

**SUMMARY REPORT  
142 COBIA DRIVE (FORMERLY 883 COBIA DRIVE)  
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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**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**

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### List of Acronyms

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

## **1.0 INTRODUCTION**

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

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

This report summarizes the results the environmental investigation activities associated with the storage of home heating oil and the potential release of petroleum constituents at the referenced property. Based on the results of the investigation, a No Further Action (NFA) determination has been made by the South Carolina Department of Health and Environmental Control (SCDHEC) for 142 Cobia Drive (Formerly 883 Cobia Drive). 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 142 Cobia Drive (Formerly 883 Cobia Drive). Details regarding the soil investigation at this site are provided in the *SCDHEC UST Assessment Report – 883 Cobia Drive* (MCAS Beaufort, 2013). The UST Assessment Report is provided in Appendix B. Details regarding the IGWA sampling activities at this site are provided in the *Initial Groundwater Investigation Report – February and March 2017* (Resolution Consultants, 2017). The laboratory report that includes the pertinent IGWA analytical results for this site is presented in Appendix C.

### **2.1 UST Removal and Soil Sampling**

On January 24, 2013, a single 280 gallon heating oil UST was removed from underneath the front concrete porch at 142 Cobia Drive (Formerly 883 Cobia Drive). 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 5'9" 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 142 Cobia Drive (Formerly 883 Cobia Drive) were greater than the SCDHEC RBSLs, which indicated further investigation was required. In a letter dated August 24, 2016, SCDHEC requested an IGWA for 142 Cobia Drive (Formerly 883 Cobia Drive) to determine if the groundwater was impacted by petroleum COPCs. SCDHEC's request letter is provided in Appendix D.

## **2.3 Groundwater Sampling**

On February 28, 2017, a temporary monitoring well was installed at 142 Cobia Drive (Formerly 883 Cobia Drive), in accordance with the South Carolina Well Standards and Regulations (R.61-71.H-I, updated June 24, 2016). In order to provide data that can be used to determine whether COPCs are migrating to underlying groundwater, the monitoring well was placed in the same general location as the former heating oil UST. The former UST location is indicated on Figures 2 and 3 of the UST Assessment Report (Appendix B). Further details are provided in the *Initial Groundwater Investigation Report – February and March 2017* (Resolution Consultants, 2017).



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

## **2.4 Groundwater Analytical Results**

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

The groundwater results collected from 142 Cobia Drive (Formerly 883 Cobia Drive) 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 142 Cobia Drive (Formerly 883 Cobia Drive). This NFA determination was obtained in a letter dated July 27, 2017. SCDHEC's NFA letter is provided in Appendix D.

## **4.0 REFERENCES**

Marine Corps Air Station Beaufort, 2013. *South Carolina Department of Health and Environmental Control (SCDHEC) Underground Storage Tank Assessment Report – 883 Cobia Drive, Laurel Bay Military Housing Area*, April 2013.

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

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

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

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

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

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

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

## Tables

**Table 1**  
**Laboratory Analytical Results - Soil**  
**142 Cobia Drive (Formerly 883 Cobia Drive)**  
**Laurel Bay Military Housing Area**  
**Marine Corps Air Station Beaufort**  
**Beaufort, South Carolina**

Constituent	SCDHEC RBSLs <sup>(1)</sup>	Results Sample Collected 01/24/13
<b>Volatile Organic Compounds Analyzed by EPA Method 8260B (mg/kg)</b>		
Benzene	0.003	ND
Ethylbenzene	1.15	ND
Naphthalene	0.036	ND
Toluene	0.627	<b>0.00134</b>
Xylenes, Total	13.01	ND
<b>Semivolatile Organic Compounds Analyzed by EPA Method 8270D (mg/kg)</b>		
Benzo(a)anthracene	0.66	<b>0.190</b>
Benzo(b)fluoranthene	0.66	<b>0.230</b>
Benzo(k)fluoranthene	0.66	<b>0.138</b>
Chrysene	0.66	<b>0.207</b>
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**  
**142 Cobia Drive (Formerly 883 Cobia Drive)**  
**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 02/28/17
<b>Volatile Organic Compounds Analyzed by EPA Method 8260B (µg/L)</b>			
Benzene	5	16.24	ND
Ethylbenzene	700	45.95	ND
Naphthalene	25	29.33	ND
Toluene	1000	105,445	ND
Xylenes, Total	10,000	2,133	ND
<b>Semivolatile Organic Compounds Analyzed by EPA Method 8270D (µg/L)</b>			
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  $1 \times 10^{-6}$ , a target hazard quotient of 1 (per target organ), and a default residential exposure scenario, assuming exposure for 24 hours/day, 350 days/year, for 26 years. Modeling was performed for a range of depths to groundwater for application as appropriate in different areas of the Laurel Bay Military Housing Area. The most conservative levels are presented for comparison. Refer to Appendix H of the Uniform Federal Policy Sampling Analysis and Sampling Plan for Vapor Media, Revision 4 (Resolution Consultants, April 2017) for additional information.

Bold font indicates the analyte was detected.

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

EPA - United States Environmental Protection Agency

JE - Johnson & Ettinger

NA - Not Applicable

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

RBSL - Risk-Based Screening Level

SCDHEC - South Carolina Department Of Health and Environmental Control

µg/L - micrograms per liter

VISL - Vapor Intrusion Screening Level

**Appendix A**  
**Multi-Media Selection Process for LBMH**



Appendix A - Multi-Media Selection Process for LBMH

**Appendix B**  
**UST Assessment Report**



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

<b>Date Received</b>
<b>State Use Only</b>

**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	
883 Cobia Lane, Laurel Bay Military Housing Area	
Street Address or State Road (as applicable)	
Beaufort,	Beaufort
City	County

### 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.....

883Cobia				
Heating oil				
280 gal				
Late 1950s				
Steel				
Mid 1980s				
5'9"				
No				
No				
Removed				
1/24/2013				
Yes				
Yes				

- M. Method of disposal for any USTs removed from the ground (attach disposal manifests)  
 UST 883Cobia was removed from the ground and disposed at a  
 "Subtitle D" landfill. See Attachment "A".
- 
- N. Method of disposal for any liquid petroleum, sludges, or wastewaters removed from the USTs (attach disposal manifests)  
 UST 883Cobia was previously filled with sand by others.
- 
- O. If any corrosion, pitting, or holes were observed, describe the location and extent for each UST  
 Corrosion, pitting and holes were scattered about 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.

883Cobia				
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 #
883 Cobia	Excav at fill end	Soil	Sandy	5'9"	1/24/13 1145 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>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: center;">*Sewer, water, electricity, cable &amp; 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



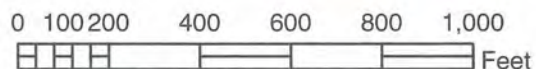
### **XIII. SITE MAP**

**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)



**883 COBIA**



**SBG-EEG, Inc.**

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

Ph. (843) 573-7140

Drawn By: L. DiAsio

Dwg Date: Feb 2013

**FIGURE 1: LOCATION MAP**  
**883 COBIA LANE**  
**LAUREL BAY, BEAUFORT SC**



883 COBIA LANE  
LAUREL BAY MILITARY HOUSING  
MCAS BEAUFORT, SC



UST 883COBIA

TANK DEPTH BELOW GRADE  
883COBIA = 33"

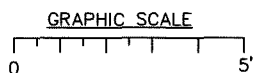
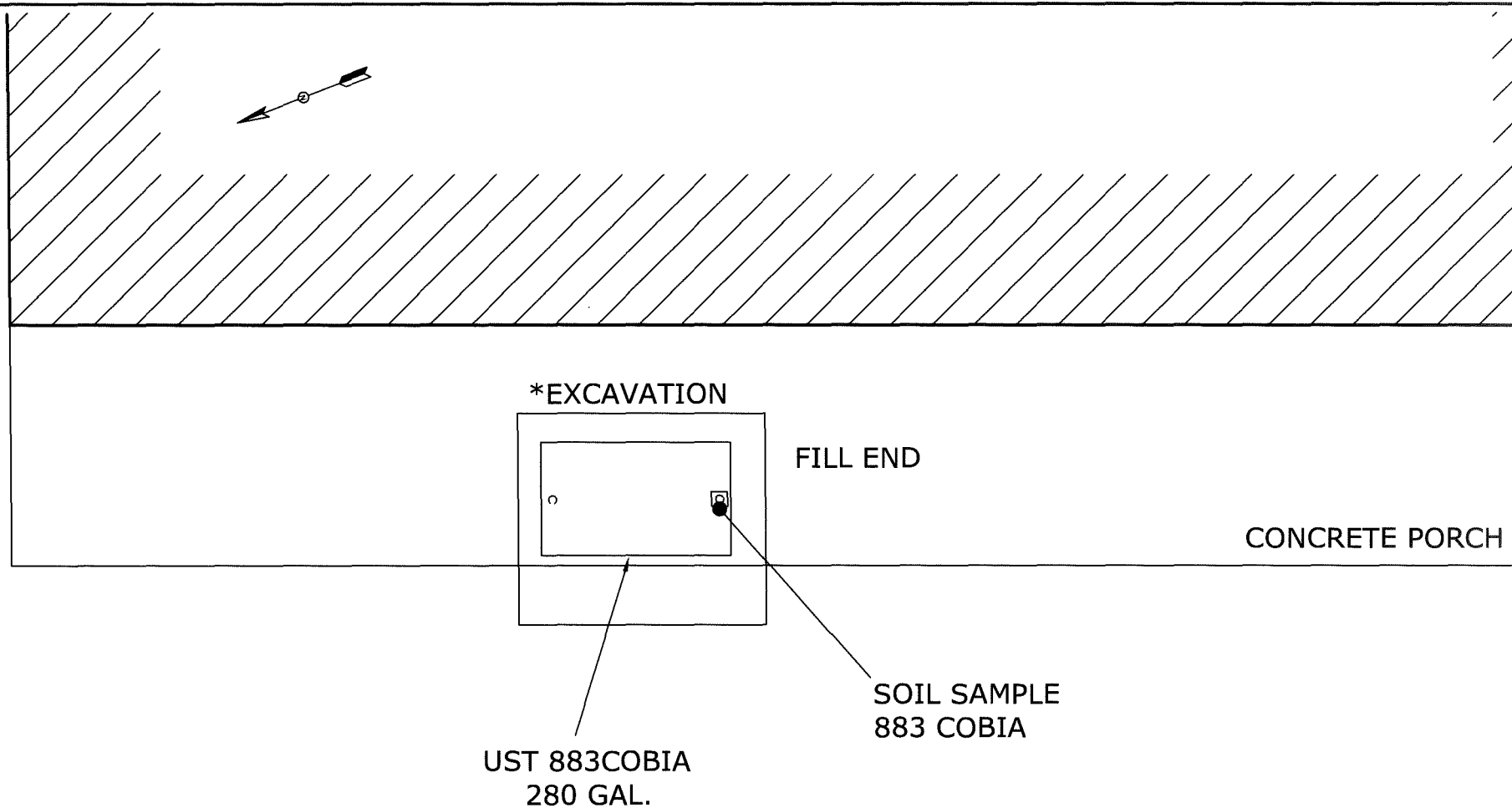
***SBG-EEG***

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

FIGURE 2 SITE MAP  
883 COBIA LANE, LAUREL BAY  
MCAS BEAUFORT SC

SCALE: GRAPHIC

DWG DATE FEB 2013



\*A PORTION OF THE PORCH  
WAS REMOVED TO FACILITATE  
TANK EXTRACTION.

***SBG-EEG***

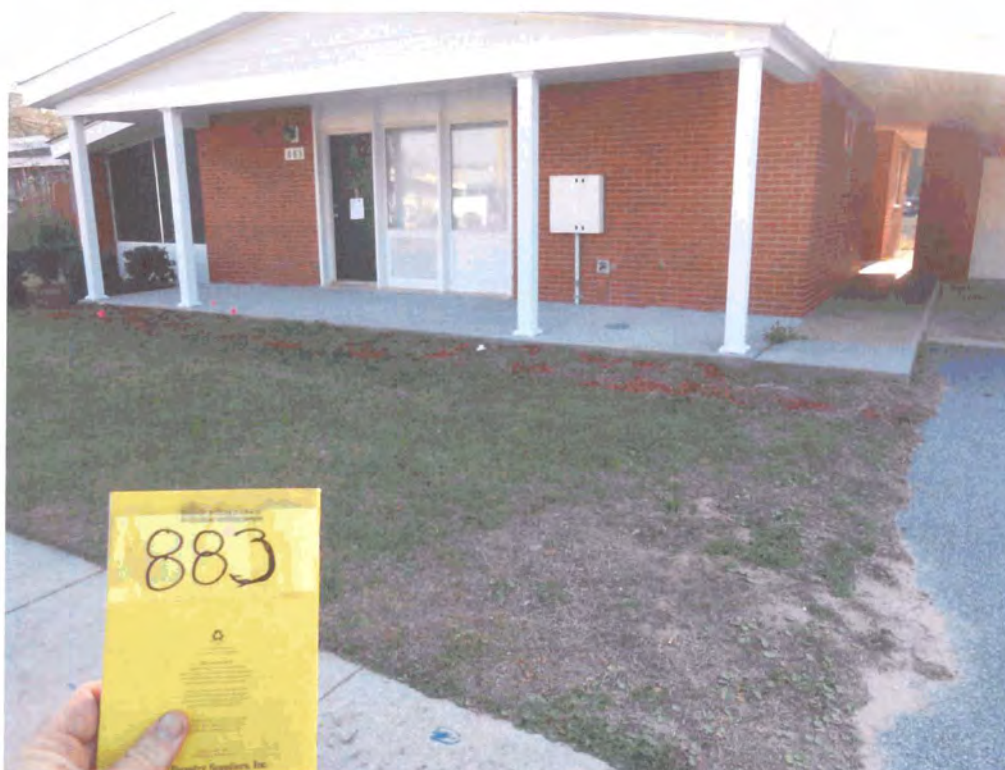
7301 RIVERS AVE., SUITE 245  
N. CHARLESTON SC 29406-9643  
(843) 573-7140

FIGURE 3 UST SAMPLE LOCATIONS  
883 COBIA LANE, LAUREL BAY  
MCAS BEAUFORT SC

SCALE: GRAPHIC

DWG DATE FEB 2013





Picture 1: Location of UST 883Cobia.



Picture 2: UST 883Cobia 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.

<b>CoC</b>	UST	883Cobia						
<b>Benzene</b>		ND						
<b>Toluene</b>		0.00134 mg/kg						
<b>Ethylbenzene</b>		ND						
<b>Xylenes</b>		ND						
<b>Naphthalene</b>		ND						
<b>Benzo (a) anthracene</b>		0.190 mg/kg						
<b>Benzo (b) fluoranthene</b>		0.230 mg/kg						
<b>Benzo (k) fluoranthene</b>		0.138 mg/kg						
<b>Chrysene</b>		0.207 mg/kg						
<b>Dibenz (a, h) anthracene</b>		ND						
<b>TPH (EPA 3550)</b>								

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

### 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 Drive  
Nashville, TN 37204  
Tel: (615)726-0177

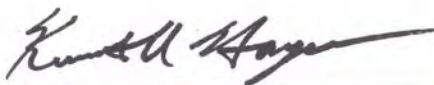
TestAmerica Job ID: 490-18285-1

Client Project/Site: Laurel Bay Housing Project

For:

Environmental Enterprise Group  
10179 Highway 78  
Ladson, South Carolina 29456

Attn: Mr. Tom McElwee



Authorized for release by:  
2/13/2013 2:19:44 PM

Ken Hayes  
Project Manager I  
[ken.hayes@testamericainc.com](mailto:ken.hayes@testamericainc.com)

### LINKS

Review your project  
results through

TotalAccess

Have a Question?



Visit us at:

[www.testamericainc.com](http://www.testamericainc.com)

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

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

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

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## Sample Summary

Client: Environmental Enterprise Group  
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-18285-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-18285-1	631 Dahlia	Soil	01/21/13 13:45	01/30/13 09:00
490-18285-2	869 Cobia	Soil	01/22/13 14:05	01/30/13 09:00
490-18285-3	874 Cobia	Soil	01/23/13 14:30	01/30/13 09:00
490-18285-4	883 Cobia	Soil	01/24/13 11:45	01/30/13 09:00
490-18285-5	917 Barracuda	Soil	01/21/13 14:30	01/30/13 09:00
490-18285-6	875 Cobia	Soil	01/22/13 14:45	01/30/13 09:00
490-18285-7	880 Cobia	Soil	01/23/13 15:15	01/30/13 09:00
490-18285-8	890 Cobia	Soil	01/24/13 13:45	01/30/13 09:00

## Case Narrative

Client: Environmental Enterprise Group  
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-18285-1

**Job ID: 490-18285-1**

**Laboratory: TestAmerica Nashville**

### Narrative

**Job Narrative**  
**490-18285-1**

### Comments

No additional comments.

### Receipt

The samples were received on 1/30/2013 9:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.9° C.

### GC/MS VOA

Method(s) 8260B: Surrogate recovery for the following sample(s) was outside control limits: 883 Cobia (490-18285-4). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 55008 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method(s) 8260B: Internal standard responses were outside of acceptance limits for the following sample(s): 883 Cobia (490-18285-4). The sample(s) shows evidence of matrix interference.

Method(s) 8260B: The method blank for batch 55008 contained Naphthalene, Toluene and Xylenes above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method(s) 8260B: Due to sample matrix effect on the internal standard (ISTD), a dilution was required for the following sample(s): 883 Cobia (490-18285-4).

Method(s) 8260B: The following sample(s) was diluted due to the nature of the sample matrix: 883 Cobia (490-18285-4). Elevated reporting limits (RLs) are provided.

Method(s) 8260B: Surrogate recovery for the following sample(s) was outside control limits: 883 Cobia (490-18285-4). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

### GC/MS Semi VOA

No analytical or quality issues were noted.

### Organic Prep

No analytical or quality issues were noted.

### VOA Prep

No analytical or quality issues were noted.

## Definitions/Glossary

Client: Environmental Enterprise Group  
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-18285-1

### Qualifiers

#### GC/MS VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits

#### GC/MS Semi VOA

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
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
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
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
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: Environmental Enterprise Group  
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-18285-1

**Client Sample ID: 631 Dahlia**

**Lab Sample ID: 490-18285-1**

Date Collected: 01/21/13 13:45

Matrix: Soil

Date Received: 01/30/13 09:00

Percent Solids: 90.8

### Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00244	0.000818	mg/Kg	☉	01/31/13 12:27	01/31/13 15:40	1
Ethylbenzene	ND		0.00244	0.000818	mg/Kg	☉	01/31/13 12:27	01/31/13 15:40	1
Naphthalene	ND		0.00611	0.00208	mg/Kg	☉	01/31/13 12:27	01/31/13 15:40	1
Toluene	0.00221	J B	0.00244	0.000904	mg/Kg	☉	01/31/13 12:27	01/31/13 15:40	1
Xylenes, Total	ND		0.00611	0.000818	mg/Kg	☉	01/31/13 12:27	01/31/13 15:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		70 - 130	01/31/13 12:27	01/31/13 15:40	1
4-Bromofluorobenzene (Surr)	100		70 - 130	01/31/13 12:27	01/31/13 15:40	1
Dibromofluoromethane (Surr)	94		70 - 130	01/31/13 12:27	01/31/13 15:40	1
Toluene-d8 (Surr)	106		70 - 130	01/31/13 12:27	01/31/13 15:40	1

### Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0654	0.00977	mg/Kg	☉	02/02/13 15:47	02/05/13 12:35	1
Acenaphthylene	ND		0.0654	0.00879	mg/Kg	☉	02/02/13 15:47	02/05/13 12:35	1
Anthracene	ND		0.0654	0.00879	mg/Kg	☉	02/02/13 15:47	02/05/13 12:35	1
Benzo[a]anthracene	ND		0.0654	0.0146	mg/Kg	☉	02/02/13 15:47	02/05/13 12:35	1
Benzo[a]pyrene	ND		0.0654	0.0117	mg/Kg	☉	02/02/13 15:47	02/05/13 12:35	1
Benzo[b]fluoranthene	ND		0.0654	0.0117	mg/Kg	☉	02/02/13 15:47	02/05/13 12:35	1
Benzo[g,h,i]perylene	ND		0.0654	0.00879	mg/Kg	☉	02/02/13 15:47	02/05/13 12:35	1
Benzo[k]fluoranthene	ND		0.0654	0.0137	mg/Kg	☉	02/02/13 15:47	02/05/13 12:35	1
1-Methylnaphthalene	ND		0.0654	0.0137	mg/Kg	☉	02/02/13 15:47	02/05/13 12:35	1
Pyrene	ND		0.0654	0.0117	mg/Kg	☉	02/02/13 15:47	02/05/13 12:35	1
Phenanthrene	ND		0.0654	0.00879	mg/Kg	☉	02/02/13 15:47	02/05/13 12:35	1
Chrysene	ND		0.0654	0.00879	mg/Kg	☉	02/02/13 15:47	02/05/13 12:35	1
Dibenz(a,h)anthracene	ND		0.0654	0.00684	mg/Kg	☉	02/02/13 15:47	02/05/13 12:35	1
Fluoranthene	ND		0.0654	0.00879	mg/Kg	☉	02/02/13 15:47	02/05/13 12:35	1
Fluorene	ND		0.0654	0.0117	mg/Kg	☉	02/02/13 15:47	02/05/13 12:35	1
Indeno[1,2,3-cd]pyrene	ND		0.0654	0.00977	mg/Kg	☉	02/02/13 15:47	02/05/13 12:35	1
Naphthalene	ND		0.0654	0.00879	mg/Kg	☉	02/02/13 15:47	02/05/13 12:35	1
2-Methylnaphthalene	ND		0.0654	0.0156	mg/Kg	☉	02/02/13 15:47	02/05/13 12:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	51		29 - 120	02/02/13 15:47	02/05/13 12:35	1
Terphenyl-d14 (Surr)	66		13 - 120	02/02/13 15:47	02/05/13 12:35	1
Nitrobenzene-d5 (Surr)	47		27 - 120	02/02/13 15:47	02/05/13 12:35	1

### General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	91		0.10	0.10	%			01/31/13 09:26	1

TestAmerica Nashville

# Client Sample Results

Client: Environmental Enterprise Group  
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-18285-1

Client Sample ID: 869 Cobia

Date Collected: 01/22/13 14:05

Date Received: 01/30/13 09:00

Lab Sample ID: 490-18285-2

Matrix: Soil

Percent Solids: 96.8

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00228	0.000765	mg/Kg	✖	01/31/13 12:27	01/31/13 16:10	1
Ethylbenzene	ND		0.00228	0.000765	mg/Kg	✖	01/31/13 12:27	01/31/13 16:10	1
Naphthalene	ND		0.00571	0.00194	mg/Kg	✖	01/31/13 12:27	01/31/13 16:10	1
Toluene	0.00142	J B	0.00228	0.000845	mg/Kg	✖	01/31/13 12:27	01/31/13 16:10	1
Xylenes, Total	ND		0.00571	0.000765	mg/Kg	✖	01/31/13 12:27	01/31/13 16:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		70 - 130	01/31/13 12:27	01/31/13 16:10	1
4-Bromofluorobenzene (Surr)	102		70 - 130	01/31/13 12:27	01/31/13 16:10	1
Dibromofluoromethane (Surr)	94		70 - 130	01/31/13 12:27	01/31/13 16:10	1
Toluene-d8 (Surr)	107		70 - 130	01/31/13 12:27	01/31/13 16:10	1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0668	0.00997	mg/Kg	✖	02/02/13 15:47	02/05/13 12:56	1
Acenaphthylene	ND		0.0668	0.00897	mg/Kg	✖	02/02/13 15:47	02/05/13 12:56	1
Anthracene	ND		0.0668	0.00897	mg/Kg	✖	02/02/13 15:47	02/05/13 12:56	1
Benzo[a]anthracene	ND		0.0668	0.0150	mg/Kg	✖	02/02/13 15:47	02/05/13 12:56	1
Benzo[a]pyrene	ND		0.0668	0.0120	mg/Kg	✖	02/02/13 15:47	02/05/13 12:56	1
Benzo[b]fluoranthene	ND		0.0668	0.0120	mg/Kg	✖	02/02/13 15:47	02/05/13 12:56	1
Benzo[g,h,i]perylene	ND		0.0668	0.00897	mg/Kg	✖	02/02/13 15:47	02/05/13 12:56	1
Benzo[k]fluoranthene	ND		0.0668	0.0140	mg/Kg	✖	02/02/13 15:47	02/05/13 12:56	1
1-Methylnaphthalene	ND		0.0668	0.0140	mg/Kg	✖	02/02/13 15:47	02/05/13 12:56	1
Pyrene	ND		0.0668	0.0120	mg/Kg	✖	02/02/13 15:47	02/05/13 12:56	1
Phenanthrene	ND		0.0668	0.00897	mg/Kg	✖	02/02/13 15:47	02/05/13 12:56	1
Chrysene	ND		0.0668	0.00897	mg/Kg	✖	02/02/13 15:47	02/05/13 12:56	1
Dibenz(a,h)anthracene	ND		0.0668	0.00698	mg/Kg	✖	02/02/13 15:47	02/05/13 12:56	1
Fluoranthene	ND		0.0668	0.00897	mg/Kg	✖	02/02/13 15:47	02/05/13 12:56	1
Fluorene	ND		0.0668	0.0120	mg/Kg	✖	02/02/13 15:47	02/05/13 12:56	1
Indeno[1,2,3-cd]pyrene	ND		0.0668	0.00997	mg/Kg	✖	02/02/13 15:47	02/05/13 12:56	1
Naphthalene	ND		0.0668	0.00897	mg/Kg	✖	02/02/13 15:47	02/05/13 12:56	1
2-Methylnaphthalene	ND		0.0668	0.0159	mg/Kg	✖	02/02/13 15:47	02/05/13 12:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	39		29 - 120	02/02/13 15:47	02/05/13 12:56	1
Terphenyl-d14 (Surr)	64		13 - 120	02/02/13 15:47	02/05/13 12:56	1
Nitrobenzene-d5 (Surr)	34		27 - 120	02/02/13 15:47	02/05/13 12:56	1

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	97		0.10	0.10	%			01/31/13 09:26	1

TestAmerica Nashville



# Client Sample Results

Client: Environmental Enterprise Group  
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-18285-1

Client Sample ID: 874 Cobia

Date Collected: 01/23/13 14:30

Date Received: 01/30/13 09:00

Lab Sample ID: 490-18285-3

Matrix: Soil

Percent Solids: 95.1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00249	0.000835	mg/Kg	⊖	01/31/13 12:27	01/31/13 16:41	1
Ethylbenzene	ND		0.00249	0.000835	mg/Kg	⊖	01/31/13 12:27	01/31/13 16:41	1
Naphthalene	ND		0.00623	0.00212	mg/Kg	⊖	01/31/13 12:27	01/31/13 16:41	1
Toluene	0.00181	J B	0.00249	0.000923	mg/Kg	⊖	01/31/13 12:27	01/31/13 16:41	1
Xylenes, Total	ND		0.00623	0.000835	mg/Kg	⊖	01/31/13 12:27	01/31/13 16:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		70 - 130	01/31/13 12:27	01/31/13 16:41	1
4-Bromofluorobenzene (Surr)	108		70 - 130	01/31/13 12:27	01/31/13 16:41	1
Dibromofluoromethane (Surr)	94		70 - 130	01/31/13 12:27	01/31/13 16:41	1
Toluene-d8 (Surr)	109		70 - 130	01/31/13 12:27	01/31/13 16:41	1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0661	0.00987	mg/Kg	⊖	02/02/13 15:47	02/05/13 13:17	1
Acenaphthylene	ND		0.0661	0.00888	mg/Kg	⊖	02/02/13 15:47	02/05/13 13:17	1
Anthracene	ND		0.0661	0.00888	mg/Kg	⊖	02/02/13 15:47	02/05/13 13:17	1
Benzo[a]anthracene	0.511		0.0661	0.0148	mg/Kg	⊖	02/02/13 15:47	02/05/13 13:17	1
Benzo[a]pyrene	0.252		0.0661	0.0118	mg/Kg	⊖	02/02/13 15:47	02/05/13 13:17	1
Benzo[b]fluoranthene	0.464		0.0661	0.0118	mg/Kg	⊖	02/02/13 15:47	02/05/13 13:17	1
Benzo[g,h,i]perylene	0.137		0.0661	0.00888	mg/Kg	⊖	02/02/13 15:47	02/05/13 13:17	1
Benzo[k]fluoranthene	0.199		0.0661	0.0138	mg/Kg	⊖	02/02/13 15:47	02/05/13 13:17	1
1-Methylnaphthalene	ND		0.0661	0.0138	mg/Kg	⊖	02/02/13 15:47	02/05/13 13:17	1
Pyrene	0.686		0.0661	0.0118	mg/Kg	⊖	02/02/13 15:47	02/05/13 13:17	1
Phenanthrene	ND		0.0661	0.00888	mg/Kg	⊖	02/02/13 15:47	02/05/13 13:17	1
Chrysene	0.572		0.0661	0.00888	mg/Kg	⊖	02/02/13 15:47	02/05/13 13:17	1
Dibenz(a,h)anthracene	0.0361	J	0.0661	0.00691	mg/Kg	⊖	02/02/13 15:47	02/05/13 13:17	1
Fluoranthene	0.582		0.0661	0.00888	mg/Kg	⊖	02/02/13 15:47	02/05/13 13:17	1
Fluorene	ND		0.0661	0.0118	mg/Kg	⊖	02/02/13 15:47	02/05/13 13:17	1
Indeno[1,2,3-cd]pyrene	0.130		0.0661	0.00987	mg/Kg	⊖	02/02/13 15:47	02/05/13 13:17	1
Naphthalene	ND		0.0661	0.00888	mg/Kg	⊖	02/02/13 15:47	02/05/13 13:17	1
2-Methylnaphthalene	ND		0.0661	0.0158	mg/Kg	⊖	02/02/13 15:47	02/05/13 13:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	44		29 - 120	02/02/13 15:47	02/05/13 13:17	1
Terphenyl-d14 (Surr)	60		13 - 120	02/02/13 15:47	02/05/13 13:17	1
Nitrobenzene-d5 (Surr)	40		27 - 120	02/02/13 15:47	02/05/13 13:17	1

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	95		0.10	0.10	%			01/31/13 09:26	1

TestAmerica Nashville



# Client Sample Results

Client: Environmental Enterprise Group  
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-18285-1

Client Sample ID: 883 Cobia

Lab Sample ID: 490-18285-4

Date Collected: 01/24/13 11:45

Matrix: Soil

Date Received: 01/30/13 09:00

Percent Solids: 86.8

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00262	0.000878	mg/Kg	⊗	01/31/13 12:27	02/01/13 13:10	1
Ethylbenzene	ND		0.00262	0.000878	mg/Kg	⊗	01/31/13 12:27	02/01/13 13:10	1
Naphthalene	ND		0.378	0.129	mg/Kg	⊗	01/31/13 12:25	02/01/13 13:40	1
Toluene	0.00134	J	0.00262	0.000970	mg/Kg	⊗	01/31/13 12:27	02/01/13 13:10	1
Xylenes, Total	ND		0.00656	0.000878	mg/Kg	⊗	01/31/13 12:27	02/01/13 13:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		70 - 130	01/31/13 12:27	02/01/13 13:10	1
1,2-Dichloroethane-d4 (Surr)	78		70 - 130	01/31/13 12:25	02/01/13 13:40	1
4-Bromofluorobenzene (Surr)	145	X	70 - 130	01/31/13 12:27	02/01/13 13:10	1
4-Bromofluorobenzene (Surr)	101		70 - 130	01/31/13 12:25	02/01/13 13:40	1
Dibromofluoromethane (Surr)	100		70 - 130	01/31/13 12:27	02/01/13 13:10	1
Dibromofluoromethane (Surr)	88		70 - 130	01/31/13 12:25	02/01/13 13:40	1
Toluene-d8 (Surr)	112		70 - 130	01/31/13 12:27	02/01/13 13:10	1
Toluene-d8 (Surr)	108		70 - 130	01/31/13 12:25	02/01/13 13:40	1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0665	0.00993	mg/Kg	⊗	02/02/13 15:47	02/05/13 13:38	1
Acenaphthylene	ND		0.0665	0.00893	mg/Kg	⊗	02/02/13 15:47	02/05/13 13:38	1
Anthracene	ND		0.0665	0.00893	mg/Kg	⊗	02/02/13 15:47	02/05/13 13:38	1
Benzo[a]anthracene	0.190		0.0665	0.0149	mg/Kg	⊗	02/02/13 15:47	02/05/13 13:38	1
Benzo[a]pyrene	0.0719		0.0665	0.0119	mg/Kg	⊗	02/02/13 15:47	02/05/13 13:38	1
Benzo[b]fluoranthene	0.230		0.0665	0.0119	mg/Kg	⊗	02/02/13 15:47	02/05/13 13:38	1
Benzo[g,h,i]perylene	0.0654	J	0.0665	0.00893	mg/Kg	⊗	02/02/13 15:47	02/05/13 13:38	1
Benzo[k]fluoranthene	0.138		0.0665	0.0139	mg/Kg	⊗	02/02/13 15:47	02/05/13 13:38	1
1-Methylnaphthalene	ND		0.0665	0.0139	mg/Kg	⊗	02/02/13 15:47	02/05/13 13:38	1
Pyrene	0.833		0.0665	0.0119	mg/Kg	⊗	02/02/13 15:47	02/05/13 13:38	1
Phenanthrene	ND		0.0665	0.00893	mg/Kg	⊗	02/02/13 15:47	02/05/13 13:38	1
Chrysene	0.207		0.0665	0.00893	mg/Kg	⊗	02/02/13 15:47	02/05/13 13:38	1
Dibenz[a,h]anthracene	ND		0.0665	0.00695	mg/Kg	⊗	02/02/13 15:47	02/05/13 13:38	1
Fluoranthene	0.494		0.0665	0.00893	mg/Kg	⊗	02/02/13 15:47	02/05/13 13:38	1
Fluorene	ND		0.0665	0.0119	mg/Kg	⊗	02/02/13 15:47	02/05/13 13:38	1
Indeno[1,2,3-cd]pyrene	0.0553	J	0.0665	0.00993	mg/Kg	⊗	02/02/13 15:47	02/05/13 13:38	1
Naphthalene	ND		0.0665	0.00893	mg/Kg	⊗	02/02/13 15:47	02/05/13 13:38	1
2-Methylnaphthalene	ND		0.0665	0.0159	mg/Kg	⊗	02/02/13 15:47	02/05/13 13:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	50		29 - 120	02/02/13 15:47	02/05/13 13:38	1
Terphenyl-d14 (Surr)	69		13 - 120	02/02/13 15:47	02/05/13 13:38	1
Nitrobenzene-d5 (Surr)	43		27 - 120	02/02/13 15:47	02/05/13 13:38	1

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	87		0.10	0.10	%			01/31/13 09:26	1

TestAmerica Nashville

# Client Sample Results

Client: Environmental Enterprise Group  
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-18285-1

Client Sample ID: 917 Barracuda

Date Collected: 01/21/13 14:30

Date Received: 01/30/13 09:00

Lab Sample ID: 490-18285-5

Matrix: Soil

Percent Solids: 89.5

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00207	0.000694	mg/Kg	☺	01/31/13 12:27	01/31/13 17:42	1
Ethylbenzene	ND		0.00207	0.000694	mg/Kg	☺	01/31/13 12:27	01/31/13 17:42	1
Naphthalene	ND		0.00518	0.00176	mg/Kg	☺	01/31/13 12:27	01/31/13 17:42	1
Toluene	0.00278	B	0.00207	0.000767	mg/Kg	☺	01/31/13 12:27	01/31/13 17:42	1
Xylenes, Total	ND		0.00518	0.000694	mg/Kg	☺	01/31/13 12:27	01/31/13 17:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		70 - 130	01/31/13 12:27	01/31/13 17:42	1
4-Bromofluorobenzene (Surr)	111		70 - 130	01/31/13 12:27	01/31/13 17:42	1
Dibromofluoromethane (Surr)	94		70 - 130	01/31/13 12:27	01/31/13 17:42	1
Toluene-d8 (Surr)	108		70 - 130	01/31/13 12:27	01/31/13 17:42	1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0653	0.00975	mg/Kg	☺	02/02/13 15:47	02/05/13 13:59	1
Acenaphthylene	ND		0.0653	0.00878	mg/Kg	☺	02/02/13 15:47	02/05/13 13:59	1
Anthracene	ND		0.0653	0.00878	mg/Kg	☺	02/02/13 15:47	02/05/13 13:59	1
Benzo[a]anthracene	0.188		0.0653	0.0146	mg/Kg	☺	02/02/13 15:47	02/05/13 13:59	1
Benzo[a]pyrene	0.105		0.0653	0.0117	mg/Kg	☺	02/02/13 15:47	02/05/13 13:59	1
Benzo[b]fluoranthene	0.209		0.0653	0.0117	mg/Kg	☺	02/02/13 15:47	02/05/13 13:59	1
Benzo[g,h,i]perylene	0.0748		0.0653	0.00878	mg/Kg	☺	02/02/13 15:47	02/05/13 13:59	1
Benzo[k]fluoranthene	0.0831		0.0653	0.0137	mg/Kg	☺	02/02/13 15:47	02/05/13 13:59	1
1-Methylnaphthalene	ND		0.0653	0.0137	mg/Kg	☺	02/02/13 15:47	02/05/13 13:59	1
Pyrene	0.221		0.0653	0.0117	mg/Kg	☺	02/02/13 15:47	02/05/13 13:59	1
Phenanthrene	ND		0.0653	0.00878	mg/Kg	☺	02/02/13 15:47	02/05/13 13:59	1
Chrysene	0.192		0.0653	0.00878	mg/Kg	☺	02/02/13 15:47	02/05/13 13:59	1
Dibenz(a,h)anthracene	ND		0.0653	0.00683	mg/Kg	☺	02/02/13 15:47	02/05/13 13:59	1
Fluoranthene	0.160		0.0653	0.00878	mg/Kg	☺	02/02/13 15:47	02/05/13 13:59	1
Fluorene	ND		0.0653	0.0117	mg/Kg	☺	02/02/13 15:47	02/05/13 13:59	1
Indeno[1,2,3-cd]pyrene	0.0602	J	0.0653	0.00975	mg/Kg	☺	02/02/13 15:47	02/05/13 13:59	1
Naphthalene	ND		0.0653	0.00878	mg/Kg	☺	02/02/13 15:47	02/05/13 13:59	1
2-Methylnaphthalene	ND		0.0653	0.0156	mg/Kg	☺	02/02/13 15:47	02/05/13 13:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	57		29 - 120	02/02/13 15:47	02/05/13 13:59	1
Terphenyl-d14 (Surr)	77		13 - 120	02/02/13 15:47	02/05/13 13:59	1
Nitrobenzene-d5 (Surr)	52		27 - 120	02/02/13 15:47	02/05/13 13:59	1

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	90		0.10	0.10	%			01/31/13 09:26	1

TestAmerica Nashville



# Client Sample Results

Client: Environmental Enterprise Group  
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-18285-1

Client Sample ID: 875 Cobia

Date Collected: 01/22/13 14:45

Date Received: 01/30/13 09:00

Lab Sample ID: 490-18285-6

Matrix: Soil

Percent Solids: 96.1

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00227	0.000761	mg/Kg	✧	01/31/13 12:27	01/31/13 18:12	1
Ethylbenzene	ND		0.00227	0.000761	mg/Kg	✧	01/31/13 12:27	01/31/13 18:12	1
Naphthalene	ND		0.00568	0.00193	mg/Kg	✧	01/31/13 12:27	01/31/13 18:12	1
Toluene	0.00121	J B	0.00227	0.000841	mg/Kg	✧	01/31/13 12:27	01/31/13 18:12	1
Xylenes, Total	ND		0.00568	0.000761	mg/Kg	✧	01/31/13 12:27	01/31/13 18:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		70 - 130	01/31/13 12:27	01/31/13 18:12	1
4-Bromofluorobenzene (Surr)	109		70 - 130	01/31/13 12:27	01/31/13 18:12	1
Dibromofluoromethane (Surr)	94		70 - 130	01/31/13 12:27	01/31/13 18:12	1
Toluene-d8 (Surr)	108		70 - 130	01/31/13 12:27	01/31/13 18:12	1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0649	0.00968	mg/Kg	✧	02/02/13 15:47	02/05/13 14:20	1
Acenaphthylene	ND		0.0649	0.00871	mg/Kg	✧	02/02/13 15:47	02/05/13 14:20	1
Anthracene	ND		0.0649	0.00871	mg/Kg	✧	02/02/13 15:47	02/05/13 14:20	1
Benzo[a]anthracene	0.185		0.0649	0.0145	mg/Kg	✧	02/02/13 15:47	02/05/13 14:20	1
Benzo[a]pyrene	0.279		0.0649	0.0116	mg/Kg	✧	02/02/13 15:47	02/05/13 14:20	1
Benzo[b]fluoranthene	0.591		0.0649	0.0116	mg/Kg	✧	02/02/13 15:47	02/05/13 14:20	1
Benzo[g,h,i]perylene	0.665		0.0649	0.00871	mg/Kg	✧	02/02/13 15:47	02/05/13 14:20	1
Benzo[k]fluoranthene	0.217		0.0649	0.0136	mg/Kg	✧	02/02/13 15:47	02/05/13 14:20	1
1-Methylnaphthalene	ND		0.0649	0.0136	mg/Kg	✧	02/02/13 15:47	02/05/13 14:20	1
Pyrene	0.130		0.0649	0.0116	mg/Kg	✧	02/02/13 15:47	02/05/13 14:20	1
Phenanthrene	ND		0.0649	0.00871	mg/Kg	✧	02/02/13 15:47	02/05/13 14:20	1
Chrysene	0.365		0.0649	0.00871	mg/Kg	✧	02/02/13 15:47	02/05/13 14:20	1
Dibenz(a,h)anthracene	0.101		0.0649	0.00678	mg/Kg	✧	02/02/13 15:47	02/05/13 14:20	1
Fluoranthene	0.0768		0.0649	0.00871	mg/Kg	✧	02/02/13 15:47	02/05/13 14:20	1
Fluorene	ND		0.0649	0.0116	mg/Kg	✧	02/02/13 15:47	02/05/13 14:20	1
Indeno[1,2,3-cd]pyrene	0.306		0.0649	0.00968	mg/Kg	✧	02/02/13 15:47	02/05/13 14:20	1
Naphthalene	ND		0.0649	0.00871	mg/Kg	✧	02/02/13 15:47	02/05/13 14:20	1
2-Methylnaphthalene	ND		0.0649	0.0155	mg/Kg	✧	02/02/13 15:47	02/05/13 14:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	55		29 - 120	02/02/13 15:47	02/05/13 14:20	1
Terphenyl-d14 (Surr)	73		13 - 120	02/02/13 15:47	02/05/13 14:20	1
Nitrobenzene-d5 (Surr)	50		27 - 120	02/02/13 15:47	02/05/13 14:20	1

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	96		0.10	0.10	%			01/31/13 09:26	1

TestAmerica Nashville

# Client Sample Results

Client: Environmental Enterprise Group  
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-18285-1

Client Sample ID: 880 Cobia

Date Collected: 01/23/13 15:15

Date Received: 01/30/13 09:00

Lab Sample ID: 490-18285-7

Matrix: Soil

Percent Solids: 95.5

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00217	0.000726	mg/Kg	☐	01/31/13 12:27	01/31/13 18:43	1
Ethylbenzene	ND		0.00217	0.000726	mg/Kg	☐	01/31/13 12:27	01/31/13 18:43	1
Naphthalene	ND		0.00542	0.00184	mg/Kg	☐	01/31/13 12:27	01/31/13 18:43	1
Toluene	0.00183	J B	0.00217	0.000802	mg/Kg	☐	01/31/13 12:27	01/31/13 18:43	1
Xylenes, Total	ND		0.00542	0.000726	mg/Kg	☐	01/31/13 12:27	01/31/13 18:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		70 - 130	01/31/13 12:27	01/31/13 18:43	1
4-Bromofluorobenzene (Surr)	101		70 - 130	01/31/13 12:27	01/31/13 18:43	1
Dibromofluoromethane (Surr)	95		70 - 130	01/31/13 12:27	01/31/13 18:43	1
Toluene-d8 (Surr)	106		70 - 130	01/31/13 12:27	01/31/13 18:43	1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0666	0.00994	mg/Kg	☐	02/02/13 15:47	02/05/13 14:41	1
Acenaphthylene	ND		0.0666	0.00894	mg/Kg	☐	02/02/13 15:47	02/05/13 14:41	1
Anthracene	ND		0.0666	0.00894	mg/Kg	☐	02/02/13 15:47	02/05/13 14:41	1
Benzo[a]anthracene	ND		0.0666	0.0149	mg/Kg	☐	02/02/13 15:47	02/05/13 14:41	1
Benzo[a]pyrene	ND		0.0666	0.0119	mg/Kg	☐	02/02/13 15:47	02/05/13 14:41	1
Benzo[b]fluoranthene	ND		0.0666	0.0119	mg/Kg	☐	02/02/13 15:47	02/05/13 14:41	1
Benzo[g,h,i]perylene	ND		0.0666	0.00894	mg/Kg	☐	02/02/13 15:47	02/05/13 14:41	1
Benzo[k]fluoranthene	ND		0.0666	0.0139	mg/Kg	☐	02/02/13 15:47	02/05/13 14:41	1
1-Methylnaphthalene	0.149		0.0666	0.0139	mg/Kg	☐	02/02/13 15:47	02/05/13 14:41	1
Pyrene	ND		0.0666	0.0119	mg/Kg	☐	02/02/13 15:47	02/05/13 14:41	1
Phenanthrene	ND		0.0666	0.00894	mg/Kg	☐	02/02/13 15:47	02/05/13 14:41	1
Chrysene	ND		0.0666	0.00894	mg/Kg	☐	02/02/13 15:47	02/05/13 14:41	1
Dibenz(a,h)anthracene	ND		0.0666	0.00696	mg/Kg	☐	02/02/13 15:47	02/05/13 14:41	1
Fluoranthene	ND		0.0666	0.00894	mg/Kg	☐	02/02/13 15:47	02/05/13 14:41	1
Fluorene	ND		0.0666	0.0119	mg/Kg	☐	02/02/13 15:47	02/05/13 14:41	1
Indeno[1,2,3-cd]pyrene	ND		0.0666	0.00994	mg/Kg	☐	02/02/13 15:47	02/05/13 14:41	1
Naphthalene	ND		0.0666	0.00894	mg/Kg	☐	02/02/13 15:47	02/05/13 14:41	1
2-Methylnaphthalene	0.137		0.0666	0.0159	mg/Kg	☐	02/02/13 15:47	02/05/13 14:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	49		29 - 120	02/02/13 15:47	02/05/13 14:41	1
Terphenyl-d14 (Surr)	62		13 - 120	02/02/13 15:47	02/05/13 14:41	1
Nitrobenzene-d5 (Surr)	43		27 - 120	02/02/13 15:47	02/05/13 14:41	1

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	95		0.10	0.10	%			01/31/13 09:26	1

TestAmerica Nashville



# Client Sample Results

Client: Environmental Enterprise Group  
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-18285-1

Client Sample ID: 890 Cobia

Date Collected: 01/24/13 13:45

Date Received: 01/30/13 09:00

Lab Sample ID: 490-18285-8

Matrix: Soil

Percent Solids: 94.6

## Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00218	0.000731	mg/Kg	☆	01/31/13 12:27	01/31/13 19:13	1
Ethylbenzene	ND		0.00218	0.000731	mg/Kg	☆	01/31/13 12:27	01/31/13 19:13	1
Naphthalene	ND		0.00545	0.00185	mg/Kg	☆	01/31/13 12:27	01/31/13 19:13	1
Toluene	0.00103	J B	0.00218	0.000807	mg/Kg	☆	01/31/13 12:27	01/31/13 19:13	1
Xylenes, Total	ND		0.00545	0.000731	mg/Kg	≡	01/31/13 12:27	01/31/13 19:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		70 - 130	01/31/13 12:27	01/31/13 19:13	1
4-Bromofluorobenzene (Surr)	104		70 - 130	01/31/13 12:27	01/31/13 19:13	1
Dibromofluoromethane (Surr)	95		70 - 130	01/31/13 12:27	01/31/13 19:13	1
Toluene-d8 (Surr)	107		70 - 130	01/31/13 12:27	01/31/13 19:13	1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0668	0.00997	mg/Kg	☆	02/02/13 15:47	02/05/13 15:03	1
Acenaphthylene	ND		0.0668	0.00897	mg/Kg	☆	02/02/13 15:47	02/05/13 15:03	1
Anthracene	ND		0.0668	0.00897	mg/Kg	☆	02/02/13 15:47	02/05/13 15:03	1
Benzo[a]anthracene	ND		0.0668	0.0150	mg/Kg	☆	02/02/13 15:47	02/05/13 15:03	1
Benzo[a]pyrene	ND		0.0668	0.0120	mg/Kg	☆	02/02/13 15:47	02/05/13 15:03	1
Benzo[b]fluoranthene	ND		0.0668	0.0120	mg/Kg	☆	02/02/13 15:47	02/05/13 15:03	1
Benzo[g,h,i]perylene	ND		0.0668	0.00897	mg/Kg	☆	02/02/13 15:47	02/05/13 15:03	1
Benzo[k]fluoranthene	ND		0.0668	0.0140	mg/Kg	☆	02/02/13 15:47	02/05/13 15:03	1
1-Methylnaphthalene	ND		0.0668	0.0140	mg/Kg	☆	02/02/13 15:47	02/05/13 15:03	1
Pyrene	ND		0.0668	0.0120	mg/Kg	☆	02/02/13 15:47	02/05/13 15:03	1
Phenanthrene	ND		0.0668	0.00897	mg/Kg	☆	02/02/13 15:47	02/05/13 15:03	1
Chrysene	ND		0.0668	0.00897	mg/Kg	☆	02/02/13 15:47	02/05/13 15:03	1
Dibenz(a,h)anthracene	ND		0.0668	0.00698	mg/Kg	☆	02/02/13 15:47	02/05/13 15:03	1
Fluoranthene	ND		0.0668	0.00897	mg/Kg	☆	02/02/13 15:47	02/05/13 15:03	1
Fluorene	ND		0.0668	0.0120	mg/Kg	☆	02/02/13 15:47	02/05/13 15:03	1
Indeno[1,2,3-cd]pyrene	ND		0.0668	0.00997	mg/Kg	☆	02/02/13 15:47	02/05/13 15:03	1
Naphthalene	ND		0.0668	0.00897	mg/Kg	☆	02/02/13 15:47	02/05/13 15:03	1
2-Methylnaphthalene	ND		0.0668	0.0159	mg/Kg	☆	02/02/13 15:47	02/05/13 15:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	49		29 - 120	02/02/13 15:47	02/05/13 15:03	1
Terphenyl-d14 (Surr)	69		13 - 120	02/02/13 15:47	02/05/13 15:03	1
Nitrobenzene-d5 (Surr)	45		27 - 120	02/02/13 15:47	02/05/13 15:03	1

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	95		0.10	0.10	%			01/31/13 09:26	1

TestAmerica Nashville

## QC Sample Results

Client: Environmental Enterprise Group  
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-18285-1

### Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 490-55008/7

Matrix: Solid

Analysis Batch: 55008

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00200	0.000670	mg/Kg			01/31/13 11:55	1
Ethylbenzene	ND		0.00200	0.000670	mg/Kg			01/31/13 11:55	1
Naphthalene	0.002894	J	0.00500	0.00170	mg/Kg			01/31/13 11:55	1
Toluene	0.0008617	J	0.00200	0.000740	mg/Kg			01/31/13 11:55	1
Xylenes, Total	0.0007307	J	0.00500	0.000670	mg/Kg			01/31/13 11:55	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	82		70 - 130		01/31/13 11:55	1
4-Bromofluorobenzene (Surr)	103		70 - 130		01/31/13 11:55	1
Dibromofluoromethane (Surr)	88		70 - 130		01/31/13 11:55	1
Toluene-d8 (Surr)	108		70 - 130		01/31/13 11:55	1

Lab Sample ID: LCS 490-55008/4

Matrix: Solid

Analysis Batch: 55008

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.0500	0.05098		mg/Kg		102	75 - 127
Ethylbenzene	0.0500	0.05704		mg/Kg		114	80 - 134
Naphthalene	0.0500	0.06438		mg/Kg		129	69 - 150
Toluene	0.0500	0.05673		mg/Kg		113	80 - 132
Xylenes, Total	0.150	0.1684		mg/Kg		112	80 - 137

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	90		70 - 130
4-Bromofluorobenzene (Surr)	101		70 - 130
Dibromofluoromethane (Surr)	95		70 - 130
Toluene-d8 (Surr)	105		70 - 130

Lab Sample ID: LCSD 490-55008/5

Matrix: Solid

Analysis Batch: 55008

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.0500	0.05359		mg/Kg		107	75 - 127	5	50
Ethylbenzene	0.0500	0.06024		mg/Kg		120	80 - 134	5	50
Naphthalene	0.0500	0.06755		mg/Kg		135	69 - 150	5	50
Toluene	0.0500	0.06051		mg/Kg		121	80 - 132	6	50
Xylenes, Total	0.150	0.1785		mg/Kg		119	80 - 137	6	50

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	95		70 - 130
4-Bromofluorobenzene (Surr)	102		70 - 130
Dibromofluoromethane (Surr)	97		70 - 130
Toluene-d8 (Surr)	108		70 - 130

TestAmerica Nashville



# QC Sample Results

Client: Environmental Enterprise Group  
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-18285-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 490-18287-A-3-D MS

Matrix: Solid

Analysis Batch: 55008

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 55137

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	ND		0.0492	0.04600		mg/Kg		93	31 - 143
Ethylbenzene	ND		0.0492	0.05357		mg/Kg		109	23 - 161
Naphthalene	ND		0.0492	0.01941		mg/Kg		39	10 - 176
Toluene	ND		0.0492	0.05293		mg/Kg		108	30 - 155
Xylenes, Total	ND		0.148	0.1519		mg/Kg		103	25 - 162

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	94		70 - 130
4-Bromofluorobenzene (Surr)	99		70 - 130
Dibromofluoromethane (Surr)	98		70 - 130
Toluene-d8 (Surr)	106		70 - 130

Lab Sample ID: 490-18287-A-3-E MSD

Matrix: Solid

Analysis Batch: 55008

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 55137

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Benzene	ND		0.0388	0.03141		mg/Kg		81	31 - 143	38	50
Ethylbenzene	ND		0.0388	0.03739		mg/Kg		96	23 - 161	36	50
Naphthalene	ND		0.0388	0.01380		mg/Kg		36	10 - 176	34	50
Toluene	ND		0.0388	0.03661		mg/Kg		94	30 - 155	36	50
Xylenes, Total	ND		0.116	0.1057		mg/Kg		91	25 - 162	36	50

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	95		70 - 130
4-Bromofluorobenzene (Surr)	98		70 - 130
Dibromofluoromethane (Surr)	99		70 - 130
Toluene-d8 (Surr)	106		70 - 130

Lab Sample ID: MB 490-55412/6

Matrix: Solid

Analysis Batch: 55412

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00200	0.000670	mg/Kg			02/01/13 12:09	1
Ethylbenzene	ND		0.00200	0.000670	mg/Kg			02/01/13 12:09	1
Naphthalene	ND		0.00500	0.00170	mg/Kg			02/01/13 12:09	1
Toluene	ND		0.00200	0.000740	mg/Kg			02/01/13 12:09	1
Xylenes, Total	ND		0.00500	0.000670	mg/Kg			02/01/13 12:09	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	83		70 - 130		02/01/13 12:09	1
4-Bromofluorobenzene (Surr)	103		70 - 130		02/01/13 12:09	1
Dibromofluoromethane (Surr)	94		70 - 130		02/01/13 12:09	1
Toluene-d8 (Surr)	109		70 - 130		02/01/13 12:09	1

TestAmerica Nashville

# QC Sample Results

Client: Environmental Enterprise Group  
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-18285-1

## Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 490-55412/7

Matrix: Solid

Analysis Batch: 55412

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene			ND		0.100	0.0335	mg/Kg			02/01/13 12:40	1
Ethylbenzene			ND		0.100	0.0335	mg/Kg			02/01/13 12:40	1
Naphthalene			ND		0.250	0.0850	mg/Kg			02/01/13 12:40	1
Toluene			ND		0.100	0.0370	mg/Kg			02/01/13 12:40	1
Xylenes, Total			ND		0.250	0.0335	mg/Kg			02/01/13 12:40	1

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)			79		70 - 130		02/01/13 12:40	1
4-Bromofluorobenzene (Surr)			102		70 - 130		02/01/13 12:40	1
Dibromofluoromethane (Surr)			95		70 - 130		02/01/13 12:40	1
Toluene-d8 (Surr)			109		70 - 130		02/01/13 12:40	1

Lab Sample ID: LCS 490-55412/3

Matrix: Solid

Analysis Batch: 55412

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike	LCS	LCS	Result	Qualifier	Unit	D	%Rec	%Rec.
Benzene	Added			0.05611		mg/Kg		112	75 - 127
Ethylbenzene	0.0500			0.06149		mg/Kg		123	80 - 134
Naphthalene	0.0500			0.06302		mg/Kg		126	69 - 150
Toluene	0.0500			0.06077		mg/Kg		122	80 - 132
Xylenes, Total	0.150			0.1825		mg/Kg		122	80 - 137

Surrogate	LCS	LCS	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)			92		70 - 130
4-Bromofluorobenzene (Surr)			99		70 - 130
Dibromofluoromethane (Surr)			100		70 - 130
Toluene-d8 (Surr)			104		70 - 130

Lab Sample ID: LCSD 490-55412/4

Matrix: Solid

Analysis Batch: 55412

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike	LCSD	LCSD	Result	Qualifier	Unit	D	%Rec	%Rec.	RPD	Limit
Benzene	Added			0.05359		mg/Kg		107	75 - 127	5	50
Ethylbenzene	0.0500			0.05943		mg/Kg		119	80 - 134	3	50
Naphthalene	0.0500			0.06231		mg/Kg		125	69 - 150	1	50
Toluene	0.0500			0.05971		mg/Kg		119	80 - 132	2	50
Xylenes, Total	0.150			0.1750		mg/Kg		117	80 - 137	4	50

Surrogate	LCSD	LCSD	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)			91		70 - 130
4-Bromofluorobenzene (Surr)			99		70 - 130
Dibromofluoromethane (Surr)			98		70 - 130
Toluene-d8 (Surr)			107		70 - 130

TestAmerica Nashville



## QC Sample Results

Client: Environmental Enterprise Group  
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-18285-1

### Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 490-18401-A-5-D MS

Matrix: Solid

Analysis Batch: 55412

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 55430

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	0.00850		0.0500	0.06016		mg/Kg		103	31 - 143
Ethylbenzene	0.00122	J	0.0500	0.06258		mg/Kg		123	23 - 161
Naphthalene	0.0346		0.0500	0.06595		mg/Kg		63	10 - 176
Toluene	ND		0.0500	0.06086		mg/Kg		122	30 - 155
Xylenes, Total	0.00139	J	0.150	0.1821		mg/Kg		120	25 - 162

Surrogate	MS %Recovery	MS Qualifier	MS Limits
1,2-Dichloroethane-d4 (Surr)	85		70 - 130
4-Bromofluorobenzene (Surr)	102		70 - 130
Dibromofluoromethane (Surr)	95		70 - 130
Toluene-d8 (Surr)	108		70 - 130

Lab Sample ID: 490-18401-A-5-E MSD

Matrix: Solid

Analysis Batch: 55412

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 55430

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	0.00850		0.0479	0.06284		mg/Kg		113	31 - 143	4	50
Ethylbenzene	0.00122	J	0.0479	0.06052		mg/Kg		124	23 - 161	3	50
Naphthalene	0.0346		0.0479	0.05802		mg/Kg		49	10 - 176	13	50
Toluene	ND		0.0479	0.06017		mg/Kg		126	30 - 155	1	50
Xylenes, Total	0.00139	J	0.144	0.1774		mg/Kg		123	25 - 162	3	50

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
1,2-Dichloroethane-d4 (Surr)	88		70 - 130
4-Bromofluorobenzene (Surr)	100		70 - 130
Dibromofluoromethane (Surr)	96		70 - 130
Toluene-d8 (Surr)	107		70 - 130

### Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 490-55721/1-A

Matrix: Solid

Analysis Batch: 55763

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 55721

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0670	0.0100	mg/Kg		02/02/13 15:32	02/04/13 16:21	1
Acenaphthylene	ND		0.0670	0.00900	mg/Kg		02/02/13 15:32	02/04/13 16:21	1
Anthracene	ND		0.0670	0.00900	mg/Kg		02/02/13 15:32	02/04/13 16:21	1
Benzo[a]anthracene	ND		0.0670	0.0150	mg/Kg		02/02/13 15:32	02/04/13 16:21	1
Benzo[a]pyrene	ND		0.0670	0.0120	mg/Kg		02/02/13 15:32	02/04/13 16:21	1
Benzo[b]fluoranthene	ND		0.0670	0.0120	mg/Kg		02/02/13 15:32	02/04/13 16:21	1
Benzo[g,h,i]perylene	ND		0.0670	0.00900	mg/Kg		02/02/13 15:32	02/04/13 16:21	1
Benzo[k]fluoranthene	ND		0.0670	0.0140	mg/Kg		02/02/13 15:32	02/04/13 16:21	1
1-Methylnaphthalene	ND		0.0670	0.0140	mg/Kg		02/02/13 15:32	02/04/13 16:21	1
Pyrene	ND		0.0670	0.0120	mg/Kg		02/02/13 15:32	02/04/13 16:21	1
Phenanthrene	ND		0.0670	0.00900	mg/Kg		02/02/13 15:32	02/04/13 16:21	1

TestAmerica Nashville

# QC Sample Results

Client: Environmental Enterprise Group  
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-18285-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 490-55721/1-A  
Matrix: Solid  
Analysis Batch: 55763

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 55721

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	ND		0.0670	0.00900	mg/Kg		02/02/13 15:32	02/04/13 16:21	1
Dibenz(a,h)anthracene	ND		0.0670	0.00700	mg/Kg		02/02/13 15:32	02/04/13 16:21	1
Fluoranthene	ND		0.0670	0.00900	mg/Kg		02/02/13 15:32	02/04/13 16:21	1
Fluorene	ND		0.0670	0.0120	mg/Kg		02/02/13 15:32	02/04/13 16:21	1
Indeno[1,2,3-cd]pyrene	ND		0.0670	0.0100	mg/Kg		02/02/13 15:32	02/04/13 16:21	1
Naphthalene	ND		0.0670	0.00900	mg/Kg		02/02/13 15:32	02/04/13 16:21	1
2-Methylnaphthalene	ND		0.0670	0.0160	mg/Kg		02/02/13 15:32	02/04/13 16:21	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	50		29 - 120	02/02/13 15:32	02/04/13 16:21	1
Terphenyl-d14 (Surr)	73		13 - 120	02/02/13 15:32	02/04/13 16:21	1
Nitrobenzene-d5 (Surr)	45		27 - 120	02/02/13 15:32	02/04/13 16:21	1

Lab Sample ID: LCS 490-55721/2-A  
Matrix: Solid  
Analysis Batch: 55763

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 55721

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthylene	1.67	1.337		mg/Kg		80	38 - 120
Anthracene	1.67	1.220		mg/Kg		73	46 - 124
Benzo[a]anthracene	1.67	1.367		mg/Kg		82	45 - 120
Benzo[a]pyrene	1.67	1.270		mg/Kg		76	45 - 120
Benzo[b]fluoranthene	1.67	1.271		mg/Kg		76	42 - 120
Benzo[g,h,i]perylene	1.67	1.316		mg/Kg		79	38 - 120
Benzo[k]fluoranthene	1.67	1.369		mg/Kg		82	42 - 120
1-Methylnaphthalene	1.67	1.380		mg/Kg		83	32 - 120
Pyrene	1.67	1.368		mg/Kg		82	43 - 120
Phenanthrene	1.67	1.282		mg/Kg		77	45 - 120
Chrysene	1.67	1.298		mg/Kg		78	43 - 120
Dibenz(a,h)anthracene	1.67	1.324		mg/Kg		79	32 - 128
Fluoranthene	1.67	1.195		mg/Kg		72	46 - 120
Fluorene	1.67	1.285		mg/Kg		77	42 - 120
Indeno[1,2,3-cd]pyrene	1.67	1.304		mg/Kg		78	41 - 121
Naphthalene	1.67	1.367		mg/Kg		82	32 - 120
2-Methylnaphthalene	1.67	1.397		mg/Kg		84	28 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl (Surr)	65		29 - 120
Terphenyl-d14 (Surr)	86		13 - 120
Nitrobenzene-d5 (Surr)	62		27 - 120

Lab Sample ID: 490-18287-B-1-D MS  
Matrix: Solid  
Analysis Batch: 55763

Client Sample ID: Matrix Spike  
Prep Type: Total/NA  
Prep Batch: 55721

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthylene	ND		1.61	1.127		mg/Kg		70	25 - 120
Anthracene	ND		1.61	1.081		mg/Kg		67	28 - 125

TestAmerica Nashville



# QC Sample Results

Client: Environmental Enterprise Group  
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-18285-1

## Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 490-18287-B-1-D MS

Matrix: Solid

Analysis Batch: 55763

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 55721

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzo[a]anthracene	ND		1.61	1.196		mg/Kg		74	23 - 120
Benzo[a]pyrene	ND		1.61	1.084		mg/Kg		67	15 - 128
Benzo[b]fluoranthene	ND		1.61	1.122		mg/Kg		69	12 - 133
Benzo[g,h,i]perylene	ND		1.61	1.134		mg/Kg		70	22 - 120
Benzo[k]fluoranthene	ND		1.61	1.117		mg/Kg		69	28 - 120
1-Methylnaphthalene	ND		1.61	1.127		mg/Kg		70	10 - 120
Pyrene	ND		1.61	1.173		mg/Kg		73	20 - 123
Phenanthrene	ND		1.61	1.107		mg/Kg		69	21 - 122
Chrysene	ND		1.61	1.142		mg/Kg		71	20 - 120
Dibenz(a,h)anthracene	ND		1.61	1.166		mg/Kg		72	12 - 128
Fluoranthene	ND		1.61	1.056		mg/Kg		65	10 - 143
Fluorene	ND		1.61	1.110		mg/Kg		69	20 - 120
Indeno[1,2,3-cd]pyrene	ND		1.61	1.147		mg/Kg		71	22 - 121
Naphthalene	ND		1.61	1.120		mg/Kg		69	10 - 120
2-Methylnaphthalene	ND		1.61	1.164		mg/Kg		72	13 - 120

### MS MS

Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl (Surr)	51		29 - 120
Terphenyl-d14 (Surr)	72		13 - 120
Nitrobenzene-d5 (Surr)	48		27 - 120

Lab Sample ID: 490-18287-B-1-E MSD

Matrix: Solid

Analysis Batch: 55763

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 55721

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Acenaphthylene	ND		1.64	1.147		mg/Kg		70	25 - 120	2	50
Anthracene	ND		1.64	1.085		mg/Kg		66	28 - 125	0	49
Benzo[a]anthracene	ND		1.64	1.219		mg/Kg		75	23 - 120	2	50
Benzo[a]pyrene	ND		1.64	1.138		mg/Kg		70	15 - 128	5	50
Benzo[b]fluoranthene	ND		1.64	1.171		mg/Kg		72	12 - 133	4	50
Benzo[g,h,i]perylene	ND		1.64	1.175		mg/Kg		72	22 - 120	4	50
Benzo[k]fluoranthene	ND		1.64	1.208		mg/Kg		74	28 - 120	8	45
1-Methylnaphthalene	ND		1.64	1.227		mg/Kg		75	10 - 120	9	50
Pyrene	ND		1.64	1.186		mg/Kg		73	20 - 123	1	50
Phenanthrene	ND		1.64	1.150		mg/Kg		70	21 - 122	4	50
Chrysene	ND		1.64	1.171		mg/Kg		72	20 - 120	3	49
Dibenz(a,h)anthracene	ND		1.64	1.209		mg/Kg		74	12 - 128	4	50
Fluoranthene	ND		1.64	1.078		mg/Kg		66	10 - 143	2	50
Fluorene	ND		1.64	1.158		mg/Kg		71	20 - 120	4	50
Indeno[1,2,3-cd]pyrene	ND		1.64	1.170		mg/Kg		72	22 - 121	2	50
Naphthalene	ND		1.64	1.224		mg/Kg		75	10 - 120	9	50
2-Methylnaphthalene	ND		1.64	1.254		mg/Kg		77	13 - 120	7	50

### MSD MSD

Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl (Surr)	52		29 - 120
Terphenyl-d14 (Surr)	73		13 - 120

TestAmerica Nashville

## QC Sample Results

Client: Environmental Enterprise Group  
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-18285-1

### Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 490-18287-B-1-E MSD  
Matrix: Solid  
Analysis Batch: 55763

Client Sample ID: Matrix Spike Duplicate  
Prep Type: Total/NA  
Prep Batch: 55721

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
Nitrobenzene-d5 (Surr)	51		27 - 120

### Method: Moisture - Percent Moisture

Lab Sample ID: 490-18285-1 DU  
Matrix: Soil  
Analysis Batch: 55028

Client Sample ID: 631 Dahlia  
Prep Type: Total/NA

	Sample	Sample	DU	DU				RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
Percent Solids	91		91		%		0.4	20

## QC Association Summary

Client: Environmental Enterprise Group  
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-18285-1

### GC/MS VOA

#### Analysis Batch: 55008

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-18285-1	631 Dahlia	Total/NA	Soil	8260B	55160
490-18285-2	869 Cobia	Total/NA	Soil	8260B	55160
490-18285-3	874 Cobia	Total/NA	Soil	8260B	55160
490-18285-5	917 Barracuda	Total/NA	Soil	8260B	55160
490-18285-6	875 Cobia	Total/NA	Soil	8260B	55160
490-18285-7	880 Cobia	Total/NA	Soil	8260B	55160
490-18285-8	890 Cobia	Total/NA	Soil	8260B	55160
490-18287-A-3-D MS	Matrix Spike	Total/NA	Solid	8260B	55137
490-18287-A-3-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8260B	55137
LCS 490-55008/4	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 490-55008/5	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 490-55008/7	Method Blank	Total/NA	Solid	8260B	

#### Prep Batch: 55137

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-18287-A-3-D MS	Matrix Spike	Total/NA	Solid	5035	
490-18287-A-3-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

#### Prep Batch: 55159

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-18285-4	883 Cobia	Total/NA	Soil	5035	

#### Prep Batch: 55160

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-18285-1	631 Dahlia	Total/NA	Soil	5035	
490-18285-2	869 Cobia	Total/NA	Soil	5035	
490-18285-3	874 Cobia	Total/NA	Soil	5035	
490-18285-4	883 Cobia	Total/NA	Soil	5035	
490-18285-5	917 Barracuda	Total/NA	Soil	5035	
490-18285-6	875 Cobia	Total/NA	Soil	5035	
490-18285-7	880 Cobia	Total/NA	Soil	5035	
490-18285-8	890 Cobia	Total/NA	Soil	5035	

#### Analysis Batch: 55412

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-18285-4	883 Cobia	Total/NA	Soil	8260B	55160
490-18285-4	883 Cobia	Total/NA	Soil	8260B	55159
490-18401-A-5-D MS	Matrix Spike	Total/NA	Solid	8260B	55430
490-18401-A-5-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8260B	55430
LCS 490-55412/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 490-55412/4	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 490-55412/6	Method Blank	Total/NA	Solid	8260B	
MB 490-55412/7	Method Blank	Total/NA	Solid	8260B	

#### Prep Batch: 55430

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-18401-A-5-D MS	Matrix Spike	Total/NA	Solid	5035	
490-18401-A-5-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

TestAmerica Nashville



## QC Association Summary

Client: Environmental Enterprise Group  
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-18285-1

### GC/MS Semi VOA

#### Prep Batch: 55721

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-18285-1	631 Dahlia	Total/NA	Soil	3550C	
490-18285-2	869 Cobia	Total/NA	Soil	3550C	
490-18285-3	874 Cobia	Total/NA	Soil	3550C	
490-18285-4	883 Cobia	Total/NA	Soil	3550C	
490-18285-5	917 Barracuda	Total/NA	Soil	3550C	
490-18285-6	875 Cobia	Total/NA	Soil	3550C	
490-18285-7	880 Cobia	Total/NA	Soil	3550C	
490-18285-8	890 Cobia	Total/NA	Soil	3550C	
490-18287-B-1-D MS	Matrix Spike	Total/NA	Solid	3550C	
490-18287-B-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	3550C	
LCS 490-55721/2-A	Lab Control Sample	Total/NA	Solid	3550C	
MB 490-55721/1-A	Method Blank	Total/NA	Solid	3550C	

#### Analysis Batch: 55763

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-18287-B-1-D MS	Matrix Spike	Total/NA	Solid	8270D	55721
490-18287-B-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8270D	55721
LCS 490-55721/2-A	Lab Control Sample	Total/NA	Solid	8270D	55721
MB 490-55721/1-A	Method Blank	Total/NA	Solid	8270D	55721

#### Analysis Batch: 56216

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-18285-1	631 Dahlia	Total/NA	Soil	8270D	55721
490-18285-2	869 Cobia	Total/NA	Soil	8270D	55721
490-18285-3	874 Cobia	Total/NA	Soil	8270D	55721
490-18285-4	883 Cobia	Total/NA	Soil	8270D	55721
490-18285-5	917 Barracuda	Total/NA	Soil	8270D	55721
490-18285-6	875 Cobia	Total/NA	Soil	8270D	55721
490-18285-7	880 Cobia	Total/NA	Soil	8270D	55721
490-18285-8	890 Cobia	Total/NA	Soil	8270D	55721

### General Chemistry

#### Analysis Batch: 55028

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-18285-1	631 Dahlia	Total/NA	Soil	Moisture	
490-18285-1 DU	631 Dahlia	Total/NA	Soil	Moisture	
490-18285-2	869 Cobia	Total/NA	Soil	Moisture	
490-18285-3	874 Cobia	Total/NA	Soil	Moisture	
490-18285-4	883 Cobia	Total/NA	Soil	Moisture	
490-18285-5	917 Barracuda	Total/NA	Soil	Moisture	
490-18285-6	875 Cobia	Total/NA	Soil	Moisture	
490-18285-7	880 Cobia	Total/NA	Soil	Moisture	
490-18285-8	890 Cobia	Total/NA	Soil	Moisture	

TestAmerica Nashville

## Lab Chronicle

Client: Environmental Enterprise Group  
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-18285-1

### Client Sample ID: 631 Dahlia

Date Collected: 01/21/13 13:45

Date Received: 01/30/13 09:00

### Lab Sample ID: 490-18285-1

Matrix: Soil

Percent Solids: 90.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			55160	01/31/13 12:27	ML	TAL NSH
Total/NA	Analysis	8260B		1	55008	01/31/13 15:40	KK	TAL NSH
Total/NA	Prep	3550C			55721	02/02/13 15:47	PA	TAL NSH
Total/NA	Analysis	8270D		1	56216	02/05/13 12:35	BS	TAL NSH
Total/NA	Analysis	Moisture		1	55028	01/31/13 09:26	RS	TAL NSH

### Client Sample ID: 869 Cobia

Date Collected: 01/22/13 14:05

Date Received: 01/30/13 09:00

### Lab Sample ID: 490-18285-2

Matrix: Soil

Percent Solids: 96.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			55160	01/31/13 12:27	ML	TAL NSH
Total/NA	Analysis	8260B		1	55008	01/31/13 16:10	KK	TAL NSH
Total/NA	Prep	3550C			55721	02/02/13 15:47	PA	TAL NSH
Total/NA	Analysis	8270D		1	56216	02/05/13 12:56	BS	TAL NSH
Total/NA	Analysis	Moisture		1	55028	01/31/13 09:26	RS	TAL NSH

### Client Sample ID: 874 Cobia

Date Collected: 01/23/13 14:30

Date Received: 01/30/13 09:00

### Lab Sample ID: 490-18285-3

Matrix: Soil

Percent Solids: 95.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			55160	01/31/13 12:27	ML	TAL NSH
Total/NA	Analysis	8260B		1	55008	01/31/13 16:41	KK	TAL NSH
Total/NA	Prep	3550C			55721	02/02/13 15:47	PA	TAL NSH
Total/NA	Analysis	8270D		1	56216	02/05/13 13:17	BS	TAL NSH
Total/NA	Analysis	Moisture		1	55028	01/31/13 09:26	RS	TAL NSH

### Client Sample ID: 883 Cobia

Date Collected: 01/24/13 11:45

Date Received: 01/30/13 09:00

### Lab Sample ID: 490-18285-4

Matrix: Soil

Percent Solids: 86.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			55160	01/31/13 12:27	ML	TAL NSH
Total/NA	Analysis	8260B		1	55412	02/01/13 13:10	KK	TAL NSH
Total/NA	Prep	5035			55159	01/31/13 12:25	ML	TAL NSH
Total/NA	Analysis	8260B		1	55412	02/01/13 13:40	KK	TAL NSH
Total/NA	Prep	3550C			55721	02/02/13 15:47	PA	TAL NSH
Total/NA	Analysis	8270D		1	56216	02/05/13 13:38	BS	TAL NSH
Total/NA	Analysis	Moisture		1	55028	01/31/13 09:26	RS	TAL NSH

## Lab Chronicle

Client: Environmental Enterprise Group  
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-18285-1

### Client Sample ID: 917 Barracuda

Date Collected: 01/21/13 14:30

Date Received: 01/30/13 09:00

### Lab Sample ID: 490-18285-5

Matrix: Soil  
Percent Solids: 89.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			55160	01/31/13 12:27	ML	TAL NSH
Total/NA	Analysis	8260B		1	55008	01/31/13 17:42	KK	TAL NSH
Total/NA	Prep	3550C			55721	02/02/13 15:47	PA	TAL NSH
Total/NA	Analysis	8270D		1	56216	02/05/13 13:59	BS	TAL NSH
Total/NA	Analysis	Moisture		1	55028	01/31/13 09:26	RS	TAL NSH

### Client Sample ID: 875 Cobia

Date Collected: 01/22/13 14:45

Date Received: 01/30/13 09:00

### Lab Sample ID: 490-18285-6

Matrix: Soil  
Percent Solids: 96.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			55160	01/31/13 12:27	ML	TAL NSH
Total/NA	Analysis	8260B		1	55008	01/31/13 18:12	KK	TAL NSH
Total/NA	Prep	3550C			55721	02/02/13 15:47	PA	TAL NSH
Total/NA	Analysis	8270D		1	56216	02/05/13 14:20	BS	TAL NSH
Total/NA	Analysis	Moisture		1	55028	01/31/13 09:26	RS	TAL NSH

### Client Sample ID: 880 Cobia

Date Collected: 01/23/13 15:15

Date Received: 01/30/13 09:00

### Lab Sample ID: 490-18285-7

Matrix: Soil  
Percent Solids: 95.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			55160	01/31/13 12:27	ML	TAL NSH
Total/NA	Analysis	8260B		1	55008	01/31/13 18:43	KK	TAL NSH
Total/NA	Prep	3550C			55721	02/02/13 15:47	PA	TAL NSH
Total/NA	Analysis	8270D		1	56216	02/05/13 14:41	BS	TAL NSH
Total/NA	Analysis	Moisture		1	55028	01/31/13 09:26	RS	TAL NSH

### Client Sample ID: 890 Cobia

Date Collected: 01/24/13 13:45

Date Received: 01/30/13 09:00

### Lab Sample ID: 490-18285-8

Matrix: Soil  
Percent Solids: 94.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			55160	01/31/13 12:27	ML	TAL NSH
Total/NA	Analysis	8260B		1	55008	01/31/13 19:13	KK	TAL NSH
Total/NA	Prep	3550C			55721	02/02/13 15:47	PA	TAL NSH
Total/NA	Analysis	8270D		1	56216	02/05/13 15:03	BS	TAL NSH
Total/NA	Analysis	Moisture		1	55028	01/31/13 09:26	RS	TAL NSH

#### Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

TestAmerica Nashville



## Method Summary

Client: Environmental Enterprise Group  
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-18285-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL NSH
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL NSH
Moisture	Percent Moisture	EPA	TAL NSH

### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177

## Certification Summary

Client: Environmental Enterprise Group  
Project/Site: Laurel Bay Housing Project

TestAmerica Job ID: 490-18285-1

### Laboratory: TestAmerica Nashville

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
	ACIL		393	10-30-13
A2LA	ISO/IEC 17025		0453.07	12-31-13
Alabama	State Program	4	41150	05-31-13
Alaska (UST)	State Program	10	UST-087	07-24-13
Arizona	State Program	9	AZ0473	05-05-13
Arkansas DEQ	State Program	6	88-0737	04-25-13
California	NELAP	9	1168CA	10-31-13
Canadian Assoc Lab Accred (CALA)	Canada		3744	03-08-14
Colorado	State Program	8	N/A	02-28-13
Connecticut	State Program	1	PH-0220	12-31-13
Florida	NELAP	4	E87358	06-30-13
Illinois	NELAP	5	200010	12-09-13
Iowa	State Program	7	131	05-01-14
Kansas	NELAP	7	E-10229	10-31-13
Kentucky (UST)	State Program	4	19	09-15-13
Louisiana	NELAP	6	30613	06-30-13
Maryland	State Program	3	316	03-31-13
Massachusetts	State Program	1	M-TN032	06-30-13
Minnesota	NELAP	5	047-999-345	12-31-13
Mississippi	State Program	4	N/A	06-30-13
Montana (UST)	State Program	8	NA	01-01-15
Nevada	State Program	9	TN00032	07-31-13
New Hampshire	NELAP	1	2963	10-09-13
New Jersey	NELAP	2	TN965	06-30-13
New York	NELAP	2	11342	04-01-13
North Carolina DENR	State Program	4	387	12-31-13
North Dakota	State Program	8	R-146	06-30-13
Ohio VAP	State Program	5	CL0033	01-19-14
Oklahoma	State Program	6	9412	08-31-13
Oregon	NELAP	10	TN200001	04-30-13
Pennsylvania	NELAP	3	68-00585	06-30-13
Rhode Island	State Program	1	LAO00268	12-30-13
South Carolina	State Program	4	84009 (001)	02-28-13
South Carolina	State Program	4	84009 (002)	02-23-14
Tennessee	State Program	4	2008	02-23-14
Texas	NELAP	6	T104704077-09-TX	08-31-13
USDA	Federal		S-48469	11-02-13
Utah	NELAP	8	TAN	06-30-13
Virginia	NELAP	3	460152	06-14-13
Washington	State Program	10	C789	07-19-13
West Virginia DEP	State Program	3	219	02-28-13
Wisconsin	State Program	5	998020430	08-31-13
Wyoming (UST)	A2LA	8	453.07	12-31-13

## COOLER RECEIPT FORM

Charleston



Cooler Received/Opened On : 01/30/13 @ 9:00

Tracking # 9582 (last 4 digits, FedEx)

Courier: Fed-ex IR Gun ID: 95610068

1. Temperature of rep. sample or temp blank when opened: 4.9 Degrees Celsius

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO NA

4. Were custody seals on outside of cooler? YES..NO...NA

If yes, how many and where: 1 Front / 1 Back

5. Were the seals intact, signed, and dated correctly? YES..NO...NA

6. Were custody papers inside cooler? YES..NO...NA

I certify that I opened the cooler and answered questions 1-6 (initial) W

7. Were custody seals on containers: YES NO and Intact YES NO NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES..NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES..NO...NA

12. Did all container labels and tags agree with custody papers? YES..NO...NA

13a. Were VOA vials received? YES..NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

14. Was there a Trip Blank in this cooler? YES..NO..NA If multiple coolers, sequence #     

I certify that I unloaded the cooler and answered questions 7-14 (initial) W

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES...NO...NA

b. Did the bottle labels indicate that the correct preservatives were used YES..NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (initial) W

17. Were custody papers properly filled out (ink, signed, etc)? YES..NO...NA

18. Did you sign the custody papers in the appropriate place? YES..NO...NA

19. Were correct containers used for the analysis requested? YES..NO...NA

20. Was sufficient amount of sample sent in each container? YES..NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (initial) W

I certify that I attached a label with the unique LIMS number to each container (initial) W

21. Were there Non-Conformance issues at login? YES..NO Was a NCM generated? YES..NO..#

THE LEADER IN ENVIRONMENTAL TESTING

Phone: 615-726-0177  
Toll Free: 800-765-0980  
Fax: 615-726-3404

Address: 10179 Highway 78

**Project Manager:** Tom McElwee email: [mcclwee@eaginc.net](mailto:mcclwee@eaginc.net)

Fax No.: 843-819-0901

Christians

218

PO#:

**Project ID:** Laurel Bay Housing Project

11.2

## Compliance Monitoring: Enforcement Action?

Yes	No
Yes	No

Loc: 490  
18285

2/13/2013

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# TestAmerica

Nashville Division  
2960 Foster Creighton  
Nashville, TN 37204

Phone: 615-726-0177  
Toll Free: 800-765-0980  
Fax: 615-726-3404

Client Name/Account #: EEG # 2449

Address: 10179 Highway 78

City/State/Zip: Ladson, SC 29456

Project Manager: Tom McElwee email: mcelwee@eeginc.net

Telephone Number: 843.412.2097

Sampler Name: (Print) Paul H. Stuart

Sampler Signature: [Signature]

Fax No: 843-879-0401

Site State: SC

PO#: 1063

TA Quote #:

Project ID: Laurel Bay Housing Project

Project #:

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?

Compliance Monitoring? ☐ Yes ☐ No

Enforcement Action? ☐ Yes ☐ No

Loc: 490  
18285  
#1  
A

2/13/2013

Sample ID / Description	Date Sampled	Time Sampled	No. of Containers Shipped	Grab	Composite	Field Filtered	Ice	HNO <sub>3</sub> (Red Label)	HCl (Blue Label)	NaOH (Orange Label)	H <sub>2</sub> SO <sub>4</sub> Plastic (Yellow Label)	H <sub>2</sub> SO <sub>4</sub> Glass (Yellow Label)	None (Black Label)	Other (Specify)	Groundwater	Wastewater	Drinking Water	Sludge	Soil	Other (Specify)	BTEX + Naph - 82608	PAH - 8270D	Analyze For	RUSH TAT (Pre-Schedule)	Standard TAT	Fax Results	Send QC with report
917 BARACUDA	1/21/13	1430	4	X																							
875 COBIA	1/23/13	1445	4	X																							
880 COBIA	1/23/13	1515	4	X																							
890 COBIA	1/24/13	1345	4	X																							

Special Instructions:

Method of Shipment:

FEDEX

Laboratory Comments:

Temperature Upon Receipt: 49.0  
VOCs Free of Headspace? ☐ Y ☐ N

Y

N

## Login Sample Receipt Checklist

Client: Environmental Enterprise Group

Job Number: 490-18285-1

SDG Number:

Login Number: 18285

List Source: TestAmerica Nashville

List Number: 1

Creator: McBride, Mike

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ATTACHMENT A



# NON-HAZARDOUS MANIFEST

<b>NON-HAZARDOUS MANIFEST</b>		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 29904		Generator's Site Address (If different than mailing):		A. Manifest Number <b>WMNA</b>		01519103		
4. Generator's Phone 843-879-0411				B. State Generator's ID				
5. Transporter 1 Company Name		6. US EPA ID Number		C. State Transporter's ID		D. Transporter's Phone		
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 DRIVE RIDGELAND, SC 29936		10. US EPA ID Number		G. State Facility ID		H. State Facility Phone 843-987-4643		
11. Description of Waste Materials		12. Containers		13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments		
		No.	Type					
		a. HEATING OIL TANK FILLED WITH SAND						
		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 UST's from: 2) 880 Cobia ✓ 4) 890 Cobia ✓ 6) 911 BARRACUDA ✓ 1) 869 Cobia ✓ 3) 894 Cobia ✓ 5) 883 Cobia ✓								
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 40 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
						2	4	13
17. Transporter 1 Acknowledgement of Receipt of Materials								
Printed Name		Signature				Month	Day	Year
Prath Shah		[Signature]				2	4	13
18. Transporter 2 Acknowledgement of Receipt of Materials								
Printed Name		Signature				Month	Day	Year
James Baldwin		[Signature]				2	5	13
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
Toni CoField		[Signature]				2	5	13

White- TREATMENT, STORAGE, DISPOSAL FACILITY COPY

Pink- FACILITY USE ONLY

Blue- GENERATOR #2 COPY

Gold- TRANSPORTER #1 COPY

Yellow- GENERATOR #1 COPY



**Appendix C**  
**Laboratory Analytical Report - Groundwater**

# Volatile Organic Compounds by GC/MS

Client: <b>AECOM - Resolution Consultants</b>	Laboratory ID: <b>SC02051-006</b>
Description: <b>BEALB883TW01WG20170228</b>	Matrix: <b>Aqueous</b>
Date Sampled: <b>02/28/2017 1315</b>	
Date Received: <b>03/02/2017</b>	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch			
1	5030B	8260B	1	03/03/2017 2206	ECP		36205			

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

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		98	85-114
Dibromofluoromethane		98	80-119
1,2-Dichloroethane-d4		90	81-118
Toluene-d8		97	89-112

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

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

# Semivolatile Organic Compounds by GC/MS

Client: <b>AECOM - Resolution Consultants</b>	Laboratory ID: <b>SC02051-006</b>
Description: <b>BEALB883TW01WG20170228</b>	Matrix: <b>Aqueous</b>
Date Sampled: <b>02/28/2017 1315</b>	
Date Received: <b>03/02/2017</b>	

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	03/10/2017 2018	RBH	03/05/2017 1656	36264

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	LOD	DL	Units	Run
Benzo(a)anthracene	56-55-3	8270D	0.10	U	0.20	0.10	0.040	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	0.10	U	0.20	0.10	0.040	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	0.10	U	0.20	0.10	0.040	ug/L	1
Chrysene	218-01-9	8270D	0.10	U	0.20	0.10	0.040	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	0.10	U	0.20	0.10	0.040	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Nitrobenzene-d5		60	44-120
2-Fluorobiphenyl		58	44-119
Terphenyl-d14		69	50-134

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

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## **Appendix D**

### **Regulatory Correspondence**



August 24, 2016

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

RE: IGWA  
Laurel Bay Underground Tank Assessment Reports

Dear Mr. Drawdy:

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

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

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

If you have any questions, please contact me at [petruslb@dhec.sc.gov](mailto:petruslb@dhec.sc.gov) or 803-898-0294.

Sincerely,

Laurel Petrus, Environmental Engineer Associate  
RCRA Federal Facilities Section

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

Attachment to: Petrus to Drawdy, August 24, 2016

Subject: IGWA, Laurel Bay Underground Tank Assessment Reports

Draft Final Initial Groundwater Investigation Report for (41 addresses)

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



July 27, 2017

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

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

Dear Mr. Drawdy:

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

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

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

If you have any questions, please contact me at [petruslb@dhec.sc.gov](mailto:petruslb@dhec.sc.gov) or 803-898-0294.

Sincerely,

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

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

Attachment to: Petrus to Drawdy                      Dated July 27, 2017

Draft Final Initial Groundwater Investigation Report for (52 addresses)

Permanent Well Installation recommendation (3 Addresses):

---

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

No Further Action recommendation (49 addresses):

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