

SUMMARY REPORT
150 ASPEN STREET (FORMERLY 375 ASPEN STREET)
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

SUMMARY REPORT
150 ASPEN STREET (FORMERLY 375 ASPEN STREET)
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

Prepared by:



CDM - AECOM Multimedia Joint Venture
10560 Arrowhead Drive, Suite 500
Fairfax, Virginia 22030

Contract Number: N62470-14-D-9016
CTO WE52
JUNE 2021

Table of Contents

1.0	INTRODUCTION.....	1
1.1	BACKGROUND INFORMATION.....	1
1.2	UST REMOVAL AND ASSESSMENT PROCESS.....	2
2.0	SAMPLING ACTIVITIES AND RESULTS.....	3
2.1	UST REMOVAL AND SOIL SAMPLING	3
2.2	SOIL ANALYTICAL RESULTS.....	4
3.0	PROPERTY STATUS	4
4.0	REFERENCES.....	4

Table

Table 1	Laboratory Analytical Results - Soil
---------	--------------------------------------

Appendices

Appendix A	Multi-Media Selection Process for LBMH
Appendix B	UST Assessment Report
Appendix C	Regulatory Correspondence

List of Acronyms

bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, and xylenes
CTO	Contract Task Order
COPC	constituents of potential concern
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 150 Aspen Street (Formerly 375 Aspen Street). 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 150 Aspen Street (Formerly 375 Aspen Street). Details regarding the soil investigation at this site are provided in the *SCDHEC UST Assessment Report – 375 Aspen Street* (MCAS Beaufort, 2012). The UST Assessment Report is provided in Appendix B.

2.1 UST Removal and Soil Sampling

On March 13, 2012, a single 280 gallon heating oil UST was removed from the concrete walk area adjacent to the driveway at 150 Aspen Street (Formerly 375 Aspen Street). The former UST location is indicated on Figures 2 and 3 of the UST Assessment Report (Appendix B). The UST was removed and properly disposed of (i.e., shipped offsite for recycling or transported to a landfill). 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 5'9" 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 150 Aspen Street (Formerly 375 Aspen Street) were less than the SCDHEC RBSLs, which indicated the subsurface was not impacted by COPCs associated with the former UST at concentrations that presented a potential risk to human health and the environment.

3.0 PROPERTY STATUS

Based on the analytical results for soil, SCDHEC made the determination that NFA was required for 150 Aspen Street (Formerly 375 Aspen Street). This NFA determination was obtained in a letter dated May 15, 2014. SCDHEC's NFA letter is provided in Appendix C.

4.0 REFERENCES

Marine Corps Air Station Beaufort, 2012. *South Carolina Department of Health and Environmental Control (SCDHEC) Underground Storage Tank Assessment Report – 375 Aspen Street, Laurel Bay Military Housing Area, August 2012.*

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.

Table

Table 1
Laboratory Analytical Results - Soil
150 Aspen Street (Formerly 375 Aspen Street)
Laurel Bay Military Housing Area
Marine Corps Air Station Beaufort
Beaufort, South Carolina

Constituent	SCDHEC RBSLs ⁽¹⁾	Results Sample Collected 03/13/12
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 2.0 (SCDHEC, April 2013).

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 - milligram per kilogram

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

RBSL - Risk-Based Screening Level

SCDHEC - South Carolina Department Of Health and Environmental Control

Appendix A
Multi-Media Selection Process for LBMH

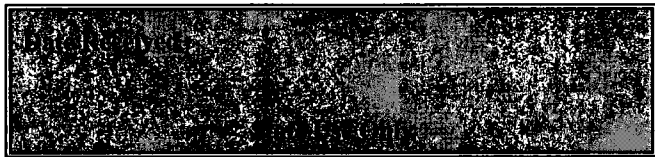


Appendix A - Multi-Media Selection Process for LBMH

Appendix B
UST Assessment Report

Attachment 1

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



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	
375 Aspen Street, Laurel Bay Military Housing Area	
Street Address or State Road (as applicable)	
Beaufort,	Beaufort
City	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.....

375Aspen				
Heating oil				
280 gal				
Late 1950s				
Steel				
Mid 1980s				
5'9"				
No				
No				
Removed				
3/13/2012				
Yes				
Yes				

- M. Method of disposal for any USTs removed from the ground (attach disposal manifests)
UST 375Aspen was removed from the ground, and disposed in 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 375Aspen had been 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.

375Aspen				
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 #
375 Aspen	Excav at fill end	Soil	Sandy	5'9"	3/13/12 1400 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.

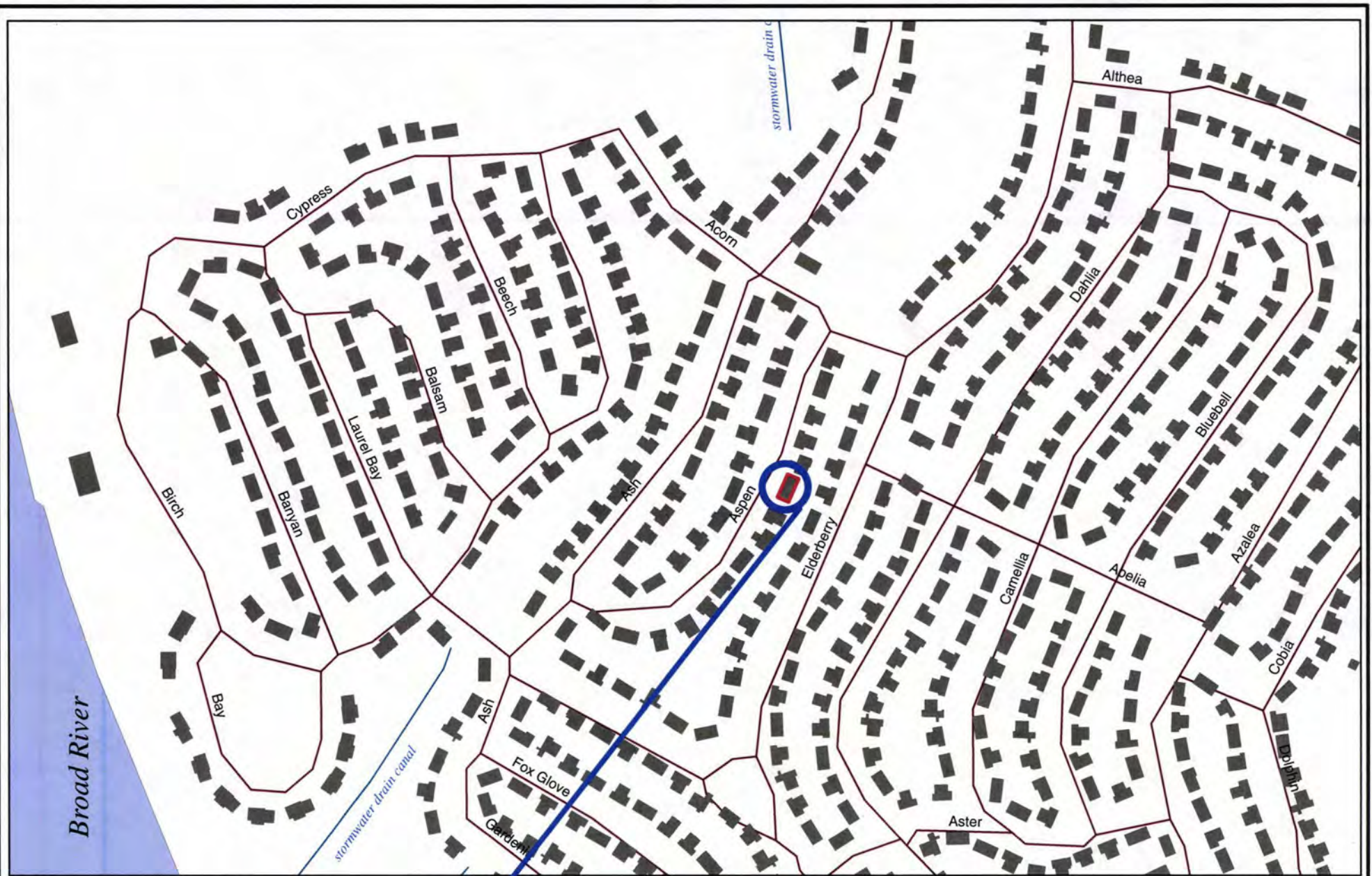
XII. RECEPTORS

	Yes	No
<p>A. Are there any lakes, ponds, streams, or wetlands located within 1000 feet of the UST system?</p> <p style="text-align: right;">*~ 970' to 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?</p> <p style="text-align: right;">*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)



375 ASPEN

SBG-EEG, Inc.

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

Ph. (843) 573-7140

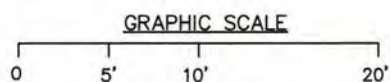
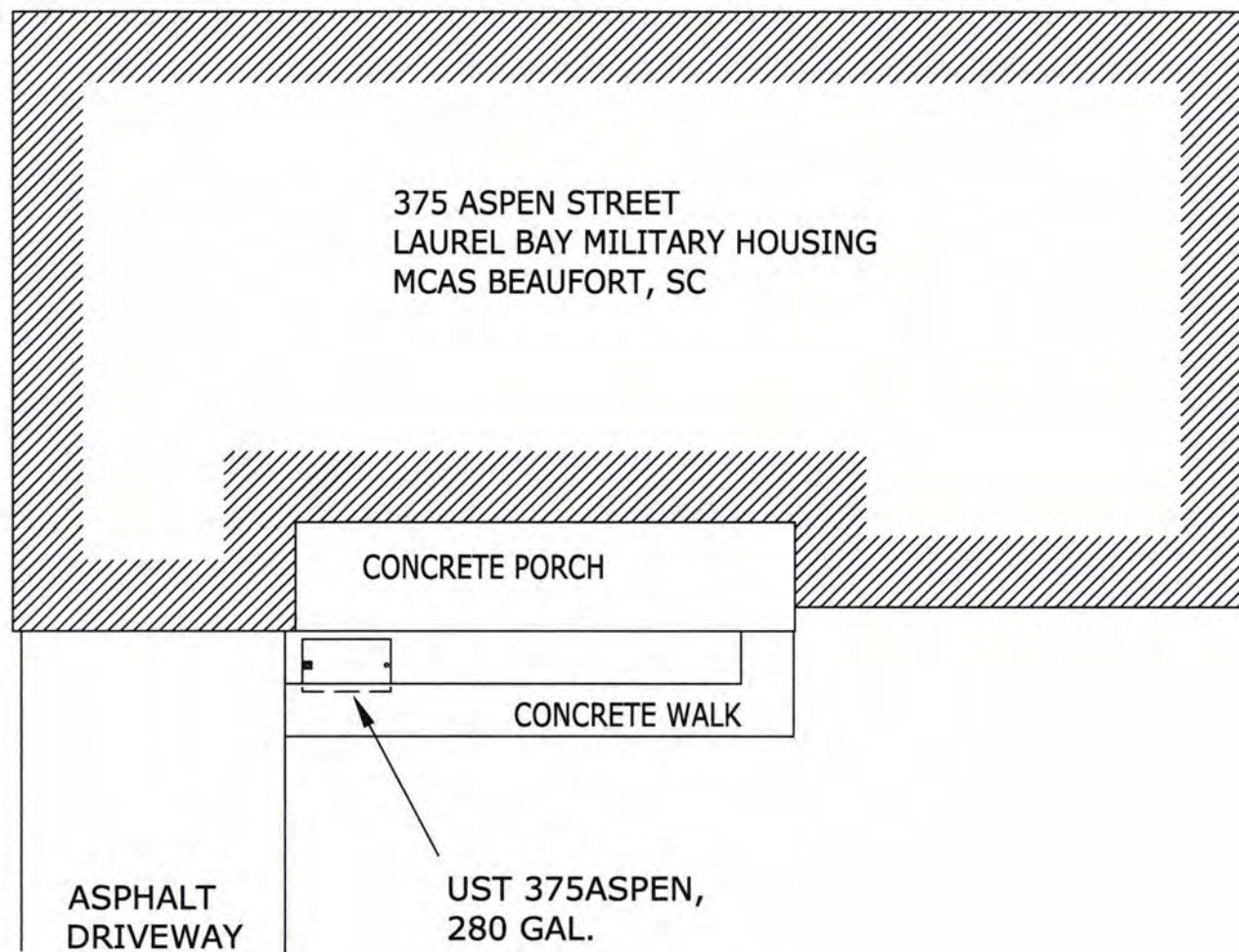
Drawn By: L. DiAsio

Dwg Date: APR 2012

FIGURE 1: LOCATION MAP
375 ASPEN STREET
LAUREL BAY, BEAUFORT SC



STORMWATER DRAINAGE
CANAL \approx 970'



TANK DEPTH BELOW GRADE
375 ASPEN = 33"

SBG-EEG

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

FIGURE 2 SITE MAP
375 ASPEN ST., LAUREL BAY
MCAS BEAUFORT SC

SCALE: GRAPHIC

DWG DATE APR 2012

375 ASPEN STREET

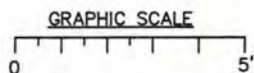
*EXCAVATION

FILL END

SOIL SAMPLE
375 ASPEN



*A PORTION OF THE CONCRETE SIDEWALK WAS
REMOVED TO FACILITATE TANK EXTRACTION.



STORMWATER DRAINAGE
CANAL \approx 970'

SBG-EEG

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

FIGURE 3 UST SAMPLE LOCATIONS
375 ASPEN ST., LAUREL BAY
MCAS BEAUFORT SC

SCALE: GRAPHIC

DWG DATE APR 2012



Picture 1: Location of UST 375Aspen.



Picture 2: UST 375Aspen being removed from the 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	375Aspen						
Benzene		ND						
Toluene		ND						
Ethylbenzene		ND						
Xylenes		ND						
Naphthalene		ND						
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: NWC2199

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



Authorized for release by:

3/30/2012 12:52:30 PM

Ken A. Hayes

Senior Project Manager

ken.hayes@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?

**Ask
The
Expert**

Visit us at:

www.testamericainc.com

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.

1

2

3

4

5

6

7

8

9

10

11

Table of Contents

Cover Page	1
Table of Contents	2
Sample Summary	3
Definitions	4
Client Sample Results	5
QC Sample Results	7
QC Association	12
Chronicle	13
Method Summary	14
Certification Summary	15
Chain of Custody	16

Sample Summary

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

TestAmerica Job ID: NWC2199

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
NWC2199-01	376 Aspen	Soil	03/12/12 15:00	03/16/12 08:20
NWC2199-02	375 Aspen	Soil	03/13/12 14:00	03/16/12 08:20

1

2

3

4

5

6

7

8

9

10

11

Definitions/Glossary

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

TestAmerica Job ID: NWC2199

Project/Site: [none]

Qualifiers

GCMS Volatiles

Qualifier	Qualifier Description
ZX	Due to sample matrix effects, the surrogate recovery was outside the acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
E	Concentration exceeds the calibration range and therefore result is semi-quantitative.

GCMS Semivolatiles

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

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: NWC2199

Project/Site: [none]

Client Sample ID: 376 Aspen

Lab Sample ID: NWC2199-01

Date Collected: 03/12/12 15:00

Matrix: Soil

Date Received: 03/16/12 08:20

Percent Solids: 82

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.00113	J	0.00205	0.00113	mg/kg dry	✖	03/12/12 15:00	03/23/12 15:36	1.00
Ethylbenzene	0.167		0.00205	0.00113	mg/kg dry	✖	03/12/12 15:00	03/23/12 15:36	1.00
Naphthalene	0.576	E	0.00512	0.00256	mg/kg dry	✖	03/12/12 15:00	03/23/12 15:36	1.00
Toluene	0.00433		0.00205	0.00113	mg/kg dry	✖	03/12/12 15:00	03/23/12 15:36	1.00
Xylenes, total	0.451		0.00512	0.00256	mg/kg dry	✖	03/12/12 15:00	03/23/12 15:36	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	102		70 - 130	03/12/12 15:00	03/23/12 15:36	1.00
Dibromofluoromethane	99		70 - 130	03/12/12 15:00	03/23/12 15:36	1.00
Toluene-d8	133	ZX	70 - 130	03/12/12 15:00	03/23/12 15:36	1.00
4-Bromofluorobenzene	283	ZX	70 - 130	03/12/12 15:00	03/23/12 15:36	1.00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.153		0.0793	0.0402	mg/kg dry	✖	03/17/12 12:06	03/17/12 21:49	1.00
Acenaphthylene	ND		0.0793	0.0402	mg/kg dry	✖	03/17/12 12:06	03/17/12 21:49	1.00
Anthracene	0.342		0.0793	0.0402	mg/kg dry	✖	03/17/12 12:06	03/17/12 21:49	1.00
Benzo (a) anthracene	0.629		0.0793	0.0402	mg/kg dry	✖	03/17/12 12:06	03/17/12 21:49	1.00
Benzo (a) pyrene	0.188		0.0793	0.0402	mg/kg dry	✖	03/17/12 12:06	03/17/12 21:49	1.00
Benzo (b) fluoranthene	0.183		0.0793	0.0402	mg/kg dry	✖	03/17/12 12:06	03/17/12 21:49	1.00
Benzo (g,h,i) perylene	0.0442	J	0.0793	0.0402	mg/kg dry	✖	03/17/12 12:06	03/17/12 21:49	1.00
Benzo (k) fluoranthene	0.192		0.0793	0.0402	mg/kg dry	✖	03/17/12 12:06	03/17/12 21:49	1.00
Chrysene	0.533		0.0793	0.0402	mg/kg dry	✖	03/17/12 12:06	03/17/12 21:49	1.00
Dibenz (a,h) anthracene	ND		0.0793	0.0402	mg/kg dry	✖	03/17/12 12:06	03/17/12 21:49	1.00
Fluoranthene	2.18		0.0793	0.0402	mg/kg dry	✖	03/17/12 12:06	03/17/12 21:49	1.00
Fluorene	0.464		0.0793	0.0402	mg/kg dry	✖	03/17/12 12:06	03/17/12 21:49	1.00
Indeno (1,2,3-cd) pyrene	0.0497	J	0.0793	0.0402	mg/kg dry	✖	03/17/12 12:06	03/17/12 21:49	1.00
Naphthalene	0.231		0.0793	0.0402	mg/kg dry	✖	03/17/12 12:06	03/17/12 21:49	1.00
Phenanthrene	2.09		0.0793	0.0402	mg/kg dry	✖	03/17/12 12:06	03/17/12 21:49	1.00
Pyrene	1.96		0.0793	0.0402	mg/kg dry	✖	03/17/12 12:06	03/17/12 21:49	1.00
1-Methylnaphthalene	1.05		0.0793	0.0402	mg/kg dry	✖	03/17/12 12:06	03/17/12 21:49	1.00
2-Methylnaphthalene	1.90		0.0793	0.0402	mg/kg dry	✖	03/17/12 12:06	03/17/12 21:49	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	92		18 - 120	03/17/12 12:06	03/17/12 21:49	1.00
2-Fluorobiphenyl	67		14 - 120	03/17/12 12:06	03/17/12 21:49	1.00
Nitrobenzene-d5	75		17 - 120	03/17/12 12:06	03/17/12 21:49	1.00

Method: SW-846 - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Dry Solids	82.0		0.500	0.500	%		03/17/12 15:01	03/19/12 09:19	1.00

Client Sample Results

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

TestAmerica Job ID: NWC2199

Client Sample ID: 375 Aspen

Lab Sample ID: NWC2199-02

Date Collected: 03/13/12 14:00

Matrix: Soil

Date Received: 03/16/12 08:20

Percent Solids: 92.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00214	0.00118	mg/kg dry	☒	03/13/12 14:00	03/23/12 16:06	1.00
Ethylbenzene	ND		0.00214	0.00118	mg/kg dry	☒	03/13/12 14:00	03/23/12 16:06	1.00
Naphthalene	ND		0.00536	0.00268	mg/kg dry	☒	03/13/12 14:00	03/23/12 16:06	1.00
Toluene	ND		0.00214	0.00118	mg/kg dry	☒	03/13/12 14:00	03/23/12 16:06	1.00
Xylenes, total	ND		0.00536	0.00268	mg/kg dry	☒	03/13/12 14:00	03/23/12 16:06	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	102		70 - 130	03/13/12 14:00	03/23/12 16:06	1.00
Dibromofluoromethane	100		70 - 130	03/13/12 14:00	03/23/12 16:06	1.00
Toluene-d8	104		70 - 130	03/13/12 14:00	03/23/12 16:06	1.00
4-Bromofluorobenzene	101		70 - 130	03/13/12 14:00	03/23/12 16:06	1.00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0725	0.0368	mg/kg dry	☒	03/17/12 12:06	03/17/12 22:14	1.00
Acenaphthylene	ND		0.0725	0.0368	mg/kg dry	☒	03/17/12 12:06	03/17/12 22:14	1.00
Anthracene	ND		0.0725	0.0368	mg/kg dry	☒	03/17/12 12:06	03/17/12 22:14	1.00
Benzo (a) anthracene	ND		0.0725	0.0368	mg/kg dry	☒	03/17/12 12:06	03/17/12 22:14	1.00
Benzo (a) pyrene	ND		0.0725	0.0368	mg/kg dry	☒	03/17/12 12:06	03/17/12 22:14	1.00
Benzo (b) fluoranthene	ND		0.0725	0.0368	mg/kg dry	☒	03/17/12 12:06	03/17/12 22:14	1.00
Benzo (g,h,i) perylene	ND		0.0725	0.0368	mg/kg dry	☒	03/17/12 12:06	03/17/12 22:14	1.00
Benzo (k) fluoranthene	ND		0.0725	0.0368	mg/kg dry	☒	03/17/12 12:06	03/17/12 22:14	1.00
Chrysene	ND		0.0725	0.0368	mg/kg dry	☒	03/17/12 12:06	03/17/12 22:14	1.00
Dibenz (a,h) anthracene	ND		0.0725	0.0368	mg/kg dry	☒	03/17/12 12:06	03/17/12 22:14	1.00
Fluoranthene	ND		0.0725	0.0368	mg/kg dry	☒	03/17/12 12:06	03/17/12 22:14	1.00
Fluorene	ND		0.0725	0.0368	mg/kg dry	☒	03/17/12 12:06	03/17/12 22:14	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0725	0.0368	mg/kg dry	☒	03/17/12 12:06	03/17/12 22:14	1.00
Naphthalene	ND		0.0725	0.0368	mg/kg dry	☒	03/17/12 12:06	03/17/12 22:14	1.00
Phenanthrene	ND		0.0725	0.0368	mg/kg dry	☒	03/17/12 12:06	03/17/12 22:14	1.00
Pyrene	ND		0.0725	0.0368	mg/kg dry	☒	03/17/12 12:06	03/17/12 22:14	1.00
1-Methylnaphthalene	ND		0.0725	0.0368	mg/kg dry	☒	03/17/12 12:06	03/17/12 22:14	1.00
2-Methylnaphthalene	ND		0.0725	0.0368	mg/kg dry	☒	03/17/12 12:06	03/17/12 22:14	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	83		18 - 120	03/17/12 12:06	03/17/12 22:14	1.00
2-Fluorobiphenyl	55		14 - 120	03/17/12 12:06	03/17/12 22:14	1.00
Nitrobenzene-d5	64		17 - 120	03/17/12 12:06	03/17/12 22:14	1.00

Method: SW-846 - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Dry Solids	92.3		0.500	0.500	%		03/17/12 15:01	03/19/12 09:19	1.00

QC Sample Results

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

TestAmerica Job ID: NWC2199

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

Lab Sample ID: 12C4640-BLK1

Matrix: Soil

Analysis Batch: V004988

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 12C4640_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00200	0.00110	mg/kg wet		03/22/12 15:08	03/23/12 11:38	1.00
Ethylbenzene	ND		0.00200	0.00110	mg/kg wet		03/22/12 15:08	03/23/12 11:38	1.00
Naphthalene	ND		0.00500	0.00250	mg/kg wet		03/22/12 15:08	03/23/12 11:38	1.00
Toluene	ND		0.00200	0.00110	mg/kg wet		03/22/12 15:08	03/23/12 11:38	1.00
Xylenes, total	ND		0.00500	0.00250	mg/kg wet		03/22/12 15:08	03/23/12 11:38	1.00

Surrogate	Blank %Recovery	Blank Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	109		70 - 130	03/22/12 15:08	03/23/12 11:38	1.00
Dibromofluoromethane	105		70 - 130	03/22/12 15:08	03/23/12 11:38	1.00
Toluene-d8	100		70 - 130	03/22/12 15:08	03/23/12 11:38	1.00
4-Bromofluorobenzene	109		70 - 130	03/22/12 15:08	03/23/12 11:38	1.00

Lab Sample ID: 12C4640-BS1

Matrix: Soil

Analysis Batch: V004988

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 12C4640_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	53.5		ug/kg		107	75 - 127
Ethylbenzene	50.0	56.4		ug/kg		113	80 - 134
Naphthalene	50.0	68.8		ug/kg		138	69 - 150
Toluene	50.0	56.2		ug/kg		112	80 - 132
Xylenes, total	150	166		ug/kg		111	80 - 137

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4	110		70 - 130
Dibromofluoromethane	103		70 - 130
Toluene-d8	107		70 - 130
4-Bromofluorobenzene	106		70 - 130

Lab Sample ID: 12C4640-BSD1

Matrix: Soil

Analysis Batch: V004988

Client Sample ID: Lab Control Sample Dup

Prep Type: Total

Prep Batch: 12C4640_P

Analyte	Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	50.0	56.9		ug/kg		114	75 - 127	6	50
Ethylbenzene	50.0	60.0		ug/kg		120	80 - 134	6	50
Naphthalene	50.0	60.7		ug/kg		121	69 - 150	13	50
Toluene	50.0	59.8		ug/kg		120	80 - 132	6	50
Xylenes, total	150	177		ug/kg		118	80 - 137	6	50

Surrogate	LCS Dup %Recovery	LCS Dup Qualifier	Limits
1,2-Dichloroethane-d4	102		70 - 130
Dibromofluoromethane	102		70 - 130
Toluene-d8	106		70 - 130
4-Bromofluorobenzene	106		70 - 130

QC Sample Results

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

TestAmerica Job ID: NWC2199

Project/Site: [none]

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

Lab Sample ID: 12C4640-MS1

Matrix: Soil

Analysis Batch: V004988

Client Sample ID: Matrix Spike

Prep Type: Total

Prep Batch: 12C4640_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	Limits
Benzene	ND		0.0450	0.0416		mg/kg dry	☒	92	31 - 143
Ethylbenzene	ND		0.0450	0.0322		mg/kg dry	☒	71	23 - 161
Naphthalene	ND		0.0450	0.00815		mg/kg dry	☒	18	10 - 176
Toluene	ND		0.0450	0.0352		mg/kg dry	☒	78	30 - 155
Xylenes, total	ND		0.135	0.0963		mg/kg dry	☒	71	25 - 162

Surrogate	Matrix Spike %Recovery	Matrix Spike Qualifier	Limits
1,2-Dichloroethane-d4	111		70 - 130
Dibromofluoromethane	98		70 - 130
Toluene-d8	100		70 - 130
4-Bromofluorobenzene	108		70 - 130

Lab Sample ID: 12C4640-MSD1

Matrix: Soil

Analysis Batch: V004988

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total

Prep Batch: 12C4640_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	ND		0.0461	0.0436		mg/kg dry	☒	95	31 - 143	5	50
Ethylbenzene	ND		0.0461	0.0367		mg/kg dry	☒	80	23 - 161	13	50
Naphthalene	ND		0.0461	0.0107		mg/kg dry	☒	23	10 - 176	27	50
Toluene	ND		0.0461	0.0411		mg/kg dry	☒	89	30 - 155	15	50
Xylenes, total	ND		0.138	0.114		mg/kg dry	☒	82	25 - 162	17	50

Surrogate	Matrix Spike Dup %Recovery	Matrix Spike Dup Qualifier	Limits
1,2-Dichloroethane-d4	104		70 - 130
Dibromofluoromethane	102		70 - 130
Toluene-d8	108		70 - 130
4-Bromofluorobenzene	108		70 - 130

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

Lab Sample ID: 12C3626-BLK1

Matrix: Soil

Analysis Batch: 12C3626

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 12C3626_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0670	0.0340	mg/kg wet		03/17/12 12:06	03/17/12 18:33	1.00
Acenaphthylene	ND		0.0670	0.0340	mg/kg wet		03/17/12 12:06	03/17/12 18:33	1.00
Anthracene	ND		0.0670	0.0340	mg/kg wet		03/17/12 12:06	03/17/12 18:33	1.00
Benzo (a) anthracene	ND		0.0670	0.0340	mg/kg wet		03/17/12 12:06	03/17/12 18:33	1.00
Benzo (a) pyrene	ND		0.0670	0.0340	mg/kg wet		03/17/12 12:06	03/17/12 18:33	1.00
Benzo (b) fluoranthene	ND		0.0670	0.0340	mg/kg wet		03/17/12 12:06	03/17/12 18:33	1.00
Benzo (g,h,i) perylene	ND		0.0670	0.0340	mg/kg wet		03/17/12 12:06	03/17/12 18:33	1.00
Benzo (k) fluoranthene	ND		0.0670	0.0340	mg/kg wet		03/17/12 12:06	03/17/12 18:33	1.00
Chrysene	ND		0.0670	0.0340	mg/kg wet		03/17/12 12:06	03/17/12 18:33	1.00
Dibenz (a,h) anthracene	ND		0.0670	0.0340	mg/kg wet		03/17/12 12:06	03/17/12 18:33	1.00
Fluoranthene	ND		0.0670	0.0340	mg/kg wet		03/17/12 12:06	03/17/12 18:33	1.00
Fluorene	ND		0.0670	0.0340	mg/kg wet		03/17/12 12:06	03/17/12 18:33	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0670	0.0340	mg/kg wet		03/17/12 12:06	03/17/12 18:33	1.00

QC Sample Results

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

TestAmerica Job ID: NWC2199

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

Lab Sample ID: 12C3626-BLK1

Matrix: Soil

Analysis Batch: 12C3626

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 12C3626_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.0670	0.0340	mg/kg wet		03/17/12 12:06	03/17/12 18:33	1.00
Phenanthrene	ND		0.0670	0.0340	mg/kg wet		03/17/12 12:06	03/17/12 18:33	1.00
Pyrene	ND		0.0670	0.0340	mg/kg wet		03/17/12 12:06	03/17/12 18:33	1.00
1-Methylnaphthalene	ND		0.0670	0.0340	mg/kg wet		03/17/12 12:06	03/17/12 18:33	1.00
2-Methylnaphthalene	ND		0.0670	0.0340	mg/kg wet		03/17/12 12:06	03/17/12 18:33	1.00
Surrogate	Blank %Recovery	Blank Qualifier	Limits				Prepared	Analyzed	Dil Fac
Terphenyl-d14	97		18 - 120				03/17/12 12:06	03/17/12 18:33	1.00
2-Fluorobiphenyl	81		14 - 120				03/17/12 12:06	03/17/12 18:33	1.00
Nitrobenzene-d5	91		17 - 120				03/17/12 12:06	03/17/12 18:33	1.00

Lab Sample ID: 12C3626-BS1

Matrix: Soil

Analysis Batch: 12C3626

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 12C3626_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Acenaphthene	1.67	1.51		mg/kg wet		91	36 - 120
Acenaphthylene	1.67	1.46		mg/kg wet		87	38 - 120
Anthracene	1.67	1.62		mg/kg wet		97	46 - 124
Benzo (a) anthracene	1.67	1.70		mg/kg wet		102	45 - 120
Benzo (a) pyrene	1.67	1.75		mg/kg wet		105	45 - 120
Benzo (b) fluoranthene	1.67	1.82		mg/kg wet		109	42 - 120
Benzo (g,h,i) perylene	1.67	1.56		mg/kg wet		94	38 - 120
Benzo (k) fluoranthene	1.67	1.49		mg/kg wet		89	42 - 120
Chrysene	1.67	1.63		mg/kg wet		98	43 - 120
Dibenz (a,h) anthracene	1.67	1.58		mg/kg wet		95	32 - 128
Fluoranthene	1.67	1.57		mg/kg wet		94	46 - 120
Fluorene	1.67	1.49		mg/kg wet		89	42 - 120
Indeno (1,2,3-cd) pyrene	1.67	1.61		mg/kg wet		97	41 - 121
Naphthalene	1.67	1.58		mg/kg wet		95	32 - 120
Phenanthrene	1.67	1.60		mg/kg wet		96	45 - 120
Pyrene	1.67	1.80		mg/kg wet		108	43 - 120
1-Methylnaphthalene	1.67	1.18		mg/kg wet		71	32 - 120
2-Methylnaphthalene	1.67	1.36		mg/kg wet		82	28 - 120
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
Terphenyl-d14	92		18 - 120				
2-Fluorobiphenyl	68		14 - 120				
Nitrobenzene-d5	71		17 - 120				

Lab Sample ID: 12C3626-MS1

Matrix: Soil

Analysis Batch: 12C3626

Client Sample ID: Matrix Spike

Prep Type: Total

Prep Batch: 12C3626_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	Limits
Acenaphthene	ND		2.15	1.95		mg/kg dry	☼	91	19 - 120
Acenaphthylene	ND		2.15	1.93		mg/kg dry	☼	90	25 - 120
Anthracene	ND		2.15	2.10		mg/kg dry	☼	98	28 - 125
Benzo (a) anthracene	ND		2.15	2.22		mg/kg dry	☼	103	23 - 120

QC Sample Results

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

TestAmerica Job ID: NWC2199

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

Lab Sample ID: 12C3626-MS1

Matrix: Soil

Analysis Batch: 12C3626

Client Sample ID: Matrix Spike

Prep Type: Total

Prep Batch: 12C3626_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	Limits
Benzo (a) pyrene	ND		2.15	2.27		mg/kg dry	☒	106	15 - 128
Benzo (b) fluoranthene	ND		2.15	2.27		mg/kg dry	☒	106	12 - 133
Benzo (g,h,i) perylene	ND		2.15	2.07		mg/kg dry	☒	96	22 - 120
Benzo (k) fluoranthene	ND		2.15	2.03		mg/kg dry	☒	95	28 - 120
Chrysene	ND		2.15	2.17		mg/kg dry	☒	101	20 - 120
Dibenz (a,h) anthracene	ND		2.15	1.93		mg/kg dry	☒	90	12 - 128
Fluoranthene	ND		2.15	1.97		mg/kg dry	☒	92	10 - 143
Fluorene	ND		2.15	1.92		mg/kg dry	☒	89	20 - 120
Indeno (1,2,3-cd) pyrene	ND		2.15	2.04		mg/kg dry	☒	95	22 - 121
Naphthalene	ND		2.15	2.15		mg/kg dry	☒	100	10 - 120
Phenanthrene	ND		2.15	2.02		mg/kg dry	☒	94	21 - 122
Pyrene	ND		2.15	2.41		mg/kg dry	☒	112	20 - 123
1-Methylnaphthalene	ND		2.15	1.68		mg/kg dry	☒	78	10 - 120
2-Methylnaphthalene	ND		2.15	2.09		mg/kg dry	☒	97	13 - 120

Surrogate	Matrix Spike %Recovery	Matrix Spike Qualifier	Limits
Terphenyl-d14	94		18 - 120
2-Fluorobiphenyl	69		14 - 120
Nitrobenzene-d5	78		17 - 120

Lab Sample ID: 12C3626-MSD1

Matrix: Soil

Analysis Batch: 12C3626

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total

Prep Batch: 12C3626_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acenaphthene	ND		2.16	1.57		mg/kg dry	☒	73	19 - 120	22	50
Acenaphthylene	ND		2.16	1.50		mg/kg dry	☒	69	25 - 120	25	50
Anthracene	ND		2.16	1.64		mg/kg dry	☒	76	28 - 125	25	49
Benzo (a) anthracene	ND		2.16	1.79		mg/kg dry	☒	83	23 - 120	22	50
Benzo (a) pyrene	ND		2.16	1.88		mg/kg dry	☒	87	15 - 128	19	50
Benzo (b) fluoranthene	ND		2.16	2.00		mg/kg dry	☒	93	12 - 133	13	50
Benzo (g,h,i) perylene	ND		2.16	1.74		mg/kg dry	☒	81	22 - 120	17	50
Benzo (k) fluoranthene	ND		2.16	1.64		mg/kg dry	☒	76	28 - 120	22	45
Chrysene	ND		2.16	1.79		mg/kg dry	☒	83	20 - 120	20	49
Dibenz (a,h) anthracene	ND		2.16	1.70		mg/kg dry	☒	79	12 - 128	13	50
Fluoranthene	ND		2.16	1.59		mg/kg dry	☒	73	10 - 143	22	50
Fluorene	ND		2.16	1.53		mg/kg dry	☒	71	20 - 120	23	50
Indeno (1,2,3-cd) pyrene	ND		2.16	1.71		mg/kg dry	☒	79	22 - 121	17	50
Naphthalene	ND		2.16	1.80		mg/kg dry	☒	83	10 - 120	18	50
Phenanthrene	ND		2.16	1.69		mg/kg dry	☒	78	21 - 122	18	50
Pyrene	ND		2.16	1.88		mg/kg dry	☒	87	20 - 123	25	50
1-Methylnaphthalene	ND		2.16	1.30		mg/kg dry	☒	60	10 - 120	25	50
2-Methylnaphthalene	ND		2.16	1.60		mg/kg dry	☒	74	13 - 120	26	50

Surrogate	Matrix Spike Dup %Recovery	Matrix Spike Dup Qualifier	Limits
Terphenyl-d14	72		18 - 120
2-Fluorobiphenyl	54		14 - 120
Nitrobenzene-d5	60		17 - 120

QC Sample Results

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

TestAmerica Job ID: NWC2199

Method: SW-846 - General Chemistry Parameters

Lab Sample ID: 12C3684-DUP1

Matrix: Soil

Analysis Batch: 12C3684

Client Sample ID: Duplicate

Prep Type: Total

Prep Batch: 12C3684_P

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
% Dry Solids	83.0		83.7		%		0.8	20

QC Association Summary

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

TestAmerica Job ID: NWC2199

GCMS Volatiles

Analysis Batch: V004988

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C4640-BLK1	Method Blank	Total	Soil	SW846 8260B	12C4640_P
12C4640-BS1	Lab Control Sample	Total	Soil	SW846 8260B	12C4640_P
12C4640-BSD1	Lab Control Sample Dup	Total	Soil	SW846 8260B	12C4640_P
12C4640-MS1	Matrix Spike	Total	Soil	SW846 8260B	12C4640_P
12C4640-MSD1	Matrix Spike Duplicate	Total	Soil	SW846 8260B	12C4640_P
NWC2199-01	376 Aspen	Total	Soil	SW846 8260B	12C4640_P
NWC2199-02	375 Aspen	Total	Soil	SW846 8260B	12C4640_P

Prep Batch: 12C4640_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C4640-BLK1	Method Blank	Total	Soil	EPA 5035	
12C4640-BS1	Lab Control Sample	Total	Soil	EPA 5035	
12C4640-BSD1	Lab Control Sample Dup	Total	Soil	EPA 5035	
12C4640-MS1	Matrix Spike	Total	Soil	EPA 5035	
12C4640-MSD1	Matrix Spike Duplicate	Total	Soil	EPA 5035	
NWC2199-01	376 Aspen	Total	Soil	EPA 5035	
NWC2199-02	375 Aspen	Total	Soil	EPA 5035	

GCMS Semivolatiles

Analysis Batch: 12C3626

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C3626-BLK1	Method Blank	Total	Soil	SW846 8270D	12C3626_P
12C3626-BS1	Lab Control Sample	Total	Soil	SW846 8270D	12C3626_P
12C3626-MS1	Matrix Spike	Total	Soil	SW846 8270D	12C3626_P
12C3626-MSD1	Matrix Spike Duplicate	Total	Soil	SW846 8270D	12C3626_P
NWC2199-01	376 Aspen	Total	Soil	SW846 8270D	12C3626_P
NWC2199-02	375 Aspen	Total	Soil	SW846 8270D	12C3626_P

Prep Batch: 12C3626_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C3626-BLK1	Method Blank	Total	Soil	EPA 3550C	
12C3626-BS1	Lab Control Sample	Total	Soil	EPA 3550C	
12C3626-MS1	Matrix Spike	Total	Soil	EPA 3550C	
12C3626-MSD1	Matrix Spike Duplicate	Total	Soil	EPA 3550C	
NWC2199-01	376 Aspen	Total	Soil	EPA 3550C	
NWC2199-02	375 Aspen	Total	Soil	EPA 3550C	

Extractions

Analysis Batch: 12C3684

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C3684-DUP1	Duplicate	Total	Soil	SW-846	12C3684_P
NWC2199-01	376 Aspen	Total	Soil	SW-846	12C3684_P
NWC2199-02	375 Aspen	Total	Soil	SW-846	12C3684_P

Prep Batch: 12C3684_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C3684-DUP1	Duplicate	Total	Soil	% Solids	
NWC2199-01	376 Aspen	Total	Soil	% Solids	
NWC2199-02	375 Aspen	Total	Soil	% Solids	

Lab Chronicle

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

TestAmerica Job ID: NWC2199

Client Sample ID: 376 Aspen

Date Collected: 03/12/12 15:00

Date Received: 03/16/12 08:20

Lab Sample ID: NWC2199-01

Matrix: Soil

Percent Solids: 82

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5035		0.840	12C4640_P	03/12/12 15:00	AAN	TAL NSH
Total	Analysis	SW846 8260B		1.00	V004988	03/23/12 15:36	KXC	TAL NSH
Total	Prep	EPA 3550C		0.971	12C3626_P	03/17/12 12:06	KDF	TAL NSH
Total	Analysis	SW846 8270D		1.00	12C3626	03/17/12 21:49	JLS	TAL NSH
Total	Prep	% Solids		1.00	12C3684_P	03/17/12 15:01	ASL	TAL NSH
Total	Analysis	SW-846		1.00	12C3684	03/19/12 09:19	RRS	TAL NSH

Client Sample ID: 375 Aspen

Date Collected: 03/13/12 14:00

Date Received: 03/16/12 08:20

Lab Sample ID: NWC2199-02

Matrix: Soil

Percent Solids: 92.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 5035		0.990	12C4640_P	03/13/12 14:00	AAN	TAL NSH
Total	Analysis	SW846 8260B		1.00	V004988	03/23/12 16:06	KXC	TAL NSH
Total	Prep	EPA 3550C		0.999	12C3626_P	03/17/12 12:06	KDF	TAL NSH
Total	Analysis	SW846 8270D		1.00	12C3626	03/17/12 22:14	JLS	TAL NSH
Total	Prep	% Solids		1.00	12C3684_P	03/17/12 15:01	ASL	TAL NSH
Total	Analysis	SW-846		1.00	12C3684	03/19/12 09:19	RRS	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: NWC2199

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: NWC2199

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	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 Secondary AB	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		Generator's Site Address (if different than mailing):		A. Manifest Number WMNA		00316825	
4. Generator's Phone 843-228-6461				B. State Generator's ID			
5. Transporter 1 Company Name EEG, INC.		6. US EPA ID Number		C. State Transporter's ID			
				D. Transporter's Phone		843-879-0411	
7. Transporter 2 Company Name		8. US EPA ID Number		E. State Transporter's ID			
				F. Transporter's Phone			
9. Designated Facility Name and Site Address HICKORY HILL LANDFILL 2621 LOW COUNTRY ROAD RIDGELAND, SC 29936		10. US EPA ID Number		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		No.	Type			
	WM Profile # 102655SC						
	b.						
	WM Profile #						
	c.						
	WM Profile #						
	d.						
	WM Profile #						
	J. Additional Descriptions for Materials Listed Above		K. Disposal Location				
		Cell		Level			
		Grid					
15. Special Handling Instructions and Additional Information YST's from: 2) 382 ASPEN - 2 ✓ 4) 322 Ash - 2 ✓ 1) 330 Ash - 1 ✓ 3) 375 ASPEN 5) 369 ASPEN 6) 359 ASPEN ✓							
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.							
Printed Name		Signature "On behalf of"			Month	Day	Year
WB. D. Jones					09	11	12
TRANSPORTER	17. Transporter 1 Acknowledgement of Receipt of Materials		Printed Name		Signature		Month Day Year
			H.P. Shaw Jr.		[Signature]		09 11 12
	18. Transporter 2 Acknowledgement of Receipt of Materials		Printed Name		Signature		Month Day Year
			James Baldwin		[Signature]		4 11 12
FACILITY	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		Signature			Month	Day	Year
Tom Cofield		[Signature]			4	11	12

White- TREATMENT, STORAGE, DISPOSAL FACILITY COPY

Blue- GENERATOR #2 COPY

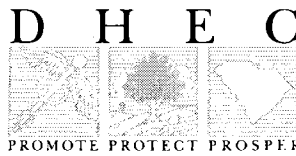
Yellow- GENERATOR #1 COPY

Pink- FACILITY USE ONLY

Gold- TRANSPORTER #1 COPY

Appendix C

Regulatory Correspondence



Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

May 15, 2014

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

RE: No Further Action
Laurel Bay Underground Storage Tank Assessment Reports for:
See attached sheet

Dear Mr. Drawdy,

The South Carolina Department of Health and Environmental Control (the Department) received the above referenced Underground Storage Tanks (USTs) Assessment Reports for the addresses listed above. 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 assessment reports and agrees there is no indication of soil or groundwater contamination on these properties, and therefore no further investigation is required at this time.

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 kriegkm@dhec.sc.gov or 803-898-0255.

Sincerely,

Kent Krieg
Department of Defense Corrective Action Section
Bureau of Land and Waste Management
South Carolina Department of Health and Environmental Control

Cc: Russell Berry (via email)
Craig Ehde (via email)



Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

Attachment to: Krieg to Drawdy
Subject: NFA
Dated 5/15/2014

Laurel Bay Underground Storage Tank Assessment Reports for: (143 addresses/146 tanks)

212 Balsam	503 Laurel Bay
219 Balsam	508 Laurel Bay
260 Beech Tank 1	510 Laurel Bay
260 Beech Tank 2	523 Laurel Bay
267 Birch	525 Laurel Bay
287 Birch	529 Laurel Bay
302 Ash	533 Laurel Bay
305 Ash	537 Laurel Bay
334 Ash	556 Dahlia
338 Ash Tank 1	557 Dahlia
338 Ash Tank 2	559 Dahlia
361 Aspen	562 Dahlia
371 Aspen	568 Dahlia
372 Aspen Tank 1	581 Aster
372 Aspen Tank 2	582 Aster
375 Aspen	584 Aster
385 Aspen	602 Dahlia
403 Elderberry	607 Dahlia
407 Elderberry	614 Dahlia
411 Elderberry	616 Dahlia
414 Elderberry	619 Dahlia
415 Elderberry	625 Dahlia
421 Elderberry	629 Dahlia
427 Elderberry	631 Dahlia
428 Elderberry	634 Dahlia
431 Elderberry	660 Camellia
455 Elderberry	661 Camellia
484 Laurel Bay	666 Camellia
490 Laurel Bay	669 Camellia
502 Laurel Bay	672 Camellia

Laurel Bay Underground Storage Tank Assessment Reports for: (143 addresses/146 tanks) cont.

674 Camellia	880 Cobia
677 Camellia	890 Cobia
679 Camellia	892 Cobia
686 Camellia	900 Barracuda
690 Camellia	906 Barracuda
698 Abelia	911 Barracuda
700 Bluebell	912 Barracuda
704 Bluebell	917 Barracuda
705 Bluebell	919 Barracuda
708 Bluebell	928 Albacore
710 Bluebell	1024 Foxglove
711 Bluebell	1028 Foxglove
714 Bluebell	1029 Foxglove
715 Bluebell	1038 Iris
726 Bluebell	1049 Gardenia
728 Bluebell	1079 Heather
731 Bluebell	1103 Iris
734 Bluebell	1122 Iris
759 Althea	1136 Iris
761 Althea	1173 Bobwhite
773 Althea	1200 Cardinal
778 Laurel Bay	1221 Cardinal
807 Azalea	1238 Dove
814 Azalea	1241 Dove
815 Azalea	1242 Dove
818 Azalea	1248 Dove
820 Azalea	1262 Dove
821 Azalea	1265 Dove
831 Azalea	1267 Dove
832 Azalea	1289 Eagle
834 Azalea	1298 Eagle
835 Azalea	1300 Eagle
841 Azalea	1303 Eagle
853 Dolphin	1304 Eagle
858 Dolphin	1315 Albatross
869 Cobia	1316 Albatross
874 Cobia	1320 Albatross
875 Cobia	1338 Albatross

Laurel Bay Underground Storage Tank Assessment Reports for: (143 addresses/146 tanks) cont.

1340 Albatross	
1342 Albatross	
1344 Cardinal	
1345 Cardinal	
1349 Cardinal	
1355 Cardinal	
1366 Cardinal	
1374 Dove	
1375 Dove	
1415 Albatross	