

SUMMARY REPORT  
193 WEST DOVE LANE (FORMERLY 1248 WEST DOVE LANE)  
LAUREL BAY MILITARY HOUSING AREA  
MARINE CORPS AIR STATION BEAUFORT  
BEAUFORT, SC

Revision: 0  
Prepared for:

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

and



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

**JUNE 2021**

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Prepared by:



CDM - AECOM Multimedia Joint Venture  
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 193 West Dove Lane (Formerly 1248 West Dove Lane). This NFA determination indicates that there are no unacceptable risks to human health or the environment for the petroleum constituents associated with the home heating oil USTs. The following information is included in this report:

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

### 1.1 Background Information

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

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

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

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

## 1.2 UST Removal and Assessment Process

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

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

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

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

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

## 2.0 SAMPLING ACTIVITIES AND RESULTS

The following section presents the sampling activities and associated results for 193 West Dove Lane (Formerly 1248 West Dove Lane). Details regarding the soil investigation at this site are provided in the *SCDHEC UST Assessment Report – 193 West Dove Lane* (MCAS Beaufort, 2013). The UST Assessment Report is provided in Appendix B.

### 2.1 UST Removal and Soil Sampling

On June 20, 2012, a single 280 gallon heating oil UST was removed from the back yard under the patio area at 193 West Dove Lane (Formerly 1248 West Dove Lane). 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 6'2" 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 193 West Dove Lane (Formerly 1248 West Dove Lane) 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 193 West Dove Lane (Formerly 1248 West Dove Lane). 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 – 1248 West Dove Lane, Laurel Bay Military Housing Area*, February 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**  
**193 West Dove Lane (Formerly 1248 West Dove Lane)**  
**Laurel Bay Military Housing Area**  
**Marine Corps Air Station Beaufort**  
**Beaufort, South Carolina**

Constituent	SCDHEC RBSLs <sup>(1)</sup>	Results Sample Collected 06/28/12
<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	ND
Benzo(b)fluoranthene	0.66	ND
Benzo(k)fluoranthene	0.66	ND
Chrysene	0.66	ND
Dibenz(a,h)anthracene	0.66	ND

**Notes:**

<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**

Attachment 1

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

<b>Date Received</b>   <b>State Use Only</b>
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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	
1248 Dove Lane, 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.....

M. Method of disposal for any USTs removed from the ground (attach disposal manifests)  
UST 1248Dove 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 1248Dove 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.

1248Dove				
Heating oil				
280 gal				
Late 1950s				
Steel				
Mid 1980s				
6'2"				
No				
No				
Removed				
6/20/2012				
Yes				
Yes				

## 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.

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

1248Dove				
Steel & Copper				
N/A				
N/A				
Suction				
No				
Yes				
No				
Late 1950s				

## 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 #
1248 Dove-A	Excav at fill end	Soil	Sandy	6'2"	6/28/12 1045 hrs	P. Shaw	
Note: This tank was resampled because the temperature of the original sample was out of tolerance when received at the lab.							
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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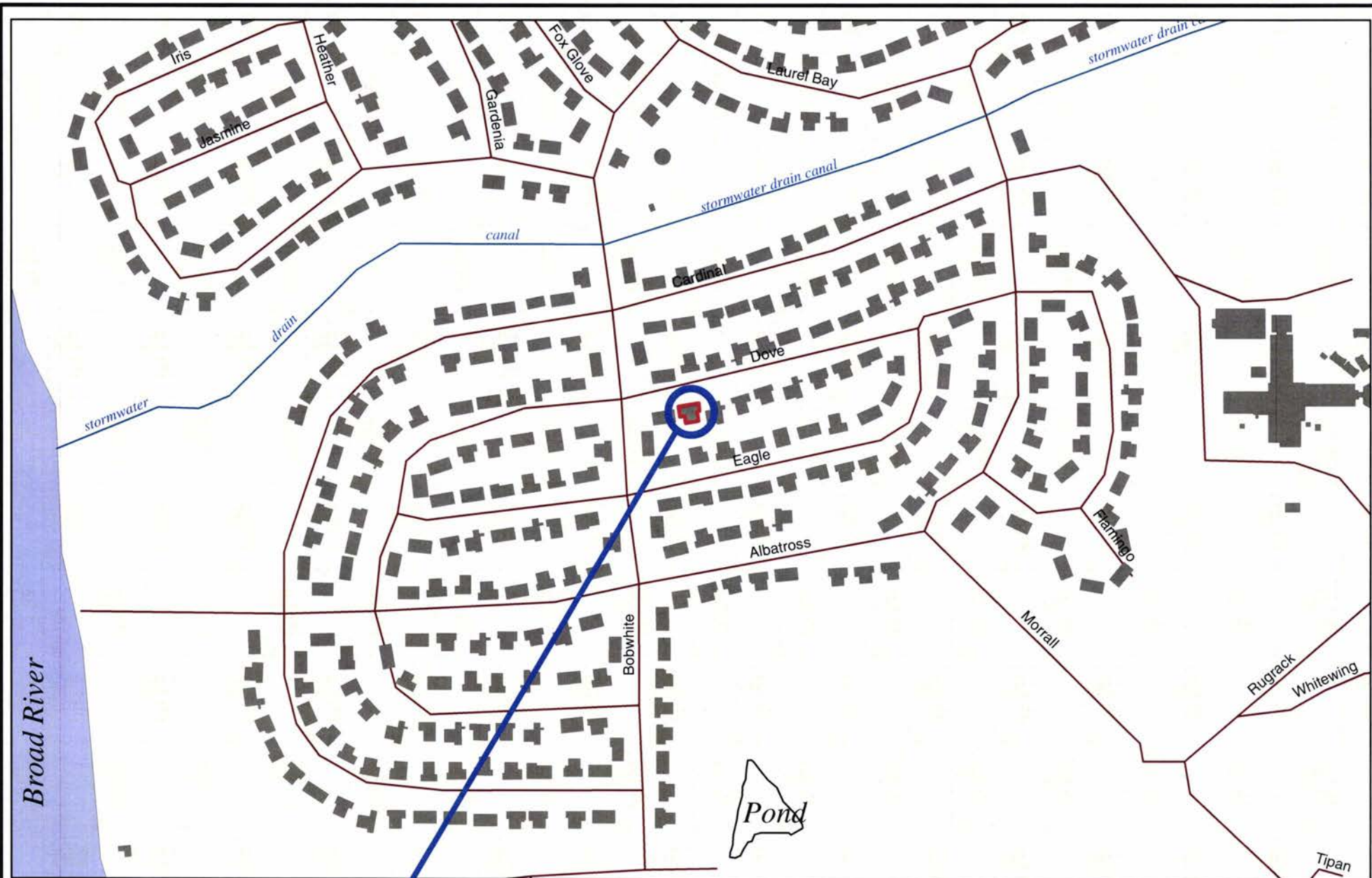
## XII. RECEPTORS

	Yes	No
<p>A. Are there any lakes, ponds, streams, or wetlands located within 1000 feet of the UST system?  <span style="float: right;">*Stormwater drainage canal</span></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?  <span style="float: right;">*Sewer, water, electricity, cable &amp; fiber optic</span></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)



**1248 DOVE**

**SBG-EEG, Inc.**

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

Ph. (843) 573-7140

Drawn By: L. DiAsio

Dwg Date: JULY 2012

**FIGURE 1: LOCATION MAP**  
**1248 DOVE LANE**  
**LAUREL BAY, BEAUFORT SC**





UST  
1248DOVE

STORMWATER  
CANAL  $\approx$  530'



1248 DOVE DRIVE  
LAUREL BAY MILITARY HOUSING  
MCAS BEAUFORT, SC

GRAPHIC SCALE

0 5' 10' 20'

TANK DEPTH BELOW GRADE  
1248DOVE = 38"

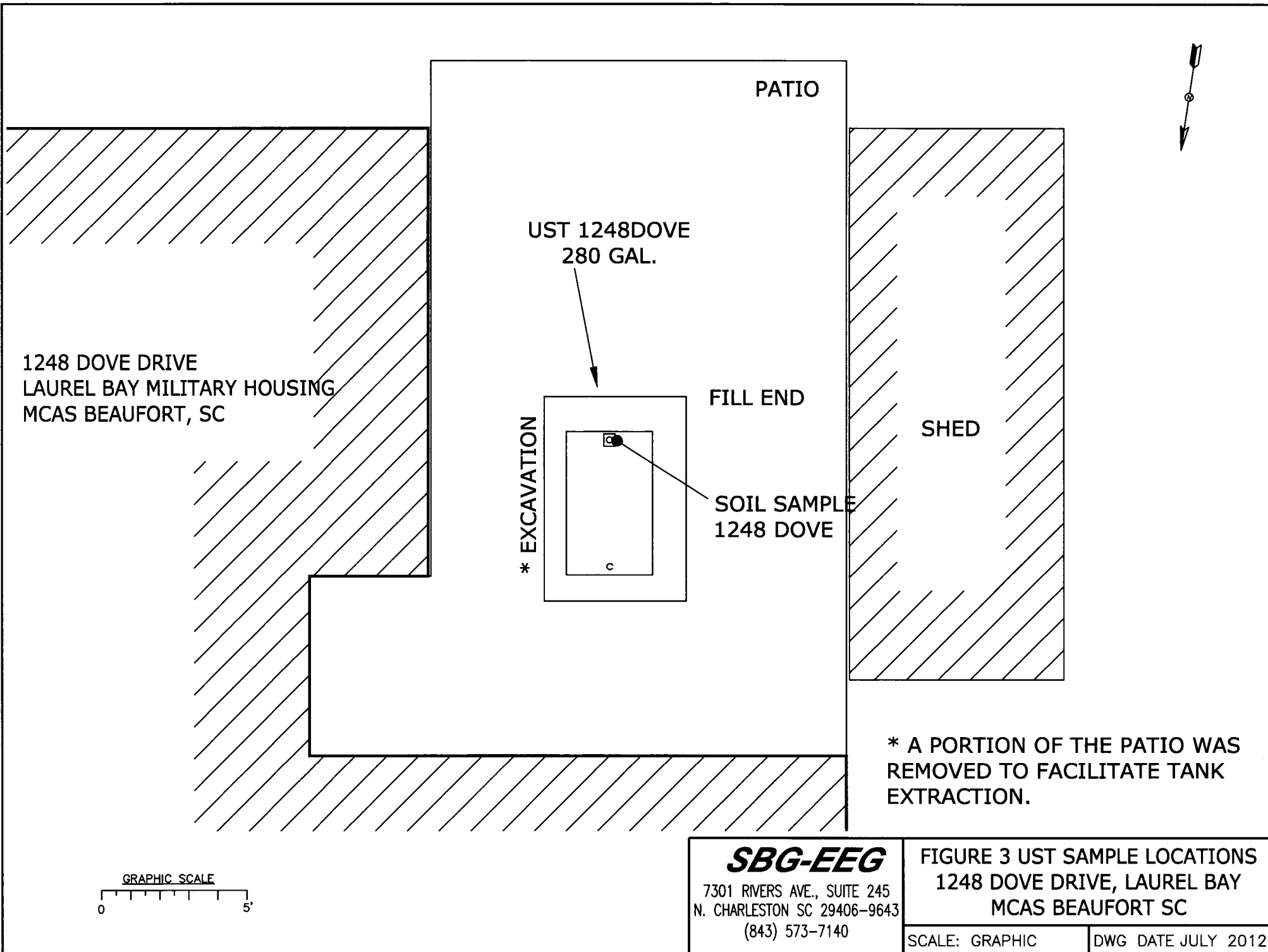
***SBG-EEG***

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

FIGURE 2 SITE MAP  
1248 DOVE DRIVE, LAUREL BAY  
MCAS BEAUFORT SC

SCALE: GRAPHIC

DWG DATE JULY 2012





Picture 1: Location of UST 1248Dove.



Picture 2: UST 1248Dove pit.

#### 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>	<b>UST</b>	1248Dove						
<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>		ND						
<b>Benzo (b) fluoranthene</b>		ND						
<b>Benzo (k) fluoranthene</b>		ND						
<b>Chrysene</b>		ND						
<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 Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-66756-1

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:

7/11/2012 12:19:18 PM

Cheyenne Whitmire

Project Manager II

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

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Expert**

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*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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## Case Narrative

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

TestAmerica Job ID: 400-66756-1

**Job ID: 400-66756-1**

**Laboratory: TestAmerica Pensacola**

**Narrative**

**Job Narrative**  
**400-66756-1**

### **GC/MS Semi VOA**

Method(s) 8270D: The following sample was diluted to bring target analyte concentration(s) within the calibration range: 273 Birch - 2A (400-66756-2).

## Method Summary

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

TestAmerica Job ID: 400-66756-1

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

**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 PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

## Sample Summary

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

TestAmerica Job ID: 400-66756-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-66756-1	273 Birch - 1A	Solid	06/28/12 09:45	06/30/12 09:30
400-66756-2	273 Birch - 2A	Solid	06/28/12 10:00	06/30/12 09:30
400-66756-3	273 Birch - 3A	Solid	06/28/12 10:15	06/30/12 09:30
400-66756-4	1248 Dove - A	Solid	06/28/12 10:45	06/30/12 09:30
400-66756-5	711 Bluebell - A	Solid	06/28/12 11:15	06/30/12 09:30

# Client Sample Results

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

TestAmerica Job ID: 400-66756-1

Client Sample ID: 273 Birch - 1A

Lab Sample ID: 400-66756-1

Date Collected: 06/28/12 09:45

Matrix: Solid

Date Received: 06/30/12 09:30

Percent Solids: 80.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.31	0.030	mg/Kg	⊗	07/02/12 14:30	07/05/12 13:49	50
Ethylbenzene	0.12	J	0.31	0.038	mg/Kg	⊗	07/02/12 14:30	07/05/12 13:49	50
Toluene	ND		0.31	0.043	mg/Kg	⊗	07/02/12 14:30	07/05/12 13:49	50
Xylenes, Total	ND		0.62	0.12	mg/Kg	⊗	07/02/12 14:30	07/05/12 13:49	50
Naphthalene	1.2		0.31	0.062	mg/Kg	⊗	07/02/12 14:30	07/05/12 13:49	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		72 - 122	07/02/12 14:30	07/05/12 13:49	50
Dibromofluoromethane	96		79 - 118	07/02/12 14:30	07/05/12 13:49	50
Toluene-d8 (Surr)	101		80 - 120	07/02/12 14:30	07/05/12 13:49	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.26	J	0.41	0.041	mg/Kg	⊗	07/03/12 08:39	07/06/12 23:36	1
Acenaphthylene	ND		0.41	0.041	mg/Kg	⊗	07/03/12 08:39	07/06/12 23:36	1
Anthracene	0.12	J	0.41	0.041	mg/Kg	⊗	07/03/12 08:39	07/06/12 23:36	1
Benzo[a]anthracene	ND		0.41	0.041	mg/Kg	⊗	07/03/12 08:39	07/06/12 23:36	1
Benzo[a]pyrene	ND		0.41	0.041	mg/Kg	⊗	07/03/12 08:39	07/06/12 23:36	1
Benzo[b]fluoranthene	ND		0.41	0.041	mg/Kg	⊗	07/03/12 08:39	07/06/12 23:36	1
Benzo[g,h,i]perylene	ND		0.41	0.041	mg/Kg	⊗	07/03/12 08:39	07/06/12 23:36	1
Benzo[k]fluoranthene	ND		0.41	0.041	mg/Kg	⊗	07/03/12 08:39	07/06/12 23:36	1
Chrysene	0.11	J	0.41	0.041	mg/Kg	⊗	07/03/12 08:39	07/06/12 23:36	1
Dibenz(a,h)anthracene	ND		0.41	0.041	mg/Kg	⊗	07/03/12 08:39	07/06/12 23:36	1
Fluoranthene	0.22	J	0.41	0.041	mg/Kg	⊗	07/03/12 08:39	07/06/12 23:36	1
Fluorene	ND		0.41	0.041	mg/Kg	⊗	07/03/12 08:39	07/06/12 23:36	1
Indeno[1,2,3-cd]pyrene	ND		0.41	0.041	mg/Kg	⊗	07/03/12 08:39	07/06/12 23:36	1
Naphthalene	0.34	J	0.41	0.041	mg/Kg	⊗	07/03/12 08:39	07/06/12 23:36	1
Phenanthrene	1.5		0.41	0.041	mg/Kg	⊗	07/03/12 08:39	07/06/12 23:36	1
Pyrene	0.14	J	0.41	0.041	mg/Kg	⊗	07/03/12 08:39	07/06/12 23:36	1
1-Methylnaphthalene	3.1		0.41	0.041	mg/Kg	⊗	07/03/12 08:39	07/06/12 23:36	1
2-Methylnaphthalene	4.3		0.41	0.041	mg/Kg	⊗	07/03/12 08:39	07/06/12 23:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	79		44 - 108	07/03/12 08:39	07/06/12 23:36	1
Nitrobenzene-d5 (Surr)	73		27 - 114	07/03/12 08:39	07/06/12 23:36	1
Terphenyl-d14 (Surr)	88		36 - 134	07/03/12 08:39	07/06/12 23:36	1

# Client Sample Results

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

TestAmerica Job ID: 400-66756-1

Client Sample ID: 273 Birch - 2A

Lab Sample ID: 400-66756-2

Date Collected: 06/28/12 10:00

Matrix: Solid

Date Received: 06/30/12 09:30

Percent Solids: 83.8

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.24	0.023	mg/Kg	⊗	07/02/12 14:30	07/05/12 14:11	50
Ethylbenzene	0.26		0.24	0.029	mg/Kg	⊗	07/02/12 14:30	07/05/12 14:11	50
Toluene	ND		0.24	0.033	mg/Kg	⊗	07/02/12 14:30	07/05/12 14:11	50
Xylenes, Total	ND		0.47	0.090	mg/Kg	⊗	07/02/12 14:30	07/05/12 14:11	50
Naphthalene	1.3		0.24	0.047	mg/Kg	⊗	07/02/12 14:30	07/05/12 14:11	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		72 - 122	07/02/12 14:30	07/05/12 14:11	50
Dibromofluoromethane	97		79 - 118	07/02/12 14:30	07/05/12 14:11	50
Toluene-d8 (Surr)	102		80 - 120	07/02/12 14:30	07/05/12 14:11	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.39	0.039	mg/Kg	⊗	07/03/12 08:39	07/07/12 00:11	1
Acenaphthylene	ND		0.39	0.039	mg/Kg	⊗	07/03/12 08:39	07/07/12 00:11	1
Anthracene	0.047	J	0.39	0.039	mg/Kg	⊗	07/03/12 08:39	07/07/12 00:11	1
Benzo[a]anthracene	ND		0.39	0.039	mg/Kg	⊗	07/03/12 08:39	07/07/12 00:11	1
Benzo[a]pyrene	ND		0.39	0.039	mg/Kg	⊗	07/03/12 08:39	07/07/12 00:11	1
Benzo[b]fluoranthene	ND		0.39	0.039	mg/Kg	⊗	07/03/12 08:39	07/07/12 00:11	1
Benzo[g,h,i]perylene	ND		0.39	0.039	mg/Kg	⊗	07/03/12 08:39	07/07/12 00:11	1
Benzo[k]fluoranthene	ND		0.39	0.039	mg/Kg	⊗	07/03/12 08:39	07/07/12 00:11	1
Chrysene	ND		0.39	0.039	mg/Kg	⊗	07/03/12 08:39	07/07/12 00:11	1
Dibenz(a,h)anthracene	ND		0.39	0.039	mg/Kg	⊗	07/03/12 08:39	07/07/12 00:11	1
Fluoranthene	ND		0.39	0.039	mg/Kg	⊗	07/03/12 08:39	07/07/12 00:11	1
Fluorene	ND		0.39	0.039	mg/Kg	⊗	07/03/12 08:39	07/07/12 00:11	1
Indeno[1,2,3-cd]pyrene	ND		0.39	0.039	mg/Kg	⊗	07/03/12 08:39	07/07/12 00:11	1
Naphthalene	0.25	J	0.39	0.039	mg/Kg	⊗	07/03/12 08:39	07/07/12 00:11	1
Phenanthrene	ND		0.39	0.039	mg/Kg	⊗	07/03/12 08:39	07/07/12 00:11	1
Pyrene	0.39		0.39	0.039	mg/Kg	⊗	07/03/12 08:39	07/07/12 00:11	1
1-Methylnaphthalene	17		2.0	0.20	mg/Kg	⊗	07/03/12 08:39	07/09/12 23:48	5
2-Methylnaphthalene	21		2.0	0.20	mg/Kg	⊗	07/03/12 08:39	07/09/12 23:48	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	56		44 - 108	07/03/12 08:39	07/07/12 00:11	1
Nitrobenzene-d5 (Surr)	98		27 - 114	07/03/12 08:39	07/07/12 00:11	1
Terphenyl-d14 (Surr)	74		36 - 134	07/03/12 08:39	07/07/12 00:11	1



# Client Sample Results

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

TestAmerica Job ID: 400-66756-1

Client Sample ID: 273 Birch - 3A

Lab Sample ID: 400-66756-3

Date Collected: 06/28/12 10:15

Matrix: Solid

Date Received: 06/30/12 09:30

Percent Solids: 74.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.25	0.025	mg/Kg	⊗	07/02/12 14:30	07/05/12 14:33	50
Ethylbenzene	0.49		0.25	0.031	mg/Kg	⊗	07/02/12 14:30	07/05/12 14:33	50
Toluene	ND		0.25	0.035	mg/Kg	⊗	07/02/12 14:30	07/05/12 14:33	50
Xylenes, Total	0.15	J	0.50	0.096	mg/Kg	⊗	07/02/12 14:30	07/05/12 14:33	50
Naphthalene	2.0		0.25	0.050	mg/Kg	⊗	07/02/12 14:30	07/05/12 14:33	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		72 - 122	07/02/12 14:30	07/05/12 14:33	50
Dibromofluoromethane	92		79 - 118	07/02/12 14:30	07/05/12 14:33	50
Toluene-d8 (Surr)	102		80 - 120	07/02/12 14:30	07/05/12 14:33	50

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.13	J	0.44	0.044	mg/Kg	⊗	07/03/12 08:39	07/07/12 00:45	1
Acenaphthylene	ND		0.44	0.044	mg/Kg	⊗	07/03/12 08:39	07/07/12 00:45	1
Anthracene	0.12	J	0.44	0.044	mg/Kg	⊗	07/03/12 08:39	07/07/12 00:45	1
Benzo[a]anthracene	ND		0.44	0.044	mg/Kg	⊗	07/03/12 08:39	07/07/12 00:45	1
Benzo[a]pyrene	ND		0.44	0.044	mg/Kg	⊗	07/03/12 08:39	07/07/12 00:45	1
Benzo[b]fluoranthene	ND		0.44	0.044	mg/Kg	⊗	07/03/12 08:39	07/07/12 00:45	1
Benzo[g,h,i]perylene	ND		0.44	0.044	mg/Kg	⊗	07/03/12 08:39	07/07/12 00:45	1
Benzo[k]fluoranthene	ND		0.44	0.044	mg/Kg	⊗	07/03/12 08:39	07/07/12 00:45	1
Chrysene	ND		0.44	0.044	mg/Kg	⊗	07/03/12 08:39	07/07/12 00:45	1
Dibenz(a,h)anthracene	ND		0.44	0.044	mg/Kg	⊗	07/03/12 08:39	07/07/12 00:45	1
Fluoranthene	0.11	J	0.44	0.044	mg/Kg	⊗	07/03/12 08:39	07/07/12 00:45	1
Fluorene	ND		0.44	0.044	mg/Kg	⊗	07/03/12 08:39	07/07/12 00:45	1
Indeno[1,2,3-cd]pyrene	ND		0.44	0.044	mg/Kg	⊗	07/03/12 08:39	07/07/12 00:45	1
Naphthalene	0.47		0.44	0.044	mg/Kg	⊗	07/03/12 08:39	07/07/12 00:45	1
Phenanthrene	0.72		0.44	0.044	mg/Kg	⊗	07/03/12 08:39	07/07/12 00:45	1
Pyrene	0.087	J	0.44	0.044	mg/Kg	⊗	07/03/12 08:39	07/07/12 00:45	1
1-Methylnaphthalene	2.0		0.44	0.044	mg/Kg	⊗	07/03/12 08:39	07/07/12 00:45	1
2-Methylnaphthalene	2.5		0.44	0.044	mg/Kg	⊗	07/03/12 08:39	07/07/12 00:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	81		44 - 108	07/03/12 08:39	07/07/12 00:45	1
Nitrobenzene-d5 (Surr)	66		27 - 114	07/03/12 08:39	07/07/12 00:45	1
Terphenyl-d14 (Surr)	87		36 - 134	07/03/12 08:39	07/07/12 00:45	1

# Client Sample Results

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

TestAmerica Job ID: 400-66756-1

Client Sample ID: 1248 Dove - A

Lab Sample ID: 400-66756-4

Date Collected: 06/28/12 10:45

Matrix: Solid

Date Received: 06/30/12 09:30

Percent Solids: 89.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0059	0.00058	mg/Kg	✱	07/02/12 14:30	07/05/12 12:21	1
Ethylbenzene	ND		0.0059	0.00072	mg/Kg	✱	07/02/12 14:30	07/05/12 12:21	1
Toluene	ND		0.0059	0.00083	mg/Kg	✱	07/02/12 14:30	07/05/12 12:21	1
Xylenes, Total	ND		0.012	0.0023	mg/Kg	✱	07/02/12 14:30	07/05/12 12:21	1
Naphthalene	ND		0.0059	0.0012	mg/Kg	✱	07/02/12 14:30	07/05/12 12:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99		72 - 122	07/02/12 14:30	07/05/12 12:21	1
Dibromofluoromethane	105		79 - 118	07/02/12 14:30	07/05/12 12:21	1
Toluene-d8 (Surr)	101		80 - 120	07/02/12 14:30	07/05/12 12:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.36	0.036	mg/Kg	✱	07/03/12 08:39	07/07/12 01:19	1
Acenaphthylene	ND		0.36	0.036	mg/Kg	✱	07/03/12 08:39	07/07/12 01:19	1
Anthracene	ND		0.36	0.036	mg/Kg	✱	07/03/12 08:39	07/07/12 01:19	1
Benzo[a]anthracene	ND		0.36	0.036	mg/Kg	✱	07/03/12 08:39	07/07/12 01:19	1
Benzo[a]pyrene	ND		0.36	0.036	mg/Kg	✱	07/03/12 08:39	07/07/12 01:19	1
Benzo[b]fluoranthene	ND		0.36	0.036	mg/Kg	✱	07/03/12 08:39	07/07/12 01:19	1
Benzo[g,h,i]perylene	ND		0.36	0.036	mg/Kg	✱	07/03/12 08:39	07/07/12 01:19	1
Benzo[k]fluoranthene	ND		0.36	0.036	mg/Kg	✱	07/03/12 08:39	07/07/12 01:19	1
Chrysene	ND		0.36	0.036	mg/Kg	✱	07/03/12 08:39	07/07/12 01:19	1
Dibenz(a,h)anthracene	ND		0.36	0.036	mg/Kg	✱	07/03/12 08:39	07/07/12 01:19	1
Fluoranthene	ND		0.36	0.036	mg/Kg	✱	07/03/12 08:39	07/07/12 01:19	1
Fluorene	ND		0.36	0.036	mg/Kg	✱	07/03/12 08:39	07/07/12 01:19	1
Indeno[1,2,3-cd]pyrene	ND		0.36	0.036	mg/Kg	✱	07/03/12 08:39	07/07/12 01:19	1
Naphthalene	ND		0.36	0.036	mg/Kg	✱	07/03/12 08:39	07/07/12 01:19	1
Phenanthrene	ND		0.36	0.036	mg/Kg	✱	07/03/12 08:39	07/07/12 01:19	1
Pyrene	ND		0.36	0.036	mg/Kg	✱	07/03/12 08:39	07/07/12 01:19	1
1-Methylnaphthalene	ND		0.36	0.036	mg/Kg	✱	07/03/12 08:39	07/07/12 01:19	1
2-Methylnaphthalene	ND		0.36	0.036	mg/Kg	✱	07/03/12 08:39	07/07/12 01:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	54		44 - 108	07/03/12 08:39	07/07/12 01:19	1
Nitrobenzene-d5 (Surr)	39		27 - 114	07/03/12 08:39	07/07/12 01:19	1
Terphenyl-d14 (Surr)	74		36 - 134	07/03/12 08:39	07/07/12 01:19	1

# Client Sample Results

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

TestAmerica Job ID: 400-66756-1

Client Sample ID: 711 Bluebell - A

Lab Sample ID: 400-66756-5

Date Collected: 06/28/12 11:15

Matrix: Solid

Date Received: 06/30/12 09:30

Percent Solids: 88.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0051	0.00050	mg/Kg	⊛	07/02/12 14:30	07/05/12 12:43	1
Ethylbenzene	ND		0.0051	0.00063	mg/Kg	⊛	07/02/12 14:30	07/05/12 12:43	1
Toluene	ND		0.0051	0.00072	mg/Kg	⊛	07/02/12 14:30	07/05/12 12:43	1
Xylenes, Total	ND		0.010	0.0019	mg/Kg	⊛	07/02/12 14:30	07/05/12 12:43	1
Naphthalene	ND		0.0051	0.0010	mg/Kg	⊛	07/02/12 14:30	07/05/12 12:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	103		72 - 122	07/02/12 14:30	07/05/12 12:43	1
Dibromofluoromethane	104		79 - 118	07/02/12 14:30	07/05/12 12:43	1
Toluene-d8 (Surr)	101		80 - 120	07/02/12 14:30	07/05/12 12:43	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.37	0.037	mg/Kg	⊛	07/03/12 08:39	07/07/12 01:53	1
Acenaphthylene	ND		0.37	0.037	mg/Kg	⊛	07/03/12 08:39	07/07/12 01:53	1
Anthracene	ND		0.37	0.037	mg/Kg	⊛	07/03/12 08:39	07/07/12 01:53	1
Benzo[a]anthracene	ND		0.37	0.037	mg/Kg	⊛	07/03/12 08:39	07/07/12 01:53	1
Benzo[a]pyrene	ND		0.37	0.037	mg/Kg	⊛	07/03/12 08:39	07/07/12 01:53	1
Benzo[b]fluoranthene	0.042	J	0.37	0.037	mg/Kg	⊛	07/03/12 08:39	07/07/12 01:53	1
Benzo[g,h,i]perylene	ND		0.37	0.037	mg/Kg	⊛	07/03/12 08:39	07/07/12 01:53	1
Benzo[k]fluoranthene	ND		0.37	0.037	mg/Kg	⊛	07/03/12 08:39	07/07/12 01:53	1
Chrysene	ND		0.37	0.037	mg/Kg	⊛	07/03/12 08:39	07/07/12 01:53	1
Dibenz(a,h)anthracene	ND		0.37	0.037	mg/Kg	⊛	07/03/12 08:39	07/07/12 01:53	1
Fluoranthene	0.047	J	0.37	0.037	mg/Kg	⊛	07/03/12 08:39	07/07/12 01:53	1
Fluorene	0.041	J	0.37	0.037	mg/Kg	⊛	07/03/12 08:39	07/07/12 01:53	1
Indeno[1,2,3-cd]pyrene	ND		0.37	0.037	mg/Kg	⊛	07/03/12 08:39	07/07/12 01:53	1
Naphthalene	ND		0.37	0.037	mg/Kg	⊛	07/03/12 08:39	07/07/12 01:53	1
Phenanthrene	ND		0.37	0.037	mg/Kg	⊛	07/03/12 08:39	07/07/12 01:53	1
Pyrene	0.041	J	0.37	0.037	mg/Kg	⊛	07/03/12 08:39	07/07/12 01:53	1
1-Methylnaphthalene	ND		0.37	0.037	mg/Kg	⊛	07/03/12 08:39	07/07/12 01:53	1
2-Methylnaphthalene	ND		0.37	0.037	mg/Kg	⊛	07/03/12 08:39	07/07/12 01:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	72		44 - 108	07/03/12 08:39	07/07/12 01:53	1
Nitrobenzene-d5 (Surr)	63		27 - 114	07/03/12 08:39	07/07/12 01:53	1
Terphenyl-d14 (Surr)	78		36 - 134	07/03/12 08:39	07/07/12 01:53	1



## Definitions/Glossary

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

TestAmerica Job ID: 400-66756-1

### Qualifiers

#### GC/MS 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.

#### 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
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

## Lab Chronicle

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

TestAmerica Job ID: 400-66756-1

### Client Sample ID: 273 Birch - 1A

Lab Sample ID: 400-66756-1

Date Collected: 06/28/12 09:45

Matrix: Solid

Date Received: 06/30/12 09:30

Percent Solids: 80.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			157922	07/02/12 14:30	JL	TAL PEN
Total/NA	Analysis	8260B		50	157925	07/05/12 13:49	JL	TAL PEN
Total/NA	Prep	3550C			157861	07/03/12 08:39	RT	TAL PEN
Total/NA	Analysis	8270D		1	158045	07/06/12 23:36	DW	TAL PEN
Total/NA	Analysis	Moisture		1	157907	07/02/12 15:00	MS	TAL PEN

### Client Sample ID: 273 Birch - 2A

Lab Sample ID: 400-66756-2

Date Collected: 06/28/12 10:00

Matrix: Solid

Date Received: 06/30/12 09:30

Percent Solids: 83.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			157922	07/02/12 14:30	JL	TAL PEN
Total/NA	Analysis	8260B		50	157925	07/05/12 14:11	JL	TAL PEN
Total/NA	Prep	3550C			157861	07/03/12 08:39	RT	TAL PEN
Total/NA	Analysis	8270D		1	158045	07/07/12 00:11	DW	TAL PEN
Total/NA	Analysis	8270D		5	158184	07/09/12 23:48	JP	TAL PEN
Total/NA	Analysis	Moisture		1	157907	07/02/12 15:00	MS	TAL PEN

### Client Sample ID: 273 Birch - 3A

Lab Sample ID: 400-66756-3

Date Collected: 06/28/12 10:15

Matrix: Solid

Date Received: 06/30/12 09:30

Percent Solids: 74.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			157922	07/02/12 14:30	JL	TAL PEN
Total/NA	Analysis	8260B		50	157925	07/05/12 14:33	JL	TAL PEN
Total/NA	Prep	3550C			157861	07/03/12 08:39	RT	TAL PEN
Total/NA	Analysis	8270D		1	158045	07/07/12 00:45	DW	TAL PEN
Total/NA	Analysis	Moisture		1	157907	07/02/12 15:00	MS	TAL PEN

### Client Sample ID: 1248 Dove - A

Lab Sample ID: 400-66756-4

Date Collected: 06/28/12 10:45

Matrix: Solid

Date Received: 06/30/12 09:30

Percent Solids: 89.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			157922	07/02/12 14:30	JL	TAL PEN
Total/NA	Analysis	8260B		1	157925	07/05/12 12:21	JL	TAL PEN
Total/NA	Prep	3550C			157861	07/03/12 08:39	RT	TAL PEN
Total/NA	Analysis	8270D		1	158045	07/07/12 01:19	DW	TAL PEN
Total/NA	Analysis	Moisture		1	157907	07/02/12 15:00	MS	TAL PEN

## Lab Chronicle

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

TestAmerica Job ID: 400-66756-1

**Client Sample ID: 711 Bluebell - A**

**Lab Sample ID: 400-66756-5**

**Date Collected: 06/28/12 11:15**

**Matrix: Solid**

**Date Received: 06/30/12 09:30**

**Percent Solids: 88.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			157922	07/02/12 14:30	JL	TAL PEN
Total/NA	Analysis	8260B		1	157925	07/05/12 12:43	JL	TAL PEN
Total/NA	Prep	3550C			157861	07/03/12 08:39	RT	TAL PEN
Total/NA	Analysis	8270D		1	158045	07/07/12 01:53	DW	TAL PEN
Total/NA	Analysis	Moisture		1	157907	07/02/12 15:00	MS	TAL PEN

### Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

## QC Association Summary

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

TestAmerica Job ID: 400-66756-1

### GC/MS VOA

#### Prep Batch: 157922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-66756-1	273 Birch - 1A	Total/NA	Solid	5035	
400-66756-2	273 Birch - 2A	Total/NA	Solid	5035	
400-66756-3	273 Birch - 3A	Total/NA	Solid	5035	
400-66756-4	1248 Dove - A	Total/NA	Solid	5035	
400-66756-5	711 Bluebell - A	Total/NA	Solid	5035	
LCS 400-157922/2-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 400-157922/3-A	Lab Control Sample Dup	Total/NA	Solid	5035	
MB 400-157922/1-A	Method Blank	Total/NA	Solid	5035	

#### Analysis Batch: 157925

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-66756-1	273 Birch - 1A	Total/NA	Solid	8260B	157922
400-66756-2	273 Birch - 2A	Total/NA	Solid	8260B	157922
400-66756-3	273 Birch - 3A	Total/NA	Solid	8260B	157922
400-66756-4	1248 Dove - A	Total/NA	Solid	8260B	157922
400-66756-5	711 Bluebell - A	Total/NA	Solid	8260B	157922
LCS 400-157922/2-A	Lab Control Sample	Total/NA	Solid	8260B	157922
LCSD 400-157922/3-A	Lab Control Sample Dup	Total/NA	Solid	8260B	157922
MB 400-157922/1-A	Method Blank	Total/NA	Solid	8260B	157922

### GC/MS Semi VOA

#### Prep Batch: 157861

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-66739-E-3-B MS	Matrix Spike	Total/NA	Solid	3550C	
400-66739-E-3-C MSD	Matrix Spike Duplicate	Total/NA	Solid	3550C	
400-66756-1	273 Birch - 1A	Total/NA	Solid	3550C	
400-66756-2	273 Birch - 2A	Total/NA	Solid	3550C	
400-66756-3	273 Birch - 3A	Total/NA	Solid	3550C	
400-66756-4	1248 Dove - A	Total/NA	Solid	3550C	
400-66756-5	711 Bluebell - A	Total/NA	Solid	3550C	
LCS 400-157861/17-A	Lab Control Sample	Total/NA	Solid	3550C	
MB 400-157861/18-A	Method Blank	Total/NA	Solid	3550C	

#### Analysis Batch: 158045

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-66756-1	273 Birch - 1A	Total/NA	Solid	8270D	157861
400-66756-2	273 Birch - 2A	Total/NA	Solid	8270D	157861
400-66756-3	273 Birch - 3A	Total/NA	Solid	8270D	157861
400-66756-4	1248 Dove - A	Total/NA	Solid	8270D	157861
400-66756-5	711 Bluebell - A	Total/NA	Solid	8270D	157861

#### Analysis Batch: 158085

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-66739-E-3-B MS	Matrix Spike	Total/NA	Solid	8270D	157861
400-66739-E-3-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8270D	157861
LCS 400-157861/17-A	Lab Control Sample	Total/NA	Solid	8270D	157861
MB 400-157861/18-A	Method Blank	Total/NA	Solid	8270D	157861

#### Analysis Batch: 158184

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-66756-2	273 Birch - 2A	Total/NA	Solid	8270D	157861



## QC Association Summary

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

TestAmerica Job ID: 400-66756-1

### General Chemistry

#### Analysis Batch: 157907

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-66756-1	273 Birch - 1A	Total/NA	Solid	Moisture	
400-66756-2	273 Birch - 2A	Total/NA	Solid	Moisture	
400-66756-3	273 Birch - 3A	Total/NA	Solid	Moisture	
400-66756-4	1248 Dove - A	Total/NA	Solid	Moisture	
400-66756-5	711 Bluebell - A	Total/NA	Solid	Moisture	

# QC Sample Results

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

TestAmerica Job ID: 400-66756-1

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

Lab Sample ID: MB 400-157922/1-A

Matrix: Solid

Analysis Batch: 157925

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 157922

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0050	0.00049	mg/Kg		06/28/12 14:00	07/05/12 08:49	1
Ethylbenzene	ND		0.0050	0.00061	mg/Kg		06/28/12 14:00	07/05/12 08:49	1
Toluene	ND		0.0050	0.00070	mg/Kg		06/28/12 14:00	07/05/12 08:49	1
Xylenes, Total	ND		0.010	0.0019	mg/Kg		06/28/12 14:00	07/05/12 08:49	1
Naphthalene	ND		0.0050	0.0010	mg/Kg		06/28/12 14:00	07/05/12 08:49	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	102		72 - 122	06/28/12 14:00	07/05/12 08:49	1
Dibromofluoromethane	104		79 - 118	06/28/12 14:00	07/05/12 08:49	1
Toluene-d8 (Surr)	100		80 - 120	06/28/12 14:00	07/05/12 08:49	1

Lab Sample ID: LCS 400-157922/2-A

Matrix: Solid

Analysis Batch: 157925

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 157922

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Benzene	0.0500	0.0561		mg/Kg		112	74 - 119
Ethylbenzene	0.0500	0.0523		mg/Kg		105	78 - 116
Toluene	0.0500	0.0549		mg/Kg		110	76 - 116
Xylenes, Total	0.150	0.160		mg/Kg		107	77 - 118
Naphthalene	0.0500	0.0541		mg/Kg		108	64 - 126

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	99		72 - 122
Dibromofluoromethane	105		79 - 118
Toluene-d8 (Surr)	102		80 - 120

Lab Sample ID: LCSD 400-157922/3-A

Matrix: Solid

Analysis Batch: 157925

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 157922

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.0500	0.0557		mg/Kg		111	74 - 119	1	10
Ethylbenzene	0.0500	0.0526		mg/Kg		105	78 - 116	1	12
Toluene	0.0500	0.0551		mg/Kg		110	76 - 116	0	11
Xylenes, Total	0.150	0.162		mg/Kg		108	77 - 118	1	12
Naphthalene	0.0500	0.0555		mg/Kg		111	64 - 126	3	16

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	100		72 - 122
Dibromofluoromethane	104		79 - 118
Toluene-d8 (Surr)	100		80 - 120

# QC Sample Results

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

TestAmerica Job ID: 400-66756-1

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

Lab Sample ID: MB 400-157861/18-A

Matrix: Solid

Analysis Batch: 158085

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 157861

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acenaphthene	ND		0.33	0.033	mg/Kg		07/03/12 08:39	07/06/12 20:58	1
Acenaphthene	ND		0.33	0.033	mg/Kg		07/03/12 08:39	07/06/12 20:58	1
Acenaphthylene	ND		0.33	0.033	mg/Kg		07/03/12 08:39	07/06/12 20:58	1
Acenaphthylene	ND		0.33	0.033	mg/Kg		07/03/12 08:39	07/06/12 20:58	1
Anthracene	ND		0.33	0.033	mg/Kg		07/03/12 08:39	07/06/12 20:58	1
Anthracene	ND		0.33	0.033	mg/Kg		07/03/12 08:39	07/06/12 20:58	1
Benzo[a]anthracene	ND		0.33	0.033	mg/Kg		07/03/12 08:39	07/06/12 20:58	1
Benzo[a]anthracene	ND		0.33	0.033	mg/Kg		07/03/12 08:39	07/06/12 20:58	1
Benzo[a]pyrene	ND		0.33	0.033	mg/Kg		07/03/12 08:39	07/06/12 20:58	1
Benzo[a]pyrene	ND		0.33	0.033	mg/Kg		07/03/12 08:39	07/06/12 20:58	1
Benzo[b]fluoranthene	ND		0.33	0.033	mg/Kg		07/03/12 08:39	07/06/12 20:58	1
Benzo[b]fluoranthene	ND		0.33	0.033	mg/Kg		07/03/12 08:39	07/06/12 20:58	1
Benzo[g,h,i]perylene	ND		0.33	0.033	mg/Kg		07/03/12 08:39	07/06/12 20:58	1
Benzo[g,h,i]perylene	ND		0.33	0.033	mg/Kg		07/03/12 08:39	07/06/12 20:58	1
Benzo[k]fluoranthene	ND		0.33	0.033	mg/Kg		07/03/12 08:39	07/06/12 20:58	1
Benzo[k]fluoranthene	ND		0.33	0.033	mg/Kg		07/03/12 08:39	07/06/12 20:58	1
Chrysene	ND		0.33	0.033	mg/Kg		07/03/12 08:39	07/06/12 20:58	1
Chrysene	ND		0.33	0.033	mg/Kg		07/03/12 08:39	07/06/12 20:58	1
Dibenz(a,h)anthracene	ND		0.33	0.033	mg/Kg		07/03/12 08:39	07/06/12 20:58	1
Dibenz(a,h)anthracene	ND		0.33	0.033	mg/Kg		07/03/12 08:39	07/06/12 20:58	1
Fluoranthene	ND		0.33	0.033	mg/Kg		07/03/12 08:39	07/06/12 20:58	1
Fluoranthene	ND		0.33	0.033	mg/Kg		07/03/12 08:39	07/06/12 20:58	1
Fluorene	ND		0.33	0.033	mg/Kg		07/03/12 08:39	07/06/12 20:58	1
Fluorene	ND		0.33	0.033	mg/Kg		07/03/12 08:39	07/06/12 20:58	1
Indeno[1,2,3-cd]pyrene	ND		0.33	0.033	mg/Kg		07/03/12 08:39	07/06/12 20:58	1
Indeno[1,2,3-cd]pyrene	ND		0.33	0.033	mg/Kg		07/03/12 08:39	07/06/12 20:58	1
Naphthalene	ND		0.33	0.033	mg/Kg		07/03/12 08:39	07/06/12 20:58	1
Naphthalene	ND		0.33	0.033	mg/Kg		07/03/12 08:39	07/06/12 20:58	1
Phenanthrene	ND		0.33	0.033	mg/Kg		07/03/12 08:39	07/06/12 20:58	1
Phenanthrene	ND		0.33	0.033	mg/Kg		07/03/12 08:39	07/06/12 20:58	1
Pyrene	ND		0.33	0.033	mg/Kg		07/03/12 08:39	07/06/12 20:58	1
Pyrene	ND		0.33	0.033	mg/Kg		07/03/12 08:39	07/06/12 20:58	1
1-Methylnaphthalene	ND		0.33	0.033	mg/Kg		07/03/12 08:39	07/06/12 20:58	1
1-Methylnaphthalene	ND		0.33	0.033	mg/Kg		07/03/12 08:39	07/06/12 20:58	1
2-Methylnaphthalene	ND		0.33	0.033	mg/Kg		07/03/12 08:39	07/06/12 20:58	1
2-Methylnaphthalene	ND		0.33	0.033	mg/Kg		07/03/12 08:39	07/06/12 20:58	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Fluorobiphenyl	88		44 - 108	07/03/12 08:39	07/06/12 20:58	1
2-Fluorobiphenyl	88		44 - 108	07/03/12 08:39	07/06/12 20:58	1
Nitrobenzene-d5 (Surr)	73		27 - 114	07/03/12 08:39	07/06/12 20:58	1
Nitrobenzene-d5 (Surr)	73		27 - 114	07/03/12 08:39	07/06/12 20:58	1
Terphenyl-d14 (Surr)	107		36 - 134	07/03/12 08:39	07/06/12 20:58	1
Terphenyl-d14 (Surr)	107		36 - 134	07/03/12 08:39	07/06/12 20:58	1



# QC Sample Results

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

TestAmerica Job ID: 400-66756-1

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

Lab Sample ID: LCS 400-157861/17-A

Matrix: Solid

Analysis Batch: 158085

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 157861

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	1.67	1.49		mg/Kg		89	53 - 108
Acenaphthene	1.67	1.49		mg/Kg		89	53 - 108
Acenaphthylene	1.67	1.50		mg/Kg		90	57 - 111
Acenaphthylene	1.67	1.50		mg/Kg		90	57 - 111
Anthracene	1.67	1.57		mg/Kg		94	56 - 110
Anthracene	1.67	1.57		mg/Kg		94	56 - 110
Benzo[a]anthracene	1.67	1.69		mg/Kg		101	52 - 105
Benzo[a]anthracene	1.67	1.69		mg/Kg		101	52 - 105
Benzo[a]pyrene	1.67	1.33		mg/Kg		80	52 - 97
Benzo[a]pyrene	1.67	1.33		mg/Kg		80	52 - 97
Benzo[b]fluoranthene	1.67	1.34		mg/Kg		81	49 - 95
Benzo[b]fluoranthene	1.67	1.34		mg/Kg		81	49 - 95
Benzo[g,h,i]perylene	1.67	1.35		mg/Kg		81	47 - 122
Benzo[g,h,i]perylene	1.67	1.35		mg/Kg		81	47 - 122
Benzo[k]fluoranthene	1.67	1.56		mg/Kg		94	57 - 113
Benzo[k]fluoranthene	1.67	1.56		mg/Kg		94	57 - 113
Chrysene	1.67	1.60		mg/Kg		96	56 - 102
Chrysene	1.67	1.60		mg/Kg		96	56 - 102
Dibenz(a,h)anthracene	1.67	1.46		mg/Kg		87	46 - 114
Dibenz(a,h)anthracene	1.67	1.46		mg/Kg		87	46 - 114
Fluoranthene	1.67	1.70		mg/Kg		102	56 - 120
Fluoranthene	1.67	1.70		mg/Kg		102	56 - 120
Fluorene	1.67	1.57		mg/Kg		94	51 - 116
Fluorene	1.67	1.57		mg/Kg		94	51 - 116
Indeno[1,2,3-cd]pyrene	1.67	1.63		mg/Kg		98	48 - 119
Indeno[1,2,3-cd]pyrene	1.67	1.63		mg/Kg		98	48 - 119
Naphthalene	1.67	1.38		mg/Kg		83	52 - 99
Naphthalene	1.67	1.38		mg/Kg		83	52 - 99
Phenanthrene	1.67	1.59		mg/Kg		95	56 - 113
Phenanthrene	1.67	1.59		mg/Kg		95	56 - 113
Pyrene	1.67	1.47		mg/Kg		88	56 - 100
Pyrene	1.67	1.47		mg/Kg		88	56 - 100
1-Methylnaphthalene	1.67	1.51		mg/Kg		90	58 - 104
1-Methylnaphthalene	1.67	1.51		mg/Kg		90	58 - 104
2-Methylnaphthalene	1.67	1.40		mg/Kg		84	53 - 99
2-Methylnaphthalene	1.67	1.40		mg/Kg		84	53 - 99

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	82		44 - 108
2-Fluorobiphenyl	82		44 - 108
Nitrobenzene-d5 (Surr)	69		27 - 114
Nitrobenzene-d5 (Surr)	69		27 - 114
Terphenyl-d14 (Surr)	91		36 - 134
Terphenyl-d14 (Surr)	91		36 - 134



# QC Sample Results

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

TestAmerica Job ID: 400-66756-1

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

Lab Sample ID: 400-66739-E-3-B MS

Matrix: Solid

Analysis Batch: 158085

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 157861

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Acenaphthene	ND		2.04	1.72		mg/Kg	☼	85	10 - 150
Acenaphthylene	ND		2.04	1.74		mg/Kg	☼	85	10 - 150
Anthracene	ND		2.04	1.84		mg/Kg	☼	90	10 - 150
Benzo[a]anthracene	ND		2.04	1.99		mg/Kg	☼	98	10 - 150
Benzo[a]pyrene	ND		2.04	1.55		mg/Kg	☼	76	10 - 150
Benzo[b]fluoranthene	ND		2.04	1.54		mg/Kg	☼	75	10 - 150
Benzo[g,h,i]perylene	ND		2.04	1.56		mg/Kg	☼	77	10 - 150
Benzo[k]fluoranthene	ND		2.04	1.80		mg/Kg	☼	88	10 - 150
Chrysene	ND		2.04	1.86		mg/Kg	☼	91	10 - 150
Dibenz(a,h)anthracene	ND		2.04	1.68		mg/Kg	☼	82	32 - 111
Fluoranthene	ND		2.04	2.03		mg/Kg	☼	100	10 - 150
Fluorene	ND		2.04	1.78		mg/Kg	☼	88	10 - 150
Indeno[1,2,3-cd]pyrene	ND		2.04	1.89		mg/Kg	☼	93	10 - 150
Naphthalene	ND		2.04	1.56		mg/Kg	☼	77	10 - 150
Phenanthrene	ND		2.04	1.87		mg/Kg	☼	92	10 - 150
Pyrene	ND		2.04	1.74		mg/Kg	☼	85	10 - 150
1-Methylnaphthalene			2.04	1.72		mg/Kg	☼		
2-Methylnaphthalene	ND		2.04	1.60		mg/Kg	☼	78	10 - 150

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Fluorobiphenyl	73		44 - 108
Nitrobenzene-d5 (Surr)	62		27 - 114
Terphenyl-d14 (Surr)	83		36 - 134

Lab Sample ID: 400-66739-E-3-C MSD

Matrix: Solid

Analysis Batch: 158085

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 157861

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acenaphthene	ND		2.03	1.76		mg/Kg	☼	86	10 - 150	2	36
Acenaphthylene	ND		2.03	1.78		mg/Kg	☼	88	10 - 150	3	29
Anthracene	ND		2.03	1.86		mg/Kg	☼	91	10 - 150	1	30
Benzo[a]anthracene	ND		2.03	1.98		mg/Kg	☼	97	10 - 150	1	33
Benzo[a]pyrene	ND		2.03	1.55		mg/Kg	☼	76	10 - 150	0	30
Benzo[b]fluoranthene	ND		2.03	1.56		mg/Kg	☼	77	10 - 150	1	31
Benzo[g,h,i]perylene	ND		2.03	1.58		mg/Kg	☼	78	10 - 150	1	30
Benzo[k]fluoranthene	ND		2.03	1.81		mg/Kg	☼	89	10 - 150	1	29
Chrysene	ND		2.03	1.86		mg/Kg	☼	92	10 - 150	0	33
Dibenz(a,h)anthracene	ND		2.03	1.71		mg/Kg	☼	84	32 - 111	2	30
Fluoranthene	ND		2.03	2.02		mg/Kg	☼	99	10 - 150	1	42
Fluorene	ND		2.03	1.79		mg/Kg	☼	88	10 - 150	0	36
Indeno[1,2,3-cd]pyrene	ND		2.03	1.93		mg/Kg	☼	95	10 - 150	2	31
Naphthalene	ND		2.03	1.61		mg/Kg	☼	79	10 - 150	3	33
Phenanthrene	ND		2.03	1.87		mg/Kg	☼	92	10 - 150	0	34
Pyrene	ND		2.03	1.74		mg/Kg	☼	86	10 - 150	0	45
1-Methylnaphthalene			2.03	1.75		mg/Kg	☼				
2-Methylnaphthalene	ND		2.03	1.63		mg/Kg	☼	80	10 - 150	2	32

## QC Sample Results

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

TestAmerica Job ID: 400-66756-1

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

Lab Sample ID: 400-66739-E-3-C MSD

Matrix: Solid

Analysis Batch: 158085

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 157861

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl	78		44 - 108
Nitrobenzene-d5 (Surr)	64		27 - 114
Terphenyl-d14 (Surr)	83		36 - 134



400-66756 Chain of Custody

**TestAmerica**  
THE LEADER IN ENVIRONMENTAL TESTING

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 - SBG # 2449

Address: 10179 Highway 78

City/State/Zip: Ladson, SC 29456

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

Telephone Number: 843.412.2087

Sampler Name: (Print)

Sampler Signature:

Fax No.: 843-879-0401

*Heath Shaw*

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 ☐

Site State: SC

PO#: 1063

TA Quote #:

Project ID: Laurel Bay Housing Project

Project #:

Sample ID / Description	Date Sampled	Time Sampled	No. of Containers Shipped	Grab	Composite	Field Filtered	Reservative										Matrix										Analyze For:																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
							Ice	HNO <sub>3</sub> (Red Label)	Me <sub>2</sub> SO <sub>4</sub> (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):																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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Special Instructions: These samples are RE-SAMPLE EVENTS, ORIGINAL SAMPLES SHIPPED 6/22/12.

Relinquished by:		Date	Time	Received by:	Date	Time	Method of Shipment:		FEDEX		Date	Time

WORK RECEIVED AT 199 out of TEMPERATURE BAND. RUSH 6/29/12

4.392



## Login Sample Receipt Checklist

Client: Environmental Enterprise Group

Job Number: 400-66756-1

Login Number: 66756

List Source: TestAmerica Pensacola

List Number: 1

Creator: Hooper, Carolyn

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is 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	4.3°C
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 sample IDs on the containers 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.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

## Certification Summary

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

TestAmerica Job ID: 400-66756-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Pensacola	Alabama	State Program	4	40150
TestAmerica Pensacola	Arizona	State Program	9	AZ0710
TestAmerica Pensacola	Arkansas DEQ	State Program	6	88-0689
TestAmerica Pensacola	Florida	NELAC	4	E81010
TestAmerica Pensacola	Georgia	State Program	4	N/A
TestAmerica Pensacola	Illinois	NELAC	5	200041
TestAmerica Pensacola	Iowa	State Program	7	367
TestAmerica Pensacola	Kansas	NELAC	7	E-10253
TestAmerica Pensacola	Kentucky (UST)	State Program	4	53
TestAmerica Pensacola	Louisiana	NELAC	6	30976
TestAmerica Pensacola	Maryland	State Program	3	233
TestAmerica Pensacola	Massachusetts	State Program	1	M-FL094
TestAmerica Pensacola	Michigan	State Program	5	9912
TestAmerica Pensacola	New Hampshire	NELAC	1	2505
TestAmerica Pensacola	New Jersey	NELAC	2	FL006
TestAmerica Pensacola	North Carolina DENR	State Program	4	314
TestAmerica Pensacola	Oklahoma	State Program	6	9810
TestAmerica Pensacola	Pennsylvania	NELAC	3	68-00467
TestAmerica Pensacola	Rhode Island	State Program	1	LAO00307
TestAmerica Pensacola	South Carolina	State Program	4	96026
TestAmerica Pensacola	Tennessee	State Program	4	TN02907
TestAmerica Pensacola	Texas	NELAC	6	T104704286-12-4
TestAmerica Pensacola	USDA	Federal		P330-10-00407
TestAmerica Pensacola	Virginia	NELAC	3	460166
TestAmerica Pensacola	Washington	State Program	10	C915
TestAmerica Pensacola	West Virginia DEP	State Program	3	136

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

**ATTACHMENT A**



# NON-HAZARDOUS MANIFEST

<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 29907		Generator's Site Address (if different than mailing):		A. Manifest Number <b>WMNA</b>	<b>00316821</b>
4. Generator's Phone 843-228-6461				B. State Generator's ID	
5. Transporter 1 Company Name EEG, INC.		6. US EPA ID Number		C. State Transporter's ID	
				D. Transporter's Phone 843-879-0411	
7. Transporter 2 Company Name		8. US EPA ID Number		E. State Transporter's ID	
				F. Transporter's Phone	
9. Designated Facility Name and Site Address HICKORY HILL LANDFILL 2621 LOW COUNTRY ROAD RIDGELAND, SC 29936		10. US EPA ID Number		G. State Facility ID	
				H. State Facility Phone 843-987-4643	
GENERATOR	11. Description of Waste Materials		12. Containers		13. Total Quantity
			No.	Type	14. Unit Wt./Vol.
	a. HEATING OIL TANKS FILLED WITH SAND				
	WM Profile # 102655SC				
	b.				
TRANSPORTER	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) 273 Birch - 3 4) 711 Bluebell 6) 1122 Iris 1) 1300 Eagle - 3) 1248 Dove 5) 1136 Iris					
Purchase Order #		EMERGENCY CONTACT / PHONE NO.:			
16. GENERATOR'S CERTIFICATE: I hereby certify that the above-described materials are not hazardous wastes as defined by CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.					
Printed Name		Signature "On behalf of"		Month	Day
					Year
TRANSPORTER	17. Transporter 1 Acknowledgement of Receipt of Materials				
	Printed Name Pratt Shaw	Signature		Month 7	Day 11
TRANSPORTER	18. Transporter 2 Acknowledgement of Receipt of Materials				
	Printed Name James Baldwin	Signature		Month 7	Day 11
FACILITY	19. Certificate of Final Treatment/Disposal I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.				
	20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.				
FACILITY	Printed Name		Signature		Month
					Day
				Year	

White- TREATMENT, STORAGE, DISPOSAL FACILITY COPY

Blue- GENERATOR #2 COPY

Yellow- GENERATOR #1 COPY

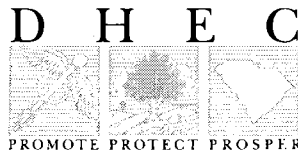
Pink- FACILITY USE ONLY

Gold- TRANSPORTER #1 COPY

## **Appendix C**

### **Regulatory Correspondence**





Catherine B. Templeton, Director

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

May 15, 2014

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

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

Dear Mr. Drawdy,

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

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

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

If you have any questions, please contact me at [kriegkm@dhec.sc.gov](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	