

SUMMARY REPORT  
276 ELDERBERRY DRIVE (FORMERLY 427 ELDERBERRY 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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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
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 276 Elderberry Drive (Formerly 427 Elderberry 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 276 Elderberry Drive (Formerly 427 Elderberry Drive). Details regarding the soil investigation at this site are provided in the *SCDHEC UST Assessment Report – 427 Elderberry Drive* (MCAS Beaufort, 2013). The UST Assessment Report is provided in Appendix B.

### 2.1 UST Removal and Soil Sampling

On January 31, 2013, a single 280 gallon heating oil UST was removed from the concrete porch area at 276 Elderberry Drive (Formerly 427 Elderberry Drive). The former UST location is indicated on Figures 2 and 3 of the UST Assessment Report (Appendix B). The UST was removed and properly disposed of (i.e., shipped offsite for recycling or transported to a landfill). There was no visual evidence (i.e., staining or sheen) of petroleum impact at the time of the UST removal. According to the UST Assessment Report (Appendix B), the depth to the base of

the UST was 5'11" 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 276 Elderberry Drive (Formerly 427 Elderberry Drive) were less than the SCDHEC RBSLs, which indicated the subsurface was not impacted by COPCs associated with the former UST at concentrations that presented a potential risk to human health and the environment.

## 3.0 PROPERTY STATUS

Based on the analytical results for soil, SCDHEC made the determination that NFA was required for 276 Elderberry Drive (Formerly 427 Elderberry Drive). This NFA determination was obtained in a letter dated May 15, 2014. SCDHEC's NFA letter is provided in Appendix C.

## 4.0 REFERENCES

Marine Corps Air Station Beaufort, 2013. *South Carolina Department of Health and Environmental Control (SCDHEC) Underground Storage Tank Assessment Report – 427 Elderberry Drive, Laurel Bay Military Housing Area*, April 2013.

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



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

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

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

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

## Table

**Table 1**  
**Laboratory Analytical Results - Soil**  
**276 Elderberry Drive (Formerly 427 Elderberry Drive)**  
**Laurel Bay Military Housing Area**  
**Marine Corps Air Station Beaufort**  
**Beaufort, South Carolina**

Constituent	SCDHEC RBSLs <sup>(1)</sup>	Results Sample Collected 01/31/13
<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	ND
Xylenes, Total	13.01	ND
<b>Semivolatile Organic Compounds Analyzed by EPA Method 8270D (mg/kg)</b>		
Benzo(a)anthracene	0.66	<b>0.0439</b>
Benzo(b)fluoranthene	0.66	<b>0.0637</b>
Benzo(k)fluoranthene	0.66	<b>0.0289</b>
Chrysene	0.66	<b>0.0634</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 2.0 (SCDHEC, April 2013).

Bold font indicates the analyte was detected.

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

EPA - United States Environmental Protection Agency

mg/kg - milligram per kilogram

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

RBSL - Risk-Based Screening Level

SCDHEC - South Carolina Department Of Health and Environmental Control

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



Appendix A - Multi-Media Selection Process for LBMH

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

rec'd 4/18/13

Attachment 1

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

Date Received

State Use Only

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

**I. OWNERSHIP OF UST (S)**

MCAS Beaufort, Commanding Officer Attn: NREAO (Craig Ehde)  
Owner Name (Corporation, Individual, Public Agency, Other)

P.O. Box 55001  
Mailing Address

Beaufort, South Carolina 29904-5001  
City State Zip Code

843 228-7317 Craig Ehde  
Area Code Telephone Number Contact Person

**II. SITE IDENTIFICATION AND LOCATION**

Permit I.D. #  
Laurel Bay Military Housing Area, Marine Corps Air Station, Beaufort, SC  
Facility Name or Company Site Identifier

427 Elderberry Drive, Laurel Bay Military Housing Area  
Street Address or State Road (as applicable)

Beaufort, Beaufort  
City County

Attachment 2

### III. INSURANCE INFORMATION

#### Insurance Statement

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

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

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

My policy provider is: \_\_\_\_\_

The policy deductible is: \_\_\_\_\_

The policy limit is: \_\_\_\_\_

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

### IV. REQUEST FOR SUPERB FUNDING

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

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

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

\_\_\_\_\_  
Name (Type or print.)

\_\_\_\_\_  
Signature

#### To be completed by Notary Public:

Sworn before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

\_\_\_\_\_  
(Name)

Notary Public for the state of \_\_\_\_\_  
*Please affix State seal if you are commissioned outside South Carolina*



## VI. UST INFORMATION

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

427 Elderberry				
Heating oil				
280 gal				
Late 1950s				
Steel				
Mid 1980s				
5'11"				
No				
No				
Removed				
1/31/2013				
Yes				
Yes				

- M. Method of disposal for any USTs removed from the ground (attach disposal manifests)  
UST 427Elderberry 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 427Elderberry had been previously filled with sand by others.
- 
- O. If any corrosion, pitting, or holes were observed, describe the location and extent for each UST  
Corrosion, pitting and holes were found throughout the tank.

## VII. PIPING INFORMATION

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

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

C. Number of Dispensers.....

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

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

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

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

H. Age.....

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

427 Elderberry				
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 #
427 Elderby	Excav at fill end	Soil	Sandy	5'11"	1/31/13 1430 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.

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## XII. RECEPTORS

	Yes	No
<p>A. Are there any lakes, ponds, streams, or wetlands located within 1000 feet of the UST system?</p> <p style="text-align: right;">*Stormwater drainage canal</p> <p>If yes, indicate type of receptor, distance, and direction on site map.</p>	*X	
<p>B. Are there any public, private, or irrigation water supply wells within 1000 feet of the UST system?</p> <p>If yes, indicate type of well, distance, and direction on site map.</p>		X
<p>C. Are there any underground structures (e.g., basements) Located within 100 feet of the UST system?</p> <p>If yes, indicate type of structure, distance, and direction on site map.</p>		X
<p>D. Are there any underground utilities (e.g., telephone, electricity, gas, water, sewer, storm drain) located within 100 feet of the UST system that could potentially come in contact with the contamination?</p> <p style="text-align: right;">*Sewer, water, electricity cable, fiber optic &amp; geothermal</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)





0 100 200 400 600 800 1,000  
Feet

**427 ELDERBERRY**

**SBG-EEG, Inc.**

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

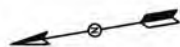
Ph. (843) 573-7140

Drawn By: L. DiAsio

Dwg Date: Feb 2013

**FIGURE 1: LOCATION MAP**  
**427 ELDERBERRY DRIVE**  
**LAUREL BAY, BEAUFORT SC**





STORMWATER CANAL  $\approx$  845'

427 ELDERBERRY DR.  
LAUREL BAY MILITARY HOUSING  
MCAS BEAUFORT, SC

UST 427ELDERBERRY

GRAPHIC SCALE

0 5' 10' 20'

TANK DEPTH BELOW GRADE  
427ELDERBERRY = 35"

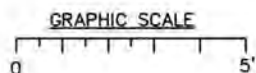
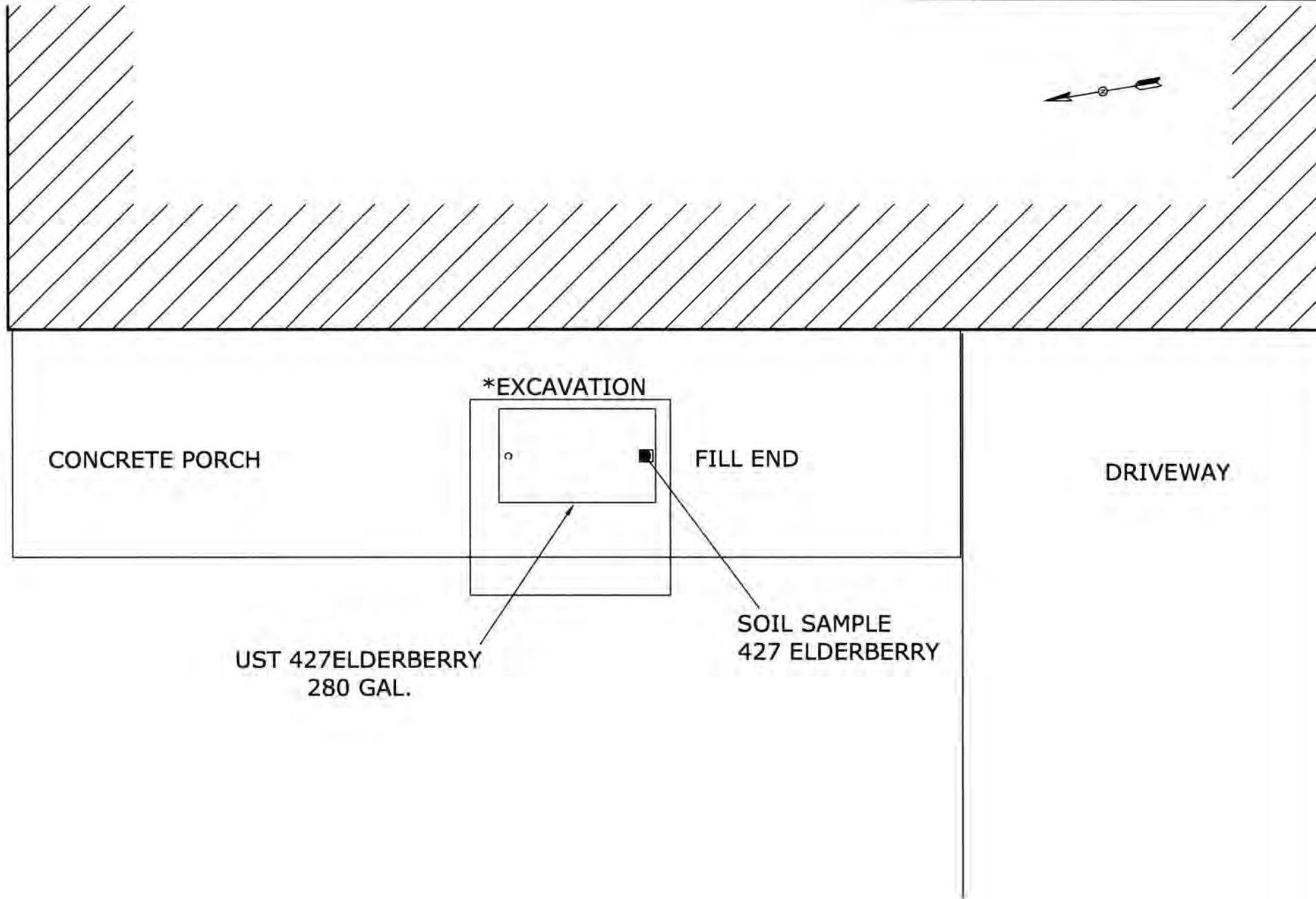
***SBG-EEG***

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

FIGURE 2 SITE MAP  
427 ELDERBERRY DR., 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  
427 ELDERBERRY DR., LAUREL BAY  
MCAS BEAUFORT SC

SCALE: GRAPHIC

DWG DATE FEB 2013



Picture 1: Location of UST 427Elderberry.



Picture 2: UST 427Elderberry 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	427Elderberry						
<b>Benzene</b>		ND						
<b>Toluene</b>		ND						
<b>Ethylbenzene</b>		ND						
<b>Xylenes</b>		ND						
<b>Naphthalene</b>		ND						
<b>Benzo (a) anthracene</b>		0.0439 mg/kg						
<b>Benzo (b) fluoranthene</b>		0.0637 mg/kg						
<b>Benzo (k) fluoranthene</b>		0.0289 mg/kg						
<b>Chrysene</b>		0.0634 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				

# 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: 490-18906-1

Client Project/Site: Laurel Bay Housing Project

For:

Environmental Enterprise Group  
10179 Highway 78  
Ladson, South Carolina 29456

Attn: Mr. Tom McElwee

*Madonna Myers*

Authorized for release by:

2/15/2013 3:28:33 PM

Madonna Myers

Project Manager I

[madonna.myers@testamericainc.com](mailto:madonna.myers@testamericainc.com)

Designee for

Ken Hayes

Project Manager I

[ken.hayes@testamericainc.com](mailto:ken.hayes@testamericainc.com)

### LINKS

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[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.*

1

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## Sample Summary

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

TestAmerica Job ID: 490-18906-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-18906-1	814 Azalea	Soil	01/28/13 14:25	02/06/13 08:30
490-18906-2	421 Elderberry	Soil	01/29/13 14:45	02/06/13 08:30
490-18906-3	912 Barracuda	Soil	01/30/13 11:40	02/06/13 08:30
490-18906-4	424 Elderberry	Soil	01/31/13 13:35	02/06/13 08:30
490-18906-5	911 Barracuda	Soil	01/28/13 15:15	02/06/13 08:30
490-18906-6	407 Elderberry	Soil	01/29/13 14:30	02/06/13 08:30
490-18906-7	1028 Foxglove	Soil	01/30/13 15:00	02/06/13 08:30
490-18906-8	427 Elderberry	Soil	01/31/13 14:30	02/06/13 08:30

TestAmerica Nashville



## Case Narrative

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

TestAmerica Job ID: 490-18906-1

**Job ID: 490-18906-1**

**Laboratory: TestAmerica Nashville**

### Narrative

#### Job Narrative 490-18906-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 2/6/2013 8:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was -0.4° C.

#### GC/MS VOA

Method(s) 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 57363.

Method(s) 8260B: The method blank for batch 57363 contained Napthalene 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.

No other analytical or quality issues were noted.

#### 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: 490-18906-1

### 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.

#### 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.
X	Surrogate is outside control limits

### Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☆	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
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: 490-18906-1

Client Sample ID: 814 Azalea

Lab Sample ID: 490-18906-1

Date Collected: 01/28/13 14:25

Matrix: Soil

Date Received: 02/06/13 08:30

Percent Solids: 85.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00251	0.000842	mg/Kg	☒	02/07/13 15:37	02/09/13 08:31	1
Ethylbenzene	ND		0.00251	0.000842	mg/Kg	☒	02/07/13 15:37	02/09/13 08:31	1
Naphthalene	ND		0.00628	0.00214	mg/Kg	☒	02/07/13 15:37	02/09/13 08:31	1
Toluene	ND		0.00251	0.000930	mg/Kg	☒	02/07/13 15:37	02/09/13 08:31	1
Xylenes, Total	ND		0.00628	0.000842	mg/Kg	☒	02/07/13 15:37	02/09/13 08:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		70 - 130	02/07/13 15:37	02/09/13 08:31	1
4-Bromofluorobenzene (Surr)	111		70 - 130	02/07/13 15:37	02/09/13 08:31	1
Dibromofluoromethane (Surr)	99		70 - 130	02/07/13 15:37	02/09/13 08:31	1
Toluene-d8 (Surr)	99		70 - 130	02/07/13 15:37	02/09/13 08:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0778	0.0116	mg/Kg	☒	02/08/13 06:25	02/09/13 20:11	1
Acenaphthylene	ND		0.0778	0.0104	mg/Kg	☒	02/08/13 06:25	02/09/13 20:11	1
Anthracene	ND		0.0778	0.0104	mg/Kg	☒	02/08/13 06:25	02/09/13 20:11	1
Benzo[a]anthracene	ND		0.0778	0.0174	mg/Kg	☒	02/08/13 06:25	02/09/13 20:11	1
Benzo[a]pyrene	0.0685	J	0.0778	0.0139	mg/Kg	☒	02/08/13 06:25	02/09/13 20:11	1
Benzo[b]fluoranthene	0.0439	J	0.0778	0.0139	mg/Kg	☒	02/08/13 06:25	02/09/13 20:11	1
Benzo[g,h,i]perylene	ND		0.0778	0.0104	mg/Kg	☒	02/08/13 06:25	02/09/13 20:11	1
Benzo[k]fluoranthene	0.0248	J	0.0778	0.0162	mg/Kg	☒	02/08/13 06:25	02/09/13 20:11	1
1-Methylnaphthalene	ND		0.0778	0.0162	mg/Kg	☒	02/08/13 06:25	02/09/13 20:11	1
Pyrene	ND		0.0778	0.0139	mg/Kg	☒	02/08/13 06:25	02/09/13 20:11	1
Phenanthrene	ND		0.0778	0.0104	mg/Kg	☒	02/08/13 06:25	02/09/13 20:11	1
Chrysene	0.0431	J	0.0778	0.0104	mg/Kg	☒	02/08/13 06:25	02/09/13 20:11	1
Dibenz(a,h)anthracene	ND		0.0778	0.00812	mg/Kg	☒	02/08/13 06:25	02/09/13 20:11	1
Fluoranthene	ND		0.0778	0.0104	mg/Kg	☒	02/08/13 06:25	02/09/13 20:11	1
Fluorene	ND		0.0778	0.0139	mg/Kg	☒	02/08/13 06:25	02/09/13 20:11	1
Indeno[1,2,3-cd]pyrene	ND		0.0778	0.0116	mg/Kg	☒	02/08/13 06:25	02/09/13 20:11	1
Naphthalene	ND		0.0778	0.0104	mg/Kg	☒	02/08/13 06:25	02/09/13 20:11	1
2-Methylnaphthalene	ND		0.0778	0.0186	mg/Kg	☒	02/08/13 06:25	02/09/13 20:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	63		29 - 120	02/08/13 06:25	02/09/13 20:11	1
Terphenyl-d14 (Surr)	80		13 - 120	02/08/13 06:25	02/09/13 20:11	1
Nitrobenzene-d5 (Surr)	49		27 - 120	02/08/13 06:25	02/09/13 20:11	1

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	85		0.10	0.10	%			02/07/13 14:58	1

TestAmerica Nashville



## Client Sample Results

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

TestAmerica Job ID: 490-18906-1

**Client Sample ID: 421 Elderberry**

**Lab Sample ID: 490-18906-2**

Date Collected: 01/29/13 14:45

Matrix: Soil

Date Received: 02/06/13 08:30

Percent Solids: 93.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00232	0.000776	mg/Kg	☒	02/07/13 15:37	02/09/13 10:32	1
Ethylbenzene	ND		0.00232	0.000776	mg/Kg	☒	02/07/13 15:37	02/09/13 10:32	1
Naphthalene	ND		0.00579	0.00197	mg/Kg	☒	02/07/13 15:37	02/09/13 10:32	1
Toluene	ND		0.00232	0.000857	mg/Kg	☒	02/07/13 15:37	02/09/13 10:32	1
Xylenes, Total	ND		0.00579	0.000776	mg/Kg	☒	02/07/13 15:37	02/09/13 10:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		70 - 130	02/07/13 15:37	02/09/13 10:32	1
4-Bromofluorobenzene (Surr)	105		70 - 130	02/07/13 15:37	02/09/13 10:32	1
Dibromofluoromethane (Surr)	99		70 - 130	02/07/13 15:37	02/09/13 10:32	1
Toluene-d8 (Surr)	101		70 - 130	02/07/13 15:37	02/09/13 10:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0711	0.0106	mg/Kg	☒	02/08/13 06:25	02/09/13 21:26	1
Acenaphthylene	ND		0.0711	0.00955	mg/Kg	☒	02/08/13 06:25	02/09/13 21:26	1
Anthracene	ND		0.0711	0.00955	mg/Kg	☒	02/08/13 06:25	02/09/13 21:26	1
Benzo[a]anthracene	ND		0.0711	0.0159	mg/Kg	☒	02/08/13 06:25	02/09/13 21:26	1
Benzo[a]pyrene	ND		0.0711	0.0127	mg/Kg	☒	02/08/13 06:25	02/09/13 21:26	1
Benzo[b]fluoranthene	ND		0.0711	0.0127	mg/Kg	☒	02/08/13 06:25	02/09/13 21:26	1
Benzo[g,h,i]perylene	ND		0.0711	0.00955	mg/Kg	☒	02/08/13 06:25	02/09/13 21:26	1
Benzo[k]fluoranthene	ND		0.0711	0.0149	mg/Kg	☒	02/08/13 06:25	02/09/13 21:26	1
1-Methylnaphthalene	ND		0.0711	0.0149	mg/Kg	☒	02/08/13 06:25	02/09/13 21:26	1
Pyrene	ND		0.0711	0.0127	mg/Kg	☒	02/08/13 06:25	02/09/13 21:26	1
Phenanthrene	ND		0.0711	0.00955	mg/Kg	☒	02/08/13 06:25	02/09/13 21:26	1
Chrysene	ND		0.0711	0.00955	mg/Kg	☒	02/08/13 06:25	02/09/13 21:26	1
Dibenz[a,h]anthracene	ND		0.0711	0.00743	mg/Kg	☒	02/08/13 06:25	02/09/13 21:26	1
Fluoranthene	ND		0.0711	0.00955	mg/Kg	☒	02/08/13 06:25	02/09/13 21:26	1
Fluorene	ND		0.0711	0.0127	mg/Kg	☒	02/08/13 06:25	02/09/13 21:26	1
Indeno[1,2,3-cd]pyrene	ND		0.0711	0.0106	mg/Kg	☒	02/08/13 06:25	02/09/13 21:26	1
Naphthalene	ND		0.0711	0.00955	mg/Kg	☒	02/08/13 06:25	02/09/13 21:26	1
2-Methylnaphthalene	ND		0.0711	0.0170	mg/Kg	☒	02/08/13 06:25	02/09/13 21:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	59		29 - 120	02/08/13 06:25	02/09/13 21:26	1
Terphenyl-d14 (Surr)	75		13 - 120	02/08/13 06:25	02/09/13 21:26	1
Nitrobenzene-d5 (Surr)	48		27 - 120	02/08/13 06:25	02/09/13 21:26	1

### General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	94		0.10	0.10	%			02/07/13 14:58	1

TestAmerica Nashville

# Client Sample Results

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

TestAmerica Job ID: 490-18906-1

Client Sample ID: 912 Barracuda

Lab Sample ID: 490-18906-3

Date Collected: 01/30/13 11:40

Matrix: Soil

Date Received: 02/06/13 08:30

Percent Solids: 97.3

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00231	0.000774	mg/Kg	☒	02/07/13 15:37	02/09/13 11:02	1
Ethylbenzene	ND		0.00231	0.000774	mg/Kg	☒	02/07/13 15:37	02/09/13 11:02	1
Naphthalene	ND		0.00578	0.00196	mg/Kg	☒	02/07/13 15:37	02/09/13 11:02	1
Toluene	ND		0.00231	0.000855	mg/Kg	☒	02/07/13 15:37	02/09/13 11:02	1
Xylenes, Total	ND		0.00578	0.000774	mg/Kg	☒	02/07/13 15:37	02/09/13 11:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		70 - 130	02/07/13 15:37	02/09/13 11:02	1
4-Bromofluorobenzene (Surr)	105		70 - 130	02/07/13 15:37	02/09/13 11:02	1
Dibromofluoromethane (Surr)	99		70 - 130	02/07/13 15:37	02/09/13 11:02	1
Toluene-d8 (Surr)	100		70 - 130	02/07/13 15:37	02/09/13 11:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0683	0.0102	mg/Kg	☒	02/08/13 06:25	02/09/13 21:51	1
Acenaphthylene	ND		0.0683	0.00917	mg/Kg	☒	02/08/13 06:25	02/09/13 21:51	1
Anthracene	ND		0.0683	0.00917	mg/Kg	☒	02/08/13 06:25	02/09/13 21:51	1
Benzo[a]anthracene	ND		0.0683	0.0153	mg/Kg	☒	02/08/13 06:25	02/09/13 21:51	1
Benzo[a]pyrene	ND		0.0683	0.0122	mg/Kg	☒	02/08/13 06:25	02/09/13 21:51	1
Benzo[b]fluoranthene	ND		0.0683	0.0122	mg/Kg	☒	02/08/13 06:25	02/09/13 21:51	1
Benzo[g,h,i]perylene	ND		0.0683	0.00917	mg/Kg	☒	02/08/13 06:25	02/09/13 21:51	1
Benzo[k]fluoranthene	ND		0.0683	0.0143	mg/Kg	☒	02/08/13 06:25	02/09/13 21:51	1
1-Methylnaphthalene	ND		0.0683	0.0143	mg/Kg	☒	02/08/13 06:25	02/09/13 21:51	1
Pyrene	ND		0.0683	0.0122	mg/Kg	☒	02/08/13 06:25	02/09/13 21:51	1
Phenanthrene	ND		0.0683	0.00917	mg/Kg	☒	02/08/13 06:25	02/09/13 21:51	1
Chrysene	ND		0.0683	0.00917	mg/Kg	☒	02/08/13 06:25	02/09/13 21:51	1
Dibenz[a,h]anthracene	ND		0.0683	0.00713	mg/Kg	☒	02/08/13 06:25	02/09/13 21:51	1
Fluoranthene	ND		0.0683	0.00917	mg/Kg	☒	02/08/13 06:25	02/09/13 21:51	1
Fluorene	ND		0.0683	0.0122	mg/Kg	☒	02/08/13 06:25	02/09/13 21:51	1
Indeno[1,2,3-cd]pyrene	ND		0.0683	0.0102	mg/Kg	☒	02/08/13 06:25	02/09/13 21:51	1
Naphthalene	ND		0.0683	0.00917	mg/Kg	☒	02/08/13 06:25	02/09/13 21:51	1
2-Methylnaphthalene	ND		0.0683	0.0163	mg/Kg	☒	02/08/13 06:25	02/09/13 21:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	65		29 - 120	02/08/13 06:25	02/09/13 21:51	1
Terphenyl-d14 (Surr)	80		13 - 120	02/08/13 06:25	02/09/13 21:51	1
Nitrobenzene-d5 (Surr)	56		27 - 120	02/08/13 06:25	02/09/13 21:51	1

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	97		0.10	0.10	%			02/07/13 14:58	1

TestAmerica Nashville



## Client Sample Results

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

TestAmerica Job ID: 490-18906-1

**Client Sample ID: 424 Elderberry**

**Lab Sample ID: 490-18906-4**

Date Collected: 01/31/13 13:35

Matrix: Soil

Date Received: 02/06/13 08:30

Percent Solids: 85.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00266	0.000891	mg/Kg	☒	02/07/13 15:37	02/09/13 11:32	1
Ethylbenzene	ND		0.00266	0.000891	mg/Kg	☒	02/07/13 15:37	02/09/13 11:32	1
Naphthalene	ND		0.00665	0.00226	mg/Kg	☒	02/07/13 15:37	02/09/13 11:32	1
Toluene	ND		0.00266	0.000984	mg/Kg	☒	02/07/13 15:37	02/09/13 11:32	1
Xylenes, Total	ND		0.00665	0.000891	mg/Kg	☒	02/07/13 15:37	02/09/13 11:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		70 - 130	02/07/13 15:37	02/09/13 11:32	1
4-Bromofluorobenzene (Surr)	103		70 - 130	02/07/13 15:37	02/09/13 11:32	1
Dibromofluoromethane (Surr)	96		70 - 130	02/07/13 15:37	02/09/13 11:32	1
Toluene-d8 (Surr)	101		70 - 130	02/07/13 15:37	02/09/13 11:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0782	0.0117	mg/Kg	☒	02/08/13 06:25	02/09/13 22:16	1
Acenaphthylene	ND		0.0782	0.0105	mg/Kg	☒	02/08/13 06:25	02/09/13 22:16	1
Anthracene	ND		0.0782	0.0105	mg/Kg	☒	02/08/13 06:25	02/09/13 22:16	1
Benzo[a]anthracene	ND		0.0782	0.0175	mg/Kg	☒	02/08/13 06:25	02/09/13 22:16	1
Benzo[a]pyrene	0.108		0.0782	0.0140	mg/Kg	☒	02/08/13 06:25	02/09/13 22:16	1
Benzo[b]fluoranthene	0.0662	J	0.0782	0.0140	mg/Kg	☒	02/08/13 06:25	02/09/13 22:16	1
Benzo[g,h,i]perylene	0.0561	J	0.0782	0.0105	mg/Kg	☒	02/08/13 06:25	02/09/13 22:16	1
Benzo[k]fluoranthene	ND		0.0782	0.0163	mg/Kg	☒	02/08/13 06:25	02/09/13 22:16	1
1-Methylnaphthalene	ND		0.0782	0.0163	mg/Kg	☒	02/08/13 06:25	02/09/13 22:16	1
Pyrene	ND		0.0782	0.0140	mg/Kg	☒	02/08/13 06:25	02/09/13 22:16	1
Phenanthrene	ND		0.0782	0.0105	mg/Kg	☒	02/08/13 06:25	02/09/13 22:16	1
Chrysene	0.0619	J	0.0782	0.0105	mg/Kg	☒	02/08/13 06:25	02/09/13 22:16	1
Dibenz(a,h)anthracene	ND		0.0782	0.00817	mg/Kg	☒	02/08/13 06:25	02/09/13 22:16	1
Fluoranthene	ND		0.0782	0.0105	mg/Kg	☒	02/08/13 06:25	02/09/13 22:16	1
Fluorene	ND		0.0782	0.0140	mg/Kg	☒	02/08/13 06:25	02/09/13 22:16	1
Indeno[1,2,3-cd]pyrene	0.0412	J	0.0782	0.0117	mg/Kg	☒	02/08/13 06:25	02/09/13 22:16	1
Naphthalene	ND		0.0782	0.0105	mg/Kg	☒	02/08/13 06:25	02/09/13 22:16	1
2-Methylnaphthalene	ND		0.0782	0.0187	mg/Kg	☒	02/08/13 06:25	02/09/13 22:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	77		29 - 120	02/08/13 06:25	02/09/13 22:16	1
Terphenyl-d14 (Surr)	87		13 - 120	02/08/13 06:25	02/09/13 22:16	1
Nitrobenzene-d5 (Surr)	56		27 - 120	02/08/13 06:25	02/09/13 22:16	1

### General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	85		0.10	0.10	%			02/07/13 14:58	1

TestAmerica Nashville



# Client Sample Results

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

TestAmerica Job ID: 490-18906-1

Client Sample ID: 911 Barracuda

Date Collected: 01/28/13 15:15

Date Received: 02/06/13 08:30

Lab Sample ID: 490-18906-5

Matrix: Soil

Percent Solids: 94.9

## 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	☒	02/07/13 15:37	02/09/13 09:31	1
Ethylbenzene	ND		0.00217	0.000726	mg/Kg	☒	02/07/13 15:37	02/09/13 09:31	1
Naphthalene	ND		0.00542	0.00184	mg/Kg	☒	02/07/13 15:37	02/09/13 09:31	1
Toluene	ND		0.00217	0.000801	mg/Kg	☒	02/07/13 15:37	02/09/13 09:31	1
Xylenes, Total	ND		0.00542	0.000726	mg/Kg	☒	02/07/13 15:37	02/09/13 09:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		70 - 130	02/07/13 15:37	02/09/13 09:31	1
4-Bromofluorobenzene (Surr)	103		70 - 130	02/07/13 15:37	02/09/13 09:31	1
Dibromofluoromethane (Surr)	99		70 - 130	02/07/13 15:37	02/09/13 09:31	1
Toluene-d8 (Surr)	102		70 - 130	02/07/13 15:37	02/09/13 09:31	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0699	0.0104	mg/Kg	☒	02/08/13 06:25	02/09/13 22:41	1
Acenaphthylene	ND		0.0699	0.00939	mg/Kg	☒	02/08/13 06:25	02/09/13 22:41	1
Anthracene	ND		0.0699	0.00939	mg/Kg	☒	02/08/13 06:25	02/09/13 22:41	1
Benzo[a]anthracene	ND		0.0699	0.0157	mg/Kg	☒	02/08/13 06:25	02/09/13 22:41	1
Benzo[a]pyrene	ND		0.0699	0.0125	mg/Kg	☒	02/08/13 06:25	02/09/13 22:41	1
Benzo[b]fluoranthene	ND		0.0699	0.0125	mg/Kg	☒	02/08/13 06:25	02/09/13 22:41	1
Benzo[g,h,i]perylene	ND		0.0699	0.00939	mg/Kg	☒	02/08/13 06:25	02/09/13 22:41	1
Benzo[k]fluoranthene	ND		0.0699	0.0146	mg/Kg	☒	02/08/13 06:25	02/09/13 22:41	1
1-Methylnaphthalene	ND		0.0699	0.0146	mg/Kg	☒	02/08/13 06:25	02/09/13 22:41	1
Pyrene	ND		0.0699	0.0125	mg/Kg	☒	02/08/13 06:25	02/09/13 22:41	1
Phenanthrene	ND		0.0699	0.00939	mg/Kg	☒	02/08/13 06:25	02/09/13 22:41	1
Chrysene	ND		0.0699	0.00939	mg/Kg	☒	02/08/13 06:25	02/09/13 22:41	1
Dibenz(a,h)anthracene	ND		0.0699	0.00730	mg/Kg	☒	02/08/13 06:25	02/09/13 22:41	1
Fluoranthene	ND		0.0699	0.00939	mg/Kg	☒	02/08/13 06:25	02/09/13 22:41	1
Fluorene	ND		0.0699	0.0125	mg/Kg	☒	02/08/13 06:25	02/09/13 22:41	1
Indeno[1,2,3-cd]pyrene	ND		0.0699	0.0104	mg/Kg	☒	02/08/13 06:25	02/09/13 22:41	1
Naphthalene	ND		0.0699	0.00939	mg/Kg	☒	02/08/13 06:25	02/09/13 22:41	1
2-Methylnaphthalene	ND		0.0699	0.0167	mg/Kg	☒	02/08/13 06:25	02/09/13 22:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	66		29 - 120	02/08/13 06:25	02/09/13 22:41	1
Terphenyl-d14 (Surr)	83		13 - 120	02/08/13 06:25	02/09/13 22:41	1
Nitrobenzene-d5 (Surr)	50		27 - 120	02/08/13 06:25	02/09/13 22:41	1

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	95		0.10	0.10	%			02/07/13 14:58	1

TestAmerica Nashville

## Client Sample Results

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

TestAmerica Job ID: 490-18906-1

**Client Sample ID: 407 Elderberry**

Date Collected: 01/29/13 14:30

Date Received: 02/06/13 08:30

**Lab Sample ID: 490-18906-6**

Matrix: Soil

Percent Solids: 96.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00218	0.000732	mg/Kg	☒	02/07/13 15:37	02/09/13 12:02	1
Ethylbenzene	ND		0.00218	0.000732	mg/Kg	☒	02/07/13 15:37	02/09/13 12:02	1
Naphthalene	ND		0.00546	0.00186	mg/Kg	☒	02/07/13 15:37	02/09/13 12:02	1
Toluene	ND		0.00218	0.000808	mg/Kg	☒	02/07/13 15:37	02/09/13 12:02	1
Xylenes, Total	ND		0.00546	0.000732	mg/Kg	☒	02/07/13 15:37	02/09/13 12:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		70 - 130				02/07/13 15:37	02/09/13 12:02	1
4-Bromofluorobenzene (Surr)	106		70 - 130				02/07/13 15:37	02/09/13 12:02	1
Dibromofluoromethane (Surr)	97		70 - 130				02/07/13 15:37	02/09/13 12:02	1
Toluene-d8 (Surr)	99		70 - 130				02/07/13 15:37	02/09/13 12:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0677	0.0101	mg/Kg	☒	02/08/13 06:25	02/09/13 23:06	1
Acenaphthylene	ND		0.0677	0.00909	mg/Kg	☒	02/08/13 06:25	02/09/13 23:06	1
Anthracene	ND		0.0677	0.00909	mg/Kg	☒	02/08/13 06:25	02/09/13 23:06	1
Benzo[a]anthracene	ND		0.0677	0.0151	mg/Kg	☒	02/08/13 06:25	02/09/13 23:06	1
Benzo[a]pyrene	ND		0.0677	0.0121	mg/Kg	☒	02/08/13 06:25	02/09/13 23:06	1
Benzo[b]fluoranthene	ND		0.0677	0.0121	mg/Kg	☒	02/08/13 06:25	02/09/13 23:06	1
Benzo[g,h,i]perylene	ND		0.0677	0.00909	mg/Kg	☒	02/08/13 06:25	02/09/13 23:06	1
Benzo[k]fluoranthene	ND		0.0677	0.0141	mg/Kg	☒	02/08/13 06:25	02/09/13 23:06	1
1-Methylnaphthalene	ND		0.0677	0.0141	mg/Kg	☒	02/08/13 06:25	02/09/13 23:06	1
Pyrene	ND		0.0677	0.0121	mg/Kg	☒	02/08/13 06:25	02/09/13 23:06	1
Phenanthrene	ND		0.0677	0.00909	mg/Kg	☒	02/08/13 06:25	02/09/13 23:06	1
Chrysene	ND		0.0677	0.00909	mg/Kg	☒	02/08/13 06:25	02/09/13 23:06	1
Dibenz(a,h)anthracene	ND		0.0677	0.00707	mg/Kg	☒	02/08/13 06:25	02/09/13 23:06	1
Fluoranthene	ND		0.0677	0.00909	mg/Kg	☒	02/08/13 06:25	02/09/13 23:06	1
Fluorene	ND		0.0677	0.0121	mg/Kg	☒	02/08/13 06:25	02/09/13 23:06	1
Indeno[1,2,3-cd]pyrene	ND		0.0677	0.0101	mg/Kg	☒	02/08/13 06:25	02/09/13 23:06	1
Naphthalene	ND		0.0677	0.00909	mg/Kg	☒	02/08/13 06:25	02/09/13 23:06	1
2-Methylnaphthalene	ND		0.0677	0.0162	mg/Kg	☒	02/08/13 06:25	02/09/13 23:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	54		29 - 120				02/08/13 06:25	02/09/13 23:06	1
Terphenyl-d14 (Surr)	74		13 - 120				02/08/13 06:25	02/09/13 23:06	1
Nitrobenzene-d5 (Surr)	46		27 - 120				02/08/13 06:25	02/09/13 23:06	1

### General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	96		0.10	0.10	%			02/07/13 14:58	1

TestAmerica Nashville



# Client Sample Results

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

TestAmerica Job ID: 490-18906-1

Client Sample ID: 1028 Foxglove

Lab Sample ID: 490-18906-7

Date Collected: 01/30/13 15:00

Matrix: Soil

Date Received: 02/06/13 08:30

Percent Solids: 79.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00197	0.000662	mg/Kg	☒	02/07/13 15:37	02/09/13 12:32	1
Ethylbenzene	ND		0.00197	0.000662	mg/Kg	☒	02/07/13 15:37	02/09/13 12:32	1
Naphthalene	0.00267	J B	0.00494	0.00168	mg/Kg	☒	02/07/13 15:37	02/09/13 12:32	1
Toluene	ND		0.00197	0.000731	mg/Kg	☒	02/07/13 15:37	02/09/13 12:32	1
Xylenes, Total	ND		0.00494	0.000662	mg/Kg	☒	02/07/13 15:37	02/09/13 12:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		70 - 130	02/07/13 15:37	02/09/13 12:32	1
4-Bromofluorobenzene (Surr)	97		70 - 130	02/07/13 15:37	02/09/13 12:32	1
Dibromofluoromethane (Surr)	97		70 - 130	02/07/13 15:37	02/09/13 12:32	1
Toluene-d8 (Surr)	101		70 - 130	02/07/13 15:37	02/09/13 12:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0844	0.0126	mg/Kg	☒	02/08/13 06:25	02/09/13 23:31	1
Acenaphthylene	ND		0.0844	0.0113	mg/Kg	☒	02/08/13 06:25	02/09/13 23:31	1
Anthracene	0.0327	J	0.0844	0.0113	mg/Kg	☒	02/08/13 06:25	02/09/13 23:31	1
Benzo[a]anthracene	ND		0.0844	0.0189	mg/Kg	☒	02/08/13 06:25	02/09/13 23:31	1
Benzo[a]pyrene	ND		0.0844	0.0151	mg/Kg	☒	02/08/13 06:25	02/09/13 23:31	1
Benzo[b]fluoranthene	ND		0.0844	0.0151	mg/Kg	☒	02/08/13 06:25	02/09/13 23:31	1
Benzo[g,h,i]perylene	ND		0.0844	0.0113	mg/Kg	☒	02/08/13 06:25	02/09/13 23:31	1
Benzo[k]fluoranthene	ND		0.0844	0.0176	mg/Kg	☒	02/08/13 06:25	02/09/13 23:31	1
1-Methylnaphthalene	ND		0.0844	0.0176	mg/Kg	☒	02/08/13 06:25	02/09/13 23:31	1
Pyrene	0.378		0.0844	0.0151	mg/Kg	☒	02/08/13 06:25	02/09/13 23:31	1
Phenanthrene	0.128		0.0844	0.0113	mg/Kg	☒	02/08/13 06:25	02/09/13 23:31	1
Chrysene	ND		0.0844	0.0113	mg/Kg	☒	02/08/13 06:25	02/09/13 23:31	1
Dibenz[a,h]anthracene	ND		0.0844	0.00882	mg/Kg	☒	02/08/13 06:25	02/09/13 23:31	1
Fluoranthene	0.310		0.0844	0.0113	mg/Kg	☒	02/08/13 06:25	02/09/13 23:31	1
Fluorene	ND		0.0844	0.0151	mg/Kg	☒	02/08/13 06:25	02/09/13 23:31	1
Indeno[1,2,3-cd]pyrene	ND		0.0844	0.0126	mg/Kg	☒	02/08/13 06:25	02/09/13 23:31	1
Naphthalene	ND		0.0844	0.0113	mg/Kg	☒	02/08/13 06:25	02/09/13 23:31	1
2-Methylnaphthalene	ND		0.0844	0.0202	mg/Kg	☒	02/08/13 06:25	02/09/13 23:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	69		29 - 120	02/08/13 06:25	02/09/13 23:31	1
Terphenyl-d14 (Surr)	91		13 - 120	02/08/13 06:25	02/09/13 23:31	1
Nitrobenzene-d5 (Surr)	56		27 - 120	02/08/13 06:25	02/09/13 23:31	1

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	79		0.10	0.10	%			02/07/13 14:58	1

TestAmerica Nashville

# Client Sample Results

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

TestAmerica Job ID: 490-18906-1

Client Sample ID: 427 Elderberry

Lab Sample ID: 490-18906-8

Date Collected: 01/31/13 14:30

Matrix: Soil

Date Received: 02/06/13 08:30

Percent Solids: 92.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00220	0.000736	mg/Kg	☒	02/07/13 15:37	02/09/13 13:02	1
Ethylbenzene	ND		0.00220	0.000736	mg/Kg	☒	02/07/13 15:37	02/09/13 13:02	1
Naphthalene	ND		0.00549	0.00187	mg/Kg	☒	02/07/13 15:37	02/09/13 13:02	1
Toluene	ND		0.00220	0.000813	mg/Kg	☒	02/07/13 15:37	02/09/13 13:02	1
Xylenes, Total	ND		0.00549	0.000736	mg/Kg	☒	02/07/13 15:37	02/09/13 13:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		70 - 130	02/07/13 15:37	02/09/13 13:02	1
4-Bromofluorobenzene (Surr)	106		70 - 130	02/07/13 15:37	02/09/13 13:02	1
Dibromofluoromethane (Surr)	96		70 - 130	02/07/13 15:37	02/09/13 13:02	1
Toluene-d8 (Surr)	96		70 - 130	02/07/13 15:37	02/09/13 13:02	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0719	0.0107	mg/Kg	☒	02/08/13 06:27	02/09/13 23:56	1
Acenaphthylene	ND		0.0719	0.00966	mg/Kg	☒	02/08/13 06:27	02/09/13 23:56	1
Anthracene	ND		0.0719	0.00966	mg/Kg	☒	02/08/13 06:27	02/09/13 23:56	1
Benzo[a]anthracene	0.0439	J	0.0719	0.0161	mg/Kg	☒	02/08/13 06:27	02/09/13 23:56	1
Benzo[a]pyrene	0.0446	J	0.0719	0.0129	mg/Kg	☒	02/08/13 06:27	02/09/13 23:56	1
Benzo[b]fluoranthene	0.0637	J	0.0719	0.0129	mg/Kg	☒	02/08/13 06:27	02/09/13 23:56	1
Benzo[g,h,i]perylene	0.0407	J	0.0719	0.00966	mg/Kg	☒	02/08/13 06:27	02/09/13 23:56	1
Benzo[k]fluoranthene	0.0289	J	0.0719	0.0150	mg/Kg	☒	02/08/13 06:27	02/09/13 23:56	1
1-Methylnaphthalene	ND		0.0719	0.0150	mg/Kg	☒	02/08/13 06:27	02/09/13 23:56	1
Pyrene	0.0416	J	0.0719	0.0129	mg/Kg	☒	02/08/13 06:27	02/09/13 23:56	1
Phenanthrene	ND		0.0719	0.00966	mg/Kg	☒	02/08/13 06:27	02/09/13 23:56	1
Chrysene	0.0634	J	0.0719	0.00966	mg/Kg	☒	02/08/13 06:27	02/09/13 23:56	1
Dibenz(a,h)anthracene	ND		0.0719	0.00752	mg/Kg	☒	02/08/13 06:27	02/09/13 23:56	1
Fluoranthene	0.0452	J	0.0719	0.00966	mg/Kg	☒	02/08/13 06:27	02/09/13 23:56	1
Fluorene	ND		0.0719	0.0129	mg/Kg	☒	02/08/13 06:27	02/09/13 23:56	1
Indeno[1,2,3-cd]pyrene	ND		0.0719	0.0107	mg/Kg	☒	02/08/13 06:27	02/09/13 23:56	1
Naphthalene	ND		0.0719	0.00966	mg/Kg	☒	02/08/13 06:27	02/09/13 23:56	1
2-Methylnaphthalene	ND		0.0719	0.0172	mg/Kg	☒	02/08/13 06:27	02/09/13 23:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	62		29 - 120	02/08/13 06:27	02/09/13 23:56	1
Terphenyl-d14 (Surr)	79		13 - 120	02/08/13 06:27	02/09/13 23:56	1
Nitrobenzene-d5 (Surr)	52		27 - 120	02/08/13 06:27	02/09/13 23:56	1

## General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	92		0.10	0.10	%			02/07/13 14:58	1

TestAmerica Nashville



## QC Sample Results

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

TestAmerica Job ID: 490-18906-1

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

Lab Sample ID: MB 490-57363/6

Matrix: Solid

Analysis Batch: 57363

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	ND		0.00200	0.000670	mg/Kg			02/09/13 07:31	1
Ethylbenzene	ND		0.00200	0.000670	mg/Kg			02/09/13 07:31	1
Naphthalene	0.001712	J	0.00500	0.00170	mg/Kg			02/09/13 07:31	1
Toluene	ND		0.00200	0.000740	mg/Kg			02/09/13 07:31	1
Xylenes, Total	ND		0.00500	0.000670	mg/Kg			02/09/13 07:31	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	82		70 - 130		02/09/13 07:31	1
4-Bromofluorobenzene (Surr)	107		70 - 130		02/09/13 07:31	1
Dibromofluoromethane (Surr)	93		70 - 130		02/09/13 07:31	1
Toluene-d8 (Surr)	103		70 - 130		02/09/13 07:31	1

Lab Sample ID: LCS 490-57363/3

Matrix: Solid

Analysis Batch: 57363

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Benzene	0.0500	0.05034		mg/Kg		101	75 - 127
Ethylbenzene	0.0500	0.05188		mg/Kg		104	80 - 134
Naphthalene	0.0500	0.05300		mg/Kg		106	69 - 150
Toluene	0.0500	0.05082		mg/Kg		102	80 - 132
Xylenes, Total	0.150	0.1586		mg/Kg		106	80 - 137

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	97		70 - 130
4-Bromofluorobenzene (Surr)	97		70 - 130
Dibromofluoromethane (Surr)	99		70 - 130
Toluene-d8 (Surr)	101		70 - 130

Lab Sample ID: LCSD 490-57363/4

Matrix: Solid

Analysis Batch: 57363

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
		Result	Qualifier						
Benzene	0.0500	0.05250		mg/Kg		105	75 - 127	4	50
Ethylbenzene	0.0500	0.05504		mg/Kg		110	80 - 134	6	50
Naphthalene	0.0500	0.05799		mg/Kg		116	69 - 150	9	50
Toluene	0.0500	0.05137		mg/Kg		103	80 - 132	1	50
Xylenes, Total	0.150	0.1657		mg/Kg		110	80 - 137	4	50

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	101		70 - 130
4-Bromofluorobenzene (Surr)	100		70 - 130
Dibromofluoromethane (Surr)	101		70 - 130
Toluene-d8 (Surr)	101		70 - 130

TestAmerica Nashville

# QC Sample Results

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

TestAmerica Job ID: 490-18906-1

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

Lab Sample ID: MB 490-57063/1-A

Matrix: Solid

Analysis Batch: 57450

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 57063

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0670	0.0100	mg/Kg		02/08/13 06:25	02/09/13 19:20	1
Acenaphthylene	ND		0.0670	0.00900	mg/Kg		02/08/13 06:25	02/09/13 19:20	1
Anthracene	ND		0.0670	0.00900	mg/Kg		02/08/13 06:25	02/09/13 19:20	1
Benzo[a]anthracene	ND		0.0670	0.0150	mg/Kg		02/08/13 06:25	02/09/13 19:20	1
Benzo[a]pyrene	ND		0.0670	0.0120	mg/Kg		02/08/13 06:25	02/09/13 19:20	1
Benzo[b]fluoranthene	ND		0.0670	0.0120	mg/Kg		02/08/13 06:25	02/09/13 19:20	1
Benzo[g,h,i]perylene	ND		0.0670	0.00900	mg/Kg		02/08/13 06:25	02/09/13 19:20	1
Benzo[k]fluoranthene	ND		0.0670	0.0140	mg/Kg		02/08/13 06:25	02/09/13 19:20	1
1-Methylnaphthalene	ND		0.0670	0.0140	mg/Kg		02/08/13 06:25	02/09/13 19:20	1
Pyrene	ND		0.0670	0.0120	mg/Kg		02/08/13 06:25	02/09/13 19:20	1
Phenanthrene	ND		0.0670	0.00900	mg/Kg		02/08/13 06:25	02/09/13 19:20	1
Chrysene	ND		0.0670	0.00900	mg/Kg		02/08/13 06:25	02/09/13 19:20	1
Dibenz(a,h)anthracene	ND		0.0670	0.00700	mg/Kg		02/08/13 06:25	02/09/13 19:20	1
Fluoranthene	ND		0.0670	0.00900	mg/Kg		02/08/13 06:25	02/09/13 19:20	1
Fluorene	ND		0.0670	0.0120	mg/Kg		02/08/13 06:25	02/09/13 19:20	1
Indeno[1,2,3-cd]pyrene	ND		0.0670	0.0100	mg/Kg		02/08/13 06:25	02/09/13 19:20	1
Naphthalene	ND		0.0670	0.00900	mg/Kg		02/08/13 06:25	02/09/13 19:20	1
2-Methylnaphthalene	ND		0.0670	0.0160	mg/Kg		02/08/13 06:25	02/09/13 19:20	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	20	X	29 - 120	02/08/13 06:25	02/09/13 19:20	1
Terphenyl-d14 (Surr)	24		13 - 120	02/08/13 06:25	02/09/13 19:20	1
Nitrobenzene-d5 (Surr)	17	X	27 - 120	02/08/13 06:25	02/09/13 19:20	1

Lab Sample ID: LCS 490-57063/2-A

Matrix: Solid

Analysis Batch: 57450

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 57063

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthylene	1.67	1.351		mg/Kg		81	38 - 120
Anthracene	1.67	1.341		mg/Kg		80	46 - 124
Benzo[a]anthracene	1.67	1.280		mg/Kg		77	45 - 120
Benzo[a]pyrene	1.67	1.227		mg/Kg		74	45 - 120
Benzo[b]fluoranthene	1.67	1.168		mg/Kg		70	42 - 120
Benzo[g,h,i]perylene	1.67	1.249		mg/Kg		75	38 - 120
Benzo[k]fluoranthene	1.67	1.367		mg/Kg		82	42 - 120
1-Methylnaphthalene	1.67	1.193		mg/Kg		72	32 - 120
Pyrene	1.67	1.233		mg/Kg		74	43 - 120
Phenanthrene	1.67	1.444		mg/Kg		87	45 - 120
Chrysene	1.67	1.297		mg/Kg		78	43 - 120
Dibenz(a,h)anthracene	1.67	1.226		mg/Kg		74	32 - 128
Fluoranthene	1.67	1.355		mg/Kg		81	46 - 120
Fluorene	1.67	1.449		mg/Kg		87	42 - 120
Indeno[1,2,3-cd]pyrene	1.67	1.225		mg/Kg		74	41 - 121
Naphthalene	1.67	1.169		mg/Kg		70	32 - 120
2-Methylnaphthalene	1.67	1.215		mg/Kg		73	28 - 120

TestAmerica Nashville



# QC Sample Results

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

TestAmerica Job ID: 490-18906-1

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

Lab Sample ID: LCS 490-57063/2-A  
Matrix: Solid  
Analysis Batch: 57450

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 57063

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl (Surr)	72		29 - 120
Terphenyl-d14 (Surr)	81		13 - 120
Nitrobenzene-d5 (Surr)	53		27 - 120

Lab Sample ID: 490-18906-1 MS  
Matrix: Soil  
Analysis Batch: 57450

Client Sample ID: 814 Azalea  
Prep Type: Total/NA  
Prep Batch: 57063

	Sample	Sample	Spike	MS	MS			%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Acenaphthylene	ND		1.93	1.373		mg/Kg	☒	71	25 - 120
Anthracene	ND		1.93	1.438		mg/Kg	☒	74	28 - 125
Benzo[a]anthracene	ND		1.93	1.421		mg/Kg	☒	74	23 - 120
Benzo[a]pyrene	0.0685	J	1.93	1.387		mg/Kg	☒	68	15 - 128
Benzo[b]fluoranthene	0.0439	J	1.93	1.487		mg/Kg	☒	75	12 - 133
Benzo[g,h,i]perylene	ND		1.93	1.464		mg/Kg	☒	76	22 - 120
Benzo[k]fluoranthene	0.0248	J	1.93	1.496		mg/Kg	☒	76	28 - 120
1-Methylnaphthalene	ND		1.93	1.163		mg/Kg	☒	60	10 - 120
Pyrene	ND		1.93	1.463		mg/Kg	☒	76	20 - 123
Phenanthrene	ND		1.93	1.564		mg/Kg	☒	81	21 - 122
Chrysene	0.0431	J	1.93	1.543		mg/Kg	☒	78	20 - 120
Dibenz(a,h)anthracene	ND		1.93	1.423		mg/Kg	☒	74	12 - 128
Fluoranthene	ND		1.93	1.507		mg/Kg	☒	78	10 - 143
Fluorene	ND		1.93	1.319		mg/Kg	☒	68	20 - 120
Indeno[1,2,3-cd]pyrene	ND		1.93	1.431		mg/Kg	☒	74	22 - 121
Naphthalene	ND		1.93	1.177		mg/Kg	☒	61	10 - 120
2-Methylnaphthalene	ND		1.93	1.216		mg/Kg	☒	63	13 - 120

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl (Surr)	57		29 - 120
Terphenyl-d14 (Surr)	75		13 - 120
Nitrobenzene-d5 (Surr)	46		27 - 120

Lab Sample ID: 490-18906-1 MSD  
Matrix: Soil  
Analysis Batch: 57450

Client Sample ID: 814 Azalea  
Prep Type: Total/NA  
Prep Batch: 57063

	Sample	Sample	Spike	MSD	MSD			%Rec.		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acenaphthylene	ND		1.93	1.447		mg/Kg	☒	75	25 - 120	5	50
Anthracene	ND		1.93	1.457		mg/Kg	☒	75	28 - 125	1	49
Benzo[a]anthracene	ND		1.93	1.841		mg/Kg	☒	95	23 - 120	26	50
Benzo[a]pyrene	0.0685	J	1.93	1.593		mg/Kg	☒	79	15 - 128	14	50
Benzo[b]fluoranthene	0.0439	J	1.93	1.734		mg/Kg	☒	87	12 - 133	15	50
Benzo[g,h,i]perylene	ND		1.93	1.477		mg/Kg	☒	76	22 - 120	1	50
Benzo[k]fluoranthene	0.0248	J	1.93	1.733		mg/Kg	☒	88	28 - 120	15	45
1-Methylnaphthalene	ND		1.93	1.389		mg/Kg	☒	72	10 - 120	18	50
Pyrene	ND		1.93	2.088		mg/Kg	☒	108	20 - 123	35	50
Phenanthrene	ND		1.93	1.746		mg/Kg	☒	90	21 - 122	11	50
Chrysene	0.0431	J	1.93	1.837		mg/Kg	☒	93	20 - 120	17	49

TestAmerica Nashville

## QC Sample Results

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

TestAmerica Job ID: 490-18906-1

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

Lab Sample ID: 490-18906-1 MSD

Matrix: Soil

Analysis Batch: 57450

Client Sample ID: 814 Azalea

Prep Type: Total/NA

Prep Batch: 57063

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dibenz(a,h)anthracene	ND		1.93	1.433		mg/Kg	☒	74	12 - 128	1	50
Fluoranthene	ND		1.93	2.105		mg/Kg	☒	109	10 - 143	33	50
Fluorene	ND		1.93	1.440		mg/Kg	☒	74	20 - 120	9	50
Indeno[1,2,3-cd]pyrene	ND		1.93	1.474		mg/Kg	☒	76	22 - 121	3	50
Naphthalene	ND		1.93	1.344		mg/Kg	☒	69	10 - 120	13	50
2-Methylnaphthalene	ND		1.93	1.354		mg/Kg	☒	70	13 - 120	11	50

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2-Fluorobiphenyl (Surr)	63		29 - 120
Terphenyl-d14 (Surr)	73		13 - 120
Nitrobenzene-d5 (Surr)	52		27 - 120

### Method: Moisture - Percent Moisture

Lab Sample ID: 490-18871-D-1 DU

Matrix: Solid

Analysis Batch: 56976

Client Sample ID: Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Solids	93		94		%		1	20

TestAmerica Nashville



## QC Association Summary

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

TestAmerica Job ID: 490-18906-1

### GC/MS VOA

#### Prep Batch: 57009

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-18906-1	814 Azalea	Total/NA	Soil	5035	
490-18906-2	421 Elderberry	Total/NA	Soil	5035	
490-18906-3	912 Barracuda	Total/NA	Soil	5035	
490-18906-4	424 Elderberry	Total/NA	Soil	5035	
490-18906-5	911 Barracuda	Total/NA	Soil	5035	
490-18906-6	407 Elderberry	Total/NA	Soil	5035	
490-18906-7	1028 Foxglove	Total/NA	Soil	5035	
490-18906-8	427 Elderberry	Total/NA	Soil	5035	

#### Analysis Batch: 57363

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-18906-1	814 Azalea	Total/NA	Soil	8260B	57009
490-18906-2	421 Elderberry	Total/NA	Soil	8260B	57009
490-18906-3	912 Barracuda	Total/NA	Soil	8260B	57009
490-18906-4	424 Elderberry	Total/NA	Soil	8260B	57009
490-18906-5	911 Barracuda	Total/NA	Soil	8260B	57009
490-18906-6	407 Elderberry	Total/NA	Soil	8260B	57009
490-18906-7	1028 Foxglove	Total/NA	Soil	8260B	57009
490-18906-8	427 Elderberry	Total/NA	Soil	8260B	57009
LCS 490-57363/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 490-57363/4	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 490-57363/6	Method Blank	Total/NA	Solid	8260B	

### GC/MS Semi VOA

#### Prep Batch: 57063

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-18906-1	814 Azalea	Total/NA	Soil	3550C	
490-18906-1 MS	814 Azalea	Total/NA	Soil	3550C	
490-18906-1 MSD	814 Azalea	Total/NA	Soil	3550C	
490-18906-2	421 Elderberry	Total/NA	Soil	3550C	
490-18906-3	912 Barracuda	Total/NA	Soil	3550C	
490-18906-4	424 Elderberry	Total/NA	Soil	3550C	
490-18906-5	911 Barracuda	Total/NA	Soil	3550C	
490-18906-6	407 Elderberry	Total/NA	Soil	3550C	
490-18906-7	1028 Foxglove	Total/NA	Soil	3550C	
490-18906-8	427 Elderberry	Total/NA	Soil	3550C	
LCS 490-57063/2-A	Lab Control Sample	Total/NA	Solid	3550C	
MB 490-57063/1-A	Method Blank	Total/NA	Solid	3550C	

#### Analysis Batch: 57450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-18906-1	814 Azalea	Total/NA	Soil	8270D	57063
490-18906-1 MS	814 Azalea	Total/NA	Soil	8270D	57063
490-18906-1 MSD	814 Azalea	Total/NA	Soil	8270D	57063
490-18906-2	421 Elderberry	Total/NA	Soil	8270D	57063
490-18906-3	912 Barracuda	Total/NA	Soil	8270D	57063
490-18906-4	424 Elderberry	Total/NA	Soil	8270D	57063
490-18906-5	911 Barracuda	Total/NA	Soil	8270D	57063
490-18906-6	407 Elderberry	Total/NA	Soil	8270D	57063

TestAmerica Nashville

## QC Association Summary

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

TestAmerica Job ID: 490-18906-1

### GC/MS Semi VOA (Continued)

#### Analysis Batch: 57450 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-18906-7	1028 Foxglove	Total/NA	Soil	8270D	57063
490-18906-8	427 Elderberry	Total/NA	Soil	8270D	57063
LCS 490-57063/2-A	Lab Control Sample	Total/NA	Solid	8270D	57063
MB 490-57063/1-A	Method Blank	Total/NA	Solid	8270D	57063

### General Chemistry

#### Analysis Batch: 56976

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-18871-D-1 DU	Duplicate	Total/NA	Solid	Moisture	
490-18906-1	814 Azalea	Total/NA	Soil	Moisture	
490-18906-2	421 Elderberry	Total/NA	Soil	Moisture	
490-18906-3	912 Barracuda	Total/NA	Soil	Moisture	
490-18906-4	424 Elderberry	Total/NA	Soil	Moisture	
490-18906-5	911 Barracuda	Total/NA	Soil	Moisture	
490-18906-6	407 Elderberry	Total/NA	Soil	Moisture	
490-18906-7	1028 Foxglove	Total/NA	Soil	Moisture	
490-18906-8	427 Elderberry	Total/NA	Soil	Moisture	



# Lab Chronicle

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

TestAmerica Job ID: 490-18906-1

## Client Sample ID: 814 Azalea

Date Collected: 01/28/13 14:25

Date Received: 02/06/13 08:30

## Lab Sample ID: 490-18906-1

Matrix: Soil

Percent Solids: 85.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			57009	02/07/13 15:37	ML	TAL NSH
Total/NA	Analysis	8260B		1	57363	02/09/13 08:31	MH	TAL NSH
Total/NA	Prep	3550C			57063	02/08/13 06:25	AK	TAL NSH
Total/NA	Analysis	8270D		1	57450	02/09/13 20:11	BS	TAL NSH
Total/NA	Analysis	Moisture		1	56976	02/07/13 14:58	RS	TAL NSH

## Client Sample ID: 421 Elderberry

Date Collected: 01/29/13 14:45

Date Received: 02/06/13 08:30

## Lab Sample ID: 490-18906-2

Matrix: Soil

Percent Solids: 93.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			57009	02/07/13 15:37	ML	TAL NSH
Total/NA	Analysis	8260B		1	57363	02/09/13 10:32	MH	TAL NSH
Total/NA	Prep	3550C			57063	02/08/13 06:25	AK	TAL NSH
Total/NA	Analysis	8270D		1	57450	02/09/13 21:26	BS	TAL NSH
Total/NA	Analysis	Moisture		1	56976	02/07/13 14:58	RS	TAL NSH

## Client Sample ID: 912 Barracuda

Date Collected: 01/30/13 11:40

Date Received: 02/06/13 08:30

## Lab Sample ID: 490-18906-3

Matrix: Soil

Percent Solids: 97.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			57009	02/07/13 15:37	ML	TAL NSH
Total/NA	Analysis	8260B		1	57363	02/09/13 11:02	MH	TAL NSH
Total/NA	Prep	3550C			57063	02/08/13 06:25	AK	TAL NSH
Total/NA	Analysis	8270D		1	57450	02/09/13 21:51	BS	TAL NSH
Total/NA	Analysis	Moisture		1	56976	02/07/13 14:58	RS	TAL NSH

## Client Sample ID: 424 Elderberry

Date Collected: 01/31/13 13:35

Date Received: 02/06/13 08:30

## Lab Sample ID: 490-18906-4

Matrix: Soil

Percent Solids: 85.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			57009	02/07/13 15:37	ML	TAL NSH
Total/NA	Analysis	8260B		1	57363	02/09/13 11:32	MH	TAL NSH
Total/NA	Prep	3550C			57063	02/08/13 06:25	AK	TAL NSH
Total/NA	Analysis	8270D		1	57450	02/09/13 22:16	BS	TAL NSH
Total/NA	Analysis	Moisture		1	56976	02/07/13 14:58	RS	TAL NSH

TestAmerica Nashville

# Lab Chronicle

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

TestAmerica Job ID: 490-18906-1

**Client Sample ID: 911 Barracuda**

**Date Collected: 01/28/13 15:15**

**Date Received: 02/06/13 08:30**

**Lab Sample ID: 490-18906-5**

**Matrix: Soil**

**Percent Solids: 94.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			57009	02/07/13 15:37	ML	TAL NSH
Total/NA	Analysis	8260B		1	57363	02/09/13 09:31	MH	TAL NSH
Total/NA	Prep	3550C			57063	02/08/13 06:25	AK	TAL NSH
Total/NA	Analysis	8270D		1	57450	02/09/13 22:41	BS	TAL NSH
Total/NA	Analysis	Moisture		1	56976	02/07/13 14:58	RS	TAL NSH

**Client Sample ID: 407 Elderberry**

**Date Collected: 01/29/13 14:30**

**Date Received: 02/06/13 08:30**

**Lab Sample ID: 490-18906-6**

**Matrix: Soil**

**Percent Solids: 96.0**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			57009	02/07/13 15:37	ML	TAL NSH
Total/NA	Analysis	8260B		1	57363	02/09/13 12:02	MH	TAL NSH
Total/NA	Prep	3550C			57063	02/08/13 06:25	AK	TAL NSH
Total/NA	Analysis	8270D		1	57450	02/09/13 23:06	BS	TAL NSH
Total/NA	Analysis	Moisture		1	56976	02/07/13 14:58	RS	TAL NSH

**Client Sample ID: 1028 Foxglove**

**Date Collected: 01/30/13 15:00**

**Date Received: 02/06/13 08:30**

**Lab Sample ID: 490-18906-7**

**Matrix: Soil**

**Percent Solids: 79.2**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			57009	02/07/13 15:37	ML	TAL NSH
Total/NA	Analysis	8260B		1	57363	02/09/13 12:32	MH	TAL NSH
Total/NA	Prep	3550C			57063	02/08/13 06:25	AK	TAL NSH
Total/NA	Analysis	8270D		1	57450	02/09/13 23:31	BS	TAL NSH
Total/NA	Analysis	Moisture		1	56976	02/07/13 14:58	RS	TAL NSH

**Client Sample ID: 427 Elderberry**

**Date Collected: 01/31/13 14:30**

**Date Received: 02/06/13 08:30**

**Lab Sample ID: 490-18906-8**

**Matrix: Soil**

**Percent Solids: 92.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			57009	02/07/13 15:37	ML	TAL NSH
Total/NA	Analysis	8260B		1	57363	02/09/13 13:02	MH	TAL NSH
Total/NA	Prep	3550C			57063	02/08/13 06:27	AK	TAL NSH
Total/NA	Analysis	8270D		1	57450	02/09/13 23:56	BS	TAL NSH
Total/NA	Analysis	Moisture		1	56976	02/07/13 14:58	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: 490-18906-1

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: 490-18906-1

### 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

TestAmerica Nashville



## COOLER RECEIPT FORM



490-18906 Chain of Custody

Cooler Received/Opened On: 2/6/2013 @0830

1. Tracking # 9630 (last 4 digits, FedEx)

Courier: Fed-Ex IR Gun ID: 14740456

2. Temperature of rep. sample or temp blank when opened: -0.4 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

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)

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)

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)

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)

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

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



1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13

pg 1 of 2

# 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 29455

Project Manager: Tom McEwen email: mcewen@testamc.net

Telephone Number: 843.412.2097

Sample Name: (Print)

Sample 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?  
Enforcement Action?

Yes \_\_\_ No \_\_\_  
Yes \_\_\_ No \_\_\_

Sample ID / Description	Date Sampled	Time Sampled	No. of Containers Shipped	Grab	Composite	Field Filtered	Ice	HNO <sub>3</sub> (Red 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 - 82606	PAH - 8270D	Loc: 490 18906	RUSH TAT (Pre-Schedule)	Standard TAT	Fax Results
819 Azalia	1/28/13	1425	5	X														X			X	01			
421 E. McEachery	1/29/13	1445	5	X														X			X	2			
912 BARROCKDA	1/30/13	1146	5	X														X			X	3			
424 E. McEachery	1/31/13	1335	5	X														X			X	4			

Special Instructions:

Method of Shipment:

FEDEX

Laboratory Comments:

Temperature Upon Receipt  
VOCs Free of Headspace?

Y \_\_\_ N \_\_\_

Relinquished by:

Date: 2/5/13

Time: 0900

Received by:

Frederick

Received by TestAmerica:

02/06/13 0530

Date:

Time:





## Login Sample Receipt Checklist

Client: Environmental Enterprise Group

Job Number: 490-18906-1

Login Number: 18906

List Source: TestAmerica Nashville

List Number: 1

Creator: Gambill, Shane

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.	True	
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	-0.4
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





## **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)

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		4. Generator's Phone 843-879-0411		Generator's Site Address (If different than mailing):		A. Manifest Number <b>WMNA 01519102</b>		
5. Transporter 1 Company Name		6. US EPA ID Number		B. State Generator's ID				
7. Transporter 2 Company Name		8. US EPA ID Number		C. State Transporter's ID				
9. Designated Facility Name and Site Address HICKORY HILL LANDFILL 2621 LOW COUNTRY DRIVE RIDGELAND, SC 29936		10. US EPA ID Number		D. Transporter's Phone				
				E. State Transporter's ID				
				F. Transporter's Phone				
				G. State Facility ID				
				H. State Facility Phone <b>843-987-4643</b>				
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 <i>LIST'S FROM: 1) 814 AZALEA 2) 409 ELDERBERRY 3) 421 ELDERBERRY 4) 1028 FOXGLOVE 5) 912 BARRACUDA 6) 427 ELDERBERRY</i>								
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 <i>W.C. DUBOIS</i>		Signature "On behalf of"				Month <i>2</i>	Day <i>4</i>	Year <i>13</i>
17. Transporter 1 Acknowledgement of Receipt of Materials		Printed Name <i>Pratt Shaw</i>				Signature <i>Pratt Shaw</i>		
						Month <i>2</i>	Day <i>4</i>	Year <i>13</i>
18. Transporter 2 Acknowledgement of Receipt of Materials		Printed Name <i>JAMES BALDWIN</i>				Signature <i>James Baldwin</i>		
						Month <i>2</i>	Day <i>6</i>	Year <i>13</i>
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 <i>Toni Cofield</i>		Signature <i>Toni Cofield</i>				Month <i>2</i>	Day <i>6</i>	Year <i>13</i>

White- TREATMENT, STORAGE, DISPOSAL FACILITY COPY  
Pink- FACILITY USE ONLY

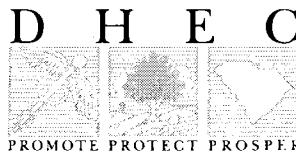
Blue- GENERATOR #2 COPY  
Gold- TRANSPORTER #1 COPY

Yellow- GENERATOR #1 COPY

## **Appendix C**

### **Regulatory Correspondence**





Catherine B. Templeton, Director

*Promoting and protecting the health of the public and the environment*

May 15, 2014

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

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

Dear Mr. Drawdy,

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

The Department has reviewed the referenced assessment reports and agrees there is no indication of soil or groundwater contamination on these properties, and therefore no further investigation is required at this time.

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

If you have any questions, please contact me at [kriegkm@dhec.sc.gov](mailto:kriegkm@dhec.sc.gov) or 803-898-0255.

Sincerely,

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

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



Catherine B. Templeton, Director

*Promoting and protecting the health of the public and the environment*

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

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

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

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

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

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

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