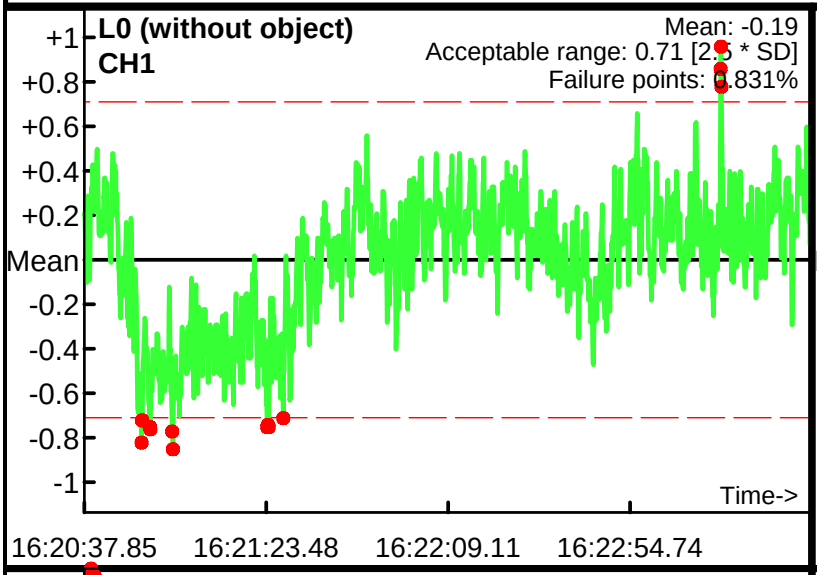


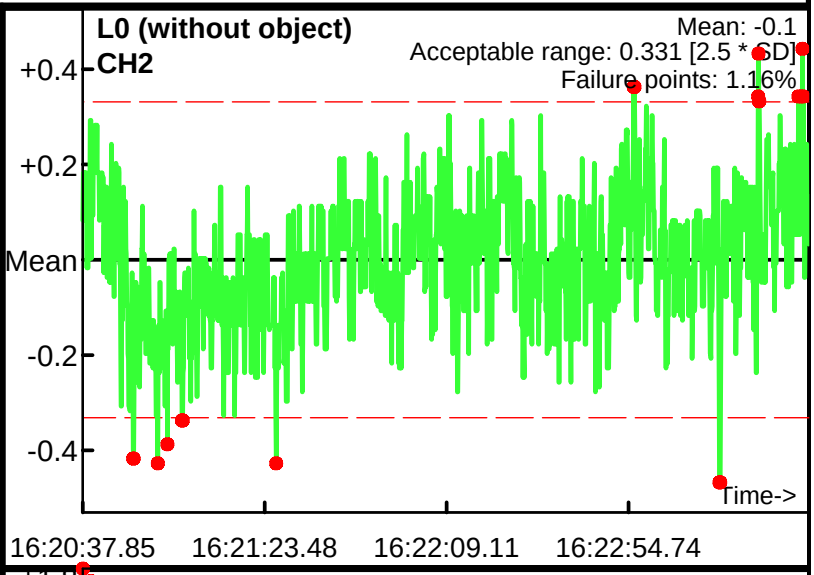
Static Calibration Test

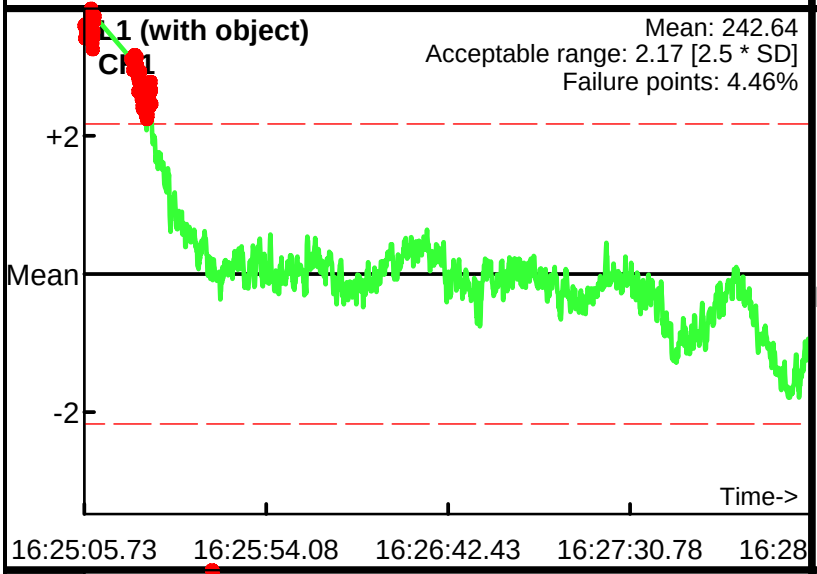
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

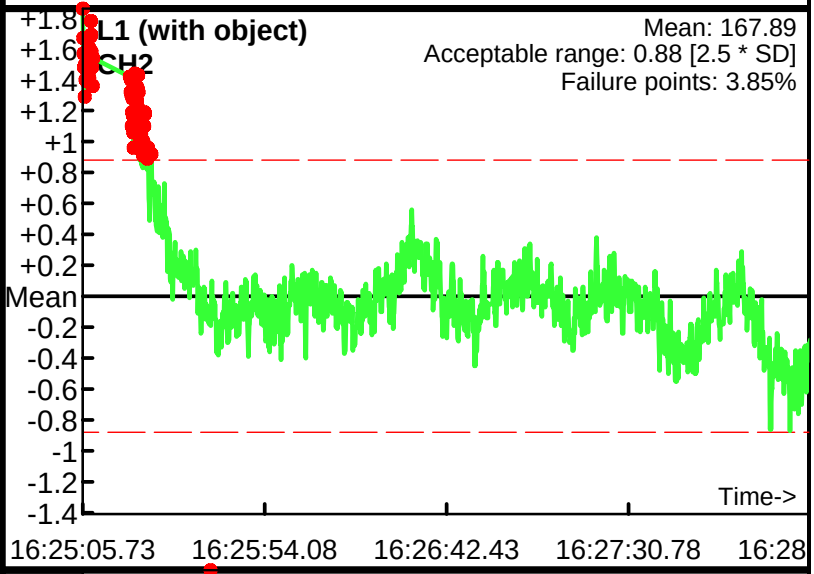
Allowable failure (%): 5%
Outside range
Acceptable limits

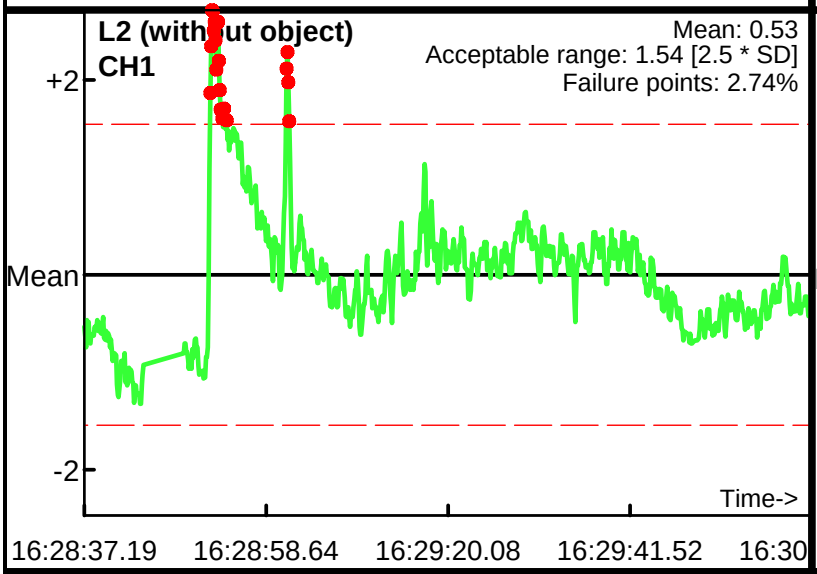
AM test
Operator: BG
Date: 6/14/2012

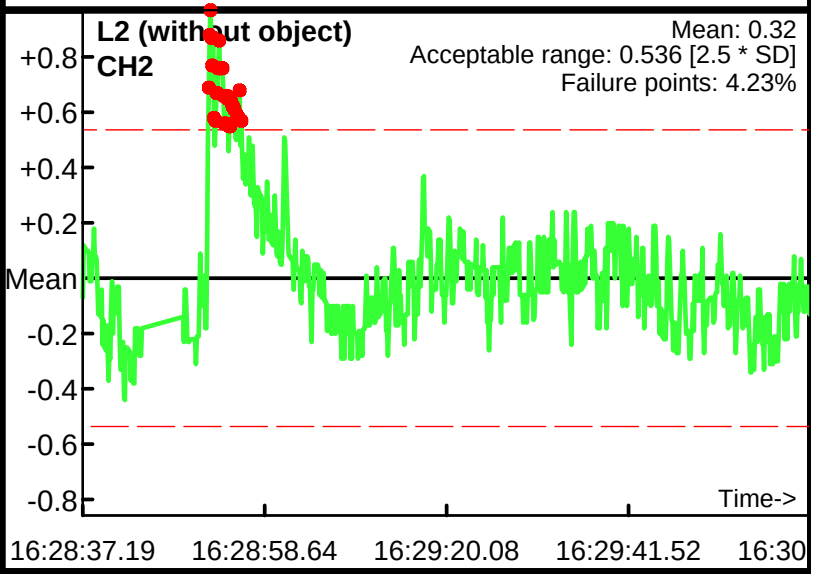












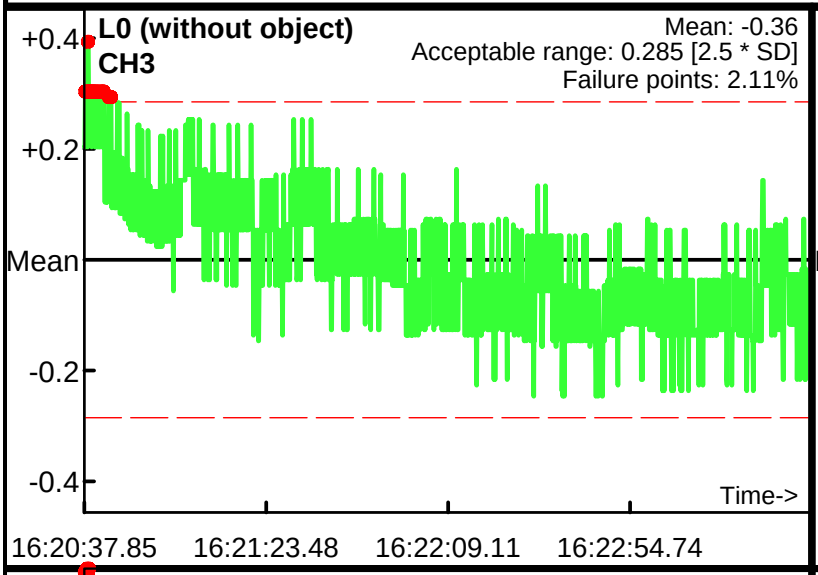
Database: .\061412PM.gdb
Line Name: L0 L1 L2

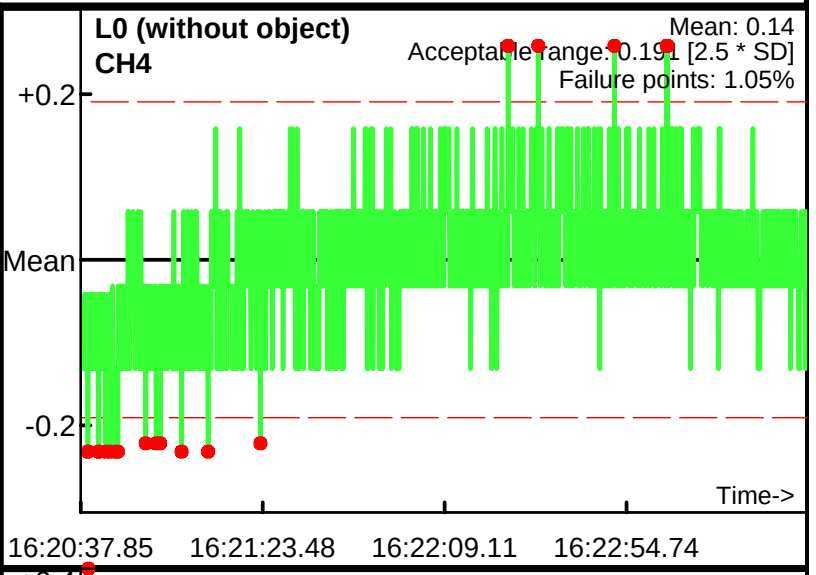
Static Calibration Test

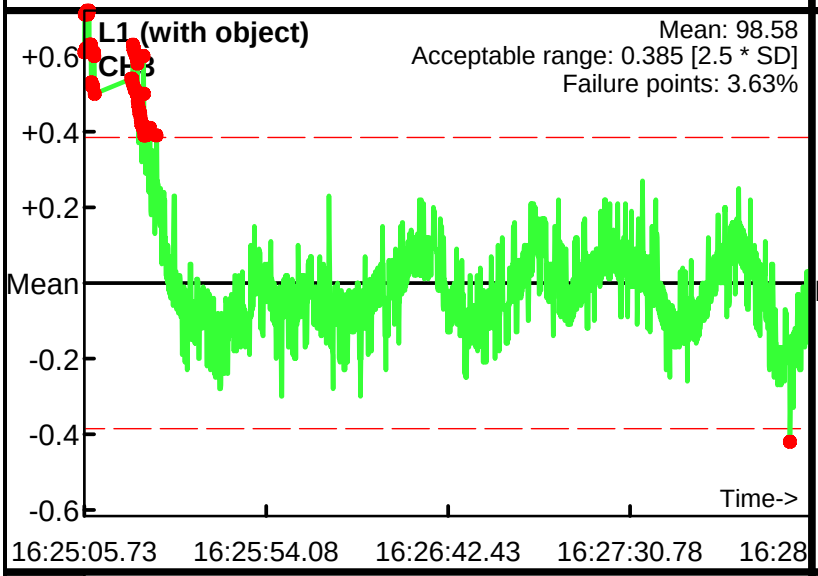
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

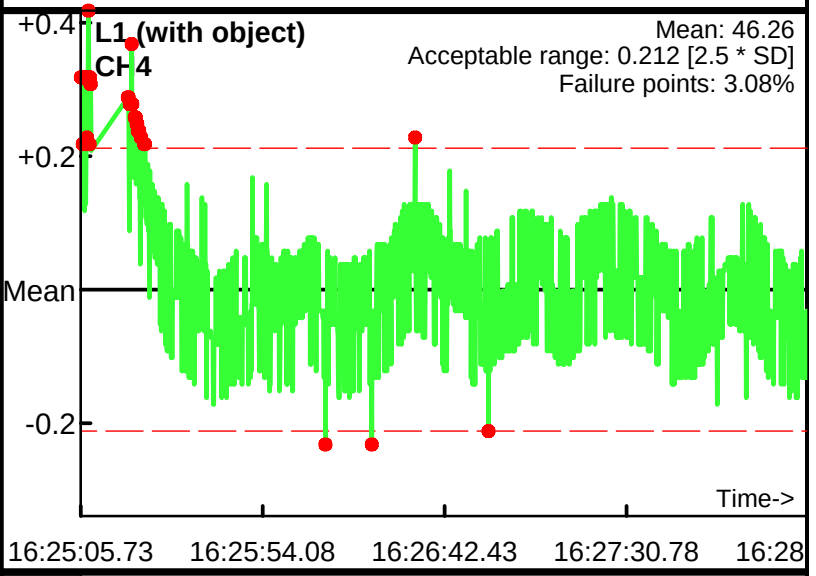
Allowable failure (%): 5%
Outside range
Acceptable limits

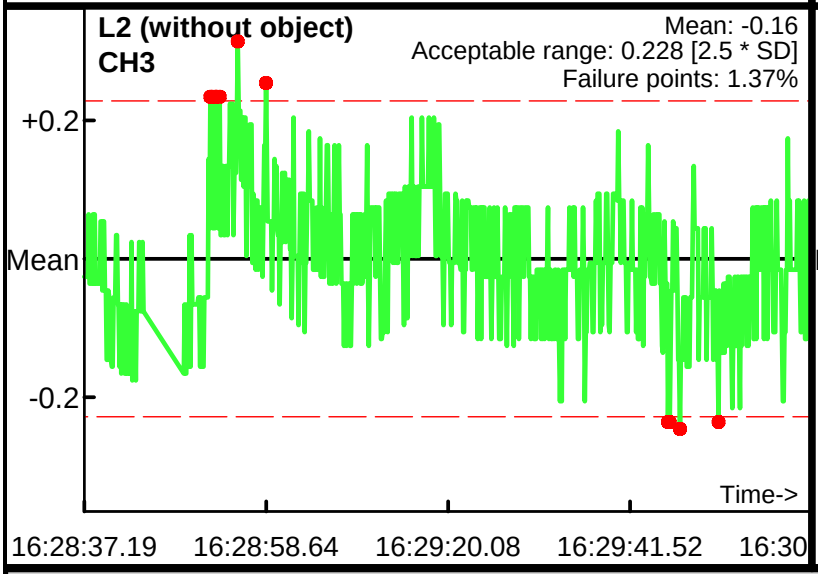
AM test
Operator: BG
Date: 6/14/2012

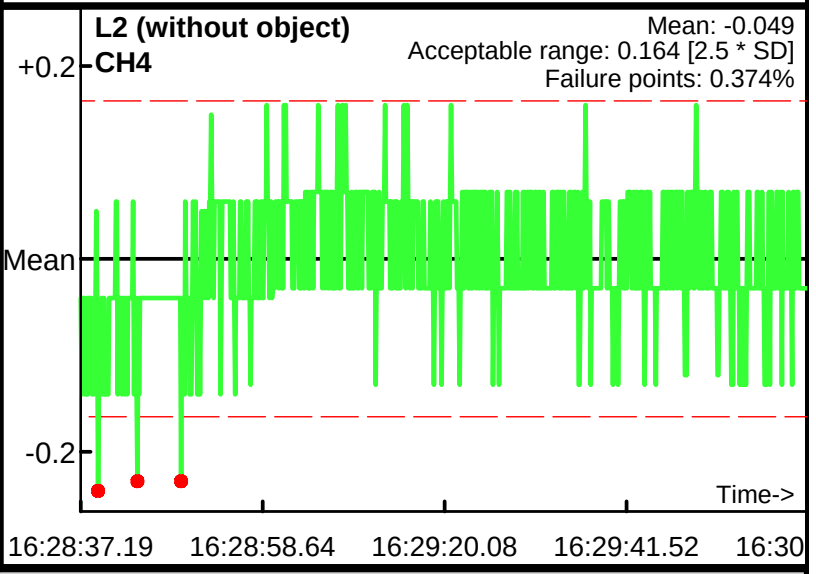












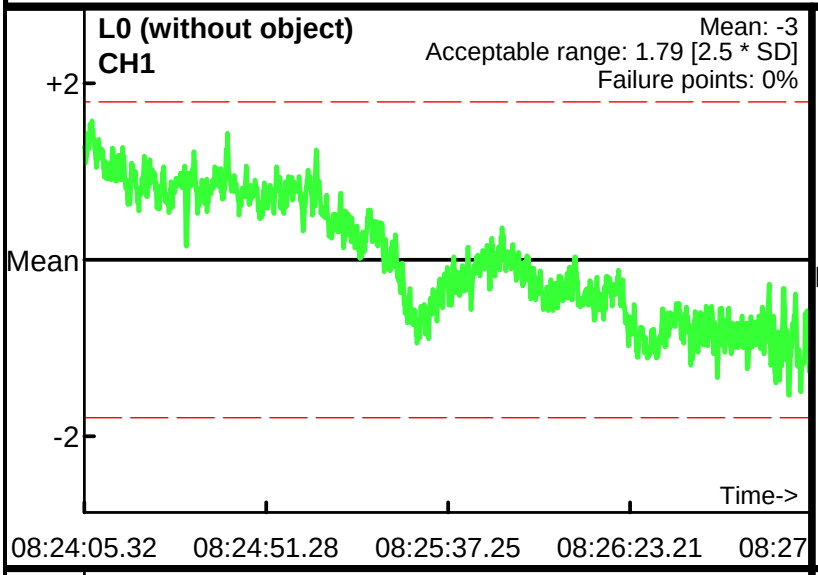
Database: .\061412PM.gdb
Line Name: L0 L1 L2

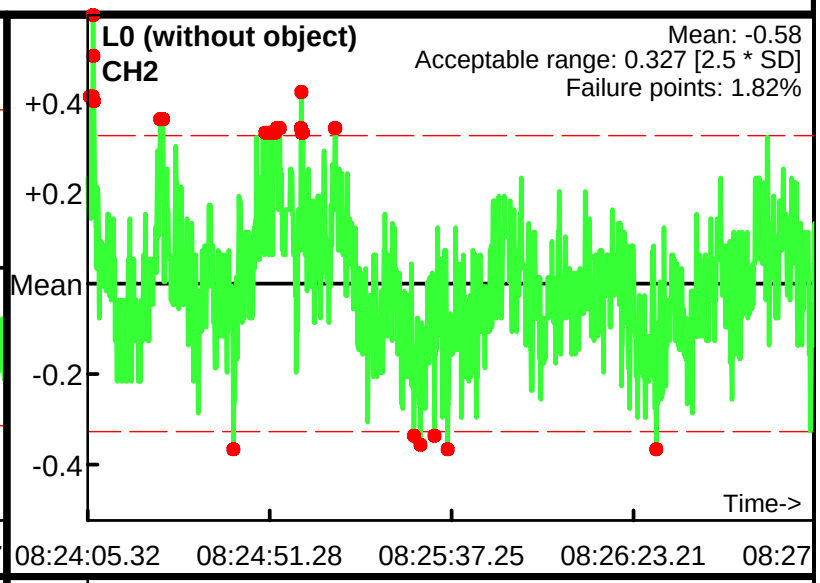
Static Calibration Test

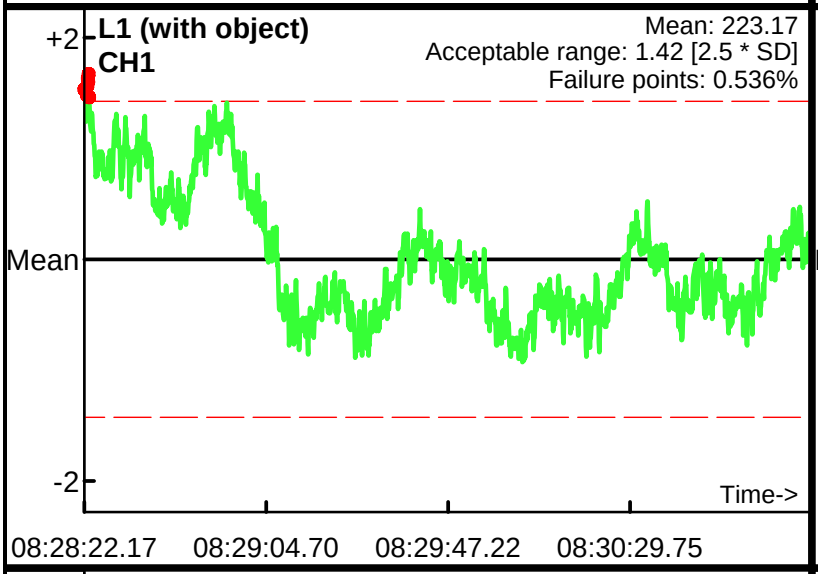
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

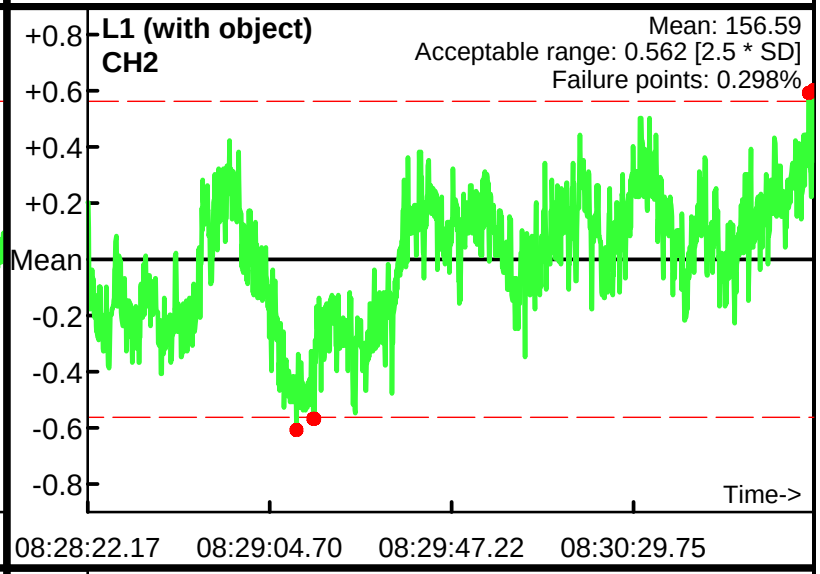
Allowable failure (%): 5%
Outside range
Acceptable limits

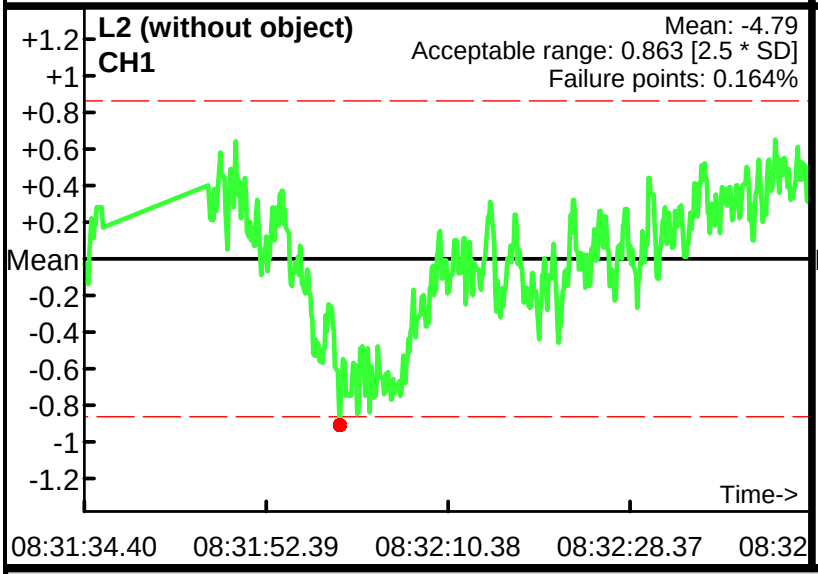
AM test
Operator: BG
Date: 6/15/2012

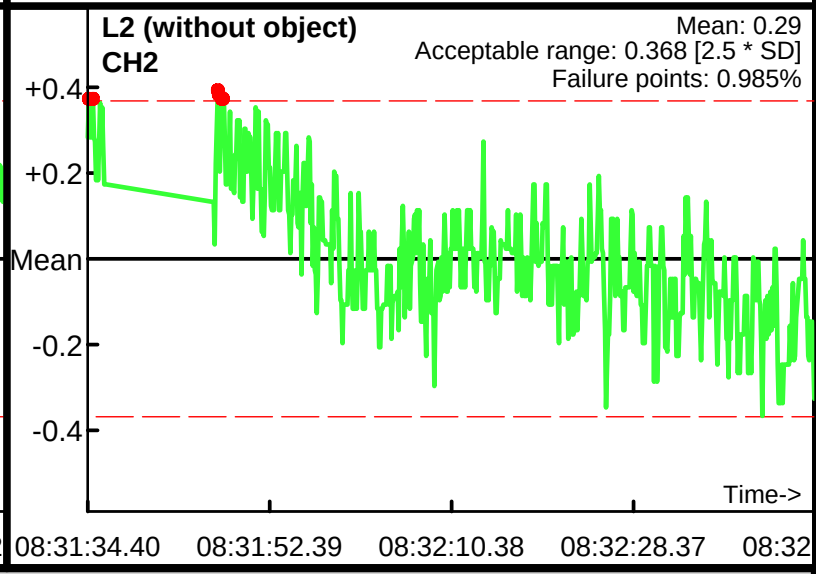












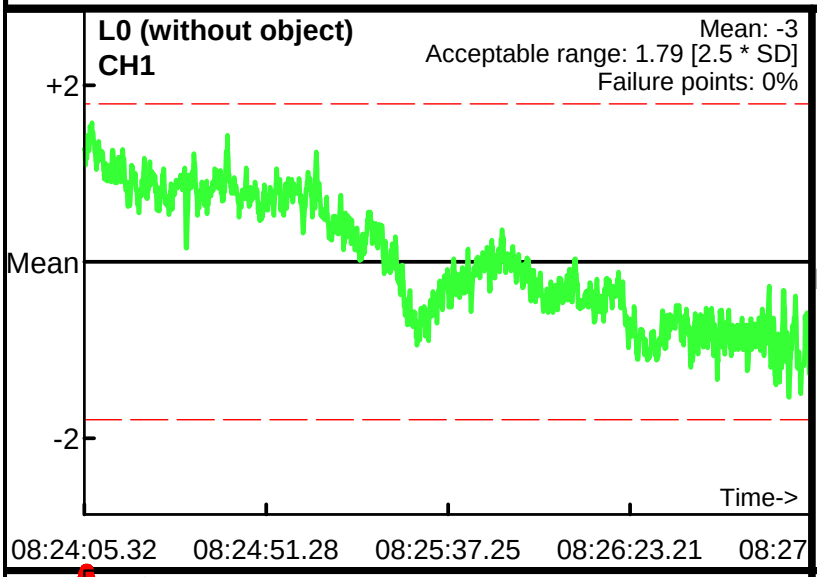
Database: .\061512AM.gdb
Line Name: L0 L1 L2

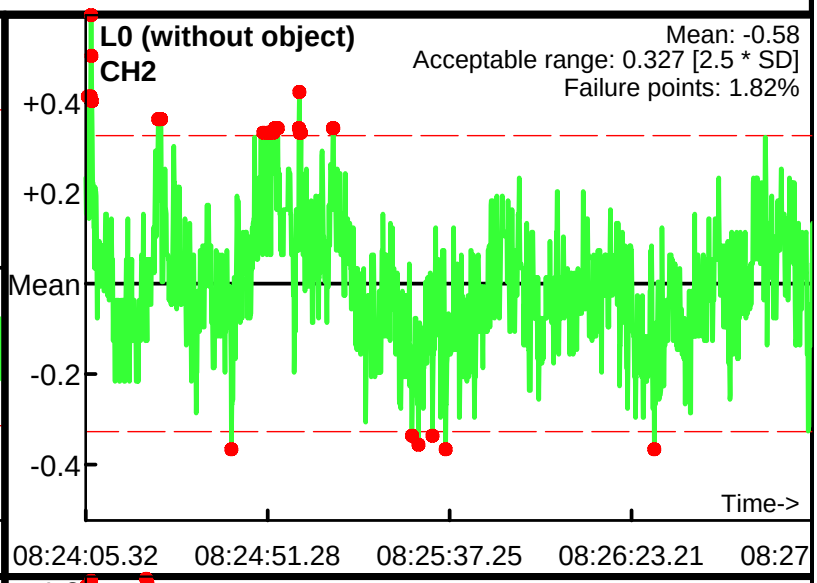
Static Calibration Test

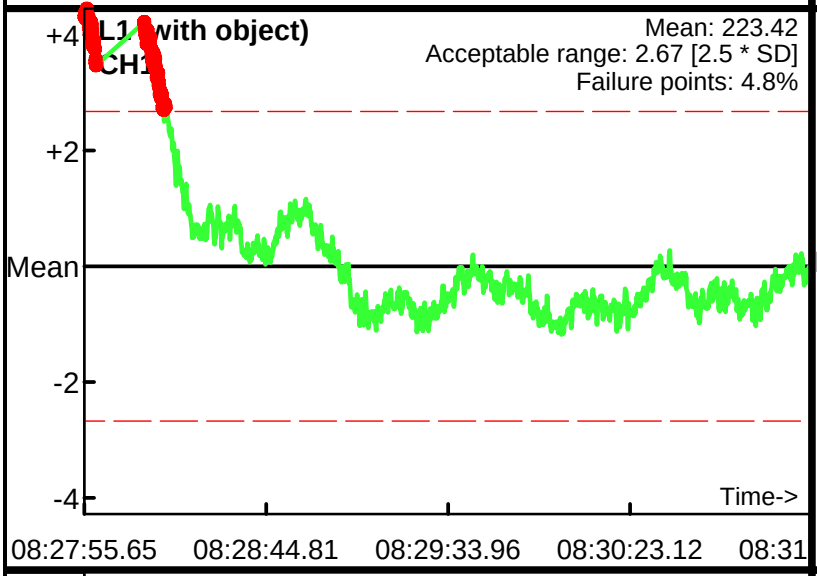
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

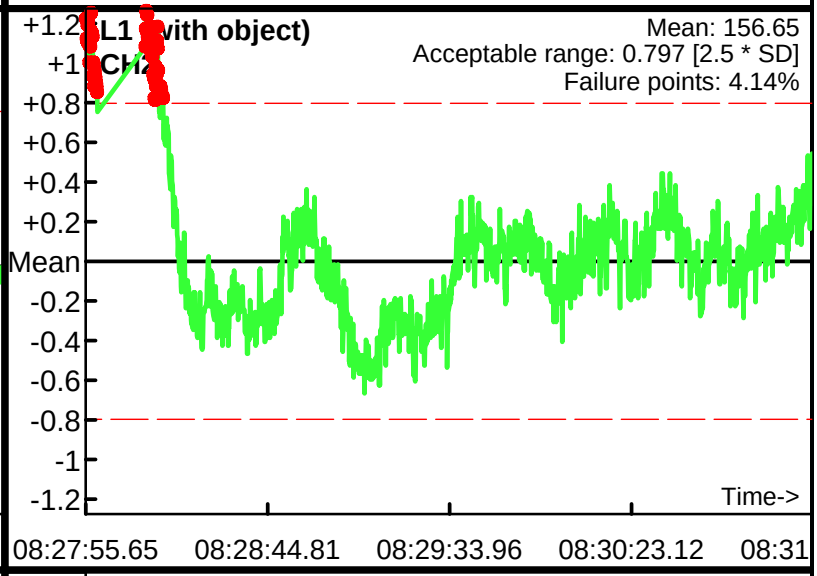
Allowable failure (%): 5%
Outside range
Acceptable limits

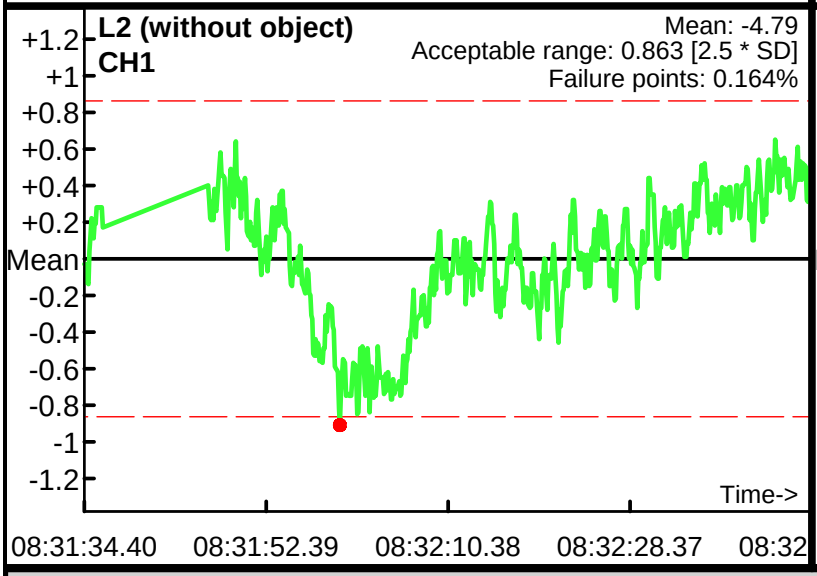
AM test
Operator: BG
Date: 6/15/2012

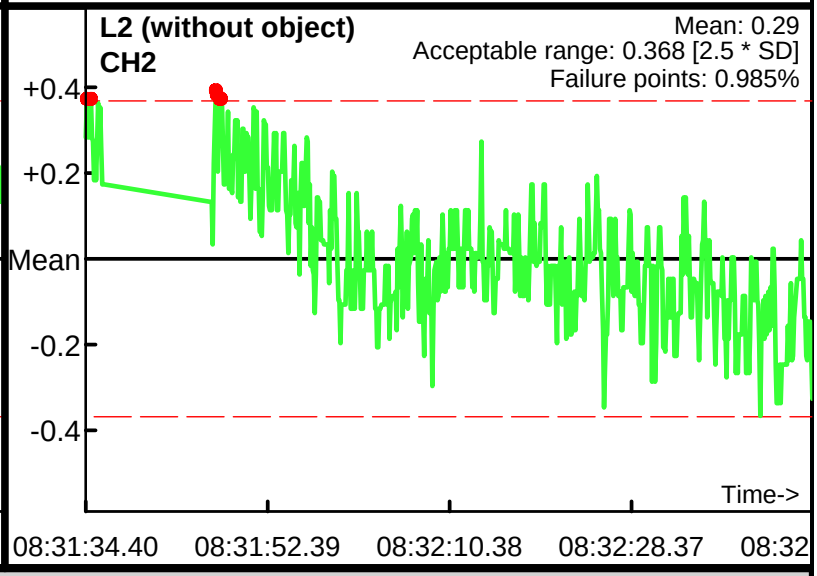












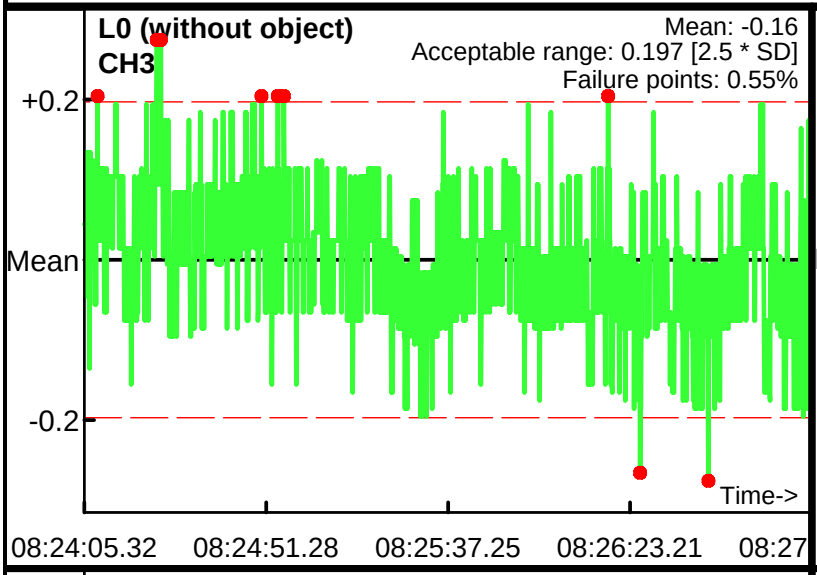
Database: .\061512AM.gdb
Line Name: L0 L1 L2

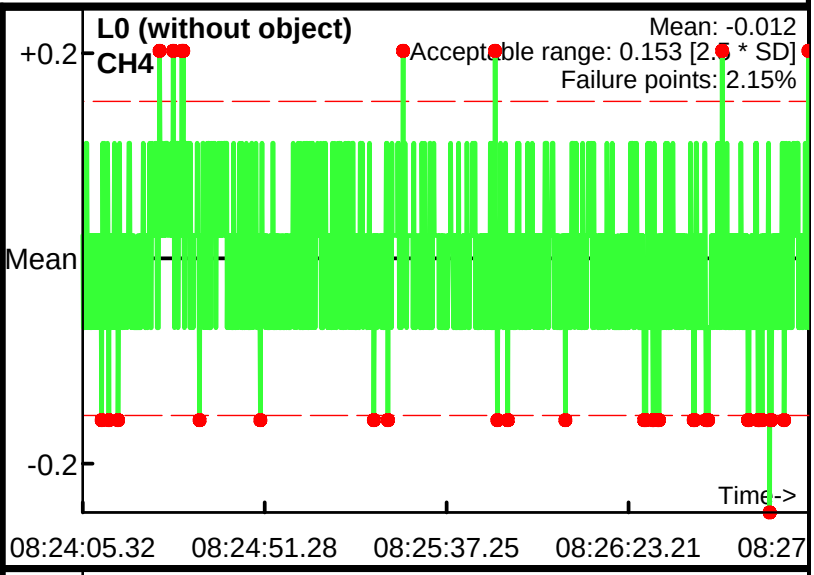
Static Calibration Test

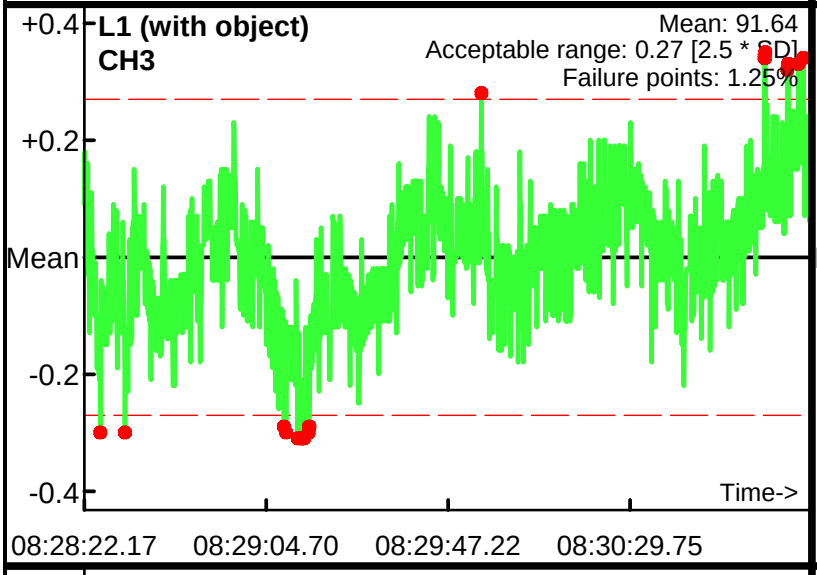
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

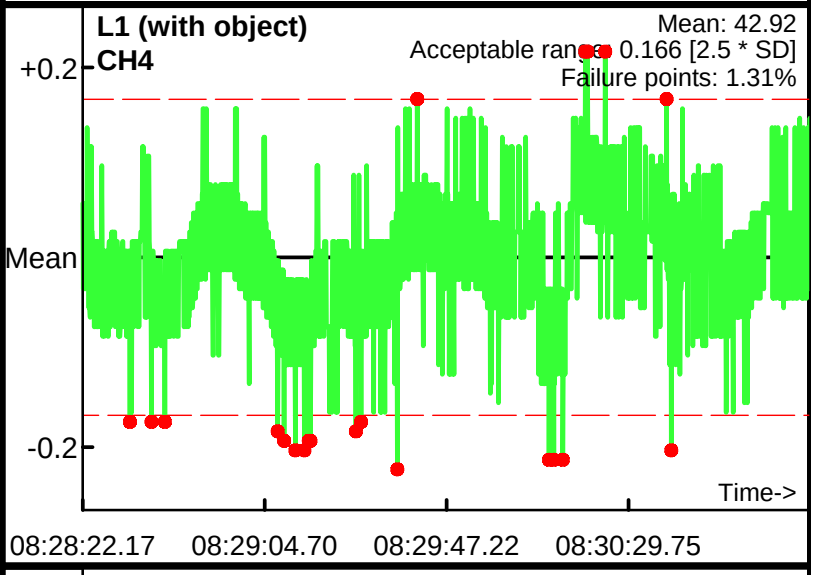
Allowable failure (%): 5%
Outside range
Acceptable limits

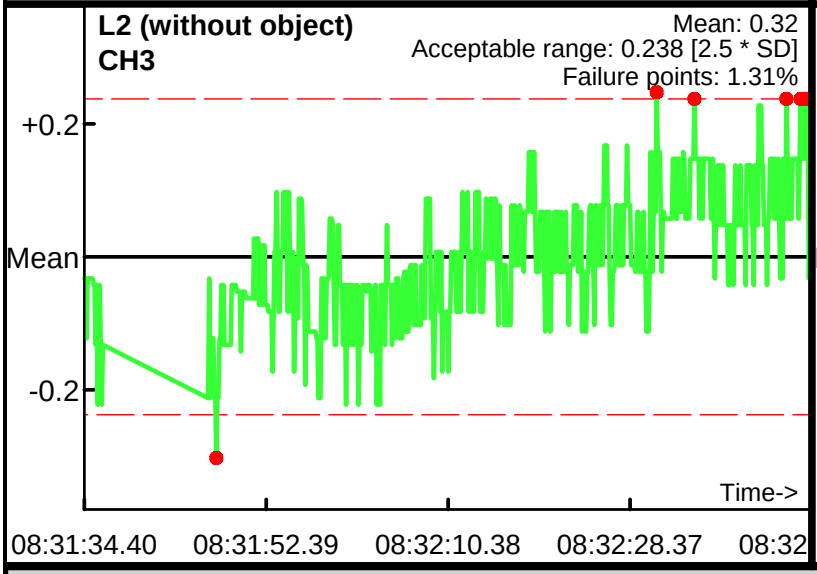
AM test
Operator: BG
Date: 6/15/2012

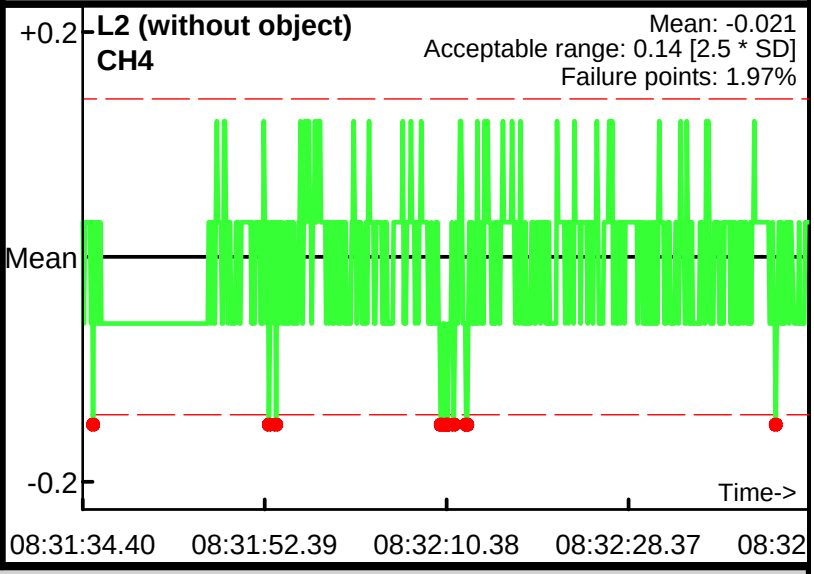












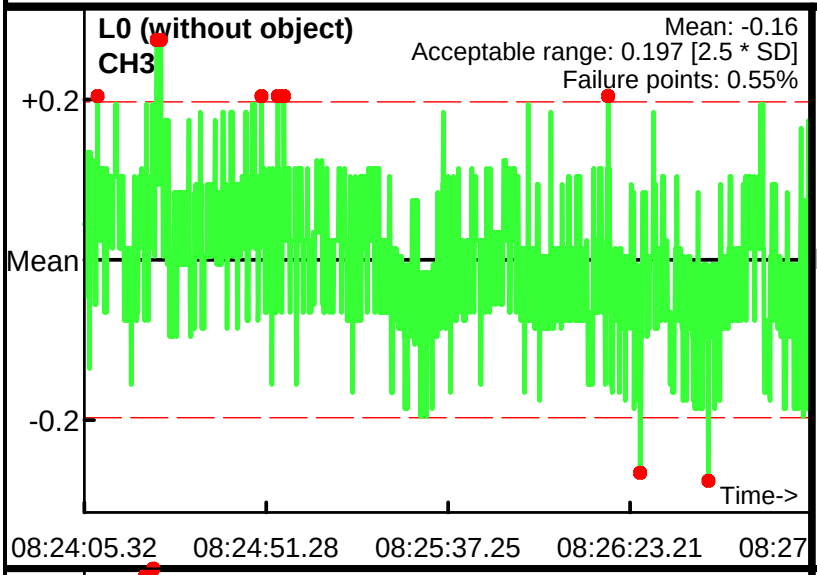
Database: .\061512AM.gdb
Line Name: L0 L1 L2

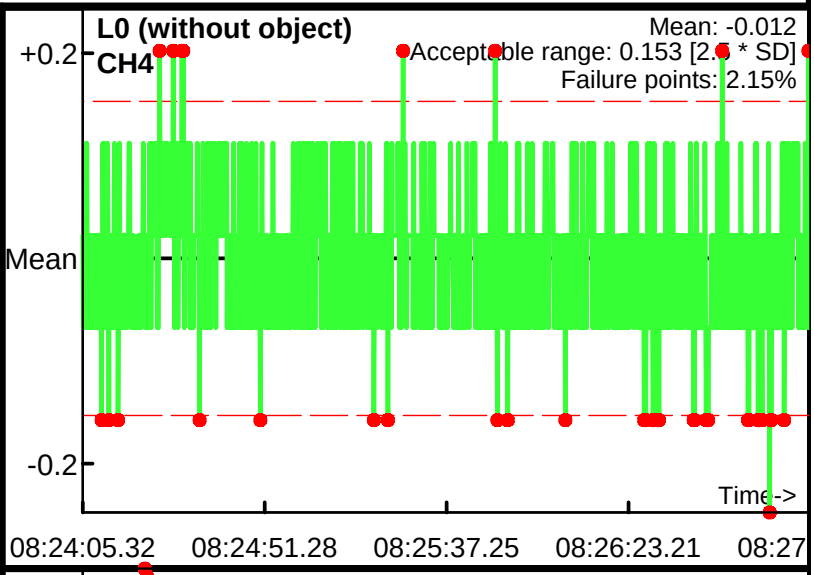
Static Calibration Test

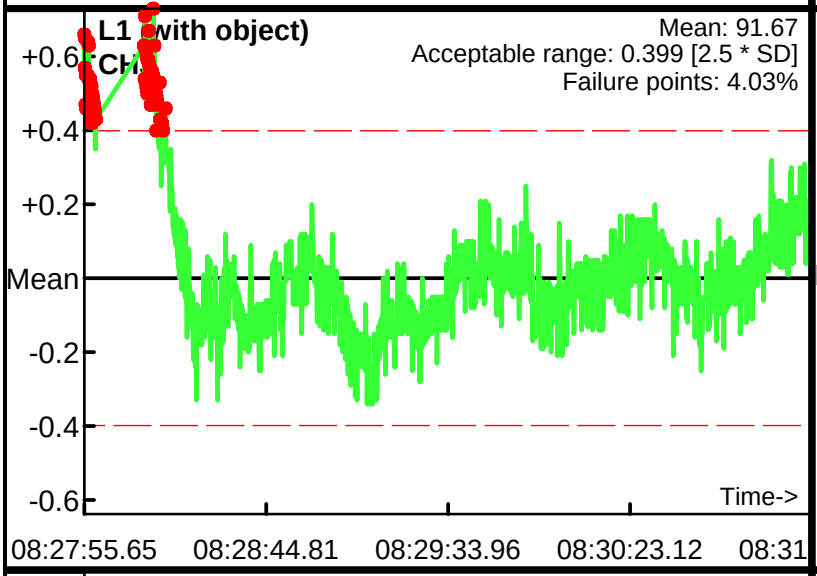
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

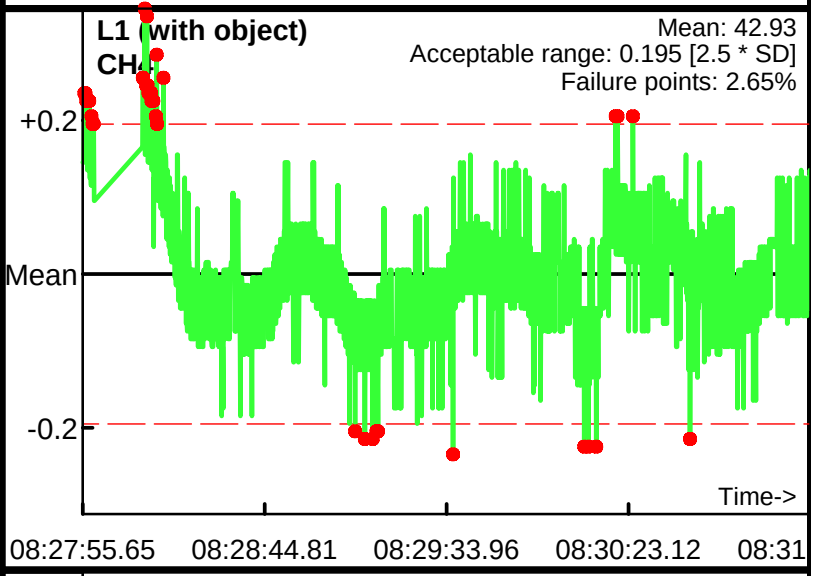
Allowable failure (%): 5%
Outside range
Acceptable limits

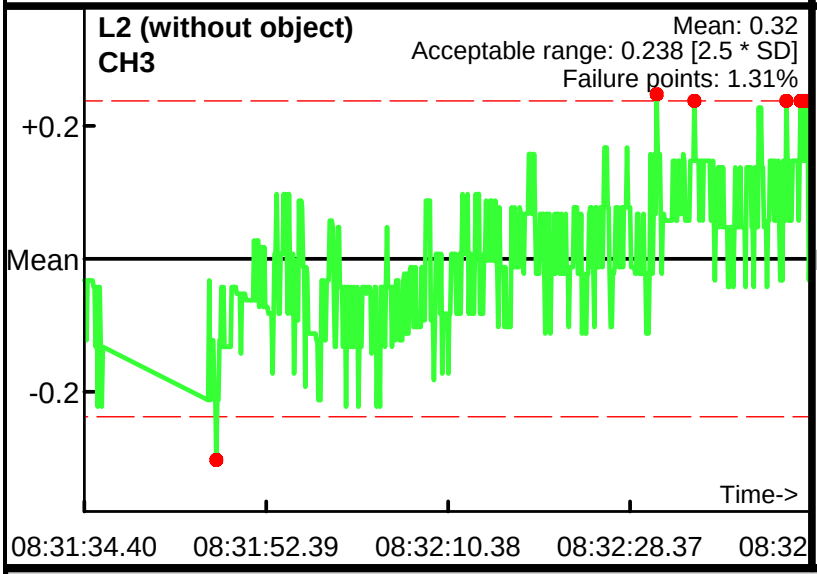
AM test
Operator: BG
Date: 6/15/2012

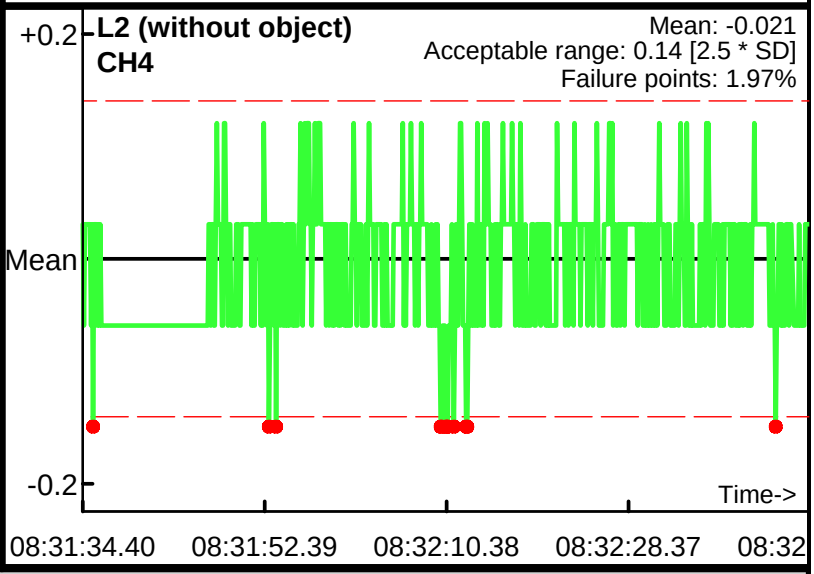












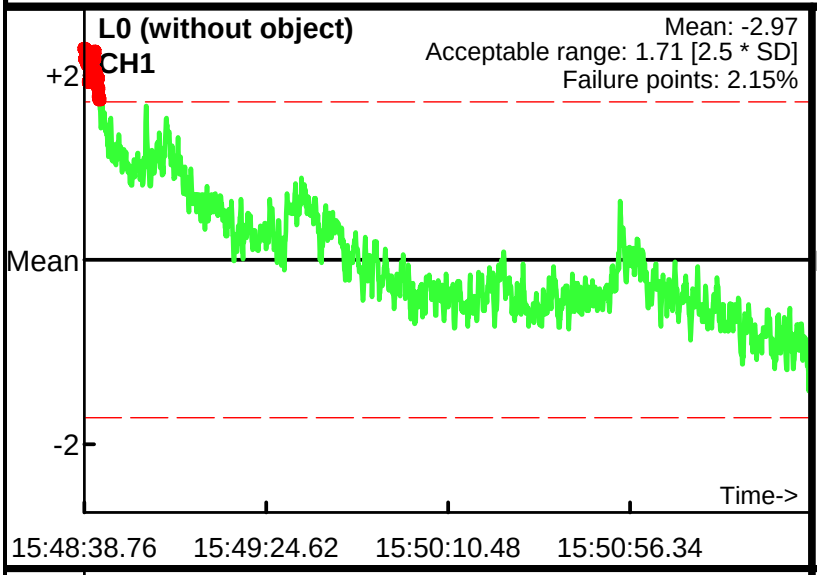
Database: .\061512AM.gdb
Line Name: L0 L1 L2

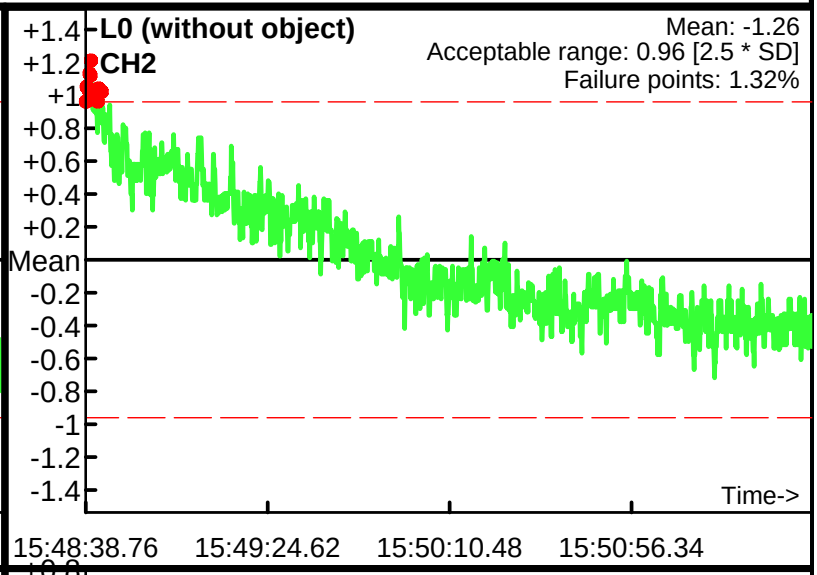
Static Calibration Test

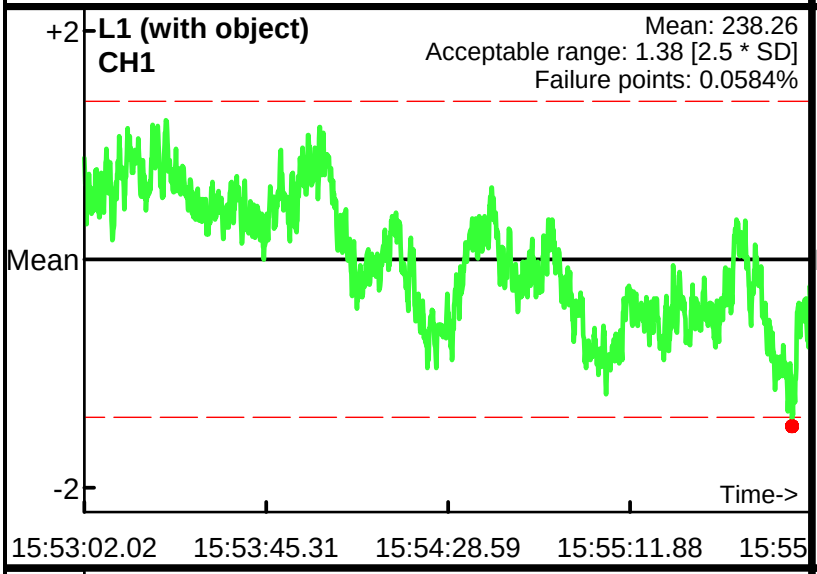
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

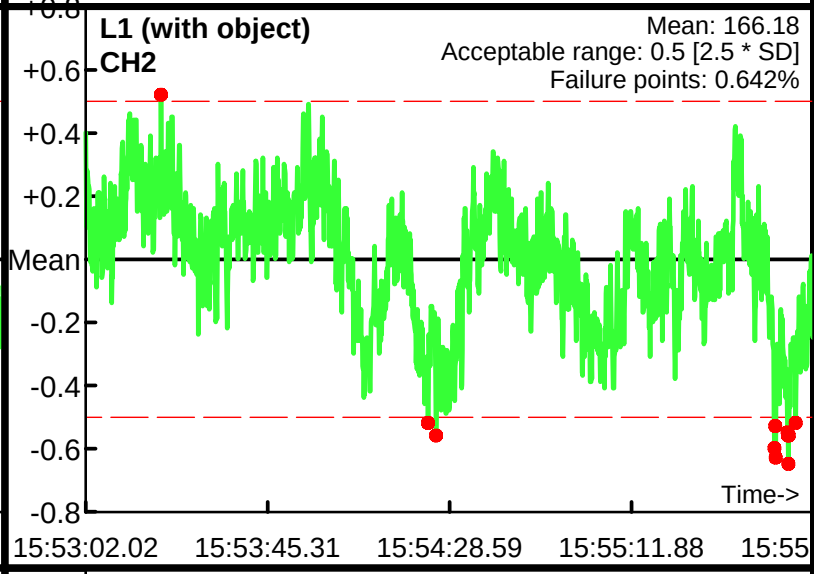
Allowable failure (%): 5%
Outside range
Acceptable limits

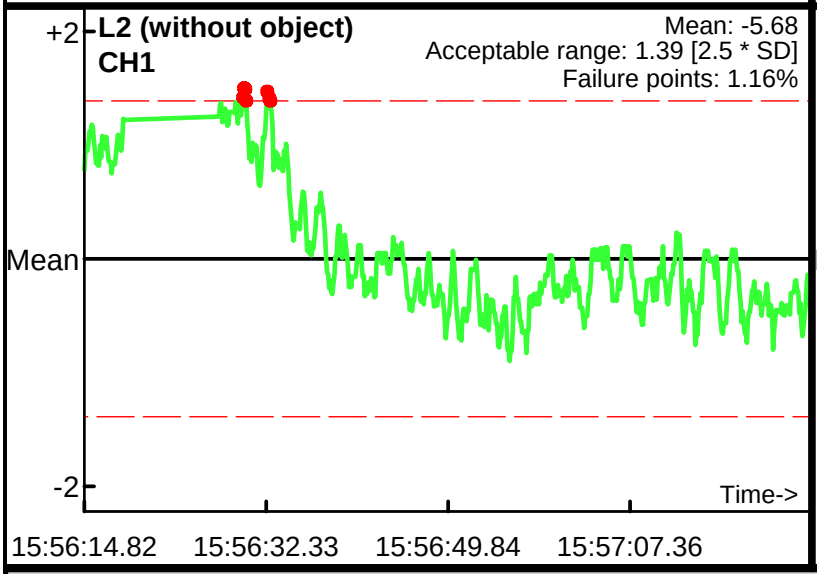
AM test
Operator: BG
Date: 6/15/2012

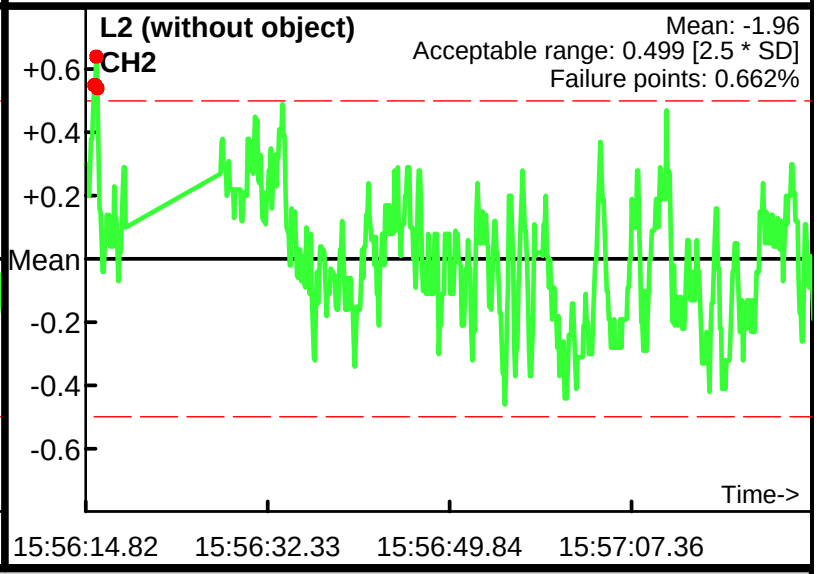












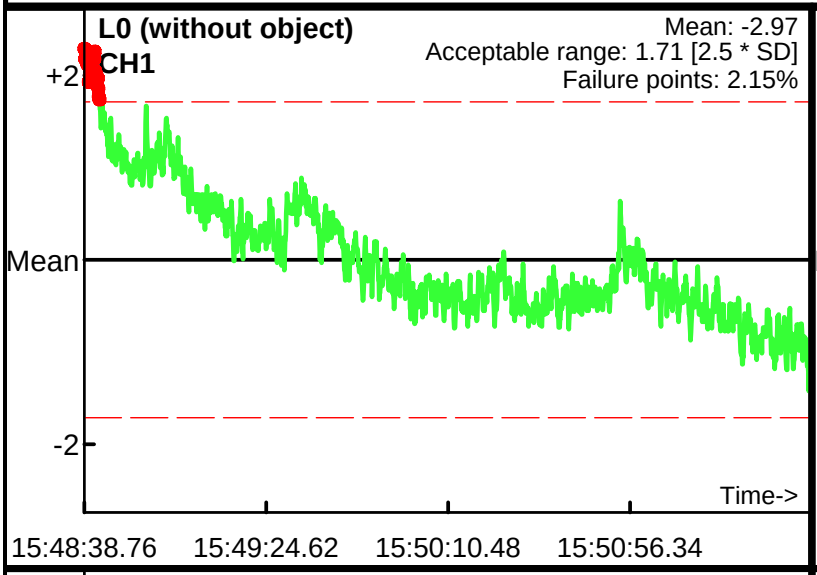
Database: .\061512PM.gdb
Line Name: L0 L1 L2

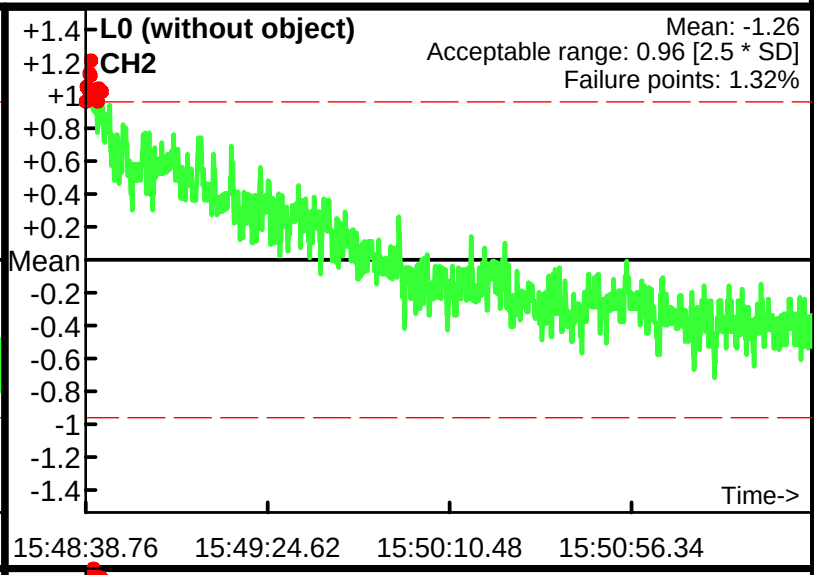
Static Calibration Test

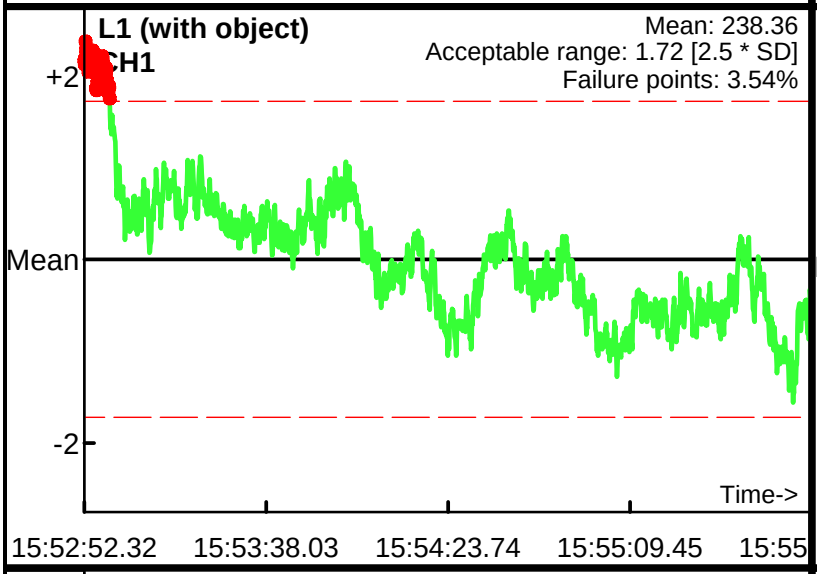
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

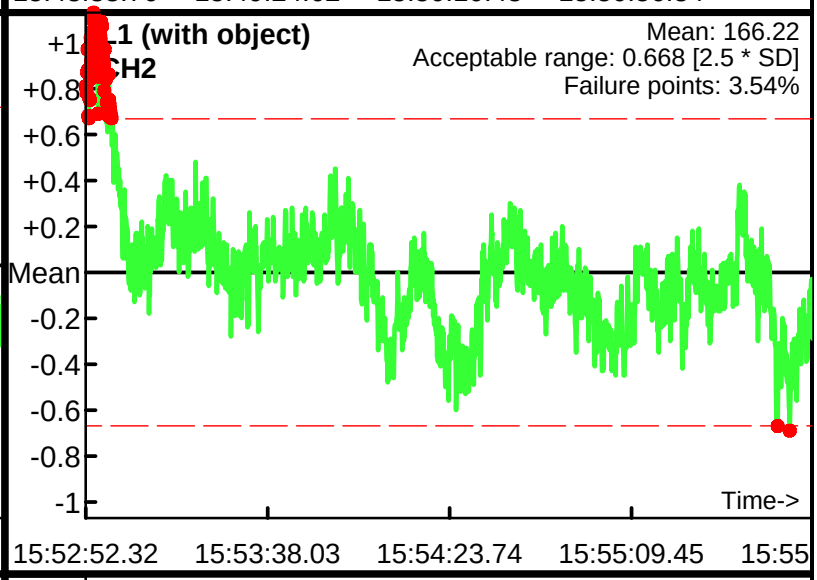
Allowable failure (%): 5%
Outside range
Acceptable limits

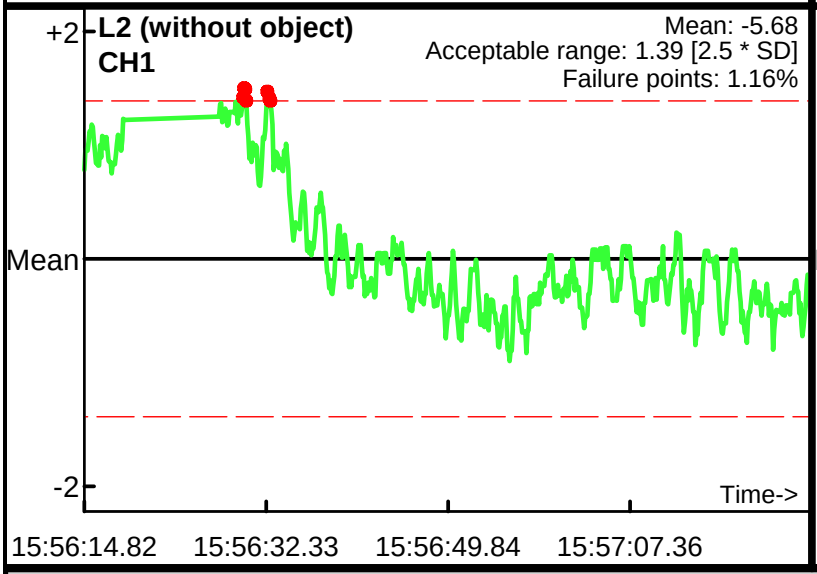
AM test
Operator: BG
Date: 6/15/2012

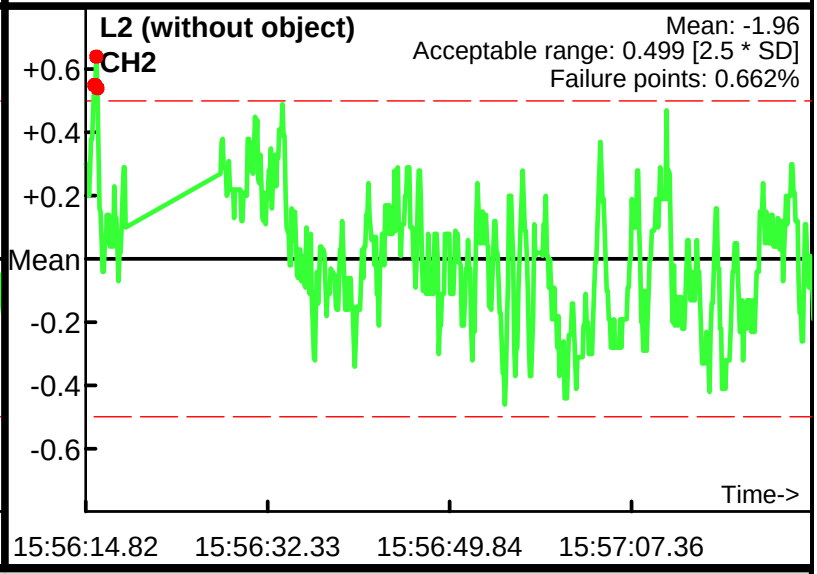












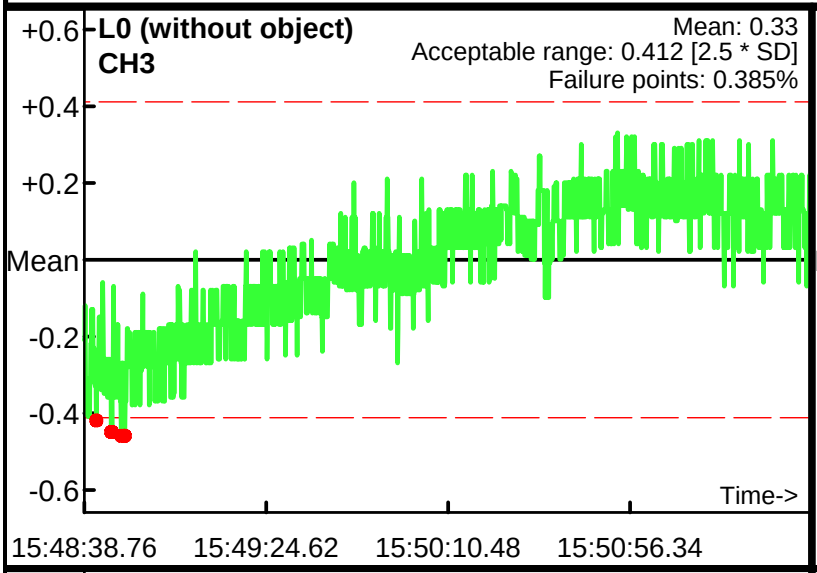
Database: .\061512PM.gdb
Line Name: L0 L1 L2

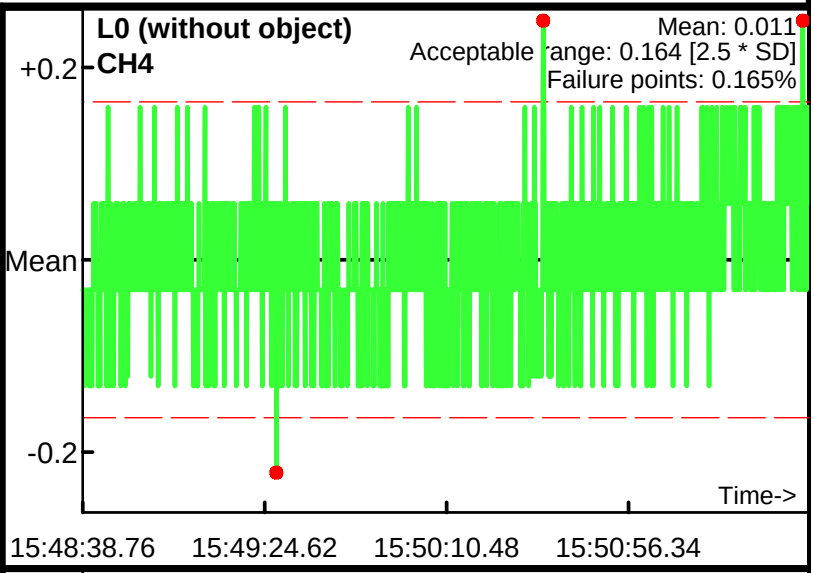
Static Calibration Test

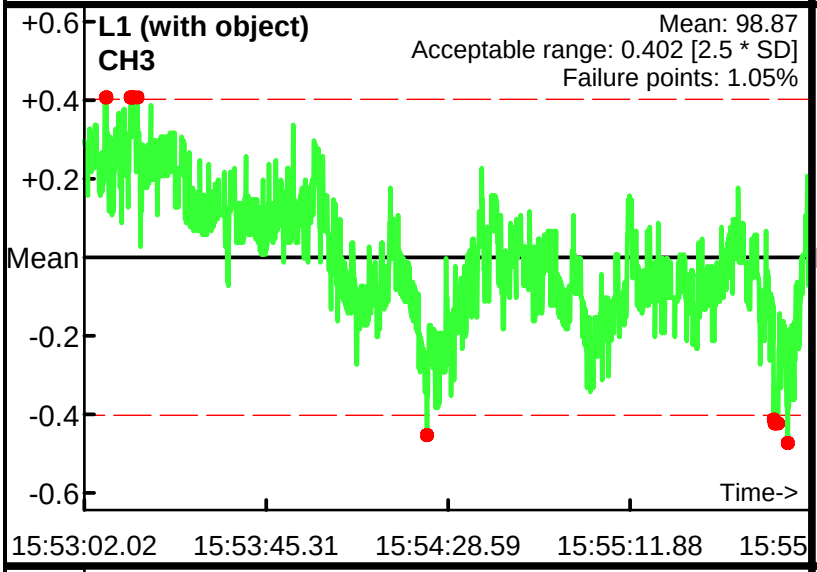
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

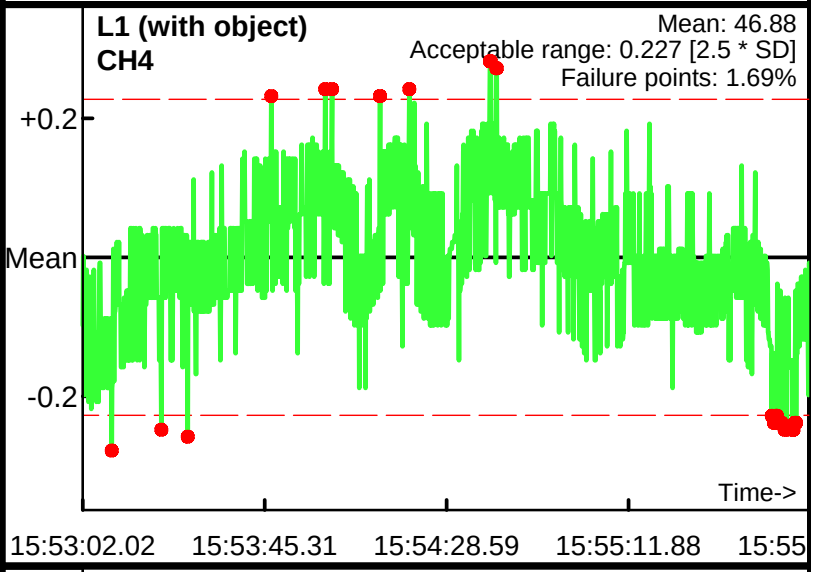
Allowable failure (%): 5%
Outside range
Acceptable limits

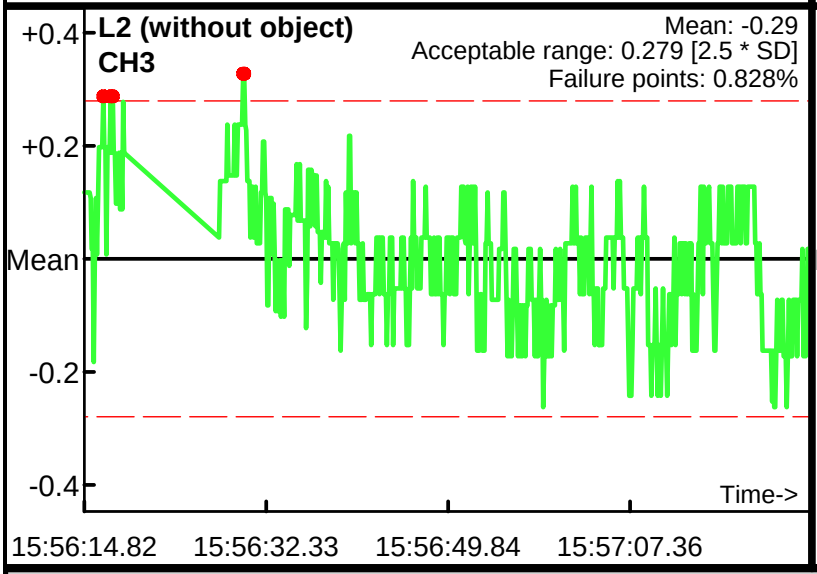
AM test
Operator: BG
Date: 6/15/2012

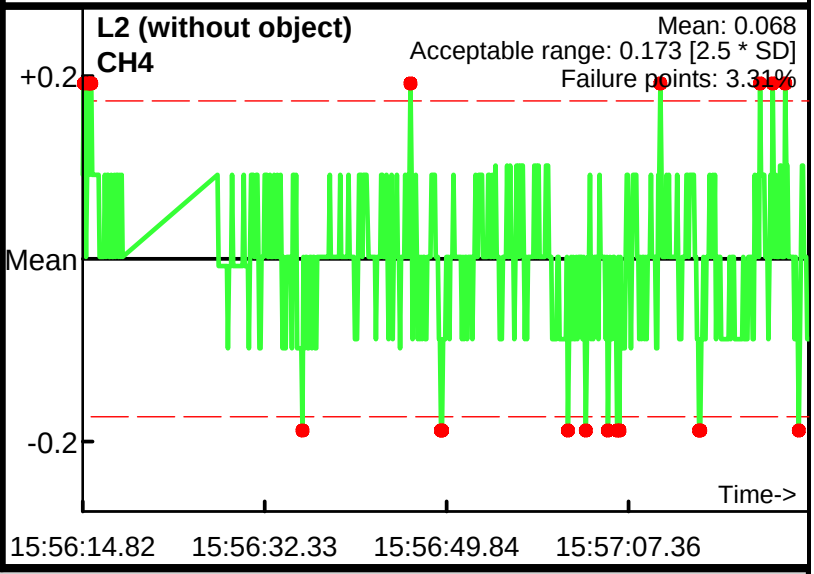












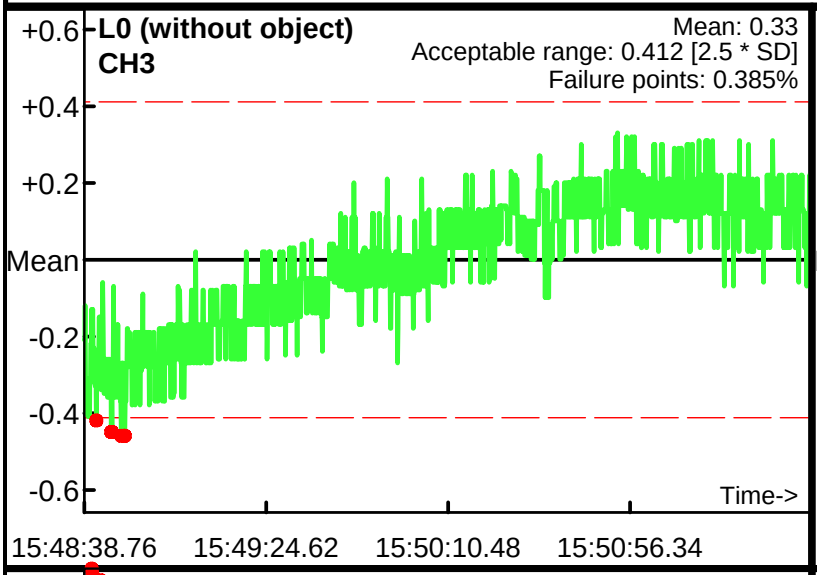
Database: .\061512PM.gdb
Line Name: L0 L1 L2

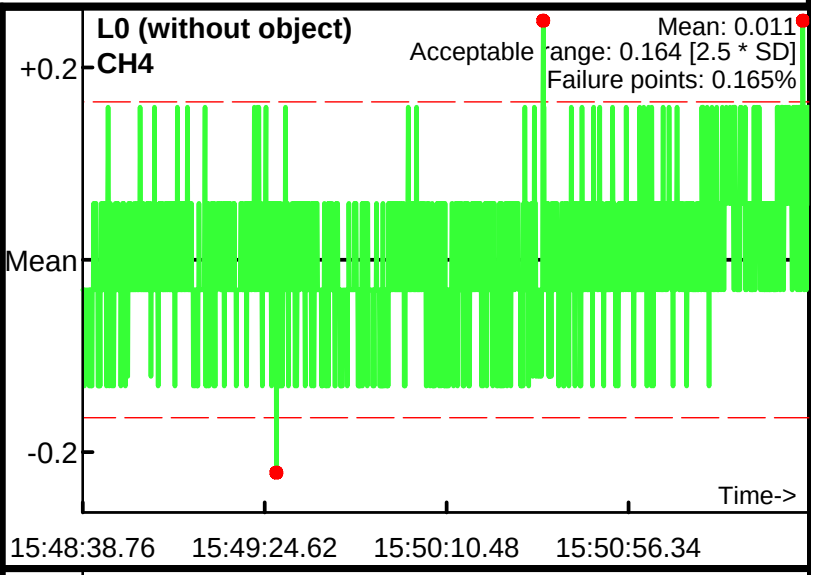
Static Calibration Test

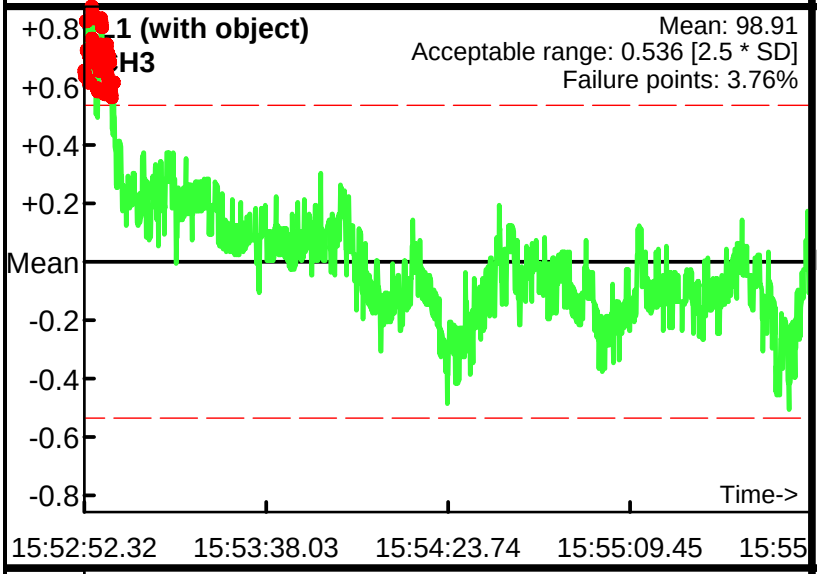
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

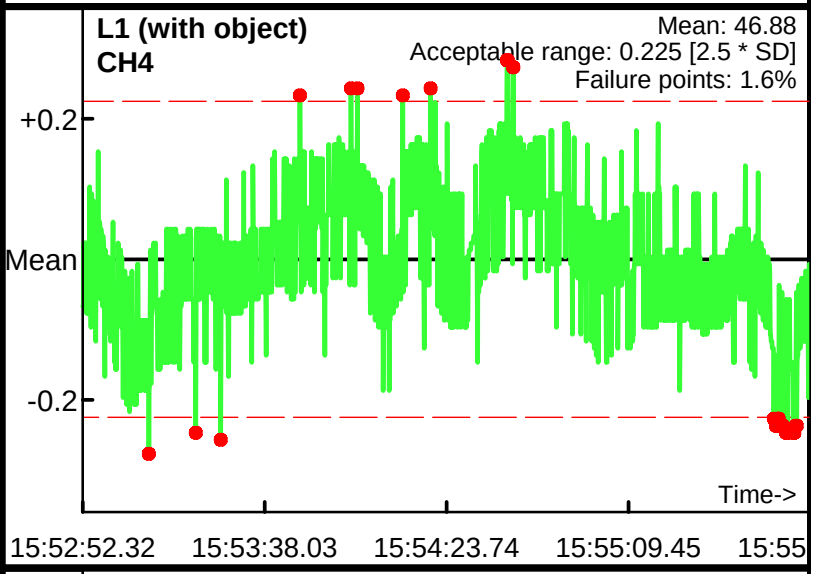
Allowable failure (%): 5%
Outside range
Acceptable limits

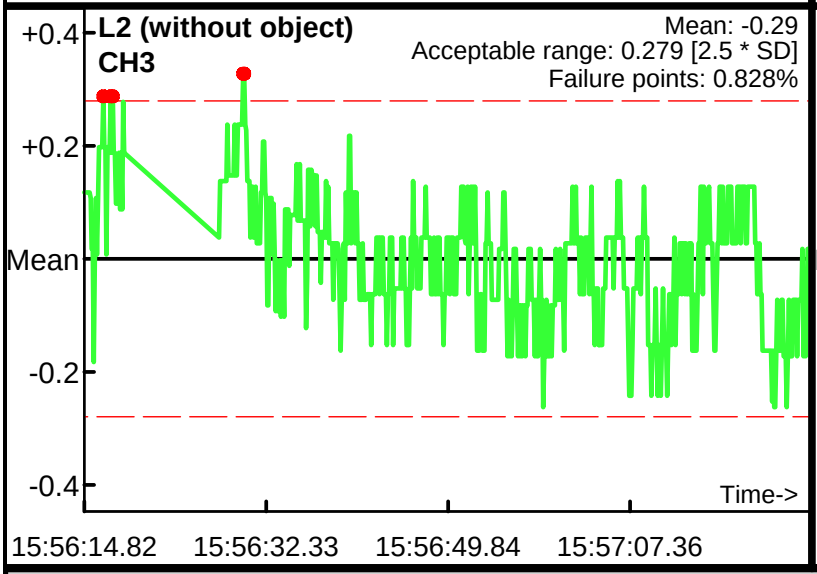
AM test
Operator: BG
Date: 6/15/2012

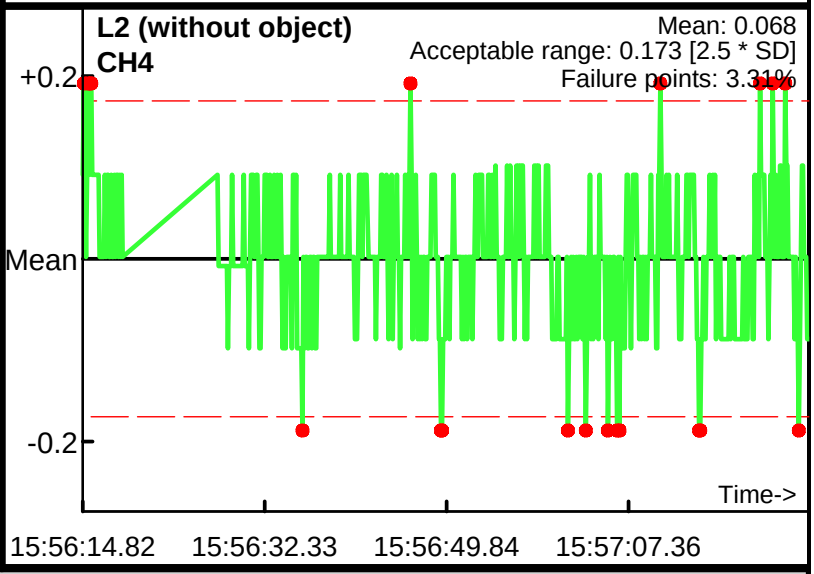












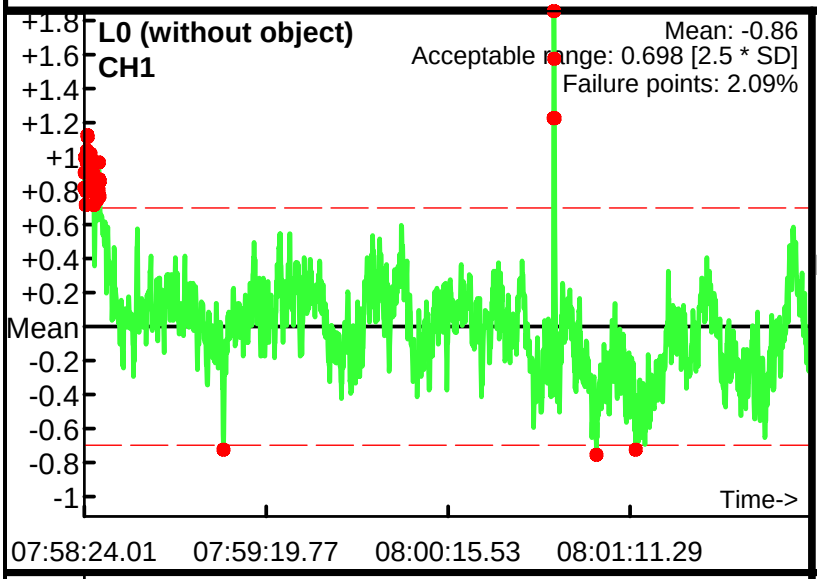
Database: .\061512PM.gdb
Line Name: L0 L1 L2

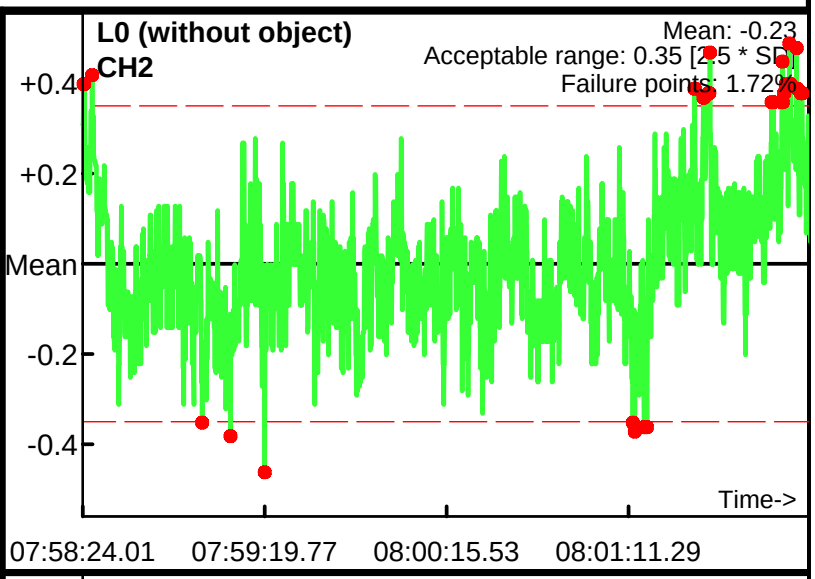
Static Calibration Test

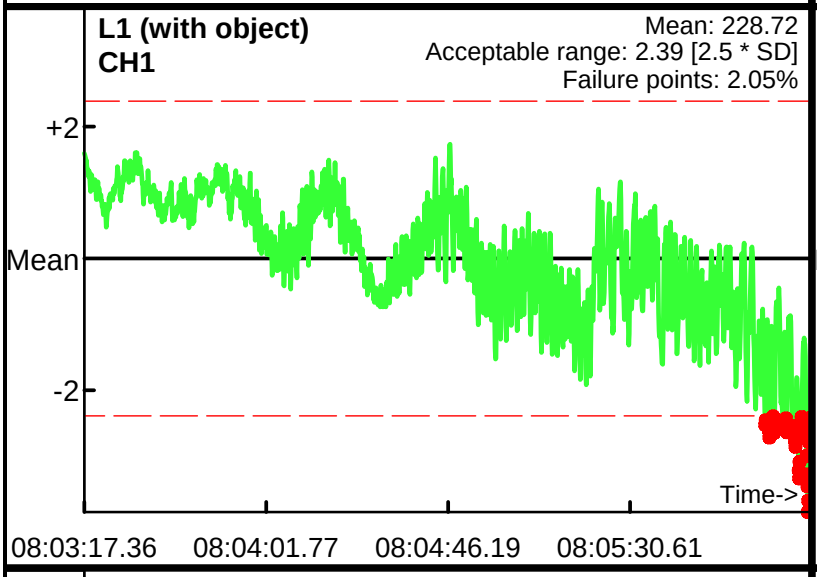
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

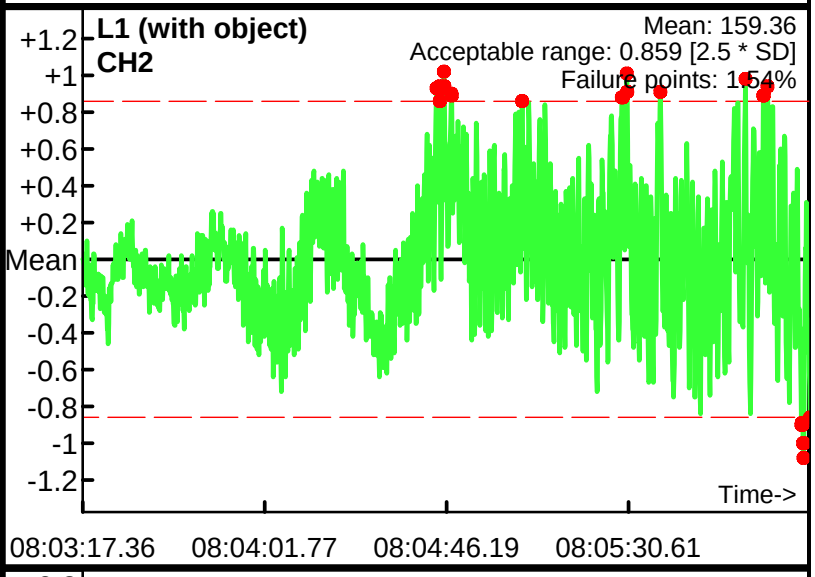
Allowable failure (%): 5%
Outside range
Acceptable limits

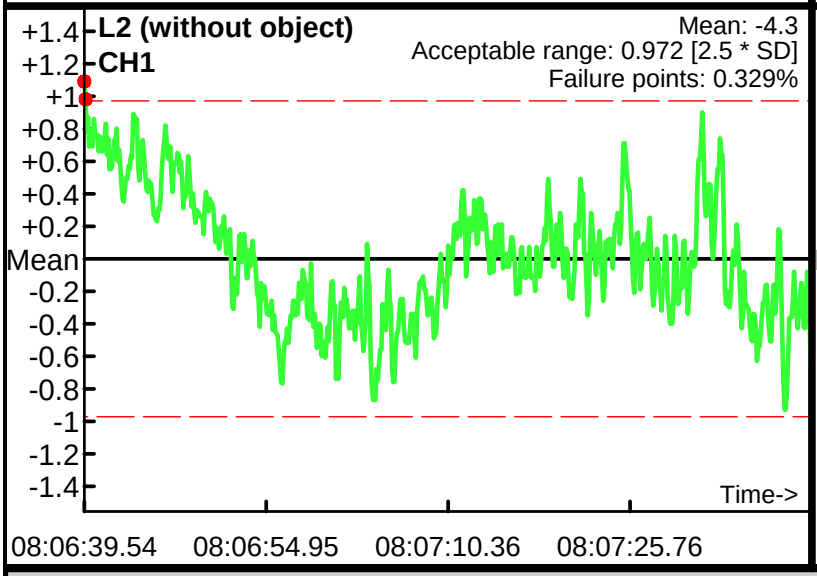
AM test
Operator: BG
Date: 6/18/2012

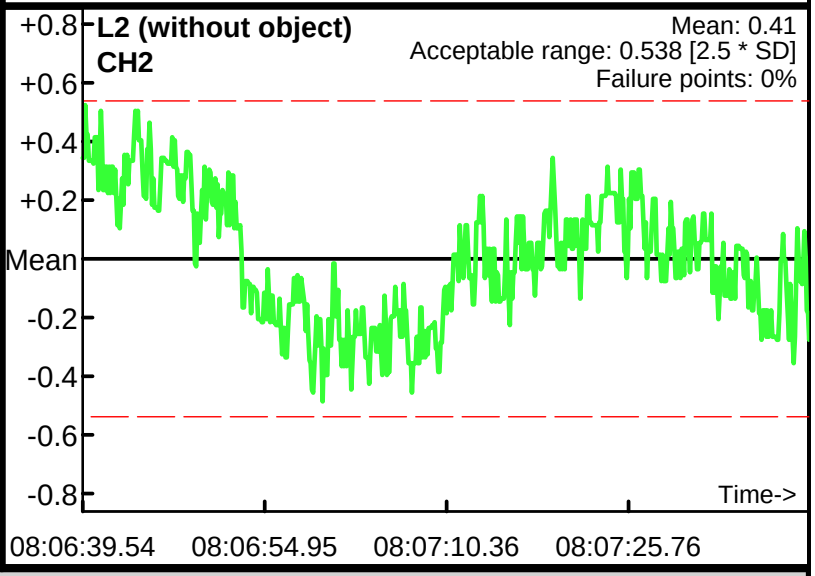












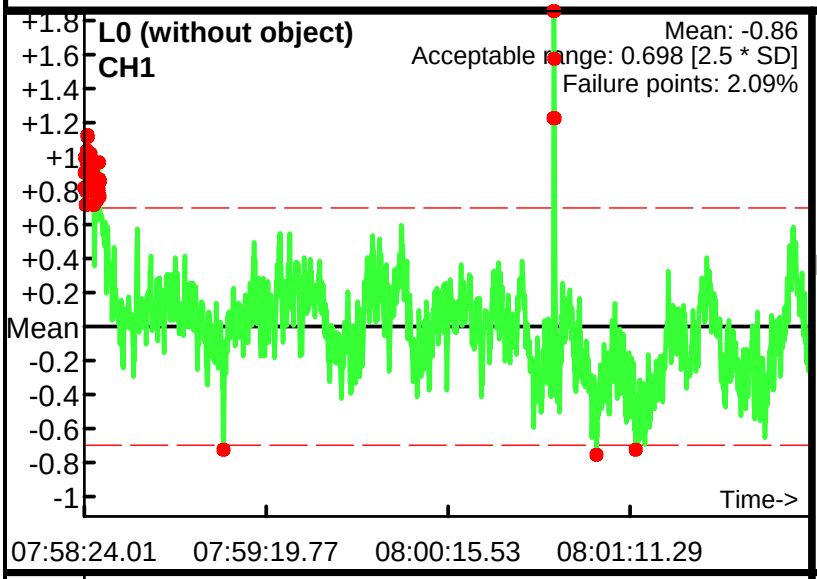
Database: .\061812AM.gdb
Line Name: L0 L1 L2

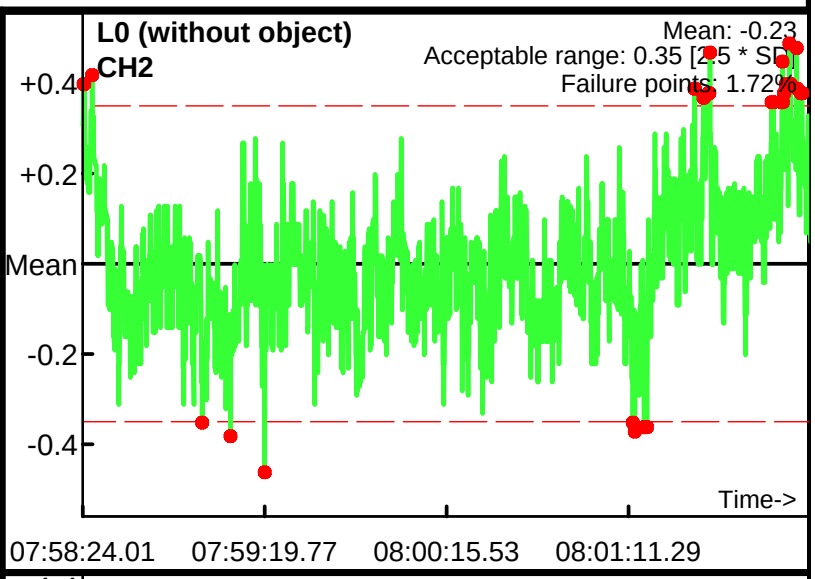
Static Calibration Test

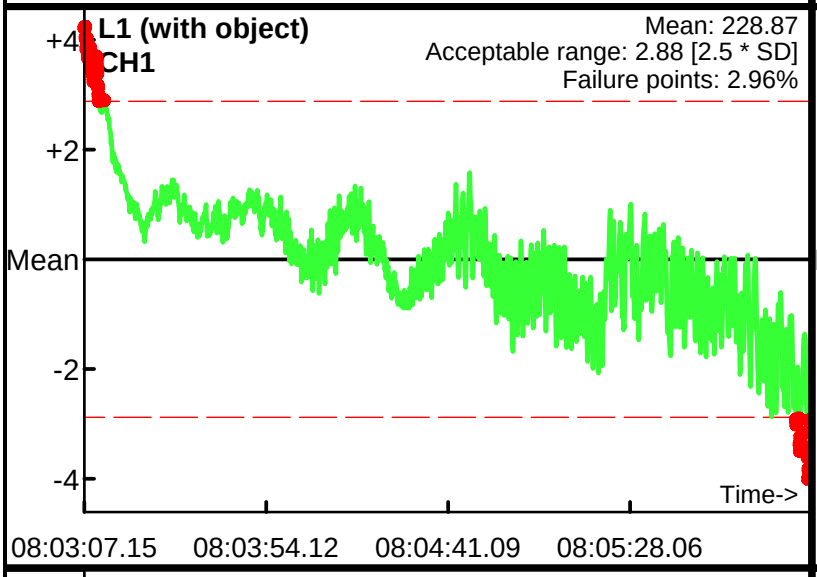
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

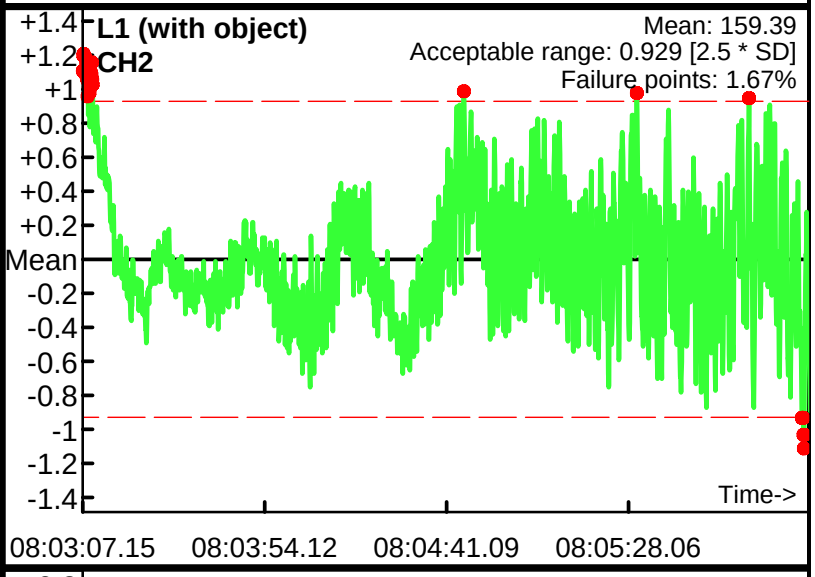
Allowable failure (%): 5%
Outside range
Acceptable limits

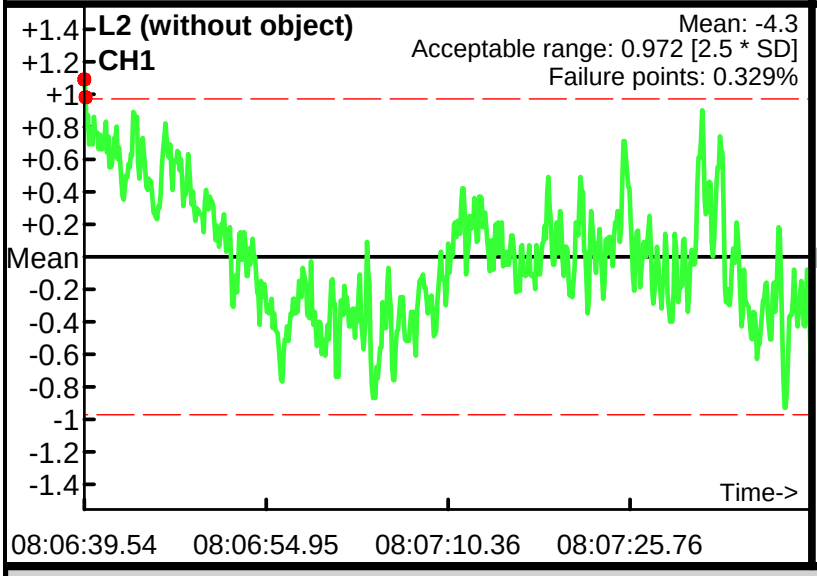
AM test
Operator: BG
Date: 6/18/2012

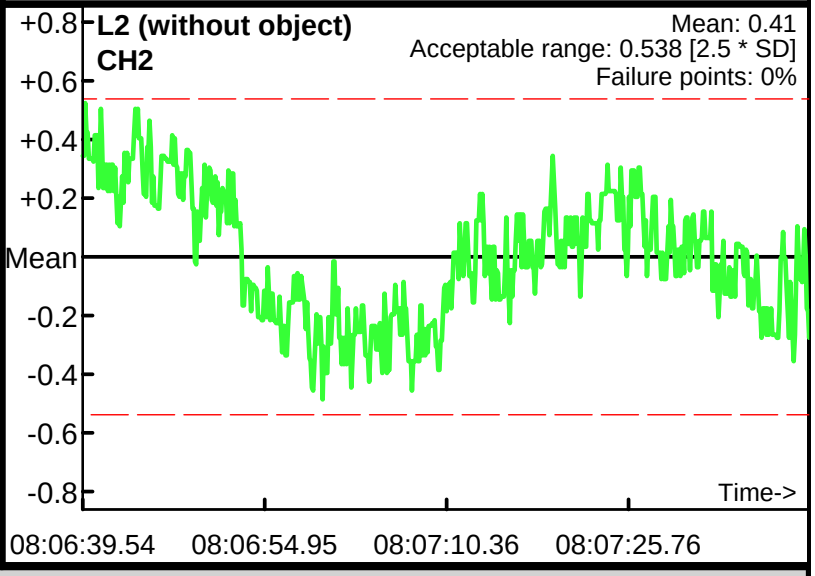












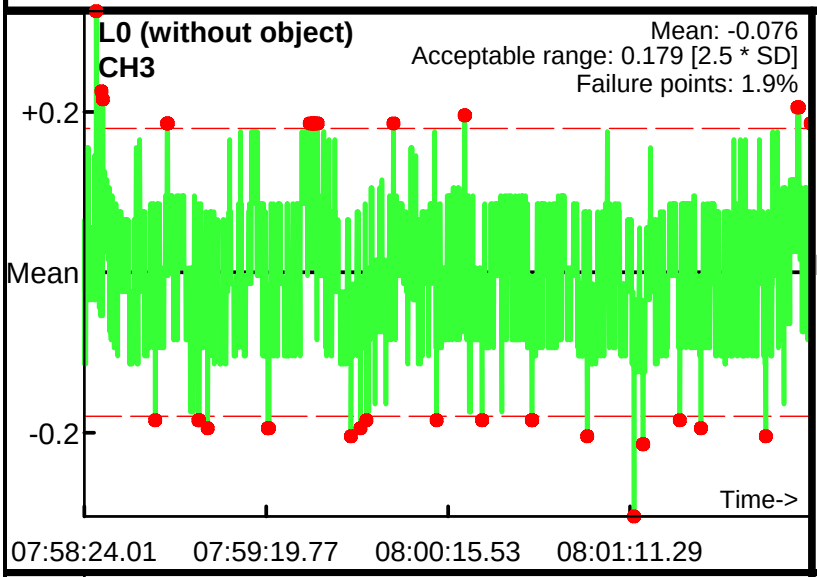
Database: .\061812AM.gdb
Line Name: L0 L1 L2

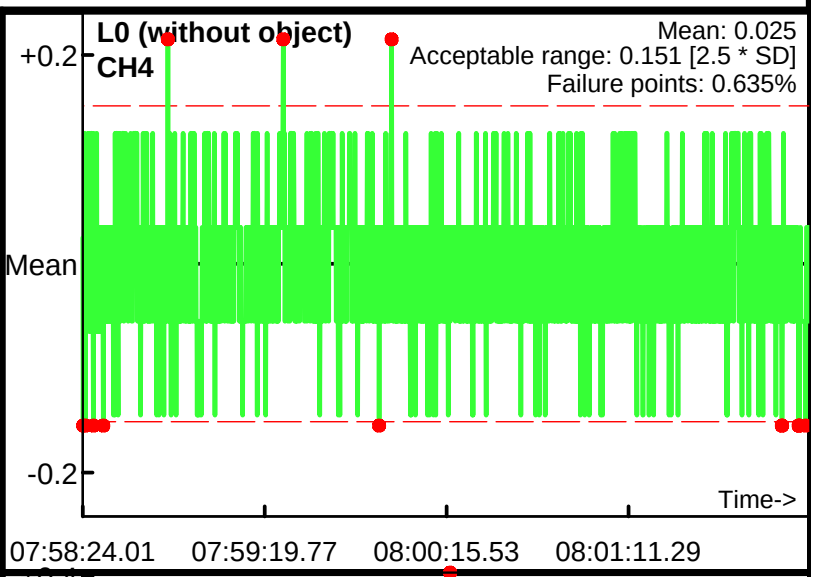
Static Calibration Test

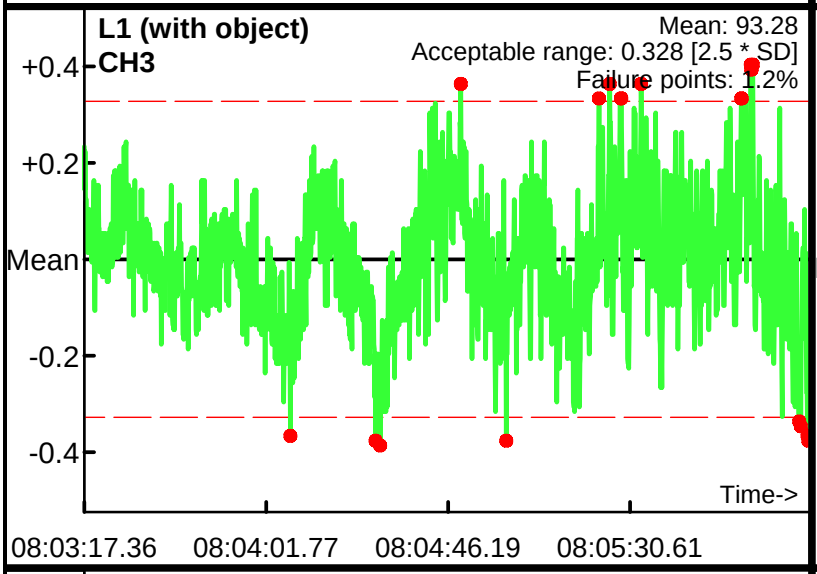
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

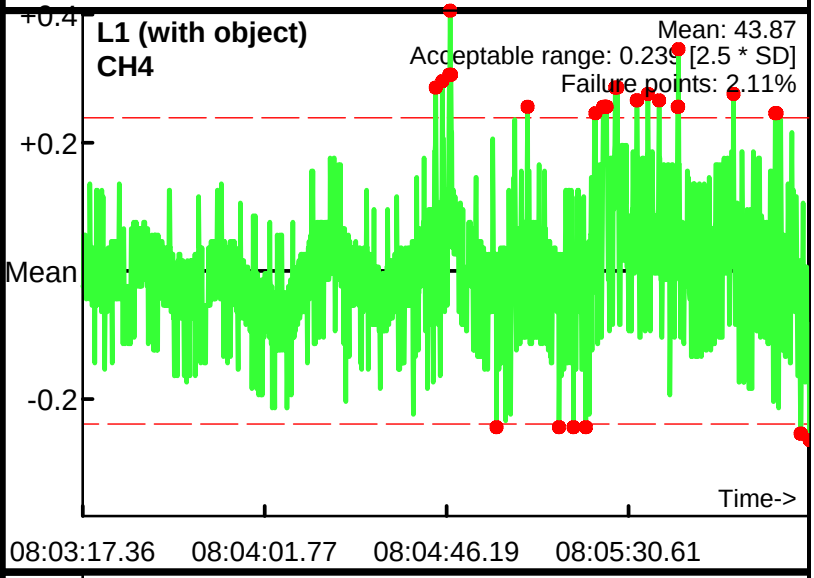
Allowable failure (%): 5%
Outside range
Acceptable limits

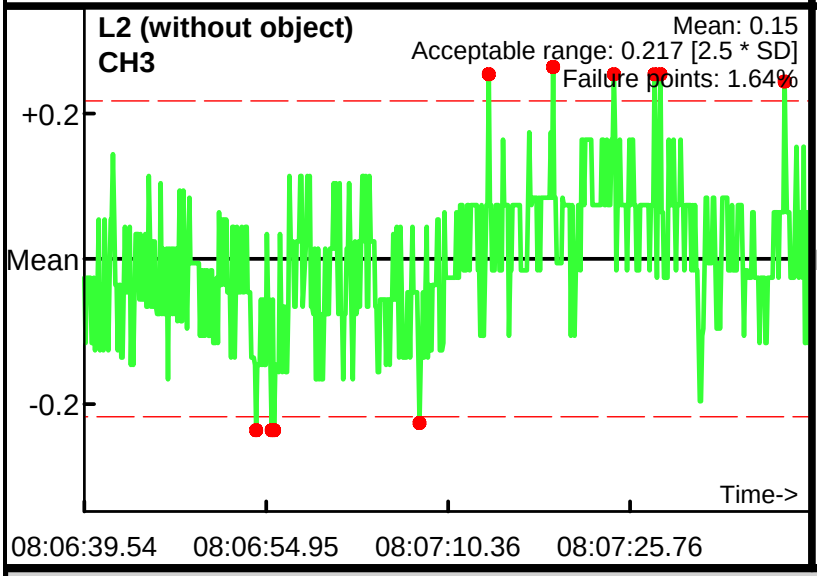
AM test
Operator: BG
Date: 6/18/2012

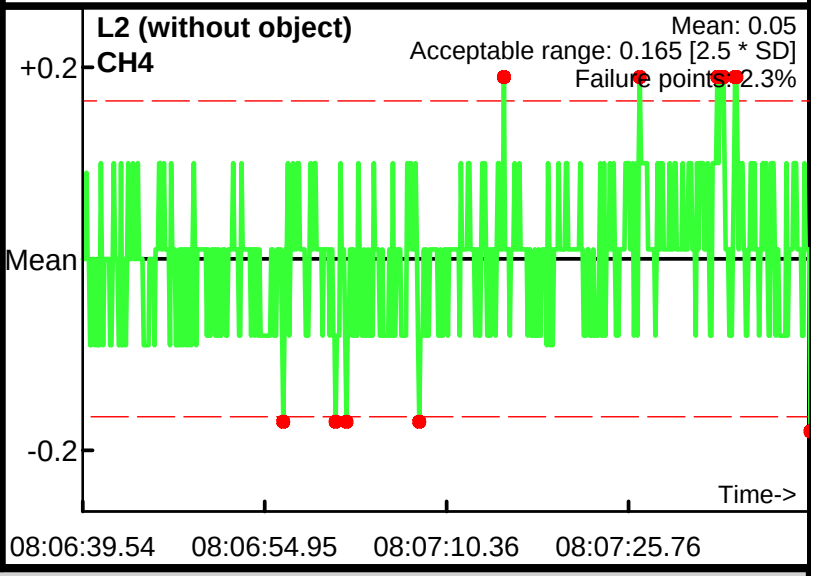












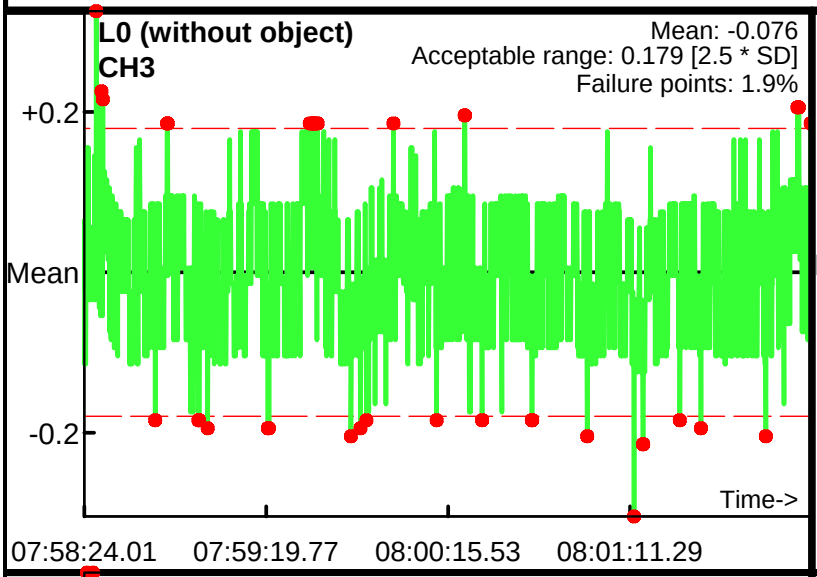
Database: .\061812AM.gdb
Line Name: L0 L1 L2

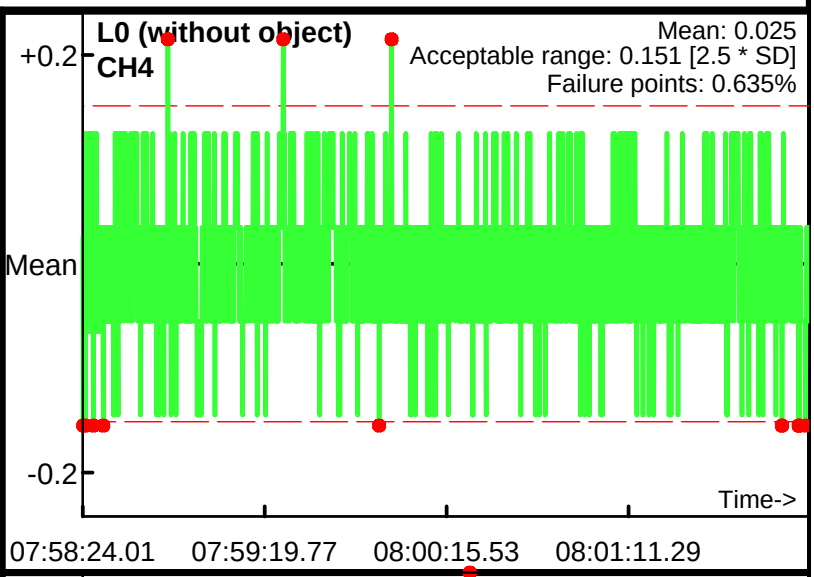
Static Calibration Test

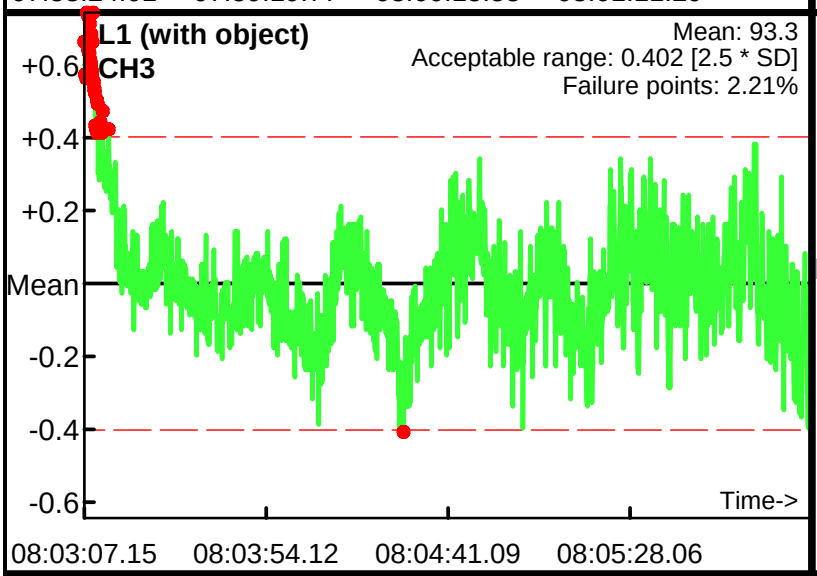
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

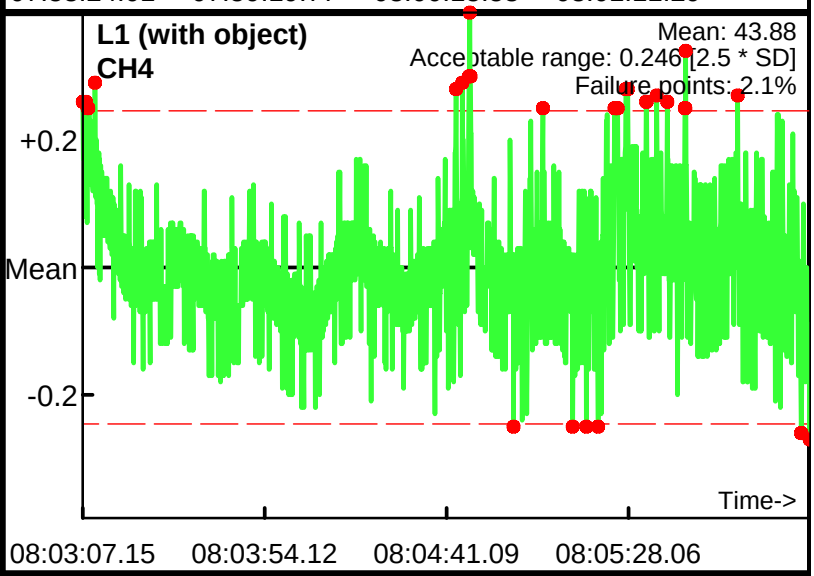
Allowable failure (%): 5%
Outside range
Acceptable limits

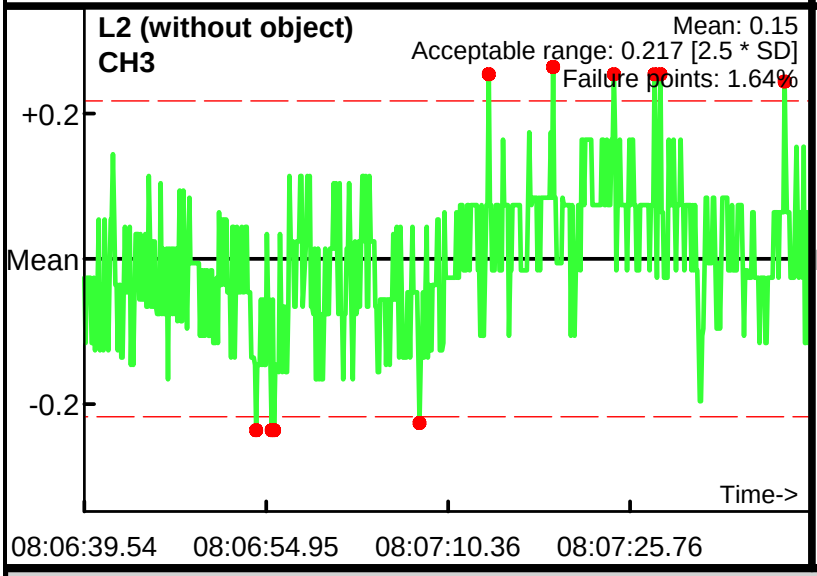
AM test
Operator: BG
Date: 6/18/2012

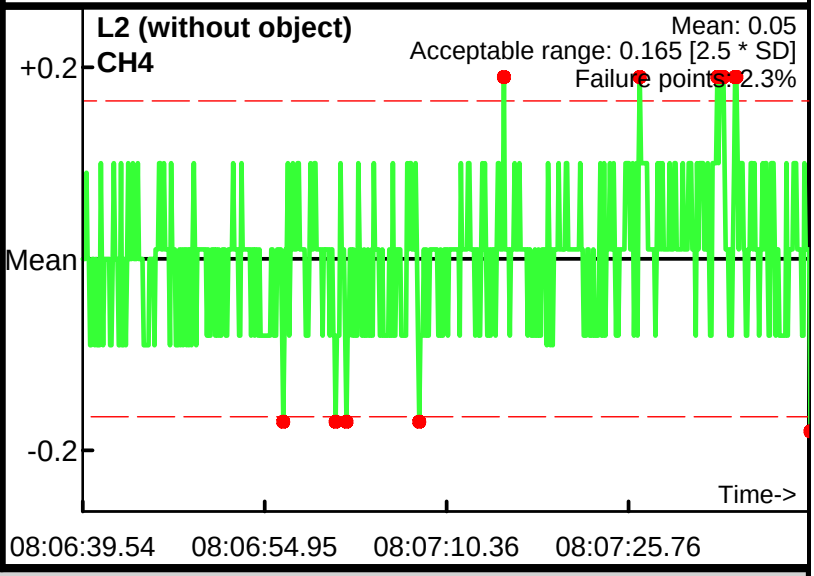












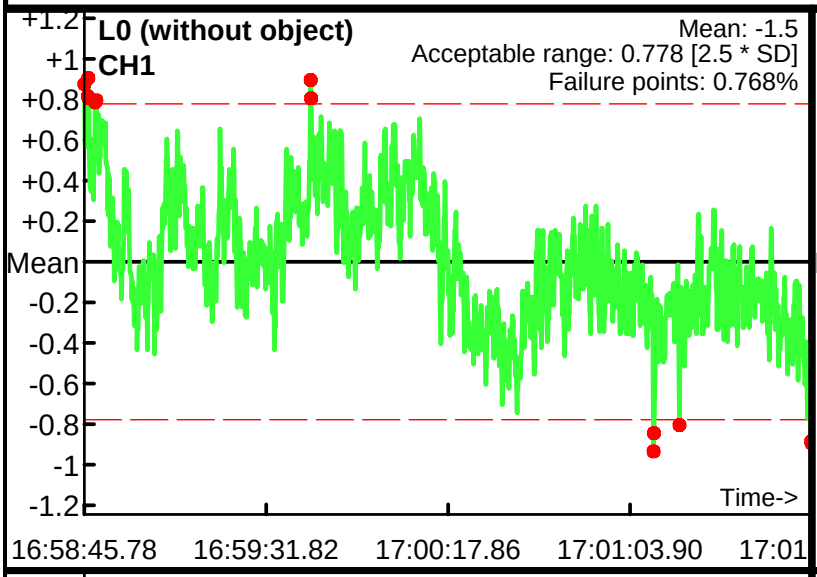
Database: .\061812AM.gdb
Line Name: L0 L1 L2

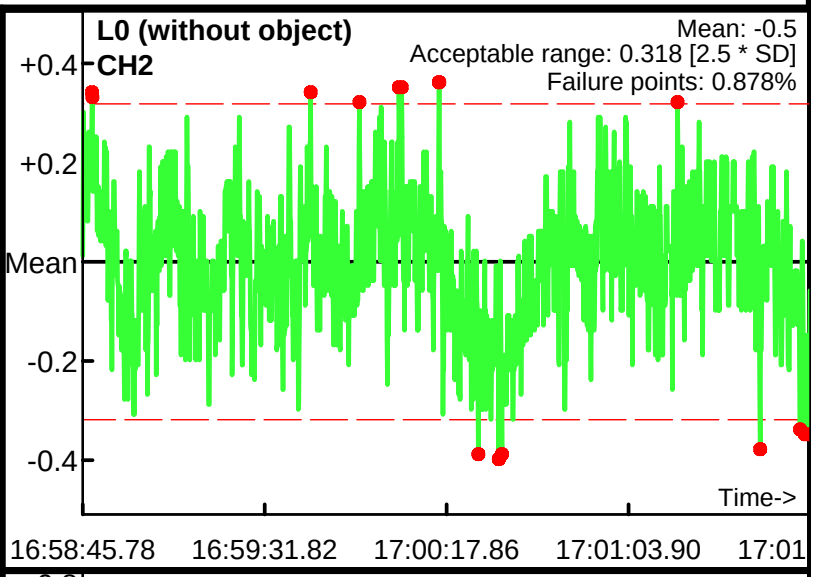
Static Calibration Test

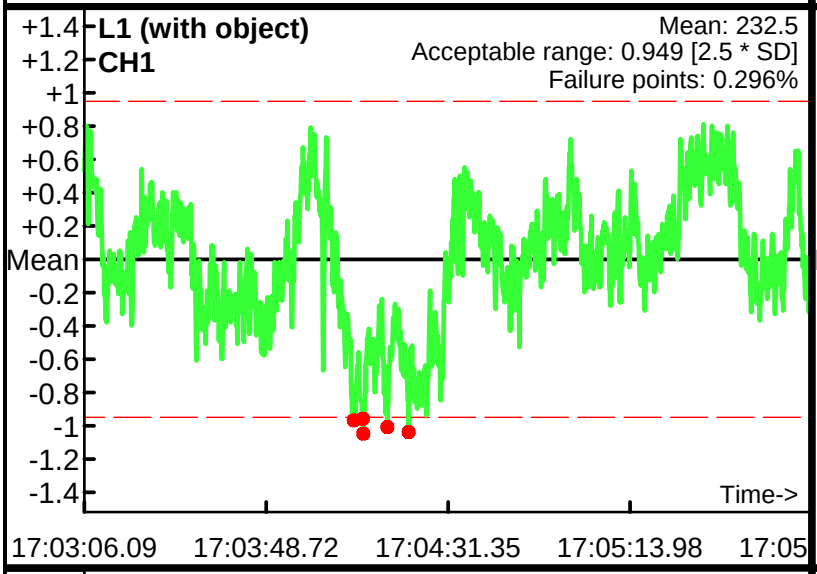
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

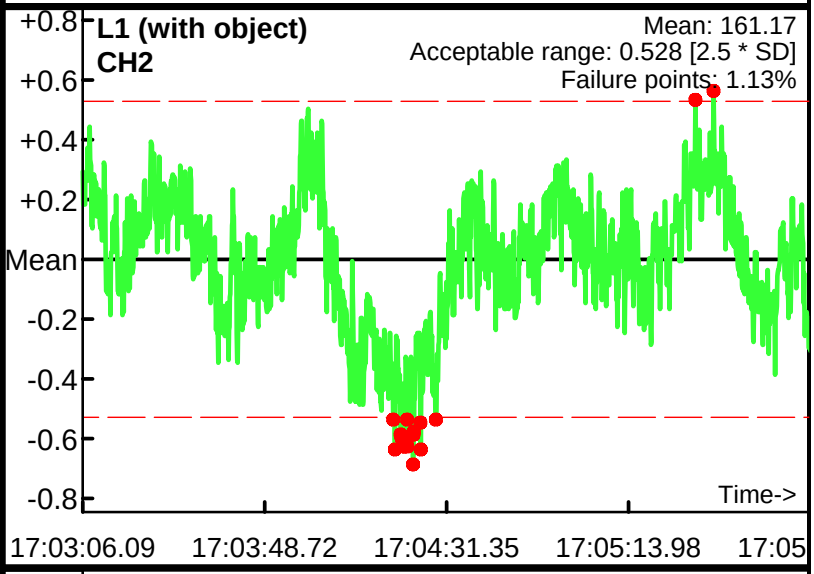
Allowable failure (%): 5%
Outside range
Acceptable limits

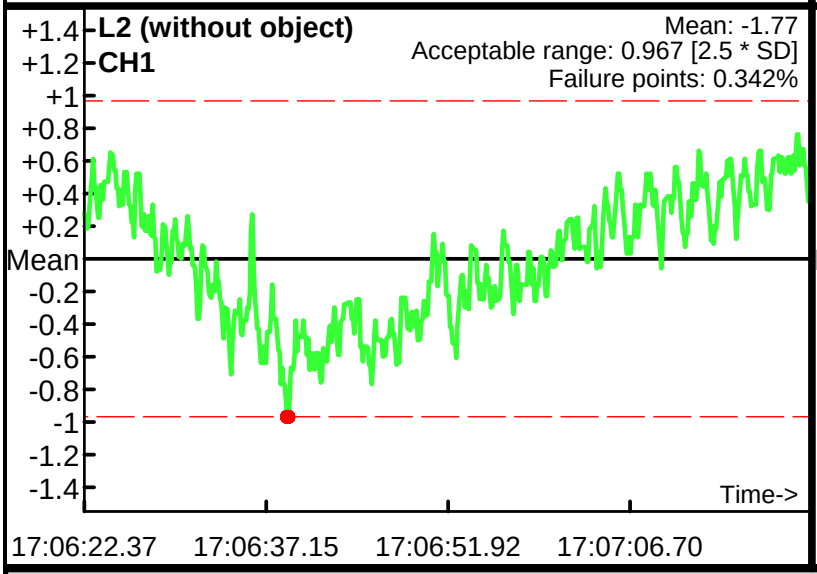
AM test
Operator: BG
Date: 6/18/2012

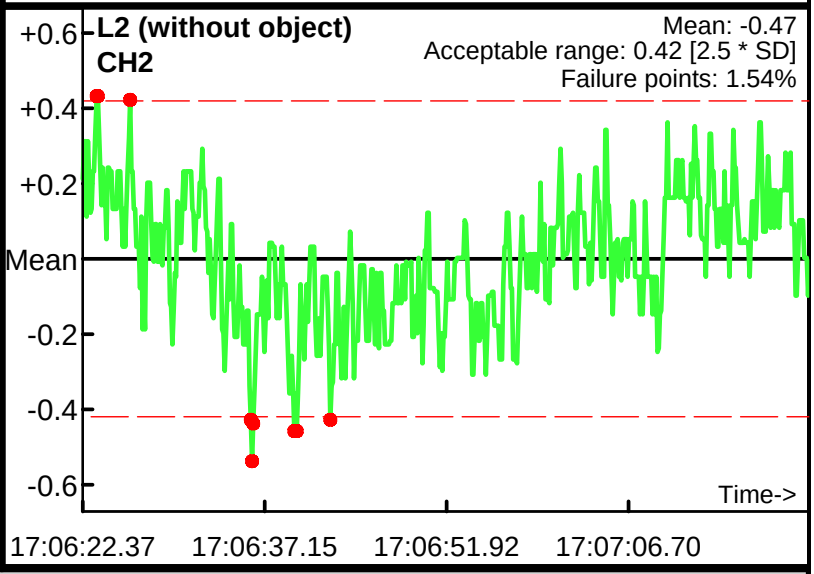












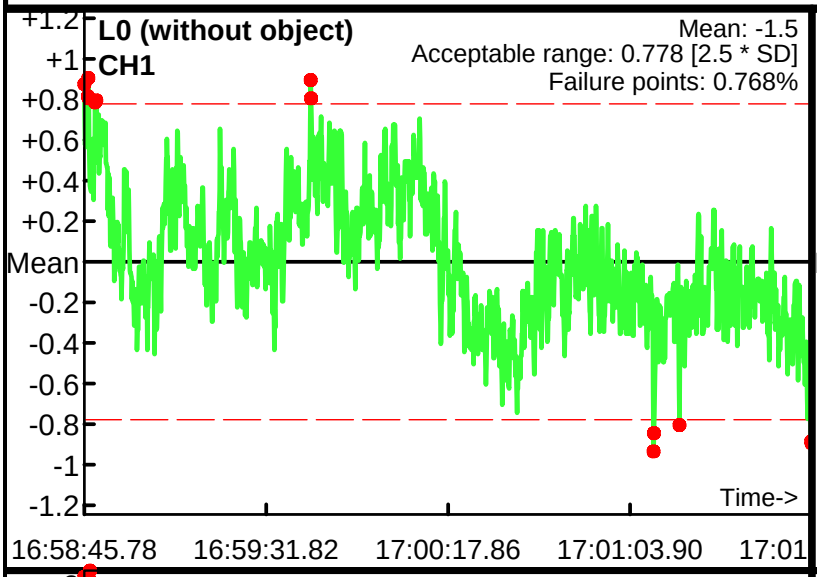
Database: .\061812PM.gdb
Line Name: L0 L1 L2

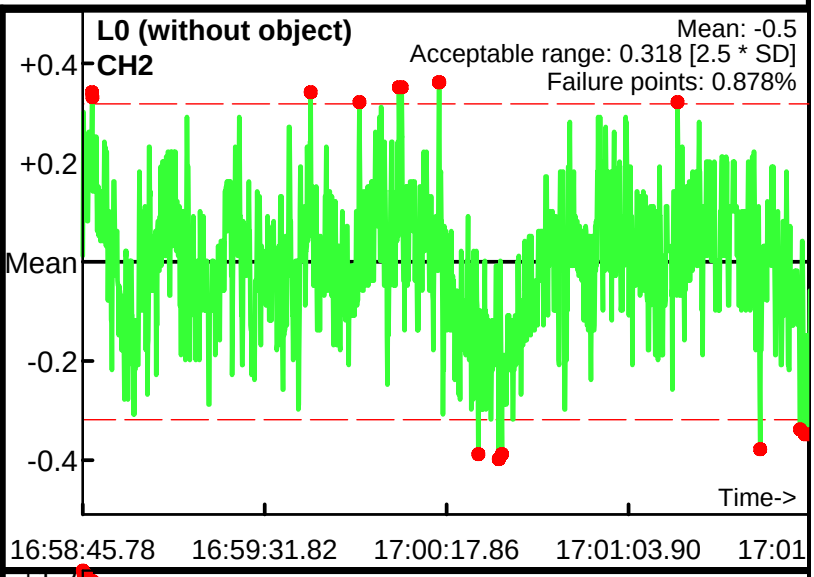
Static Calibration Test

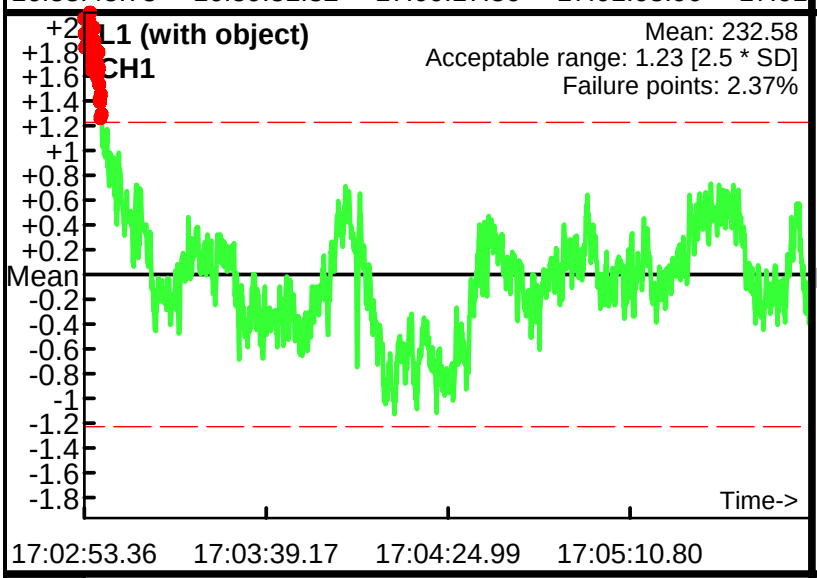
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

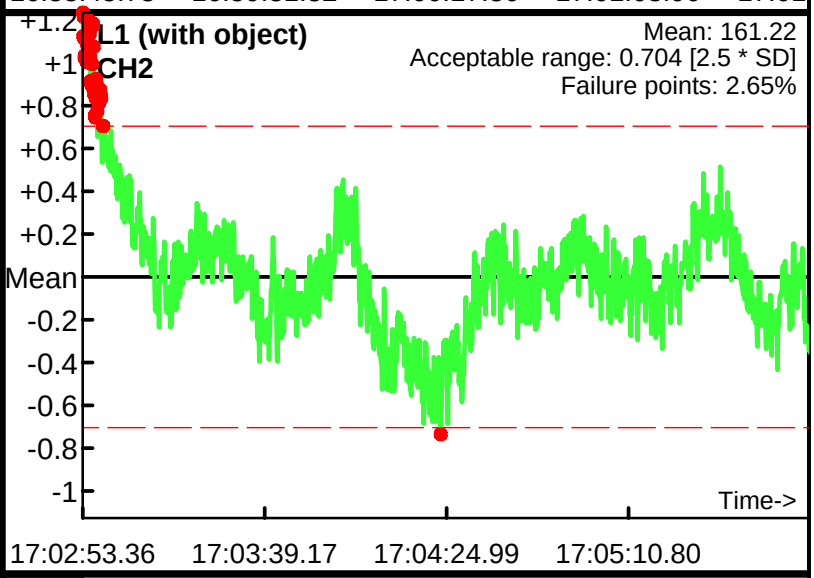
Allowable failure (%): 5%
Outside range
Acceptable limits

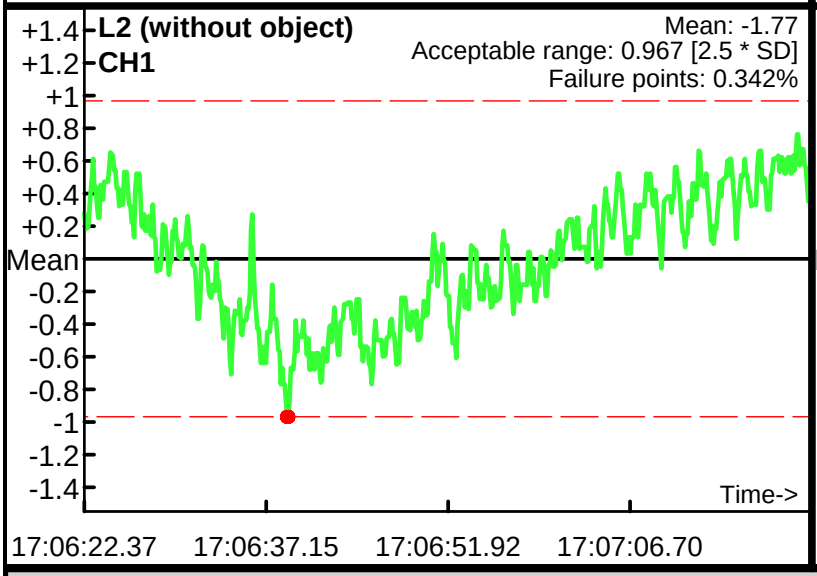
AM test
Operator: BG
Date: 6/18/2012

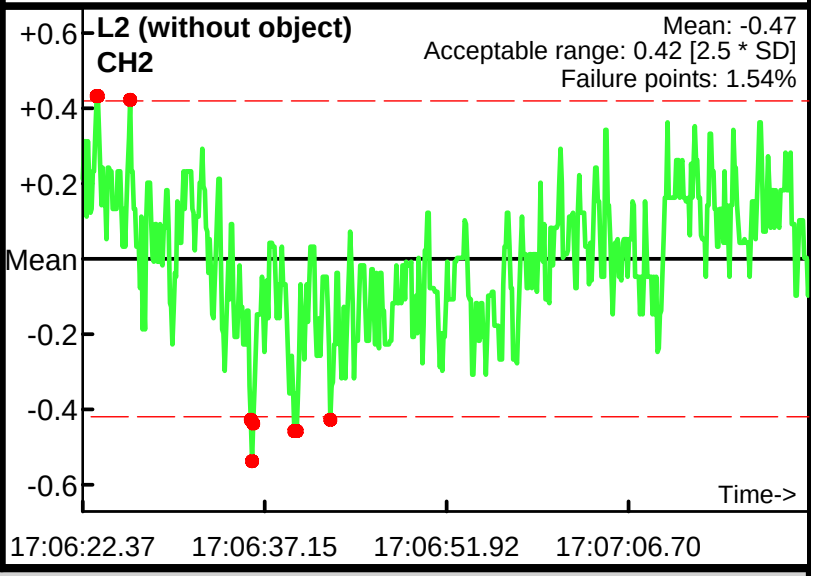












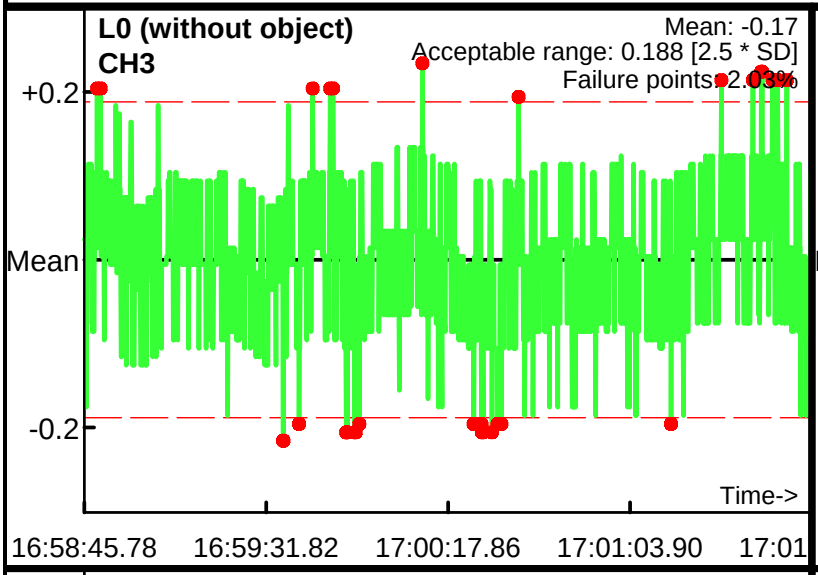
Database: .\061812PM.gdb
Line Name: L0 L1 L2

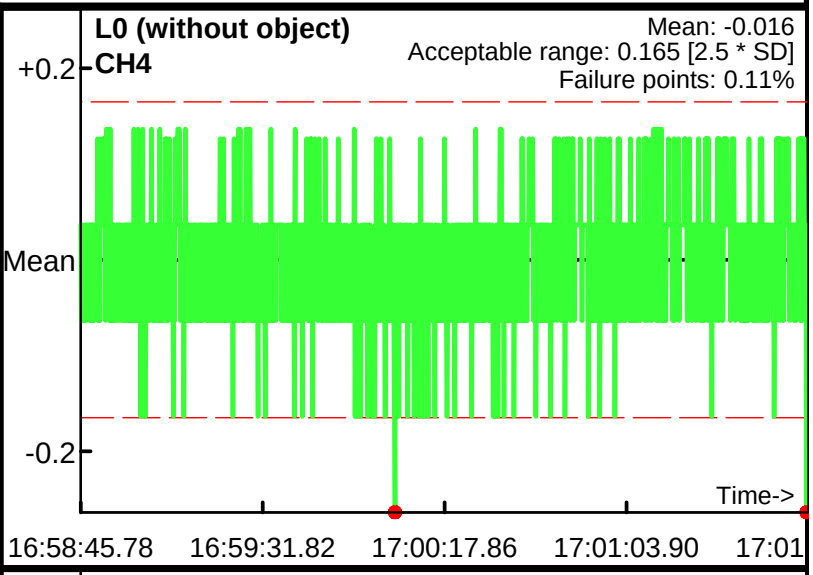
Static Calibration Test

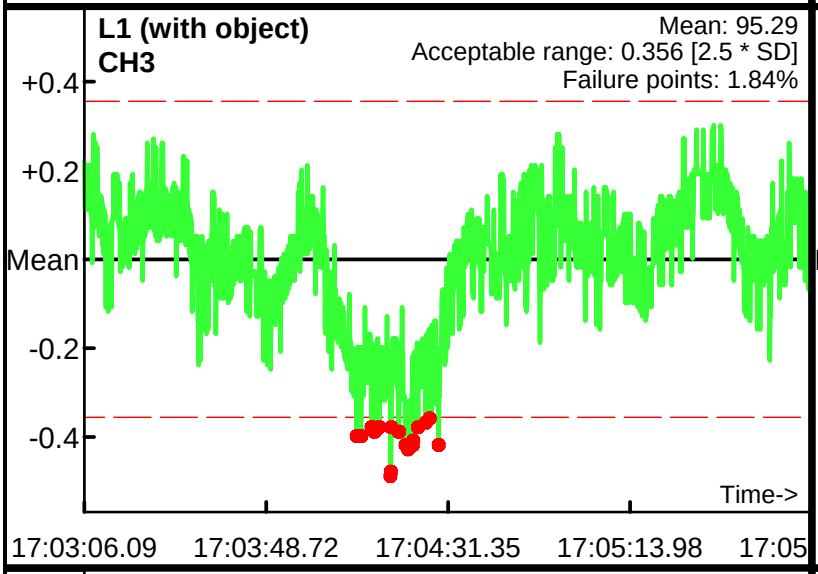
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

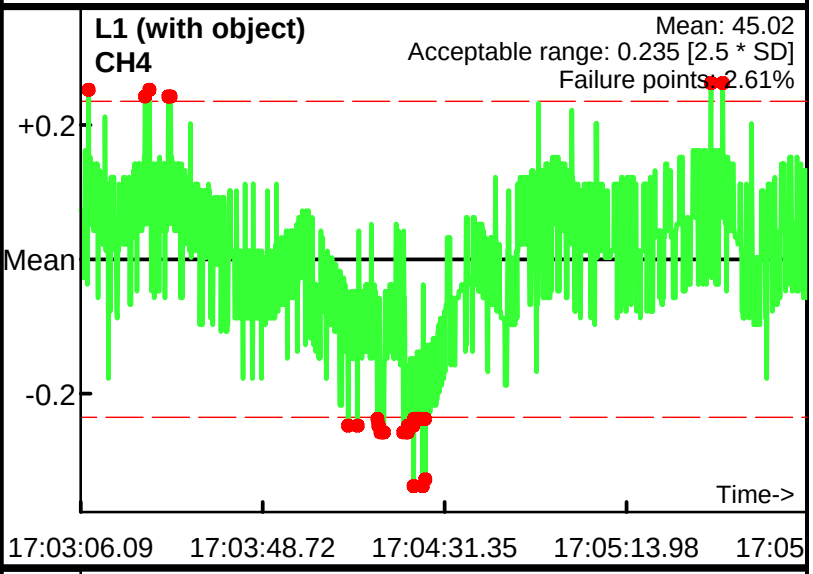
Allowable failure (%): 5%
Outside range
Acceptable limits

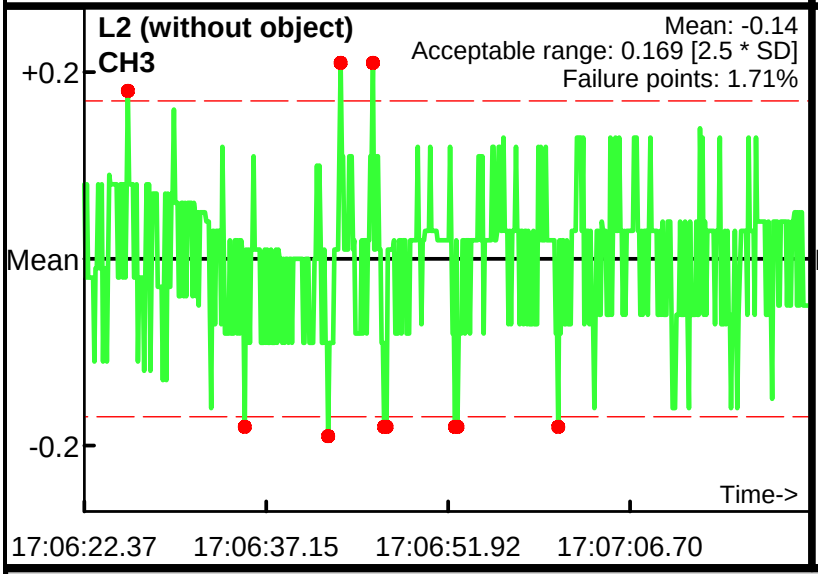
AM test
Operator: BG
Date: 6/18/2012

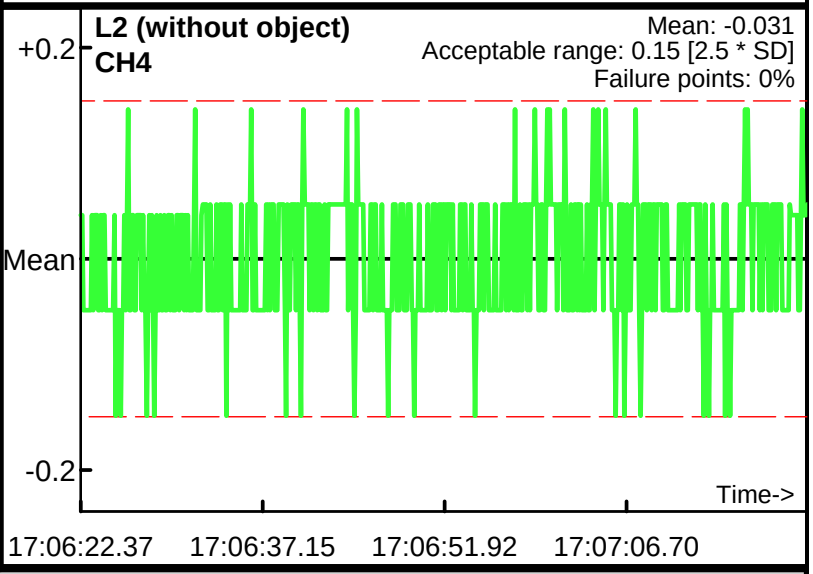












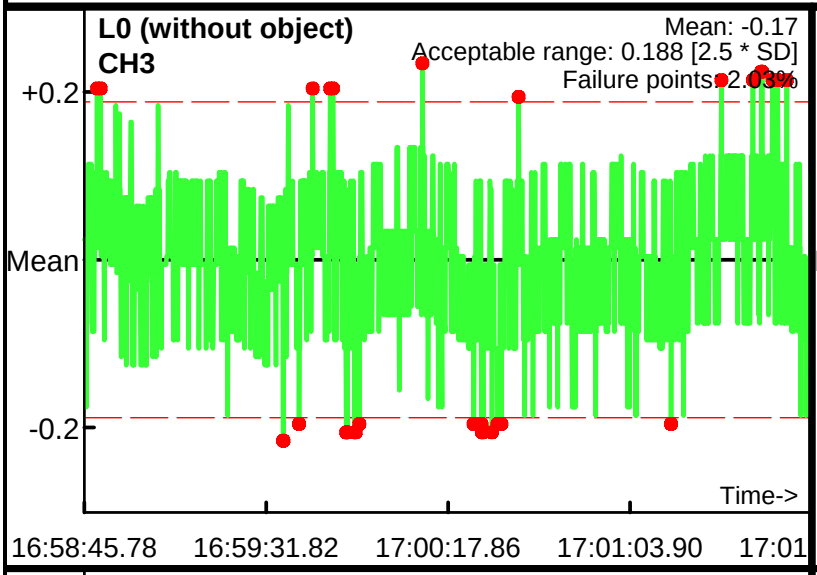
Database: .\061812PM.gdb
Line Name: L0 L1 L2

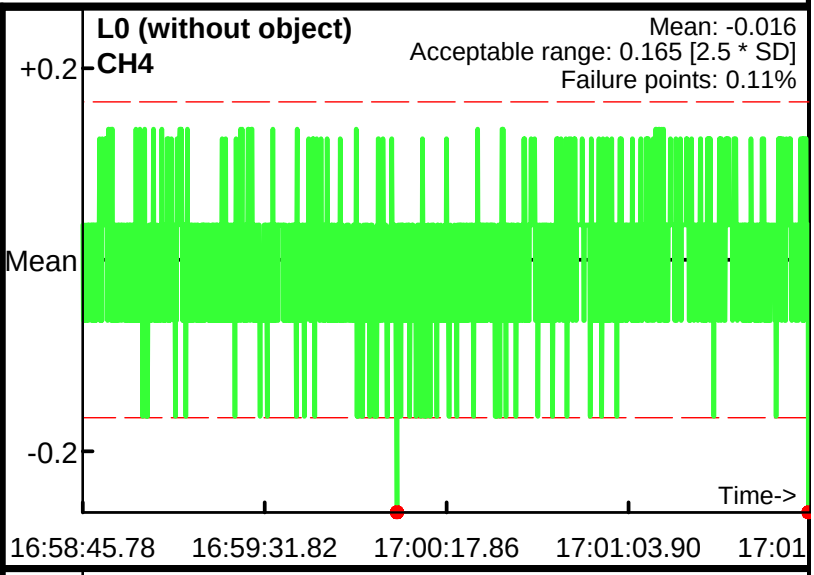
Static Calibration Test

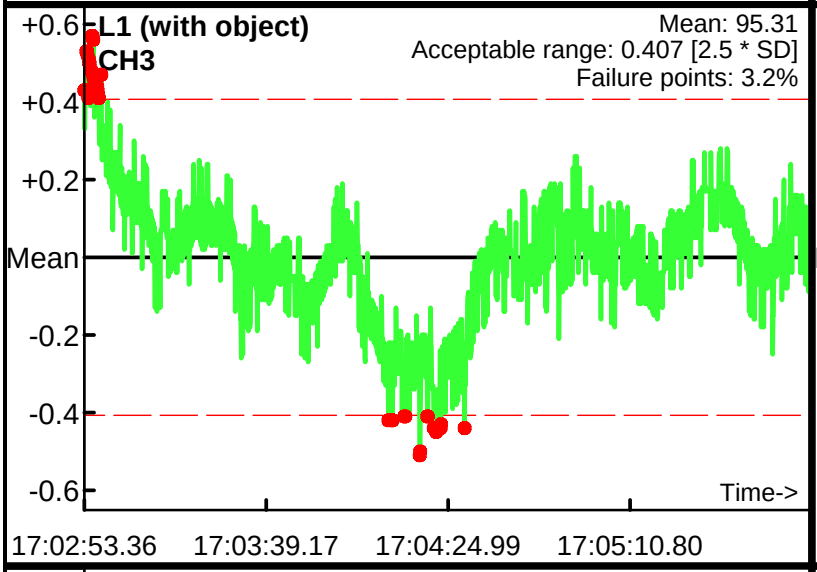
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

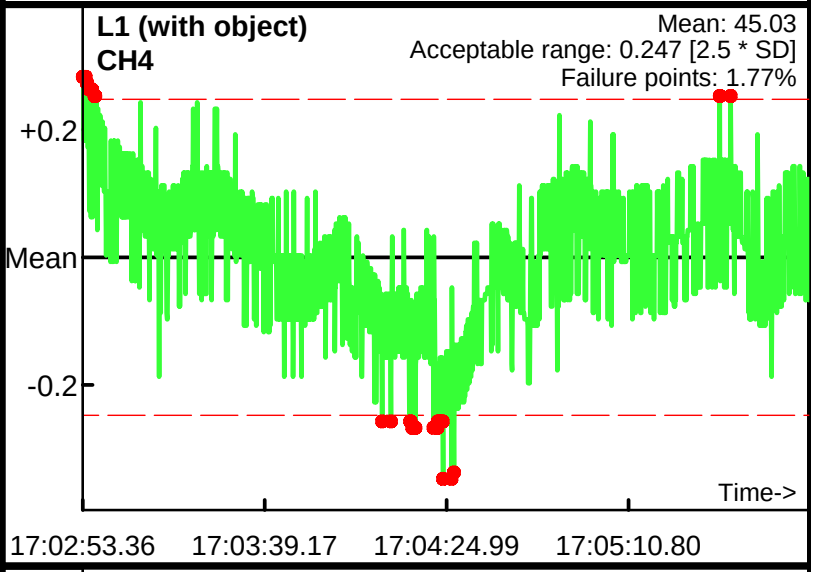
Allowable failure (%): 5%
Outside range
Acceptable limits

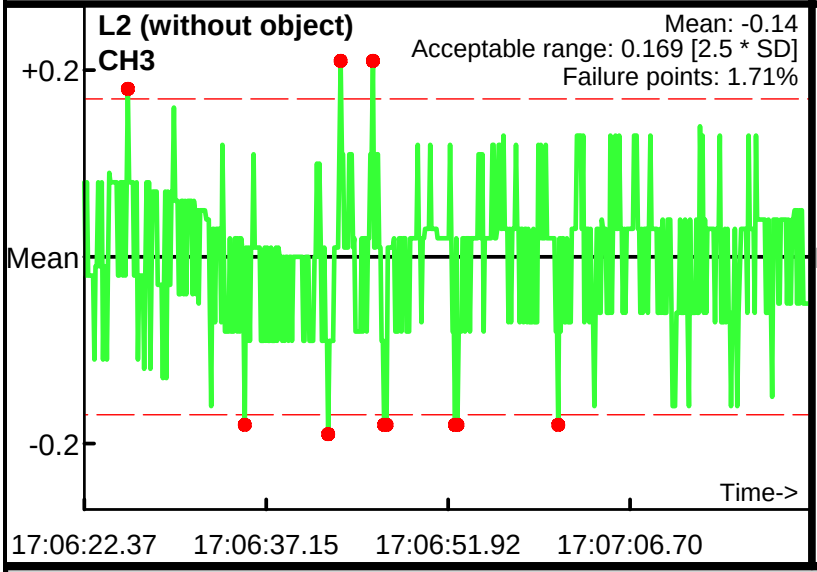
AM test
Operator: BG
Date: 6/18/2012

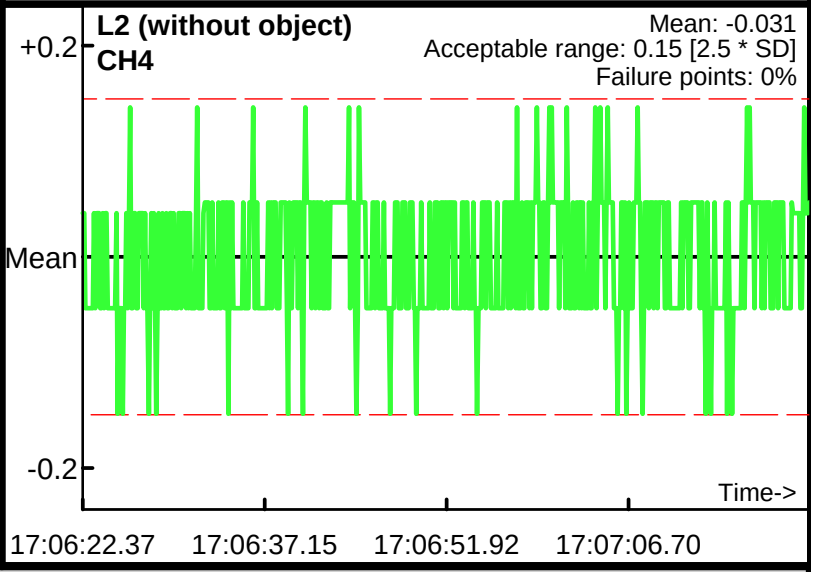












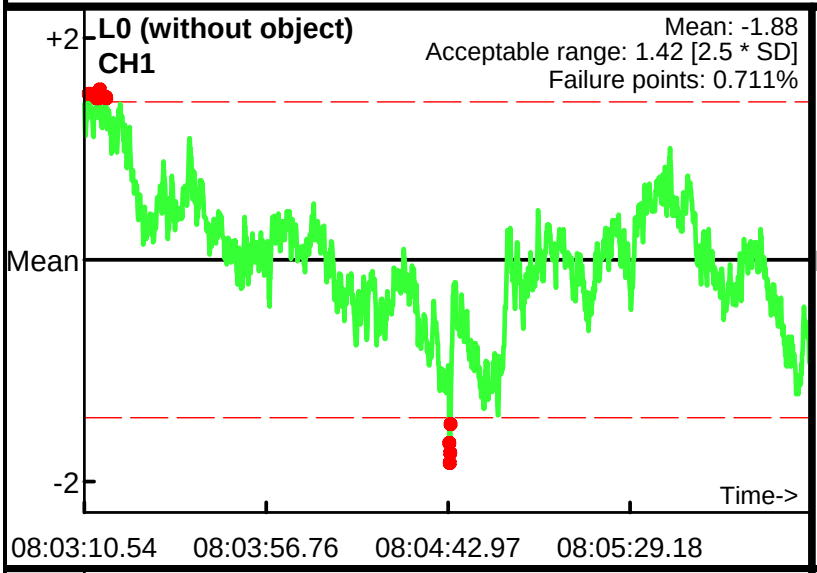
Database: .\061812PM.gdb
Line Name: L0 L1 L2

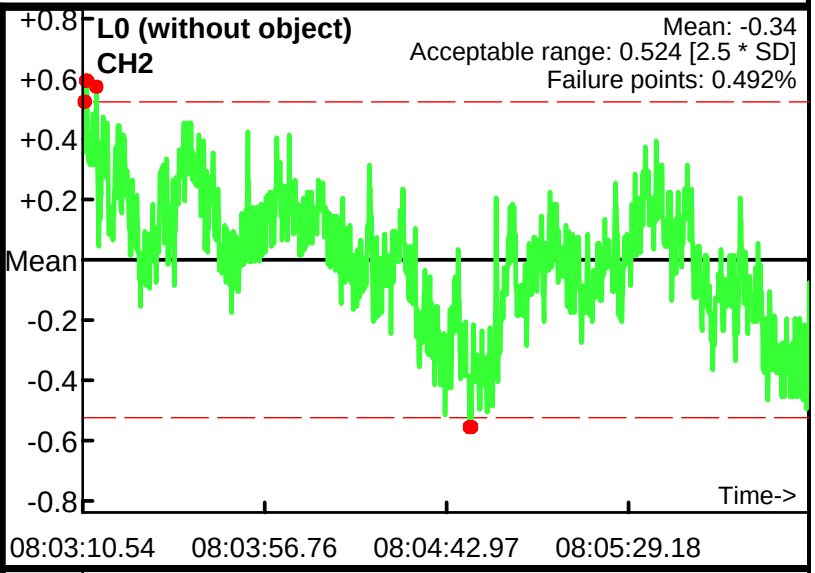
Static Calibration Test

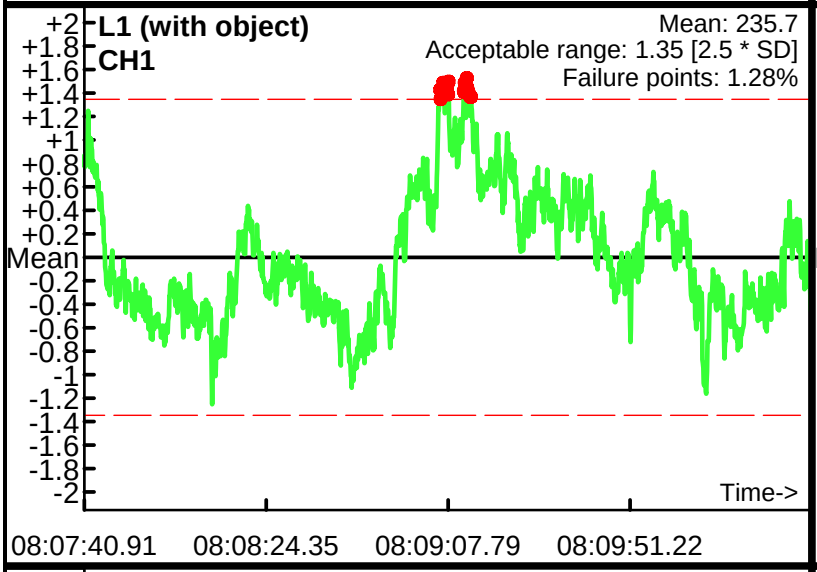
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

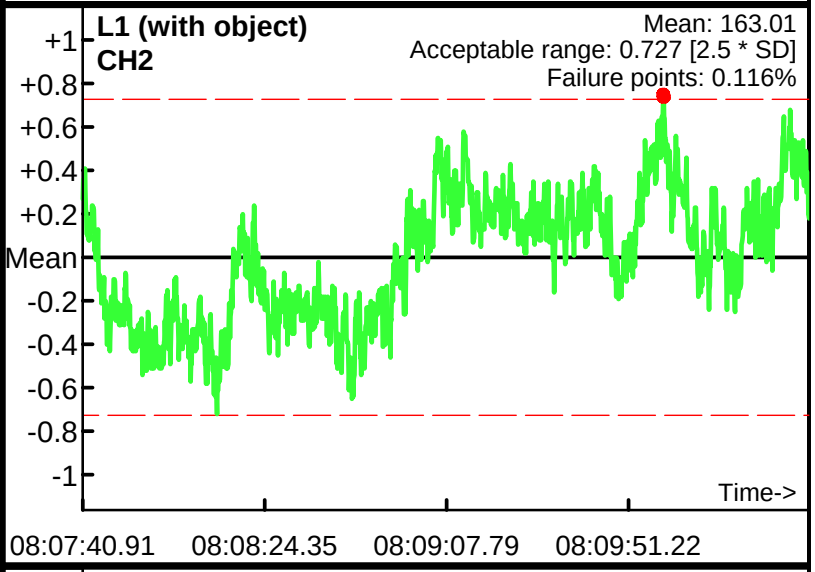
Allowable failure (%): 5%
Outside range
Acceptable limits

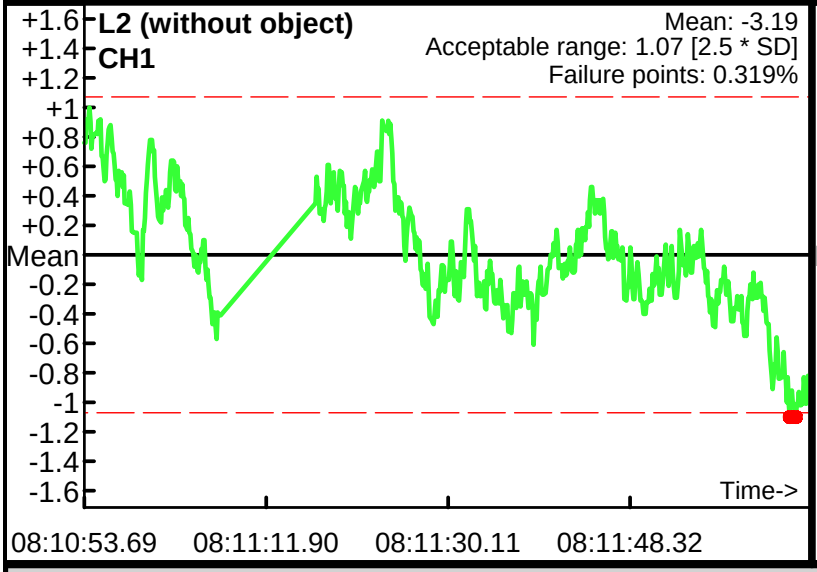
AM test
Operator: BG
Date: 6/19/2012

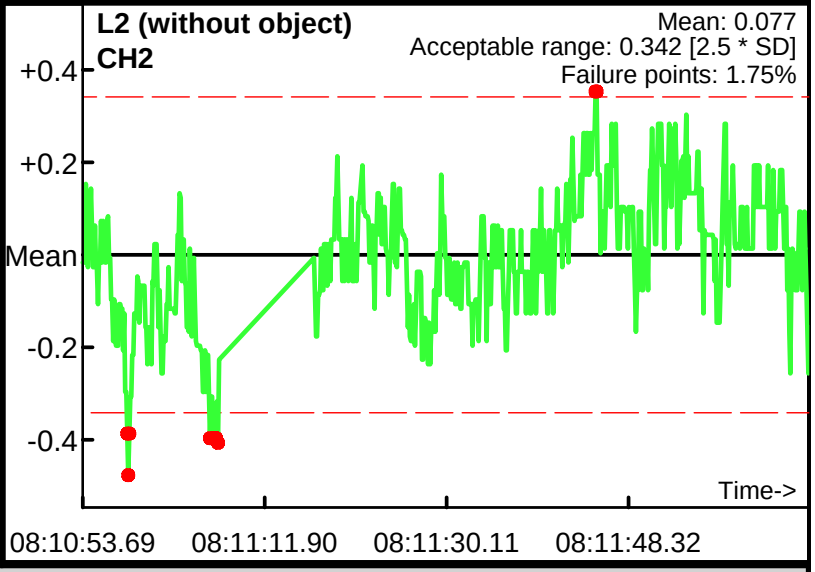












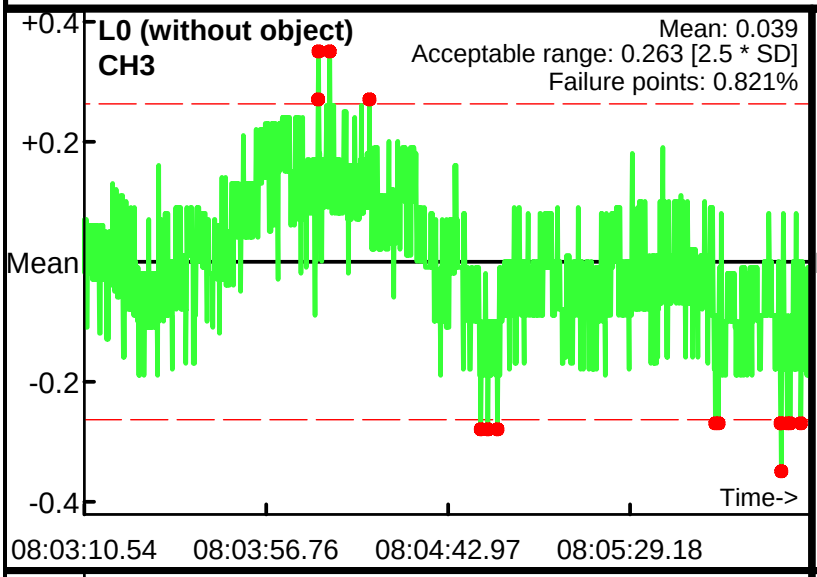
Database: .\061912AM.gdb
Line Name: L0 L1 L2

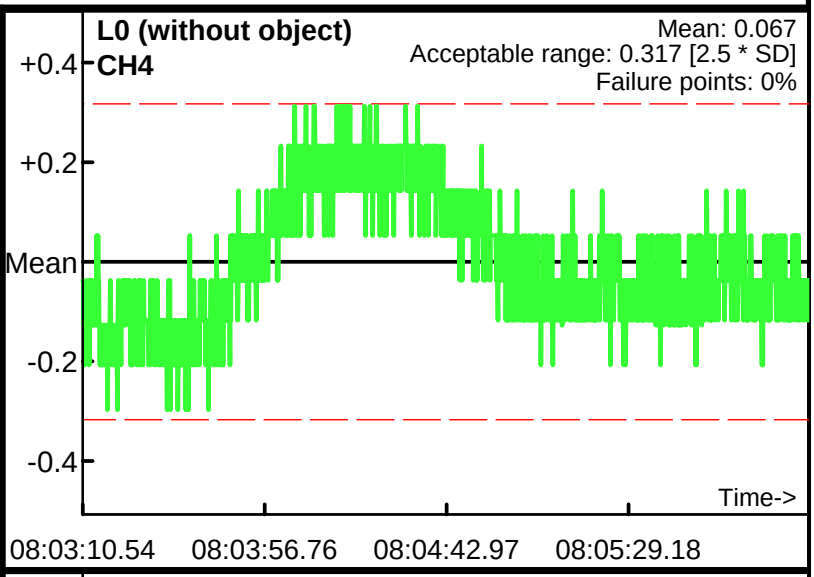
Static Calibration Test

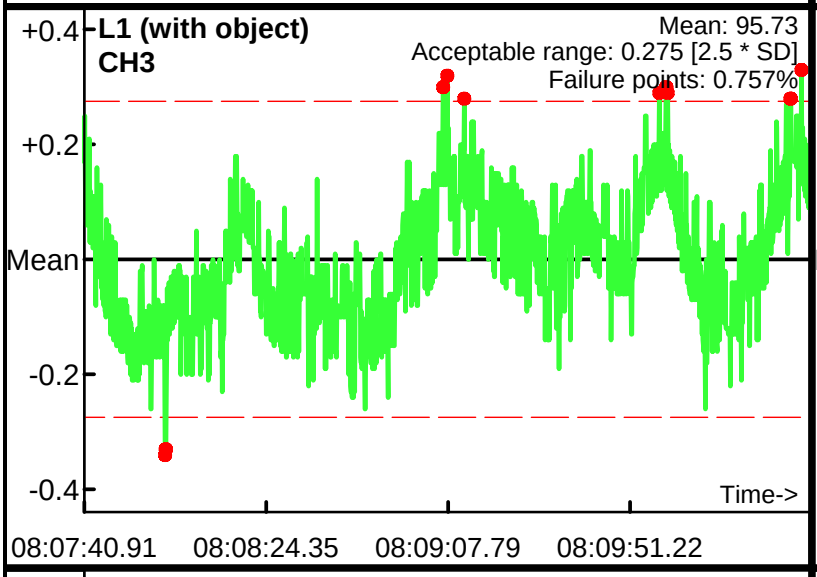
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

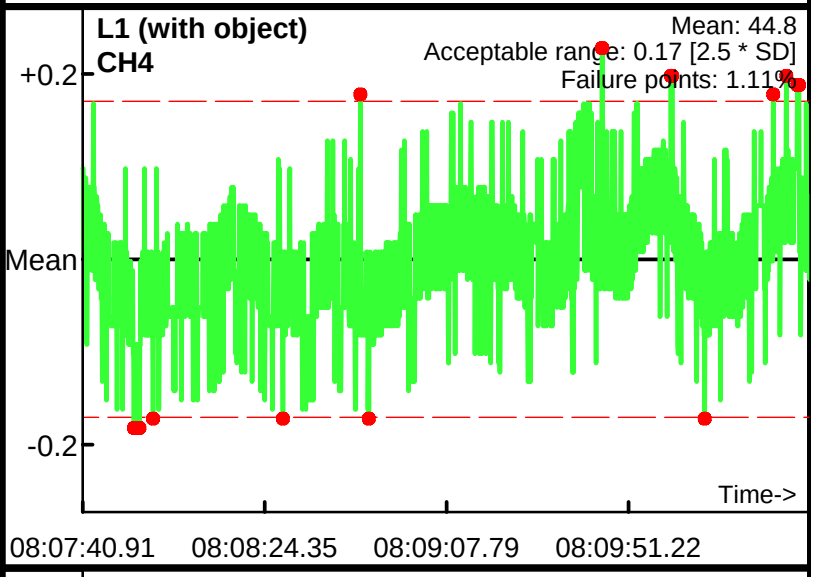
Allowable failure (%): 5%
Outside range
Acceptable limits

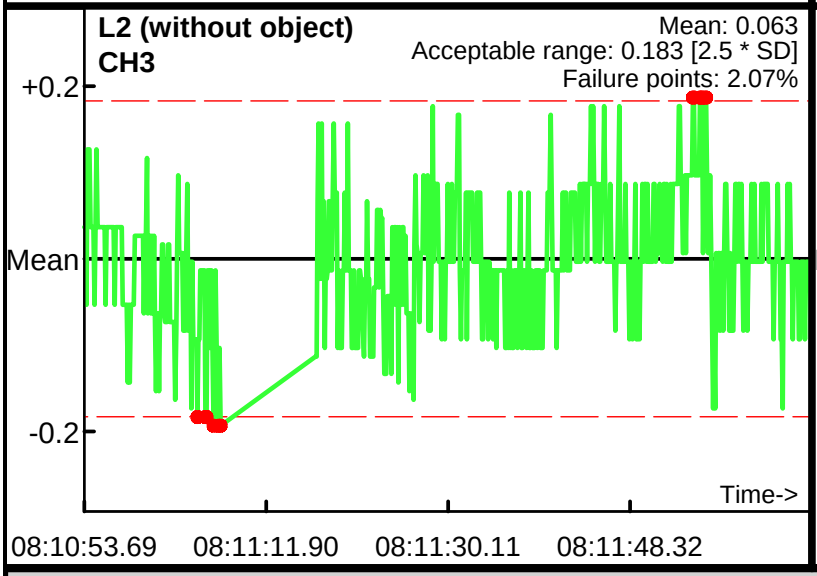
AM test
Operator: BG
Date: 6/19/2012

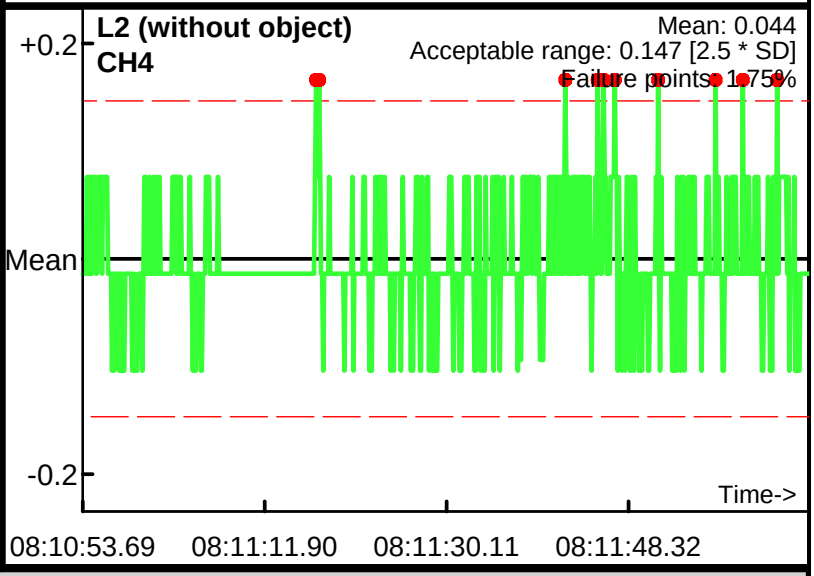












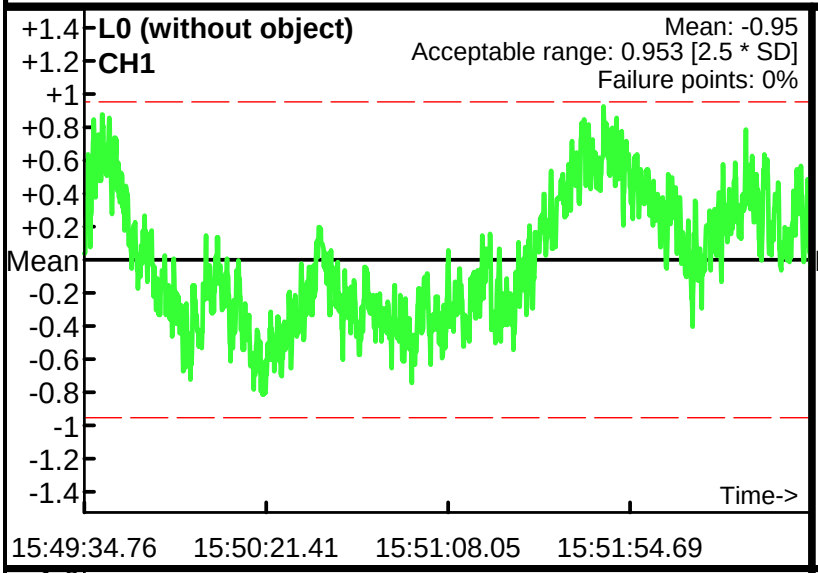
Database: .\061912AM.gdb
Line Name: L0 L1 L2

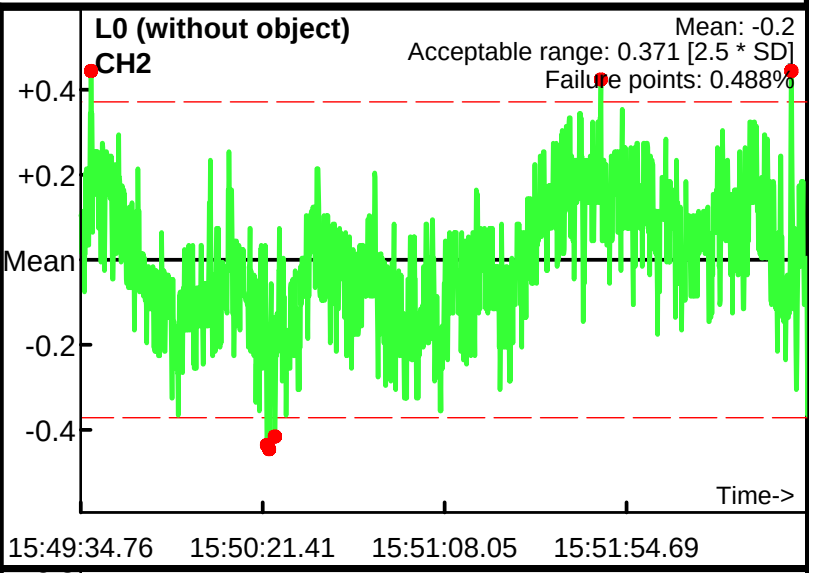
Static Calibration Test

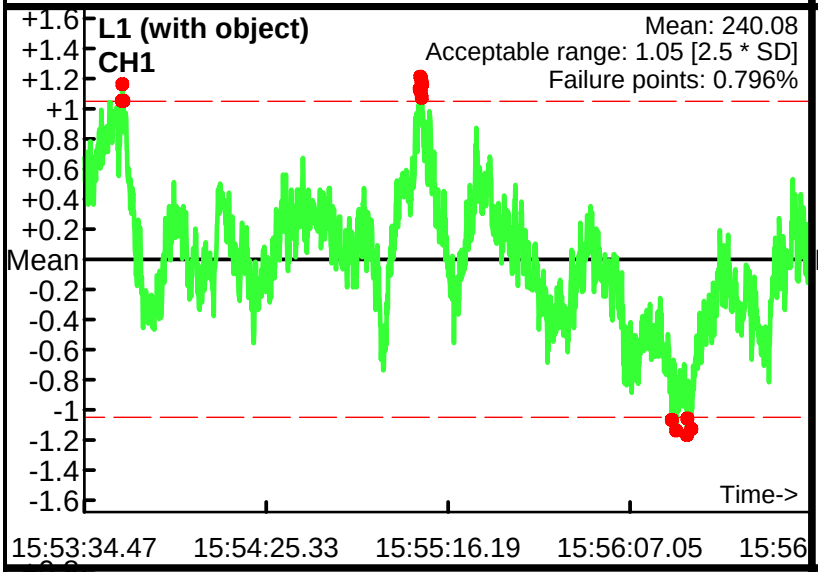
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

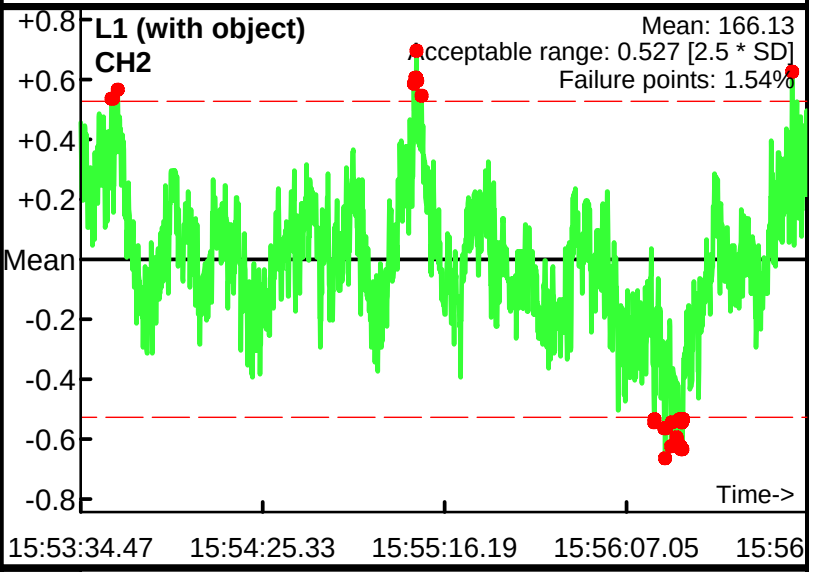
Allowable failure (%): 5%
Outside range
Acceptable limits

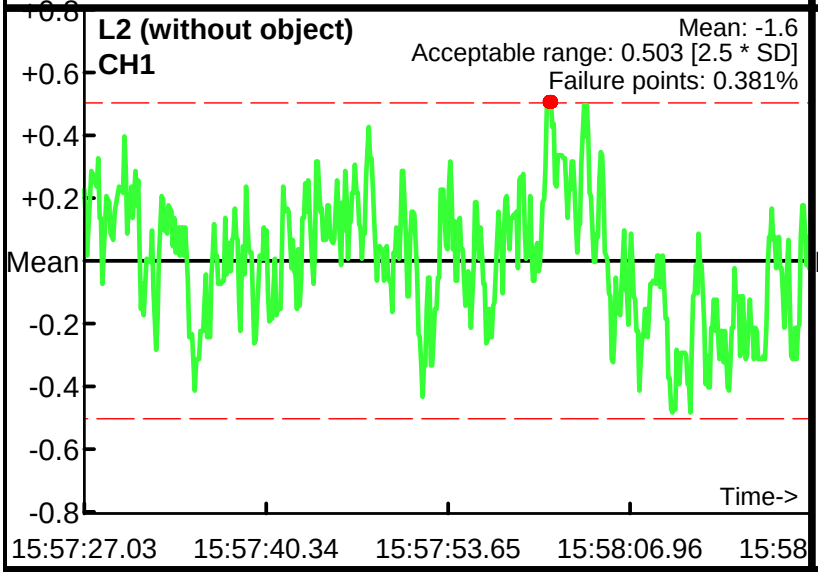
AM test
Operator: BG
Date: 6/19/2012

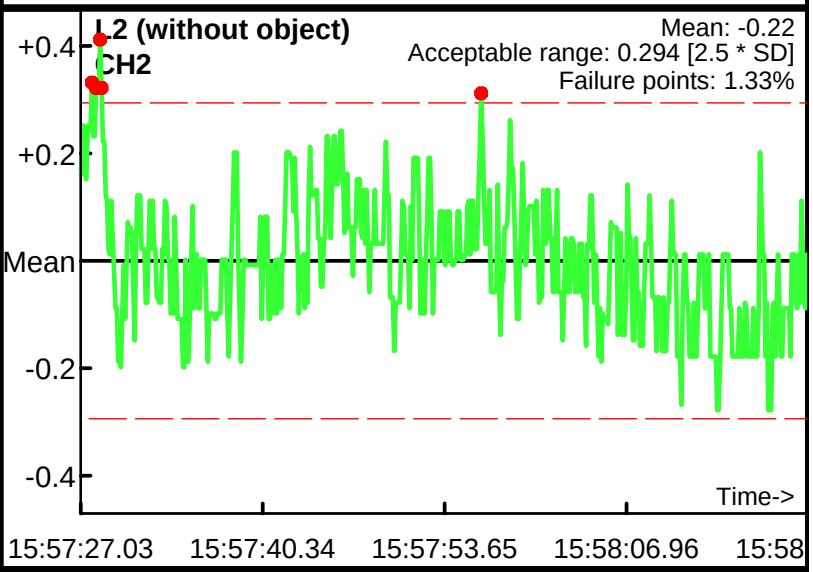












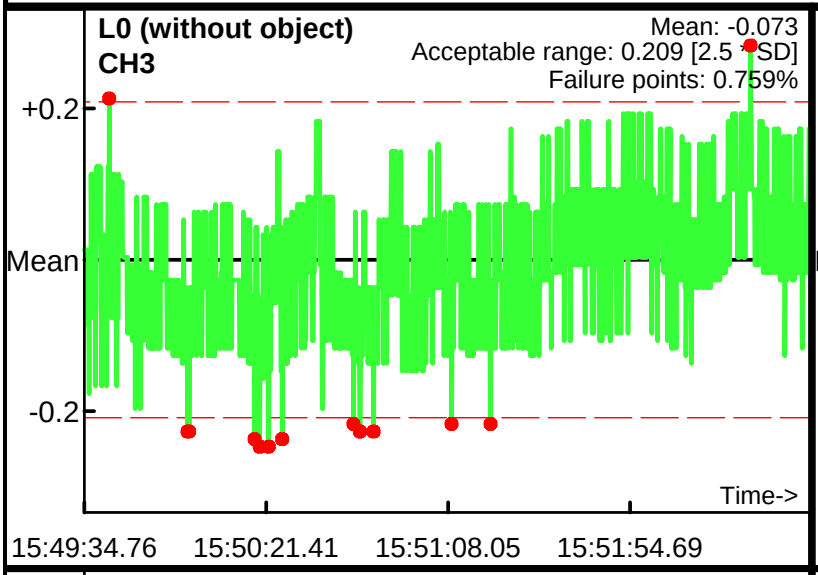
Database: .\061912PM.gdb
Line Name: L0 L1 L2

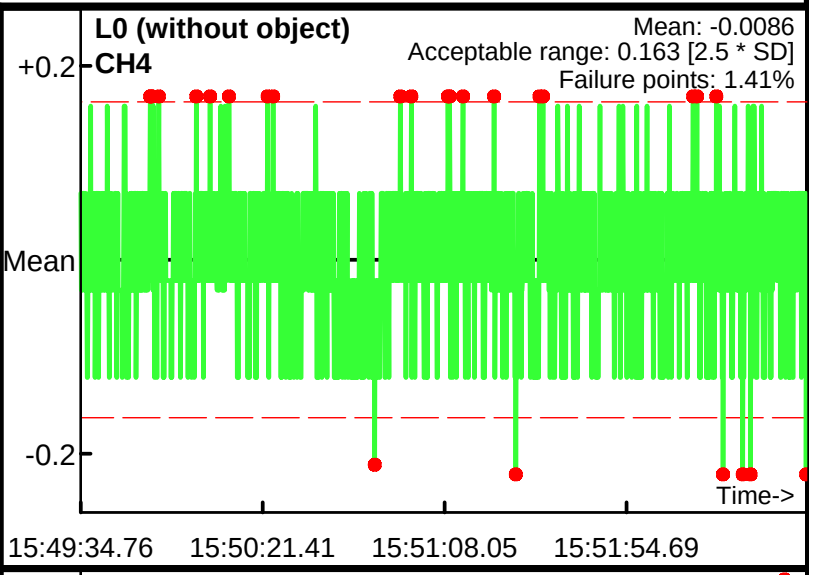
Static Calibration Test

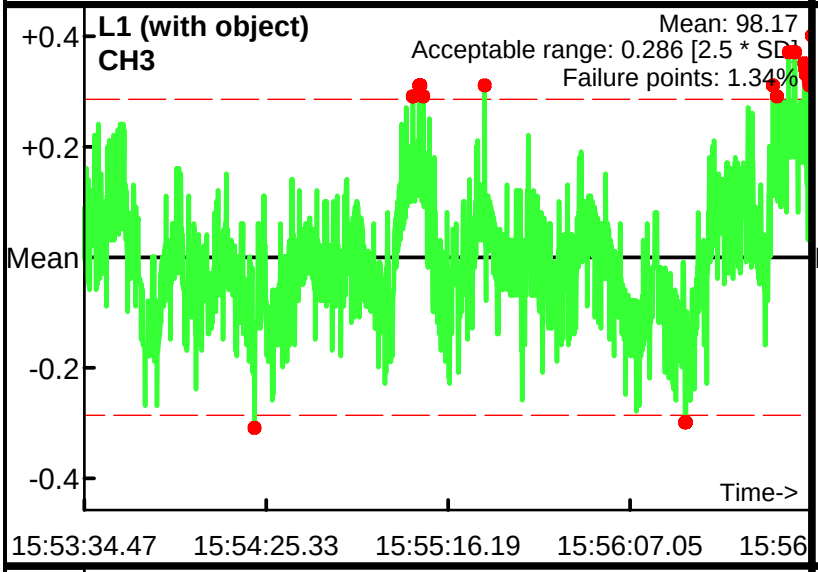
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

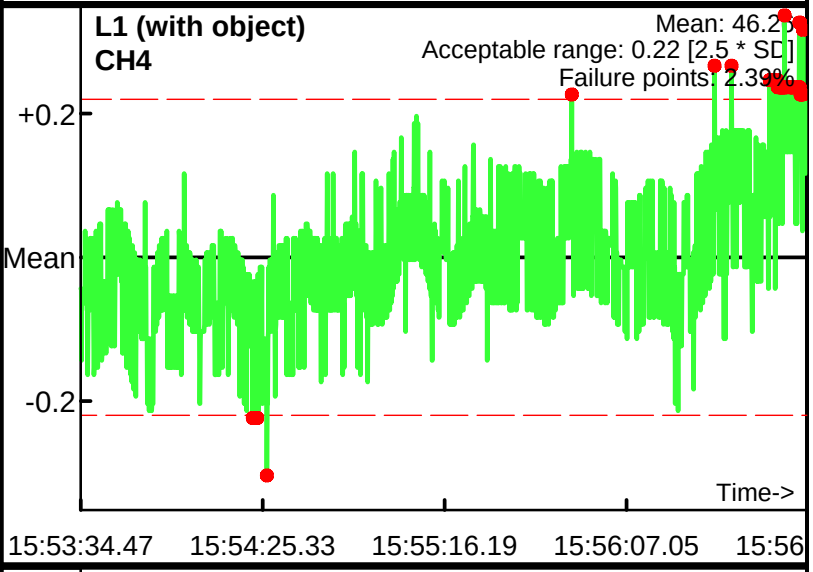
Allowable failure (%): 5%
Outside range
Acceptable limits

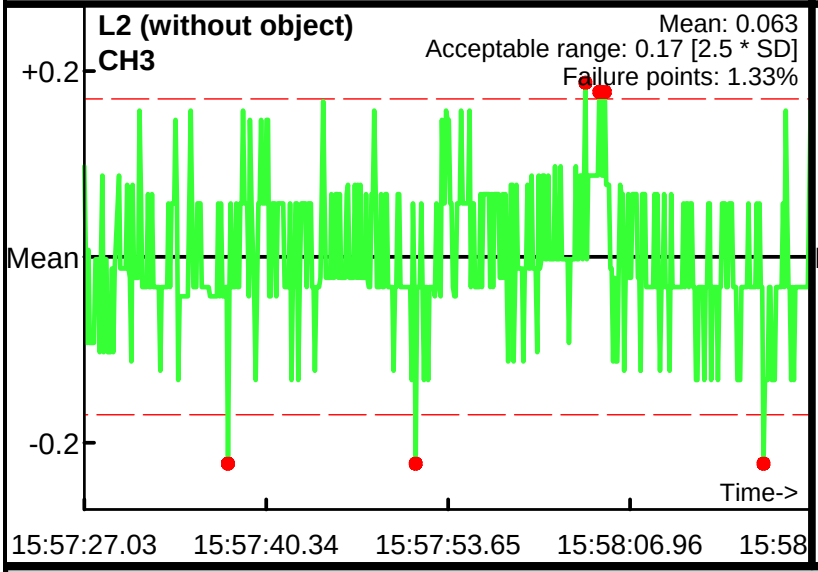
AM test
Operator: BG
Date: 6/19/2012

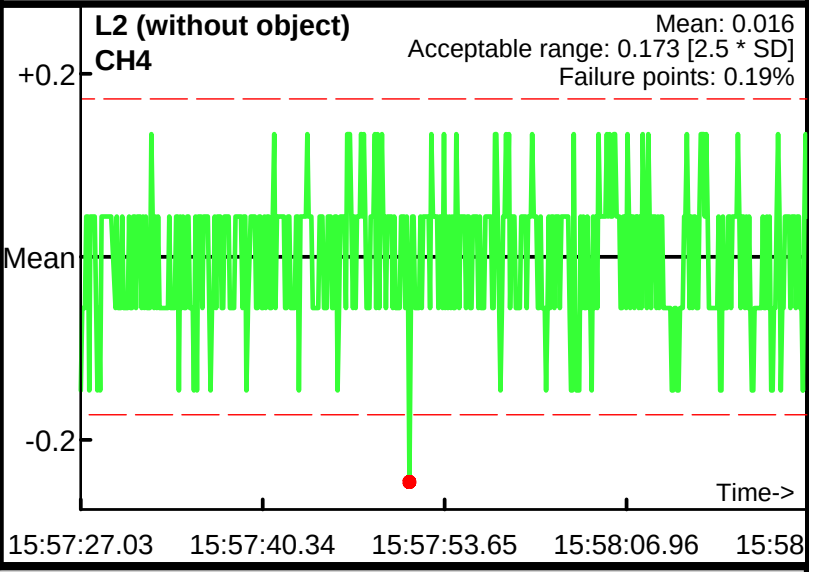












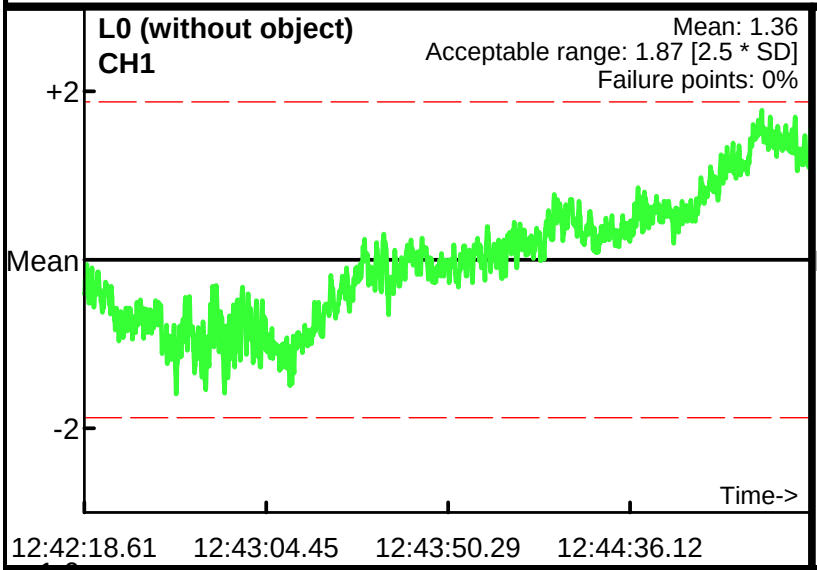
Database: .\061912PM.gdb
Line Name: L0 L1 L2

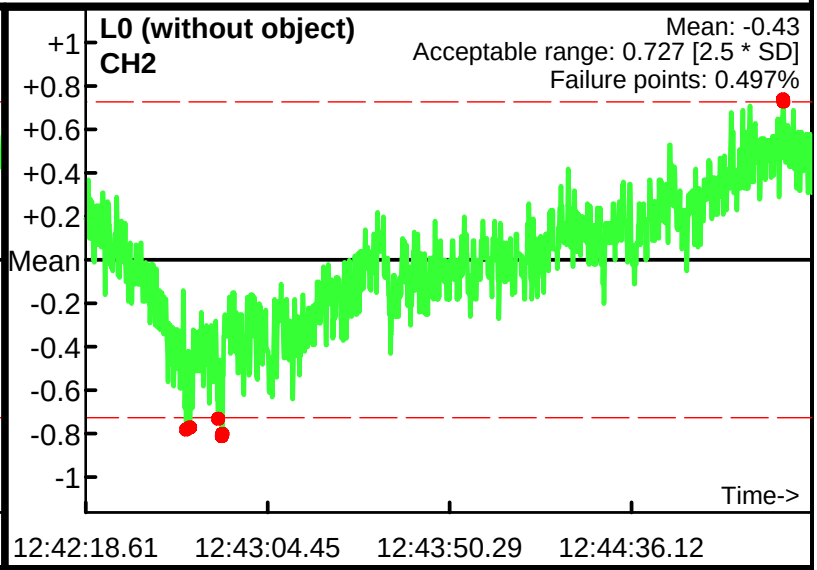
Static Calibration Test

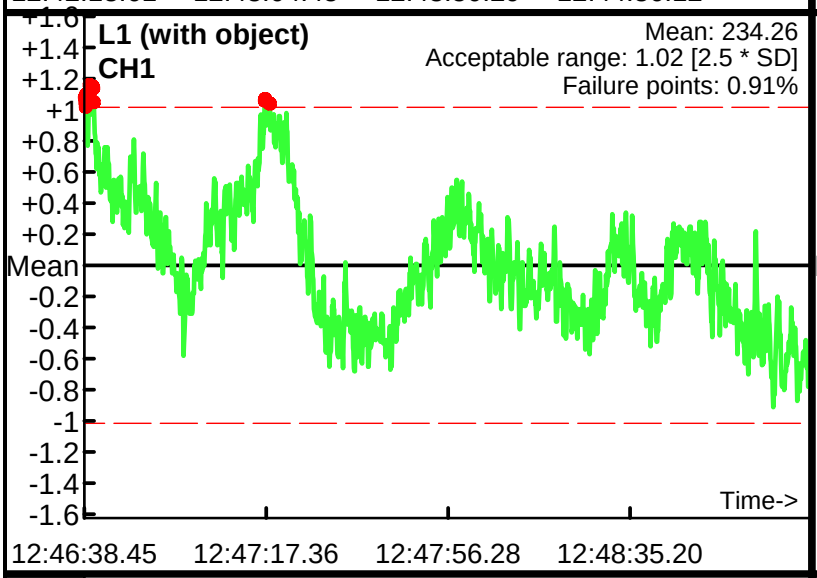
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

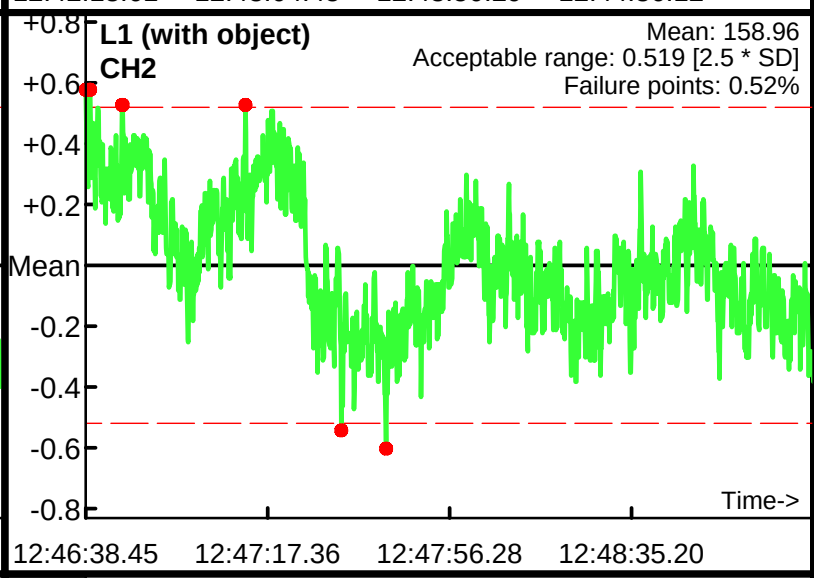
Allowable failure (%): 5%
Outside range
Acceptable limits

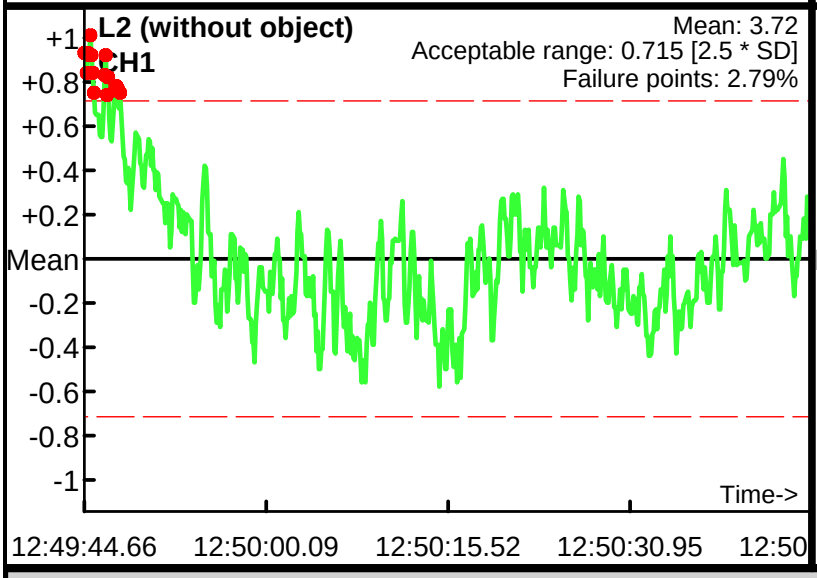
AM test
Operator: BG
Date: 6/21/2012

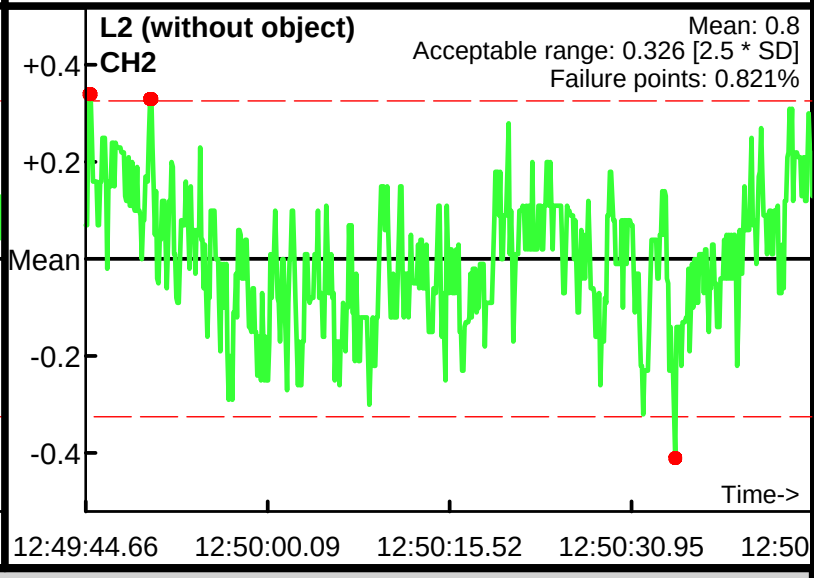












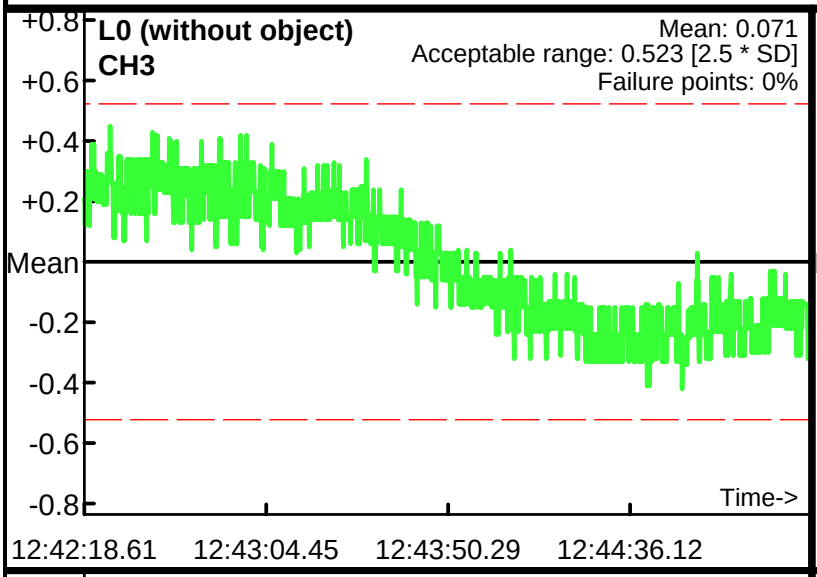
Database: .\062112AM.gdb
Line Name: L0 L1 L2

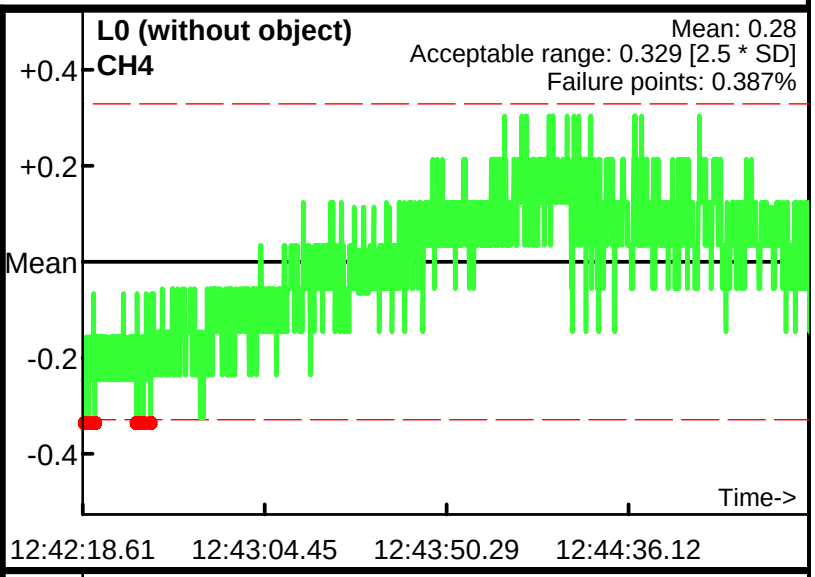
Static Calibration Test

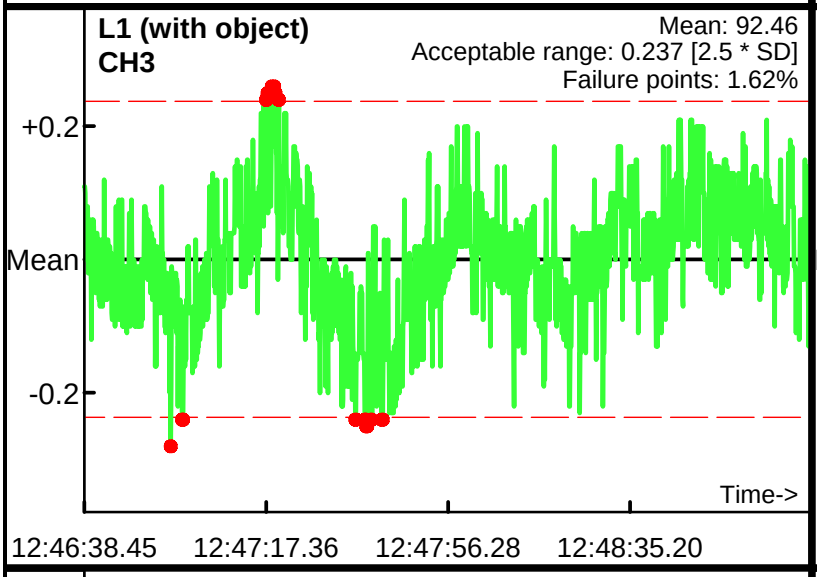
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

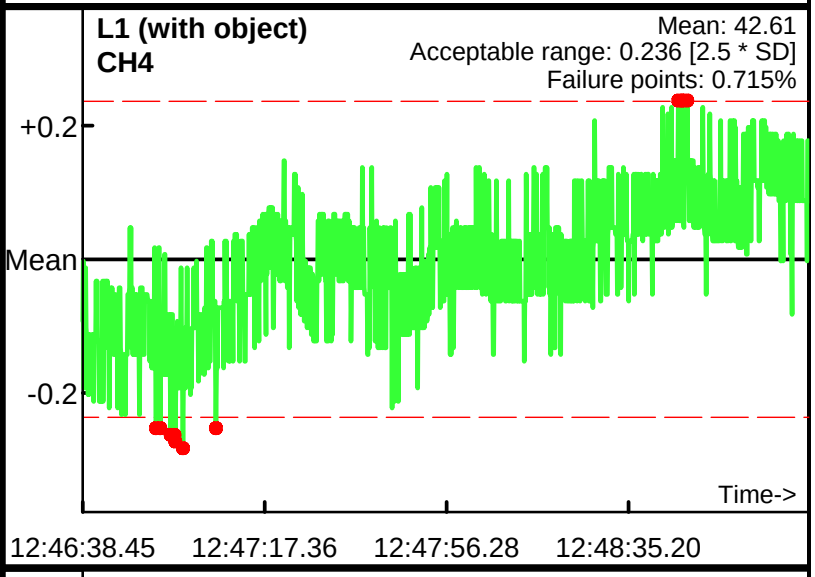
Allowable failure (%): 5%
Outside range
Acceptable limits

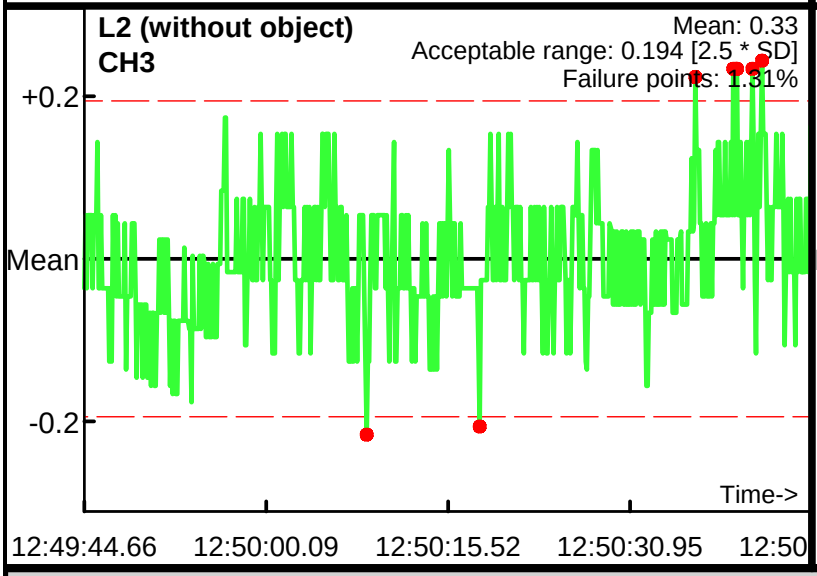
AM test
Operator: BG
Date: 6/21/2012

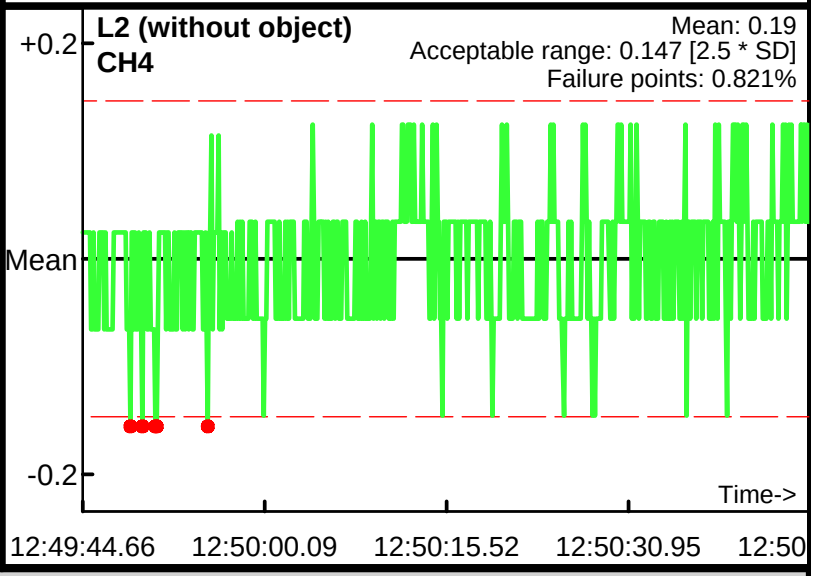












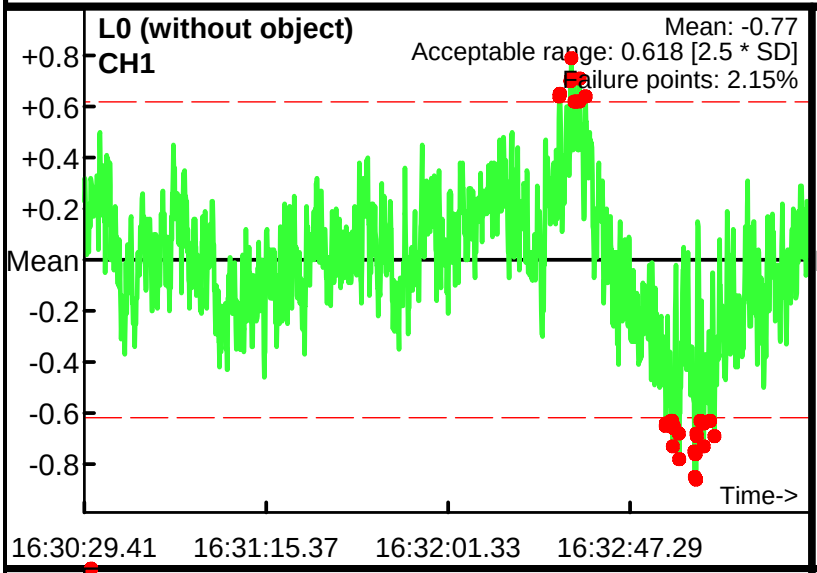
Database: .\062112AM.gdb
Line Name: L0 L1 L2

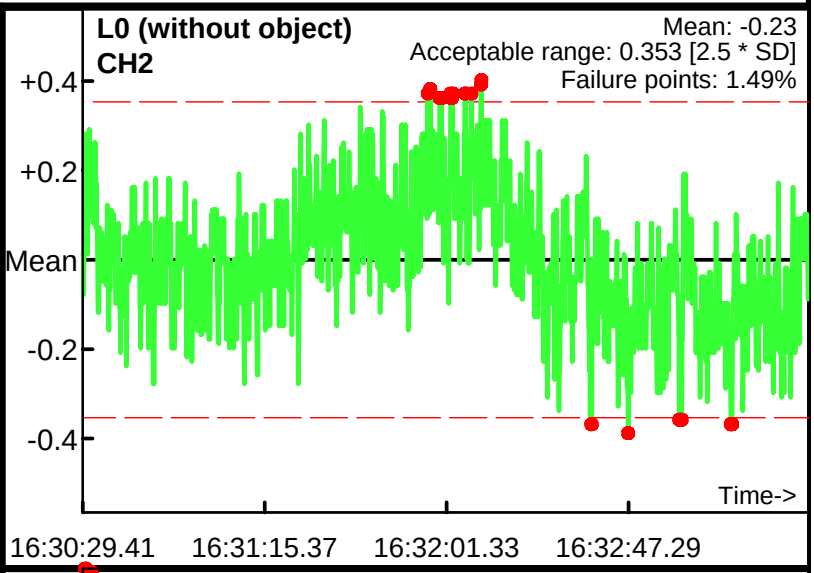
Static Calibration Test

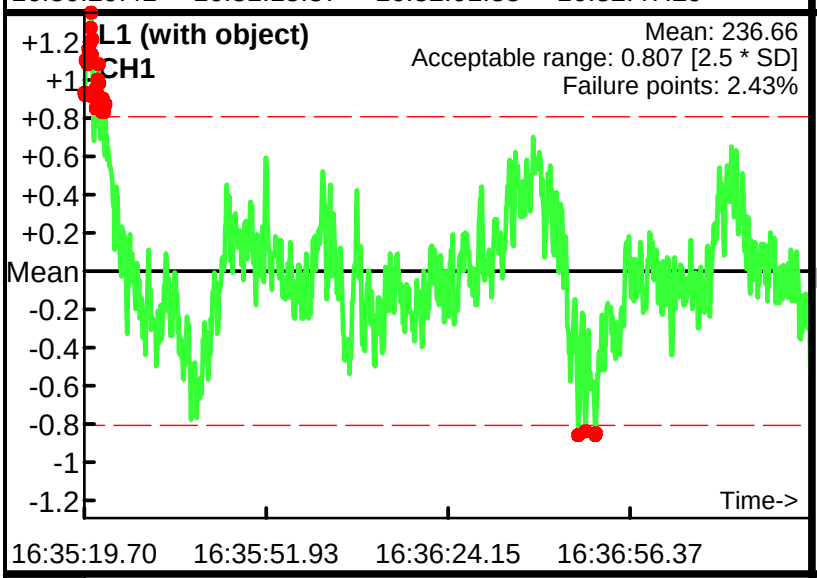
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

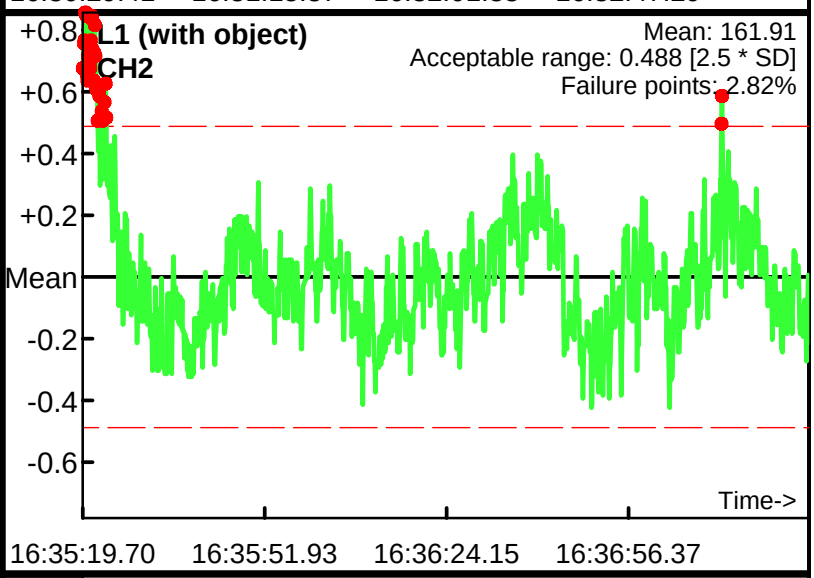
Allowable failure (%): 5%
Outside range
Acceptable limits

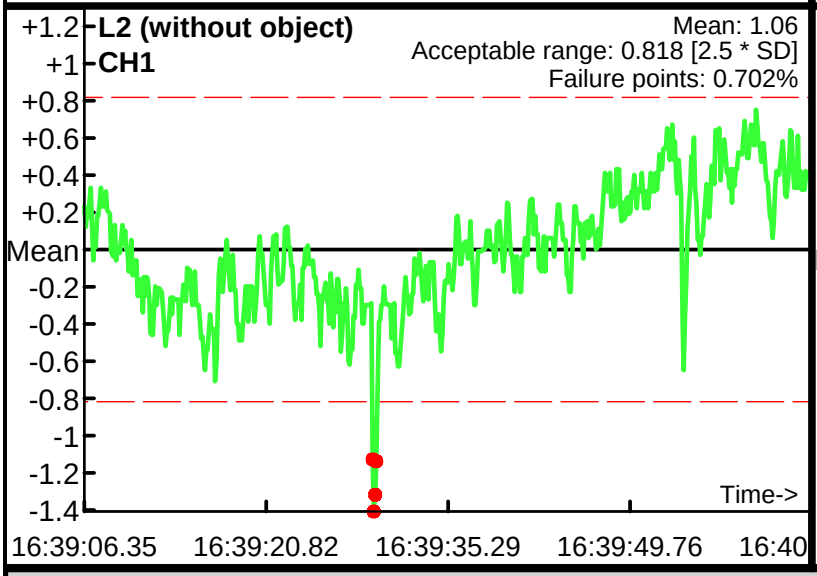
AM test
Operator: BG
Date: 6/21/2012

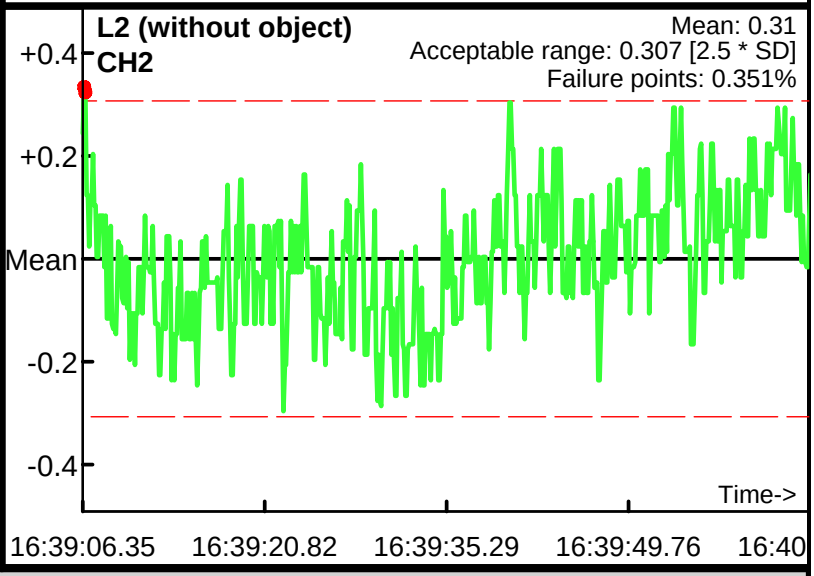












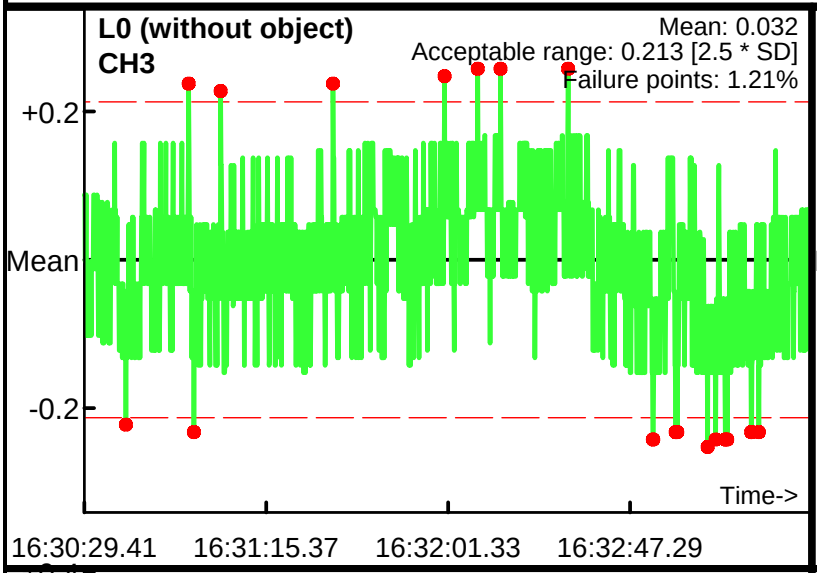
Database: .\062112PM.gdb
Line Name: L0 L1 L2

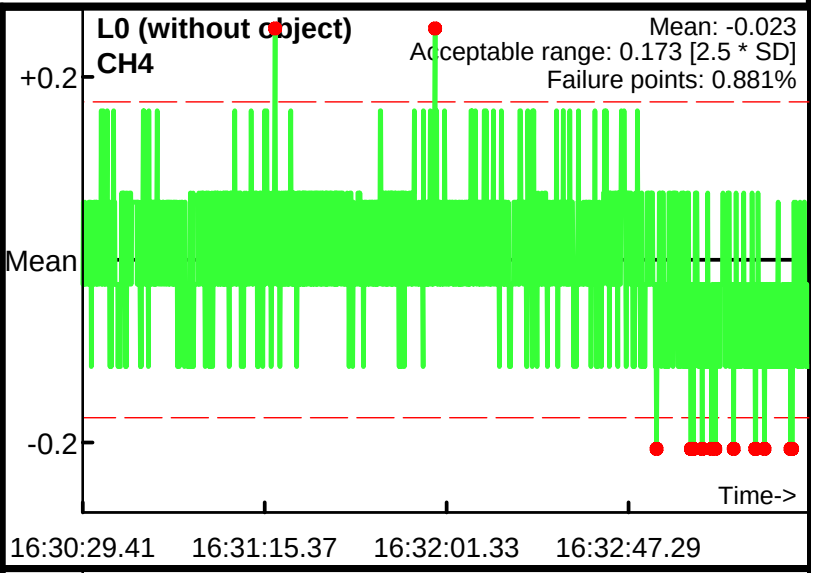
Static Calibration Test

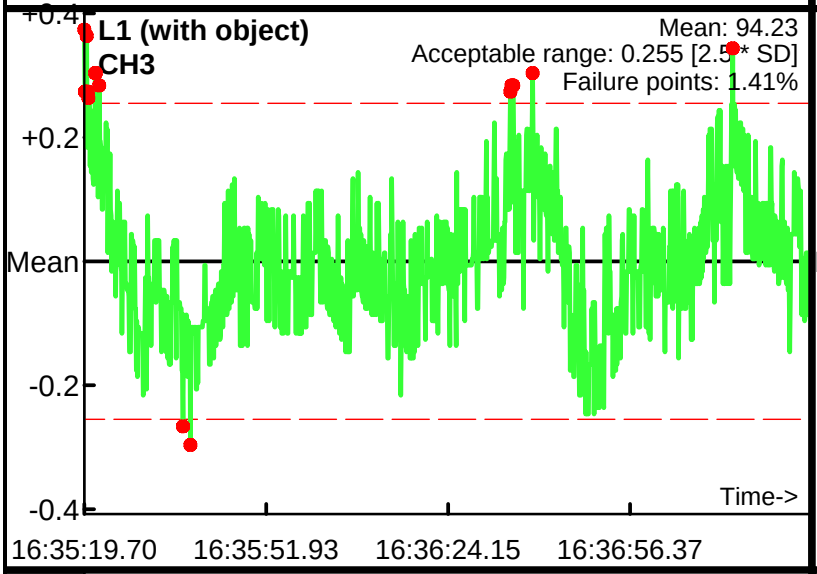
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

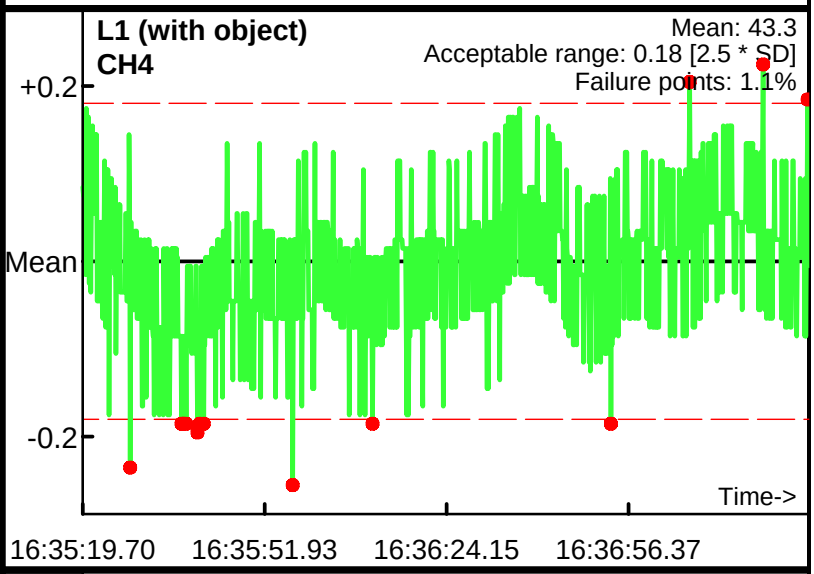
Allowable failure (%): 5%
Outside range
Acceptable limits

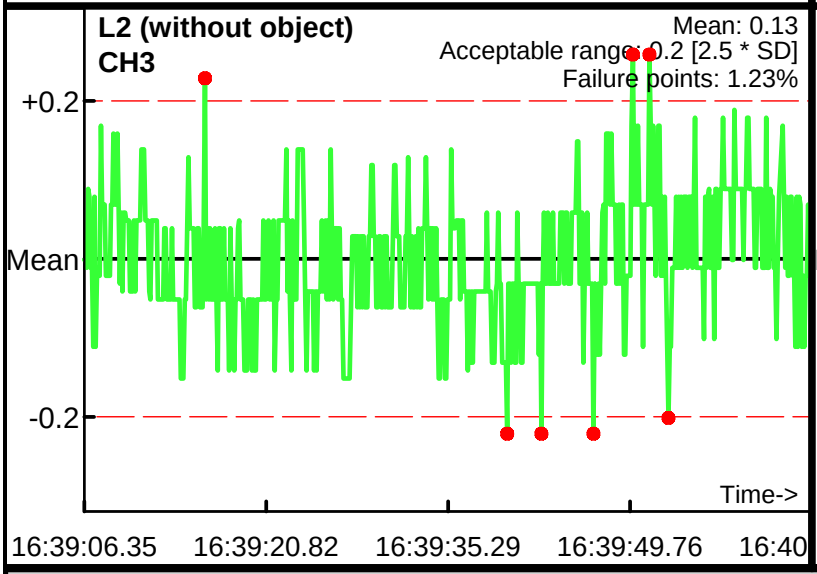
AM test
Operator: BG
Date: 6/21/2012

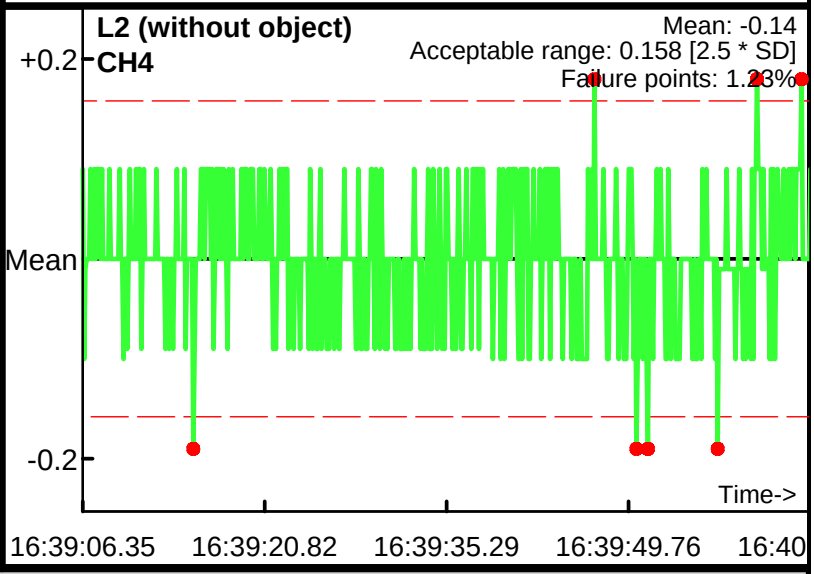












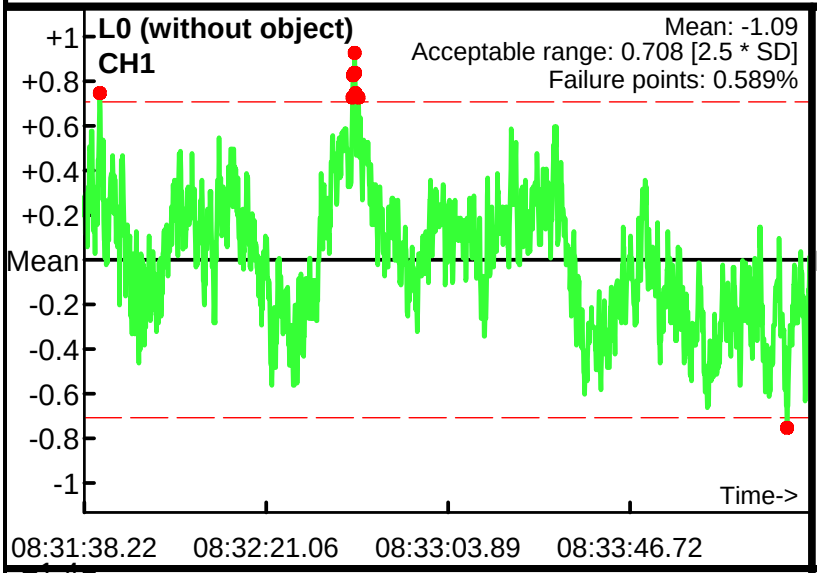
Database: .\062112PM.gdb
Line Name: L0 L1 L2

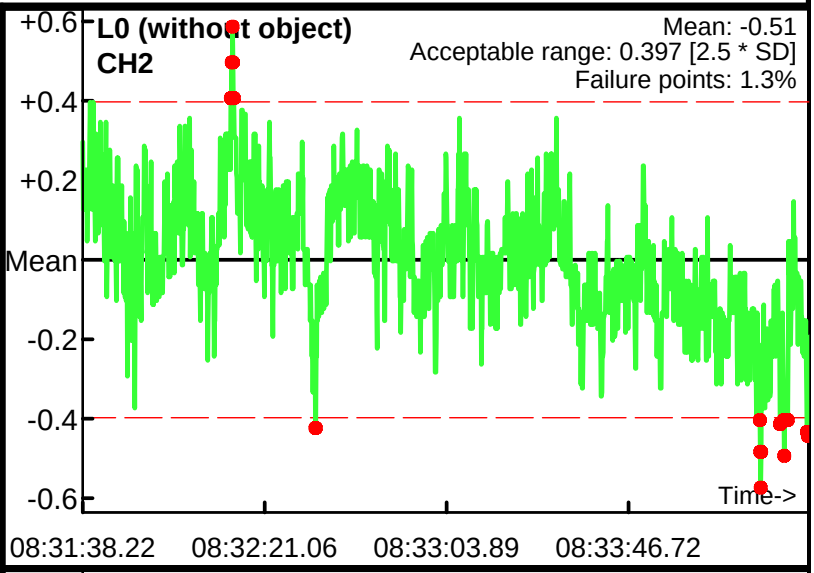
Static Calibration Test

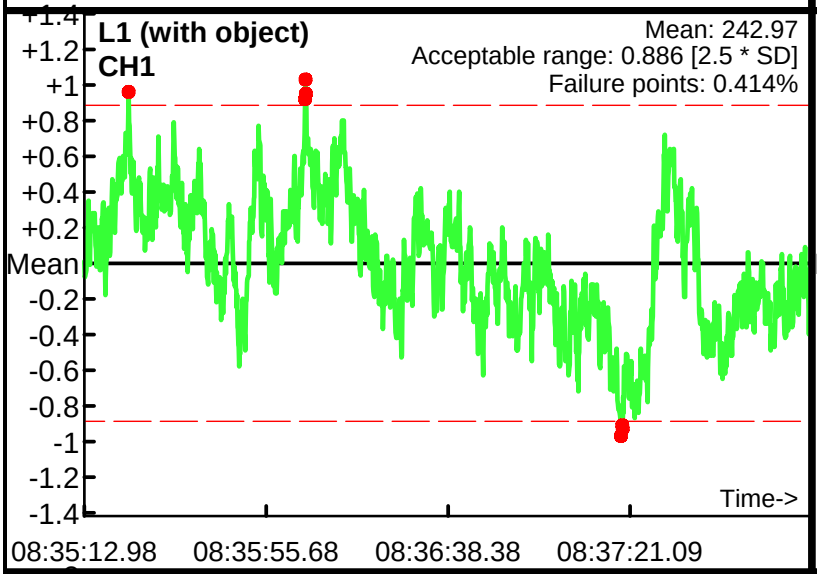
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

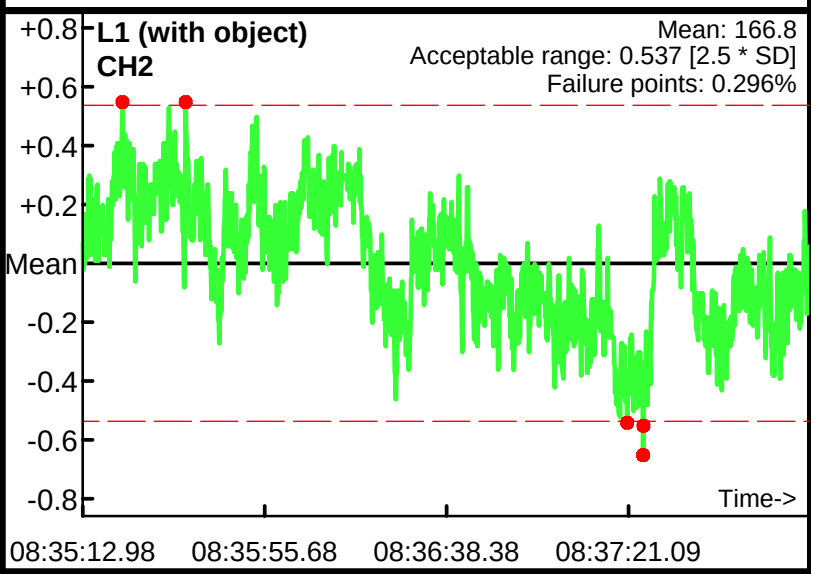
Allowable failure (%): 5%
Outside range
Acceptable limits

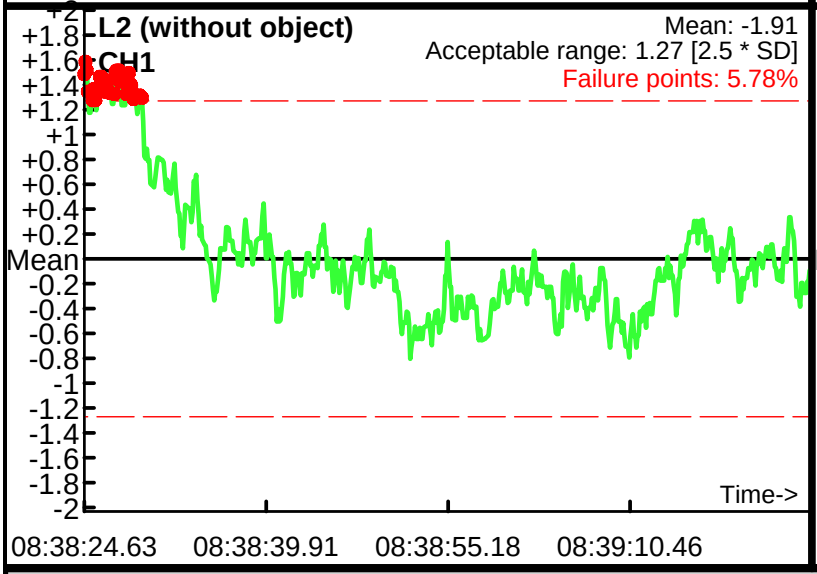
AM test
Operator: BG
Date: 6/22/2012

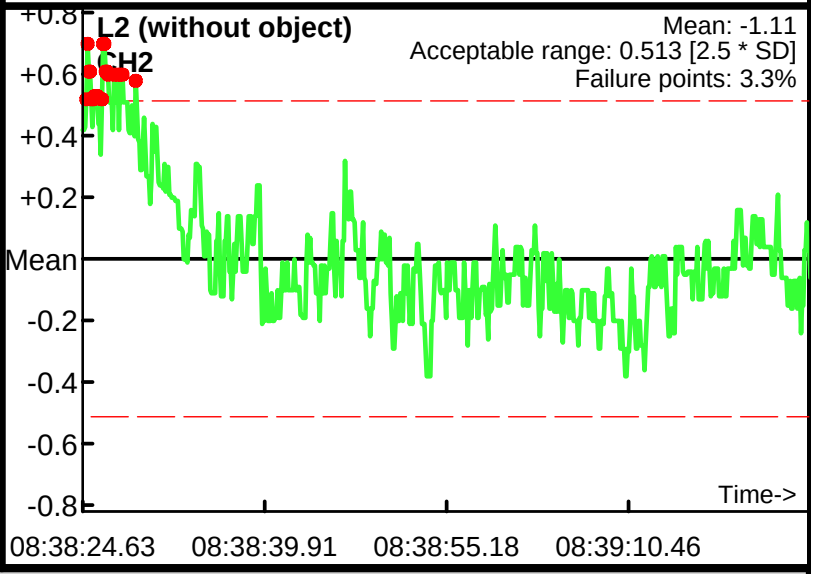












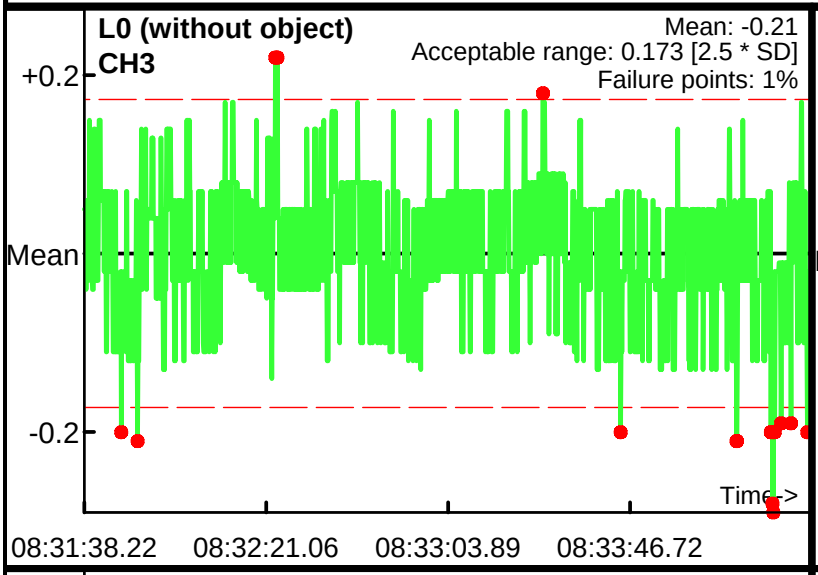
Database: .\062212AM.gdb
Line Name: L0 L1 L2

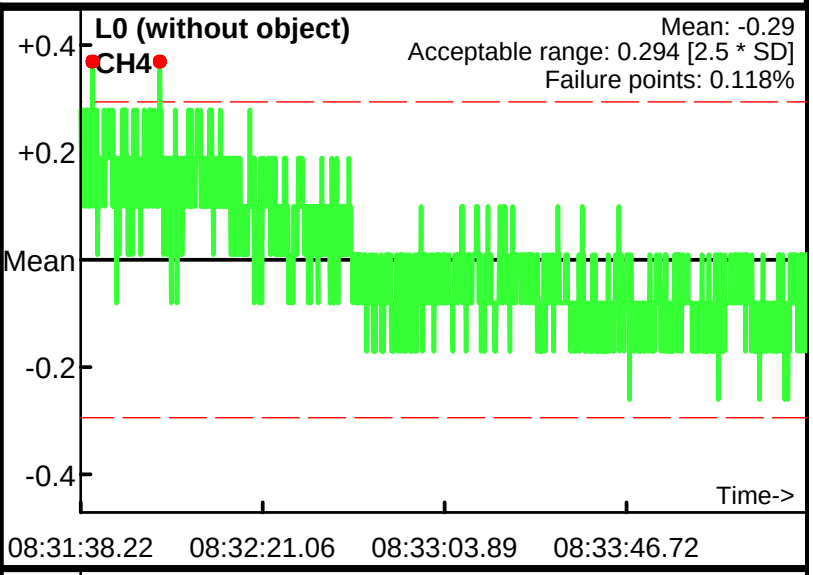
Static Calibration Test

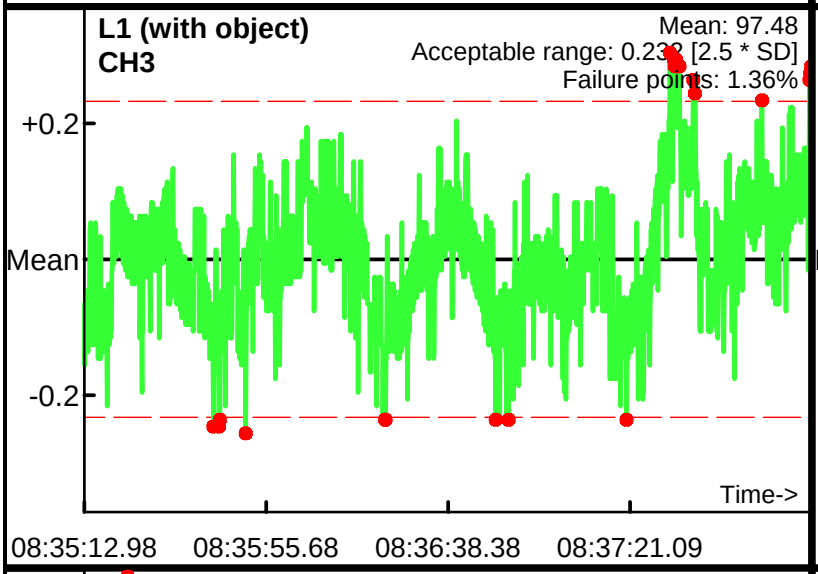
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

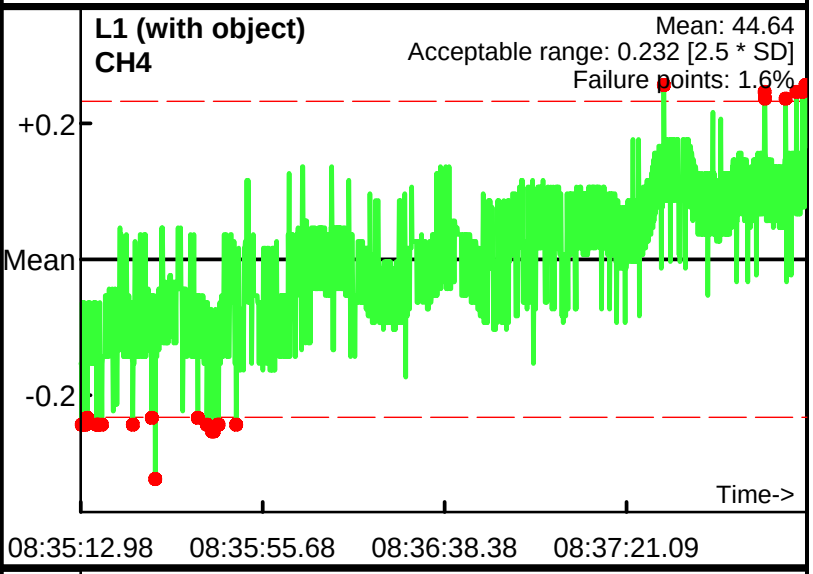
Allowable failure (%): 5%
Outside range
Acceptable limits

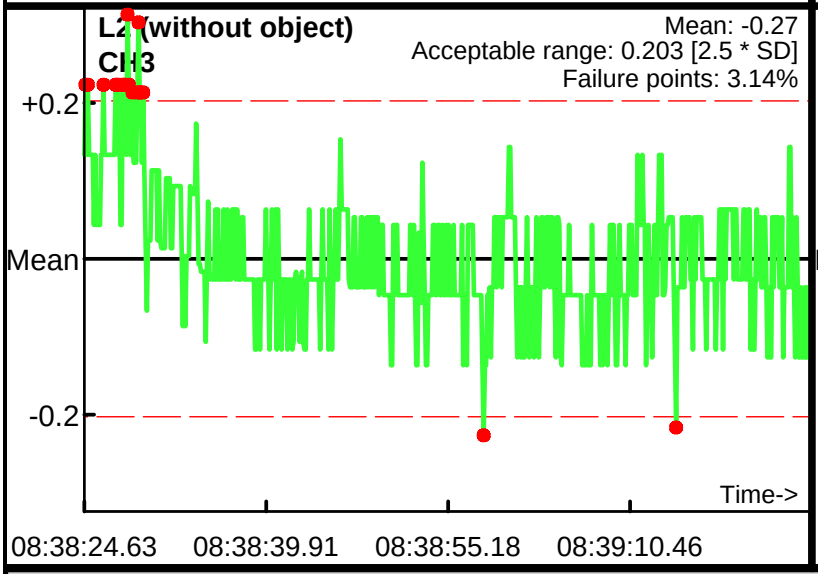
AM test
Operator: BG
Date: 6/22/2012

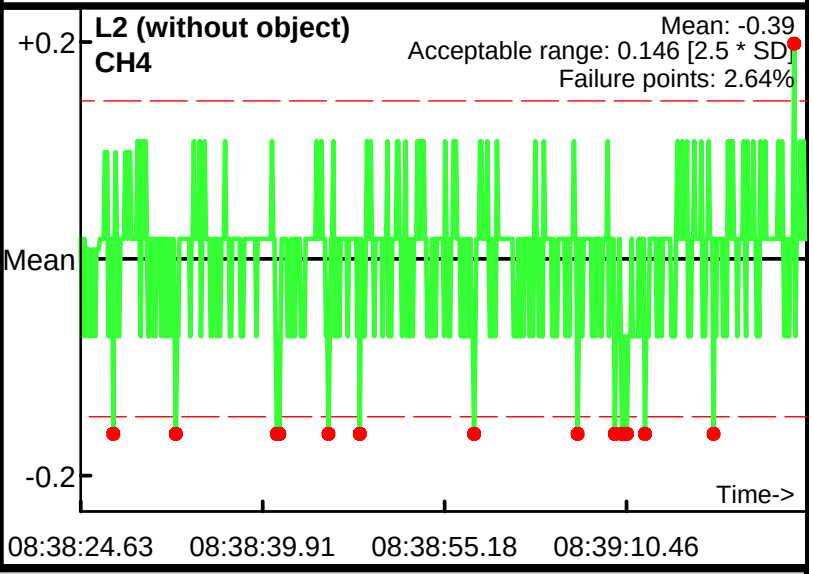












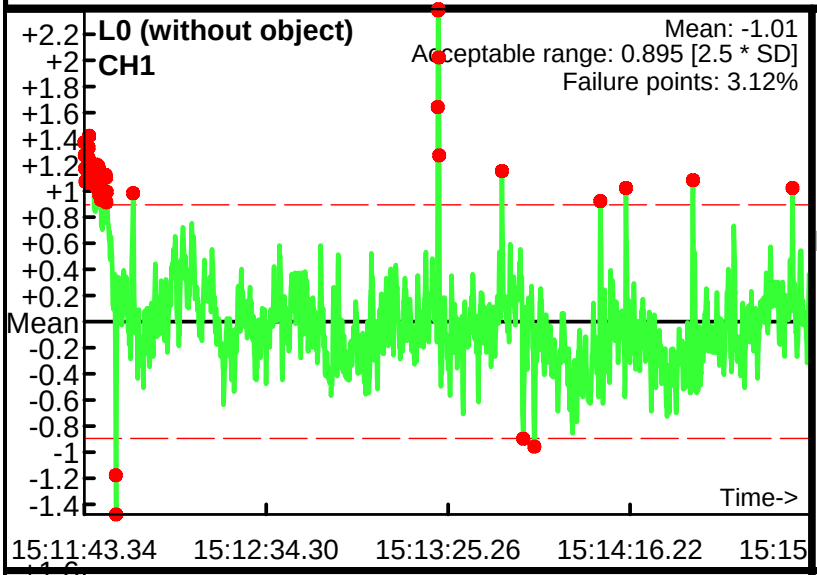
Database: .\062212AM.gdb
Line Name: L0 L1 L2

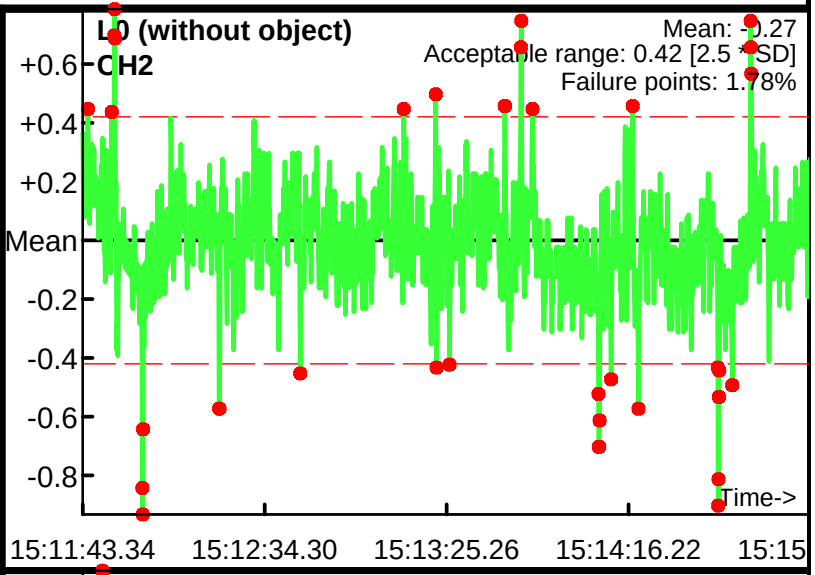
Static Calibration Test

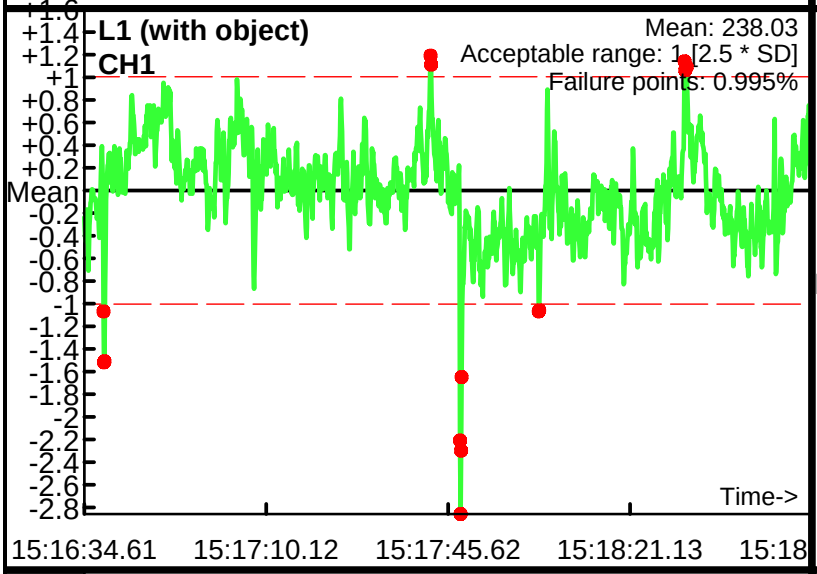
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

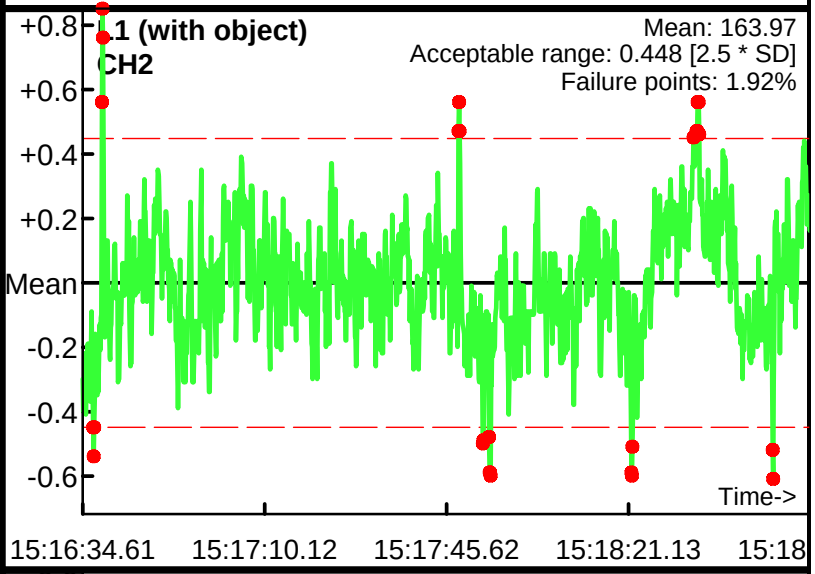
Allowable failure (%): 5%
Outside range
Acceptable limits

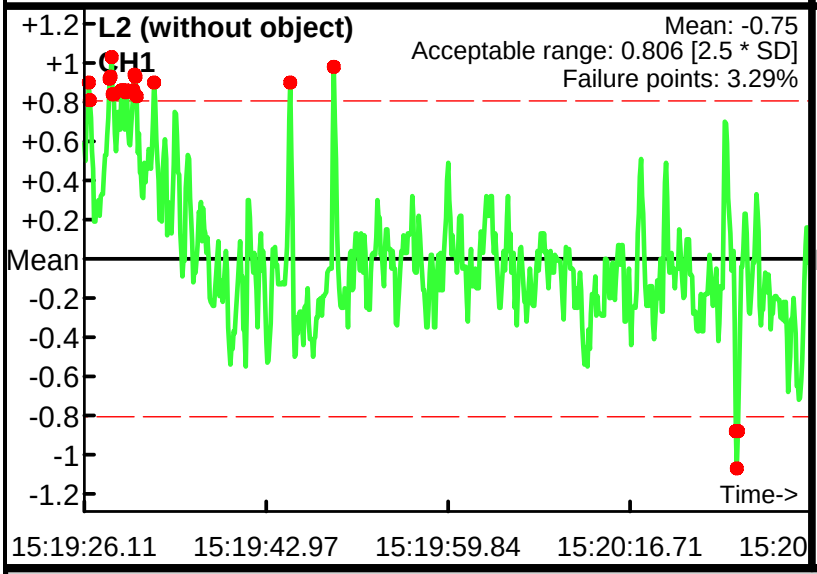
AM test
Operator: BG
Date: 6/22/2012

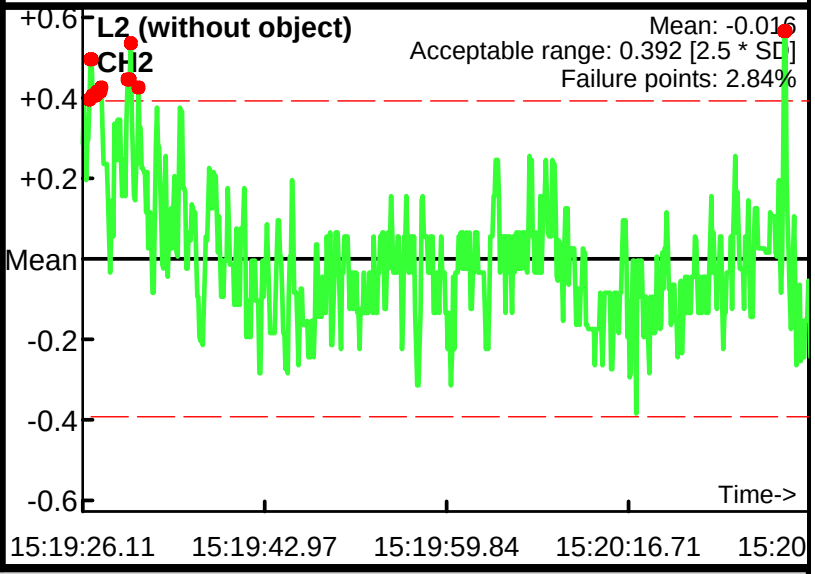












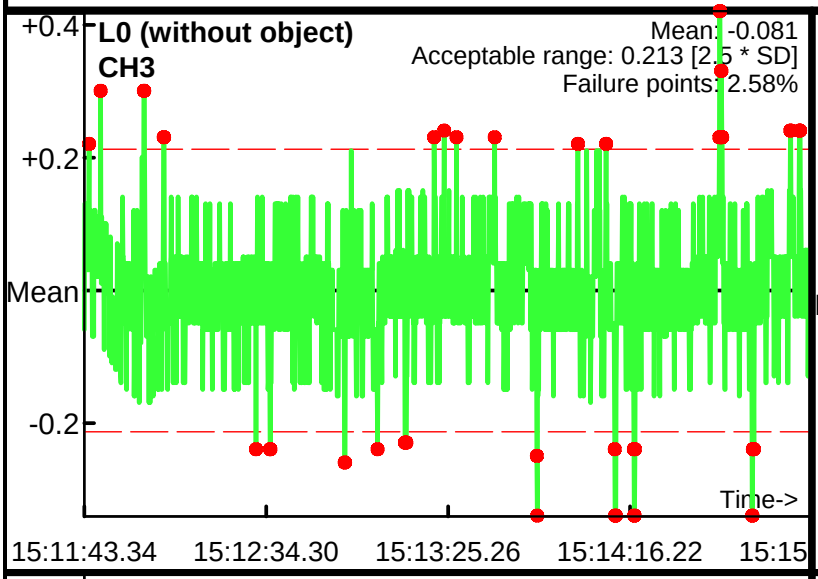
Database: .\062212PM.gdb
Line Name: L0 L1 L2

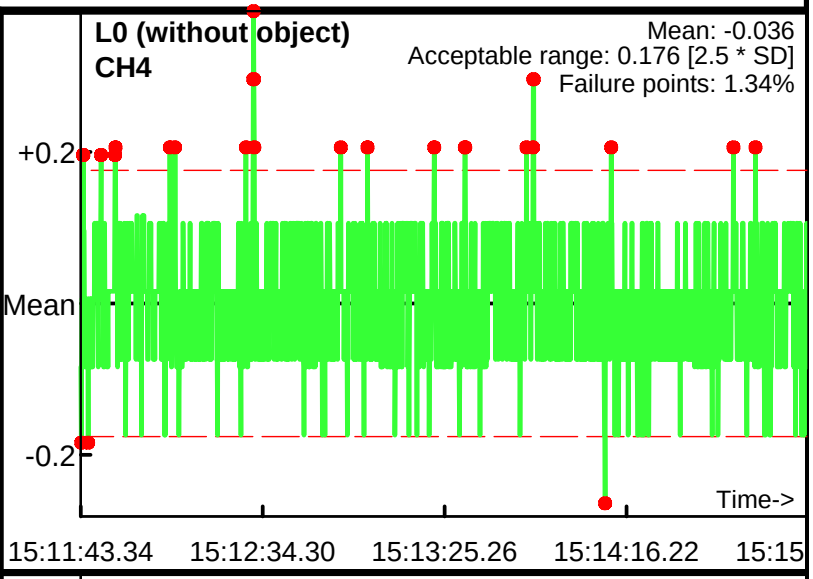
Static Calibration Test

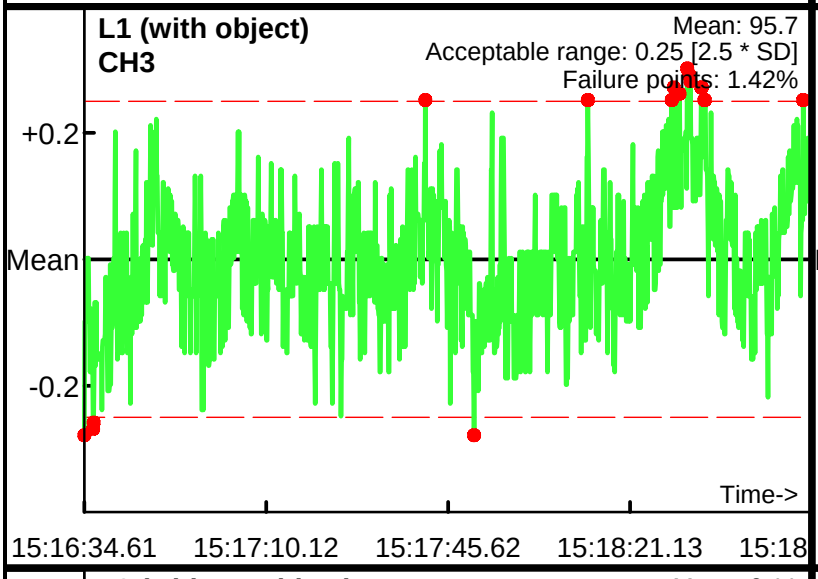
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

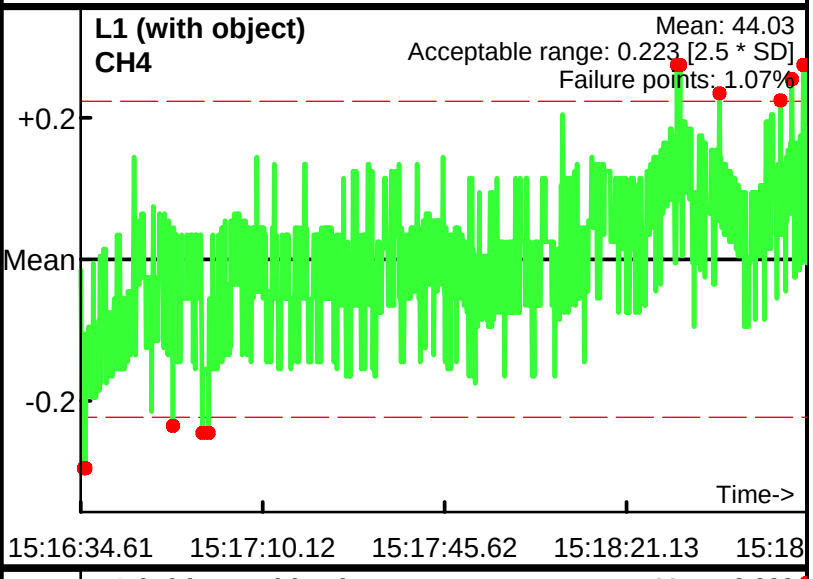
Allowable failure (%): 5%
Outside range
Acceptable limits

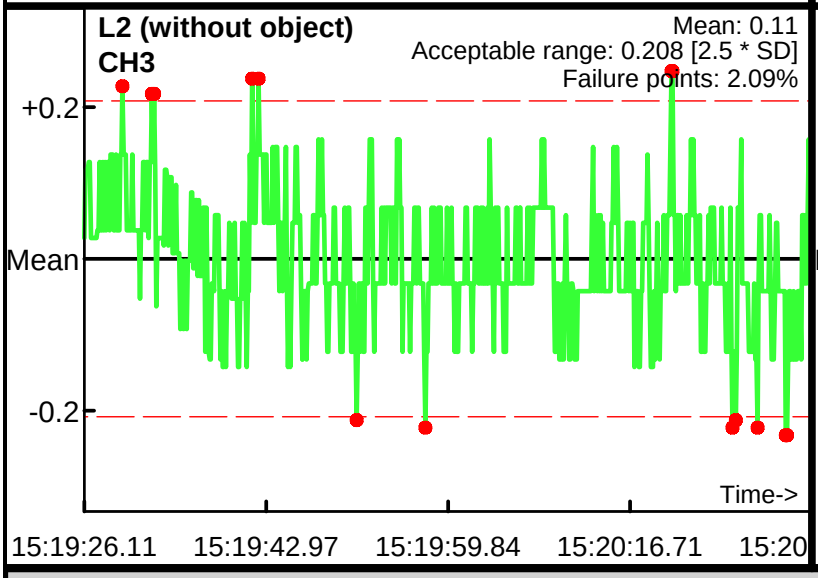
AM test
Operator: BG
Date: 6/22/2012

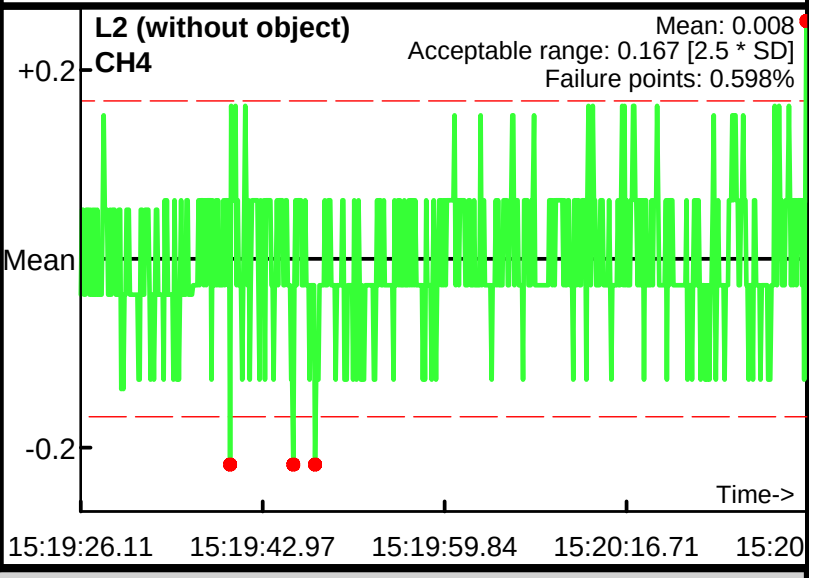












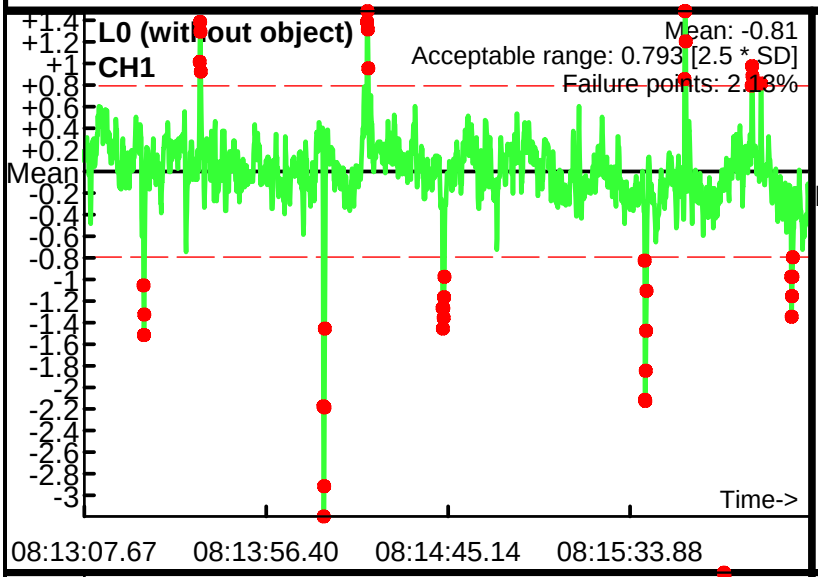
Database: .\062212PM.gdb
Line Name: L0 L1 L2

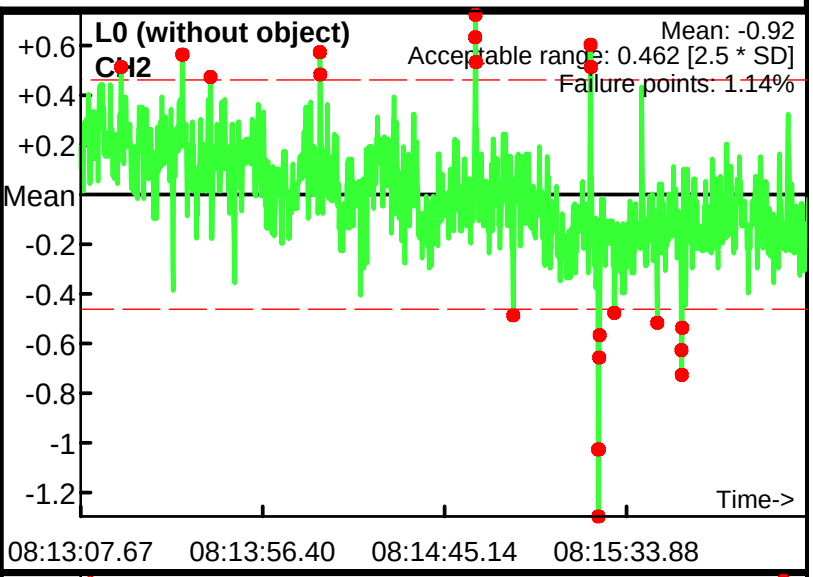
Static Calibration Test

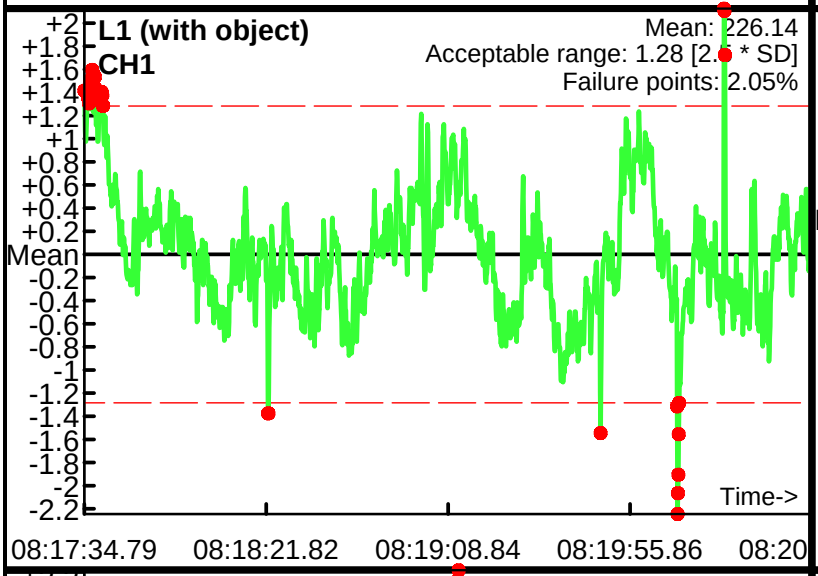
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

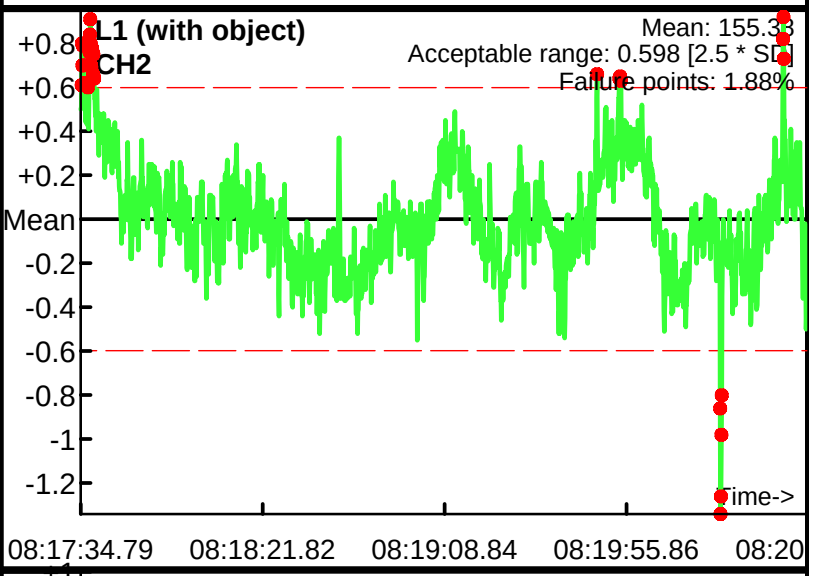
Allowable failure (%): 5%
Outside range
Acceptable limits

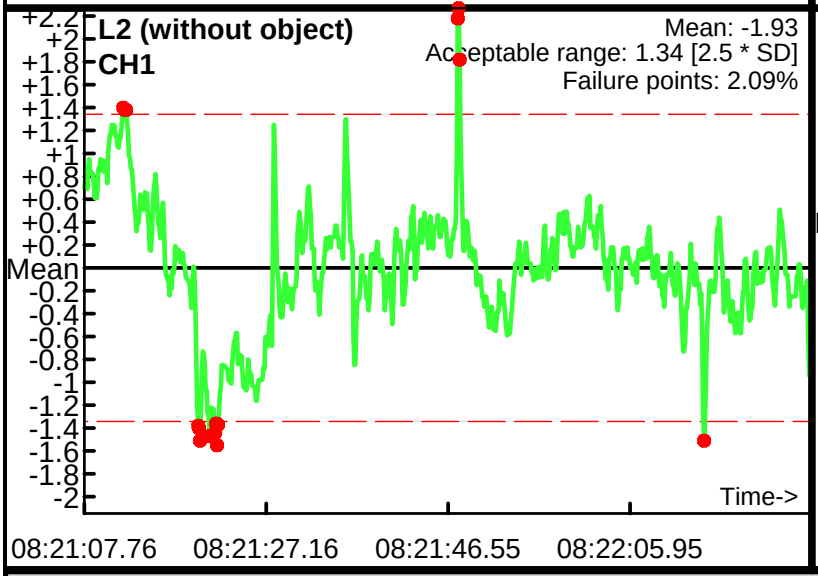
AM test
Operator: BG
Date: 6/25/2012

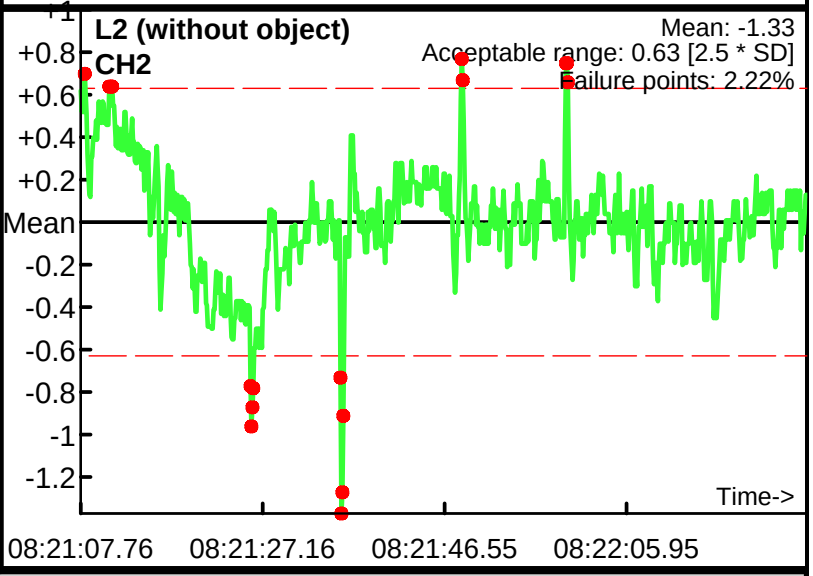












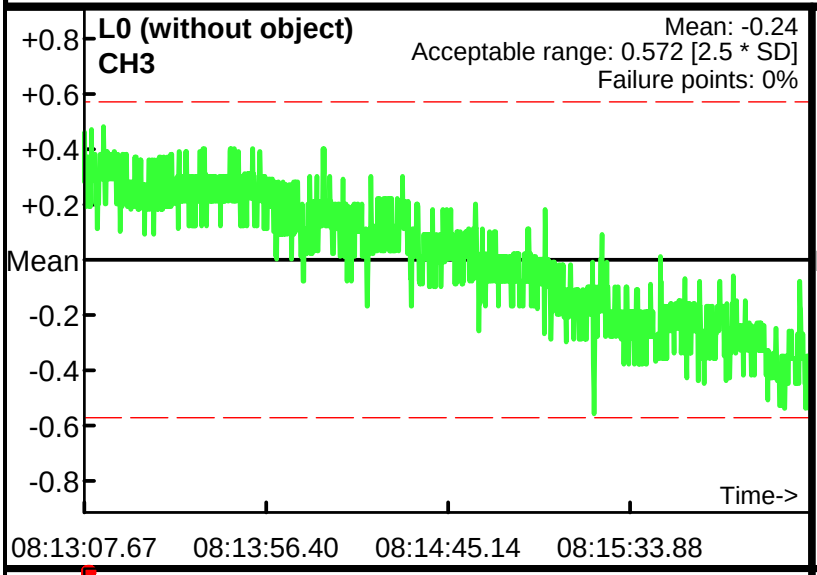
Database: .\062512AM.gdb
Line Name: L0 L1 L2

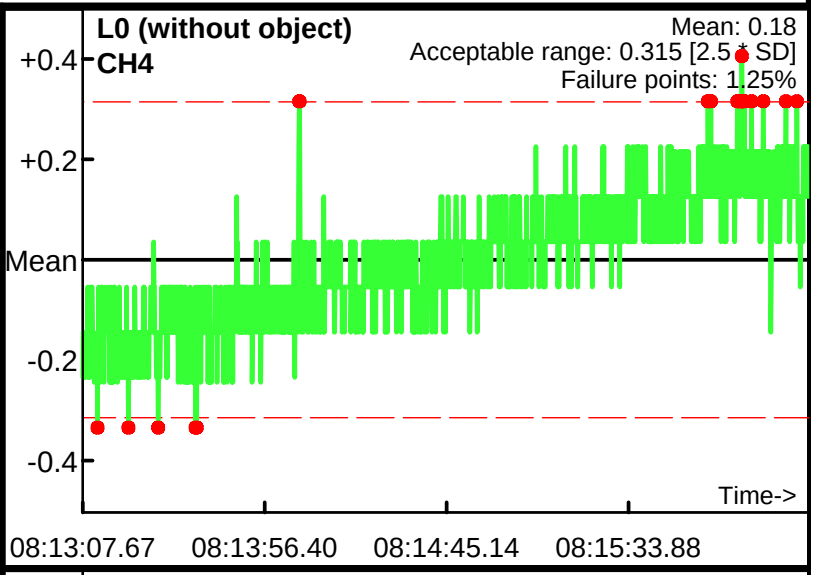
Static Calibration Test

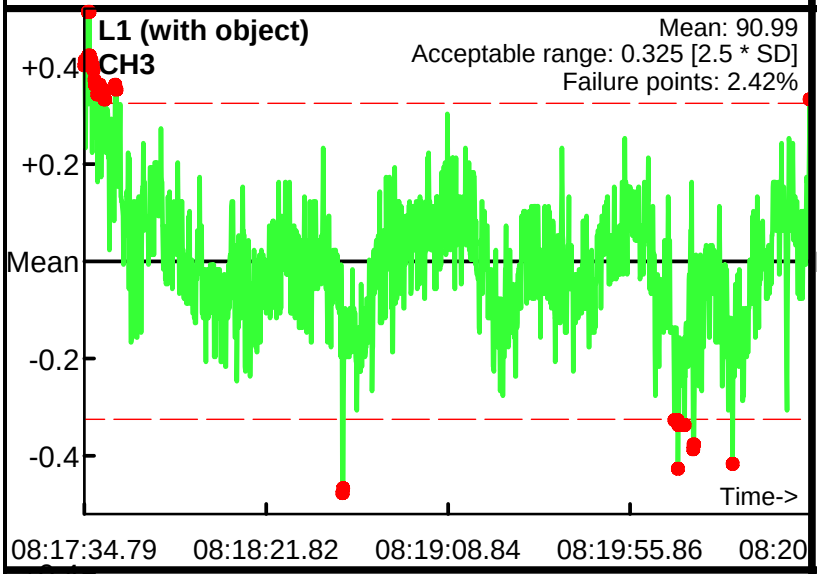
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

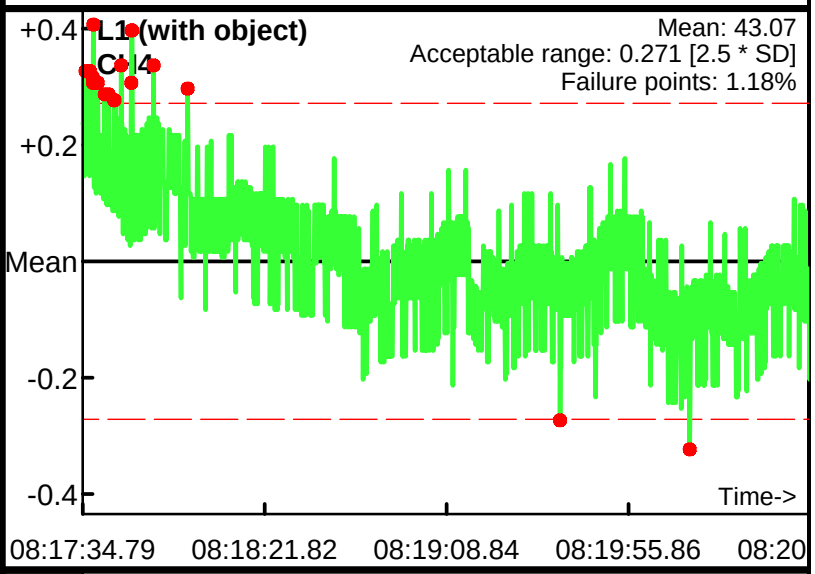
Allowable failure (%): 5%
Outside range
Acceptable limits

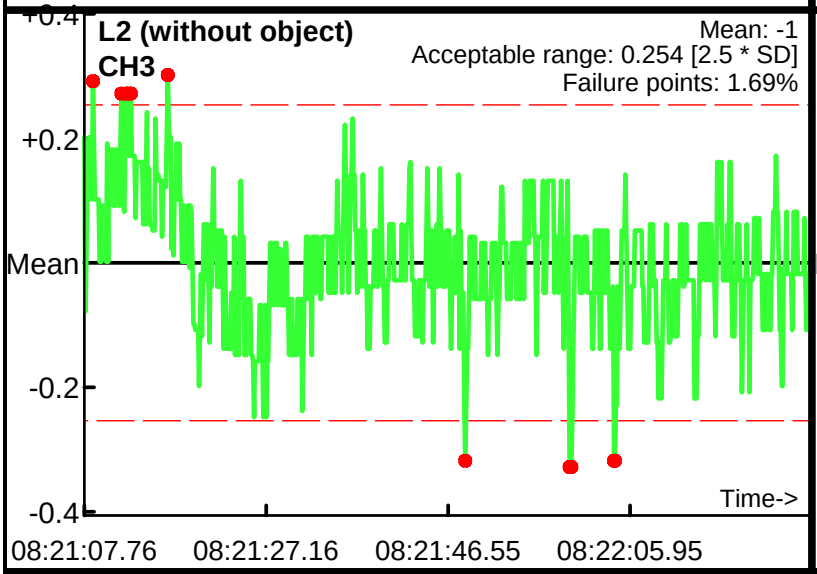
AM test
Operator: BG
Date: 6/25/2012

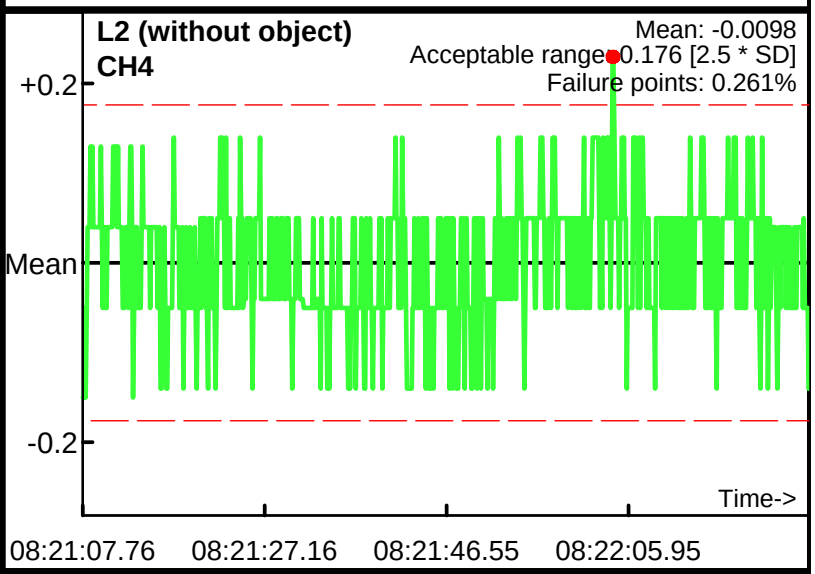












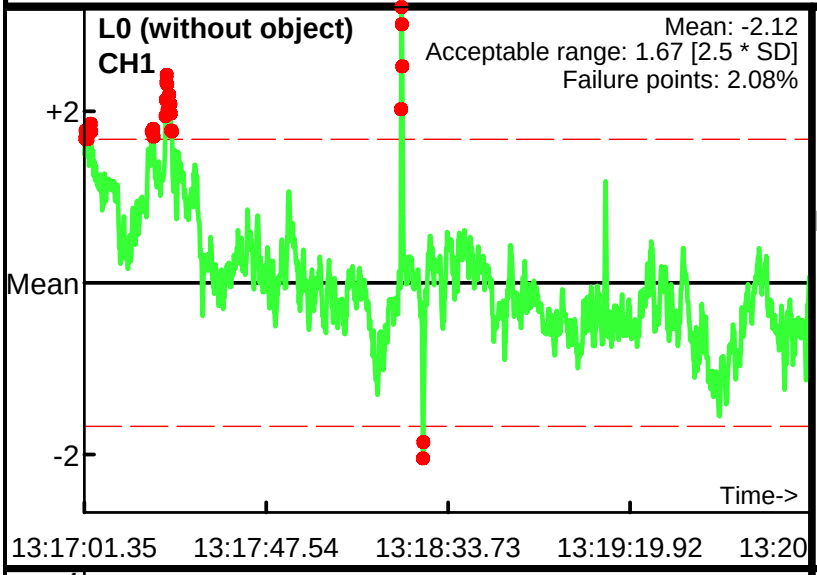
Database: .\062512AM.gdb
Line Name: L0 L1 L2

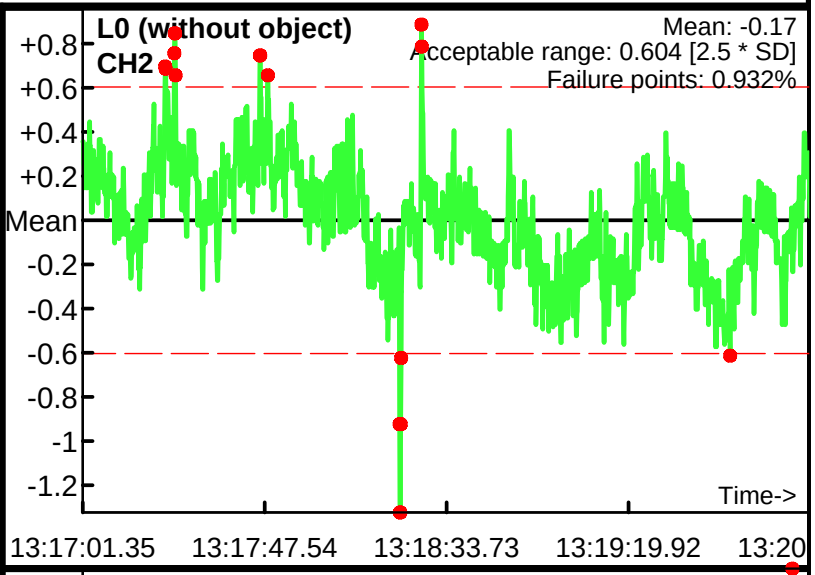
Static Calibration Test

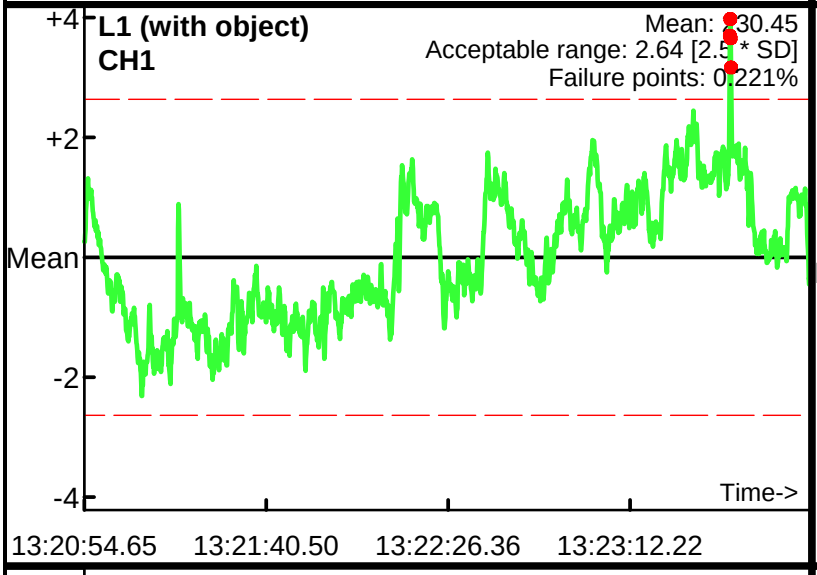
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

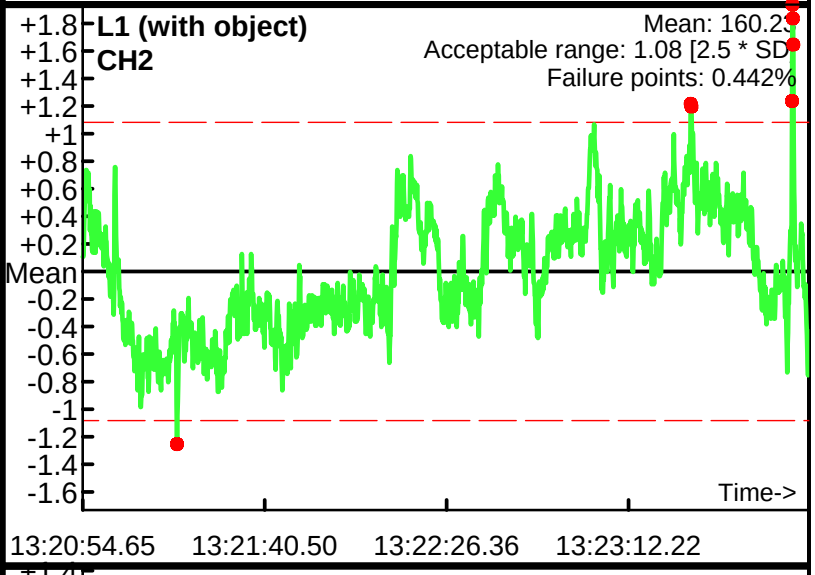
Allowable failure (%): 5%
Outside range
Acceptable limits

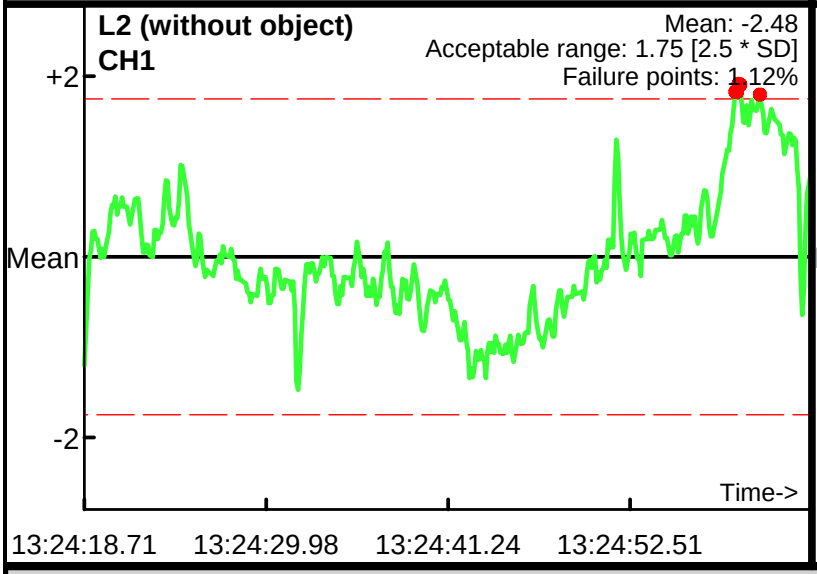
AM test
Operator: BG
Date: 6/25/2012

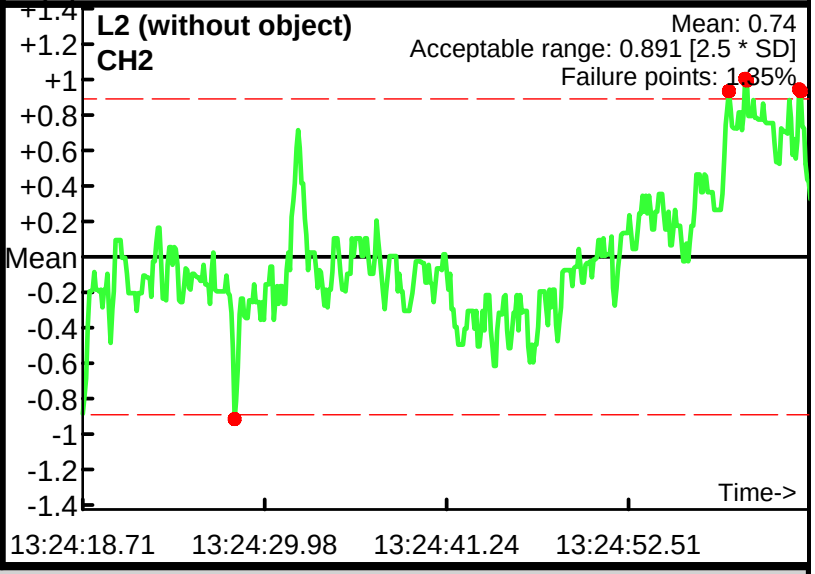












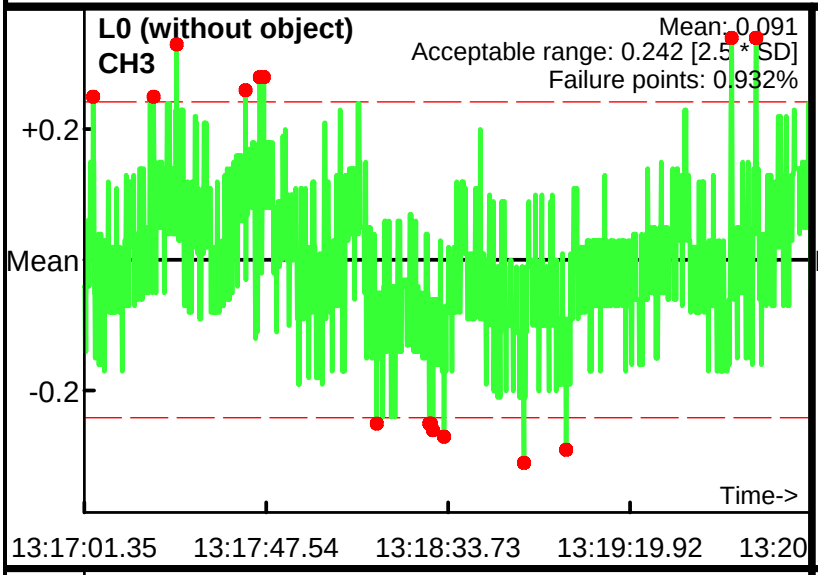
Database: .\062512PM.gdb
Line Name: L0 L1 L2

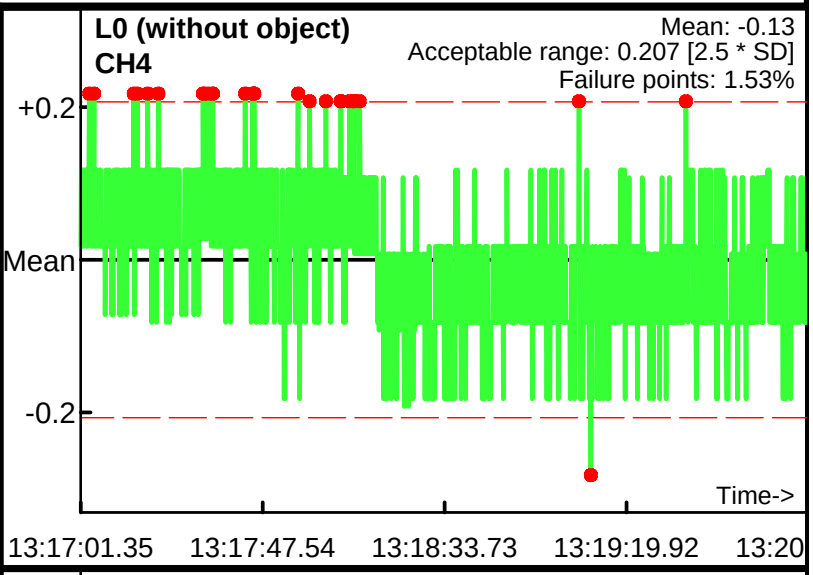
Static Calibration Test

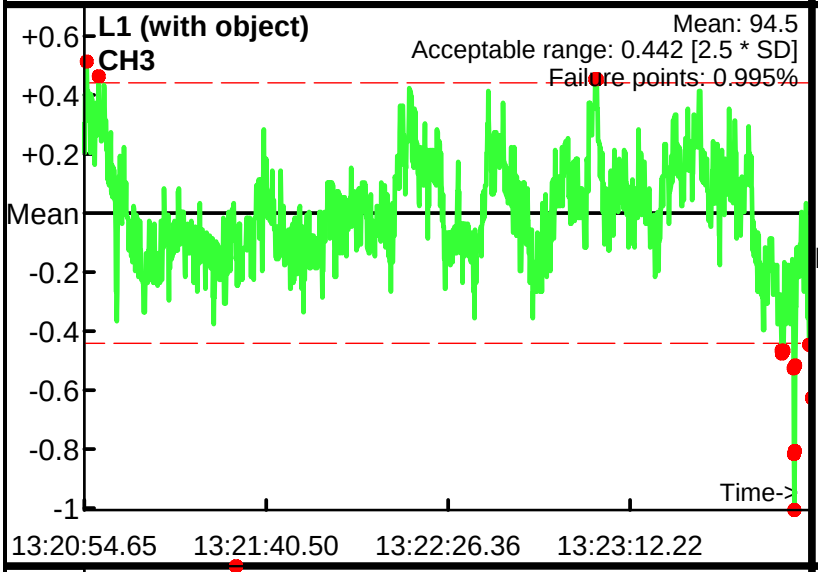
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

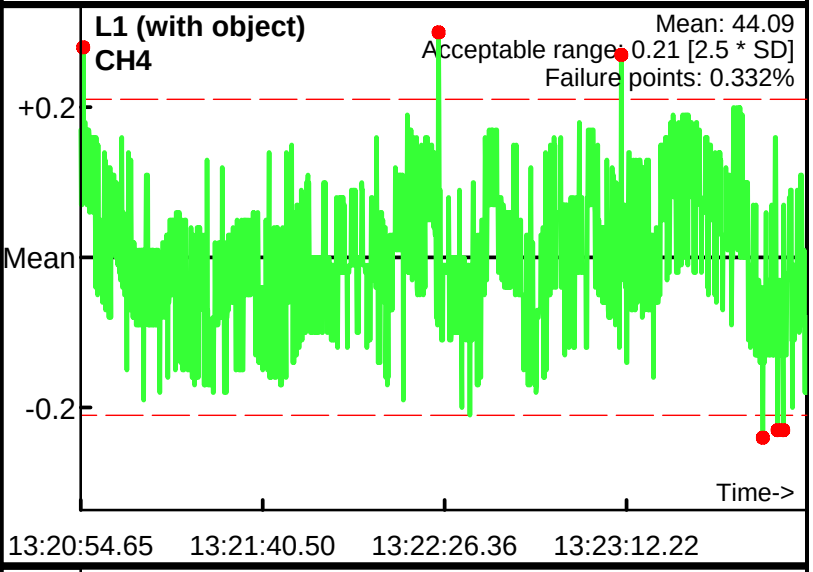
Allowable failure (%): 5%
Outside range
Acceptable limits

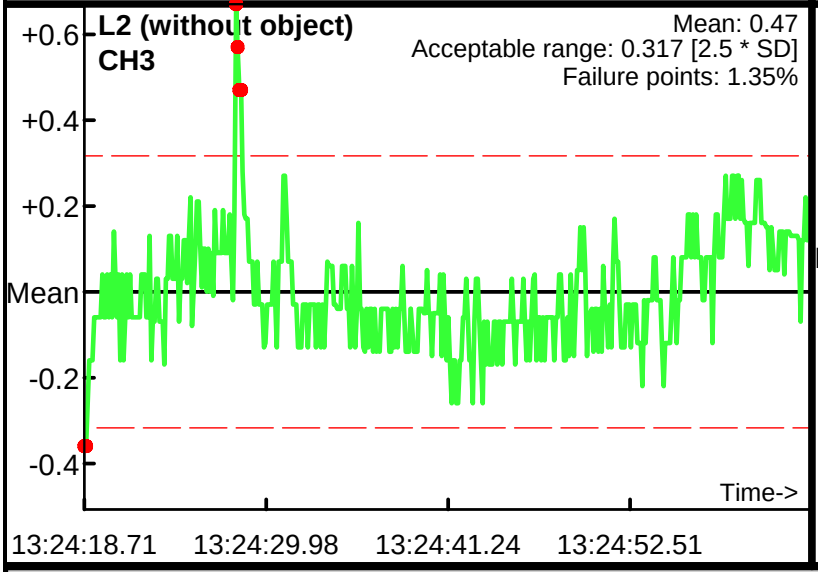
AM test
Operator: BG
Date: 6/25/2012

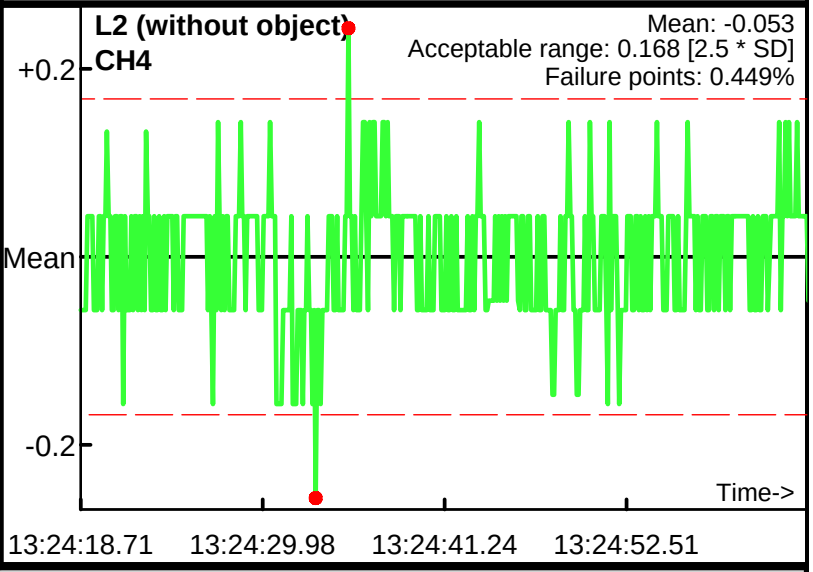












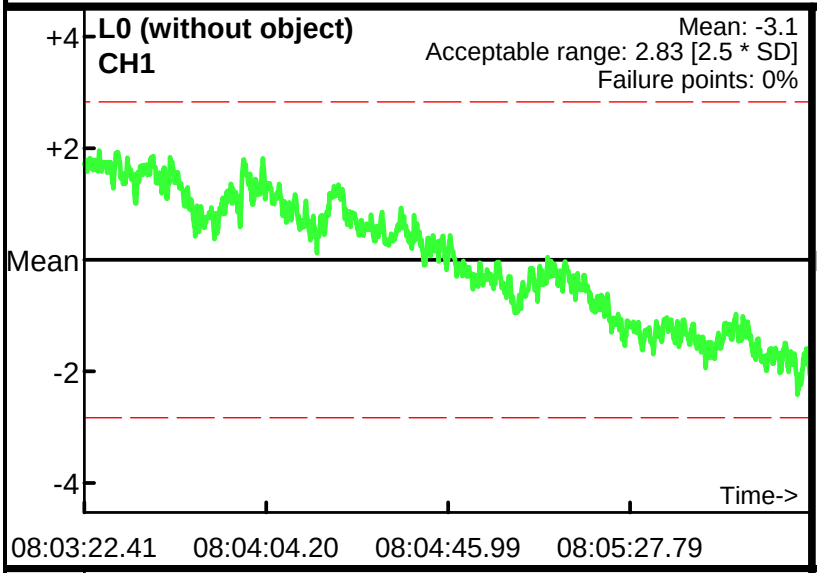
Database: .\062512PM.gdb
Line Name: L0 L1 L2

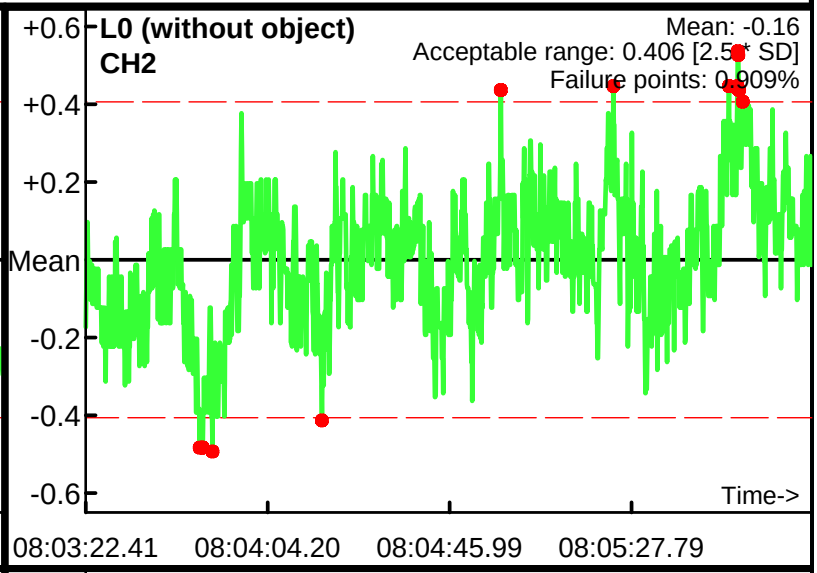
Static Calibration Test

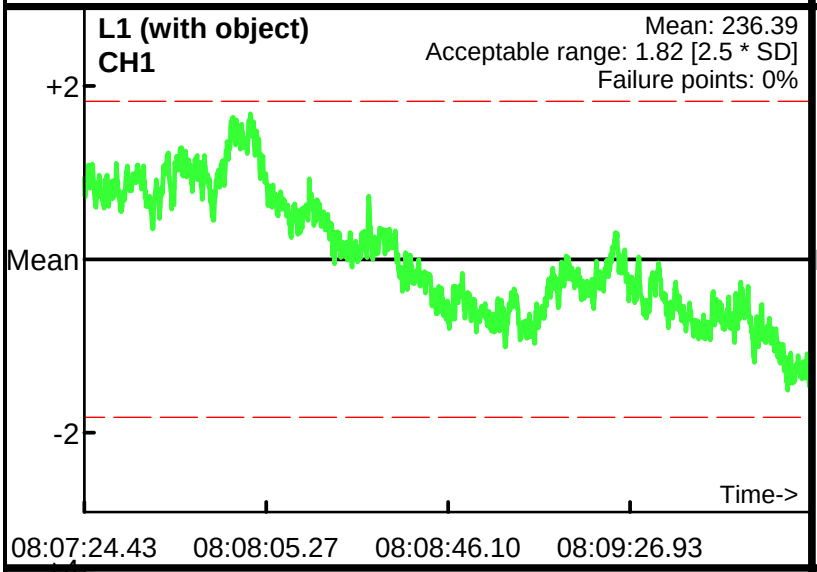
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

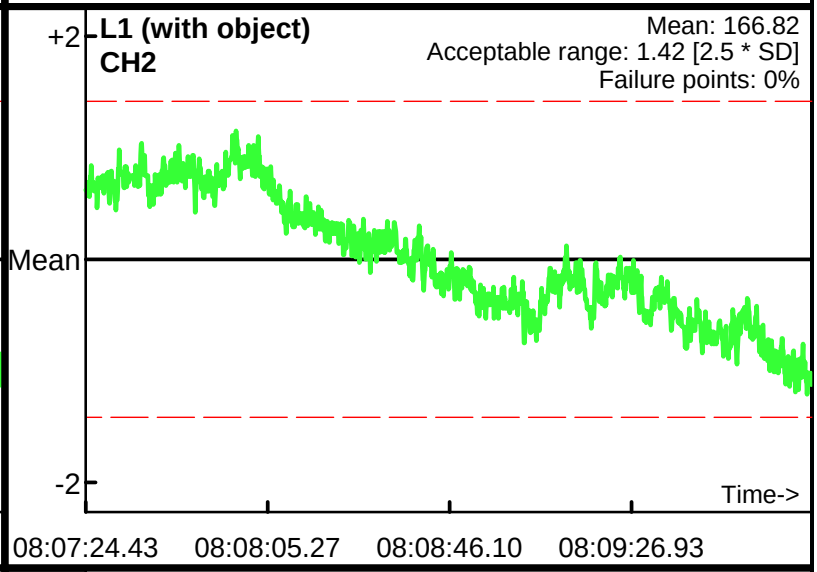
Allowable failure (%): 5%
Outside range
Acceptable limits

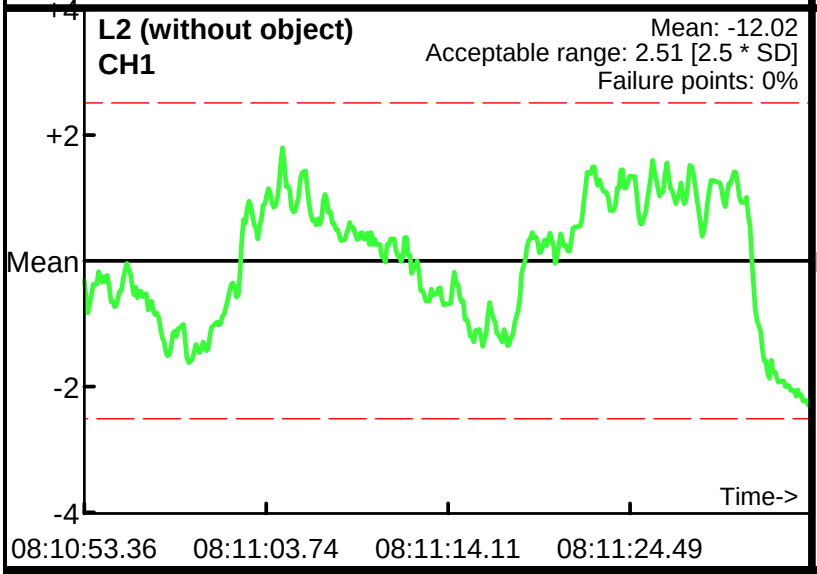
AM test
Operator: BG
Date: 6/26/2012

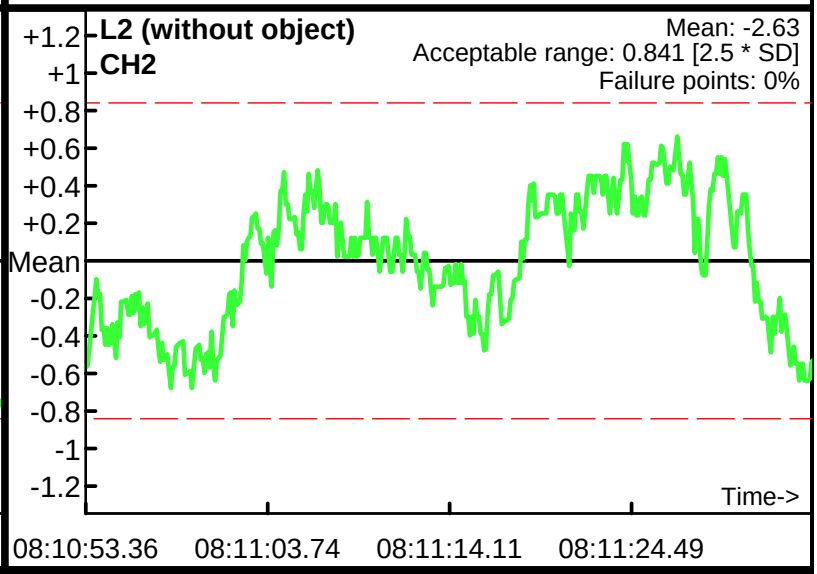












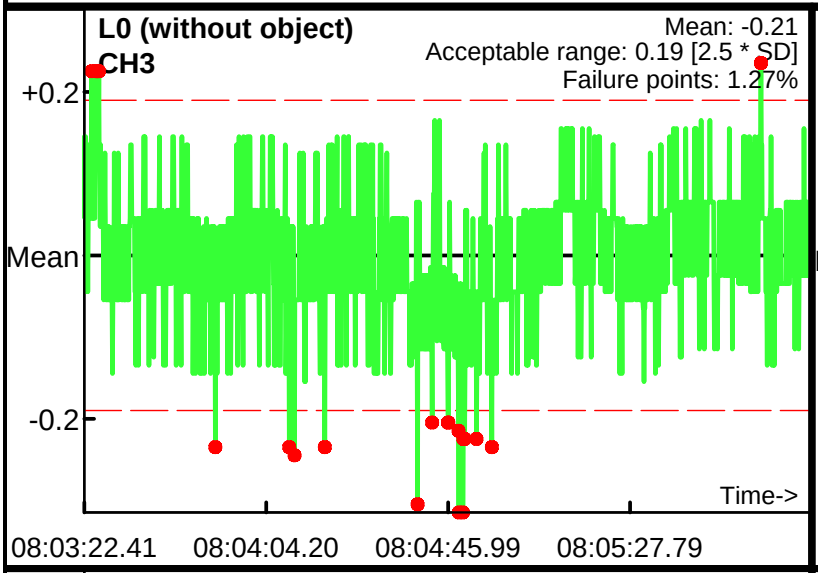
Database: .\062612AM.gdb
Line Name: L0 L1 L2

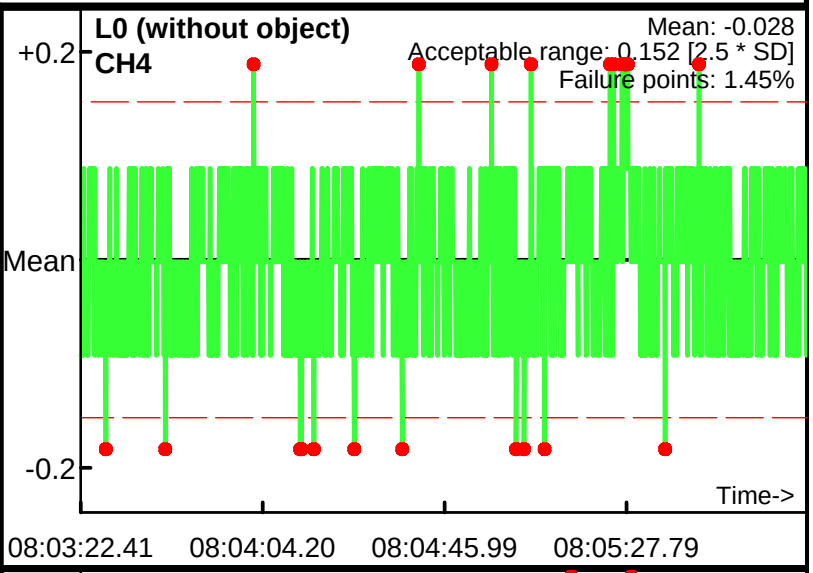
Static Calibration Test

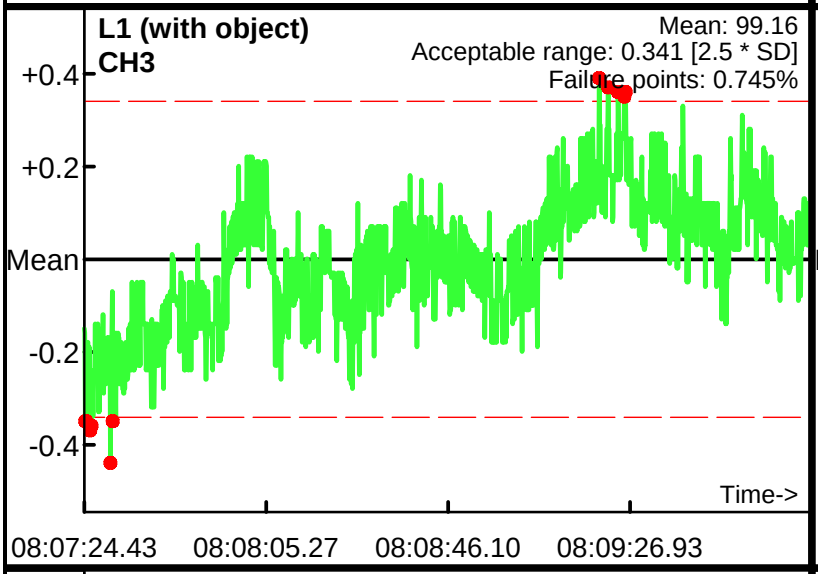
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

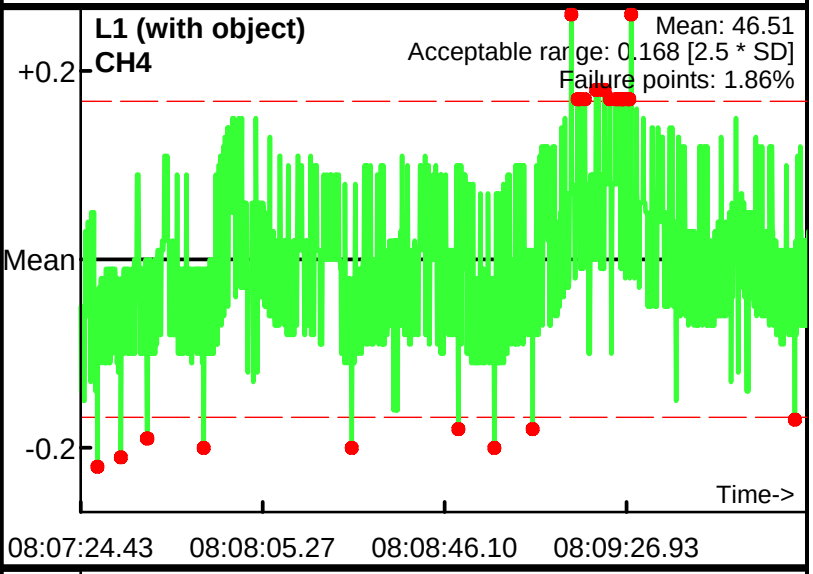
Allowable failure (%): 5%
Outside range
Acceptable limits

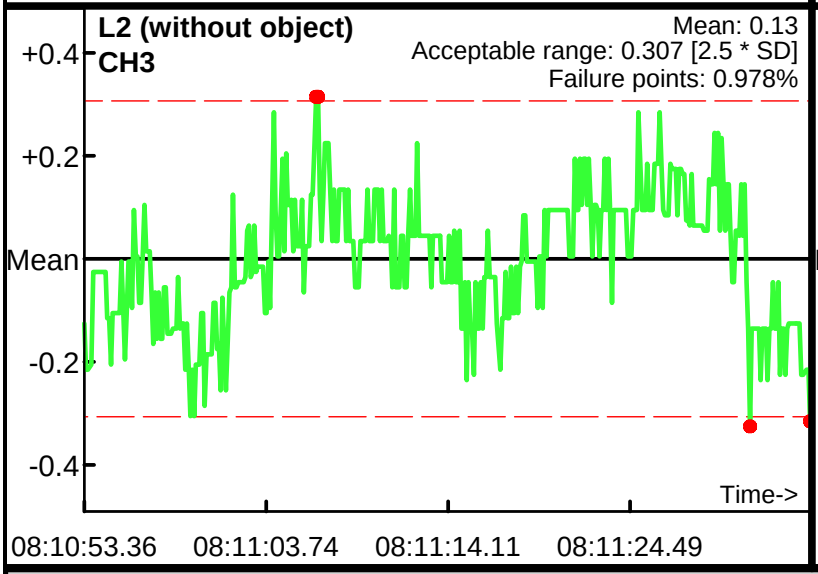
AM test
Operator: BG
Date: 6/26/2012

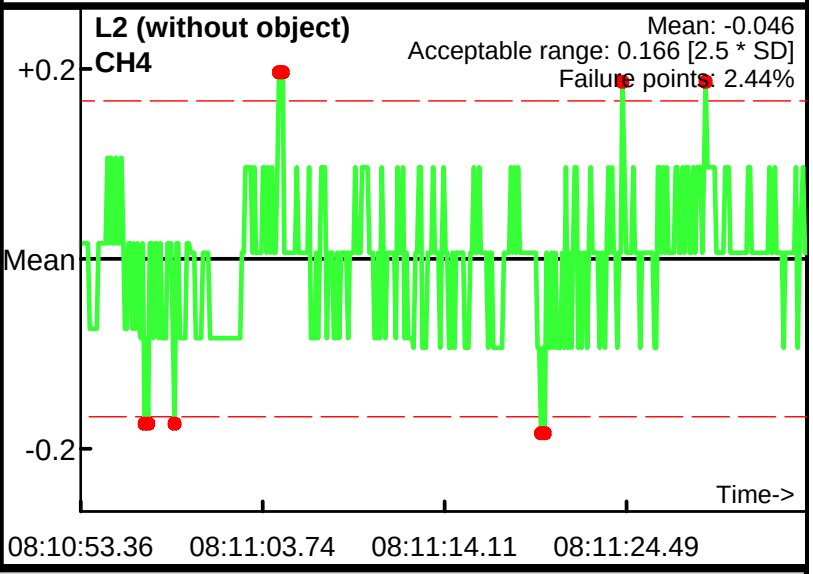












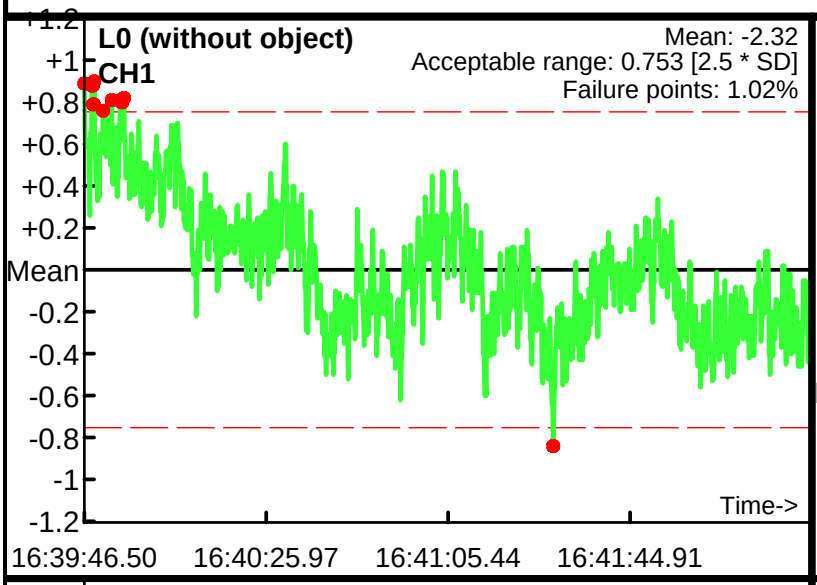
Database: .\062612AM.gdb
Line Name: L0 L1 L2

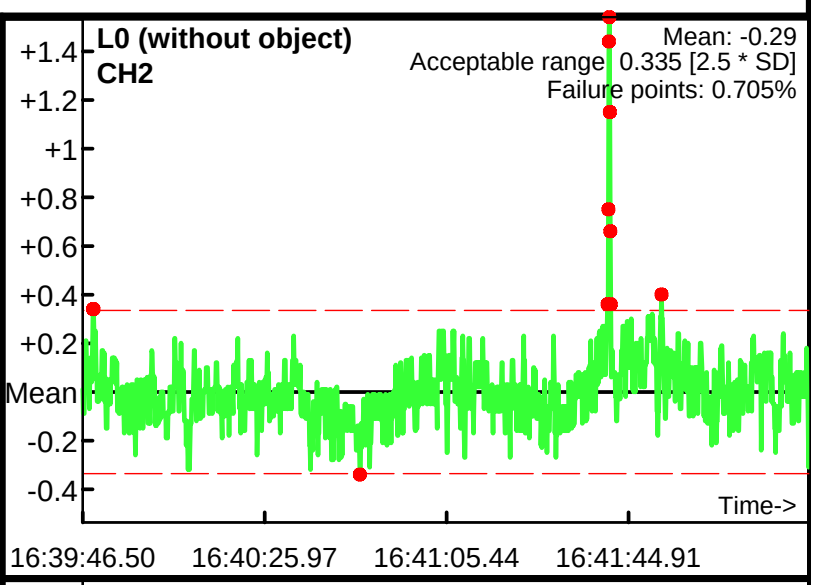
Static Calibration Test

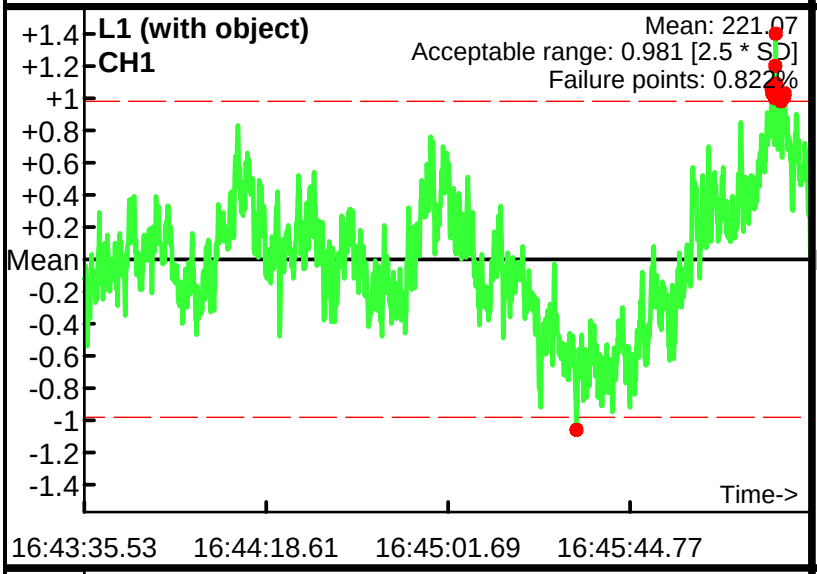
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

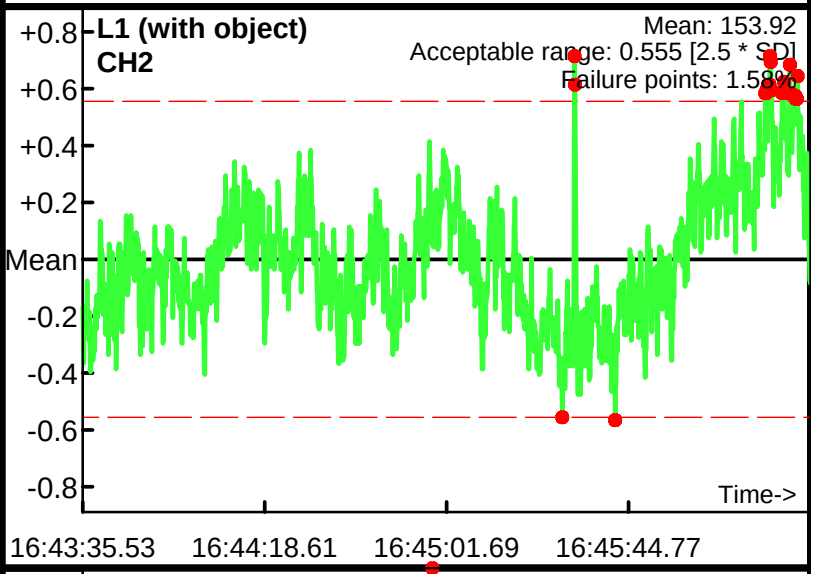
Allowable failure (%): 5%
Outside range
Acceptable limits

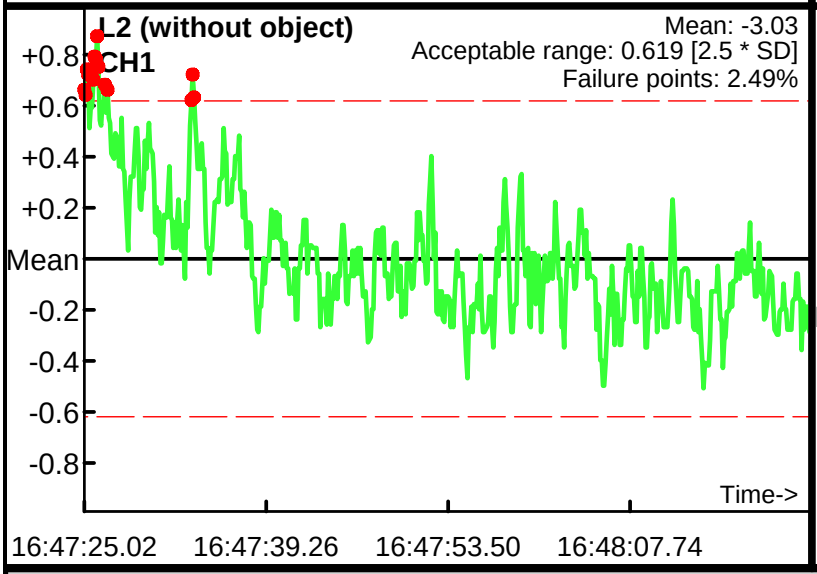
AM test
Operator: BG
Date: 6/26/2012

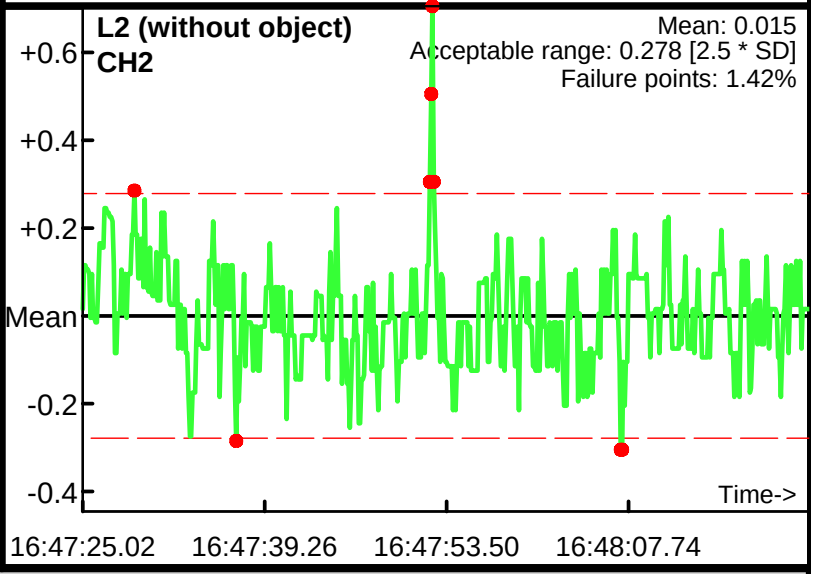












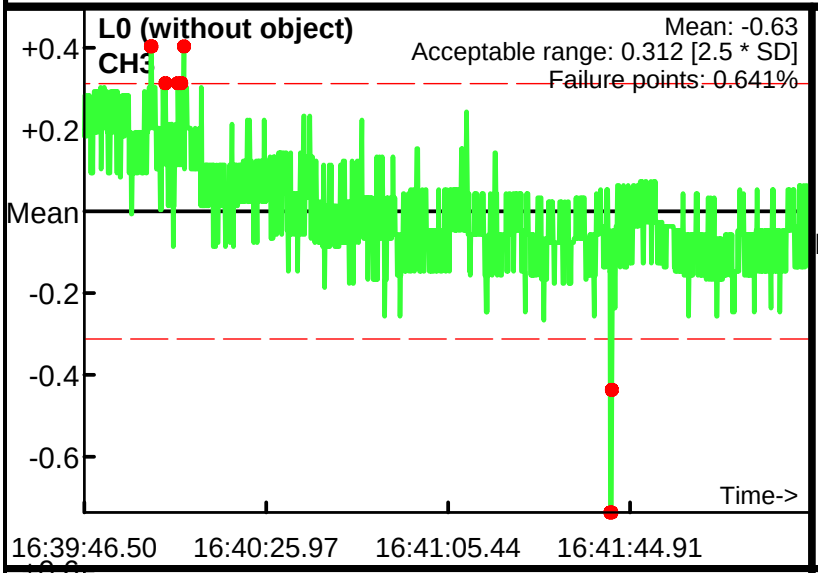
Database: .\062612PM.gdb
Line Name: L0 L1 L2

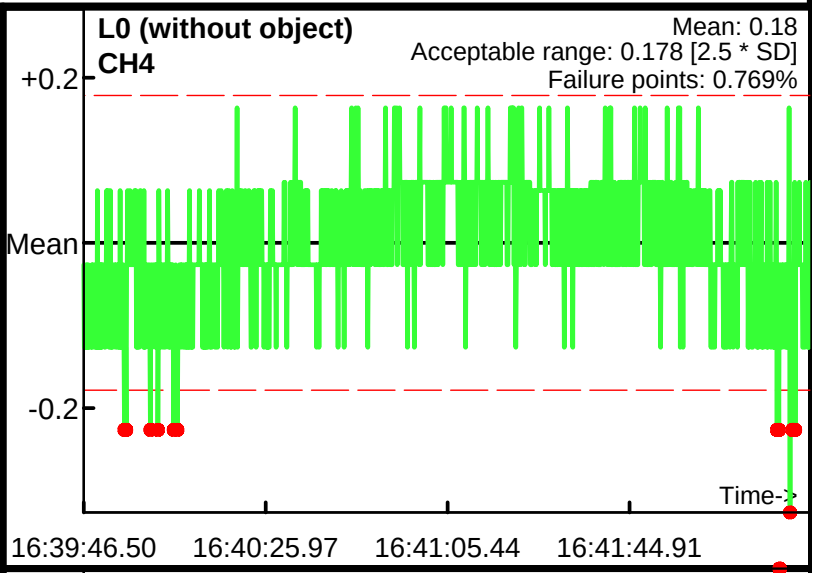
Static Calibration Test

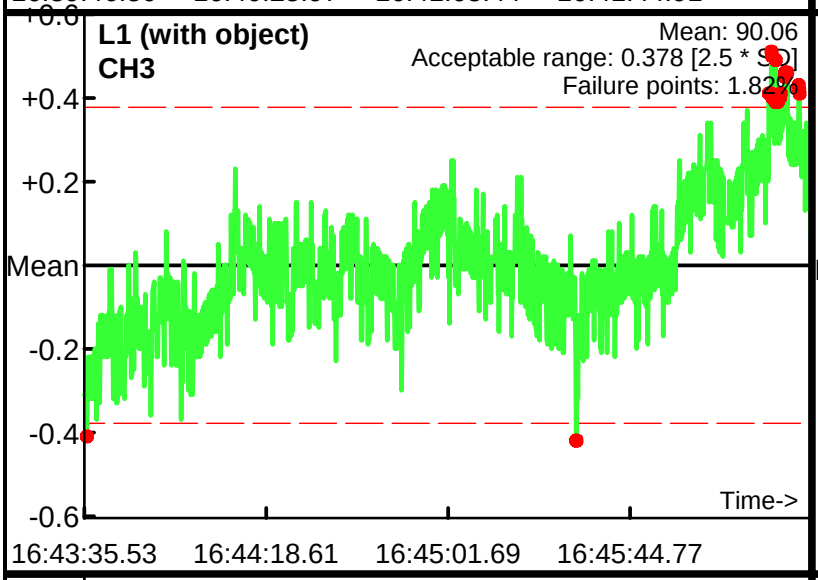
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

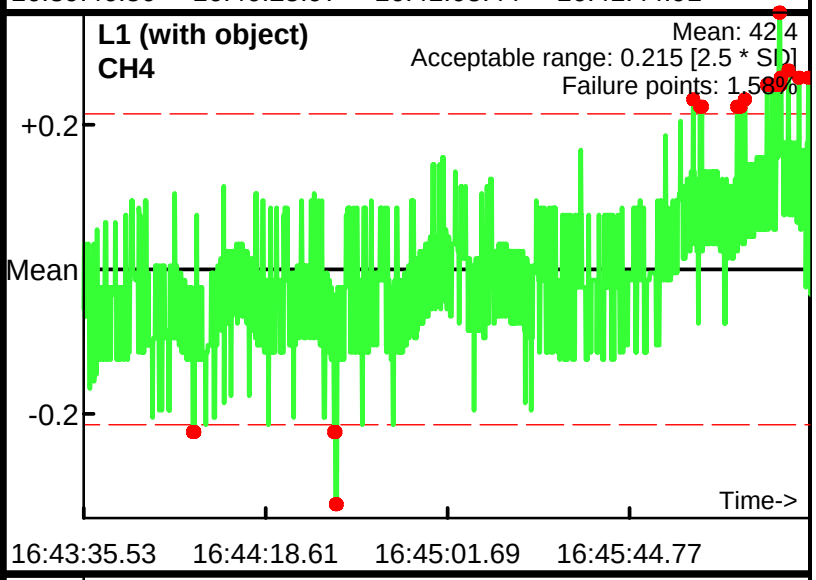
Allowable failure (%): 5%
Outside range
Acceptable limits

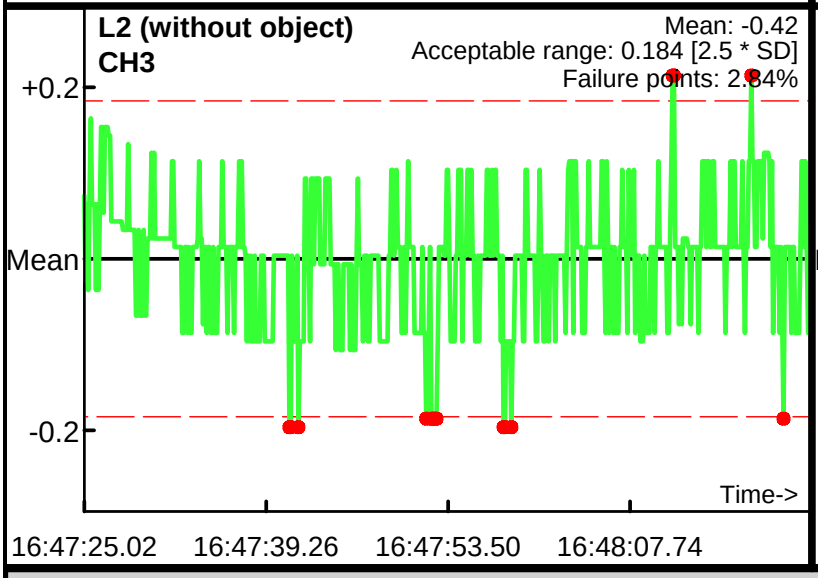
AM test
Operator: BG
Date: 6/26/2012

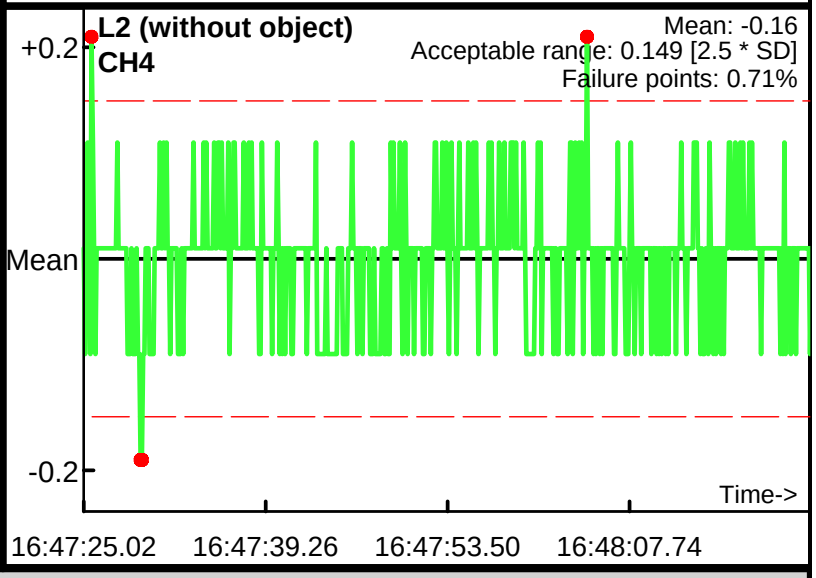












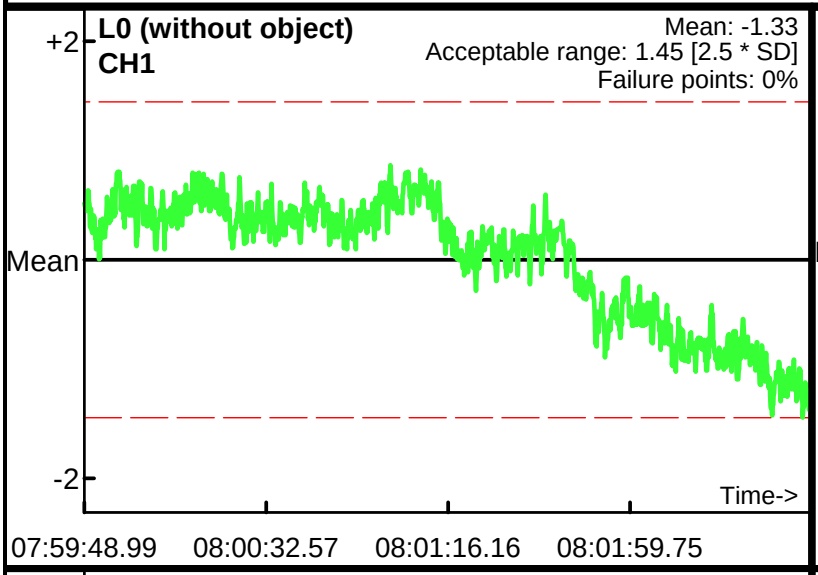
Database: .\062612PM.gdb
Line Name: L0 L1 L2

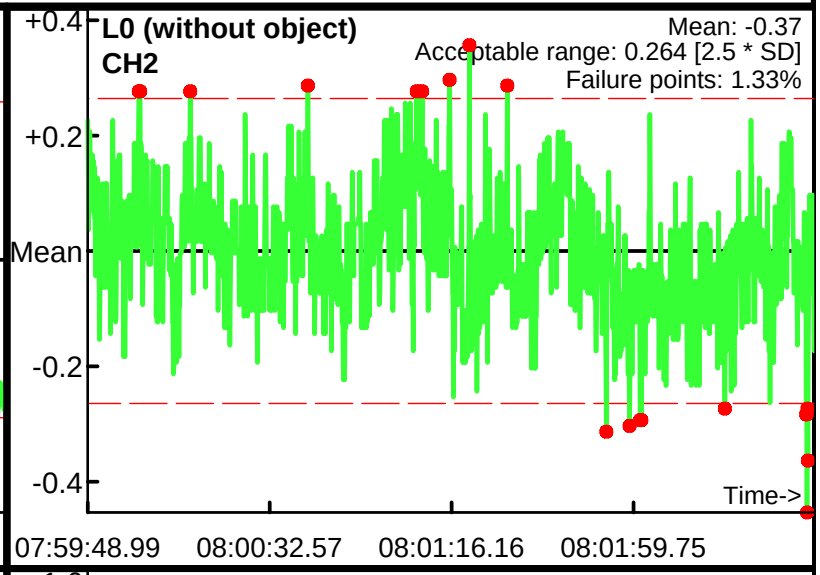
Static Calibration Test

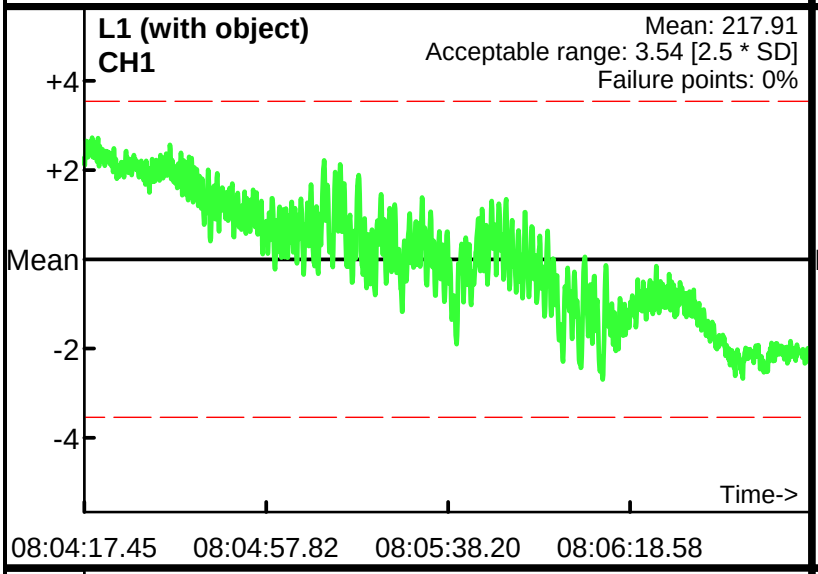
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

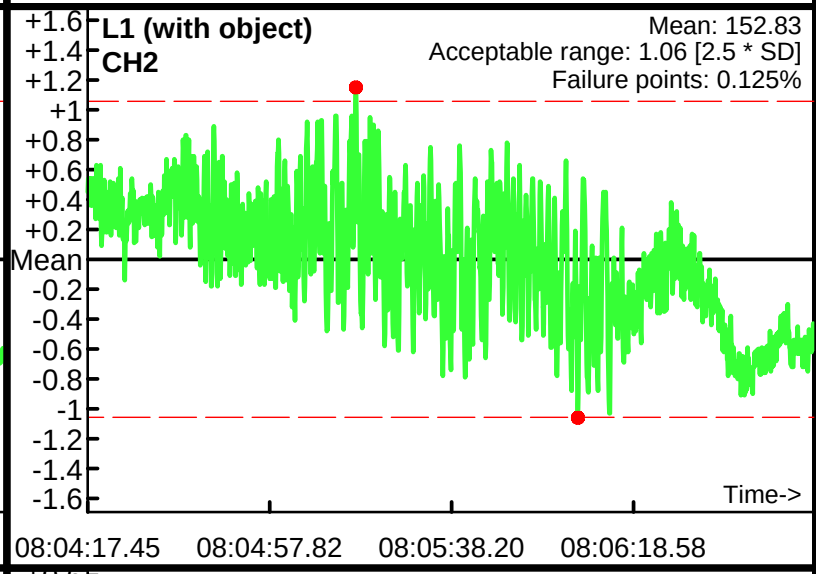
Allowable failure (%): 5%
Outside range
Acceptable limits

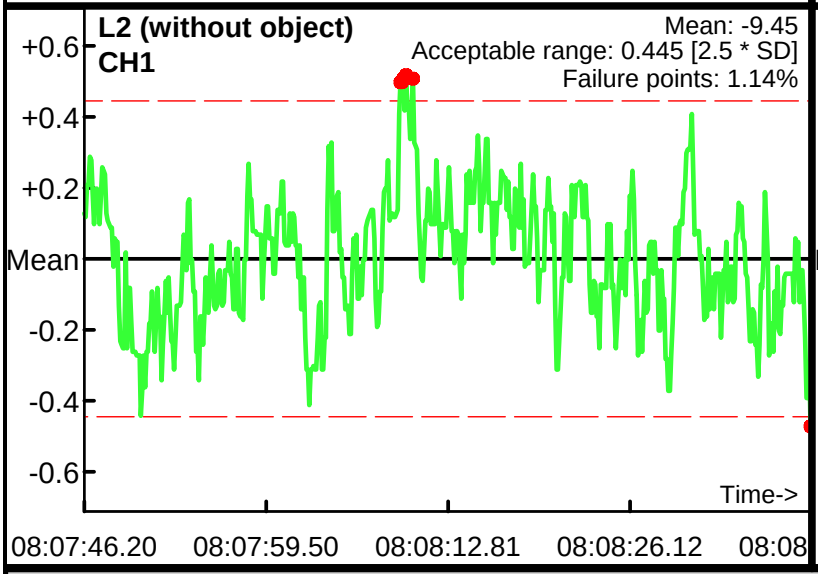
AM test
Operator: BG
Date: 6/27/2012

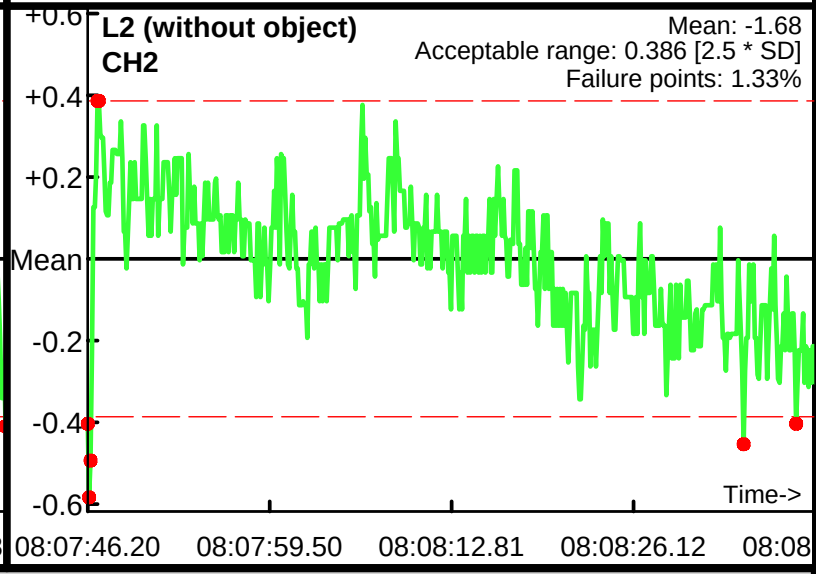












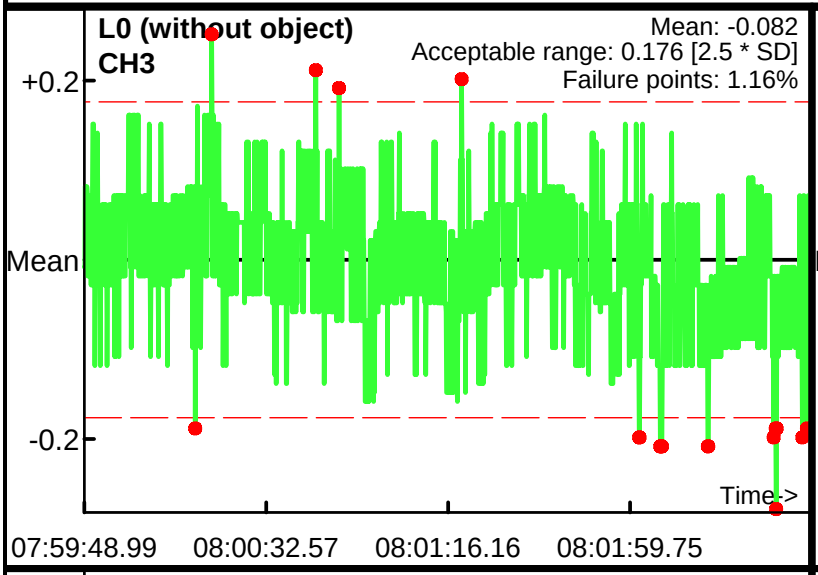
Database: .\062712AM.gdb
Line Name: L0 L1 L2

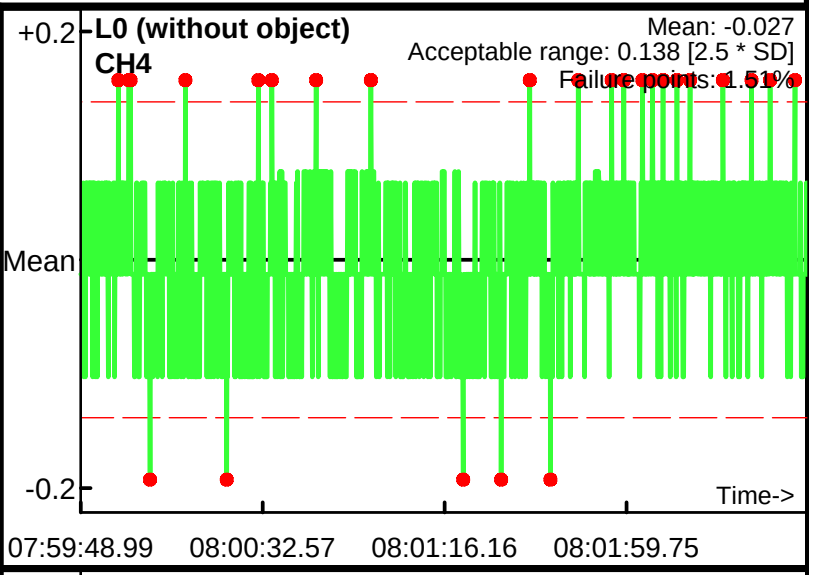
Static Calibration Test

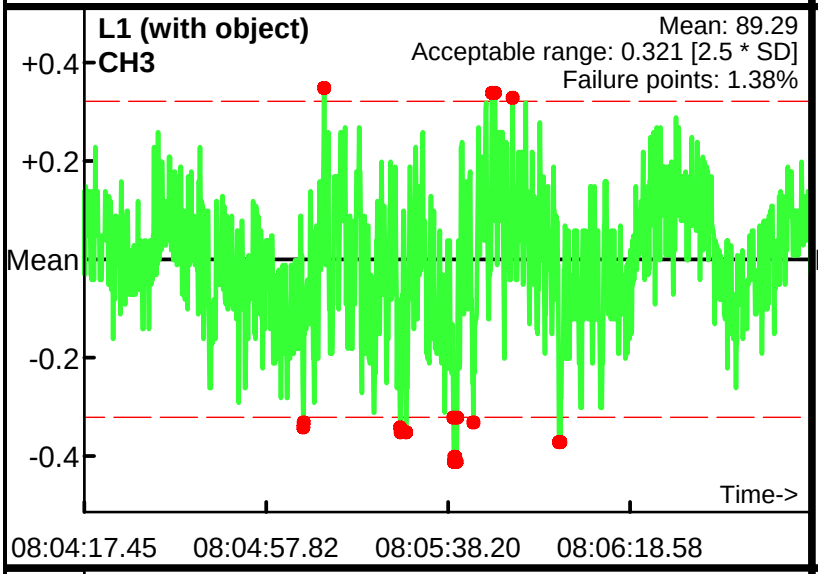
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

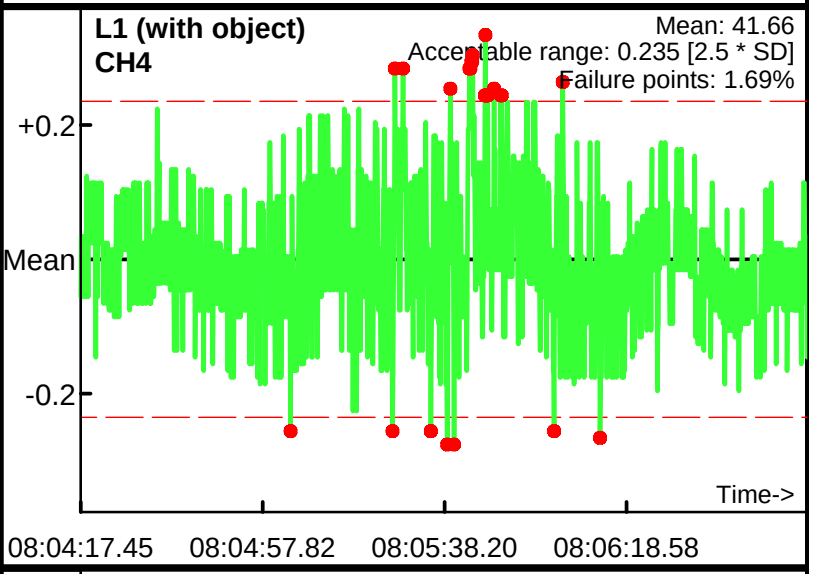
Allowable failure (%): 5%
Outside range
Acceptable limits

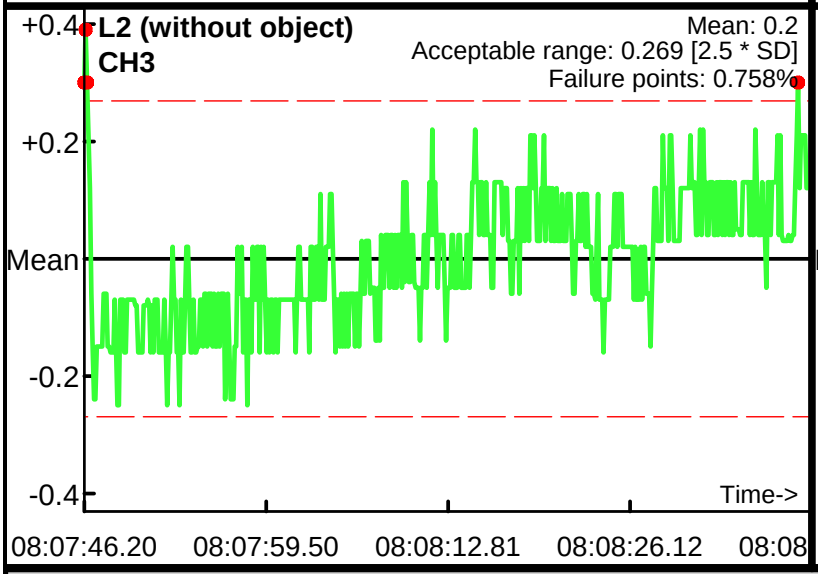
AM test
Operator: BG
Date: 6/27/2012

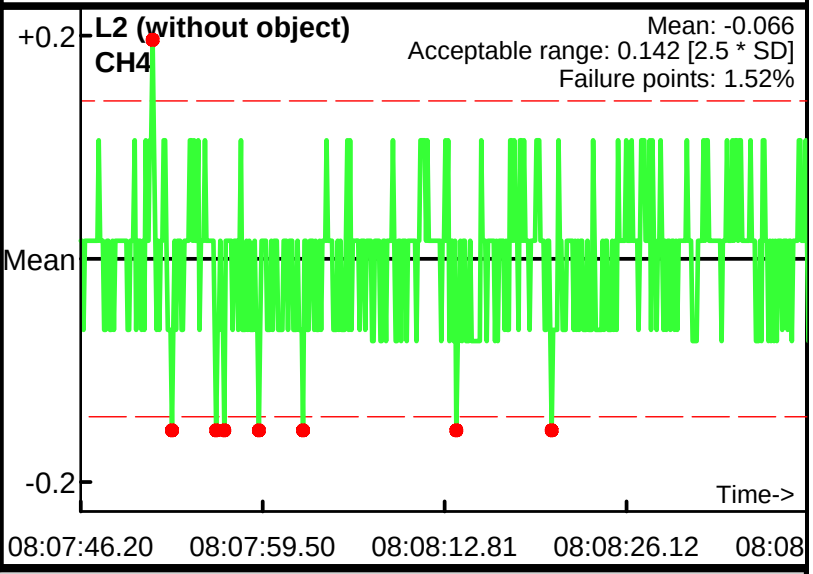












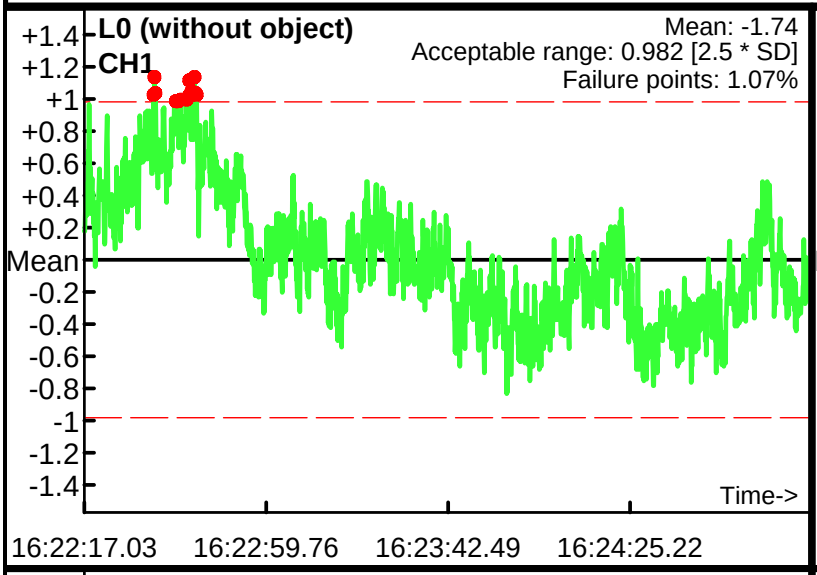
Database: .\062712AM.gdb
Line Name: L0 L1 L2

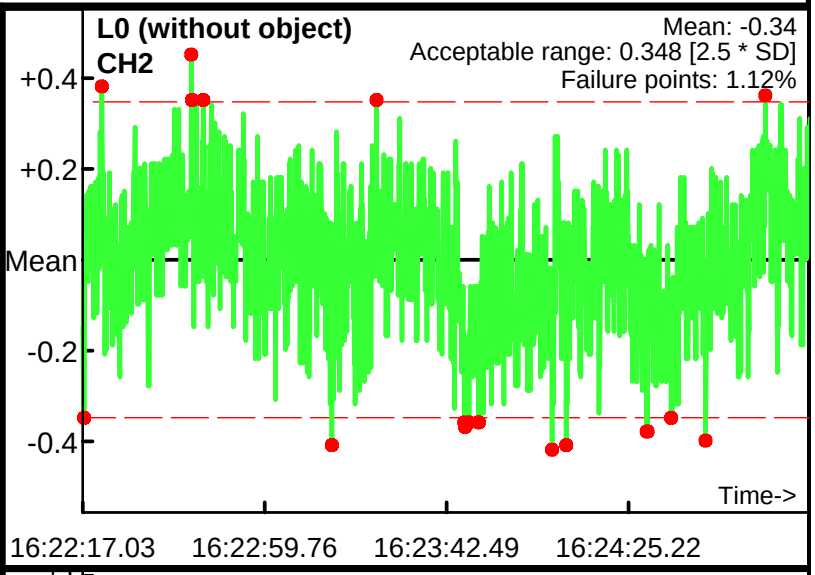
Static Calibration Test

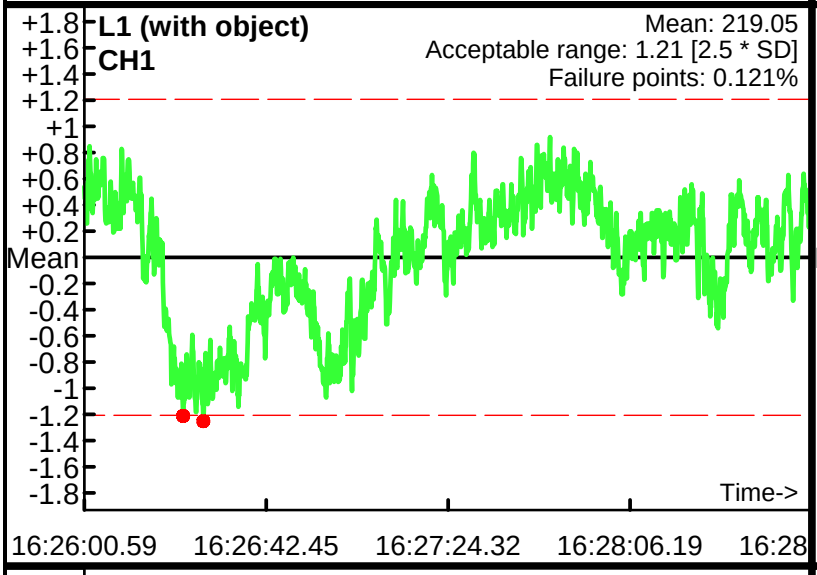
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

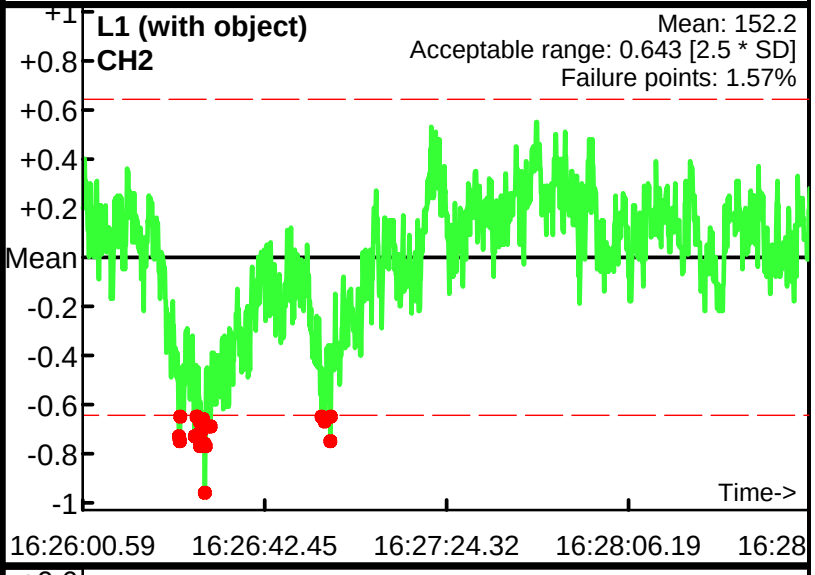
Allowable failure (%): 5%
Outside range
Acceptable limits

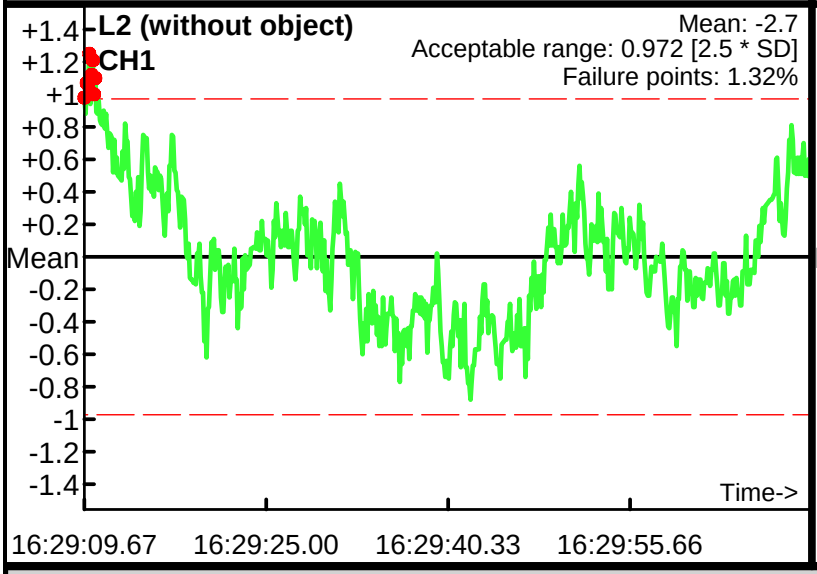
AM test
Operator: BG
Date: 6/27/2012

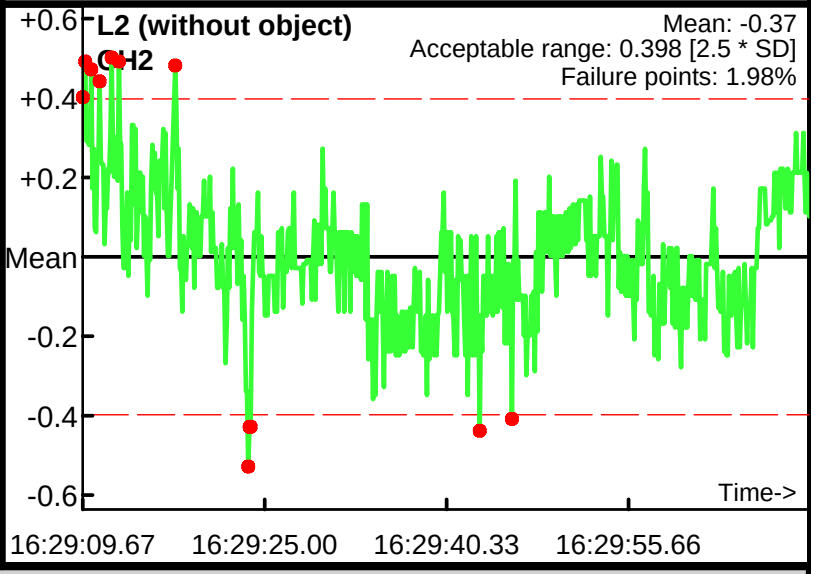












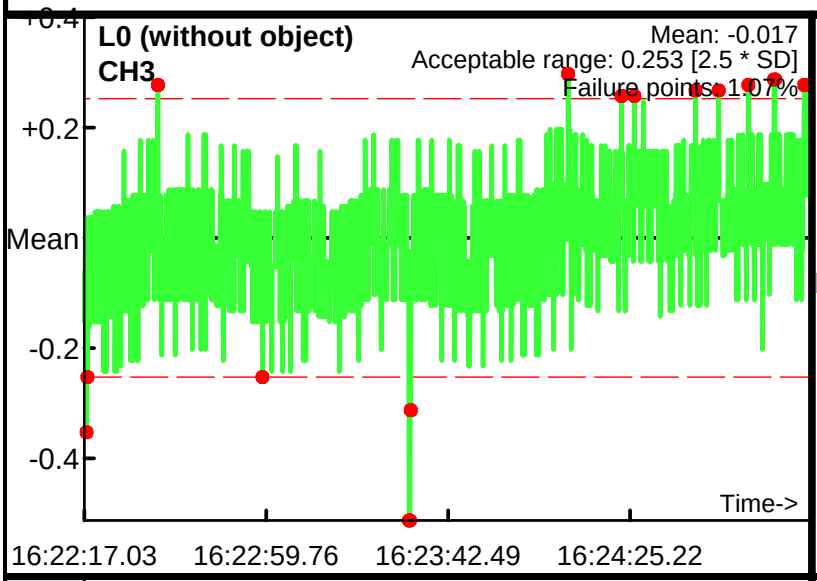
Database: .\062712PM.gdb
Line Name: L0 L1 L2

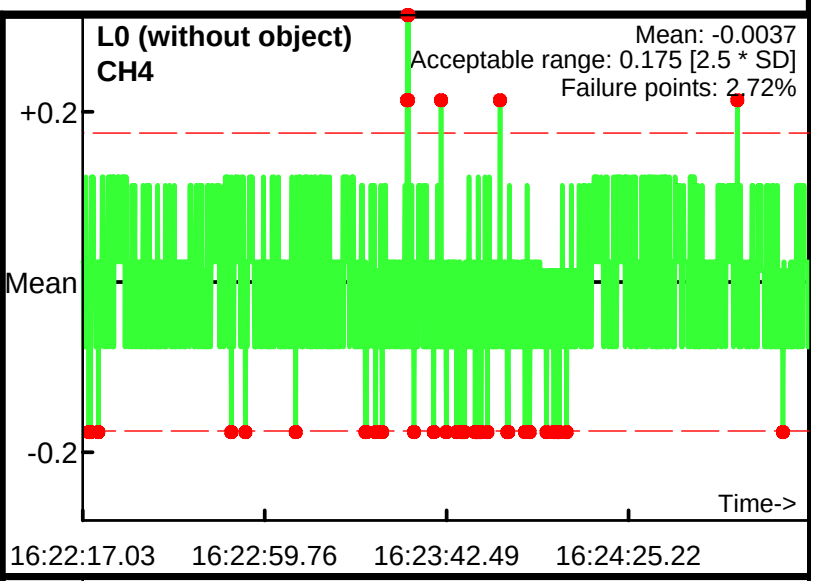
Static Calibration Test

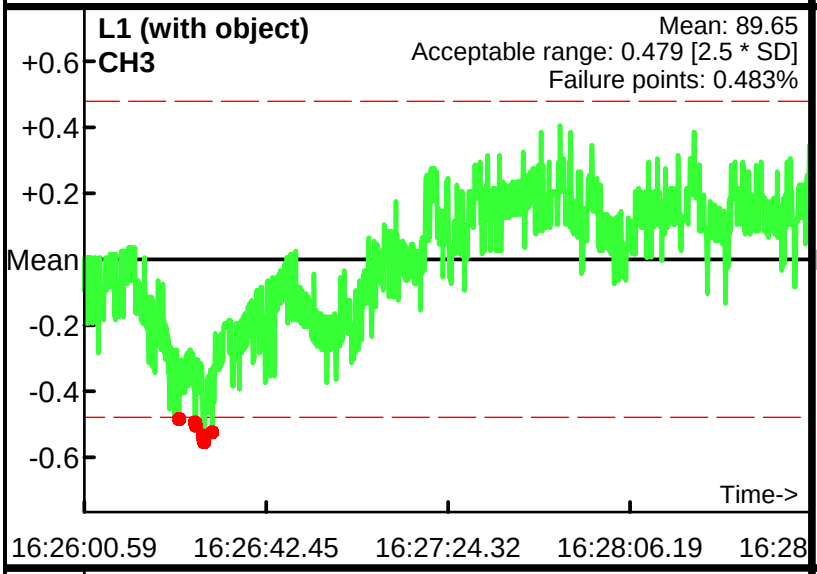
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

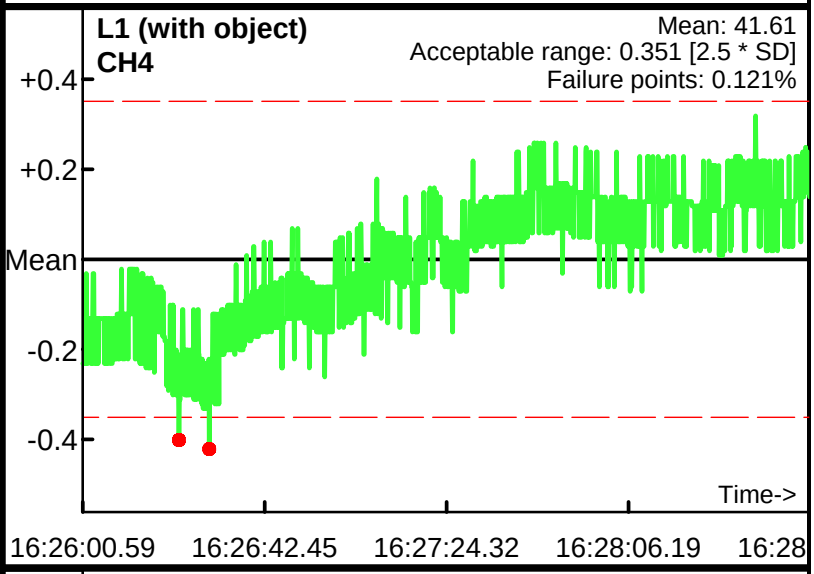
Allowable failure (%): 5%
Outside range
Acceptable limits

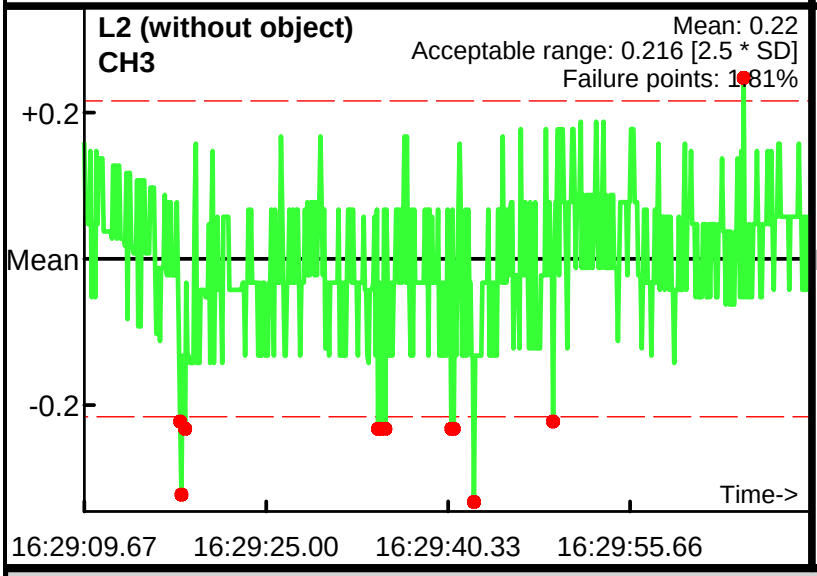
AM test
Operator: BG
Date: 6/27/2012

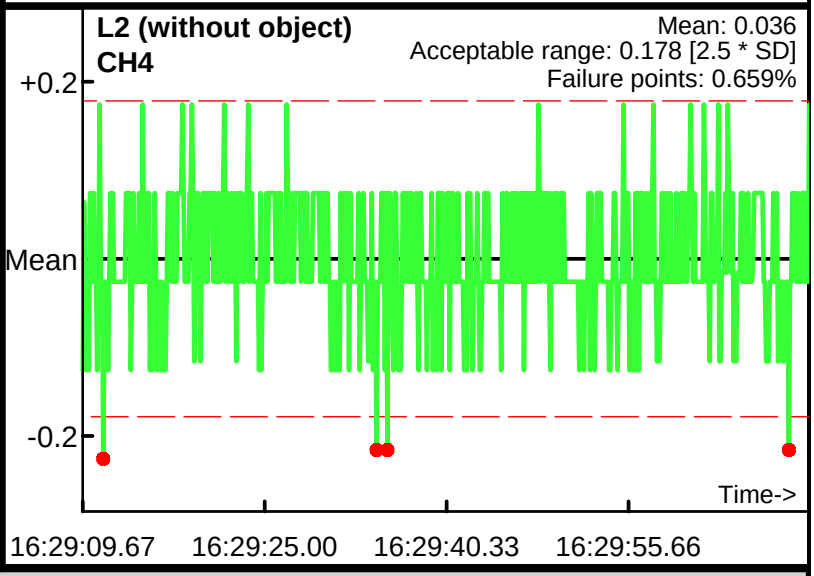












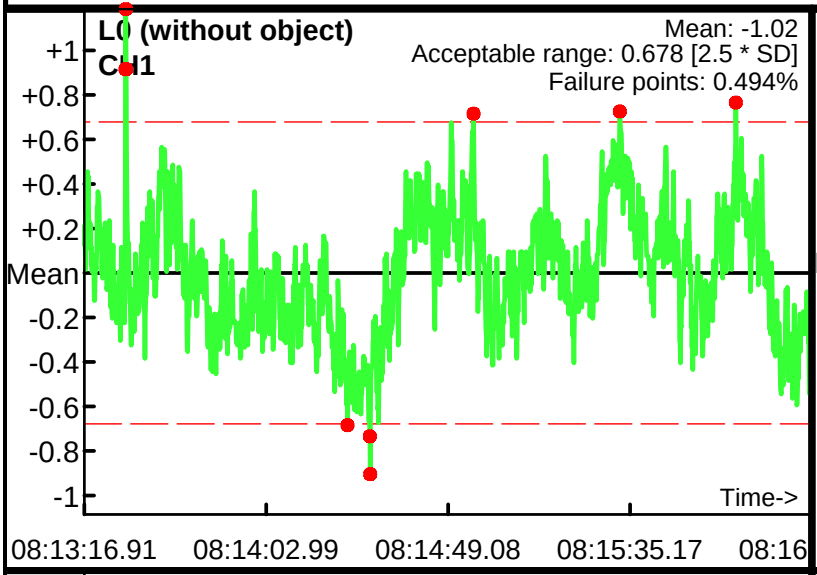
Database: .\062712PM.gdb
Line Name: L0 L1 L2

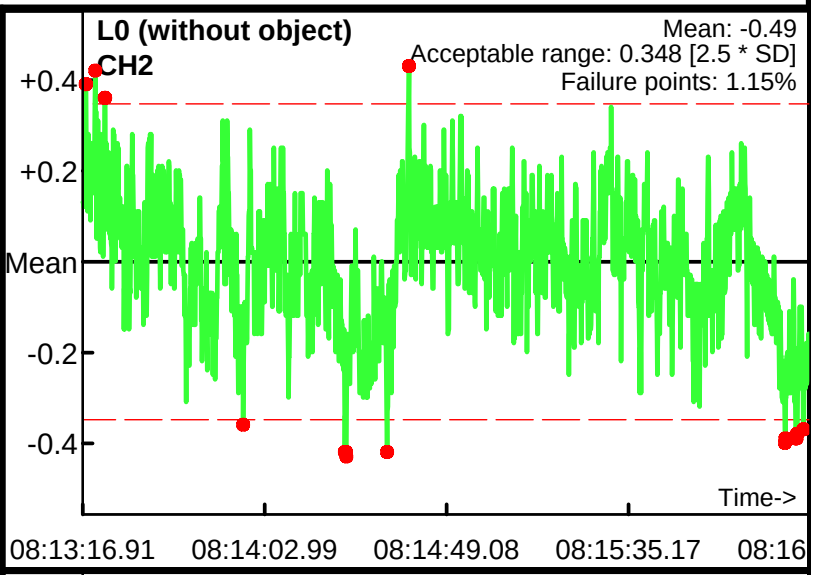
Static Calibration Test

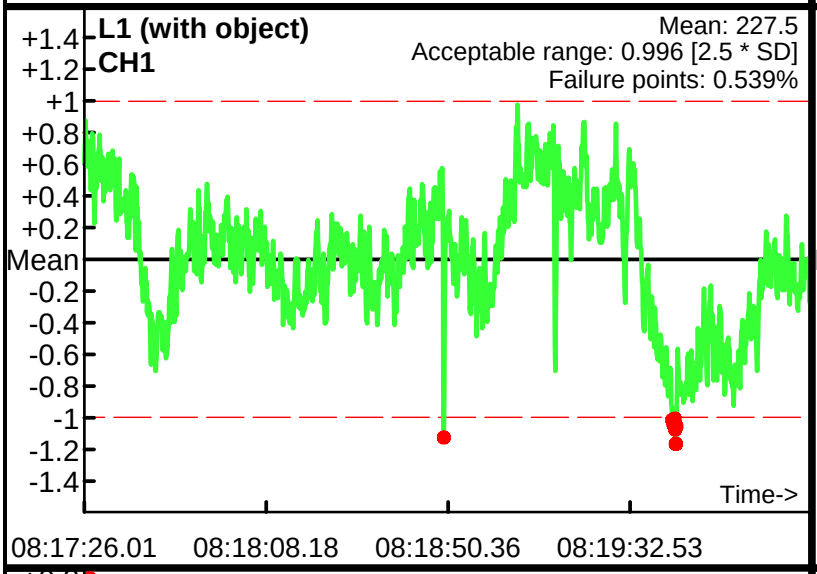
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

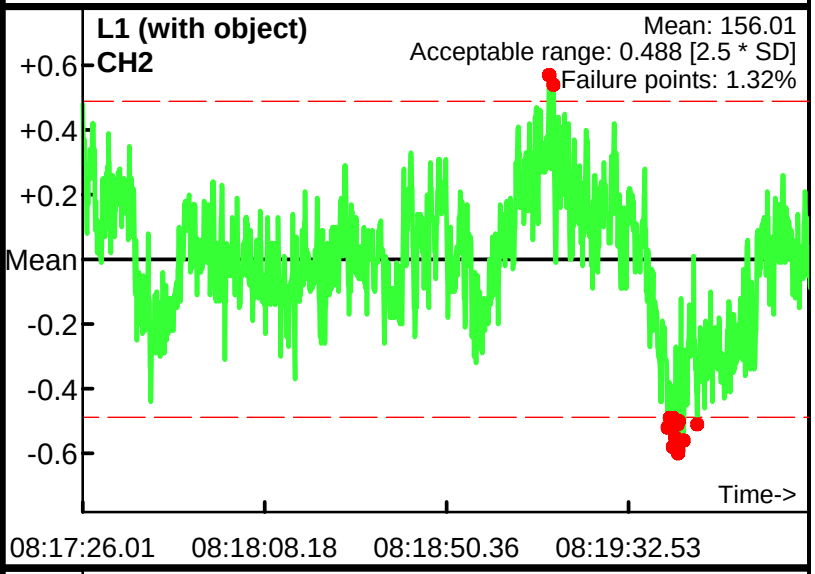
Allowable failure (%): 5%
Outside range
Acceptable limits

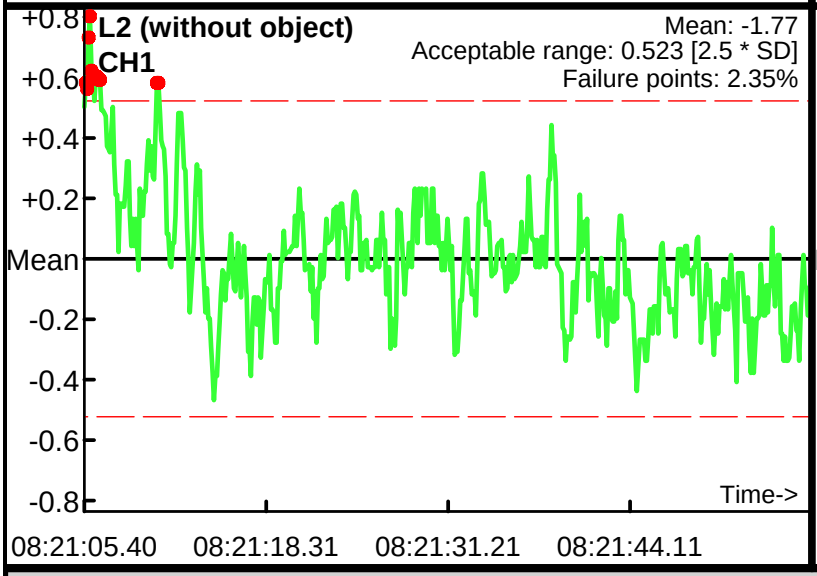
AM test
Operator: BG
Date: 6/28/2012

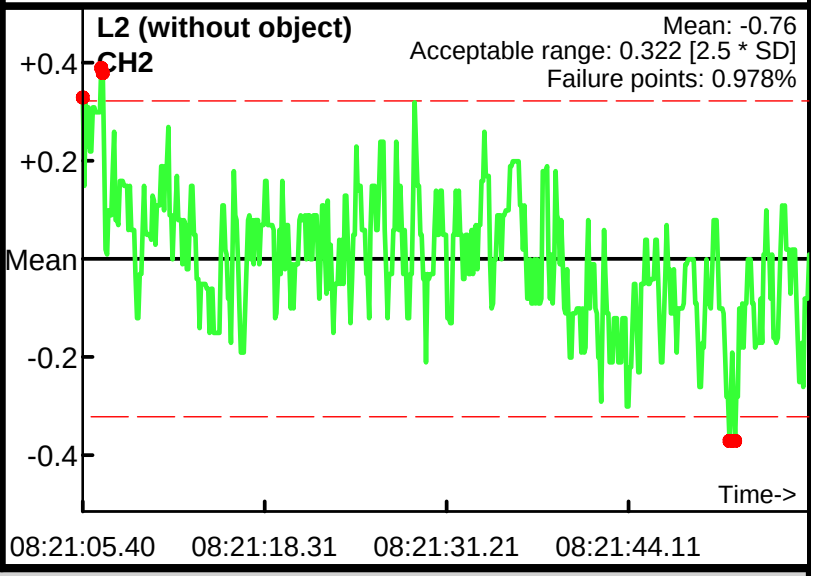












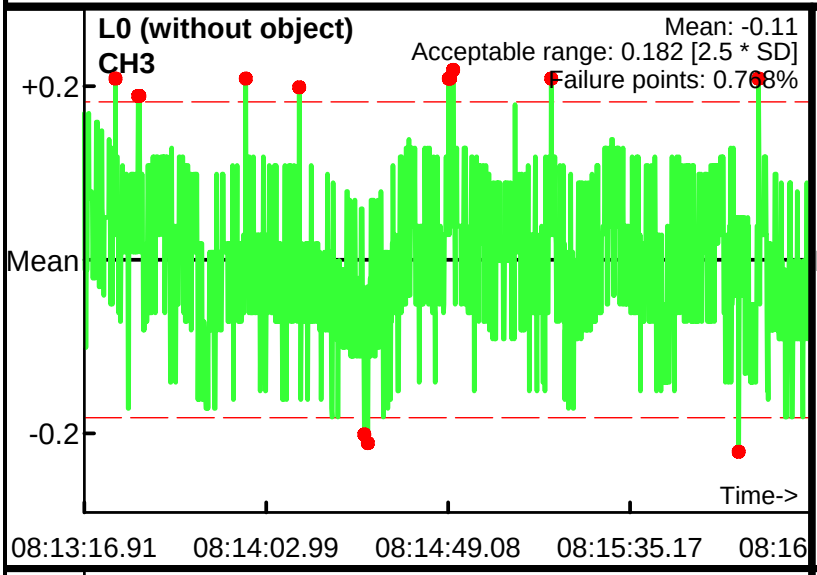
Database: .\062812AM.gdb
Line Name: L0 L1 L2

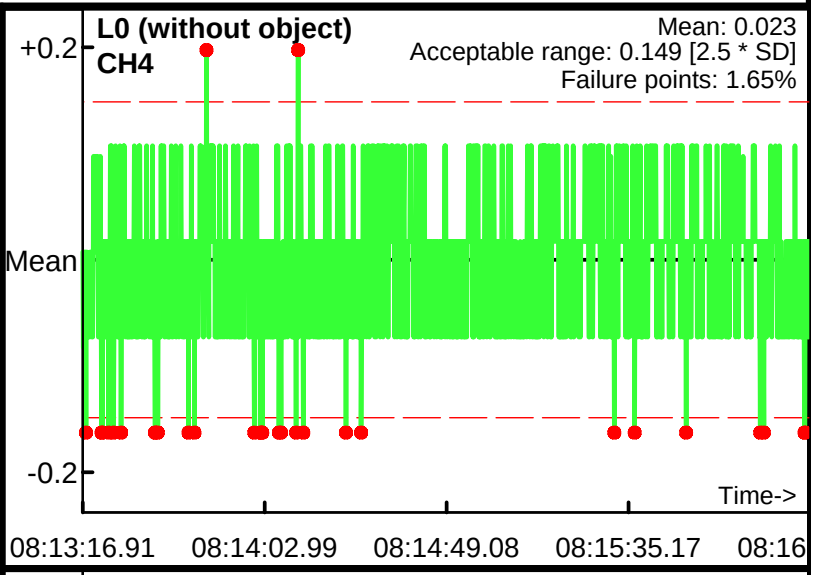
Static Calibration Test

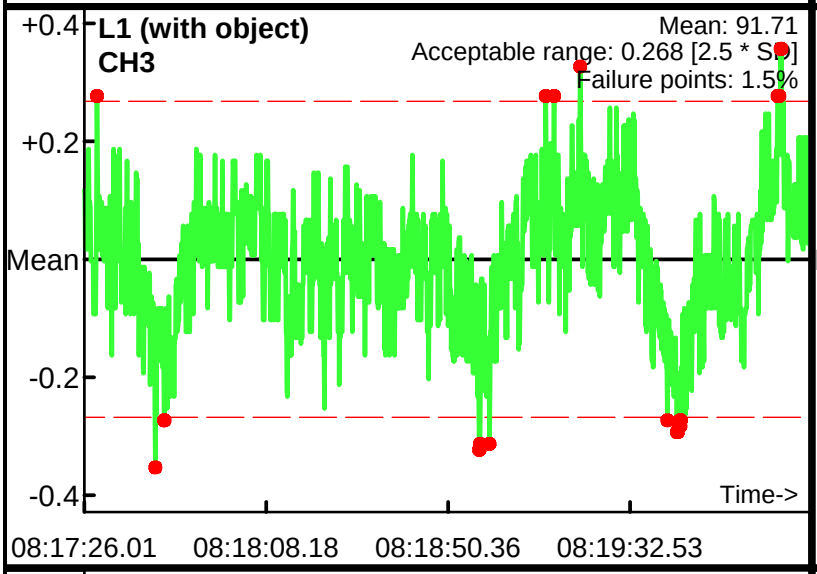
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

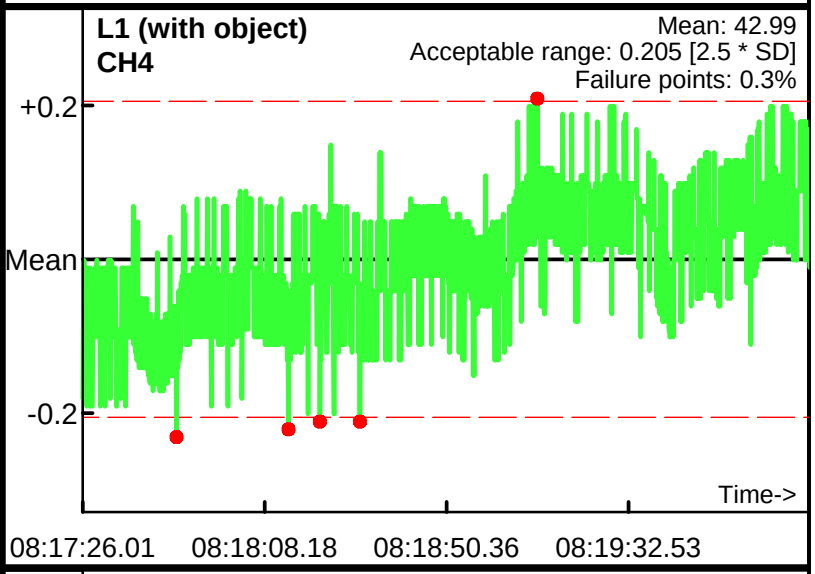
Allowable failure (%): 5%
Outside range
Acceptable limits

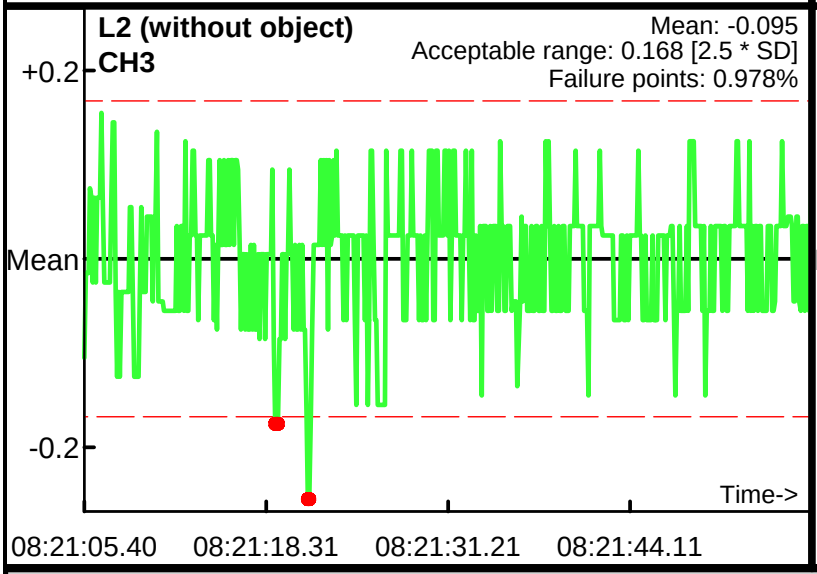
AM test
Operator: BG
Date: 6/28/2012

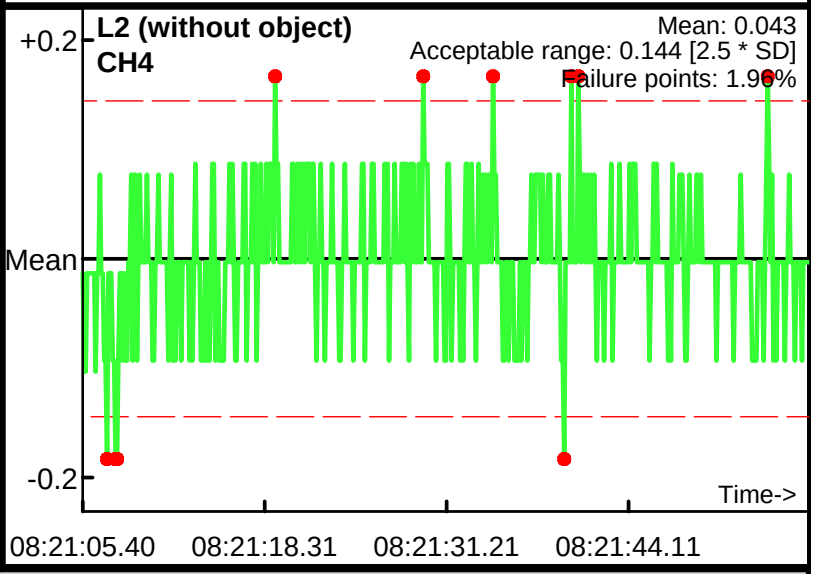












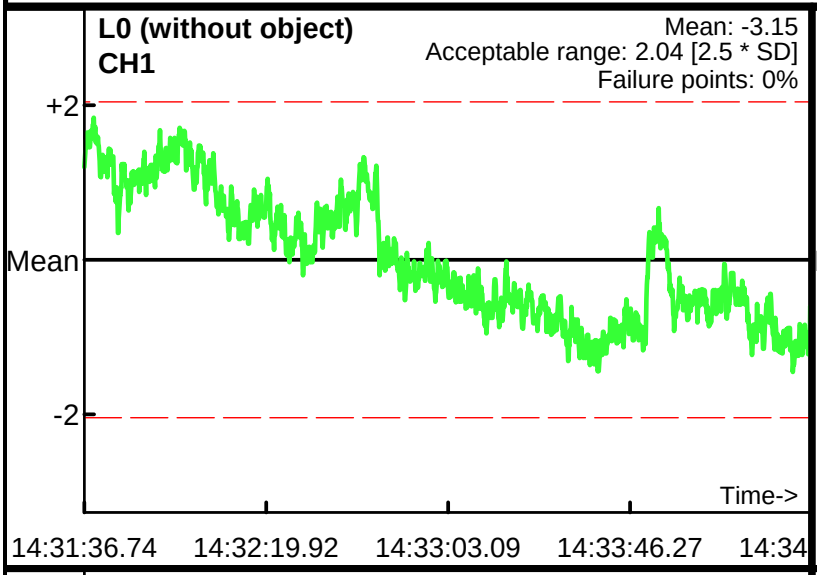
Database: .\062812AM.gdb
Line Name: L0 L1 L2

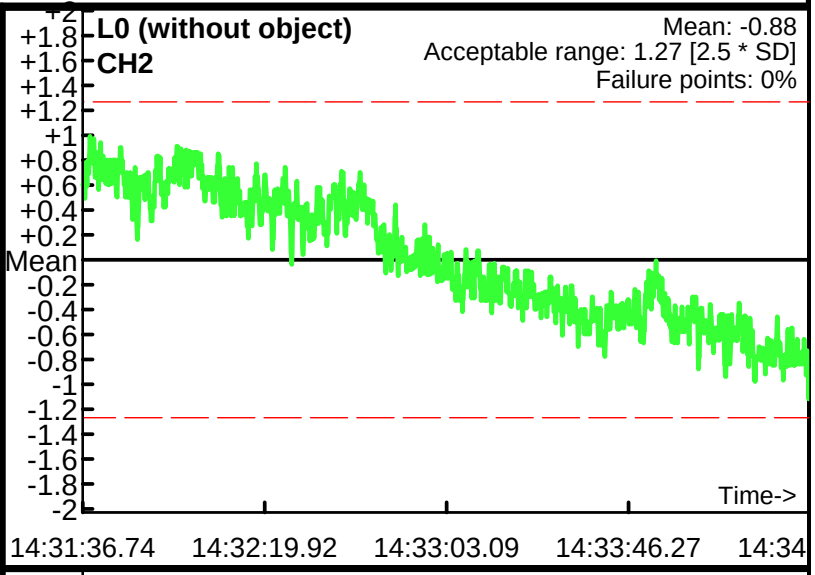
Static Calibration Test

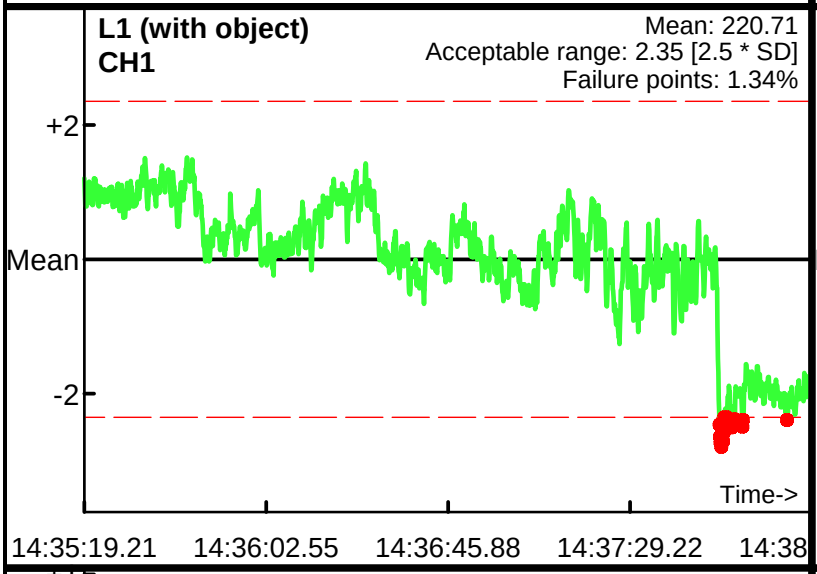
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

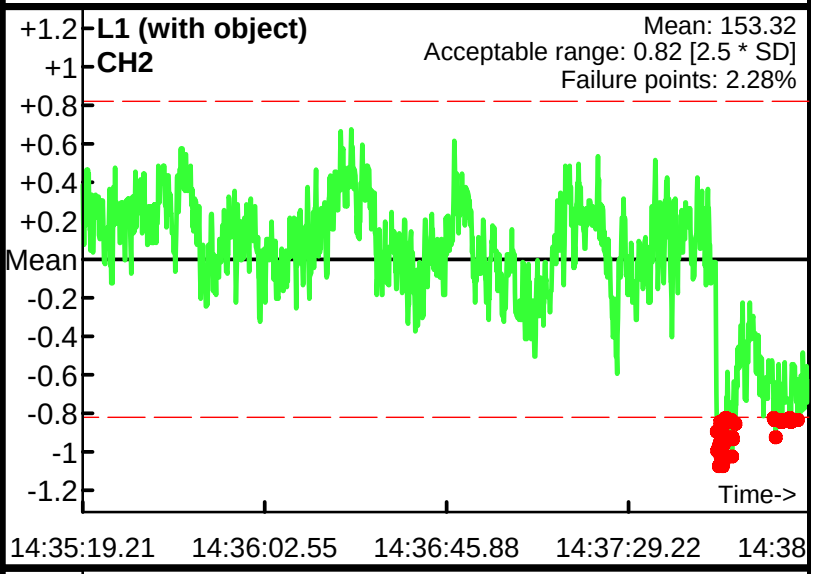
Allowable failure (%): 5%
Outside range
Acceptable limits

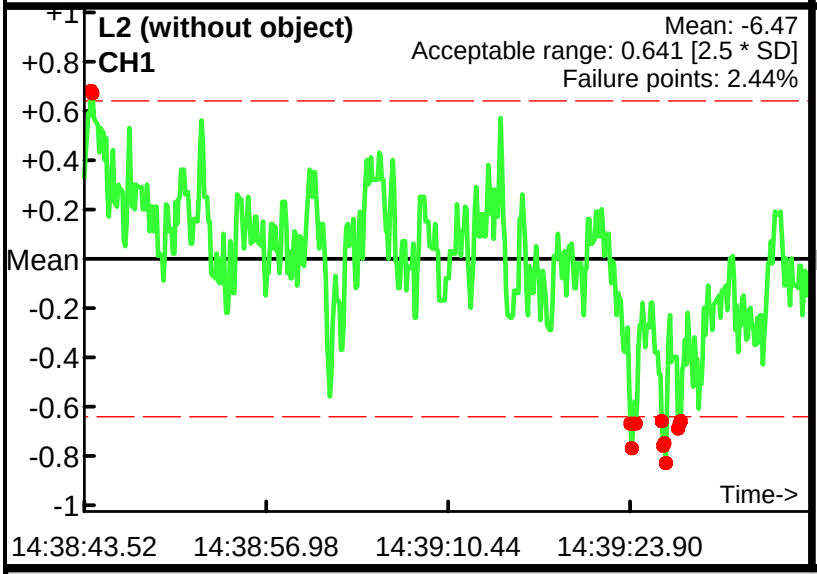
AM test
Operator: BG
Date: 6/28/2012

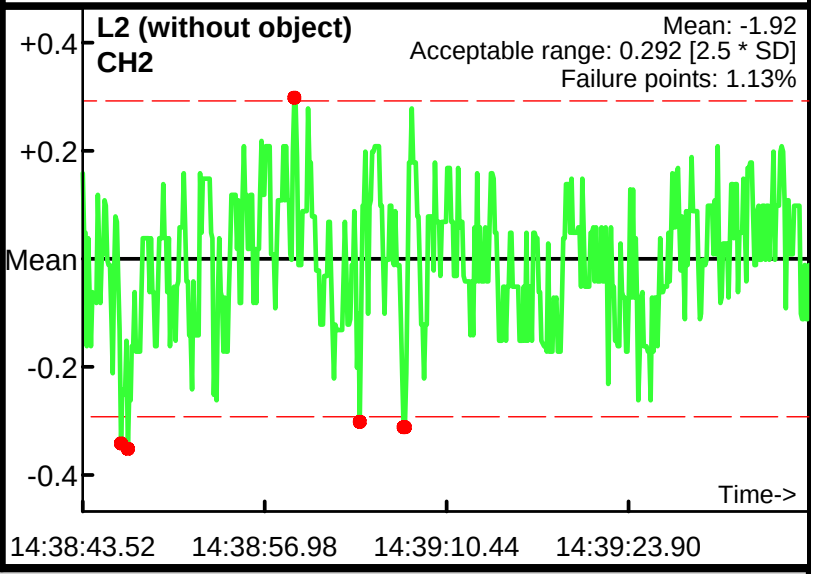












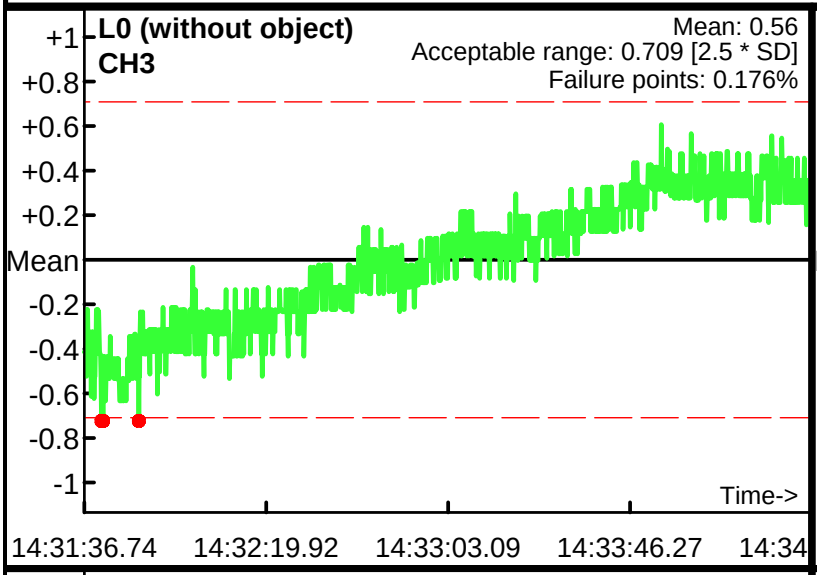
Database: .\062812PM.gdb
Line Name: L0 L1 L2

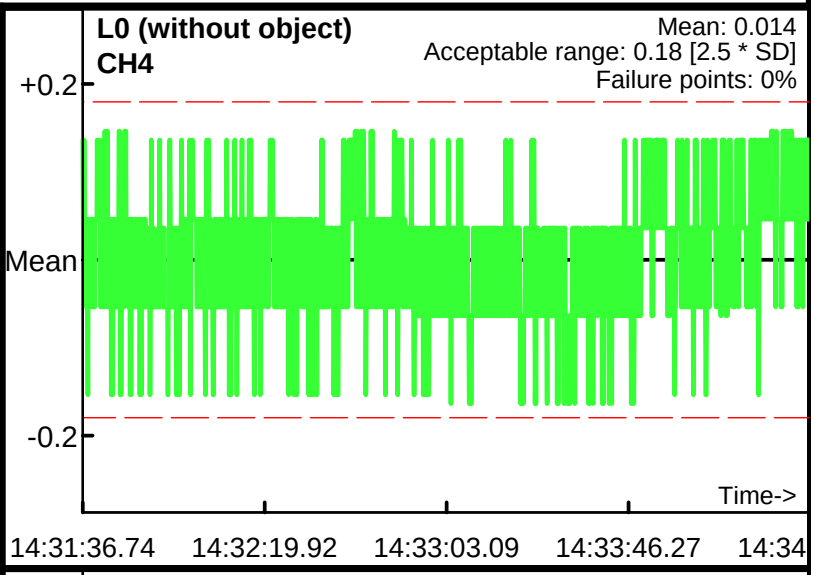
Static Calibration Test

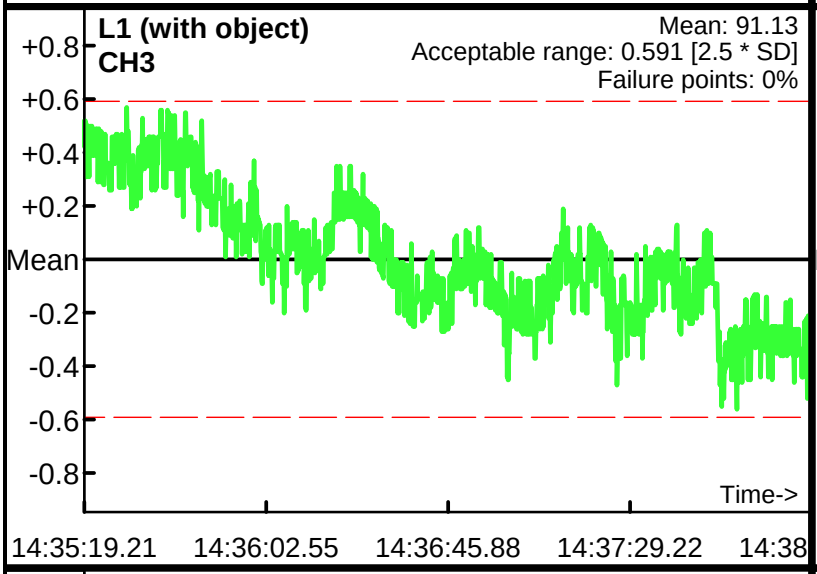
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

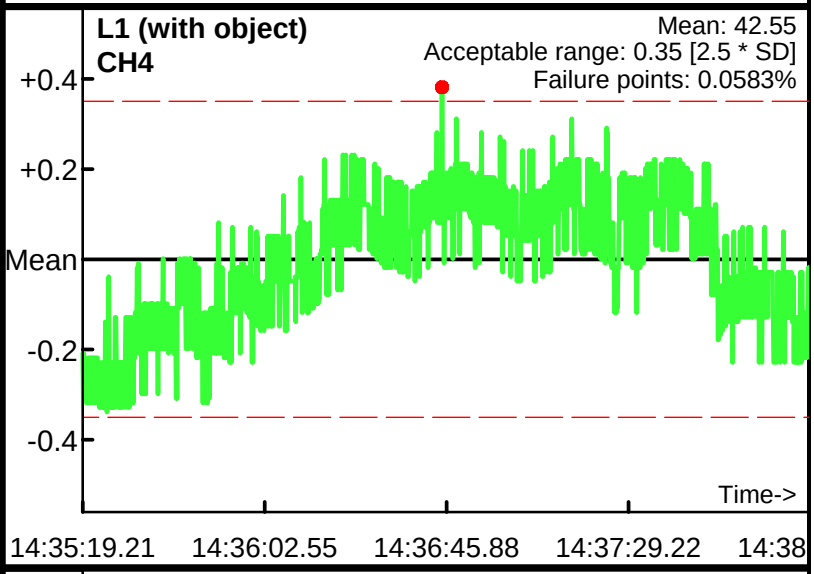
Allowable failure (%): 5%
Outside range
Acceptable limits

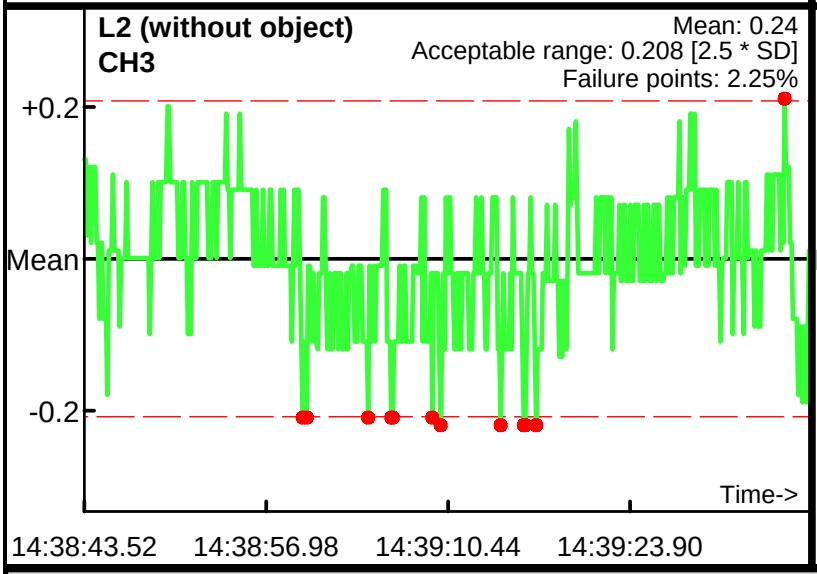
AM test
Operator: BG
Date: 6/28/2012

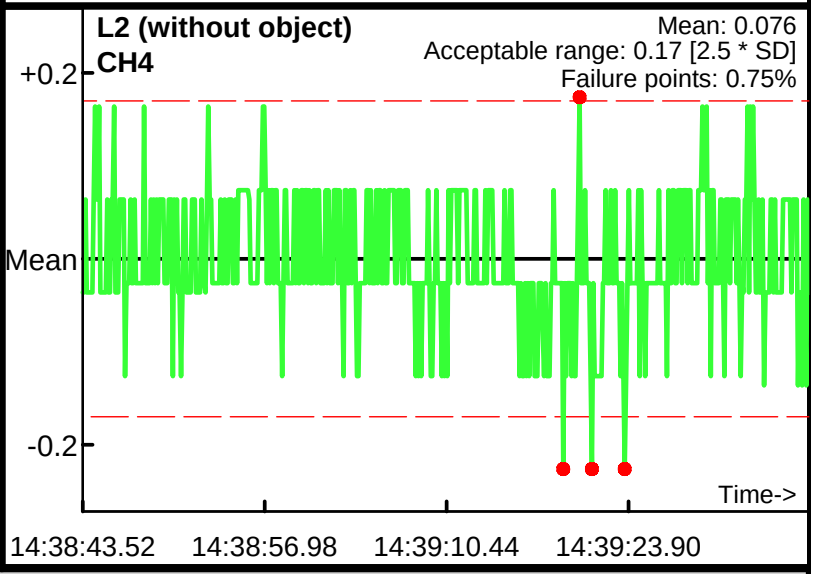












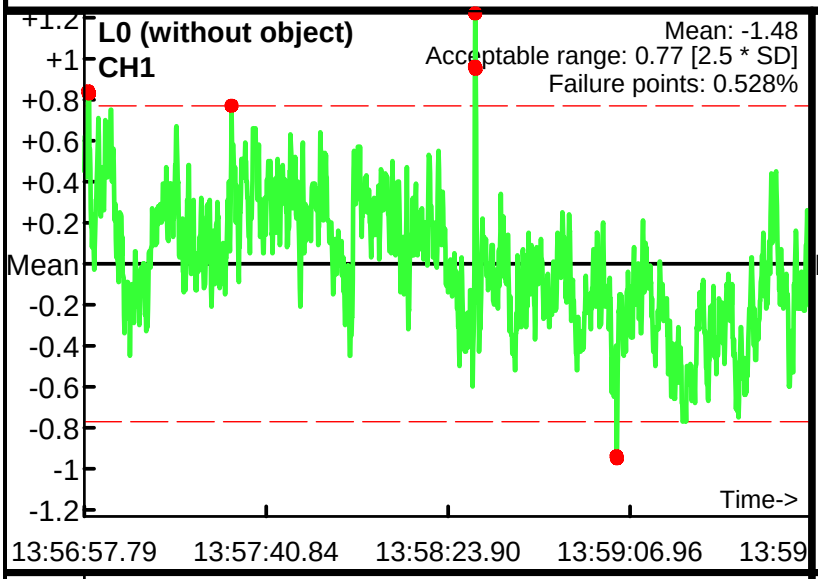
Database: .\062812PM.gdb
Line Name: L0 L1 L2

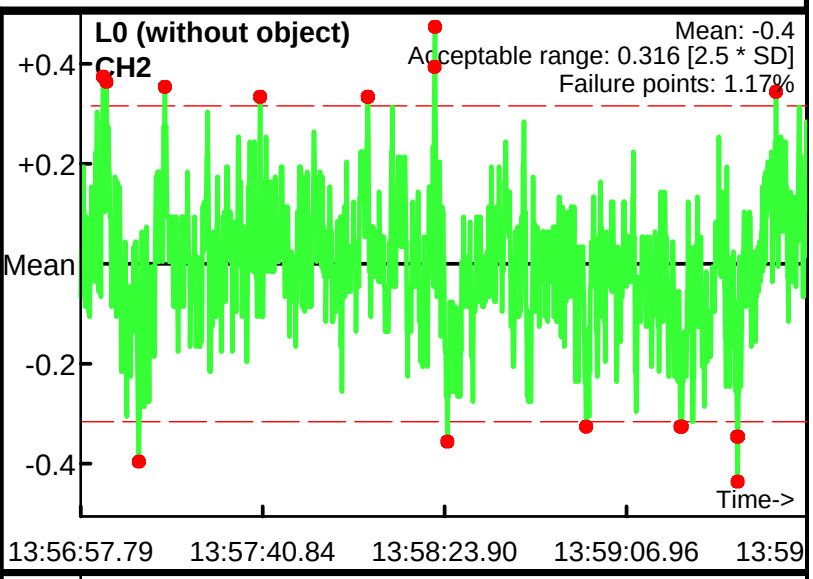
Static Calibration Test

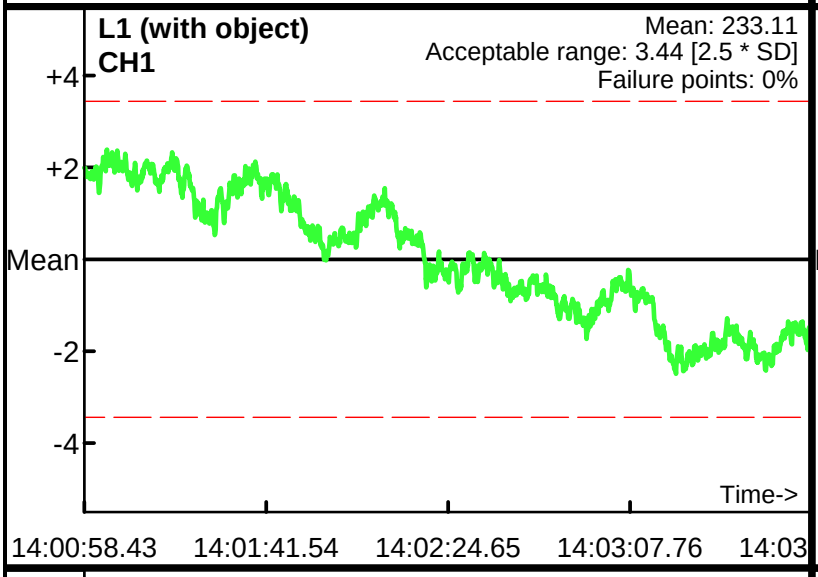
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

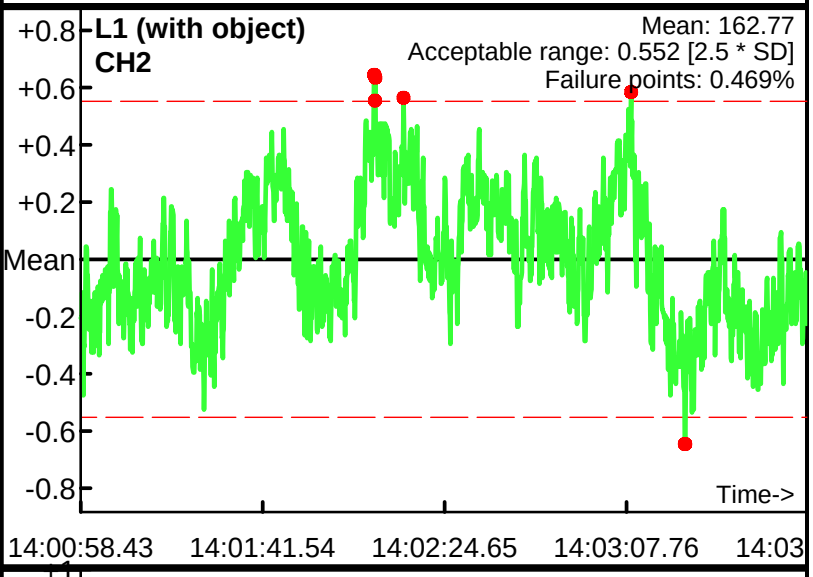
Allowable failure (%): 5%
Outside range
Acceptable limits

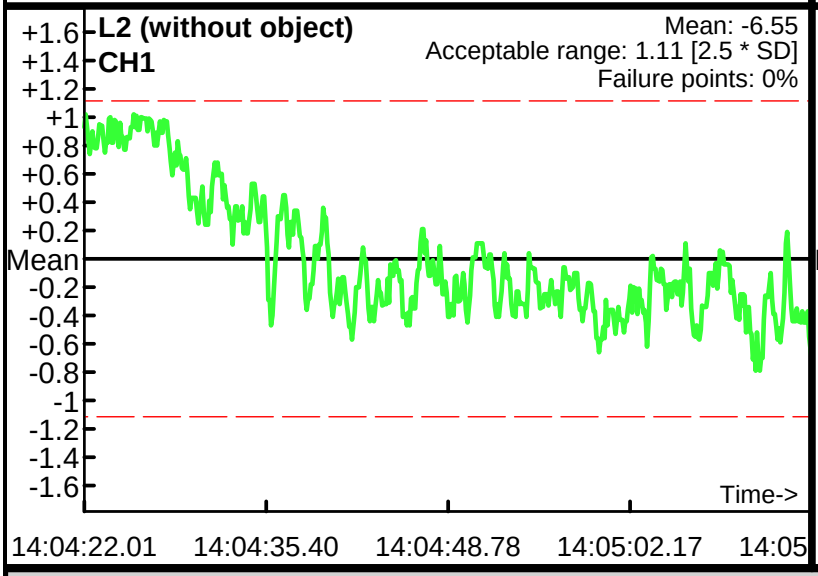
AM test
Operator: BG
Date: 6/29/2012

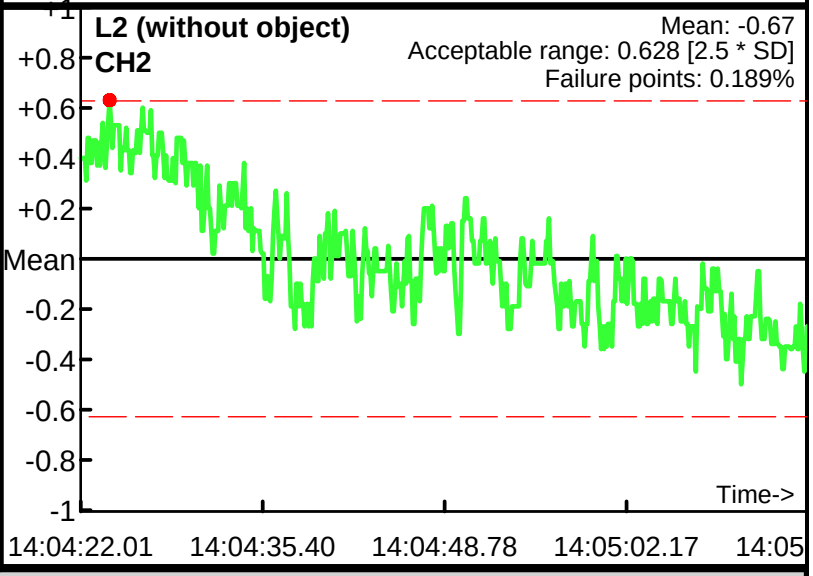












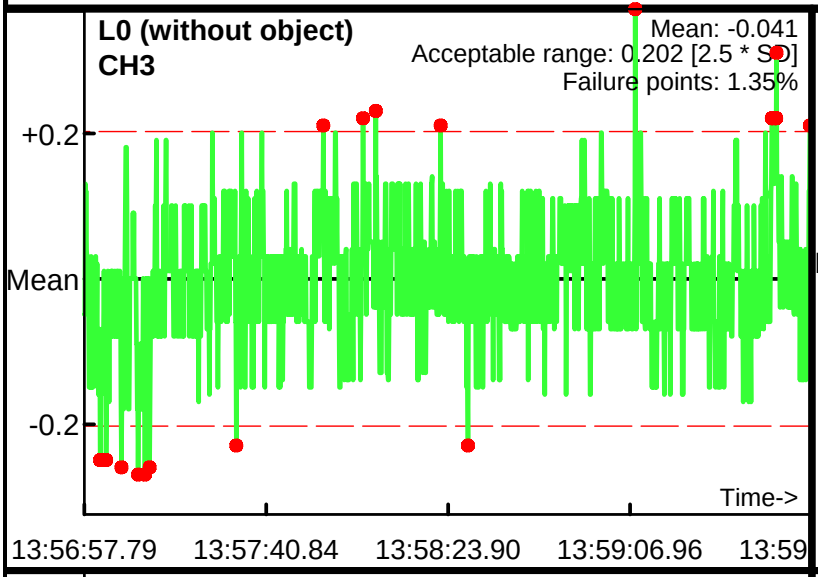
Database: .\062912AM.gdb
Line Name: L0 L1 L2

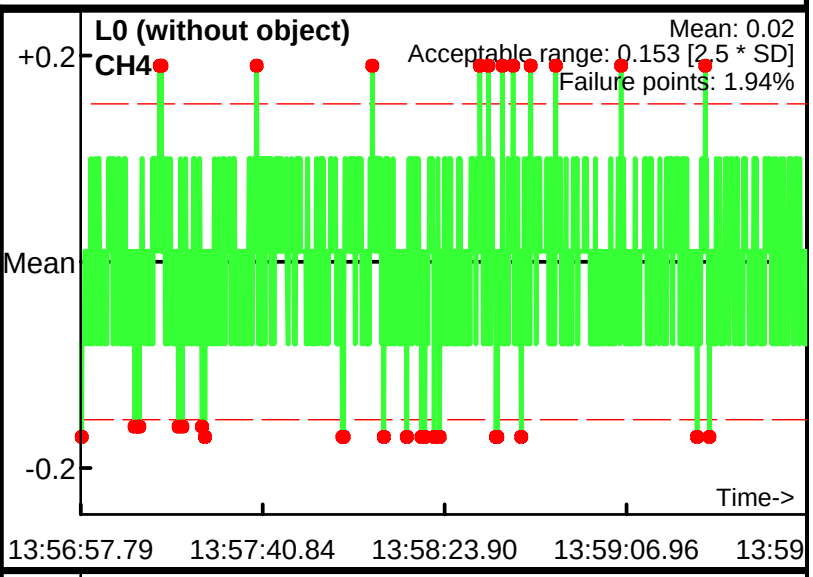
Static Calibration Test

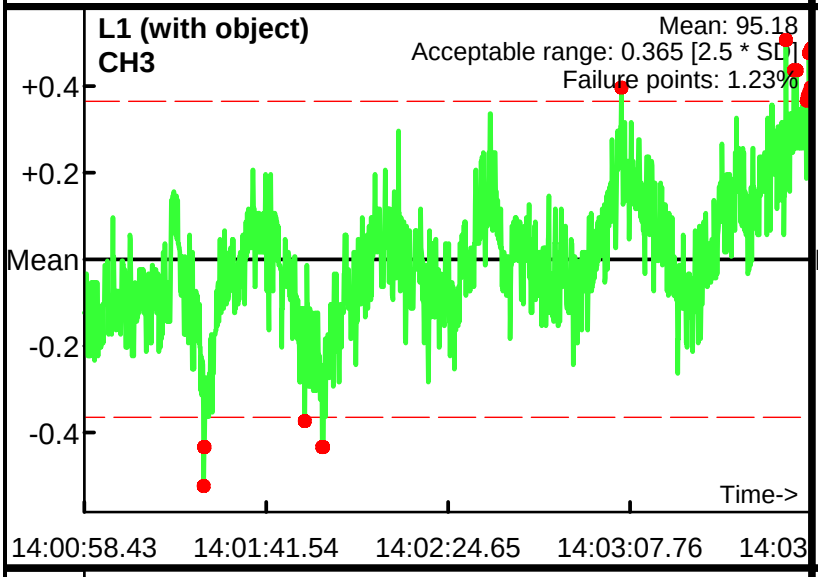
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

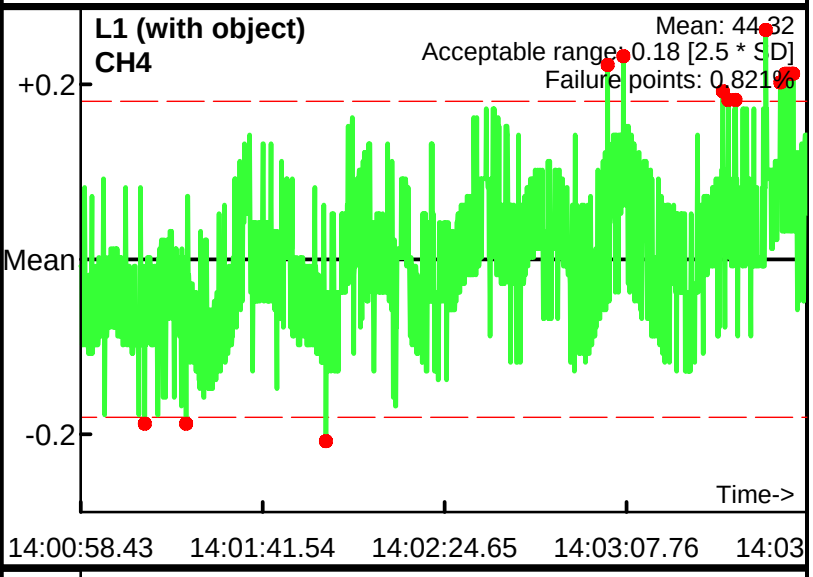
Allowable failure (%): 5%
Outside range
Acceptable limits

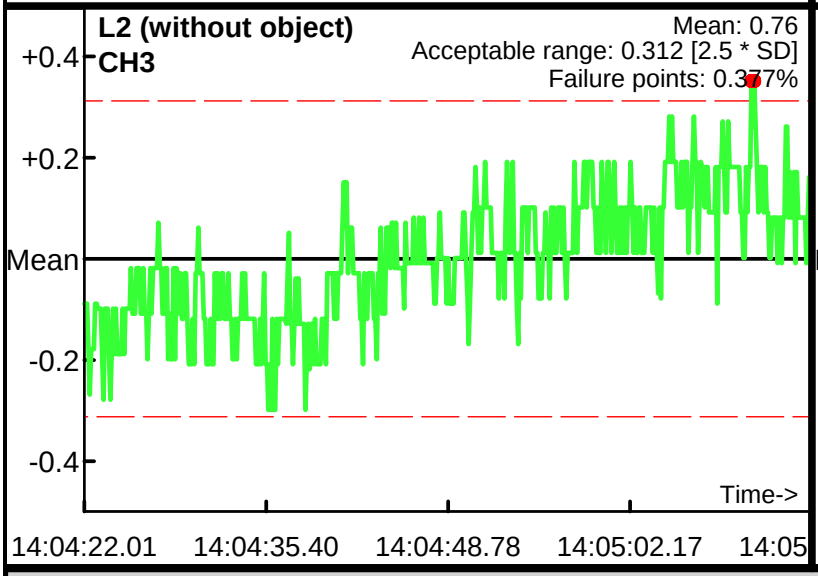
AM test
Operator: BG
Date: 6/29/2012

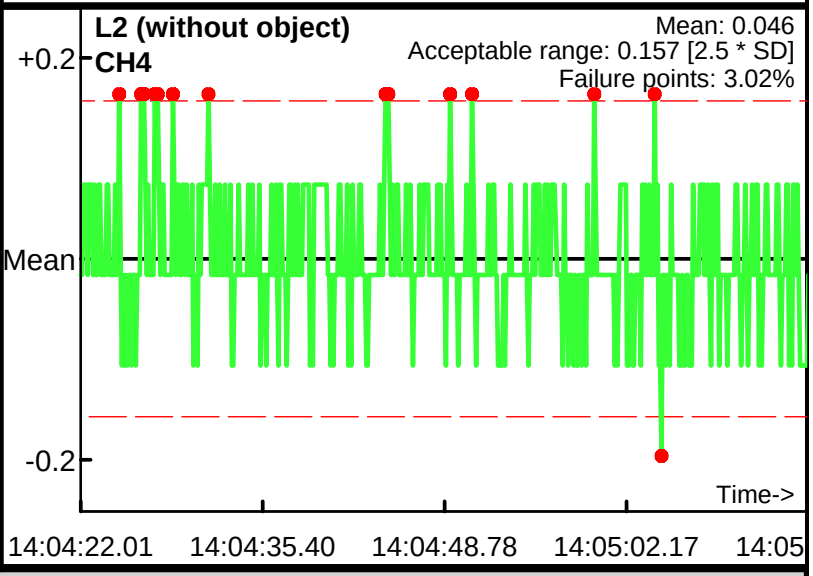












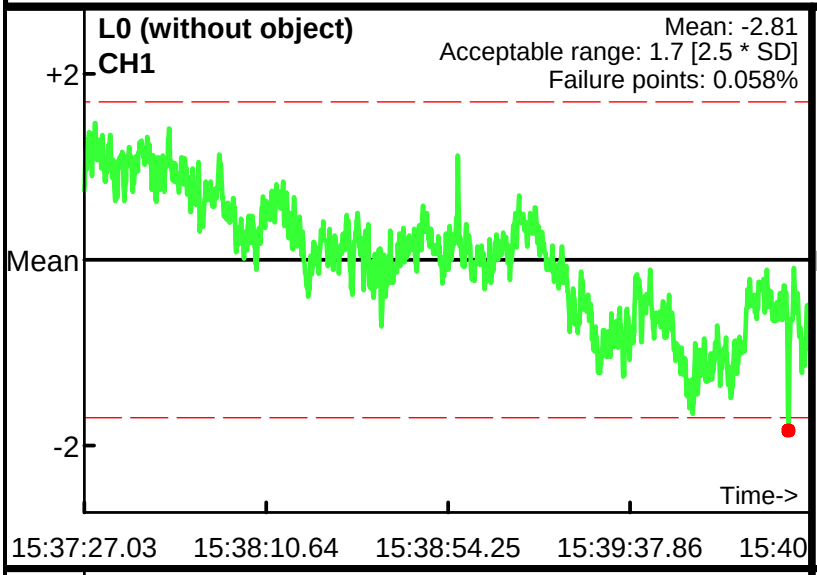
Database: .\062912AM.gdb
Line Name: L0 L1 L2

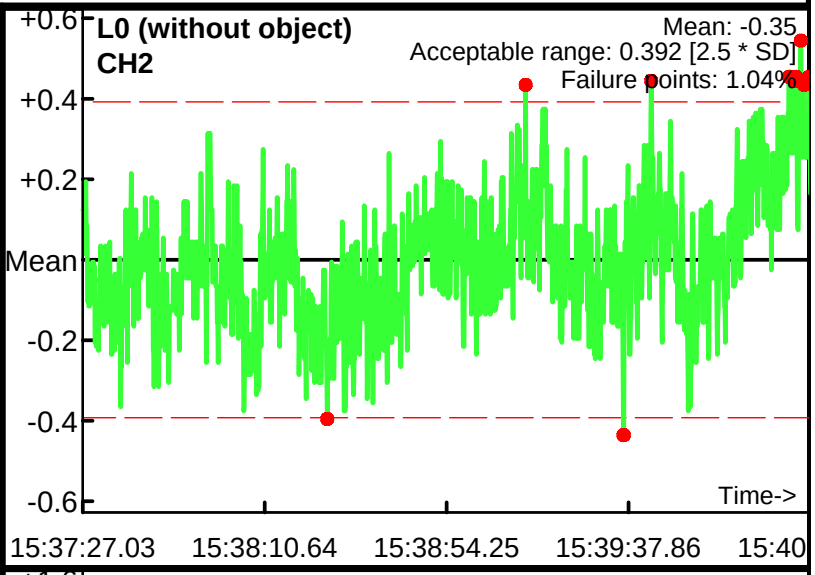
Static Calibration Test

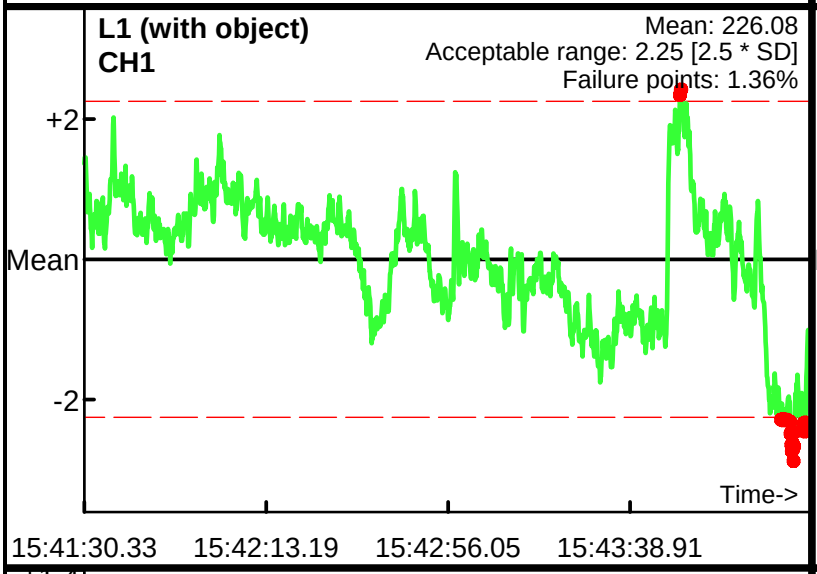
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

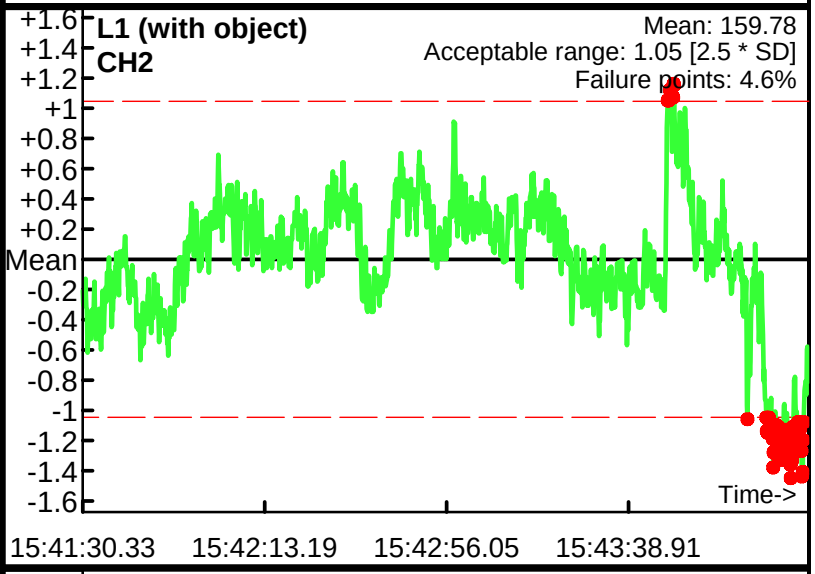
Allowable failure (%): 5%
Outside range
Acceptable limits

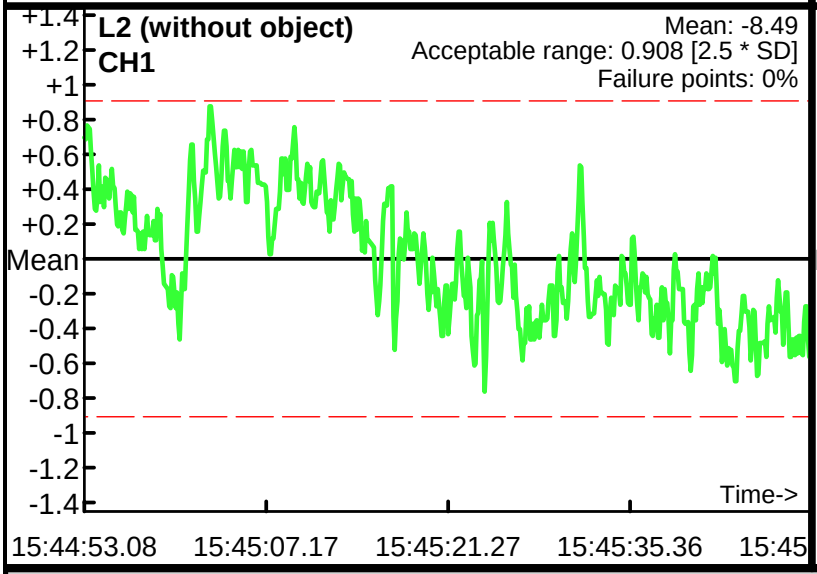
AM test
Operator: BG
Date: 6/29/2012

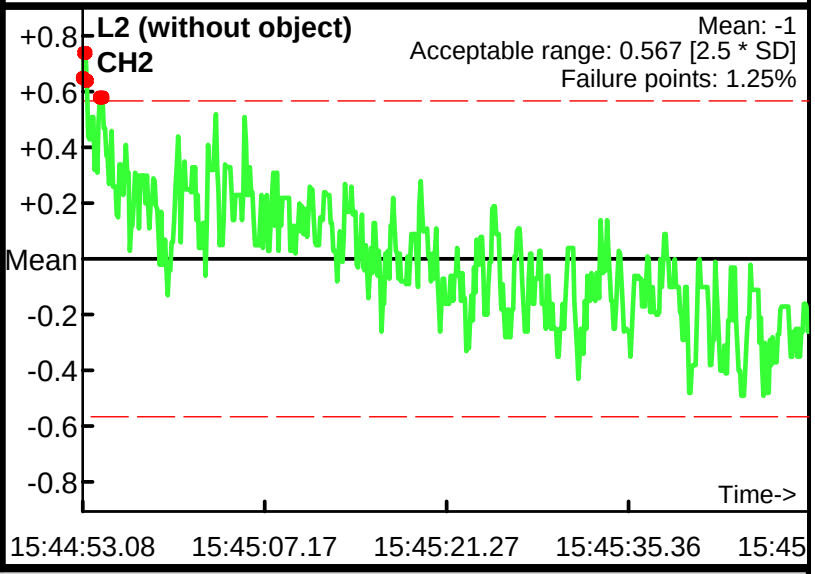












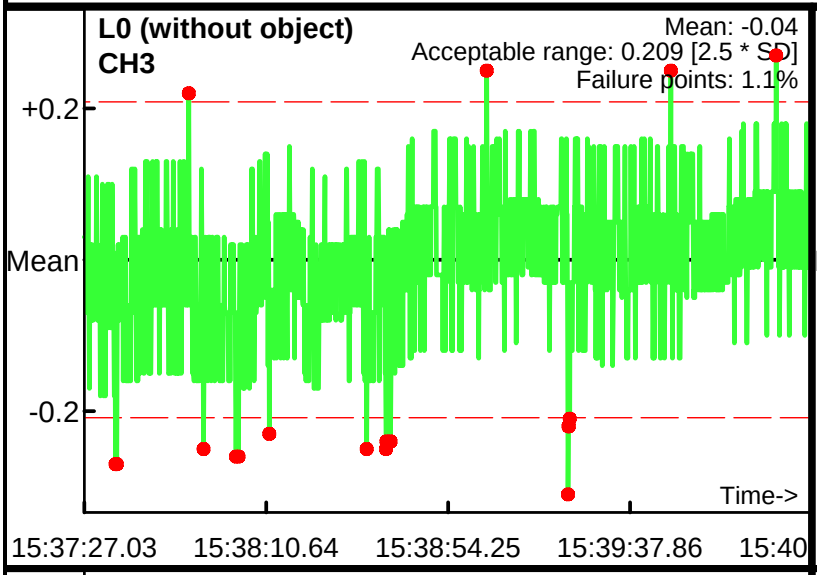
Database: .\062912PM.gdb
Line Name: L0 L1 L2

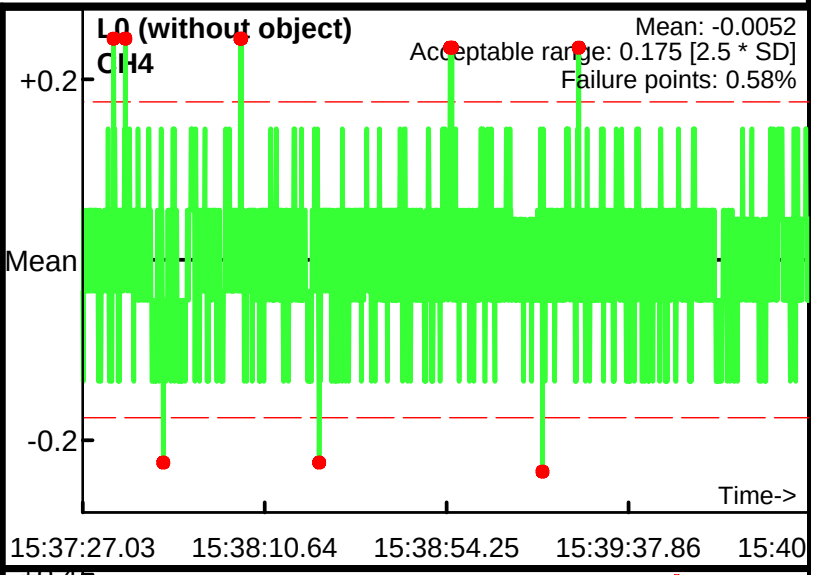
Static Calibration Test

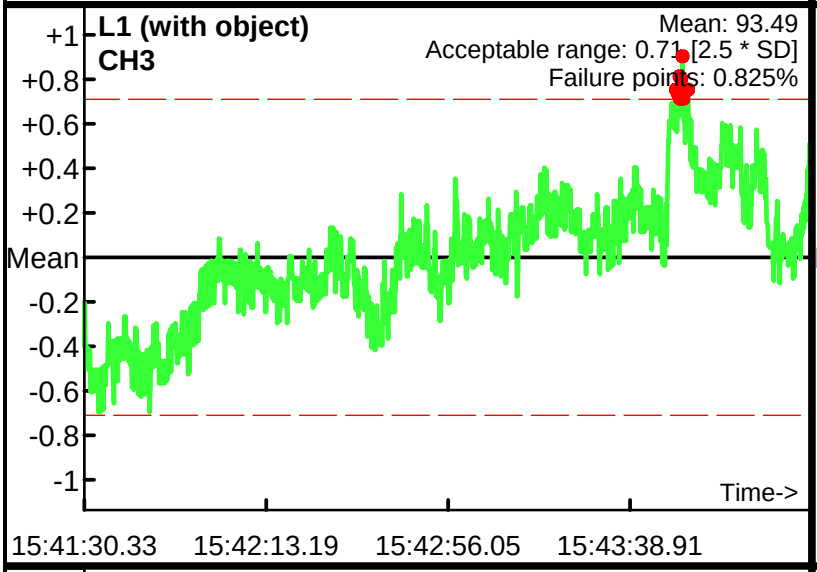
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

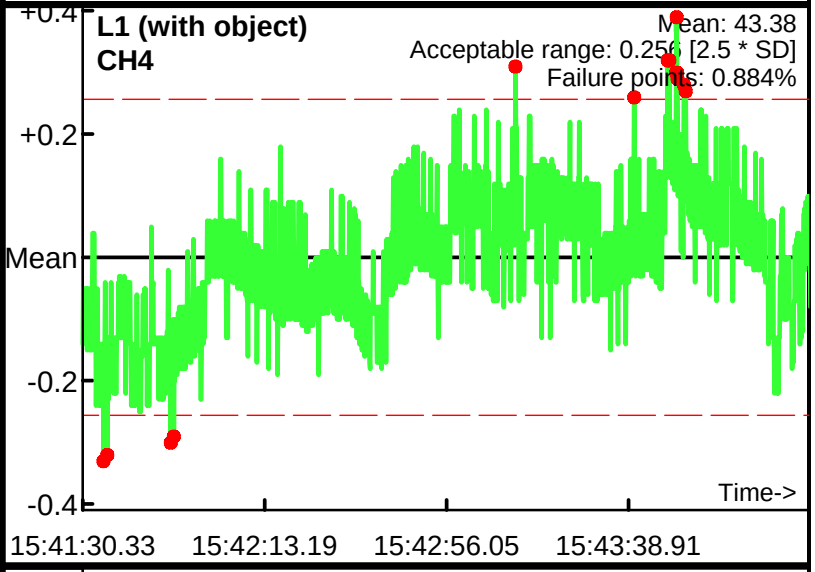
Allowable failure (%): 5%
Outside range
Acceptable limits

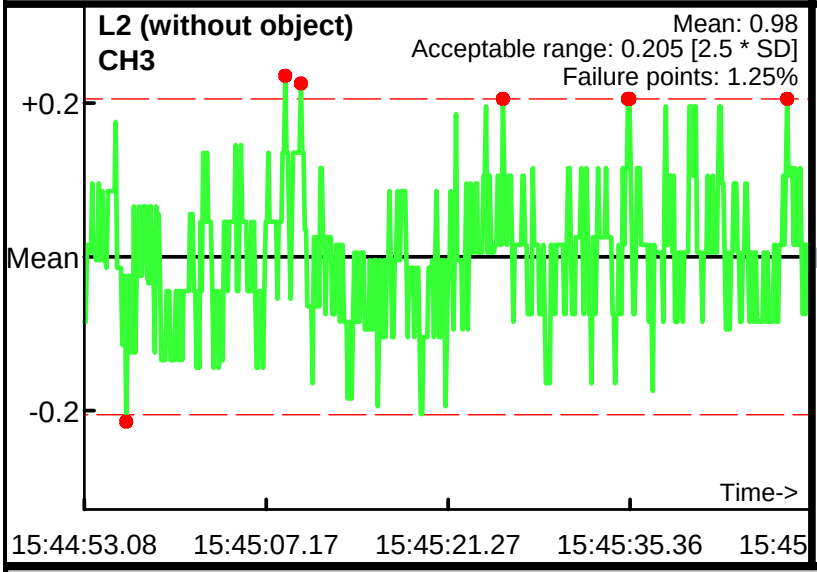
AM test
Operator: BG
Date: 6/29/2012

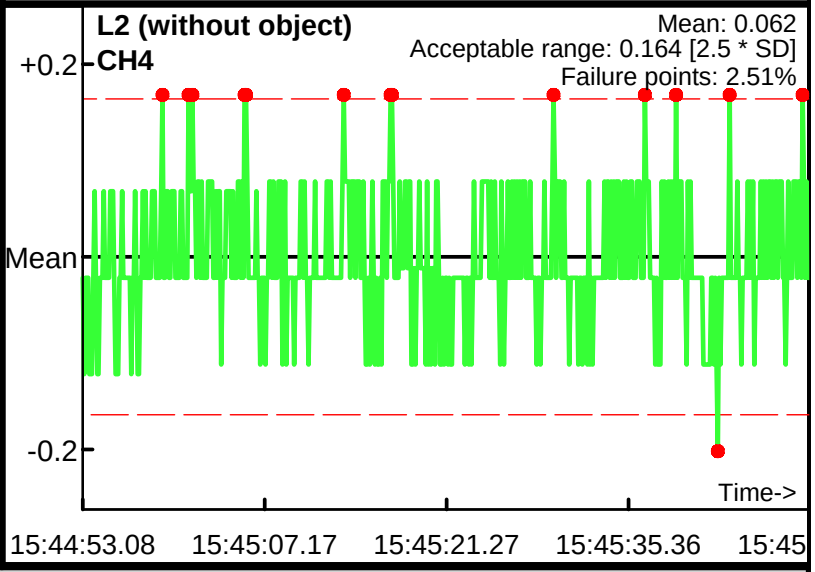












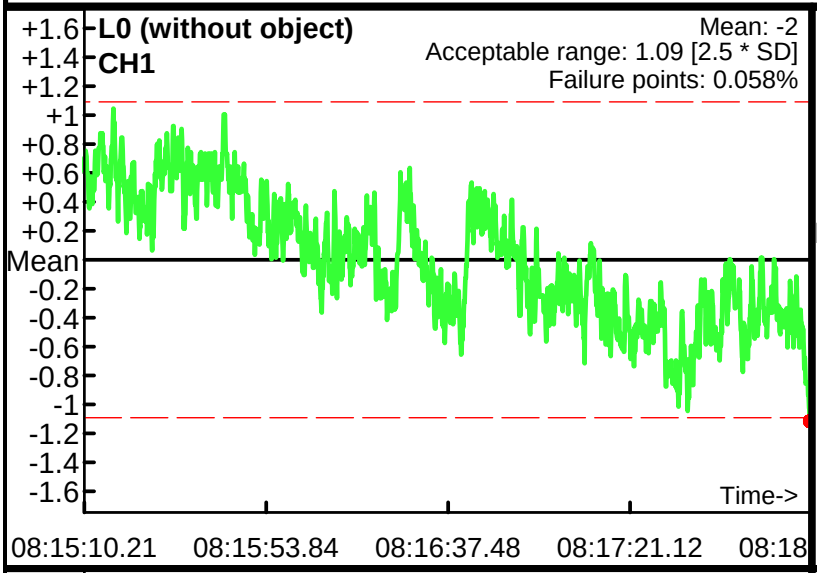
Database: .\062912PM.gdb
Line Name: L0 L1 L2

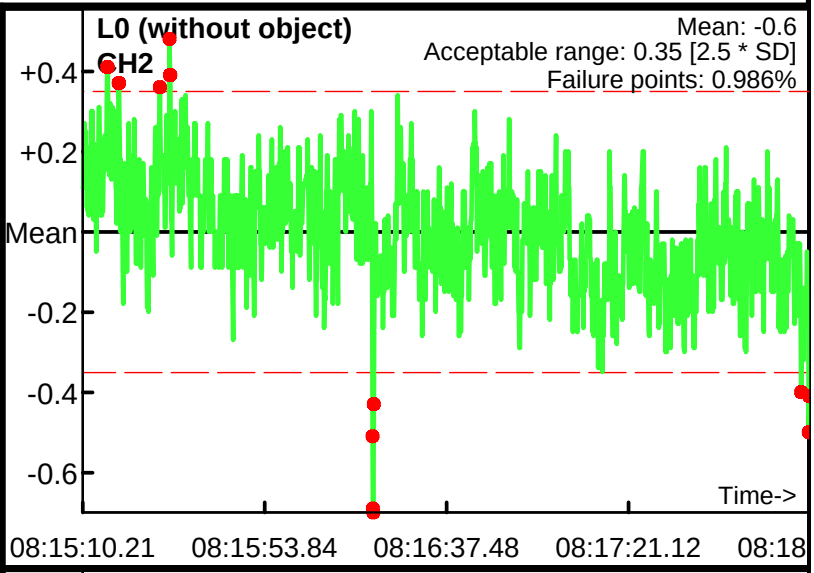
Static Calibration Test

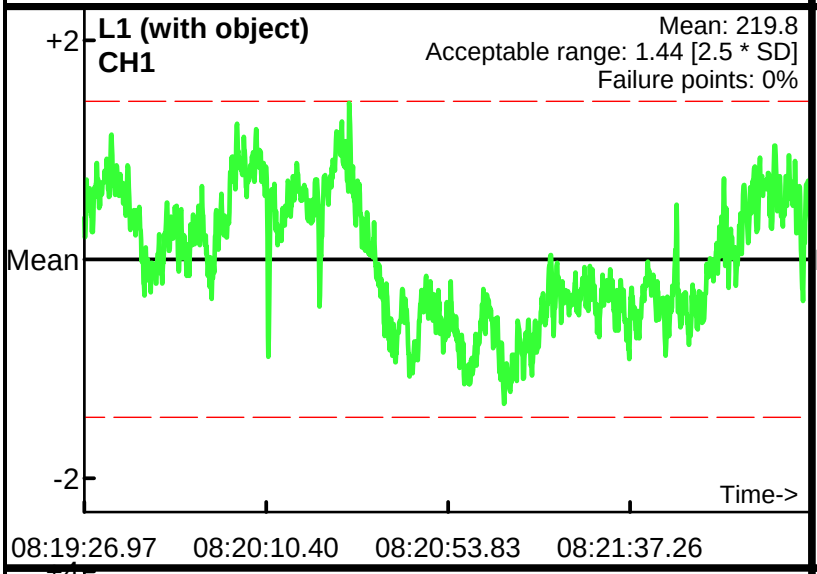
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

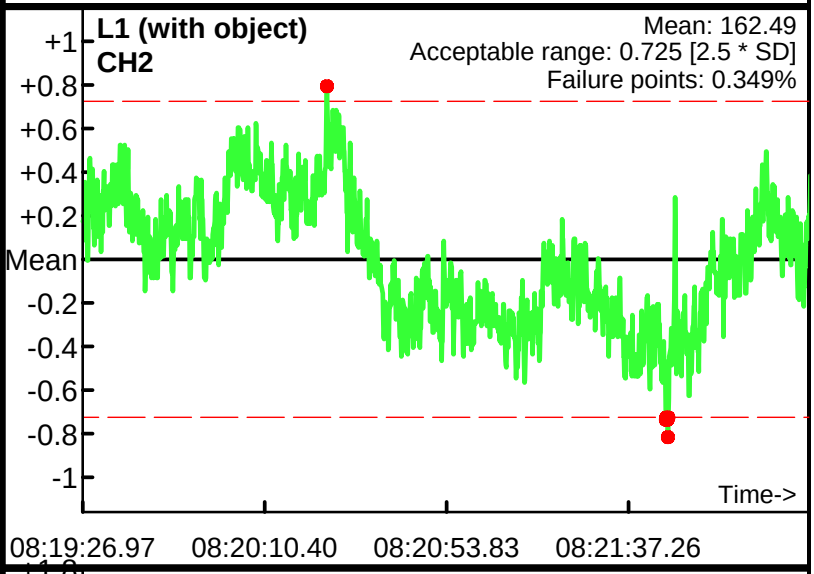
Allowable failure (%): 5%
Outside range
Acceptable limits

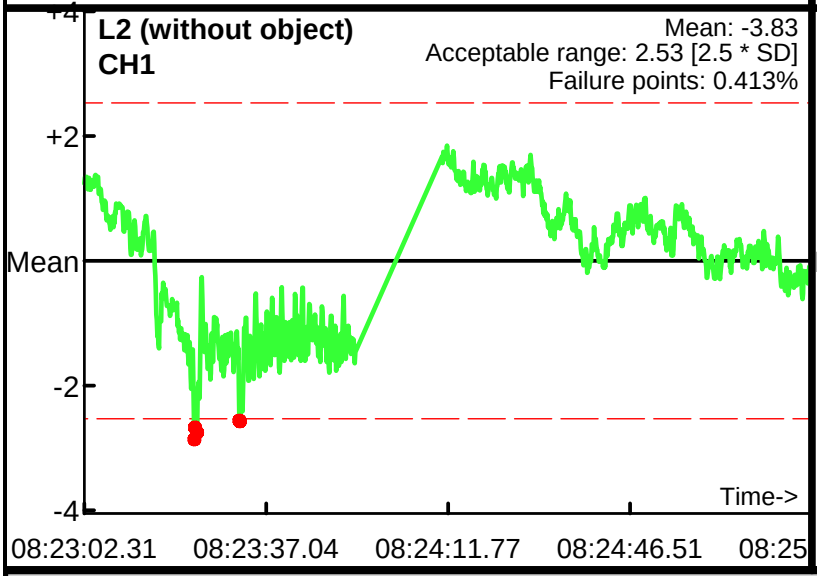
AM test
Operator: BG
Date: 7/2/2012

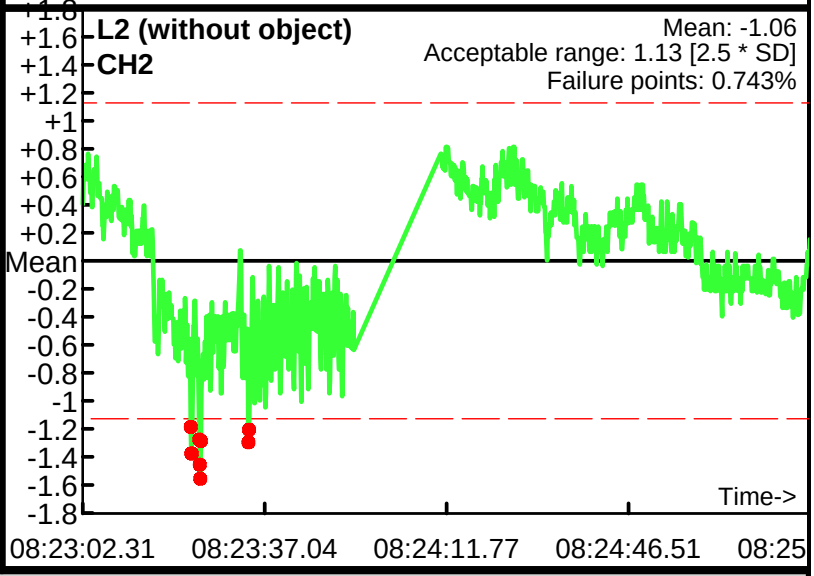












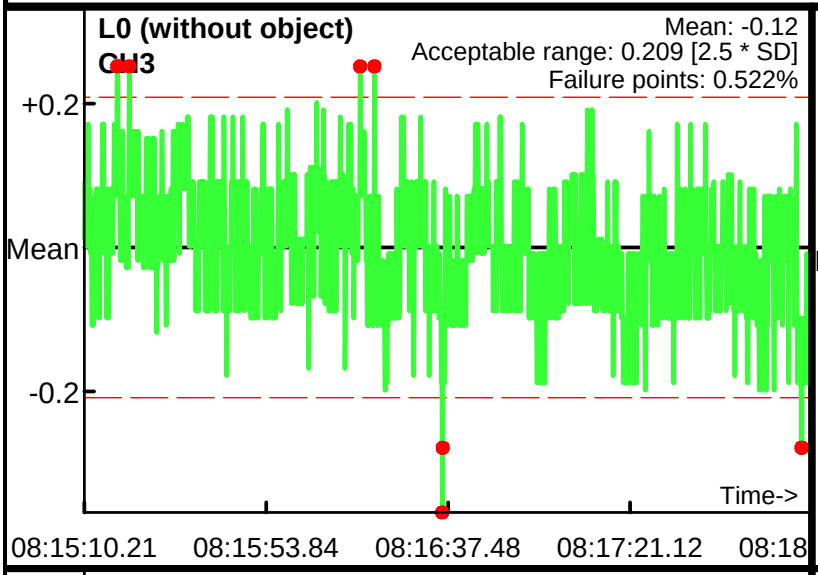
Database: .\070212AM.gdb
Line Name: L0 L1 L2

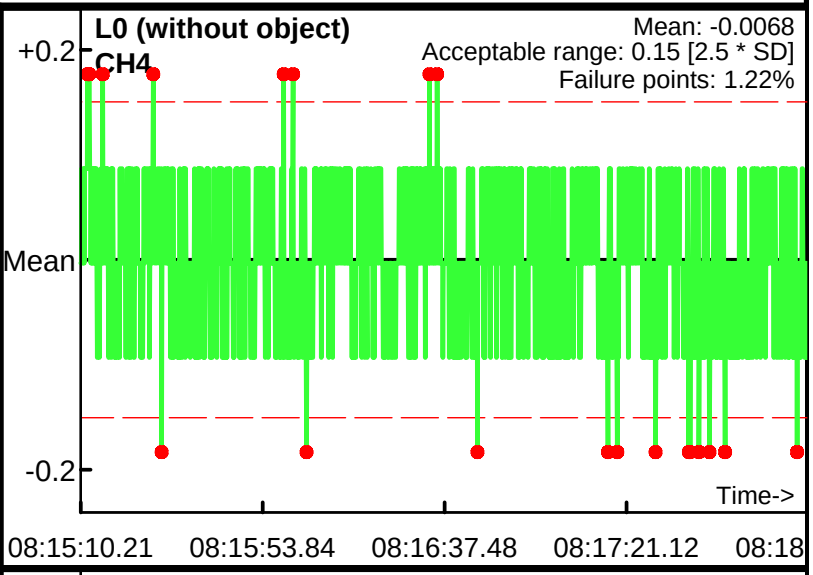
Static Calibration Test

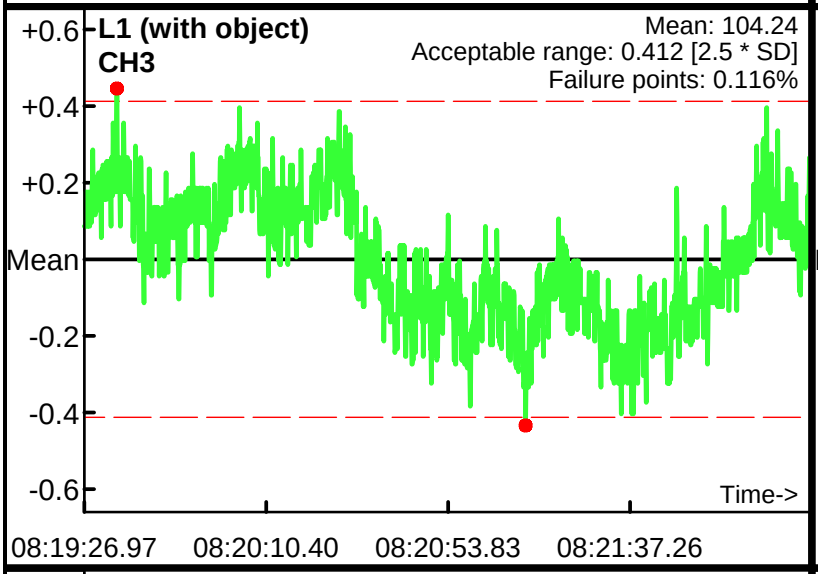
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

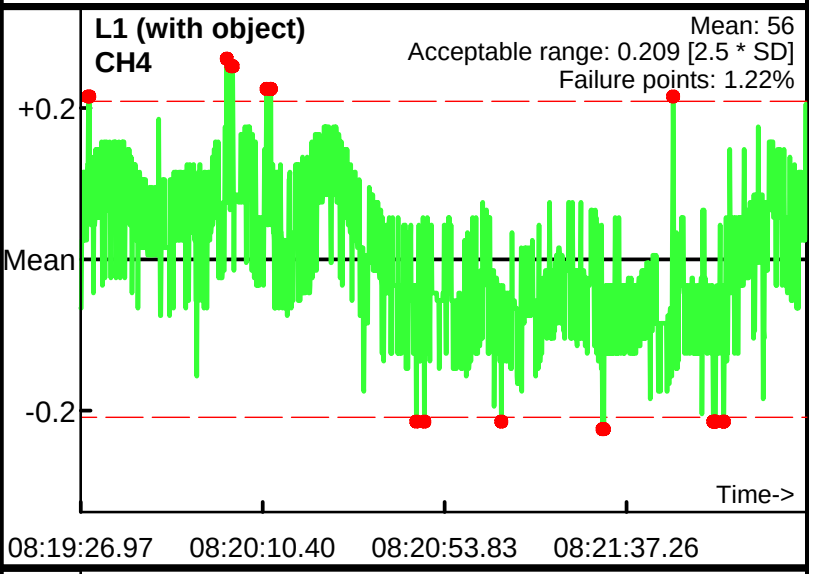
Allowable failure (%): 5%
Outside range
Acceptable limits

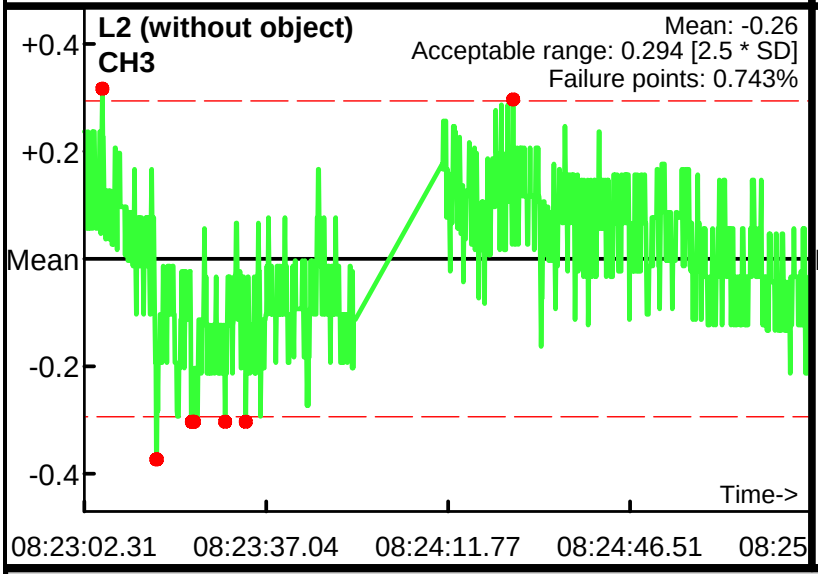
AM test
Operator: BG
Date: 7/2/2012

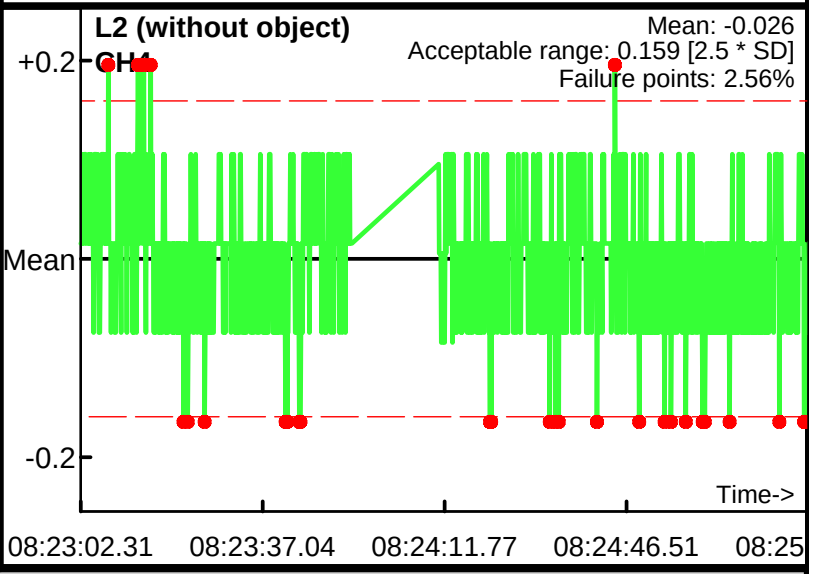












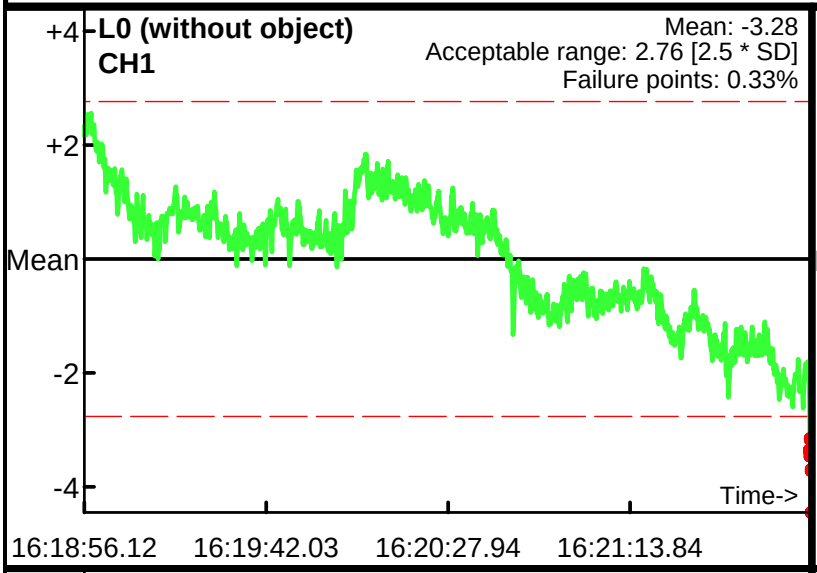
Database: .\070212AM.gdb
Line Name: L0 L1 L2

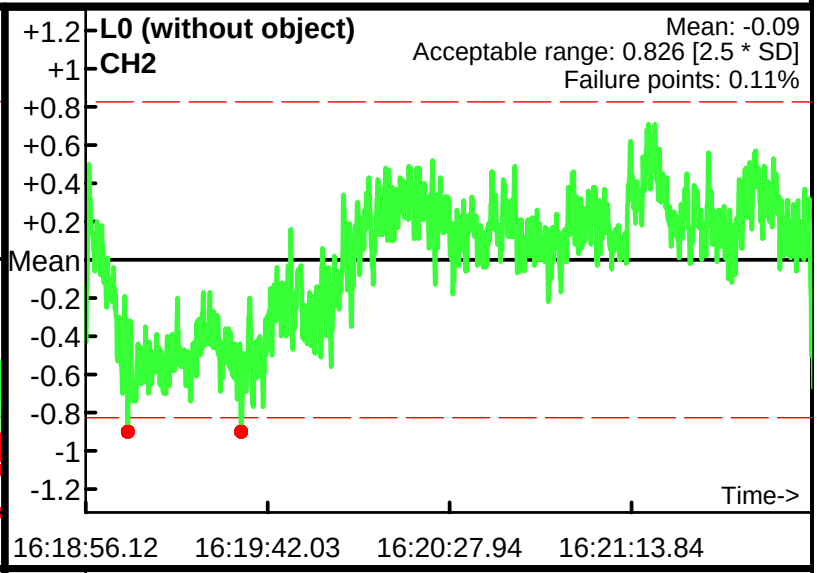
Static Calibration Test

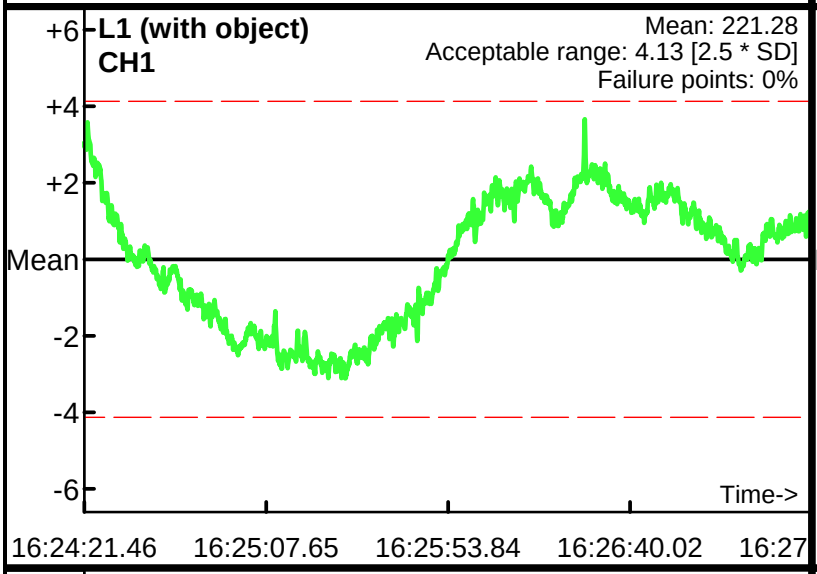
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

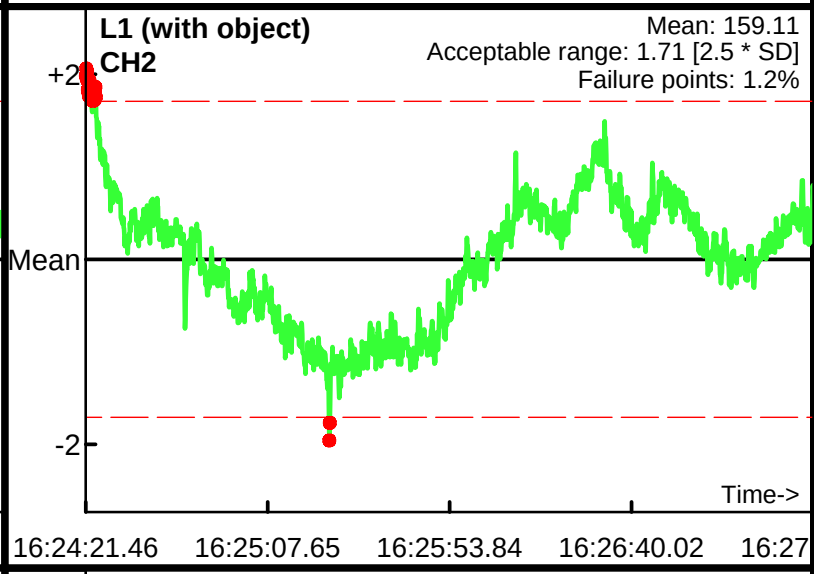
Allowable failure (%): 5%
Outside range
Acceptable limits

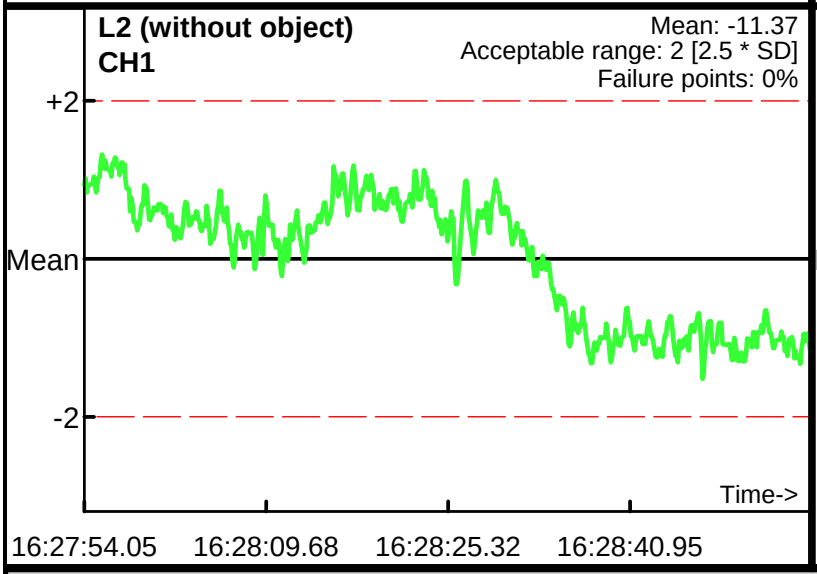
AM test
Operator: BG
Date: 7/2/2012

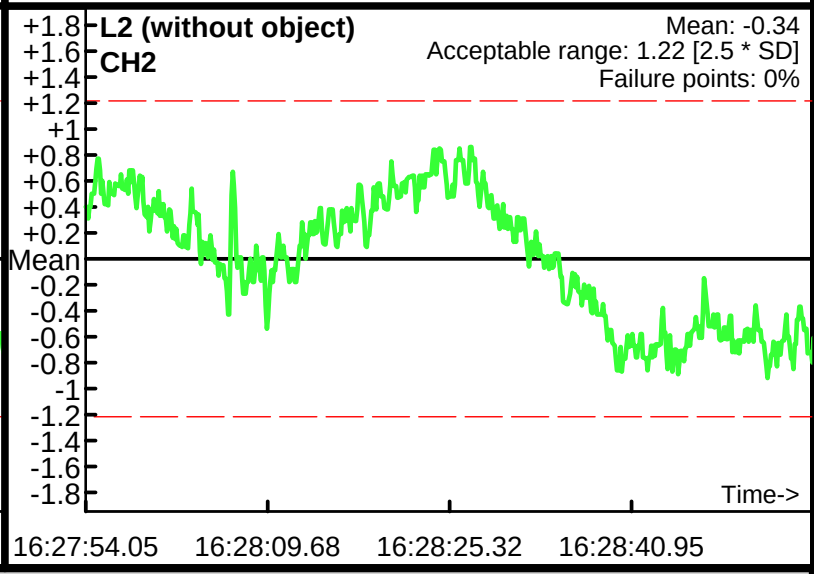












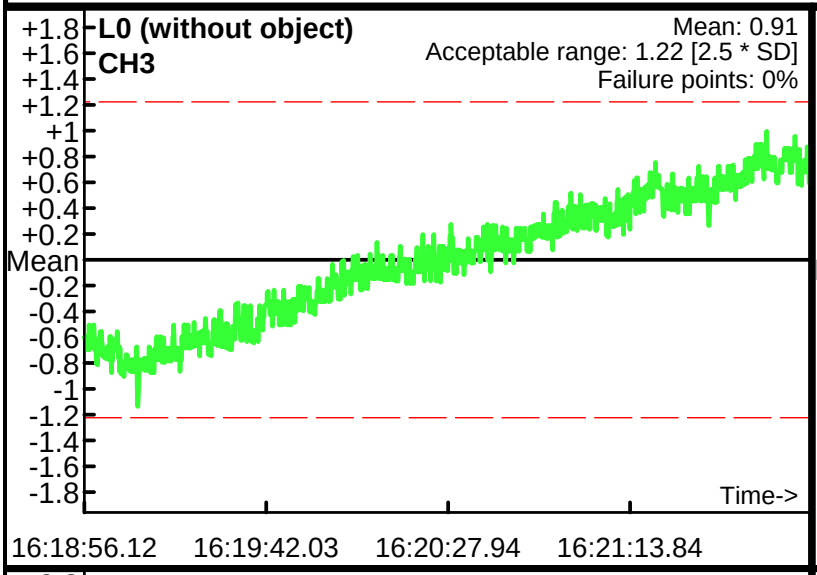
Database: .\070212PM.gdb
Line Name: L0 L1 L2

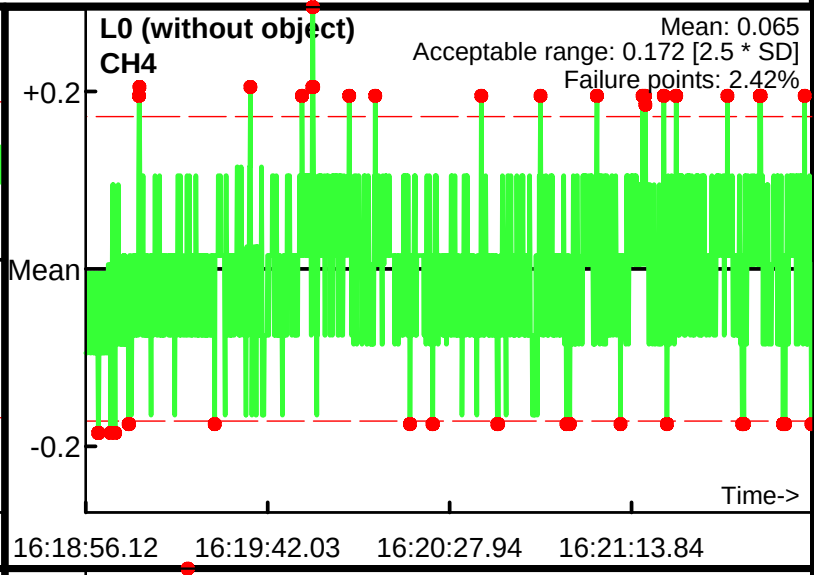
Static Calibration Test

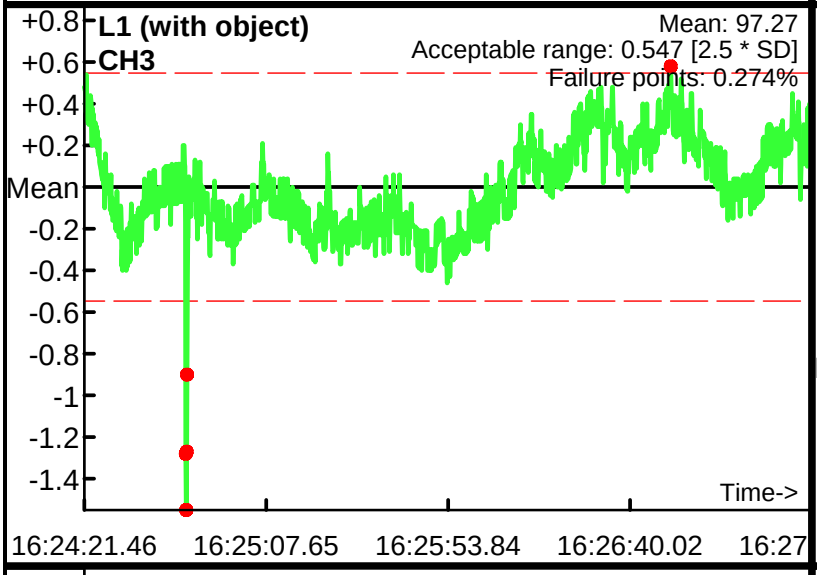
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

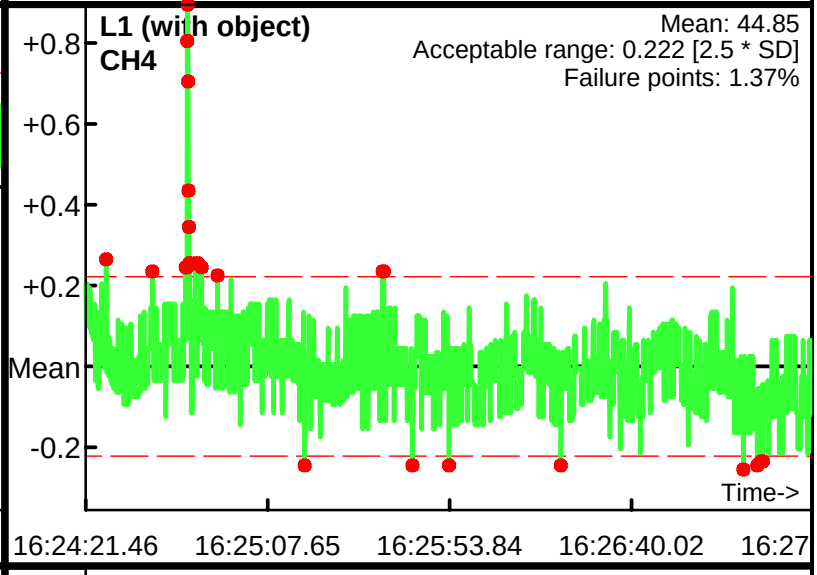
Allowable failure (%): 5%
Outside range
Acceptable limits

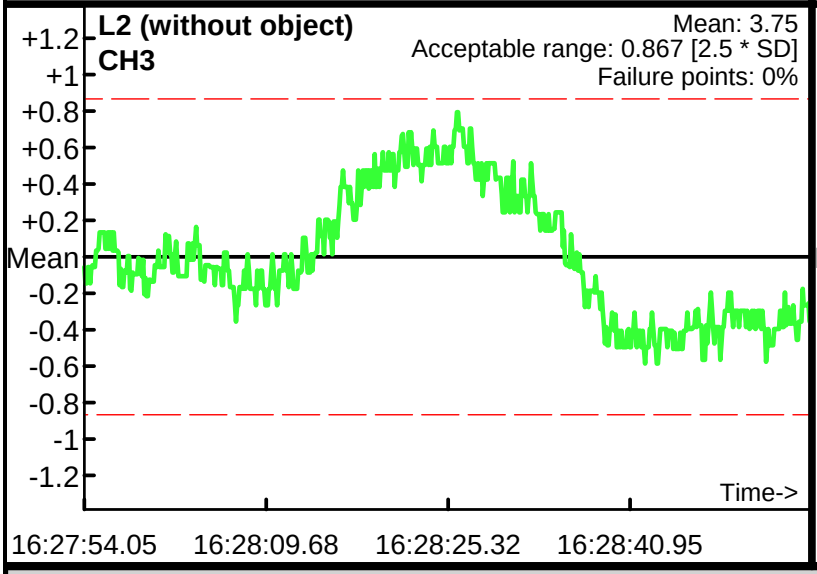
AM test
Operator: BG
Date: 7/2/2012

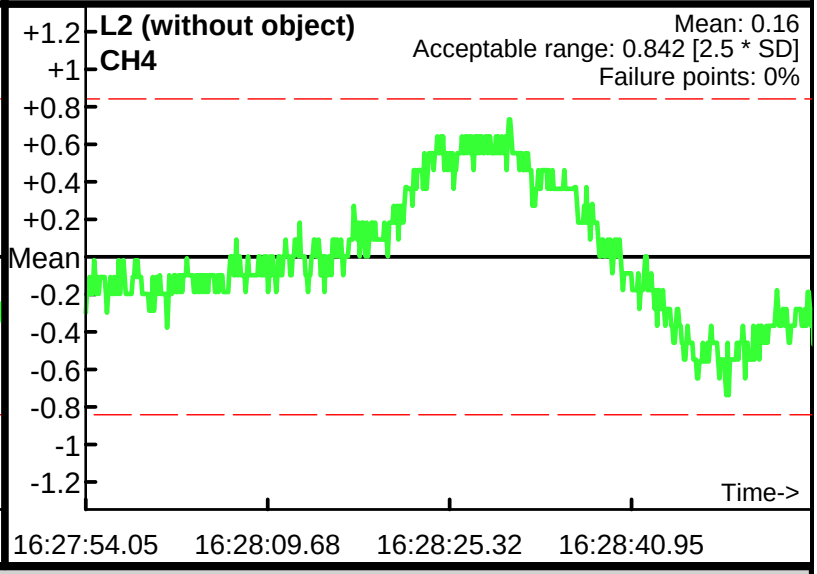












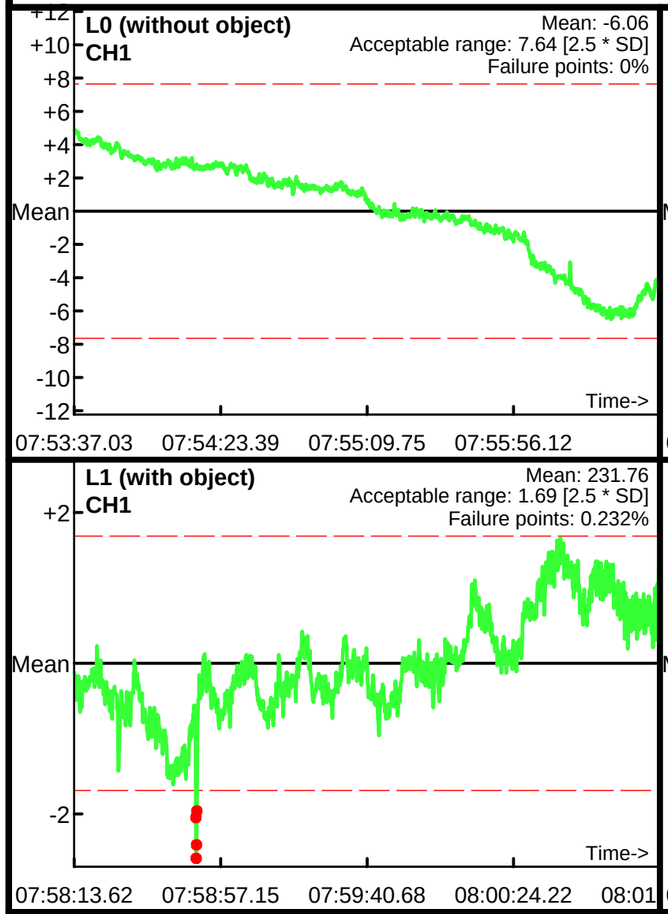
Database: .\070212PM.gdb
Line Name: L0 L1 L2

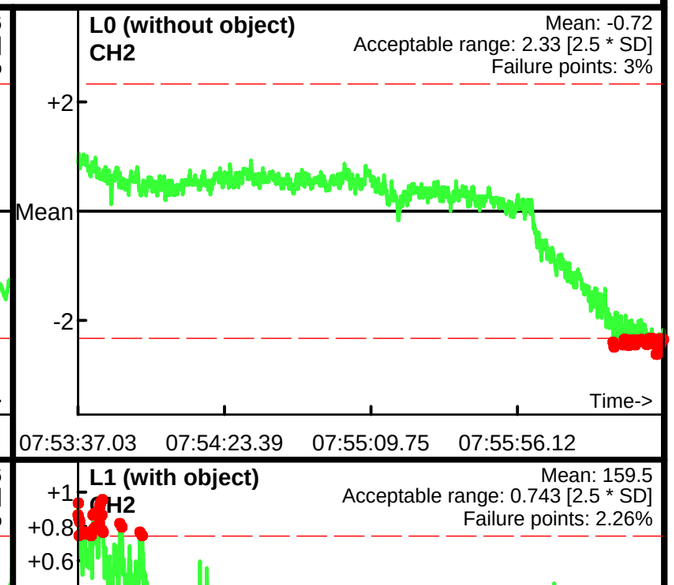
Static Calibration Test

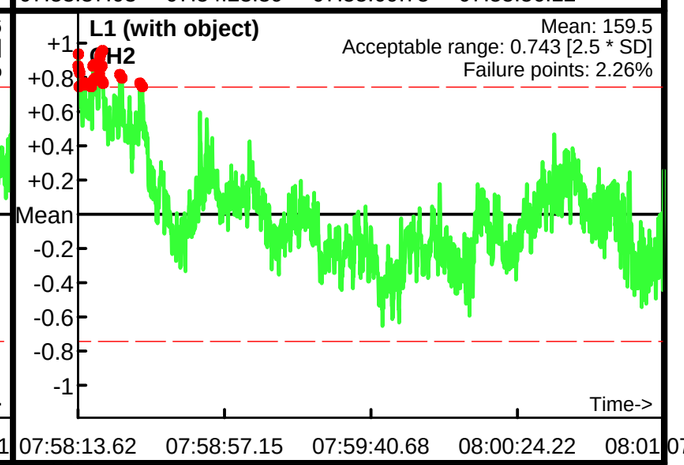
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

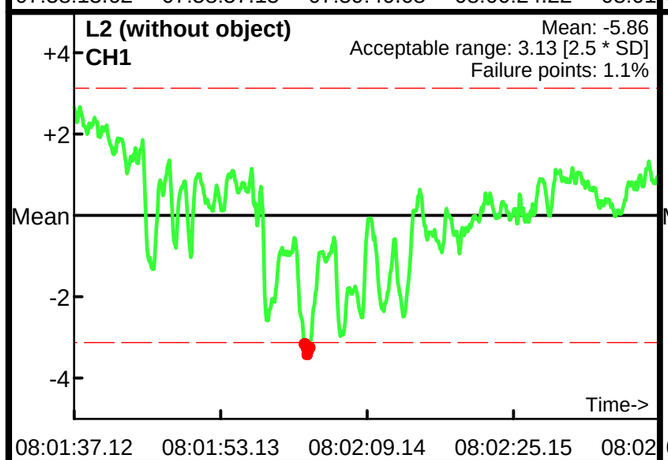
Allowable failure (%): 5%
Outside range
Acceptable limits

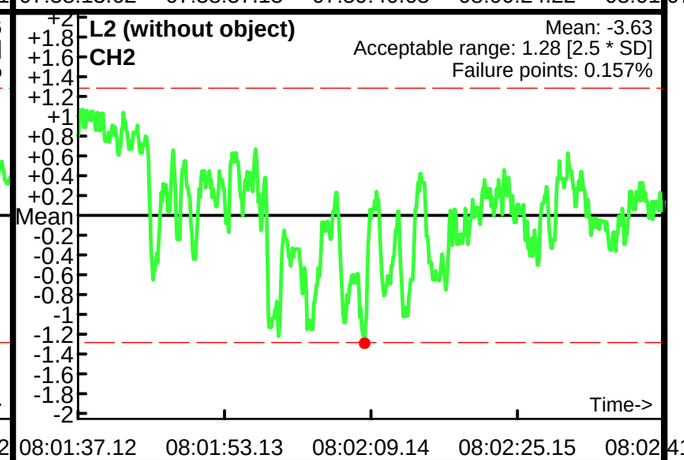
AM test
Operator: BG
Date: 7/3/2012











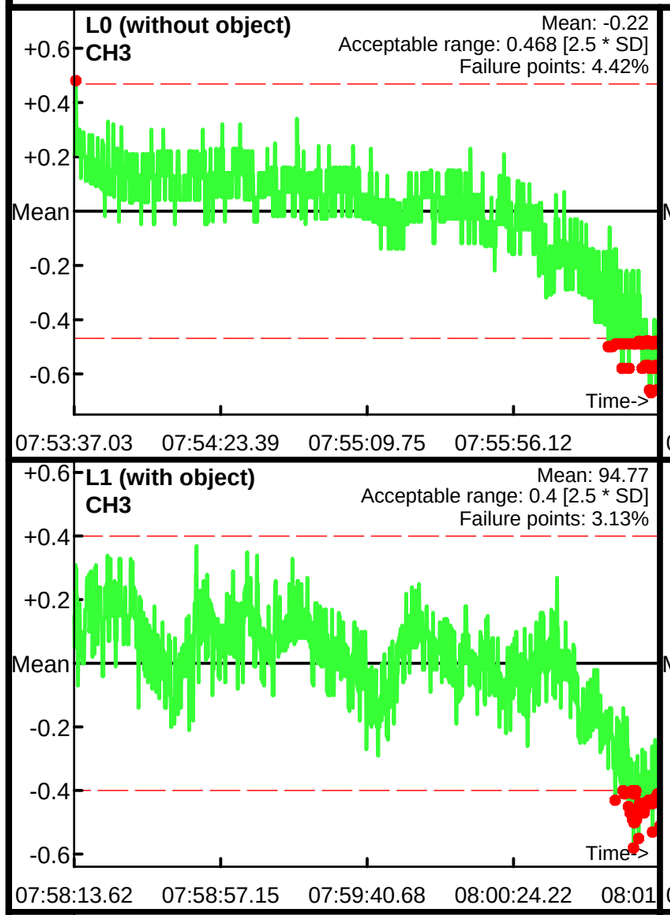
Database: .\070312AM.gdb
Line Name: L0 L1 L2

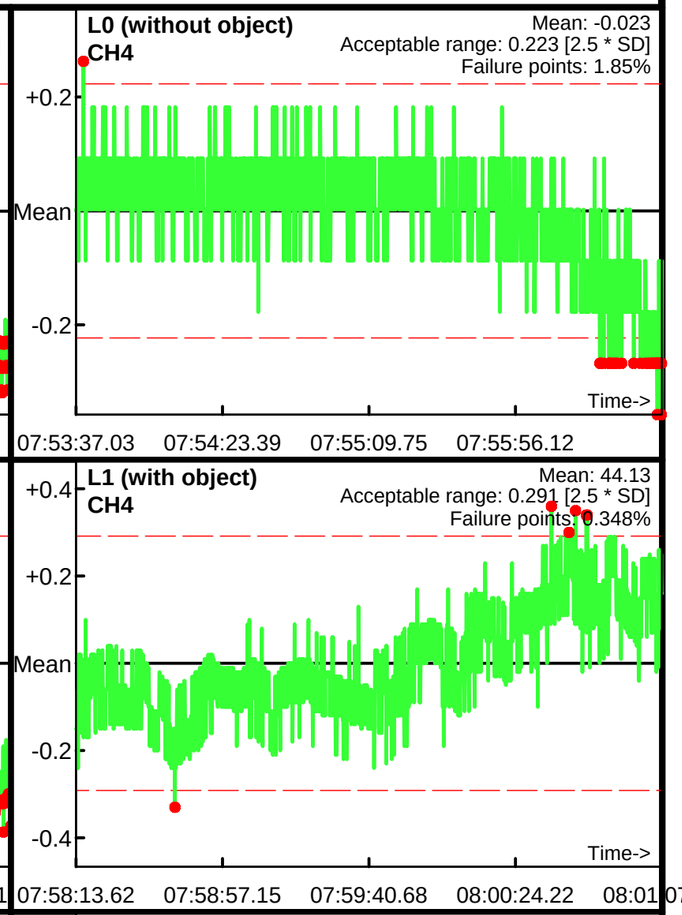
Static Calibration Test

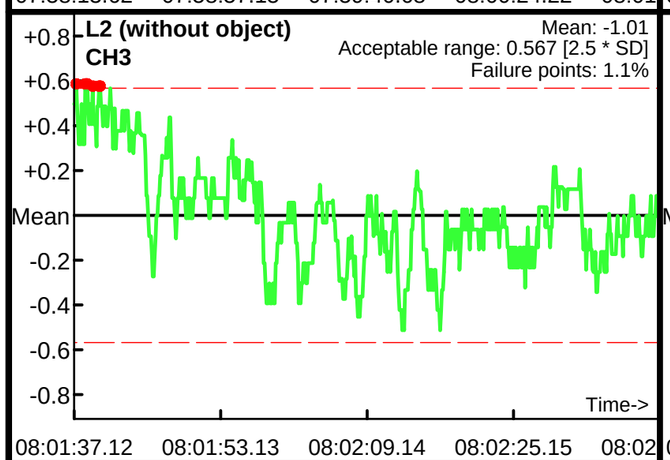
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

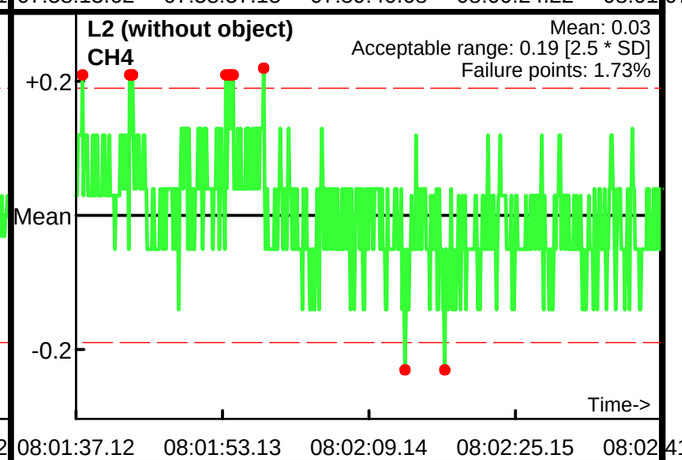
Allowable failure (%): 5%
Outside range
Acceptable limits

AM test
Operator: BG
Date: 7/3/2012









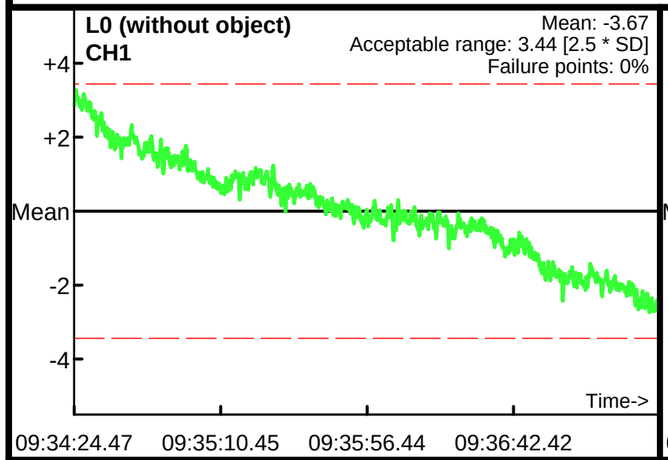
Database: .\070312AM.gdb
Line Name: L0 L1 L2

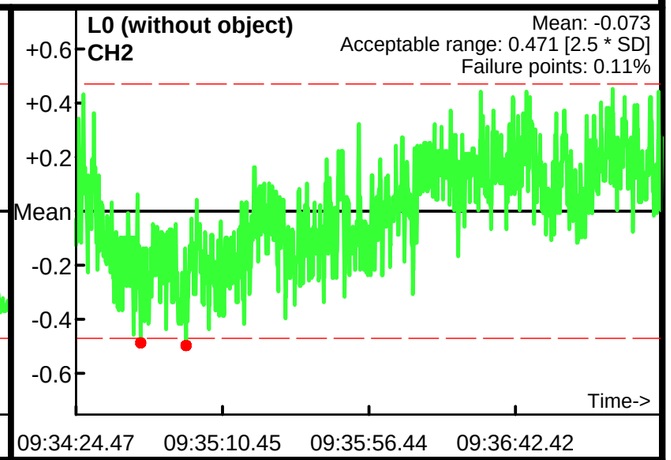
Static Calibration Test

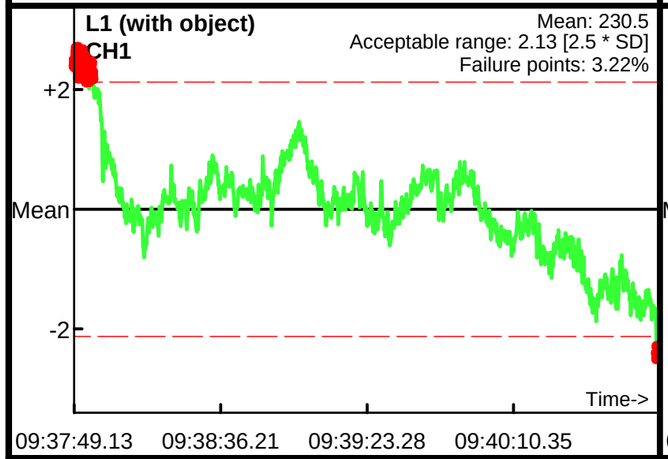
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

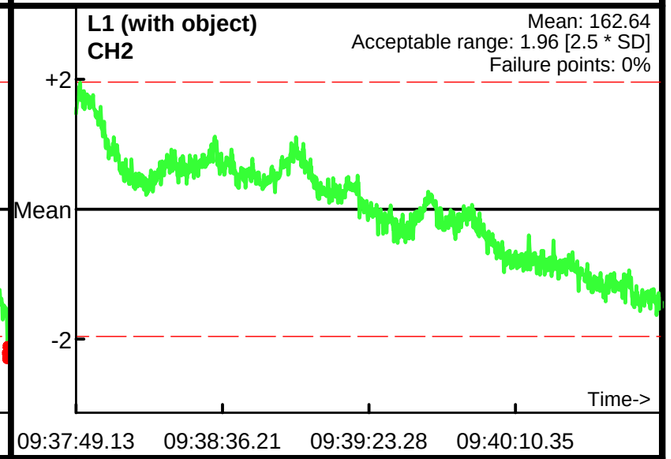
Allowable failure (%): 5%
Outside range
Acceptable limits

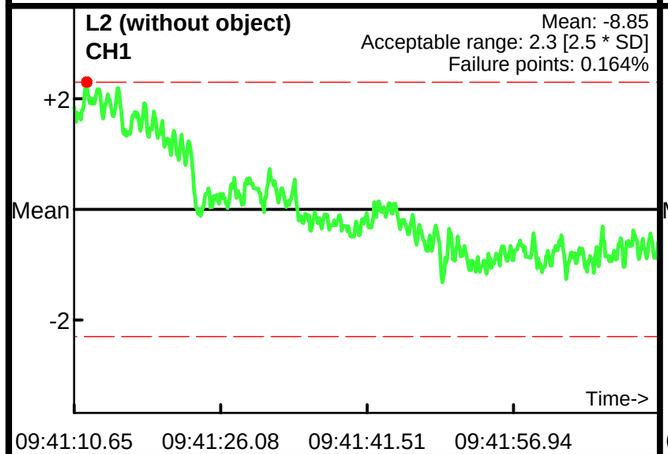
AM test
Operator: BG
Date: 7/3/2012

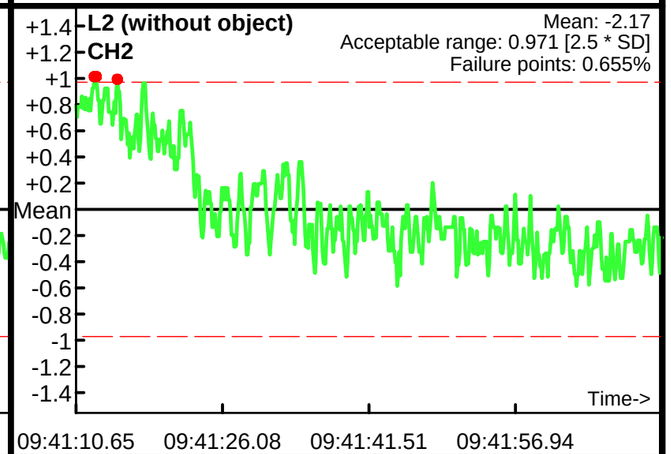












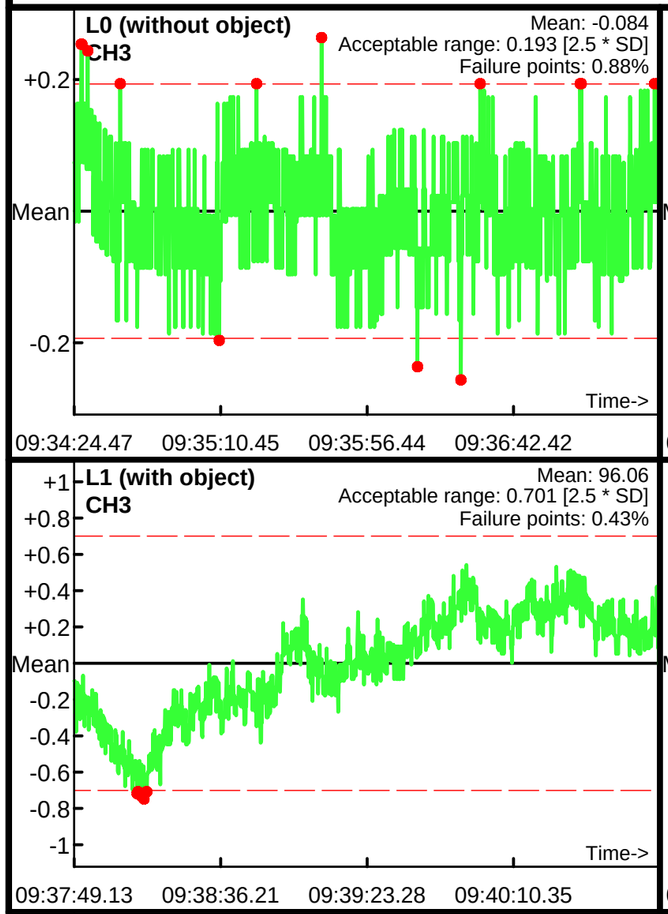
Database: .\070312PM.gdb
Line Name: L0 L1 L2

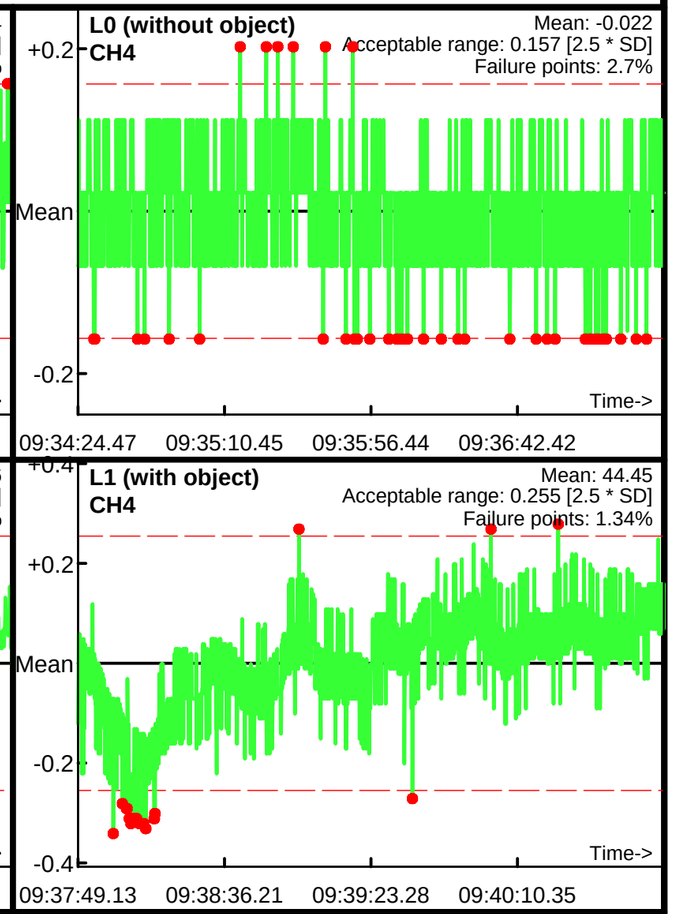
Static Calibration Test

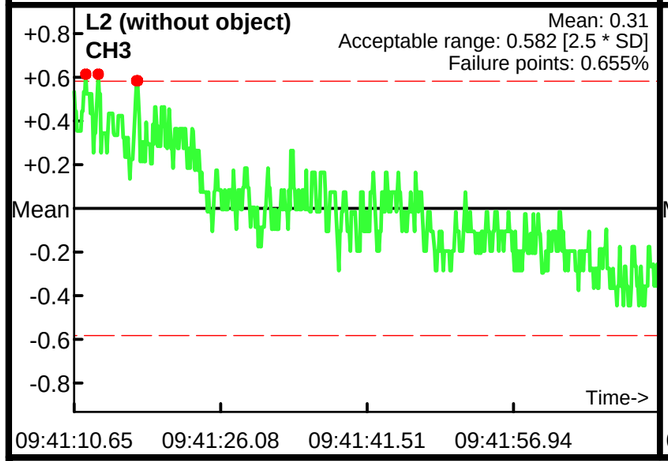
Project: Nantucket
Equipment: EM-61 Mark II
Grid/Location: MRS 2

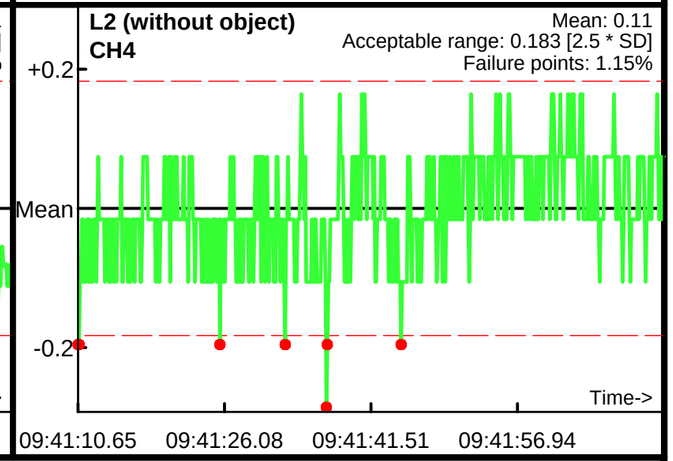
Allowable failure (%): 5%
Outside range
Acceptable limits

AM test
Operator: BG
Date: 7/3/2012









Database: .\070312PM.gdb
Line Name: L0 L1 L2

APPENDIX F

PHOTO LOG

Appendix F
Photo Log
Nantucket Beach FUDS Remedial Investigation
Nantucket, Massachusetts



Photo Description:	
Installation of Battelle VG-22 magnetic vertical gradient system at Nantucket Airport	
Date:	**RI Activity:**
3/6/2012	Airborne Survey



Photo Description:	
Battelle VG-22 magnetic vertical gradient survey equipment inside the helicopter (Nantucket Airport)	
Date:	**RI Activity:**
3/7/2012	Airborne Survey



Photo Description:	
Battelle VG-22 vertical magnetic gradient system fully installed on a Bell 206 Long Ranger helicopter	
Date:	**RI Activity:**
3/7/2012	Airborne Survey



Photo Description:	
Traffic control signage	
Date:	**RI Activity:**
3/9/2012	Airborne Survey



Photo Description:	
Pedestrian/bike access control	
Date:	**RI Activity:**
3/9/2012	Airborne Survey



Photo Description:	
VG-22 vertical magnetic gradient survey along MRS 2 shoreline	
Date:	**RI Activity:**
3/9/2012	Airborne Survey



Photo Description:	
VG-22 vertical magnetic gradient survey along MRS 2 bluffs	
Date:	**RI Activity:**
3/9/2012	Airborne Survey



Photo Description:	
VG-22 vertical magnetic gradient survey north of Milestone Rd in MRS 2	
Date:	**RI Activity:**
3/9/2012	Airborne Survey



Photo Description:	
VG-22 vertical magnetic gradient survey in southwest of MRS 2	
Date:	**RI Activity:**
3/16/2012	Airborne Survey



Photo Description:	
VG-22 vertical magnetic gradient system	
Date:	**RI Activity:**
3/19/2012	Airborne Survey



Photo Description:	
Airborne survey inclement weather event (fog), in southern portion of MRS 2	
Date:	**RI Activity:**
3/20/2012	Airborne Survey



Photo Description:	
VG-22 vertical magnetic gradient survey over New South Rd. (east of airport property), northwest corner of MRS 2	
Date:	**RI Activity:**
3/21/2012	Airborne Survey



Photo Description:	
Interview by local TV station with David King (USACE QA Geophysicist) at Nantucket Airport	
Date:	**RI Activity:**
3/22/2012	Airborne Survey



Photo Description:	
De-installation of Battelle VG-22 magnetic vertical gradient system at Nantucket Airport	
Date:	**RI Activity:**
3/31/2012	Airborne Survey



Photo Description:	
Explosive storage magazine delivered and placed on airport property, near airport gate no. 16 off Sun Island Road (distance from building ~30 ft).	
Date:	**RI Activity:**
3/15/2012	Site Preparation



Photo Description:	
Staging area (pre-mobilization) in Tom Nevers Area.	
Date:	**RI Activity:**
3/27/2012	Site Preparation



Photo Description:	
Environmental Protection Monitor checking for signs of Tern or plover nesting along beach in MRS 2	
Date:	**RI Activity:**
5/31/2012	Ground-based geophysical investigations



Photo Description:	
Tern observed on the beach MRS 2	
Date:	**RI Activity:**
6/1/2012	Ground-based geophysical investigations



Photo Description:	
Geophysicist is setting up the Base Station on a control point in MRS 2	
Date:	**RI Activity:**
6/4/2012	Ground-based geophysical investigations



Photo Description:	
Geophysicist is setting up the EM-61	
Date:	**RI Activity:**
6/4/2012	Ground-based geophysical investigations



Photo Description:	
UXO Tech II is using the GPS to walk (anomaly avoidance and pre-marking) analog transects in Area 1 and Area 2	
Date:	**RI Activity:**
6/5/2012	Ground-based geophysical investigations



Photo Description:	
Diving Supervisor at the dive control console in support trailer	
Date:	**RI Activity:**
6/6/2012	Underwater Mag & Dig in MRS 2



Photo Description:	
Metallic anomaly recovered during dive; assessed to be a length of 2" chain links	
Date:	**RI Activity:**
6/6/2012	Underwater Mag & Dig in MRS 2



Photo Description:	
Geophysicist, accompanied by a dive team member and a UXO Tech II, is using the GPS to mark out points on beach for the dive team	
Date:	**RI Activity:**
6/6/2012	Underwater Mag & Dig in MRS 2



Photo Description:	
Geophysicist preparing EM-61 for initial pass over the IVS in MRS 2	
Date:	**RI Activity:**
6/6/2012	Ground-based geophysical investigations



Photo Description:	
ISO seed emplacement in the IVS	
Date:	**RI Activity:**
6/7/2012	Ground-based geophysical investigations



Photo Description:	
Ground Reconnaissance	
Date:	**RI Activity:**
6/7/2012	Ground-based geophysical investigations



Photo Description:	
Diver using an "air lift" to investigate an anomaly	
Date:	**RI Activity:**
6/8/2012	Underwater Mag & Dig in MRS 2



Photo Description:	
Geophysicist surveying a "blind seed" item for the DGM team following emplacement by UXO Technician	
Date:	**RI Activity:**
6/8/2012	Ground-based geophysical investigations



Photo Description:	
Pre-vegetation removal	
Date:	**RI Activity:**
6/11/2012	Ground-based geophysical investigations



Photo Description:	
After vegetation Removal	
Date:	**RI Activity:**
6/11/2012	Ground-based geophysical investigations



Photo Description:	
Diver entering surf within MRS 2	
Date:	**RI Activity:**
6/14/2012	Underwater Mag & Dig Investigation



Photo Description:	
Geophysicist performing DGM in AC-01-G04 within MRS 2	
Date:	**RI Activity:**
6/14/2012	Ground-based geophysical investigations



Photo Description:	
Geophysicist performing DGM in AC-01 in MRS 2	
Date:	**RI Activity:**
6/15/2012	Ground-based geophysical investigations



Photo Description:	
5" High Velocity Aerial Rocket (HVAR) MK6 Series (Practice)	
Date:	**RI Activity:**
6/19/2012	Ground-based geophysical investigations



Photo Description:	
Demolition set up with two jet perforators	
Date:	**RI Activity:**
6/19/2012	Ground-based geophysical investigations



Photo Description:	
The demolition shot with engineering controls in-place	
Date:	**RI Activity:**
6/19/2012	Ground-based geophysical investigations



Photo Description:	
Post-demolition	
Date:	**RI Activity:**
6/19/2012	Ground-based geophysical investigations



Photo Description:	
Dig team locating an anomaly along beach in MRS 2	
Date:	**RI Activity:**
6/20/2012	Ground-based geophysical investigations



Photo Description:	
UXO Tech performing a continuity test on a blasting cap	
Date:	**RI Activity:**
6/20/2012	Ground-based geophysical investigations



Photo Description:	
Geophysicist preparing to conduct an EM-31 survey in MRS-1	
Date:	**RI Activity:**
6/21/2012	Ground-based geophysical investigations



Photo Description:	
Recovering the diver after completion of transect #32.	
Date:	**RI Activity:**
6/25/2012	Underwater Mag & Dig in MRS 2



Photo Description:	
Base of MK 1 5-inch Rocket Warhead	
Date:	**RI Activity:**
6/26/2012	Ground-based geophysical investigations



Photo Description:	
Inserting detonating cord into perforator for demolition operations	
Date:	**RI Activity:**
6/26/2012	Ground-based geophysical investigations



Photo Description:	
Project Scientist characterizing soil in MRS 1 test pits	
Date:	**RI Activity:**
6/28/2012	MRS 1 Burial Pit Investigation



Photo Description:	
Project Scientist collecting soil samples for headspace screening from MRS 1 test pits	
Date:	**RI Activity:**
6/28/2012	MRS 1 Burial Pit Investigation



Photo Description:	
Project Scientist performing XRF field screening on soil from MRS 1 test pits	
Date:	**RI Activity:**
6/28/2012	MRS 1 Burial Pit Investigation



Photo Description:	
Anomaly investigation in MRS 1	
Date:	**RI Activity:**
7/2/2012	Ground-based geophysical investigations



Photo Description:	
3.5-inch Rocket MK 1 recovered from MRS 1	
Date:	**RI Activity:**
7/2/2012	Ground-based geophysical investigations



Photo Description:	
Analog transects north side of Milestone Rd.	
Date:	**RI Activity:**
7/4/2012	Ground-based geophysical investigations



Photo Description:	
5-inch MK 1 rocket warhead from transect AC-01-T6	
Date:	**RI Activity:**
7/6/2012	Ground-based geophysical investigations



Photo Description:	
Anomaly investigation in AC-01-T06	
Date:	**RI Activity:**
7/6/2012	Ground-based geophysical investigations



Photo Description:	
UXO Tech III Team Leader verifying excavation is anomaly free before backfilling in MRS 2	
Date:	**RI Activity:**
7/9/2012	Ground-based geophysical investigations



Photo Description:	
2.25-inch Sub-caliber aerial rocket (SCAR) recovered in AC-01-G12	
Date:	**RI Activity:**
7/11/2012	Ground-based geophysical investigations



Photo Description:	
MD scrap removed from grid AC-01 G04	
Date:	**RI Activity:**
7/18/2012	Ground-based geophysical investigations



Photo Description:	
Team Leader checking hole in AC-01-G04	
Date:	**RI Activity:**
7/19/2012	Ground-based geophysical investigations



Photo Description:	
Approximately 1500 lbs. of MD from AC-01-04	
Date:	**RI Activity:**
7/20/2012	Ground-based geophysical investigations



Photo Description:	
3.5-inch Rocket with INERT painted on Warhead from AC-01-G08	
Date:	**RI Activity:**
7/23/2012	Ground-based geophysical investigations



Photo Description:	
Pre-demolition 5-inch HVAR projectile with perforators	
Date:	**RI Activity:**
7/25/2012	Ground-based geophysical investigations



Photo Description:	
Post-demolition 5-inch HVAR projectile	
Date:	**RI Activity:**
7/25/2012	Ground-based geophysical investigations



Photo Description:	
Subsurface sampling for MC in MRS 2	
Date:	**RI Activity:**
8/1/2012	Ground-based geophysical investigations



Photo Description:	
MD and Scrap loaded ready to seal for shipment	
Date:	**RI Activity:**
8/2/2012	Ground-based geophysical investigations

APPENDIX G

TARGET ANOMALY DIG LIST

Appendix G
Target Anomaly Dig List
Nantucket Beach FUDS Remedial Investigation
Nantucket, Massachusetts

		Geophysical Survey Information				Dig Results											
Anomaly Cluster/ MRS	Unique Target ID	Easting Coord. (USft)	Northing Coord. (USft)	Channel ID	Amplitude Response	Reacquisition Instrument	Item Category	Item Type	Description	Approx. Weight (lbs)	Offset: Distance (in)	Item Easting Coord. (USft)	Item Northing Coord. (USft)	Depth: Top of Item (in)	Dig Date	Team Leader Initials	Final Disposition
AC-01	G01-001	1360776	14980154.75	CH3	5.19	NA	NA	NA	Not intrusively investigated due to property owner concerns								Left in place
AC-01	G01-002	1360775.75	14980157	CH3	7.1	NA	NA	NA	Not intrusively investigated due to property owner concerns								Left in place
AC-01	G02-001	1360514.75	14979899.75	CH3	113.62 mV	Schonstedt	Cultural Debris	Metal Scrap		1	0	1360514.75	14979899.75	6	6/26/2012	TR	Removed from site
AC-01	G02-002	1360498.75	14979908.75	CH3	3.06 mV	Schonstedt	Cultural Debris	Metal Scrap		0.01	4	1360498.75	14979908.42	2	6/26/2012	TR	Removed from site
AC-01	G02-003	1360517.25	14979909	CH3	10.72 mV	Schonstedt	Cultural Debris	Metal Scrap		0	6	1360517.25	14979908.5	24	6/26/2012	TR	Removed from site
AC-01	G02-004	1360511.75	14979911	CH3	408.17 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR	Blown in Place - Determined to be MDAS	40	4	1360511.75	14979910.67	6	6/26/2012	TR	Removed from site
AC-01	G02-005	1360504	14979913.5	CH3	3.07 mV	Schonstedt	Cultural Debris	Metal Scrap		1	6	1360504	14979914	0	6/26/2012	TR	Removed from site
AC-01	G02-006	1360518	14979913.5	CH3	15.63 mV	Schonstedt	Cultural Debris	Metal Scrap		1	0	1360518.5	14979913.5	24	6/26/2012	TR	Removed from site
AC-01	G02-006	1360518	14979913.5	CH3	15.63 mV	Schonstedt	Cultural Debris	Metal Scrap		0.5	0	1360518.5	14979913.5	0	7/17/2012	TR	Removed from site
AC-01	G02-007	1360488	14979913.75	CH3	22.16 mV	Schonstedt	No Contact	No Contact							6/26/2012	TR	NA
AC-01	G02-008	1360525.25	14979917.5	CH3	291.73 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360525.25	14979917.5	3	7/17/2012	TR	Removed from site
AC-01	G02-009	1360476.75	14979918.75	CH3	13.57 mV	Schonstedt	Cultural Debris	Metal Scrap		0.5	6	1360476.75	14979918.25	4	6/26/2012	TR	Removed from site
AC-01	G02-010	1360489.75	14979918.75	CH3	17.17 mV	Schonstedt	Cultural Debris	Metal Scrap		0.02	3	1360490	14979918.75	4	6/26/2012	TR	Removed from site
AC-01	G02-011	1360473.25	14979920.5	CH3	9.91 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		0.5	0	1360473.25	14979920.5	4	6/26/2012	TR	Removed from site
AC-01	G02-012	1360484.5	14979923.25	CH3	7.42 mV	Schonstedt	Cultural Debris	Metal Scrap		0.01	0	1360484.5	14979923.25	2	6/26/2012	TR	Removed from site
AC-01	G02-013	1360466	14979924.5	CH3	362.79 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		15	6	1360466.5	14979924.5	0	6/26/2012	TR	Removed from site
AC-01	G02-015	1360495	14979925.25	CH3	7.53 mV	Schonstedt	Cultural Debris	Metal Scrap		2	0	1360495	14979925.25	4	6/26/2012	TR	Removed from site
AC-01	G02-016	1360511.25	14979925.25	CH3	64.35 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		15	0	1360511.25	14979925.25	15	6/26/2012	TR	Removed from site
AC-01	G02-017	1360523	14979926	CH3	144.11 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		40	6	1360523.5	14979926	3	7/11/2012	TR	Removed from site
AC-01	G02-018	1360534.25	14979926.5	CH3	69.33 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		40	0	1360534.25	14979926.5	18	7/11/2012	TR	Removed from site
AC-01	G02-019	1360456	14979927.5	CH3	17.4 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		0.5	0	1360456	14979927.5	3	7/11/2012	TR	Removed from site
AC-01	G02-020	1360504.75	14979928	CH3	4.18 mV	Schonstedt	Cultural Debris	Metal Scrap		2	0	1360504.75	14979928	0	6/26/2012	TR	Removed from site
AC-01	G02-021	1360489.75	14979928.5	CH3	97.78 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		10	0	1360489.75	14979928.5	8	6/26/2012	TR	Removed from site
AC-01	G02-022	1360464	14979929.25	CH3	188.51 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		5	0	1360464	14979929.25	0	6/26/2012	TR	Removed from site
AC-01	G02-022	1360464	14979929.25	CH3	188.51 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		15	0	1360464	14979929.25	8	6/26/2012	TR	Removed from site
AC-01	G02-023	1360502.75	14979929.25	CH3	4.04 mV	Schonstedt	Cultural Debris	Metal Scrap		2	6	1360502.75	14979929.75	0	6/26/2012	TR	Removed from site
AC-01	G02-024	1360483.5	14979929.5	CH3	341.54 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		15	0	1360483.5	14979929.5	0	6/26/2012	TR	Removed from site
AC-01	G02-025	1360512.25	14979930.5	CH3	35.72 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		3	0	1360512.25	14979930.5	2	6/26/2012	TR	Removed from site
AC-01	G02-026	1360449.75	14979932	CH3	514.07 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		40	0	1360449.75	14979932	8	7/11/2012	TR	Removed from site
AC-01	G02-027	1360525	14979934	CH3	154.32 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		40	0	1360525	14979934	12	7/11/2012	TR	Removed from site
AC-01	G02-028	1360509.5	14979934.75	CH3	361.14 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		40	6	1360510	14979934.75	6	7/11/2012	TR	Removed from site
AC-01	G02-029	1360471	14979935.5	CH3	31.75 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		9	0	1360471	14979935.5	6	6/26/2012	TR	Removed from site
AC-01	G02-030	1360517.5	14979935.75	CH3	12.01 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	6	1360517.5	14979935.25	42	7/17/2012	TR	Removed from site
AC-01	G02-031	1360459.5	14979936	CH3	141.47 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360459.5	14979936	12	7/12/2012	TR	Removed from site
AC-01	G02-032	1360445.5	14979936.5	CH3	145.78 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	6	1360445	14979936.5	6	7/11/2012	TR	Removed from site
AC-01	G02-033	1360506.25	14979936.5	CH3	262.57 mV	Schonstedt	No Contact	No Contact						0	7/17/2012	TR	NA
AC-01	G02-034	1360482	14979938.25	CH3	4.6 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		0.5	0	1360482	14979938.25	6	7/11/2012	TR	Removed from site
AC-01	G02-035	1360508	14979940	CH3	609.79 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		40	0	1360508	14979940	8	7/11/2012	TR	Removed from site
AC-01	G02-036	1360446.25	14979940.25	CH3	916.81 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR	Blown in Place - Determined to be MDAS	40	6	1360446.25	14979939.75	6	7/11/2012	TR	Removed from site
AC-01	G02-037	1360531.25	14979940.25	CH3	9.66 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		2	3	1360531.25	14979940	8	7/11/2012	TR	Removed from site
AC-01	G02-038	1360524	14979940.5	CH3	590.06 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		20	0	1360524	14979940.5	4	7/11/2012	TR	Removed from site
AC-01	G02-039	1360454.5	14979941	CH3	318.83 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		10	0	1360454.5	14979941	6	7/11/2012	TR	Removed from site
AC-01	G02-040	1360489.75	14979942.25	CH3	11.64 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		1.5	6	1360489.75	14979942.75	3	7/11/2012	TR	Removed from site
AC-01	G02-041	1360518.25	14979942.75	CH3	1720.77 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	3	1360518	14979942.75	3	7/12/2012	TR	Removed from site
AC-01	G02-042	1360429.25	14979943.75	CH3	1156.74 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR	Blown in Place - Determined to be MDAS	40	0	1360429.25	14979943.75	2	7/11/2012	TR	Removed from site
AC-01	G02-043	1360509	14979944.5	CH3	12.95 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	3	1360509	14979944.75	36	7/17/2012	TR	Removed from site
AC-01	G02-044	1360512.25	14979945	CH3	9.79 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	3	1360512.25	14979945.25	48	7/17/2012	TR	Removed from site
AC-01	G02-045	1360483.5	14979945.25	CH3	888.24 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR	Blown in Place - Determined to be MDAS	60	6	1360483.5	14979944.75	60	7/23/2012	TR	Removed from site
AC-01	G02-046	1360523.25	14979946.25	CH3	161.47 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR	Blown in Place - Determined to be MDAS	40	0	1360523.25	14979946.25	6	7/12/2012	TR	Removed from site
AC-01	G02-047	1360489	14979946.75	CH3	11.41 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		20	6	1360489.5	14979946.75	42	7/17/2012	TR	Removed from site
AC-01	G02-048	1360513.5	14979947.25	CH3	9.68 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	6	1360513	14979947.25	48	7/17/2012	TR	Removed from site
AC-01	G02-049	1360445.5	14979947.5	CH3	229.75 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		5	6	1360446	14979947.5	6	7/11/2012	TR	Removed from site
AC-01	G02-050	1360461.75	14979948.5	CH3	9.02 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		1	3	1360462	14979948.5	2	7/11/2012	TR	Removed from site
AC-01	G02-051	1360501.5	14979949	CH3	23.62 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360501.5	14979949	36	7/17/2012	TR	Removed from site
AC-01	G02-052	1360457.5	14979949.5	CH3	41.72 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		2.5	6	1360457.5	14979949	4	7/11/2012	TR	Removed from site
AC-01	G02-053	1360428	14979949.75	CH3	23.74 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		60	6	1360428	14979949.25	60	7/13/2012	TR	Removed from site
AC-01	G02-054	1360543	14979949.75	CH3	1180.41 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		10	3	1360543	14979949.5	0	6/26/2012	TR	Removed from site
AC-01	G02-055	1360473	14979951.5	CH3	7.02 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		0.5	0	1360473	14979951.5	8	7/12/2012	TR	Removed from site
AC-01	G02-056	1360438.5	14979952	CH3	32.47 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		2	6	1360438.5	14979952.5	4	7/11/2012	TR	Removed from site
AC-01	G02-057	1360497.5	14979953	CH3	169.41 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360497.5	14979953	3	7/12/2012	TR	Removed from site
AC-01	G02-058	1360545.5	14979954	CH3	162.74 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		40	0	1360545.5	14979954	48	7/17/2012	TR	Removed from site
AC-01	G02-058	1360545.5	14979954	CH3	162.74 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR	Blown in Place - Determined to be MDAS	40	0	1360545.5	14979954	6	7/12/2012	TR	Removed from site
AC-01	G02-059	1360507	14979954.25	CH3	179.36 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	.	1360506.5	14979954.25	6	7/12/2012	TR	Removed from site
AC-01	G02-060	1360452.5	14979954.5	CH3	4.65 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		0.5	0	1360452.5	14979954.5	2	7/11/2012	TR	Removed from site
AC-01	G02-061	1360466.25	14979956.5	CH3	5.34 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360466.25	14979956.5	36	7/17/2012	TR	Removed from site
AC-01	G02-062	1360533.25	14979956.75	CH3	3.69 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360533.25	14979956.75	48	7/12/2012	TR	Removed from site
AC-01	G02-063	1360454	14979957.5	CH3	3.72 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		2	0	1360454	14979957.5	6	7/11/2012	TR	Removed from site
AC-01	G02-064	1360514.5	14979958	CH3	5.16 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR	Blown in Place - Determined to be MDAS	60	7	1360513.917	14979958	48	7/23/2012	TR	Removed from site
AC-01	G02-065	1360433.25	14979958.25	CH3	124.14 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		25	6	1360432.75	14979958.25	8	7/11/2012	TR	Removed from site
AC-01	G02-066	1360480.25	14979959.75	CH3	15.69 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		0.5	3	1360480	14979959.75	2	7/12/2012	TR	Removed from site
AC-01	G02-067	1360539.75	14979960.25	CH3	1290.61 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR		40	6	1360539.75	14979959.75	0	6/26/2012	TR	Removed from site
AC-01	G02-068	1360502.25	14979960.75	CH3	1218.51 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		5	0	1360502.25	14979960.75	3	7/12/2012	TR	Removed from site
AC-01	G02-069	1360508.75	14979961	CH3	915.34 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		20	0	1360508.75	14979961	3	7/11/2012	TR	Removed from site
AC-01	G02-070	1360494.25	14979961.25	CH3	3.21 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		1.5	0	1360494.25	14979961.25	4	7/12/2012	TR	Removed from site
AC-01	G02-071	1360475	14979962.5	CH3	173.35 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360475	14979962.5	8	7/12/2012	TR	Removed from site
AC-01	G02-072	1360440	14979963	CH3	1093.59 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR	Blown in Place - Determined to be MDAS	40	0	1360440	14979963	4	7/11/2012	TR	Removed from site
AC-01	G02-073	1360523.25	14979964	CH3	10.15 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360523.25	14979964	36	7/12/2012	TR	Removed from site
AC-01	G02-074	1360463.25	14979966.5	CH3	7.57 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		15	0	1360463.25	14979966.5	42	7/13/2012	TR	Removed from site
AC-01	G02-075	1360459.25	14979967	CH3	9.08 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		140	0	1360459.25	14979967	60	7/13/2012	TR	Removed from site
AC-01	G02-076	1360439	14979967.75	CH3	321.75 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		25	0	1360439	14979967.75	60	7/13/2012	TR	Removed from site
AC-01	G02-077	1360455.25	14979967.75	CH3	20.37 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		0.5	0	1360455.25	14979967.75	6	7/12/2012	TR	Removed from site
AC-01	G02-078	1360496.5	14979968.5	CH3	258.51 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360496.5	14979968.5	30	7/17/2012	TR	Removed from site
AC-01	G02-079	1360526.25	14979969.25	CH3	7.08 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		0.1	0	1360526.25	14979969.25	1	7/11/2012	TR	Removed from site
AC-01	G02-080	1360476.25	14979969.75	CH3	8.32 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		100	0	1360476.25	14979969.75	72	7/13/2012	TR	Removed from site
AC-01	G02-081	1360469.75	14979970.25	CH3	19.65 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360469.75	14979970.25	72	7/13/2012	TR	Removed from site
AC-01	G02-082	1360504.75	14979970.75	CH3	3.44 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		0.5	0	1360504.75	14979970.75	3	7/12/2012	TR	Removed from site
AC-01	G02-083	1360455.5	14979971.25	CH3	10.6 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360455.5	14979971.25	48	7/13/2012	TR	Removed from site
AC-01	G02-085	1360479.25	14979973.75	CH3	37.53 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		0.5	0	1360479.25	14979973.75	8	7/12/2012	TR	Removed from site
AC-01	G02-086	1360495	14979974.75	CH3	219.09 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		15	0	1360495	14979974.75	2	7/12/2012	TR	Removed from site
AC-01	G02-087	1360500.75	14979975.75	CH3	7.85 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		0.5	0	1360500.75	14979975.75	3	7/12/2012	TR	Removed from site
AC-01	G02-088	1360468.5	14979976.5	CH3	12.03 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR	Blown in Place - Determined to be MDAS	60	0	1360468.5	14979976.5	36	7/23/2012	TR	Removed from site
AC-01	G02-089	1360522.91	14979975.96	CH3	68.15 mV	Schonstedt	Seed	2"x8" Pipe		0.5	0	1360522.91	14979975.96	8	7/11/2012	TR	Removed from site
AC-01	G02-090	1360556.5	14979977.5	CH3	6.97 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		10	0	1360556.5	14979977.5	36	6/26/2012	TR	Removed from site
AC-01	G02-090	1360556.5	14979977.5	CH3	6.97 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		2	0	1360556.5	14979977.5	18	6/26/2012	TR	Removed from site
AC-01	G02-091	1360454	14979978.25	CH3	106.94 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR	Blown in Place - Determined to be MDAS	60	0	1360454	14979978.25	30	7/23/2012	TR	Removed from site
AC-01	G02-092	1360533.75	14979978.25	CH3	342.7 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		5	0	1360533.75	14979978.25	0	6/26/2012	TR	Removed from site
AC-01	G02-093	1360538.5	14979979	CH3	17.97 mV	Schonstedt	Cultural Debris	Metal Scrap		2	0	1360538.5	14979979	36	6/26/2012	TR	Removed from site
AC-01	G02-094	1360467.5	14979979.75	CH3	11.77 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		40	0	1360467.5	14979979.75	48	7/13/2012	TR	Removed from site
AC-01	G02-095	1360460.5	14979981.25	CH3	7.91 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		20	0	1360460.5	14979981.25	70	7/12/2012	TR	Removed from site
AC-01	G02-096	1360553	14979983.25	CH3	8.93 mV	Schonstedt	No Contact	No Contact						0	6/26/2012	TR	NA
AC-01	G02-097	1360472.5	14979984	CH3	32.35 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR	Blown in Place - Determined to be MDAS	40	0	1360472.5	14979984	60	7/12/2012	TR	Removed from site

Appendix G
Target Anomaly Dig List
Nantucket Beach FUDS Remedial Investigation
Nantucket, Massachusetts

		Geophysical Survey Information				Dig Results											
Anomaly Cluster/ MRS	Unique Target ID	Easting Coord. (USft)	Northing Coord. (USft)	Channel ID	Amplitude Response	Reacquisition Instrument	Item Category	Item Type	Description	Approx. Weight (lbs)	Offset: Distance (in)	Item Easting Coord. (USft)	Item Northing Coord. (USft)	Depth: Top of Item (in)	Dig Date	Team Leader Initials	Final Disposition
AC-01	G02-098	1360458.75	14979986.25	CH3	4.66 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR	Blown in Place - Determined to be MDAS	60	0	1360458.75	14979986.25	27	7/23/2012	TR	Removed from site
AC-01	G02-099	1360481.25	14979986.25	CH3	3.12 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR	Blown in Place - Determined to be MDAS	60	0	1360481.25	14979986.25	24	7/23/2012	TR	Removed from site
AC-01	G02-100	1360498	14979987.25	CH3	8.94 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		0.5	0	1360498	14979987.25	4	7/12/2012	TR	Removed from site
AC-01	G02-101	1360465	14979988	CH3	20.1 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		40	0	1360465	14979988	72	7/12/2012	TR	Removed from site
AC-01	G02-102	1360487.05	14979988.21	CH3	18.29 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR	Blown in Place - Determined to be MDAS	60	0	1360487.05	14979988.21	30	7/23/2012	TR	Removed from site
AC-01	G02-104	1360507	14979988	CH3	7.2 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		0.5	0	1360507	14979988	2	7/12/2012	TR	Removed from site
AC-01	G02-105	1360450	14979989	CH3	18.54 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		2	0	1360450	14979989	12	7/17/2012	TR	Removed from site
AC-01	G02-106	1360503.75	14979989.25	CH3	9.42 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		40	0	1360503.75	14979989.25	48	7/17/2012	TR	Removed from site
AC-01	G02-108	1360471.5	14979989.5	CH3	11.25 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		40	0	1360471.5	14979989.5	48	7/12/2012	TR	Removed from site
AC-01	G02-110	1360563.5	14979990.5	CH3	16.05 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		2	0	1360563.5	14979990.5	12	7/11/2012	TR	Removed from site
AC-01	G02-111	1360520.75	14979991.25	CH3	608.85 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		40	0	1360520.75	14979991.25	0	7/11/2012	TR	Removed from site
AC-01	G02-112	1360538.75	14979991.75	CH3	3.01 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		0.5	0	1360538.75	14979991.75	6	6/26/2012	TR	Removed from site
AC-01	G02-113	1360490.75	14979992	CH3	6.76 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		40	0	1360490.75	14979992	18	7/23/2012	TR	Removed from site
AC-01	G02-114	1360514.25	14979992.25	CH3	3.1 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360514.25	14979992.25	48	7/17/2012	TR	Removed from site
AC-01	G02-115	1360551.5	14979992.5	CH3	5.33 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		1	0	1360551.5	14979992.5	2	6/26/2012	TR	Removed from site
AC-01	G02-116	1360499	14979993	CH3	18.06 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360499	14979993	36	7/17/2012	TR	Removed from site
AC-01	G02-117	1360515	14979994	CH3	3.04 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360515	14979994	36	7/17/2012	TR	Removed from site
AC-01	G02-118	1360479.25	14979994.5	CH3	25.53 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360479.25	14979994.5	72	7/12/2012	TR	Removed from site
AC-01	G02-119	1360510.25	14979997	CH3	32.07 mV	Schonstedt	Cultural Debris	Hot rock		0	0	1360510.25	14979997	12	7/17/2012	TR	Left in place
AC-01	G02-120	1360458	14979998.25	CH3	138.87 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360458	14979998.25	96	7/12/2012	TR	Removed from site
AC-01	G02-120	1360458	14979998.25	CH3	138.87 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360458	14979998.25	6	7/11/2012	TR	Removed from site
AC-01	G02-121	1360475.75	14980001.75	CH3	3.18 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360475.75	14980001.75	48	7/12/2012	TR	Removed from site
AC-01	G02-122	1360518	14980001.75	CH3	5.25 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		1.5	0	1360518	14980001.75	6	7/17/2012	TR	Removed from site
AC-01	G02-123	1360535.75	14980004.5	CH3	28.87 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		2	0	1360535.75	14980004.5	0	7/11/2012	TR	Removed from site
AC-01	G02-124	1360462.25	14980006	CH3	3.52 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		2	0	1360462.25	14980006	6	7/11/2012	TR	Removed from site
AC-01	G02-124	1360462.25	14980006	CH3	3.52 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		60	0	1360462.25	14980006	72	7/12/2012	TR	Removed from site
AC-01	G02-125	1360483	14980006.25	CH3	3.4 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		1.5	0	1360483	14980006.25	6	7/12/2012	TR	Removed from site
AC-01	G02-126	1360497.75	14980007.25	CH3	61.29 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		1	0	1360497.75	14980007.25	1	7/12/2012	TR	Removed from site
AC-01	G02-127	1360524.25	14980008.25	CH3	69.48 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		3	0	1360524.25	14980008.25	0	7/11/2012	TR	Removed from site
AC-01	G02-128	1360471	14980008.5	CH3	289.39 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360471	14980008.5	2	7/12/2012	TR	Removed from site
AC-01	G02-129	1360531.75	14980010	CH3	3.82 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		0.5	0	1360531.75	14980010	6	7/11/2012	TR	Removed from site
AC-01	G02-130	1360465.5	14980011.75	CH3	160.66 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360465.5	14980011.75	8	7/11/2012	TR	Removed from site
AC-01	G02-131	1360482	14980012	CH3	14.19 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		15	0	1360482	14980012	72	7/12/2012	TR	Removed from site
AC-01	G02-132	1360486.25	14980013.5	CH3	16.04 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360486.25	14980013.5	72	7/12/2012	TR	Removed from site
AC-01	G02-133	1360503.75	14980013.5	CH3	6.68 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360503.75	14980013.5	48	7/12/2012	TR	Removed from site
AC-01	G02-134	1360525.75	14980013.75	CH3	3.38 mV	Schonstedt	No Contact	No Contact		0.1	0	1360525.75	14980013.75	0	7/12/2012	TR	NA
AC-01	G02-135	1360474.5	14980015.25	CH3	16.87 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		1	0	1360474.5	14980015.25	3	7/12/2012	TR	Removed from site
AC-01	G02-136	1360479.75	14980016.25	CH3	18.25 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR	Blown in Place - Determined to be MDAS	40	0	1360479.75	14980016.25	72	7/12/2012	TR	Removed from site
AC-01	G02-137	1360513.25	14980017.5	CH3	10.76 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		1	0	1360513.25	14980017.5	6	7/11/2012	TR	Removed from site
AC-01	G02-138	1360515.75	14980017.75	CH3	6.88 mV	Schonstedt	No Contact	No Contact		0	0	1360515.75	14980017.75	0	7/11/2012	TR	NA
AC-01	G02-139	1360522.75	14980020	CH3	687.5 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360522.75	14980020	3	7/11/2012	TR	Removed from site
AC-01	G02-140	1360490.75	14980023.5	CH3	19.22 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		1.5	0	1360490.75	14980023.5	4	7/12/2012	TR	Removed from site
AC-01	G02-141	1360490.25	14980026.75	CH3	12.27 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		60	0	1360490.25	14980026.75	51	7/12/2012	TR	Removed from site
AC-01	G02-142	1360485.25	14980028	CH3	108.68 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR	Blown in Place - Determined to be MDAS	40	0	1360485.25	14980028	60	7/12/2012	TR	Removed from site
AC-01	G02-143	1360498.25	14980029.25	CH3	13.3 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		4	0	1360498.25	14980029.25	6	7/11/2012	TR	Removed from site
AC-01	G02-144	1360477.25	14980031.25	CH3	1665.29 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR	Blown in Place - Determined to be MDAS	40	0	1360477.25	14980031.25	2	7/12/2012	TR	Removed from site
AC-01	G02-145	1360493.75	14980036.75	CH3	43.39 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360493.75	14980036.75	24	7/11/2012	TR	Removed from site
AC-01	G02-146	1360487	14980042.75	CH3	406.16 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR	Blown in Place - Determined to be MDAS	40	0	1360487	14980042.75	6	7/12/2012	TR	Removed from site
AC-01	G03-001	1360974.5	14979819.75	CH3	182.23 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		20	0	1360974.5	14979819.75	0	7/9/2012	TR	Removed from site
AC-01	G03-002	1361035	14979832.75	CH3	7.48 mV	Schonstedt	No Contact	No Contact							7/9/2012	TR	NA
AC-01	G03-003	1360956	14979839.5	CH3	260.92 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR	Blown in Place - Determined to be MDAS	40	0	1360956	14979839.5	8	7/9/2012	TR	Removed from site
AC-01	G03-004	1361004	14979866	CH3	78.74 mV	Schonstedt	Seed	2" x 8" Pipe		0.5	3	1361004.25	14979866	8	7/9/2012	TR	Removed from site
AC-01	G03-005	1360999.5	14979871.75	CH3	166.05 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		40	3	1360999.25	14979871.75	3	7/9/2012	TR	Removed from site
AC-01	G03-006	1361023.25	14979883.75	CH3	140.87 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		40	0	1361023.25	14979883.75	4	7/9/2012	TR	Removed from site
AC-01	G03-007	1360941	14979916.5	CH3	119.93 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		40	3	1360941.25	14979916.5	6	7/9/2012	TR	Removed from site
AC-01	G03-008	1361021	14979924.5	CH3	6.69 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		1	0	1361021	14979924.5	0	7/9/2012	TR	Removed from site
AC-01	G03-009	1360995	14979928.75	CH3	15.02 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360995	14979928.75	36	7/9/2012	TR	Removed from site
AC-01	G03-010	1360944.75	14979942.25	CH3	8.22 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	6	1360944.25	14979942.25	36	7/9/2012	TR	Removed from site
AC-01	G03-011	1360933.67	14979860.1	CH3	151.25 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		40	9	1360932.92	14979860.1	3	7/9/2012	TR	Removed from site
AC-01	G04-001	1360358.75	14980308.5	CH3	10.5 mV	Schonstedt	MDAS	Misc. Rocket Components		15	0	1360358.75	14980308.5	6	7/19/2012	TR	Removed from site
AC-01	G04-001	1360358.75	14980308.5	CH3	10.5 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		40	0	1360358.75	14980308.5	6	7/19/2012	TR	Removed from site
AC-01	G04-002	1360326.5	14980309.25	CH3	100.62 mV	Schonstedt	MDAS	Misc. Rocket Components		20	0	1360326.5	14980309.25	36	7/24/2012	TR	Removed from site
AC-01	G04-002	1360326.5	14980309.25	CH3	100.62 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	3	1360326.75	14980309.25	33	7/19/2012	TR	Removed from site
AC-01	G04-003	1360305	14980309.75	CH3	48.07 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		15	0	1360305	14980309.75	24	7/17/2012	TR	Removed from site
AC-01	G04-003	1360305	14980309.75	CH3	48.07 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360305	14980309.75	18	7/17/2012	TR	Removed from site
AC-01	G04-003	1360305	14980309.75	CH3	48.07 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360305	14980309.75	36	7/17/2012	TR	Removed from site
AC-01	G04-004	1360311.75	14980310.75	CH3	172.84 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		16	0	1360311.75	14980310.75	30	7/17/2012	TR	Removed from site
AC-01	G04-004	1360311.75	14980310.75	CH3	172.84 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360311.75	14980310.75	24	7/17/2012	TR	Removed from site
AC-01	G04-004	1360311.75	14980310.75	CH3	172.84 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360311.75	14980310.75	36	7/17/2012	TR	Removed from site
AC-01	G04-005	1360281.25	14980311.25	CH3	35.57 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		60	0	1360281.25	14980311.25	36	7/27/2012	TR	Removed from site
AC-01	G04-005	1360281.25	14980311.25	CH3	35.57 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360281.25	14980311.25	48	7/27/2012	TR	Removed from site
AC-01	G04-006	1360352.75	14980311.25	CH3	32.68 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		40	0	1360352.75	14980311.25	21	7/23/2012	TR	Removed from site
AC-01	G04-007	1360316.75	14980311.75	CH3	71.55 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360316.75	14980311.75	36	7/17/2012	TR	Removed from site
AC-01	G04-007	1360316.75	14980311.75	CH3	71.55 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360316.75	14980311.75	48	7/17/2012	TR	Removed from site
AC-01	G04-008	1360293.5	14980312	CH3	229.92 mV	Schonstedt	MDAS	Misc. Rocket Components		60	0	1360293.5	14980312	48	7/24/2012	TR	Removed from site
AC-01	G04-008	1360293.5	14980312	CH3	229.92 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360293.5	14980312	42	7/24/2012	TR	Removed from site
AC-01	G04-008	1360293.5	14980312	CH3	229.92 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR	Cleared to 4 ft. Contacts remain below 4 ft.	30	0	1360293.5	14980312	24	7/24/2012	TR	Removed from site
AC-01	G04-009	1360328	14980312.75	CH3	16.35 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		40	0	1360328	14980312.75	33	7/17/2012	TR	Removed from site
AC-01	G04-009	1360328	14980312.75	CH3	16.35 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360328	14980312.75	42	7/17/2012	TR	Removed from site
AC-01	G04-009	1360328	14980312.75	CH3	16.35 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360328	14980312.75	27	7/17/2012	TR	Removed from site
AC-01	G04-010	1360262.25	14980313	CH3	60.81 mV	Schonstedt	MDAS	Misc. Rocket Components		10	0	1360262.25	14980313	36	7/27/2012	TR	Removed from site
AC-01	G04-010	1360262.25	14980313	CH3	60.81 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		15	0	1360262.25	14980313	36	7/27/2012	TR	Removed from site
AC-01	G04-010	1360262.25	14980313	CH3	60.81 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360262.25	14980313	48	7/27/2012	TR	Removed from site
AC-01	G04-011	1360299.25	14980313.25	CH3	78.82 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360299.25	14980313.25	42	7/17/2012	TR	Removed from site
AC-01	G04-011	1360299.25	14980313.25	CH3	78.82 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360299.25	14980313.25	36	7/17/2012	TR	Removed from site
AC-01	G04-011	1360299.25	14980313.25	CH3	78.82 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		60	0	1360299.25	14980313.25	24	7/17/2012	TR	Removed from site
AC-01	G04-012	1360277.25	14980313.5	CH3	309.68 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR	Cleared to 4 ft. Contacts remain below 4 ft.	60	0	1360277.25	14980313.5	36	7/27/2012	TR	Removed from site
AC-01	G04-013	1360303.5	14980313.5	CH3	11.89 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		40	0	1360303.5	14980313.5	48	7/27/2012	TR	Removed from site
AC-01	G04-013	1360303.5	14980313.5	CH3	11.89 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360303.5	14980313.5	36	7/30/2012	TR	Removed from site
AC-01	G04-014	1360344	14980314.75	CH3	162.02 mV	Schonstedt	MDAS	Misc. Rocket Components		25	3	1360344	14980315	48	7/30/2012	TR	Removed from site
AC-01	G04-014	1360344	14980314.75	CH3	162.02 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		40	0	1360344	14980314.75	36	7/30/2012	TR	Removed from site
AC-01	G04-014	1360344	14980314.75	CH3	162.02 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360344	14980314.75	48	7/30/2012	TR	Removed from site
AC-01	G04-015	1360266	14980315	CH3	26.83 mV	Schonstedt	MDAS	Misc. Rocket Components		40	3	1360266	14980314.75	48	7/30/2012	TR	Removed from site
AC-01	G04-015	1360266	14980315	CH3	26.83 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		15	0	1360266	14980315	48	7/30/2012	TR	Removed from site
AC-01	G04-016	1360357.75	14980315.75	CH3	23.11 mV	Schonstedt	MDAS	Misc. Rocket Components		60	0	1360357.75	14980315.75	36	7/23/2012	TR	Removed from site
AC-01	G04-017	1360368.25	14980316.75	CH3	189.84 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		60	0	1360368.25	14980316.75	24	7/23/2012	TR	Removed from site
AC-01	G04-017	1360368.25	14980316.75	CH3	189.84 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		40	0	1360368.25	14980316.75	18	7/23/2012	TR	Removed from site
AC-01	G04-018	1360324.5	14980317	CH3	277.14 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		40	0	1360324.5	14980317	48	7/17/2012	TR	Removed from site
AC-01	G04-018	1360324.5	14980317	CH3	277.14 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		10	0	1360324.5	14980317	27	7/17/2012	TR	Removed from site

Appendix G
Target Anomaly Dig List
Nantucket Beach FUDS Remedial Investigation
Nantucket, Massachusetts

		Geophysical Survey Information				Dig Results											
Anomaly Cluster/ MRS	Unique Target ID	Easting Coord. (USft)	Northing Coord. (USft)	Channel ID	Amplitude Response	Reacquisition Instrument	Item Category	Item Type	Description	Approx. Weight (lbs)	Offset: Distance (in)	Item Easting Coord. (USft)	Item Northing Coord. (USft)	Depth: Top of Item (in)	Dig Date	Team Leader Initials	Final Disposition
AC-01	G04-018	1360324.5	14980317	CH3	277.14 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR	Cleared to 4 ft. Contacts remain below 4 ft.	20	0	1360324.5	14980317	42	7/24/2012	TR	Removed from site
AC-01	G04-018	1360324.5	14980317	CH3	277.14 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360324.5	14980317	39	7/17/2012	TR	Removed from site
AC-01	G04-019	1360353.5	14980317	CH3	8.87 mV	Schonstedt	MDAS	Misc. Rocket Components		60	0	1360353.5	14980317	48	7/23/2012	TR	Removed from site
AC-01	G04-019	1360353.5	14980317	CH3	8.87 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR	Cleared to 4 ft. Contacts remain below 4 ft.	20	0	1360353.5	14980317	51	7/23/2012	TR	Removed from site
AC-01	G04-019	1360353.5	14980317	CH3	8.87 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360353.5	14980317	42	7/23/2012	TR	Removed from site
AC-01	G04-019	1360353.5	14980317	CH3	8.87 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		60	0	1360353.5	14980317	36	7/23/2012	TR	Removed from site
AC-01	G04-019	1360353.5	14980317	CH3	8.87 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		40	0	1360353.5	14980317	42	7/23/2012	TR	Removed from site
AC-01	G04-020	1360291.99	14980318.9	CH3	210.73 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	40	3	1360291.99	14980318.65	48	7/24/2012	TR	Removed from site
AC-01	G04-020	1360291.99	14980318.9	CH3	210.73 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		40	3	1360291.99	14980318.65	42	7/24/2012	TR	Removed from site
AC-01	G04-020	1360291.99	14980318.9	CH3	210.73 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360291.99	14980318.9	24	7/24/2012	TR	Removed from site
AC-01	G04-021	1360300.25	14980317.25	CH3	176.25 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	30	0	1360300.25	14980317.25	45	7/24/2012	TR	Removed from site
AC-01	G04-022	1360273.5	14980317.75	CH3	38.14 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR	Cleared to 4 ft. Contacts remain below 4 ft.	1	0	1360273.5	14980317.75	36	7/27/2012	TR	Removed from site
AC-01	G04-023	1360308.75	14980317.75	CH3	63.44 mV	Schonstedt	MDAS	Misc. Rocket Components		40	3	1360308.75	14980317.5	36	7/27/2012	TR	Removed from site
AC-01	G04-023	1360308.75	14980317.75	CH3	63.44 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		30	0	1360308.75	14980317.75	48	7/27/2012	TR	Removed from site
AC-01	G04-023	1360308.75	14980317.75	CH3	63.44 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		10	0	1360308.75	14980317.75	30	7/17/2012	TR	Removed from site
AC-01	G04-023	1360308.75	14980317.75	CH3	63.44 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		60	0	1360308.75	14980317.75	36	7/17/2012	TR	Removed from site
AC-01	G04-023	1360308.75	14980317.75	CH3	63.44 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		20	0	1360308.75	14980317.75	27	7/17/2012	TR	Removed from site
AC-01	G04-024	1360281.5	14980319	CH3	17.7 mV	Schonstedt	MDAS	Misc. Rocket Components		60	0	1360281.5	14980319	48	7/27/2012	TR	Removed from site
AC-01	G04-025	1360334.75	14980320.25	CH3	481.08 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360334.75	14980320.25	36	7/19/2012	TR	Removed from site
AC-01	G04-025	1360334.75	14980320.25	CH3	481.08 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360334.75	14980320.25	24	7/19/2012	TR	Removed from site
AC-01	G04-025	1360334.75	14980320.25	CH3	481.08 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360334.75	14980320.25	18	7/19/2012	TR	Removed from site
AC-01	G04-026	1360359.75	14980320.75	CH3	232.74 mV	Schonstedt	MDAS	Misc. Rocket Components		60	0	1360359.75	14980320.75	48	7/23/2012	TR	Removed from site
AC-01	G04-026	1360359.75	14980320.75	CH3	232.74 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360359.75	14980320.75	51	7/23/2012	TR	Removed from site
AC-01	G04-026	1360359.75	14980320.75	CH3	232.74 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	3	1360359.75	14980320.5	48	7/23/2012	TR	Removed from site
AC-01	G04-026	1360359.75	14980320.75	CH3	232.74 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360359.75	14980320.75	51	7/23/2012	TR	Removed from site
AC-01	G04-026	1360359.75	14980320.75	CH3	232.74 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360359.75	14980320.75	12	7/23/2012	TR	Removed from site
AC-01	G04-026	1360359.75	14980320.75	CH3	232.74 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360359.75	14980320.75	42	7/23/2012	TR	Removed from site
AC-01	G04-027	1360301	14980321	CH3	247.2 mV	Schonstedt	MDAS	Misc. Rocket Components		3	3	1360301	14980320.75	24	7/19/2012	TR	Removed from site
AC-01	G04-027	1360301	14980321	CH3	247.2 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		40	3	1360301	14980321.25	24	7/17/2012	TR	Removed from site
AC-01	G04-027	1360301	14980321	CH3	247.2 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		60	0	1360301	14980321	48	7/17/2012	TR	Removed from site
AC-01	G04-027	1360301	14980321	CH3	247.2 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		12.5	0	1360301	14980321	1	7/19/2012	TR	Removed from site
AC-01	G04-027	1360301	14980321	CH3	247.2 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		20	3	1360301.25	14980321	30	7/17/2012	TR	Removed from site
AC-01	G04-028	1360338.75	14980322.5	CH3	248.62 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		25	0	1360338.75	14980322.5	18	7/19/2012	TR	Removed from site
AC-01	G04-028	1360338.75	14980322.5	CH3	248.62 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		25	0	1360338.75	14980322.5	36	7/19/2012	TR	Removed from site
AC-01	G04-028	1360338.75	14980322.5	CH3	248.62 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360338.75	14980322.5	27	7/19/2012	TR	Removed from site
AC-01	G04-029	1360269	14980322.75	CH3	89.14 mV	Schonstedt	MDAS	Misc. Rocket Components		20	0	1360269	14980322.75	36	7/27/2012	TR	Removed from site
AC-01	G04-029	1360269	14980322.75	CH3	89.14 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR	Cleared to 4 ft. Contacts remain below 4 ft.	40	0	1360269	14980322.75	48	7/27/2012	TR	Removed from site
AC-01	G04-030	1360365.5	14980324.25	CH3	23.8 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		25	0	1360365.5	14980324.25	24	7/23/2012	TR	Removed from site
AC-01	G04-031	1360330.5	14980325	CH3	970.53 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	20	0	1360330.5	14980325	48	7/24/2012	TR	Removed from site
AC-01	G04-031	1360330.5	14980325	CH3	970.53 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		40	0	1360330.5	14980325	48	7/17/2012	TR	Removed from site
AC-01	G04-031	1360330.5	14980325	CH3	970.53 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360330.5	14980325	48	7/24/2012	TR	Removed from site
AC-01	G04-031	1360330.5	14980325	CH3	970.53 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		120	0	1360330.5	14980325	36	7/17/2012	TR	Removed from site
AC-01	G04-032	1360342.25	14980325	CH3	21.43 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360342.25	14980325	42	7/19/2012	TR	Removed from site
AC-01	G04-033	1360314.5	14980325.5	CH3	359.17 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		15	0	1360314.5	14980325.5	48	7/30/2012	TR	Removed from site
AC-01	G04-033	1360314.5	14980325.5	CH3	359.17 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360314.5	14980325.5	30	7/30/2012	TR	Removed from site
AC-01	G04-034	1360272	14980327	CH3	89.12 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		15	0	1360272	14980327	48	7/30/2012	TR	Removed from site
AC-01	G04-034	1360272	14980327	CH3	89.12 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		60	0	1360272	14980327	48	7/30/2012	TR	Removed from site
AC-01	G04-035	1360354.75	14980327.25	CH3	499.43 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	60	0	1360354.75	14980327.25	48	7/27/2012	TR	Removed from site
AC-01	G04-035	1360354.75	14980327.25	CH3	499.43 mV	Schonstedt	MDAS	Misc. Rocket Components		60	0	1360354.75	14980327.25	36	7/23/2012	TR	Removed from site
AC-01	G04-035	1360354.75	14980327.25	CH3	499.43 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	3	1360354.75	14980327.5	48	7/27/2012	TR	Removed from site
AC-01	G04-035	1360354.75	14980327.25	CH3	499.43 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360354.75	14980327.25	42	7/27/2012	TR	Removed from site
AC-01	G04-035	1360354.75	14980327.25	CH3	499.43 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		25	0	1360354.75	14980327.25	21	7/23/2012	TR	Removed from site
AC-01	G04-035	1360354.75	14980327.25	CH3	499.43 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		40	0	1360354.75	14980327.25	36	7/27/2012	TR	Removed from site
AC-01	G04-035	1360354.75	14980327.25	CH3	499.43 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360354.75	14980327.25	12	7/23/2012	TR	Removed from site
AC-01	G04-036	1360294.75	14980327.5	CH3	225.7 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	60	0	1360294.75	14980327.5	48	7/24/2012	TR	Removed from site
AC-01	G04-036	1360294.75	14980327.5	CH3	225.7 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360294.75	14980327.5	24	7/24/2012	TR	Removed from site
AC-01	G04-036	1360294.75	14980327.5	CH3	225.7 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		40	0	1360294.75	14980327.5	48	7/24/2012	TR	Removed from site
AC-01	G04-036	1360294.75	14980327.5	CH3	225.7 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		40	0	1360294.75	14980327.5	48	7/24/2012	TR	Removed from site
AC-01	G04-036	1360294.75	14980327.5	CH3	225.7 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360294.75	14980327.5	42	7/24/2012	TR	Removed from site
AC-01	G04-037	1360339	14980327.75	CH3	186.17 mV	Schonstedt	MDAS	Misc. Rocket Components		160	3	1360339	14980327.5	48	7/20/2012	TR	Removed from site
AC-01	G04-037	1360339	14980327.75	CH3	186.17 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360339	14980327.75	36	7/20/2012	TR	Removed from site
AC-01	G04-037	1360339	14980327.75	CH3	186.17 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360339	14980327.75	45	7/20/2012	TR	Removed from site
AC-01	G04-038	1360363.5	14980327.75	CH3	59.02 mV	Schonstedt	MDAS	Misc. Rocket Components		60	0	1360363.5	14980327.75	36	7/23/2012	TR	Removed from site
AC-01	G04-038	1360363.5	14980327.75	CH3	59.02 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360363.5	14980327.75	54	7/23/2012	TR	Removed from site
AC-01	G04-038	1360363.5	14980327.75	CH3	59.02 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		40	0	1360363.5	14980327.75	18	7/23/2012	TR	Removed from site
AC-01	G04-038	1360363.5	14980327.75	CH3	59.02 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		60	0	1360363.5	14980327.75	48	7/23/2012	TR	Removed from site
AC-01	G04-039	1360312.5	14980328.25	CH3	481.97 mV	Schonstedt	MDAS	Misc. Rocket Components		15	0	1360312.5	14980328.25	36	7/30/2012	TR	Removed from site
AC-01	G04-040	1360323.75	14980328.5	CH3	51.96 mV	Schonstedt	MDAS	Misc. Rocket Components		25	0	1360323.75	14980328.5	36	7/30/2012	TR	Removed from site
AC-01	G04-040	1360323.75	14980328.5	CH3	51.96 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		30	0	1360323.75	14980328.5	36	7/30/2012	TR	Removed from site
AC-01	G04-041	1360287	14980328.75	CH3	368.7 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		60	3	1360287	14980328.5	36	7/27/2012	TR	Removed from site
AC-01	G04-041	1360287	14980328.75	CH3	368.7 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360287	14980328.75	36	7/30/2012	TR	Removed from site
AC-01	G04-041	1360287	14980328.75	CH3	368.7 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		60	0	1360287	14980328.75	48	7/27/2012	TR	Removed from site
AC-01	G04-041	1360287	14980328.75	CH3	368.7 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360287	14980328.75	48	7/27/2012	TR	Removed from site
AC-01	G04-042	1360267.5	14980329.25	CH3	286.02 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		15	0	1360267.5	14980329.25	36	7/27/2012	TR	Removed from site
AC-01	G04-042	1360267.5	14980329.25	CH3	286.02 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR	Cleared to 4 ft. Contacts remain below 4 ft.	30	0	1360267.5	14980329.25	48	7/27/2012	TR	Removed from site
AC-01	G04-042	1360267.5	14980329.25	CH3	286.02 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		40	3	1360267.25	14980329.25	27	7/19/2012	TR	Removed from site
AC-01	G04-042	1360267.5	14980329.25	CH3	286.02 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		60	0	1360267.5	14980329.25	24	7/19/2012	TR	Removed from site
AC-01	G04-043	1360305.25	14980330.25	CH3	85.41 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		40	0	1360305.25	14980330.25	30	7/19/2012	TR	Removed from site
AC-01	G04-044	1360278.5	14980331	CH3	189.16 mV	Schonstedt	MDAS	Misc. Rocket Components		25	0	1360278.5	14980331	36	7/30/2012	TR	Removed from site
AC-01	G04-044	1360278.5	14980331	CH3	189.16 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR	Cleared to 4 ft. Contacts remain below 4 ft.	15	0	1360278.5	14980331	48	7/27/2012	TR	Removed from site
AC-01	G04-044	1360278.5	14980331	CH3	189.16 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360278.5	14980331	36	7/27/2012	TR	Removed from site
AC-01	G04-045	1360347.75	14980332	CH3	89.91 mV	Schonstedt	MDAS	Misc. Rocket Components		20	0	1360347.75	14980332	27	7/27/2012	TR	Removed from site
AC-01	G04-045	1360347.75	14980332	CH3	89.91 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		40	0	1360347.75	14980332	24	7/27/2012	TR	Removed from site
AC-01	G04-046	1360301.5	14980332.5	CH3	99.09 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360301.5	14980332.5	48	7/30/2012	TR	Removed from site
AC-01	G04-047	1360351.75	14980332.5	CH3	16.71 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	2	0	1360351.75	14980332.5	21	7/27/2012	TR	Removed from site
AC-01	G04-047	1360351.75	14980332.5	CH3	16.71 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360351.75	14980332.5	18	7/23/2012	TR	Removed from site
AC-01	G04-047	1360351.75	14980332.5	CH3	16.71 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360351.75	14980332.5	42	7/23/2012	TR	Removed from site
AC-01	G04-047	1360351.75	14980332.5	CH3	16.71 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360351.75	14980332.5	24	7/23/2012	TR	Removed from site
AC-01	G04-048	1360320	14980332.75	CH3	31.45 mV	Schonstedt	MDAS	Misc. Rocket Components		60	3	1360320.25	14980332.75	48	7/26/2012	TR	Removed from site
AC-01	G04-048	1360320	14980332.75	CH3	31.45 mV	Schonstedt	MDAS	Misc. Rocket Components		60	3	1360320.25	14980332.75	48	7/26/2012	TR	Removed from site
AC-01	G04-048	1360320	14980332.75	CH3	31.45 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		40	0	1360320	14980332.75	42	7/26/2012	TR	Removed from site
AC-01	G04-048	1360320	14980332.75	CH3	31.45 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360320	14980332.75	48	7/26/2012	TR	Removed from site
AC-01	G04-048	1360320	14980332.75	CH3	31.45 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360320	14980332.75	30	7/26/2012	TR	Removed from site
AC-01	G04-048	1360320	14980332.75	CH3	31.45 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360320	14980332.75	39	7/26/2012	TR	Removed from site
AC-01	G04-048	1360320	14980332.75	CH3	31.45 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	3	1360320.25	14980332.75	30	7/26/2012	TR	Removed from site
AC-01	G04-048	1360320	14980332.75	CH3	31.45 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		40	3	1360320.25	14980332.75	36	7/26/2012	TR	Removed from site

Appendix G
Target Anomaly Dig List
Nantucket Beach FUDS Remedial Investigation
Nantucket, Massachusetts

		Geophysical Survey Information				Dig Results											
Anomaly Cluster/ MRS	Unique Target ID	Easting Coord. (USft)	Northing Coord. (USft)	Channel ID	Amplitude Response	Reacquisition Instrument	Item Category	Item Type	Description	Approx. Weight (lbs)	Offset: Distance (in)	Item Easting Coord. (USft)	Item Northing Coord. (USft)	Depth: Top of Item (in)	Dig Date	Team Leader Initials	Final Disposition
AC-01	G04-048	1360320	14980332.75	CH3	31.45 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR	Blown in Place - Determined to be MDAS	60	3	1360320.25	14980332.75	36	7/26/2012	TR	Removed from site
AC-01	G04-049	1360273	14980333	CH3	339.39 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	25	0	1360273	14980333	48	7/30/2012	TR	Removed from site
AC-01	G04-049	1360273	14980333	CH3	339.39 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		15	0	1360273	14980333	48	7/27/2012	TR	Removed from site
AC-01	G04-049	1360273	14980333	CH3	339.39 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360273	14980333	48	7/27/2012	TR	Removed from site
AC-01	G04-050	1360311.5	14980334.5	CH3	252.91 mV	Schonstedt	MDAS	Misc. Rocket Components		30	0	1360311.5	14980334.5	36	7/27/2012	TR	Removed from site
AC-01	G04-050	1360311.5	14980334.5	CH3	252.91 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		40	3	1360311.25	14980334.5	48	7/27/2012	TR	Removed from site
AC-01	G04-050	1360311.5	14980334.5	CH3	252.91 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		60	0	1360311.5	14980334.5	48	7/27/2012	TR	Removed from site
AC-01	G04-050	1360311.5	14980334.5	CH3	252.91 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR		40	0	1360311.5	14980334.5	48	8/1/2012	TR	Removed from site
AC-01	G04-050	1360311.5	14980334.5	CH3	252.91 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR		40	0	1360311.5	14980334.5	36	8/1/2012	TR	Removed from site
AC-01	G04-050	1360311.5	14980334.5	CH3	252.91 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR		40	0	1360311.5	14980334.5	12	8/1/2012	TR	Removed from site
AC-01	G04-051	1360284.85	14980338.45	CH3	281.97 mV	Schonstedt	MDAS	Misc. Rocket Components		30	0	1360284.85	14980338.45	36	8/1/2012	TR	Removed from site
AC-01	G04-051	1360284.85	14980338.45	CH3	281.97 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		60	0	1360284.85	14980338.45	48	8/1/2012	TR	Removed from site
AC-01	G04-051	1360284.85	14980338.45	CH3	281.97 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360284.85	14980338.45	48	8/1/2012	TR	Removed from site
AC-01	G04-051	1360284.85	14980338.45	CH3	281.97 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR		40	0	1360284.85	14980338.45	36	8/1/2012	TR	Removed from site
AC-01	G04-051	1360284.85	14980338.45	CH3	281.97 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR		40	0	1360284.85	14980338.45	24	8/1/2012	TR	Removed from site
AC-01	G04-051	1360284.85	14980338.45	CH3	281.97 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR		40	0	1360284.85	14980338.45	48	8/1/2012	TR	Removed from site
AC-01	G04-052	1360260.75	14980335.25	CH3	9.12 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR	Cleared to 4 ft. Contacts remain below 4 ft.	15	0	1360260.75	14980335.25	36	7/30/2012	TR	Removed from site
AC-01	G04-052	1360260.75	14980335.25	CH3	9.12 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	3	1360260.75	14980335	36	7/30/2012	TR	Removed from site
AC-01	G04-053	1360271	14980336.5	CH3	117.3 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	25	0	1360271	14980336.5	48	7/30/2012	TR	Removed from site
AC-01	G04-053	1360271	14980336.5	CH3	117.3 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		15	0	1360271	14980336.5	48	7/27/2012	TR	Removed from site
AC-01	G04-053	1360271	14980336.5	CH3	117.3 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		60	0	1360271	14980336.5	48	7/27/2012	TR	Removed from site
AC-01	G04-054	1360303.5	14980336.75	CH3	109.22 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360303.5	14980336.75	18	7/19/2012	TR	Removed from site
AC-01	G04-055	1360265.75	14980337	CH3	50.46 mV	Schonstedt	MDAS	Misc. Rocket Components		20	0	1360265.75	14980337	36	7/30/2012	TR	Removed from site
AC-01	G04-055	1360265.75	14980337	CH3	50.46 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR	Cleared to 4 ft. Contacts remain below 4 ft.	30	3	1360266	14980337	36	7/27/2012	TR	Removed from site
AC-01	G04-056	1360337.25	14980338.25	CH3	166.93 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	60	0	1360337.25	14980338.25	48	7/27/2012	TR	Removed from site
AC-01	G04-056	1360337.25	14980338.25	CH3	166.93 mV	Schonstedt	MDAS	Misc. Rocket Components		60	0	1360337.25	14980338.25	30	7/27/2012	TR	Removed from site
AC-01	G04-056	1360337.25	14980338.25	CH3	166.93 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360337.25	14980338.25	42	7/27/2012	TR	Removed from site
AC-01	G04-056	1360337.25	14980338.25	CH3	166.93 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		40	0	1360337.25	14980338.25	36	7/27/2012	TR	Removed from site
AC-01	G04-056	1360337.25	14980338.25	CH3	166.93 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360337.25	14980338.25	48	7/27/2012	TR	Removed from site
AC-01	G04-056	1360337.25	14980338.25	CH3	166.93 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		60	0	1360337.25	14980338.25	45	7/27/2012	TR	Removed from site
AC-01	G04-057	1360320.75	14980339	CH3	29.51 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	30	0	1360320.75	14980339	36	7/27/2012	TR	Removed from site
AC-01	G04-058	1360351	14980340.75	CH3	5.9 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	15	0	1360351	14980340.75	33	7/27/2012	TR	Removed from site
AC-01	G04-059	1360323	14980341.5	CH3	34.95 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR	Blown in Place - Determined to be MDAS	60	0	1360323	14980341.5	42	7/30/2012	TR	Removed from site
AC-01	G04-060	1360278.5	14980342.75	CH3	396.34 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	5	3	1360278.5	14980343	6	7/27/2012	TR	Removed from site
AC-01	G04-060	1360278.5	14980342.75	CH3	396.34 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR	Blown in Place - Determined to be MDAS	60	3	1360278.5	14980343	24	7/26/2012	TR	Removed from site
AC-01	G04-061	1360292.5	14980342.75	CH3	75.07 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		25	0	1360292.5	14980342.75	24	7/19/2012	TR	Removed from site
AC-01	G04-061	1360292.5	14980342.75	CH3	75.07 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		60	0	1360292.5	14980342.75	51	7/19/2012	TR	Removed from site
AC-01	G04-061	1360292.5	14980342.75	CH3	75.07 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		20	0	1360292.5	14980342.75	12	7/19/2012	TR	Removed from site
AC-01	G04-061	1360292.5	14980342.75	CH3	75.07 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360292.5	14980342.75	42	7/19/2012	TR	Removed from site
AC-01	G04-062	1360258.75	14980343.25	CH3	393.8 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	60	0	1360258.75	14980343.25	48	7/25/2012	TR	Removed from site
AC-01	G04-062	1360258.75	14980343.25	CH3	393.8 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	25	0	1360258.75	14980343.25	36	7/27/2012	TR	Removed from site
AC-01	G04-062	1360258.75	14980343.25	CH3	393.8 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360258.75	14980343.25	18	7/25/2012	TR	Removed from site
AC-01	G04-062	1360258.75	14980343.25	CH3	393.8 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		15	0	1360258.75	14980343.25	48	7/27/2012	TR	Removed from site
AC-01	G04-062	1360258.75	14980343.25	CH3	393.8 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360258.75	14980343.25	48	7/25/2012	TR	Removed from site
AC-01	G04-062	1360258.75	14980343.25	CH3	393.8 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360258.75	14980343.25	30	7/25/2012	TR	Removed from site
AC-01	G04-062	1360258.75	14980343.25	CH3	393.8 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360258.75	14980343.25	36	7/27/2012	TR	Removed from site
AC-01	G04-063	1360342.75	14980344.25	CH3	70.51 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	60	0	1360342.75	14980344.25	48	7/27/2012	TR	Removed from site
AC-01	G04-063	1360342.75	14980344.25	CH3	70.51 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		40	0	1360342.75	14980344.25	18	7/27/2012	TR	Removed from site
AC-01	G04-064	1360315.75	14980344.75	CH3	16.79 mV	Schonstedt	MDAS	Misc. Rocket Components		25	0	1360315.75	14980344.75	30	7/20/2012	TR	Removed from site
AC-01	G04-064	1360315.75	14980344.75	CH3	16.79 mV	Schonstedt	MDAS	Misc. Rocket Components		40	0	1360315.75	14980344.75	45	7/20/2012	TR	Removed from site
AC-01	G04-064	1360315.75	14980344.75	CH3	16.79 mV	Schonstedt	MDAS	Misc. Rocket Components		60	0	1360315.75	14980344.75	48	7/20/2012	TR	Removed from site
AC-01	G04-064	1360315.75	14980344.75	CH3	16.79 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360315.75	14980344.75	51	7/20/2012	TR	Removed from site
AC-01	G04-064	1360315.75	14980344.75	CH3	16.79 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		40	0	1360315.75	14980344.75	48	7/20/2012	TR	Removed from site
AC-01	G04-064	1360315.75	14980344.75	CH3	16.79 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360315.75	14980344.75	42	7/20/2012	TR	Removed from site
AC-01	G04-064	1360315.75	14980344.75	CH3	16.79 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		40	0	1360315.75	14980344.75	18	7/20/2012	TR	Removed from site
AC-01	G04-064	1360315.75	14980344.75	CH3	16.79 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360315.75	14980344.75	48	7/20/2012	TR	Removed from site
AC-01	G04-064	1360315.75	14980344.75	CH3	16.79 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		60	0	1360315.75	14980344.75	33	7/20/2012	TR	Removed from site
AC-01	G04-065	1360362.75	14980345.75	CH3	126.85 mV	Schonstedt	MDAS	Misc. Rocket Components		1	0	1360362.75	14980345.75	30	8/1/2012	TR	Removed from site
AC-01	G04-065	1360362.75	14980345.75	CH3	126.85 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR		40	3	1360363	14980345.75	48	8/1/2012	TR	Removed from site
AC-01	G04-065	1360362.75	14980345.75	CH3	126.85 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR		40	0	1360362.75	14980345.75	24	8/1/2012	TR	Removed from site
AC-01	G04-066	1360297	14980347	CH3	539.07 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360297	14980347	18	7/19/2012	TR	Removed from site
AC-01	G04-066	1360297	14980347	CH3	539.07 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR	Blown in Place - Determined to be MDAS	60	0	1360297	14980347	36	7/26/2012	TR	Removed from site
AC-01	G04-067	1360353.75	14980348	CH3	292.6 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	60	0	1360353.75	14980348	48	7/27/2012	TR	Removed from site
AC-01	G04-067	1360353.75	14980348	CH3	292.6 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		60	3	1360353.75	14980347.75	12	7/27/2012	TR	Removed from site
AC-01	G04-067	1360353.75	14980348	CH3	292.6 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		20	0	1360353.75	14980348	33	7/27/2012	TR	Removed from site
AC-01	G04-068	1360321.5	14980348.75	CH3	133.59 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	25	0	1360321.5	14980348.75	42	7/27/2012	TR	Removed from site
AC-01	G04-068	1360321.5	14980348.75	CH3	133.59 mV	Schonstedt	MDAS	Misc. Rocket Components		0.5	0	1360321.5	14980348.75	18	7/27/2012	TR	Removed from site
AC-01	G04-068	1360321.5	14980348.75	CH3	133.59 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360321.5	14980348.75	48	7/27/2012	TR	Removed from site
AC-01	G04-068	1360321.5	14980348.75	CH3	133.59 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		40	3	1360321.25	14980348.75	42	7/27/2012	TR	Removed from site
AC-01	G04-069	1360309	14980349	CH3	13.37 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	3	1360309	14980349.25	42	7/20/2012	TR	Removed from site
AC-01	G04-070	1360311.75	14980349.25	CH3	6.33 mV	Schonstedt	MDAS	Misc. Rocket Components		60	0	1360311.75	14980349.25	48	7/20/2012	TR	Removed from site
AC-01	G04-070	1360311.75	14980349.25	CH3	6.33 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360311.75	14980349.25	48	7/20/2012	TR	Removed from site
AC-01	G04-071	1360269.25	14980349.5	CH3	52.97 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR	Cleared to 4 ft. Contacts remain below 4 ft.	60	3	1360269.5	14980349.5	48	7/25/2012	TR	Removed from site
AC-01	G04-071	1360269.25	14980349.5	CH3	52.97 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		40	0	1360269.25	14980349.5	27	7/25/2012	TR	Removed from site
AC-01	G04-072	1360280	14980349.5	CH3	140.14 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360280	14980349.5	48	7/30/2012	TR	Removed from site
AC-01	G04-073	1360330.5	14980349.75	CH3	96.2 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	60	0	1360330.5	14980349.75	42	7/26/2012	TR	Removed from site
AC-01	G04-073	1360330.5	14980349.75	CH3	96.2 mV	Schonstedt	MDAS	Misc. Rocket Components		60	0	1360330.5	14980349.75	36	7/26/2012	TR	Removed from site
AC-01	G04-073	1360330.5	14980349.75	CH3	96.2 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360330.5	14980349.75	18	7/26/2012	TR	Removed from site
AC-01	G04-073	1360330.5	14980349.75	CH3	96.2 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		40	0	1360330.5	14980349.75	27	7/26/2012	TR	Removed from site
AC-01	G04-075	1360369.75	14980350.25	CH3	37.7 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	20	0	1360369.75	14980350.25	4	7/27/2012	TR	Removed from site
AC-01	G04-076	1360347.25	14980351	CH3	60.85 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	20	0	1360347.25	14980351	27	7/27/2012	TR	Removed from site
AC-01	G04-077	1360363	14980351.25	CH3	16.57 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	30	0	1360363	14980351.25	48	7/27/2012	TR	Removed from site
AC-01	G04-077	1360363	14980351.25	CH3	16.57 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		40	0	1360363	14980351.25	27	7/27/2012	TR	Removed from site
AC-01	G04-078	1360289	14980352	CH3	730.09 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		40	0	1360289	14980352	36	7/27/2012	TR	Removed from site
AC-01	G04-078	1360289	14980352	CH3	730.09 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		60	0	1360289	14980352	42	7/27/2012	TR	Removed from site
AC-01	G04-078	1360289	14980352	CH3	730.09 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360289	14980352	48	7/27/2012	TR	Removed from site
AC-01	G04-079	1360340.25	14980352.75	CH3	54.62 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		60	0	1360340.25	14980352.75	48	7/30/2012	TR	Removed from site
AC-01	G04-079	1360340.25	14980352.75	CH3	54.62 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360340.25	14980352.75	36	7/30/2012	TR	Removed from site
AC-01	G04-080	1360308	14980353	CH3	58.39 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360308	14980353	48	7/20/2012	TR	Removed from site
AC-01	G04-080	1360308	14980353	CH3	58.39 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360308	14980353	42	7/20/2012	TR	Removed from site
AC-01	G04-080	1360308	14980353	CH3	58.39 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360308	14980353	24	7/20/2012	TR	Removed from site
AC-01	G04-080	1360308	14980353	CH3	58.39 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		20	3	1360308	14980353.25	45	7/20/2012	TR	Removed from site
AC-01	G04-081	1360301.75	14980353.25	CH3	673.93 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		30	0	1360301.75	14980353.25	18	7/30/2012	TR	Removed from site
AC-01	G04-083	1360312.5	14980354.25	CH3	29.1 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		25	0	1360312.5	14980354.25	27	7/19/2012	TR	Removed from site
AC-01	G04-085	1360366	14980356	CH3	39.33 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	60	0	1360366	14980356	48	7/27/2012	TR	Removed from site
AC-01	G04-085	1360366	14980356	CH3	39.33 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360366	14980356	48	7/27/2012	TR	Removed from site

Appendix G
Target Anomaly Dig List
Nantucket Beach FUDS Remedial Investigation
Nantucket, Massachusetts

		Geophysical Survey Information				Dig Results											
Anomaly Cluster/ MRS	Unique Target ID	Easting Coord. (USft)	Northing Coord. (USft)	Channel ID	Amplitude Response	Reacquisition Instrument	Item Category	Item Type	Description	Approx. Weight (lbs)	Offset: Distance (in)	Item Easting Coord. (USft)	Item Northing Coord. (USft)	Depth: Top of Item (in)	Dig Date	Team Leader Initials	Final Disposition
AC-01	G04-086	1360266.5	14980356.25	CH3	84.44 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	40	3	1360266.75	14980356.25	48	7/25/2012	TR	Removed from site
AC-01	G04-086	1360266.5	14980356.25	CH3	84.44 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		40	0	1360266.5	14980356.25	33	7/25/2012	TR	Removed from site
AC-01	G04-087	1360262.5	14980356.5	CH3	612.39 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	30	0	1360262.5	14980356.5	36	7/25/2012	TR	Removed from site
AC-01	G04-087	1360262.5	14980356.5	CH3	612.39 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		25	0	1360262.5	14980356.5	24	7/25/2012	TR	Removed from site
AC-01	G04-088	1360276.25	14980357.25	CH3	35.48 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360276.25	14980357.25	48	7/27/2012	TR	Removed from site
AC-01	G04-088	1360276.25	14980357.25	CH3	35.48 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	3	1360276.25	14980357	48	7/17/2012	TR	Removed from site
AC-01	G04-088	1360276.25	14980357.25	CH3	35.48 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		40	0	1360276.25	14980357.25	48	7/27/2012	TR	Removed from site
AC-01	G04-088	1360276.25	14980357.25	CH3	35.48 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		10	0	1360276.25	14980357.25	48	7/17/2012	TR	Removed from site
AC-01	G04-089	1360339.75	14980357.25	CH3	233.78 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR	Cleared to 4 ft. Contacts remain below 4 ft.	20	0	1360339.75	14980357.25	42	7/26/2012	TR	Removed from site
AC-01	G04-089	1360339.75	14980357.25	CH3	233.78 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360339.75	14980357.25	12	7/26/2012	TR	Removed from site
AC-01	G04-090	1360356.25	14980357.25	CH3	23.44 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	25	0	1360356.25	14980357.25	48	7/27/2012	TR	Removed from site
AC-01	G04-090	1360356.25	14980357.25	CH3	23.44 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	3	1360356.5	14980357.25	24	7/27/2012	TR	Removed from site
AC-01	G04-091	1360344	14980358.25	CH3	183.5 mV	Schonstedt	MDAS	Misc. Rocket Components		10	0	1360344	14980358.25	12	7/30/2012	TR	Removed from site
AC-01	G04-092	1360311	14980358.75	CH3	93.09 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		40	0	1360311	14980358.75	21	7/19/2012	TR	Removed from site
AC-01	G04-093	1360285.5	14980359	CH3	16.12 mV	Schonstedt	MDAS	Misc. Rocket Components		1	0	1360285.5	14980359	48	7/30/2012	TR	Removed from site
AC-01	G04-094	1360331.25	14980359.25	CH3	952.81 mV	Schonstedt	MDAS	Misc. Rocket Components		16	0	1360331.25	14980359.25	48	8/1/2012	TR	Removed from site
AC-01	G04-094	1360331.25	14980359.25	CH3	952.81 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		15	0	1360331.25	14980359.25	48	8/1/2012	TR	Removed from site
AC-01	G04-094	1360331.25	14980359.25	CH3	952.81 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	3	1360331.25	14980359.5	12	8/1/2012	TR	Removed from site
AC-01	G04-094	1360331.25	14980359.25	CH3	952.81 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		20	3	1360331.25	14980359.5	24	8/1/2012	TR	Removed from site
AC-01	G04-094	1360331.25	14980359.25	CH3	952.81 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR		40	0	1360331.25	14980359.25	24	8/1/2012	TR	Removed from site
AC-01	G04-094	1360331.25	14980359.25	CH3	952.81 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR		40	0	1360331.25	14980359.25	36	8/1/2012	TR	Removed from site
AC-01	G04-094	1360331.25	14980359.25	CH3	952.81 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR		40	0	1360331.25	14980359.25	48	8/1/2012	TR	Removed from site
AC-01	G04-095	1360265	14980361	CH3	27.65 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	25	0	1360265	14980361	42	7/25/2012	TR	Removed from site
AC-01	G04-095	1360265	14980361	CH3	27.65 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360265	14980361	42	7/25/2012	TR	Removed from site
AC-01	G04-096	1360262.75	14980361.25	CH3	63.25 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	60	0	1360262.75	14980361.25	48	7/25/2012	TR	Removed from site
AC-01	G04-096	1360262.75	14980361.25	CH3	63.25 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		40	0	1360262.75	14980361.25	36	7/25/2012	TR	Removed from site
AC-01	G04-096	1360262.75	14980361.25	CH3	63.25 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360262.75	14980361.25	45	7/25/2012	TR	Removed from site
AC-01	G04-097	1360338	14980361.75	CH3	29.16 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	60	0	1360338	14980361.75	48	7/26/2012	TR	Removed from site
AC-01	G04-097	1360338	14980361.75	CH3	29.16 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360338	14980361.75	18	7/26/2012	TR	Removed from site
AC-01	G04-097	1360338	14980361.75	CH3	29.16 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360338	14980361.75	33	7/26/2012	TR	Removed from site
AC-01	G04-098	1360349	14980361.75	CH3	514.6 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	10	3	1360349	14980362	48	7/27/2012	TR	Removed from site
AC-01	G04-099	1360303.25	14980362.25	CH3	33.21 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		15	0	1360303.25	14980362.25	48	7/30/2012	TR	Removed from site
AC-01	G04-099	1360303.25	14980362.25	CH3	33.21 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		20	0	1360303.25	14980362.25	48	7/30/2012	TR	Removed from site
AC-01	G04-100	1360364.25	14980362.25	CH3	22.55 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	25	0	1360364.25	14980362.25	36	7/27/2012	TR	Removed from site
AC-01	G04-100	1360364.25	14980362.25	CH3	22.55 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360364.25	14980362.25	48	7/27/2012	TR	Removed from site
AC-01	G04-101	1360277.25	14980363	CH3	74.43 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR	Cleared to 4 ft. Contacts remain below 4 ft.	20	0	1360277.25	14980363	42	7/25/2012	TR	Removed from site
AC-01	G04-101	1360277.25	14980363	CH3	74.43 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		25	0	1360277.25	14980363	27	7/25/2012	TR	Removed from site
AC-01	G04-102	1360317.75	14980363	CH3	7.06 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		30	0	1360317.75	14980363	36	7/19/2012	TR	Removed from site
AC-01	G04-103	1360346	14980363	CH3	875.22 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	30	0	1360346	14980363	48	7/26/2012	TR	Removed from site
AC-01	G04-103	1360346	14980363	CH3	875.22 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360346	14980363	51	7/26/2012	TR	Removed from site
AC-01	G04-103	1360346	14980363	CH3	875.22 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360346	14980363	6	7/26/2012	TR	Removed from site
AC-01	G04-104	1360335	14980366.25	CH3	10.57 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	25	0	1360335	14980366.25	33	7/27/2012	TR	Removed from site
AC-01	G04-104	1360335	14980366.25	CH3	10.57 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		60	0	1360335	14980366.25	48	7/27/2012	TR	Removed from site
AC-01	G04-105	1360280.5	14980366.5	CH3	55.92 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	60	3	1360280.75	14980366.5	48	7/25/2012	TR	Removed from site
AC-01	G04-105	1360280.5	14980366.5	CH3	55.92 mV	Schonstedt	MDAS	Misc. Rocket Components		60	0	1360280.5	14980366.5	48	7/25/2012	TR	Removed from site
AC-01	G04-105	1360280.5	14980366.5	CH3	55.92 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		40	3	1360280.75	14980366.5	36	7/25/2012	TR	Removed from site
AC-01	G04-105	1360280.5	14980366.5	CH3	55.92 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		40	0	1360280.5	14980366.5	48	7/25/2012	TR	Removed from site
AC-01	G04-105	1360280.5	14980366.5	CH3	55.92 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360280.5	14980366.5	27	7/25/2012	TR	Removed from site
AC-01	G04-105	1360280.5	14980366.5	CH3	55.92 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360280.5	14980366.5	42	7/25/2012	TR	Removed from site
AC-01	G04-106	1360288.06	14980365.67	CH3	137.65 mV	Schonstedt	MDAS	Misc. Rocket Components		0.5	0	1360288.06	14980365.67	24	7/30/2012	TR	Removed from site
AC-01	G04-106	1360288.06	14980365.67	CH3	137.65 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		15	0	1360288.06	14980365.67	48	7/30/2012	TR	Removed from site
AC-01	G04-106	1360288.06	14980365.67	CH3	137.65 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		15	0	1360288.06	14980365.67	36	7/30/2012	TR	Removed from site
AC-01	G04-107	1360296.75	14980367.5	CH3	139.98 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	30	0	1360296.75	14980367.5	48	7/24/2012	TR	Removed from site
AC-01	G04-107	1360296.75	14980367.5	CH3	139.98 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		40	0	1360296.75	14980367.5	21	7/24/2012	TR	Removed from site
AC-01	G04-108	1360341.25	14980367.5	CH3	25.48 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	10	0	1360341.25	14980367.5	48	7/27/2012	TR	Removed from site
AC-01	G04-110	1360320.25	14980368.75	CH3	31.65 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		40	0	1360320.25	14980368.75	30	7/19/2012	TR	Removed from site
AC-01	G04-111	1360359.25	14980369	CH3	7.79 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	20	0	1360359.25	14980369	27	7/27/2012	TR	Removed from site
AC-01	G04-112	1360363.75	14980369.25	CH3	91.21 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR	Cleared to 4 ft. Contacts remain below 4 ft.	60	0	1360363.75	14980369.25	42	7/27/2012	TR	Removed from site
AC-01	G04-113	1360273	14980371	CH3	349.48 mV	Schonstedt	MDAS	Misc. Rocket Components		15	0	1360273	14980371	36	7/30/2012	TR	Removed from site
AC-01	G04-114	1360278.5	14980371	CH3	59.6 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	20	0	1360278.5	14980371	42	7/25/2012	TR	Removed from site
AC-01	G04-114	1360278.5	14980371	CH3	59.6 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		25	3	1360278.5	14980370.75	21	7/25/2012	TR	Removed from site
AC-01	G04-115	1360348	14980371.25	CH3	4.02 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	30	0	1360348	14980371.25	48	7/27/2012	TR	Removed from site
AC-01	G04-116	1360289.25	14980371.75	CH3	114.55 mV	Schonstedt	MDAS	Misc. Rocket Components		40	0	1360289.25	14980371.75	30	7/27/2012	TR	Removed from site
AC-01	G04-116	1360289.25	14980371.75	CH3	114.55 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		60	0	1360289.25	14980371.75	36	7/30/2012	TR	Removed from site
AC-01	G04-116	1360289.25	14980371.75	CH3	114.55 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360289.25	14980371.75	48	7/27/2012	TR	Removed from site
AC-01	G04-117	1360318.25	14980372.75	CH3	13.63 mV	Schonstedt	MDAS	Misc. Rocket Components		10	0	1360318.25	14980372.75	30	7/19/2012	TR	Removed from site
AC-01	G04-117	1360318.25	14980372.75	CH3	13.63 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		10	3	1360318.25	14980372.5	30	7/19/2012	TR	Removed from site
AC-01	G04-118	1360325	14980373	CH3	48.38 mV	Schonstedt	MDAS	Misc. Rocket Components		40	0	1360325	14980373	48	7/30/2012	TR	Removed from site
AC-01	G04-118	1360325	14980373	CH3	48.38 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		40	0	1360325	14980373	36	7/30/2012	TR	Removed from site
AC-01	G04-118	1360325	14980373	CH3	48.38 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		60	0	1360325	14980373	48	7/30/2012	TR	Removed from site
AC-01	G04-119	1360283.75	14980375.25	CH3	26.82 mV	Schonstedt	MDAS	Misc. Rocket Components		60	0	1360283.75	14980375.25	45	7/30/2012	TR	Removed from site
AC-01	G04-119	1360283.75	14980375.25	CH3	26.82 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360283.75	14980375.25	42	7/27/2012	TR	Removed from site
AC-01	G04-120	1360285.25	14980375.25	CH3	23.88 mV	Schonstedt	MDAS	Misc. Rocket Components		30	0	1360285.25	14980375.25	39	7/30/2012	TR	Removed from site
AC-01	G04-120	1360285.25	14980375.25	CH3	23.88 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360285.25	14980375.25	36	7/27/2012	TR	Removed from site
AC-01	G04-121	1360290.5	14980375.5	CH3	282.97 mV	Schonstedt	MDAS	Misc. Rocket Components		0.5	0	1360290.5	14980375.5	12	7/30/2012	TR	Removed from site
AC-01	G04-122	1360347.75	14980376	CH3	16.3 mV	Schonstedt	MDAS	Misc. Rocket Components		20	0	1360347.75	14980376	48	7/30/2012	TR	Removed from site
AC-01	G04-122	1360347.75	14980376	CH3	16.3 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		15	3	1360347.5	14980376	36	7/30/2012	TR	Removed from site
AC-01	G04-123	1360303.25	14980376.75	CH3	64.36 mV	Schonstedt	MDAS	Misc. Rocket Components		30	0	1360303.25	14980376.75	48	7/30/2012	TR	Removed from site
AC-01	G04-124	1360340	14980378.25	CH3	132.27 mV	Schonstedt	MDAS	Misc. Rocket Components		15	0	1360340	14980378.25	12	7/27/2012	TR	Removed from site
AC-01	G04-124	1360340	14980378.25	CH3	132.27 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		15	3	1360340	14980378.5	24	7/30/2012	TR	Removed from site
AC-01	G04-124	1360340	14980378.25	CH3	132.27 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		40	0	1360340	14980378.25	36	7/27/2012	TR	Removed from site
AC-01	G04-126	1360321.75	14980380.25	CH3	39.21 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR	Cleared to 4 ft. Contacts remain below 4 ft.	20	0	1360321.75	14980380.25	48	7/27/2012	TR	Removed from site
AC-01	G04-126	1360321.75	14980380.25	CH3	39.21 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360321.75	14980380.25	36	7/27/2012	TR	Removed from site
AC-01	G04-127	1360315.5	14980380.5	CH3	206.63 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360315.5	14980380.5	36	7/27/2012	TR	Removed from site
AC-01	G04-128	1360271.75	14980381	CH3	59.64 mV	Schonstedt	MDAS	Misc. Rocket Components		2	0	1360271.75	14980381	12	7/24/2012	TR	Removed from site
AC-01	G04-129	1360281.75	14980381	CH3	489.47 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		40	0	1360281.75	14980381	48	7/30/2012	TR	Removed from site
AC-01	G04-129	1360281.75	14980381	CH3	489.47 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		30	0	1360281.75	14980381	48	7/30/2012	TR	Removed from site
AC-01	G04-130	1360293	14980381	CH3	21.82 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	1	0	1360293	14980381	12	7/24/2012	TR	Removed from site
AC-01	G04-130	1360293	14980381	CH3	21.82 mV	Schonstedt	MDAS	Misc. Rocket Components		0.5	0	1360293	14980381	12	7/30/2012	TR	Removed from site
AC-01	G04-130	1360293	14980381	CH3	21.82 mV	Schonstedt	MDAS	Misc. Rocket Components		1.5	0	1360293	14980381	48	7/30/2012	TR	Removed from site
AC-01	G04-131	1360301	14980381	CH3	150.14 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	40	0	1360301	14980381	48	7/24/2012	TR	Removed from site
AC-01	G04-131	1360301	14980381	CH3	150.14 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360301	14980381	30	7/24/2012	TR	Removed from site
AC-01	G04-131	1360301	14980381	CH3	150.14 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	3	1360301.25	14980381	42	7/24/2012	TR	Removed from site
AC-01	G04-131	1360301	14980381	CH3	150.14 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		60	0	1360301	14980381	36	7/24/2012	TR	Removed from site
AC-01	G04-132	1360329.25	14980381.75	CH3	20.09 mV	Schonstedt	MDAS	Misc. Rocket Components		1	3	1360329.25	14980381.5	12	7/30/2012	TR	Removed from site
AC-01	G04-133	1360344.75	14980381.75	CH3	201.01 mV	Schonstedt	MDAS	Misc. Rocket Components		7	0	1360344.75	14980381.75	33	7/30/2012	TR	Removed from site

Appendix G
Target Anomaly Dig List
Nantucket Beach FUDS Remedial Investigation
Nantucket, Massachusetts

		Geophysical Survey Information				Dig Results											
Anomaly Cluster/ MRS	Unique Target ID	Easting Coord. (USft)	Northing Coord. (USft)	Channel ID	Amplitude Response	Reacquisition Instrument	Item Category	Item Type	Description	Approx. Weight (lbs)	Offset: Distance (in)	Item Easting Coord. (USft)	Item Northing Coord. (USft)	Depth: Top of Item (in)	Dig Date	Team Leader Initials	Final Disposition
AC-01	G04-134	1360357	14980383.75	CH3	162.86 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	60	3	1360357.25	14980383.75	48	7/20/2012	TR	Removed from site
AC-01	G04-134	1360357	14980383.75	CH3	162.86 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		40	0	1360357	14980383.75	21	7/20/2012	TR	Removed from site
AC-01	G04-134	1360357	14980383.75	CH3	162.86 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360357	14980383.75	42	7/20/2012	TR	Removed from site
AC-01	G04-134	1360357	14980383.75	CH3	162.86 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	3	1360357	14980384	27	7/20/2012	TR	Removed from site
AC-01	G04-134	1360357	14980383.75	CH3	162.86 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		25	0	1360357	14980383.75	18	7/20/2012	TR	Removed from site
AC-01	G04-135	1360283.75	14980385.25	CH3	58 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360283.75	14980385.25	36	7/24/2012	TR	Removed from site
AC-01	G04-135	1360283.75	14980385.25	CH3	58 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360283.75	14980385.25	18	7/24/2012	TR	Removed from site
AC-01	G04-135	1360283.75	14980385.25	CH3	58 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360283.75	14980385.25	24	7/24/2012	TR	Removed from site
AC-01	G04-135	1360283.75	14980385.25	CH3	58 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR	Cleared to 4 ft. Contacts remain below 4 ft.	30	0	1360283.75	14980385.25	30	7/24/2012	TR	Removed from site
AC-01	G04-136	1360338.75	14980386.75	CH3	19.95 mV	Schonstedt	MDAS	Misc. Rocket Components		5	3	1360338.5	14980386.75	36	7/27/2012	TR	Removed from site
AC-01	G04-136	1360338.75	14980386.75	CH3	19.95 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		20	0	1360338.75	14980386.75	36	7/27/2012	TR	Removed from site
AC-01	G04-137	1360330.75	14980387.5	CH3	704.21 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	3	1360330.75	14980387.75	36	7/17/2012	TR	Removed from site
AC-01	G04-137	1360330.75	14980387.5	CH3	704.21 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360330.75	14980387.5	42	7/17/2012	TR	Removed from site
AC-01	G04-137	1360330.75	14980387.5	CH3	704.21 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		90	0	1360330.75	14980387.5	36	7/17/2012	TR	Removed from site
AC-01	G04-137	1360330.75	14980387.5	CH3	704.21 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	3	1360330.5	14980387.5	30	7/30/2012	TR	Removed from site
AC-01	G04-138	1360289.5	14980387.75	CH3	176.44 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	30	3	1360289.5	14980388	24	7/24/2012	TR	Removed from site
AC-01	G04-138	1360289.5	14980387.75	CH3	176.44 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		60	0	1360289.5	14980387.75	15	7/24/2012	TR	Removed from site
AC-01	G04-139	1360366.25	14980387.75	CH3	23.54 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360366.25	14980387.75	42	7/20/2012	TR	Removed from site
AC-01	G04-139	1360366.25	14980387.75	CH3	23.54 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		40	0	1360366.25	14980387.75	24	7/20/2012	TR	Removed from site
AC-01	G04-139	1360366.25	14980387.75	CH3	23.54 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360366.25	14980387.75	30	7/20/2012	TR	Removed from site
AC-01	G04-140	1360265.75	14980389.5	CH3	75.51 mV	Schonstedt	MDAS	Misc. Rocket Components		30	0	1360265.75	14980389.5	36	7/30/2012	TR	Removed from site
AC-01	G04-141	1360273	14980389.5	CH3	6.89 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	2.5	0	1360273	14980389.5	6	7/24/2012	TR	Removed from site
AC-01	G04-142	1360281.25	14980391.25	CH3	104.49 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	30	0	1360281.25	14980391.25	48	7/24/2012	TR	Removed from site
AC-01	G04-142	1360281.25	14980391.25	CH3	104.49 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		40	0	1360281.25	14980391.25	42	7/24/2012	TR	Removed from site
AC-01	G04-143	1360342.5	14980391.75	CH3	12.04 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		15	0	1360342.5	14980391.75	36	7/27/2012	TR	Removed from site
AC-01	G04-144	1360277.25	14980392.75	CH3	15.6 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	1	0	1360277.25	14980392.75	24	7/27/2012	TR	Removed from site
AC-01	G04-144	1360277.25	14980392.75	CH3	15.6 mV	Schonstedt	Cultural Debris	Nail	Cleared to 4 ft. Contacts remain below 4 ft.	2	0	1360277.25	14980392.75	45	7/24/2012	TR	Removed from site
AC-01	G04-144	1360277.25	14980392.75	CH3	15.6 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR	Cleared to 4 ft. Contacts remain below 4 ft.	40	0	1360277.25	14980392.75	18	7/24/2012	TR	Removed from site
AC-01	G04-145	1360362.5	14980393.25	CH3	215.67 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		40	0	1360362.5	14980393.25	30	7/20/2012	TR	Removed from site
AC-01	G04-146	1360354.5	14980393.75	CH3	30.78 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		15	0	1360354.5	14980393.75	48	7/27/2012	TR	Removed from site
AC-01	G04-147	1360351	14980394	CH3	62.72 mV	Schonstedt	MDAS	Misc. Rocket Components		15	0	1360351	14980394	36	7/27/2012	TR	Removed from site
AC-01	G04-147	1360351	14980394	CH3	62.72 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		20	0	1360351	14980394	48	7/27/2012	TR	Removed from site
AC-01	G04-148	1360312	14980395.25	CH3	106.11 mV	Schonstedt	MDAS	Misc. Rocket Components		2	0	1360312	14980395.25	12	7/24/2012	TR	Removed from site
AC-01	G04-148	1360312	14980395.25	CH3	106.11 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360312	14980395.25	24	7/27/2012	TR	Removed from site
AC-01	G04-149	1360344.5	14980395.25	CH3	16.25 mV	Schonstedt	MDAS	Misc. Rocket Components		20	0	1360344.5	14980395.25	48	7/30/2012	TR	Removed from site
AC-01	G04-149	1360344.5	14980395.25	CH3	16.25 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360344.5	14980395.25	48	7/30/2012	TR	Removed from site
AC-01	G04-150	1360331.25	14980396.25	CH3	212.5 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360331.25	14980396.25	45	7/20/2012	TR	Removed from site
AC-01	G04-150	1360331.25	14980396.25	CH3	212.5 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		10	0	1360331.25	14980396.25	36	7/20/2012	TR	Removed from site
AC-01	G04-150	1360331.25	14980396.25	CH3	212.5 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		20	3	1360331.25	14980396.5	33	7/20/2012	TR	Removed from site
AC-01	G04-150	1360331.25	14980396.25	CH3	212.5 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360331.25	14980396.25	30	7/20/2012	TR	Removed from site
AC-01	G04-150	1360331.25	14980396.25	CH3	212.5 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		12.5	3	1360331.25	14980396	8	7/20/2012	TR	Removed from site
AC-01	G04-150	1360331.25	14980396.25	CH3	212.5 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		60	0	1360331.25	14980396.25	27	7/20/2012	TR	Removed from site
AC-01	G04-151	1360334.25	14980396.25	CH3	152.5 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	15	0	1360334.25	14980396.25	36	7/27/2012	TR	Removed from site
AC-01	G04-151	1360334.25	14980396.25	CH3	152.5 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		15	0	1360334.25	14980396.25	36	7/27/2012	TR	Removed from site
AC-01	G04-152	1360264.5	14980396.75	CH3	7.01 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR	Cleared to 4 ft. Contacts remain below 4 ft.	60	0	1360264.5	14980396.75	45	7/24/2012	TR	Removed from site
AC-01	G04-153	1360277	14980397	CH3	13.85 mV	Schonstedt	MDAS	Misc. Rocket Components		30	0	1360277	14980397	48	7/30/2012	TR	Removed from site
AC-01	G04-154	1360326.25	14980398.75	CH3	252.43 mV	Schonstedt	MDAS	Misc. Rocket Components		60	0	1360326.25	14980398.75	48	7/20/2012	TR	Removed from site
AC-01	G04-154	1360326.25	14980398.75	CH3	252.43 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		40	0	1360326.25	14980398.75	48	7/20/2012	TR	Removed from site
AC-01	G04-155	1360361.25	14980399.5	CH3	8.13 mV	Schonstedt	MDAS	Misc. Rocket Components		10	3	1360361.25	14980399.75	2	8/1/2012	TR	Removed from site
AC-01	G04-155	1360361.25	14980399.5	CH3	8.13 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR		40	0	1360361.25	14980399.5	48	8/1/2012	TR	Removed from site
AC-01	G04-155	1360361.25	14980399.5	CH3	8.13 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR		40	0	1360361.25	14980399.5	24	8/1/2012	TR	Removed from site
AC-01	G04-156	1360263.5	14980401	CH3	14.68 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	30	0	1360263.5	14980401	30	7/24/2012	TR	Removed from site
AC-01	G04-157	1360330	14980402.5	CH3	522.94 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	15	0	1360330	14980402.5	24	7/27/2012	TR	Removed from site
AC-01	G04-157	1360330	14980402.5	CH3	522.94 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		25	0	1360330	14980402.5	24	7/27/2012	TR	Removed from site
AC-01	G04-158	1360356	14980403.25	CH3	49.25 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	20	0	1360356	14980403.25	36	7/27/2012	TR	Removed from site
AC-01	G04-158	1360356	14980403.25	CH3	49.25 mV	Schonstedt	MDAS	Misc. Rocket Components		5	0	1360356	14980403.25	36	7/27/2012	TR	Removed from site
AC-01	G04-158	1360356	14980403.25	CH3	49.25 mV	Schonstedt	MDAS	Misc. Rocket Components		1	0	1360356	14980403.25	6	7/20/2012	TR	Removed from site
AC-01	G04-158	1360356	14980403.25	CH3	49.25 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		15	0	1360356	14980403.25	48	7/27/2012	TR	Removed from site
AC-01	G04-158	1360356	14980403.25	CH3	49.25 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360356	14980403.25	48	7/27/2012	TR	Removed from site
AC-01	G04-159	1360301.25	14980404.25	CH3	185.77 mV	Schonstedt	MDAS	Misc. Rocket Components		15	0	1360301.25	14980404.25	24	7/30/2012	TR	Removed from site
AC-01	G04-159	1360301.25	14980404.25	CH3	185.77 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360301.25	14980404.25	48	7/30/2012	TR	Removed from site
AC-01	G04-160	1360310	14980404.5	CH3	19.77 mV	Schonstedt	MDAS	Misc. Rocket Components		5	0	1360310	14980404.5	36	7/27/2012	TR	Removed from site
AC-01	G04-160	1360310	14980404.5	CH3	19.77 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360310	14980404.5	36	7/27/2012	TR	Removed from site
AC-01	G04-161	1360321.75	14980404.75	CH3	9.65 mV	Schonstedt	MDAS	Misc. Rocket Components		3	0	1360321.75	14980404.75	36	7/27/2012	TR	Removed from site
AC-01	G04-162	1360290.5	14980405	CH3	145.88 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	30	0	1360290.5	14980405	48	7/24/2012	TR	Removed from site
AC-01	G04-162	1360290.5	14980405	CH3	145.88 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360290.5	14980405	42	7/24/2012	TR	Removed from site
AC-01	G04-162	1360290.5	14980405	CH3	145.88 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360290.5	14980405	48	7/24/2012	TR	Removed from site
AC-01	G04-162	1360290.5	14980405	CH3	145.88 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		40	0	1360290.5	14980405	36	7/24/2012	TR	Removed from site
AC-01	G04-163	1360334.75	14980406.25	CH3	75.76 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360334.75	14980406.25	27	7/24/2012	TR	Removed from site
AC-01	G04-163	1360334.75	14980406.25	CH3	75.76 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR	Cleared to 4 ft. Contacts remain below 4 ft.	60	0	1360334.75	14980406.25	33	7/24/2012	TR	Removed from site
AC-01	G04-164	1360323.5	14980406.75	CH3	12.07 mV	Schonstedt	MDAS	Misc. Rocket Components		5	0	1360323.5	14980406.75	36	7/27/2012	TR	Removed from site
AC-01	G04-164	1360323.5	14980406.75	CH3	12.07 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		15	3	1360323.75	14980406.75	48	7/27/2012	TR	Removed from site
AC-01	G04-165	1360274	14980407	CH3	45.37 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	20	3	1360274.25	14980407	48	7/24/2012	TR	Removed from site
AC-01	G04-165	1360274	14980407	CH3	45.37 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360274	14980407	42	7/27/2012	TR	Removed from site
AC-01	G04-165	1360274	14980407	CH3	45.37 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		40	0	1360274	14980407	54	7/24/2012	TR	Removed from site
AC-01	G04-165	1360274	14980407	CH3	45.37 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		40	0	1360274	14980407	30	7/24/2012	TR	Removed from site
AC-01	G04-166	1360307	14980407	CH3	26.54 mV	Schonstedt	MDAS	Misc. Rocket Components		10	0	1360307	14980407	36	8/1/2012	TR	Removed from site
AC-01	G04-166	1360307	14980407	CH3	26.54 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR		40	0	1360307	14980407	24	8/1/2012	TR	Removed from site
AC-01	G04-166	1360307	14980407	CH3	26.54 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR		40	0	1360307	14980407	36	8/1/2012	TR	Removed from site
AC-01	G04-167	1360286	14980407.5	CH3	62.55 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR	Cleared to 4 ft. Contacts remain below 4 ft.	20	0	1360286	14980407.5	48	7/24/2012	TR	Removed from site
AC-01	G04-167	1360286	14980407.5	CH3	62.55 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		40	0	1360286	14980407.5	42	7/24/2012	TR	Removed from site
AC-01	G04-168	1360368.25	14980407.75	CH3	31.64 mV	Schonstedt	MDAS	Misc. Rocket Components		20	0	1360368.25	14980407.75	36	7/27/2012	TR	Removed from site
AC-01	G04-169	1360330.75	14980408.5	CH3	11.26 mV	Schonstedt	MDAS	Misc. Rocket Components		2	0	1360330.75	14980408.5	1	7/27/2012	TR	Removed from site
AC-01	G04-169	1360330.75	14980408.5	CH3	11.26 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		10	0	1360330.75	14980408.5	36	7/27/2012	TR	Removed from site
AC-01	G04-170	1360262	14980408.75	CH3	20.61 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	30	0	1360262	14980408.75	48	7/24/2012	TR	Removed from site
AC-01	G04-170	1360262	14980408.75	CH3	20.61 mV	Schonstedt	MDAS	Misc. Rocket Components		5	0	1360262	14980408.75	12	7/27/2012	TR	Removed from site
AC-01	G04-170	1360262	14980408.75	CH3	20.61 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	3	1360262	14980408.5	42	7/24/2012	TR	Removed from site
AC-01	G04-170	1360262	14980408.75	CH3	20.61 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	3	1360261.75	14980408.75	36	7/24/2012	TR	Removed from site
AC-01	G04-171	1360318.25	14980409.5	CH3	29 mV	Schonstedt	MDAS	Misc. Rocket Components		40	0	1360318.25	14980409.5	36	7/30/2012	TR	Removed from site
AC-01	G04-172	1360343.25	14980410.75	CH3	6.7 mV	Schonstedt	MDAS	Misc. Rocket Components		1	0	1360343.25	14980410.75	18	7/27/2012	TR	Removed from site
AC-01	G04-172	1360343.25	14980410.75	CH3	6.7 mV	Schonstedt	MDAS	Misc. Rocket Components		5	0	1360343.25	14980410.75	24	7/27/2012	TR	Removed from site
AC-01	G04-173	1360310	14980411.5	CH3	165.93 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	5	0	1360310	14980411.5	36	7/27/2012	TR	Removed from site
AC-01	G04-173	1360310	14980411.5	CH3	165.93 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		15	3	1360309.75	14980411.5	36	7/27/2012	TR	Removed from site
AC-01	G04-174	1360322.5	14980411.5	CH3	53.72 mV	Schonstedt	MDAS	Misc. Rocket Components		5	0	1360322.5	14980411.5	36	7/27/2012	TR	Removed from site
AC-01	G04-175	1360340.25	14980411.5	CH3	40.29 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	6	0	1360340.25	14980411.5	18	7/24/2012	TR	Removed from site
AC-01	G04-175	1360340.25	14980411.5	CH3	40.29 mV	Schonstedt	MDAS	Misc. Rocket Components		1	0	1360340.25	14980411.5	18	7/27/2012	TR	Removed from site

Appendix G
Target Anomaly Dig List
Nantucket Beach FUDS Remedial Investigation
Nantucket, Massachusetts

		Geophysical Survey Information				Dig Results											
Anomaly Cluster/ MRS	Unique Target ID	Easting Coord. (USft)	Northing Coord. (USft)	Channel ID	Amplitude Response	Reacquisition Instrument	Item Category	Item Type	Description	Approx. Weight (lbs)	Offset: Distance (in)	Item Easting Coord. (USft)	Item Northing Coord. (USft)	Depth: Top of Item (in)	Dig Date	Team Leader Initials	Final Disposition
AC-01	G04-176	1360265	14980411.75	CH3	27.75 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR	Cleared to 4 ft. Contacts remain below 4 ft.	30	0	1360265	14980411.75	33	7/24/2012	TR	Removed from site
AC-01	G04-177	1360280.75	14980411.75	CH3	12.44 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR	Cleared to 4 ft. Contacts remain below 4 ft.	15	0	1360280.75	14980411.75	42	7/27/2012	TR	Removed from site
AC-01	G04-178	1360334.5	14980412	CH3	11.04 mV	Schonstedt	MDAS	Misc. Rocket Components		7	0	1360334.5	14980412	36	7/27/2012	TR	Removed from site
AC-01	G04-180	1360302.75	14980413.5	CH3	1650.15 mV	Schonstedt	MDAS	Misc. Rocket Components		20	0	1360302.75	14980413.5	48	7/30/2012	TR	Removed from site
AC-01	G04-180	1360302.75	14980413.5	CH3	1650.15 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		15	0	1360302.75	14980413.5	36	7/30/2012	TR	Removed from site
AC-01	G04-180	1360302.75	14980413.5	CH3	1650.15 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360302.75	14980413.5	48	7/30/2012	TR	Removed from site
AC-01	G04-181	1360279.5	14980413.75	CH3	14.62 mV	Schonstedt	MDAS	Misc. Rocket Components		15	0	1360279.5	14980413.75	36	7/27/2012	TR	Removed from site
AC-01	G04-181	1360279.5	14980413.75	CH3	14.62 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR	Cleared to 4 ft. Contacts remain below 4 ft.	30	0	1360279.5	14980413.75	24	7/27/2012	TR	Removed from site
AC-01	G04-182	1360288.75	14980413.75	CH3	29.78 mV	Schonstedt	MDAS	Misc. Rocket Components		20	0	1360288.75	14980413.75	36	7/27/2012	TR	Removed from site
AC-01	G04-182	1360288.75	14980413.75	CH3	29.78 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360288.75	14980413.75	48	7/27/2012	TR	Removed from site
AC-01	G04-183	1360265.5	14980414.25	CH3	23.25 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	30	0	1360265.5	14980414.25	42	7/24/2012	TR	Removed from site
AC-01	G04-184	1360261.065	14980381.69	CH3	45.76 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		30	0	1360261.065	14980381.69	42	7/17/2012	TR	Removed from site
AC-01	G04-184	1360261.065	14980381.69	CH3	45.76 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360261.065	14980381.69	48	7/17/2012	TR	Removed from site
AC-01	G04-184	1360261.065	14980381.69	CH3	45.76 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		60	0	1360261.065	14980381.69	36	7/17/2012	TR	Removed from site
AC-01	G04-185	1360260.621	14980392.34	CH3	52.97 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		40	0	1360260.621	14980392.34	30	7/17/2012	TR	Removed from site
AC-01	G04-185	1360260.621	14980392.34	CH3	52.97 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		20	0	1360260.621	14980392.34	24	7/17/2012	TR	Removed from site
AC-01	G04-185	1360260.621	14980392.34	CH3	52.97 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		90	0	1360260.621	14980392.34	48	7/17/2012	TR	Removed from site
AC-01	G04-186	1360274.525	14980309.65	CH3	114.59 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		60	3	1360274.525	14980309.4	36	8/1/2012	TR	Removed from site
AC-01	G04-186	1360274.525	14980309.65	CH3	114.59 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		40	0	1360274.525	14980309.65	48	8/1/2012	TR	Removed from site
AC-01	G04-186	1360274.525	14980309.65	CH3	114.59 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		40	0	1360274.525	14980309.65	36	8/1/2012	TR	Removed from site
AC-01	G04-186	1360274.525	14980309.65	CH3	114.59 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR		40	0	1360274.525	14980309.65	24	8/1/2012	TR	Removed from site
AC-01	G04-186	1360274.525	14980309.65	CH3	114.59 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR		40	0	1360274.525	14980309.65	48	8/1/2012	TR	Removed from site
AC-01	G04-186	1360274.525	14980309.65	CH3	114.59 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR		40	0	1360274.525	14980309.65	36	8/1/2012	TR	Removed from site
AC-01	G04-187	1360286.359	14980308.77	CH3	74.57 mV	Schonstedt	MDAS	Misc. Rocket Components		60	0	1360286.359	14980308.77	36	7/30/2012	TR	Removed from site
AC-01	G04-187	1360286.359	14980308.77	CH3	74.57 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		15	0	1360286.359	14980308.77	36	7/30/2012	TR	Removed from site
AC-01	G04-187	1360286.359	14980308.77	CH3	74.57 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		60	0	1360286.359	14980308.77	48	7/30/2012	TR	Removed from site
AC-01	G04-188	1360366.189	14980309.94	CH3	142.25 mV	Schonstedt	MDAS	Misc. Rocket Components		60	0	1360366.189	14980309.94	60	7/19/2012	TR	Removed from site
AC-01	G04-188	1360366.189	14980309.94	CH3	142.25 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360366.189	14980309.94	36	7/19/2012	TR	Removed from site
AC-01	G04-188	1360366.189	14980309.94	CH3	142.25 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360366.189	14980309.94	30	7/19/2012	TR	Removed from site
AC-01	G04-188	1360366.189	14980309.94	CH3	142.25 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360366.189	14980309.94	24	7/19/2012	TR	Removed from site
AC-01	G04-188	1360366.189	14980309.94	CH3	142.25 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	3	1360366.189	14980310.19	51	7/19/2012	TR	Removed from site
AC-01	G04-188	1360366.189	14980309.94	CH3	142.25 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360366.189	14980309.94	30	7/19/2012	TR	Removed from site
AC-01	G04-189	1360260.457	14980320.88	CH3	35.13 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360260.457	14980320.88	36	7/17/2012	TR	Removed from site
AC-01	G04-189	1360260.457	14980320.88	CH3	35.13 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		2	0	1360260.457	14980320.88	24	7/17/2012	TR	Removed from site
AC-01	G04-189	1360260.457	14980320.88	CH3	35.13 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		60	0	1360260.457	14980320.88	48	7/17/2012	TR	Removed from site
AC-01	G04-190	1360260.717	14980366.97	CH3	175.38 mV	Schonstedt	MDAS	Misc. Rocket Components		10	0	1360260.717	14980366.97	36	8/1/2012	TR	Removed from site
AC-01	G04-190	1360260.717	14980366.97	CH3	175.38 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		60	0	1360260.717	14980366.97	48	8/1/2012	TR	Removed from site
AC-01	G04-190	1360260.717	14980366.97	CH3	175.38 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360260.717	14980366.97	48	8/1/2012	TR	Removed from site
AC-01	G04-190	1360260.717	14980366.97	CH3	175.38 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR		40	0	1360260.717	14980366.97	48	8/1/2012	TR	Removed from site
AC-01	G04-190	1360260.717	14980366.97	CH3	175.38 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR		40	3	1360260.717	14980366.72	24	8/1/2012	TR	Removed from site
AC-01	G04-190	1360260.717	14980366.97	CH3	175.38 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR		40	0	1360260.717	14980366.97	36	8/1/2012	TR	Removed from site
AC-01	G04-191	1360344.375	14980384.73	CH3	73.51 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR		40	0	1360344.375	14980384.73	36	8/1/2012	TR	Removed from site
AC-01	G04-191	1360344.375	14980384.73	CH3	73.51 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR		40	0	1360344.375	14980384.73	24	8/1/2012	TR	Removed from site
AC-01	G05-001	1359552	14980341.25	CH3	79.73 mV	Schonstedt	Cultural Debris	Metal Scrap		1	0	1359552	14980341.25	3	6/28/2012	TR	Removed from site
AC-01	G05-002	1359504.75	14980357.5	CH3	56.48 mV	Schonstedt	Seed	2" x 8" Pipe		0.5	3	1359504.75	14980357.75	8	6/28/2012	TR	Removed from site
AC-01	G05-003	1359482.5	14980363	CH3	587.58 mV	Schonstedt	Cultural Debris	Vehicle Part		0.01	9	1359482.5	14980362.25	0	6/28/2012	TR	Removed from site
AC-01	G05-004	1359478.5	14980364.5	CH3	5.57 mV	Schonstedt	No Contact	No Contact							6/28/2012	TR	NA
AC-01	G05-005	1359567.25	14980373.25	CH3	3.15 mV	Schonstedt	Cultural Debris	Metal Scrap		1	0	1359567.25	14980373.25	8	6/28/2012	TR	Removed from site
AC-01	G05-006	1359468	14980408.25	CH3	121.73 mV	Schonstedt	Cultural Debris	Metal Scrap		1	0	1359468	14980408.25	0	6/28/2012	TR	Removed from site
AC-01	G05-007	1359463.5	14980413.75	CH3	79.26 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR	Blown in Place - Determined to be MDAS	40	0	1359463.5	14980413.75	6	6/28/2012	TR	Removed from site
AC-01	G06-001	1359199.75	14980284.25	CH3	3 mV	Schonstedt	Cultural Debris	Nail		0.01	0	1359199.75	14980284.25	3	6/28/2012	TR	Removed from site
AC-01	G06-002	1359203	14980286	CH3	13.9 mV	Schonstedt	Cultural Debris	Survey Monument		0	6	1359203.5	14980286	0	6/28/2012	TR	Left in place
AC-01	G06-003	1359237.75	14980329.5	CH3	71.54 mV	Schonstedt	Seed	2" x 8" Pipe		0.5	6	1359237.75	14980329	8	6/28/2012	TR	Removed from site
AC-01	G07-001	1361265.75	14980165.5	CH3	77.33 mV	Schonstedt	Seed	2" x 8" Pipe		0.5	6	1361266.25	14980165.5	6	7/9/2012	TR	Removed from site
AC-01	G07-003	1361276	14980204.5	CH3	4.99 mV	Schonstedt	Cultural Debris	Construction Debris		0.1	9	1361276	14980205.25	0	7/9/2012	TR	Removed from site
AC-01	G07-004	1361281.5	14980205.75	CH3	4.81 mV	Schonstedt	Cultural Debris	Construction Debris		0.1	0	1361281.5	14980205.75	0	7/9/2012	TR	Removed from site
AC-01	G07-005	1361262.63	14980205.93	CH3	2.6 mV	Schonstedt	Cultural Debris	Construction Debris		0.1	0	1361262.63	14980205.93	0	7/9/2012	TR	Removed from site
AC-01	G08-001	1360332.25	14980441	CH3	4.95 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		1.5	0	1360332.25	14980441	15	6/25/2012	TR	Removed from site
AC-01	G08-002	1360321.75	14980444	CH3	28.54 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		40	0	1360321.75	14980444	48	7/17/2012	TR	Removed from site
AC-01	G08-003	1360326	14980444.25	CH3	72.8 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		60	0	1360326	14980444.25	48	7/17/2012	TR	Removed from site
AC-01	G08-004	1360314	14980447.25	CH3	9.4 mV	Schonstedt	MDAS	Misc. Rocket Components		2	0	1360314	14980447.25	12	8/1/2012	TR	Removed from site
AC-01	G08-004	1360314	14980447.25	CH3	9.4 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		30	0	1360314	14980447.25	48	8/1/2012	TR	Removed from site
AC-01	G08-005	1360323.25	14980450.5	CH3	13.96 mV	Schonstedt	MDAS	Misc. Rocket Components		5	0	1360323.25	14980450.5	12	8/1/2012	TR	Removed from site
AC-01	G08-006	1360342.75	14980451.5	CH3	1210.78 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		60	0	1360342.75	14980451.5	4	7/18/2012	TR	Removed from site
AC-01	G08-007	1360306.5	14980452	CH3	5.48 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360306.5	14980452	48	8/1/2012	TR	Removed from site
AC-01	G08-008	1360322.25	14980454.75	CH3	23.36 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		60	0	1360322.25	14980454.75	39	7/17/2012	TR	Removed from site
AC-01	G08-008	1360322.25	14980454.75	CH3	23.36 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360322.25	14980454.75	48	7/17/2012	TR	Removed from site
AC-01	G08-009	1360329	14980455	CH3	29.17 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		15	0	1360329	14980455	45	8/1/2012	TR	Removed from site
AC-01	G08-010	1360313.25	14980455.5	CH3	9.94 mV	Schonstedt	MDAS	Misc. Rocket Components		10	0	1360313.25	14980455.5	36	8/1/2012	TR	Removed from site
AC-01	G08-010	1360313.25	14980455.5	CH3	9.94 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		15	0	1360313.25	14980455.5	33	8/1/2012	TR	Removed from site
AC-01	G08-010	1360313.25	14980455.5	CH3	9.94 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360313.25	14980455.5	48	8/1/2012	TR	Removed from site
AC-01	G08-011	1360345	14980457	CH3	591.59 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		3	0	1360345	14980457	42	7/18/2012	TR	Removed from site
AC-01	G08-011	1360345	14980457	CH3	591.59 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		3.5	0	1360345	14980457	51	7/18/2012	TR	Removed from site
AC-01	G08-011	1360345	14980457	CH3	591.59 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360345	14980457	21	7/18/2012	TR	Removed from site
AC-01	G08-011	1360345	14980457	CH3	591.59 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		7	0	1360345	14980457	30	7/18/2012	TR	Removed from site
AC-01	G08-011	1360345	14980457	CH3	591.59 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360345	14980457	4	7/18/2012	TR	Removed from site
AC-01	G08-012	1360328.75	14980457.25	CH3	28.92 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360328.75	14980457.25	48	8/1/2012	TR	Removed from site
AC-01	G08-013	1360307.5	14980458.25	CH3	12.09 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		15	0	1360307.5	14980458.25	45	8/1/2012	TR	Removed from site
AC-01	G08-014	1360287.25	14980458.5	CH3	169.14 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		40	0	1360287.25	14980458.5	48	8/1/2012	TR	Removed from site
AC-01	G08-015	1360355.5	14980458.75	CH3	89.28 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	3	1360355.75	14980458.75	48	8/1/2012	TR	Removed from site
AC-01	G08-016	1360348	14980460.75	CH3	3.07 mV	Schonstedt	MDAS	Misc. Rocket Components		10	0	1360348	14980460.75	36	8/1/2012	TR	Removed from site
AC-01	G08-017	1360284.5	14980461	CH3	111.29 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	3	1360284.5	14980461.25	48	8/1/2012	TR	Removed from site
AC-01	G08-018	1360347.5	14980461	CH3	3.13 mV	Schonstedt	MDAS	Misc. Rocket Components		5	0	1360347.5	14980461	36	8/1/2012	TR	Removed from site
AC-01	G08-019	1360292.5	14980461.5	CH3	33.11 mV	Schonstedt	MDAS	Misc. Rocket Components		10	0	1360292.5	14980461.5	18	8/1/2012	TR	Removed from site
AC-01	G08-020	1360316	14980462	CH3	3.12 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		15	0	1360316	14980462	45	8/1/2012	TR	Removed from site
AC-01	G08-021	1360289	14980463.25	CH3	137.71 mV	Schonstedt	MDAS	Misc. Rocket Components		1	0	1360289	14980463.25	12	8/1/2012	TR	Removed from site
AC-01	G08-022	1360298.5	14980463.25	CH3	1089.45 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR		40	0	1360298.5	14980463.25	36	8/1/2012	TR	Removed from site
AC-01	G08-023	1360336.5	14980464.5	CH3	1064.73 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360336.5	14980464.5	36	8/1/2012	TR	Removed from site
AC-01	G08-023	1360336.5	14980464.5	CH3	1064.73 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR		30	0	1360336.5	14980464.5	18	8/1/2012	TR	Removed from site
AC-01	G08-024	1360309.25	14980465.25	CH3	586.97 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360309.25	14980465.25	6	8/1/2012	TR	Removed from site
AC-01	G08-025	1360304.25	14980465.75	CH3	3.68 mV	Schonstedt	MDAS	Misc. Rocket Components		5	0	1360304.25	14980465.75	24	8/1/2012	TR	Removed from site
AC-01	G08-026	1360274	14980468.5	CH3	12.85 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		40	0	1360274	14980468.5	45	8/1/2012	TR	Removed from site
AC-01	G08-027	1360290.5	14980469	CH3	8.11 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360290.5	14980469	36	8/1/2012	TR	Removed from site
AC-01	G08-028	1360362.5	14980469	CH3	75.54 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		3	3	1360362.75	14980469	3	7/18/2012	TR	Removed from site
AC-01	G08-029	1360316.75	14980469.5	CH3	14.16 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		15	3	1360316.5	14980469.5	36	8/1/2012	TR	Removed from site
AC-01	G08-030	1360284.5	14980469.75	CH3	3.08 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360284.5	14980469.75	36	8/1/2012	TR	Removed from site

Appendix G
Target Anomaly Dig List
Nantucket Beach FUDS Remedial Investigation
Nantucket, Massachusetts

		Geophysical Survey Information				Dig Results											
Anomaly Cluster/ MRS	Unique Target ID	Easting Coord. (USft)	Northing Coord. (USft)	Channel ID	Amplitude Response	Reacquisition Instrument	Item Category	Item Type	Description	Approx. Weight (lbs)	Offset: Distance (in)	Item Easting Coord. (USft)	Item Northing Coord. (USft)	Depth: Top of Item (in)	Dig Date	Team Leader Initials	Final Disposition
AC-01	G08-031	1360261.25	14980470	CH3	252.33 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360261.25	14980470	18	8/1/2012	TR	Removed from site
AC-01	G08-032	1360287.25	14980470	CH3	3.81 mV	Schonstedt	MDAS	Misc. Rocket Components		15	0	1360287.25	14980470	24	8/1/2012	TR	Removed from site
AC-01	G08-033	1360275.75	14980470.25	CH3	18.15 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		15	0	1360275.75	14980470.25	18	8/1/2012	TR	Removed from site
AC-01	G08-034	1360270.25	14980471.5	CH3	4.18 mV	Schonstedt	MDAS	Misc. Rocket Components		5	0	1360270.25	14980471.5	12	8/1/2012	TR	Removed from site
AC-01	G08-035	1360317	14980471.75	CH3	13.2 mV	Schonstedt	MDAS	Misc. Rocket Components		2	0	1360317	14980471.75	24	8/1/2012	TR	Removed from site
AC-01	G08-036	1360354.5	14980472.25	CH3	151.28 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR	Cleared to 4 ft. Contacts remain below 4 ft.	30	3	1360354.75	14980472.25	18	8/1/2012	TR	Removed from site
AC-01	G08-037	1360268.25	14980472.5	CH3	4.53 mV	Schonstedt	MDAS	Misc. Rocket Components		5	0	1360268.25	14980472.5	12	8/1/2012	TR	Removed from site
AC-01	G08-038	1360276	14980473	CH3	16.69 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360276	14980473	18	8/1/2012	TR	Removed from site
AC-01	G08-038	1360276	14980473	CH3	16.69 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		25	0	1360276	14980473	36	8/1/2012	TR	Removed from site
AC-01	G08-039	1360320	14980474	CH3	15.69 mV	Schonstedt	MDAS	Misc. Rocket Components		40	0	1360320	14980474	33	8/1/2012	TR	Removed from site
AC-01	G08-040	1360254.25	14980474.25	CH3	54.7 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR		60	0	1360254.25	14980474.25	36	8/1/2012	TR	Removed from site
AC-01	G08-041	1360306.5	14980474.25	CH3	15.78 mV	Schonstedt	MDAS	Misc. Rocket Components		15	3	1360306.25	14980474.25	12	8/1/2012	TR	Removed from site
AC-01	G08-042	1360276	14980474.5	CH3	18.62 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		5	0	1360276	14980474.5	12	8/1/2012	TR	Removed from site
AC-01	G08-043	1360263	14980475	CH3	23.48 mV	Schonstedt	MDAS	Misc. Rocket Components		5	0	1360263	14980475	24	8/1/2012	TR	Removed from site
AC-01	G08-044	1360291.25	14980475.75	CH3	39.17 mV	Schonstedt	MDAS	Misc. Rocket Components		10	0	1360291.25	14980475.75	18	8/1/2012	TR	Removed from site
AC-01	G08-045	1360332.25	14980476	CH3	9.34 mV	Schonstedt	MDAS	Misc. Rocket Components		2	0	1360332.25	14980476	12	8/1/2012	TR	Removed from site
AC-01	G08-046	1360285	14980477.25	CH3	230.44 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360285	14980477.25	36	8/1/2012	TR	Removed from site
AC-01	G08-047	1360298.25	14980477.25	CH3	8.92 mV	Schonstedt	MDAS	Misc. Rocket Components		8	0	1360298.25	14980477.25	24	8/1/2012	TR	Removed from site
AC-01	G08-047	1360298.25	14980477.25	CH3	8.92 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360298.25	14980477.25	24	8/1/2012	TR	Removed from site
AC-01	G08-048	1360333.25	14980477.25	CH3	7.42 mV	Schonstedt	MDAS	Misc. Rocket Components		2	0	1360333.25	14980477.25	12	8/1/2012	TR	Removed from site
AC-01	G08-049	1360362	14980477.25	CH3	25.09 mV	Schonstedt	MDAS	Misc. Rocket Components		2	0	1360362	14980477.25	4	7/18/2012	TR	Removed from site
AC-01	G08-049	1360362	14980477.25	CH3	25.09 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		2	0	1360362	14980477.25	4	7/18/2012	TR	Removed from site
AC-01	G08-050	1360342.75	14980477.5	CH3	167.45 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360342.75	14980477.5	24	8/1/2012	TR	Removed from site
AC-01	G08-051	1360310.75	14980477.75	CH3	14.64 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360310.75	14980477.75	36	8/1/2012	TR	Removed from site
AC-01	G08-052	1360333.5	14980478.75	CH3	6.88 mV	Schonstedt	MDAS	Misc. Rocket Components		2	0	1360333.5	14980478.75	12	8/1/2012	TR	Removed from site
AC-01	G08-053	1360273	14980479	CH3	37.35 mV	Schonstedt	MDAS	Misc. Rocket Components		5	3	1360273.25	14980479	12	8/1/2012	TR	Removed from site
AC-01	G08-054	1360347.5	14980479.5	CH3	14.66 mV	Schonstedt	MDAS	Misc. Rocket Components		5	0	1360347.5	14980479.5	24	8/1/2012	TR	Removed from site
AC-01	G08-055	1360319	14980480	CH3	982.49 mV	Schonstedt	MDAS	Misc. Rocket Components		10	0	1360319	14980480	1	8/1/2012	TR	Removed from site
AC-01	G08-055	1360319	14980480	CH3	982.49 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR		60	0	1360319	14980480	24	8/1/2012	TR	Removed from site
AC-01	G08-056	1360260.75	14980480.25	CH3	5.77 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		15	0	1360260.75	14980480.25	36	8/1/2012	TR	Removed from site
AC-01	G08-057	1360311.75	14980482.25	CH3	12.01 mV	Schonstedt	MDAS	Misc. Rocket Components		5	0	1360311.75	14980482.25	21	8/1/2012	TR	Removed from site
AC-01	G08-058	1360257	14980482.5	CH3	6.67 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360257	14980482.5	27	8/1/2012	TR	Removed from site
AC-01	G08-058	1360257	14980482.5	CH3	6.67 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		20	3	1360257.25	14980482.5	36	8/1/2012	TR	Removed from site
AC-01	G08-059	1360359	14980484	CH3	5.31 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		2	0	1360359	14980484	18	8/1/2012	TR	Removed from site
AC-01	G08-060	1360302	14980486.5	CH3	76.85 mV	Schonstedt	Seed	2" x 8" Pipe		0.5	0	1360302	14980486.5	12	8/1/2012	TR	Removed from site
AC-01	G08-061	1360360.5	14980487.5	CH3	7.12 mV	Schonstedt	MDAS	Misc. Rocket Components		5	0	1360360.5	14980487.5	24	8/1/2012	TR	Removed from site
AC-01	G08-062	1360308.25	14980487.75	CH3	5.71 mV	Schonstedt	MDAS	Misc. Rocket Components		10	0	1360308.25	14980487.75	36	8/1/2012	TR	Removed from site
AC-01	G08-063	1360266.25	14980488	CH3	81.62 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		25	0	1360266.25	14980488	36	8/1/2012	TR	Removed from site
AC-01	G08-064	1360271.75	14980488.5	CH3	60.96 mV	Schonstedt	MDAS	Misc. Rocket Components		5	0	1360271.75	14980488.5	18	8/1/2012	TR	Removed from site
AC-01	G08-065	1360342.5	14980490.75	CH3	26.85 mV	Schonstedt	MDAS	Misc. Rocket Components		1	0	1360342.5	14980490.75	12	8/1/2012	TR	Removed from site
AC-01	G08-066	1360291.5	14980492.75	CH3	14.78 mV	Schonstedt	MDAS	Misc. Rocket Components		20	0	1360291.5	14980492.75	18	8/1/2012	TR	Removed from site
AC-01	G08-066	1360291.5	14980492.75	CH3	14.78 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		20	3	1360291.25	14980492.75	36	8/1/2012	TR	Removed from site
AC-01	G08-067	1360357.25	14980492.75	CH3	28.13 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	3	0	1360357.25	14980492.75	18	8/1/2012	TR	Removed from site
AC-01	G08-068	1360277	14980495	CH3	12.07 mV	Schonstedt	MDAS	Misc. Rocket Components		5	0	1360277	14980495	12	8/1/2012	TR	Removed from site
AC-01	G08-069	1360315.5	14980496.5	CH3	10.45 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		25	0	1360315.5	14980496.5	36	8/1/2012	TR	Removed from site
AC-01	G08-070	1360262.25	14980497.25	CH3	25.16 mV	Schonstedt	MDAS	Misc. Rocket Components		5	0	1360262.25	14980497.25	18	8/1/2012	TR	Removed from site
AC-01	G08-071	1360258.75	14980499	CH3	19.44 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360258.75	14980499	36	8/1/2012	TR	Removed from site
AC-01	G08-072	1360315.5	14980500	CH3	11.72 mV	Schonstedt	MDAS	Misc. Rocket Components		10	0	1360315.5	14980500	24	8/1/2012	TR	Removed from site
AC-01	G08-073	1360289	14980500.25	CH3	48.53 mV	Schonstedt	MDAS	Misc. Rocket Components		15	0	1360289	14980500.25	12	8/1/2012	TR	Removed from site
AC-01	G08-074	1360348.75	14980500.5	CH3	5.87 mV	Schonstedt	MDAS	Misc. Rocket Components		10	3	1360348.75	14980500.75	24	8/1/2012	TR	Removed from site
AC-01	G08-075	1360309.5	14980501	CH3	72.58 mV	Schonstedt	MDAS	Misc. Rocket Components		10	3	1360309.5	14980501.25	24	8/1/2012	TR	Removed from site
AC-01	G08-076	1360280.75	14980501.75	CH3	13.06 mV	Schonstedt	MDAS	Misc. Rocket Components		5	0	1360280.75	14980501.75	12	8/1/2012	TR	Removed from site
AC-01	G08-077	1360299.75	14980502.5	CH3	9.31 mV	Schonstedt	MDAS	Misc. Rocket Components		5	0	1360299.75	14980502.5	18	8/1/2012	TR	Removed from site
AC-01	G08-078	1360366.5	14980504.25	CH3	88.71 mV	Schonstedt	MDAS	Misc. Rocket Components		0.5	0	1360366.5	14980504.25	12	8/1/2012	TR	Removed from site
AC-01	G08-079	1360305.25	14980506.25	CH3	362.97 mV	Schonstedt	MDAS	Misc. Rocket Components		5	0	1360305.25	14980506.25	18	8/1/2012	TR	Removed from site
AC-01	G08-080	1360280	14980506.5	CH3	15.12 mV	Schonstedt	MDAS	Misc. Rocket Components		5	0	1360280	14980506.5	18	8/1/2012	TR	Removed from site
AC-01	G08-081	1360363.5	14980507.75	CH3	8.74 mV	Schonstedt	MDAS	Misc. Rocket Components		5	3	1360363.25	14980507.75	18	8/1/2012	TR	Removed from site
AC-01	G08-082	1360346.5	14980508.25	CH3	150.53 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR	Cleared to 4 ft. Contacts remain below 4 ft.	30	0	1360346.5	14980508.25	24	7/24/2012	TR	Removed from site
AC-01	G08-083	1360377.75	14980508.25	CH3	10.52 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	5	0	1360377.75	14980508.25	12	7/24/2012	TR	Removed from site
AC-01	G08-084	1360331.5	14980508.75	CH3	79.55 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360331.5	14980508.75	36	8/1/2012	TR	Removed from site
AC-01	G08-085	1360265.5	14980509.25	CH3	12.9 mV	Schonstedt	MDAS	Misc. Rocket Components		5	0	1360265.5	14980509.25	12	8/1/2012	TR	Removed from site
AC-01	G08-086	1360284	14980509.5	CH3	5.84 mV	Schonstedt	MDAS	Misc. Rocket Components		20	0	1360284	14980509.5	18	8/1/2012	TR	Removed from site
AC-01	G08-087	1360317.75	14980509.5	CH3	26 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		5	0	1360317.75	14980509.5	1	7/18/2012	TR	Removed from site
AC-01	G08-088	1360292	14980509.75	CH3	117.92 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		30	0	1360292	14980509.75	36	8/1/2012	TR	Removed from site
AC-01	G08-088	1360292	14980509.75	CH3	117.92 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR		40	0	1360292	14980509.75	18	8/1/2012	TR	Removed from site
AC-01	G08-089	1360330	14980512.25	CH3	181.81 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360330	14980512.25	36	8/1/2012	TR	Removed from site
AC-01	G08-090	1360320.75	14980512.5	CH3	6.44 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	0.5	0	1360320.75	14980512.5	12	7/24/2012	TR	Removed from site
AC-01	G08-091	1360271.25	14980513	CH3	4.14 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		15	0	1360271.25	14980513	18	8/1/2012	TR	Removed from site
AC-01	G08-092	1360301.75	14980513	CH3	4.53 mV	Schonstedt	MDAS	Misc. Rocket Components		5	0	1360301.75	14980513	18	8/1/2012	TR	Removed from site
AC-01	G08-093	1360278.75	14980513.75	CH3	22 mV	Schonstedt	MDAS	Misc. Rocket Components		5	0	1360278.75	14980513.75	18	8/1/2012	TR	Removed from site
AC-01	G08-094	1360338	14980514	CH3	3.51 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	0.5	0	1360338	14980514	18	7/24/2012	TR	Removed from site
AC-01	G08-095	1360363.75	14980514.25	CH3	77.17 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	3	1360364	14980514.25	36	8/1/2012	TR	Removed from site
AC-01	G08-096	1360372.25	14980514.75	CH3	28.21 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	15	3	1360372.5	14980514.75	24	7/24/2012	TR	Removed from site
AC-01	G08-097	1360378.75	14980515.75	CH3	3.76 mV	Schonstedt	No Contact	No Contact		0	0			0	7/24/2012	TR	NA
AC-01	G08-098	1360313	14980516	CH3	9.14 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		15	0	1360313	14980516	36	8/1/2012	TR	Removed from site
AC-01	G08-099	1360278.87	14980515.78	CH3	21.42 mV	Schonstedt	MDAS	Misc. Rocket Components		5	0	1360278.87	14980515.78	18	8/1/2012	TR	Removed from site
AC-01	G08-100	1360333.25	14980516.5	CH3	8.92 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	0.5	0	1360333.25	14980516.5	12	7/24/2012	TR	Removed from site
AC-01	G08-101	1360271.25	14980517	CH3	5.77 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		15	3	1360271	14980517	18	8/1/2012	TR	Removed from site
AC-01	G08-102	1360289.75	14980517.25	CH3	33.76 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		10	3	1360289.75	14980517.5	24	8/1/2012	TR	Removed from site
AC-01	G08-103	1360297.25	14980518	CH3	7.23 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360297.25	14980518	36	8/1/2012	TR	Removed from site
AC-01	G08-104	1360359.75	14980518.25	CH3	6.21 mV	Schonstedt	MDAS	Misc. Rocket Components		1	0	1360359.75	14980518.25	36	8/1/2012	TR	Removed from site
AC-01	G08-104	1360359.75	14980518.25	CH3	6.21 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360359.75	14980518.25	36	8/1/2012	TR	Removed from site
AC-01	G08-105	1360296	14980518.75	CH3	7.21 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360296	14980518.75	36	8/1/2012	TR	Removed from site
AC-01	G08-106	1360323.75	14980518.75	CH3	5.59 mV	Schonstedt	MDAS	Misc. Rocket Components		1	0	1360323.75	14980518.75	12	8/1/2012	TR	Removed from site
AC-01	G08-107	1360367.5	14980518.75	CH3	21.14 mV	Schonstedt	MDAS	Misc. Rocket Components		1	0	1360367.5	14980518.75	18	7/24/2012	TR	Removed from site
AC-01	G08-107	1360367.5	14980518.75	CH3	21.14 mV	Schonstedt	MDAS	Misc. Rocket Components		1	0	1360367.5	14980518.75	12	7/24/2012	TR	Removed from site
AC-01	G08-108	1360275.5	14980519.75	CH3	10.86 mV	Schonstedt	MDAS	Misc. Rocket Components		5	0	1360275.5	14980519.75	18	8/1/2012	TR	Removed from site
AC-01	G08-109	1360345.5	14980520.5	CH3	3.28 mV	Schonstedt	MDAS	Misc. Rocket Components		1	0	1360345.5	14980520.5	36	8/1/2012	TR	Removed from site
AC-01	G08-110	1360372.5	14980521.25	CH3	41.86 mV	Schonstedt	MDAS	Misc. Rocket Components		1	0	1360372.5	14980521.25	12	8/1/2012	TR	Removed from site
AC-01	G08-111	1360351.75	14980521.5	CH3	9.65 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360351.75	14980521.5	36	8/1/2012	TR	Removed from site
AC-01	G08-112	1360293.75	14980522.25	CH3	8.25 mV	Schonstedt	MDAS	Misc. Rocket Components		40	0	1360293.75	14980522.25	24	8/1/2012	TR	Removed from site
AC-01	G08-113	1360315	14980522.75	CH3	84.07 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		20	0	1360315	14980522.75	24	8/1/2012	TR	Removed from site
AC-01	G08-114	1360326	14980523.75	CH3	15.27 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360326	14980523.75	6	8/1/2012	TR	Removed from site
AC-01	G08-115	1360288	14980525	CH3	21.94 mV	Schonstedt	MDAS	Misc. Rocket Components		5	0	1360288	14980525	18	8/1/2012	TR	Removed from site
AC-01	G08-116	1360279.5	14980525.5	CH3	73.98 mV	Schonstedt	MDAS	Misc. Rocket Components		5	0	1360279.5	14980525.5	18	8/1/2012	TR	Removed from site
AC-01	G08-117	1360361.75	14980525.5	CH3	17.69 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	10	0	1360361.75	14980525.5	18	7/24/2012	TR	Removed from site

Appendix G
Target Anomaly Dig List
Nantucket Beach FUDS Remedial Investigation
Nantucket, Massachusetts

		Geophysical Survey Information				Dig Results											
Anomaly Cluster/ MRS	Unique Target ID	Easting Coord. (USft)	Northing Coord. (USft)	Channel ID	Amplitude Response	Reacquisition Instrument	Item Category	Item Type	Description	Approx. Weight (lbs)	Offset: Distance (in)	Item Easting Coord. (USft)	Item Northing Coord. (USft)	Depth: Top of Item (in)	Dig Date	Team Leader Initials	Final Disposition
AC-01	G08-118	1360334	14980526.25	CH3	5.49 mV	Schonstedt	MDAS	Misc. Rocket Components		6.5	0	1360334	14980526.25	12	8/1/2012	TR	Removed from site
AC-01	G08-119	1360293.25	14980526.5	CH3	8.63 mV	Schonstedt	MDAS	Misc. Rocket Components		5	0	1360293.25	14980526.5	18	8/1/2012	TR	Removed from site
AC-01	G08-120	1360326.75	14980527.5	CH3	16.03 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360326.75	14980527.5	6	8/1/2012	TR	Removed from site
AC-01	G08-121	1360347.25	14980528	CH3	293.6 mV	Schonstedt	MDAS	Misc. Rocket Components		1	0	1360347.25	14980528	12	8/1/2012	TR	Removed from site
AC-01	G08-122	1360339	14980529.75	CH3	5.79 mV	Schonstedt	MDAS	Misc. Rocket Components		1	0	1360339	14980529.75	12	8/1/2012	TR	Removed from site
AC-01	G08-123	1360310	14980530.25	CH3	106.54 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360310	14980530.25	48	8/1/2012	TR	Removed from site
AC-01	G08-124	1360366.25	14980530.25	CH3	853.42 mV	Schonstedt	MDAS	Misc. Rocket Components		10	3	1360366.25	14980530	36	8/1/2012	TR	Removed from site
AC-01	G08-125	1360327	14980531	CH3	11.15 mV	Schonstedt	MDAS	Misc. Rocket Components		1	0	1360327	14980531	12	8/1/2012	TR	Removed from site
AC-01	G08-126	1360340	14980533.75	CH3	9.11 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	2	0	1360340	14980533.75	12	7/24/2012	TR	Removed from site
AC-01	G08-127	1360368.75	14980535.25	CH3	4.24 mV	Schonstedt	MDAS	Misc. Rocket Components		10	0	1360368.75	14980535.25	36	8/1/2012	TR	Removed from site
AC-01	G08-128	1360342.75	14980536.25	CH3	3.28 mV	Schonstedt	MDAS	Misc. Rocket Components		30	0	1360342.75	14980536.25	45	8/1/2012	TR	Removed from site
AC-01	G08-129	1360277.25	14980538.75	CH3	32.18 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		15	0	1360277.25	14980538.75	36	8/1/2012	TR	Removed from site
AC-01	G08-130	1360297.99	14980539.26	CH3	42.94 mV	Schonstedt	MDAS	Misc. Rocket Components		3	0	1360297.99	14980539.26	18	8/1/2012	TR	Removed from site
AC-01	G08-131	1360314.5	14980539.5	CH3	19.53 mV	Schonstedt	MDAS	Misc. Rocket Components		1	0	1360314.5	14980539.5	18	8/1/2012	TR	Removed from site
AC-01	G08-132	1360298.5	14980540	CH3	42.32 mV	Schonstedt	MDAS	Misc. Rocket Components		15	0	1360298.5	14980540	12	8/1/2012	TR	Removed from site
AC-01	G08-133	1360334.25	14980540	CH3	39.46 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		15	3	1360334	14980540	18	8/1/2012	TR	Removed from site
AC-01	G08-134	1360313	14980541	CH3	19.74 mV	Schonstedt	MDAS	Misc. Rocket Components		1	0	1360313	14980541	18	8/1/2012	TR	Removed from site
AC-01	G08-135	1360287.25	14980544.5	CH3	112.96 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		15	0	1360287.25	14980544.5	18	8/1/2012	TR	Removed from site
AC-01	G08-135	1360287.25	14980544.5	CH3	112.96 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360287.25	14980544.5	36	8/1/2012	TR	Removed from site
AC-01	G08-136	1360334	14980545	CH3	14.16 mV	Schonstedt	MDAS	Misc. Rocket Components		1	0	1360334	14980545	12	8/1/2012	TR	Removed from site
AC-01	G08-137	1360318.25	14980545.25	CH3	3.93 mV	Schonstedt	MDAS	Misc. Rocket Components		1	0	1360318.25	14980545.25	18	8/1/2012	TR	Removed from site
AC-01	G08-138	1360280	14980546	CH3	19.28 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	2	0	1360280	14980546	24	7/24/2012	TR	Removed from site
AC-01	G08-139	1360318	14980548.5	CH3	4.42 mV	Schonstedt	MDAS	Misc. Rocket Components		2	0	1360318	14980548.5	24	8/1/2012	TR	Removed from site
AC-01	G08-140	1360318.5	14980551.5	CH3	4.77 mV	Schonstedt	MDAS	Misc. Rocket Components		2	0	1360318.5	14980551.5	12	8/1/2012	TR	Removed from site
AC-01	G08-141	1360307.25	14980556.25	CH3	87.62 mV	Schonstedt	MDAS	Misc. Rocket Components	Cleared to 4 ft. Contacts remain below 4 ft.	1	3	1360307	14980556.25	12	7/24/2012	TR	Removed from site
AC-01	G08-142	1360299.25	14980556.5	CH3	3.29 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		15	3	1360299.5	14980556.5	18	8/1/2012	TR	Removed from site
AC-01	G08-143	1360342.046	14980486.24	CH3	mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		50	3	1360342.046	14980485.99	33	7/17/2012	TR	Removed from site
AC-01	G08-144	1360344.948	14980435.46	CH3	mV	Schonstedt	MDAS	Misc. Rocket Components		10	0	1360344.948	14980435.46	36	8/1/2012	TR	Removed from site
AC-01	G09-001	1360081	14980491.5	CH3	4.03 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360081	14980491.5	42	7/4/2012	TR	Removed from site
AC-01	G09-002	1360081.5	14980493.5	CH3	3.83 mV	Schonstedt		Shared Contact	Shared contact with target G09-1						7/4/2012	TR	NA
AC-01	G09-003	1360091.25	14980497	CH3	3.84 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		7	3	1360091.5	14980497	12	7/4/2012	TR	Removed from site
AC-01	G09-004	1360049.75	14980501.75	CH3	8.68 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	9	1360049	14980501.75	48	7/4/2012	TR	Removed from site
AC-01	G09-005	1360089.25	14980505	CH3	4.85 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		30	9	1360089.25	14980505.75	48	7/4/2012	TR	Removed from site
AC-01	G09-006	1360091.5	14980505	CH3	5.66 mV	Schonstedt		Shared Contact	Shared contact with target G09-5						7/4/2012	TR	NA
AC-01	G09-007	1360111	14980506	CH3	5.51 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360111	14980506	39	7/4/2012	TR	Removed from site
AC-01	G09-008	1360073.25	14980511	CH3	18.02 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		25	3	1360073	14980511	36	7/4/2012	TR	Removed from site
AC-01	G09-010	1360065	14980525	CH3	396.51 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR		20	0	1360065	14980525	36	7/4/2012	TR	Removed from site
AC-01	G09-012	1360104.25	14980533.75	CH3	17.31 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	3	1360104.25	14980533.5	36	7/4/2012	TR	Removed from site
AC-01	G09-013	1360052.5	14980539.75	CH3	123.45 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		0.5	0	1360052.5	14980539.75	4	7/4/2012	TR	Removed from site
AC-01	G09-015	1360092	14980548.25	CH3	49.27 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		2	9	1360092	14980547.5	0	7/4/2012	TR	Removed from site
AC-01	G09-016	1360095	14980548.5	CH3	63.96 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		3	3	1360095.25	14980548.5	4	7/4/2012	TR	Removed from site
AC-01	G09-017	1360066.5	14980549.5	CH3	7.63 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	9	1360067.25	14980549.5	36	7/4/2012	TR	Removed from site
AC-01	G09-018	1360093	14980554.75	CH3	10.49 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		2.5	0	1360093	14980554.75	6	7/4/2012	TR	Removed from site
AC-01	G09-022	1360050.75	14980557.75	CH3	823.68 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR	Blown in Place - Determined to be MDAS	40	3	1360050.75	14980558	0	7/4/2012	TR	Removed from site
AC-01	G09-023	1360089.5	14980559	CH3	8.58 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	6	1360090	14980559	6	7/4/2012	TR	Removed from site
AC-01	G09-024	1360090.75	14980561.5	CH3	7.05 mV	Schonstedt		Shared Contact	Shared contact with target G09-23						7/4/2012	TR	NA
AC-01	G09-025	1360068.75	14980564	CH3	5.22 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360068.75	14980564	48	7/4/2012	TR	Removed from site
AC-01	G09-026	1360099.75	14980564.5	CH3	965.52 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		15	0	1360099.75	14980564.5	24	7/4/2012	TR	Removed from site
AC-01	G09-027	1360101.25	14980575.25	CH3	6.19 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360101.25	14980575.25	48	7/4/2012	TR	Removed from site
AC-01	G09-028	1360057	14980580.5	CH3	387.07 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360057	14980580.5	0	7/4/2012	TR	Removed from site
AC-01	G09-029	1360066.5	14980581	CH3	4.59 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		0.5	0	1360066.5	14980581	0	7/3/2012	TR	Removed from site
AC-01	G09-030	1360100.5	14980581.5	CH3	515.6 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR	Blown in Place - Determined to be MDAS	40	6	1360101	14980581.5	6	7/4/2012	TR	Removed from site
AC-01	G09-045	1360074.75	14980593.75	CH3	5.61 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		0.02	0	1360074.75	14980593.75	0	7/3/2012	TR	Removed from site
AC-01	G09-050	1360038.25	14980602.5	CH3	304.58 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	6	1360038.75	14980602.5	0	7/3/2012	TR	Removed from site
AC-01	G09-052	1360066.16	14980607.31	CH3	57.23 mV	Schonstedt	Seed	2" x 8" Pipe		0.5	0	1360066.16	14980607.31	8	7/3/2012	TR	Removed from site
AC-01	G09-053	1360082.25	14980609.5	CH3	56.92 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		20	6	1360081.75	14980609.5	36	7/4/2012	TR	Removed from site
AC-01	G09-054	1360034	14980614.25	CH3	3.5 mV	Schonstedt		Shared Contact	Shared contact with target G09-57						7/3/2012	TR	NA
AC-01	G09-056	1360060.25	14980617	CH3	7.75 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR		0.5	0	1360060.25	14980617	18	7/3/2012	TR	Removed from site
AC-01	G09-057	1360032.1	14980617.19	CH3	12.64 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		10	6	1360032.1	14980616.69	48	7/3/2012	TR	Removed from site
AC-01	G09-058	1360067.25	14980651.5	CH3	26.47 mV	Schonstedt	Cultural Debris	Horseshoe		0.5	0	1360067.25	14980651.5	4	7/3/2012	TR	Removed from site
AC-01	G09-059	1360085	14980654.5	CH3	189.59 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		10	0	1360085	14980654.5	4	7/3/2012	TR	Removed from site
AC-01	G10-001	1359570	14980637.5	CH3	15.12 mV	Schonstedt	Cultural Debris	Metal Scrap		0.02	6	1359570	14980638	3	6/27/2012	TR	Removed from site
AC-01	G10-002	1359578.75	14980657.25	CH3	79.42 mV	Schonstedt	Seed	2" x 8" Pipe		0.5	9	1359579.5	14980657.25	8	6/27/2012	TR	Removed from site
AC-01	G11-002	1359450.5	14980554.75	CH3	5.26 mV	Schonstedt	No Contact	No Contact							6/27/2012	TR	NA
AC-01	G11-003	1359418	14980574	CH3	57.94 mV	Schonstedt	No Contact	No Contact							6/27/2012	TR	NA
AC-01	G11-004	1359414.25	14980575	CH3	38.54 mV	Schonstedt	Cultural Debris	Metal Scrap		1	9	1359413.5	14980575	3	6/27/2012	TR	Removed from site
AC-01	G11-005	1359412	14980589	CH3	6.5 mV	Schonstedt	Cultural Debris	Metal Scrap		0.5	0	1359412	14980589	6	6/27/2012	TR	Removed from site
AC-01	G11-006	1359415.75	14980589.5	CH3	24.73 mV	Schonstedt	Cultural Debris	Horseshoe		0.1	3	1359415.75	14980589.75	3	6/27/2012	TR	Removed from site
AC-01	G11-007	1359427.25	14980613.75	CH3	7.67 mV	Schonstedt	Cultural Debris	Metal Scrap		0.02	0	1359427.25	14980613.75	3	6/27/2012	TR	Removed from site
AC-01	G11-008	1359424	14980628.5	CH3	84.09 mV	Schonstedt	Seed	2" x 8" Pipe		0	3	1359424	14980628.25	8	6/27/2012	TR	Removed from site
AC-01	G12-001	1360406.5	14980710.25	CH3	6.82 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360406.5	14980710.25	60	7/11/2012	TR	Removed from site
AC-01	G12-002	1360334.75	14980710.5	CH3	4.45 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	9	1360334.75	14980711.25	45	7/11/2012	TR	Removed from site
AC-01	G12-003	1360433.75	14980711	CH3	4.36 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	3	1360434	14980711	48	7/11/2012	TR	Removed from site
AC-01	G12-004	1360412.5	14980712.5	CH3	5.22 mV	Schonstedt	Cultural Debris	Hot rock		1	0	1360412.5	14980712.5	42	7/11/2012	TR	Removed from site
AC-01	G12-005	1360438.28	14980714.81	CH3	11.32 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	9	1360439.03	14980714.81	42	7/11/2012	TR	Removed from site
AC-01	G12-006	1360382.75	14980717.25	CH3	4.98 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		0.5	0	1360382.75	14980717.25	2	7/10/2012	TR	Removed from site
AC-01	G12-007	1360409.5	14980718	CH3	1258.87 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR	Blown in Place - Determined to be MDAS	40	0	1360409.5	14980718	2	7/11/2012	TR	Removed from site
AC-01	G12-008	1360428.25	14980718	CH3	61.01 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		25	6	1360428.75	14980718	42	7/11/2012	TR	Removed from site
AC-01	G12-009	1360437.75	14980718.5	CH3	9.56 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360437.75	14980718.5	42	7/11/2012	TR	Removed from site
AC-01	G12-010	1360366	14980723	CH3	8.34 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		40	3	1360366.25	14980723	60	7/11/2012	TR	Removed from site
AC-01	G12-011	1360374	14980724.5	CH3	27.03 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		0.5	0	1360374	14980724.5	2	7/10/2012	TR	Removed from site
AC-01	G12-012	1360344.5	14980726.75	CH3	40.1 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		0.5	6	1360344.5	14980727.25	2	7/10/2012	TR	Removed from site
AC-01	G12-013	1360340.75	14980729.5	CH3	3.91 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360340.75	14980729.5	36	7/11/2012	TR	Removed from site
AC-01	G12-014	1360331.25	14980731	CH3	13.34 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		2	0	1360331.25	14980731	30	7/11/2012	TR	Removed from site
AC-01	G12-015	1360393.5	14980731	CH3	4.79 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	3	1360393.25	14980731	36	7/11/2012	TR	Removed from site
AC-01	G12-016	1360437.75	14980732.5	CH3	15.23 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		60	0	1360437.75	14980732.5	60	7/11/2012	TR	Removed from site
AC-01	G12-017	1360371.12	14980735.8	CH3	10.53 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		2.5	3	1360371.12	14980735.55	8	7/10/2012	TR	Removed from site
AC-01	G12-018	1360424.75	14980737	CH3	8.53 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360424.75	14980737	48	7/10/2012	TR	Removed from site
AC-01	G12-019	1360336	14980738.25	CH3	5.18 mV	Schonstedt	MDAS	Misc. Rocket Components		4	0	1360336	14980738.25	8	7/20/2012	TR	Removed from site
AC-01	G12-020	1360358	14980738.5	CH3	57.15 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		4	3	1360358.25	14980738.5	2	7/10/2012	TR	Removed from site
AC-01	G12-021	1360396.75	14980742.75	CH3	4.79 mV	Schonstedt		Shared Contact	Shared contact with target G12-23						7/11/2012	TR	NA
AC-01	G12-022	1360419	14980744.25	CH3	9.33 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		40	0	1360419	14980744.25	60	7/11/2012	TR	Removed from site
AC-01	G12-023	1360398	14980745	CH3	4.54 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		40	9	1360398	14980745.75	60	7/11/2012	TR	Removed from site
AC-01	G12-024	1360429.5	14980745.25	CH3	17.17 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		0.5	0	1360429.5	14980745.25	0	7/10/2012	TR	Removed from site
AC-01	G12-025	1360411.25	14980746.5	CH3	6.23 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360411.25	14980746.5	36	7/11/2012	TR	Removed from site
AC-01	G12-026	1360432.25	14980749.5	CH3	6.07 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		0.5	6	1360432.25	14980750	6	7/10/2012	TR	Removed from site

Appendix G
Target Anomaly Dig List
Nantucket Beach FUDS Remedial Investigation
Nantucket, Massachusetts

		Geophysical Survey Information				Dig Results											
Anomaly Cluster/ MRS	Unique Target ID	Easting Coord. (USft)	Northing Coord. (USft)	Channel ID	Amplitude Response	Reacquisition Instrument	Item Category	Item Type	Description	Approx. Weight (lbs)	Offset: Distance (in)	Item Easting Coord. (USft)	Item Northing Coord. (USft)	Depth: Top of Item (in)	Dig Date	Team Leader Initials	Final Disposition
AC-01	G12-027	1360373.28	14980750.5	CH3	9.05 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		0.5	9	1360374.03	14980750.5	0	7/11/2012	TR	Removed from site
AC-01	G12-028	1360372.75	14980750	CH3	9.02 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	3	1360372.5	14980750	36	7/11/2012	TR	Removed from site
AC-01	G12-029	1360398.5	14980750.25	CH3	3.49 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		5	0	1360398.5	14980750.25	42	7/10/2012	TR	Removed from site
AC-01	G12-030	1360371.75	14980754.5	CH3	11.24 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		1.5	3	1360371.5	14980754.5	6	7/10/2012	TR	Removed from site
AC-01	G12-031	1360344.75	14980756.75	CH3	53.75 mV	Schonstedt	MDAS	Misc. Rocket Components		0.5	0	1360344.75	14980756.75	1	7/20/2012	TR	Removed from site
AC-01	G12-032	1360415	14980760.5	CH3	5.71 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	6	1360415	14980761	39	7/11/2012	TR	Removed from site
AC-01	G12-033	1360361.5	14980761.75	CH3	61.68 mV	Schonstedt	MDAS	Misc. Rocket Components		1.5	0	1360361.5	14980761.75	0	7/20/2012	TR	Removed from site
AC-01	G12-034	1360335.5	14980764.75	CH3	6.63 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		2	6	1360335	14980764.75	24	7/11/2012	TR	Removed from site
AC-01	G12-035	1360382	14980766.5	CH3	67.85 mV	Schonstedt	Seed	2" x 8" Pipe		1.5	0	1360382	14980766.5	8	7/10/2012	TR	Removed from site
AC-01	G12-036	1360429	14980770.75	CH3	29.68 mV	Schonstedt	MDAS	Misc. Rocket Components		15	9	1360429	14980771.5	51	7/20/2012	TR	Removed from site
AC-01	G12-037	1360387.5	14980778	CH3	4.85 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360387.5	14980778	60	7/10/2012	TR	Removed from site
AC-01	G12-038	1360387.75	14980781.5	CH3	4.64 mV	Schonstedt		Shared Contact	Shared contact with target G12-37						7/10/2012	TR	NA
AC-01	G12-039	1360341.75	14980792.75	CH3	3.83 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	6	1360342.25	14980792.75	36	7/10/2012	TR	Removed from site
AC-01	G12-040	1360341.25	14980796.75	CH3	4.88 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360341.25	14980796.75	36	7/10/2012	TR	Removed from site
AC-01	G12-041	1360396.5	14980796.75	CH3	220.33 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		40	0	1360396.5	14980796.75	42	7/10/2012	TR	Removed from site
AC-01	G12-042	1360365.5	14980797.5	CH3	3.69 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	3	1360365.75	14980797.5	42	7/10/2012	TR	Removed from site
AC-01	G12-043	1360396.25	14980806.75	CH3	11.8 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		0.5	9	1360397	14980806.75	0	7/3/2012	TR	Removed from site
AC-01	G12-044	1360361.5	14980814	CH3	7.05 mV	Schonstedt	Cultural Debris	Nail		0.02	6	1360362	14980814	4	7/3/2012	TR	Removed from site
AC-01	G12-045	1360373.98	14980707.95	CH3	23.54 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360373.98	14980707.95	36	7/11/2012	TR	Removed from site
AC-01	G12-046	1360345.34	14980708.38	CH3	5.63 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		1	0	1360345.34	14980708.38	42	7/11/2012	TR	Removed from site
AC-01	G12-047	1360377.45	14980753.82	CH3	6.51 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		40	3	1360377.2	14980753.82	60	7/10/2012	TR	Removed from site
AC-01	G13-001	1360805.5	14980905.5	CH3	3.7 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	6	1360805.5	14980905	48	7/9/2012	TR	Removed from site
AC-01	G13-002	1360808.25	14980907	CH3	4.68 mV	Schonstedt		Shared Contact	Shared contact with target G13-1						7/9/2012	TR	NA
AC-01	G13-003	1360757.25	14980910	CH3	78.52 mV	Schonstedt	Seed	2" x 8" Pipe		0.5	6	1360756.75	14980910	8	7/9/2012	TR	Removed from site
AC-01	G14-001	1360105	14980921.75	CH3	15.76 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360105	14980921.75	36	7/6/2012	TR	Removed from site
AC-01	G14-003	1360154.5	14980941	CH3	5.44 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	3	1360154.5	14980941.25	60	7/6/2012	TR	Removed from site
AC-01	G14-004	1360098	14980944.75	CH3	59.61 mV	Schonstedt	Seed	2" x 8" Pipe		0.5	3	1360098.25	14980944.75	8	7/10/2012	TR	Removed from site
AC-01	G14-005	1360108.5	14980981.25	CH3	220.06 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		40	0	1360108.5	14980981.25	3	7/10/2012	TR	Removed from site
AC-01	G14-006	1360095.68	14980937.93	CH3	11.38 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		25	9	1360096.43	14980937.93	48	7/6/2012	TR	Removed from site
AC-01	G14-007	1360111.4	14980906.88	CH3	2.87 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		0.5	6	1360111.9	14980906.88	0	7/10/2012	TR	Removed from site
AC-01	G15-001	1359540.75	14980955.25	CH3	3.05 mV	Schonstedt	No Contact	No Contact							6/27/2012	TR	NA
AC-01	G15-002	1359606	14980995.25	CH3	16.99 mV	Schonstedt	Cultural Debris	Metal Scrap		0.5	0	1359606	14980995.25	0	6/27/2012	TR	Removed from site
AC-01	G15-003	1359608	14980996.25	CH3	21.57 mV	Schonstedt	No Contact	No Contact				1359608			6/27/2012	TR	NA
AC-01	G15-004	1359604.25	14980997	CH3	44.18 mV	Schonstedt	Cultural Debris	Metal Scrap		1	0	1359604.25	14980997	6	6/27/2012	TR	Removed from site
AC-01	G15-005	1359572.25	14981029	CH3	108.7 mV	Schonstedt	Seed	2" x 8" Pipe		0.5	3	1359572.5	14981029	8	6/27/2012	TR	Removed from site
AC-01	G16-001	1359261	14980845	CH3	32.46 mV	Schonstedt	Cultural Debris	Survey Monument		0	0	1359261	14980845	0	6/27/2012	TR	Left in place
AC-01	G16-002	1359228.5	14980888.5	CH3	8.57 mV	Schonstedt		Shared Contact	Shared contact with target G16-4						6/27/2012	TR	NA
AC-01	G16-003	1359230.5	14980890.75	CH3	10 mV	Schonstedt		Shared Contact	Shared contact with target G16-4						6/27/2012	TR	NA
AC-01	G16-004	1359229	14980891	CH3	6.97 mV	Schonstedt	Cultural Debris	Metal Scrap		0.5	3	1359229	14980891.25	4	6/27/2012	TR	Removed from site
AC-01	G16-005	1359257	14980898.75	CH3	71.36 mV	Schonstedt	Seed	2" x 8" Pipe		0.5	3	1359257.25	14980898.75	8	6/27/2012	TR	Removed from site
AC-01	G16-006	1359218.5	14980935.5	CH3	4.17 mV	Schonstedt	Cultural Debris	Metal Scrap		0.1	6	1359218	14980935.5	0	6/27/2012	TR	Removed from site
AC-01	G16-007	1359218.99	14980837.38	CH3	2.38 mV	Schonstedt	No Contact	No Contact							6/27/2012	TR	NA
AC-01	G17-001	1360159.5	14981203.5	CH3	111.37 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	6	1360160	14981203.5	0	7/10/2012	TR	Removed from site
AC-01	G17-002	1360140.25	14981236.75	CH3	25.05 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		1	3	1360140.5	14981236.75	6	7/10/2012	TR	Removed from site
AC-01	G17-003	1360175.25	14981243.75	CH3	67.03 mV	Schonstedt	Seed	2" x 8" Pipe		0.5	9	1360176	14981243.75	8	7/10/2012	TR	Removed from site
AC-01	G17-004	1360119.75	14981248.5	CH3	13.33 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360119.75	14981248.5	24	7/10/2012	TR	Removed from site
AC-01	G17-005	1360120	14981252	CH3	15.65 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360120	14981252	24	7/10/2012	TR	Removed from site
AC-01	G17-006	1360159	14981268.25	CH3	11.83 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360159	14981268.25	30	7/10/2012	TR	Removed from site
AC-01	G17-007	1360148	14981272.25	CH3	32.53 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		1	6	1360148.5	14981272.25	3	7/10/2012	TR	Removed from site
AC-01	G18-001	1359783.75	14981257.25	CH3	3.84 mV	Schonstedt	Cultural Debris	Metal Scrap		0.5	0	1359783.75	14981257.25	9	6/27/2012	TR	Removed from site
AC-01	G18-002	1359799.5	14981259.75	CH3	4.59 mV	Schonstedt	Cultural Debris	Metal Scrap		0.1	6	1359800	14981259.75	0	6/27/2012	TR	Removed from site
AC-01	G18-003	1359799.25	14981262.5	CH3	10.13 mV	Schonstedt	Cultural Debris	Horseshoe		1	0	1359799.25	14981262.5	6	6/27/2012	TR	Removed from site
AC-01	G18-005	1359832.75	14981271.44	CH3	81.03 mV	Schonstedt	Seed	2" x 8" Pipe		0.5	0	1359832.75	14981271.44	8	6/27/2012	TR	Removed from site
AC-01	G19-001	1359562.25	14981177.25	CH3	4.53 mV	Schonstedt	No Contact	No Contact							6/27/2012	TR	NA
AC-01	G19-003	1359640	14981210.75	CH3	73.48 mV	Schonstedt	Seed	2" x 8" Pipe		1	0	1359640	14981210.75	8	6/27/2012	TR	Removed from site
AC-01	G20-001	1360048.94	14981497.74	CH3	13.13 mV	Schonstedt	Cultural Debris	Horseshoe		1	0	1360048.94	14981497.74	6	6/27/2012	TR	Removed from site
AC-01	G20-003	1360066	14981518.25	CH3	61.06 mV	Schonstedt	Seed	2" x 8" Pipe		1	0	1360066	14981518.25	6	6/27/2012	TR	Removed from site
AC-01	G20-006	1360078.87	14981561.29	CH3	11.5 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		10	0	1360078.87	14981561.29	33	6/27/2012	TR	Removed from site
AC-01	G21-001	1361471.75	14980301.25	CH3	4.75 mV	Schonstedt	Cultural Debris	Wire		0.01	3	1361471.75	14980301	3	7/9/2012	TR	Removed from site
AC-01	G21-002	1361474	14980302.5	CH3	3.83 mV	Schonstedt		Shared Contact	Shared contact with target G21-1						7/9/2012	TR	NA
AC-01	G21-003	1361521.57	14980317.09	CH3	41.16 mV	Schonstedt	Cultural Debris	Metal Scrap		0.5	0	1361521.57	14980317.09	0	7/9/2012	TR	Removed from site
AC-01	G21-004	1361444.5	14980329	CH3	10.57 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	6	1361444.5	14980329.5	36	7/9/2012	TR	Removed from site
AC-01	G21-005	1361473.75	14980353	CH3	70.78 mV	Schonstedt	Seed	2" x 8" Pipe		0.5	0	1361473.75	14980353	8	7/9/2012	TR	Removed from site
AC-01	G21-007	1361505.25	14980379.75	CH3	21.7 mV	Schonstedt	Cultural Debris	Horseshoe		0.5	0	1361505.25	14980379.75	2	7/9/2012	TR	Removed from site
AC-01	T01-000	1360124.11	14979794.52	CH3	2.01 mV	Schonstedt	No Contact	No Contact							6/21/2012	TR	NA
AC-01	T01-001	1360278.42	14979772.63	CH3	12.92 mV	Schonstedt	Cultural Debris	Metal Scrap		0.1	0	1360278.42	14979772.63	6	6/21/2012	TR	Removed from site
AC-01	T02-000	1360280.45	14979852.43	CH3	4.49 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR		10	0	1360280.45	14979852.43	30	6/21/2012	TR	Removed from site
AC-01	T02-001	1360215.13	14979864.7	CH3	16.81 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		6	0	1360215.13	14979864.7	24	6/21/2012	TR	Removed from site
AC-01	T02-002	1360168.36	14979872.22	CH3	2.32 mV	Schonstedt	Cultural Debris	Metal Scrap		0.1	0	1360168.36	14979872.22	24	6/21/2012	TR	Removed from site
AC-01	T03-000	1360217.79	14979906.48	CH3	113.34 mV	Schonstedt	Cultural Debris	Metal Scrap	Bluff area. Cleared to 3 ft. Contacts remain below 3 ft.	1	0	1360217.79	14979906.48	12	7/20/2012	TR	Removed from site
AC-01	T03-000	1360217.79	14979906.48	CH3	113.34 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR	Blown in Place - Determined to be MDAS. Bluff area. Cleared to 3 ft. Contacts remain below 3 ft.	60	0	1360217.79	14979906.48	36	7/26/2012	TR	Removed from site
AC-01	T03-001	1360230.88	14979904.17	CH3	4.78 mV	Schonstedt	MDAS	Misc. Rocket Components		1	0	1360230.88	14979904.17	1	7/11/2012	TR	Removed from site
AC-01	T03-002	1360243.65	14979902.34	CH3	31.24 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		1	0	1360243.65	14979902.34	3	7/11/2012	TR	Removed from site
AC-01	T03-003	1360254.02	14979900.96	CH3	77.82 mV	Schonstedt	MDAS	Misc. Rocket Components	Bluff area. Cleared to 3 ft. Contacts remain below 3 ft.	0	0	1360254.02	14979900.96	24	7/20/2012	TR	Removed from site
AC-01	T03-004	1360266.17	14979899.03	CH3	105.52 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	3	1360266.17	14979898.78	4	7/11/2012	TR	Removed from site
AC-01	T03-005	1360277.58	14979897.61	CH3	135.6 mV	Schonstedt	MDAS	Misc. Rocket Components	Bluff area. Cleared to 3 ft. Contacts remain below 3 ft.	0	6	1360277.58	14979898.11	24	7/20/2012	TR	Removed from site
AC-01	T03-006	1360286.88	14979895.74	CH3	216.67 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		60	0	1360286.88	14979895.74	42	7/11/2012	TR	Removed from site
AC-01	T03-007	1360292.27	14979894.42	CH3	138.38 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		40	9	1360291.52	14979894.42	8	7/11/2012	TR	Removed from site
AC-01	T03-008	1360300.99	14979892.73	CH3	57 mV	Schonstedt	MDAS	Misc. Rocket Components	Bluff area. Cleared to 3 ft. Contacts remain below 3 ft.	0	0	1360300.99	14979892.73	24	7/20/2012	TR	Removed from site
AC-01	T03-009	1360306.12	14979892.03	CH3	94.08 mV	Schonstedt	MDAS	Misc. Rocket Components	Bluff area. Cleared to 3 ft. Contacts remain below 3 ft.	0	0	1360306.12	14979892.03	24	7/20/2012	TR	Removed from site
AC-01	T03-010	1360312.27	14979890.49	CH3	131.86 mV	Schonstedt	MDAS	Misc. Rocket Components	Bluff area. Cleared to 3 ft. Contacts remain below 3 ft.	0	0	1360312.27	14979890.49	24	7/20/2012	TR	Removed from site
AC-01	T03-011	1360321.69	14979887.93	CH3	112 mV	Schonstedt	MDAS	Misc. Rocket Components	Bluff area. Cleared to 3 ft. Contacts remain below 3 ft.	0	0	1360321.69	14979887.93	24	7/20/2012	TR	Removed from site
AC-01	T03-012	1360330.93	14979885.87	CH3	159.8 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		10	0	1360330.93	14979885.87	6	7/11/2012	TR	Removed from site
AC-01	T03-013	1360335.56	14979885.53	CH3	60.61 mV	Schonstedt	MDAS	Misc. Rocket Components	Bluff area. Cleared to 3 ft. Contacts remain below 3 ft.	0	3	1360335.31	14979885.53	24	7/20/2012	TR	Removed from site
AC-01	T03-014	1360341.96	14979884.96	CH3	31.58 mV	Schonstedt	MDAS	Misc. Rocket Components	Bluff area. Cleared to 3 ft. Contacts remain below 3 ft.	0	3	1360341.71	14979884.96	24	7/20/2012	TR	Removed from site
AC-01	T03-015	1360354.49	14979883.59	CH3	24.23 mV	Schonstedt	MDAS	Misc. Rocket Components	Bluff area. Cleared to 3 ft. Contacts remain below 3 ft.	0	0	1360354.49	14979883.59	24	7/20/2012	TR	Removed from site
AC-01	T03-016	1360359.46	14979882.77	CH3	27.58 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		1	0	1360359.46	14979882.77	6	7/11/2012	TR	Removed from site
AC-01	T03-017	1360363.05	14979882.56	CH3	31.28 mV	Schonstedt	MDAS	Misc. Rocket Components	Bluff area. Cleared to 3 ft. Contacts remain below 3 ft.	0	0	1360363.05	14979882.56	24	7/20/2012	TR	Removed from site
AC-01	T03-018	1360375.96	14979880.71	CH3	174.5 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	6	1360375.46	14979880.71	0	7/11/2012	TR	Removed from site
AC-01	T03-019	1360381.86	14979880.33	CH3	75.23 mV	Schonstedt	MDAS	Misc. Rocket Components	Bluff area. Cleared to 3 ft. Contacts remain below 3 ft.	0	6	1360381.36	14979880.33	24	7/20/2012	TR	Removed from site
AC-01	T03-020	1360385.07	14979880.05	CH3	46.08 mV	Schonstedt	MDAS	Misc. Rocket Components	Bluff area. Cleared to 3 ft. Contacts remain below 3 ft.	0	0	1360385.07	14979880.05	24	7/20/2012	TR	Removed from site
AC-01	T03-021	1360402.17	14979878.07	CH3	990.27 mV	Schonstedt	MDAS	Misc. Rocket Components	Bluff area. Cleared to 3 ft. Contacts remain below 3 ft.	0	6	1360402.17	14979877.57	24	7/20/2012	TR	Removed from site
AC-01	T03-022	1360412.32	14979876.82	CH3	13.52 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		10	3	1360412.57	14979876.82	3	7/11/2012	TR	Removed from site
AC-01	T03-023	1360422.36	14979876.04	CH3	73.32 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		10	6	1360422.36	14979875.54	3	7/11/2012	TR	Removed from site
AC-01	T03-024	1360440.37	14979874.04	CH3	55.68 mV	Schonstedt	MDAS	Misc. Rocket Components	Bluff area. Cleared to 3 ft. Contacts remain below 3 ft.	0	6	1360439.87	14979874.04	24	7/20/2012	TR	Removed from site

Appendix G
Target Anomaly Dig List
Nantucket Beach FUDS Remedial Investigation
Nantucket, Massachusetts

		Geophysical Survey Information				Dig Results											
Anomaly Cluster/ MRS	Unique Target ID	Easting Coord. (USft)	Northing Coord. (USft)	Channel ID	Amplitude Response	Reacquisition Instrument	Item Category	Item Type	Description	Approx. Weight (lbs)	Offset: Distance (in)	Item Easting Coord. (USft)	Item Northing Coord. (USft)	Depth: Top of Item (in)	Dig Date	Team Leader Initials	Final Disposition
AC-01	T03-025	1360454.81	14979871.98	CH3	233.49 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR	Blown in Place - Determined to be MDAS. Bluff area. Cleared to 3 ft. Contacts remain below 3 ft.	60	0	1360454.81	14979871.98	18	7/26/2012	TR	Removed from site
AC-01	T03-026	1360462.1	14979871.54	CH3	8.55 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		0.5	3	1360462.35	14979871.54	3	7/11/2012	TR	Removed from site
AC-01	T03-027	1360473.36	14979869.79	CH3	12.14 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		0.5	6	1360472.86	14979869.79	6	7/11/2012	TR	Removed from site
AC-01	T03-028	1360485.03	14979867.22	CH3	350.38 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		8	3	1360485.03	14979866.97	8	7/11/2012	TR	Removed from site
AC-01	T03-029	1360494.6	14979865.32	CH3	12.19 mV	Schonstedt	MDAS	Misc. Rocket Components	Bluff area. Cleared to 3 ft. Contacts remain below 3 ft.	0	6	1360494.1	14979865.32	24	7/20/2012	TR	Removed from site
AC-01	T03-030	1360519.36	14979860.81	CH3	4.34 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR	Bluff area. Cleared to 3 ft. Contacts remain below 3 ft.	0	6	1360519.36	14979860.31	24	7/20/2012	TR	Removed from site
AC-01	T03-031	1360526.66	14979859.82	CH3	82.54 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	0	1360526.66	14979859.82	2	7/11/2012	TR	Removed from site
AC-01	T03-032	1360558.88	14979853.37	CH3	22.9 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		40	0	1360558.88	14979853.37	3	7/11/2012	TR	Removed from site
AC-01	T04-000	1360499.21	14980158.19	CH3	11.3 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		60	6	1360499.21	14980158.69	60	7/9/2012	TR	Removed from site
AC-01	T04-001	1360512.78	14980152.81	CH3	20.69 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR	Blown in Place - Determined to be MDAS	60	0	1360512.78	14980152.81	48	7/9/2012	TR	Removed from site
AC-01	T04-002	1360524.28	14980148.63	CH3	3.53 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		40	6	1360524.28	14980148.13	48	7/9/2012	TR	Removed from site
AC-01	T04-003	1360533.42	14980144.87	CH3	3.16 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		0.5	6	1360533.92	14980144.87	6	7/10/2012	TR	Removed from site
AC-01	T04-004	1360540.14	14980141.57	CH3	2.75 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		0.5	9	1360540.14	14980140.82	30	7/10/2012	TR	Removed from site
AC-01	T04-005	1360503.72	14980156.55	CH3	3.65 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360503.72	14980156.55	60	7/9/2012	TR	Removed from site
AC-01	T04-006	1360507.65	14980155.16	CH3	3.23 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR		40	3	1360507.9	14980155.16	60	7/9/2012	TR	Removed from site
AC-01	T05-000	1359606.68	14980421.06	CH3	15.94 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		2.5	3	1359606.68	14980421.31	12	7/9/2012	TR	Removed from site
AC-01	T05-001	1359546.17	14980439.95	CH3	2.58 mV	Schonstedt	Cultural Debris	Cable		1.5	3	1359546.17	14980439.7	4	7/9/2012	TR	Removed from site
AC-01	T05-002	1359529.32	14980445.1	CH3	33.74 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		10	6	1359528.82	14980445.1	27	7/9/2012	TR	Removed from site
AC-01	T05-003	1359308.84	14980514.34	CH3	3.64 mV	Schonstedt	Cultural Debris	Fencing/Fence Post			0	1359308.84	14980514.34	6	7/9/2012	TR	Left in place
AC-01	T05-004	1359260.35	14980533.01	CH3	4.68 mV	Schonstedt	Cultural Debris	Metal Scrap		0.5	9	1359261.1	14980533.01	2	7/9/2012	TR	Removed from site
AC-01	T05-005	1359233.08	14980541.4	CH3	17.12 mV	Schonstedt	Cultural Debris	Metal Scrap		0.5	9	1359233.08	14980540.65	6	7/9/2012	TR	Removed from site
AC-01	T05-006	1359211.21	14980547.74	CH3	3.36 mV	Schonstedt	Cultural Debris	Vehicle Part		2.5	0	1359211.21	14980547.74	6	7/9/2012	TR	Removed from site
AC-01	T05-007	1359188.81	14980555.78	CH3	47.37 mV	Schonstedt	Cultural Debris	Concrete		0	0	1359188.81	14980555.78	36	7/9/2012	TR	Left in place
AC-01	T06-000	1360474.91	14980510.23	CH3	8.49 mV	Schonstedt	No Contact	No Contact							7/10/2012	TR	NA
AC-01	T06-001	1360435.42	14980524.4	CH3	8.84 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		1	9	1360435.42	14980523.65	0	7/10/2012	TR	Removed from site
AC-01	T06-002	1360423.08	14980531.67	CH3	20.68 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR	Blown in Place - Determined to be MDAS	40	0	1360423.08	14980531.67	4	7/10/2012	TR	Removed from site
AC-01	T06-003	1360408.25	14980540.69	CH3	2.56 mV	Schonstedt	No Contact	No Contact							7/10/2012	TR	NA
AC-01	T06-004	1360396.82	14980546.09	CH3	3.47 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR		0.5	0	1360396.82	14980546.09	1	7/20/2012	TR	Removed from site
AC-01	T06-005	1360387.56	14980549.47	CH3	6.59 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		40	3	1360387.31	14980549.47	39	7/10/2012	TR	Removed from site
AC-01	T06-006	1360375.54	14980552.79	CH3	3.44 mV	Schonstedt	No Contact	No Contact							7/10/2012	TR	NA
AC-01	T06-007	1360356.92	14980559.4	CH3	2.42 mV	Schonstedt	No Contact	No Contact							7/10/2012	TR	NA
AC-01	T06-008	1360347.72	14980562.05	CH3	6.25 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		25	3	1360347.97	14980562.05	39	7/10/2012	TR	Removed from site
AC-01	T06-009	1360338.23	14980565.16	CH3	8.61 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		1	3	1360338.23	14980564.91	3	7/10/2012	TR	Removed from site
AC-01	T06-010	1360323.79	14980573.14	CH3	17.27 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		25	0	1360323.79	14980573.14	60	7/6/2012	TR	Removed from site
AC-01	T06-011	1360315.98	14980578.17	CH3	3.9 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		25	0	1360315.98	14980578.17	60	7/10/2012	TR	Removed from site
AC-01	T06-012	1360301.35	14980583.09	CH3	3.79 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	3	1360301.35	14980583.34	48	7/6/2012	TR	Removed from site
AC-01	T06-013	1360294.39	14980583.89	CH3	4.16 mV	Schonstedt	No Contact	No Contact							7/10/2012	TR	NA
AC-01	T06-014	1360180.35	14980639.56	CH3	6.97 mV	Schonstedt	No Contact	No Contact							7/10/2012	TR	NA
AC-01	T06-015	1360190.68	14980630.92	CH3	5.53 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		30	6	1360190.18	14980630.92	60	7/6/2012	TR	Removed from site
AC-01	T07-000	1359239.51	14980710.63	CH3	75.43 mV	Schonstedt	Cultural Debris	Metal Scrap		10	0	1359239.51	14980710.63	48	6/27/2012	TR	Removed from site
AC-01	T07-001	1359875.15	14980676.58	CH3	5.09 mV	Schonstedt	Cultural Debris	Metal Scrap		1.5	0	1359875.15	14980676.58	4	6/27/2012	TR	Removed from site
AC-01	T08-000	1360193.96	14980807.62	CH3	4.71 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	6	1360193.96	14980808.12	57	7/18/2012	TR	Removed from site
AC-01	T08-001	1360130.88	14980805.17	CH3	71.6 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		0.5	9	1360130.88	14980804.42	2	7/18/2012	TR	Removed from site
AC-01	T08-002	1359877.11	14980784.57	CH3	3.09 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		0.5	0	1359877.11	14980784.57	6	7/18/2012	TR	Removed from site
AC-01	T08-003	1359794.03	14980813.75	CH3	4.57 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		0.5	6	1359794.53	14980813.75	4	7/18/2012	TR	Removed from site
AC-01	T08-004	1359661.59	14980847.7	CH3	2.36 mV	Schonstedt	Cultural Debris	Hot rock		4	0	1359661.59	14980847.7	3	7/18/2012	TR	Left in place
AC-01	T08-005	1359098.16	14980817.21	CH3	4.06 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1359098.16	14980817.21	33	7/18/2012	TR	Removed from site
AC-01	T09-000	1360043.46	14980874.85	CH3	92.92 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		0.5	0	1360043.46	14980874.85	1	7/9/2012	TR	Removed from site
AC-01	T09-001	1359925.56	14980881.65	CH3	5.02 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		1	0	1359925.56	14980881.65	27	7/9/2012	TR	Removed from site
AC-01	T09-002	1359885.24	14980880.13	CH3	4.89 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1359885.24	14980880.13	36	7/9/2012	TR	Removed from site
AC-01	T09-003	1359807.3	14980876.56	CH3	399.97 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	3	1359807.3	14980876.81	0	7/9/2012	TR	Removed from site
AC-01	T10-000	1359533.14	14981089.83	CH3	10.7 mV	Schonstedt	Cultural Debris	Metal Scrap		0.5	9	1359532.39	14981089.83	0	7/10/2012	TR	Removed from site
AC-01	T10-001	1359822.83	14981087.9	CH3	3.42 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		0.02	0	1359822.83	14981087.9	4	7/10/2012	TR	Removed from site
AC-01	T10-002	1360422.95	14981089.18	CH3	10.02 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR	Blown in Place - Determined to be MDAS	40	9	1360422.95	14981089.93	6	7/10/2012	TR	Removed from site
AC-01	T10-003	1360358.02	14981083.17	CH3	10.15 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		4	3	1360358.27	14981083.17	21	7/10/2012	TR	Removed from site
AC-01	T10-004	1360232.23	14981093.01	CH3	14.91 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		60	6	1360231.73	14981093.01	48	7/10/2012	TR	Removed from site
AC-01	T10-005	1360216.9	14981093.84	CH3	31.02 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		60	0	1360216.9	14981093.84	48	7/10/2012	TR	Removed from site
AC-01	T10-006	1360214.82	14981093.38	CH3	32.38 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		60	0	1360214.82	14981093.38	48	7/10/2012	TR	Removed from site
AC-01	T10-007	1360213.23	14981093.42	CH3	19.08 mV	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		40	3	1360213.48	14981093.42	60	7/10/2012	TR	Removed from site
AC-01	T11-000	1360156.23	14981370.83	CH3	5.75 mV	Schonstedt	MDAS	Rocket, 5 inch, HVAR	Blown in Place - Determined to be MDAS	40	9	1360156.23	14981370.08	24	7/10/2012	TR	Removed from site
AC-01	T11-001	1359622.87	14981369.54	CH3	26.38 mV	Schonstedt	MDAS	Frag		0.5	6	1359622.87	14981370.04	6	7/10/2012	TR	Removed from site
AC-01	T12-000	1359598.35	14981455.1	CH3	139.99 mV	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		2.5	6	1359598.85	14981455.1	4	6/28/2012	TR	Removed from site
AC-01	T12-001	1359604.46	14981447.55	CH3	2.67 mV	Schonstedt	Cultural Debris	Metal Scrap		1	9	1359603.71	14981447.55	3	6/28/2012	TR	Removed from site
AC-01	T12-002	1359672.65	14981437.46	CH3	4.97 mV	Schonstedt	Cultural Debris	Metal Scrap		1	9	1359673.4	14981437.46	4	6/28/2012	TR	Removed from site
AC-01	T12-003	1360227.84	14981464.5	CH3	7.75 mV	Schonstedt	Cultural Debris	Nail		0.01	3	1360227.59	14981464.5	4	6/28/2012	TR	Removed from site
AC-01	T12-004	1360233.79	14981464.47	CH3	179 mV	Schonstedt	Cultural Debris	Fencing/Fence Post			0	1360233.79	14981464.47	0	6/28/2012	TR	Left in place
AC-01	T12-005	1360242.2	14981464.92	CH3	8.74 mV	Schonstedt	Cultural Debris	Fencing/Fence Post			0	1360242.2	14981464.92	0	6/28/2012	TR	Left in place
AC-01	T12-006	1360254.51	14981465.03	CH3	284.86 mV	Schonstedt	Cultural Debris	Fencing/Fence Post			0	1360254.51	14981465.03	0	6/28/2012	TR	Left in place
AC-01	T12-007	1360265.22	14981465.47	CH3	7.58 mV	Schonstedt	Cultural Debris	Nail		0.01	6	1360265.22	14981464.97	2	6/28/2012	TR	Removed from site
AC-01	T13-000	1360363.02	14981599.82	CH3	81.17 mV	Schonstedt	Cultural Debris	Fencing/Fence Post			0	1360363.02	14981599.82	0	6/28/2012	TR	Left in place
AC-01	T13-001	1360349.13	14981594.2	CH3	5.28 mV	Schonstedt	Cultural Debris	Nail		0.01	3	1360349.13	14981593.95	0	6/28/2012	TR	Removed from site
AC-01	T13-002	1359910.93	14981633.73	CH3	2.35 mV	Schonstedt	Cultural Debris	Metal Scrap		0.01	0	1359910.93	14981633.73	8	6/28/2012	TR	Removed from site
AC-01	T16-000	1358708.32	14980178.8	CH3	21.71 mV	Schonstedt	Cultural Debris	Wire		0	0	1358708.32	14980178.8	6	7/10/2012	TR	Left in place
AC-01	T16-001	1358711.43	14980178.01	CH3	21.61 mV	Schonstedt	Cultural Debris	Fencing/Fence Post			0	1358711.43	14980178.01	12	7/10/2012	TR	Left in place
AC-01	T16-002	1358713.47	14980177.62	CH3	23.62 mV	Schonstedt	Cultural Debris	Fencing/Fence Post			0	1358713.47	14980177.62	12	7/10/2012	TR	Left in place
AC-02	G01-001	1355640.25	14980850.25	CH3	65.41 mV	Schonstedt	Seed	2" x 8" Pipe		0.5	0	1355640.25	14980850.25	4	6/29/2012	TR	Removed from site
AC-02	G01-002	1355662.39	14980878.75	CH3	86.5 mV	Schonstedt	Cultural Debris	Fencing/Fence Post			0	1355662.39	14980878.75	0	6/29/2012	TR	Left in place
AC-02	T03-000	1355281.96	14980852.7	CH3	80.16 mV	Schonstedt	Cultural Debris	Beach Chairs		30	0	1355281.96	14980852.7	0	7/10/2012	TR	Left in place
AC-02	T03-001	1355055.34	14980900.52	CH3	3.77 mV	Schonstedt	No Contact	No Contact							7/10/2012	TR	NA
AC-02	T03-002	1354999.56	14980912.7	CH3	33.99 mV	Schonstedt	Cultural Debris	Home Security Camera		0	6	1355000.06	14980912.7	0	7/10/2012	TR	Left in place
AC-02	T03-003	1354863.39	14980940.75	CH3	2.77 mV	Schonstedt	No Contact	No Contact							7/10/2012	TR	NA
AC-02	T04-001	1355141.27	14981169.21	CH3	3.6 mV	Schonstedt	Cultural Debris	Nail		0.01	9	1355141.27	14981169.96	0	7/10/2012	TR	Removed from site
AC-03	1024	1358302.73	14980125.88	Analytic Signal	11.21 nT	Schonstedt	No Contact	No Contact							6/21/2012	TR	NA
AC-03	1166	1358125.56	14980184.93	Analytic Signal	1.55 nT	Schonstedt	Cultural Debris	Metal Scrap		0.5	0	1358125.56	14980184.93	0	6/22/2012	TR	Removed from site
AC-03	1178	1357961.52	14980189.86	Analytic Signal	1.69 nT	Schonstedt	No Contact	No Contact							6/22/2012	TR	NA
AC-03	1201	1358312.57	14980202.98	Analytic Signal	6.47 nT	Schonstedt	Cultural Debris	Hot rock		0.1	0	1358312.57	14980202.98	18	6/21/2012	TR	Removed from site
AC-03	1221	1358115.72	14980211.18	Analytic Signal	1.72 nT	Schonstedt	No Contact	No Contact				1358115.72	14980211.18		6/22/2012	TR	NA
AC-03	1265	1358322.41	14980240.71	Analytic Signal	0.44 nT	Schonstedt	No Contact	No Contact				1358322.41	14980240.71		6/21/2012	TR	NA
AC-03	1305	1358287.97	14980257.11	Analytic Signal	0.51 nT	Schonstedt	No Contact	No Contact				1358287.97	14980257.11		6/21/2012	TR	NA
AC-03	1313	1358328.98	14980262.03	Analytic Signal	1.32 nT	Schonstedt	No Contact	No Contact				1358328.98	14980262.03		6/21/2012	TR	NA
AC-03	1323	1358038.62	14980266.96	Analytic Signal	0.3 nT	Schonstedt	Cultural Debris	Nail		0.01	0	1358038.62	14980266.96	4	6/21/2012	TR	Removed from site
AC-03	1367	1357928.71	14980281.72	Analytic Signal	74.61 nT	Schonstedt	Cultural Debris	Fencing/Fence Post			0	1357928.71	14980281.72		6/21/2012	TR	Left in place
AC-03	1375	1358138.69	14980286.64	Analytic Signal	0.4 nT	Schonstedt	Cultural Debris	Metal Scrap		1	0	1358138.69	14980286.64	3	6/21/2012	TR	Removed from site
AC-03	1390	1357904.11	14980294.84	Analytic Signal	175.91 nT	Schonstedt	Cultural Debris	Fencing/Fence Post			0	1357904.11	14980294.84	0	6/21/2012	TR	Left in place
AC-03	1406	1357930.35	14980299.76	Analytic Signal	86.87 nT	Schonstedt	Cultural Debris	Fencing/Fence Post			0	1357930.35	14980299.76	0	6/21/2012	TR	Left in place

Appendix G
Target Anomaly Dig List
Nantucket Beach FUDS Remedial Investigation
Nantucket, Massachusetts

		Geophysical Survey Information				Dig Results											
Anomaly Cluster/ MRS	Unique Target ID	Easting Coord. (USft)	Northing Coord. (USft)	Channel ID	Amplitude Response	Reacquisition Instrument	Item Category	Item Type	Description	Approx. Weight (lbs)	Offset: Distance (in)	Item Easting Coord. (USft)	Item Northing Coord. (USft)	Depth: Top of Item (in)	Dig Date	Team Leader Initials	Final Disposition
AC-03	1431	1357756.47	14980309.61	Analytic Signal	0.31 nT	Schonstedt	No Contact	No Contact							6/21/2012	TR	NA
AC-03	1438	1357945.12	14980312.89	Analytic Signal	106.58 nT	Schonstedt	Cultural Debris	Fencing/Fence Post			0	1357945.12	14980312.89	0	6/21/2012	TR	Left in place
AC-03	1439	1357900.83	14980312.89	Analytic Signal	98.42 nT	Schonstedt	Cultural Debris	Fencing/Fence Post			0	1357900.83	14980312.89	0	6/21/2012	TR	Left in place
AC-03	1440	1357986.13	14980312.89	Analytic Signal	11.33 nT	Schonstedt	Cultural Debris	Fencing/Fence Post		5	0	1357986.13	14980312.89	36	6/21/2012	TR	Removed from site
AC-03	1442	1358012.38	14980316.17	Analytic Signal	1.14 nT	Schonstedt	Cultural Debris	Nail		0.01	0	1358012.38	14980316.17	3	6/21/2012	TR	Removed from site
AC-03	1462	1358053.39	14980324.37	Analytic Signal	192.69 nT	Schonstedt	Cultural Debris	Fencing/Fence Post			0	1358053.39	14980324.37	24	6/21/2012	TR	Left in place
AC-03	1468	1357961.52	14980326.01	Analytic Signal	153.5 nT	Schonstedt	Cultural Debris	Fencing/Fence Post			0	1357961.52	14980326.01	0	6/21/2012	TR	Left in place
AC-03	1471	1357900.83	14980327.65	Analytic Signal	71.68 nT	Schonstedt	Cultural Debris	Fencing/Fence Post			0	1357900.83	14980327.65	0	6/21/2012	TR	Left in place
AC-03	1486	1358084.55	14980334.21	Analytic Signal	0.5 nT	Schonstedt	No Contact	No Contact							6/21/2012	TR	NA
AC-03	1494	1357656.41	14980339.13	Analytic Signal	0.39 nT	Schonstedt	No Contact	No Contact							6/21/2012	TR	NA
AC-03	1496	1357973.01	14980339.13	Analytic Signal	113.09 nT	Schonstedt	Cultural Debris	Fencing/Fence Post			0	1357973.01	14980339.13	0	6/21/2012	TR	Left in place
AC-03	1498	1357895.91	14980340.77	Analytic Signal	35.58 nT	Schonstedt	Cultural Debris	Fencing/Fence Post			0	1357895.91	14980340.77	0	6/21/2012	TR	Left in place
AC-03	1503	1357927.07	14980340.77	Analytic Signal	1.39 nT	Schonstedt	No Contact	No Contact							6/21/2012	TR	NA
AC-03	1507	1358018.94	14980344.06	Analytic Signal	1.1 nT	Schonstedt	Cultural Debris	Nail		0.01	0	1358018.94	14980344.06	3	6/21/2012	TR	Removed from site
AC-03	1525	1357984.49	14980350.62	Analytic Signal	63.18 nT	Schonstedt	Cultural Debris	Fencing/Fence Post			0	1357984.49	14980350.62	0	6/21/2012	TR	Left in place
AC-03	1546	1358132.13	14980362.1	Analytic Signal	4.44 nT	Schonstedt	Cultural Debris	Construction Debris		1.5	0	1358132.13	14980362.1	18	6/21/2012	TR	Removed from site
AC-03	1554	1358033.7	14980365.38	Analytic Signal	0.95 nT	Schonstedt	Cultural Debris	Wire		0.01	0	1358033.7	14980365.38	15	6/21/2012	TR	Removed from site
AC-03	1567	1358000.89	14980373.58	Analytic Signal	115.95 nT	Schonstedt	Cultural Debris	Fencing/Fence Post			0	1358000.89	14980373.58	0	6/21/2012	TR	Left in place
AC-03	1575	1357889.34	14980378.5	Analytic Signal	139.42 nT	Schonstedt	Cultural Debris	Cable			0	1357889.34	14980378.5		6/21/2012	TR	Left in place
AC-03	1584	1357848.33	14980383.43	Analytic Signal	1.07 nT	Schonstedt	Cultural Debris	Hot rock		0.1	0	1357848.33	14980383.43	4	6/21/2012	TR	Removed from site
AC-03	1585	1358055.03	14980383.43	Analytic Signal	1.38 nT	Schonstedt	Cultural Debris	Metal Scrap		0.01	0	1358055.03	14980383.43	0	6/21/2012	TR	Removed from site
AC-03	1589	1358238.75	14980385.07	Analytic Signal	0.37 nT	Schonstedt	No Contact	No Contact							6/21/2012	TR	NA
AC-03	1627	1358087.83	14980408.03	Analytic Signal	0.3 nT	Schonstedt	No Contact	No Contact							6/21/2012	TR	NA
AC-03	1631	1357892.63	14980409.67	Analytic Signal	5.48 nT	Schonstedt	Cultural Debris	Cable			0	1357892.63	14980409.67	0	6/21/2012	TR	Left in place
AC-03	1636	1358017.3	14980412.95	Analytic Signal	3.51 nT	Schonstedt	Cultural Debris	Cable			0	1358017.3	14980412.95	0	6/21/2012	TR	Left in place
AC-03	1646	1358059.95	14980417.87	Analytic Signal	0.33 nT	Schonstedt	Cultural Debris	Wire		0.02	0	1358059.95	14980417.87	6	6/21/2012	TR	Removed from site
AC-03	1657	1357828.65	14980424.44	Analytic Signal	0.93 nT	Schonstedt	Cultural Debris	Electric Line			0	1357828.65	14980424.44	0	6/21/2012	TR	Left in place
AC-03	1663	1357905.75	14980429.36	Analytic Signal	15.9 nT	Schonstedt	Cultural Debris	Cable			0	1357905.75	14980429.36		6/21/2012	TR	Left in place
AC-03	1674	1357859.82	14980435.92	Analytic Signal	7.04 nT	Schonstedt	Cultural Debris	Fencing/Fence Post			0	1357859.82	14980435.92	0	6/21/2012	TR	Left in place
AC-03	1698	1357928.71	14980447.4	Analytic Signal	8.84 nT	Schonstedt	Cultural Debris	Cable			0	1357928.71	14980447.4	0	6/21/2012	TR	Left in place
AC-03	1707	1358038.62	14980455.6	Analytic Signal	29.51 nT	Schonstedt	Cultural Debris	Cable			0	1358038.62	14980455.6	0	6/21/2012	TR	Left in place
AC-03	1712	1357833.57	14980457.24	Analytic Signal	1.77 nT	Schonstedt	Cultural Debris	Nail		0.5	0	1357833.57	14980457.24	12	6/21/2012	TR	Removed from site
AC-03	1732	1357956.6	14980467.09	Analytic Signal	9.75 nT	Schonstedt	Cultural Debris	Cable			0	1357956.6	14980467.09		6/21/2012	TR	Left in place
AC-03	1734	1358125.56	14980467.09	Analytic Signal	0.36 nT	Schonstedt	Cultural Debris	Nail		0.02	0	1358125.56	14980467.09	4	6/21/2012	TR	Removed from site
AC-03	1757	1358015.66	14980480.21	Analytic Signal	0.6 nT	Schonstedt	Cultural Debris	Nail		0.01	0	1358015.66	14980480.21	1	6/21/2012	TR	Removed from site
AC-03	1771	1357986.13	14980488.41	Analytic Signal	5.84 nT	Schonstedt	Cultural Debris	Cable			0	1357986.13	14980488.41	0	6/21/2012	TR	Left in place
AC-03	1788	1358153.45	14980498.25	Analytic Signal	0.49 nT	Schonstedt	Cultural Debris	Nail		0.01	0	1358153.45	14980498.25	4	6/21/2012	TR	Removed from site
AC-03	1792	1357938.56	14980501.54	Analytic Signal	4.75 nT	Schonstedt	Cultural Debris	Hot rock		2	0	1357938.56	14980501.54	27	6/21/2012	TR	Removed from site
AC-03	1799	1358176.42	14980508.1	Analytic Signal	0.43 nT	Schonstedt	No Contact	No Contact							6/21/2012	TR	NA
AC-03	1802	1358015.66	14980508.1	Analytic Signal	16.58 nT	Schonstedt	Cultural Debris	Cable			0	1358015.66	14980508.1	0	6/21/2012	TR	Left in place
AC-03	1802	1358015.66	14980508.1	Analytic Signal	16.58 nT	Schonstedt	Cultural Debris	Cable						0	6/21/2012	TR	Left in place
AC-03	1837	1358146.89	14980524.5	Analytic Signal	0.89 nT	Schonstedt	Cultural Debris	Can		0.01	0	1358146.89	14980524.5	6	6/21/2012	TR	Removed from site
AC-03	1851	1358107.52	14980531.06	Analytic Signal	0.35 nT	Schonstedt	No Contact	No Contact							6/21/2012	TR	NA
AC-03	1904	1358030.42	14980563.87	Analytic Signal	0.34 nT	Schonstedt	Cultural Debris	Metal Scrap		1.5	0	1358030.42	14980563.87	0	6/21/2012	TR	Removed from site
AC-03	1954	1358158.37	14980591.76	Analytic Signal	0.36 nT	Schonstedt	Cultural Debris	Metal Scrap		0.01	0	1358158.37	14980591.76	8	6/21/2012	TR	Removed from site
AC-03	1987	1358115.72	14980609.8	Analytic Signal	1.34 nT	Schonstedt	Cultural Debris	Vehicle Part		2	0	1358115.72	14980609.8	4	6/21/2012	TR	Removed from site
AC-03	2004	1358182.98	14980622.93	Analytic Signal	0.3 nT	Schonstedt	No Contact	No Contact							6/21/2012	TR	NA
AC-03	2022	1358110.8	14980629.49	Analytic Signal	0.42 nT	Schonstedt	Cultural Debris	Nail		0.01	0	1358110.8	14980629.49	3	6/21/2012	TR	Removed from site
AC-03	T01-000	1358006.36	14980204	CH3	113.34 mV	Schonstedt	Cultural Debris	Metal Scrap		1	3	1358006.36	14980204.25	12	6/21/2012	TR	Removed from site
AC-04	T01-003	1355850.41	14984799.97	CH3	3 mV	Schonstedt	No Contact	No Contact							7/10/2012	TR	NA
AC-04	T01-004	1355845.011	14984798.92	CH3	4.19 mV	Schonstedt	Cultural Debris	Wire		0.01	0	1355845.011	14984798.92	0	7/10/2012	TR	Removed from site
AC-04	T01-006	1355617.841	14984781.7	CH3	4.49 mV	Schonstedt	Cultural Debris	Wire		0.01	3	1355617.841	14984781.95	2	7/10/2012	TR	Removed from site
AC-05	G01-001	1361550	14988639	CH3	90.46 mV	Schonstedt	Seed	2" x 8" Pipe		0.5	9	1361550	14988638.25	8	7/10/2012	TR	Removed from site
AC-05	G02-001	1361483.75	14988746.5	CH3	65.32 mV	Schonstedt	Seed	2" x 8" Pipe		0.5	0	1361483.75	14988746.5	8	7/10/2012	TR	Removed from site
AC-05	G03-001	1359829	14989374.25	CH3	65.45 mV	Schonstedt	Seed	2" x 8" Pipe		0.5	9	1359829	14989373.5	8	7/10/2012	TR	Removed from site
AC-05	G03-002	1359804.86	14989380.09	CH3	6.66 mV	Schonstedt	Cultural Debris	Nail		0.5	0	1359804.86	14989380.09	1	7/10/2012	TR	Removed from site
AC-05	G04-001	1359623.5	14989696	CH3	75.48 mV	Schonstedt	Seed	2" x 8" Pipe		0.5	3	1359623.5	14989696.25	8	7/10/2012	TR	Removed from site
AC-05	G05-001	1358473.75	14989946.25	CH3	58.46 mV	Schonstedt	Seed	2" x 8" Pipe		0.5	0	1358473.75	14989946.25	8	7/10/2012	TR	Removed from site
AC-05	G05-002	1358470.25	14989964.75	CH3	21.9 mV	Schonstedt	Cultural Debris	Metal Scrap		0.5	0	1358470.25	14989964.75	3	7/10/2012	TR	Removed from site
AC-05	G06-001	1358058	14989437.5	CH3	52.04 mV	Schonstedt	Seed	2" x 8" Pipe		0.5	0	1358058	14989437.5	8	7/10/2012	TR	Removed from site
AC-05	G07-001	1357786.5	14989668.5	CH3	76.17 mV	Schonstedt	Seed	2" x 8" Pipe		0.5	0	1357786.5	14989668.5	8	7/10/2012	TR	Removed from site
AC-05	G08-001	1357620.25	14990134.5	CH3	6.82 mV	Schonstedt	Seed	2" x 8" Pipe		0.5	0	1357620.25	14990134.5	8	7/10/2012	TR	Removed from site
AC-05	G08-003	1357637.75	14990158	CH3	72.57 mV	Schonstedt	No Contact	No Contact							7/10/2012	TR	NA
AC-05	T01-000	1361322.71	14988613.53	CH3	195.7 mV	Schonstedt	Cultural Debris	Metal Scrap		25	0	1361322.71	14988613.53	0	7/10/2012	TR	Removed from site
AC-05	T01-001	1361318.16	14988614.98	CH3	741.54 mV	Schonstedt	Cultural Debris	Metal Scrap		3	9	1361318.16	14988615.73	0	7/10/2012	TR	Removed from site
AC-05	T01-002	1361310.52	14988616.77	CH3	257.57 mV	Schonstedt	Cultural Debris	Metal Scrap		3	0	1361310.52	14988616.77	0	7/10/2012	TR	Removed from site
AC-05	T02-000	1359776.69	14989520.03	CH3	19.08 mV	Schonstedt	Cultural Debris	Nail		0.01	0	1359776.69	14989520.03	0	7/10/2012	TR	Removed from site
AC-05	T02-001	1359774.52	14989519.36	CH3	8.58 mV	Schonstedt	Cultural Debris	Nail		0.01	0	1359774.52	14989519.36	0	7/10/2012	TR	Removed from site
AC-05	T03-000	1357668.93	14989578.03	CH3	9.9 mV	Schonstedt	No Contact	No Contact							7/10/2012	TR	NA
AC-05	T03-001	1357673.12	14989575.3	CH3	4.03 mV	Schonstedt	No Contact	No Contact							7/10/2012	TR	NA
AC-05	T03-003	1357636.07	14989564.88	CH3	94.56 mV	Schonstedt	Cultural Debris	Survey Monument		0	0	1357636.07	14989564.88	0	7/10/2012	TR	Left in place
AC-06	3336	1355858.509	14981830.27	Analytic Signal	26.44 nT	Schonstedt	Cultural Debris	Fencing/Fence Post			0	1355858.509	14981830.27	0	6/22/2012	TR	Left in place
AC-06	3344	1356276.815	14981854.88	Analytic Signal	0.85 nT	Schonstedt	Cultural Debris	Metal Scrap		2	0	1356276.815	14981854.88	0	6/25/2012	TR	Removed from site
AC-06	3348	1355860.149	14981861.44	Analytic Signal	11.26 nT	Schonstedt	Cultural Debris	Metal Scrap		40	0	1355860.149	14981861.44	0	6/22/2012	TR	Removed from site
AC-06	3352	1355993.023	14981874.56	Analytic Signal	1.91 nT	Schonstedt	Cultural Debris	Rebar		5	0	1355993.023	14981874.56	9	6/22/2012	TR	Removed from site
AC-06	3356	1355960.215	14981889.33	Analytic Signal	0.33 nT	Schonstedt	No Contact	No Contact							6/22/2012	TR	NA
AC-06	3358	1356511.395	14981892.61	Analytic Signal	0.96 nT	Schonstedt	Cultural Debris	Metal Scrap		3	0	1356511.395	14981892.61	6	6/22/2012	TR	Removed from site
AC-06	3366	1356437.576	14981910.65	Analytic Signal	0.3 nT	Schonstedt	Cultural Debris	Can		0.01	0	1356437.576	14981910.65	6	6/22/2012	TR	Removed from site
AC-06	3369	1356055.359	14981922.14	Analytic Signal	0.55 nT	Schonstedt	No Contact	No Contact							6/22/2012	TR	NA
AC-06	3373	1356483.507	14981930.34	Analytic Signal	8.71 nT	Schonstedt	Cultural Debris	Survey Monument		0	0	1356483.507	14981930.34	0	6/22/2012	TR	Left in place
AC-06	3374	1356153.784	14981931.98	Analytic Signal	0.3 nT	Schonstedt	No Contact	No Contact							6/22/2012	TR	NA
AC-06	3382	1356012.708	14981953.3	Analytic Signal	0.38 nT	Schonstedt	No Contact	No Contact							6/22/2012	TR	NA
AC-06	3386	1356075.044	14981971.35	Analytic Signal	0.31 nT	Schonstedt	No Contact	No Contact		0	0	1356075.044	14981971.35	0	6/25/2012	TR	NA
AC-06	3390	1356398.206	14981989.39	Analytic Signal	31.65 nT	Schonstedt	Cultural Debris	Vehicle Part		4	0	1356398.206	14981989.39	6	6/22/2012	TR	Removed from site
AC-06	3398	1356347.353	14982012.36	Analytic Signal	0.64 nT	Schonstedt	Cultural Debris	Hot rock		0.5	0	1356347.353	14982012.36	8	6/22/2012	TR	Left in place
AC-06	3399	1355983.18	14982017.28	Analytic Signal	5.68 nT	Schonstedt	Cultural Debris	Metal Scrap		5	0	1355983.18	14982017.28	0	6/25/2012	TR	Removed from site
AC-06	3400	1356240.726	14982020.56	Analytic Signal	0.32 nT	Schonstedt	No Contact	No Contact							6/22/2012	TR	NA
AC-06	3401	1356367.038	14982027.12	Analytic Signal	6.31 nT	Schonstedt	No Contact	No Contact				1356367.038	14982027.12		6/22/2012	TR	Removed from site
AC-06	3402	1356252.209	14982028.76	Analytic Signal	0.33 nT	Schonstedt	No Contact	No Contact				1356252.209	14982028.76		6/22/2012	TR	NA
AC-06	3404	1355863.43	14982028.76	Analytic Signal	0.36 nT	Schonstedt	Cultural Debris	Survey Monument		0	0	1355863.43	14982028.76	0	6/25/2012	TR	Left in place
AC-06	3405	1356211.198	14982032.04	Analytic Signal	0.87 nT	Schonstedt	No Contact	No Contact							6/22/2012	TR	NA
AC-06	3406	1356163.626	14982035.32	Analytic Signal	1.36 nT	Schonstedt	No Contact	No Contact							6/22/2012	TR	NA
AC-06	3407	1356337.51	14982036.97	Analytic Signal	25.33 nT	Schonstedt	Cultural Debris	Pipe		7	0	1356337.51	14982036.97	6	6/22/2012	TR	Removed from site
AC-06	3411	1356189.873	14982043.53	Analytic Signal	0.34 nT	Schonstedt	No Contact	No Contact							6/22/2012	TR	NA
AC-06	3414	1356147.222	14982050.09	Analytic Signal	1.7 nT	Schonstedt	No Contact	No Contact							6/22/2012	TR	NA
AC-06	3415	1356225.962	14982051.73	Analytic Signal	0.35 nT	Schonstedt	No Contact	No Contact							6/22/2012	TR	NA

Appendix G
Target Anomaly Dig List
Nantucket Beach FUDS Remedial Investigation
Nantucket, Massachusetts

		Geophysical Survey Information				Dig Results											
Anomaly Cluster/ MRS	Unique Target ID	Easting Coord. (USft)	Northing Coord. (USft)	Channel ID	Amplitude Response	Reacquisition Instrument	Item Category	Item Type	Description	Approx. Weight (lbs)	Offset: Distance (in)	Item Easting Coord. (USft)	Item Northing Coord. (USft)	Depth: Top of Item (in)	Dig Date	Team Leader Initials	Final Disposition
AC-06	3427	1356106.212	14982068.13	Analytic Signal	0.61 nT	Schonstedt	No Contact	No Contact						0	6/25/2012	TR	NA
AC-06	3427	1356106.212	14982068.13	Analytic Signal	0.61 nT	Schonstedt	No Contact	No Contact							6/22/2012	TR	NA
AC-06	3430	1356322.747	14982071.41	Analytic Signal	13.11 nT	Schonstedt	Cultural Debris	Metal Scrap		1	0	1356322.747	14982071.41	0	6/22/2012	TR	Removed from site
AC-06	3436	1356061.92	14982086.18	Analytic Signal	0.33 nT	Schonstedt	Cultural Debris	Wire		0	0	1356061.92	14982086.18	12	6/22/2012	TR	Left in place
AC-06	3437	1356258.77	14982092.74	Analytic Signal	37.76 nT	Schonstedt	Cultural Debris	Utility Line		0	0	1356258.77	14982092.74	24	6/22/2012	TR	Left in place
AC-06	3439	1356139.02	14982097.66	Analytic Signal	0.58 nT	Schonstedt	Cultural Debris	Metal Scrap		1.5	0	1356139.02	14982097.66	9	6/22/2012	TR	Removed from site
AC-06	3446	1356025.831	14982105.86	Analytic Signal	0.44 nT	Schonstedt	Cultural Debris	Hot rock		0.5	0	1356025.831	14982105.86	18	6/22/2012	TR	Left in place
AC-06	3451	1356237.445	14982118.99	Analytic Signal	0.56 nT	Schonstedt	Cultural Debris	Hot rock		0.5	0	1356237.445	14982118.99	6	6/22/2012	TR	Left in place
AC-06	3453	1355988.102	14982120.63	Analytic Signal	0.35 nT	Schonstedt	No Contact	No Contact							6/25/2012	TR	NA
AC-06	3454	1356353.915	14982122.27	Analytic Signal	0.44 nT	Schonstedt	Cultural Debris	Metal Scrap		2	0	1356353.915	14982122.27	12	6/22/2012	TR	Removed from site
AC-06	3458	1356358.836	14982140.31	Analytic Signal	0.36 nT	Schonstedt	Cultural Debris	Metal Scrap		1	0	1356358.836	14982140.31	8	6/22/2012	TR	Removed from site
AC-06	3459	1356001.225	14982141.95	Analytic Signal	0.53 nT	Schonstedt	No Contact	No Contact							6/25/2012	TR	NA
AC-06	3460	1356258.77	14982148.51	Analytic Signal	0.4 nT	Schonstedt	No Contact	No Contact							6/22/2012	TR	NA
AC-06	3461	1355956.934	14982150.15	Analytic Signal	0.32 nT	Schonstedt	No Contact	No Contact							6/25/2012	TR	NA
AC-06	3464	1355940.53	14982156.72	Analytic Signal	0.42 nT	Schonstedt	Cultural Debris	Hot rock		1	0	1355940.53	14982156.72	4	6/25/2012	TR	Removed from site
AC-06	3468	1356204.637	14982168.2	Analytic Signal	1.72 nT	Schonstedt	Cultural Debris	Nail		1.5	0	1356204.637	14982168.2	4	6/22/2012	TR	Removed from site
AC-06	3470	1356275.175	14982174.76	Analytic Signal	1.67 nT	Schonstedt	Cultural Debris	Metal Scrap		4	0	1356275.175	14982174.76	8	6/22/2012	TR	Removed from site
AC-06	3471	1356175.109	14982178.04	Analytic Signal	0.47 nT	Schonstedt	Cultural Debris	Hot rock		0.5	0	1356175.109	14982178.04	4	6/22/2012	TR	Left in place
AC-06	3481	1356165.267	14982194.45	Analytic Signal	0.37 nT	Schonstedt	Cultural Debris	Hot rock		0.5	0	1356165.267	14982194.45	4	6/22/2012	TR	Left in place
AC-06	3482	1356275.175	14982202.65	Analytic Signal	1.84 nT	Schonstedt	No Contact	No Contact							6/22/2012	TR	NA
AC-06	3486	1356291.579	14982215.77	Analytic Signal	1.43 nT	Schonstedt	Cultural Debris	Rebar		5	0	1356291.579	14982215.77	6	6/22/2012	TR	Removed from site
AC-06	3488	1356163.626	14982232.17	Analytic Signal	12.92 nT	Schonstedt	Cultural Debris	Concrete		60	0	1356163.626	14982232.17	0	6/22/2012	TR	Left in place
AC-06	3489	1356150.503	14982233.82	Analytic Signal	22.82 nT	Schonstedt	Cultural Debris	Concrete		60	0	1356150.503	14982233.82	0	6/22/2012	TR	Left in place
AC-06	3494	1356345.712	14982248.58	Analytic Signal	0.41 nT	Schonstedt	No Contact	No Contact				1356345.712	14982248.58		6/22/2012	TR	NA
AC-06	3495	1356385.082	14982250.22	Analytic Signal	1.34 nT	Schonstedt	No Contact	No Contact				1356385.082	14982250.22		6/22/2012	TR	NA
AC-06	3503	1356357.195	14982264.98	Analytic Signal	0.35 nT	Schonstedt	No Contact	No Contact				1356357.195	14982264.98		6/22/2012	TR	NA
AC-06	3504	1356317.825	14982266.62	Analytic Signal	0.33 nT	Schonstedt	No Contact	No Contact				1356317.825	14982266.62		6/22/2012	TR	NA
AC-06	3511	1356330.949	14982284.67	Analytic Signal	0.33 nT	Schonstedt	No Contact	No Contact				1356330.949	14982284.67		6/22/2012	TR	NA
AC-06	3512	1356288.298	14982289.59	Analytic Signal	0.42 nT	Schonstedt	No Contact	No Contact				1356288.298	14982289.59		6/22/2012	TR	NA
AC-06	3514	1356352.274	14982305.99	Analytic Signal	0.36 nT	Schonstedt	Cultural Debris	Hot rock		0	0	1356352.274	14982305.99	0	6/22/2012	TR	Left in place
AC-06	3515	1356301.421	14982305.99	Analytic Signal	0.31 nT	Schonstedt	No Contact	No Contact				1356301.421	14982305.99		6/22/2012	TR	NA
AC-06	3516	1356322.747	14982309.27	Analytic Signal	0.51 nT	Schonstedt	No Contact	No Contact				1356322.747	14982309.27		6/22/2012	TR	NA
AC-06	3518	1356373.6	14982320.76	Analytic Signal	0.31 nT	Schonstedt	No Contact	No Contact				1356373.6	14982320.76		6/22/2012	TR	NA
AC-06	3519	1356393.285	14982320.76	Analytic Signal	0.4 nT	Schonstedt	No Contact	No Contact							6/25/2012	TR	NA
AC-06	3520	1355943.81	14982325.68	Analytic Signal	332.5 nT	Schonstedt	Cultural Debris	Fencing/Fence Post		0	0	1355943.81	14982325.68	0	6/25/2012	TR	Left in place
AC-06	3528	1356152.143	14982360.13	Analytic Signal	5.88 nT	Schonstedt	Cultural Debris	Metal Scrap		60	0	1356152.143	14982360.13	0	6/25/2012	TR	Left in place
AC-06	3531	1356383.442	14982368.33	Analytic Signal	0.31 nT	Schonstedt	No Contact	No Contact							6/22/2012	TR	NA
AC-06	3533	1356309.623	14982381.45	Analytic Signal	0.5 nT	Schonstedt	Cultural Debris	Wire		0.01	0	1356309.623	14982381.45	0	6/22/2012	TR	Removed from site
AC-06	3536	1356401.487	14982396.22	Analytic Signal	0.31 nT	Schonstedt	No Contact	No Contact				1356401.487	14982396.22		6/22/2012	TR	NA
AC-06	3539	1356409.689	14982409.34	Analytic Signal	0.34 nT	Schonstedt	No Contact	No Contact				1356409.689	14982409.34		6/22/2012	TR	NA
AC-06	3540	1356422.812	14982432.31	Analytic Signal	0.41 nT	Schonstedt	No Contact	No Contact				1356422.812	14982432.31		6/22/2012	TR	NA
AC-06	3546	1356435.935	14982450.35	Analytic Signal	0.31 nT	Schonstedt	No Contact	No Contact				1356435.935	14982450.35		6/22/2012	TR	NA
AC-06	3563	1356465.463	14982497.92	Analytic Signal	0.52 nT	Schonstedt	No Contact	No Contact				1356465.463	14982497.92		6/22/2012	TR	NA
AC-06	3573	1356079.965	14982525.81	Analytic Signal	5.8 nT	Schonstedt	Cultural Debris	Fencing/Fence Post		0	0	1356079.965	14982525.81	0	6/25/2012	TR	Left in place
AC-06	3578	1356073.403	14982537.29	Analytic Signal	6.27 nT	Schonstedt	Cultural Debris	Fencing/Fence Post		0	0	1356073.403	14982537.29	0	6/25/2012	TR	Left in place
AC-09	2856	1352717.111	14981208.55	Analytic Signal	8.98 nT	Schonstedt	Cultural Debris	Metal Scrap		6	0	1352717.111	14981208.55	0	7/12/2012	TR	Removed from site
AC-09	2901	1352510.418	14981241.36	Analytic Signal	86.21 nT	Schonstedt	Cultural Debris	Fencing/Fence Post		1	0	1352510.418	14981241.36	0	7/26/2012	TR	Left in place
AC-09	2906	1352526.822	14981249.57	Analytic Signal	70.9 nT	Schonstedt	Cultural Debris	Fencing/Fence Post			0	1352526.822	14981249.57	0	7/12/2012	TR	Left in place
AC-09	2916	1352830.3	14981256.13	Analytic Signal	0.41 nT	Schonstedt	No Contact	No Contact							7/12/2012	TR	NA
AC-09	2933	1352516.98	14981267.61	Analytic Signal	174.59 nT	Schonstedt	Cultural Debris	Fencing/Fence Post			0	1352516.98	14981267.61	0	7/12/2012	TR	Left in place
AC-09	2947	1352354.579	14981279.09	Analytic Signal	0.36 nT	Schonstedt	No Contact	No Contact							7/12/2012	TR	NA
AC-09	2950	1352538.305	14981287.29	Analytic Signal	21.4 nT	Schonstedt	Cultural Debris	Fencing/Fence Post			0	1352538.305	14981287.29	0	7/26/2012	TR	Left in place
AC-09	2953	1352521.901	14981292.22	Analytic Signal	32.52 nT	Schonstedt	Cultural Debris	Fencing/Fence Post			0	1352521.901	14981292.22	0	7/12/2012	TR	Left in place
AC-09	2968	1352456.285	14981303.7	Analytic Signal	1.22 nT	Schonstedt	No Contact	No Contact							7/12/2012	TR	NA
AC-09	2976	1352546.507	14981315.18	Analytic Signal	21.72 nT	Schonstedt	Cultural Debris	Fencing/Fence Post			0	1352546.507	14981315.18	0	7/26/2012	TR	Left in place
AC-09	2979	1352528.463	14981318.46	Analytic Signal	149.33 nT	Schonstedt	Cultural Debris	Fencing/Fence Post			0	1352528.463	14981318.46	0	7/12/2012	TR	Left in place
AC-09	2981	1352064.225	14981318.46	Analytic Signal	5.25 nT	Schonstedt	No Contact	No Contact							7/12/2012	TR	NA
AC-09	2996	1352031.417	14981328.31	Analytic Signal	1.81 nT	Schonstedt	Cultural Debris	Metal Scrap		3	0	1352031.417	14981328.31	36	7/12/2012	TR	Removed from site
AC-09	3001	1352689.224	14981333.23	Analytic Signal	1.98 nT	Schonstedt	No Contact	No Contact							7/12/2012	TR	NA
AC-09	3005	1352551.429	14981338.15	Analytic Signal	111.03 nT	Schonstedt	Cultural Debris	Fencing/Fence Post			0	1352551.429	14981338.15	0	7/12/2012	TR	Left in place
AC-09	3006	1352536.665	14981343.07	Analytic Signal	48.17 nT	Schonstedt	Cultural Debris	Fencing/Fence Post			0	1352536.665	14981343.07	0	7/26/2012	TR	Left in place
AC-09	3024	1352556.35	14981361.11	Analytic Signal	83.19 nT	Schonstedt	Cultural Debris	Fencing/Fence Post			0	1352556.35	14981361.11	0	7/26/2012	TR	Left in place
AC-09	3029	1352213.503	14981364.39	Analytic Signal	8.42 nT	Schonstedt	No Contact	No Contact							7/12/2012	TR	NA
AC-09	3046	1352428.397	14981382.44	Analytic Signal	0.3 nT	Schonstedt	No Contact	No Contact							7/12/2012	TR	NA
AC-09	3052	1352618.686	14981385.72	Analytic Signal	3.19 nT	Schonstedt	Cultural Debris	Cable		1.5	0	1352618.686	14981385.72	12	7/12/2012	TR	Removed from site
AC-09	3094	1352677.741	14981426.73	Analytic Signal	19.99 nT	Schonstedt	Cultural Debris	Cable		2	0	1352677.741	14981426.73	24	7/12/2012	TR	Removed from site
AC-09	3095	1352526.822	14981428.37	Analytic Signal	64.62 nT	Schonstedt	Cultural Debris	Fencing/Fence Post			0	1352526.822	14981428.37	0	7/26/2012	TR	Left in place
AC-09	3111	1352477.61	14981446.42	Analytic Signal	1.92 nT	Schonstedt	Cultural Debris	Fencing/Fence Post			0	1352477.61	14981446.42	0	7/12/2012	TR	Left in place
AC-09	3119	1352037.978	14981457.9	Analytic Signal	2.98 nT	Schonstedt	Cultural Debris	Fencing/Fence Post			0	1352037.978	14981457.9	0	7/12/2012	TR	Left in place
AC-09	3121	1352625.247	14981457.9	Analytic Signal	3.19 nT	Schonstedt	Cultural Debris	Cable			0	1352625.247	14981457.9	0	7/12/2012	TR	Left in place
AC-09	3122	1352128.201	14981457.9	Analytic Signal	2.26 nT	Schonstedt	Cultural Debris	Metal Scrap		0.5	0	1352128.201	14981457.9	6	7/12/2012	TR	Removed from site
AC-09	3131	1352515.34	14981472.66	Analytic Signal	32.56 nT	Schonstedt	Cultural Debris	Fencing/Fence Post			0	1352515.34	14981472.66	0	7/26/2012	TR	Left in place
AC-09	3132	1352635.09	14981474.3	Analytic Signal	2.77 nT	Schonstedt	Cultural Debris	Cable			0	1352635.09	14981474.3	0	7/26/2012	TR	Left in place
AC-09	3139	1351954.317	14981480.86	Analytic Signal	29.55 nT	Schonstedt	Cultural Debris	Fencing/Fence Post			0	1351954.317	14981480.86	0	7/12/2012	TR	Left in place
AC-09	3146	1352510.418	14981487.43	Analytic Signal	25.91 nT	Schonstedt	Cultural Debris	Fencing/Fence Post			0	1352510.418	14981487.43	0	7/26/2012	TR	Left in place
AC-09	3164	1352651.494	14981502.19	Analytic Signal	4.99 nT	Schonstedt	Cultural Debris	Fencing/Fence Post			0	1352651.494	14981502.19	0	7/26/2012	TR	Left in place
AC-09	3171	1352188.897	14981507.11	Analytic Signal	0.71 nT	Schonstedt	Cultural Debris	Can		0.1	0	1352188.897	14981507.11	0	7/12/2012	TR	Removed from site
AC-09	3178	1352659.696	14981516.95	Analytic Signal	5.83 nT	Schonstedt	Cultural Debris	Fencing/Fence Post			0	1352659.696	14981516.95	0	7/26/2012	TR	Left in place
AC-09	3181	1352533.384	14981520.23	Analytic Signal	2.05 nT	Schonstedt	Cultural Debris	Metal Scrap		0.1	0	1352533.384	14981520.23	0	7/12/2012	TR	Removed from site
AC-09	3194	1352672.82	14981541.56	Analytic Signal	5.66 nT	Schonstedt	Cultural Debris	Fencing/Fence Post			0	1352672.82	14981541.56	0	7/26/2012	TR	Left in place
AC-09	3209	1352677.741	14981553.04	Analytic Signal	5.12 nT	Schonstedt	Cultural Debris	Fencing/Fence Post			0	1352677.741	14981553.04	0	7/26/2012	TR	Left in place
AC-09	3223	1352554.71	14981564.53	Analytic Signal	1.63 nT	Schonstedt	No Contact	No Contact							7/12/2012	TR	NA
AC-09	3231	1352567.833	14981580.93	Analytic Signal	1.59 nT	Schonstedt	Cultural Debris	Metal Scrap		0.1	0	1352567.833	14981580.93	0	7/12/2012	TR	Removed from site
AC-09	3232	1352697.426	14981582.57	Analytic Signal	2.12 nT	Schonstedt	Cultural Debris	Fencing/Fence Post			0	1352697.426	14981582.57	0	7/26/2012	TR	Left in place
AC-09	3233	1352512.059	14981584.21	Analytic Signal	0.89 nT	Schonstedt	Cultural Debris	Metal Scrap		0.5	0	1352512.059	14981584.21	3	7/12/2012	TR	Removed from site
AC-09	3242	1352646.573	14981590.77	Analytic Signal	27.47 nT	Schonstedt	Cultural Debris	Utility Line			0	1352646.573	14981590.77	0	7/12/2012	TR	Left in place
AC-09	3243	1352572.754	14981597.33	Analytic Signal	3.27 nT	Schonstedt	Cultural Debris	Metal Scrap		0.1	0	1352572.754	14981597.33	0	7/12/2012	TR	Removed from site
AC-09	3249	1352838.502	14981605.54	Analytic Signal	1.22 nT	Schonstedt	Cultural Debris	Metal Scrap		0.5	0	1352838.502	14981605.54	4	7/12/2012	TR	Removed from site
AC-09	3260	1352101.955	14981615.38	Analytic Signal	3.66 nT	Schonstedt	Cultural Debris	Cable			0	1352101.955	14981615.38	0	7/12/2012	TR	Left in place
AC-09	3262	1352138.044	14981621.94	Analytic Signal	1.69 nT	Schonstedt	Cultural Debris	Pipe			0	1352138.044	14981621.94	30	7/12/2012	TR	Left in place
AC-09	3265	1352643.292	14981626.86	Analytic Signal	3.83 nT	Schonstedt	Cultural Debris	Utility Line			0	1352643.292	14981626.86	24	7/12/2012	TR	Left in place
AC-09	3268	1352720.392	14981628.5	Analytic Signal	30.61 nT	Schonstedt	Cultural Debris	Fencing/Fence Post			0	1352720.392	14981628.5	0	7/26/2012	TR	Left in place
AC-09	3272	1352594.08	14981635.06	Analytic Signal	49.99 nT	Schonstedt	Cultural Debris	Fencing/Fence Post			0	1352594.08	14981635.06	0	7/12/2012	TR	Left in place
AC-09	3281	1352735.155	14981649.83	Analytic Signal	6.7 nT	Schonstedt	Cultural Debris	Metal Scrap		2.5	0	1352735.155	14981649.83	0	7/12/2012	TR	Removed from site
AC-09	3283	1352023.215	14981653.11	Analytic Signal	6.6 nT	Schonstedt	Cultural Debris	Fencing/Fence Post			0	1352023.215	14981653.11	0	7/12/2012	TR	Left in place
AC-09	3293	1352111.797	14981682.64	Analytic Signal	0.48 nT	Schonstedt	No Contact	No Contact							7/12/2012	TR	NA

Appendix G
Target Anomaly Dig List
Nantucket Beach FUDS Remedial Investigation
Nantucket, Massachusetts

		Geophysical Survey Information				Dig Results											
Anomaly Cluster/ MRS	Unique Target ID	Easting Coord. (USft)	Northing Coord. (USft)	Channel ID	Amplitude Response	Reacquisition Instrument	Item Category	Item Type	Description	Approx. Weight (lbs)	Offset: Distance (in)	Item Easting Coord. (USft)	Item Northing Coord. (USft)	Depth: Top of Item (in)	Dig Date	Team Leader Initials	Final Disposition
AC-09	3294	1352692.505	14981682.64	Analytic Signal	0.58 nT	Schonstedt	Cultural Debris	Cable		2	0	1352692.505	14981682.64	8	7/12/2012	TR	Removed from site
AC-09	3308	1352105.235	14981728.57	Analytic Signal	14.05 nT	Schonstedt	Cultural Debris	Fencing/Fence Post			0	1352105.235	14981728.57	0	7/12/2012	TR	Left in place
MRS1	MRS1-1991	1360574.71	14980611.44	Analytic Signal	1.48 nT	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		40	0	1360574.71	14980611.44	60	7/3/2012	TR	Removed from site
MRS1	MRS1-1995	1360646.88	14980616.36	Analytic Signal	0.38 nT	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		20	0	1360646.88	14980616.36	48	7/3/2012	TR	Removed from site
MRS1	MRS1-2023	1360538.62	14980631.13	Analytic Signal	4.04 nT	Schonstedt	Cultural Debris	Metal Scrap		0.5	0	1360538.62	14980631.13	4	7/3/2012	TR	Removed from site
MRS1	MRS1-2029	1360558.3	14980634.41	Analytic Signal	1.21 nT	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR		40	0	1360558.3	14980634.41	48	7/2/2012	TR	Removed from site
MRS1	MRS1-2044	1360582.91	14980639.33	Analytic Signal	1.25 nT	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360582.91	14980639.33	36	7/3/2012	TR	Removed from site
MRS1	MRS1-2091	1360543.54	14980668.86	Analytic Signal	7.69 nT	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR	Blown in Place - Determined to be MDAS	40	0	1360543.54	14980668.86	60	7/3/2012	TR	Removed from site
MRS1	MRS1-2109	1360577.99	14980680.34	Analytic Signal	5.28 nT	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		10	0	1360577.99	14980680.34	24	6/29/2012	TR	Removed from site
MRS1	MRS1-2117	1360676.41	14980688.54	Analytic Signal	1.55 nT	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360676.41	14980688.54	36	7/3/2012	TR	Removed from site
MRS1	MRS1-2141	1360492.69	14980700.03	Analytic Signal	0.33 nT	Schonstedt	Cultural Debris	Metal Scrap		10	0	1360492.69	14980700.03	45	6/28/2012	TR	Removed from site
MRS1	MRS1-2154	1360599.31	14980708.23	Analytic Signal	1.19 nT	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		2	0	1360599.31	14980708.23	24	7/2/2012	TR	Removed from site
MRS1	MRS1-2154	1360599.31	14980708.23	Analytic Signal	1.19 nT	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		10	0	1360599.31	14980708.23	36	6/29/2012	TR	Removed from site
MRS1	MRS1-2178	1360518.93	14980719.71	Analytic Signal	2.65 nT	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		10	0	1360518.93	14980719.71	42	6/28/2012	TR	Removed from site
MRS1	MRS1-2195	1360727.27	14980729.55	Analytic Signal	0.35 nT	Schonstedt	MDAS	Rocket, 5 inch, HVAR	Blown in Place - Determined to be MDAS	40	0	1360727.27	14980729.55	0	7/3/2012	TR	Removed from site
MRS1	MRS1-2213	1360558.3	14980736.11	Analytic Signal	10.43 nT	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		10	0	1360558.3	14980736.11	36	6/29/2012	TR	Removed from site
MRS1	MRS1-2222	1360500.89	14980741.04	Analytic Signal	2.77 nT	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		2.5	0	1360500.89	14980741.04	24	6/29/2012	TR	Removed from site
MRS1	MRS1-2256	1360743.67	14980754.16	Analytic Signal	1.28 nT	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360743.67	14980754.16	39	7/3/2012	TR	Removed from site
MRS1	MRS1-2310	1360489.4	14980780.41	Analytic Signal	25.94 nT	Schonstedt	Cultural Debris	Nail		0.01	0	1360489.4	14980780.41	3	6/29/2012	TR	Removed from site
MRS1	MRS1-2331	1360577.99	14980790.25	Analytic Signal	2.36 nT	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360577.99	14980790.25	42	7/2/2012	TR	Removed from site
MRS1	MRS1-2340	1360517.29	14980793.53	Analytic Signal	10.28 nT	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		10	0	1360517.29	14980793.53	36	6/29/2012	TR	Removed from site
MRS1	MRS1-2355	1360717.42	14980800.09	Analytic Signal	0.31 nT	Schonstedt	MDAS	Rocket, 2.25 inch, SCAR		20	0	1360717.42	14980800.09	36	7/3/2012	TR	Removed from site
MRS1	MRS1-2417	1360563.22	14980819.78	Analytic Signal	21.35 nT	Schonstedt	MDAS	Rocket, 3.5 inch, FFAR	Blown in Place - Determined to be MDAS	20	0	1360563.22	14980819.78	36	7/2/2012	TR	Removed from site
Water Surveys	Transect-9-1	1355418.769	14980505.95	Mag & Dig Survey	NA	Schonstedt	Hot Rock				0	1355418.769	14980505.95	8	6/18/2012	JB	Left in Place
Water Surveys	Transect-14-1	1357021.568	14980181.97	Mag & Dig Survey	NA	Schonstedt	Cultural Debris	Wire	8 inch piece of wire lost in surf zone		0	1357021.568	14980181.97	0	6/8/2012	JB	Not recovered
Water Surveys	Transect-15-1	1357355.795	14980152.82	Mag & Dig Survey	NA	Schonstedt	Cultural Debris	Unknown			0	1357355.795	14980152.82	48	6/8/2012	JB	Not recovered
Water Surveys	Transect-15-2	1357341.324	14980084.36	Mag & Dig Survey	NA	Schonstedt	Hot Rock				0	1357341.324	14980084.36	6	6/8/2012	JB	Left in Place
Water Surveys	Transect-16-1	1357642.309	14979908.84	Mag & Dig Survey	NA	Schonstedt	Cultural Debris	Metal	half dollar size piece of metal		0	1357642.309	14979908.84	6	6/7/2012	JB	Removed from site
Water Surveys	Transect-16-2	1357637.014	14979882.52	Mag & Dig Survey	NA	Schonstedt	Cultural Debris	Metal	Piece of boat railing		0	1357637.014	14979882.52	7	6/7/2012	JB	Removed from site
Water Surveys	Transect-17-1	1357769.761	14979832.07	Mag & Dig Survey	NA	Schonstedt	Cultural Debris	Unknown	Small item believed to be blown through the airlift		0	1357769.761	14979832.07	60	6/11/2012	JB	Not recovered
Water Surveys	Transect-18-1	1357943.712	14979987.56	Mag & Dig Survey	NA	Schonstedt	Cultural Debris	Chain	8 ft length of chain		0	1357943.712	14979987.56	24	6/6/2012	JB	Removed from site
Water Surveys	Transect-23-1	1359567.223	14979692.57	Mag & Dig Survey	NA	Schonstedt	Cultural Debris	Metal	Rusty handle		0	1359567.223	14979692.57	4	6/13/2012	JB	Removed from site
Water Surveys	Transect-25-1	1360204.459	14979554.43	Mag & Dig Survey	NA	Schonstedt	Hot Rock				0	1360204.459	14979554.43	2	6/12/2012	JB	Left in Place
Water Surveys	Transect-25-2	1360204.459	14979554.43	Mag & Dig Survey	NA	Schonstedt	Hot Rock				0	1360204.459	14979554.43	2	6/12/2012	JB	Left in Place
Water Surveys	Transect-27-1	1360867.416	14979385.54	Mag & Dig Survey	NA	Schonstedt	Cultural Debris	Fence post	5 ft long fence post		0	1360867.416	14979385.54	66	6/19/2012	JB	Removed from site
Water Surveys	Transect-27-2	1360867.416	14979385.54	Mag & Dig Survey	NA	Schonstedt	Hot Rock				0	1360867.416	14979385.54	72	6/19/2012	JB	Left in Place
Water Surveys	Transect-34A-1	1363862.594	14979580.86	Mag & Dig Survey	NA	Schonstedt	Cultural Debris	Bolts	Timber with metal bolts		0	1363862.594	14979580.86	0	6/21/2012	JB	Left in Place
Water Surveys	Transect-36	1363346.083	14979606.92	Mag & Dig Survey	NA	Schonstedt	Cultural Debris	Cinder block			0	1363346.083	14979606.92	0	6/22/2012	JB	Left in Place

Notes:
Coordinates are in NAD83 UTM U.S. ft
AC - anomaly cluster
FFAR - forward firing aircraft rocket
HVAR - high velocity aircraft rocket
MDAS - material documented as safe
MRS - munitions response site
NA - not applicable
nT - nano-Tesla
SCAR - sub caliber aerial rocket

APPENDIX H

MUNITIONS DEBRIS CUSTODY DOCUMENTATION

Mid-City Scrap Iron & Salvage Co., Inc.

548 State Road - P. O. Box 157 Westport, MA 02790-0157
Voice 508-675-7831 - FAX 508-675-2900

8/15/12

Weston Solutions, Inc.
45 Constitution Ave, Suite100
Concord, NH 03301

Attn: Christopher Kane

This letter is acknowledgement of material received from Weston Solutions, Inc., reference ticket # 72619, on 8/15/12.

Material was demilitarized munitions debris.

Munitions debris will be destroyed and recycled into raw scrap metal and turned into a new steel product.

All processing will be in accordance will all local & federal requirements.

If there should be an inquires regarding the this material, please feel free to contact me at 508-675-7831.

Respectfully,

Jason Fonseca
Sales Coordinator

Mid-City Scrap Iron & Salvage

P.O. Box 157
548 State Road
Westport, MA 02790
(508) 675-7831 / (508) 675-2900

Purchase Ticket

Purchase Ticket # **26043**
Purchase Date **08/15/12**

Customer:

WES3000-WESTON SOLUTIONS, INC
45 CONSTITUTION AVE. SUITE 100
CONCORD, NH 03301

Terms NET 30
Payment Due 9/27/12

Item Name	Order #	Gross	Tare	Net	Price	Total
STEEL SCRAP		55,020.000	36,880.000	18,140.000 LB	$0.000000 LB	$0.00
		REC:8/15/12 WT TICKET#S 72619				
		NO VALUE				

Notes:

MATERIAL WAS DEMILITARIZED MUNITIONS DEBRIS

Prepared By BRUCE 8/28/2012 1:03:33PM

powered by www.21stCenturyProgramming.com

ORIGINAL

MPPEH residue, Range Residue, and/or Explosive Contaminated Property

Number: D Mears

GENERAL

1. Generator's Name and Mailing Address: Weston Solutions
2. Generator's Project Location: Nantucket Feds Contract No W912DR-09-D0[illegible]
3. Transporter 1 Name and Mailing Address: B.E. Byrne, INC Nantucket, MA 02584 P.O. Box 3328
4. Transporter 2 Name and Mailing Address: [illegible]
5. Qualified Recycler (QR) Name and Mailing Address: Mid City Scrap Iron + Salvage 548 Slate Road, Westport MA 02790

1a. Generator's Phone #: 6036565-5423
2a. Project Phone #: ( )
3a. Transporter 1 phone #: (508) 228-3012
4a. Transporter 2 phone #: ( )
5a. QR phone #: (508) 675-7831
5b. QR Identification #: 5

6. Security Seal #:
7. Gross Wt. Lbs/Kgs: 10,010101166
8. Tare Wt. Lbs/Kgs:
9. Net Wt. Lbs/Kgs:
10. Weight Ticket #:

GENERATOR

11. Description	12. Material	13. Quantity	14. Units (Wt., Vol.)
20 FT Storage Container containing Munitions Debris NO MEC or MC	Munitions Debris	1	20FT Container

FREE FROM EXPLOSIVES CERTIFICATION

This certifies and verifies that the MPPEH residue, Range Residue, and/or Explosive Contaminated Property listed has been 200 percent properly inspected and to the best of our knowledge and belief, is free of explosive hazards.

15. Inspector 1 — Printed/Typed Name: DONALD MEARS — Signature: D Mears — Month Day Year: 08/02/12
16. Inspector 2 — Printed/Typed Name: Timothy A Rodriguez — Signature: [illegible] — Month Day Year: 08/02/12
17. Certified By: — Printed/Typed Name: DONALD MEARS — Signature: D Mears — Month Day Year: 08/02/12

DEMILITERIZATION CERTIFICATION
I certify that each item or items listed hereon were demilitarized in accordance with ECC/FACT Standard Operating Procedures used to inspect scrap ordnance and range, DoD 4180.21-M-1 and other applicable regulations.

18. Certified By: — Printed/Typed Name: DONALD MEARS — Signature: D Mears — Month Day Year: 08/02/12

TRANSPORTER

19. Transporter 1 Acknowledgement of Receipt of Materials (Receiving Signature Verifies that Container was Received with Seal Intact) — Printed/Typed Name: — Signature: — Month Day Year:
20. Transporter 2 Acknowledgement of Receipt of Materials (Receiving Signature Verifies that Container was Received with Seal Intact) — Printed/Typed Name: N/A Tom Day — Signature: N/A Tom Day — Month Day Year:

QUALIFIED RECYCLER

21. Discrepancy Indication Space: N/A
22. Qualified Recycler Acknowledgement of Receipt of Materials (Receiving Signature Verifies that Container was Received with Seal Intact) — Printed/Typed Name: N/A [illegible] — Signature: N/A [illegible] — Month Day Year: 08/15/12
23. Qualified Recycler Certification of Consumption: N/A [illegible] — Printed/Typed Name: N/A [illegible] — Signature: N/A [illegible]
24. Final Disposition of Material: N/A — Month Day Year: 08/15/12

Earl
Tom
Mid City
Mid City

DD FORM 1348-1A, JUL 91 (EG) ISSUE RELEASE/RECEIPT DOCUMENT

DOC IDENT	RI FROM	M&S	UNIT ISS	QUANTITY	SER	SUPPLEMENTARY ADDRESS	SIG	FUND	DISTRIBUTION	PROJECT	PRI	REQD	DEL	DATE	ADV	RI	O/P	COND	MGT	UNIT PRICE DOLLARS	CTS	1. TOTAL PRICE DOLLARS	CTS	2. SHIP FROM	3. SHIP TO
																								Nantucket FUDS Site	Mid City Scrap 548 State Rd Westport, MA 02790

4. MARK FOR

5. DOC DATE	6. NMFC	7. FRT RATE	8. TYPE CARGO	9. PS
8/2/2012				

10. QTY. REC'D	11. UP	12. UNIT WEIGHT	13. UNIT CUBE	14. UFC	15. SL
X		Gross Tons			

16. FREIGHT CLASSIFICATION NOMENCLATURE

17. ITEM NOMENCLATURE: Munitions Debris

18. TY CONT	19. NO CONT	20. TOTAL WEIGHT	21. TOTAL CUBE
	1	18,140 lbs	

22. RECEIVED BY: [signature] (owner)

23. DATE RECEIVED: 8/13/12

24. DOCUMENT NUMBER & SUFFIX (30-44)

WESTON Solutions
NANTUCKET FUDS SITE
NANTUCKET, MA 02554
CONTRACT NO: W912DR-09-D0006
Delivery Order No 0005

25. NATIONAL STOCK NO. & ADD (8-22)

Munitions Debris

26. RIC (4-6) UI (23-24) QTY (25-29) CON CODE (71) DIST (55-66) UP (74-80)

(1) 20 FT storage container containing Munitions Debris
No Munitions of Explosive Concerns (MEC) or Munitions Constituents (MC)
Are within.

27. ADDITIONAL DATA

"This certifies and verifies that the material listed has been 100% inspected and to the best of our knowledge and belief, is inert and/or free of explosives hazards."

Donal Mears
SUXOS
571-345-8582

Timothy Rodriguez
UXOQC/ Safety
850-240-3226

DMears 8/2/2012 T. [signature] 8/2/12

PREVIOUS EDITION MAY BE USED

Adobe Designer 8.0

APPENDIX I

LABORATORY DATA DELIVERABLES

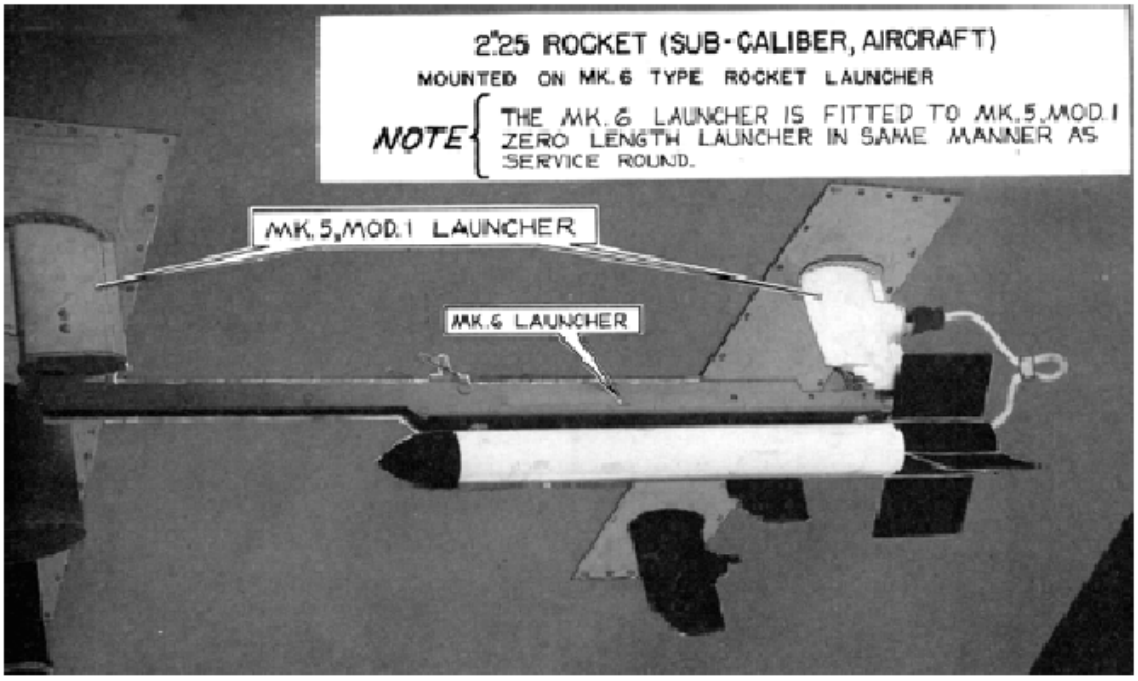
Laboratory analytical data deliverables are provided as attachments to data evaluation and validation technical memoranda prepared during the Remedial Investigation (See Appendix A).

APPENDIX J

MUNITIONS TECHNICAL DATA SHEETS

Ordnance Technical Data Sheet

U.S. ROCKET, 2.25-IN, PRACTICE, 2.25-IN NAVY A.R.



Nomenclature:	**U.S. ROCKET, 2.25-INCH, Practice, 2.25-IN Navy A.R.**
Ordnance Family:	Rockets
DODIC:	H116
Filler:	Propellant
Filler weight:	793.8
Item weight:	4.00 kg (8.8 lbs)
Diameter:	70.00 mm (2.25 in)
Length:	648.00 mm
Maximum Range:	N/A
Fuze:	M446 fuze assembly

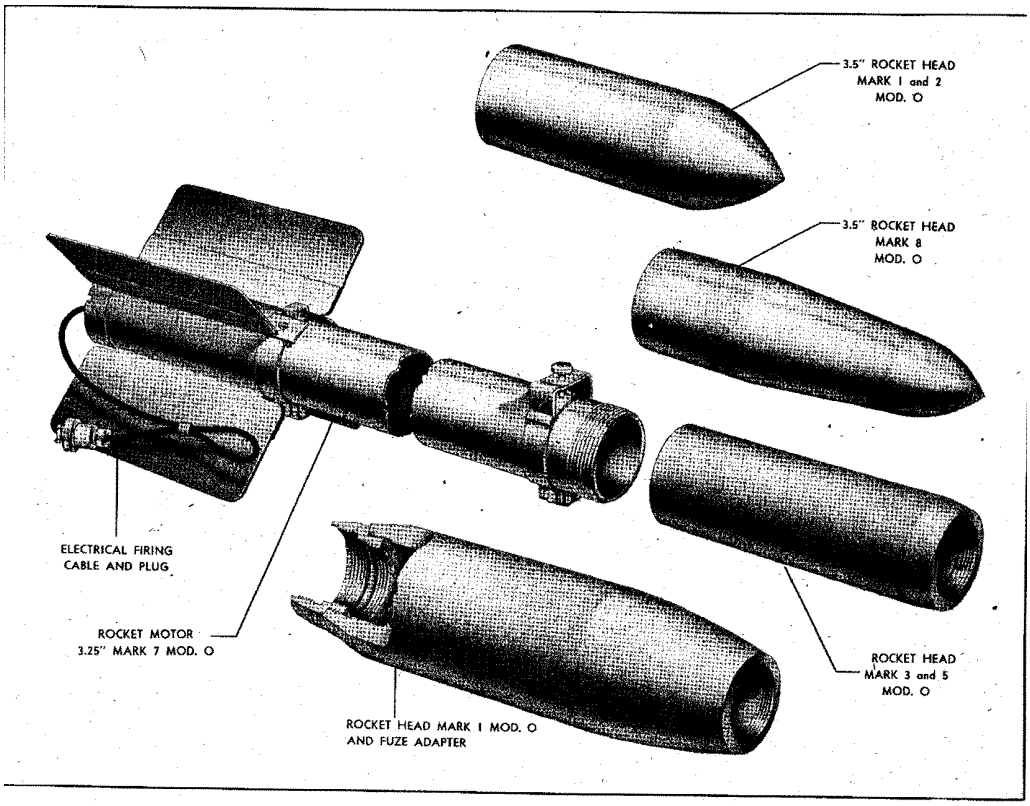
Usage: The 2.25-inch sub-caliber rocket for aircraft was developed for training purposes.

Description: For recognition purposes, the 2.25-inch motors Mk 10 and Mk 11 are painted white with black fins, while the Mk 12 and Mk 13 are grey with black fins. The warhead is made of metal.

Reference: ORDATA Online

Ordnance Technical Data Sheet

U.S. ROCKET, 3.25 and 5.0-INCH, AIRCRAFT ROCKET MOTORs and WARHEADS



Nomenclature:	U.S. 3.25 and 5.0-INCH Rockets and Warheads
Ordnance Family:	Rockets
Filler:	Solid and *TNT
Filler weight:	see table for description
Item weight:	see table for description
Diameter:	see table for description
Length:	see table for description
Maximum Range:	Not available
Fuze:	see fuze description below

Usage: The rocket equipped with a 3.5-inch solid steel head is designed for penetrating the hulls of submarines and other lightly armored vessels. The rockets equipped with 3.5-inch or 5.0-inch high explosive heads are intended for use against targets such as shipping, personnel, bivouac areas, and light armor.

Description: These rockets can carry multiple 3.5-inch and 5.0 inch warheads (see description below). The 3.5-inch and the 5.0-inch Aircraft Rockets are fin-stabilized rockets using the 3.25-inch Motor Mark 7 Mod 0 as the propulsive unit. The rockets use the Mark 9 Mod 0 igniter.

The igniter consists of a plastic case containing black powder and an electric squib. The propellant grain (MK 13 Mod 0) is a single grain of ballistite shaped in the form of a cross.

Warheads:

- **3.5-inch Rocket Head Mark I Mod 0.** This head is a 20-pound solid steel shot with an ogive radius of five inches and a total length of 10.35 inches. When attached to the 3.25-inch Rocket Motor Mark 7 Mod 0 this head forms a projectile for firing against submarines and is capable of penetrating up to 1.5 inches of mild steel at normal incidence. The lethal underwater range is approximately 60 feet when the projectile enters the water at an angle of about 20 degrees. The lethal range depends upon the rocket velocity. This velocity is the sum of the plane speed and the velocity imparted to the rocket by the gas jet issuing from the nozzle.
- **3.5-inch Rocket Head Mark 2 Mod 0.** This head is identical in every respect to the 3.5 Rocket Head Mark 1 Mod 0.
- **3-5-inch Rocket Head Mark 8 Mod 0.** This head is a 20-pound solid steel shot 11.75 inches long. It differs from the Mark 2 in that a double ogive is incorporated in its design. When fired at entry angles of 20 degrees or less this projectile has a lethal underwater range of about 120 feet.
- **3.5-inch Rocket Head Mark 3 Mod 0.** This head carries a high explosive charge. When filled with 2.3 lbs of TNT and fitted with a nose fuze, the head weighs about 20 lbs. This head may be used with either Nose Fuze MK 148 Mod 0 or MK 149 Mod 0. No provision is made for use of a base fuze with this head.
- **3.5-inch Rocket Head Mark 5 Mod 0.** This head is identical in every respect to the 3.5-inch Rocket Head Mark 3 Mod 0.
- **5.0-inch Rocket Head Mark 1 Mod 0.** This head is a high explosive shell weighing about 46 lbs when filled with 8.6 lbs of TNT and equipped with both base and nose fuzes. This body may be shipped with a conical nose plug installed, and when thus used will have the fragmentation and penetration characteristics of the 5”/38 common AA projectile. This head may be used with either Nose Fuze MK 148 Mod 0 or MK 149 Mod 0. All 5.0-inch Rocket Heads Mark 1 Mod 0 are shipped with a base fuze installed and staked in place. The Mk 6 Mod 1 (PRAC) is inert loaded weight is approximately 80 pounds.

Fuzes:

- **Nose Fuze MK 149 Mod 0.** This fuze is an air arming, impact firing fuze designed for use with 3.5-inch and 5.0-inch Forward Firing Aircraft Rockets. The fuze body fits directly into the fuze seat liner ring in the nose of the rocket.
- **Nose Fuze MK 148 Mod 0.** This fuze is a prototype of the Nose Fuze MK 149 Mod 0.
- **Base Fuze MK 146 Mod 0.** The 5.0-inch Aircraft Rocket is equipped with a base fuze. The fuze is shipped installed in the head. This is an impact fired fuze.
- **Base Fuze MK 157 Mod 0.** This fuze is identical to the MK 146 Mod 0 except that the MK 157 Mod 0 has a delay detonator which results in a .020 seconds delay in firing.

* TNT (2, 4, 6-trinitrotolucne) is a constituent of such explosives as amatol, pentolite, tetrytol, tritonal, picratol, and Comp B. In a refined form, it is one of the most stable high explosives. In the pure state, it is crystalline and nearly white, resembling a light brown sugar.

Reference: OP 1157

ASSEMBLY CHART OF COMMON ROUNDS*

Complete Round Designation	Head	Load	Load Wt. Lb.	Motor	Fuze Nose	Fuze Base	Nominal Total Wt.
3.5-inch SD002	3.5-inch Mk 1 or 2	Solid		3.25-inch Mk 7 Mod 0	None	None	54 lbs.
3.5-inch HE004	3.5-inch Mk 3 or 5	TNT	2.3	3.25-inch Mk 7 Mod 0	None	Mk 148 Mod 0	54 lbs.
3.5-inch HE006	3.5-inch Mk 3 or 5	TNT	2.3	3.25-inch Mk 7 Mod 0	None	Mk 149 Mod 0	54 lbs.
3.5-inch HE014	3.5-inch Mk 8 Mod 0	Solid		3.25-inch Mk 7 Mod 0	None	None	54 lbs.
5.0-inch HE001**	5.0-inch Mk 1 Mod 0	TNT	8.6	3.25-inch Mk 7 Mod 0	None	Mk 148 Mod 0	80 lbs.
5.0-inch HE005	5.0-inch Mk 1 Mod 0	TNT	8.6	3.25-inch Mk 7 Mod 0	Mk 146 Mod 0	Plug	83 lbs.
5.0-inch HE007	5.0-inch Mk 1 Mod 0	TNT	8.6	3.25-inch Mk 7 Mod 0	Mk 146 Mod 0	Mk 148 Mod 0	82 lbs.
5.0-inch HE009	5.0-inch Mk 1 Mod 0	TNT	8.6	3.25-inch Mk 7 Mod 0	Mk 146 Mod 0	Mk 149 Mod 0	83 lbs.
5.0-inch HE022	5.0-inch Mk 1 Mod 0	TNT	8.6	3.25-inch Mk 7 Mod 0	Mk 157 Mod 0	Plug	83 lbs.
5.0-inch HE023	5.0-inch Mk 1 Mod 0	TNT	8.6	3.25-inch Mk 7 Mod 0	Mk 157 Mod 0	Mk 148 Mod 0	82 lbs.
5.0-inch HE024	5.0-inch Mk 1 Mod 0	TNT	8.6	3.25-inch Mk 7 Mod 0	Mk 157 Mod 0	Mk 149 Mod 0	83 lbs.

* For more complete round designations see O.D. 5368.

** Assembly 5.0-inch HE001 was the first production of 5.0-inch Heads and did not contain a base fuze; no further issue of this round will be made.