



## **United States Coast Guard**

### **Removal Action Completion Report**

Reedy Island Rear Range Light

Townsend, Delaware

December 11, 2012





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## Removal Action Completion Report

Reedy Island Rear Range  
Light  
Townsend, Delaware

Prepared for:  
United States Coast Guard  
Civil Engineering Unit Cleveland

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**Acronyms and Abbreviations**

AASHTO	American Association of State Highway Transportation Officials
ARAR	applicable or relevant and appropriate requirements
bgs	below ground surface
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
COC	constituent of concern
DE-URBRS	Delaware Uniform Risk-Based Remediation Standard
DNREC	Delaware Department of Natural Resources and Environmental Control
EE/CA	Engineering Evaluation / Cost Analysis
ESA	Environmental Site Assessment
HSCA	Hazardous Substance Cleanup Act
LUST	leaking underground storage tanks
mg/kg	milligrams-per-kilogram
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
ppm	parts-per-million
QA/QC	quality assurance/quality control
QAPP	Quality Assurance Project Plan
RACR	Removal Action Completion Report
RAO	removal action objective
RAWP	Removal Action Work Plan
RCRA	Resource Conservation and Recovery Act
SHPO	State Historic Preservation Office
SOP	Site-specific Operating Procedure
TCLP	Toxicity Characteristic Leaching Procedure
USCG	U.S. Coast Guard
USEPA	United States Environmental Protection Agency
XRF	X-ray fluorescence

## Executive Summary

As provided in Executive Order 12580 and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), the U.S. Coast Guard (USCG) is acting as the lead agency in implementing a Non-Time-Critical Removal Action under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) at the Reedy Island Rear Range Light located at 1171 Taylors Bridge Road in Townsend, Delaware (Site). The removal action was conducted in accordance with the Engineering Evaluation/Cost Analysis and Removal Action Work Plan (EECA-RAWP [ARCADIS, 2009]). The EECA-RAWP included as appendices the Field Sampling Plan (FSP), the Quality Assurance Project Plan (QAPP), and the Health and Safety Plan (HASP).

Lead-impacted soils were identified at the Site during previous investigations, conducted in accordance with Section 300.410 of the NCP. Soil lead impacts were characterized by two phases of remedial investigation which included the use of X-ray fluorescence (XRF) technology as a field screening tool and laboratory analysis of soil samples for lead. Reported lead concentrations in soil obtained via laboratory analysis ranged from 10 milligrams per kilogram (mg/kg) to 890 mg/kg. The lead impacts in soil are believed to have resulted from the historical application and subsequent weathering of lead-based paint on the Site lighthouse structure. No other potential sources of lead contamination were identified at the Site.

The results of the previous Site assessments and investigations were used to delineate the horizontal and vertical extent of impacted soils. The Delaware Uniform Risk-Based Remediation Standard (DE-URBRS) for residential soils of 400 mg/kg was utilized as a screening level for analytical results to determine if impacted soils were present; this evaluation determined that the footprint of the light tower contained lead concentrations that exceeded the prescribed screening level to a depth of approximately one foot below ground surface (bgs).

Due to the limited depth and extent of soil impacts, the EECA-RAWP concluded that the most protective and cost-effective remedy for the Site was removal and off-site disposal of soils with lead concentrations exceeding the DE-URBRS for residential soils. The removal action was conducted in accordance with the United States Environmental Protection Agency's (USEPA's) *Guidance for Conducting Non-Time-Critical Removal Actions Under CERCLA* (USEPA, December 1993) to address soil impacted by lead above site-specific removal action objectives associated with the historical paint application and subsequent weathering of the exterior of the structures. The primary objective of the removal action was to protect the public health, welfare

and the environment, thereby facilitating the transfer of the remaining property from the federal inventory. The DE-URBRS criterion for lead of 400 mg/kg was identified as the most stringent cleanup criterion applicable to the site and was therefore considered the primary soil removal action objective (RAO).

The EECA-RAWP, QAPP, FSP, and HASP (included as appendices) were approved by the USCG with USEPA concurrence. The afore mentioned documents were prepared to guide the implementation of field activities associated with the removal action. In addition, the EECA-RAWP was submitted to the DNREC for review and was made available for public comment. The public comment period was from September 9, 2009 to October 9, 2009. No public comments were received and the documents were approved by USEPA.

The soil remedial activities at the Site were initiated on November 19, 2009. Soil removal activities were halted temporarily from December 2009 to April 2010 due to an electrical repair associated with the light tower and also due to inclement weather experienced during this time period. Soil removal activities were then resumed on 5 April 5, 2010 and site restoration was completed on April 12, 2010. The vertical extent of the excavation proceeded to 24 inches below ground surface. The horizontal extents of the excavation areas were consistent with the extents depicted within the EECA-RAWP.

During excavation, an XRF analyzer was used for field screening of lead concentrations in soil to confirm the removal of soils with lead impact at concentrations greater than the DE-URBRS criterion for lead of 400 mg/kg. Excavation was terminated in areas with screening results indicating lead concentrations less than 200 mg/kg. Field screening results at the confirmatory sample locations within the excavation area via the XRF analyzer ranged from non-detect to  $22 \pm 9$  mg/kg. Confirmation samples for laboratory analysis were then collected from the soils screened with the XRF analyzer at the designated confirmatory sample locations. Laboratory analytical results of the samples collected from the terminal depth and sidewall of the excavation areas indicate that the excavation of the lead-impacted soils achieved the RAO. Soil impacted with lead concentrations above the RAO of 400 mg/kg have been removed from the site and therefore, no further action is needed. The excavated area was lined with a woven geotextile fabric and then backfilled with clean #57 stone.

Prior to intrusive activities, one composite soil sample was collected and analyzed for TCLP lead via USEPA Method 1311 to determine whether the waste is

characteristically hazardous. Sample results indicate that the soils at the site are not characteristically hazardous for lead as the composite soil sample result for lead was 4.2 mg/L which is below the threshold criteria of 5 mg/L. The waste characterization TCLP results are presented within Appendix A.

Approximately 140 cubic yards of non-hazardous lead-impacted soil/gravel was excavated around the structures on the property and transported to the Modern Landfill Facility operated in York, Pennsylvania for disposal. The excavated soils were transported to on-site rolloffs, which were subsequently transported to the disposal facility. Waste manifests were used to transfer ownership and track shipment of all waste -carrying containers.

Prior to the soil removal, flaking lead based paint chips were removed from the base of the lighthouse structure, containerized in a 55-gallon drum, and disposed of at the Cycle Chem facility located in Lewisberry, Pennsylvania. Waste Manifests were used to transfer ownership and track shipment of the lead-based paint chips.

## **1. Introduction**

The United States Coast Guard (USCG) has prepared this Removal Action Completion Report for the Reedy Island Rear Range Light located at 1171 Taylors Bridge Road in Townsend, New Castle County, Delaware. The site location is presented on Figure 1. The Site consists of the Reedy Island Rear Light tower and a dilapidated barn. The Site layout is presented on Figure 2. The subject property is a relatively flat grass field with a gravel entrance route leading to the tower. The absence of significant slope on the property allows for infiltration of storm water within the vegetated areas.

The federal government is planning to divest the property upon resolving identified environmental concerns related to the operation of the rear range light. Potential environmental concerns at the site were identified during a Phase I Environmental Site Assessment (ESA) conducted during 2004. Subsequent Phase II ESA activities were planned based on the Phase I ESA findings and focused on the presence of lead-based paint chips on the ground and in the soil surrounding the light tower and the other structures on the Site. The anticipated future use of the Site is residential. Therefore, the USCG selected the residential DE-URBRS criterion of 400 mg/kg as the Site-specific removal action objective (RAO).

In addition, the RAO is also consistent with the Revised Interim Soil Lead Guidance for CERCLA Sites and Resource Conservation and Recovery Act (RCRA) Corrective

Action Facilities (dated July 14, 1994). This guidance recommends using a residential land use screening level of 400 mg/kg, and that if soils are below this level, then no further action is required (USEPA 1994). Therefore, the selected RAO is consistent with state and federal guidance and avoids the need to implement use restrictions for future land-use scenarios. There are several areas on the Site where lead was detected in soil at concentrations above the RAO. These soils were excavated and disposed of off-site to eliminate the direct contact pathway. The removal action was conducted in accordance with Code of Federal Regulations (CFR) Sections 40 CFR 300.410 and 300.415.

The removal action completed for the Site included the excavation and removal of lead-impacted surface soils resulting from deterioration and deposition of the exterior lead-based paint from the structure. The removal action was conducted in accordance with the United States Environmental Protection Agency's (USEPA's) *Guidance for Conducting Non-Time-Critical Removal Actions Under CERCLA* (Comprehensive Environmental Response, Compensation and Liability Act; USEPA, December 1993). The primary objective of the removal action was to protect the public health, welfare and the environment, thereby facilitating the divestiture of the property from the federal inventory. The reasonably anticipated future use of the Site is residential.

This Final Removal Action Completion Report incorporates revisions based upon comments generated by the USEPA in regards to the Draft Final version of the report (ARCADIS, 2010). The USEPA transmitted comments indicating that the non-time critical removal action for lead-impacted soil was performed satisfactorily; however, the USEPA expressed concern for possible dioxin-impacted soils at the site resulting from the historical fire that destroyed the on-site generator. This Final Removal Action Completion Report has been amended to include a discussion of soil dioxin sampling and results presented within Section 2.8.

### **1.1 Background**

The square-based 110-ft tall light iron tower was constructed in 1910 and sits on eight concrete footers. Prior to the soil removal, the base of the tower was covered with gravel underlain by a geotextile or filter cloth. A spiral staircase ascends the tower in a central cylinder of the structure.

A fire occurred on Site during April 2002, and destroyed a fiberglass structure that enclosed a diesel-powered emergency generator and a 25-gallon fuel tank. The remains of the emergency generator were removed from the Site in November 2002.

A former oil house, privy, and a private residence (the former keepers house), were also destroyed in the April 2002 fire. The Site plan is presented on Figure 2.

Historically, both lead-based paint and non-lead-based paint have been applied to the tower. Exposure to the weather and sunlight caused the paint on the structure to chip and deposit on the surface soils within the footprint of the structure foundation. Based on these historical activities, lead impacted surface soils have been identified at the Site during previous investigations.

#### 1.1.1 Phase I / II Environmental Site Assessments

A Phase I ESA was conducted during May 2004 (Tecumseh, 2004) to identify any potential recognized environmental conditions at the Site. The Phase I ESA included a site reconnaissance and a records review from public agencies to assess the potential for current or past Site usage to have resulted in environmental impacts.

Based on the visual observations of the Site and the age of the on-site buildings, the potential for lead based paint to be present on the buildings and the light tower was likely. The Phase I report concluded that soils surrounding the buildings and the light tower could potentially contain elevated concentrations of lead resulting from the deposition of chipped lead-based paints.

The following conclusions were generated based on the Phase I ESA Site evaluation, records review, and interviews:

- The Site was not identified in the ASTM geographic record database search conducted by EDR that identifies properties with confirmed or possible contamination, facilities that generate hazardous waste, sites with Underground Storage Tanks (USTs), and/or properties involved with federal enforcement actions;
- No hazardous waste generating facilities, sites with USTs, ASTs , or properties involved with federal enforcement actions were identified within the required ASTM 1527-00 search radius of the Site;
- There was no visual indication of USTs and no records about the fuel oil Above Ground Storage Tank (AST), located adjacent to the oil house;

- No indication of PCB-containing equipment, asbestos-containing materials, herbicides, pesticides, or migrating substances within one-half mile were observed or noted; and,

Based upon the findings of the Phase I ESA, lead was identified as the only potential constituent of concern (COC).

Based on the findings of the Phase I ESA, a Phase II ESA was performed to further characterize the potential lead impacts at the Site (ENSR, 2005). Soil lead impacts were characterized through the use of XRF technology as a field screening tool and laboratory analysis of soil samples for lead. As part of the Site Characterization, XRF soil samples were collected at 18 locations within the base of the light tower and from the surrounding property of the light tower. Ten analytical lab samples were also collected to analyze the surface soil lead concentration and to confirm the XRF surface soil results. The XRF and lab analytical soil samples were collected at an interval of 0.0 to 8.0 inches below ground surface. Reported laboratory lead concentrations in surface soil ranged from 10 mg/kg to 890 mg/kg (ENSR, 2005). Based upon the XRF and soil analytical data, the vertical and lateral extents of lead impact to the soil have been delineated.

In addition, one composite soil sample was analyzed via EPA Method 1311/6020 Toxicity Characteristic Leaching Procedure (TCLP) analysis to determine whether or not impacted soils would be considered hazardous (ENSR, 2006). The TCLP analysis result for the sample was 1.7 milligrams per liter of lead, which is below the regulatory threshold value of 5 milligrams per liter, and thus is considered non-hazardous.

#### 1.1.2 Compliance with Endangered Species Act

The DNREC Natural Heritage Program was contacted on February 6, 2009 to inquire about the necessity to perform an assessment of endangered species prior to implementation of remedial activities at the Site. The DNREC Natural Heritage Program provided a response dated February 10, 2009 stating that there are no records of threatened or endangered species at the Site; this letter is presented within the EECA-RAWP (ARCADIS, 2009).

#### 1.1.3 Compliance with National Historic Preservation Act

The USCG has worked closely with the Delaware Division of Historical and Cultural Affairs to communicate the potential for adversely affecting cultural and historical

resources (if present) during the planned removal action. The USCG received a letter from the Division of Historical and Cultural Affairs, dated January 27, 2009, approving the proposed soil excavation. A copy of the correspondence is provided in the EECA-RAWP (ARCADIS, 2009).

#### 1.1.4 Identification of Applicable or Relevant and Appropriate Requirements

The EECA-RAWP also identified the Applicable or Relevant and Appropriate Requirements (ARARs) as defined in Section 300.5. Section 121(d) of CERCLA as amended by the 1986 Superfund Amendments and Reauthorization Act and Section 300.415(i) of the NCP requires that removal actions attain ARAR's to the extent practical considering the exigencies of the situation. Federal ARARs are to be considered in formulating a removal action. Where state requirements are promulgated, more stringent than federal requirements, and identified by the State in a timely manner; they are also to be considered to the extent practical given the exigencies of the situation. Section 324.20120a of the Natural Resource Environmental Protection Act (NREPA) authorizes DNREC to establish cleanup criteria and approve remedial actions based on appropriate land-use categories. Pursuant to Section 300.400 (g) (5) of the NCP, the USCG acting as the lead federal agency submitted a letter to the DNREC on July 28, 2008 requesting the timely identification of ARARs for the investigation and remediation of lead-impacted soil at the Site. The DNREC response to the request was provided in a letter dated August 14, 2008; this letter is presented within the EECA-RAWP (ARCADIS, 2009). A summary of the ARARs identified to be potentially applicable to the Site follows.

##### 1.1.4.1 Action Specific Requirements

- Stormwater and Sediment Control (Delaware Sediment and Stormwater Regulations, Section 8.1)

The referenced regulation requires the approval of an erosion and sediment control plan by DNREC if the land disturbing activities are to affect greater than 5,000 square feet. The soil excavation activities at the Site affected approximately 2,000 square feet of surface area. As a result, the soil excavation activities were exempt from the requirement for approval of an erosion and sediment control plan. However, erosion and sediment controls were implemented at the Site prior to land disturbance.

- Institutional Controls (Delaware Regulations Governing Hazardous Substance Cleanup, Section 8.10)

If institutional controls are part of the proposed remediation plan, the referenced regulation requires the recording of such controls on the deed of the property. No institutional controls were implemented at this property resulting from the soil excavation activities; therefore, the Site is exempt from this requirement.

- Soil Reuse (Delaware Policy Concerning Reuse of Soil at HSCA Sites)

The soil excavated as part of the remediation efforts was disposed of at a licensed and approved landfill. No soil from the site was used as fill material in other locations at the Site or at another site under DNREC jurisdiction. As a result, the Site is exempt from this requirement.

- Construction of Ground Water Monitoring Wells (Delaware Regulations Governing the Construction of Water Wells)

The remedial activities associated at the Site did not include the installation of groundwater monitoring wells. Therefore, the referenced regulations were not applicable.

- Disposal at a Delaware Solid Waste Authority Facility (DNREC – Site Investigation and Restoration Branch)

The Site Investigation and Restoration Branch of DNREC require pre-approval prior to the disposal of any non-hazardous waste from a cleanup site to a landfill operated by the Delaware Solid Waste Authority. The soil generated from the excavation activities was disposed as non-hazardous (according to the data obtained during waste characterization [Appendix A]) and was disposed at either the Modern Landfill located in York, PA; or at Clean Venture Cycle Chem located in Lewisberry, PA. Appendix B contains the waste disposal manifests. Therefore pre-approval for the disposal of this soil from DNREC was not necessary.

#### *1.1.4.2 Location Specific Requirements*

- Development in Coastal Zone  
(<http://www.dnrec.delaware.gov/Admin/CZA/Documents/CZARegs.pdf>)

The current zoning of the Site property is for residential use and the future use is anticipated to remain as residential. As a result, the provisions of the Delaware

Coastal Zone Act, which prohibits new heavy industry in the designated zone, will not be applicable to this project.

#### 1.1.4.3 Chemical Specific Requirements

- Groundwater Cleanup Levels (Delaware Regulations Governing Hazardous Substance Cleanup, Section 9.5)

Historical investigation activities indicate that the potential for impact to groundwater resulting from activities associated with the Site is minimal. Additionally, the lead-impacted soil identified does not pose a significant risk to groundwater due to the nature and distribution of the contaminant. As a result, the focus of the remedial activities was on the removal of the lead-impacted soils; therefore, groundwater cleanup levels were not applicable.

- Soil Cleanup Levels (Delaware Regulations Governing Hazardous Substance Cleanup, Section 9.4)

The current and anticipated future use of the Site is residential. As a result, the USCG has selected a RAO for lead in soil at the Site based on the DE-URBRS for lead in residential soil as discussed in Section 1.0. The Delaware residential soil risk-based screening level is 400 mg/kg for lead, as promulgated in the Remediation Standards Guidance under the Delaware HSCA December 1999 Title 7, Chapter 91. The direct contact pathway, which includes incidental particulate soil ingestion, is the most restrictive pathway and, therefore, is considered to be protective of all the other pathways.

- Lead Abatement (Title 16 Section 4459 Lead Based Paints Hazard)

The above-referenced regulation concerns aspects of diagnosing and abating lead hazards caused by lead-based paint in Delaware. Soil excavation activities at the Site were performed in accordance with Title 16 Section 4459 Item 4.5.7, such that the soil used for backfill in the excavated areas was certified clean fill material with lead concentrations less than 400 parts-per-million. Appendix C contains the backfill analytical data certifying the topsoil as clean backfill. Additionally, soil removed from the Site will not be used as top soil at other residential property or child-occupied facilities.

In addition to the lead impacted soil removal, loose lead based paints on the light tower were removed. Lead based paint removal was conducted in a manner consistent with standard industry practices for the removal of lead based paint. Specifically, loose lead based paints were removed by wet scraping and collecting of loose paint chips with a High Efficiency Particulate Air (HEPA) vacuum. The removed lead based paints were then manifested and disposed of as a D008 waste.

1.1.5 Engineering Evaluation / Cost Analysis and Removal Action Work Plan

An EECA-RAWP (ARCADIS, 2009) was prepared to address the lead-impacted soil at the Reedy Island Rear Range Light, as required in Title 40 of the Code of Federal Regulations (CFR) Part 300.415 (40 CFR 300.415). The EECA-RAWP evaluated the various remedial strategies and the potential risks to human health and the environment from the on-site lead-impacted soil and identified the preferred remedial strategy. The results of the evaluation determined that the excavation and off-site disposal of the near surface lead-impacted soils on the property were the most cost-effective and protective remedy.

**1.2 Chronology of Events**

The following is a brief chronology of events associated with the site activities. A copy of the daily logs is presented in Appendix D.

Chronology of Events	
Date	Action
May 17, 2004	Phase I Environmental Site Assessment (Tecumseh, 2004)
Jan 27, 2005	Phase II Assessment (ENSR, 2005)
July 29, 2008	Correspondence between the USCG and Delaware and the Department of Natural Resources and Environmental Control (DENRC) requesting information of Applicable or Relevant and Appropriate Requirements (ARARs)
Aug 14, 2008	Response from the DNREC enumerating potential ARARs

Chronology of Events	
Date	Action
Jan 7, 2009	Correspondence between the USCG and Delaware Historical Affairs inquiring about the proposed removal action in accordance with the National Historic Preservation Act
Jan 27, 2009	Response from Delaware Historical Affairs stating that the soil removal action will not affect the historic nature of the property
Feb 6, 2009	Correspondence between ARCADIS and the Delaware Natural Heritage Program, Division of Fish and Wildlife to inquire about potential affects to threatened and/or endangered species in accordance with the Endangered Species Act
Feb 10, 2009	Response from the Delaware Natural Heritage Program stating that there are no records of state-rare or federally listed plants, animals, or natural communities at the Site
Mar 20, 2009	Access agreement established between the USCG and the residents at 405 Port Penn Road
Dec 24, 2008	Draft QAPP submitted to USCG for Review
Jan 26, 2009	Draft Final QAPP submitted to EPA Region III for review
June 4, 2009	Final QAPP submitted to EPA Region III
Jan 27, 2009	Draft FSP submitted to USCG for Review
Feb 25, 2009	Draft Final FSP submitted to EPA Region III for review
June 1, 2009	Final FSP submitted to EPA Region III
April 10, 2009	Draft EECA-RAWP submitted to USCG for review
June 19, 2009	Draft Final EECA-RAWP submitted to EPA Region III for review
July 22, 2009	EPA Region III provides comments on Draft Final FSP

Chronology of Events	
Date	Action
July 22, 2009	EPA Region III provides comments on Draft Final QAPP
Aug 4, 2009	EPA Region III provides comments on Draft Final EECA-RAWP
Aug 31, 2009	Final EECA-RAWP submitted to EPA Region III
Sept 3, 2009	Hard copy and electronic version of the EECA-RAWP is delivered to the Appoquinimink Public Library located at 651 North Broad st, Middletown, DE 19709
Sept 3, 2009	Waste Characterization Samples collected
Sept 6, 2009 & Sept 13, 2009	Public Notice published in the Delaware News Journal notifying the public that the Final EECA-RAWP is available for review
Sept 9 - Oct 9, 2009	Public Comment Period on the EECA-RAWP
Nov 9, 2009	On-site construction Kick-off meeting
Nov 10, 2009 - 13, 2009	Site set-up, lead based paint removal, and repainting
Nov 19, 2009	Initiate excavation of lead impacted soils
April 7, 2010	Begin backfill of excavation with stone
April 8, 2010	Complete backfill and begins Site Restoration
April 12, 2010	Complete Site restoration
April 21, 2010	Final Site inspection
May 2010	Draft Final RACR Submitted to EPA Region III
September 1, 2010	EPA Region III generates comments on Draft Final RACR requesting additional soil samples be analyzed for dioxin/furans

Chronology of Events	
Date	Action
February 9, 2011	Draft QAPP Addendum and Draft FSP Addendum incorporating soil dioxin/furan sampling submitted to EPA Region III
March 31, 2011	EPA Region III generates comments on the Draft QAPP addendum and Draft FSP Addendum
May 9, 2011	Response to Comments for the Draft QAPP and FSP Addendum submitted to EPA Region III
July 26, 2011	EPA Region III approves Response to Comments for the Draft QAPP and FSP addendum
August 11, 2011	Final QAPP and FSP Addendum incorporating soil dioxin/furan sampling submitted to EPA Region III
August 31, 2011	Soil samples collected to characterize soil dioxin/furans
December 14, 2011	Soil Dioxin Sampling Results and Analysis Memorandum submitted to EPA Region III
December 22, 2011	EPA Region III approves the Soil Dioxin Sampling Results and Analysis Memorandum

**1.3 Public Participation and Response to Comments for EECA-RAWP**

In accordance with the NCP, public notice was given by the USCG announcing that the EECA-RAWP for the proposed removal action at the Site was available for review and comment. The purpose of the public participation requirement of the NCP is to promote active communication between the communities affected by the removal action at the Site. This notice was provided via the following channels:

- A Public Notice was published in *The News Journal* on September 6 and 13, 2009 announcing the availability of the EECA-RAWP at the Appoquinimink Public Library for public review and comment. A copy of the Affidavit of Publication is included in Appendix E.

- A correspondence was mailed by USCG to property owners adjacent to the site announcing the availability of the EECA-RAWP for public review and comment. Copies of the correspondences are included in Appendix E.

Copies of the EECA-RAWP were displayed at the Appoquinimink Public Library located at 651 North Broad Street, Middletown, DE and on the USCG Public Affairs website ([www.coastguardd5publicaffairs.com/go/doc/651/318619/](http://www.coastguardd5publicaffairs.com/go/doc/651/318619/)) to be available for review and comment between September 9 and October 9, 2009. Appendix E presents a screen capture of the USCG public Affairs website. A copy of the EECA-RAWP was also submitted to DNREC for comment.

The USCG received no comments from the public. Mr. Steven Johnson of DNREC Site Investigation and Restoration Branch provided comment via email to the USCG indicating no comment in regards to the remediation plan detailed in the EECA-RAWP.

## **2. Removal Action Implementation**

The removal action was conducted in accordance with the USEPA's *Guidance for Conducting Non-Time-Critical Removal Actions Under CERCLA* (USEPA, 1993). The primary objective of the removal action was to protect public health, welfare and the environment, thereby facilitating the transfer of the property from the federal inventory. The DE-URBRS criterion for lead of 400 mg/kg was identified as the most stringent cleanup criterion applicable to the site and was therefore considered the primary soil removal action objective. The soil removal activities at the Site occurred from 19-20 November 2009 with the subsequent soil removal and Site restoration occurring on 5-12 April, 2010.

### **2.1 Site Set-up Activities**

Initial activity at the Site included the collection of a composite soil sample for waste characterization. The composite sample was collected on 9 September 2009 from eight locations within the Site in addition to one Encore sample for Volatile Organic Chemical (VOC) analysis. Soil samples were sent to Test America, King of Prussia, PA and analyzed for the following analytes:

- TCLP Metals (EPA Method 1311);
- PCBs (EPA Method 8082);

- VOCs (EPA Method 8260B);
- TCLP VOCs (EPA Method 1311/8260B);
- TCLP Pesticides/Herbicides (EPA Method 1311/8081A); and
- TCLP SVOCs (EPA Method 1311/8270C).

Sample collection was conducted in accordance with the protocol established within the Field Sampling Plan (FSP, [ARCADIS, 2009]). The laboratory analytical results and a figure depicting the waste characterization sampling locations are included within Appendix A.

Prior to removal of lead based paint, the site was prepared by placing polyethylene sheeting to act as a drop cloth around the location of the lead based paint removal activities.

Utility clearance activities occurred concurrently to the lead based paint removal. Utility clearance consisted of three lines of evidence to identify underground utilities prior to the commencement of intrusive activities. The three lines of evidence are as follows. First, Miss Utility of Delaware was contacted on Friday, November 6, 2009 which allowed for intrusive activities on November 12, 2009. Second, a private utility locating service (SubTerra Geoservices of Pine Beach, NJ) was contracted to locate and mark out all subsurface utilities on the property. The private utility locate firm utilized a combination of ground penetrating radar and radio frequency detection. Third, the residences at the property were interviewed to determine what historical knowledge they may have of underground utilities.

Finally, silt fence was installed downgradient of the anticipated excavation areas to mitigate sediment transport associated with site stormwater run-off.

## **2.2 Site Health and Safety Procedures**

Site control was maintained by partitioning the Site into three distinct zones, which are as follows: the support zones, contaminant reduction zone, and the exclusion zone. In addition, Site control was maintained by restricting access to the site for unauthorized individuals. Temporary construction fencing was installed around the excavation areas each evening after the daily site work was concluded.

Safety measures for site personnel were implemented in accordance with the site specific Health and Safety Plan contained within the EECA-RAWP (ARCADIS, 2009).

Removal of lead based paint was conducted in Level C Personal Protective Equipment (PPE). All other site work was conducted in modified Level D PPE. During soil handling activities, dust monitoring was conducted except when site conditions precluded the use of the dust meter (i.e., continuous rain). Air monitoring logs are included in Appendix F.

### **2.3 Lead Based Paint Removal and Repainting of the Light Tower**

Prior to the removal of lead contaminated soils from the Site, mitigation of the deteriorated paint from the light tower was conducted. Mitigation of lead based paint included the removal of loose/flaking paint, priming, and repainting those portions of the tower that were treated.

To minimize the potential for generation and migration of lead based paint dust the following protective measures were employed. First, the site was partitioned into three separate zones to include the exclusion zone, contaminant reduction zone, and the support zone. Access to the light tower was controlled through the use of these three zones. Prior to entering the exclusion zone, site personnel donned Level C PPE which included a half face particulate respirator, tyvek coveralls, and rubber over-boots. These PPE were removed before site personnel exited the contaminant reduction zone. Spent PPE and used polyethylene drop cloths were drummed for disposal. Second, the ground beneath the light tower was covered with polyethylene sheeting to capture paint chips and to minimize potential migration of lead based paint during removal. Potable water was applied, by misting, to the surface of the tower to minimize lead based paint dust generation. Finally, working surfaces and the drop cloth were vacuumed using a High Efficiency Particulate Air (HEPA) filter vacuum to minimize the onsite accumulation of lead based paint chips. Lead based paint chips that accumulated in the HEPA vacuum were drummed and disposed of as a D008 Waste (Appendix B).

Loose lead based paint was removed using a wire brush. After the loose lead based paint was removed from the tower, the exposed surfaces were treated with a Rustoleam™ Automobile Primer to inhibit further rust and to prime the surface for painting. The primed surfaces were then painted with two coats of Benjamin Moore Black Z163 80 paint. Treatment of the tower extended from the base of the tower to approximately 6 ft above the base of the tower.

## 2.4 Field Screening and Confirmatory Sampling Procedures

The methods and procedures followed for collecting soil samples and for field screening were conducted as outlined in the FSP which is included as an appendix to the EECA-RAWP (ARCADIS, 2009). Initial excavation sidewall and floor screening for lead in soil was conducted using a Thermo-Niton<sup>®</sup> XLP 703A XRF. The operation of the XRF was verified by using a vendor provided standard sample by which to confirm that the XRF was yielding accurate results. The XRF was verified against these standards after each start up of the unit (prior to the start of the screening activities each morning as well as at the end of the day).

### 2.4.1 Field Screening Methodology

Following removal of the anticipated volume of soil from the excavation, excavation floor and sidewall samples were collected to preliminarily confirm the lateral and vertical extents of the excavation. Soil samples were collected from the excavation area using a stainless steel trowel. The sample were placed into a re-sealable plastic bag and then analyzed in accordance with EPA method 6200.

The soil samples were then field screened with the XRF to determine the lead concentration. If the XRF instrument reading indicated a lead concentration of less than 200 mg/kg, then excavation limits were terminated in the area from which the field sample was collected. A collocated confirmation sample was then subsequently collected from the same material used for XRF screening.

In addition to XRF analysis of soils at the prescribed collocated XRF/post excavation confirmation sampling locations, screening of surface soils was also conducted outside of the excavation area to confirm that the extent of the lead contamination has not expanded and that the Site understanding of the extent of contamination was still accurate since previous field delineation events that occurred in 2005. General screening with the XRF was performed on in-place soils at eight locations outside of the prescribed excavation area. This screening was conducted to gather additional field data to confirm that the remaining soils at the site are below the RAO of 400 mg/kg. These screening locations and results are presented in Figure 3. Results of the field screening are included in Table 1.

#### 2.4.2 Confirmation Soil Sampling Methods and Results

If the soil sample field screening results indicated lead concentrations less than 200 mg/kg, then soil removal activities ceased in that area and the sample was transferred from the field screening sample bag to a laboratory-provided four-ounce amber glass jar. The sample collection data was documented in the field logs and on the laboratory-provided chain-of-custody form. Soil samples submitted for laboratory analysis were collected from the bottom and side walls of the excavation in the locations detailed in the EECA-RAWP. See Figure 3 for XRF sample locations (both in-situ surface soil and the collocated excavation samples). See Figure 4 for the confirmation sample locations respective lead concentrations.

Two duplicate samples (FD004 and FD009) were collected from the excavation for quality assurance/quality control (QA/QC) purposes as outlined in the QAPP. An equipment blank sample was collected from the stainless steel trowel used to obtain the soil samples. Rinsate water was collected in an eight ounce polyethylene bottle and sent to the lab for analysis with the soil samples. The results of the confirmation sampling are presented in Table 2 of this report. Additionally, two matrix spike/matrix spike duplicate (MS/MSD) samples were run by the laboratory during analysis of the soil samples associated with this removal action.

The analytical samples were then placed in a cooler on ice and prepared for shipment to Test America, Inc (Test America) Watertown, Wisconsin laboratory for analysis of total lead by USEPA method 6010B. The laboratory analysis of the confirmation samples was performed on a 24 hours turnaround time.

Results of the confirmation sampling (discussed in Section 2.5.2), indicated that the excavation had reached the horizontal and vertical limits established by the RAO of 400 mg/kg RAO.

#### **2.5 Soil Excavation, Transportation, and Disposal**

Excavation of lead-impacted surface soil exceeding the RAO occurred in three locations at the Site. The final excavation limit is presented on Figure 4 and includes the area within the light tower foundation footprint extending two feet beyond the eight concrete footers. The excavation was conducted in a manner such that construction equipment did not enter the excavation, and thus only the excavator buckets required decontamination.

A skid steer, mini-excavator, and hand shovels were utilized to remove the lead-impacted soils to a depth of approximately 24 inches bgs. The soil was transferred to lined, 20 and 30-cubic yard roll-off boxes that were staged onsite. Once loaded, the roll-off boxes were transported to the Modern Landfill located in York, Pennsylvania for disposal. Approximately 120 tons of non-hazardous lead-impacted soil was removed from the Site.

Dust monitoring was conducted in accordance with the HASP (ARCADIS, 2009). A Thermo Scientific™ PDR-1000 mini-ram was used to monitor ambient dust conditions during activities that had the potential to generate dust (e.g., excavation, backfilling, site grading). The dust monitor was placed in a location so that the monitoring would be representative of the breathing zone of the site workers. The dust monitor was configured to perform continuous monitoring logging a data point every 60 seconds. The data output is presented in Appendix F.

Soil removal was completed on April 7, 2009. Copies of the transportation and disposal manifests are included in Appendix B. Site photographs documenting the soil removal are included in Appendix G.

#### 2.5.1 Field Screening Results

Field screening within the area of excavation was performed as described in Section 2.4.1. Soil samples were field screened with the XRF from locations that corresponded with collocated confirmation samples from the excavation floor and excavation sidewalls. A total of 12 excavation floor and excavation sidewall samples were collected. In addition, 8 locations at the site were screened with the XRF in-situ to provide assurance that the extent of lead soil contamination remained consistent with previous characterization events. Table 1 presents the sample ID, sample type (e.g., excavation sidewall, excavation floor, or in-situ surface soil) and the screening result.

Figure 3 illustrates the field XRF screening locations. Of the 12 collocated excavation XRF field screening samples, the lead concentrations ranged from multiple non-detects in several locations to a high of 23 mg/kg with a standard deviation +/- 9 mg/kg at sample location RIXS007(1-1.5). For the 8 in-situ surface soil samples collected around the excavation perimeter, the concentrations ranged from a low of 13 mg/kg with a standard deviation of +/- 10 mg/kg at sample location 15 and a high of 225 mg/kg with a standard deviation of 52 mg/kg at sample location 14. The results of the in-situ XRF sampling confirm the supposition that the extent of lead contamination has remained the same since the initial characterization.

### 2.5.2 Confirmation Soil Sampling Laboratory Analytical Results

The laboratory analytical results for the collocated XRF/confirmation samples indicated total lead concentrations within the excavation floor (samples RIXB009 to RIXB012) ranged from a minimum of 2.2 mg/kg at sample location RIXS011(1-1.5) to a maximum of 29 mg/kg at sample location RIXB0091(2-2.5); thus indicating the final vertical excavation extent had been reached.

Laboratory analyzed lead concentrations for the excavation sidewall samples ranged from a minimum concentration of 2.2 mg/kg at sample location RIXS006(1-1.5) to a maximum concentration of 24 mg/kg at sample location RIXS003(1-1.5). As all the excavation sidewall samples were below the RAO of 400 mg/kg, the horizontal excavation extent had been reached.

The excavation laboratory analytical results are summarized in Table 2. The laboratory analytical report is included in Appendix H.

Two field duplicate samples were collected for QA/QC purposes. The field duplicates, indicated as "FD", were prepared by splitting the bagged sample used for XRF field screening. The parent sample RIXS004(1-1.5) and its duplicate FD004 had total lead concentration of 5.8 mg/kg and 7.6 mg/kg, respectively. Parent sample RIXB009(2-2.5) and its duplicate FD009 had total lead concentrations of 29 mg/kg and 4.8 mg/kg, respectively. The variance in the field duplicate for RIXB009(2-2.5) is most likely attributable to the duplicate for this sample not being field dried and sieved as the parent sample. Although this sample has a variance from the parent sample, the data validation report concluded that this data is acceptable for the intended use (see Section 2.5.3 below).

### 2.5.3 Data Validation Summary

The laboratory analytical data was reviewed and validated by ARCADIS in accordance with the QAPP and the USEPA *Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (October 2002) and Region III SOPs that apply to method SW-846, laboratory control limits, and professional judgment. Data quality was assessed through the review and evaluation of field sampling activities and QC samples and the data associated with the chemical analytical results. In general, the analytical data associated with this removal action are considered usable for the intended purpose and was sufficient for decision-making. One hundred percent of the

results are valid for their intended purpose, as qualified by the data validation. The data validation report is located in Appendix I.

## **2.6 Site Restoration**

Site restoration activities were conducted final excavation limits were achieved based on the results of the confirmatory sample analytical results. Backfill of the excavation was initiated on April 7, 2010 and completed on April 8, 2010.

The backfill material consisted of the placement of approximately 128 cubic yards of an American Association of State Highway and Transportation Officials (AASHTO) #57 stone. Prior to the placement of the stone, a geotextile fabric was placed between the excavation floor and the stone to support the stone and prevent its sinking within the saturated excavation floor. The stone was placed as two separate lifts with a compaction effort between, and after each lift, using an excavator bucket. The stone was placed so that it was mounded above the existing grade by approximately 2-3" to account for potential future settling of the stone.

In addition to the backfilling of the excavation with stone, portions of the site that were disturbed by the excavation and backfill activities were restored by regrading the subbase and the placement of topsoil to fill ruts, depressions, and to act as a seed bed. The site was graded to promote positive drainage and preclude the ponding of water.

Laboratory analysis of the backfill topsoil was performed prior to placement onsite. The analysis of the backfill were compared to the EPA Regional Screening Levels. Results of this comparison indicate that the backfill material is a clean fill and appropriate for use as a backfill. The associated laboratory analytical results are included within Appendix C. The samples were analyzed for the following analytes:

- Volatile Organic Compounds via EPA method 8260B;
- Semi Volatile Organic Compounds via EPA method 8270;
- PCBs via EPA method 8082B;
- Pesticides/herbicides via EPA method 8081A; and
- TAL Metals via EPA method 6010B.

The topsoil was then seeded with 60 pounds of a 50/50 mix of fescue and annual rye grass. The disturbed soil was covered with Excelsior degradable erosion matting. Erosion matting was placed on the surface so that the swaths overlapped by approximately 3-4 inches and then staked in place. Photo documentation of site restoration activities is included in Appendix G.

## **2.7 Construction Alterations and Final Site Inspection**

The majority of the remedial action activities were conducted in accordance with the EECA-RAWP. The EECA-RAWP had specified that the excavation was to be backfilled from the 1-2 ft bgs interval with common borrow and then overlain with stone. However, due to the high water table and the presence of groundwater within the excavation, it was determined that the placement of stone within the entire depth of the excavation would perform better than the placement of soil within the water table. This alteration from the workplan did not conflict with the intention of the approved design, as the RAO goals were obtained (as evident by the confirmation sampling), and was conducted with the aim of improving the overall project as determined by field conditions. No other construction alterations are noted.

A final Site inspection was conducted by representatives of ARCADIS and the USCG on April 21, 2010 after the construction action was substantially complete. The attendees of the Site walk included Mr. JP Messier (USCG) and Mr. Ramzi Khuri (ARCADIS). The only action identified during the Site walk was to restake the erosion matting with wooden stakes to ensure that the erosion matting is securely fastened. This action item was completed on May 17, 2010. No other action items were necessary.

## **2.8 Soil Dioxin Sampling and Analysis**

Correspondence received by the USCG from the USEPA on September 1, 2010 transmitted comments on the Draft Final Remedial Action Completion Report (ARCADIS, 2010). The USEPA transmittal indicated that the non-time critical removal action for lead-impacted soil was performed satisfactorily; however, USEPA expressed concern for possible dioxin-impacted soils at the site. Specifically, the USEPA referred to the fire that occurred at the Site during April 2002 resulting in the destruction of the fiberglass structure that enclosed a diesel-powered emergency generator and a 25-gallon fuel tank. The USEPA recommended further sampling and analysis to determine if residual dioxins were present within surface soils as a result of the fire.

The existing Reedy Island Rear Range Light QAPP and FSP developed to support the lead impacted soil non-time critical removal action were amended to incorporate changes required for the additional sampling necessary to characterize dioxin/furan within surface soils (ARCADIS, 2011a; ARCADIS, 2011b). The QAPP and FSP addenda were submitted to the USEPA and subsequently approved by the USEPA on July 26, 2011.

Soil samples were collected from the Site on August 31, 2011. Surface soil samples were collected from the Site to quantify dioxin/furan concentrations from two areas of the Site: (1) those soils potentially affected by the historical emergency generator fire and (2) those soils outside the limits of the historical fire and therefore representative of background conditions.

The analytical results for the soil dioxin/furan samples were summarized in a memorandum transmitted to the USEPA on December 14, 2011 (attached as Appendix J). Analysis of the data indicated that soil obtained from both the area of the historical fire and from background locations had exceeded the USEPA Region III Residential RSL. However, the dioxin/furan concentration observed from soils obtained from within the area of the historical fire did not differ significantly from those soils obtained from background locations. Therefore, it was determined that dioxin/furans are likely ubiquitous at the Site and exist at concentrations above the USEPA Region III RSL.

Based on the above conclusion, the memorandum recommended that no further action is necessary at the Site to address soil dioxin/furans. The USEPA provided concurrence with the findings and recommendations of the soil dioxin memorandum on December 22, 2011. Additional details of the soil dioxin characterization are included within Appendix J.

## **2.9 Future Action**

The soil removal action is complete and a Site inspection was conducted on August 31, 2011 during the soil dioxin sampling event. The site was inspected for the following:

- Establishment of vegetation; and
- Indications of settlements, subsidence, ponding of water, and erosion within the grassy areas and the excavation/backfill area.

No Site deficiencies were noted and re-establishment of vegetation was observed during the inspection. Therefore, no further actions are necessary at this Site.

### 3. References

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- Delaware Department of Natural Resources and Environmental Control, Remediation Standards Guidance under the Delaware Hazardous Substance Cleanup Act (HSCA) December 1999.
- ARCADIS. 2009. *Engineering Evaluation / Cost Assessment / Removal Action Work Plan (EE/CA / RAWP). USCG Reedy Island Rear Range Light, Taylors Bridge, Delaware.* August, 2009.
- ARCADIS. 2010. *Draft Final Removal Action Completion Report, USCG Reedy Island Rear Range Light, Taylors Bridge, Delaware.* May.
- ARCADIS, 2011a. Final Quality Assurance Project Plan, USCG Reedy Island Rear Range Light, Taylors Bridge, Delaware. June. (*revised August 2011*).
- ARCADIS, 2011b. Final Field Sampling Plan, USCG Reedy Island Rear Range Light, Taylors Bridge, Delaware. June. (*revised August 2011*).
- ENSR International. 2005. *Phase II Environmental Site Assessment, USCG Reedy Island Rear Range Light, Taylors Bridge, Delaware.* January 27, 2005.
- ENSR International. 2006. *Site Remediation Work Plan, Lead-impacted Soil Removal Effort, Reedy Island Rear Range Light.* December.
- Natural Resources and Environmental Protection Act, Public Act 451 of 1994, as Amended.
- National Oil and Hazardous Substances Pollution Contingency Plan; Final Rule. 40 Code of Federal Regulations, Part 300. March 8, 1990.
- Tecumseh Professional Associates, Inc. 2004. *Phase I Environmental Site Assessment: Reedy Island Rear Range Light, Taylors Bridge, New Castle County, Delaware.*

United States Environmental Protection Agency 1993. *Guidance on Conducting Non-Time-Critical Removal Actions Under CERCLA*, EPA540-R-93-057. August 1993.

United States Environmental Protection Agency, Office of Solid Waste and Emergency Response. 1994. *Memorandum: Revised Interim Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities*. From Elliott . Laws, Assistant Administrator. To: Regional Administrators I-X. EPA/540/F-94/043. August 1994.

United States Environmental Protection Agency 1999. *Presumptive Remedy for Metals-In-Soil Sites*.,EPA540-F-98-054. September 1999.

United States Environmental Protection Agency. 1998. *Field Portable X-Ray Fluorescence Spectrometry for the Determination of Elemental Concentrations in Soil and Sediment*. SW-846, Method 6200. January, 1998.

ARCADIS

**Tables**

**Table 1**  
**XRF Field Screening Results**  
**Reedy Island Rear Range Light**  
**Townsend, Delaware**

Site ID	Type	Sample ID*	Date	COC Time	Depth (ft bgs)	XRF Reading (mg/kg)**	Corresponding Lab Sample (mg/kg)	XRF Deviation (+/- [mg/kg])	Comment
RI	XS	1	4/5/2010	1600	1-1.5	21	3.6	8	Co-located XRF and Confirmation Sample Location
RI	XS	2	4/5/2010	1603	1-1.5	ND	12	7	Co-located XRF and Confirmation Sample Location
RI	XS	3	4/5/2010	1606	1-1.5	ND	24	8	Co-located XRF and Confirmation Sample Location
RI	XS	4	4/5/2010	1609	1-1.5	ND	5.8	7	Co-located XRF and Confirmation Sample Location
RI	XS	5	4/5/2010	1612	1-1.5	12	2.4	7	Co-located XRF and Confirmation Sample Location
RI	XS	6	4/5/2010	1615	1-1.5	16	2.2	7	Co-located XRF and Confirmation Sample Location
RI	XS	7	4/5/2010	1618	1-1.5	23	16	9	Co-located XRF and Confirmation Sample Location
RI	XS	8	4/5/2010	1621	1-1.5	ND	8.4	6	Co-located XRF and Confirmation Sample Location
RI	XB	9	4/5/2010	1627	2-2.5	19	29	7	Co-located XRF and Confirmation Sample Location
RI	XB	10	4/5/2010	1630	2-2.5	13	2.8	6	Co-located XRF and Confirmation Sample Location
RI	XB	11	4/5/2010	1633	2-2.5	ND	2.2	6	Co-located XRF and Confirmation Sample Location
RI	XB	12	4/5/2010	1636	2-2.5	ND	3.1	6	Co-located XRF and Confirmation Sample Location
RI	in-situ	13	4/5/2010	NA	surface	203	--	48	in-situ surface soil sample
RI	in-situ	14	4/5/2010	NA	surface	225	--	65	in-situ surface soil sample
RI	in-situ	15	4/5/2010	NA	surface	57	--	15	in-situ surface soil sample
RI	in-situ	16	4/5/2010	NA	surface	84	--	24	in-situ surface soil sample
RI	in-situ	17	4/5/2010	NA	surface	121	--	44	in-situ surface soil sample
RI	in-situ	18	4/5/2010	NA	surface	171	--	43	in-situ surface soil sample
RI	in-situ	19	4/5/2010	NA	surface	186	--	37	in-situ surface soil sample
RI	in-situ	20	4/5/2010	NA	surface	201	--	51	in-situ surface soil sample

ft bgs: feet below ground surface

LI: Liston

mg/kg: milligram per kilogram

NA: COC time not applicable because XRF field sample not used for confirmation

ND: Non-Detect

XB: excavation bottom

XS: excavation sidewall

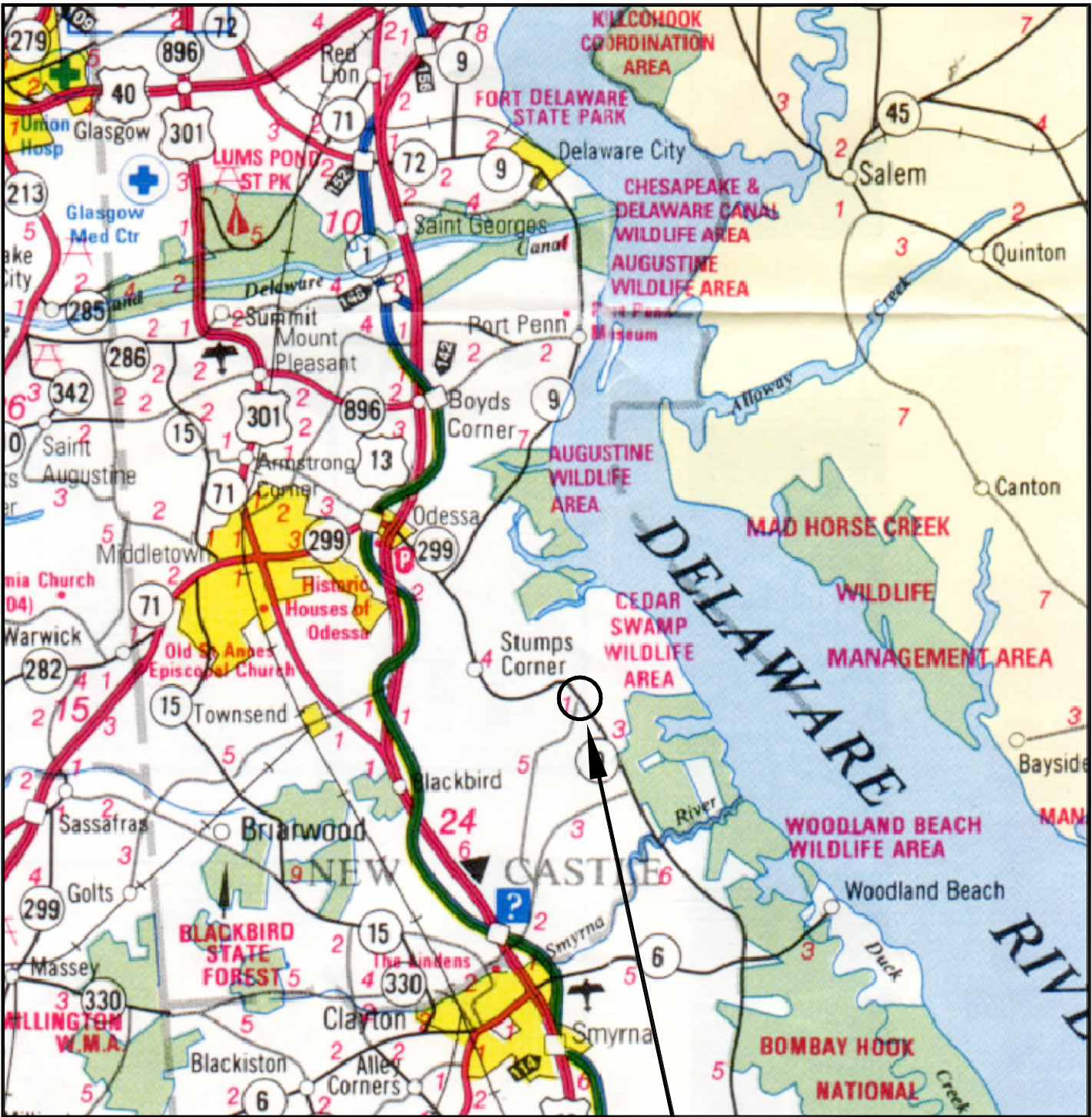
**Table 2  
Confirmation Sampling Results  
Reedy Island Rear Range Light  
Townsend, Delaware**

Site ID	Type	Sample ID*	Date	COC Time	Depth (ft bgs)	Concentration (mg/kg)**	Comment
RI	XS	RIXS001 1-1.5	4/5/2010	1600	1-1.5	3.6	
RI	XS	RIXS002 1-1.5	4/5/2010	1603	1-1.5	12	
RI	XS	RIXS003 1-1.5	4/5/2010	1606	1-1.5	24	
RI	XS	RIXS004 1-1.5	4/5/2010	1609	1-1.5	5.8	
RI	XS	RIXS005 1-1.5	4/5/2010	1612	1-1.5	2.4	
RI	XS	RIXS006 1-1.5	4/5/2010	1615	1-1.5	2.2	
RI	XS	RIXS007 1-1.5	4/5/2010	1618	1-1.5	16	
RI	XS	RIXS008 1-1.5	4/5/2010	1621	1-1.5	8.4	
RI	XS	FD 004 (Field Duplicate)	4/5/2010	1624	1-1.5	7.6	Duplicate of RIXS004 1-1.5
RI	XB	RIXB009 2-2.5	4/5/2010	1627	2-2.5	29	
RI	XB	RIXB010 2-2.5	4/5/2010	1630	2-2.5	2.8	
RI	XB	RIXB011 2-2.5	4/5/2010	1633	2-2.5	2.2	
RI	XB	RIXB012 2-2.5	4/5/2010	1636	2-2.5	3.1	
RI	XB	FD 009 (Field Duplicate)	4/5/2010	1639	2-2.5	4.8	Duplicate of RIXB009 2-2.5

ft bgs: feet below ground surface  
 LI: Liston  
 mg/kg: milligram per kilogram  
 XB: excavation bottom  
 XS: excavation sidewall

**Figures**

CITY: (Read) DIV: (Group) (Read) DB: (Read) LD: (Opt) PIC: (Opt) PM: (Read) TM: (Opt) LVR: (Opt) ON: (Off) REF: G:\P\GIS\USCG-Delaware Lighthouses\AutoCAD Figures\SITE-LOC-Reedy.dwg LAYOUT: MODEL: (Saved) 4/10/2009 1:43 PM ACADVER: 17.05 (LMS TECH) PAGESETUP: --- PLOTSTYLETABLE: ACAD.CTB PLOTTED: 6/17/2009 12:30 PM BY: GOFORTH, JOHN



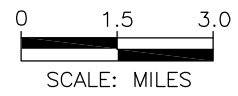
MAP SOURCE: ADC MARYLAND DELAWARE STATE MAP



DELAWARE

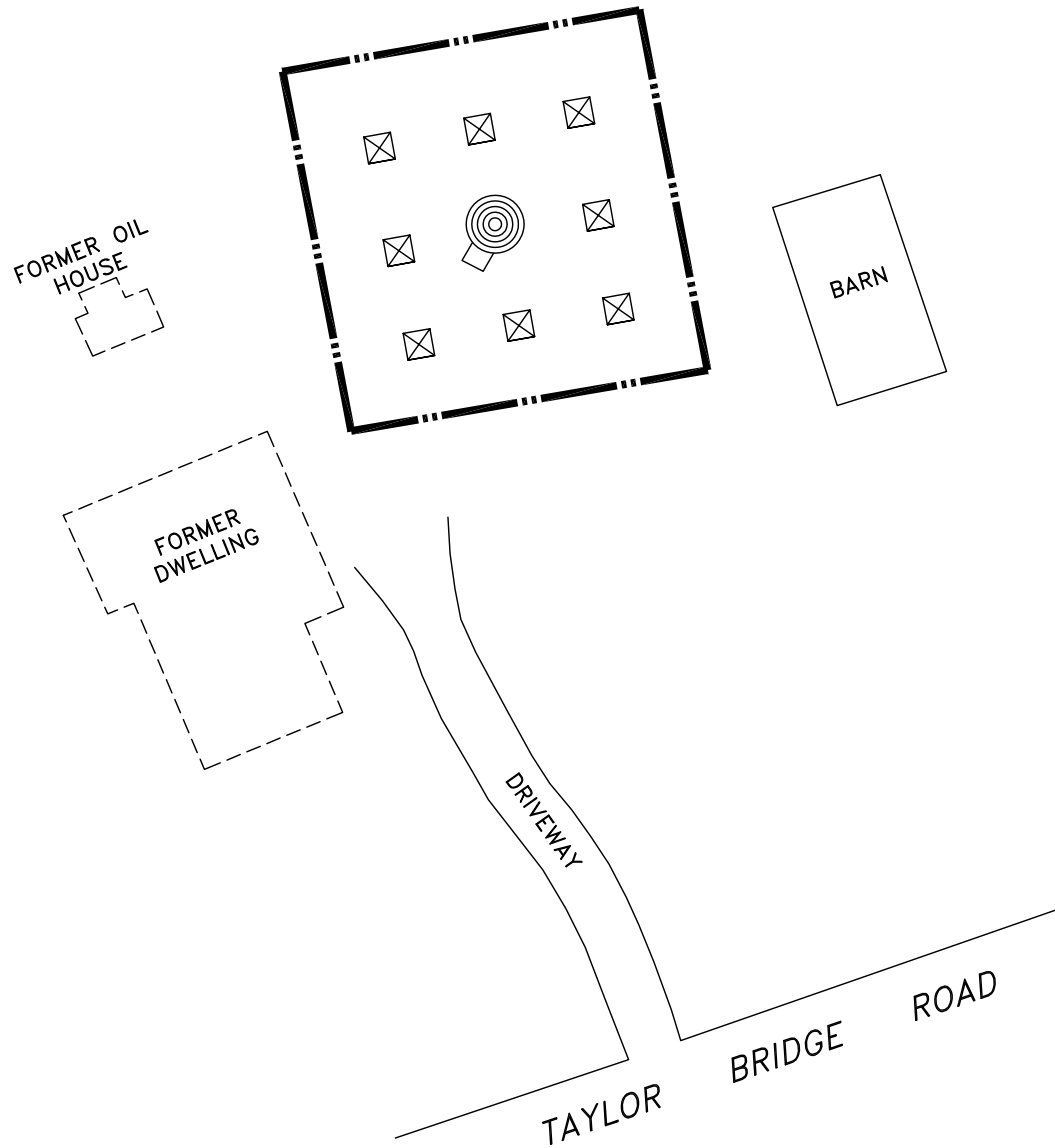


SITE






US COAST GUARD REEDY ISLAND REAR RANGE LIGHT TAYLORS BRIDGE, DELAWARE	
<b>SITE LOCATION MAP</b>	
	FIGURE <b>1</b>

XREFS: IMAGES: PROJECTNAME: ---  
uscg1.JPG  
uscg2.JPG



**LEGEND:**

-  BLOCK FOOTERS
-  REEDY ISLAND REAR RANGE LIGHT
-  USCG PROPERTY

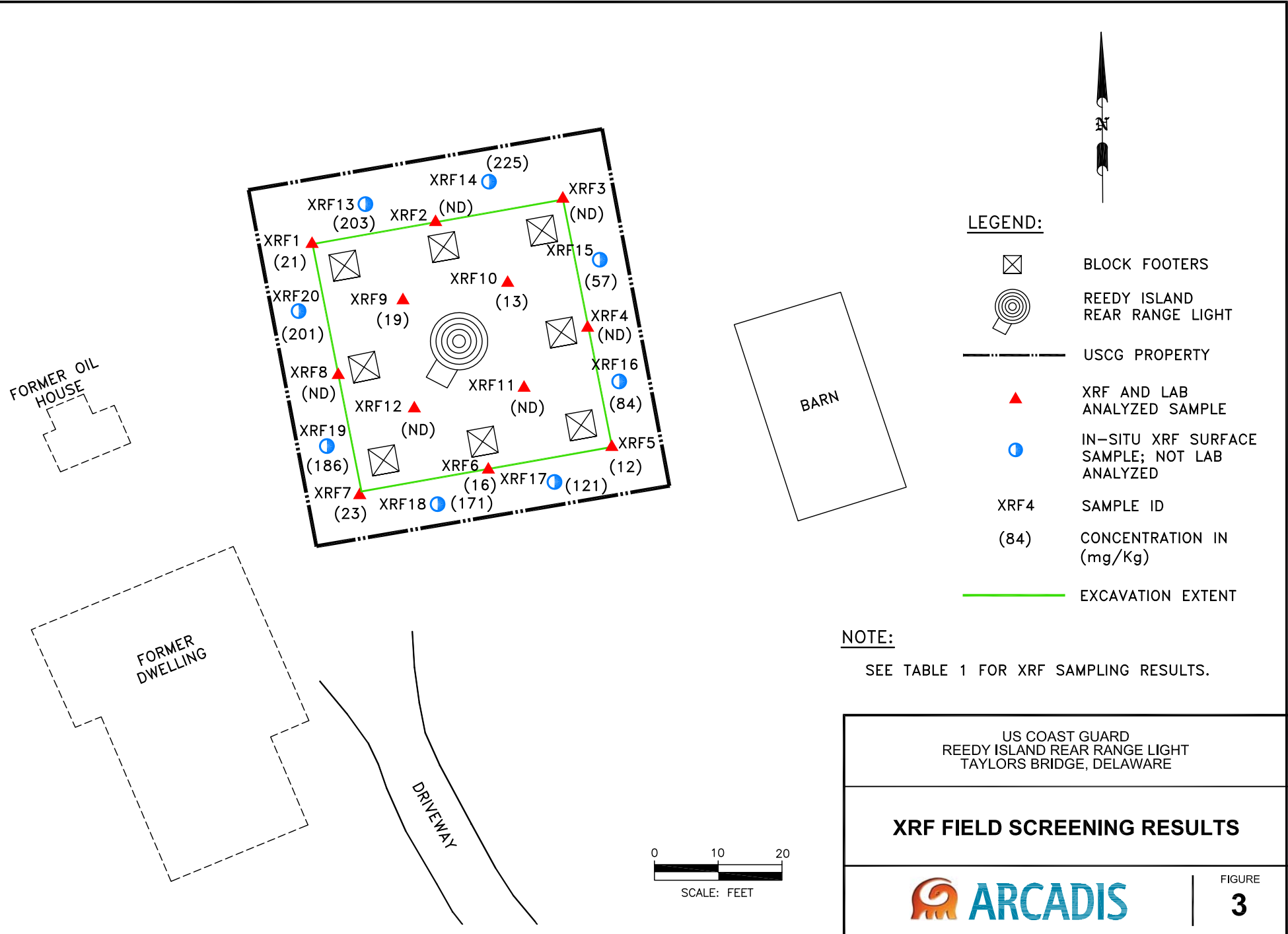
US COAST GUARD  
REEDY ISLAND REAR RANGE LIGHT  
TAYLORS BRIDGE, DELAWARE

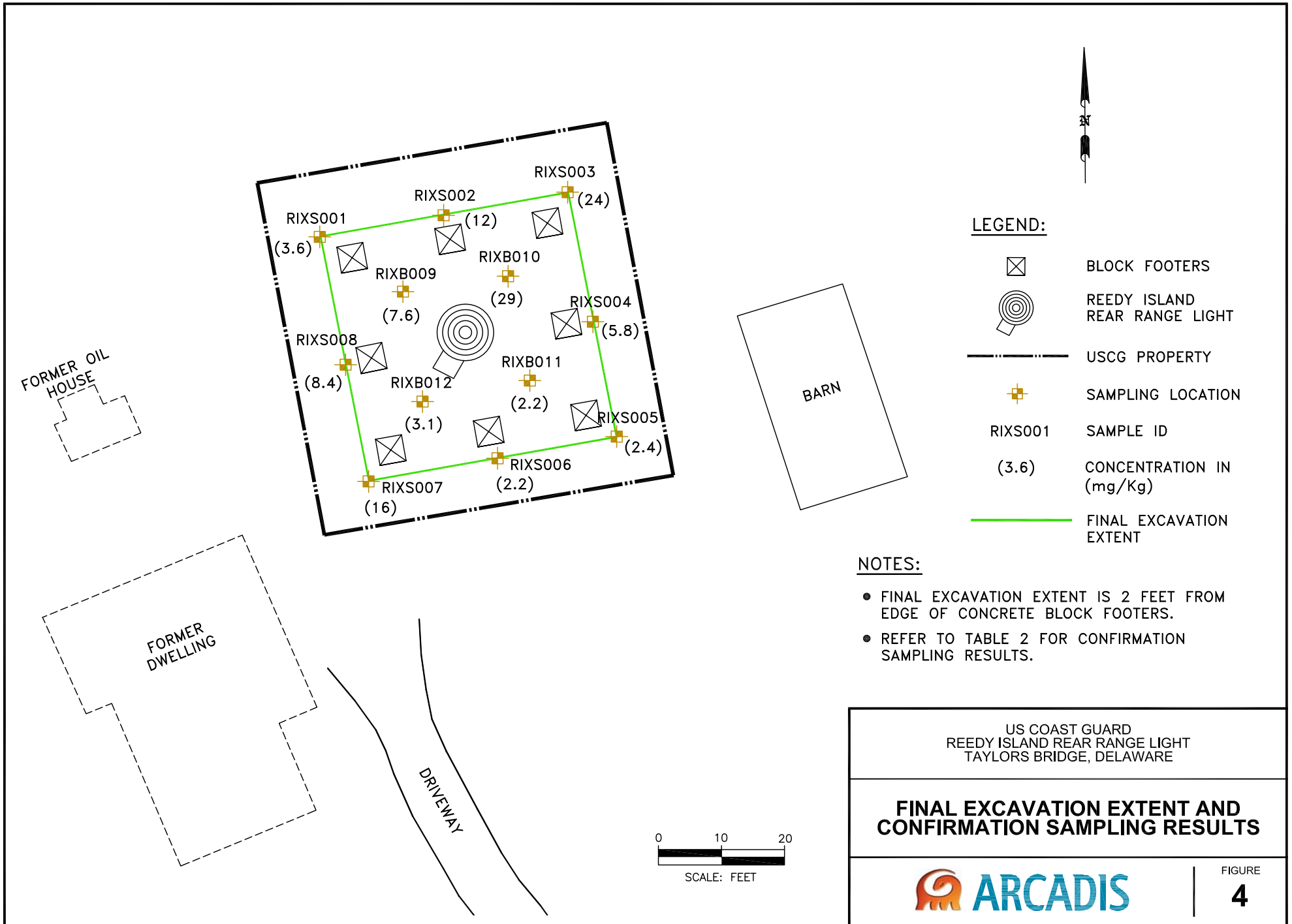
**SITE PLAN**



FIGURE

**2**





**Appendix A**

Waste Characterization Analytical  
Data

15 September 2009

**EWMI**

Jim Cawthern  
14 Brick Kiln Court  
Northampton, PA 18067

RE: USCG - Reedy Reedy Island, DE

**Laboratory ID #: KSI0092**

Enclosed are the results of analyses for samples received by the laboratory on 09/03/09 14:05. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in dark ink, appearing to read "O. Burgos", is displayed on a light gray rectangular background.

Oswaldo Burgos  
Project Manager

EWMI  
14 Brick Kiln Court  
Northampton PA, 18067

Project: USCG - Reedy Reedy Island, DE  
Project Number: NA  
Project Manager: Jim Cawthern

**Reported:**  
09/15/09 16:53

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Reedy Comp-1	KSI0092-01	Soil	09/03/09 10:50	09/03/09 14:05
Reedy Grab-1	KSI0092-02	Soil	09/03/09 11:05	09/03/09 14:05

TestAmerica King Of Prussia

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Oswaldo Burgos, Project Manager

EWMI  
14 Brick Kiln Court  
Northampton PA, 18067

Project: USCG - Reedy Reedy Island, DE  
Project Number: NA  
Project Manager: Jim Cawthern

**Reported:**  
09/15/09 16:53

**TCLP Metals Extraction by EPA 1311**  
**TestAmerica King Of Prussia**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Reedy Comp-1 (KSI0092-01) Soil    Sampled: 09/03/09 10:50    Received: 09/03/09 14:05</b>									
Mercury	ND	0.00100	mg/L	1	9090814	09/08/09	09/09/09	EPA 7470A	
Arsenic	ND	0.10	"	"	9090815	09/08/09	09/09/09	EPA 200.7	
Cadmium	ND	0.0080	"	"	"	"	"	"	
Chromium	ND	0.10	"	"	"	"	"	"	
<b>Lead</b>	<b>4.2</b>	0.20	"	"	"	"	"	"	
Selenium	ND	0.20	"	"	"	"	"	"	
Silver	ND	0.040	"	"	"	"	"	"	
<b>Reedy Comp-1 (KSI0092-01RE1) Soil    Sampled: 09/03/09 10:50    Received: 09/03/09 14:05</b>									
<b>Barium</b>	<b>0.43</b>	0.010	mg/L	1	9091016	09/10/09	09/10/09	EPA 200.7	C8

TestAmerica King Of Prussia

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Oswaldo Burgos, Project Manager

EWMI  
14 Brick Kiln Court  
Northampton PA, 18067

Project: USCG - Reedy Reedy Island, DE  
Project Number: NA  
Project Manager: Jim Cawthern

**Reported:**  
09/15/09 16:53

**Polychlorinated Biphenyls by EPA Method 8082**  
**TestAmerica King Of Prussia**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Reedy Comp-1 (KSI0092-01) Soil    Sampled: 09/03/09 10:50    Received: 09/03/09 14:05</b>									
PCB-1016	ND	50	ug/kg dry	1	9090107	09/04/09	09/08/09	EPA 8082	
PCB-1221	ND	50	"	"	"	"	"	"	
PCB-1232	ND	50	"	"	"	"	"	"	
PCB-1242	ND	50	"	"	"	"	"	"	
PCB-1248	ND	50	"	"	"	"	"	"	
PCB-1254	ND	50	"	"	"	"	"	"	
PCB-1260	ND	50	"	"	"	"	"	"	
<i>Surrogate: Tetrachloro-meta-xylene</i>		58.6 %	43-112		"	"	"	"	
<i>Surrogate: Decachlorobiphenyl</i>		71.2 %	17-110		"	"	"	"	

TestAmerica King Of Prussia

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Oswaldo Burgos, Project Manager

EWMI  
14 Brick Kiln Court  
Northampton PA, 18067

Project: USCG - Reedy Reedy Island, DE  
Project Number: NA  
Project Manager: Jim Cawthern

**Reported:**  
09/15/09 16:53

**Volatile Organic Compounds by EPA Method 8260B**  
**TestAmerica King Of Prussia**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Reedy Grab-1 (KSI0092-02) Soil Sampled: 09/03/09 11:05 Received: 09/03/09 14:05</b>									
Acetone	ND	500	ug/kg wet	50	9090411	09/04/09	09/05/09	EPA 8260B	
Benzene	ND	200	"	"	"	"	"	"	
Bromodichloromethane	ND	200	"	"	"	"	"	"	
Bromoform	ND	200	"	"	"	"	"	"	
Bromomethane	ND	200	"	"	"	"	"	"	
2-Butanone	ND	500	"	"	"	"	"	"	
Carbon disulfide	ND	200	"	"	"	"	"	"	
Carbon tetrachloride	ND	200	"	"	"	"	"	"	
Chlorobenzene	ND	200	"	"	"	"	"	"	
Chlorodibromomethane	ND	200	"	"	"	"	"	"	
Chloroethane	ND	200	"	"	"	"	"	"	
Chloroform	ND	200	"	"	"	"	"	"	
Chloromethane	ND	250	"	"	"	"	"	"	
1,1-Dichloroethane	ND	200	"	"	"	"	"	"	
1,2-Dichloroethane	ND	200	"	"	"	"	"	"	
1,1-Dichloroethene	ND	200	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	200	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	200	"	"	"	"	"	"	
1,2-Dichloropropane	ND	200	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	200	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	200	"	"	"	"	"	"	
Ethylbenzene	ND	200	"	"	"	"	"	"	
2-Hexanone	ND	500	"	"	"	"	"	"	
Methylene chloride	ND	400	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	500	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	200	"	"	"	"	"	"	
Styrene	ND	200	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	200	"	"	"	"	"	"	
Tetrachloroethene	ND	200	"	"	"	"	"	"	
Toluene	ND	200	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	200	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	200	"	"	"	"	"	"	
Trichloroethene	ND	200	"	"	"	"	"	"	

TestAmerica King Of Prussia

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Oswaldo Burgos, Project Manager

EWMI  
14 Brick Kiln Court  
Northampton PA, 18067

Project: USCG - Reedy Reedy Island, DE  
Project Number: NA  
Project Manager: Jim Cawthern

**Reported:**  
09/15/09 16:53

**Volatile Organic Compounds by EPA Method 8260B**  
**TestAmerica King Of Prussia**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Reedy Grab-1 (KSI0092-02) Soil    Sampled: 09/03/09 11:05    Received: 09/03/09 14:05</b>									
Trichlorofluoromethane	ND	200	ug/kg wet	50	9090411	09/04/09	09/05/09	EPA 8260B	
Vinyl chloride	ND	200	"	"	"	"	"	"	
Xylenes (total)	ND	250	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		96.5 %	85-122		"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		97.3 %	85-130		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		99.9 %	88-111		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		90.7 %	83-122		"	"	"	"	

TestAmerica King Of Prussia

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Oswaldo Burgos, Project Manager

EWMI  
14 Brick Kiln Court  
Northampton PA, 18067

Project: USCG - Reedy Reedy Island, DE  
Project Number: NA  
Project Manager: Jim Cawthern

**Reported:**  
09/15/09 16:53

**TCLP Volatile Organic Compounds by EPA Method 1311/8260B**  
**TestAmerica King Of Prussia**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Reedy Comp-1 (KSI0092-01) Soil    Sampled: 09/03/09 10:50    Received: 09/03/09 14:05</b>									
Benzene	ND	200	ug/l	50	9090915	09/09/09	09/10/09	EPA 8260B	
Carbon tetrachloride	ND	200	"	"	"	"	"	"	
Chlorobenzene	ND	200	"	"	"	"	"	"	
Chloroform	ND	200	"	"	"	"	"	"	
1,2-Dichloroethane	ND	200	"	"	"	"	"	"	
1,1-Dichloroethylene	ND	200	"	"	"	"	"	"	
Methyl ethyl ketone	ND	5000	"	"	"	"	"	"	
Tetrachloroethylene	ND	200	"	"	"	"	"	"	
Trichloroethylene	ND	200	"	"	"	"	"	"	
Vinyl chloride	ND	200	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		99.6 %	88-114		"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		103 %	90-119		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		100 %	88-109		"	"	"	"	

TestAmerica King Of Prussia

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Oswaldo Burgos, Project Manager

EWMI  
 14 Brick Kiln Court  
 Northampton PA, 18067

Project: USCG - Reedy Reedy Island, DE  
 Project Number: NA  
 Project Manager: Jim Cawthern

**Reported:**  
 09/15/09 16:53

**TCLP Pesticides by EPA Method 1311/8081A**  
**TestAmerica King Of Prussia**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Reedy Comp-1 (KSI0092-01) Soil    Sampled: 09/03/09 10:50    Received: 09/03/09 14:05</b>									
Heptachlor epoxide	ND	0.0020	mg/L	1	9090812	09/08/09	09/09/09	EPA 8081A	
Chlordane (tech)	ND	0.020	"	"	"	"	"	"	
Endrin	ND	0.016	"	"	"	"	"	"	C2
Heptachlor	ND	0.0030	"	"	"	"	"	"	
gamma-BHC (Lindane)	ND	0.0030	"	"	"	"	"	"	
Methoxychlor	ND	0.10	"	"	"	"	"	"	
Toxaphene	ND	0.030	"	"	"	"	"	"	
<i>Surrogate: Tetrachloro-meta-xylene</i>		85.0 %		58-110	"	"	"	"	
<i>Surrogate: Decachlorobiphenyl</i>		101 %		25-110	"	"	"	"	

TestAmerica King Of Prussia

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Oswaldo Burgos, Project Manager

EWMI  
14 Brick Kiln Court  
Northampton PA, 18067

Project: USCG - Reedy Reedy Island, DE  
Project Number: NA  
Project Manager: Jim Cawthern

**Reported:**  
09/15/09 16:53

**TCLP Semivolatiles by EPA Method 1311/8270C**

**TestAmerica King Of Prussia**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Reedy Comp-1 (KSI0092-01) Soil    Sampled: 09/03/09 10:50    Received: 09/03/09 14:05</b>									
2-Methylphenol	ND	0.0020	mg/L	1	9090315	09/09/09	09/09/09	EPA 8270C	
3&4-Methylphenol	ND	0.0020	"	"	"	"	"	"	
Cresol	ND	0.020	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.0020	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	0.0020	"	"	"	"	"	"	
Hexachlorobenzene	ND	0.0010	"	"	"	"	"	"	L2
Hexachlorobutadiene	ND	0.0010	"	"	"	"	"	"	
Hexachloroethane	ND	0.0010	"	"	"	"	"	"	
Nitrobenzene	ND	0.0020	"	"	"	"	"	"	
Pentachlorophenol	ND	0.00030	"	"	"	"	"	"	
Pyridine	ND	0.0050	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.010	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.0020	"	"	"	"	"	"	
<i>Surrogate: 2-Fluorophenol</i>		67.8 %	38-119		"	"	"	"	
<i>Surrogate: Phenol-d6</i>		62.8 %	41-107		"	"	"	"	
<i>Surrogate: Nitrobenzene-d5</i>		62.5 %	55-109		"	"	"	"	
<i>Surrogate: 2-Fluorobiphenyl</i>		61.8 %	50-105		"	"	"	"	
<i>Surrogate: 2,4,6-Tribromophenol</i>		66.0 %	37-119		"	"	"	"	
<i>Surrogate: Terphenyl-d14</i>		85.0 %	65-119		"	"	"	"	

TestAmerica King Of Prussia

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Oswaldo Burgos, Project Manager

EWMI  
 14 Brick Kiln Court  
 Northampton PA, 18067

Project: USCG - Reedy Reedy Island, DE  
 Project Number: NA  
 Project Manager: Jim Cawthern

**Reported:**  
 09/15/09 16:53

**General Chemistry**  
**TestAmerica King Of Prussia**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Reedy Comp-1 (KSI0092-01) Soil    Sampled: 09/03/09 10:50    Received: 09/03/09 14:05</b>									
<b>% Solids</b>	<b>91.8</b>	0.01	% by Weight	1	9090816	09/08/09	09/08/09	EPA 160.3	

TestAmerica King Of Prussia

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Oswaldo Burgos, Project Manager

EWMI  
 14 Brick Kiln Court  
 Northampton PA, 18067

Project: USCG - Reedy Reedy Island, DE  
 Project Number: NA  
 Project Manager: Jim Cawthern

**Reported:**  
 09/15/09 16:53

**Herbicides (GC) TCLP**  
**TestAmerica Savannah**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Reedy Comp-1 (KSI0092-01) Soil    Sampled: 09/03/09 10:50    Received: 09/03/09 14:05</b>									
2,4-D	ND	0.050	mg/L	1	147463	09/10/09	09/11/09	8151A TCLP	U
Silvex (2,4,5-TP)	ND	0.050	"	"	"	"	"	"	U
Surrogate: DCAA		105 %	50-150		"	"	"	"	



EWMI  
14 Brick Kiln Court  
Northampton PA, 18067

Project: USCG - Reedy Reedy Island, DE  
Project Number: NA  
Project Manager: Jim Cawthern

**Reported:**  
09/15/09 16:53

### Notes and Definitions

- Z Due to sample matrix effects, the surrogate recovery was below the acceptance limits.
- U Indicates the analyte was analyzed for but not detected.
- R7 LCS/LCSD RPD exceeded the method control limit. Recovery met acceptance criteria.
- R2 The RPD exceeded the acceptance limit.
- M8 The MS and/or MSD were below the acceptance limits. See Blank Spike (LCS).
- L2 Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was below acceptance limits.
- C8 Calibration Verification recovery was above the method control limit for this analyte. A high bias may be indicated.
- C2a Calibration Verification recovery was below the method control limit for this analyte, however the average % difference for all analytes met method criteria. methoxychlor, heptachlor, ddt, endrin ketone
- C2 Calibration Verification recovery was below the method control limit for this analyte, however the average % difference for all analytes met method criteria. endosulfan sulfate, endrin
- DET Analyte DETECTED
- ND Analyte NOT DETECTED above reporting limit. If MDL is provided, analyte is NOT DETECTED above the MDL
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference



**Environmental Waste Minimization, Inc.**  
 14 Brick Kiln Court • Northampton, PA 18067  
 Tel. 484-275-6900 Fax 484-275-6970

S.T.A.T.

**CHAIN-OF-CUSTODY FORM**

Generator Name: USCG - REEDY      Invoicing: EWM       Same  
 Site Address: REEDY ISLAND, DE      Billing Address: 14 BRICK KILN CT. NORTHAMPTON, PA  
 EPA ID#: N/A      Contact: ARIENE STEPHENS  
 Contact: J.W. CAWTHEAN      Phone: (484) 275-6900  
 Phone: (484) 275-6900      Fax: (484) 275-6970  
 Fax: (484) 275-6970

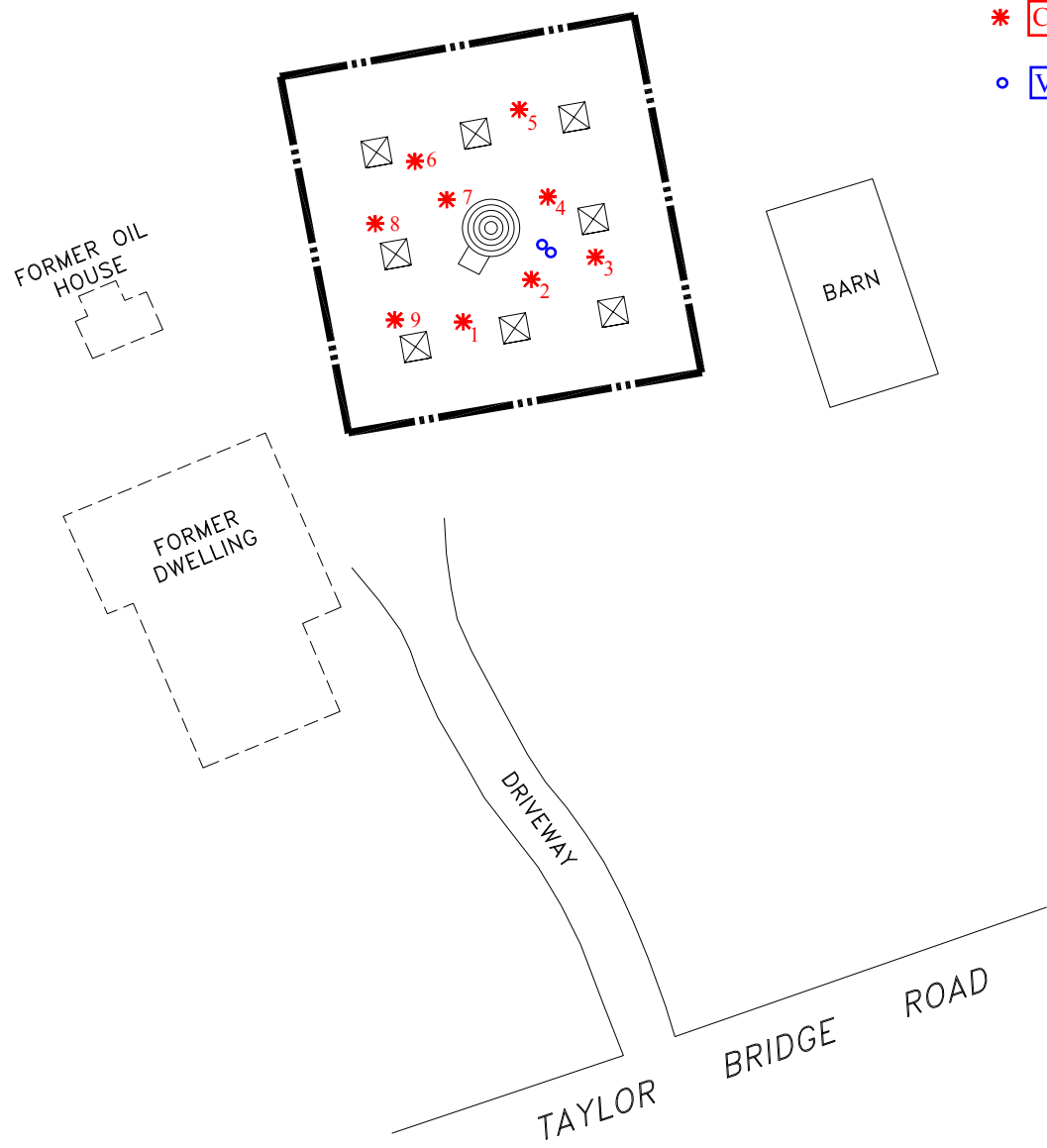
I hereby authorize Environmental Waste Minimization, Inc. (EWM) to process my sample(s) and/or associated paperwork. My company will be invoiced \$ \_\_\_\_\_ for the sample(s) and profiles submitted below. This includes the technical review, finger print analysis, and administrative process. Approval fee is \$250 per sample and/or profile submitted.

Sample ID Number	DATE	TIME	COMP.	GRAB	Sample Description	# Of Cont.	Analysis or Approvals Testing	\$ Amount
1 REEDY GRAB 1	9/3/09	10:50	✓		16 oz GLASS JAR OF SOIL	1	FULL TULP + PCB'S * SEE NOTE BELOW	KS10092 -01
2 REEDY GRAB 1	9/3/09	11:05		✓	EN CORE 5g SOIL SAMPLE	1	VOC'S VIA B260	-02
3 REEDY GRAB 6	9/3/09	11:10		✓	EN CORE 5g SOIL SAMPLE	1	VOC'S VIA B260 ↳ ONLY IF NEEDED.	-03
4								
5					* DO NOT DISCARD UNUSED SAMPLE			
6								

Transfer #	Relinquished By	Accepted By	Date	Time
1st			9/3/09	14:05
2nd				
3rd				
4th				
Total to be Invoiced →				




EN CORE preserved @ 15:20 on 9/3/09 KCL

XREFS: IMAGES: PROJECTNAME: ---  
 usc1.JPG  
 usc2.JPG



- \* Composite Grab Points
- o VOC Grab Locations

**LEGEND:**

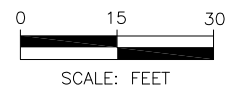
-  BLOCK FOOTERS
-  REEDY ISLAND REAR RANGE LIGHT
-  SUBJECT PROPERTY

US COAST GUARD  
 REEDY ISLAND REAR RANGE LIGHT  
 TAYLORS BRIDGE, DELAWARE

**SITE PLAN**



FIGURE  
**2**



**Appendix B**

Lead and Soil Profiles, Manifests and  
Disposal Tickets (Soil)

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator ID Number <b>CESQG</b>	2. Page 1 of 1	3. Emergency Response Phone <b>877-460-1038</b>	4. Manifest Tracking Number <b>005586759 JJK</b>		
5. Generator's Name and Mailing Address <b>United States Coast Guard Building 981. CEP Cleveland Detached Elizabeth City, NC 27909</b>			Generator's Site Address (if different than mailing address) <b>1171 Tribes Bridge Road Townsend, DE 19731</b>				
Generator's Phone: <b>252 335-6847</b>			6. Transporter 1 Company Name <b>Environmental Waste Minimization Inc.</b>				
7. Transporter 2 Company Name <del>Hamilton Inc</del>			U.S. EPA ID Number <b>PA000501577</b>				
8. Designated Facility Name and Site Address <b>Cycle Chem. Inc. 330 Industrial Drive Lewisberry, PA 17339</b>			U.S. EPA ID Number <b>PA006709822</b>				
Facility's Phone: <b>(717) 938-4700</b>							
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit WL/Vol.	13. Waste Codes	
		No.	Type				
1	Hazardous waste, solid, n.o.s., (Lead Paint), 9, NA3077, PG-III (0005)	xx1	DM	xx100	P	0005	
2	OTE, DOT/RCRA Non-Regulated	xx1	DM	xx100	P		
3.							
4.							
14. Special Handling Instructions and Additional Information <b>A: S E 712586-A-LJ Lead Paint Craps B: S 712586-B-LD PRC Post 03-102035-15</b>							
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.							
Generator's/Offeror's Printed/Typed Name <b>JP MESSIER</b>			Signature <i>[Signature]</i>		Month <b>12</b>	Day <b>07</b>	Year <b>09</b>
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____							
17. Transporter Acknowledgment of Receipt of Materials							
Transporter 1 Printed/Typed Name <b>Steve Peters</b>			Signature <i>[Signature]</i>		Month <b>12</b>	Day <b>14</b>	Year <b>09</b>
Transporter 2 Printed/Typed Name			Signature		Month	Day	Year
18. Discrepancy							
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection							
Manifest Reference Number:							
18b. Alternate Facility (or Generator) U.S. EPA ID Number							
Facility's Phone:							
18c. Signature of Alternate Facility (or Generator)					Month	Day	Year
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)							
1.	2.	3.	4.				
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a							
Printed/Typed Name			Signature		Month	Day	Year

GENERATOR

TRANSPORTER

DESIGNATED FACILITY

# Modern Landfill

4400 Mt. Pisgah Rd  
York, PA 17406  
(717) 246-2686  
Fax (717) 244-5588



Ticket: 047866  
Date: 03/08/10  
Time In: 12:31 pm  
Time Out: 1:24 pm

## Scalehouse Copy

Vehicle: 218900 TRUCK-TRAILER DEP#: WH#0754 FREEHOLD CARTAGE INC.  
Container/Trailer/DEP#: 4462 00 Gross Weight 78,660.00 lb  
Customer: 000624 ENVIRONMENTAL WASTE MIN Tare Weight 37,320.00 lb  
14 BRICK KILN CT Net Weight 41,340.00 lb  
NORTHAMPTON, PA 18067 Net Tons 20.67 TN  
Reference: PO 03-102035-03 Contract/Profile: 3819-Y9-13422 Yards 0.00 YD

Manifest: 28802

Generator: U.S. COAST GUARD

Origin:	Materials & Services	Quantity	Unit	Rate	Disposal
DELAWARE STATE	VG [41] SW-CONT SOIL	20.67	TN		

Check #  
Net Amount:  
Tendered:  
Change:

Driver \_\_\_\_\_

Weighmaster \_\_\_\_\_

TERRY SHERBINE 062688

# Modern Landfill

4400 Mt. Pisgah Rd.  
York, PA 17408  
(717) 246-2686  
Fax (717) 244-5588



Ticket: 047866  
Date: 03/08/10  
Time In: 12:31 pm  
Time Out: 1:24 pm

## Customer Copy

Vehicle: 218900 TRUCK-TRAILER DEP#: WH#0754 FREEHOLD CARTAGE INC.  
Container/Trailer/DEP#: 4462 00 Gross Weight 78,660.00 lb  
Customer: 000624 ENVIRONMENTAL WASTE MIN Tare Weight 37,320.00 lb  
14 BRICK KILN CT Net Weight 41,340.00 lb  
NORTHAMPTON, PA 18067 Net Tons 20.67 TN  
Reference: PO 03-102035-03 Contract/Profile: 3819-Y9-13422 Yards 0.00 YD

Manifest: 28802

Generator: U.S. COAST GUARD

Origin:	Materials & Services	Quantity	Unit	Rate	Disposal
DELAWARE STATE	VG [41] SW-CONT SOIL	20.67	TN		

Check #  
Net Amount:  
Tendered:  
Change:

Driver \_\_\_\_\_

Weighmaster \_\_\_\_\_

TERRY SHERBINE 062688

# Modern Landfill

4400 Mt. Pisgah Rd.  
York, PA 17406  
(717) 246-2686  
Fax (717) 244-5588



Ticket: 054489  
Date: 04/07/10  
Time In: 8:20 am  
Time Out: 9:10 am

## Scalehouse Copy

Vehicle: 218879 TRUCK-TRAILER DEP#: WH#0754 FREEHOLD CARTAGE INC.  
Container/Trailer/DEP#: 275  
Customer: 000624 ENVIRONMENTAL WASTE MIN  
14 BRICK KILN CT  
NORTHAMPTON, PA 18067

03 Gross Weight 79,200.00 lb  
Tare Weight 41,060.00 lb  
Net Weight 38,140.00 lb

Net Tons 19.07 TN  
Yards 0.00 YD

Reference: Contract/Profile: 3819-Y9-13422

Manifest: 234810/26164

Generator: U.S. COAST GUARD

Origin:	Materials & Services	Quantity	Unit	Rate	Disposal
DELAWARE STATE	VG [41] SW-CONT SOIL	19.07	TN		

Check #  
Net Amount:  
Tendered:  
Change:

Driver: \_\_\_\_\_

Weighmaster: \_\_\_\_\_

MYRTLE CURTIN 061389

# Modern Landfill

4400 Mt. Pisgah Rd.  
York, PA 17406  
(717) 246-2686  
Fax (717) 244-5588



Ticket: 054489  
Date: 04/07/10  
Time In: 8:20 am  
Time Out: 9:10 am

## Customer Copy

Vehicle: 218879 TRUCK-TRAILER DEP#: WH#0754 FREEHOLD CARTAGE INC.  
Container/Trailer/DEP#: 275  
Customer: 000624 ENVIRONMENTAL WASTE MIN  
14 BRICK KILN CT  
NORTHAMPTON, PA 18067

03 Gross Weight 79,200.00 lb  
Tare Weight 41,060.00 lb  
Net Weight 38,140.00 lb

Net Tons 19.07 TN  
Yards 0.00 YD

Reference: Contract/Profile: 3819-Y9-13422

Manifest: 234810/26164

Generator: U.S. COAST GUARD

Origin:	Materials & Services	Quantity	Unit	Rate	Disposal
DELAWARE STATE	VG [41] SW-CONT SOIL	19.07	TN		

Check #  
Net Amount:  
Tendered:  
Change:

# Modern Landfill

4400 Mt. Pisgan Rd.  
York, PA 17406  
(717) 246-2686  
Fax (717) 244-5588



Ticket: 054563  
Date: 04/07/10  
Time In: 11:10 am  
Time Out: 11:44 am

## Customer Copy

Vehicle: 218813 ROLL OFF DEP#: 54055

WH#0754 FREEHOLD CARTAGE INC

Container/Trailer/DEP#:

00 Gross Weight 72,380.00 lb

Customer: 000624 ENVIRONMENTAL WASTE MIN  
14 BRICK KILN CT

Tare Weight 35,880.00 lb

Net Weight 36,500.00 lb

NORTHAMPTON, PA 18067

Net Tons 18.25 TN

Reference: PO 03-102035-03

Contract/Profile: 3819-Y9-13422

Yards 30.00 YD

Manifest: 26600/234809

Generator: U.S. COAST GUARD

Origin:

Materials & Services

Quantity

Unit

Rate

Disposal

DELAWARE STATE

VG [41]

SW-CONT SOIL

18.25

TN

Check #  
Net Amount:  
Tendered:  
Change:

Driver \_\_\_\_\_

Weighmaster \_\_\_\_\_

JODI WILLIAMS 059039

# Modern Landfill

4400 Mt. Pisgah Rd.  
York, PA 17406  
(717) 246-2666  
Fax (717) 244-5588



Ticket: 056298  
Date: 04/14/10  
Time In: 8:38 am  
Time Out: 10:29 am

## Scalehouse Copy

Vehicle: 218797 TRUCK-TRAILER DEP#: WH#0754 FREEHOLD CARTAGE INC.  
Container/Trailer/DEP#: 307 03 Gross Weight 63,920.00 lb  
Customer: 000624 ENVIRONMENTAL WASTE MIN Tare Weight 36,240.00 lb  
14 BRICK KILN CT Net Weight 27,680.00 lb  
NORTHAMPTON, PA 18067 Net Tons 13.84 TN  
Reference: PO#03-102035-03 Contract/Profile: 3819-Y9-13422 Yards 0.00 YD

Manifest: 27701/234815 Generator: U.S. COAST GUARD

Origin	Materials & Services	Quantity	Unit	Rate	Disposal
DELAWARE STATE	VG [41] SW-CONT SOIL	13.84	TN		
	EG FEE-DIG/SCRAPE OUT	1.00	EA		

Check #  
Net Amount:  
Tendered:  
Change:

Driver \_\_\_\_\_

Weighmaster \_\_\_\_\_

MYRTLE CURTIN 061389

# Modern Landfill

4400 Mt. Pisgah Rd.  
York, PA 17406  
(717) 246-2666  
Fax (717) 244-5588



Ticket: 056298  
Date: 04/14/10  
Time In: 8:38 am  
Time Out: 10:29 am

## Customer Copy

Vehicle: 218797 TRUCK-TRAILER DEP#: WH#0754 FREEHOLD CARTAGE INC.  
Container/Trailer/DEP#: 307 03 Gross Weight 63,920.00 lb  
Customer: 000624 ENVIRONMENTAL WASTE MIN Tare Weight 36,240.00 lb  
14 BRICK KILN CT Net Weight 27,680.00 lb  
NORTHAMPTON, PA 18067 Net Tons 13.84 TN  
Reference: PO#03-102035-03 Contract/Profile: 3819-Y9-13422 Yards 0.00 YD

Manifest: 27701/234815 Generator: U.S. COAST GUARD

Origin	Materials & Services	Quantity	Unit	Rate	Disposal
DELAWARE STATE	VG [41] SW-CONT SOIL	13.84	TN		
	EG FEE-DIG/SCRAPE OUT	1.00	EA		

Check #  
Net Amount:  
Tendered:  
Change:

Driver \_\_\_\_\_

Weighmaster \_\_\_\_\_

MYRTLE CURTIN 061389

# Modern Landfill

4400 Mt. Pisgah Rd  
York, PA 17406  
(717) 246-2635  
Fax (717) 244-5588



Ticket: 056299  
Date: 04/14/10  
Time In: 8:41 am  
Time Out: 10:31 am

## Scalehouse Copy

Vehicle: 218818 TRUCK-TRAILER DEP#: 009236  
Container/Trailer/DEP#: 535 009236  
Customer: 000624 ENVIRONMENTAL WASTE MIN  
14 BRICK KILN CT

WH#0754 FREEHOLD CARTAGE INC.

00 Gross Weight 66,240.00 lb  
Tare Weight 35,160.00 lb  
Net Weight 31,080.00 lb

NORTHAMPTON, PA 18067

Net Tons 15.54 TN

Reference: PO#03-102035-03

Contract/Profile: 3819-Y9-13422

Yards 0.00 YD

Manifest: 26522/230871

Generator: U.S. COAST GUARD

Origin	Materials & Services	Quantity	Unit	Rate	Disposal
DELAWARE STATE	VG [41] SW-CONT SOIL	15.54	TN		

Check #  
Net Amount:  
Tendered:  
Change:

Driver \_\_\_\_\_

Weighmaster \_\_\_\_\_

MYRTLE CURTIN 061389

# Modern Landfill

4400 Mt. Pisgah Rd  
York, PA 17406  
(717) 246-2635  
Fax (717) 244-5588



Ticket: 056299  
Date: 04/14/10  
Time In: 8:41 am  
Time Out: 10:31 am

## Customer Copy

Vehicle: 218818 TRUCK-TRAILER DEP#: 009236  
Container/Trailer/DEP#: 535 009236  
Customer: 000624 ENVIRONMENTAL WASTE MIN  
14 BRICK KILN CT

WH#0754 FREEHOLD CARTAGE INC.

00 Gross Weight 66,240.00 lb  
Tare Weight 35,160.00 lb  
Net Weight 31,080.00 lb

NORTHAMPTON, PA 18067

Net Tons 15.54 TN

Reference: PO#03-102035-03

Contract/Profile: 3819-Y9-13422

Yards 0.00 YD

Manifest: 26522/230871

Generator: U.S. COAST GUARD

Origin	Materials & Services	Quantity	Unit	Rate	Disposal
DELAWARE STATE	VG [41] SW-CONT SOIL	15.54	TN		

Check #  
Net Amount:  
Tendered  
Change:

Driver \_\_\_\_\_

Weighmaster \_\_\_\_\_

MYRTLE CURTIN 061389

**Modern Landfill**

1400 E. Pagan Rd.  
York, PA 17406  
(717) 249-2089  
Fax (717) 249-5589



Ticket: 056550  
Date: 04/15/10  
Time In: 7:50 am  
Time Out: 8:22 am

**Scalehouse Copy**

Vehicle: 218765 TRUCK-TRAILER DEP#: VIN WH#0754 FREEHOLD CARTAGE INC.  
Container/Trailer/DEP#: 392 00 Gross Weight 75,540.00 lb  
Customer: 000624 ENVIRONMENTAL WASTE MIN Tare Weight 42,000.00 lb  
14 BRICK KILN CT Net Weight 33,540.00 lb  
NORTHAMPTON, PA 18067 Net Tons 16.77 TN  
Reference: PO#03-102035-03 Contract/Profile: 3819-Y9-13422 Yards: 0.00 YD

Manifest: 27923/234816 Generator: U.S. COAST GUARD  
Origin: Materials & Services Quantity Unit Rate Disposal  
DELAWARE STATE VG (H) SW-CONT SOIL 16.77 TN

Check #  
Net Amount:  
Tendered:  
Change:

Driver: \_\_\_\_\_

Weighmaster: \_\_\_\_\_  
MYRTLE CURTIN 061389

**Modern Landfill**

1400 E. Pagan Rd.  
York, PA 17406  
(717) 249-2089  
Fax (717) 249-5589



Ticket: 056550  
Date: 04/15/10  
Time In: 7:50 am  
Time Out: 8:22 am

**Customer Copy**

Vehicle: 218765 TRUCK-TRAILER DEP#: VIN WH#0754 FREEHOLD CARTAGE INC.  
Container/Trailer/DEP#: 392 00 Gross Weight 75,540.00 lb  
Customer: 000624 ENVIRONMENTAL WASTE MIN Tare Weight 42,000.00 lb  
14 BRICK KILN CT Net Weight 33,540.00 lb  
NORTHAMPTON, PA 18067 Net Tons 16.77 TN  
Reference: PO#03-102035-03 Contract/Profile: 3819-Y9-13422 Yards: 0.00 YD

Manifest: 27923/234816 Generator: U.S. COAST GUARD  
Origin: Materials & Services Quantity Unit Rate Disposal  
DELAWARE STATE VG (H) SW-CONT SOIL 16.77 TN

Check #  
Net Amount:  
Tendered:  
Change:

Driver: \_\_\_\_\_

Weighmaster: \_\_\_\_\_  
MYRTLE CURTIN 061389

# Modern Landfill

4400 Mt. Pleasant Rd  
York, PA 17406  
(717) 246-2686  
Fax (717) 244-5588



Ticket: 056535  
Date: 04/15/10  
Time In: 7:05 am  
Time Out: 8:04 am

## Scalehouse Copy

Vehicle: 218788 TRUCK-TRAILER DEP#: VIN# WH#0754 FCI

Container/Trailer/DEP#: 00 Gross Weight 68,660.00 lb

Customer: 000624 ENVIRONMENTAL WASTE MIN Tare Weight 36,340.00 lb  
14 BRICK KILN CT Net Weight 32,320.00 lb

NORTHAMPTON, PA 18067 Net Tons 16.16 TN

Reference: PO#03-102035-03 Contract/Profile: 3819-Y9-13422 Yards 30.00 YD

Manifest: 27920 Generator: U.S. COAST GUARD

Origin:	Materials & Services	Quantity	Unit	Rate	Disposal
DELAWARE STATE	VG (41) SW-CONT SOIL	16.16	TN		

Check #  
Net Amount:  
Tendered:  
Change:

Driver Stanley Harrison

Weighmaster \_\_\_\_\_  
TERRY SHERBINE 062688

# Modern Landfill

4400 Mt. Pleasant Rd  
York, PA 17406  
(717) 246-2686  
Fax (717) 244-5588



Ticket: 056535  
Date: 04/15/10  
Time In: 7:06 am  
Time Out: 8:04 am

## Customer Copy

Vehicle: 218788 TRUCK-TRAILER DEP#: VIN# WH#0754 FCI

Container/Trailer/DEP#: 00 Gross Weight 68,660.00 lb

Customer: 000624 ENVIRONMENTAL WASTE MIN Tare Weight 36,340.00 lb  
14 BRICK KILN CT Net Weight 32,320.00 lb

NORTHAMPTON, PA 18067 Net Tons 16.16 TN

Reference: PO#03-102035-03 Contract/Profile: 3819-Y9-13422 Yards 30.00 YD

Manifest: 27920 Generator: U.S. COAST GUARD

Origin:	Materials & Services	Quantity	Unit	Rate	Disposal
DELAWARE STATE	VG (41) SW-CONT SOIL	16.16	TN		

Check #  
Net Amount:  
Tendered:  
Change:

Driver Stanley Harrison

Weighmaster \_\_\_\_\_  
TERRY SHERBINE 062688



# FREEHOLD CARTAGE INC.

P.O. BOX 5010 • FREEHOLD, NJ 07728-5010  
(732) 462-1001 • FAX (732) 368-0924

**BILL OF LADING**  
FCI EPA ID NO. NJD054126164

## \$ 220999

350 Pigeon Point Road  
New Castle, DE 19720  
Phone: (302) 658-2005  
Fax: (302) 658-6229

175 Bartow Mun. Airport  
Bartow, FL 33830  
Phone: (863) 533-4599  
Fax: (863) 533-1613

5533 Dunham Road  
Maple Heights, OH 44137  
Phone: (330) 835-3473  
Fax: (330) 835-3732

108 Monahan Avenue  
Dunmore, PA 18512  
Phone: (570) 342-7232  
Fax: (570) 342-7367

132 Myrtle Beach Hwy.  
Sumter, SC 29153  
Phone: (803) 773-2611  
Fax: (803) 773-2942

SHIPPER NAME/ADDRESS <b>United States Coast Guard 1171 Taylors Bridge Road Townsend, DE 19734</b>		PHONE (AREA CODE) <b>813</b>		APPOINTMENT TIME	
FCI REP. LOADING (PRINT) <b>Dan T</b>		PROCEDURE <b>Remove</b>	EQUIP. SPOTTED	EQUIP. REMOVED <b>0513</b>	TIME AT SHIPPER (MILITARY TIME ONLY) <b>08:00</b> <b>13:45</b>
COMMENTS OR DELAYS AT SHIPPER		ARRIVAL TIME DEPARTURE TIME			
EQUIPMENT USED					

**BROKER:**

PO#: **WO# 7100444** **MANIFEST / DOCUMENT NO. 28802**

QTY	PROPER U.S. D.O.T. SHIPPING NAME	U.S. D.O.T. HAZARDOUS CLASS	NA/UN/NO.	PACKING GROUP	NO. CONT.	CONT. TYPE	NET QUANTITY	UNIT MEASURE	WASTE NO.	FORM
1	<b>Non Reg Material</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>01</b>	<b>CM</b>	<b>30</b>	<b>Y</b>		<b>S</b>
2										
3										

SPECIAL HANDLING INSTRUCTIONS INCLUDING CONTAINER EXEMPTION NUMBER.

SHIPPER'S CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation, U.S. EPA and the State. The materials described above were consigned to the Transporter named. The consignee can and will accept the shipment and has a valid permit to do so if required. I certify that the foregoing is true and correct to the best of my knowledge.

Payment to the contractor for waste removal does not constitute payment to the carrier and if the contractor does not pay the carrier, the shipper is obligated to pay the agreed rate offered to the contractor.

PLEASE PRINT NAME/TITLE <b>JIM SULLION EWMI</b>	SHIPPER'S SIGNATURE <b>X Jim Sullion</b>	DATE LOADED <b>02/09/10</b>
HAVE READ THE ABOVE AND UNDERSTAND AND AGREE TO ALL OF ITS CONTENT		MO. DAY YR.

CONSIGNEE NAME/ADDRESS <b>Modern Landfill</b>		PHONE		APPOINTMENT TIME	
<b>York PA</b>		(AREA CODE)			
FCI REP. UNLOADING (PRINT) <b>T Conklin</b>		PROCEDURE <b>Dump</b>	EQUIP. SPOTTED	EQUIP. REMOVED <b>0513</b>	TIME AT CONSIGNEE (MILITARY TIME ONLY) <b>12:30</b> <b>13:30</b>
COMMENTS OR DELAYS AT CONSIGNEE		ARRIVAL TIME DEPARTURE TIME			
EQUIPMENT USED					

PLEASE PRINT NAME/TITLE	CONSIGNEE SIGNATURE <b>X [Signature]</b>	DATE UNLOADED <b>3/18/10</b>
		MO. DAY YR.

AR H-0257	MD HWH-167	MO H-1490	OH UPW-0190713-OH	TX 40705
CT CT-HW-307	2001-OPV-2335	ND WH-425	OK UPW-0190713-OH	WI 11602
DE DE-HW-203	ME ME-HWT-47	NH TNH-0047	ONTARIO, CANADA A 840343	WV UPW-0190713-OH
DE-SW-203	ME-WOT-47	NJ S-2285	PA PA-AH-0067	
IL UPW-0190713-OH	MI UPW-0190713-OH	NY 15939	QUEBEC, CANADA QC-6ML-047	
MA MA-294	MN UPW-0190713-OH	NY NJ-113	RI RI-535	

White - FCI Original  
Yellow - FCI Billing  
Blue - FCI Office/Customer  
Green - Retained by TSDF  
Gold - Retained by Generator

## \$ 220999

# Non Hazardous Manifest/Bill Of Lading

All Correspondence and Invoices to:  
**Environmental Waste Minimization, Inc.**  
 & Rapid Response, Inc.  
 14 Brick Kiln Court  
 Northampton, PA 18067  
 Phone 484-275-6900  
 Fax 484-275-6970

Document # 28802

Job/Project # 102026 / REEDY LIGHT

**THIS SECTION TO BE COMPLETED BY GENERATOR:**

COMPANY NAME/ADDRESS:  
UNITED STATES COAST GUARD  
1171 TAYLORS BRIDGE ROAD  
TOWNSEND, DE 19734

IN CASE OF EMERGENCY OR SPILL CONTACT

RAPID RESPONSE

24 HOUR EMERGENCY PHONE #

18774601038

QUANTITY	SIZE/TYPE	DESCRIPTION	APPROVAL CODE	WEIGHT/VOLUME
<u>002</u>	<u>CM</u>	<u>NONHAZARDOUS SOLID</u> <u>DOT / RCRA NON REGULATED</u>	<u>Y913422</u>	<u>16 TON</u>

I Herby certify that the above named waste(s) are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation according to the applicable regulations of the DOT and the EPA.

GENERATOR'S SIGNATURE USCG  
[Signature]  
 PRINT NAME J. MESSIAH

DATE  
2/09/10

**THIS SECTION TO BE COMPLETED BY HAULER / TRANSPORTER:**

COMPANY NAME: <u>FREEHOLD</u> <u>CARTAGE INC.</u>		ADDRESS: <u>825 HIGHWAY 33 EAST</u> <u>FREEHOLD, NJ 07728</u>		PHONE NO. <u>732462-1001</u>
VEHICLE I.D. NO. <u>AA 216 G</u> <u>813</u>	STATE <u>NJ</u>	BOX NUMBER IN <u> </u>	BOX NUMBER OUT <u>0513</u>	COMMENTS

I Herby certify that the above described waste(s) were accepted for transportation at the producer's site for delivery to the waste facility. Both as listed hereupon.

DRIVER'S SIGNATURE  
[Signature]  
 PRINT DRIVER'S NAME  
[Name]

DATE  
2/09/10

**THIS SECTION TO BE COMPLETED BY RECEIVER AT DISPOSAL FACILITY: (ONCE SIGNED, A COPY MUST BE FORWARDED TO EWMI AND GENERATOR)**

FACILITY NAME <u>MODERN LANDFILL</u>		ADDRESS <u>4400 MT PISGAH ROAD</u> <u>YORK, PA 17402</u>		PHONE NO. <u>717 246 2626</u>
COMMENTS				

I Herby certify that the above described wastes were delivered to this Facility, that the Facility is authorized and permitted to receive such wastes.

AUTHORIZED SIGNATURE  
[Signature]  
 PRINT NAME  
[Name]

DATE  
3/8/10



# FREEHOLD CARTAGE INC.

P.O. BOX 5010 • FREEHOLD, NJ 07728-5010  
(732) 462-1001 • FAX (732) 308-0924

**BILL OF LADING**  
FCI EPA ID NO. NJD054126164

## \$ 234809

350 Pigeon Point Road  
New Castle, DE 19720  
Phone: (302) 658-2005  
Fax: (302) 658-6229

175 Bartow Mun. Airport  
Bartow, FL 33830  
Phone: (863) 533-4599  
Fax: (863) 533-1613

5533 Dunham Road  
Maple Heights, OH 44137  
Phone: (330) 835-3473  
Fax: (330) 835-3732

108 Monahan Avenue  
Dunmore, PA 18512  
Phone: (570) 342-7232  
Fax: (570) 342-7367

132 Myrtle Beach Hwy.  
Sumter, SC 29153  
Phone: (803) 773-2611  
Fax: (803) 773-2942

SHIPPER NAME/ADDRESS United States Coast Guard 1171 Taylors Bridge Road Townsend DE		PHONE (AREA CODE) TRACTOR 813		TRAILER		APPOINTMENT TIME	
FCI REP. LOADING (PRINT) Dart	PROCEDURE S/O	EQUIP. SPOTTED 0213	EQUIP. REMOVED 0072	TIME AT SHIPPER 10:00	(MILITARY TIME ONLY)	ARRIVAL TIME	DEPARTURE TIME 10:45
COMMENTS OR DELAYS AT SHIPPER						EQUIPMENT USED 1 Liner	

BROKER:		MANIFEST / DOCUMENT NO. 26600	
PO#	WO# 771904		

(X) HM	PROPER U.S. D.O.T. SHIPPING NAME	U.S. D.O.T. HAZARDOUS CLASS	NA/UN/NO	PACKING GROUP	NO. CONT.	CONT. TYPE	NET QUANTITY	UNIT MEASURE	WASTE NO	FORM
1	Non Reg Material	N/A	N/A	W/A	0	CM	30	Y		S
2	(Soil)									
3										

SPECIAL HANDLING INSTRUCTIONS INCLUDING CONTAINER EXEMPTION NUMBER.

SHIPPER'S CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation, U.S. EPA and the State. The materials described above were consigned to the Transporter named. The consignee can and will accept the shipment and has a valid permit to do so if required. I certify that the foregoing is true and correct to the best of my knowledge.

Payment to the contractor for waste removal does not constitute payment to the carrier and if the contractor does not pay the carrier, the shipper is obligated to pay the agreed rate offered to the contractor.

PLEASE PRINT NAME/TITLE	SHIPPER'S SIGNATURE X	DATE LOADED 04/06/10 MO. DAY YR.
-------------------------	--------------------------	--

CONSIGNEE NAME/ADDRESS Modern Landfill York PA		PHONE (AREA CODE) TRACTOR 813		TRAILER		APPOINTMENT TIME	
FCI REP. UNLOADING (PRINT) Dart	PROCEDURE Dura	EQUIP. SPOTTED	EQUIP. REMOVED 0072	TIME AT CONSIGNEE 11:05	(MILITARY TIME ONLY)	ARRIVAL TIME	DEPARTURE TIME 11:45
COMMENTS OR DELAYS AT CONSIGNEE						EQUIPMENT USED	

PLEASE PRINT NAME/TITLE	CONSIGNEE SIGNATURE X	DATE UNLOADED 04/07/10 MO. DAY YR.
-------------------------	--------------------------	--

AR H-0257	MD HWH-167	MO H-1490	OH UPW-0190713-OH	TX 40705
CT CT-HW-307	2001-OPV-2335	ND WH-429	OK UPW-0190713-OH	WI 11602
DE DE-HW-203	ME ME-HWT-47	NH TNH-0047	ONTARIO, CANADA A 840943	WV UPW-0190713-OH
DE-SW-203	ME-WOT-47	NJ S-2265	PA PA-AH-0067	
IL UPW-0190713-OH	MI UPW-0190713-OH	15939	QUEBEC, CANADA QC-6ML-047	
MA MA-294	MN UPW-0190713-OH	NY NJ-113	RI RI-535	

White - FCI Original  
Yellow - FCI Billing  
Blue - FCI Office/Customer  
Green - Retained by TSDF  
Gold - Retained by Generator

## \$ 234809

# Non Hazardous Manifest/Bill Of Lading

All Correspondence and Invoices to: <b>Environmental Waste Minimization, Inc.                  &amp; Rapid Response, Inc.</b> 14 Brick Kiln Court Northampton, PA 18067 Phone 484-275-6900 Fax 484-275-6970	Document # <u>26800</u>  Job/Project # <u>102026/Reedy Light</u>
--	--

THIS SECTION TO BE COMPLETED BY GENERATOR:

COMPANY NAME/ADDRESS <b>UNITED STATES COAST GUARD</b> <b>1171 TAYLORS BRIDGE ROAD</b> <b>TOWNSEND, DE 19734</b>	IN CASE OF EMERGENCY OR SPILL CONTACT <b>RAPID Response</b> 24 HOUR EMERGENCY PHONE # <b>877 460 1038</b>
--	--

QUANTITY	SIZE/TYPE	DESCRIPTION	APPROVAL CODE	WEIGHT/VOLUME
001	CM	NON HAZARDOUS SOLID DOT, IBC/RA NON REGULATED	Y913422	16 TON

I Herby certify that the above named waste(s) are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation according to the applicable regulations of the DOT and the EPA.	GENERATOR'S SIGNATURE <u>USCG</u> <u>JP MESSINA</u> (CVC/CEV) PRINT NAME <u>JP MESSINA</u>	DATE
--	---	------

THIS SECTION TO BE COMPLETED BY HAULER / TRANSPORTER:

COMPANY NAME <b>Freehold</b> <b>CARTAGE INC</b>	ADDRESS <b>825 Highway 33 East</b> <b>Freehold, NJ 07728</b>	PHONE NO. <b>(732) 462-1001</b>		
VEHICLE I.D. NO. <b>AA 216G</b>	STATE <b>NJ</b>	BOX NUMBER-IN <b>0213</b>	BOX NUMBER-OUT <b>0072</b>	COMMENTS
I Herby certify that the above described waste(s) were accepted for transportation at the producer's site for delivery to the waste facility. Both as listed hereupon.	DRIVER'S SIGNATURE <u>[Signature]</u> PRINT DRIVER'S NAME <u>Don Terzagius</u>	DATE <b>04/06/10</b>		

THIS SECTION TO BE COMPLETED BY RECEIVER AT DISPOSAL FACILITY: (ONCE SIGNED, A COPY MUST BE FORWARDED TO EWMI AND GENERATOR)

FACILITY NAME <b>MODERN LANDFILL</b>	ADDRESS <b>4400 MT PISGAH ROAD</b> <b>YORK, PA 17402</b>	PHONE NO. <b>717 246 2686</b>
COMMENTS	AUTHORIZED SIGNATURE <u>[Signature]</u> PRINT NAME <u>John Williams</u>	DATE <b>4/7/10</b>



**FREEHOLD CARTAGE INC.**  
 P.O. BOX 5010 • FREEHOLD, NJ 07728-5010  
 (732) 462-1001 • FAX (732) 308-0924

**BILL OF LADING**  
 FCI EPA ID NO. NJD054126164  
**S 234815**

350 Pigeon Point Road  
 New Castle, DE 19720  
 Phone: (302) 658-2005  
 Fax: (302) 658-6229

175 Bartow Mun. Airport  
 Bartow, FL 33830  
 Phone: (863) 533-4399  
 Fax: (863) 533-1613

5533 Dunbar Road  
 Maple Heights, OH 44137  
 Phone: (330) 835-3473  
 Fax: (330) 835-3722

108 Monahan Avenue  
 Dunmore, PA 18512  
 Phone: (570) 342-7232  
 Fax: (570) 342-7367

132 Myrtle Beach Hwy  
 Sumter, SC 29153  
 Phone: (803) 773-2611  
 Fax: (803) 773-2942

SHIPPER NAME/ADDRESS <b>United States Coast Guard 1171 Taylors Bridge Road Townsend, DE</b>		PHONE			
AREA CODE		TRACTOR		TRAILER	
		<b>813</b>			
APPOINTMENT TIME		TIME AT SHIPPER		(MILITARY TIME ONLY)	
		<b>12:40</b>		<b>14:10</b>	
ARRIVAL TIME		DEPARTURE TIME			
FCI REP. LOADING (PRINT)	PROCEDURE	EQUIP. SPOTTED	EQUIP. REMOVED	EQUIPMENT USED	
<b>DONT</b>	<b>Remove</b>		<b>0514</b>		
COMMENTS OR DELAYS AT SHIPPER					

BROKER:		MANIFEST / DOCUMENT NO. <b>27701</b>	
PO#:	WO#:		
	<b>772107</b>		

(X) HR	PROPER U.S. D.O.T. SHIPPING NAME	U.S. D.O.T. HAZARDOUS CLASS	NA/UN/NO.	PACKING GROUP	NO. CONT.	CONT. TYPE	NET QUANTITY	UNIT MEASURE	WASTE NO.	FORM
1	<b>Non Reg Soil</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>01</b>	<b>CM</b>	<b>30</b>	<b>Y</b>		<b>S</b>
2										
3										

SPECIAL HANDLING INSTRUCTIONS INCLUDING CONTAINER EXEMPTION NUMBER.

SHIPPER'S CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation, U.S. EPA and the State. The materials described above were consigned to the Transporter named. The consignee can and will accept the shipment and has a valid permit to do so if required. I certify that the foregoing is true and correct to the best of my knowledge.

Payment to the contractor for waste removal does not constitute payment to the carrier and if the contractor does not pay the carrier, the shipper is obligated to pay the agreed rate offered to the contractor.

PLEASE PRINT NAME/TITLE <b>JIM SCULLION EWMI</b>	SHIPPER'S SIGNATURE <i>[Signature]</i>	DATE LOADED <b>04/08/10</b>
I HAVE READ THE ABOVE AND UNDERSTAND AND AGREE TO ALL OF ITS CONTENT.		MO. DAY YR.

CONSIGNEE NAME/ADDRESS <b>Modern Landfill York PA</b>		PHONE			
AREA CODE		TRACTOR		TRAILER	
		<b>797</b>		<b>4501</b>	
APPOINTMENT TIME		TIME AT CONSIGNEE		(MILITARY TIME ONLY)	
		<b>08:30</b>		<b>11:00</b>	
ARRIVAL TIME		DEPARTURE TIME			
FCI REP. UNLOADING (PRINT)	PROCEDURE	EQUIP. SPOTTED	EQUIP. REMOVED	EQUIPMENT USED	
<b>BOB SMITH</b>	<b>Dump</b>		<b>0514</b>		
COMMENTS OR DELAYS AT CONSIGNEE					
<b>HAD TO GET DUG OUT, + SHOVEL BOX CLEAN</b>					

PLEASE PRINT NAME/TITLE <b>T. Sherbin</b>	CONSIGNEE SIGNATURE <i>[Signature]</i>	DATE UNLOADED <b>4/14/10</b>
		MO. DAY YR.

AR H-0257	MD HWH-167	MO H-1490	OH UPW-0190713-OH	TX 40705
CT CT-HW-307	2001-OPV-2335	ND WH-429	OK UPW-0190713-OH	WI 11602
DE DE-HW-203	ME ME-HWT-47	NH TNH-0047	ONTARIO, CANADA A 840943	WV UPW-0190713-OH
DE-SW-203	ME-WOT-47	NJ S-2265	PA PA-AH-0067	
IL UPW-0190713-OH	MI UPW-0190713-OH	15939	QUEBEC, CANADA QC-6ML-047	
MA MA-294	MN UPW-0190713-OH	NY NJ-113	RI RI-535	

White - FCI Original  
 Yellow - FCI Billing  
 Blue - FCI Office/Customer  
 Green - Retained by TSOE  
 Gold - Retained by Generator

**S 234815**

# Non Hazardous Manifest/Bill Of Lading

All Correspondence and Invoices to: <b>Environmental Waste Minimization, Inc.</b> & Rapid Response, Inc. 14 Brick Kiln Court Northampton, PA 18067 Phone 484-275-6900 Fax 484-275-6970	Document # <u>27701</u> Job/Project # <u>Rapid Site</u>
--	--

THIS SECTION TO BE COMPLETED BY GENERATOR:

COMPANY NAME/ADDRESS UNITED STATES COAST GUARD 1171 TAILORS BRIDGE ROAD TOWNESEND, DE 19734	IN CASE OF EMERGENCY OR SPILL CONTACT RAPID RESPONSE INC 24 HOUR EMERGENCY PHONE # 877 460-1038
--	--

QUANTITY	SIZE/TYPE	DESCRIPTION	APPROVAL CODE	WEIGHT/VOLUME
001	GM	NON HAZARDOUS SOLID WASTE / ROOM NON REGULATED	Y913422	

I hereby certify that the above named waste(s) are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation according to the applicable regulations of the DOT and the EPA.	GENERATOR'S SIGNATURE 	DATE 6/10/10
	PRINT NAME J. MESSICK	

THIS SECTION TO BE COMPLETED BY HAULER / TRANSPORTER:

COMPANY NAME FREEMAN CONTAINERS INC	ADDRESS 875 HIGHWAY 33 BOX 57 FRIENDS, NJ 07728	PHONE NO. (732) 462-1001
--	---	-----------------------------

VEHICLE I.D. NO 375 PA 2169	STATE NJ	BOX NUMBER-IN	BOX NUMBER-OUT 0514	COMMENTS
-----------------------------------	-------------	---------------	------------------------	----------

I hereby certify that the above described waste(s) were accepted for transportation at the producer's site for delivery to the waste facility. Both as listed hereupon.	DRIVER'S SIGNATURE 	DATE 04/09/10
	PRINT DRIVERS NAME Dan Tetrakova	

THIS SECTION TO BE COMPLETED BY RECEIVER AT DISPOSAL FACILITY: (ONCE SIGNED, A COPY MUST BE FORWARDED TO EWTI AND GENERATOR)

FACILITY NAME MOOREN LANDFILL	ADDRESS 4460 Mt. Pleasant Road York, PA 17402	PHONE NO. 717-246-2686
----------------------------------	---	---------------------------

COMMENTS		
----------	--	--

I hereby certify that the above described wastes were delivered to this Facility, that the Facility is authorized and permitted to receive such wastes.	AUTHORIZED SIGNATURE 	DATE 4/14/10
	PRINT NAME J. MESSICK	



# FREEHOLD CARTAGE INC.

P.O. BOX 5010 • FREEHOLD, NJ 07728-5010  
 (732) 462-1001 • FAX (732) 308-0924

# BILL OF LADING

FCI EPA ID NO: NJD054126164

S 230871

350 Pigeon Point Road  
 New Castle, DE 19720  
 Phone: (302) 658-2005  
 Fax: (302) 658-6229

175 Bartow Mun. Airport  
 Bartow, FL 33830  
 Phone: (863) 533-4599  
 Fax: (863) 533-1613

5333 Dunham Road  
 Maple Heights, OH 44137  
 Phone: (330) 835-3473  
 Fax: (330) 835-3732

108 Monahan Avenue  
 Dunmore, PA 18512  
 Phone: (570) 342-7252  
 Fax: (570) 342-7367

132 Myrtle Beach Hwy.  
 Sumter, SC 29153  
 Phone: (803) 771-2611  
 Fax: (803) 773-2942

SHIPPER NAME/ADDRESS <i>U.S. CG TAYLORS Bcg, ED TOWNSEND DE.</i>		PHONE		APPOINTMENT TIME	
FCI REP. LOADING (PRINT) <i>DENNIS</i>		PROCEDURE <i>←</i>	EQUIP. SPOTTED <i>0072</i>	EQUIP. REMOVED <i>9723</i>	TIME AT SHIPPER (MILITARY TIME ONLY) <i>16:30</i> / <i>17:15</i> ARRIVAL TIME / DEPARTURE TIME
COMMENTS OR DELAYS AT SHIPPER					EQUIPMENT USED <i>TRAP, BOLUS TRAILER &amp; STRAPS</i>

BROKER:	MANIFEST / DOCUMENT NO. <i>26522</i>
PO#	WO# <i>77117-01</i>

(X) HBI	PROPER U.S. DOT SHIPPING NAME	U.S. DOT HAZARDOUS CLASS	NA/UN/NO	PACKING GROUP	NO. CONT.	CONT. TYPE	NET QUANTITY	UNIT MEASURE	WASTE NO.	FORM
1	<i>NON HAZ</i>				<i>010M</i>		<i>ESL 15</i>		<i>Y</i>	
2	<i>Soil</i>									
3										

SPECIAL HANDLING INSTRUCTIONS INCLUDING CONTAINER EXEMPTION NUMBER.

SHIPPER'S CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation, U.S. EPA and the State. The materials described above were consigned to the Transporter named. The consignee can and will accept the shipment and has a valid permit to do so if required. I certify that the foregoing is true and correct to the best of my knowledge.

Payment to the contractor for waste removal does not constitute payment to the carrier and if the contractor does not pay the carrier, the shipper is obligated to pay the agreed rate offered to the contractor.

PLEASE PRINT NAME/TITLE <i>JIM SCULLION ENMI</i>	SHIPPER'S SIGNATURE <i>[Signature]</i>	DATE LOADED <i>4/10/10</i>
<input checked="" type="checkbox"/> I HAVE READ THE ABOVE AND UNDERSTAND AND AGREE TO ALL OF ITS CONTENT		MO: DAY: YR:

CONSIGNEE NAME/ADDRESS <i>MODERN LANDFILL York PA</i>		PHONE		APPOINTMENT TIME	
FCI REP. UNLOADING (PRINT) <i>P BLACK</i>		PROCEDURE <i>Dump</i>	EQUIP. SPOTTED <i>9723</i>	EQUIP. REMOVED	TIME AT CONSIGNEE (MILITARY TIME ONLY) <i>08:30</i> ARRIVAL TIME / DEPARTURE TIME
COMMENTS OR DELAYS AT CONSIGNEE					EQUIPMENT USED

PLEASE PRINT NAME/TITLE <i>T. Sherbino</i>	CONSIGNEE SIGNATURE <i>[Signature]</i>	DATE UNLOADED <i>4/14/10</i>
<input checked="" type="checkbox"/> I HAVE READ THE ABOVE AND UNDERSTAND AND AGREE TO ALL OF ITS CONTENT		MO: DAY: YR:

AR H-0257	MD HWH-167	MO H-1490	OH UPW-0190713-OH	TX 40705
CT CT-HW-307	2001-OPV-2335	ND WH-429	OK UPW-0190713-OH	WI 11602
DE DE-HW-203	ME ME-HWT-47	NH TNH-0047	ONTARIO, CANADA A 840943	WV UPW-0190713-OH
DE-SW-203	ME-WOT-47	NJ S-2265	PA PA-AH-0067	
IL UPW-0190713-OH	MI UPW-0190713-OH	15939	QUEBEC, CANADA QC-6ML-047	
MA MA-294	MN UPW-0190713-OH	NY NJ-113	RI RI-535	

White - FCI Original  
 Yellow - FCI Billing  
 Blue - FCI Office/Customer  
 Green - Retained by TSDF  
 Gold - Retained by Generator

S 230871





# FREEHOLD CARTAGE INC.

P.O. BOX 5010 • FREEHOLD, NJ 07728-5010  
(732) 462-1001 • FAX (732) 308-0924

**BILL OF LADING**  
FCI EPA ID NO. NJD054126164  
**S 234816**

150 Pigeon Point Road  
New Castle, DE 19720  
Phone: (302) 658-2005  
Fax: (302) 658-6229

175 Barlow Mun. Airport  
Bartow, FL 33850  
Phone: (863) 533-4599  
Fax: (863) 533-1613

5533 Dunham Road  
Maple Heights, OH 44137  
Phone: (330) 835-3473  
Fax: (330) 835-3732

108 Monahan Avenue  
Dunmore, PA 18012  
Phone: (570) 342-2232  
Fax: (570) 342-2367

132 Myrtle Beach Hwy.  
Sumter, SC 29153  
Phone: (803) 773-2611  
Fax: (803) 773-2942

SHIPPER NAME/ADDRESS United States Coast Guard 1171 Taylors Bridge Road Townsend, DE		PHONE (AREA CODE) TRACTOR 813		TRAILER		APPOINTMENT TIME	
FCI REP. LOADING (PRINT) Dan T	PROCEDURE Remove	EQUIP. SPOTTED	EQUIP. REMOVED 0503	TIME AT SHIPPER 16:15	MILITARY TIME ONLY 16:45	ARRIVAL TIME	DEPARTURE TIME
COMMENTS OR DELAYS AT SHIPPER				EQUIPMENT USED			

BROKER:		MANIFEST/DOCUMENT NO. 27923	
PO#:	WO# 772108		

(K) / HAZ	PROPER U.S. D.O.T. SHIPPING NAME	U.S. D.O.T. HAZARDOUS CLASS	NA/UN/NO.	PACKING GROUP	NO. CONT.	CONT. TYPE	NET QUANTITY	UNIT MEASURE	WASTE NO.	FORM
1	Non Reg Soil	U/A	N/A	N/A	01	CM	30	Y		S
2										
3										

SPECIAL HANDLING INSTRUCTIONS INCLUDING CONTAINER EXEMPTION NUMBER

SHIPPER'S CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation, U.S. EPA and the State. The materials described above were consigned to the Transporter named. The consignee can and will accept the shipment and has a valid permit to do so if required. I certify that the foregoing is true and correct to the best of my knowledge.

Payment to the contractor for waste removal does not constitute payment to the carrier and if the contractor does not pay the carrier, the shipper is obligated to pay the agreed rate offered to the contractor.

PLEASE PRINT NAME/TITLE	SHIPPER'S SIGNATURE <i>[Signature]</i>	DATE LOADED 04/08/10
	I HAVE READ THE ABOVE AND UNDERSTAND AND AGREE TO ALL OF ITS CONTENTS	MO. DAY YR.

CONSIGNEE NAME/ADDRESS Modern Landfill York PA		PHONE (AREA CODE) TRACTOR		TRAILER		APPOINTMENT TIME	
FCI REP. UNLOADING (PRINT)	PROCEDURE Dump	EQUIP. SPOTTED	EQUIP. REMOVED 0503	TIME AT CONSIGNEE 7:45	MILITARY TIME ONLY 8:30	ARRIVAL TIME	DEPARTURE TIME
COMMENTS OR DELAYS AT CONSIGNEE				EQUIPMENT USED			

PLEASE PRINT NAME/TITLE T. Sherbino	CONSIGNEE SIGNATURE <i>[Signature]</i>	DATE UNLOADED 4/15/10
	X	MO. DAY YR.

AR H-0257	MD HWH-167	MO H-1490	OH UPW-0190713-OH	TX 40705
CT CT-HW-307	2001-ORV-2335	ND WH-429	OK UPW-0190713-OH	WI 11602
DE DE-HW-203	ME ME-HWT-47	NH TNH-0047	ONTARIO, CANADA A 840943	WV UPW-0190713-OH
DE-SW-203	ME WOT-47	NJ S-2265	PA PA-AH-0067	
IL UPW-0190713-OH	MI UPW-0190713-OH	15939	QUEBEC, CANADA OC-6ML-047	
MA MA-294	MN UPW-0190713-OH	NY NJ-113	RI RI-535	

White - FCI Original  
Yellow - FCI Billing  
Blue - FCI Office/Customer  
Green - Retained by TSDP  
Gold - Retained by Generator

S 234816

# Non Hazardous Manifest/Bill Of Lading

All Correspondence and Invoices to:  
**Environmental Waste Minimization, Inc.**  
 & Rapid Response, Inc.  
 14 Brick Kiln Court  
 Northampton, PA 18067  
 Phone 484-275-6900  
 Fax 484-275-6970

Document #

27923

Job/Project #

Keep Same

**THIS SECTION TO BE COMPLETED BY GENERATOR**

COMPANY NAME/ADDRESS

Environmental Waste Minimization, Inc.  
 & Rapid Response, Inc.  
 14 Brick Kiln Court  
 Northampton, PA 18067

IN CASE OF EMERGENCY OR SPILL CONTACT

717-246-1038

24 HOUR EMERGENCY PHONE #

717-246-1038

QUANTITY	SIZE/TYPE	DESCRIPTION	APPROVAL CODE	WEIGHT/VOLUME
001	CM	NON HAZARDOUS (SOLID) WASTE	Y91390	

I hereby certify that the above named waste(s) are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation according to the applicable regulations of the DOT and the EPA

GENERATOR'S SIGNATURE

[Signature]

DATE

1/6/10

PRINT NAME

HP NESSER

**THIS SECTION TO BE COMPLETED BY HAULER / TRANSPORTER**

COMPANY NAME

Environmental Waste Minimization, Inc.

ADDRESS

14 Brick Kiln Court

PHONE NO.

717-246-1038

VEHICLE I.D. NO.

NA

STATE

PA

BOX NUMBER IN

BOX NUMBER OUT

COMMENTS

I hereby certify that the above described waste(s) were accepted for transportation at the producer's site for delivery to the waste facility. Both as listed hereupon.

DRIVER'S SIGNATURE

[Signature]

DATE

1/6/10

PRINT DRIVER'S NAME

**THIS SECTION TO BE COMPLETED BY RECEIVER AT DISPOSAL FACILITY: (ONCE SIGNED, A COPY MUST BE FORWARDED TO EMMI AND GENERATOR)**

FACILITY NAME

Alcoa

ADDRESS

17401

PHONE NO.

717-246-2680

COMMENTS

I hereby certify that the above described wastes were delivered to this Facility, that the Facility is authorized, and permitted to receive such wastes.

AUTHORIZED SIGNATURE

[Signature]

DATE

1/5/10

PRINT NAME

J. [Signature]



# FREEHOLD CARTAGE INC.

P.O. BOX 5010 • FREEHOLD, NJ 07728-5010  
(732) 462-1001 • FAX (732) 308-0924

# BILL OF LADING

FCI EPA ID NO. NJD054126164

S 236851

350 Pigeon Point Road  
New Castle, DE 19720  
Phone: (302) 658-2005  
Fax: (302) 658-6229

175 Bartow Mun. Airport  
Bartow, FL 33830  
Phone: (863) 533-4599  
Fax: (863) 533-1613

5533 Dunham Road  
Maple Heights, OH 44137  
Phone: (330) 835-3473  
Fax: (330) 835-3732

188 Monahan Avenue  
Dunmore, PA 18512  
Phone: (570) 342-7232  
Fax: (570) 342-7367

132 Myrtle Beach Hwy  
Sumter, SC 29153  
Phone: (803) 773-2611  
Fax: (803) 773-2942

SHIPPER NAME/ADDRESS United States Coast Guard 1171 Taylors Bridge Road Townsend NE		PHONE AREA CODE: TRACTOR TRAILER 813		APPOINTMENT TIME	
FCI REP. LOADING (PRINT) Dan T	PROCEDURE Remove	EQUIP. SPOTTED	EQUIP. REMOVED 0072	TIME AT SHIPPER 11:15	(MILITARY TIME ONLY) 11:30
COMMENTS OR DELAYS AT SHIPPER				EQUIPMENT USED	

BROKER: \_\_\_\_\_  
 PC#: \_\_\_\_\_ WQ#: 272311 MANIFEST/DOCUMENT NO. 27920

(X) HS	PROPER U.S. DOT SHIPPING NAME	U.S. DOT HAZARDOUS CLASS	NA/INNO	PACKING GROUP	NO. CONT.	CONT. TYPE	NET QUANTITY	UNIT MEASURE	WASTE NO.	FORM
1	Non Reg Soil	N/A	N/A	N/A	01	CM	30	Y		S
2										
3										

SPECIAL HANDLING INSTRUCTIONS INCLUDING CONTAINER EXEMPTION NUMBER.

SHIPPER'S CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation, U.S. EPA and the State. The materials described above were consigned to the Transporter named. The consignee can and will accept the shipment and has a valid permit to do so if required. I certify that the foregoing is true and correct to the best of my knowledge.

Payment to the contractor for waste removal does not constitute payment to the carrier and if the contractor does not pay the carrier, the shipper is obligated to pay the agreed rate offered to the contractor.

PLEASE PRINT NAME/TITLE	SHIPPER'S SIGNATURE X [Signature]	DATE LOADED 09/12/10 MO DAY YR
-------------------------	--------------------------------------	--------------------------------------

CONSIGNEE NAME/ADDRESS Madara Landfill York PA		PHONE AREA CODE: TRACTOR TRAILER 788 4444		APPOINTMENT TIME	
FCI REP. UNLOADING (PRINT) Stanley Garvain	PROCEDURE Dump	EQUIP. SPOTTED	EQUIP. REMOVED 0072	TIME AT CONSIGNEE 08:06	(MILITARY TIME ONLY) 08:09
COMMENTS OR DELAYS AT CONSIGNEE				EQUIPMENT USED K10	

PLEASE PRINT NAME/TITLE	CONSIGNEE SIGNATURE X _____	DATE UNLOADED 9/15/10 MO DAY YR
-------------------------	--------------------------------	---------------------------------------

AR H-0257	MD HWH-167	MO H-1490	OH UPW-0190713-OH	TX 40705
CT CT-HW-307	2001-OPV-2335	ND WH-429	OK UPW-0190713-OH	WI 11802
DE OE-HW-203	ME ME-HWT-47	NH TNH-0047	ONTARIO, CANADA A 840943	WV UPW-0190713-OH
DE-SW-203	ME-WOT-47	NJ S-2265	PA PA-AH-0067	
IL UPW-0190713-OH	MI UPW-0190713-OH	15939	QUEBEC, CANADA OC-6ML-047	
MA MA-294	MN UPW-0190713-OH	NY NJ-113	RI RI-535	

White - FCI Original  
 Yellow - FCI Billing  
 Blue - FCI Office/Customer  
 Green - Retained by TSDF  
 Gold - Retained by Generator

S 236851

# Non Hazardous Manifest/Bill Of Lading

All Correspondence and Invoices to:  
 Environmental Waste Minimization, Inc.  
 & Rapid Response, Inc.  
 14 Brick Kiln Court  
 Northampton, PA 18067  
 Phone 484-275-6900  
 Fax 484-275-6970

Document # 27920  
 Job/Project # 103035

**THIS SECTION TO BE COMPLETED BY GENERATOR**

COMPANY NAME/ADDRESS WHITE SPRING COURT 6000 1111 SPRING COURT ROAD NORTHAMPTON, PA 18067	IN CASE OF EMERGENCY OR SPILL CONTACT RACON CONSULTING INC 24 HOUR EMERGENCY PHONE # 877-669-7938
--	--

QUANTITY	SIZE/TYRE	DESCRIPTION	APPROVAL CODE	WEIGHT/VOLUME
001	CM	NON HAZARDOUS SOLID MATERIALS AND WASTE	44131-00	
		13-18403		
		R# 03-102035-03		

I hereby certify that the above named waste(s) are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation according to the applicable regulations of the DOT and the EPA.	GENERATOR'S SIGNATURE [Signature]	DATE <u>1/12/10</u>
	PRINT NAME JAMES W. [Name]	

**THIS SECTION TO BE COMPLETED BY HAULER / TRANSPORTER**

COMPANY NAME FERRARO TRANSPORT INC	ADDRESS 925 WILLOW AV EAST 33 FRENCHTOWN, NJ 07728	PHONE NO. (732) 962-1591
---------------------------------------	--	-----------------------------

VEHICLE I.D. NO. 01374116	STATE NJ	BOX NUMBER-IN 72	BOX NUMBER-OUT 72	COMMENTS
------------------------------	-------------	---------------------	----------------------	----------

I hereby certify that the above described waste(s) were accepted for transportation at the producer's site for delivery to the waste facility. Both as listed hereupon.	DRIVER'S SIGNATURE [Signature]	DATE <u>1/12/10</u>
	PRINT DRIVER'S NAME [Name]	

**THIS SECTION TO BE COMPLETED BY RECEIVER AT DISPOSAL FACILITY (ONCE SIGNED, A COPY MUST BE FORWARDED TO EMMI AND GENERATOR)**

FACILITY NAME [Name]	ADDRESS [Address]	PHONE NO. 717-245-2656
COMMENTS		

I hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.	AUTHORIZED SIGNATURE [Signature]	DATE <u>1/15/10</u>
	PRINT NAME [Name]	



# FREEHOLD CARTAGE INC.

P.O. BOX 5010 • FREEHOLD, NJ 07728-5010  
(732) 462-1001 • FAX (732) 308-0924

**BILL OF LADING**  
FCI EPA ID NO. NJD054126164

**S 234810**

350 Pigeon Point Road  
New Castle, DE 19720  
Phone: (302) 658-2005  
Fax: (302) 658-6229

175 Bartow Mun. Airport  
Bartow, FL 33830  
Phone: (863) 533-4599  
Fax: (863) 533-1613

5533 Dunham Road  
Maple Heights, OH 44137  
Phone: (330) 835-3473  
Fax: (330) 835-3732

108 Monahan Avenue  
Dunmore, PA 18512  
Phone: (570) 342-7232  
Fax: (570) 342-7367

132 Myrtle Beach Hwy  
Sumter, SC 29153  
Phone: (803) 773-2611  
Fax: (803) 773-2942

SHIPPER NAME/ADDRESS United States Coast Guard 1171 Taylors Bridge Road Townsend, DE		PHONE (AREA CODE) TRACTOR 813		TRAILER		APPOINTMENT TIME	
FCI REP. LOADING (PRINT) Dan T	PROCEDURE S/O	EQUIP. SPOTTED 0503	EQUIP. REMOVED 0213	TIME AT SHIPPER (MILITARY TIME ONLY) ARRIVAL TIME: 13:00 DEPARTURE TIME: 13:45		EQUIPMENT USED 1 Liner	
COMMENTS OR DELAYS AT SHIPPER							

BROKER:		MANIFEST / DOCUMENT NO. 26164	
PO#	WO# 170929		

(X) HM	PROPER U.S. D.O.T. SHIPPING NAME	U.S. D.O.T. HAZARDOUS CLASS	NA/UN/NO	PACKING GROUP	NO CONT	CONT TYPE	NET QUANTITY	UNIT MEASURE	WASTE NO.	FORM
1	Non Reg Material	N/A	N/A	N/A	01	CM	30	Y		S
2	(Soil)									
3										

SPECIAL HANDLING INSTRUCTIONS INCLUDING CONTAINER EXEMPTION NUMBER

SHIPPER'S CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation, U.S. EPA and the State. The materials described above were consigned to the Transporter named. The consignee can and will accept the shipment and has a valid permit to do so if required. I certify that the foregoing is true and correct to the best of my knowledge.

Payment to the contractor for waste removal does not constitute payment to the carrier and if the contractor does not pay the carrier, the shipper is obligated to pay the agreed rate offered to the contractor.

PLEASE PRINT NAME/TITLE JAMES D. SCULLION	SHIPPER'S SIGNATURE EWHL X <i>James D. Scullion</i>	DATE LOADED 04/06/10 MO. DAY YR.
--	---	--

CONSIGNEE NAME/ADDRESS Moresu Landfill York PA		PHONE (AREA CODE) TRACTOR 879		TRAILER 275		APPOINTMENT TIME	
FCI REP. UNLOADING (PRINT) Ray Schmitt	PROCEDURE Dump	EQUIP. SPOTTED	EQUIP. REMOVED 0213	TIME AT CONSIGNEE (MILITARY TIME ONLY) ARRIVAL TIME: 9:00 DEPARTURE TIME: 7:00		EQUIPMENT USED	
COMMENTS OR DELAYS AT CONSIGNEE							

PLEASE PRINT NAME/TITLE Moresu	CONSIGNEE SIGNATURE X <i>[Signature]</i>	DATE UNLOADED 4/17/10 MO. DAY YR.
-----------------------------------	---	---

AR H-0257	MD HWH-167	MO H-1490	OH UPW-0190713-OH	TX 40705
CT CT-HW-307	2001-OPV-2335	ND WH-429	OK UPW-0190713-OH	WI 11602
DE DE-HW-203	ME ME-HWT-47	NH TNH-0047	ONTARIO, CANADA A 840943	WV UPW-0190713-OH
DE-SW-203	ME-WOT-47	NJ S-2265	PA PA-AH-0067	
IL UPW-0190713-OH	MI UPW-0190713-OH	15939	QUEBEC, CANADA OC-6ML-047	
MA MA-294	MN UPW-0190713-OH	NY NJ-113	RI RI-535	

White - FCI Original  
Yellow - FCI Billing  
Blue - FCI Office/Customer  
Green - Retained by TSDF

**S 234810**

# Non Hazardous Manifest/Bill Of Lading

All Correspondence and Invoices to: <b>Environmental Waste Minimization, Inc.</b> & Rapid Response, Inc. 14 Brick Klin Court Northampton, PA 18067 Phone 484-275-6900 Fax 484-275-6970	Document # <u>26164</u>  Job/Project # <u>102026/REEDYLIGHT</u>
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**THIS SECTION TO BE COMPLETED BY GENERATOR:**

COMPANY NAME/ADDRESS <u>UNITED STATES COAST GUARD</u> <u>117 TAYLORS BRIDGE ROAD</u> <u>TOWNSEND, DE 19734</u>	IN CASE OF EMERGENCY OR SPILL CONTACT <u>RAPID RESPONSE</u> 24 HOUR EMERGENCY PHONE # <u>877 460 1038</u>
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QUANTITY	SIZE/TYPE	DESCRIPTION	APPROVAL CODE	WEIGHT/VOLUME
<u>001</u>	<u>CM</u>	<u>NONHAZARDOUS SOLID</u> <u>DOT/RCRA NONREGULATED</u>	<u>Y913422</u>	<u>16 TON</u>

I hereby certify that the above named waste(s) are properly classified, described, packaged, marked, and labeled and are in proper condition for transportation according to the applicable regulations of the DOT and the EPA.	GENERATOR'S SIGNATURE <u>WSCB</u> <u>W. MESSIER</u> (CIV. CLEV) PRINT NAME <u>JP. MESSIER</u>	DATE <u>4/6/10</u>
---	--	-----------------------

**THIS SECTION TO BE COMPLETED BY HAULER / TRANSPORTER:**

COMPANY NAME <u>FREEHOLD</u> <u>CARTAGE INC</u>	ADDRESS <u>825 HIGHWAY 33 EAST</u> <u>FREEHOLD, NJ 07728</u>	PHONE NO. <u>(732) 462-1001</u>		
VEHICLE I.D. NO. <u>813/AA216G</u>	STATE <u>NJ</u>	BOX NUMBER-IN <u>0503</u>	BOX NUMBER-OUT <u>0213</u>	COMMENTS

I hereby certify that the above described waste(s) were accepted for transportation at the producer's site for delivery to the waste facility. Both as listed hereupon.	DRIVER'S SIGNATURE <u>[Signature]</u> PRINT DRIVER'S NAME <u>Dan Terranova</u>	DATE <u>04/06/10</u>
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**THIS SECTION TO BE COMPLETED BY RECEIVER AT DISPOSAL FACILITY: (ONCE SIGNED, A COPY MUST BE FORWARDED TO EWMI AND GEI)**

FACILITY NAME <u>MODERN LANDFILL</u>	ADDRESS <u>4400 MT PISGAH ROAD</u> <u>YORK, PA 17402</u>	PHONE NO. <u>717 246</u>
COMMENTS		

I hereby certify that the above described wastes were delivered to this Facility, that the Facility is authorized and permitted to receive such wastes.	AUTHORIZED SIGNATURE <u>[Signature]</u> PRINT NAME <u>m l</u>	DATE <u>4/</u>
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**Appendix C**

Topsoil Backfill Analytical Data

17 November 2009

**EWMI**

Jim Scullion  
14 Brick Kiln Court  
Northampton, PA 18067

RE: USCG - Liston Reedy Island, DE

**Laboratory ID #: KSK0221**

Enclosed are the results of analyses for samples received by the laboratory on 11/10/09 14:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in dark ink, appearing to read "O. Burgos", is displayed on a light gray rectangular background.

Oswaldo Burgos  
Project Manager

EWMI  
14 Brick Kiln Court  
Northampton PA, 18067

Project: USCG - Liston Reedy Island, DE  
Project Number: NA  
Project Manager: Jim Scullion

**Reported:**  
11/17/09 13:50

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Top Soil	KSK0221-01	Soil	11/10/09 13:51	11/10/09 14:00

TestAmerica King Of Prussia

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*



Oswaldo Burgos, Project Manager

EWMI  
14 Brick Kiln Court  
Northampton PA, 18067

Project: USCG - Liston Reedy Island, DE  
Project Number: NA  
Project Manager: Jim Scullion

**Reported:**  
11/17/09 13:50

**Total Metals by EPA 6000/7000 Series Methods**  
**TestAmerica King Of Prussia**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Top Soil (KSK0221-01) Soil Sampled: 11/10/09 13:51 Received: 11/10/09 14:00</b>									
Mercury	ND	0.130	mg/kg dry	1	9111611	11/16/09	11/17/09	EPA 7471A	
<b>Aluminum</b>	<b>17000</b>	33	"	"	9111203	11/12/09	11/12/09	EPA 6010B	MHA
Antimony	ND	6.5	"	"	"	"	"	"	M8
Arsenic	ND	1.3	"	"	"	"	"	"	M8
<b>Barium</b>	<b>140</b>	0.65	"	"	"	"	"	"	M8
Beryllium	ND	0.26	"	"	"	"	"	"	M8
Cadmium	ND	1.3	"	"	"	"	"	"	M8
<b>Calcium</b>	<b>7200</b>	16	"	"	"	"	"	"	MHA
<b>Chromium</b>	<b>29</b>	3.3	"	"	"	"	"	"	M8
<b>Cobalt</b>	<b>7.4</b>	1.3	"	"	"	"	"	"	M8
<b>Copper</b>	<b>30</b>	1.3	"	"	"	"	"	"	M8
<b>Iron</b>	<b>20000</b>	6.5	"	"	"	"	"	"	MHA
<b>Lead</b>	<b>23</b>	1.3	"	"	"	"	"	"	
<b>Magnesium</b>	<b>6000</b>	16	"	"	"	"	"	"	MHA
<b>Manganese</b>	<b>460</b>	0.65	"	"	"	"	"	"	MHA
<b>Nickel</b>	<b>18</b>	3.3	"	"	"	"	"	"	M8
<b>Potassium</b>	<b>7100</b>	650	"	"	"	"	"	"	M8
Selenium	ND	5.2	"	"	"	"	"	"	M8
Silver	ND	1.3	"	"	"	"	"	"	M8
<b>Sodium</b>	<b>620</b>	52	"	"	"	"	"	"	MHA
<b>Vanadium</b>	<b>39</b>	1.6	"	"	"	"	"	"	M8
<b>Zinc</b>	<b>77</b>	3.3	"	"	"	"	"	"	M8
Thallium	ND	1.3	"	"	"	"	"	"	M8, R2

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Oswaldo Burgos, Project Manager

EWMI 14 Brick Kiln Court Northampton PA, 18067	Project: USCG - Liston Reedy Island, DE Project Number: NA Project Manager: Jim Scullion	<b>Reported:</b> 11/17/09 13:50
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**Organochlorine Pesticides by EPA Method 8081A**  
**TestAmerica King Of Prussia**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Top Soil (KSK0221-01) Soil    Sampled: 11/10/09 13:51    Received: 11/10/09 14:00</b>									
Aldrin	ND	1.3	ug/kg dry	1	9111130	11/12/09	11/13/09	EPA 8081A	
alpha-BHC	ND	1.3	"	"	"	"	"	"	
beta-BHC	ND	1.3	"	"	"	"	"	"	
delta-BHC	ND	1.3	"	"	"	"	"	"	
gamma-BHC (Lindane)	ND	1.3	"	"	"	"	"	"	
Chlordane (tech)	ND	26	"	"	"	"	"	"	
alpha-Chlordane	ND	2.6	"	"	"	"	"	"	
gamma-Chlordane	ND	2.6	"	"	"	"	"	"	
4,4'-DDD	ND	7.8	"	"	"	"	"	"	
4,4'-DDE	ND	2.6	"	"	"	"	"	"	
4,4'-DDT	ND	7.8	"	"	"	"	"	"	
Dieldrin	ND	2.6	"	"	"	"	"	"	
Endosulfan I	ND	2.6	"	"	"	"	"	"	
Endosulfan II	ND	2.6	"	"	"	"	"	"	
Endosulfan sulfate	ND	7.8	"	"	"	"	"	"	
Endrin	ND	2.6	"	"	"	"	"	"	
Endrin aldehyde	ND	7.8	"	"	"	"	"	"	
Endrin ketone	ND	7.8	"	"	"	"	"	"	
Heptachlor	ND	1.3	"	"	"	"	"	"	
Heptachlor epoxide	ND	1.3	"	"	"	"	"	"	
Methoxychlor	ND	26	"	"	"	"	"	"	
Toxaphene	ND	100	"	"	"	"	"	"	
<i>Surrogate: Tetrachloro-meta-xylene</i>		34.1 %		35-133	"	"	"	"	Z5
<i>Surrogate: Decachlorobiphenyl</i>		31.7 %		10-132	"	"	"	"	

TestAmerica King Of Prussia

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Oswaldo Burgos, Project Manager

EWMI 14 Brick Kiln Court Northampton PA, 18067	Project: USCG - Liston Reedy Island, DE Project Number: NA Project Manager: Jim Scullion	<b>Reported:</b> 11/17/09 13:50
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**Polychlorinated Biphenyls by EPA Method 8082**  
**TestAmerica King Of Prussia**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Top Soil (KSK0221-01) Soil    Sampled: 11/10/09 13:51    Received: 11/10/09 14:00</b>									
PCB-1016	ND	65	ug/kg dry	1	9111130	11/12/09	11/14/09	EPA 8082	
PCB-1221	ND	65	"	"	"	"	"	"	
PCB-1232	ND	65	"	"	"	"	"	"	
PCB-1242	ND	65	"	"	"	"	"	"	
PCB-1248	ND	65	"	"	"	"	"	"	
PCB-1254	ND	65	"	"	"	"	"	"	
PCB-1260	ND	65	"	"	"	"	"	"	
<i>Surrogate: Tetrachloro-meta-xylene</i>		88.0 %		21-119	"	"	"	"	
<i>Surrogate: Decachlorobiphenyl</i>		52.3 %		10-144	"	"	"	"	

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Oswaldo Burgos, Project Manager

EWMI  
14 Brick Kiln Court  
Northampton PA, 18067

Project: USCG - Liston Reedy Island, DE  
Project Number: NA  
Project Manager: Jim Scullion

**Reported:**  
11/17/09 13:50

**Volatile Organic Compounds by EPA Method 8260B**  
**TestAmerica King Of Prussia**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Top Soil (KSK0221-01) Soil Sampled: 11/10/09 13:51 Received: 11/10/09 14:00</b>									
Acetone	ND	13	ug/kg dry	1	9111117	11/11/09	11/12/09	EPA 8260B	
Benzene	ND	5.2	"	"	"	"	"	"	
Bromodichloromethane	ND	5.2	"	"	"	"	"	"	
Bromoform	ND	5.2	"	"	"	"	"	"	
Bromomethane	ND	5.2	"	"	"	"	"	"	
2-Butanone	ND	13	"	"	"	"	"	"	
Carbon disulfide	ND	5.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.2	"	"	"	"	"	"	
Chlorobenzene	ND	5.2	"	"	"	"	"	"	
Chlorodibromomethane	ND	5.2	"	"	"	"	"	"	
Chloroethane	ND	5.2	"	"	"	"	"	"	
Chloroform	ND	5.2	"	"	"	"	"	"	
Chloromethane	ND	6.5	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.2	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.2	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.2	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.2	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.2	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.2	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.2	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.2	"	"	"	"	"	"	
Ethylbenzene	ND	5.2	"	"	"	"	"	"	
2-Hexanone	ND	13	"	"	"	"	"	"	
Methylene chloride	ND	10	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	13	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.2	"	"	"	"	"	"	
Styrene	ND	5.2	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.2	"	"	"	"	"	"	
Tetrachloroethene	ND	5.2	"	"	"	"	"	"	
Toluene	ND	5.2	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.2	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.2	"	"	"	"	"	"	
Trichloroethene	ND	5.2	"	"	"	"	"	"	

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Oswaldo Burgos, Project Manager

EWMI  
14 Brick Kiln Court  
Northampton PA, 18067

Project: USCG - Liston Reedy Island, DE  
Project Number: NA  
Project Manager: Jim Scullion

**Reported:**  
11/17/09 13:50

**Volatile Organic Compounds by EPA Method 8260B**  
**TestAmerica King Of Prussia**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Top Soil (KSK0221-01) Soil    Sampled: 11/10/09 13:51    Received: 11/10/09 14:00</b>									
Trichlorofluoromethane	ND	5.2	ug/kg dry	1	9111117	11/11/09	11/12/09	EPA 8260B	
Vinyl chloride	ND	5.2	"	"	"	"	"	"	
Xylenes (total)	ND	6.5	"	"	"	"	"	"	
<i>Surrogate: Dibromofluoromethane</i>		102 %	85-122		"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		111 %	85-130		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		97.9 %	88-111		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		99.7 %	83-122		"	"	"	"	

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Oswaldo Burgos, Project Manager

EWMI  
14 Brick Kiln Court  
Northampton PA, 18067

Project: USCG - Liston Reedy Island, DE  
Project Number: NA  
Project Manager: Jim Scullion

**Reported:**  
11/17/09 13:50

**Semivolatile Organic Compounds by EPA Method 8270C**

**TestAmerica King Of Prussia**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Top Soil (KSK0221-01) Soil Sampled: 11/10/09 13:51 Received: 11/10/09 14:00</b>									
Acenaphthene	ND	130	ug/kg dry	1	9111131	11/12/09	11/12/09	EPA 8270C	
Acenaphthylene	ND	130	"	"	"	"	"	"	
Aniline	ND	130	"	"	"	"	"	"	
Anthracene	ND	130	"	"	"	"	"	"	
Benzoic acid	ND	650	"	"	"	"	"	"	
Benzo (a) anthracene	ND	130	"	"	"	"	"	"	
Benzo (a) pyrene	ND	130	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	130	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	130	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	130	"	"	"	"	"	"	
Benzyl alcohol	ND	130	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	130	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	130	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	130	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	430	"	"	"	"	"	"	
4-Bromophenyl-phenyl ether	ND	130	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	130	"	"	"	"	"	"	
4-Chloroaniline	ND	130	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	130	"	"	"	"	"	"	
2-Chloronaphthalene	ND	130	"	"	"	"	"	"	
2-Chlorophenol	ND	130	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	130	"	"	"	"	"	"	
Chrysene	ND	130	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	130	"	"	"	"	"	"	
Dibenzofuran	ND	130	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	130	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	130	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	130	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	650	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	130	"	"	"	"	"	"	
Diethyl phthalate	ND	130	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	130	"	"	"	"	"	"	
Dimethyl phthalate	ND	130	"	"	"	"	"	"	

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Oswaldo Burgos, Project Manager

EWMI  
14 Brick Kiln Court  
Northampton PA, 18067

Project: USCG - Liston Reedy Island, DE  
Project Number: NA  
Project Manager: Jim Scullion

**Reported:**  
11/17/09 13:50

**Semivolatile Organic Compounds by EPA Method 8270C**  
**TestAmerica King Of Prussia**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Top Soil (KSK0221-01) Soil Sampled: 11/10/09 13:51 Received: 11/10/09 14:00</b>									
Di-n-butyl phthalate	ND	430	ug/kg dry	1	9111131	11/12/09	11/12/09	EPA 8270C	
4,6-Dinitro-2-methylphenol	ND	650	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	650	"	"	"	"	"	"	
2,4-Dinitrotoluene	ND	130	"	"	"	"	"	"	
2,6-Dinitrotoluene	ND	130	"	"	"	"	"	"	
Diphenylamine	ND	130	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	130	"	"	"	"	"	"	
Fluoranthene	ND	130	"	"	"	"	"	"	
Fluorene	ND	130	"	"	"	"	"	"	
Hexachlorobenzene	ND	130	"	"	"	"	"	"	
Hexachlorobutadiene	ND	130	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	130	"	"	"	"	"	"	
Hexachloroethane	ND	130	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	130	"	"	"	"	"	"	
Isophorone	ND	130	"	"	"	"	"	"	
2-Methylnaphthalene	ND	130	"	"	"	"	"	"	
2-Methylphenol	ND	130	"	"	"	"	"	"	
3&4-Methylphenol	ND	130	"	"	"	"	"	"	
Naphthalene	ND	130	"	"	"	"	"	"	
2-Nitroaniline	ND	260	"	"	"	"	"	"	
3-Nitroaniline	ND	260	"	"	"	"	"	"	
4-Nitroaniline	ND	260	"	"	"	"	"	"	
Nitrobenzene	ND	130	"	"	"	"	"	"	
2-Nitrophenol	ND	130	"	"	"	"	"	"	
4-Nitrophenol	ND	650	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	130	"	"	"	"	"	"	
Pentachlorophenol	ND	650	"	"	"	"	"	"	
Phenanthrene	ND	130	"	"	"	"	"	"	
Phenol	ND	130	"	"	"	"	"	"	
Pyrene	ND	130	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	130	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	650	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	130	"	"	"	"	"	"	

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Oswaldo Burgos, Project Manager

EWMI  
14 Brick Kiln Court  
Northampton PA, 18067

Project: USCG - Liston Reedy Island, DE  
Project Number: NA  
Project Manager: Jim Scullion

**Reported:**  
11/17/09 13:50

**Semivolatile Organic Compounds by EPA Method 8270C**  
**TestAmerica King Of Prussia**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Top Soil (KSK0221-01) Soil**    **Sampled: 11/10/09 13:51**    **Received: 11/10/09 14:00**

Surrogate: 2-Fluorophenol	69.4 %	36-111			9111131	11/12/09	11/12/09	EPA 8270C	
Surrogate: Phenol-d6	75.8 %	48-106			"	"	"	"	
Surrogate: Nitrobenzene-d5	67.3 %	47-106			"	"	"	"	
Surrogate: 2-Fluorobiphenyl	77.8 %	54-106			"	"	"	"	
Surrogate: 2,4,6-Tribromophenol	72.4 %	37-122			"	"	"	"	
Surrogate: Terphenyl-d14	85.4 %	64-118			"	"	"	"	

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Oswaldo Burgos, Project Manager

EWMI 14 Brick Kiln Court Northampton PA, 18067	Project: USCG - Liston Reedy Island, DE Project Number: NA Project Manager: Jim Scullion	<b>Reported:</b> 11/17/09 13:50
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**General Chemistry**  
**TestAmerica King Of Prussia**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Top Soil (KSK0221-01) Soil**    **Sampled: 11/10/09 13:51**    **Received: 11/10/09 14:00**

<b>% Solids</b>	<b>76.6</b>	0.01	% by Weight	1	9111309	11/13/09	11/13/09	EPA 160.3	
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TestAmerica King Of Prussia

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Oswaldo Burgos, Project Manager

EWMI  
14 Brick Kiln Court  
Northampton PA, 18067

Project: USCG - Liston Reedy Island, DE  
Project Number: NA  
Project Manager: Jim Scullion

**Reported:**  
11/17/09 13:50

**Herbicides (GC)**  
**TestAmerica Edison**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Top Soil (KSK0221-01) Soil    Sampled: 11/10/09 13:51    Received: 11/10/09 14:00</b>									
Dalapon	ND	21	ug/Kg dry	1	22645	11/13/09	11/16/09	8151A FHL Dry	
2,4-D	ND	21	"	"	"	"	"	"	
Silvex (2,4,5-TP)	ND	21	"	"	"	"	"	"	
Dinoseb	ND	21	"	"	"	"	"	"	
<i>Surrogate: 2,4-Dichlorophenylacetic acid</i>		<i>127 %</i>		<i>58-160</i>					



EWMI  
 14 Brick Kiln Court  
 Northampton PA, 18067

Project: USCG - Liston Reedy Island, DE  
 Project Number: NA  
 Project Manager: Jim Scullion

**Reported:**  
 11/17/09 13:50

**Percent Moisture**  
**TestAmerica Edison**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Top Soil (KSK0221-01) Soil    Sampled: 11/10/09 13:51    Received: 11/10/09 14:00</b>									
<b>Percent Moisture</b>	<b>19.8</b>	1.0	%	1	22519	11/12/09	11/12/09	Moisture	
<b>Percent Solids</b>	<b>80.2</b>	1.0	"	"	"	"	"	"	



EWMI  
14 Brick Kiln Court  
Northampton PA, 18067

Project: USCG - Liston Reedy Island, DE  
Project Number: NA  
Project Manager: Jim Scullion

**Reported:**  
11/17/09 13:50

### Notes and Definitions

- Z5 Due to sample matrix effects, the surrogate recovery was outside acceptance limits. Secondary surrogate recovery was within the acceptance limits.
- R2 The RPD exceeded the acceptance limit.
- P1 Sample received and analyzed without chemical preservation.
- MHA Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See Blank Spike (LCS).
- M8 The MS and/or MSD were below the acceptance limits. See Blank Spike (LCS).
- C4 Calibration Verification recovery was below the method control limit for this analyte.
- C Calibration Verification recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED above reporting limit. If MDL is provided, analyte is NOT DETECTED above the MDL
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference





**Cooler Receipt Form**

Client: EIUMI WORK ORDER #: \_\_\_\_\_ Project: USCG - Liston/Reedy

Temperature Upon Receipt by IR: 0 C

Cooler received from: FA Courier Client FedEx UPS Other: \_\_\_\_\_

Signature: Julie Frages Date/Time: 11/11/09

<b>For Received Shipments only:</b>	
Number of Coolers: <u>1 2 3+</u>	Custody Seals Intact? <u>Y N</u>
Ice Present? <u>Y N N/A Melted</u>	Packing Material: <u>Bubble Wrap Other None</u>

Voa Vials have air bubbles > 6mm? Y N N/A  
 ALL preserved containers (except VOA) checked for correct pH? Y N N/A  
 Residual Chlorine checks done on each container that needs it? Y N N/A  
 Sufficient volume for all analyses? Y N  
 All Sample Containers Intact? Y N All Sample Containers labeled: Y N  
 All Sample Containers received: Y N All Container labels match COC: Y N

**List Discrepancies below if indicated:**

Cooler Temperature: \_\_\_\_\_  
 Broken bottles: \_\_\_\_\_  
 Insufficient Volume: \_\_\_\_\_  
 Preservative issues: \_\_\_\_\_  
 Samples preserved @ login (list each, amount & type added, time & date): \_\_\_\_\_  
 Headspace in VOAs: \_\_\_\_\_  
 Labels missing/illegible: \_\_\_\_\_  
 Hold Times: \_\_\_\_\_

Signature: Julie Frages Date/Time: 11/11/09

**Review COC against Sample Acceptance Checklist:**

- |   |            |    |
|---|------------|----|
| 1. Client Name & Address present                                | <u>Yes</u> | No |
| 2. Project Name and/or Number included                          | <u>Yes</u> | No |
| 3. Field Sampler Name listed                                    | <u>Yes</u> | No |
| 4. Field ID/Location - one sample per line                      | <u>Yes</u> | No |
| 5. Date collected (for each sample)                             | <u>Yes</u> | No |
| 6. Time collected (for each sample)                             | <u>Yes</u> | No |
| 7. Matrix (for each sample)                                     | <u>Yes</u> | No |
| 8. Number & Types of bottles per sample (and preservation type) | <u>Yes</u> | No |
| 9. Analysis Requested   | <u>Yes</u> | No |
| 10. Sign & Date in the Relinquished Box                         | <u>Yes</u> | No |
- Discrepancies \_\_\_\_\_

Spec Sheet/CAR#: \_\_\_\_\_ PM or Client contacted? Y N N/A

Signature: [Signature] Date/Time: 11/11/09

**Appendix D**

Daily Construction Logs

# DAILY CONSTRUCTION REPORT

April 05, 2010

Monday

**SITE:** Reedy Island Rear Range Light

**WEATHER:**

- Sunny with slight variable wind from the west
- High expected in the upper 70's

**DAILY REPORT PREPARED BY:** Bob White

**SITE PERSONNEL/EQUIPMENT/MATERIALS/SUBCONTRACTORS:** See Attached Table

**SITE VISITORS:** See Attached Table

**SITE ACTIVITIES:**

- 800 Arrive on Site, unload tractor trailer and back-ho
- 830 Remainder of EWMI crew arrive; receive skid-steer
- 830 Tailgate; begin excavation
- 900 B.W. and J.S. go to Liston Site, meet roofing contractor and evaluate Liston yard condition
- 930 B.W. speaks with property owner about yard condition and repair, owner expresses that they would like the rhododendron
- 1030 B.W. and J.S. back at Reedy, currently excavating soils and staging on poly so that they drain back into the excavation
- 1200 B.W. starts collecting soil samples for analysis
- 1500 B.W. completes soil analysis; soils are all below action level for lead
- 1545 Excavation completed, begin cleaning site
- 1600 EWMI crew off site
- 1645 B.W. to deliver samples to fed-ex
- 1700 B.W. at Fed-ex, deliver samples and heads to hotel

**SITE DELAYS OR WORK STOPPAGE TODAY:**

- None

**TODAY'S SUBMITTALS:**

- Chain of Custody for soil samples

**TODAY'S RFI's:**

- None

**HEALTH AND SAFETY:**

- None

**PROPOSED ACTIVITIES FOR THE FOLLOWING WORK DAY:**

- Load out of soils and removal of roll-offs

TABLE 1  
DAILY CONSTRUCTION REPORT

<b>Day of the Week: Wednesday</b>		<b>Date: 04/05/2010</b>	
<b>Project Location: Liston</b>			
<b>SITE PERSONNEL</b>			
<b>Name</b>	<b>Company</b>	<b>Position</b>	
Bob White	ARCADIS	Construction Manager	
Ted Kessler	EWMI	Operator	
Jim Scullion	EWMI	Site Superintendent	
Billy Dimbokowitz	EWMI	Laborer	
<b>SITE EQUIPMENT</b>			
<b>Description</b>	<b>Quantity</b>	<b>Used (Y/N)</b>	<b>Notes</b>
Pick-up Truck	1	Y	
POV	1	Y	
Tractor/Trailer	1	Y	
Backho	1	Y	
skid steer	1	Y	
<b>SITE MATERIAL INVENTORY</b>			
<b>Materials</b>	<b>Quantity</b>	<b>Volume Used</b>	<b>Notes</b>
<b>SITE SUBCONTRACTOR/VISITORS</b>			
<b>Company</b>	<b>Specialty</b>	<b>No. of Workers</b>	<b>Notes</b>

# DAILY CONSTRUCTION REPORT

April 06, 2010

Tuesday

**SITE:** Reedy Island Rear Range Light

**WEATHER:**

- Sunny with constant 10 mph wind from the west
- High expected in the upper 80's

**DAILY REPORT PREPARED BY:** Bob White

**SITE PERSONNEL/EQUIPMENT/MATERIALS/SUBCONTRACTORS:** See Attached Table

**SITE VISITORS:** See Attached Table

**SITE ACTIVITIES:**

- 715 Arrive at Site, roll-off being delivered
- 730 Tailgate; begin loading stockpiled soils into roll-offs
- 800 B.W., J.S., S.K, go to Liston to evaluate yard condition, develop plan of action to restore by adding soil and compacting with a lawn roller
- 900 Arrive back at Reedy site, 1 roll-off loaded
- 1000 2nd roll-off for the day arrives
- 1045 1st roll-off of the day off site
- 1100 continue soil load out
- 1300 3rd roll-off arrives
- 1345 2nd roll-off site
- 1400 dimensions of excavation 44'x44'x2'
- 1430 continue with load out, continue with patching holes at the site
- 1500 Discussion of when the topsoil needed for Liston will arrive, J.S. informs me that this has not been scheduled until Thursday; EWMI crew off site

**SITE DELAYS OR WORK STOPPAGE TODAY:**

- None

**TODAY'S SUBMITTALS:**

- None

**TODAY'S RFI's:**

- None

**HEALTH AND SAFETY:**

- None

**PROPOSED ACTIVITIES FOR THE FOLLOWING WORK DAY:**

- Remove roll-offs
- Receive stone
- Backfill excavation

TABLE 1  
DAILY CONSTRUCTION REPORT

<b>Day of the Week: Wednesday</b>		<b>Date: 04/06/2010</b>	
<b>Project Location: Liston</b>			
<b>SITE PERSONNEL</b>			
<b>Name</b>	<b>Company</b>	<b>Position</b>	
Bob White	ARCADIS	Construction Manager	
Ted Kessler	EWMI	Operator	
Jim Scullion	EWMI	Site Superintendent	
Billy Dimbokowitz	EWMI	Laborer	
Scott King	EWMI	Laborer/Operator	
<b>SITE EQUIPMENT</b>			
<b>Description</b>	<b>Quantity</b>	<b>Used (Y/N)</b>	<b>Notes</b>
Pick-up Truck	1	Y	
POV	1	Y	
Tractor/Trailer	1	Y	
Backho	1	Y	
skid steer	1	Y	
<b>SITE MATERIAL INVENTORY</b>			
<b>Materials</b>	<b>Quantity</b>	<b>Volume Used</b>	<b>Notes</b>
<b>SITE SUBCONTRACTOR/VISITORS</b>			
<b>Company</b>	<b>Specialty</b>	<b>No. of Workers</b>	<b>Notes</b>

# DAILY CONSTRUCTION REPORT

April 07, 2010

Wednesday

**SITE:** Reedy Island Rear Range Light

**WEATHER:**

- Sunny with constant 15-20 mph wind from the west
- High expected in the upper 80's

**DAILY REPORT PREPARED BY:** Bob White

**SITE PERSONNEL/EQUIPMENT/MATERIALS/SUBCONTRACTORS:** See Attached Table

**SITE VISITORS:**

Debbie Turner (Delaware Wild Lands)

Mr. Harvey (Delaware Wild Lands Executive Director)

**SITE ACTIVITIES:**

- 715 Arrive at Site, roll-off being delivered
- 800 J.S. to Pick up T.K,
- 845 4 dump trucks arrive to deliver stone
- 855 one of the dump trucks hits power line
- 910 Notify Ramzi Khuri of situation
- 1000 S.K. and B.D. arrive to site
- 1050 Notify Delmarva Power and Light of situation
- 1130 Delaware Certified Industrial electrician subcontracted by EWMI shows up to asses repair for powerline
- 1200 DP&L arrive; conclude that this is not their responsibility and that we are free to self perform repair
- 1300 Industrial electrician completes repair
- 1340 receive sample results from lab, begin backfill
- 1400 DE wildland society inspect site
- 1430 DE wildland society leave site

1600 Greg Inman visits sites  
1630 Roll-off arrives, one off site  
1715 roll-off leaves site  
1830 backfilling of excavation area completed, some site restoration begun  
1900 EWMI off site.

**SITE DELAYS OR WORK STOPPAGE TODAY:**

- Waiting on confirmation sample results (2 hours); no soil available to restore Liston as previously discussed with Greg Inman and Tom Sidloski
- Crew idle while power line is being assessed

**TODAY'S SUBMITTALS:**

- None

**TODAY'S RFI's:**

- None

**HEALTH AND SAFETY:**

- Power line leading to tower struck by subcontractor stone delivery; incident reported up chain of command and reported to the near miss reporting hotline. Electric Utility was notified as was the ARCADIS PIC and USCG POC.

**PROPOSED ACTIVITIES FOR THE FOLLOWING WORK DAY:**

- Restore Liston Site

TABLE 1  
DAILY CONSTRUCTION REPORT

<b>Day of the Week: Wednesday</b>		<b>Date: 04/07/2010</b>	
<b>Project Location: Liston</b>			
<b>SITE PERSONNEL</b>			
<b>Name</b>	<b>Company</b>	<b>Position</b>	
Bob White	ARCADIS	Construction Manager.	
Ted Kessler	EWMI	Operator	
Jim Scullion	EWMI	Site Superintendent	
Billy Dimbokowitz	EWMI	Laborer	
Scott King	EWMI	Laborer/Operator	
<b>SITE EQUIPMENT</b>			
<b>Description</b>	<b>Quantity</b>	<b>Used (Y/N)</b>	<b>Notes</b>
Pick-up Truck	1	Y	
POV	1	Y	
Tractor/Trailer	1	Y	
Backho	1	Y	
skid steer	1	Y	
<b>SITE MATERIAL INVENTORY</b>			
<b>Materials</b>	<b>Quantity</b>	<b>Volume Used</b>	<b>Notes</b>
#57 stone	148 tons	4 truck loads	Remaining stone used to dress up access road
Geotextile fabric	44 x 44 ft		
<b>SITE SUBCONTRACTOR/VISITORS</b>			
<b>Company</b>	<b>Specialty</b>	<b>No. of Workers</b>	<b>Notes</b>
Maryland Materials	Stone Delivery	4	Truck drivers

# DAILY CONSTRUCTION REPORT

April 08, 2010

Thursday

**SITE:** Reedy Island Rear Range Light

**WEATHER:**

- Sunny with constant 15-20 mph wind from the west
- High expected in the upper 80's

**DAILY REPORT PREPARED BY:** Bob White

**SITE PERSONNEL/EQUIPMENT/MATERIALS/SUBCONTRACTORS:** See Attached Table

**SITE VISITORS:** none

**SITE ACTIVITIES:**

- 700 Arrive at Reedy, conduct tailgate
- 720 Begin stabilizing wet soil with cement and by mixing between roll-offs
- 735 J.S. and B.D. leave Reedy to purchase lawn roller and drop materials at Liston site; T.K. and S.K. remain to stabilize soil
- 800 J.S. informs me that the soil delivery will come in a 12 CY dump, the delivery company doesn't have anything smaller; thus soil to be delivered to Reedy
- 815 B.W. talked with J.S. about trying to rent a small 3-4 CY truck from Home Depot or Hertz, J.S. to look into this as an option
- 845 complete soil stabilization using portland cement
- 900 12 CY soil delivered to Reedy; S.K. and T.K. begin restoring Reedy Site while waiting on additional soil and J.S. to return to the site
- 930 Electrician arrives
- 1015 Electrician completes repair; J.S. arrives at reedy with rental truck and shuttles first load of soil to Liston at 1030
- 1030 T.K. begins grading area around Reedy Excavation base
- 1230 J.S. arrive back at Reedy to pick 2nd load of soil to shuttle at Liston
- 1300 B.W. goes to Liston to inspect, shallow depression in front yard needs additional soil
- 1330 J.S. go back to Reedy to pick up 3rd load of soil; remainder of crew go back to Reedy to fix Wheel barrow

1330-1400 Roll-off pick up'ed at Reedy site, still have two roll-off left at the site; waiting on signed manifest from JP

1430 EWMI crew back at Liston unloading 3rd load of soil

1450 J.S. and T.K. Leave Liston to return home depot rental truck

1600 S.K. and B.D. complete hauling soil at Liston and placing where additional fill required

1630 drum roll yard, and install erosion matting and straw

1730 complete erosion matting installation, go back to Reedy

1800 T.K. has rough graded Reedy site, two of three roll-offs picked up.

1830 leave site

**SITE DELAYS OR WORK STOPPAGE TODAY:**

- None

**TODAY'S SUBMITTALS:**

- None

**TODAY'S RFI's:**

- None

**HEALTH AND SAFETY:**

- None

**PROPOSED ACTIVITIES FOR THE FOLLOWING WORK DAY:**

- Restore Reedy Site

TABLE 1  
DAILY CONSTRUCTION REPORT

<b>Day of the Week: Thursday</b>		<b>Date: 04/08/2010</b>	
<b>Project Location: Liston</b>			
<b>SITE PERSONNEL</b>			
<b>Name</b>	<b>Company</b>	<b>Position</b>	
Bob White	ARCADIS	Construction Manager	
Ted Kessler	EWMI	Operator	
Jim Scullion	EWMI	Site Superintendent	
Billy Dimbokowitz	EWMI	Laborer	
Scott King	EWMI	Laborer/Operator	
<b>SITE EQUIPMENT</b>			
<b>Description</b>	<b>Quantity</b>	<b>Used (Y/N)</b>	<b>Notes</b>
Pick-up Truck	1	Y	
POV	1	Y	
Tractor/Trailer	1	Y	
Backho	1	Y	
skid steer	1	Y	
<b>SITE MATERIAL INVENTORY</b>			
<b>Materials</b>	<b>Quantity</b>	<b>Volume Used</b>	<b>Notes</b>
Top Soil		24 CY	About 6 yards for the liston Site
<b>SITE SUBCONTRACTOR/VISITORS</b>			
<b>Company</b>	<b>Specialty</b>	<b>No. of Workers</b>	<b>Notes</b>
Di Sapatino	soil Delivery	1	Truck drivers

# **DAILY CONSTRUCTION REPORT**

**April 09, 2010**

**Friday**

**SITE:** Reedy Island Rear Range Light

**WEATHER:**

- Cloudy, severe storms overnight, light rain in the am
- High expected in the low 60's

**DAILY REPORT PREPARED BY:** Bob White

**SITE PERSONNEL/EQUIPMENT/MATERIALS/SUBCONTRACTORS:** See Attached Table

**SITE VISITORS:** none

**SITE ACTIVITIES:**

700 B.W. on site  
720 EWMI on site  
730 Assess site conditions, too wet to work on  
800 load backho onto trailer, skid steer remains on site; begin repainting tower  
1115 EWMI off site except J.S. and B.D.  
1200 Arrive at liston, inspect restoration, no water ponding noted  
1300 BW heads to office

**SITE DELAYS OR WORK STOPPAGE TODAY:**

- Weather delay, unable to restore Reedy

**TODAY'S SUBMITTALS:**

- None

**TODAY'S RFI's:**

- None

**HEALTH AND SAFETY:**

- None

**PROPOSED ACTIVITIES FOR THE FOLLOWING WORK DAY:**

- Restore Reedy Site

TABLE 1  
DAILY CONSTRUCTION REPORT

<b>Day of the Week: Friday</b>		<b>Date: 04/09/2010</b>	
<b>Project Location: Liston</b>			
<b>SITE PERSONNEL</b>			
<b>Name</b>	<b>Company</b>	<b>Position</b>	
Bob White	ARCADIS	Construction Manager	
Ted Kessler	EWMI	Operator	
Jim Scullion	EWMI	Site Superintendent	
Billy Dimbokowitz	EWMI	Laborer	
Scott King	EWMI	Laborer/Operator	
<b>SITE EQUIPMENT</b>			
<b>Description</b>	<b>Quantity</b>	<b>Used (Y/N)</b>	<b>Notes</b>
Pick-up Truck	1	Y	
POV	1	Y	
Tractor/Trailer	1	Y	
Backho	1	N	
skid steer	1	N	
<b>SITE MATERIAL INVENTORY</b>			
<b>Materials</b>	<b>Quantity</b>	<b>Volume Used</b>	<b>Notes</b>
Paint			
<b>SITE SUBCONTRACTOR/VISITORS</b>			
<b>Company</b>	<b>Specialty</b>	<b>No. of Workers</b>	<b>Notes</b>

# DAILY CONSTRUCTION REPORT

April 12, 2010

Monday

**SITE:** Reedy Island Rear Range Light

**WEATHER:**

- Sunny, calm with no wind
- High expected in the mid 70's

**DAILY REPORT PREPARED BY:** Bob White

**SITE PERSONNEL/EQUIPMENT/MATERIALS/SUBCONTRACTORS:** See Attached Table

**SITE VISITORS:** none

**SITE ACTIVITIES:**

- 800 B.W. on site
- 0850 EWMI on site (T.K., J.H.)
- 0900 Begin Grading site and filling ruts
- 1200 continue final site grading
- 1300 begin installation of erosion matting and placement of seed
- 1430 out of erosion matting, contact J.S. to procure more
- 1330 J.S. arrive with additional erosion matting, however, not of a satisfactory quality and insufficient quantity; reject material and have J.S. procure additional erosion matting
- 1630 J.S. arrive with excelsior erosion matting, continue placement and installation of erosion matting, seeding of site
- 1830 Complete site restoration

**SITE DELAYS OR WORK STOPPAGE TODAY:**

- Crew idle for 2 hours while waiting on additional erosion matting

**TODAY'S SUBMITTALS:**

- None

**TODAY'S RFI's:**

- None

**HEALTH AND SAFETY:**

- None

**PROPOSED ACTIVITIES FOR THE FOLLOWING WORK DAY:**

- none

TABLE 1  
DAILY CONSTRUCTION REPORT

<b>Day of the Week: Monday</b>		<b>Date: 04/12/10</b>	
<b>Project Location: Liston</b>			
<b>SITE PERSONNEL</b>			
<b>Name</b>	<b>Company</b>	<b>Position</b>	
Bob White	ARCADIS	Construction Manager	
Ted Kessler	EWMI	Operator	
Jim Scullion	EWMI	Site Superintendent	
Josh Harner	EWMI	Laborer	
<b>SITE EQUIPMENT</b>			
<b>Description</b>	<b>Quantity</b>	<b>Used (Y/N)</b>	<b>Notes</b>
Pick-up Truck	1	Y	
POV	1	Y	
skid steer	1	Y	
<b>SITE MATERIAL INVENTORY</b>			
<b>Materials</b>	<b>Quantity</b>	<b>Volume Used</b>	<b>Notes</b>
Erosion Matting	10	10	Excelsior
Grass Seed	1	30 lb	
<b>SITE SUBCONTRACTOR/VISITORS</b>			
<b>Company</b>	<b>Specialty</b>	<b>No. of Workers</b>	<b>Notes</b>



# DAILY CONSTRUCTION REPORT

Nov 09, 2009

Monday

**SITE:** Liston and Reedy Island Rear Range Lights      **WEATHER:** Clear, sunny, high of 60 degrees

**DAILY REPORT PREPARED BY:** Bob White

**SITE PERSONNEL/EQUIPMENT/MATERIALS/SUBCONTRACTORS:** See Attached Table

**SITE VISITORS:** See Attached Table

## **SITE ACTIVITIES:**

1. Site Meeting to discuss scope of work with EWMI
  - a. HASP
  - b. Health and Safety Procedures
  - c. Scope of work
2. Public Relation/Communication with Residences at the Liston Light
  - a. Discuss proposed method of work to include
    - i. staging of equipment in front yard
    - ii. excavation areas
    - iii. work hours to minimize disruption to residences
  - b. Discussed anticipated schedule
  - c. Asked residences for concerns, to which they stated:
    - i. Reseeding
    - ii. Blocking access of driveway and garage

## **SITE DELAYS OR WORK STOPPAGE TODAY:**

- None

## **TODAY'S SUBMITTALS:**

- None

## **TODAY'S RFI's:**

- None

## **HEALTH AND SAFETY:**

- No issues from today.

## **PROPOSED ACTIVITIES FOR THE FOLLOWING WORK DAY:**

- EWMI to begin site preparation activities
  - Paint removal of Reedy Tower
  - Continue mobilizing equipment
- ARCADIS to continue submittal review.



# DAILY CONSTRUCTION REPORT

Nov 10, 2009

Tuesday

**SITE:** Liston and Reedy Island Rear Range Lights  
good visibility

**WEATHER:** Clear, sunny, high of 60 degrees,

**DAILY REPORT PREPARED BY:** Bob White

**SITE PERSONNEL/EQUIPMENT/MATERIALS/SUBCONTRACTORS:** See Attached Table

**SITE VISITORS:** See Attached Table

## **SITE ACTIVITIES:**

1. 0800 H&S
  - a. HASP Review and acknowledgement
  - b. Health and safety protocol
  - c. ARCADIS lead Awareness training
2. 0900 Begin lead based paint scraping at Reedy Site,
  - a. Drop cloth placed around base of tower
  - b. EWMI in level C PPE
  - c. Paint chips and spent PPE drummed
3. 1400 Begin repainting some of the cross bracing
  - a. Primer: Reustoleum Automobile Primer
  - b. Paint: Benjamin Moore Black Z163 80
4. 0900 - 1300 Utility Clearance conducted at liston and Reedy Site
  - a. Utilities located at Liston within excavation area, see figure
  - b. No utilities located within excavation area at Reedy

## **SITE DELAYS OR WORK STOPPAGE TODAY:**

- None

## **TODAY'S SUBMITTALS:**

- None

## **TODAY'S RFI's:**

- None

## **HEALTH AND SAFETY:**

- No issues from today.

## **PROPOSED ACTIVITIES FOR THE FOLLOWING WORK DAY:**

- EWMI to Continue Paint Removal at Liston

TABLE 1  
DAILY CONSTRUCTION REPORT

<b>Day of the Week: Tuesday</b>		<b>Date: 11/10/2009</b>	
<b>Project Location: Atotech Facility</b>			
<b>SITE PERSONNEL</b>			
<b>Name</b>	<b>Company</b>	<b>Position</b>	
Bob White	ARCADIS	Construction Manager	
Eric Haupt	EWMI	Equipment Operator	
Jim Scullion	EWMI	Site Superintendent	
Robert Maier	EWMI	Laborer	
Dave Bauer	EWMI	Laborer	
Shane Peters	EWMI	Equipment Operator	
<b>SITE EQUIPMENT</b>			
<b>Description</b>	<b>Quantity</b>	<b>Used (Y/N)</b>	<b>Notes</b>
Box Truck	1	Y	
POV	1	Y	
<b>SITE MATERIAL INVENTORY</b>			
<b>Materials</b>	<b>Quantity</b>	<b>Volume Used</b>	<b>Notes</b>
Poly Sheeting Delivered	4 Rolls	3	
Silt Fence Delivered	5 Rolls	NA	
<b>SITE SUBCONTRACTOR/VISITORS</b>			
<b>Company</b>	<b>Specialty</b>	<b>No. of Workers</b>	<b>Notes</b>
SubTerra Geoservices	Utility Clearance	1	

# DAILY CONSTRUCTION REPORT

Nov 11, 2009

Wednesday

**SITE:** Liston and Reedy Island Rear Range Lights  
overcast with light rain

**WEATHER:** high of 50s, Poor visibility,

**DAILY REPORT PREPARED BY:** Bob White

**SITE PERSONNEL/EQUIPMENT/MATERIALS/SUBCONTRACTORS:** See Attached Table

**SITE VISITORS:** See Attached Table

## **SITE ACTIVITIES:**

1. 0900 Tail Gate
2. 0905 Begin Lead Based Paint Removal at Liston
  - a. Drop cloth placed around base of tower
  - b. EWMI in level C PPE
  - c. Paint chips and spent PPE drummed
3. 1030 Ditch Witch Arrives at Reedy Site
4. 1120 complete paint scraping and decon
5. 1130 Cover Liston Excavation area with Poly Sheeting due minimize rain infiltration
6. 1230 Crew demobs due to rain

## **SITE DELAYS OR WORK STOPPAGE TODAY:**

- Rain Delay

## **TODAY'S SUBMITTALS:**

- None

## **TODAY'S RFI's:**

- None

## **HEALTH AND SAFETY:**

- No issues from today.

## **PROPOSED ACTIVITIES FOR THE FOLLOWING WORK DAY:**

- Installation of silt fence

TABLE 1  
DAILY CONSTRUCTION REPORT

<b>Day of the Week: Wednesday</b>		<b>Date: 11/11/2009</b>	
<b>Project Location: Atotech Facility</b>			
<b>SITE PERSONNEL</b>			
<b>Name</b>	<b>Company</b>	<b>Position</b>	
Bob White	ARCADIS	Construction Manager	
Eric Haupt	EWMI	Equipment Operator	
Jim Scullion	EWMI	Site Superintendent	
Robert Maier	EWMI	Laborer	
Dave Bauer	EWMI	Laborer	
<b>SITE EQUIPMENT</b>			
<b>Description</b>	<b>Quantity</b>	<b>Used (Y/N)</b>	<b>Notes</b>
Box Truck	1	Y	
POV	1	Y	
Ditch With	1	N	
<b>SITE MATERIAL INVENTORY</b>			
<b>Materials</b>	<b>Quantity</b>	<b>Volume Used</b>	<b>Notes</b>
Poly Sheeting Delivered	4 Rolls	3	
Silt Fence Delivered	5 Rolls	NA	
<b>SITE SUBCONTRACTOR/VISITORS</b>			
<b>Company</b>	<b>Specialty</b>	<b>No. of Workers</b>	<b>Notes</b>

# DAILY CONSTRUCTION REPORT

Nov 12, 2009

Thursday

**SITE:** Liston and Reedy Island Rear Range Lights  
overcast with heavy rain

**WEATHER:** high of 50s, Poor visibility,

**DAILY REPORT PREPARED BY:** Bob White

**SITE PERSONNEL/EQUIPMENT/MATERIALS/SUBCONTRACTORS:** See Attached Table

**SITE VISITORS:** See Attached Table

## **SITE ACTIVITIES:**

1. 0800 Tail Gate
2. 0815 Install Silt Fence at Reedy site
3. 1100 Install Silt Fence at Liston Site
4. 1400 Complete Silt Fence Installation at Both Sites
5. 1500 Remove Ditch Witch and Rental Pickup at Reedy Site
6. 1530 Demob due to rain

## **SITE DELAYS OR WORK STOPPAGE TODAY:**

- Rain Delay

## **TODAY'S SUBMITTALS:**

- None

## **TODAY'S RFI's:**

- None

## **HEALTH AND SAFETY:**

- No issues from today.

## **PROPOSED ACTIVITIES FOR THE FOLLOWING WORK DAY:**

- Installation of silt fence

TABLE 1  
DAILY CONSTRUCTION REPORT

<b>Day of the Week: Thursday</b>		<b>Date: 11/12/2009</b>	
<b>Project Location: Atotech Facility</b>			
<b>SITE PERSONNEL</b>			
<b>Name</b>	<b>Company</b>	<b>Position</b>	
Bob White	ARCADIS	Construction Manager	
Eric Haupt	EWMI	Equipment Operator	
Jim Scullion	EWMI	Site Superintendent	
Robert Maier	EWMI	Laborer	
Dave Bauer	EWMI	Laborer	
<b>SITE EQUIPMENT</b>			
<b>Description</b>	<b>Quantity</b>	<b>Used (Y/N)</b>	<b>Notes</b>
Box Truck	1	Y	
POV	1	Y	
Ditch With	1	Y	
CAT 277C Skid Steer	1	N	
John Deere 35D mini-excavator	1	N	
<b>SITE MATERIAL INVENTORY</b>			
<b>Materials</b>	<b>Quantity</b>	<b>Volume Used</b>	<b>Notes</b>
Poly Sheeting Delivered	4 Rolls	3	
Silt Fence Delivered	5 Rolls	4	
<b>SITE SUBCONTRACTOR/VISITORS</b>			
<b>Company</b>	<b>Specialty</b>	<b>No. of Workers</b>	<b>Notes</b>

# DAILY CONSTRUCTION REPORT

Nov 19, 2009

Thursday

**SITE:** Ready Island Rear Range Light

**WEATHER:**

- high of 60s, low in the 40's
- overcast, humid with potential for rain
- Wind from the N (moderate breeze)
- Light rain as day progresses

**DAILY REPORT PREPARED BY:** Bob White

**SITE PERSONNEL/EQUIPMENT/MATERIALS/SUBCONTRACTORS:** See Attached Table

**SITE VISITORS:** See Attached Table

**SITE ACTIVITIES:**

1. 0615 arrive on site; dust meter not used because of light rain precludes dust generation
2. 0630 EWMI arrive on site, tailgate; EWMI go to Liston site to begin transport of skid steer and mini-excavator.
3. 0730 skid steer arrives; EWMI to now get remaining equipment
4. 0800 2<sup>nd</sup> Roll-off delivered to Reedy Site
5. 0830 informed that the Ford stake body truck towing the mini-excavator broke down
6. 0830 5<sup>th</sup> roll-off from Liston Site is removed
7. 0900 EWMI begin repainting tower while waiting on remaining equipment
8. 0930 EWMI begin excavating soil beneath tower, stop to rethink method being used
9. 1030 Bob White (ARCADIS) and JP Messier (USCG) go to Liston Site to collect additional XRF samples to verify excavation extent and investigate if contamination migration has occurred since previous sample events
10. 1030 Calibrate XRF
  - a. NCS DC 73308 standard: 27 +-2 Reading: 22 +- 12
  - b. Till 4 standard 50 Reading 51 +- 17
11. 1300 begin trying to excavate soils around tower, stop shortly thereafter to rethink approach about going underneath the cross beams
12. 1400 stop work due to electrical spark between tower and back-hoe boom, contact Ramzi Khuri
13. 1415 Bob White and JP Messier go to pick-up a volt meter to investigate the electrical spark; EWMI continue painting of tower
14. 1530 EWMI Arrive with mini-excavator
15. 1530 continue excavation and stock piling of soils
16. 1630 EWMI and ARCADIS off site

**SITE DELAYS OR WORK STOPPAGE TODAY:**

- 8 hour delay on the mini-excavator
- 1.5 hour delay for H&S stop work due to electrical concern

**TODAY'S SUBMITTALS:**

- Lead Paint profile

**TODAY'S RFI's:**

- None

**HEALTH AND SAFETY:**

- Stop Work due to electrical issue with tower and heavy equipment: notified Ramzi Khuri

**PROPOSED ACTIVITIES FOR THE FOLLOWING WORK DAY:**

- Meet at Reedy Site at 0700 to excavate soils

TABLE 1  
DAILY CONSTRUCTION REPORT

<b>Day of the Week: Thursday</b>		<b>Date: 11/19/2009</b>	
<b>Project Location: Liston</b>			
<b>SITE PERSONNEL</b>			
<b>Name</b>	<b>Company</b>	<b>Position</b>	
Bob White	ARCADIS	Construction Manager	
Shane Peters	EWMI	Equipment Operator	
Jim Scullion	EWMI	Site Superintendent	
Robert Maier	EWMI	Laborer/operator	
Dave Bauer	EWMI	Laborer	
JP Messier	USCG	Client	
<b>SITE EQUIPMENT</b>			
<b>Description</b>	<b>Quantity</b>	<b>Used (Y/N)</b>	<b>Notes</b>
Box Truck	1	Y	
POV	1	Y	
John Deere 420E Back Hoe	1	Y	
John Deere 35D mini-excavator	1	N	Equipment delay due to truck break down
CAT 277 skid steer	1	Y	
<b>SITE MATERIAL INVENTORY</b>			

Materials	Quantity	Volume Used	Notes
Orange Construction Fencing			
<b>SITE SUBCONTRACTOR/VISITORS</b>			
Company	Specialty	No. of Workers	Notes

# DAILY CONSTRUCTION REPORT

Nov 20, 2009

Friday

**SITE:** Ready Island Rear Range Light

**WEATHER:**

- high of 50s, low in the 40's
- overcast, light rain
- Wind from the N (moderate breeze)
- Light rain as day progresses

**DAILY REPORT PREPARED BY:** Bob White

**SITE PERSONNEL/EQUIPMENT/MATERIALS/SUBCONTRACTORS:** See Attached Table

**SITE VISITORS:** See Attached Table

**SITE ACTIVITIES:**

1. 0700 arrive on site; dust meter not used because of light rain precludes dust generation
2. 0730 EWMI arrive on site, tailgate;
3. 0800 continue excavation of soil around base of tower
4. 1000 Meeting with ARCADIS PM to discuss electrical issues
5. 1100 receive call to stop work within 3ft of the tower after discussion with ARCADIS electrical engineers
6. 1100 - 1400 EWMI restore site for temporary demob
7. 1400 EWMI leave site
8. 1430 Bob White and Jim Scullion go to Liston site to measure excavations to determine volume of soil for backfill; have discussion with Beth Bourett about anticipated work for following week.
9. 1530 Bob White and Jim Scullion off site.

**SITE DELAYS OR WORK STOPPAGE TODAY:**

- Stop work at approximately 1100 hours

**TODAY'S SUBMITTALS:**

- none

**TODAY'S RFI's:**

- None

**HEALTH AND SAFETY:**

- Stop Work due to electrical issue with tower and heavy equipment

**PROPOSED ACTIVITIES FOR THE FOLLOWING WORK DAY:**

- Meet at Liston Site to do the following:
  - Place backfill
  - Place erosion matting
  - reseed

TABLE 1  
DAILY CONSTRUCTION REPORT

<b>Day of the Week: Thursday</b>		<b>Date: 11/19/2009</b>	
<b>Project Location: Liston</b>			
<b>SITE PERSONNEL</b>			
<b>Name</b>	<b>Company</b>	<b>Position</b>	
Bob White	ARCADIS	Construction Manager	
Shane Peters	EWMI	Equipment Operator	
Jim Scullion	EWMI	Site Superintendent	
Robert Maier	EWMI	Laborer/operator	
Dave Bauer	EWMI	Laborer	
JP Messier	USCG	Client	
<b>SITE EQUIPMENT</b>			
<b>Description</b>	<b>Quantity</b>	<b>Used (Y/N)</b>	<b>Notes</b>
Box Truck	1	Y	
POV	1	Y	
John Deere 420E Back Hoe	1	Y	
John Deere 35D mini-excavator	1	Y	
CAT 277 skid steer	1	Y	
<b>SITE MATERIAL INVENTORY</b>			
<b>Materials</b>	<b>Quantity</b>	<b>Volume Used</b>	<b>Notes</b>
Orange Construction Fencing			
<b>SITE SUBCONTRACTOR/VISITORS</b>			
<b>Company</b>	<b>Specialty</b>	<b>No. of Workers</b>	<b>Notes</b>

**Appendix E**

Public Notice – Affidavit of Publication  
and Notification to Adjacent Property  
Owners

Mailing:  
The News Journal  
PO Box 15505  
Wilmington, DE 19850

Street  
The News Journal  
950 W. Basin Road  
New Castle, DE 19720  
(302) 324-2500

Sunday News Journal  
The News Journal

# The News Journal

## AFFIDAVIT OF PUBLICATION

STATE OF DELAWARE

COUNTY OF NEW CASTLE

Personally appeared before me this 14<sup>th</sup> day of September, 2009:

I, Kristin Segner, of the NEWS JOURNAL COMPANY, a daily newspaper printed and published in the County of New Castle County, State of Delaware, who, being duly sworn states that the advertisement of ARCADIS U.S., INC. – PUBLIC NOTICE was published in THE NEWS JOURNAL on N/A and/or THE SUNDAY NEWS JOURNAL on September 6, 13, 2009

Kristin Segner  
Name

Legal Coordinator  
Title

Sworn to before me this 14<sup>th</sup> day of September, 2009

Wanda James  
Notary Public

**Wanda James**  
Notary Public  
State of Delaware  
Commission expires 11/02/2012

**Public Notice**

The U. S. Coast Guard, Civil Engineering Unit Cleveland, in compliance with the Comprehensive Environmental Response, Compensation, and Liability Act, is announcing the availability of an Engineering Evaluation/Cost Analysis (EE/CA) and Removal Action Work Plan (RAWP) for the proposed soil removal actions, respectively each at the Liston Rear Range Light, located at 405 Port Penn Road in Middletown, Delaware and, the Reedy Island Rear Range Light located at 1171 Taylor's Bridge Road in Townsend, Delaware.

For additional information on these proposed actions, please view a copy of the U.S. Coast Guard Liston and Reedy Island Rear Range Light EE/CA-RAWP's posted at the below listed locations from 09 September 2009 to 09 October 2009:

U.S. Coast Guard Website:

<http://www.coastguard.gov/publicaffairs.com/doc/651318619/>

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Appoquinimink  
Public Library  
651 North Broad St.  
Middletown, DE 19706  
Phone: 302 378 5588  
Location in Library:  
Reference Section

Interested parties should provide written comments on these proposed actions no later than 19 October 2009 to:

United States Coast Guard  
Civil Engineering Unit  
Cleveland  
1240 East Ninth Street,  
Rm. 2179  
Cleveland, Ohio 44199-2060  
Attn: Mr. Frank Blaha,  
Chief of Environmental  
Section

If you have any questions, please contact Mr. JP Messier at (252) 335-6847.  
9/6,13-NJ

U.S. Department of  
Homeland Security

United States  
Coast Guard



Commanding Officer  
United States Coast Guard  
Civil Engineering Unit Cleveland

1240 East Ninth Street  
Room 2179  
Cleveland Ohio 44199-2060  
Staff Symbol: ER  
Phone: (216) 902-6219  
Fax: (216) 902-6277  
Email: [Frank.A.Blaha@uscg.mil](mailto:Frank.A.Blaha@uscg.mil)

11000

**SEP 15 2009**

Delaware Wild Lands, Inc.  
315 Main Street  
Odessa, Delaware 19730

Dear Delaware Wild Lands:

Please find attached as enclosure (1) the Public Notice announcement for the availability of the Engineering Evaluation/Cost Analysis (EE/CA) and Removal Action Work Plan (RAWP) on the proposed soil removal action at the Reedy Island Rear Range Light, located at 1171 Taylor's Bridge Road, Townsend, Delaware.

If you have any questions, please contact Mr. JP Messier of my staff at (252) 335-6847.

Sincerely,

A handwritten signature in cursive script, appearing to read "Frank A. Blaha".

Frank. A. Blaha  
Chief, Environmental Compliance Section  
By direction of the Commanding Officer

Enclosures: (1) Public Notice for Reedy Island Rear Range Light – Townsend, DE.

Copy: Ms. Ji-Sun Yi, USEPA Region 3

U.S. Department of  
Homeland Security

United States  
Coast Guard



Commanding Officer  
United States Coast Guard  
Civil Engineering Unit Cleveland

1240 East Ninth Street  
Room 2179  
Cleveland Ohio 44199-2060  
Staff Symbol: ER  
Phone: (216) 902-6219  
Fax: (216) 902-6277  
Email: [Frank.A.Blaha@uscg.mil](mailto:Frank.A.Blaha@uscg.mil)

11000

SEP 15 2009

Mr. Robert Schaeffgen and Ms. Karin Schaeffgen  
609 Langham Road  
Wilmington, Delaware 19809

Dear Mr. and Ms. Schaeffgen:

Please find attached as enclosure (1) the Public Notice announcement for the availability of the Engineering Evaluation/Cost Analysis (EE/CA) and Removal Action Work Plan (RAWP) on the proposed soil removal action at the Reedy Island Rear Range Light, located at 1171 Taylor's Bridge Road, Townsend, Delaware.

If you have any questions, please contact Mr. JP Messier of my staff at (252) 335-6847.

Sincerely,

A handwritten signature in black ink, appearing to read "Frank A. Blaha".

Frank. A. Blaha  
Chief, Environmental Compliance Section  
By direction of the Commanding Officer

Enclosures: (1) Public Notice for Reedy Island Rear Range Light – Townsend, DE.

Copy: Ms. Ji-Sun Yi, USEPA Region 3

U.S. Department of  
Homeland Security

United States  
Coast Guard



Commanding Officer  
United States Coast Guard  
Civil Engineering Unit Cleveland

1240 East Ninth Street  
Room 2179  
Cleveland Ohio 44199-2060  
Staff Symbol: ER  
Phone: (216) 902-6219  
Fax: (216) 902-6277  
Email: [Frank.A.Blaha@uscg.mil](mailto:Frank.A.Blaha@uscg.mil)

11000

SEP 15 2009

Mr. Lawrence Sterling  
105 Fleming's Landing Road  
Townsend, Delaware 19734

Dear Mr. Sterling:

Please find attached as enclosure (1) the Public Notice announcement for the availability of the Engineering Evaluation/Cost Analysis (EE/CA) and Removal Action Work Plan (RAWP) on the proposed soil removal action at the Reedy Island Rear Range Light, located at 1171 Taylor's Bridge Road, Townsend, Delaware.

If you have any questions, please contact Mr. JP Messier of my staff at (252) 335-6847.

Sincerely,

A handwritten signature in black ink, appearing to read "Frank A. Blaha".

Frank. A. Blaha  
Chief, Environmental Compliance Section  
By direction of the Commanding Officer

Enclosures: (1) Public Notice for Reedy Island Rear Range Light – Townsend, DE.

Copy: Ms. Ji-Sun Yi, USEPA Region 3

U.S. Department of  
Homeland Security

United States  
Coast Guard



Commanding Officer  
United States Coast Guard  
Civil Engineering Unit Cleveland

1240 East Ninth Street  
Room 2179  
Cleveland Ohio 44199-2060  
Staff Symbol: ER  
Phone: (216) 902-6219  
Fax: (216) 902-6277  
Email: [Frank.A.Blaha@uscg.mil](mailto:Frank.A.Blaha@uscg.mil)

11000

SEP 15 2009

Ms. Sandra Spence  
1160 Taylor's Bridge Road  
Townsend, Delaware 19734

Dear Ms. Spence:

Please find attached as enclosure (1) the Public Notice announcement for the availability of the Engineering Evaluation/Cost Analysis (EE/CA) and Removal Action Work Plan (RAWP) on the proposed soil removal action at the Reedy Island Rear Range Light, located at 1171 Taylor's Bridge Road, Townsend, Delaware.

If you have any questions, please contact Mr. JP Messier of my staff at (252) 335-6847.

Sincerely,

A handwritten signature in black ink, appearing to read "Frank A. Blaha".

Frank. A. Blaha  
Chief, Environmental Compliance Section  
By direction of the Commanding Officer

Enclosures: (1) Public Notice for Reedy Island Rear Range Light – Townsend, DE.

Copy: Ms. Ji-Sun Yi, USEPA Region 3

**U.S. Department of  
Homeland Security**

**United States  
Coast Guard**



Commanding Officer  
United States Coast Guard  
Civil Engineering Unit Cleveland

1240 East Ninth Street  
Room 2179  
Cleveland Ohio 44199-2060  
Staff Symbol: ER  
Phone: (216) 902-6219  
Fax: (216) 902-6277  
Email: [Frank.A.Blaha@uscg.mil](mailto:Frank.A.Blaha@uscg.mil)

11000

SEP 15 2009

Mr. Lawrence Sterling  
105 Fleming's Landing Road  
Townsend, Delaware 19734

Dear Mr. Sterling:

Please find attached as enclosure (1) the Public Notice announcement for the availability of the Engineering Evaluation/Cost Analysis (EE/CA) and Removal Action Work Plan (RAWP) on the proposed soil removal action at the Reedy Island Rear Range Light, located at 1171 Taylor's Bridge Road, Townsend, Delaware.

If you have any questions, please contact Mr. JP Messier of my staff at (252) 335-6847.

Sincerely,

A handwritten signature in blue ink, appearing to read "Frank A. Blaha".

Frank. A. Blaha  
Chief, Environmental Compliance Section  
By direction of the Commanding Officer

Enclosures: (1) Public Notice for Reedy Island Rear Range Light – Townsend, DE.

Copy: Ms. Ji-Sun Yi, USEPA Region 3

**U.S. Department of  
Homeland Security**

**United States  
Coast Guard**



Commanding Officer  
United States Coast Guard  
Civil Engineering Unit Cleveland

1240 East Ninth Street  
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Email: [Frank.A.Blaha@uscg.mil](mailto:Frank.A.Blaha@uscg.mil)

11000  
SEP 15 2009

Mr. Robert Schaeffgen and Ms. Karin Schaeffgen  
609 Langham Road  
Wilmington, Delaware 19809

Dear Mr. and Ms. Schaeffgen:

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If you have any questions, please contact Mr. JP Messier of my staff at (252) 335-6847.

Sincerely,

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Frank. A. Blaha  
Chief, Environmental Compliance Section  
By direction of the Commanding Officer

Enclosures: (1) Public Notice for Reedy Island Rear Range Light – Townsend, DE.

Copy: Ms. Ji-Sun Yi, USEPA Region 3

**Appendix F**

Air Monitoring for Dust

pDR-1000 S/N: 00000  
Tag Number: 03  
Number of logged points: 138  
Start time and date: 08:33:26 05-Apr  
Elapsed time: 02:18:00  
Logging period (sec): 60  
Calibration Factor (%): 100  
Max Display Concentration: 3.849 mg/m<sup>3</sup>  
Time at maximum: 08:36:21 Apr 05  
Max STEL Concentration: 0.087 mg/m<sup>3</sup>  
Time at max STEL: 08:47:56 Apr 05  
Overall Avg Conc: 0.016 mg/m<sup>3</sup>

Logged Data:

Point	Date	Time	Avg.(mg/m <sup>3</sup> )
1	5-Apr	08:34:26	0.084
2	5-Apr	08:35:26	0.008
3	5-Apr	08:36:26	0.796
4	5-Apr	08:37:26	0.202
5	5-Apr	08:38:26	0.032
6	5-Apr	08:39:26	0.049
7	5-Apr	08:40:26	0.024
8	5-Apr	08:41:26	0.017
9	5-Apr	08:42:26	0.02
10	5-Apr	08:43:26	0.011
11	5-Apr	08:44:26	0.016
12	5-Apr	08:45:26	0.016
13	5-Apr	08:46:26	0.013
14	5-Apr	08:47:26	0.01
15	5-Apr	08:48:26	0.011
16	5-Apr	08:49:26	0.007
17	5-Apr	08:50:26	0.008
18	5-Apr	08:51:26	0.009
19	5-Apr	08:52:26	0.01
20	5-Apr	08:53:26	0.011
21	5-Apr	08:54:26	0.013
22	5-Apr	08:55:26	0.009
23	5-Apr	08:56:26	0.008
24	5-Apr	08:57:26	0.011
25	5-Apr	08:58:26	0.012
26	5-Apr	08:59:26	0.01
27	5-Apr	09:00:26	0.014
28	5-Apr	09:01:26	0.009
29	5-Apr	09:02:26	0.008
30	5-Apr	09:03:26	0.012
31	5-Apr	09:04:26	0.01
32	5-Apr	09:05:26	0.01
33	5-Apr	09:06:26	0.009
34	5-Apr	09:07:26	0.01
35	5-Apr	09:08:26	0.01
36	5-Apr	09:09:26	0.008
37	5-Apr	09:10:26	0.01
38	5-Apr	09:11:26	0.014
39	5-Apr	09:12:26	0.007
40	5-Apr	09:13:26	0.008
41	5-Apr	09:14:26	0.007

42	5-Apr 09:15:26	0.01
43	5-Apr 09:16:26	0.009
44	5-Apr 09:17:26	0.01
45	5-Apr 09:18:26	0.009
46	5-Apr 09:19:26	0.008
47	5-Apr 09:20:26	0.007
48	5-Apr 09:21:26	0.008
49	5-Apr 09:22:26	0.01
50	5-Apr 09:23:26	0.01
51	5-Apr 09:24:26	0.01
52	5-Apr 09:25:26	0.009
53	5-Apr 09:26:26	0.009
54	5-Apr 09:27:26	0.007
55	5-Apr 09:28:26	0.008
56	5-Apr 09:29:26	0.009
57	5-Apr 09:30:26	0.01
58	5-Apr 09:31:26	0.009
59	5-Apr 09:32:26	0.007
60	5-Apr 09:33:26	0.007
61	5-Apr 09:34:26	0.006
62	5-Apr 09:35:26	0.006
63	5-Apr 09:36:26	0.008
64	5-Apr 09:37:26	0.006
65	5-Apr 09:38:26	0.008
66	5-Apr 09:39:26	0.005
67	5-Apr 09:40:26	0.008
68	5-Apr 09:41:26	0.007
69	5-Apr 09:42:26	0.005
70	5-Apr 09:43:26	0.007
71	5-Apr 09:44:26	0.007
72	5-Apr 09:45:26	0.009
73	5-Apr 09:46:26	0.008
74	5-Apr 09:47:26	0.006
75	5-Apr 09:48:26	0.007
76	5-Apr 09:49:26	0.007
77	5-Apr 09:50:26	0.008
78	5-Apr 09:51:26	0.006
79	5-Apr 09:52:26	0.006
80	5-Apr 09:53:26	0.007
81	5-Apr 09:54:26	0.008
82	5-Apr 09:55:26	0.01
83	5-Apr 09:56:26	0.006
84	5-Apr 09:57:26	0.008
85	5-Apr 09:58:26	0.007
86	5-Apr 09:59:26	0.006
87	5-Apr 10:00:26	0.004
88	5-Apr 10:01:26	0.006
89	5-Apr 10:02:26	0.006
90	5-Apr 10:03:26	0.006
91	5-Apr 10:04:26	0.005
92	5-Apr 10:05:26	0.007
93	5-Apr 10:06:26	0.006
94	5-Apr 10:07:26	0.008
95	5-Apr 10:08:26	0.007
96	5-Apr 10:09:26	0.007

97	5-Apr	10:10:26	0.006
98	5-Apr	10:11:26	0.005
99	5-Apr	10:12:26	0.007
100	5-Apr	10:13:26	0.006
101	5-Apr	10:14:26	0.01
102	5-Apr	10:15:26	0.009
103	5-Apr	10:16:26	0.01
104	5-Apr	10:17:26	0.009
105	5-Apr	10:18:26	0.007
106	5-Apr	10:19:26	0.007
107	5-Apr	10:20:26	0.006
108	5-Apr	10:21:26	0.008
109	5-Apr	10:22:26	0.009
110	5-Apr	10:23:26	0.006
111	5-Apr	10:24:26	0.007
112	5-Apr	10:25:26	0.006
113	5-Apr	10:26:26	0.006
114	5-Apr	10:27:26	0.006
115	5-Apr	10:28:26	0.006
116	5-Apr	10:29:26	0.007
117	5-Apr	10:30:26	0.005
118	5-Apr	10:31:26	0.005
119	5-Apr	10:32:26	0.008
120	5-Apr	10:33:26	0.008
121	5-Apr	10:34:26	0.007
122	5-Apr	10:35:26	0.005
123	5-Apr	10:36:26	0.005
124	5-Apr	10:37:26	0.005
125	5-Apr	10:38:26	0.009
126	5-Apr	10:39:26	0.006
127	5-Apr	10:40:26	0.004
128	5-Apr	10:41:26	0.005
129	5-Apr	10:42:26	0.006
130	5-Apr	10:43:26	0.006
131	5-Apr	10:44:26	0.005
132	5-Apr	10:45:26	0.005
133	5-Apr	10:46:26	0.006
134	5-Apr	10:47:26	0.005
135	5-Apr	10:48:26	0.008
136	5-Apr	10:49:26	0.007
137	5-Apr	10:50:26	0.005
138	5-Apr	10:51:26	0.007

0000323030000000000}

pDR-1000 S/N: 00000  
Tag Number: 04  
Number of logged points: 349  
Start time and date: 10:53:42 05-Apr  
Elapsed time: 05:49:00  
Logging period (sec): 60  
Calibration Factor (%): 100  
Max Display Concentration: 0.073 mg/m<sup>3</sup>  
Time at maximum: 10:56:37 Apr 05  
Max STEL Concentration: 0.002 mg/m<sup>3</sup>  
Time at max STEL: 10:56:42 Apr 05  
Overall Avg Conc: 0.000 mg/m<sup>3</sup>

Logged Data:

Point	Date	Time	Avg.(mg/m <sup>3</sup> )
1	5-Apr	10:54:42	0.006
2	5-Apr	10:55:42	0.012
3	5-Apr	10:56:42	0.023
4	5-Apr	10:57:42	0
5	5-Apr	10:58:42	0
6	5-Apr	10:59:42	0
7	5-Apr	11:00:42	0
8	5-Apr	11:01:42	0
9	5-Apr	11:02:42	0
10	5-Apr	11:03:42	0.007
11	5-Apr	11:04:42	0
12	5-Apr	11:05:42	0
13	5-Apr	11:06:42	0
14	5-Apr	11:07:42	0
15	5-Apr	11:08:42	0
16	5-Apr	11:09:42	0
17	5-Apr	11:10:42	0.001
18	5-Apr	11:11:42	0
19	5-Apr	11:12:42	0
20	5-Apr	11:13:42	0
21	5-Apr	11:14:42	0
22	5-Apr	11:15:42	0
23	5-Apr	11:16:42	0
24	5-Apr	11:17:42	0
25	5-Apr	11:18:42	0
26	5-Apr	11:19:42	0
27	5-Apr	11:20:42	0
28	5-Apr	11:21:42	0
29	5-Apr	11:22:42	0
30	5-Apr	11:23:42	0
31	5-Apr	11:24:42	0
32	5-Apr	11:25:42	0
33	5-Apr	11:26:42	0
34	5-Apr	11:27:42	0
35	5-Apr	11:28:42	0
36	5-Apr	11:29:42	0
37	5-Apr	11:30:42	0
38	5-Apr	11:31:42	0
39	5-Apr	11:32:42	0
40	5-Apr	11:33:42	0
41	5-Apr	11:34:42	0

42	5-Apr	11:35:42	0
43	5-Apr	11:36:42	0
44	5-Apr	11:37:42	0
45	5-Apr	11:38:42	0
46	5-Apr	11:39:42	0
47	5-Apr	11:40:42	0
48	5-Apr	11:41:42	0
49	5-Apr	11:42:42	0
50	5-Apr	11:43:42	0
51	5-Apr	11:44:42	0
52	5-Apr	11:45:42	0
53	5-Apr	11:46:42	0
54	5-Apr	11:47:42	0
55	5-Apr	11:48:42	0
56	5-Apr	11:49:42	0
57	5-Apr	11:50:42	0
58	5-Apr	11:51:42	0
59	5-Apr	11:52:42	0
60	5-Apr	11:53:42	0
61	5-Apr	11:54:42	0
62	5-Apr	11:55:42	0
63	5-Apr	11:56:42	0
64	5-Apr	11:57:42	0
65	5-Apr	11:58:42	0
66	5-Apr	11:59:42	0
67	5-Apr	12:00:42	0
68	5-Apr	12:01:42	0
69	5-Apr	12:02:42	0
70	5-Apr	12:03:42	0
71	5-Apr	12:04:42	0
72	5-Apr	12:05:42	0
73	5-Apr	12:06:42	0
74	5-Apr	12:07:42	0
75	5-Apr	12:08:42	0
76	5-Apr	12:09:42	0
77	5-Apr	12:10:42	0
78	5-Apr	12:11:42	0
79	5-Apr	12:12:42	0
80	5-Apr	12:13:42	0
81	5-Apr	12:14:42	0
82	5-Apr	12:15:42	0
83	5-Apr	12:16:42	0
84	5-Apr	12:17:42	0
85	5-Apr	12:18:42	0
86	5-Apr	12:19:42	0
87	5-Apr	12:20:42	0
88	5-Apr	12:21:42	0
89	5-Apr	12:22:42	0
90	5-Apr	12:23:42	0
91	5-Apr	12:24:42	0
92	5-Apr	12:25:42	0
93	5-Apr	12:26:42	0
94	5-Apr	12:27:42	0
95	5-Apr	12:28:42	0
96	5-Apr	12:29:42	0

97	5-Apr 12:30:42	0
98	5-Apr 12:31:42	0
99	5-Apr 12:32:42	0
100	5-Apr 12:33:42	0
101	5-Apr 12:34:42	0
102	5-Apr 12:35:42	0
103	5-Apr 12:36:42	0
104	5-Apr 12:37:42	0
105	5-Apr 12:38:42	0
106	5-Apr 12:39:42	0
107	5-Apr 12:40:42	0
108	5-Apr 12:41:42	0
109	5-Apr 12:42:42	0
110	5-Apr 12:43:42	0
111	5-Apr 12:44:42	0
112	5-Apr 12:45:42	0
113	5-Apr 12:46:42	0
114	5-Apr 12:47:42	0
115	5-Apr 12:48:42	0
116	5-Apr 12:49:42	0
117	5-Apr 12:50:42	0
118	5-Apr 12:51:42	0
119	5-Apr 12:52:42	0
120	5-Apr 12:53:42	0
121	5-Apr 12:54:42	0
122	5-Apr 12:55:42	0
123	5-Apr 12:56:42	0
124	5-Apr 12:57:42	0
125	5-Apr 12:58:42	0
126	5-Apr 12:59:42	0
127	5-Apr 13:00:42	0
128	5-Apr 13:01:42	0.004
129	5-Apr 13:02:42	0
130	5-Apr 13:03:42	0
131	5-Apr 13:04:42	0
132	5-Apr 13:05:42	0
133	5-Apr 13:06:42	0
134	5-Apr 13:07:42	0
135	5-Apr 13:08:42	0
136	5-Apr 13:09:42	0
137	5-Apr 13:10:42	0
138	5-Apr 13:11:42	0
139	5-Apr 13:12:42	0
140	5-Apr 13:13:42	0
141	5-Apr 13:14:42	0
142	5-Apr 13:15:42	0
143	5-Apr 13:16:42	0
144	5-Apr 13:17:42	0
145	5-Apr 13:18:42	0
146	5-Apr 13:19:42	0
147	5-Apr 13:20:42	0
148	5-Apr 13:21:42	0
149	5-Apr 13:22:42	0
150	5-Apr 13:23:42	0
151	5-Apr 13:24:42	0

152	5-Apr	13:25:42	0
153	5-Apr	13:26:42	0
154	5-Apr	13:27:42	0
155	5-Apr	13:28:42	0
156	5-Apr	13:29:42	0
157	5-Apr	13:30:42	0
158	5-Apr	13:31:42	0
159	5-Apr	13:32:42	0
160	5-Apr	13:33:42	0
161	5-Apr	13:34:42	0
162	5-Apr	13:35:42	0
163	5-Apr	13:36:42	0
164	5-Apr	13:37:42	0
165	5-Apr	13:38:42	0
166	5-Apr	13:39:42	0
167	5-Apr	13:40:42	0
168	5-Apr	13:41:42	0
169	5-Apr	13:42:42	0
170	5-Apr	13:43:42	0
171	5-Apr	13:44:42	0
172	5-Apr	13:45:42	0
173	5-Apr	13:46:42	0
174	5-Apr	13:47:42	0
175	5-Apr	13:48:42	0
176	5-Apr	13:49:42	0
177	5-Apr	13:50:42	0
178	5-Apr	13:51:42	0
179	5-Apr	13:52:42	0
180	5-Apr	13:53:42	0
181	5-Apr	13:54:42	0
182	5-Apr	13:55:42	0
183	5-Apr	13:56:42	0
184	5-Apr	13:57:42	0
185	5-Apr	13:58:42	0
186	5-Apr	13:59:42	0
187	5-Apr	14:00:42	0
188	5-Apr	14:01:42	0
189	5-Apr	14:02:42	0
190	5-Apr	14:03:42	0
191	5-Apr	14:04:42	0
192	5-Apr	14:05:42	0
193	5-Apr	14:06:42	0
194	5-Apr	14:07:42	0
195	5-Apr	14:08:42	0
196	5-Apr	14:09:42	0
197	5-Apr	14:10:42	0
198	5-Apr	14:11:42	0
199	5-Apr	14:12:42	0
200	5-Apr	14:13:42	0
201	5-Apr	14:14:42	0
202	5-Apr	14:15:42	0
203	5-Apr	14:16:42	0
204	5-Apr	14:17:42	0
205	5-Apr	14:18:42	0
206	5-Apr	14:19:42	0

207	5-Apr 14:20:42	0
208	5-Apr 14:21:42	0.001
209	5-Apr 14:22:42	0
210	5-Apr 14:23:42	0
211	5-Apr 14:24:42	0
212	5-Apr 14:25:42	0
213	5-Apr 14:26:42	0
214	5-Apr 14:27:42	0
215	5-Apr 14:28:42	0
216	5-Apr 14:29:42	0
217	5-Apr 14:30:42	0
218	5-Apr 14:31:42	0
219	5-Apr 14:32:42	0
220	5-Apr 14:33:42	0
221	5-Apr 14:34:42	0
222	5-Apr 14:35:42	0
223	5-Apr 14:36:42	0
224	5-Apr 14:37:42	0
225	5-Apr 14:38:42	0
226	5-Apr 14:39:42	0
227	5-Apr 14:40:42	0
228	5-Apr 14:41:42	0
229	5-Apr 14:42:42	0
230	5-Apr 14:43:42	0
231	5-Apr 14:44:42	0
232	5-Apr 14:45:42	0
233	5-Apr 14:46:42	0
234	5-Apr 14:47:42	0
235	5-Apr 14:48:42	0
236	5-Apr 14:49:42	0
237	5-Apr 14:50:42	0
238	5-Apr 14:51:42	0
239	5-Apr 14:52:42	0
240	5-Apr 14:53:42	0
241	5-Apr 14:54:42	0
242	5-Apr 14:55:42	0
243	5-Apr 14:56:42	0
244	5-Apr 14:57:42	0
245	5-Apr 14:58:42	0
246	5-Apr 14:59:42	0
247	5-Apr 15:00:42	0
248	5-Apr 15:01:42	0
249	5-Apr 15:02:42	0
250	5-Apr 15:03:42	0
251	5-Apr 15:04:42	0
252	5-Apr 15:05:42	0
253	5-Apr 15:06:42	0
254	5-Apr 15:07:42	0
255	5-Apr 15:08:42	0
256	5-Apr 15:09:42	0
257	5-Apr 15:10:42	0
258	5-Apr 15:11:42	0
259	5-Apr 15:12:42	0
260	5-Apr 15:13:42	0
261	5-Apr 15:14:42	0

262	5-Apr	15:15:42	0
263	5-Apr	15:16:42	0
264	5-Apr	15:17:42	0
265	5-Apr	15:18:42	0
266	5-Apr	15:19:42	0
267	5-Apr	15:20:42	0
268	5-Apr	15:21:42	0
269	5-Apr	15:22:42	0
270	5-Apr	15:23:42	0
271	5-Apr	15:24:42	0
272	5-Apr	15:25:42	0
273	5-Apr	15:26:42	0
274	5-Apr	15:27:42	0
275	5-Apr	15:28:42	0
276	5-Apr	15:29:42	0
277	5-Apr	15:30:42	0
278	5-Apr	15:31:42	0
279	5-Apr	15:32:42	0
280	5-Apr	15:33:42	0
281	5-Apr	15:34:42	0
282	5-Apr	15:35:42	0
283	5-Apr	15:36:42	0
284	5-Apr	15:37:42	0
285	5-Apr	15:38:42	0
286	5-Apr	15:39:42	0
287	5-Apr	15:40:42	0
288	5-Apr	15:41:42	0
289	5-Apr	15:42:42	0.001
290	5-Apr	15:43:42	0
291	5-Apr	15:44:42	0
292	5-Apr	15:45:42	0
293	5-Apr	15:46:42	0
294	5-Apr	15:47:42	0
295	5-Apr	15:48:42	0
296	5-Apr	15:49:42	0
297	5-Apr	15:50:42	0
298	5-Apr	15:51:42	0.001
299	5-Apr	15:52:42	0
300	5-Apr	15:53:42	0
301	5-Apr	15:54:42	0
302	5-Apr	15:55:42	0
303	5-Apr	15:56:42	0
304	5-Apr	15:57:42	0
305	5-Apr	15:58:42	0
306	5-Apr	15:59:42	0
307	5-Apr	16:00:42	0.001
308	5-Apr	16:01:42	0
309	5-Apr	16:02:42	0
310	5-Apr	16:03:42	0
311	5-Apr	16:04:42	0
312	5-Apr	16:05:42	0
313	5-Apr	16:06:42	0
314	5-Apr	16:07:42	0
315	5-Apr	16:08:42	0
316	5-Apr	16:09:42	0

317	5-Apr 16:10:42	0
318	5-Apr 16:11:42	0.002
319	5-Apr 16:12:42	0
320	5-Apr 16:13:42	0
321	5-Apr 16:14:42	0
322	5-Apr 16:15:42	0
323	5-Apr 16:16:42	0
324	5-Apr 16:17:42	0
325	5-Apr 16:18:42	0
326	5-Apr 16:19:42	0
327	5-Apr 16:20:42	0
328	5-Apr 16:21:42	0
329	5-Apr 16:22:42	0
330	5-Apr 16:23:42	0
331	5-Apr 16:24:42	0
332	5-Apr 16:25:42	0
333	5-Apr 16:26:42	0
334	5-Apr 16:27:42	0
335	5-Apr 16:28:42	0
336	5-Apr 16:29:42	0.001
337	5-Apr 16:30:42	0
338	5-Apr 16:31:42	0
339	5-Apr 16:32:42	0
340	5-Apr 16:33:42	0
341	5-Apr 16:34:42	0
342	5-Apr 16:35:42	0
343	5-Apr 16:36:42	0
344	5-Apr 16:37:42	0
345	5-Apr 16:38:42	0
346	5-Apr 16:39:42	0
347	5-Apr 16:40:42	0
348	5-Apr 16:41:42	0
349	5-Apr 16:42:42	0

00003230300000000000}

pDR-1000 S/N: 00000  
Tag Number: 02  
Number of logged points: 665  
Start time and date: 8:23:37 6-Apr  
Elapsed time: 11:06:00  
Logging period (sec): 60  
Calibration Factor (%): 100  
Max Display Concentration: 2.212 mg/m<sup>3</sup>  
Time at maximum: 15:50:37 Apr 6  
Max STEL Concentration: 0.370 mg/m<sup>3</sup>  
Time at max STEL: 15:50:37 Apr 6  
Overall Avg Conc: 0.074 mg/m<sup>3</sup>

Logged Data:

Point	Date	Time	Avg.(mg/m <sup>3</sup> )
1	6-Apr	8:23:37	0.003
2	6-Apr	8:24:37	0.002
3	6-Apr	8:25:37	0.05
4	6-Apr	8:26:37	0
5	6-Apr	8:27:37	0.002
6	6-Apr	8:28:37	0.009
7	6-Apr	8:29:37	0.002
8	6-Apr	8:30:37	0.009
9	6-Apr	8:31:37	0.004
10	6-Apr	8:32:37	0
11	6-Apr	8:33:37	0.002
12	6-Apr	8:34:37	0
13	6-Apr	8:35:37	0
14	6-Apr	8:36:37	0
15	6-Apr	8:37:37	0
16	6-Apr	8:38:37	0.001
17	6-Apr	8:39:37	0.001
18	6-Apr	8:40:37	0
19	6-Apr	8:41:37	0
20	6-Apr	8:42:37	0.003
21	6-Apr	8:43:37	0.01
22	6-Apr	8:44:37	0
23	6-Apr	8:45:37	0.006
24	6-Apr	8:46:37	0.005
25	6-Apr	8:47:37	0.004
26	6-Apr	8:48:37	0.002
27	6-Apr	8:49:37	0.002
28	6-Apr	8:50:37	0.006
29	6-Apr	8:51:37	0.001
30	6-Apr	8:52:37	0
31	6-Apr	8:53:37	0
32	6-Apr	8:54:37	0
33	6-Apr	8:55:37	0.001
34	6-Apr	8:56:37	0
35	6-Apr	8:57:37	0.002
36	6-Apr	8:58:37	0.002
37	6-Apr	8:59:37	0.001
38	6-Apr	9:00:37	0.016
39	6-Apr	9:01:37	0.002
40	6-Apr	9:02:37	0
41	6-Apr	9:03:37	0.001

42	6-Apr	9:04:37	0
43	6-Apr	9:05:37	0
44	6-Apr	9:06:37	0
45	6-Apr	9:07:37	0
46	6-Apr	9:08:37	0.004
47	6-Apr	9:09:37	0
48	6-Apr	9:10:37	0
49	6-Apr	9:11:37	0
50	6-Apr	9:12:37	0
51	6-Apr	9:13:37	0.001
52	6-Apr	9:14:37	0
53	6-Apr	9:15:37	0.079
54	6-Apr	9:16:37	0.09
55	6-Apr	9:17:37	0.483
56	6-Apr	9:18:37	0.026
57	6-Apr	9:19:37	0.147
58	6-Apr	9:20:37	0.121
59	6-Apr	9:21:37	0.027
60	6-Apr	9:22:37	0.105
61	6-Apr	9:23:37	0.146
62	6-Apr	9:24:37	0.11
63	6-Apr	9:25:37	0.148
64	6-Apr	9:26:37	0.025
65	6-Apr	9:27:37	0.016
66	6-Apr	9:28:37	0.12
67	6-Apr	9:29:37	0.186
68	6-Apr	9:30:37	0.254
69	6-Apr	9:31:37	0.213
70	6-Apr	9:32:37	0.147
71	6-Apr	9:33:37	0.067
72	6-Apr	9:34:37	0.042
73	6-Apr	9:35:37	0.013
74	6-Apr	9:36:37	0.019
75	6-Apr	9:37:37	0.024
76	6-Apr	9:38:37	0.006
77	6-Apr	9:39:37	0.01
78	6-Apr	9:40:37	0.018
79	6-Apr	9:41:37	0.018
80	6-Apr	9:42:37	0.034
81	6-Apr	9:43:37	0.025
82	6-Apr	9:44:37	0.248
83	6-Apr	9:45:37	0.367
84	6-Apr	9:46:37	0.367
85	6-Apr	9:47:37	0.244
86	6-Apr	9:48:37	0.106
87	6-Apr	9:49:37	0.062
88	6-Apr	9:50:37	0.019
89	6-Apr	9:51:37	0.014
90	6-Apr	9:52:37	0.01
91	6-Apr	9:53:37	0.065
92	6-Apr	9:54:37	0.043
93	6-Apr	9:55:37	0.122
94	6-Apr	9:56:37	0.522
95	6-Apr	9:57:37	0.634
96	6-Apr	9:58:37	0.544

97	6-Apr	9:59:37	0.252
98	6-Apr	10:00:37	0.202
99	6-Apr	10:01:37	0.208
100	6-Apr	10:02:37	0.115
101	6-Apr	10:03:37	0.093
102	6-Apr	10:04:37	0.081
103	6-Apr	10:05:37	0.131
104	6-Apr	10:06:37	0.067
105	6-Apr	10:07:37	0.08
106	6-Apr	10:08:37	0.047
107	6-Apr	10:09:37	0.114
108	6-Apr	10:10:37	0.082
109	6-Apr	10:11:37	0.017
110	6-Apr	10:12:37	0.027
111	6-Apr	10:13:37	0.16
112	6-Apr	10:14:37	0.051
113	6-Apr	10:15:37	0.008
114	6-Apr	10:16:37	0.008
115	6-Apr	10:17:37	0.063
116	6-Apr	10:18:37	0.372
117	6-Apr	10:19:37	0.104
118	6-Apr	10:20:37	0.092
119	6-Apr	10:21:37	0.137
120	6-Apr	10:22:37	0.068
121	6-Apr	10:23:37	0.012
122	6-Apr	10:24:37	0.058
123	6-Apr	10:25:37	0.057
124	6-Apr	10:26:37	0.074
125	6-Apr	10:27:37	0.048
126	6-Apr	10:28:37	0.017
127	6-Apr	10:29:37	0.058
128	6-Apr	10:30:37	0.061
129	6-Apr	10:31:37	0.019
130	6-Apr	10:32:37	0.015
131	6-Apr	10:33:37	0.008
132	6-Apr	10:34:37	0.012
133	6-Apr	10:35:37	0.005
134	6-Apr	10:36:37	0.007
135	6-Apr	10:37:37	0.086
136	6-Apr	10:38:37	0.006
137	6-Apr	10:39:37	0.006
138	6-Apr	10:40:37	0.004
139	6-Apr	10:41:37	0.06
140	6-Apr	10:42:37	0.132
141	6-Apr	10:43:37	0.11
142	6-Apr	10:44:37	0.139
143	6-Apr	10:45:37	0.038
144	6-Apr	10:46:37	0.118
145	6-Apr	10:47:37	0.184
146	6-Apr	10:48:37	0.42
147	6-Apr	10:49:37	0.021
148	6-Apr	10:50:37	0.036
149	6-Apr	10:51:37	0.072
150	6-Apr	10:52:37	0.014
151	6-Apr	10:53:37	0.006

152	6-Apr	10:54:37	0.01
153	6-Apr	10:55:37	0.01
154	6-Apr	10:56:37	0
155	6-Apr	10:57:37	0.017
156	6-Apr	10:58:37	0
157	6-Apr	10:59:37	0
158	6-Apr	11:00:37	0.013
159	6-Apr	11:01:37	0.003
160	6-Apr	11:02:37	0
161	6-Apr	11:03:37	0.001
162	6-Apr	11:04:37	0.014
163	6-Apr	11:05:37	0.003
164	6-Apr	11:06:37	0.002
165	6-Apr	11:07:37	0.002
166	6-Apr	11:08:37	0.007
167	6-Apr	11:09:37	0.002
168	6-Apr	11:10:37	0
169	6-Apr	11:11:37	0
170	6-Apr	11:12:37	0.001
171	6-Apr	11:13:37	0
172	6-Apr	11:14:37	0.002
173	6-Apr	11:15:37	0
174	6-Apr	11:16:37	0.004
175	6-Apr	11:17:37	0.004
176	6-Apr	11:18:37	0
177	6-Apr	11:19:37	0
178	6-Apr	11:20:37	0
179	6-Apr	11:21:37	0.002
180	6-Apr	11:22:37	0.001
181	6-Apr	11:23:37	0.006
182	6-Apr	11:24:37	0.007
183	6-Apr	11:25:37	0.028
184	6-Apr	11:26:37	0.011
185	6-Apr	11:27:37	0.031
186	6-Apr	11:28:37	0.022
187	6-Apr	11:29:37	0.009
188	6-Apr	11:30:37	0.02
189	6-Apr	11:31:37	0.06
190	6-Apr	11:32:37	0.025
191	6-Apr	11:33:37	0.025
192	6-Apr	11:34:37	0.013
193	6-Apr	11:35:37	0.004
194	6-Apr	11:36:37	0
195	6-Apr	11:37:37	0.012
196	6-Apr	11:38:37	0.007
197	6-Apr	11:39:37	0.002
198	6-Apr	11:40:37	0.115
199	6-Apr	11:41:37	0.251
200	6-Apr	11:42:37	0.055
201	6-Apr	11:43:37	0.033
202	6-Apr	11:44:37	0.029
203	6-Apr	11:45:37	0.006
204	6-Apr	11:46:37	0.01
205	6-Apr	11:47:37	0.023
206	6-Apr	11:48:37	0.204

207	6-Apr	11:49:37	0.186
208	6-Apr	11:50:37	0.011
209	6-Apr	11:51:37	0.002
210	6-Apr	11:52:37	0.088
211	6-Apr	11:53:37	0.006
212	6-Apr	11:54:37	0.01
213	6-Apr	11:55:37	0.019
214	6-Apr	11:56:37	0.009
215	6-Apr	11:57:37	0.035
216	6-Apr	11:58:37	0.008
217	6-Apr	11:59:37	0.029
218	6-Apr	12:00:37	0.01
219	6-Apr	12:01:37	0.019
220	6-Apr	12:02:37	0.016
221	6-Apr	12:03:37	0.095
222	6-Apr	12:04:37	0.025
223	6-Apr	12:05:37	0
224	6-Apr	12:06:37	0.002
225	6-Apr	12:07:37	0.161
226	6-Apr	12:08:37	0
227	6-Apr	12:09:37	0.01
228	6-Apr	12:10:37	0.021
229	6-Apr	12:11:37	0.011
230	6-Apr	12:12:37	0.003
231	6-Apr	12:13:37	0.021
232	6-Apr	12:14:37	0.09
233	6-Apr	12:15:37	0.059
234	6-Apr	12:16:37	0.003
235	6-Apr	12:17:37	0.054
236	6-Apr	12:18:37	0.073
237	6-Apr	12:19:37	0.018
238	6-Apr	12:20:37	0.021
239	6-Apr	12:21:37	0.439
240	6-Apr	12:22:37	0.008
241	6-Apr	12:23:37	0.012
242	6-Apr	12:24:37	0.003
243	6-Apr	12:25:37	0.061
244	6-Apr	12:26:37	0.52
245	6-Apr	12:27:37	0.044
246	6-Apr	12:28:37	0.019
247	6-Apr	12:29:37	0.02
248	6-Apr	12:30:37	0.014
249	6-Apr	12:31:37	0.021
250	6-Apr	12:32:37	0.016
251	6-Apr	12:33:37	0.013
252	6-Apr	12:34:37	0.014
253	6-Apr	12:35:37	0.013
254	6-Apr	12:36:37	0.012
255	6-Apr	12:37:37	0.021
256	6-Apr	12:38:37	0.06
257	6-Apr	12:39:37	0.031
258	6-Apr	12:40:37	0.022
259	6-Apr	12:41:37	0.064
260	6-Apr	12:42:37	0.007
261	6-Apr	12:43:37	0.03

262	6-Apr	12:44:37	0.087
263	6-Apr	12:45:37	0.009
264	6-Apr	12:46:37	0.035
265	6-Apr	12:47:37	0.001
266	6-Apr	12:48:37	0.006
267	6-Apr	12:49:37	0.001
268	6-Apr	12:50:37	0.004
269	6-Apr	12:51:37	0.024
270	6-Apr	12:52:37	0.015
271	6-Apr	12:53:37	0.003
272	6-Apr	12:54:37	0.004
273	6-Apr	12:55:37	0.006
274	6-Apr	12:56:37	0.007
275	6-Apr	12:57:37	0.005
276	6-Apr	12:58:37	0.004
277	6-Apr	12:59:37	0.009
278	6-Apr	13:00:37	0.008
279	6-Apr	13:01:37	0.014
280	6-Apr	13:02:37	0.026
281	6-Apr	13:03:37	0.012
282	6-Apr	13:04:37	0.005
283	6-Apr	13:05:37	0.003
284	6-Apr	13:06:37	0.02
285	6-Apr	13:07:37	0.022
286	6-Apr	13:08:37	0.003
287	6-Apr	13:09:37	0.015
288	6-Apr	13:10:37	0.006
289	6-Apr	13:11:37	0.011
290	6-Apr	13:12:37	0.013
291	6-Apr	13:13:37	0.008
292	6-Apr	13:14:37	0.01
293	6-Apr	13:15:37	0.012
294	6-Apr	13:16:37	0.741
295	6-Apr	13:17:37	0.027
296	6-Apr	13:18:37	0.083
297	6-Apr	13:19:37	0.005
298	6-Apr	13:20:37	0
299	6-Apr	13:21:37	0.006
300	6-Apr	13:22:37	0.001
301	6-Apr	13:23:37	0.001
302	6-Apr	13:24:37	0.018
303	6-Apr	13:25:37	0.013
304	6-Apr	13:26:37	0.031
305	6-Apr	13:27:37	0.025
306	6-Apr	13:28:37	0.012
307	6-Apr	13:29:37	0.014
308	6-Apr	13:30:37	0.006
309	6-Apr	13:31:37	0.01
310	6-Apr	13:32:37	0.009
311	6-Apr	13:33:37	0.062
312	6-Apr	13:34:37	0
313	6-Apr	13:35:37	0.001
314	6-Apr	13:36:37	0.01
315	6-Apr	13:37:37	0.173
316	6-Apr	13:38:37	0.014

317	6-Apr	13:39:37	0.002
318	6-Apr	13:40:37	0
319	6-Apr	13:41:37	0.014
320	6-Apr	13:42:37	0.002
321	6-Apr	13:43:37	0.144
322	6-Apr	13:44:37	0.09
323	6-Apr	13:45:37	0
324	6-Apr	13:46:37	0.011
325	6-Apr	13:47:37	0.001
326	6-Apr	13:48:37	0.002
327	6-Apr	13:49:37	0
328	6-Apr	13:50:37	0
329	6-Apr	13:51:37	0.002
330	6-Apr	13:52:37	0.009
331	6-Apr	13:53:37	0.029
332	6-Apr	13:54:37	0.017
333	6-Apr	13:55:37	0.129
334	6-Apr	13:56:37	0.022
335	6-Apr	13:57:37	0.018
336	6-Apr	13:58:37	0
337	6-Apr	13:59:37	0.002
338	6-Apr	14:00:37	0.007
339	6-Apr	14:01:37	0
340	6-Apr	14:02:37	0.013
341	6-Apr	14:03:37	0.005
342	6-Apr	14:04:37	0
343	6-Apr	14:05:37	0
344	6-Apr	14:06:37	0
345	6-Apr	14:07:37	0.001
346	6-Apr	14:08:37	0
347	6-Apr	14:09:37	0.01
348	6-Apr	14:10:37	0.003
349	6-Apr	14:11:37	0.002
350	6-Apr	14:12:37	0.006
351	6-Apr	14:13:37	0.002
352	6-Apr	14:14:37	0
353	6-Apr	14:15:37	0
354	6-Apr	14:16:37	0.005
355	6-Apr	14:17:37	0.011
356	6-Apr	14:18:37	0.006
357	6-Apr	14:19:37	0.023
358	6-Apr	14:20:37	0.003
359	6-Apr	14:21:37	0.004
360	6-Apr	14:22:37	0.002
361	6-Apr	14:23:37	0.005
362	6-Apr	14:24:37	0.005
363	6-Apr	14:25:37	0.001
364	6-Apr	14:26:37	0.024
365	6-Apr	14:27:37	0.06
366	6-Apr	14:28:37	0.115
367	6-Apr	14:29:37	0.029
368	6-Apr	14:30:37	0.019
369	6-Apr	14:31:37	0.062
370	6-Apr	14:32:37	0.003
371	6-Apr	14:33:37	0.024

372	6-Apr	14:34:37	0.105
373	6-Apr	14:35:37	0.019
374	6-Apr	14:36:37	0.003
375	6-Apr	14:37:37	0.056
376	6-Apr	14:38:37	0.005
377	6-Apr	14:39:37	0.13
378	6-Apr	14:40:37	0.367
379	6-Apr	14:41:37	0.14
380	6-Apr	14:42:37	0.125
381	6-Apr	14:43:37	0.08
382	6-Apr	14:44:37	0.271
383	6-Apr	14:45:37	0.227
384	6-Apr	14:46:37	0.257
385	6-Apr	14:47:37	0.275
386	6-Apr	14:48:37	0.148
387	6-Apr	14:49:37	0.125
388	6-Apr	14:50:37	0.145
389	6-Apr	14:51:37	0.065
390	6-Apr	14:52:37	0.292
391	6-Apr	14:53:37	0.274
392	6-Apr	14:54:37	0.376
393	6-Apr	14:55:37	0.252
394	6-Apr	14:56:37	0.077
395	6-Apr	14:57:37	0.103
396	6-Apr	14:58:37	0.298
397	6-Apr	14:59:37	0.128
398	6-Apr	15:00:37	0.016
399	6-Apr	15:01:37	0.019
400	6-Apr	15:02:37	0.039
401	6-Apr	15:03:37	0.006
402	6-Apr	15:04:37	0.034
403	6-Apr	15:05:37	0.004
404	6-Apr	15:06:37	0.248
405	6-Apr	15:07:37	0.006
406	6-Apr	15:08:37	0.008
407	6-Apr	15:09:37	0.101
408	6-Apr	15:10:37	0.036
409	6-Apr	15:11:37	1.233
410	6-Apr	15:12:37	0.599
411	6-Apr	15:13:37	0.483
412	6-Apr	15:14:37	0.199
413	6-Apr	15:15:37	0.161
414	6-Apr	15:16:37	0.027
415	6-Apr	15:17:37	0.058
416	6-Apr	15:18:37	0.019
417	6-Apr	15:19:37	0.058
418	6-Apr	15:20:37	0.009
419	6-Apr	15:21:37	0.126
420	6-Apr	15:22:37	0.004
421	6-Apr	15:23:37	0.004
422	6-Apr	15:24:37	0.01
423	6-Apr	15:25:37	0.701
424	6-Apr	15:26:37	0.532
425	6-Apr	15:27:37	0.156
426	6-Apr	15:28:37	0.251

427	6-Apr	15:29:37	0.303
428	6-Apr	15:30:37	0.127
429	6-Apr	15:31:37	0.21
430	6-Apr	15:32:37	0.737
431	6-Apr	15:33:37	0.822
432	6-Apr	15:34:37	0.156
433	6-Apr	15:35:37	0.008
434	6-Apr	15:36:37	0.006
435	6-Apr	15:37:37	0.002
436	6-Apr	15:38:37	0.005
437	6-Apr	15:39:37	0.008
438	6-Apr	15:40:37	0.03
439	6-Apr	15:41:37	0.002
440	6-Apr	15:42:37	0.009
441	6-Apr	15:43:37	0.001
442	6-Apr	15:44:37	0.001
443	6-Apr	15:45:37	0.011
444	6-Apr	15:46:37	0.976
445	6-Apr	15:47:37	0.276
446	6-Apr	15:48:37	0.381
447	6-Apr	15:49:37	0.395
448	6-Apr	15:50:37	2.212
449	6-Apr	15:51:37	0.21
450	6-Apr	15:52:37	0.134
451	6-Apr	15:53:37	0.025
452	6-Apr	15:54:37	0.169
453	6-Apr	15:55:37	0.418
454	6-Apr	15:56:37	0.014
455	6-Apr	15:57:37	0.021
456	6-Apr	15:58:37	0.223
457	6-Apr	15:59:37	0.054
458	6-Apr	16:00:37	0.039
459	6-Apr	16:01:37	0.014
460	6-Apr	16:02:37	0.023
461	6-Apr	16:03:37	0.048
462	6-Apr	16:04:37	0.067
463	6-Apr	16:05:37	0.045
464	6-Apr	16:06:37	0.031
465	6-Apr	16:07:37	0.047
466	6-Apr	16:08:37	0.036
467	6-Apr	16:09:37	0.024
468	6-Apr	16:10:37	0.021
469	6-Apr	16:11:37	0.024
470	6-Apr	16:12:37	0.022
471	6-Apr	16:13:37	0.011
472	6-Apr	16:14:37	0.013
473	6-Apr	16:15:37	0.029
474	6-Apr	16:16:37	0.277
475	6-Apr	16:17:37	0.045
476	6-Apr	16:18:37	0.023
477	6-Apr	16:19:37	0.042
478	6-Apr	16:20:37	0.031
479	6-Apr	16:21:37	0.023
480	6-Apr	16:22:37	0.012
481	6-Apr	16:23:37	0.013

482	6-Apr	16:24:37	0.014
483	6-Apr	16:25:37	0.013
484	6-Apr	16:26:37	0.074
485	6-Apr	16:27:37	0.048
486	6-Apr	16:28:37	0.027
487	6-Apr	16:29:37	0.004
488	6-Apr	16:30:37	0.018
489	6-Apr	16:31:37	0.008
490	6-Apr	16:32:37	0.035
491	6-Apr	16:33:37	0.015
492	6-Apr	16:34:37	0.004
493	6-Apr	16:35:37	0.005
494	6-Apr	16:36:37	0.012
495	6-Apr	16:37:37	0.015
496	6-Apr	16:38:37	0.013
497	6-Apr	16:39:37	0.01
498	6-Apr	16:40:37	0.005
499	6-Apr	16:41:37	0.005
500	6-Apr	16:42:37	0.002
501	6-Apr	16:43:37	0.024
502	6-Apr	16:44:37	0.131
503	6-Apr	16:45:37	0.006
504	6-Apr	16:46:37	0.056
505	6-Apr	16:47:37	0.009
506	6-Apr	16:48:37	0.005
507	6-Apr	16:49:37	0.04
508	6-Apr	16:50:37	0.039
509	6-Apr	16:51:37	0.004
510	6-Apr	16:52:37	0.006
511	6-Apr	16:53:37	0.015
512	6-Apr	16:54:37	0.007
513	6-Apr	16:55:37	0.011
514	6-Apr	16:56:37	0.014
515	6-Apr	16:57:37	0.006
516	6-Apr	16:58:37	0.014
517	6-Apr	16:59:37	0.047
518	6-Apr	17:00:37	0.28
519	6-Apr	17:01:37	0.012
520	6-Apr	17:02:37	0.004
521	6-Apr	17:03:37	0.005
522	6-Apr	17:04:37	0.004
523	6-Apr	17:05:37	0.02
524	6-Apr	17:06:37	0.028
525	6-Apr	17:07:37	0.004
526	6-Apr	17:08:37	0.007
527	6-Apr	17:09:37	0.016
528	6-Apr	17:10:37	0.038
529	6-Apr	17:11:37	0.088
530	6-Apr	17:12:37	0.006
531	6-Apr	17:13:37	0.069
532	6-Apr	17:14:37	0.061
533	6-Apr	17:15:37	0.023
534	6-Apr	17:16:37	0.026
535	6-Apr	17:17:37	0.016
536	6-Apr	17:18:37	0.214

537	6-Apr	17:19:37	0.174
538	6-Apr	17:20:37	0.179
539	6-Apr	17:21:37	0.36
540	6-Apr	17:22:37	0.137
541	6-Apr	17:23:37	0.188
542	6-Apr	17:24:37	0.226
543	6-Apr	17:25:37	0.096
544	6-Apr	17:26:37	0.188
545	6-Apr	17:27:37	0.499
546	6-Apr	17:28:37	0.441
547	6-Apr	17:29:37	0.723
548	6-Apr	17:30:37	0.198
549	6-Apr	17:31:37	0.22
550	6-Apr	17:32:37	0.257
551	6-Apr	17:33:37	0.043
552	6-Apr	17:34:37	0.035
553	6-Apr	17:35:37	0.067
554	6-Apr	17:36:37	0.164
555	6-Apr	17:37:37	0.046
556	6-Apr	17:38:37	0.204
557	6-Apr	17:39:37	0.187
558	6-Apr	17:40:37	0.09
559	6-Apr	17:41:37	0.301
560	6-Apr	17:42:37	0.173
561	6-Apr	17:43:37	0.011
562	6-Apr	17:44:37	0.035
563	6-Apr	17:45:37	0.013
564	6-Apr	17:46:37	0.021
565	6-Apr	17:47:37	0.014
566	6-Apr	17:48:37	0.066
567	6-Apr	17:49:37	0.25
568	6-Apr	17:50:37	0.038
569	6-Apr	17:51:37	0.043
570	6-Apr	17:52:37	0.01
571	6-Apr	17:53:37	0.115
572	6-Apr	17:54:37	0.049
573	6-Apr	17:55:37	0.016
574	6-Apr	17:56:37	0.008
575	6-Apr	17:57:37	0.023
576	6-Apr	17:58:37	0.057
577	6-Apr	17:59:37	0.181
578	6-Apr	18:00:37	0.109
579	6-Apr	18:01:37	0.025
580	6-Apr	18:02:37	0.066
581	6-Apr	18:03:37	0.203
582	6-Apr	18:04:37	0.14
583	6-Apr	18:05:37	0.017
584	6-Apr	18:06:37	0.144
585	6-Apr	18:07:37	0.278
586	6-Apr	18:08:37	0.014
587	6-Apr	18:09:37	0.012
588	6-Apr	18:10:37	0.097
589	6-Apr	18:11:37	0.017
590	6-Apr	18:12:37	0.021
591	6-Apr	18:13:37	0.283

592	6-Apr	18:14:37	0.033
593	6-Apr	18:15:37	0.011
594	6-Apr	18:16:37	0.023
595	6-Apr	18:17:37	1.109
596	6-Apr	18:18:37	0.077
597	6-Apr	18:19:37	0.262
598	6-Apr	18:20:37	0.058
599	6-Apr	18:21:37	0.064
600	6-Apr	18:22:37	0.035
601	6-Apr	18:23:37	0.346
602	6-Apr	18:24:37	0.026
603	6-Apr	18:25:37	0.013
604	6-Apr	18:26:37	0.012
605	6-Apr	18:27:37	0.01
606	6-Apr	18:28:37	0.014
607	6-Apr	18:29:37	0.007
608	6-Apr	18:30:37	0.018
609	6-Apr	18:31:37	0.015
610	6-Apr	18:32:37	0.007
611	6-Apr	18:33:37	0.011
612	6-Apr	18:34:37	0.011
613	6-Apr	18:35:37	0.009
614	6-Apr	18:36:37	0.009
615	6-Apr	18:37:37	0.011
616	6-Apr	18:38:37	0.138
617	6-Apr	18:39:37	0.072
618	6-Apr	18:40:37	0.067
619	6-Apr	18:41:37	0.089
620	6-Apr	18:42:37	0.341
621	6-Apr	18:43:37	0.01
622	6-Apr	18:44:37	0.013
623	6-Apr	18:45:37	0.016
624	6-Apr	18:46:37	0.014
625	6-Apr	18:47:37	0.009
626	6-Apr	18:48:37	0.012
627	6-Apr	18:49:37	0.007
628	6-Apr	18:50:37	0.015
629	6-Apr	18:51:37	0.026
630	6-Apr	18:52:37	0.008
631	6-Apr	18:53:37	0.009
632	6-Apr	18:54:37	0.006
633	6-Apr	18:55:37	0.009
634	6-Apr	18:56:37	0.01
635	6-Apr	18:57:37	0.011
636	6-Apr	18:58:37	0.021
637	6-Apr	18:59:37	0.031
638	6-Apr	19:00:37	0.024
639	6-Apr	19:01:37	0.026
640	6-Apr	19:02:37	0.008
641	6-Apr	19:03:37	0.008
642	6-Apr	19:04:37	0.007
643	6-Apr	19:05:37	0.048
644	6-Apr	19:06:37	0.034
645	6-Apr	19:07:37	0.053
646	6-Apr	19:08:37	0.019

647	6-Apr	19:09:37	0.03
648	6-Apr	19:10:37	0.083
649	6-Apr	19:11:37	0.048
650	6-Apr	19:12:37	0.248
651	6-Apr	19:13:37	0.139
652	6-Apr	19:14:37	0.051
653	6-Apr	19:15:37	0.075
654	6-Apr	19:16:37	0.023
655	6-Apr	19:17:37	0.016
656	6-Apr	19:18:37	0.129
657	6-Apr	19:19:37	0.471
658	6-Apr	19:20:37	0.109
659	6-Apr	19:21:37	0.041
660	6-Apr	19:22:37	0.009
661	6-Apr	19:23:37	0.021
662	6-Apr	19:24:37	0.087
663	6-Apr	19:25:37	0.196
664	6-Apr	19:26:37	0.165
665	6-Apr	19:27:37	0.023

00093230300000000000}

pDR-1000 S/N: 00000  
Tag Number: 05  
Number of logged points: 525  
Start time and date: 07:30:02 08-Apr  
Elapsed time: 08:45:00  
Logging period (sec): 60  
Calibration Factor (%): 100  
Max Display Concentration: 5.534 mg/m<sup>3</sup>  
Time at maximum: 08:50:36 Apr 08  
Max STEL Concentration: 0.273 mg/m<sup>3</sup>  
Time at max STEL: 09:01:02 Apr 08  
Overall Avg Conc: 0.049 mg/m<sup>3</sup>

Logged Data:

Point	Date	Time	Avg.(mg/m <sup>3</sup> )
1	8-Apr	07:31:02	0.041
2	8-Apr	07:32:02	0.017
3	8-Apr	07:33:02	0.056
4	8-Apr	07:34:02	0.078
5	8-Apr	07:35:02	0.013
6	8-Apr	07:36:02	0.016
7	8-Apr	07:37:02	0.034
8	8-Apr	07:38:02	0.103
9	8-Apr	07:39:02	0.041
10	8-Apr	07:40:02	0.057
11	8-Apr	07:41:02	0.027
12	8-Apr	07:42:02	0.035
13	8-Apr	07:43:02	0.02
14	8-Apr	07:44:02	0.028
15	8-Apr	07:45:02	0.023
16	8-Apr	07:46:02	0.075
17	8-Apr	07:47:02	0.022
18	8-Apr	07:48:02	0.022
19	8-Apr	07:49:02	0.021
20	8-Apr	07:50:02	0.031
21	8-Apr	07:51:02	0.023
22	8-Apr	07:52:02	0.051
23	8-Apr	07:53:02	0.023
24	8-Apr	07:54:02	0.02
25	8-Apr	07:55:02	0.147
26	8-Apr	07:56:02	0.017
27	8-Apr	07:57:02	0.025
28	8-Apr	07:58:02	0.015
29	8-Apr	07:59:02	0.049
30	8-Apr	08:00:02	0.073
31	8-Apr	08:01:02	0.037
32	8-Apr	08:02:02	0.126
33	8-Apr	08:03:02	0.022
34	8-Apr	08:04:02	0.053
35	8-Apr	08:05:02	0.042
36	8-Apr	08:06:02	0.074
37	8-Apr	08:07:02	0.026
38	8-Apr	08:08:02	0.015
39	8-Apr	08:09:02	0.043
40	8-Apr	08:10:02	0.018
41	8-Apr	08:11:02	0.029

42	8-Apr	08:12:02	0.089
43	8-Apr	08:13:02	0.114
44	8-Apr	08:14:02	0.044
45	8-Apr	08:15:02	0.016
46	8-Apr	08:16:02	0.303
47	8-Apr	08:17:02	0.1
48	8-Apr	08:18:02	0.014
49	8-Apr	08:19:02	0.237
50	8-Apr	08:20:02	0.204
51	8-Apr	08:21:02	0.285
52	8-Apr	08:22:02	0.072
53	8-Apr	08:23:02	0.044
54	8-Apr	08:24:02	0.052
55	8-Apr	08:25:02	0.058
56	8-Apr	08:26:02	0.542
57	8-Apr	08:27:02	0.061
58	8-Apr	08:28:02	0.017
59	8-Apr	08:29:02	0.059
60	8-Apr	08:30:02	0.063
61	8-Apr	08:31:02	0.035
62	8-Apr	08:32:02	0.939
63	8-Apr	08:33:02	0.758
64	8-Apr	08:34:02	0.183
65	8-Apr	08:35:02	0.071
66	8-Apr	08:36:02	0.287
67	8-Apr	08:37:02	0.074
68	8-Apr	08:38:02	0.062
69	8-Apr	08:39:02	0.04
70	8-Apr	08:40:02	0.044
71	8-Apr	08:41:02	0.018
72	8-Apr	08:42:02	0.02
73	8-Apr	08:43:02	0.021
74	8-Apr	08:44:02	0.015
75	8-Apr	08:45:02	0.019
76	8-Apr	08:46:02	0.016
77	8-Apr	08:47:02	0.021
78	8-Apr	08:48:02	0.17
79	8-Apr	08:49:02	0.027
80	8-Apr	08:50:02	0.021
81	8-Apr	08:51:02	1.252
82	8-Apr	08:52:02	0.152
83	8-Apr	08:53:02	0.121
84	8-Apr	08:54:02	0.443
85	8-Apr	08:55:02	0.274
86	8-Apr	08:56:02	0.682
87	8-Apr	08:57:02	0.372
88	8-Apr	08:58:02	0.319
89	8-Apr	08:59:02	0.047
90	8-Apr	09:00:02	0.149
91	8-Apr	09:01:02	0.043
92	8-Apr	09:02:02	0.026
93	8-Apr	09:03:02	0.02
94	8-Apr	09:04:02	0.038
95	8-Apr	09:05:02	0.029
96	8-Apr	09:06:02	0.021

97	8-Apr 09:07:02	0.019
98	8-Apr 09:08:02	0.027
99	8-Apr 09:09:02	0.043
100	8-Apr 09:10:02	0.036
101	8-Apr 09:11:02	0.024
102	8-Apr 09:12:02	0.022
103	8-Apr 09:13:02	0.253
104	8-Apr 09:14:02	0.071
105	8-Apr 09:15:02	0.028
106	8-Apr 09:16:02	0.019
107	8-Apr 09:17:02	0.038
108	8-Apr 09:18:02	0.036
109	8-Apr 09:19:02	0.275
110	8-Apr 09:20:02	0.16
111	8-Apr 09:21:02	0.614
112	8-Apr 09:22:02	0.245
113	8-Apr 09:23:02	0.111
114	8-Apr 09:24:02	0.051
115	8-Apr 09:25:02	0.04
116	8-Apr 09:26:02	0.322
117	8-Apr 09:27:02	0.071
118	8-Apr 09:28:02	0.159
119	8-Apr 09:29:02	0.039
120	8-Apr 09:30:02	0.086
121	8-Apr 09:31:02	0.144
122	8-Apr 09:32:02	0.055
123	8-Apr 09:33:02	0.033
124	8-Apr 09:34:02	0.572
125	8-Apr 09:35:02	0.067
126	8-Apr 09:36:02	0.079
127	8-Apr 09:37:02	0.028
128	8-Apr 09:38:02	0.017
129	8-Apr 09:39:02	0.014
130	8-Apr 09:40:02	0.016
131	8-Apr 09:41:02	0.015
132	8-Apr 09:42:02	0.014
133	8-Apr 09:43:02	0.015
134	8-Apr 09:44:02	0.017
135	8-Apr 09:45:02	0.013
136	8-Apr 09:46:02	0.014
137	8-Apr 09:47:02	0.027
138	8-Apr 09:48:02	0.038
139	8-Apr 09:49:02	0.013
140	8-Apr 09:50:02	0.014
141	8-Apr 09:51:02	0.023
142	8-Apr 09:52:02	0.021
143	8-Apr 09:53:02	0.015
144	8-Apr 09:54:02	0.026
145	8-Apr 09:55:02	0.02
146	8-Apr 09:56:02	0.071
147	8-Apr 09:57:02	0.042
148	8-Apr 09:58:02	0.018
149	8-Apr 09:59:02	0.016
150	8-Apr 10:00:02	0.015
151	8-Apr 10:01:02	0.02

152	8-Apr	10:02:02	0.032
153	8-Apr	10:03:02	0.021
154	8-Apr	10:04:02	0.025
155	8-Apr	10:05:02	0.018
156	8-Apr	10:06:02	0.015
157	8-Apr	10:07:02	0.015
158	8-Apr	10:08:02	0.014
159	8-Apr	10:09:02	0.016
160	8-Apr	10:10:02	0.014
161	8-Apr	10:11:02	0.037
162	8-Apr	10:12:02	0.024
163	8-Apr	10:13:02	0.017
164	8-Apr	10:14:02	0.018
165	8-Apr	10:15:02	0.04
166	8-Apr	10:16:02	0.016
167	8-Apr	10:17:02	0.015
168	8-Apr	10:18:02	0.013
169	8-Apr	10:19:02	0.017
170	8-Apr	10:20:02	0.016
171	8-Apr	10:21:02	0.017
172	8-Apr	10:22:02	0.015
173	8-Apr	10:23:02	0.12
174	8-Apr	10:24:02	0.031
175	8-Apr	10:25:02	0.025
176	8-Apr	10:26:02	0.018
177	8-Apr	10:27:02	0.017
178	8-Apr	10:28:02	0.019
179	8-Apr	10:29:02	0.017
180	8-Apr	10:30:02	0.019
181	8-Apr	10:31:02	0.018
182	8-Apr	10:32:02	0.023
183	8-Apr	10:33:02	0.027
184	8-Apr	10:34:02	0.048
185	8-Apr	10:35:02	0.016
186	8-Apr	10:36:02	0.023
187	8-Apr	10:37:02	0.017
188	8-Apr	10:38:02	0.017
189	8-Apr	10:39:02	0.013
190	8-Apr	10:40:02	0.015
191	8-Apr	10:41:02	0.019
192	8-Apr	10:42:02	0.016
193	8-Apr	10:43:02	0.016
194	8-Apr	10:44:02	0.017
195	8-Apr	10:45:02	0.019
196	8-Apr	10:46:02	0.018
197	8-Apr	10:47:02	0.017
198	8-Apr	10:48:02	0.019
199	8-Apr	10:49:02	0.023
200	8-Apr	10:50:02	0.018
201	8-Apr	10:51:02	0.014
202	8-Apr	10:52:02	0.018
203	8-Apr	10:53:02	0.031
204	8-Apr	10:54:02	0.022
205	8-Apr	10:55:02	0.024
206	8-Apr	10:56:02	0.02

207	8-Apr	10:57:02	0.024
208	8-Apr	10:58:02	0.018
209	8-Apr	10:59:02	0.016
210	8-Apr	11:00:02	0.016
211	8-Apr	11:01:02	0.016
212	8-Apr	11:02:02	0.018
213	8-Apr	11:03:02	0.014
214	8-Apr	11:04:02	0.014
215	8-Apr	11:05:02	0.021
216	8-Apr	11:06:02	0.05
217	8-Apr	11:07:02	0.021
218	8-Apr	11:08:02	0.015
219	8-Apr	11:09:02	0.017
220	8-Apr	11:10:02	0.016
221	8-Apr	11:11:02	0.013
222	8-Apr	11:12:02	0.015
223	8-Apr	11:13:02	0.013
224	8-Apr	11:14:02	0.163
225	8-Apr	11:15:02	0.065
226	8-Apr	11:16:02	0.018
227	8-Apr	11:17:02	0.036
228	8-Apr	11:18:02	0.048
229	8-Apr	11:19:02	0.053
230	8-Apr	11:20:02	0.021
231	8-Apr	11:21:02	0.018
232	8-Apr	11:22:02	0.013
233	8-Apr	11:23:02	0.013
234	8-Apr	11:24:02	0.015
235	8-Apr	11:25:02	0.014
236	8-Apr	11:26:02	0.015
237	8-Apr	11:27:02	0.013
238	8-Apr	11:28:02	0.015
239	8-Apr	11:29:02	0.015
240	8-Apr	11:30:02	0.012
241	8-Apr	11:31:02	0.019
242	8-Apr	11:32:02	0.017
243	8-Apr	11:33:02	0.014
244	8-Apr	11:34:02	0.013
245	8-Apr	11:35:02	0.014
246	8-Apr	11:36:02	0.016
247	8-Apr	11:37:02	0.015
248	8-Apr	11:38:02	0.014
249	8-Apr	11:39:02	0.016
250	8-Apr	11:40:02	0.012
251	8-Apr	11:41:02	0.017
252	8-Apr	11:42:02	0.015
253	8-Apr	11:43:02	0.014
254	8-Apr	11:44:02	0.015
255	8-Apr	11:45:02	0.018
256	8-Apr	11:46:02	0.019
257	8-Apr	11:47:02	0.014
258	8-Apr	11:48:02	0.013
259	8-Apr	11:49:02	0.024
260	8-Apr	11:50:02	0.018
261	8-Apr	11:51:02	0.014

262	8-Apr	11:52:02	0.015
263	8-Apr	11:53:02	0.024
264	8-Apr	11:54:02	0.015
265	8-Apr	11:55:02	0.016
266	8-Apr	11:56:02	0.016
267	8-Apr	11:57:02	0.016
268	8-Apr	11:58:02	0.016
269	8-Apr	11:59:02	0.017
270	8-Apr	12:00:02	0.015
271	8-Apr	12:01:02	0.014
272	8-Apr	12:02:02	0.014
273	8-Apr	12:03:02	0.014
274	8-Apr	12:04:02	0.016
275	8-Apr	12:05:02	0.018
276	8-Apr	12:06:02	0.018
277	8-Apr	12:07:02	0.058
278	8-Apr	12:08:02	0.021
279	8-Apr	12:09:02	0.014
280	8-Apr	12:10:02	0.02
281	8-Apr	12:11:02	0.02
282	8-Apr	12:12:02	0.023
283	8-Apr	12:13:02	0.015
284	8-Apr	12:14:02	0.016
285	8-Apr	12:15:02	0.016
286	8-Apr	12:16:02	0.017
287	8-Apr	12:17:02	0.027
288	8-Apr	12:18:02	0.019
289	8-Apr	12:19:02	0.018
290	8-Apr	12:20:02	0.027
291	8-Apr	12:21:02	0.021
292	8-Apr	12:22:02	0.043
293	8-Apr	12:23:02	0.018
294	8-Apr	12:24:02	0.017
295	8-Apr	12:25:02	0.014
296	8-Apr	12:26:02	0.014
297	8-Apr	12:27:02	0.065
298	8-Apr	12:28:02	0.012
299	8-Apr	12:29:02	0.638
300	8-Apr	12:30:02	0.236
301	8-Apr	12:31:02	0.165
302	8-Apr	12:32:02	0.048
303	8-Apr	12:33:02	0.039
304	8-Apr	12:34:02	0.042
305	8-Apr	12:35:02	0.02
306	8-Apr	12:36:02	0.025
307	8-Apr	12:37:02	0.048
308	8-Apr	12:38:02	0.017
309	8-Apr	12:39:02	0.019
310	8-Apr	12:40:02	0.025
311	8-Apr	12:41:02	0.034
312	8-Apr	12:42:02	0.088
313	8-Apr	12:43:02	0.019
314	8-Apr	12:44:02	0.045
315	8-Apr	12:45:02	0.037
316	8-Apr	12:46:02	0.026

317	8-Apr	12:47:02	0.156
318	8-Apr	12:48:02	0.027
319	8-Apr	12:49:02	0.019
320	8-Apr	12:50:02	0.149
321	8-Apr	12:51:02	0.079
322	8-Apr	12:52:02	0.02
323	8-Apr	12:53:02	0.015
324	8-Apr	12:54:02	0.03
325	8-Apr	12:55:02	0.032
326	8-Apr	12:56:02	0.012
327	8-Apr	12:57:02	0.016
328	8-Apr	12:58:02	0.021
329	8-Apr	12:59:02	0.013
330	8-Apr	13:00:02	0.02
331	8-Apr	13:01:02	0.013
332	8-Apr	13:02:02	0.021
333	8-Apr	13:03:02	0.017
334	8-Apr	13:04:02	0.014
335	8-Apr	13:05:02	0.013
336	8-Apr	13:06:02	0.032
337	8-Apr	13:07:02	0.025
338	8-Apr	13:08:02	0.015
339	8-Apr	13:09:02	0.019
340	8-Apr	13:10:02	0.111
341	8-Apr	13:11:02	0.038
342	8-Apr	13:12:02	0.062
343	8-Apr	13:13:02	0.032
344	8-Apr	13:14:02	0.029
345	8-Apr	13:15:02	0.042
346	8-Apr	13:16:02	0.02
347	8-Apr	13:17:02	0.027
348	8-Apr	13:18:02	0.019
349	8-Apr	13:19:02	0.017
350	8-Apr	13:20:02	0.021
351	8-Apr	13:21:02	0.018
352	8-Apr	13:22:02	0.011
353	8-Apr	13:23:02	0.014
354	8-Apr	13:24:02	0.015
355	8-Apr	13:25:02	0.01
356	8-Apr	13:26:02	0.011
357	8-Apr	13:27:02	0.015
358	8-Apr	13:28:02	0.012
359	8-Apr	13:29:02	0.011
360	8-Apr	13:30:02	0.01
361	8-Apr	13:31:02	0.016
362	8-Apr	13:32:02	0.016
363	8-Apr	13:33:02	0.014
364	8-Apr	13:34:02	0.007
365	8-Apr	13:35:02	0.014
366	8-Apr	13:36:02	0.009
367	8-Apr	13:37:02	0.01
368	8-Apr	13:38:02	0.009
369	8-Apr	13:39:02	0.009
370	8-Apr	13:40:02	0.01
371	8-Apr	13:41:02	0.012

372	8-Apr	13:42:02	0.012
373	8-Apr	13:43:02	0.01
374	8-Apr	13:44:02	0.011
375	8-Apr	13:45:02	0.012
376	8-Apr	13:46:02	0.01
377	8-Apr	13:47:02	0.011
378	8-Apr	13:48:02	0.015
379	8-Apr	13:49:02	0.03
380	8-Apr	13:50:02	0.012
381	8-Apr	13:51:02	0.015
382	8-Apr	13:52:02	0.018
383	8-Apr	13:53:02	0.013
384	8-Apr	13:54:02	0.011
385	8-Apr	13:55:02	0.016
386	8-Apr	13:56:02	0.013
387	8-Apr	13:57:02	0.021
388	8-Apr	13:58:02	0.023
389	8-Apr	13:59:02	0.031
390	8-Apr	14:00:02	0.041
391	8-Apr	14:01:02	0.027
392	8-Apr	14:02:02	0.038
393	8-Apr	14:03:02	0.037
394	8-Apr	14:04:02	0.041
395	8-Apr	14:05:02	0.039
396	8-Apr	14:06:02	0.036
397	8-Apr	14:07:02	0.031
398	8-Apr	14:08:02	0.032
399	8-Apr	14:09:02	0.029
400	8-Apr	14:10:02	0.027
401	8-Apr	14:11:02	0.015
402	8-Apr	14:12:02	0.037
403	8-Apr	14:13:02	0.013
404	8-Apr	14:14:02	0.015
405	8-Apr	14:15:02	0.01
406	8-Apr	14:16:02	0.016
407	8-Apr	14:17:02	0.04
408	8-Apr	14:18:02	0.041
409	8-Apr	14:19:02	0.022
410	8-Apr	14:20:02	0.094
411	8-Apr	14:21:02	0.026
412	8-Apr	14:22:02	0.071
413	8-Apr	14:23:02	0.043
414	8-Apr	14:24:02	0.043
415	8-Apr	14:25:02	0.026
416	8-Apr	14:26:02	0.071
417	8-Apr	14:27:02	0.076
418	8-Apr	14:28:02	0.084
419	8-Apr	14:29:02	0.035
420	8-Apr	14:30:02	0.061
421	8-Apr	14:31:02	0.064
422	8-Apr	14:32:02	0.026
423	8-Apr	14:33:02	0.031
424	8-Apr	14:34:02	0.036
425	8-Apr	14:35:02	0.031
426	8-Apr	14:36:02	0.019

427	8-Apr	14:37:02	0.022
428	8-Apr	14:38:02	0.019
429	8-Apr	14:39:02	0.021
430	8-Apr	14:40:02	0.017
431	8-Apr	14:41:02	0.015
432	8-Apr	14:42:02	0.019
433	8-Apr	14:43:02	0.014
434	8-Apr	14:44:02	0.015
435	8-Apr	14:45:02	0.018
436	8-Apr	14:46:02	0.081
437	8-Apr	14:47:02	0.055
438	8-Apr	14:48:02	0.027
439	8-Apr	14:49:02	0.025
440	8-Apr	14:50:02	0.022
441	8-Apr	14:51:02	0.082
442	8-Apr	14:52:02	0.055
443	8-Apr	14:53:02	0.023
444	8-Apr	14:54:02	0.017
445	8-Apr	14:55:02	0.018
446	8-Apr	14:56:02	0.019
447	8-Apr	14:57:02	0.045
448	8-Apr	14:58:02	0.02
449	8-Apr	14:59:02	0.016
450	8-Apr	15:00:02	0.016
451	8-Apr	15:01:02	0.016
452	8-Apr	15:02:02	0.017
453	8-Apr	15:03:02	0.014
454	8-Apr	15:04:02	0.017
455	8-Apr	15:05:02	0.015
456	8-Apr	15:06:02	0.021
457	8-Apr	15:07:02	0.029
458	8-Apr	15:08:02	0.038
459	8-Apr	15:09:02	0.024
460	8-Apr	15:10:02	0.018
461	8-Apr	15:11:02	0.02
462	8-Apr	15:12:02	0.016
463	8-Apr	15:13:02	0.016
464	8-Apr	15:14:02	0.017
465	8-Apr	15:15:02	0.014
466	8-Apr	15:16:02	0.015
467	8-Apr	15:17:02	0.014
468	8-Apr	15:18:02	0.017
469	8-Apr	15:19:02	0.015
470	8-Apr	15:20:02	0.016
471	8-Apr	15:21:02	0.015
472	8-Apr	15:22:02	0.016
473	8-Apr	15:23:02	0.024
474	8-Apr	15:24:02	0.015
475	8-Apr	15:25:02	0.023
476	8-Apr	15:26:02	0.022
477	8-Apr	15:27:02	0.019
478	8-Apr	15:28:02	0.022
479	8-Apr	15:29:02	0.019
480	8-Apr	15:30:02	0.022
481	8-Apr	15:31:02	0.024

482	8-Apr	15:32:02	0.084
483	8-Apr	15:33:02	0.028
484	8-Apr	15:34:02	0.034
485	8-Apr	15:35:02	0.066
486	8-Apr	15:36:02	0.044
487	8-Apr	15:37:02	0.024
488	8-Apr	15:38:02	0.035
489	8-Apr	15:39:02	0.033
490	8-Apr	15:40:02	0.022
491	8-Apr	15:41:02	0.029
492	8-Apr	15:42:02	0.053
493	8-Apr	15:43:02	0.037
494	8-Apr	15:44:02	0.023
495	8-Apr	15:45:02	0.024
496	8-Apr	15:46:02	0.069
497	8-Apr	15:47:02	0.031
498	8-Apr	15:48:02	0.022
499	8-Apr	15:49:02	0.018
500	8-Apr	15:50:02	0.02
501	8-Apr	15:51:02	0.025
502	8-Apr	15:52:02	0.08
503	8-Apr	15:53:02	0.029
504	8-Apr	15:54:02	0.027
505	8-Apr	15:55:02	0.031
506	8-Apr	15:56:02	0.025
507	8-Apr	15:57:02	0.026
508	8-Apr	15:58:02	0.036
509	8-Apr	15:59:02	0.034
510	8-Apr	16:00:02	0.028
511	8-Apr	16:01:02	0.028
512	8-Apr	16:02:02	0.027
513	8-Apr	16:03:02	0.025
514	8-Apr	16:04:02	0.03
515	8-Apr	16:05:02	0.026
516	8-Apr	16:06:02	0.022
517	8-Apr	16:07:02	0.026
518	8-Apr	16:08:02	0.023
519	8-Apr	16:09:02	0.045
520	8-Apr	16:10:02	0.024
521	8-Apr	16:11:02	0.039
522	8-Apr	16:12:02	0.026
523	8-Apr	16:13:02	0.022
524	8-Apr	16:14:02	0.023
525	8-Apr	16:15:02	0.02

0009323030000000000}

**Appendix G**

Photo Documentation



Initial site conditions. Note plastic sheeting being placed prior to lead based paint removal.



Crew preparing Level C PPE for lead based paint removal. Decontamination station over plastic sheeting.



Typical condition of existing paint.



Typical condition after lead based paint removal and application of primer.

# ARCADIS



Note repainted cross brace and joints (left side) and initiation of excavation.



Typical conditions after excavation (2 ft below ground surface). Groundwater infiltrating excavation.



Verifying that the excavation is 2 ft below ground surface as required.



Installation of filter fabric above excavation floor to support the stone to be used as backfill.



Placement and spreading of #57 type stone above filter fabric.



Placing backfill stone and spreading/compacting with excavator bucket.



Excavation completely backfilled; subbase of the site has been regraded prior to restoration.



Placing additional topsoil over graded subbase to support vegetation.



Placement of erosion matting over topsoil .



Site conditions one month after restoration and reseeding, vegetative stand established.



Placement of erosion matting on top of topsoil.



Site conditions one month after restoration and reseeding, vegetative stand established.

**Appendix H**

Post Excavation Confirmation Soil  
Sampling Data

April 07, 2010

Client: ARCADIS - NORTH CAROLINA  
801 Corporate Center Drive, Suite 300  
Raleigh, NC 27607

Work Order: WTD0093  
Project Name: US Coast Guard  
Project Number: DE261.01.04 Townsend, DE

Attn: Mr. Bob White

Date Received: 04/06/10

An executed copy of the chain of custody is also included as an addendum to this report.

If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-800-833-7036

SAMPLE IDENTIFICATION	LAB NUMBER	COLLECTION DATE AND TIME
RIXS001 1-1.5	WTD0093-01	04/05/10 16:00
RIXS002 1-1.5	WTD0093-02	04/05/10 16:03
RIXS003 1-1.5	WTD0093-03	04/05/10 16:06
RIXS004 1-1.5	WTD0093-04	04/05/10 16:09
RIXS005 1-1.5	WTD0093-05	04/05/10 16:12
RIXS006 1-1.5	WTD0093-06	04/05/10 16:15
RIXS007 1-1.5	WTD0093-07	04/05/10 16:18
RIXS008 1-1.5	WTD0093-08	04/05/10 16:21
FD 004 (Field Duplicate)	WTD0093-09	04/05/10 16:24
RIXB009 2-2.5	WTD0093-10	04/05/10 16:27
RIXB010 2-2.5	WTD0093-11	04/05/10 16:30
RIXB011 2-2.5	WTD0093-12	04/05/10 16:33
RIXB012 2-2.5	WTD0093-13	04/05/10 16:36
FD 009 (Field Duplicate)	WTD0093-14	04/05/10 16:39
EB (04052010) Equipment Blank	WTD0093-15	04/05/10 16:42

Samples were received into laboratory at a temperature of 15 °C.

The reported results were obtained in compliance with the 2003 NELAC standards unless otherwise noted.

The Chain(s) of Custody, 2 pages, are included and are an integral part of this report.

*Unless subcontracted, volatiles analyses (including VOC, PVO, GRO, BTEX, and TPH gasoline) performed by TestAmerica Watertown at 1101 Industrial Drive, Units 9&10. All other analyses performed at the address shown in the heading of this report.*

Approved By:



**TestAmerica Watertown**  
Sandie Fredrick  
Project Manager

ARCADIS - NORTH CAROLINA  
801 Corporate Center Drive, Suite 300  
Raleigh, NC 27607  
Mr. Bob White

Work Order: WTD0093  
Project: US Coast Guard  
Project Number: DE261.01.04 Townsend, DE

Received: 04/06/10  
Reported: 04/07/10 12:26

## ANALYTICAL REPORT

Analyte	Sample Result	Data Qualifiers	Units	MRL	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
<b>Sample ID: WTD0093-01 (RIXS001 1-1.5 - Solid/Soil)</b>						<b>Sampled: 04/05/10 16:00</b>			
General Chemistry Parameters									
% Solids	91		%	NA	1	04/06/10 12:41	pam	10D0113	SM 2540G
Metals									
Lead	3.6		mg/kg dry	1.3	1	04/07/10 09:37	gaf	10D0131	SW 6010B
<b>Sample ID: WTD0093-02 (RIXS002 1-1.5 - Solid/Soil)</b>						<b>Sampled: 04/05/10 16:03</b>			
General Chemistry Parameters									
% Solids	89		%	NA	1	04/06/10 12:41	pam	10D0113	SM 2540G
Metals									
Lead	12		mg/kg dry	1.3	1.0	04/07/10 09:48	gaf	10D0131	SW 6010B
<b>Sample ID: WTD0093-03 (RIXS003 1-1.5 - Solid/Soil)</b>						<b>Sampled: 04/05/10 16:06</b>			
General Chemistry Parameters									
% Solids	88		%	NA	1	04/06/10 12:41	pam	10D0113	SM 2540G
Metals									
Lead	24		mg/kg dry	1.3	1.0	04/07/10 09:52	gaf	10D0131	SW 6010B
<b>Sample ID: WTD0093-04 (RIXS004 1-1.5 - Solid/Soil)</b>						<b>Sampled: 04/05/10 16:09</b>			
General Chemistry Parameters									
% Solids	91		%	NA	1	04/06/10 12:41	pam	10D0113	SM 2540G
Metals									
Lead	5.8		mg/kg dry	1.3	1.0	04/07/10 09:55	gaf	10D0131	SW 6010B
<b>Sample ID: WTD0093-05 (RIXS005 1-1.5 - Solid/Soil)</b>						<b>Sampled: 04/05/10 16:12</b>			
General Chemistry Parameters									
% Solids	89		%	NA	1	04/06/10 12:41	pam	10D0113	SM 2540G
Metals									
Lead	2.4		mg/kg dry	1.3	0.9	04/07/10 09:59	gaf	10D0131	SW 6010B
<b>Sample ID: WTD0093-06 (RIXS006 1-1.5 - Solid/Soil)</b>						<b>Sampled: 04/05/10 16:15</b>			
General Chemistry Parameters									
% Solids	88		%	NA	1	04/06/10 12:41	pam	10D0113	SM 2540G
Metals									
Lead	2.2		mg/kg dry	1.3	1.0	04/07/10 10:02	gaf	10D0131	SW 6010B
<b>Sample ID: WTD0093-07 (RIXS007 1-1.5 - Solid/Soil)</b>						<b>Sampled: 04/05/10 16:18</b>			
General Chemistry Parameters									
% Solids	83		%	NA	1	04/06/10 12:41	pam	10D0113	SM 2540G
Metals									
Lead	16		mg/kg dry	1.5	1.0	04/07/10 10:16	gaf	10D0131	SW 6010B
<b>Sample ID: WTD0093-08 (RIXS008 1-1.5 - Solid/Soil)</b>						<b>Sampled: 04/05/10 16:21</b>			
General Chemistry Parameters									
% Solids	88		%	NA	1	04/06/10 12:41	pam	10D0113	SM 2540G
Metals									
Lead	8.4		mg/kg dry	1.3	1.0	04/07/10 10:20	gaf	10D0131	SW 6010B
<b>Sample ID: WTD0093-09 (FD 004 (Field Duplicate) - Solid/Soil)</b>						<b>Sampled: 04/05/10 16:24</b>			
General Chemistry Parameters									
% Solids	90		%	NA	1	04/06/10 12:41	pam	10D0113	SM 2540G
Metals									

ARCADIS - NORTH CAROLINA  
 801 Corporate Center Drive, Suite 300  
 Raleigh, NC 27607  
 Mr. Bob White

Work Order: WTD0093  
 Project: US Coast Guard  
 Project Number: DE261.01.04 Townsend, DE

Received: 04/06/10  
 Reported: 04/07/10 12:26

Analyte	Sample Result	Data Qualifiers	Units	MRL	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
<b>Sample ID: WTD0093-09 (FD 004 (Field Duplicate) - Solid/Soil) - cont.</b>						<b>Sampled: 04/05/10 16:24</b>			
Metals - cont.									
Lead	7.6		mg/kg dry	1.3	1.0	04/07/10 10:23	gaf	10D0131	SW 6010B
<b>Sample ID: WTD0093-10 (RIXB009 2-2.5 - Solid/Soil)</b>						<b>Sampled: 04/05/10 16:27</b>			
General Chemistry Parameters									
% Solids	88		%	NA	1	04/06/10 12:41	pam	10D0113	SM 2540G
Metals									
Lead	29		mg/kg dry	1.4	1.0	04/07/10 10:27	gaf	10D0131	SW 6010B
<b>Sample ID: WTD0093-11 (RIXB010 2-2.5 - Solid/Soil)</b>						<b>Sampled: 04/05/10 16:30</b>			
General Chemistry Parameters									
% Solids	94		%	NA	1	04/06/10 12:41	pam	10D0113	SM 2540G
Metals									
Lead	2.8		mg/kg dry	1.3	1.0	04/07/10 10:30	gaf	10D0131	SW 6010B
<b>Sample ID: WTD0093-12 (RIXB011 2-2.5 - Solid/Soil)</b>						<b>Sampled: 04/05/10 16:33</b>			
General Chemistry Parameters									
% Solids	93		%	NA	1	04/06/10 12:41	pam	10D0113	SM 2540G
Metals									
Lead	2.2		mg/kg dry	1.3	1.0	04/07/10 10:34	gaf	10D0131	SW 6010B
<b>Sample ID: WTD0093-13 (RIXB012 2-2.5 - Solid/Soil)</b>						<b>Sampled: 04/05/10 16:36</b>			
General Chemistry Parameters									
% Solids	93		%	NA	1	04/06/10 12:41	pam	10D0113	SM 2540G
Metals									
Lead	3.1		mg/kg dry	1.3	1	04/07/10 10:38	gaf	10D0131	SW 6010B
<b>Sample ID: WTD0093-14 (FD 009 (Field Duplicate) - Solid/Soil)</b>						<b>Sampled: 04/05/10 16:39</b>			
General Chemistry Parameters									
% Solids	91		%	NA	1	04/06/10 12:41	pam	10D0113	SM 2540G
Metals									
Lead	4.8		mg/kg dry	1.3	1.0	04/07/10 10:41	gaf	10D0131	SW 6010B

ARCADIS - NORTH CAROLINA  
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Mr. Bob White

Work Order: WTD0093  
Project: US Coast Guard  
Project Number: DE261.01.04 Townsend, DE

Received: 04/06/10  
Reported: 04/07/10 12:26

Analyte	Sample Result	Data Qualifiers	Units	MDL	MRL	Dilution Factor	Date Analyzed	Analyst	Seq/ Batch	Method
<b>Sample ID: WTD0093-15 (EB (04052010) Equipment Blank - DI Water)</b>							<b>Sampled: 04/05/10 16:42</b>			
Metals										
Lead	<0.016		mg/L	0.016	0.055	1	04/07/10 11:10	gaf	10D0132	SW 6010B

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Work Order: WTD0093  
 Project: US Coast Guard  
 Project Number: DE261.01.04 Townsend, DE

Received: 04/06/10  
 Reported: 04/07/10 12:26

### LABORATORY BLANK QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD RPD	RPD Limit	Q
<b>Metals</b>														
Lead	10D0131			mg/kg wet	N/A	1.2	<1.2							
Lead	10D0132			mg/L	0.016	0.055	<0.016							

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 Mr. Bob White

Work Order: WTD0093  
 Project: US Coast Guard  
 Project Number: DE261.01.04 Townsend, DE

Received: 04/06/10  
 Reported: 04/07/10 12:26

### CCV QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD RPD	RPD Limit	Q
<b>Metals</b>														
Lead	T000650		5.0	mg/L	N/A	N/A	5.21		104		90-110			
Lead	T000650		5.0	mg/L	N/A	N/A	5.16		103		90-110			
Lead	T000650		5.0	mg/L	N/A	N/A	5.09		102		90-110			

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 Raleigh, NC 27607  
 Mr. Bob White

Work Order: WTD0093  
 Project: US Coast Guard  
 Project Number: DE261.01.04 Townsend, DE

Received: 04/06/10  
 Reported: 04/07/10 12:26

### LABORATORY DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	% REC	Dup %REC	% REC Limits	RPD RPD	RPD Limit	Q
<b>General Chemistry Parameters</b>													
<b>QC Source Sample: WTD0093-14</b>													
% Solids	10D0113	91.4		%	N/A	N/A	90.8				1	20	

ARCADIS - NORTH CAROLINA  
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 Raleigh, NC 27607  
 Mr. Bob White

Work Order: WTD0093  
 Project: US Coast Guard  
 Project Number: DE261.01.04 Townsend, DE

Received: 04/06/10  
 Reported: 04/07/10 12:26

### LCS/LCS DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD RPD	RPD Limit	Q
<b>Metals</b>														
Lead	10D0131		100	mg/kg wet	N/A	1.2	96.9		97		85-115			
Lead	10D0132		2.0	mg/L	0.016	0.055	2.02		101		85-115			

ARCADIS - NORTH CAROLINA  
 801 Corporate Center Drive, Suite 300  
 Raleigh, NC 27607  
 Mr. Bob White

Work Order: WTD0093  
 Project: US Coast Guard  
 Project Number: DE261.01.04 Townsend, DE

Received: 04/06/10  
 Reported: 04/07/10 12:26

### MATRIX SPIKE/MATRIX SPIKE DUPLICATE QC DATA

Analyte	Seq/ Batch	Source Result	Spike Level	Units	MDL	MRL	Result	Dup Result	% REC	Dup %REC	% REC Limits	RPD RPD	RPD Limit	Q
<b>Metals</b>														
<b>QC Source Sample: WTD0093-01</b>														
Lead	10D0131	3.63	110	mg/kg dry	N/A	1.3	104	104	92	92	75-125	1	20	
<b>QC Source Sample: WTD0093-15</b>														
Lead	10D0132	<0.016	2.0	mg/L	0.016	0.055	2.02	1.99	101	99	75-125	2	20	

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ARCADIS - NORTH CAROLINA  
801 Corporate Center Drive, Suite 300  
Raleigh, NC 27607  
Mr. Bob White

Work Order: WTD0093  
Project: US Coast Guard  
Project Number: DE261.01.04 Townsend, DE

Received: 04/06/10  
Reported: 04/07/10 12:26

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## DATA QUALIFIERS AND DEFINITIONS

### ADDITIONAL COMMENTS

Results are reported on a wet weight basis unless otherwise noted.



Fed-ex tracking: 8709 8563 2780

WTDO093

CHAIN-OF-CUSTODY RECORD Page 1 of 1

Project Number/Name DE 261,01,04  
 Project Location Towson, DE  
 Laboratory Test America Watertown  
 Project Manager \_\_\_\_\_  
 Sampler(s)/Affiliation B.W.

04/05/2010

ANALYSIS / METHOD / SIZE  
 (col 10)

Sample ID/Location	Matrix	Date/Time Sampled	Lab ID	Remarks	Total
-01	RIXS001(1-1.5)	S 1600		X	1
-02	RIXS002(1-1.5)	S 1603		X	1
-03	RIXS003(1-1.5)	S 1606		X	1
-04	RIXS004(1-1.5)	S 1609		X	1
-05	RIXS005(1-1.5)	S 1612		X	1
-06	RIXS006(1-1.5)	S 1615		X	1
-07	RIXS007(1-1.5)	S 1618		X	1
-08	RIXS008(1-1.5)	S 1621		X	1
-09	FD004	S 1624		X Field duplicate	1
-10	RIXB009(2-2.5)	S 1627		X	1
-11	RIXB010(2-2.5)	S 1630		X	1
-12	RIXB011(2-2.5)	S 1633		X	1
-13	RIXB012(2-2.5)	S 1636		X	1
-14	FD009	S 1639		X Field Duplicate	1
-15	EB(04052010)	L 1642		X Equipment Blank	1
Total No. of Bottles/Containers					15

Sample Matrix: L = Liquid; S = Solid; A = Air

Relinquished by: Robert White Organization: \_\_\_\_\_ Date: 07/05/10 Time: 1800 Seal Intact? Yes No N/A  
 Received by: Jeffrey Organization: \_\_\_\_\_ Date: 4/6/10 Time: 1112 Seal Intact? Yes No N/A  
 Relinquished by: \_\_\_\_\_ Organization: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Seal Intact? Yes No N/A  
 Received by: \_\_\_\_\_ Organization: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Seal Intact? Yes No N/A

Special Instructions/Remarks: \_\_\_\_\_

Delivery Method:  In Person  Common Carrier Fed-ex  Lab Courier  Other

Signature: R 4/6/10

WTDO093

Cooler Receipt Log

Work Order(s): \_\_\_\_\_ Client Name/Project: Arcahis # of Coolers: 1

- 1. How did samples arrive?  Fed-Ex  UPS  TestAmerica  Client  Dunham  Speedy  \_\_\_\_\_
- 2. What was the condition of custody seals?  Intact  Broken  Not present

Date/time cooler was opened: 4/6/10 By: M. Lact

- 3. Temperature °C 15 Received on ice? ...  Yes  No
- 4. Does this Project require RUSH turn around?  Yes  No
- 5. Are there any short hold time tests?  Yes  No

within 1 hr of or  past expiration of hold-time? Provide details in space at bottom of form

48 hours or less	7 days
Coliform Bacteria..... 8/30 hours	Aqueous Organic Prep
Chlorine/Hex Cr..... 24 hours	TS
BOD	TDS
Nitrate ..... (DW is 14 days)	TSS
Nitrite	Sulfide
Orthophosphate)	Volatile Solids

- 3. Except for tests with hold times of 48 hrs or less, are any samples  within 2 days of or  past expiration of hold-time?  Yes  No Provide details in space at bottom of form

Which Ops Mgr, PM or Analyst was informed of short hold and when? ..... Who \_\_\_\_\_ When \_\_\_\_\_

- 7. Is the date and time of collection recorded? Date  Yes  No Time  Yes  No
- 8. Were all sample containers listed on the COC received and intact?  Yes  No Provide details in space at bottom of form
- 9. Do sample IDs match the COC?  Yes  No Provide details in space at bottom of form
- 10. Are dissolved parameters field filtered or being filtered in the lab?  Field  Lab  NA
- 11. Are sample volumes adequate and preservatives correct for test requested?.. Vol.  Yes  No Pres.  Yes  No
- 12. Are VOC samples free of bubbles >6mm?  Yes  No  NA
- 13. How were VOC soils received?  Methanol  Sodium Bisulfate  Packed jar  Encore  Water\*  Other
- \*  within 48 hrs of sampling  past 48 hrs of sampling  Frozen  Not Frozen
- 14. Is an aqueous Trip Blank included?  Yes  No  NA Is a Methanol Trip Blank included?  Yes  No  NA
- 15. Are any samples on hold?  Yes  No Provide details in space at bottom of form
- 16. Are there samples to be subcontracted?  Yes  No
- 17. If any changes are made to this Work Order after Login, or if comments must be made regarding this cooler, explain them below:

EB (04052010) is HNO3 - 250 Bottle

**Appendix I**

Data Validation

## **USCG - Reedy Island Lighthouse Site**

### **Data Review**

TOWNSEND, DELAWARE

Metals Analyses

SDG #PA136129

Analyses Performed By:  
TestAmerica Laboratories  
Watertown, Wisconsin

Report #11907R  
Review Level: Tier II  
Project: DE000261.0001.00004