

SUMMARY REPORT
43 WEST CARDINAL LANE (FORMERLY 1202 WEST CARDINAL LANE)
LAUREL BAY MILITARY HOUSING AREA
MARINE CORPS AIR STATION BEAUFORT
BEAUFORT, SC

Revision: 0
Prepared for:

Department of the Navy
Naval Facilities Engineering Command, Mid-Atlantic
9324 Virginia Avenue
Norfolk, Virginia 23511-3095

and



Naval Facilities Engineering Command Atlantic
9324 Virginia Avenue
Norfolk, Virginia 23511-3095

JUNE 2021

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Prepared by:

CDM - AECOM
Multimedia Joint Venture

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10560 Arrowhead Drive, Suite 500
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Contract Number: N62470-14-D-9016
CTO WE52
JUNE 2021

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List of Acronyms

bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, and xylenes
CTO	Contract Task Order
COPC	constituents of potential concern
ft	feet
IDIQ	Indefinite Delivery, Indefinite Quantity
IGWA	Initial Groundwater Assessment
JV	Joint Venture
LBMH	Laurel Bay Military Housing
MCAS	Marine Corps Air Station
NAVFAC Mid-Lant	Naval Facilities Engineering Command Mid-Atlantic
NFA	No Further Action
PAH	polynuclear aromatic hydrocarbon
QAPP	Quality Assurance Program Plan
RBSL	risk-based screening level
SCDHEC	South Carolina Department of Health and Environmental Control
Site	LBMH area at MCAS Beaufort, South Carolina
UST	underground storage tank
VISL	vapor intrusion screening level

1.0 INTRODUCTION

The CDM - AECOM Multimedia Joint Venture (JV) was contracted by the Naval Facilities Engineering Command, Mid-Atlantic (NAVFAC Mid-Lant) to provide reporting services for the heating oil underground storage tanks (USTs) located in Laurel Bay Military Housing (LBMH) area at the Marine Corps Air Station (MCAS) Beaufort, South Carolina (Site). This work has been awarded under Contract Task Order (CTO) WE52 of the Indefinite Delivery, Indefinite Quantity (IDIQ) Multimedia Environmental Compliance Contract (Contract No. N62470-14-D-9016).

As of January 2014, the LBMH addresses were re-numbered to comply with the E-911 emergency response addressing system; however, in order to remain consistent with historical sampling and reporting for LBMH area, the residences will continue to be referenced with their original address numbers in sample nomenclature and reporting documents.

This report summarizes the results the environmental investigation activities associated with the storage of home heating oil and the potential release of petroleum constituents at the referenced property. Based on the results of the investigation, a No Further Action (NFA) determination has been made by the South Carolina Department of Health and Environmental Control (SCDHEC) for 43 West Cardinal Lane (Formerly 1202 West Cardinal Lane). This NFA determination indicates that there are no unacceptable risks to human health or the environment for the petroleum constituents associated with the home heating oil USTs. The following information is included in this report:

- Background information;
- Sampling activities and results; and
- A determination of the property status.

1.1 Background Information

The LBMH area is located approximately 3.5 miles west of MCAS Beaufort. The area is approximately 970 acres in size and serves as an enlisted and officer family housing area. The area is configured with single family and duplex residential structures, and includes recreation, open space, and community facilities. The community includes approximately 1,300 housing units, including legacy Capehart style homes and newer duplex style homes. The housing area

is bordered on the west by salt marshes and the Broad River, and to the north, east and south by uplands. Forested areas lie along the northern and northeastern borders.

Capehart style homes within the LBMH area were formerly heated using heating oil stored in USTs at each residence. There were 1,100 Capehart style housing units in the LBMH area. The newer duplex homes within the LBMH area never utilized heating oil tanks. Heating oil has not been used at Laurel Bay since the mid-1980s. As was the accepted practice at the time, USTs were drained, filled with dirt, capped, and left in place when they were removed from service. Residential USTs are not regulated in the State of South Carolina (i.e., there are no federal or state laws governing installation, management, or removal).

In 2007, MCAS Beaufort began a voluntary program to remove the unregulated, residential USTs and conduct sampling activities to determine if, and to what extent, petroleum constituents may have impacted the surrounding environment. MCAS Beaufort coordinated with SCDHEC to develop removal procedures that were consistent with procedural requirements for regulated USTs. All tank removal activities and follow-on actions are conducted in coordination with SCDHEC. To date, all known USTs have been removed from all residential properties within the LBMH area.

1.2 UST Removal and Assessment Process

During the UST removal process, a soil sample was collected from beneath the UST excavations (approximately 4 to 6 feet [ft] below ground surface [bgs]) and analyzed for a predetermined list of constituents of potential concern (COPCs) associated with the petroleum compounds found in home heating oil. These COPCs, derived from the *Quality Assurance Program Plan (QAPP) for the Underground Storage Tank Management Division, Revision 3.1* (SCDHEC, 2016) and the *Underground Storage Tank Assessment Instructions for Permanent Closure and Change-In-Service*, (SCDHEC, 2018), are as follows:

- benzene, toluene, ethylbenzene, and xylenes (BTEX),
- naphthalene, and
- five select polynuclear aromatic hydrocarbon (PAHs): benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene and dibenz(a,h)anthracene.

Soil sample results were submitted by MCAS Beaufort to SCDHEC utilizing SCDHEC's UST Assessment Report form. In accordance with SCDHEC's *QAPP for the UST Management*

Division (SCDHEC, 2016), the soil screening levels consists of SCDHEC risk-based screening levels (RBSLs). It should be noted that the RBSLs for select PAHs were revised in Revision 2.0 of the QAPP (SCDHEC, 2013) and were revised again in Revision 3.0 (SCDHEC, 2015). The screening levels used for evaluation at each site were those levels that were in effect at the time of reporting and review by SCDHEC.

The results of the soil sampling at each former UST location were used to determine if a potential for groundwater contamination exists (i.e., soil results greater than RBSLs) and subsequently to select properties for follow-up initial groundwater assessment (IGWA) sampling. The results of the IGWA sampling (if necessary) are used to determine the presence or absence of the aforementioned COPCs in groundwater and identify whether former UST locations will require additional delineation of COPCs in groundwater. In order to delineate the extent of impact to groundwater, permanent wells are installed and a sampling program is established for those former UST locations where IGWA sampling has indicated the presence of COPCs in excess of the SCDHEC RBSLs for groundwater. Groundwater analytical results are also compared to the site specific groundwater vapor intrusion screening levels (VISLs) to evaluate the potential for vapor intrusion and the necessity for an investigation associated with this media. A multi-media investigation selection process tree, applicable to the LBMH UST investigations, is presented as Appendix A.

2.0 SAMPLING ACTIVITIES AND RESULTS

The following section presents the sampling activities and associated results for 43 West Cardinal Lane (Formerly 1202 West Cardinal Lane). Details regarding the soil investigation at this site are provided in the *SCDHEC UST Assessment Report – 1202 West Cardinal Lane* (MCAS Beaufort, 2012). The UST Assessment Report is provided in Appendix B. Details regarding the IGWA sampling activities at this site are provided in the *Initial Groundwater Investigation Report – February and March 2017* (Resolution Consultants, 2017). The laboratory report that includes the pertinent IGWA analytical results for this site is presented in Appendix C.

2.1 UST Removal and Soil Sampling

On May 15, 2012, a single 280 gallon heating oil UST was removed from the rear patio area at 43 West Cardinal Lane (Formerly 1202 West Cardinal Lane). The former UST location is indicated on Figures 2 and 3 of the UST Assessment Report (Appendix B). The UST was removed, cleaned, and shipped offsite for recycling. There was no visual evidence (i.e.,

staining or sheen) of petroleum impact at the time of the UST removal. According to the UST Assessment Report (Appendix B), the depth to the base of the UST was 4'4" bgs and a single soil sample was collected from that depth. The sample was collected from the fill port side of the former UST to represent a worst case scenario.

Following UST removal, a soil sample was collected from the base of the excavation and shipped to an offsite laboratory for analysis of the petroleum COPCs. Sampling was performed in accordance with applicable South Carolina regulation R.61-92, Part 280 (SCDHEC, 2017) and assessment guidelines.

2.2 Soil Analytical Results

A summary of the laboratory analytical results and SCDHEC RBSLs is presented in Table 1. A copy of the laboratory analytical data report is included in the UST Assessment Report presented in Appendix B. The laboratory analytical data report includes the soil results for the additional PAHs that were analyzed, but do not have associated RBSLs.

The soil sample results were submitted by MCAS Beaufort to SCDHEC utilizing SCDHEC's UST Assessment Report form (Appendix B). The results of the soil sampling at the former UST location were used by MCAS Beaufort, in consultation with SCDHEC, to determine a path forward (i.e., additional sampling or NFA) for the property. The soil results collected from 43 West Cardinal Lane (Formerly 1202 West Cardinal Lane) were greater than the SCDHEC RBSLs, which indicated further investigation was required. In a letter dated August 24, 2016, SCDHEC requested an IGWA for 43 West Cardinal Lane (Formerly 1202 West Cardinal Lane) to determine if the groundwater was impacted by petroleum COPCs. SCDHEC's request letter is provided in Appendix D.

2.3 Groundwater Sampling

On March 8, 2017, a temporary monitoring well was installed at 43 West Cardinal Lane (Formerly 1202 West Cardinal Lane), in accordance with the South Carolina Well Standards and Regulations (R.61-71.H-I, updated June 24, 2016). In order to provide data that can be used to determine whether COPCs are migrating to underlying groundwater, the monitoring well was placed in the same general location as the former heating oil UST. The former UST location is indicated on Figures 2 and 3 of the UST Assessment Report (Appendix B). Further details are provided in the *Initial Groundwater Investigation Report – February and March 2017* (Resolution Consultants, 2017).

The sampling strategy for this phase of the investigation required a one-time sampling event of the temporarily installed monitoring well. Following well installation and development, groundwater samples were collected using low-flow methods and shipped to an offsite laboratory for analysis of the petroleum COPCs. Upon completion of groundwater sampling, the temporary well was abandoned in accordance with the South Carolina Well Standards and Regulations R.61-71 (SCDHEC, 2016). Field forms are provided in the *Initial Groundwater Investigation Report – February and March 2017* (Resolution Consultants, 2017).

2.4 Groundwater Analytical Results

A summary of the laboratory analytical results and SCDHEC RBSLs is presented in Table 2. A copy of the laboratory analytical data report is included in Appendix C.

The groundwater results collected from 43 West Cardinal Lane (Formerly 1202 West Cardinal Lane) were less than the SCDHEC RBSLs and the site specific groundwater VISLs (Table 2), which indicated that the groundwater was not impacted by COPCs associated with the former UST at concentrations that present a potential risk to human health and the environment.

3.0 PROPERTY STATUS

Based on the analytical results for groundwater, SCDHEC made the determination that NFA was required for 43 West Cardinal Lane (Formerly 1202 West Cardinal Lane). This NFA determination was obtained in a letter dated July 27, 2017. SCDHEC's NFA letter is provided in Appendix D.

4.0 REFERENCES

Marine Corps Air Station Beaufort, 2012. *South Carolina Department of Health and Environmental Control (SCDHEC) Underground Storage Tank Assessment Report – 1202 West Cardinal Lane, Laurel Bay Military Housing Area*, August 2012.

Resolution Consultants, 2017. *Initial Groundwater Investigation Report – February and March 2017 for Laurel Bay Military Housing Area, Multiple Properties, Laurel Bay Military Housing Area, Marine Corps Air Station Beaufort, Beaufort, South Carolina*, June 2017.

South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2013. *Quality Assurance Program Plan for the Underground Storage Tank Management Division, Revision 2.0*, April 2013.

South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2015. *Quality Assurance Program Plan for the Underground Storage Tank Management Division, Revision 3.0*, May 2015.

South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2016. *Quality Assurance Program Plan for the Underground Storage Tank Management Division, Revision 3.1*, February 2016.

South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2017. *R.61-92, Part 280, Underground Storage Tank Control Regulations*, March 2017.

South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2018. *Underground Storage Tank Assessment Instructions for Permanent Closure and Change-In-Service*, March 2018.

South Carolina Department of Health and Environmental Control Bureau of Water, 2016. *R.61-71, Well Standards*, June 2016.

Tables

Table 1
Laboratory Analytical Results - Soil
43 West Cardinal Lane (Formerly 1202 West Cardinal Lane)
Laurel Bay Military Housing Area
Marine Corps Air Station Beaufort
Beaufort, South Carolina

Constituent	SCDHEC RBSLs ⁽¹⁾	Results Sample Collected 05/15/12
Volatile Organic Compounds Analyzed by EPA Method 8260B (mg/kg)		
Benzene	0.003	ND
Ethylbenzene	1.15	ND
Naphthalene	0.036	ND
Toluene	0.627	ND
Xylenes, Total	13.01	ND
Semivolatile Organic Compounds Analyzed by EPA Method 8270D (mg/kg)		
Benzo(a)anthracene	0.66	ND
Benzo(b)fluoranthene	0.66	ND
Benzo(k)fluoranthene	0.66	ND
Chrysene	0.66	ND
Dibenz(a,h)anthracene	0.66	ND

Notes:

⁽¹⁾ South Carolina Risk-Based Screening Levels from the Quality Assurance Program Plan for the Underground Storage Tank Management Division, Revision 3.0 and 3.1 (SCDHEC, May 2015 and SCDHEC, February 2016) and the Underground Storage Tank Assessment Guidelines (SCDHEC, February 2006).

Bold font indicates the analyte was detected.

Bold font and shading indicates the concentration exceeds the SCDHEC RBSL.

EPA - United States Environmental Protection Agency

mg/kg - milligrams per kilogram

ND - not detected at the reporting limit (or method detection limit if shown on the laboratory report). The soil laboratory report is provided in Appendix B.

RBSL - Risk-Based Screening Level

SCDHEC - South Carolina Department Of Health and Environmental Control

Table 2
Laboratory Analytical Results - Groundwater
43 West Cardinal Lane (Formerly 1202 West Cardinal Lane)
Laurel Bay Military Housing Area
Marine Corps Air Station Beaufort
Beaufort, South Carolina

Constituent	SCDHEC RBSLs ⁽¹⁾	Site-Specific Groundwater VISLs (µg/L) ⁽²⁾	Results Sample Collected 03/08/17
Volatile Organic Compounds Analyzed by EPA Method 8260B (µg/L)			
Benzene	5	16.24	ND
Ethylbenzene	700	45.95	ND
Naphthalene	25	29.33	ND
Toluene	1000	105,445	ND
Xylenes, Total	10,000	2,133	ND
Semivolatile Organic Compounds Analyzed by EPA Method 8270D (µg/L)			
Benzo(a)anthracene	10	NA	ND
Benzo(b)fluoranthene	10	NA	ND
Benzo(k)fluoranthene	10	NA	ND
Chrysene	10	NA	ND
Dibenz(a,h)anthracene	10	NA	ND

Notes:

⁽¹⁾ South Carolina Risk-Based Screening Levels from the Quality Assurance Program Plan for the Underground Storage Tank Management Division, Revision 3.1 (SCDHEC, February 2016).

⁽²⁾ Site-specific groundwater VISLs were calculated using the EPA JE Model Spreadsheets (Version 3.1, February 2004) and conservative modeling inputs representative of a small single-story house with an 8 foot ceiling. Site-specific groundwater VISLs were developed based on a target risk level of 1×10^{-6} , a target hazard quotient of 1 (per target organ), and a default residential exposure scenario, assuming exposure for 24 hours/day, 350 days/year, for 26 years. Modeling was performed for a range of depths to groundwater for application as appropriate in different areas of the Laurel Bay Military Housing Area. The most conservative levels are presented for comparison. Refer to Appendix H of the Uniform Federal Policy Sampling Analysis and Sampling Plan for Vapor Media, Revision 4 (Resolution Consultants, April 2017) for additional information.

Bold font indicates the analyte was detected.

Bold font and shading indicates the concentration exceeds the SCDHEC RBSL and/or the Site-Specific Groundwater VISL.

EPA - United States Environmental Protection Agency

JE - Johnson & Ettinger

NA - Not Applicable

ND - not detected at the reporting limit (or method detection limit if shown on the laboratory report). The groundwater laboratory report is provided in Appendix C.

RBSL - Risk-Based Screening Level

SCDHEC - South Carolina Department Of Health and Environmental Control

µg/L - micrograms per liter

VISL - Vapor Intrusion Screening Level

Appendix A
Multi-Media Selection Process for LBMH



Appendix A - Multi-Media Selection Process for LBMH

Appendix B
UST Assessment Report

Attachment 1

South Carolina Department of Health and Environmental Control (SCDHEC)
Underground Storage Tank (UST) Assessment Report

Date Received State Use Only

Submit Completed Form To:
 UST Program
 SCDHEC
 2600 Bull Street
 Columbia, South Carolina 29201
 Telephone (803) 896-7957

I. OWNERSHIP OF UST (S)

MCAS Beaufort, Commanding Officer Attn: NREAO (Craig Ehde)		
Owner Name (Corporation, Individual, Public Agency, Other)		
P.O. Box 55001		
Mailing Address		
Beaufort,	South Carolina	29904-5001
City	State	Zip Code
843	228-7317	Craig Ehde
Area Code	Telephone Number	Contact Person

II. SITE IDENTIFICATION AND LOCATION

Permit I.D. #
Laurel Bay Military Housing Area, Marine Corps Air Station, Beaufort, SC
Facility Name or Company Site Identifier
1202 Cardinal Lane, Laurel Bay Military Housing Area
Street Address or State Road (as applicable)
Beaufort,
City
Beaufort
County

Attachment 2

III. INSURANCE INFORMATION

Insurance Statement

The petroleum release reported to DHEC on _____ at Permit ID Number _____ may qualify to receive state monies to pay for appropriate site rehabilitation activities. Before participation is allowed in the State Clean-up fund, written confirmation of the existence or non-existence of an environmental insurance policy is required. **This section must be completed.**

Is there now, or has there ever been an insurance policy or other financial mechanism that covers this UST release? **YES**____ **NO**____ (check one)

If you answered **YES** to the above question, please complete the following information:

My policy provider is: _____
The policy deductible is: _____
The policy limit is: _____

If you have this type of insurance, please include a copy of the policy with this report.

IV. REQUEST FOR SUPERB FUNDING

I **DO** / **DO NOT** wish to participate in the SUPERB Program. (Circle one.)

V. CERTIFICATION (To be signed by the UST owner)

I certify that I have personally examined and am familiar with the information submitted in this and all attached documents; and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete.

Name (Type or print.)

Signature

To be completed by Notary Public:

Sworn before me this _____ day of _____, 20____

(Name)

Notary Public for the state of_____
Please affix State seal if you are commissioned outside South Carolina

VI. UST INFORMATION

- A. Product...(ex. Gas, Kerosene).....
- B. Capacity..(ex. 1k, 2k).....
- C. Age.....
- D. Construction Material..(ex. Steel, FRP).....
- E. Month/Year of Last Use.....
- F. Depth (ft.) To Base of Tank.....
- G. Spill Prevention Equipment Y/N.....
- H. Overfill Prevention Equipment Y/N.....
- I. Method of Closure Removed/Filled.....
- J. Date Tanks Removed/Filled.....
- K. Visible Corrosion or Pitting Y/N.....
- L. Visible Holes Y/N.....

1202 Cardinal		
Heating oil		
280 gal		
Late 1950s		
Steel		
Mid 80s		
4'4"		
No		
No		
Removed		
5/15/2012		
Yes		
Yes		

- M. Method of disposal for any USTs removed from the ground (attach disposal manifests)
UST 1202Cardinal was removed from the ground and disposed
at a Subtitle "D" landfill. See Attachment "A".
- N. Method of disposal for any liquid petroleum, sludges, or wastewaters removed from the USTs (attach disposal manifests)
UST 1202Cardinal was previously filled with sand by others.
- O. If any corrosion, pitting, or holes were observed, describe the location and extent for each UST
Corrosion, pitting and holes were found throughout the tank.

VII. PIPING INFORMATION

A. Construction Material..(ex. Steel, FRP).....

B. Distance from UST to Dispenser.....

C. Number of Dispensers.....

D. Type of System Pressure or Suction.....

E. Was Piping Removed from the Ground? Y/N

F. Visible Corrosion or Pitting Y/N.....

G. Visible Holes Y/N.....

H. Age.....

I. If any corrosion, pitting, or holes were observed, describe the location and extent for each piping run.

1202 Cardinal		
Steel & Copper		
N/A		
N/A		
Suction		
No		
Yes		
No		
Late 1950s		

Corrosion and pitting were found on the surface of the steel vent pipe. Copper supply and return lines were sound.

VIII. BRIEF SITE DESCRIPTION AND HISTORY

The USTs at the residences are constructed of single wall steel and formerly contained fuel oil for heating. These USTs were installed in the late 1950s and last used in the mid 1980s.

IX. SITE CONDITIONS

	Yes	No	Unk
<p>A. Were any petroleum-stained or contaminated soils found in the UST excavation, soil borings, trenches, or monitoring wells?</p> <p>If yes, indicate depth and location on the site map.</p>		X	
<p>B. Were any petroleum odors detected in the excavation, soil borings, trenches, or monitoring wells?</p> <p>If yes, indicate location on site map and describe the odor (strong, mild, etc.)</p>		X	
<p>C. Was water present in the UST excavation, soil borings, or trenches?</p> <p>If yes, how far below land surface (indicate location and depth)?</p>		X	
<p>D. Did contaminated soils remain stockpiled on site after closure?</p> <p>If yes, indicate the stockpile location on the site map.</p> <p>Name of DHEC representative authorizing soil removal:</p>		X	
<p>E. Was a petroleum sheen or free product detected on any excavation or boring waters?</p> <p>If yes, indicate location and thickness.</p>		X	

X. SAMPLE INFORMATION

A. SCDHEC Lab Certification Number 84009

B.

Sample #	Location	Sample Type (Soil/Water)	Soil Type (Sand/Clay)	Depth*	Date/Time of Collection	Collected by	OVA #
1202 Cardinal	Excav at fill end	Soil	Sandy	4'4"	5/15/12 1415 hrs	P. Shaw	
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

* = Depth Below the Surrounding Land Surface

XI. SAMPLING METHODOLOGY

Provide a detailed description of the methods used to collect and store the samples. Also include the preservative used for each sample. Please use the space provided below.

Sampling was performed in accordance with SC DHEC R.61-92 Part 280 and SC DHEC Assessment Guidelines. Sample containers were prepared by the testing laboratory. The grab method was utilized to fill the sample containers leaving as little head space as possible and immediately capped. Soil samples were extracted from area below tank. The samples were marked, logged, and immediately placed in a sample cooler packed with ice to maintain an approximate temperature of 4 degrees Centigrade. Tools were thoroughly cleaned and decontaminated with the seven step decon process after each use. The samples remained in custody of SBG-EEG, Inc. until they were transferred to Test America Incorporated for analysis as documented in the Chain of Custody Record.

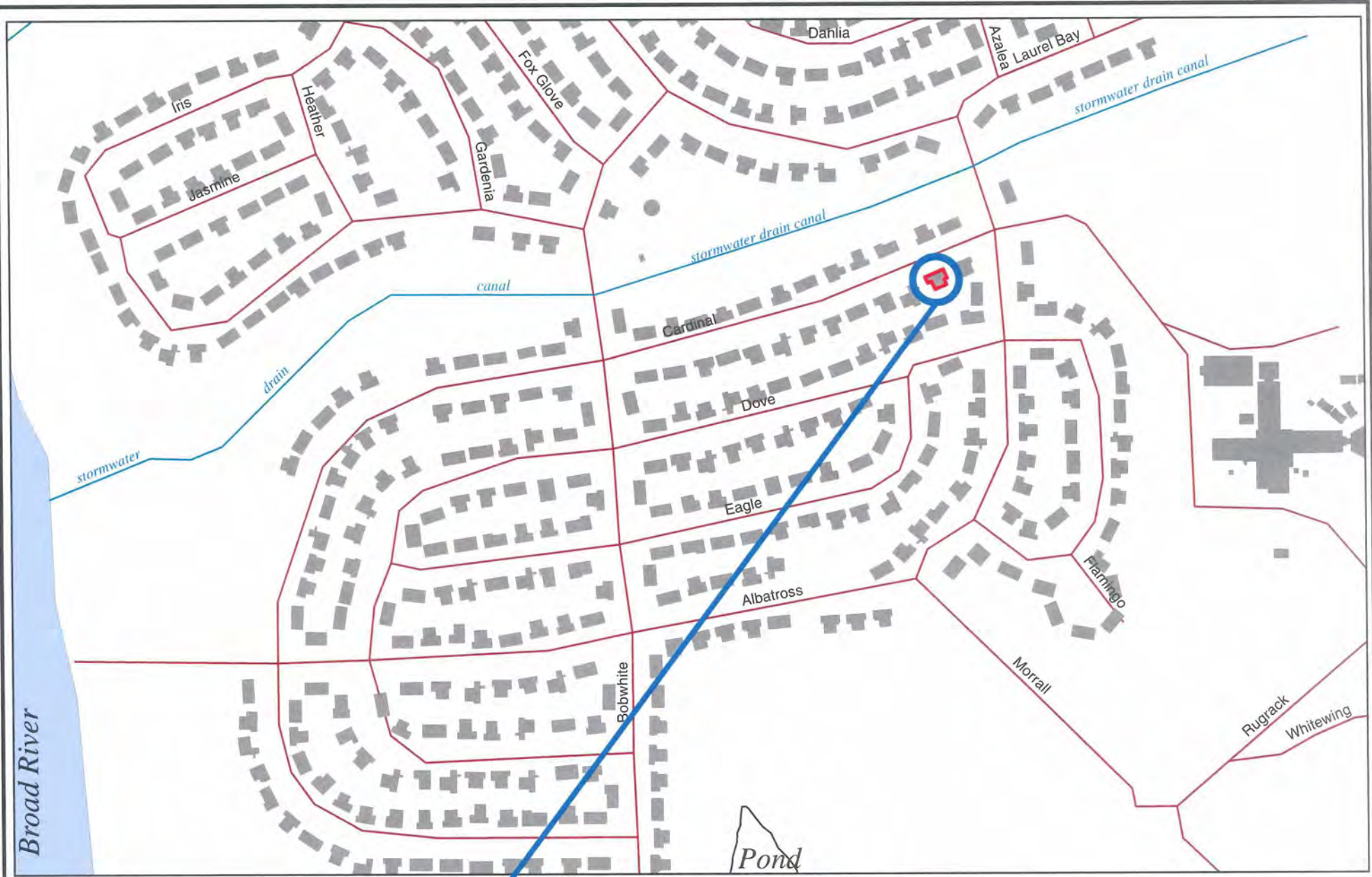
XII. RECEPTORS

	Yes	No
<p>A. Are there any lakes, ponds, streams, or wetlands located within 1000 feet of the UST system? *stormwater drainage canal</p> <p>If yes, indicate type of receptor, distance, and direction on site map.</p>	*X	
<p>B. Are there any public, private, or irrigation water supply wells within 1000 feet of the UST system?</p> <p>If yes, indicate type of well, distance, and direction on site map.</p>		X
<p>C. Are there any underground structures (e.g., basements) Located within 100 feet of the UST system?</p> <p>If yes, indicate type of structure, distance, and direction on site map.</p>		X
<p>D. Are there any underground utilities (e.g., telephone, electricity, gas, water, sewer, storm drain) located within 100 feet of the UST system that could potentially come in contact with the contamination? *Sewer, water, electricity cable & fiber optic</p> <p>If yes, indicate the type of utility, distance, and direction on the site map.</p>	*X	
<p>E. Has contaminated soil been identified at a depth less than 3 feet below land surface in an area that is not capped by asphalt or concrete?</p> <p>If yes, indicate the area of contaminated soil on the site map.</p>		X

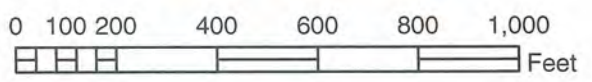
XIII. SITE MAP

You must supply a scaled site map. It should include all buildings, road names, utilities, tank and dispenser island locations, labeled sample locations, extent of excavation, and any other pertinent information.

(Attach Site Map Here)



1202 CARDINAL



SBG-EEG, Inc.

7301 Rivers Ave., Suite 245
N. Charleston SC 29406-9643

Ph. (843) 573-7140

Drawn By: L. DiAsio

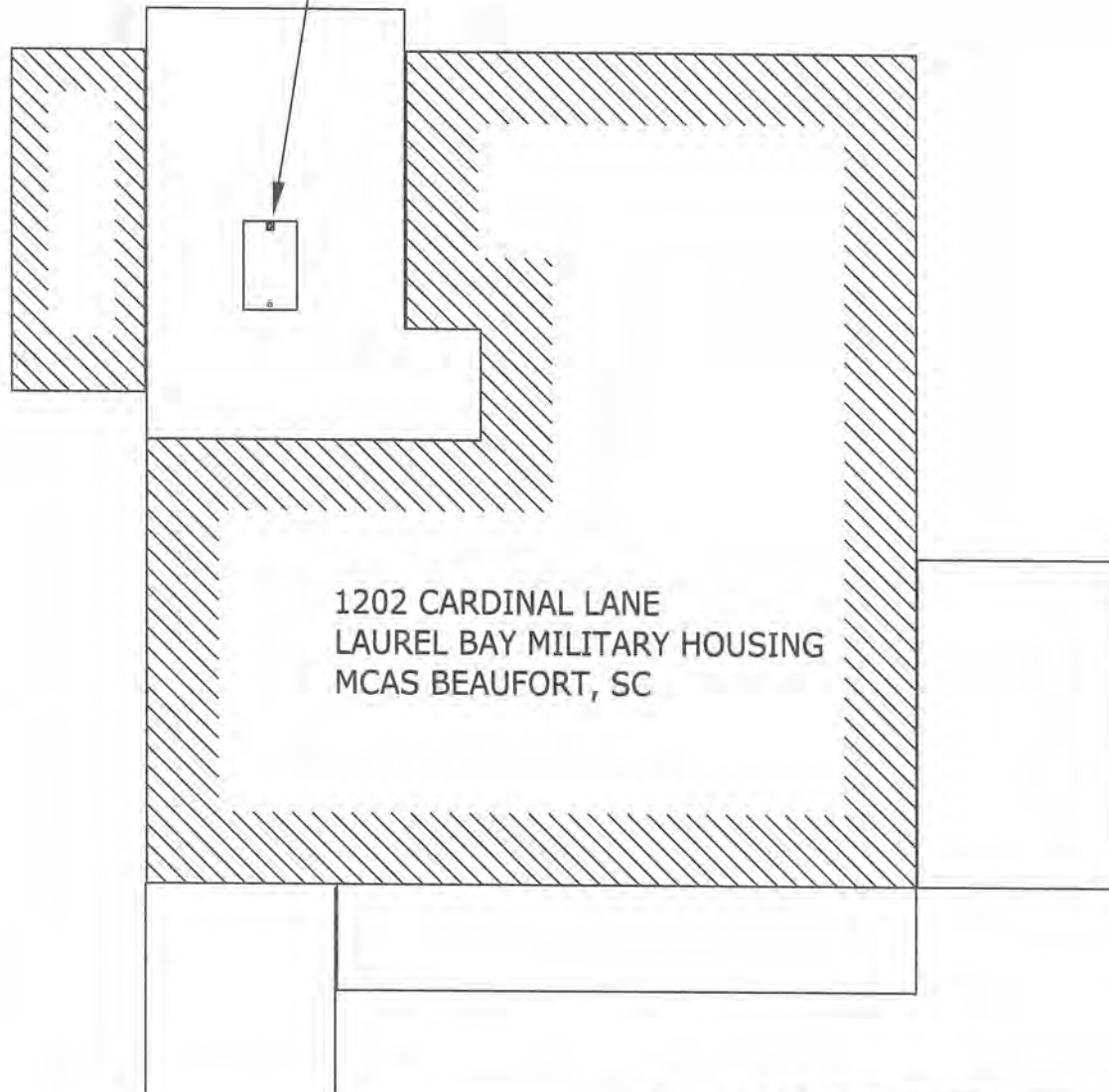
Dwg Date: JUNE 2012

FIGURE 1: LOCATION MAP
1202 CARDINAL LANE
LAUREL BAY, BEAUFORT SC



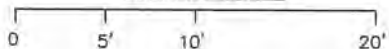
UST
1202CARDINAL

FRESHWATER
POND ≈ 250'



1202 CARDINAL LANE
LAUREL BAY MILITARY HOUSING
MCAS BEAUFORT, SC

GRAPHIC SCALE



TANK DEPTH BELOW GRADE
1202CARDINAL = 16"

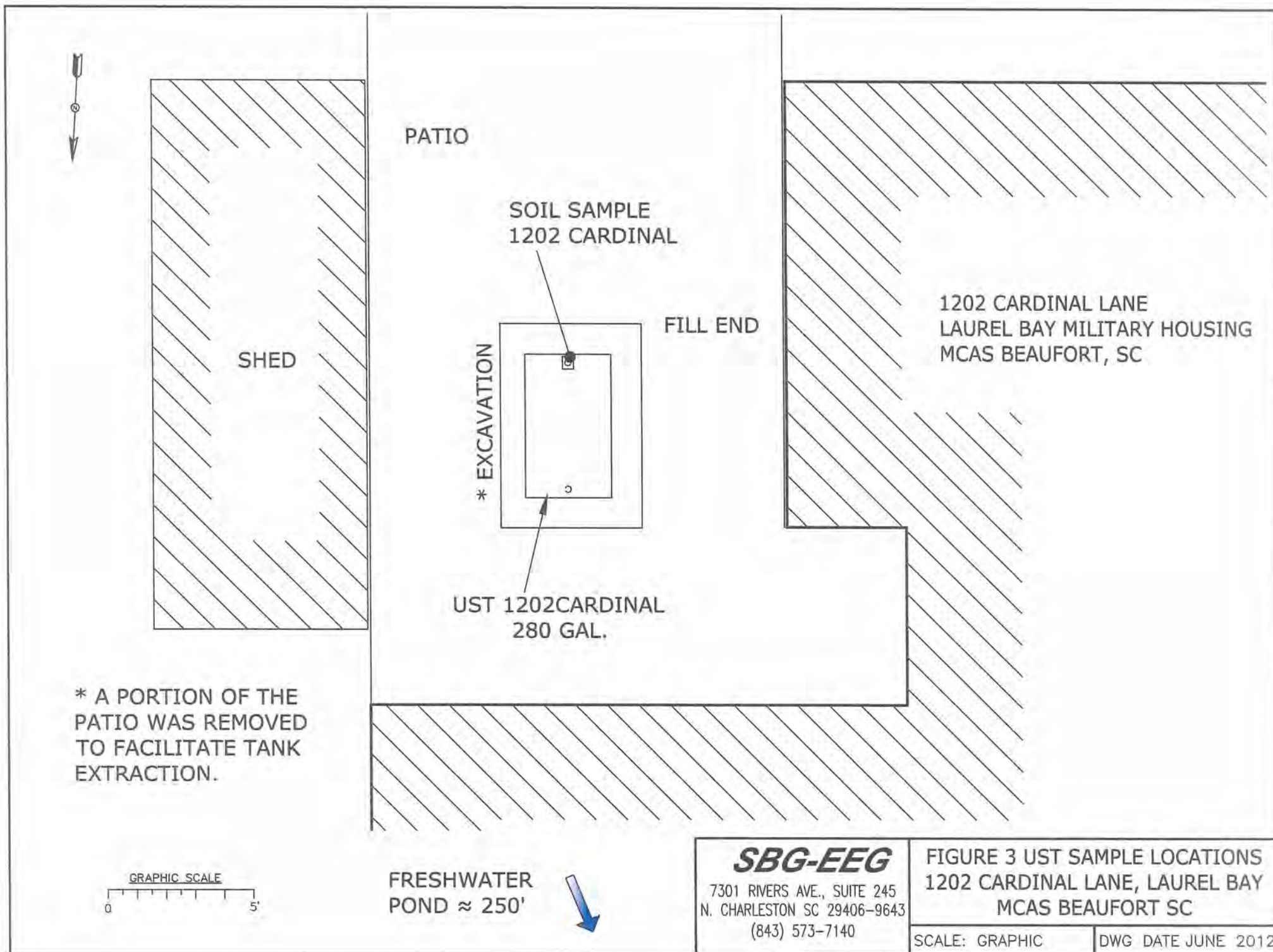
SBG-EEG

7301 RIVERS AVE., SUITE 245
N. CHARLESTON SC 29406-9643
(843) 573-7140

FIGURE 2 SITE MAP
1202 CARDINAL LANE, LAUREL BAY
MCAS BEAUFORT SC

SCALE: GRAPHIC

DWG DATE JUNE 2012





Picture 1: Location of UST 1202Cardinal.



Picture 2: UST 1202Cardinal excavation.

XIV. SUMMARY OF ANALYSIS RESULTS

Enter the soil analytical data for each soil boring for all COC in the table below and on the following page.

CoC	UST 1202Cardinal					
Benzene	ND					
Toluene	ND					
Ethylbenzene	ND					
Xylenes	ND					
Naphthalene	0.0398 mg/kg					
Benzo (a) anthracene	ND					
Benzo (b) fluoranthene	ND					
Benzo (k) fluoranthene	ND					
Chrysene	ND					
Dibenz (a, h) anthracene	ND					
TPH (EPA 3550)						

CoC								
Benzene								
Toluene								
Ethylbenzene								
Xylenes								
Naphthalene								
Benzo (a) anthracene								
Benzo (b) fluoranthene								
Benzo (k) fluoranthene								
Chrysene								
Dibenz (a, h) anthracene								
TPH (EPA 3550)								

SUMMARY OF ANALYSIS RESULTS (cont'd)

Enter the ground water analytical data for each sample for all CoC in the table below. If free product is present, indicate the measured thickness to the nearest 0.01 feet.

CoC	RBSL (µg/l)	W-1	W-2	W -3	W -4
Free Product Thickness	None				
Benzene	5				
Toluene	1,000				
Ethylbenzene	700				
Xylenes	10,000				
Total BTEX	N/A				
MTBE	40				
Naphthalene	25				
Benzo (a) anthracene	10				
Benzo (b) flouranthene	10				
Benzo (k) flouranthene	10				
Chrysene	10				
Dibenz (a, h) anthracene	10				
EDB	.05				
1,2-DCA	5				
Lead	Site specific				

XV. ANALYTICAL RESULTS

You must submit the laboratory report and chain-of-custody form for the samples. These samples must be analyzed by a South Carolina certified laboratory.

(Attach Certified Analytical Results and Chain-of-Custody Here)
(Please see Form #4)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Nashville
2960 Foster Creighton Road
Nashville, TN 37204
Tel: 800-765-0980

TestAmerica Job ID: NWE2371

Client Project/Site: [none]

Client Project Description: Laurel Bay Housing Project

For:

EEG - Small Business Group, Inc. (2449)
10179 Highway 78
Ladson, SC 29456

Attn: Tom McElwee

Roxanne L. Connor

Authorized for release by:

5/31/2012 5:26:03 PM

Roxanne Connor

Program Manager - Conventional Accounts

roxanne.connor@testamericainc.com

Designee for

Ken A. Hayes

Senior Project Manager

ken.hayes@testamericainc.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Sample Summary

Client: EEG - Small Business Group, Inc. (2449)
Project/Site: [none]

TestAmerica Job ID: NWE2371

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
NWE2371-01	1479 Cardinal	Soil	05/14/12 13:45	05/19/12 08:20
NWE2371-02	1202 Cardinal	Soil	05/15/12 14:15	05/19/12 08:20
NWE2371-03	396 Acorn-2	Soil	05/17/12 12:15	05/19/12 08:20
NWE2371-04	396 Acorn-1	Soil	05/17/12 09:45	05/19/12 08:20

Definitions/Glossary

Client: EEG - Small Business Group, Inc. (2449)

TestAmerica Job ID: NWE2371

Project/Site: [none]

Qualifiers

GCMS Volatiles

Qualifier	Qualifier Description
ZX	Due to sample matrix effects, the surrogate recovery was outside the acceptance limits.
E	Concentration exceeds the calibration range and therefore result is semi-quantitative.
RL1	Reporting limit raised due to sample matrix effects.
CF7	Result may be elevated due to carry over from previously analyzed sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GCMS Semivolatiles

Qualifier	Qualifier Description
A-01	No spike added to sample. Data accepted on LCS results.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
ZX	Due to sample matrix effects, the surrogate recovery was outside the acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☐	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client Sample Results

Client: EEG - Small Business Group, Inc. (2449)

TestAmerica Job ID: NWE2371

Project/Site: [none]

Client Sample ID: 1479 Cardinal

Lab Sample ID: NWE2371-01

Date Collected: 05/14/12 13:45

Matrix: Soil

Date Received: 05/19/12 08:20

Percent Solids: 75.8

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0141		0.00206	0.00114	mg/kg dry	⊗	05/14/12 13:45	05/24/12 16:00	1.00
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	136	ZX	70 - 130				05/14/12 13:45	05/24/12 16:00	1.00
Dibromofluoromethane	136	ZX	70 - 130				05/14/12 13:45	05/24/12 16:00	1.00
Toluene-d8	157	ZX	70 - 130				05/14/12 13:45	05/24/12 16:00	1.00
4-Bromofluorobenzene	326	ZX	70 - 130				05/14/12 13:45	05/24/12 16:00	1.00

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	0.198		0.131	0.0720	mg/kg dry	⊗	05/14/12 13:45	05/28/12 21:39	50.0
Naphthalene	21.2	E	0.327	0.164	mg/kg dry	⊗	05/14/12 13:45	05/28/12 21:39	50.0
Toluene	ND	RL1	0.131	0.0720	mg/kg dry	⊗	05/14/12 13:45	05/28/12 21:39	50.0
Xylenes, total	9.68		0.327	0.164	mg/kg dry	⊗	05/14/12 13:45	05/28/12 21:39	50.0
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	107		70 - 130				05/14/12 13:45	05/28/12 21:39	50.0
Dibromofluoromethane	98		70 - 130				05/14/12 13:45	05/28/12 21:39	50.0
Toluene-d8	113		70 - 130				05/14/12 13:45	05/28/12 21:39	50.0
4-Bromofluorobenzene	103		70 - 130				05/14/12 13:45	05/28/12 21:39	50.0

Method: SW846 8270D - Polyaromatic Hydrocarbons by EPA 8270D - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	1.75		0.880	0.447	mg/kg dry	⊗	05/23/12 14:00	05/25/12 14:05	10.0
Acenaphthylene	0.639	J	0.880	0.447	mg/kg dry	⊗	05/23/12 14:00	05/25/12 14:05	10.0
Anthracene	0.477	J	0.880	0.447	mg/kg dry	⊗	05/23/12 14:00	05/25/12 14:05	10.0
Benzo (a) anthracene	ND		0.880	0.447	mg/kg dry	⊗	05/23/12 14:00	05/25/12 14:05	10.0
Benzo (a) pyrene	ND		0.880	0.447	mg/kg dry	⊗	05/23/12 14:00	05/25/12 14:05	10.0
Benzo (b) fluoranthene	ND		0.880	0.447	mg/kg dry	⊗	05/23/12 14:00	05/25/12 14:05	10.0
Benzo (g,h,i) perylene	ND		0.880	0.447	mg/kg dry	⊗	05/23/12 14:00	05/25/12 14:05	10.0
Benzo (k) fluoranthene	ND		0.880	0.447	mg/kg dry	⊗	05/23/12 14:00	05/25/12 14:05	10.0
Chrysene	ND		0.880	0.447	mg/kg dry	⊗	05/23/12 14:00	05/25/12 14:05	10.0
Dibenz (a,h) anthracene	ND		0.880	0.447	mg/kg dry	⊗	05/23/12 14:00	05/25/12 14:05	10.0
Fluoranthene	ND		0.880	0.447	mg/kg dry	⊗	05/23/12 14:00	05/25/12 14:05	10.0
Fluorene	3.06		0.880	0.447	mg/kg dry	⊗	05/23/12 14:00	05/25/12 14:05	10.0
Indeno (1,2,3-cd) pyrene	ND		0.880	0.447	mg/kg dry	⊗	05/23/12 14:00	05/25/12 14:05	10.0
Naphthalene	9.01		0.880	0.447	mg/kg dry	⊗	05/23/12 14:00	05/25/12 14:05	10.0
Phenanthrene	4.56		0.880	0.447	mg/kg dry	⊗	05/23/12 14:00	05/25/12 14:05	10.0
Pyrene	0.582	J	0.880	0.447	mg/kg dry	⊗	05/23/12 14:00	05/25/12 14:05	10.0
1-Methylnaphthalene	17.7		0.880	0.447	mg/kg dry	⊗	05/23/12 14:00	05/25/12 14:05	10.0
2-Methylnaphthalene	31.9		0.880	0.447	mg/kg dry	⊗	05/23/12 14:00	05/25/12 14:05	10.0
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Terphenyl-d14	121	ZX	18 - 120				05/23/12 14:00	05/25/12 14:05	10.0
2-Fluorobiphenyl	102		14 - 120				05/23/12 14:00	05/25/12 14:05	10.0
Nitrobenzene-d5	108		17 - 120				05/23/12 14:00	05/25/12 14:05	10.0

Method: SW-846 - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Dry Solids	75.8		0.500	0.500	%		05/21/12 09:53	05/22/12 09:05	1.00

Client Sample Results

Client: EEG - Small Business Group, Inc. (2449)
Project/Site: [none]

TestAmerica Job ID: NWE2371

Client Sample ID: 1202 Cardinal

Date Collected: 05/15/12 14:15

Date Received: 05/19/12 08:20

Lab Sample ID: NWE2371-02

Matrix: Soil

Percent Solids: 88.3

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.0398	CF7	0.00635	0.00317	mg/kg dry	☼	05/15/12 14:15	05/24/12 16:30	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	91		70 - 130	05/15/12 14:15	05/24/12 16:30	1.00
Dibromofluoromethane	89		70 - 130	05/15/12 14:15	05/24/12 16:30	1.00
Toluene-d8	122		70 - 130	05/15/12 14:15	05/24/12 16:30	1.00
4-Bromofluorobenzene	128		70 - 130	05/15/12 14:15	05/24/12 16:30	1.00

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00237	0.00131	mg/kg dry	☼	05/15/12 14:15	05/25/12 12:50	1.00
Ethylbenzene	ND		0.00237	0.00131	mg/kg dry	☼	05/15/12 14:15	05/25/12 12:50	1.00
Toluene	ND		0.00237	0.00131	mg/kg dry	☼	05/15/12 14:15	05/25/12 12:50	1.00
Xylenes, total	ND		0.00593	0.00297	mg/kg dry	☼	05/15/12 14:15	05/25/12 12:50	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	102		70 - 130	05/15/12 14:15	05/25/12 12:50	1.00
Dibromofluoromethane	104		70 - 130	05/15/12 14:15	05/25/12 12:50	1.00
Toluene-d8	114		70 - 130	05/15/12 14:15	05/25/12 12:50	1.00
4-Bromofluorobenzene	141	ZX	70 - 130	05/15/12 14:15	05/25/12 12:50	1.00

Method: SW846 8270D - Polyaromatic Hydrocarbons by EPA 8270D

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0754	0.0383	mg/kg dry	☼	05/23/12 14:00	05/24/12 19:37	1.00
Acenaphthylene	ND		0.0754	0.0383	mg/kg dry	☼	05/23/12 14:00	05/24/12 19:37	1.00
Anthracene	ND		0.0754	0.0383	mg/kg dry	☼	05/23/12 14:00	05/24/12 19:37	1.00
Benzo (a) anthracene	ND		0.0754	0.0383	mg/kg dry	☼	05/23/12 14:00	05/24/12 19:37	1.00
Benzo (a) pyrene	0.274		0.0754	0.0383	mg/kg dry	☼	05/23/12 14:00	05/24/12 19:37	1.00
Benzo (b) fluoranthene	ND		0.0754	0.0383	mg/kg dry	☼	05/23/12 14:00	05/24/12 19:37	1.00
Benzo (g,h,i) perylene	0.105		0.0754	0.0383	mg/kg dry	☼	05/23/12 14:00	05/24/12 19:37	1.00
Benzo (k) fluoranthene	ND		0.0754	0.0383	mg/kg dry	☼	05/23/12 14:00	05/24/12 19:37	1.00
Chrysene	ND		0.0754	0.0383	mg/kg dry	☼	05/23/12 14:00	05/24/12 19:37	1.00
Dibenz (a,h) anthracene	ND		0.0754	0.0383	mg/kg dry	☼	05/23/12 14:00	05/24/12 19:37	1.00
Fluoranthene	ND		0.0754	0.0383	mg/kg dry	☼	05/23/12 14:00	05/24/12 19:37	1.00
Fluorene	ND		0.0754	0.0383	mg/kg dry	☼	05/23/12 14:00	05/24/12 19:37	1.00
Indeno (1,2,3-cd) pyrene	0.0840		0.0754	0.0383	mg/kg dry	☼	05/23/12 14:00	05/24/12 19:37	1.00
Naphthalene	ND		0.0754	0.0383	mg/kg dry	☼	05/23/12 14:00	05/24/12 19:37	1.00
Phenanthrene	ND		0.0754	0.0383	mg/kg dry	☼	05/23/12 14:00	05/24/12 19:37	1.00
Pyrene	ND		0.0754	0.0383	mg/kg dry	☼	05/23/12 14:00	05/24/12 19:37	1.00
1-Methylnaphthalene	ND		0.0754	0.0383	mg/kg dry	☼	05/23/12 14:00	05/24/12 19:37	1.00
2-Methylnaphthalene	ND		0.0754	0.0383	mg/kg dry	☼	05/23/12 14:00	05/24/12 19:37	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	56		18 - 120	05/23/12 14:00	05/24/12 19:37	1.00
2-Fluorobiphenyl	47		14 - 120	05/23/12 14:00	05/24/12 19:37	1.00
Nitrobenzene-d5	41		17 - 120	05/23/12 14:00	05/24/12 19:37	1.00

Method: SW-846 - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Dry Solids	88.3		0.500	0.500	%		05/21/12 09:53	05/22/12 09:05	1.00

Client Sample Results

Client: EEG - Small Business Group, Inc. (2449)
Project/Site: [none]

TestAmerica Job ID: NWE2371

Client Sample ID: 396 Acorn-2

Date Collected: 05/17/12 12:15

Date Received: 05/19/12 08:20

Lab Sample ID: NWE2371-03

Matrix: Soil

Percent Solids: 77.6

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00398		0.00242	0.00133	mg/kg dry	☞	05/17/12 12:15	05/24/12 17:01	1.00
Toluene	ND		0.00242	0.00133	mg/kg dry	☞	05/17/12 12:15	05/24/12 17:01	1.00
Xylenes, total	0.0126		0.00604	0.00302	mg/kg dry	☞	05/17/12 12:15	05/24/12 17:01	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	91		70 - 130	05/17/12 12:15	05/24/12 17:01	1.00
Dibromofluoromethane	94		70 - 130	05/17/12 12:15	05/24/12 17:01	1.00
Toluene-d8	168	ZX	70 - 130	05/17/12 12:15	05/24/12 17:01	1.00
4-Bromofluorobenzene	112		70 - 130	05/17/12 12:15	05/24/12 17:01	1.00

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	0.599		0.114	0.0629	mg/kg dry	☞	05/17/12 12:15	05/28/12 22:10	50.0
Naphthalene	4.91		0.286	0.143	mg/kg dry	☞	05/17/12 12:15	05/28/12 22:10	50.0

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	94		70 - 130	05/17/12 12:15	05/28/12 22:10	50.0
Dibromofluoromethane	90		70 - 130	05/17/12 12:15	05/28/12 22:10	50.0
Toluene-d8	113		70 - 130	05/17/12 12:15	05/28/12 22:10	50.0
4-Bromofluorobenzene	108		70 - 130	05/17/12 12:15	05/28/12 22:10	50.0

Method: SW846 8270D - Polyaromatic Hydrocarbons by EPA 8270D

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.526		0.0843	0.0428	mg/kg dry	☞	05/23/12 14:00	05/24/12 20:00	1.00
Acenaphthylene	ND		0.0843	0.0428	mg/kg dry	☞	05/23/12 14:00	05/24/12 20:00	1.00
Anthracene	0.154		0.0843	0.0428	mg/kg dry	☞	05/23/12 14:00	05/24/12 20:00	1.00
Benzo (a) anthracene	ND		0.0843	0.0428	mg/kg dry	☞	05/23/12 14:00	05/24/12 20:00	1.00
Benzo (a) pyrene	ND		0.0843	0.0428	mg/kg dry	☞	05/23/12 14:00	05/24/12 20:00	1.00
Benzo (b) fluoranthene	ND		0.0843	0.0428	mg/kg dry	☞	05/23/12 14:00	05/24/12 20:00	1.00
Benzo (g,h,i) perylene	ND		0.0843	0.0428	mg/kg dry	☞	05/23/12 14:00	05/24/12 20:00	1.00
Benzo (k) fluoranthene	ND		0.0843	0.0428	mg/kg dry	☞	05/23/12 14:00	05/24/12 20:00	1.00
Chrysene	ND		0.0843	0.0428	mg/kg dry	☞	05/23/12 14:00	05/24/12 20:00	1.00
Dibenz (a,h) anthracene	ND		0.0843	0.0428	mg/kg dry	☞	05/23/12 14:00	05/24/12 20:00	1.00
Fluoranthene	0.0465	J	0.0843	0.0428	mg/kg dry	☞	05/23/12 14:00	05/24/12 20:00	1.00
Fluorene	1.21		0.0843	0.0428	mg/kg dry	☞	05/23/12 14:00	05/24/12 20:00	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0843	0.0428	mg/kg dry	☞	05/23/12 14:00	05/24/12 20:00	1.00
Naphthalene	2.70		0.0843	0.0428	mg/kg dry	☞	05/23/12 14:00	05/24/12 20:00	1.00
Phenanthrene	2.28		0.0843	0.0428	mg/kg dry	☞	05/23/12 14:00	05/24/12 20:00	1.00
Pyrene	0.0985		0.0843	0.0428	mg/kg dry	☞	05/23/12 14:00	05/24/12 20:00	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	69		18 - 120	05/23/12 14:00	05/24/12 20:00	1.00
2-Fluorobiphenyl	61		14 - 120	05/23/12 14:00	05/24/12 20:00	1.00
Nitrobenzene-d5	72		17 - 120	05/23/12 14:00	05/24/12 20:00	1.00

Method: SW846 8270D - Polyaromatic Hydrocarbons by EPA 8270D - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	7.99		0.843	0.428	mg/kg dry	☞	05/23/12 14:00	05/25/12 14:28	10.0
2-Methylnaphthalene	16.0		0.843	0.428	mg/kg dry	☞	05/23/12 14:00	05/25/12 14:28	10.0

Client Sample Results

Client: EEG - Small Business Group, Inc. (2449)
Project/Site: [none]

TestAmerica Job ID: NWE2371

Client Sample ID: 396 Acorn-2

Date Collected: 05/17/12 12:15

Date Received: 05/19/12 08:20

Lab Sample ID: NWE2371-03

Matrix: Soil

Percent Solids: 77.6

Method: SW-846 - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Dry Solids	77.6		0.500	0.500	%		05/21/12 09:53	05/22/12 09:05	1.00

Client Sample Results

Client: EEG - Small Business Group, Inc. (2449)

TestAmerica Job ID: NWE2371

Project/Site: [none]

Client Sample ID: 396 Acorn-1

Date Collected: 05/17/12 09:45

Date Received: 05/19/12 08:20

Lab Sample ID: NWE2371-04

Matrix: Soil

Percent Solids: 76.4

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00197	0.00109	mg/kg dry	☐	05/17/12 09:45	05/24/12 17:32	1.00
Ethylbenzene	0.0460		0.00197	0.00109	mg/kg dry	☐	05/17/12 09:45	05/24/12 17:32	1.00
Toluene	ND		0.00197	0.00109	mg/kg dry	☐	05/17/12 09:45	05/24/12 17:32	1.00
Xylenes, total	0.00374	J	0.00494	0.00247	mg/kg dry	☐	05/17/12 09:45	05/24/12 17:32	1.00
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	88		70 - 130				05/17/12 09:45	05/24/12 17:32	1.00
Dibromofluoromethane	90		70 - 130				05/17/12 09:45	05/24/12 17:32	1.00
Toluene-d8	134	ZX	70 - 130				05/17/12 09:45	05/24/12 17:32	1.00
4-Bromofluorobenzene	139	ZX	70 - 130				05/17/12 09:45	05/24/12 17:32	1.00

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	0.999		0.263	0.132	mg/kg dry	☐	05/17/12 09:45	05/28/12 22:41	50.0
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	93		70 - 130				05/17/12 09:45	05/28/12 22:41	50.0
Dibromofluoromethane	89		70 - 130				05/17/12 09:45	05/28/12 22:41	50.0
Toluene-d8	112		70 - 130				05/17/12 09:45	05/28/12 22:41	50.0
4-Bromofluorobenzene	113		70 - 130				05/17/12 09:45	05/28/12 22:41	50.0

Method: SW846 8270D - Polyaromatic Hydrocarbons by EPA 8270D

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0867	0.0440	mg/kg dry	☐	05/23/12 14:00	05/24/12 20:22	1.00
Acenaphthylene	ND		0.0867	0.0440	mg/kg dry	☐	05/23/12 14:00	05/24/12 20:22	1.00
Anthracene	0.0487	J	0.0867	0.0440	mg/kg dry	☐	05/23/12 14:00	05/24/12 20:22	1.00
Benzo (a) anthracene	ND		0.0867	0.0440	mg/kg dry	☐	05/23/12 14:00	05/24/12 20:22	1.00
Benzo (a) pyrene	ND		0.0867	0.0440	mg/kg dry	☐	05/23/12 14:00	05/24/12 20:22	1.00
Benzo (b) fluoranthene	ND		0.0867	0.0440	mg/kg dry	☐	05/23/12 14:00	05/24/12 20:22	1.00
Benzo (g,h,i) perylene	ND		0.0867	0.0440	mg/kg dry	☐	05/23/12 14:00	05/24/12 20:22	1.00
Benzo (k) fluoranthene	ND		0.0867	0.0440	mg/kg dry	☐	05/23/12 14:00	05/24/12 20:22	1.00
Chrysene	ND		0.0867	0.0440	mg/kg dry	☐	05/23/12 14:00	05/24/12 20:22	1.00
Dibenz (a,h) anthracene	ND		0.0867	0.0440	mg/kg dry	☐	05/23/12 14:00	05/24/12 20:22	1.00
Fluoranthene	ND		0.0867	0.0440	mg/kg dry	☐	05/23/12 14:00	05/24/12 20:22	1.00
Fluorene	0.213		0.0867	0.0440	mg/kg dry	☐	05/23/12 14:00	05/24/12 20:22	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0867	0.0440	mg/kg dry	☐	05/23/12 14:00	05/24/12 20:22	1.00
Naphthalene	0.276		0.0867	0.0440	mg/kg dry	☐	05/23/12 14:00	05/24/12 20:22	1.00
Phenanthrene	0.403		0.0867	0.0440	mg/kg dry	☐	05/23/12 14:00	05/24/12 20:22	1.00
Pyrene	ND		0.0867	0.0440	mg/kg dry	☐	05/23/12 14:00	05/24/12 20:22	1.00
1-Methylnaphthalene	0.792		0.0867	0.0440	mg/kg dry	☐	05/23/12 14:00	05/24/12 20:22	1.00
2-Methylnaphthalene	1.44		0.0867	0.0440	mg/kg dry	☐	05/23/12 14:00	05/24/12 20:22	1.00
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Terphenyl-d14	75		18 - 120				05/23/12 14:00	05/24/12 20:22	1.00
2-Fluorobiphenyl	59		14 - 120				05/23/12 14:00	05/24/12 20:22	1.00
Nitrobenzene-d5	56		17 - 120				05/23/12 14:00	05/24/12 20:22	1.00

Method: SW-846 - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Dry Solids	76.4		0.500	0.500	%		05/21/12 09:53	05/22/12 09:05	1.00

QC Sample Results

Client: EEG - Small Business Group, Inc. (2449)
Project/Site: [none]

TestAmerica Job ID: NWE2371

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Lab Sample ID: 12E3392-BLK1

Matrix: Soil

Analysis Batch: V008753

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 12E3392_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00200	0.00110	mg/kg wet		05/24/12 00:52	05/24/12 11:37	1.00
Ethylbenzene	ND		0.00200	0.00110	mg/kg wet		05/24/12 00:52	05/24/12 11:37	1.00
Naphthalene	ND		0.00500	0.00250	mg/kg wet		05/24/12 00:52	05/24/12 11:37	1.00
Toluene	ND		0.00200	0.00110	mg/kg wet		05/24/12 00:52	05/24/12 11:37	1.00
Xylenes, total	ND		0.00500	0.00250	mg/kg wet		05/24/12 00:52	05/24/12 11:37	1.00

Surrogate	Blank %Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	104		70 - 130	05/24/12 00:52	05/24/12 11:37	1.00
Dibromofluoromethane	101		70 - 130	05/24/12 00:52	05/24/12 11:37	1.00
Toluene-d8	111		70 - 130	05/24/12 00:52	05/24/12 11:37	1.00
4-Bromofluorobenzene	114		70 - 130	05/24/12 00:52	05/24/12 11:37	1.00

Lab Sample ID: 12E3392-BLK2

Matrix: Soil

Analysis Batch: V008753

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 12E3392_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.100	0.0550	mg/kg wet		05/24/12 00:52	05/24/12 12:08	50.0
Ethylbenzene	ND		0.100	0.0550	mg/kg wet		05/24/12 00:52	05/24/12 12:08	50.0
Naphthalene	ND		0.250	0.125	mg/kg wet		05/24/12 00:52	05/24/12 12:08	50.0
Toluene	ND		0.100	0.0550	mg/kg wet		05/24/12 00:52	05/24/12 12:08	50.0
Xylenes, total	ND		0.250	0.125	mg/kg wet		05/24/12 00:52	05/24/12 12:08	50.0

Surrogate	Blank %Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	108		70 - 130	05/24/12 00:52	05/24/12 12:08	50.0
Dibromofluoromethane	104		70 - 130	05/24/12 00:52	05/24/12 12:08	50.0
Toluene-d8	109		70 - 130	05/24/12 00:52	05/24/12 12:08	50.0
4-Bromofluorobenzene	114		70 - 130	05/24/12 00:52	05/24/12 12:08	50.0

Lab Sample ID: 12E3392-BS1

Matrix: Soil

Analysis Batch: V008753

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 12E3392_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Benzene	50.0	47.1		ug/kg		94	75 - 127
Ethylbenzene	50.0	46.9		ug/kg		94	80 - 134
Naphthalene	50.0	43.2		ug/kg		86	69 - 150
Toluene	50.0	48.6		ug/kg		97	80 - 132
Xylenes, total	150	130		ug/kg		87	80 - 137

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4	98		70 - 130
Dibromofluoromethane	100		70 - 130
Toluene-d8	107		70 - 130
4-Bromofluorobenzene	105		70 - 130

QC Sample Results

Client: EEG - Small Business Group, Inc. (2449)
Project/Site: [none]

TestAmerica Job ID: NWE2371

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Lab Sample ID: 12E3392-MS1

Matrix: Soil

Analysis Batch: V008753

Client Sample ID: Matrix Spike

Prep Type: Total

Prep Batch: 12E3392_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.00228		0.0443	0.0473		mg/kg wet		102	31 - 143
Ethylbenzene	0.00604		0.0443	0.0526		mg/kg wet		105	23 - 161
Naphthalene	0.0563		0.0443	0.0678		mg/kg wet		26	10 - 176
Toluene	0.00130		0.0443	0.0525		mg/kg wet		116	30 - 155
Xylenes, total	0.0176		0.133	0.143		mg/kg wet		94	25 - 162

Surrogate	Matrix Spike %Recovery	Matrix Spike Qualifier	Limits
1,2-Dichloroethane-d4	93		70 - 130
Dibromofluoromethane	96		70 - 130
Toluene-d8	114		70 - 130
4-Bromofluorobenzene	108		70 - 130

Lab Sample ID: 12E3392-MSD1

Matrix: Soil

Analysis Batch: V008753

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total

Prep Batch: 12E3392_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.00228		0.0415	0.0470		mg/kg wet		108	31 - 143	0.7	50
Ethylbenzene	0.00604		0.0415	0.0489		mg/kg wet		103	23 - 161	7	50
Naphthalene	0.0563		0.0415	0.0609		mg/kg wet		11	10 - 176	11	50
Toluene	0.00130		0.0415	0.0510		mg/kg wet		120	30 - 155	3	50
Xylenes, total	0.0176		0.124	0.129		mg/kg wet		90	25 - 162	10	50

Surrogate	Matrix Spike Dup %Recovery	Matrix Spike Dup Qualifier	Limits
1,2-Dichloroethane-d4	95		70 - 130
Dibromofluoromethane	97		70 - 130
Toluene-d8	118		70 - 130
4-Bromofluorobenzene	109		70 - 130

Lab Sample ID: 12E4185-BLK1

Matrix: Soil

Analysis Batch: V008953

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 12E4185_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00200	0.00110	mg/kg wet		05/28/12 00:33	05/28/12 15:01	1.00
Ethylbenzene	ND		0.00200	0.00110	mg/kg wet		05/28/12 00:33	05/28/12 15:01	1.00
Naphthalene	ND		0.00500	0.00250	mg/kg wet		05/28/12 00:33	05/28/12 15:01	1.00
Toluene	ND		0.00200	0.00110	mg/kg wet		05/28/12 00:33	05/28/12 15:01	1.00
Xylenes, total	ND		0.00500	0.00250	mg/kg wet		05/28/12 00:33	05/28/12 15:01	1.00

Surrogate	Blank %Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	105		70 - 130	05/28/12 00:33	05/28/12 15:01	1.00
Dibromofluoromethane	103		70 - 130	05/28/12 00:33	05/28/12 15:01	1.00
Toluene-d8	115		70 - 130	05/28/12 00:33	05/28/12 15:01	1.00
4-Bromofluorobenzene	116		70 - 130	05/28/12 00:33	05/28/12 15:01	1.00

QC Sample Results

Client: EEG - Small Business Group, Inc. (2449)
Project/Site: [none]

TestAmerica Job ID: NWE2371

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Lab Sample ID: 12E4185-BLK2

Matrix: Soil

Analysis Batch: V008953

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 12E4185_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.100	0.0550	mg/kg wet		05/28/12 00:33	05/28/12 15:31	50.0
Ethylbenzene	ND		0.100	0.0550	mg/kg wet		05/28/12 00:33	05/28/12 15:31	50.0
Naphthalene	ND		0.250	0.125	mg/kg wet		05/28/12 00:33	05/28/12 15:31	50.0
Toluene	ND		0.100	0.0550	mg/kg wet		05/28/12 00:33	05/28/12 15:31	50.0
Xylenes, total	ND		0.250	0.125	mg/kg wet		05/28/12 00:33	05/28/12 15:31	50.0

Surrogate	Blank %Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	109		70 - 130	05/28/12 00:33	05/28/12 15:31	50.0
Dibromofluoromethane	103		70 - 130	05/28/12 00:33	05/28/12 15:31	50.0
Toluene-d8	129		70 - 130	05/28/12 00:33	05/28/12 15:31	50.0
4-Bromofluorobenzene	116		70 - 130	05/28/12 00:33	05/28/12 15:31	50.0

Lab Sample ID: 12E4185-BS1

Matrix: Soil

Analysis Batch: V008953

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 12E4185_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	44.4		ug/kg		89	75 - 127
Ethylbenzene	50.0	45.5		ug/kg		91	80 - 134
Naphthalene	50.0	38.2		ug/kg		76	69 - 150
Toluene	50.0	49.9		ug/kg		100	80 - 132
Xylenes, total	150	126		ug/kg		84	80 - 137

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4	108		70 - 130
Dibromofluoromethane	103		70 - 130
Toluene-d8	121		70 - 130
4-Bromofluorobenzene	106		70 - 130

Lab Sample ID: 12E4185-BSD1

Matrix: Soil

Analysis Batch: V008953

Client Sample ID: Lab Control Sample Dup

Prep Type: Total

Prep Batch: 12E4185_P

Analyte	Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	50.0	45.3		ug/kg		91	75 - 127	2	50
Ethylbenzene	50.0	47.0		ug/kg		94	80 - 134	3	50
Naphthalene	50.0	40.4		ug/kg		81	69 - 150	6	50
Toluene	50.0	48.3		ug/kg		97	80 - 132	3	50
Xylenes, total	150	131		ug/kg		88	80 - 137	4	50

Surrogate	LCS Dup %Recovery	LCS Dup Qualifier	Limits
1,2-Dichloroethane-d4	109		70 - 130
Dibromofluoromethane	104		70 - 130
Toluene-d8	115		70 - 130
4-Bromofluorobenzene	105		70 - 130

QC Sample Results

Client: EEG - Small Business Group, Inc. (2449)
Project/Site: [none]

TestAmerica Job ID: NWE2371

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Lab Sample ID: 12E4185-MS1

Matrix: Soil

Analysis Batch: V008953

Client Sample ID: Matrix Spike

Prep Type: Total

Prep Batch: 12E4185_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	ND		2.50	2.16		mg/kg wet		86	31 - 143
Ethylbenzene	0.152		2.50	2.68		mg/kg wet		101	23 - 161
Naphthalene	0.727		2.50	2.93		mg/kg wet		88	10 - 176
Toluene	ND		2.50	2.48		mg/kg wet		99	30 - 155
Xylenes, total	1.15		7.50	8.01		mg/kg wet		91	25 - 162

Surrogate	Matrix Spike %Recovery	Matrix Spike Qualifier	Limits
1,2-Dichloroethane-d4	92		70 - 130
Dibromofluoromethane	94		70 - 130
Toluene-d8	113		70 - 130
4-Bromofluorobenzene	116		70 - 130

Lab Sample ID: 12E4185-MSD1

Matrix: Soil

Analysis Batch: V008953

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total

Prep Batch: 12E4185_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	ND		2.50	2.38		mg/kg wet		95	31 - 143	10	50
Ethylbenzene	0.152		2.50	3.06		mg/kg wet		116	23 - 161	13	50
Naphthalene	0.727		2.50	2.17		mg/kg wet		58	10 - 176	30	50
Toluene	ND		2.50	2.80		mg/kg wet		112	30 - 155	12	50
Xylenes, total	1.15		7.50	8.96		mg/kg wet		104	25 - 162	11	50

Surrogate	Matrix Spike Dup %Recovery	Matrix Spike Dup Qualifier	Limits
1,2-Dichloroethane-d4	72		70 - 130
Dibromofluoromethane	87		70 - 130
Toluene-d8	116		70 - 130
4-Bromofluorobenzene	117		70 - 130

Lab Sample ID: 12E5635-BLK1

Matrix: Soil

Analysis Batch: V008819

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 12E5635_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00200	0.00110	mg/kg wet		05/25/12 09:16	05/25/12 11:49	1.00
Ethylbenzene	ND		0.00200	0.00110	mg/kg wet		05/25/12 09:16	05/25/12 11:49	1.00
Naphthalene	ND		0.00500	0.00250	mg/kg wet		05/25/12 09:16	05/25/12 11:49	1.00
Toluene	ND		0.00200	0.00110	mg/kg wet		05/25/12 09:16	05/25/12 11:49	1.00
Xylenes, total	ND		0.00500	0.00250	mg/kg wet		05/25/12 09:16	05/25/12 11:49	1.00

Surrogate	Blank %Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	100		70 - 130	05/25/12 09:16	05/25/12 11:49	1.00
Dibromofluoromethane	100		70 - 130	05/25/12 09:16	05/25/12 11:49	1.00
Toluene-d8	106		70 - 130	05/25/12 09:16	05/25/12 11:49	1.00
4-Bromofluorobenzene	109		70 - 130	05/25/12 09:16	05/25/12 11:49	1.00

QC Sample Results

Client: EEG - Small Business Group, Inc. (2449)

TestAmerica Job ID: NWE2371

Project/Site: [none]

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Lab Sample ID: 12E5635-BLK2

Matrix: Soil

Analysis Batch: V008819

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 12E5635_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.100	0.0550	mg/kg wet		05/25/12 09:16	05/25/12 12:20	50.0
Ethylbenzene	ND		0.100	0.0550	mg/kg wet		05/25/12 09:16	05/25/12 12:20	50.0
Naphthalene	ND		0.250	0.125	mg/kg wet		05/25/12 09:16	05/25/12 12:20	50.0
Toluene	ND		0.100	0.0550	mg/kg wet		05/25/12 09:16	05/25/12 12:20	50.0
Xylenes, total	ND		0.250	0.125	mg/kg wet		05/25/12 09:16	05/25/12 12:20	50.0

Surrogate	Blank %Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	99		70 - 130	05/25/12 09:16	05/25/12 12:20	50.0
Dibromofluoromethane	102		70 - 130	05/25/12 09:16	05/25/12 12:20	50.0
Toluene-d8	106		70 - 130	05/25/12 09:16	05/25/12 12:20	50.0
4-Bromofluorobenzene	110		70 - 130	05/25/12 09:16	05/25/12 12:20	50.0

Lab Sample ID: 12E5635-BS1

Matrix: Soil

Analysis Batch: V008819

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 12E5635_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	50.8		ug/kg		102	75 - 127
Ethylbenzene	50.0	51.6		ug/kg		103	80 - 134
Naphthalene	50.0	47.4		ug/kg		95	69 - 150
Toluene	50.0	53.4		ug/kg		107	80 - 132
Xylenes, total	150	143		ug/kg		96	80 - 137

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4	98		70 - 130
Dibromofluoromethane	99		70 - 130
Toluene-d8	108		70 - 130
4-Bromofluorobenzene	106		70 - 130

Lab Sample ID: 12E5635-BSD1

Matrix: Soil

Analysis Batch: V008819

Client Sample ID: Lab Control Sample Dup

Prep Type: Total

Prep Batch: 12E5635_P

Analyte	Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	50.0	53.0		ug/kg		106	75 - 127	4	50
Ethylbenzene	50.0	51.4		ug/kg		103	80 - 134	0.4	50
Naphthalene	50.0	47.6		ug/kg		95	69 - 150	0.4	50
Toluene	50.0	51.9		ug/kg		104	80 - 132	3	50
Xylenes, total	150	141		ug/kg		94	80 - 137	1	50

Surrogate	LCS Dup %Recovery	LCS Dup Qualifier	Limits
1,2-Dichloroethane-d4	97		70 - 130
Dibromofluoromethane	100		70 - 130
Toluene-d8	105		70 - 130
4-Bromofluorobenzene	103		70 - 130

QC Sample Results

Client: EEG - Small Business Group, Inc. (2449)
Project/Site: [none]

TestAmerica Job ID: NWE2371

Method: SW846 8270D - Polyaromatic Hydrocarbons by EPA 8270D

Lab Sample ID: 12E3780-BLK1

Matrix: Soil

Analysis Batch: 12E3780

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 12E3780_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0670	0.0340	mg/kg wet		05/23/12 14:00	05/24/12 13:11	1.00
Acenaphthylene	ND		0.0670	0.0340	mg/kg wet		05/23/12 14:00	05/24/12 13:11	1.00
Anthracene	ND		0.0670	0.0340	mg/kg wet		05/23/12 14:00	05/24/12 13:11	1.00
Benzo (a) anthracene	ND		0.0670	0.0340	mg/kg wet		05/23/12 14:00	05/24/12 13:11	1.00
Benzo (a) pyrene	ND		0.0670	0.0340	mg/kg wet		05/23/12 14:00	05/24/12 13:11	1.00
Benzo (b) fluoranthene	ND		0.0670	0.0340	mg/kg wet		05/23/12 14:00	05/24/12 13:11	1.00
Benzo (g,h,i) perylene	ND		0.0670	0.0340	mg/kg wet		05/23/12 14:00	05/24/12 13:11	1.00
Benzo (k) fluoranthene	ND		0.0670	0.0340	mg/kg wet		05/23/12 14:00	05/24/12 13:11	1.00
Chrysene	ND		0.0670	0.0340	mg/kg wet		05/23/12 14:00	05/24/12 13:11	1.00
Dibenz (a,h) anthracene	ND		0.0670	0.0340	mg/kg wet		05/23/12 14:00	05/24/12 13:11	1.00
Fluoranthene	ND		0.0670	0.0340	mg/kg wet		05/23/12 14:00	05/24/12 13:11	1.00
Fluorene	ND		0.0670	0.0340	mg/kg wet		05/23/12 14:00	05/24/12 13:11	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0670	0.0340	mg/kg wet		05/23/12 14:00	05/24/12 13:11	1.00
Naphthalene	ND		0.0670	0.0340	mg/kg wet		05/23/12 14:00	05/24/12 13:11	1.00
Phenanthrene	ND		0.0670	0.0340	mg/kg wet		05/23/12 14:00	05/24/12 13:11	1.00
Pyrene	ND		0.0670	0.0340	mg/kg wet		05/23/12 14:00	05/24/12 13:11	1.00
1-Methylnaphthalene	ND		0.0670	0.0340	mg/kg wet		05/23/12 14:00	05/24/12 13:11	1.00
2-Methylnaphthalene	ND		0.0670	0.0340	mg/kg wet		05/23/12 14:00	05/24/12 13:11	1.00

Surrogate	Blank %Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	81		18 - 120	05/23/12 14:00	05/24/12 13:11	1.00
2-Fluorobiphenyl	60		14 - 120	05/23/12 14:00	05/24/12 13:11	1.00
Nitrobenzene-d5	58		17 - 120	05/23/12 14:00	05/24/12 13:11	1.00

Lab Sample ID: 12E3780-BS1

Matrix: Soil

Analysis Batch: 12E3780

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 12E3780_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	1.67	1.28		mg/kg wet		77	36 - 120
Acenaphthylene	1.67	1.29		mg/kg wet		78	38 - 120
Anthracene	1.67	1.39		mg/kg wet		84	46 - 124
Benzo (a) anthracene	1.67	1.50		mg/kg wet		90	45 - 120
Benzo (a) pyrene	1.67	1.52		mg/kg wet		91	45 - 120
Benzo (b) fluoranthene	1.67	1.48		mg/kg wet		89	42 - 120
Benzo (g,h,i) perylene	1.67	1.34		mg/kg wet		80	38 - 120
Benzo (k) fluoranthene	1.67	1.34		mg/kg wet		80	42 - 120
Chrysene	1.67	1.40		mg/kg wet		84	43 - 120
Dibenz (a,h) anthracene	1.67	1.42		mg/kg wet		85	32 - 128
Fluoranthene	1.67	1.41		mg/kg wet		84	46 - 120
Fluorene	1.67	1.37		mg/kg wet		82	42 - 120
Indeno (1,2,3-cd) pyrene	1.67	1.37		mg/kg wet		82	41 - 121
Naphthalene	1.67	1.31		mg/kg wet		79	32 - 120
Phenanthrene	1.67	1.36		mg/kg wet		81	45 - 120
Pyrene	1.67	1.43		mg/kg wet		86	43 - 120
1-Methylnaphthalene	1.67	0.960		mg/kg wet		58	32 - 120
2-Methylnaphthalene	1.67	1.26		mg/kg wet		76	28 - 120

QC Sample Results

Client: EEG - Small Business Group, Inc. (2449)
Project/Site: [none]

TestAmerica Job ID: NWE2371

Method: SW846 8270D - Polyaromatic Hydrocarbons by EPA 8270D (Continued)

Lab Sample ID: 12E3780-BS1

Matrix: Soil

Analysis Batch: 12E3780

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 12E3780_P

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
Terphenyl-d14	78		18 - 120
2-Fluorobiphenyl	58		14 - 120
Nitrobenzene-d5	54		17 - 120

Lab Sample ID: 12E3780-BSD1

Matrix: Soil

Analysis Batch: 12E3780

Client Sample ID: Lab Control Sample Dup

Prep Type: Total

Prep Batch: 12E3780_P

Analyte	Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acenaphthene	1.67	1.26		mg/kg wet		75	36 - 120	2	50
Acenaphthylene	1.67	1.29		mg/kg wet		78	38 - 120	0.03	50
Anthracene	1.67	1.37		mg/kg wet		82	46 - 124	1	49
Benzo (a) anthracene	1.67	1.47		mg/kg wet		88	45 - 120	2	50
Benzo (a) pyrene	1.67	1.49		mg/kg wet		89	45 - 120	2	50
Benzo (b) fluoranthene	1.67	1.46		mg/kg wet		88	42 - 120	1	50
Benzo (g,h,i) perylene	1.67	1.27		mg/kg wet		76	38 - 120	5	50
Benzo (k) fluoranthene	1.67	1.29		mg/kg wet		77	42 - 120	4	45
Chrysene	1.67	1.37		mg/kg wet		82	43 - 120	2	49
Dibenz (a,h) anthracene	1.67	1.35		mg/kg wet		81	32 - 128	5	50
Fluoranthene	1.67	1.37		mg/kg wet		82	46 - 120	3	50
Fluorene	1.67	1.36		mg/kg wet		82	42 - 120	0.3	50
Indeno (1,2,3-cd) pyrene	1.67	1.33		mg/kg wet		80	41 - 121	3	50
Naphthalene	1.67	1.29		mg/kg wet		77	32 - 120	2	50
Phenanthrene	1.67	1.35		mg/kg wet		81	45 - 120	0.5	50
Pyrene	1.67	1.44		mg/kg wet		86	43 - 120	1	50
1-Methylnaphthalene	1.67	0.945		mg/kg wet		57	32 - 120	2	50
2-Methylnaphthalene	1.67	1.26		mg/kg wet		76	28 - 120	0.4	50

	LCS Dup	LCS Dup	
Surrogate	%Recovery	Qualifier	Limits
Terphenyl-d14	82		18 - 120
2-Fluorobiphenyl	59		14 - 120
Nitrobenzene-d5	55		17 - 120

Lab Sample ID: 12E3780-MS1

Matrix: Soil

Analysis Batch: 12E3780

Client Sample ID: Matrix Spike

Prep Type: Total

Prep Batch: 12E3780_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	Limits
Acenaphthene	0.0820		1.96	ND	A-01	mg/kg dry	☹	-4	19 - 120
Acenaphthylene	0.183		1.96	0.0427	A-01 J	mg/kg dry	☹	-7	25 - 120
Anthracene	0.302		1.96	0.0845	A-01	mg/kg dry	☹	-11	28 - 125
Benzo (a) anthracene	1.32		1.96	0.378	A-01	mg/kg dry	☹	-48	23 - 120
Benzo (a) pyrene	1.28		1.96	0.353	A-01	mg/kg dry	☹	-47	15 - 128
Benzo (b) fluoranthene	1.57		1.96	0.443	A-01	mg/kg dry	☹	-58	12 - 133
Benzo (g,h,i) perylene	0.752		1.96	0.209	A-01	mg/kg dry	☹	-28	22 - 120
Benzo (k) fluoranthene	0.575		1.96	0.145	A-01	mg/kg dry	☹	-22	28 - 120
Chrysene	1.33		1.96	0.388	A-01	mg/kg dry	☹	-48	20 - 120
Dibenz (a,h) anthracene	0.166		1.96	0.0481	A-01 J	mg/kg dry	☹	-6	12 - 128
Fluoranthene	2.64		1.96	0.783	A-01	mg/kg dry	☹	-95	10 - 143

QC Sample Results

Client: EEG - Small Business Group, Inc. (2449)
Project/Site: [none]

TestAmerica Job ID: NWE2371

Method: SW846 8270D - Polyaromatic Hydrocarbons by EPA 8270D (Continued)

Lab Sample ID: 12E3780-MS1

Matrix: Soil

Analysis Batch: 12E3780

Client Sample ID: Matrix Spike

Prep Type: Total

Prep Batch: 12E3780_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Matrix Spike Unit	D	%Rec	Limits
Fluorene	0.145		1.96	ND	A-01	mg/kg dry	⚡	-7	20 - 120
Indeno (1,2,3-cd) pyrene	0.650		1.96	0.170	A-01	mg/kg dry	⚡	-25	22 - 121
Naphthalene	ND		1.96	ND	A-01	mg/kg dry	⚡		10 - 120
Phenanthrene	1.67		1.96	0.481	A-01	mg/kg dry	⚡	-61	21 - 122
Pyrene	2.59		1.96	0.765	A-01	mg/kg dry	⚡	-93	20 - 123
1-Methylnaphthalene	ND		1.96	ND	A-01	mg/kg dry	⚡		10 - 120
2-Methylnaphthalene	ND		1.96	ND	A-01	mg/kg dry	⚡		13 - 120

Surrogate	Matrix Spike %Recovery	Matrix Spike Qualifier	Limits
Terphenyl-d14	77		18 - 120
2-Fluorobiphenyl	57		14 - 120
Nitrobenzene-d5	56		17 - 120

Lab Sample ID: 12E3780-MSD1

Matrix: Soil

Analysis Batch: 12E3780

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total

Prep Batch: 12E3780_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Matrix Spike Dup Unit	D	%Rec	Limits	RPD	Limit
Acenaphthene	0.0820		1.97	1.10		mg/kg dry	⚡	51	19 - 120		50
Acenaphthylene	0.183		1.97	1.17		mg/kg dry	⚡	50	25 - 120	186	50
Anthracene	0.302		1.97	1.22		mg/kg dry	⚡	47	28 - 125	174	49
Benzo (a) anthracene	1.32		1.97	1.37		mg/kg dry	⚡	3	23 - 120	113	50
Benzo (a) pyrene	1.28		1.97	1.37		mg/kg dry	⚡	5	15 - 128	118	50
Benzo (b) fluoranthene	1.57		1.97	1.37		mg/kg dry	⚡	-10	12 - 133	102	50
Benzo (g,h,i) perylene	0.752		1.97	1.15		mg/kg dry	⚡	20	22 - 120	139	50
Benzo (k) fluoranthene	0.575		1.97	1.10		mg/kg dry	⚡	27	28 - 120	153	45
Chrysene	1.33		1.97	1.26		mg/kg dry	⚡	-4	20 - 120	106	49
Dibenz (a,h) anthracene	0.166		1.97	1.15		mg/kg dry	⚡	50	12 - 128	184	50
Fluoranthene	2.64		1.97	1.39		mg/kg dry	⚡	-63	10 - 143	56	50
Fluorene	0.145		1.97	1.18		mg/kg dry	⚡	53	20 - 120		50
Indeno (1,2,3-cd) pyrene	0.650		1.97	1.17		mg/kg dry	⚡	26	22 - 121	149	50
Naphthalene	ND		1.97	1.14		mg/kg dry	⚡	58	10 - 120		50
Phenanthrene	1.67		1.97	1.32		mg/kg dry	⚡	-18	21 - 122	93	50
Pyrene	2.59		1.97	1.48		mg/kg dry	⚡	-56	20 - 123	64	50
1-Methylnaphthalene	ND		1.97	0.854		mg/kg dry	⚡	43	10 - 120		50
2-Methylnaphthalene	ND		1.97	1.13		mg/kg dry	⚡	57	13 - 120		50

Surrogate	Matrix Spike Dup %Recovery	Matrix Spike Dup Qualifier	Limits
Terphenyl-d14	57		18 - 120
2-Fluorobiphenyl	39		14 - 120
Nitrobenzene-d5	35		17 - 120

QC Sample Results

Client: EEG - Small Business Group, Inc. (2449)
Project/Site: [none]

TestAmerica Job ID: NWE2371

Method: SW-846 - General Chemistry Parameters

Lab Sample ID: 12E4519-DUP1

Matrix: Soil

Analysis Batch: 12E4519

Client Sample ID: Duplicate

Prep Type: Total

Prep Batch: 12E4519_P

Analyte	Sample	Sample	Duplicate	Duplicate	Unit	D	RPD	
	Result	Qualifier	Result	Qualifier			RPD	Limit
% Dry Solids	79.1		78.7		%		0.6	20

QC Association Summary

Client: EEG - Small Business Group, Inc. (2449)
Project/Site: [none]

TestAmerica Job ID: NWE2371

GCMS Volatiles

Analysis Batch: V008753

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E3392-BLK1	Method Blank	Total	Soil	SW846 8260B	12E3392_P
12E3392-BLK2	Method Blank	Total	Soil	SW846 8260B	12E3392_P
12E3392-BS1	Lab Control Sample	Total	Soil	SW846 8260B	12E3392_P
12E3392-MS1	Matrix Spike	Total	Soil	SW846 8260B	12E3392_P
12E3392-MSD1	Matrix Spike Duplicate	Total	Soil	SW846 8260B	12E3392_P
NWE2371-01	1479 Cardinal	Total	Soil	SW846 8260B	12E3392_P
NWE2371-02	1202 Cardinal	Total	Soil	SW846 8260B	12E3392_P
NWE2371-03	396 Acorn-2	Total	Soil	SW846 8260B	12E3392_P
NWE2371-04	396 Acorn-1	Total	Soil	SW846 8260B	12E3392_P

Analysis Batch: V008819

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E5635-BLK1	Method Blank	Total	Soil	SW846 8260B	12E5635_P
12E5635-BLK2	Method Blank	Total	Soil	SW846 8260B	12E5635_P
12E5635-BS1	Lab Control Sample	Total	Soil	SW846 8260B	12E5635_P
12E5635-BSD1	Lab Control Sample Dup	Total	Soil	SW846 8260B	12E5635_P
NWE2371-02 - RE1	1202 Cardinal	Total	Soil	SW846 8260B	12E5635_P

Analysis Batch: V008953

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E4185-BLK1	Method Blank	Total	Soil	SW846 8260B	12E4185_P
12E4185-BLK2	Method Blank	Total	Soil	SW846 8260B	12E4185_P
12E4185-BS1	Lab Control Sample	Total	Soil	SW846 8260B	12E4185_P
12E4185-BSD1	Lab Control Sample Dup	Total	Soil	SW846 8260B	12E4185_P
12E4185-MS1	Matrix Spike	Total	Soil	SW846 8260B	12E4185_P
12E4185-MSD1	Matrix Spike Duplicate	Total	Soil	SW846 8260B	12E4185_P
NWE2371-01 - RE1	1479 Cardinal	Total	Soil	SW846 8260B	12E4185_P
NWE2371-03 - RE1	396 Acorn-2	Total	Soil	SW846 8260B	12E4185_P
NWE2371-04 - RE1	396 Acorn-1	Total	Soil	SW846 8260B	12E4185_P

Prep Batch: 12E3392_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E3392-BLK1	Method Blank	Total	Soil	EPA 5035	
12E3392-BLK2	Method Blank	Total	Soil	EPA 5035	
12E3392-BS1	Lab Control Sample	Total	Soil	EPA 5035	
12E3392-MS1	Matrix Spike	Total	Soil	EPA 5035	
12E3392-MSD1	Matrix Spike Duplicate	Total	Soil	EPA 5035	
NWE2371-01	1479 Cardinal	Total	Soil	EPA 5035	
NWE2371-02	1202 Cardinal	Total	Soil	EPA 5035	
NWE2371-03	396 Acorn-2	Total	Soil	EPA 5035	
NWE2371-04	396 Acorn-1	Total	Soil	EPA 5035	

Prep Batch: 12E4185_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E4185-BLK1	Method Blank	Total	Soil	EPA 5035	
12E4185-BLK2	Method Blank	Total	Soil	EPA 5035	
12E4185-BS1	Lab Control Sample	Total	Soil	EPA 5035	
12E4185-BSD1	Lab Control Sample Dup	Total	Soil	EPA 5035	
12E4185-MS1	Matrix Spike	Total	Soil	EPA 5035	
12E4185-MSD1	Matrix Spike Duplicate	Total	Soil	EPA 5035	
NWE2371-01 - RE1	1479 Cardinal	Total	Soil	EPA 5035	
NWE2371-03 - RE1	396 Acorn-2	Total	Soil	EPA 5035	

QC Association Summary

Client: EEG - Small Business Group, Inc. (2449)
Project/Site: [none]

TestAmerica Job ID: NWE2371

GCMS Volatiles (Continued)

Prep Batch: 12E4185_P (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
NWE2371-04 - RE1	396 Acorn-1	Total	Soil	EPA 5035	

Prep Batch: 12E5635_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E5635-BLK1	Method Blank	Total	Soil	EPA 5035	
12E5635-BLK2	Method Blank	Total	Soil	EPA 5035	
12E5635-BS1	Lab Control Sample	Total	Soil	EPA 5035	
12E5635-BSD1	Lab Control Sample Dup	Total	Soil	EPA 5035	
NWE2371-02 - RE1	1202 Cardinal	Total	Soil	EPA 5035	

GCMS Semivolatiles

Analysis Batch: 12E3780

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E3780-BLK1	Method Blank	Total	Soil	SW846 8270D	12E3780_P
12E3780-BS1	Lab Control Sample	Total	Soil	SW846 8270D	12E3780_P
12E3780-BSD1	Lab Control Sample Dup	Total	Soil	SW846 8270D	12E3780_P
12E3780-MS1	Matrix Spike	Total	Soil	SW846 8270D	12E3780_P
12E3780-MSD1	Matrix Spike Duplicate	Total	Soil	SW846 8270D	12E3780_P
NWE2371-01 - RE1	1479 Cardinal	Total	Soil	SW846 8270D	12E3780_P
NWE2371-02	1202 Cardinal	Total	Soil	SW846 8270D	12E3780_P
NWE2371-03	396 Acorn-2	Total	Soil	SW846 8270D	12E3780_P
NWE2371-03 - RE1	396 Acorn-2	Total	Soil	SW846 8270D	12E3780_P
NWE2371-04	396 Acorn-1	Total	Soil	SW846 8270D	12E3780_P

Prep Batch: 12E3780_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E3780-BLK1	Method Blank	Total	Soil	EPA 3550C	
12E3780-BS1	Lab Control Sample	Total	Soil	EPA 3550C	
12E3780-BSD1	Lab Control Sample Dup	Total	Soil	EPA 3550C	
12E3780-MS1	Matrix Spike	Total	Soil	EPA 3550C	
12E3780-MSD1	Matrix Spike Duplicate	Total	Soil	EPA 3550C	
NWE2371-01 - RE1	1479 Cardinal	Total	Soil	EPA 3550C	
NWE2371-02	1202 Cardinal	Total	Soil	EPA 3550C	
NWE2371-03	396 Acorn-2	Total	Soil	EPA 3550C	
NWE2371-03 - RE1	396 Acorn-2	Total	Soil	EPA 3550C	
NWE2371-04	396 Acorn-1	Total	Soil	EPA 3550C	

Extractions

Analysis Batch: 12E4519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E4519-DUP1	Duplicate	Total	Soil	SW-846	12E4519_P
NWE2371-01	1479 Cardinal	Total	Soil	SW-846	12E4519_P
NWE2371-02	1202 Cardinal	Total	Soil	SW-846	12E4519_P
NWE2371-03	396 Acorn-2	Total	Soil	SW-846	12E4519_P
NWE2371-04	396 Acorn-1	Total	Soil	SW-846	12E4519_P

Prep Batch: 12E4519_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12E4519-DUP1	Duplicate	Total	Soil	% Solids	
NWE2371-01	1479 Cardinal	Total	Soil	% Solids	

QC Association Summary

Client: EEG - Small Business Group, Inc. (2449)
Project/Site: [none]

TestAmerica Job ID: NWE2371

Extractions (Continued)

Prep Batch: 12E4519_P (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
NWE2371-02	1202 Cardinal	Total	Soil	% Solids	
NWE2371-03	396 Acorn-2	Total	Soil	% Solids	
NWE2371-04	396 Acorn-1	Total	Soil	% Solids	

Lab Chronicle

Client: EEG - Small Business Group, Inc. (2449)
Project/Site: [none]

TestAmerica Job ID: NWE2371

Client Sample ID: 1479 Cardinal

Date Collected: 05/14/12 13:45

Date Received: 05/19/12 08:20

Lab Sample ID: NWE2371-01

Matrix: Soil
Percent Solids: 75.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5035		0.782	12E3392_P	05/14/12 13:45	AAN	TAL NSH
Total	Analysis	SW846 8260B		1.00	V008753	05/24/12 16:00	KKK	TAL NSH
Total	Prep	EPA 5035	RE1	0.992	12E4185_P	05/14/12 13:45	AAN	TAL NSH
Total	Analysis	SW846 8260B	RE1	50.0	V008953	05/28/12 21:39	KKK	TAL NSH
Total	Prep	EPA 3550C	RE1	0.995	12E3780_P	05/23/12 14:00	TRF	TAL NSH
Total	Analysis	SW846 8270D	RE1	10.0	12E3780	05/25/12 14:05	BES	TAL NSH
Total	Prep	% Solids		1.00	12E4519_P	05/21/12 09:53	KDJ	TAL NSH
Total	Analysis	SW-846		1.00	12E4519	05/22/12 09:05	KDJ	TAL NSH

Client Sample ID: 1202 Cardinal

Date Collected: 05/15/12 14:15

Date Received: 05/19/12 08:20

Lab Sample ID: NWE2371-02

Matrix: Soil
Percent Solids: 88.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5035		1.12	12E3392_P	05/15/12 14:15	AAN	TAL NSH
Total	Analysis	SW846 8260B		1.00	V008753	05/24/12 16:30	KKK	TAL NSH
Total	Prep	EPA 5035	RE1	1.05	12E5635_P	05/15/12 14:15	AAN	TAL NSH
Total	Analysis	SW846 8260B	RE1	1.00	V008819	05/25/12 12:50	KKK	TAL NSH
Total	Prep	EPA 3550C		0.994	12E3780_P	05/23/12 14:00	TRF	TAL NSH
Total	Analysis	SW846 8270D		1.00	12E3780	05/24/12 19:37	BES	TAL NSH
Total	Prep	% Solids		1.00	12E4519_P	05/21/12 09:53	KDJ	TAL NSH
Total	Analysis	SW-846		1.00	12E4519	05/22/12 09:05	KDJ	TAL NSH

Client Sample ID: 396 Acorn-2

Date Collected: 05/17/12 12:15

Date Received: 05/19/12 08:20

Lab Sample ID: NWE2371-03

Matrix: Soil
Percent Solids: 77.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5035		0.938	12E3392_P	05/17/12 12:15	AAN	TAL NSH
Total	Analysis	SW846 8260B		1.00	V008753	05/24/12 17:01	KKK	TAL NSH
Total	Prep	EPA 5035	RE1	0.888	12E4185_P	05/17/12 12:15	AAN	TAL NSH
Total	Analysis	SW846 8260B	RE1	50.0	V008953	05/28/12 22:10	KKK	TAL NSH
Total	Prep	EPA 3550C		0.976	12E3780_P	05/23/12 14:00	TRF	TAL NSH
Total	Analysis	SW846 8270D		1.00	12E3780	05/24/12 20:00	BES	TAL NSH
Total	Prep	EPA 3550C	RE1	0.976	12E3780_P	05/23/12 14:00	TRF	TAL NSH
Total	Analysis	SW846 8270D	RE1	10.0	12E3780	05/25/12 14:28	BES	TAL NSH
Total	Prep	% Solids		1.00	12E4519_P	05/21/12 09:53	KDJ	TAL NSH
Total	Analysis	SW-846		1.00	12E4519	05/22/12 09:05	KDJ	TAL NSH

Lab Chronicle

Client: EEG - Small Business Group, Inc. (2449)
Project/Site: [none]

TestAmerica Job ID: NWE2371

Client Sample ID: 396 Acorn-1

Date Collected: 05/17/12 09:45

Date Received: 05/19/12 08:20

Lab Sample ID: NWE2371-04

Matrix: Soil
Percent Solids: 76.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5035		0.754	12E3392_P	05/17/12 09:45	AAN	TAL NSH
Total	Analysis	SW846 8260B		1.00	V008753	05/24/12 17:32	KKK	TAL NSH
Total	Prep	EPA 5035	RE1	0.804	12E4185_P	05/17/12 09:45	AAN	TAL NSH
Total	Analysis	SW846 8260B	RE1	50.0	V008953	05/28/12 22:41	KKK	TAL NSH
Total	Prep	EPA 3550C		0.988	12E3780_P	05/23/12 14:00	TRF	TAL NSH
Total	Analysis	SW846 8270D		1.00	12E3780	05/24/12 20:22	BES	TAL NSH
Total	Prep	% Solids		1.00	12E4519_P	05/21/12 09:53	KDJ	TAL NSH
Total	Analysis	SW-846		1.00	12E4519	05/22/12 09:05	KDJ	TAL NSH

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Road, Nashville, TN 37204, TEL 800-765-0980

Method Summary

Client: EEG - Small Business Group, Inc. (2449)
Project/Site: [none]

TestAmerica Job ID: NWE2371

Method	Method Description	Protocol	Laboratory
SW-846	General Chemistry Parameters		TAL NSH
SW846 8260B	Volatile Organic Compounds by EPA Method 8260B		TAL NSH
SW846 8270D	Polyaromatic Hydrocarbons by EPA 8270D		TAL NSH

Protocol References:

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Road, Nashville, TN 37204, TEL 800-765-0980

Certification Summary

Client: EEG - Small Business Group, Inc. (2449)
Project/Site: [none]

TestAmerica Job ID: NWE2371

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Nashville		ACIL		393
TestAmerica Nashville	A2LA	ISO/IEC 17025		0453.07
TestAmerica Nashville	Alabama	State Program	4	41150
TestAmerica Nashville	Alaska (UST)	State Program	10	UST-087
TestAmerica Nashville	Arizona	State Program	9	AZ0473
TestAmerica Nashville	Arkansas DEQ	State Program	6	88-0737
TestAmerica Nashville	California	NELAC	9	1168CA
TestAmerica Nashville	Canadian Assoc Lab Accred (CALA)	Canada		3744
TestAmerica Nashville	Colorado	State Program	8	N/A
TestAmerica Nashville	Connecticut	State Program	1	PH-0220
TestAmerica Nashville	Florida	NELAC	4	E87358
TestAmerica Nashville	Illinois	NELAC	5	200010
TestAmerica Nashville	Iowa	State Program	7	131
TestAmerica Nashville	Kansas	NELAC	7	E-10229
TestAmerica Nashville	Kentucky	State Program	4	90038
TestAmerica Nashville	Kentucky (UST)	State Program	4	19
TestAmerica Nashville	Louisiana	NELAC	6	30613
TestAmerica Nashville	Louisiana	NELAC	6	LA110014
TestAmerica Nashville	Maryland	State Program	3	316
TestAmerica Nashville	Massachusetts	State Program	1	M-TN032
TestAmerica Nashville	Minnesota	NELAC	5	047-999-345
TestAmerica Nashville	Mississippi	State Program	4	N/A
TestAmerica Nashville	Montana (UST)	State Program	8	NA
TestAmerica Nashville	New Hampshire	NELAC	1	2963
TestAmerica Nashville	New Jersey	NELAC	2	TN965
TestAmerica Nashville	New York	NELAC	2	11342
TestAmerica Nashville	North Carolina DENR	State Program	4	387
TestAmerica Nashville	North Dakota	State Program	8	R-146
TestAmerica Nashville	Ohio VAP	State Program	5	CL0033
TestAmerica Nashville	Oklahoma	State Program	6	9412
TestAmerica Nashville	Oregon	NELAC	10	TN200001
TestAmerica Nashville	Pennsylvania	NELAC	3	68-00585
TestAmerica Nashville	Rhode Island	State Program	1	LAO00268
TestAmerica Nashville	South Carolina	State Program	4	84009
TestAmerica Nashville	South Carolina	State Program	4	84009
TestAmerica Nashville	Tennessee	State Program	4	2008
TestAmerica Nashville	Texas	NELAC	6	T104704077-09-TX
TestAmerica Nashville	USDA	Federal		S-48469
TestAmerica Nashville	Utah	NELAC	8	TAN
TestAmerica Nashville	Virginia	NELAC	3	460152
TestAmerica Nashville	Virginia	State Program	3	00323
TestAmerica Nashville	Washington	State Program	10	C789
TestAmerica Nashville	West Virginia DEP	State Program	3	219
TestAmerica Nashville	Wisconsin	State Program	5	998020430
TestAmerica Nashville	Wyoming (UST)	A2LA	8	453.07

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

ATTACHMENT A



NON-HAZARDOUS MANIFEST

NON-HAZARDOUS MANIFEST		1. Generator's US EPA ID No.		Manifest Doc No.		2. Page 1 of 1			
3. Generator's Mailing Address: MCAS, BEAUFORT LAUREL BAY HOUSING BEAUFORT, SC 29907 4. Generator's Phone 843-228-6461				Generator's Site Address (If different than mailing):		A. Manifest Number WMNA 00316836			
5. Transporter 1 Company Name EEG, INC.				6. US EPA ID Number		B. State Generator's ID			
7. Transporter 2 Company Name				8. US EPA ID Number		C. State Transporter's ID			
9. Designated Facility Name and Site Address HICKORY HILL LANDFILL 2621 LOW COUNTRY ROAD RIDGELAND, SC 29936				10. US EPA ID Number		D. Transporter's Phone 843-879-0411			
						E. State Transporter's ID			
						F. Transporter's Phone			
						G. State Facility ID			
						H. State Facility Phone 843-987-4643			
GENERATOR	11. Description of Waste Materials			12. Containers		13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments	
	a. HEATING OIL TANKS FILLED WITH SAND WM Profile # 102655SC			No.	Type				
	b.								
	c.								
	d.								
TRANSPORTER	J. Additional Descriptions for Materials Listed Above			K. Disposal Location					
				Cell		Level			
				Grid					
FACILITY	15. Special Handling Instructions and Additional Information UST's from 2) 1192 Bobwhite 4) 411 Elderberry 6) 1202 Cardinal 1) 1359 Cardinal 3) 857 Dolphin 5) 1479 Cardinal								
	Purchase Order #				EMERGENCY CONTACT / PHONE NO.:				
	16. GENERATOR'S CERTIFICATE: I hereby certify that the above-described materials are not hazardous wastes as defined by CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.								
TRANSPORTER	Printed Name			Signature "On behalf of"			Month	Day	Year
	100 Duke			[Signature]			7	11	12
	17. Transporter 1 Acknowledgement of Receipt of Materials			Printed Name			Signature		
FACILITY	18. Transporter 2 Acknowledgement of Receipt of Materials			Printed Name			Signature		
	James Baldwin			James Baldwin			7	16	12
	19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.			20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.			Printed Name		
Tom Cotfield			Tom Cotfield			7	16	12	

White- TREATMENT, STORAGE, DISPOSAL FACILITY COPY

Blue- GENERATOR #2 COPY

Yellow- GENERATOR #1 COPY

Pink- FACILITY USE ONLY

Gold- TRANSPORTER #1 COPY

Appendix C
Laboratory Analytical Report - Groundwater

Volatile Organic Compounds by GC/MS

Client: AECOM - Resolution Consultants				Laboratory ID: SC11009-001			
Description: BEALB1202TW01WG20170308				Matrix: Aqueous			
Date Sampled: 03/08/2017 1700							
Date Received: 03/11/2017							

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch		
1	5030B	8260B	1	03/15/2017 1211	PMV		37143		

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	LOD	DL	Units	Run
Benzene	71-43-2	8260B	0.80	U	1.0	0.80	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	0.80	U	1.0	0.80	0.40	ug/L	1
Naphthalene	91-20-3	8260B	0.80	U	1.0	0.80	0.40	ug/L	1
Toluene	108-88-3	8260B	0.80	U	1.0	0.80	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	0.80	U	1.0	0.80	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		109	85-114
Dibromofluoromethane		92	80-119
1,2-Dichloroethane-d4		102	81-118
Toluene-d8		92	89-112

PQL = Practical quantitation limit B = Detected in the method blank E = Quantitation of compound exceeded the calibration range H = Out of holding time Q = Surrogate failure
 ND = Not detected at or above the MDL J = Estimated result < PQL and ≥ MDL P = The RPD between two GC columns exceeds 40% N = Recovery is out of criteria L = LCS/LCSD failure
 Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W" S = MS/MSD failure

Semivolatile Organic Compounds by GC/MS

Client: AECOM - Resolution Consultants

Laboratory ID: SC11009-001

Description: BEALB1202TW01WG20170308

Matrix: Aqueous

Date Sampled: 03/08/2017 1700

Date Received: 03/11/2017

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch			
1	3520C	8270D	1	03/17/2017 2054	RBH	03/15/2017 1020	37108			
Parameter		CAS Number	Analytical Method	Result	Q	LOQ	LOD	DL	Units	Run
Benzo(a)anthracene		56-55-3	8270D	0.10	U	0.20	0.10	0.040	ug/L	1
Benzo(b)fluoranthene		205-99-2	8270D	0.10	U	0.20	0.10	0.040	ug/L	1
Benzo(k)fluoranthene		207-08-9	8270D	0.10	U	0.20	0.10	0.040	ug/L	1
Chrysene		218-01-9	8270D	0.10	U	0.20	0.10	0.040	ug/L	1
Dibenzo(a,h)anthracene		53-70-3	8270D	0.10	U	0.20	0.10	0.040	ug/L	1
Surrogate	Q	Run 1 % Recovery	Acceptance Limits							
Nitrobenzene-d5		63	44-120							
2-Fluorobiphenyl		62	44-119							
Terphenyl-d14		90	50-134							

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

H = Out of holding time

Q = Surrogate failure

ND = Not detected at or above the MDL

J = Estimated result < PQL and ≥ MDL

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

L = LCS/LCSD failure

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

S = MS/MSD failure

Shealy Environmental Services, Inc.

106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Page: 6 of 34

Appendix D

Regulatory Correspondence



August 24, 2016

Commanding Officer
Attention: NREAO Mr. William A. Drawdy
United State Marine Corps Air Station
Post Office Box 55001
Beaufort, SC 29904-5001

RE: IGWA
Laurel Bay Underground Tank Assessment Reports

Dear Mr. Drawdy:

The South Carolina Department of Health and Environmental Control (the Department) received the Underground Storage Tanks (USTs) Assessment Reports for the addresses listed in the attachment. The regulatory authority for the investigation and cleanup of releases from these tank systems is the South Carolina Pollution Control Act (S.C. Code Ann. §48-1-10 et seq., as amended).

The Department has reviewed the referenced reports. The submitted analytical results indicate that petroleum constituents are above established Risk-Based Screening Levels and additional investigation is warranted. Specifically, the Department requests that a groundwater sampling proposal be generated to determine if there has been an impact to groundwater at these sites.

Please note that the Department's decision is based on information provided by the Marine Corps Air Station (MCAS) to date. Any information found to be contradictory to this decision may require additional action. Furthermore, the Department retains the right to request further investigation if deemed necessary.

If you have any questions, please contact me at petruslb@dhec.sc.gov or 803-898-0294.

Sincerely,

Laurel Petrus, Environmental Engineer Associate
RCRA Federal Facilities Section

Cc: Russell Berry, EQC Region 8 (via email)
Shawn Dolan, Resolution Consultants (via email)
Bryan Beck, NAVFAC MIDATLANTIC (via email)
Craig Ehde (via email)

Attachment to: Petrus to Drawdy, August 24, 2016

Subject: IGWA, Laurel Bay Underground Tank Assessment Reports

Draft Final Initial Groundwater Investigation Report for (41 addresses)

Monitoring Well Investigation Recommendation	
122 Banyan	905 Barracuda
159 Cypress Tank 2	921 Barracuda
221 Cypress	935 Albacore
283 Birch Tank 2	946 Albacore
328 Ash Tank 2	1037 Iris
346 Ash	1039 Iris
359 Aspen	1110 Iris
370 Aspen	1134 Iris
377 Aspen	1143 Iris
409 Elderberry	1202 Cardinal
486 Laurel Bay	1212 Cardinal
515 Laurel Bay	1222 Cardinal
542 Laurel Bay	1224 Cardinal
593 Aster	1226 Dove
630 Dahlia	1236 Dove
693 Camellia	1245 Dove
723 Blue Bell	1247 Dove
774 Althea	1274 Albatross
860 Dolphin	1319 Albatross
873 Cobia	1337 Albatross
883 Cobia	



July 27, 2017

Commanding Officer
Attention: NREAO Mr. William A. Drawdy
United State Marine Corps Air Station
Post Office Box 55001
Beaufort, SC 29904-5001

RE: Draft Final Initial Groundwater Investigation Report, February and March 2017

Dear Mr. Drawdy:

The South Carolina Department of Health and Environmental Control (DHEC) received groundwater data from temporary monitoring well installations in the Draft Final Groundwater Investigation Report, Laurel Bay Military Housing Area for the fifty two (52) addresses shown in the attachment. The regulatory authority for the investigation and cleanup of releases from these tank systems is the South Carolina Pollution Control Act (S.C. Code Ann. §48-1-10 et seq., as amended).

Per DHEC's request, groundwater samples were collected from the attached referenced addresses. DHEC reviewed the groundwater data and previous investigations and it agrees with the conclusions and recommendations included in the document. To further assess the impact to groundwater, permanent groundwater monitoring wells should be installed at the three (3) stated addresses. For the remaining forty nine (49) addresses, there is no indication of contamination on the property and therefore no further investigation is required at this time.

Please note that DHEC's decision is based on information provided by the Marine Corps Air Station (MCAS) to date. Any information found to be contradictory to this decision may require additional action. Furthermore, DHEC retains the right to request further investigation if deemed necessary.

If you have any questions, please contact me at petruslb@dhec.sc.gov or 803-898-0294.

Sincerely,

Laurel Petrus, Environmental Engineer Associate
Bureau of Land and Waste Management

Cc: Russell Berry, EQC Region 8
Shawn Dolan, Resolution Consultants
Bryan Beck, NAVFAC MIDLANT

Attachment to: Petrus to Drawdy Dated July 27, 2017

Draft Final Initial Groundwater Investigation Report for (52 addresses)

Permanent Well Installation recommendation (3 Addresses):

- 254 Beech Street (110 ug/L)
- 268 Beech Street (28 ug/L)
- 774 Althea Street (35 ug/L)

No Further Action recommendation (49 addresses):

- 113 Birch Drive
- 121 Banyan Drive
- 122 Banyan Drive
- 159 Cypress Street
- 221 Cypress Street
- 274 Birch Drive
- 279 Birch Drive
- 283 Birch Drive
- 328 Ash Street
- 346 Ash Street
- 359 Aspen Street
- 370 Aspen Street
- 377 Aspen Street
- 409 Elderberry Drive
- 465 Dogwood Drive
- 480 Laurel Bay Boulevard
- 486 Laurel Bay Boulevard
- 515 Laurel Bay Boulevard
- 542 Laurel Bay Boulevard
- 593 Aster Street
- 630 Dahlia Drive
- 641 Dahlia Drive
- 693 Camelia Drive
- 723 Bluebell Lane
- 860 Dolphin Street
- 873 Cobia Drive
- 883 Cobia Drive
- 905 Barracuda Drive
- 921 Barracuda Drive
- 935 Albacore Street
- 946 Albacore Street
- 1037 Iris Lane
- 1039 Iris Lane
- 1110 Iris Lane
- 1134 Iris Lane
- 1143 Iris Lane
- 1177 Bobwhite Drive
- 1202 Cardinal Lane
- 1212 Cardinal Lane
- 1222 Cardinal Lane
- 1224 Cardinal Lane
- 1226 Dove Lane
- 1236 Dove Lane
- 1245 Dove Lane
- 1247 Dove Lane
- 1274 Albatross Drive
- 1319 Albatross Drive
- 1337 Albatross Drive
- 1346 Cardinal Lane