SUMMARY REPORT 338 ASH STREET (FORMERLY 333 ASH 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** 

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**Prepared by:** 



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



Summary Report 338 Ash Street (Formerly 333 Ash Street) Laurel Bay Military Housing Area, Marine Corps Air Station Beaufort June 2021

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#### **List of Acronyms**

bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, and xylenes
СТО	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 338 Ash Street (Formerly 333 Ash 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 338 Ash Street (Formerly 333 Ash Street). Details regarding the soil investigation at this site are provided in the *SCDHEC UST Assessment Report – 333 Ash Street* (MCAS Beaufort, 2011). 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 – November and December 2015* (Resolution Consultants, 2016). 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 July 18, 2011, a single 280 gallon heating oil UST was removed from the front landscaped bed area adjacent to the driveway at 338 Ash Street (Formerly 333 Ash Street). 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 5'4" 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 338 Ash Street (Formerly 333 Ash Street) were greater than the SCDHEC RBSLs, which indicated further investigation was required. In a letter dated July 1, 2015, SCDHEC requested an IGWA for 338 Ash Street (Formerly 333 Ash Street) to determine if the groundwater was impacted by petroleum COPCs. SCDHEC's request letter is provided in Appendix D.

#### 2.3 Groundwater Sampling

On November 11, 2015, a temporary monitoring well was installed at 338 Ash Street (Formerly 333 Ash Street), 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 – November and December 2015* (Resolution Consultants, 2016).



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 – November and December 2015* (Resolution Consultants, 2016).

#### 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 338 Ash Street (Formerly 333 Ash Street) 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 338 Ash Street (Formerly 333 Ash Street). This NFA determination was obtained in a letter dated June 8, 2016. SCDHEC's NFA letter is provided in Appendix D.

#### 4.0 **REFERENCES**

- Marine Corps Air Station Beaufort, 2011. *South Carolina Department of Health and Environmental Control (SCDHEC) Underground Storage Tank Assessment Report – 333 Ash Street, Laurel Bay Military Housing Area*, December 2011.
- Resolution Consultants, 2016. *Initial Groundwater Investigation Report November and December 2015 for Laurel Bay Military Housing Area, Multiple Properties, Laurel Bay Military Housing Area, Marine Corps Air Station Beaufort, Beaufort, South Carolina*, April 2016.



- 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 1Laboratory Analytical Results - Soil338 Ash Street (Formerly 333 Ash Street)Laurel Bay Military Housing AreaMarine Corps Air Station BeaufortBeaufort, South Carolina

Constituent	SCDHEC RBSLs <sup>(1)</sup>	Results Sample Collected 07/18/11				
Volatile Organic Compounds Analyzed by EPA Method 8260B (mg/kg)						
Benzene	0.003	ND				
Ethylbenzene	1.15	0.0547				
Naphthalene	0.036	0.526				
Toluene	0.627	0.00491				
Xylenes, Total	13.01	0.201				
Semivolatile Organic Compounds Ana	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	0.0747				
Dibenz(a,h)anthracene	0.66	ND				

Notes:

<sup>(1)</sup> 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 338 Ash Street (Formerly 333 Ash Street) Laurel Bay Military Housing Area Marine Corps Air Station Beaufort Beaufort, South Carolina

Constituent	SCDHEC RBSLs <sup>(1)</sup>	Site-Specific Groundwater VISLs (µg/L) <sup>(2)</sup>	Results Sample Collected 11/11/15				
Volatile Organic Compounds Analyzed by EPA Method 8260B (μg/L)							
Benzene	5	16.24	ND				
Ethylbenzene	700	45.95	ND				
Naphthalene	25	29.33	3.0				
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:

<sup>(1)</sup> 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).

<sup>(2)</sup> 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 1x10<sup>-6</sup>, 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

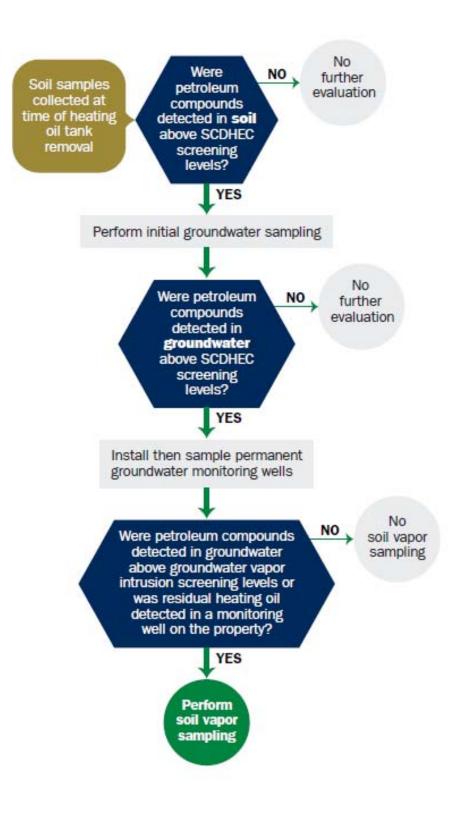
SCDHEC - South Carolina Department Of Health and Environmental Control

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

State Use Only     2600 Bull Street Columbia, South Carolina 29201 Telephone (803) 896-7957       DEC 0 8 2011	
DEC 0 8 2011	
and the former of	
SC DHEC - Bureau of Land & Waste Management	
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. #	sing Area, Marine Corps Air Station, Be	
I Laurer bay Military nous	ising Area, Marine Corps Arr Station, Be	eaurort, SC
Facility Name or Company Site Iden	ntifier	
	Bay Military Housing Area	
Street Address or State Road (as appl	nlicable)	
Shoot hadross of State Road (as app)	phease	
Beaufort,	Beaufort	
City	County	
	county	

Attachment 2

#### **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. <u>This section must be completed.</u>

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

		333Ash
А.	Product(ex. Gas, Kerosene)	Heating oil
B.	Capacity(ex. 1k, 2k)	280 gal
C.	Age	Late 1950s
D.	Construction Material(ex. Steel, FRP)	Steel
E·	Month/Year of Last Use	Mid 1980s
F.	Depth (ft.) To Base of Tank	5'4"
G.	Spill Prevention Equipment Y/N	No
Н∙	Overfill Prevention Equipment Y/N	No
I.	Method of Closure Removed/Filled	Removed
J <sub>.</sub>	Date Tanks Removed/Filled	7/18/11
K.	Visible Corrosion or Pitting Y/N	Yes
L.	Visible Holes Y/N	Yes

JJJJAh

M. Method of disposal for any USTs removed from the ground (attach disposal manifests) UST 333Ash was removed from the ground, cleaned and recycled. See Attachment "A."

N. Method of disposal for any liquid petroleum, sludges, or wastewaters removed from the USTs (attach disposal manifests) Contaminated water was pumped from UST 333Ash and disposed by MCAS.

O. If any corrosion, pitting, or holes were observed, describe the location and extent for each UST <u>Corrosion</u>, pitting and holes were found throughout the tank.

#### VII. PIPING INFORMATION

		333Ash
		Steel
A.	Construction Material(ex. Steel, FRP)	& Copper
B.	Distance from UST to Dispenser	N/A
C.	Number of Dispensers	N/A
D.	Type of System Pressure or Suction	Suction
E.	Was Piping Removed from the Ground? Y/N	No
F.	Visible Corrosion or Pitting Y/N	Yes
G.	Visible Holes Y/N	No
H.	Age	Late 1950s
1.	If any corrosion, pitting, or holes were observed, de	scribe the location and extent for each piping run.

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
<ul> <li>A. Were any petroleum-stained or contaminated soils found in the UST excavation, soil borings, trenches, or monitoring wells?</li> <li>If yes, indicate depth and location on the site map.</li> </ul>		Х	
<ul> <li>B. Were any petroleum odors detected in the excavation, soil borings, trenches, or monitoring wells?</li> <li>If yes, indicate location on site map and describe the odor (strong, mild, etc.)</li> </ul>		Х	
C. Was water present in the UST excavation, soil borings, or trenches? If yes, how far below land surface (indicate location and depth)?		Х	
D. Did contaminated soils remain stockpiled on site after closure? If yes, indicate the stockpile location on the site map.		Х	
Name of DHEC representative authorizing soil removal:         E. Was a petroleum sheen or free product detected on any excavation or boring waters?		x	
If yes, indicate location and thickness.			

#### 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 #
333Ash	Excav at fill end	Soil	Sandy	5'4"	7/18/11 1315 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 <u>and</u> 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.

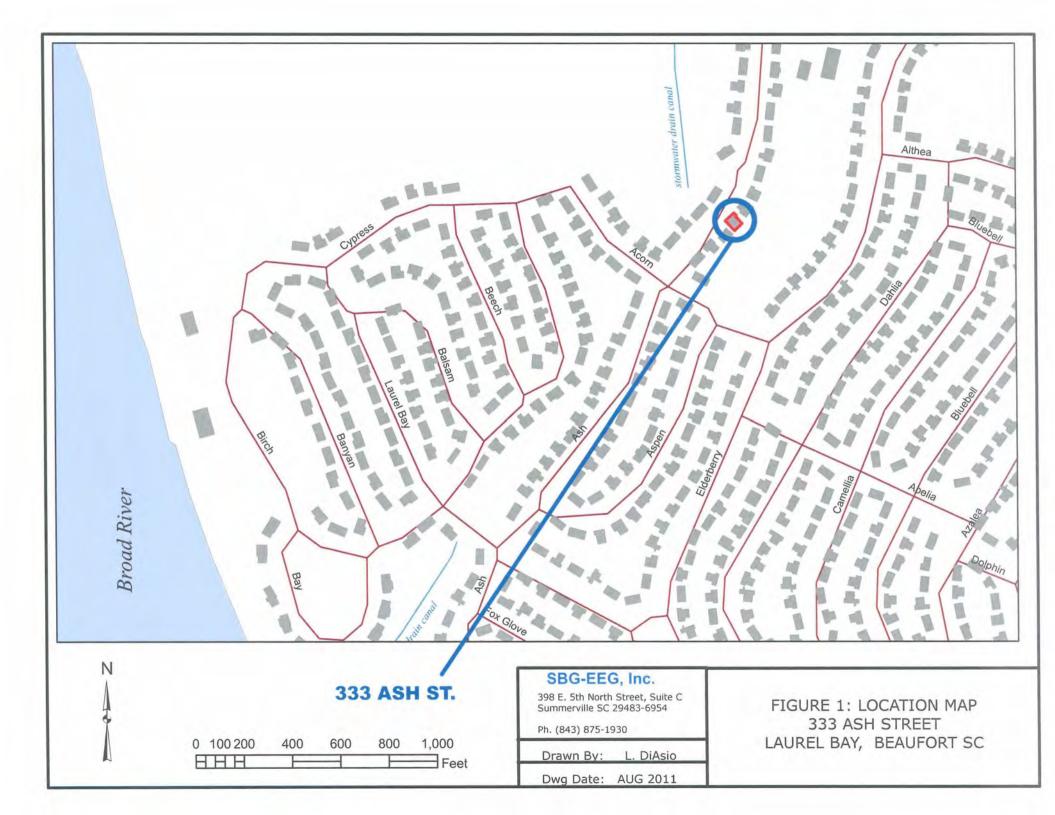
#### **XII. RECEPTORS**

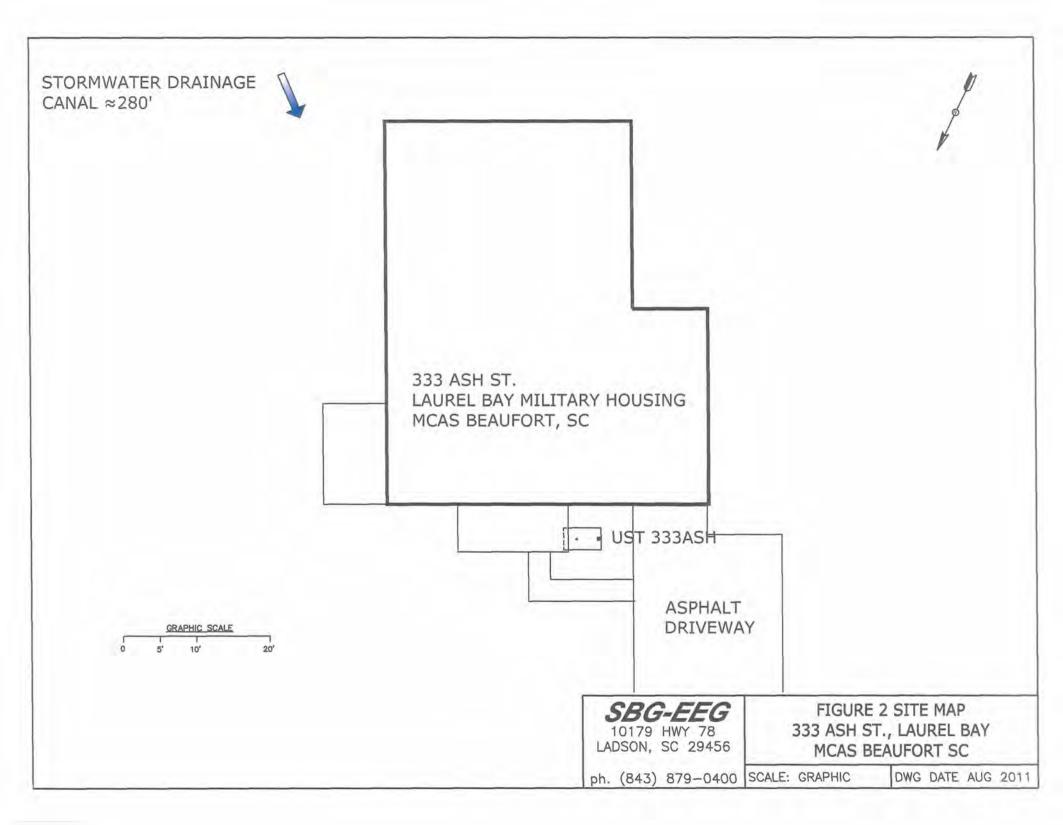
f		Yes	No
A.	Are there any lakes, ponds, streams, or wetlands located within 1000 feet of the UST system?	*X	
	*~280' to stormwater car	lal	
	If yes, indicate type of receptor, distance, and direction on site map.		
В.	Are there any public, private, or irrigation water supply wells within 1000 feet of the UST system?		Х
	If yes, indicate type of well, distance, and direction on site map.		
C.	Are there any underground structures (e.g., basements) Located within 100 feet of the UST system?		Х
	If yes, indicate type of structure, distance, and direction on site map.		
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, electri	*X	
	contamination? *Sewer, water, electri cable & fiber o		
	If yes, indicate the type of utility, distance, and direction on the site map.	pere	
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?		Х
	If yes, indicate the area of contaminated soil on the site map.		

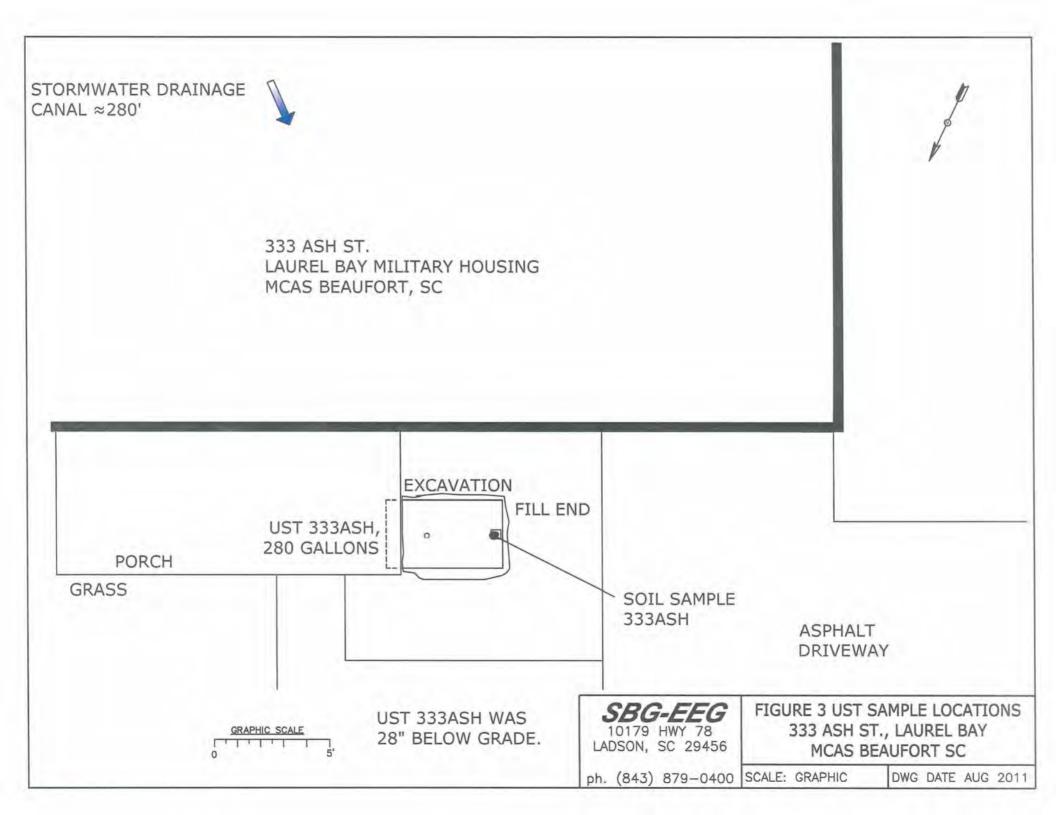
#### XIII. SITE MAP

You must supply a <u>scaled</u> 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)









Picture 1: Location of UST 333Ash.



Picture 2: UST 333Ash excavation in progress.

#### 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.

[			T	 1
CoC UST	333Ash			
Benzene	ND			
Toluene	0.00491 mg/k	g		
Ethylbenzene	0.0547 mg/kg			
Xylenes	0.0201 mg/kg			
Naphthalene	0.526 mg/kg			
Benzo (a) anthracene	ND			
Benzo (b) fluoranthene	ND			
Benzo (k) fluoranthene	ND			
Chrysene	0.0747 mg/kg			
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				
МТВЕ	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)



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: NUG3402

Client Project/Site: [none] Client Project Description: Laurel Bay Housing Project

#### For:

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Expert

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

Attn: Tom McElwee

fa Hay

Authorized for release by: 08/05/2011 06:02:55 PM

Ken A. Hayes Senior Project Manager ken.hayes@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.

08/05/2011

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#### Sample Summary

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ab Sample ID	Client Sample ID	Matrix	Collected	Received
NUG3402-01	333 Ash	Soil	07/18/11 13:15	07/23/11 08:30
VUG3402-02	311 Ash	Soil	07/19/11 12:00	07/23/11 08:30
IUG3402-03	524 Laurel Bay	Soil	07/20/11 10:45	07/23/11 08:30
IUG3402-04	860 Dolphin	Soil	07/21/11 11:15	07/23/11 08:30

#### Qualifiers

#### **GCMS** Volatiles

Qualifier	Qualifier Description	
RL1	Reporting limit raised due to sample matrix effects.	
ZX	Due to sample matrix effects, the surrogate recovery was outside the acceptance limits.	
GCMS Sem	ivolatiles	
Qualifier	Qualifier Description	
A-01	No MS/MSD reported due to internal standard failure. Batch accepted based on LCS results.	
1	Internal Standard recovery was outside of method limits. Matrix interference was confirmed by reanalysis.	
J	Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL).	
	Concentrations within this range are estimated.	
	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.
Ö.	Listed under the "D" column to designate that the result is reported on a dry weight basis.
EPA	United States Environmental Protection Agency
ND	Not Detected above the reporting level.
MDL	Method Detection Limit
RL	Reporting Limit
RE, RE1 (etc.)	Indicates a Re-extraction or Reanalysis of the sample.
%R	Percent Recovery
RPD	Relative Percent Difference, a measure of the relative difference between two points.

#### Client Sample ID: 333 Ash Date Collected: 07/18/11 13:15 Date Received: 07/23/11 08:30

% Dry Solids

#### Lab Sample ID: NUG3402-01 Matrix: Soil

Percent Solids: 84.7

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00173	0.000951	mg/kg dry	0	07/18/11 13:15	07/29/11 20:46	1.00
Ethylbenzene	0.0547		0.00173	0.000847	mg/kg dry	10.	07/18/11 13:15	07/29/11 20:46	1,00
Toluene	0.00491		0.00173	0.000770	mg/kg dry	10	07/18/11 13:15	07/29/11 20:46	1.00
Xylenės, lotal	0.201		0.00432	0.00164	mg/kg dry	¢.	07/18/11 13:15	07/29/11 20:46	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	110		67 - 138				07/18/11 13:15	07/29/11 20:46	1.00
Dibromofluoromethane	106		75 - 125				07/18/11 13:15	07/29/11 20:46	1.00
Toluene-d8	147	ZX	76 - 129				07/18/11 13:15	07/29/11 20:46	1.00
4-Bromofluorobenzene	732	7X	67 - 147				07/18/11 13:15	07/29/11 20:46	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	0.526	-	0.234	0.0796	mg/kg dry	a	07/18/11 13:15	08/01/11 16:40	50.0
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	92	1	67 - 138				07/18/11 13:15	08/01/11 16:40	50.0
Dibromofluoromethane	98		75 - 125				07/18/11 13:15	08/01/11 16:40	50.0
Toluene-d8	105		76 - 129				07/18/11 13:15	08/01/11 16:40	50.0
4-Bromofluorobenzene	114		67 - 147				07/18/11 13:15	08/01/11 16:40	50.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0770	0.0161	mg/kg dry	0	07/29/11 09:15	07/29/11 19:22	1.00
Acenaphthylene	ND		0.0770	0.0230	mg/kg dry	0	07/29/11 09:15	07/29/11 19:22	1.00
Anthracene	ND		0.0770	0.0103	mg/kg dry	127	07/29/11 09:15	07/29/11 19:22	1.00
Benzo (a) anthracene	ND		0.0770	0.0126	mg/kg dry	Ċ.	07/29/11 09:15	07/29/11 19:22	1.00
Benzo (a) pyrene	ND		0.0770	0.00920	mg/kg dry	Ċ.	07/29/11 09:15	07/29/11 19:22	1.00
Benzo (b) fluoranthene	ND		0.0770	0.0437	mg/kg dry	Ξ.	07/29/11 09:15	07/29/11 19:22	1.00
Benzo (g,h,i) perylene	ND		0.0770	0.0103	mg/kg dry	0	07/29/11 09:15	07/29/11 19:22	1.00
Benzo (k) fluoranthene	ND		0.0770	0.0425	mg/kg dry	-0-	07/29/11 09:15	07/29/11 19:22	1.00
Chrysene	0.0747	J.	0.0770	0.0356	mg/kg dry	- 0	07/29/11 09:15	07/29/11 19:22	1.00
Dibenz (a,h) anthracene	ND		0.0770	0.0172	mg/kg dry	0	07/29/11 09:15	07/29/11 19:22	1.00
Fluoranthene	ND		0.0770	0.0126	mg/kg dry	17	07/29/11 09:15	07/29/11 19:22	1.00
Fluorene	ND		0.0770	0.0230	mg/kg dry	10	07/29/11 09:15	07/29/11 19:22	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0770	0.0356	mg/kg dry	12	07/29/11 09:15	07/29/11 19:22	1.00
Naphthalene	ND		0.0770	0.0161	mg/kg dry	12	07/29/11 09:15	07/29/11 19:22	1.00
Phenanthrene	ND		0.0770	0.0115	mg/kg dry	ú.	07/29/11 09:15	07/29/11 19:22	1.00
Pyrene	ND		0.0770	0.0264	mg/kg dry	6	07/29/11 09:15	07/29/11 19:22	1.00
1-Methylnaphthalene	ND		0.0770	0.0138	mg/kg dry	-Q	07/29/11 09:15	07/29/11 19:22	1.00
2-Methylnaphthalene	ND		0.0770	0.0241	mg/kg dry	¢	07/29/11 09:15	07/29/11 19:22	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Terphenyl-d14	146	ZX	18_120				07/29/11 09:15	07/29/11 19:22	1.00
2-Fluorobiphenyl	121	ZX	14 - 120				07/29/11 09:15	07/29/11 19:22	1.00
Nitrobenzene-d5	86		17 - 120				07/29/11 09:15	07/29/11 19:22	1.00
Method: SW-846 - General Chemist	y Paramete	rs							
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac

1.00

# Lab Sample ID: NUG3402-02 Matrix: Soil

Percent Solids: 89.3

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Client Sample ID: 311 Ash Date Collected: 07/19/11 12:00

Date Received: 07/23/11 08:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00219	0.00120	mg/kg dry	(j)	07/19/11 12:00	08/01/11 15:08	1.00
Ethylbenzene	ND		0.00219	0,00107	mg/kg dry	ø	07/19/11 12:00	08/01/11 15:08	1.00
Naphthalene	ND		0.00547	0.00186	mg/kg dry	a	07/19/11 12:00	08/01/11 15:08	1.00
Toluene	ND		0.00219	0.000973	mg/kg dry	Q.	07/19/11 12:00	08/01/11 15:08	1.00
Xylenes, total	ND		0.00547	0.00208	mg/kg dry	7	07/19/11 12:00	08/01/11 15:08	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	107		67 - 138				07/19/11 12:00	08/01/11 15:08	1.00
Dibromofluoromethane	101		75 - 125				07/19/11 12:00	08/01/11 15:08	1.00
Toluene-d8	107		76 - 129				07/19/11 12:00	08/01/11 15:08	1.00
4-Bromofluorobenzene	126		67 - 147				07/19/11 12:00	08/01/11 15:08	1.00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0735	0.0154	mg/kg dry	127	07/29/11 09:15	07/29/11 19:41	1.00
Acenaphthylene	ND		0,0735	0.0219	mg/kg dry	Ċ.	07/29/11 09:15	07/29/11 19:41	1.00
Anthracene	ND		0.0735	0.00987	mg/kg dry	0	07/29/11 09:15	07/29/11 19:41	1.00
Benzo (a) anthracene	ND		0.0735	0.0121	mg/kg dry	Ū.	07/29/11 09:15	07/29/11 19:41	1.00
Benzo (a) pyrene	ND		0.0735	0.00878	mg/kg dry	C	07/29/11 09:15	07/29/11 19:41	1.00
Benzo (b) fluoranthene	ND		0.0735	0.0417	mg/kg dry	0	07/29/11 09:15	07/29/11 19:41	1.00
Benzo (g,h,i) perylene	ND		0.0735	0.00987	mg/kg dry	0	07/29/11 09:15	07/29/11 19:41	1.00
Benzo (k) fluoranthene	ND		0.0735	0.0406	mg/kg dry	a	07/29/11 09:15	07/29/11 19:41	1.00
Chrysene	ND		0.0735	0.0340	mg/kg dry	10	07/29/11 09:15	07/29/11 19:41	1.00
Dibenz (a,h) anthracene	ND		0.0735	0.0165	mg/kg dry	- 52	07/29/11 09:15	07/29/11 19:41	1.00
Fluoranthene	ND		0.0735	0.0121	mg/kg dry	27	07/29/11 09:15	07/29/11 19:41	1.00
Fluorene	ND		0.0735	0.0219	mg/kg dry	5.7	07/29/11 09:15	07/29/11 19:41	1.00
Indeno (1,2,3-cd) pyrene	ND		0,0735	0.0340	mg/kg dry	-52	07/29/11 09:15	07/29/11 19:41	1.00
Naphthalene	ND		0.0735	0.0154	mg/kg dry	<b>\$</b>	07/29/11 09:15	07/29/11 19:41	1.00
Phenanthrene	ND		0.0735	0.0110	mg/kg dry	4	07/29/11 09:15	07/29/11 19:41	1.00
Pyrene	ND		0.0735	0.0252	mg/kg dry	ų.	07/29/11 09:15	07/29/11 19:41	1.00
1-Methylnaphthalene	ND		0.0735	0.0132	mg/kg dry	-0	07/29/11 09:15	07/29/11 19:41	1.00
2-Methylnaphthalene	ND		0.0735	0.0230	mg/kg dry	0	07/29/11 09:15	07/29/11 19:41	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Terphenyl-d14	95		18 - 120				07/29/11 09:15	07/29/11 19:41	1.00
2-Fluorobiphenyl	71		14 - 120				07/29/11 09:15	07/29/11 19:41	1.00
Nitrobenzene-d5	67		17 - 120				07/29/11 09:15	07/29/11 19:41	1,00
Method: SW-846 - General C	hemistry Paramete	ers							
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Dry Solids	89.3		0.500	0.500	%		08/02/11 16:00	08/03/11 09:06	1.00

#### Lab Sample ID: NUG3402-03 Matrix: Soli Percent Solids: 89

Date Collected: 07/20/11 10:45 Date Received: 07/23/11 08:30

Client Sample ID: 524 Laurel Bay

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00217	0.00120	mg/kg dry	D	07/20/11 10:45	07/29/11 21:49	1.00
Ethylbenzene	ND		0.00217	0.00106	mg/kg dry	D	07/20/11 10:45	07/29/11 21:49	1,00
Naphthalene	ND		0.00543	0.00185	mg/kg dry	10	07/20/11 10:45	07/29/11 21:49	1.00
Toluene	ND		0.00217	0.000967	mg/kg dry	0	07/20/11 10:45	07/29/11 21:49	1.00
Xylenes, total	ND		0.00543	0.00206	mg/kg dry	ţ,	07/20/11 10:45	07/29/11 21:49	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	95		67 - 138				07/20/11 10:45	07/29/11 21:49	1.00
Dibromofluoromethane	93		75 - 125				07/20/11 10:45	07/29/11 21:49	1.00
Toluene-d8	104		76 - 129				07/20/11 10:45	07/29/11 21:49	1.00
4-Bromofluorobenzene	110		67 - 147				07/20/11 10:45	07/29/11 21:49	1.00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0734	0.0153	mg/kg dry	D	07/29/11 09:15	07/29/11 20:00	1.00
Acenaphthylene	ND		0.0734	0.0219	mg/kg dry	¢	07/29/11 09:15	07/29/11 20:00	1.00
Anthracene	ND		0.0734	0.00985	mg/kg dry	¢.	07/29/11 09:15	07/29/11 20:00	1.00
Benzo (a) anthracene	ND		0.0734	0.0120	mg/kg dry	77	07/29/11 09:15	07/29/11 20:00	1.00
Benzo (a) pyrene	ND		0.0734	0.00876	mg/kg dry	\$7	07/29/11 09:15	07/29/11 20:00	1.00
Benzo (b) fluoranthene	ND		0.0734	0.0416	mg/kg dry	φ	07/29/11 09:15	07/29/11 20:00	1.00
Benzo (g,h,i) perylene	ND		0.0734	0.00985	mg/kg dry	52	07/29/11 09:15	07/29/11 20:00	1.00
Benzo (k) fluoranthene	ND		0.0734	0.0405	mg/kg dry	5	07/29/11 09:15	07/29/11 20:00	1.00
Chrysene	ND		0.0734	0.0339	mg/kg dry	1,2	07/29/11 09:15	07/29/11 20:00	1.00
Dibenz (a,h) anthracene	ND		0.0734	0.0164	mg/kg dry	12	07/29/11 09:15	07/29/11 20:00	1.00
Fluoranthene	ND		0.0734	0.0120	mg/kg dry	49	07/29/11 09:15	07/29/11 20:00	1.00
Fluorene	ND		0.0734	0.0219	mg/kg dry	σ	07/29/11 09:15	07/29/11 20:00	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0734	0.0339	mg/kg dry		07/29/11 09:15	07/29/11 20:00	1.00
Naphthalene	ND		0.0734	0.0153	mg/kg dry	12	07/29/11 09:15	07/29/11 20:00	1.00
Phenanthrene	ND		0.0734	0.0109	mg/kg dry	107	07/29/11 09:15	07/29/11 20:00	1.00
Pyrene	ND		0.0734	0.0252	mg/kg dry	37.	07/29/11 09:15	07/29/11 20:00	1.00
1-Methylnaphthalene	ND		0.0734	0.0131	mg/kg dry	\$	07/29/11 09:15	07/29/11 20:00	1.00
2-Methylnaphthalene	ND		0.0734	0.0230	mg/kg dry	Ŷ	07/29/11 09:15	07/29/11 20:00	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Terphenyl-d14	94		18 - 120				07/29/11 09:15	07/29/11 20:00	1.00
2-Fluorobiphenyl	70		14 - 120				07/29/11 09:15	07/29/11 20:00	1.00
Nitrobenzene-d5	67		17 - 120				07/29/11 09:15	07/29/11 20:00	1.00
Method: SW-846 - General C	hemistry Paramete	rs							
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Dry Solids	89.0		0.500	0.500	%		08/02/11 16:00	08/03/11 09:06	1.00

#### Client Sample ID: 860 Dolphin

Date Collected: 07/21/11 11:15 Date Received: 07/23/11 08:30

# Lab Sample ID: NUG3402-04 Matrix: Soil

Percent Solids: 95.2

5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00248	0.00136	mg/kg dry	\$2	07/21/11 11:15	07/29/11 22:20	1.00
Ethylbenzene	ND		0.00248	0.00121	mg/kg dry	¢.	07/21/11 11:15	07/29/11 22:20	1.00
Toluene	ND		0.00248	0.00110	mg/kg dry	4	07/21/11 11:15	07/29/11 22:20	1.00
Xylenes, total	ND		0.00619	0.00235	mg/kg dry	.0	07/21/11 11:15	07/29/11 22:20	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	98		67 - 138				07/21/11 11:15	07/29/11 22:20	1.00
Dibromofluoromethane	96		75 - 125				07/21/11 11:15	07/29/11 22:20	1.00
Toluene-d8	112		76 - 129				07/21/11 11:15	07/29/11 22:20	1.00
4-Bromofluorobenzene	144		67 - 147				07/21/11 11:15	07/29/11 22:20	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	ND	RL1	0.309	0.105	mg/kg dry	ġ	07/21/11 11:15	08/01/11 16:09	50.0
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	99		67 - 138				07/21/11 11:15	08/01/11 16:09	50.0
Dibromofluoromethane	97		75 - 125				07/21/11 11:15	08/01/11 16:09	50.0
Toluene-d8	100		76 - 129				07/21/11 11:15	08/01/11 16:09	50.0
4-Bromofluorobenzene	101		67 - 147				07/21/11 11:15	08/01/11 16:09	50.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0682	0.0143	mg/kg dry	0	07/29/11 09:15	07/29/11 20:20	1.00
Acenaphthylene	0.133		0.0682	0.0204	mg/kg dry	*	07/29/11 09:15	07/29/11 20:20	1.00
Anthracene	ND		0.0682	0.00916	mg/kg dry	0	07/29/11 09:15	07/29/11 20:20	1.00
Benzo (a) anthracene	0.0560	J	0.0682	0.0112	mg/kg dry	0	07/29/11 09:15	07/29/11 20:20	1.00
Benzo (a) pyrene	ND		0.0682	0.00815	mg/kg dry	0	07/29/11 09:15	07/29/11 20:20	1.00
Benzo (b) fluoranthene	0.0770		0.0682	0.0387	mg/kg dry	-0-	07/29/11 09:15	07/29/11 20:20	1.00
Benzo (g,h,i) perylene	ND		0.0682	0.00916	mg/kg dry	4	07/29/11 09:15	07/29/11 20:20	1.00
Benzo (k) fluoranthene	0.0563	J	0.0682	0.0377	mg/kg dry		07/29/11 09:15	07/29/11 20:20	1.00
Chrysene	0.0859		0.0682	0.0316	mg/kg dry	12	07/29/11 09:15	07/29/11 20:20	1.00
Dibenz (a,h) anthracene	ND		0.0682	0.0153	mg/kg dry	10	07/29/11 09:15	07/29/11 20:20	1.00
Fluoranthene	ND		0.0682	0.0112	mg/kg dry	0	07/29/11 09:15	07/29/11 20:20	1.00
Fluorene	ND		0.0682	0.0204	mg/kg dry	0	07/29/11 09:15	07/29/11 20:20	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0682	0.0316	mg/kg dry	ia.	07/29/11 09:15	07/29/11 20:20	1.00
Naphthalene	ND		0.0682	0.0143	mg/kg dry	12	07/29/11 09:15	07/29/11 20:20	1.00
Phenanthrene	ND		0.0682	0.0102	mg/kg dry		07/29/11 09:15	07/29/11 20:20	1.00
Pyrene	0.576		0.0682	0.0234	mg/kg dry	÷.	07/29/11 09:15	07/29/11 20:20	1.00
1-Methylnaphthalene	ND		0.0682	0.0122	mg/kg dry	Ø.	07/29/11 09:15	07/29/11 20:20	1.00
2-Methylnaphthalene	ND		0.0682	0.0214	mg/kg dry	¢	07/29/11 09:15	07/29/11 20:20	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Terphenyl-d14	118		18 - 120				07/29/11 09:15	07/29/11 20:20	1.00
2-Fluorobiphenyl	71		14 - 120				07/29/11 09:15	07/29/11 20:20	1.00
Nitrobenzene-d5	68		17 - 120				07/29/11 09:15	07/29/11 20:20	1.00
Method: SW-846 - General C	hemistry Paramete	rs							
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Dry Solids	95.2	-	0.500	0.500	%		08/02/11 16:00	08/03/11 09:06	1.00

Prep Batch: 11G5603\_P

**Client Sample ID: Matrix Spike** 

Prep Type: Total

6

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

Lab Sample ID: 11G5603-BLK1 Matrix: Soil							Client Sa	mple ID: Metho Prep Typ	
Analysis Batch: U013553							F	rep Batch: 110	
	Blank	Blank							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00200	0.00110	mg/kg wet		07/25/11 08:54	07/29/11 13:35	1.00
Ethylbenzene	ND		0.00200	0,000980	mg/kg wet		07/25/11 08:54	07/29/11 13:35	1.00
Naphthalene	ND		0.00500	0.00170	mg/kg wet		07/25/11 08:54	07/29/11 13:35	1.00
Toluene	ND		0.00200	0.000890	mg/kg wet		07/25/11 08:54	07/29/11 13:35	1.00
Xylenes, total	ND		0.00500	0.00190	mg/kg wet		07/25/11 08:54	07/29/11 13:35	1.00
	Blank	Blank							
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	99		67 - 138				07/25/11 08:54	07/29/11 13:35	1.00
Dibromofluoromethane	96		75 - 125				07/25/11 08:54	07/29/11 13:35	1.00
Toluene-d8	107		76 - 129				07/25/11 08:54	07/29/11 13:35	1.00
4-Bromofluorobenzene	103		67 - 147				07/25/11 08:54	07/29/11 13:35	1.00
Lab Sample ID: 11G5603-BS1						c	lient Sample I	D: Lab Control	Sample
Matrix: Soil								Prep Typ	

#### Matrix: Soll Analysis Batch: U013553

	Spike	LCS	LCS				% Rec.	
Analyte	Added	Result	Qualifier	Unit	D	% Rec	Limits	
Benzene	50.0	45.9		ug/kg		92	78 - 126	
Ethylbenzene	50.0	50.9		ug/kg		102	79 - 130	
Naphthalene	50.0	47.2		ug/kg		94	72 - 150	
Toluene	50.0	47.4		ug/kg		95	76 - 126	
Xylenes, total	150	152		ug/kg		101	80 - 130	

	LCS	LCS	
Surrogate	% Recovery	Qualifier	Limits
1,2-Dichloroethane-d4	97	_	67_138
Dibromofluoromethane	98		75 - 125
Toluene-d8	105		76 - 129
4-Bromofluorobenzene	105		67 - 147

#### Lab Sample ID: 11G5603-MS1 Matrix: Soil

Analysis Batch: U013553								F	Prep Batch:	11G5603_P
	Sample	Sample	Spike	Matrix Spike	Matrix Spi	ke			% Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	% Rec	Limits	
Benzene	ND		0.0520	0.0470		mg/kg dry	ō	90	42 - 141	
Ethylbenzene	0.0107		0.0520	0.0556		mg/kg dry	ġ.	86	21 - 165	
Naphthalene	0.00185		0.0520	0.0483		mg/kg dry	45	89	10 - 160	
Toluene	0.00478		0.0520	0.0504		mg/kg dry	13	88	45 - 145	
Xylenes, total	0.0591		0.156	0.176		mg/kg dry	a	75	31 - 159	
	Matrix Spike	Matrix Spike								
Surrogate	% Recovery	Qualifier	Limits							

1,2-Dichloroethane-d4	92	67 - 138
Dibromofluoromethane	93	75 - 125
Toluene-d8	107	76 - 129
4-Bromofluorobenzene	108	67 - 147

#### TestAmerica Nashville 08/05/2011

**Client Sample ID: Method Blank** 

08/01/11 14:06

08/01/11 14:06

**Client Sample ID: Method Blank** 

Prep Type: Total Prep Batch: 11H0262\_P

08/01/11 00:16

08/01/11 00:16

08/01/11 00:16 08/01/11 14:06

08/01/11 00:16 08/01/11 14:06

Prep Type: Total

1.00

1.00

1.00

1.00

Prep Batch: 11H0262\_P

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

Lab Sample ID: 11G5603-MSD1 Matrix: Soil						Clien	t Sa	mple ID:	Matrix Sp Pre	ike Dup p Type:	
Analysis Batch: U013553								F	rep Batch		
	Sample	Sample	Spike	Aatrix Spike Dup	Matrix Spi	ke Dur			% Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	% Rec	Limits	RPD	Limit
Benzene	ND		0.0541	0.0497		mg/kg dry	1	92	42 - 141	5	50
Ethylbenzene	0.0107		0.0541	0.0580		mg/kg dry	<u>1</u>	87	21 - 165	4	50
Naphthalene	0.00185		0.0541	0.0509		mg/kg dry	32	91	10 - 160	5	50
Toluene	0.00478		0.0541	0.0525		mg/kg dry	12	88	45 - 145	4	50
Xylenes, total	0.0591		0.162	0.184		mg/kg dry	25	77	31 - 159	5	50

Matrix Spike Dup	matrix Spike Dup		
% Recovery	Qualifier	Limits	
94		67 - 138	
95		75 - 125	
108		76 - 129	
104		67 - 147	
	% Recovery 94 95 108	94 95 108	

#### Lab Sample ID: 11H0262-BLK1 Matrix: Soil

#### Analysis Batch: U013656

	Blank	Blank							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND	-	0.00200	0.00110	mg/kg wet		08/01/11 00:16	08/01/11 14:06	1.00
Ethylbenzene	ND		0.00200	0.000980	mg/kg wet		08/01/11 00:16	08/01/11 14:06	1.00
Naphthalene	ND		0.00500	0.00170	mg/kg wet		08/01/11 00:16	08/01/11 14:06	1.00
Toluene	ND		0.00200	0.000890	mg/kg wet		08/01/11 00:16	08/01/11 14:06	1.00
Xylenes, total	ND		0.00500	0.00190	mg/kg wet		08/01/11 00:16	08/01/11 14:06	1.00
	Blank	Blank							
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

% Recovery	Qualifier	Limits
105		67 - 138
104		75 - 125
99		76 - 129
101		67 - 147
	105 104 99	105 104 99

#### Lab Sample ID: 11H0262-BLK2 Matrix: Soil

#### Analysis Batch: U013656

	Blank	Blank							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.100	0.0550	mg/kg wet		08/01/11 00:16	08/01/11 14:37	50.0
Ethylbenzene	ND		0.100	0.0490	mg/kg wet		08/01/11 00:16	08/01/11 14:37	50.0
Naphthalene	ND		0.250	0.0850	mg/kg wet		08/01/11 00:16	08/01/11 14:37	50.0
Toluene	ND		0.100	0.0445	mg/kg wet		08/01/11 00:16	08/01/11 14:37	50.0
Xylenes, total	ND		0.250	0.0950	mg/kg wet		08/01/11 00:16	08/01/11 14:37	50,0
	Blank	Blank							
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	96		67 - 138				08/01/11 00:16	08/01/11 14:37	50.0
Dibromofluoromethane	99		75 - 125				08/01/11 00:16	08/01/11 14:37	50.0
Toluene-d8	101		76 - 129				08/01/11 00:16	08/01/11 14:37	50.0
4-Bromofluorobenzene	97		67 - 147				08/01/11 00:16	08/01/11 14:37	50.0

6

Client Sample ID: 311 Ash

Client Sample ID: 311 Ash

Prep Type: Total

Prep Type: Total

6

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

Lab Sample ID: 11H0262-BS1							Client	Sample	ID: Lab Control Sample
Matrix: Soil									Prep Type: Tota
Analysis Batch: U013656									Prep Batch: 11H0262_F
			Spike	LCS	LCS				% Rec.
Analyte			Added	Result	Qualifier	Unit	D	% Rec	Limits
Benzene		_	50.0	58,4		ug/kg		117	78 - 126
Ethylbenzene			50.0	60.4		ug/kg		121	79 - 130
Naphthalene			50.0	58.3		ug/kg		117	72 - 150
Toluene			50.0	57.3		ug/kg		115	76 - 126
Xylenes, total			150	181		ug/kg		121	80 - 130
	LCS	LCS							
Surrogate	% Recovery	Qualifier	Limits						
1,2-Dichloroethane-d4	115	_	67 - 138						

Surrogate	% Recovery	Qualifier	Limits
1,2-Dichloroethane-d4	115		67 - 138
Dibromofluoromethane	102		75 - 125
Toluene-d8	101		76 - 129
4-Bromofluorobenzene	102		67 - 147

#### Lab Sample ID: 11H0262-MS1 Matrix: Soil Analysis Batch: U013656

Analysis Batch: U013656								F	Prep Batch: 11H02	262_P
	Sample	Sample	Spike	Matrix Spike	Matrix Spi	ke			% Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	% Rec	Limits	
Benzene	ND	-	0.0554	0.0567		mg/kg dry	à	102	42 - 141	
Ethylbenzene	ND		0.0554	0.0602		mg/kg dry	13	109	21 - 165	
Naphthalene	ND		0.0554	0.0232		mg/kg dry	\$2	42	10 - 160	
Toluene	ND		0.0554	0.0627		mg/kg dry	42	113	45 - 145	
Xylenes, total	ND		0.166	0.173		mg/kg dry	Ģ	104	31 - 159	

	Matrix Spike	Matrix Spike		
Surrogate	% Recovery	Qualifier	Limits	
1,2-Dichloroethane-d4	109		67 - 138	
Dibromofluoromethane	102		75 - 125	
Toluene-d8	109		76 - 129	
4-Bromofluorobenzene	128		67 - 147	

#### Lab Sample ID: 11H0262-MSD1 Matrix: Soil

#### Analysis Batch: U013656

Analysis Batch: U013656								F	Prep Batch	1: 11H0	262_P
	Sample	Sample	Spike	Aatrix Spike Dup	Matrix Spi	ke Dut			% Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	% Rec	Limits	RPD	Limit
Benzene	ND		0.0549	0.0523		mg/kg dry	121	95	42 - 141	8	50
Ethylbenzene	ND		0.0549	0.0538		mg/kg dry	357	98	21 - 165	11	50
Naphthalene	ND		0.0549	0.0183		mg/kg dry	32	33	10 - 160	23	50
Toluene	ND		0.0549	0.0570		mg/kg dry	45	104	45 - 145	10	50
Xylenes, total	ND		0.165	0.154		mg/kg dry	20	94	31 - 159	11	50

	Matrix Spike Dup	Matrix Spike Dup			
Surrogate	% Recovery	Qualifier	Limits		
1,2-Dichloroethane-d4	109		67 - 138		
Dibromofluoromethane	100		75 - 125		
Toluene-d8	110		76 - 129		
4-Bromofluorobenzene	127		67 - 147		
	100 m				

TestAmerica	Nashville
08/0	5/2011

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

#### Lab Sample ID: 11G5742-BLK1 Matrix: Soil Analysis Batch: 11G5742

#### Client Sample ID: Method Blank Prep Type: Total Prep Batch: 11G5742\_P

6

	Blank	Blank						and a strandard	
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0670	0.0140	mg/kg wet		07/29/11 09:15	07/29/11 18:04	1.00
Acenaphthylene	ND		0.0670	0.0200	mg/kg wet		07/29/11 09:15	07/29/11 18:04	1.00
Anthracene	ND		0.0670	0.00900	mg/kg wet		07/29/11 09:15	07/29/11 18:04	1.00
Benzo (a) anthracene	ND		0.0670	0.0110	mg/kg wet		07/29/11 09:15	07/29/11 18:04	1.00
Benzo (a) pyrene	ND		0.0670	0.00800	mg/kg wet		07/29/11 09:15	07/29/11 18:04	1.00
Benzo (b) fluoranthene	ND		0.0670	0.0380	mg/kg wet		07/29/11 09:15	07/29/11 18:04	1.00
Benzo (g,h,i) perylene	ND		0.0670	0.00900	mg/kg wet		07/29/11 09:15	07/29/11 18:04	1.00
Benzo (k) fluoranthene	ND		0,0670	0.0370	mg/kg wet		07/29/11 09:15	07/29/11 18:04	1.00
Chrysene	ND		0.0670	0.0310	mg/kg wet		07/29/11 09:15	07/29/11 18:04	1.00
Dibenz (a,h) anthracene	ND		0.0670	0.0150	mg/kg wet		07/29/11 09:15	07/29/11 18:04	1.00
Fluoranthene	ND		0.0670	0.0110	mg/kg wet		07/29/11 09:15	07/29/11 18:04	1.00
Fluorene	ND		0.0670	0.0200	mg/kg wet		07/29/11 09:15	07/29/11 18:04	1.00
Indeno (1.2,3-cd) pyrene	ND		0.0670	0.0310	mg/kg wet		07/29/11 09:15	07/29/11 18:04	1.00
Naphthalene	ND		0.0670	0.0140	mg/kg wet		07/29/11 09:15	07/29/11 18:04	1.00
Phenanthrene	ND		0.0670	0.0100	mg/kg wet		07/29/11 09:15	07/29/11 18:04	1.00
Pyrene	ND		0.0670	0.0230	mg/kg wet		07/29/11 09:15	07/29/11 18:04	1.00
1-Methylnaphthalene	ND		0.0670	0.0120	mg/kg wet		07/29/11 09:15	07/29/11 18:04	1.00
2-Methylnaphthalene	ND		0.0670	0.0210	mg/kg wet		07/29/11 09:15	07/29/11 18:04	1.00
	Blank	Blank							
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
T 1 1 1 1 1 1	100		10 100				07/00/44 00.45	07/00/44 40.04	4.00

Surrogate	% Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	102		18 - 120	07/29/11 09:15	07/29/11 18:04	1.00
2-Fluorobiphenyl	78		14 - 120	07/29/11 09:15	07/29/11 18:04	1.00
Nitrobenzene-d5	79		17 - 120	07/29/11 09:15	07/29/11 18:04	1.00

#### Lab Sample ID: 11G5742-BS1 Matrix: Soil Analysis Batch: 11G5742

#### Client Sample ID: Lab Control Sample Prep Type: Total Prep Batch: 11G5742 P

Analysis Batch: 11G5742						F	Prep Batch: 11G	5742
	Spike	LCS	LCS				% Rec.	
Analyte	Added	Result	Qualifier	Unit	D	% Rec	Limits	
Acenaphthene	1.67	1.53	A-01	mg/kg wet		92	49 - 120	
Acenaphthylene	1.67	1.57	A-01	mg/kg wet		94	52 - 120	
Anthracene	1,67	1.67	A-01	mg/kg wet		100	58 - 120	
Benzo (a) anthracene	1.67	1.63	A-01	mg/kg wet		98	57 - 120	
Benzo (a) pyrene	1.67	1.75	A-01	mg/kg wet		105	55 - 120	
Benzo (b) fluoranthene	1.67	1,93	A-01	mg/kg wet		116	51 - 123	
Benzo (g,h,i) perylene	1.67	1.50	A-01	mg/kg wet		90	49 - 121	
Benzo (k) fluoranthene	1.67	1.37	A-01	mg/kg wet		82	42 - 129	
Chrysene	1.67	1.54	A-01	mg/kg wet		93	55 - 120	
Dibenz (a,h) anthracene	1.67	1.54	A-01	mg/kg wet		92	50 + 123	
Fluoranthene	1.67	1.69	A-01	mg/kg wet		101	58 - 120	
Fluorene	1.67	1.63	A-01	mg/kg wet		98	54 - 120	
Indeno (1,2,3-cd) pyrene	1.67	1.53	A-01	mg/kg wet		92	50 - 122	
Naphthalene	1.67	1.71	A-01	mg/kg wet		103	28 - 120	
Phenanthrene	1.67	1,62	A-01	mg/kg wet		97	56 - 120	
Pyrene	1.67	1,60	A-01	mg/kg wet		96	56 - 120	
1-Methylnaphthalene	1.67	1.30		mg/kg wet		78	36 - 120	
2-Methylnaphthalene	1.67	1.56		mg/kg wet		94	36 - 120	

Client Sample ID: 333 Ash

Prep Type: Total

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

#### Lab Sample ID: 11G5742-BS1 Matrix: Soil Analysis Batch: 11G5742

#### **Client Sample ID: Lab Control Sample** Prep Type: Total Prep Batch: 11G5742\_P

	LCS	LCS	
Surrogate	% Recovery	Qualifier	Limits
Terphenyl-d14	100	-	18 - 120
2-Fluorobiphenyl	82		14 - 120
Nitrobenzene-d5	80		17 - 120

#### Lab Sample ID: 11G5742-MS1 Matrix: Soil

Analysis Batch: 11G5742	(and			Materia Baller	Martha 0-1				Prep Batch: 11G5742_P
a could		Sample	Spike	Matrix Spike					% Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	% Rec	Limits
Acenaphthene	ND		1.93	60.8	1	mg/kg dry	ü	3160	42 - 120
Acenaphthylene	ND		1.93	2.43	1	mg/kg dry	ø	126	32 - 120
Anthracene	ND		1.93	44.5	)	mg/kg dry	¢.	2310	10 - 200
Benzo (a) anthracene	ND		1.93	1.69	1	mg/kg dry	C	88	41 - 120
Benzo (a) pyrene	ND		1.93	1.73	1	mg/kg dry	0	90	33 - 121
Benzo (b) fluoranthene	ND		1.93	1.71	1 C	mg/kg dry	a	88	26 - 137
Benzo (g,h,i) perylene	ND		1,93	1,47	1	mg/kg dry	10	76	21 - 124
Benzo (k) fluoranthene	ND		1.93	1.78	1	mg/kg dry	q	92	14 - 140
Chrysene	0.0747	J	1.93	1,81	4	mg/kg dry	33	90	28 - 123
Dibenz (a,h) anthracene	ND		1.93	1.52	1	mg/kg dry	0	79	25 - 127
Fluoranthene	ND		1.93	28.3	1	mg/kg dry	4	1470	38 - 120
Fluorene	ND		1.93	4.66	4	mg/kg dry	121	242	41 - 120
Indeno (1,2,3-cd) pyrene	ND		1.93	1.51	t	mg/kg dry	171	78	25 - 123
Naphthalene	ND		1.93	2.73	1	mg/kg dry	52	142	25 - 120
Phenanthrene	ND		1.93	7.91	1	mg/kg dry	¢.	410	37 - 120
Pyrene	ND		1.93	3.01	1	mg/kg dry	¢	156	29 - 125
1-Methylnaphthalene	ND		1.93	1.68	E.	mg/kg dry	0	87	19 - 120
2-Methylnaphthalene	ND		1.93	1.83	L	mg/kg dry	D	95	11 - 120

	Matrix Spike	Matrix Spike	9
Surrogate	% Recovery	Qualifier	Limits
Terphenyl-d14	110	T	18 - 120
2-Fluorobiphenyl	1710	1	14 - 120
Nitrobenzene-d5	71	1	17 - 120

#### Lab Sample ID: 11G5742-MSD1 Matrix: Soil Analysis Batch: 11G5742

Analysis Batch: 11G5742								1	Prep Batch	: 11G5	742_P
	Sample	Sample	Spike	Matrix Spike Dup	Matrix Spi	ke Duş			% Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	% Rec	Limits	RPD	Limit
Acenaphthene	ND		1.92	178	1	mg/kg dry	Cr.	9280	42 - 120	98	40
Acenaphthylene	ND		1.92	4.99	1	mg/kg dry	D.	261	32 - 120	69	30
Anthracene	ND		1.92	3.29	1	mg/kg dry	-0	172	10 - 200	173	50
Benzo (a) anthracene	ND		1.92	2.02	1	mg/kg dry	Ó	106	41-120	18	30
Benzo (a) pyrene	ND		1.92	2.18	1	mg/kg dry	Ő.	114	33 - 121	23	33
Benzo (b) fluoranthene	ND		1.92	4.04	1	mg/kg dry	Ċ.	211	26 - 137	81	42
Benzo (g,h,i) perylene	ND		1.92	1.90	1.	mg/kg dry	0	99	21 - 124	25	32
Benzo (k) fluoranthene	ND		1.92	4.21	1	mg/kg dry	2	220	14 - 140	81	39
Chrysene	0.0747	J	1.92	2.16	1	mg/kg dry	0	109	28 - 123	18	34
Dibenz (a,h) anthracene	ND		1.92	1.95	1	mg/kg dry	C.	102	25 - 127	25	31
Fluoranthene	ND		1.92	2.44	1	mg/kg dry	121	127	38 - 120	168	35

TestAmerica Nashville 08/05/2011

Client Sample ID: 333 Ash

Prep Type: Total

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

Lab Sample ID: 11G5742-MSD1								Clie	ent Sample	e ID: 33	3 Ash
Matrix: Soil									Pre	p Type:	Total
Analysis Batch: 11G5742								F	Prep Batch	: 11G5	742_P
	Sample	Sample	Spike	Aatrix Spike Dup	Matrix Spi	ke Dur			% Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	% Rec	Limits	RPD	Limit
Fluorene	ND		1,92	14.2	L	mg/kg dry	577	742	41 - 120	101	37
Indeno (1.2.3-cd) pyrene	ND		1.92	1.94	1	mg/kg dry	-57	101	25 - 123	25	32
Naphthalene	ND		1.92	3.16	î.	mg/kg dry	¢\$	165	25 - 120	15	42
Phenanthrene	ND		1.92	0.500	1	mg/kg dry	23	26	37 - 120	176	32
Pyrene	ND		1.92	3.61	1	mg/kg dry	175	188	29 - 125	18	40
1-Methylnaphthalene	ND		1.92	1.98	1	mg/kg dry	σ	104	19 - 120	16	45
2-Methylnaphthalene	ND		1.92	2.09	1	mg/kg dry	ø	109	11 - 120	13	50

Matrix Spike Dup	Matrix Spike Dup			
% Recovery	Qualifier	Limits		
133	1	18 - 120		
4890	1	14 - 120		
83	1	17 - 120		
	% Recovery 133 4890	133 I 4890 I		

#### Method: SW-846 - General Chemistry Parameters

Lab Sample ID: 11H0326-DUP1 Matrix: Soil							Client Sample ID: Dup Prep Type:	
Analysis Batch: 11H0326							Prep Batch: 11H03	326 P
	Sample	Sample	Duplicate	Duplicate			and the second second	RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
% Dry Solids	86.9		87.2		%		0.3	20

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

# GCMS Volatiles

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11G5603-BS1	Lab Control Sample	Total	Soil	SW846 8260B	11G5603_P
11G5603-BLK1	Method Blank	Total	Soil	SW846 8260B	11G5603_P
NUG3402-01	333 Ash	Total	Soil	SW846 8260B	11G5603_P
NUG3402-03	524 Laurel Bay	Total	Soil	SW846 8260B	11G5603_P
NUG3402-04	860 Dolphin	Total	Soil	SW846 8260B	11G5603_P
11G5603-MS1	Matrix Spike	Total	Soil	SW846 8260B	11G5603_P
11G5603-MSD1	Matrix Spike Duplicate	Total	Soil	SW846 8260B	11G5603_P
nalysis Batch: U013	656				
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11H0262-BS1	Lab Control Sample	Total	Soil	SW846 8260B	11H0262_P
1H0262-BLK1	Method Blank	Total	Soil	SW846 8260B	11H0262_P
11H0262-BLK2	Method Blank	Total	Soil	SW846 8260B	11H0262_P
NUG3402-02 - RE1	311 Ash	Total	Soil	SW846 8260B	11H0262_P
NUG3402-04 - RE1	860 Dolphin	Total	Soil	SW846 8260B	11H0262_P
NUG3402-01 - RE1	333 Ash	Total	Soil	SW846 8260B	11H0262_P
11H0262-MS1	311 Ash	Total	Soil	SW846 8260B	11H0262_P
1H0262-MSD1	311 Ash	Total	Soil	SW846 8260B	11H0262_P
ep Batch: 11G5603	Р				
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
1G5603-BS1	Lab Control Sample	Total	Soil	EPA 5035	
1G5603-BLK1	Method Blank	Total	Soil	EPA 5035	
IUG3402-01	333 Ash	Total	Soil	EPA 5035	
UG3402-03	524 Laurel Bay	Total	Soil	EPA 5035	
NUG3402-04	860 Dolphin	Total	Soil	EPA 5035	
11G5603-MS1	Matrix Spike	Total	Soil	EPA 5035	
1G5603-MSD1	Matrix Spike Duplicate	Total	Soil	EPA 5035	
ep Batch: 11H0262_	P				
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11H0262-BS1	Lab Control Sample	Total	Soil	EPA 5035	
11H0262-BLK1	Method Blank	Total	Soil	EPA 5035	
1H0262-BLK2	Method Blank	Total	Soil	EPA 5035	
IUG3402-02 - RE1	311 Ash	Total	Soil	EPA 5035	
UG3402-04 - RE1	860 Dolphin	Total	Soil	EPA 5035	
NUG3402-01 - RE1	333 Ash	Total	Soil	EPA 5035	
11H0262-MS1	311 Ash	Total	Soil	EPA 5035	
110202-10131					

### GCMS Semivolatiles

#### Analysis Batch: 11G5742

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11G5742-BLK1	Method Blank	Total	Soil	SW846 8270D	11G5742_P
11G5742-BS1	Lab Control Sample	Total	Soil	SW846 8270D	11G5742_P
11G5742-MS1	333 Ash	Total	Soil	SW846 8270D	11G5742_P
11G5742-MSD1	333 Ash	Total	Soil	SW846 8270D	11G5742_P
NUG3402-01	333 Ash	Total	Soil	SW846 8270D	11G5742_P
NUG3402-02	311 Ash	Total	Soil	SW846 8270D	11G5742_P
NUG3402-03	524 Laurel Bay	Total	Soil	SW846 8270D	11G5742_P
NUG3402-04	860 Dolphin	Total	Soil	SW846 8270D	11G5742_P

TestAmerica Nashville 08/05/2011

# QC Association Summary

Client: EEG - Small Business Group, Inc. (2449) Project/Site: [none] TestAmerica Job ID: NUG3402

7

# GCMS Semivolatiles (Continued) Prep Batch: 11G5742 P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11G5742-BLK1	Method Blank	Total	Soil	EPA 3550C	
11G5742-BS1	Lab Control Sample	Total	Soil	EPA 3550C	
11G5742-MS1	333 Ash	Total	Soil	EPA 3550C	
11G5742-MSD1	333 Ash	Total	Soil	EPA 3550C	
NUG3402-01	333 Ash	Total	Soil	EPA 3550C	
NUG3402-02	311 Ash	Total	Soil	EPA 3550C	
NUG3402-03	524 Laurel Bay	Total	Soil	EPA 3550C	
NUG3402-04	860 Dolphin	Total	Soil	EPA 3550C	

#### Extractions

#### Analysis Batch: 11H0326

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11H0326-DUP1	Duplicate	Total	Soil	SW-846	11H0326_P
NUG3402-01	333 Ash	Total	Soil	SW-846	11H0326_P
NUG3402-02	311 Ash	Total	Soil	SW-846	11H0326_P
NUG3402-03	2-03 524 Laurel Bay		Soil	SW-846	11H0326_P
NUG3402-04	860 Dolphin	Total	Soil	SW-846	11H0326_P
Prep Batch: 11H032	6_P				
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11H0326-DUP1	Duplicate	Total	Soil	% Solids	
NUG3402-01	333 Ash	Total	Soil	% Solids	
NUG3402-02	311 Ash	Total	Soil	% Solids	
NUG3402-03	524 Laurel Bay	Total	Soil	% Solids	
NUG3402-04	860 Dolphin	Total	Soil	% Solids	

#### Lab Sample ID: NUG3402-01 Matrix: Soil

Lab Sample ID: NUG3402-02

Matrix: Soil

Percent Solids: 89.3

Percent Solids: 84.7

8

Date Collected: 07/18/11 13:15 Date Received: 07/23/11 08:30

Client Sample ID: 333 Ash

	Batch	Batch		Dilution	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Number	Or Analyzed	Analyst	Lab
Total	Prep	EPA 5035		0.732	11G5603_P	07/18/11 13:15	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	U013553	07/29/11 20:46	KXC	TAL NSH
Total	Prep	EPA 5035	RE1	0.792	11H0262_P	07/18/11 13:15	TSP	TAL NSH
Total	Analysis	SW846 8260B	RE1	50.0	U013656	08/01/11 16:40	KXC	TAL NSH
Total	Prep	EPA 3550C		0.973	11G5742_P	07/29/11 09:15	JJR	TAL NSH
Total	Analysis	SW846 8270D		1.00	11G5742	07/29/11 19:22	BES	TAL NSH
Total	Prep	% Solids		1.00	11H0326_P	08/02/11 16:00	AMS	TAL NSH
Total	Analysis	SW-846		1.00	11H0326	08/03/11 09:06	RRS	TAL NSH

# Client Sample ID: 311 Ash

Date Collected: 07/19/11 12:00 Date Received: 07/23/11 08:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	Or Analyzed	Analyst	Lab
Total	Prep	EPA 5035	RE1	0.977	11H0262_P	07/19/11 12:00	TSP	TAL NSH
Total	Analysis	SW846 8260B	RE1	1.00	U013656	08/01/11 15:08	KXC	TAL NSH
Total	Prep	EPA 3550C		0.979	11G5742_P	07/29/11 09:15	JJR	TAL NSH
Total	Analysis	SW846 8270D		1.00	11G5742	07/29/11 19:41	BES	TAL NSH
Total	Prep	% Solids		1.00	11H0326_P	08/02/11 16:00	AMS	TAL NSH
Total	Analysis	SW-846		1.00	11H0326	08/03/11 09:06	RRS	TAL NSH

#### Client Sample ID: 524 Laurel Bay Date Collected: 07/20/11 10:45

Date Received: 07/23/11 08:30

Lab Sample	ID:	NUG3402-03
		Matrix: Soil

Lab Sample ID: NUG3402-04

Percent Solids: 89	Pe	rcen	t Sol	lids:	89
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Matrix: Soil

Percent Solids: 95.2

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	Or Analyzed	Analyst	Lab
Total	Prep	EPA 5035		0.967	11G5603_P	07/20/11 10:45	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	U013553	07/29/11 21:49	KXC	TAL NSH
Total	Prep	EPA 3550C		0,974	11G5742_P	07/29/11 09:15	JJR	TAL NSH
Total	Analysis	SW846 8270D		1.00	11G5742	07/29/11 20:00	BES	TAL NSH
Total	Prep	% Solids		1.00	11H0326_P	08/02/11 16:00	AMS	TAL NSH
Total	Analysis	SW-846		1.00	11H0326	08/03/11 09:06	RRS	TAL NSH

#### Client Sample ID: 860 Dolphin

## Date Collected: 07/21/11 11:15

Date Received: 07/23/11 08:30

	Batch	Batch		Dilution	Batch	Prepared		
Ргер Туре	Туре	Method	Run	Factor	Number	Or Analyzed	Analyst	Lab
Total	Prep	EPA 5035		1.18	11G5603_P	07/21/11 11:15	TSP	TAL NSH
Total	Analysis	SW846 8260B		1.00	U013553	07/29/11 22:20	KXC	TAL NSH
Total	Prep	EPA 5035	RE1	1.18	11H0262_P	07/21/11 11:15	TSP	TAL NSH
Total	Analysis	SW846 8260B	RE1	50.0	U013656	08/01/11 16:09	KXC	TAL NSH
Total	Prep	EPA 3550C		0.969	11G5742_P	07/29/11 09:15	JJR	TAL NSH
Total	Analysis	SW846 8270D		1.00	11G5742	07/29/11 20:20	BES	TAL NSH
Total	Prep	% Solids		1.00	11H0326 P	08/02/11 16:00	AMS	TAL NSH

TestAmerica Nashville 08/05/2011

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

Client Samp	le ID: 860 D	olphin				La	b Sample I	D: NUG3402-04
Date Collected	1: 07/21/11 11:	15						Matrix: Soil
Date Received	: 07/23/11 08:	30					P	ercent Solids: 95.2
	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	Or Analyzed	Analyst	Lab
Total	Analysis	SW-846		1.00	11H0326	08/03/11 09:06	RRS	TAL NSH

#### Laboratory References:

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

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

Viethod	Method Description	Protocol	Laboratory
SW-846	General Chemistry Parameters	······································	TAL NSH
W846 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]

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aboratory	Authority	Program	EPA Region	Certification ID
estAmerica Nashville	A2LA	ISO/IEC 17025		0453.07
estAmerica Nashville	A2LA	WY UST		453.07
estAmerica Nashville	AIHA	IHLAP		100790
estAmerica Nashville	Alabama	State Program	4	41150
estAmerica Nashville	Alaska	Alaska UST	10	UST-087
estAmerica Nashville	Arizona	State Program	9	AZ0473
estAmerica Nashville	Arkansas	State Program	6	88-0737
estAmerica Nashville	CALA	CALA		3744
estAmerica Nashville	California	NELAC	9	1168CA
estAmerica Nashville	Colorado	State Program	8	N/A
estAmerica Nashville	Connecticut	State Program	1	PH-0220
estAmerica Nashville	Florida	NELAC	4	E87358
estAmerica Nashville	Illinois	NELAC	5	200010
estAmerica Nashville	lowa	State Program	7	131
estAmerica Nashville	Kansas	NELAC	7	E-10229
estAmerica Nashville	Kentucky	Kentucky UST	4	19
estAmerica Nashville	Kentucky	State Program	4	90038
estAmerica Nashville	Louisiana	NELAC	6	LA100011
estAmerica Nashville	Louisiana	NELAC	6	30613
estAmerica Nashville	Maryland	State Program	3	316
estAmerica Nashville	Massachusetts	State Program	1	M-TN032
estAmerica Nashville	Minnesota	NELAC	5	047-999-345
estAmerica Nashville	Mississippi	State Program	4	N/A
estAmerica Nashville	Montana	MT DEQ UST	8	NA
estAmerica Nashville	Nevada	State Program	9	TN00032
estAmerica Nashville	New Hampshire	NELAC	1	2963
estAmerica Nashville	New Jersey	NELAC	2	TN965
estAmerica Nashville	New York	NELAC	2	11342
estAmerica Nashville	North Carolina	North Carolina DENR	4	387
estAmerica Nashville	North Dakota	State Program	8	R-146
estAmerica Nashville	Ohio	OVAP	5	CL0033
estAmerica Nashville	Oklahoma	State Program	6	9412
estAmerica Nashville	Oregon	NELAC	10	TN200001
estAmerica Nashville	Pennsylvania	NELAC	3	68-00585
estAmerica Nashville	Rhode Island	State Program	1	LAO00268
estAmerica Nashville	South Carolina	State Program	4	84009
estAmerica Nashville	South Carolina	State Program	4	84009
estAmerica Nashville	Tennessee	State Program	4	2008
estAmerica Nashville	Texas	NELAC	6	T104704077-09-TX
stAmerica Nashville	USDA	USDA		S-48469
stAmerica Nashville	Utah	NELAC	8	TAN
estAmerica Nashville	Virginia	NELAC Secondary AB	3	460152
estAmerica Nashville	Virginia	State Program	3	00323
estAmerica Nashville	Washington	State Program	10	C789
estAmerica Nashville	West Virginia	West Virginia DEP	3	219

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.

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# ATTACHMENT A

# **UST Certificate of Disposal**

# **CONTRACTOR**

Small Business Group, Inc. 10179 Highway 78 Ladson, SC 29456

TEL (843) 879-0403 FAX (843) 879-0401

# **TANK ID & LOCATION**

UST 333Ash; 333 Ash Street, Laurel Bay Housing Area, MCAS Beaufort, S.C.

# **DISPOSAL LOCATION**

Coastal Auto Salvage Co., Inc. 130 Laurel Bay Road Beaufort, S.C. 29906

# TYPE OF TANK SIZE (GAL)

Steel

280

# **CLEANING/DISPOSAL METHOD**

The tank and piping were unearthed, cut open, cleaned with a pressure washer, cut into sections, and recycled.

# **DISPOSAL CERTIFICATION**

I certify that the above tank, piping and equipment has been properly cleaned and disposed of.

<u>(Name)</u> (Date)

Appendix C Laboratory Analytical Report - Groundwater



# Volatile Organic Compounds by GC/MS

Description: BEALB333TW01WG20151111

Laboratory ID: QK11025-019 Matrix: Aqueous

# Date Sampled:11/11/2015 1425

Date Received: 11/12/2015											
RunPrep Method15030B	Analytical Method 8260B			<b>s Date Analyst</b> 15 1350 JM1	Prep	Date	<b>Batch</b> 89913				
Parameter		C Num		Analytical Method	Result	Q	LOQ	LOD	DL	Units	Run
Benzene		71-4	3-2	8260B	0.45	U	5.0	0.45	0.21	ug/L	1
Ethylbenzene		100-4	1-4	8260B	0.51	U	5.0	0.51	0.21	ug/L	1
Naphthalene		91-2	0-3	8260B	3.0	J	5.0	0.96	0.14	ug/L	1
Toluene		108-8	8-3	8260B	0.48	U	5.0	0.48	0.24	ug/L	1
Xylenes (total)		1330-2	0-7	8260B	0.57	U	5.0	0.57	0.32	ug/L	1
Surrogate	Q %	Run 1 A Recovery	cceptan Limits								
Bromofluorobenzene		100	75-120								
1,2-Dichloroethane-d4		91	70-120								
Toluene-d8		104	85-120								
Dibromofluoromethane		98	85-115								

PQL = Practical quantitation limitB = Detected in the method blankE = Quantitation of compound exceeded the calibration rangeH = Out of holding timeQ = Surrogate failureND = Not detected at or above the MDLJ = Estimated result < PQL and  $\geq$  MDLP = The RPD between two GC columns exceeds 40%N = Recovery is out of criteriaL = LCS/LCSD failureWhere applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"S = MS/MSD failureS = MS/MSD failure

Shealy Environmental Services, Inc.106 Vantage Point DriveWest Columbia, SC 29172(803) 791-9700Fax (803) 791-9111www.shealylab.com

#### Client: AECOM - Resolution Consultants

Description: BEALB333TW01WG20151111

Laboratory ID: QK11025-019

Date Sampled:11/11/2015 1425

Matrix: Aqueous

#### Date Received: 11/12/2015

RunPrep Method13520C	Analytical Method D 8270D (SIM)		<b>ysis Date Analyst</b> /2015 1836 RBH	•		<b>Batch</b> 46 89585				
Parameter		CAS Number	Analytical Method	Result	Q	LOQ	LOD	DL	Units	Run
Benzo(a)anthracene		56-55-3	8270D (SIM)	0.040	U	0.20	0.040	0.019	ug/L	1
Benzo(b)fluoranthene		205-99-2	8270D (SIM)	0.040	U	0.20	0.040	0.019	ug/L	1
Benzo(k)fluoranthene		207-08-9	8270D (SIM)	0.040	U	0.20	0.040	0.024	ug/L	1
Chrysene		218-01-9	8270D (SIM)	0.040	U	0.20	0.040	0.021	ug/L	1
Dibenzo(a,h)anthracene		53-70-3	8270D (SIM)	0.080	U	0.20	0.080	0.040	ug/L	1
Surrogate		un 1 Accept covery Lir	ance nits							
2-Methylnaphthalene-d10	:	85 15-1	139							
Fluoranthene-d10		72 23-	154							

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  $J = Estimated result < PQL and <math>\ge MDL$  $\mathsf{P}=\mathsf{The}\;\mathsf{RPD}$  between two GC columns exceeds 40% N = Recovery is out of criteria L = LCS/LCSD failure S = MS/MSD failure Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Shealy Environmental Services, Inc. 106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com Appendix D Regulatory Correspondence





Catherine E. Heigel, Director Promoting and protecting the health of the public and the environment

July 1, 2015

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 Storage Tank Assessment Reports for: See attached sheet

Dear Mr. Drawdy,

The South Carolina Department of Health and Environmental Control (the Department) received the referenced Underground Storage Tank 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 <u>et seq.</u>, as amended).

The Department has reviewed the referenced assessment 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 this site.

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,

that M. They

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) Bryan Beck (via email)



Catherine E. Heigel, Director

Promoting and protecting the health of the public and the environment

Attachment to:

Krieg to Drawdy Subject: IGWA Dated 7/1/2015

# Laurel Bay Underground Storage Tank Assessment Reports for: (97 addresses/110 tanks)

118 Banyan	343 Ash Tank 2
126 Banyan	344 Ash Tank 2
127 Banyan	347 Ash Tank 2
130 Banyan Tank 1	378 Aspen Tank 2
141 Laurel Bay	379 Aspen
151 Laurel Bay	382 Aspen Tank 1
224 Cypress	382 Aspen Tank 2
227 Cypress	394 Acorn Tank 2
256 Beech Tank 2	400 Elderberry
257 Beech Tank 1	432 Elderberry
257 Beech Tank 2	436 Elderberry
264 Beech	473 Dogwood Tank 2
265 Beech Tank 2	482 Laurel Bay
265 Beech Tank 3	517 Laurel Bay
275 Birch	586 Aster
277 Birch Tank 1	632 Dahlia
285 Birch	639 Dahlia Tank 2
292 Birch Tank 3	643 Dahlia Tank 1
297 Birch	644 Dahlia Tank 1
301 Ash	644 Dahlia Tank 2
306 Ash	646 Dahlia Tank 1
310 Ash Tank 1	646 Dahlia Tank 2
313 Ash	665 Camellia
315 Ash Tank 2	699 Abelia
316 Ash	744 Blue Bell
319 Ash	745 Blue Bell Tank 1
320 Ash	747 Blue Bell Tank 1
321 Ash	747 Blue Bell Tank 2
329 Ash	747 Blue Bell Tank 3
330 Ash Tank 2	749 Blue Bell Tank 1
331 Ash	749 Blue Bell Tank 2
332 Ash	751 Blue Bell
333 Ash	762 Althea
335 Ash Tank 1	765 Althea Tank 2
335 Ash Tank 2	766 Althea Tank 4
341 Ash	767 Althea Tank 1
342 Ash Tank 1	768 Althea Tank 2
342 Ash Tank 2	768 Althea Tank 3

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL 2600 Bull Street • Columbia, SC 29201 • Phone: (803) 898-3432 • www.scdhec.gov Laurel Bay Underground Storage Tank Assessment Reports for: (98 addresses/110 tanks) cont.

768 Althea Tank 4	1067 Gardenia
769 Althea Tank 1	1077 Heather
769 Althea Tank 2	1081 Heather
775 Althea	1101 Iris Tank 2
819 Azalea	1104 Iris
840 Azalea	1105 Iris Tank 2
878 Cobia	1124 Iris Tank 2
891 Cobia	1142 Iris Tank 2
913 Barracuda	1146 Iris Tank 2
916 Barracuda	1218 Cardinal
923 Albacore	1240 Dove
1004 Bobwhite	1266 Dove
1022 Foxglove	1292 Eagle
1031 Foxglove	1299 Eagle Tank 1
1034 Foxglove Tank 2	1302 Eagle
1061 Gardenia Tank 3	1336 Albatross
1064 Gardenia	1351 Cardinal



Catherine E. Heigel, Director Promoting and protecting the health of the public and the environment

> Division of Waste Management Bureau of Land and Waste Management

June 8, 2016

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

RE: Approval and Concurrence with Draft Final Initial Groundwater Investigation Report-November and December 2015 Laurel Bay Military Housing Area Multiple Properties Dated April 2015

Dear Mr. Drawdy,

The South Carolina Department of Health and Environmental Control (the Department) received groundwater data in the above referenced Groundwater Investigation Report for the attached addresses on May 2, 2016. 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 the Department's request, groundwater samples were collected from the attached referenced addresses. The Department 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 wells should be installed at the 15 stated addresses. For the remaining 80 addresses, there is no indication of contamination on the property 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 petruslb@dhec.sc.gov or 803-898-0294.

Sincerely,

LISTS

Laurel Petrus RCRA Federal Facilities Section

Attachment: Specific Property Recommendations

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

Subject: Draft Final Initial Groundwater Investigation Report-November and December 2015 Specific Property Recommendations Dated June 8, 2016

# Draft Final Initial Groundwater Investigation Report for (95 addresses)

Permanent Mon	itoring Well Investigation recommendation (15 addresses)
130 Banyan Drive	473 Dogwood Drive
256 Beech Street	747 Blue Bell Lane
285 Birch Drive	749 Blue Bell Lane
292 Birch Drive	775 Althea Street
330 Ash Street	1034 Foxglove Street
331 Ash Street	1104 Iris Lane
335 Ash Street	1124 Iris Lane
342 Ash Street	

118 Banyan Drive	644 Dahlia Drive	
126 Banyan Drive	646 Dahlia Drive	
127 Banyan Drive	665 Camellia Drive	
141 Laurel Bay Blvd	699 Abelia Street	
151 Laurel Bay Blvd	744 Blue Bell Lane	10
224 Cypress Street	745 Blue Bell Lane	
227 Cypress Street	751 Blue Bell Lane	
257 Beech Street	762 Althea Street	
264 Beech Street	765 Althea Street	
265 Beech Street	766 Althea Street	
275 Birch Drive	767 Althea Street	
277 Birch Drive	768 Althea Street	
297 Birch Drive	769 Althea Street	
301 Ash Street	819 Azalea Drive	
306 Ash Street	840 Azalea Drive	
310 Ash Street	878 Cobia Drive	
313 Ash Street	891 Cobia Drive	
315 Ash Street	913 Barracuda Drive	
316 Ash Street	916 Barracuda Drive	
319 Ash Street	923 Wren Lane	
320 Ash Street	1004 Bobwhite Drive	
321 Ash Street	1022 Foxglove Street	
329 Ash Street	1031 Foxglove Street	
332 Ash Street	1061 Gardenia Drive	
333 Ash Street	1064 Gardenia Drive	
341 Ash Street	1067 Gardenia Drive	
347 Ash Street	1077 Heather Street	
378 Aspen Street	1081 Heather Street	
379 Aspen Street	1101 Iris Lane	
382 Aspen Street	1105 Iris Lane	
394 Acorn Street	1142 Iris Lane	
400 Elderberry Drive	1146 Iris Lane	
432 Elderberry Drive	1218 Cardinal Lane	
436 Elderberry Drive	1240 Dove Lane	
482 Laurel Bay Blvd	1266 Dove Lane	
517 Laurel Bay Blvd	1292 Eagle Lane	
586 Aster Street	1299 Eagle Lane	
632 Dahlia Drive	1302 Eagle Lane	
639 Dahlia Drive	1336 Albatross Drive	
643 Dahlia Drive	1351 Cardinal Lane	

Attachment to: Petrus to Drawdy Subject: Draft Final Initial Groundwater Investigation Report-November and December 2015 Specific Property Recommendations Dated June 8, 2016, Page 2