SUMMARY REPORT
156 IRIS LANE (FORMERLY 1103 IRIS 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 SUMMARY REPORT
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Naval Facilities Engineering Command Atlantic

9324 Virginia Avenue Norfolk, Virginia 23511-3095 Prepared by:



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

Contract Number: N62470-14-D-9016

CTO WE52

**JUNE 2021** 





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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 156 Iris Lane (Formerly 1103 Iris 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 156 Iris Lane (Formerly 1103 Iris Lane). Details regarding the soil investigation at this site are provided in the *SCDHEC UST Assessment Report – 1103 Iris Lane* (MCAS Beaufort, 2013). The UST Assessment Report is provided in Appendix B.

#### 2.1 UST Removal and Soil Sampling

On October 25, 2012, a single 280 gallon heating oil UST was removed from the rear patio area at 156 Iris Lane (Formerly 1103 Iris 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 5'6" 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, 2107) and assessment quidelines.

#### 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 156 Iris Lane (Formerly 1103 Iris 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 156 Iris Lane (Formerly 1103 Iris 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 1103 Iris 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 156 Iris Lane (Formerly 1103 Iris Lane) Laurel Bay Military Housing Area Marine Corps Air Station Beaufort Beaufort, South Carolina

Constituent	SCDHEC RBSLs (1)	Results Sample Collected 10/25/12						
Volatile Organic Compounds Analyzed by EPA Method 8260B (mg/kg)								
Benzene	0.003	ND						
Ethylbenzene	1.15	ND						
Naphthalene	0.036	ND						
Toluene	0.627	ND						
Xylenes, Total	13.01	ND						
Semivolatile Organic Compounds Analyzed by EPA Method 8270D (mg/kg)								
Benzo(a)anthracene	0.66	0.0358						
Benzo(b)fluoranthene	0.66	0.0390						
Benzo(k)fluoranthene	0.66	0.0358						
Chrysene	0.66	0.0375						
Dibenz(a,h)anthracene	0.66	ND						

#### **Notes:**

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

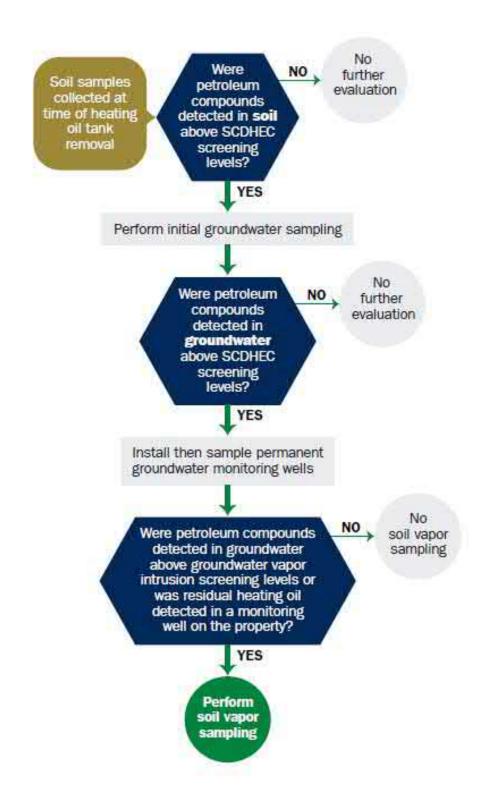
ND - not detected at the reporting limit (or method detection limit if shown on the laboratory report). The laboratory report is provided in Appendix B.

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



Vec 10 3, 1310 1.

#### 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)

	ommanding Officer Attn: NF n, Individual, Public Agency, Other)	REAO (Craig Ehde)
P.O. Box 55001 Mailing Address		
Beaufort, City	South Carolina State	29904-5001 Zip Code
843 Area Code	228-7317 Telephone Number	Craig Ehde Contact Person

#### II. SITE IDENTIFICATION AND LOCATION

Permit I.D. #							
	ing Area, Marine Corps Air Station, Beaufort, SC						
Facility Name or Company Site Identia	fier						
1103 Iris Lane, Laurel Bay Military Housing Area							
Street Address or State Road (as applic	cable)						
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

VI. UST INFORMATION	
VI. USI INFORMATION	1103Iris
Product(ex. Gas, Kerosene)	Heating oil
Capacity(ex. 1k, 2k)	280 gal
Age	Late 1950s
Construction Material(ex. Steel, FRP)	Steel
Month/Year of Last Use	Mid 1980s
Depth (ft.) To Base of Tank	5'6"
Spill Prevention Equipment Y/N	No
Overfill Prevention Equipment Y/N	No
Method of Closure Removed/Filled	Removed
Date Tanks Removed/Filled	10/25/2012
Visible Corrosion or Pitting Y/N	Yes
Visible Holes Y/N	Yes
Method of disposal for any USTs removed from to UST 1103Iris was removed from the Subtitle "D" landfill. See Attack	ne ground and disposed at a
Method of disposal for any liquid petroleum, slud disposal manifests) UST 1103Iris had been previously	ges, or wastewaters removed from the USTs (at

#### VII. PIPING INFORMATION

Steel & Copper N/A N/A Suction No Yes No Late 199					
N/A N/A Suction No Yes					
N/A Suction No Yes					
Suction No Yes					
No Yes No					
Yes					
No					
		i			
Late 19					
	50s				
escribe the lo	ocation as	nd extent	for each	ı piping	g ru
on the s	surface	e of th	e ste	el ve	ent
				<u> </u>	-11
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				steel	
or neatin	19. 111				
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#### IX. SITE CONDITIONS

	Yes	No	Unk
A. Were any petroleum-stained or contaminated soils found in the UST excavation, soil borings, trenches, or monitoring wells?  If yes, indicate depth and location on the site map.		х	
B. Were any petroleum odors detected in the excavation, soil borings, trenches, or monitoring wells?  If yes, indicate location on site map and describe the odor (strong, mild, etc.)		Х	
C. Was water present in the UST excavation, soil borings, or trenches?  If yes, how far below land surface (indicate location and depth)?		Х	
D. Did contaminated soils remain stockpiled on site after closure?  If yes, indicate the stockpile location on the site map.  Name of DHEC representative authorizing soil removal:		Х	
E. Was a petroleum sheen or free product detected on any excavation or boring waters?  If yes, indicate location and thickness.		Х	

#### X. SAMPLE INFORMATION

A. SCDHEC Lab Certification Number 84009

B.

					<u>.</u>		
Sample #	Location	Sample Type (Soil/Water)	Soil Type (Sand/Clay)	Depth*	Date/Time of Collection	Collected by	OVA#
1103Iris	Excav at fill end	Soil	Sandy	5'6"	10/25/12 1500 hrs	P. Shaw	
8							
9							
10							
11							
12							
13							
14							
. 15							
16							
17							
18							
19							
20							

<sup>\* =</sup> Depth Below the Surrounding Land Surface

#### XI. SAMPLING METHODOLOGY

Provide a detailed description of the methods used to collect <u>and</u> store the samples. Also include the preservative used for each sample. Please use the space provided below.

Sampling was performed in accordance with SC DHEC R.61-92 Part 280
and SC DHEC Assessment Guidelines. Sample containers were prepared by the
testing laboratory. The grab method was utilized to fill the sample
containers leaving as little head space as possible and immediately
capped. Soil samples were extracted from area below tank. The
samples were marked, logged, and immediately placed in a sample cooler
packed with ice to maintain an approximate temperature of 4 degrees
Centigrade. Tools were thoroughly cleaned and decontaminated with
the seven step decon process after each use. The samples remained in
custody of SBG-EEG, Inc. until they were transferred to Test America
Incorporated for analysis as documented in the Chain of Custody Record.

#### XII. RECEPTORS

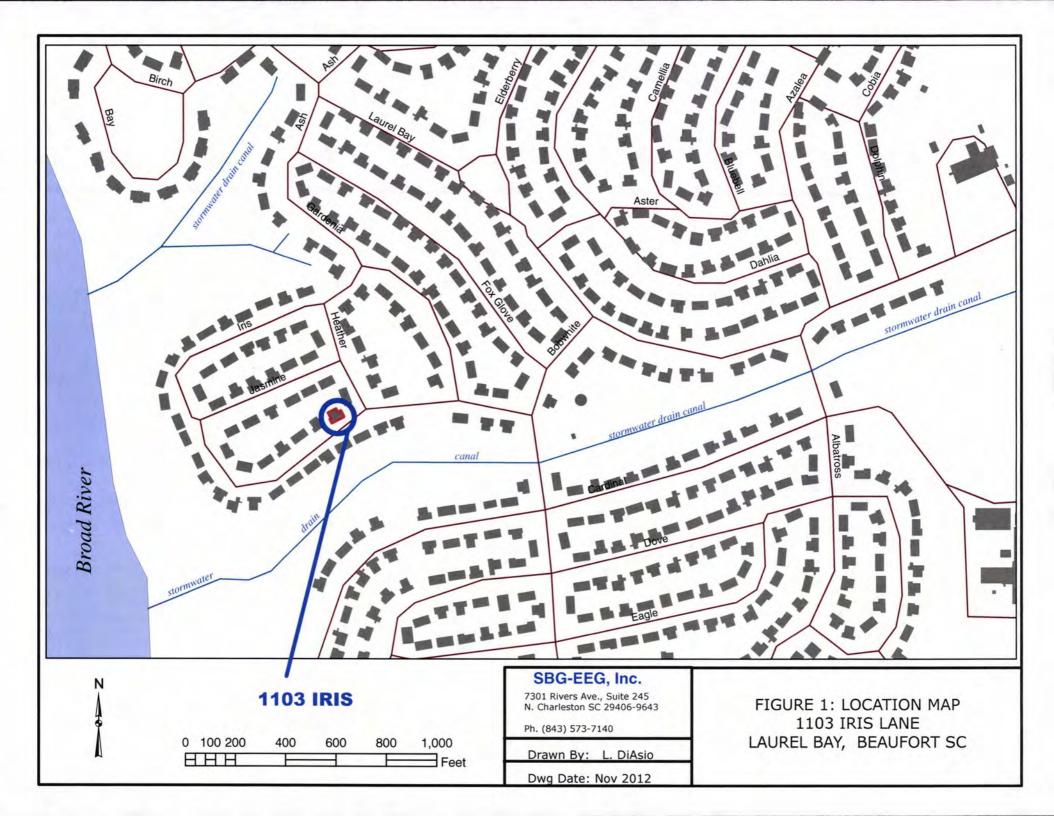
Yes No

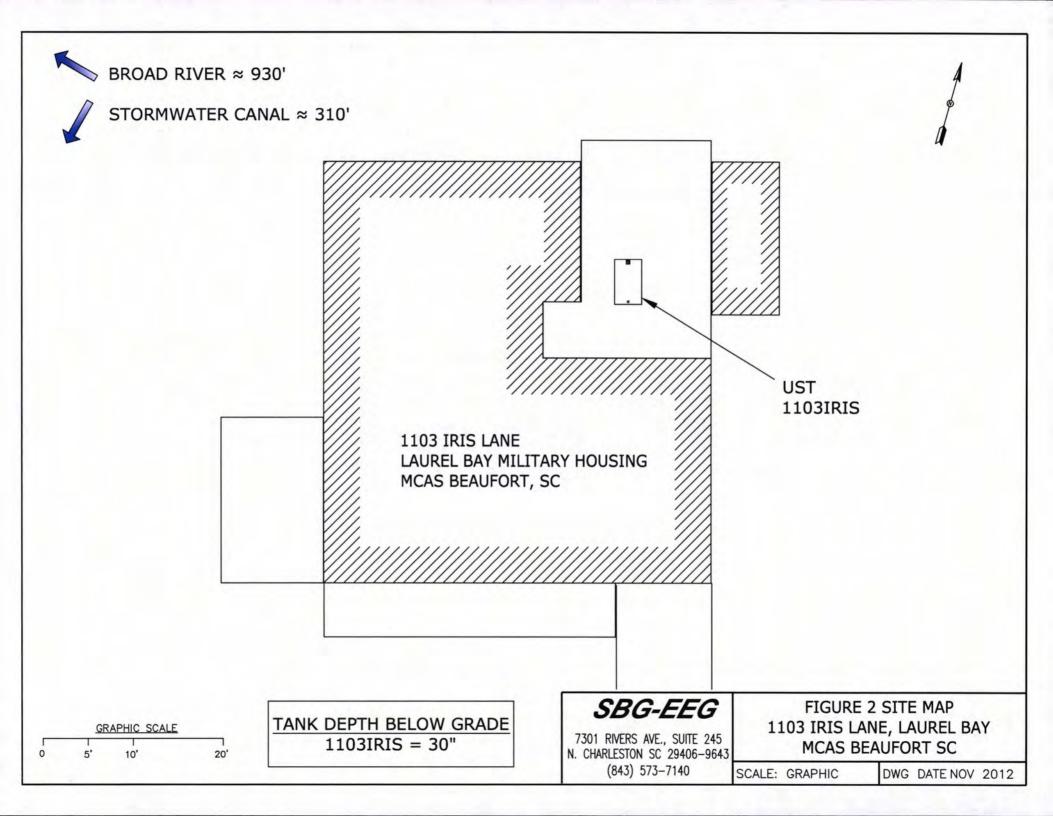
		res	NO
A.	Are there any lakes, ponds, streams, or wetlands located within 1000 feet of the UST system?	*X	
	*River & stormwater drain	nage	canal
	If yes, indicate type of receptor, distance, and direction on site map.		
B.	Are there any public, private, or irrigation water supply wells within 1000 feet of the UST system?		Х
	If yes, indicate type of well, distance, and direction on site map.		
C.	Are there any underground structures (e.g., basements) Located within 100 feet of the UST system?		Х
	If yes, indicate type of structure, distance, and direction on site map.		
D.	Are there any underground utilities (e.g., telephone, electricity, gas, water, sewer, storm drain) located within 100 feet of the UST system that could potentially come in contact with the	*X	
	contamination? *Sewer, water, electric	ilty	
:	cable & fiber optic If yes, indicate the type of utility, distance, and direction on the site map.		
E.	Has contaminated soil been identified at a depth less than 3 feet below land surface in an area that is not capped by asphalt or concrete?		Х
	If yes, indicate the area of contaminated soil on the site map.	<u> </u>	

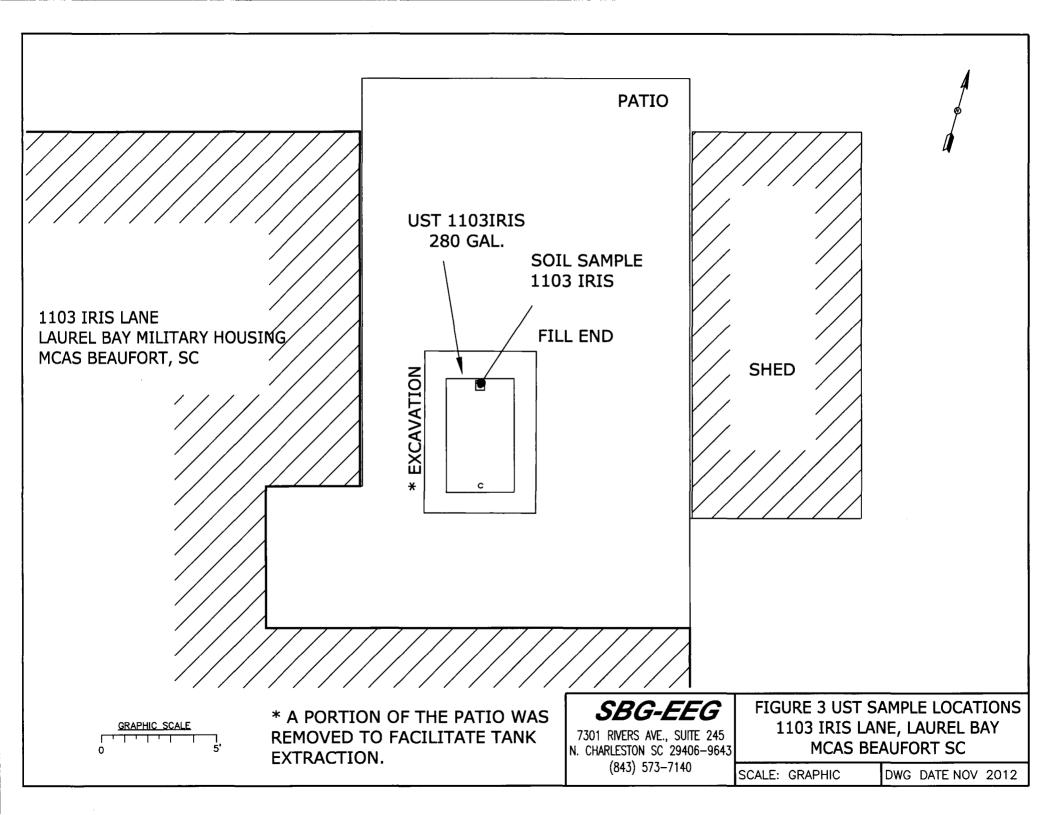
#### XIII. SITE MAP

You must supply a <u>scaled</u> site map. It should include all buildings, road names, utilities, tank and dispenser island locations, labeled sample locations, extent of excavation, and any other pertinent information.

(Attach Site Map Here)









Picture 1: Location of UST 1103Iris.



Picture 2: Excavation of UST 1103Iris.

#### XIV. SUMMARY OF ANALYSIS RESULTS

Enter the soil analytical data for each soil boring for all COC in the table below and on the following page.

		····	T
CoC UST	1103Iris		
Benzene	ND		
Toluene	ND		
Ethylbenzene	ND		
Xylenes	ND		
Naphthalene	ND		
Benzo (a) anthracene	0.0358 mg/kg		
Benzo (b) fluoranthene	0.0390 mg/kg		
Benzo (k) fluoranthene	0.0358 mg/kg		
Chrysene	0.0375 mg/kg		
Dibenz (a, h) anthracene	ND		
TPH (EPA 3550)			
СоС			
Benzene			
Toluene			
Ethylbenzene			
Xylenes			
Naphthalene			
Benzo (a) anthracene			
Benzo (b) fluoranthene			
Benzo (k) fluoranthene			
Chrysene			
Dibenz (a, h) anthracene			
TPH (EPA 3550)			

SUMMARY OF ANALYSIS RESULTS (cont'd)
Enter the ground water analytical data for each sample for all CoC in the table below. If free product is present, indicate the measured thickness to the nearest 0.01 feet.

is present, indicate the measured			1		
CoC	RBSL	W-1	W-2	W -3	W -4
	(µg/l)				
Free Product Thickness	None				
Benzene	5				
Toluene	1,000				
Ethylbenzene	700				
Xylenes	10,000				
Total BTEX	N/A				
МТВЕ	40				
Naphthalene	25				
Benzo (a) anthracene	10				
Benzo (b) flouranthene	10				
Benzo (k) flouranthene	10				
Chrysene	10				
Dibenz (a, h) anthracene	10				
EDB	.05				
1,2-DCA	5				
Lead	Site specific				

#### XV. ANALYTICAL RESULTS

You must submit the laboratory report and chain-of-custody form for the samples. These samples must be analyzed by a South Carolina certified laboratory.

(Attach Certified Analytical Results and Chain-of-Custody Here) (Please see Form #4)



# **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: 490-10215-1

Client Project/Site: Laurel Bay Housing Project

For:

**Environmental Enterprise Group** 10179 Highway 78 Ladson, South Carolina 29456

Attn: Mr. Tom McElwee

Kuth Hay

Authorized for release by: 11/12/2012 3:53:19 PM

Ken Hayes Project Manager I

ken.hayes@testamericainc.com

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.

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

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#### **Sample Summary**

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-10215-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-10215-1	1179 Bobwhite	Solid	10/22/12 16:30	10/30/12 08:30
490-10215-2	1374 Dove	Solid	10/22/12 16:30	10/30/12 08:30
490-10215-3	1221 Cardinal	Solid	10/23/12 14:45	10/30/12 08:30
490-10215-4	1133 Iris	Solid	10/24/12 14:45	10/30/12 08:30
490-10215-5	1102 Iris-1	Solid	10/25/12 15:15	10/30/12 08:30
490-10215-6	1103 Iris	Solid	10/25/12 15:00	10/30/12 08:30

#### **Case Narrative**

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-10215-1

Job ID: 490-10215-1

Laboratory: TestAmerica Nashville

Narrative

Job Narrative 490-10215-1

#### Comments

No additional comments.

#### Receipt

The samples were received on 10/30/2012 8:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.7° C.

#### GC/MS VOA

Method(s) 8260B: Surrogate recovery for the following sample(s) was outside control limits: 1102 Iris-1 (490-10215-5). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis 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: 490-10215-1

#### Qualifiers

0	~/B/	10 1	IOA
G	J/ IV	10 V	OA/

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	

#### 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)	
MDA	Minimum detectable activity	
MDC	Minimum detectable concentration	
RER	Relative error ratio	
DER	Duplicate error ratio (normalized absolute difference)	
DLC	Decision level concentration	
RL	Reporting Limit or Requested Limit (Radjochemistry only)	

#### **Client Sample Results**

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-10215-1

Client Sample ID: 1179 Bobwhite

Date Collected: 10/22/12 16:30 Date Received: 10/30/12 08:30

**Percent Solids** 

Lab Sample ID: 490-10215-1

Matrix: Solid

Percent Solids: 87 8

Pate Received: 10/30/12 08:30								Percent Soli	ds: 87.8
Method: 8260B - Volatile Orga	nic Compounds	(GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00223	0.000746	mg/Kg	٥	10/30/12 15:55	11/02/12 15:07	1
Ethylbenzene	ND		0.00223	0.000746	mg/Kg	⇔	10/30/12 15:55	11/02/12 15:07	-
Naphthalene	0.00265	J	0.00557	0.00189	mg/Kg	O	10/30/12 15:55	11/02/12 15:07	3
Toluene	ND		0.00223	0.000824	mg/Kg	Φ	10/30/12 15:55	11/02/12 15:07	9
Xylenes, Total	ND		0.00557	0.000746	mg/Kg	0	10/30/12 15:55	11/02/12 15:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		70 - 130				10/30/12 15:55	11/02/12 15:07	- 1
4-Bromofluorobenzene (Surr)	101		70 - 130				10/30/12 15:55	11/02/12 15:07	1
Dibromofluoromethane (Surr)	98		70 - 130				10/30/12 15:55	11/02/12 15:07	- 1
Toluene-d8 (Surr)	95		70 - 130				10/30/12 15:55	11/02/12 15:07	1
Method: 8270D - Semivolatile	Organic Compou	inds (GC/MS	S)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0658	0.00983	mg/Kg	Ø	11/05/12 10:11	11/05/12 20:25	
Acenaphthylene	ND		0.0658	0.00884	mg/Kg	O	11/05/12 10:11	11/05/12 20:25	1.9
Anthracene	ND		0.0658	0.00884	mg/Kg	Ø	11/05/12 10:11	11/05/12 20:25	1.8
Benzo[a]anthracene	ND		0.0658	0.0147	mg/Kg	O	11/05/12 10:11	11/05/12 20:25	1
Benzo[a]pyrene	ND		0.0658	0.0118	mg/Kg	0	11/05/12 10:11	11/05/12 20:25	-
Benzo[b]fluoranthene	ND		0.0658	0.0118	mg/Kg	ø	11/05/12 10:11	11/05/12 20:25	
Benzo[g,h,i]perylene	ND		0.0658	0.00884	mg/Kg	ø	11/05/12 10:11	11/05/12 20:25	1
Benzo[k]fluoranthene	ND		0.0658	0.0138	mg/Kg	Ø	11/05/12 10:11	11/05/12 20:25	1
1-Methylnaphthalene	ND		0.0658	0.0138	mg/Kg	O	11/05/12 10:11	11/05/12 20:25	
Pyrene	0.0403	J	0.0658	0.0118	mg/Kg	Ø	11/05/12 10:11	11/05/12 20:25	1
Phenanthrene	ND		0.0658	0.00884	mg/Kg	ø	11/05/12 10:11	11/05/12 20:25	1
Chrysene	ND		0.0658	0.00884	mg/Kg	Ø.	11/05/12 10:11	11/05/12 20:25	1
Dibenz(a,h)anthracene	ND		0.0658	0.00688	mg/Kg	Ø.	11/05/12 10:11	11/05/12 20:25	1
Fluoranthene	0.0416	J	0.0658	0.00884	mg/Kg	O	11/05/12 10:11	11/05/12 20:25	1
Fluorene	ND		0.0658	0.0118	mg/Kg	Ø	11/05/12 10:11	11/05/12 20:25	1
Indeno[1,2,3-cd]pyrene	0.0525	J	0.0658	0.00983	mg/Kg	夺	11/05/12 10:11	11/05/12 20:25	1
Naphthalene	ND		0.0658	0.00884	mg/Kg	ø	11/05/12 10:11	11/05/12 20:25	1
2-Methylnaphthalene	ND		0.0658	0.0157	mg/Kg	ø	11/05/12 10:11	11/05/12 20:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	46		29 - 120				11/05/12 10:11	11/05/12 20:25	1
Terphenyl-d14 (Surr)	57		13 - 120				11/05/12 10:11	11/05/12 20:25	1
Nitrobenzene-d5 (Surr)	52		27 - 120				11/05/12 10:11	11/05/12 20:25	1
General Chemistry		To the							
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac

10/31/12 13:47

0.10

0.10 %

88

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-10215-1

Client Sample ID: 1374 Dove

Date Collected: 10/22/12 16:30 Date Received: 10/30/12 08:30 Lab Sample ID: 490-10215-2

Matrix: Solid

Percent Solids: 92.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00217	0.000728		0	10/30/12 15:55	11/02/12 14:37	
Ethylbenzene	ND		0.00217	0.000728	mg/Kg	œ.	10/30/12 15:55	11/02/12 14:37	24
Naphthalene	0.00491	J	0.00543	0.00185	mg/Kg	0	10/30/12 15:55	11/02/12 14:37	1.0
Toluene	ND		0.00217	0.000804	mg/Kg	0	10/30/12 15:55	11/02/12 14:37	
Xylenes, Total	ND		0.00543	0.000728		Ф	10/30/12 15:55	11/02/12 14:37	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		70 - 130				10/30/12 15:55	11/02/12 14:37	-
4-Bromofluorobenzene (Surr)	109		70 - 130				10/30/12 15:55	11/02/12 14:37	
Dibromofluoromethane (Surr)	98		70 - 130				10/30/12 15:55	11/02/12 14:37	
Toluene-d8 (Surr)	97		70 - 130				10/30/12 15:55	11/02/12 14:37	3
Method: 8270D - Semivolatile (	Organia Composi	nds (CC/MS	2)						
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0653	0.00974	mg/Kg	0	11/05/12 10:11	11/05/12 20:46	-
Acenaphthylene	ND		0.0653	0.00877	mg/Kg	0	11/05/12 10:11	11/05/12 20:46	
Anthracene	ND		0.0653	0.00877	mg/Kg	0	11/05/12 10:11	11/05/12 20:46	
Benzo[a]anthracene	ND		0.0653	0.0146	mg/Kg	\$	11/05/12 10:11	11/05/12 20:46	
Benzo[a]pyrene	ND		0.0653	0.0117	mg/Kg	ø	11/05/12 10:11	11/05/12 20:46	
Benzo[b]fluoranthene	ND		0.0653	0.0117	mg/Kg	0	11/05/12 10:11	11/05/12 20:46	
Benzo[g,h,i]perylene	ND		0.0653	0.00877	mg/Kg	0	11/05/12 10:11	11/05/12 20:46	
Benzo[k]fluoranthene	ND		0.0653	0.0136	mg/Kg	0	11/05/12 10:11	11/05/12 20:46	
1-Methylnaphthalene	ND		0.0653	0.0136	mg/Kg	Ø	11/05/12 10:11	11/05/12 20:46	
Pyrene	ND		0.0653	0.0117	mg/Kg	ø	11/05/12 10:11	11/05/12 20:46	17
Phenanthrene	ND		0.0653	0.00877	mg/Kg	-0-	11/05/12 10:11	11/05/12 20:46	4
Chrysene	ND		0.0653	0.00877	mg/Kg	Ø	11/05/12 10:11	11/05/12 20:46	
Dibenz(a,h)anthracene	ND		0.0653	0.00682	mg/Kg	\$	11/05/12 10:11	11/05/12 20:46	
Fluoranthene	ND		0.0653	0.00877	mg/Kg	0	11/05/12 10:11	11/05/12 20:46	1
Fluorene	ND		0.0653	0.0117	mg/Kg	₩.	11/05/12 10:11	11/05/12 20:46	1
Indeno[1,2,3-cd]pyrene	ND		0.0653	0.00974	mg/Kg	φ.	11/05/12 10:11	11/05/12 20:46	
Naphthalene	ND		0.0653	0.00877	mg/Kg	0	11/05/12 10:11	11/05/12 20:46	
2-Methylnaphthalene	ND		0.0653	0.0156	mg/Kg	۵	11/05/12 10:11	11/05/12 20:46	7
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	50		29 - 120				11/05/12 10:11	11/05/12 20:46	1
Terphenyl-d14 (Surr)	66		13 - 120				11/05/12 10:11	11/05/12 20:46	
Nitrobenzene-d5 (Surr)	54		27 - 120				11/05/12 10:11	11/05/12 20:46	1
General Chemistry									
Analyte	Result	Qualifier	RL	PI	Unit	D	Prepared	Analyzed	Dil Fac

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-10215-1

Client Sample ID: 1221 Cardinal

Date Collected: 10/23/12 14:45 Date Received: 10/30/12 08:30 Lab Sample ID: 490-10215-3

Matrix: Solid

Percent Solids: 87.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	ND		0.00228	0.000764	mg/Kg	0	10/30/12 15:55	11/05/12 13:31	
Ethylbenzene	ND		0.00228	0.000764	mg/Kg	0	10/30/12 15:55	11/05/12 13:31	
Naphthalene	0.00335	J	0.00570	0.00194	mg/Kg	ø	10/30/12 15:55	11/05/12 13:31	
Toluene	0.000879	J	0.00228	0.000843	mg/Kg	43	10/30/12 15:55	11/05/12 13:31	
Xylenes, Total	ND		0.00570	0.000764		•	10/30/12 15:55	11/05/12 13:31	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
1,2-Dichloroethane-d4 (Surr)	94		70 - 130				10/30/12 15:55	11/05/12 13:31	
4-Bromofluorobenzene (Surr)	117		70 - 130				10/30/12 15:55	11/05/12 13:31	
Dibromofluoromethane (Surr)	100		70 - 130				10/30/12 15:55	11/05/12 13:31	
Toluene-d8 (Surr)	94		70 - 130				10/30/12 15:55	11/05/12 13:31	3
Method: 8270D - Semivolatile	Organic Compou	nds (GC/M	S)						
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Acenaphthene	ND		0.0653	0.00974	mg/Kg	*	11/05/12 10:11	11/05/12 21:07	
Acenaphthylene	ND		0.0653	0.00877	mg/Kg	*	11/05/12 10:11	11/05/12 21:07	
Anthracene	ND		0.0653	0.00877	mg/Kg	*	11/05/12 10:11	11/05/12 21:07	
Benzo[a]anthracene	ND		0.0653	0.0146	mg/Kg	400	11/05/12 10:11	11/05/12 21:07	
Benzo[a]pyrene	ND		0.0653	0.0117	mg/Kg		11/05/12 10:11	11/05/12 21:07	
Benzo[b]fluoranthene	ND		0.0653	0.0117	mg/Kg	0	11/05/12 10:11	11/05/12 21:07	
Benzo[g,h,i]perylene	ND		0.0653	0.00877	mg/Kg	*	11/05/12 10:11	11/05/12 21:07	
Benzo[k]fluoranthene	ND		0.0653	0.0136	mg/Kg	32	11/05/12 10:11	11/05/12 21:07	
1-Methylnaphthalene	ND		0.0653	0.0136	mg/Kg	42	11/05/12 10:11	11/05/12 21:07	
Pyrene	ND		0.0653	0.0117	mg/Kg	*	11/05/12 10:11	11/05/12 21:07	
Phenanthrene	ND		0.0653	0.00877	mg/Kg	0	11/05/12 10:11	11/05/12 21:07	
Chrysene	ND		0.0653	0.00877	mg/Kg	**	11/05/12 10:11	11/05/12 21:07	
Dibenz(a,h)anthracene	ND		0.0653	0.00682	mg/Kg	**	11/05/12 10:11	11/05/12 21:07	
Fluoranthene	ND		0.0653	0.00877	mg/Kg	0	11/05/12 10:11	11/05/12 21:07	
Fluorene	ND		0.0653	0.0117	mg/Kg	**	11/05/12 10:11	11/05/12 21:07	
Indeno[1,2,3-cd]pyrene	ND		0.0653	0.00974	mg/Kg	*	11/05/12 10:11	11/05/12 21:07	
Naphthalene	ND		0.0653	0.00877	mg/Kg	0	11/05/12 10:11	11/05/12 21:07	
2-Methylnaphthalene	ND		0.0653	0.0156	mg/Kg	₩	11/05/12 10:11	11/05/12 21:07	-
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	46		29 - 120				11/05/12 10:11	11/05/12 21:07	-
Terphenyl-d14 (Surr)	53		13 - 120				11/05/12 10:11	11/05/12 21:07	-
Nitrobenzene-d5 (Surr)	45		27 - 120				11/05/12 10:11	11/05/12 21:07	1
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac

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

TestAmerica Job ID: 490-10215-1

Client Sample ID: 1133 Iris

Date Collected: 10/24/12 14:45 Date Received: 10/30/12 08:30 Lab Sample ID: 490-10215-4

Matrix: Solid

Percent Solids: 79.3

Method: 8260B - Volatile Orga Analyte	the state of the state of the state of the	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Benzene	ND		0.00200	0.000671	mg/Kg	ø	10/30/12 15:55	11/02/12 13:35	
Ethylbenzene	0.901		0.127	0.0431	mg/Kg	0	10/30/12 15:54	11/05/12 15:34	
Naphthalene	4.80		0.317	0.108		袋	10/30/12 15:54	11/05/12 15:34	
Toluene	ND		0.00200	0.000741	mg/Kg	*	10/30/12 15:55	11/02/12 13:35	
Xylenes, Total	3.32		0.317	0.0431	mg/Kg	<b>\$</b>	10/30/12 15:54	11/05/12 15:34	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
1,2-Dichloroethane-d4 (Surr)	93		70 - 130				10/30/12 15:55	11/02/12 13:35	
1,2-Dichloroethane-d4 (Surr)	85		70 - 130				10/30/12 15:54	11/05/12 15:34	
4-Bromofluorobenzene (Surr)	98		70 - 130				10/30/12 15:55	11/02/12 13:35	
4-Bromofluorobenzene (Surr)	84		70 - 130				10/30/12 15:54	11/05/12 15:34	
Dibromofluoromethane (Surr)	94		70 - 130				10/30/12 15:55	11/02/12 13:35	
Dibromofluoromethane (Surr)	94		70 - 130				10/30/12 15:54	11/05/12 15:34	
Toluene-d8 (Surr)	110		70 - 130				10/30/12 15:55	11/02/12 13:35	
Toluene-d8 (Surr)	95		70 - 130				10/30/12 15:54	11/05/12 15:34	
Method: 8270D - Semivolatile	Organic Compou	nds (GC/MS	5)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Acenaphthene	1.47		0.0669	0.00999	mg/Kg	益	11/05/12 10:11	11/05/12 21:28	
Acenaphthylene	0.385		0.0669	0.00899	mg/Kg	Φ	11/05/12 10:11	11/05/12 21:28	
Anthracene	0.781		0.0669	0.00899	mg/Kg	0	11/05/12 10:11	11/05/12 21:28	
Benzo[a]anthracene	ND		0.0669	0.0150	mg/Kg	*	11/05/12 10:11	11/05/12 21:28	
Benzo[a]pyrene	ND		0.0669	0.0120	mg/Kg	*	11/05/12 10:11	11/05/12 21:28	
Benzo[b]fluoranthene	ND		0.0669	0.0120	mg/Kg	*	11/05/12 10:11	11/05/12 21:28	9
Benzo[g,h,i]perylene	ND		0.0669	0.00899	mg/Kg	*	11/05/12 10:11	11/05/12 21:28	
Benzo[k]fluoranthene	ND		0.0669	0.0140	mg/Kg	**	11/05/12 10:11	11/05/12 21:28	
1-Methylnaphthalene	19.1		1.34	0.280	mg/Kg	\$	11/05/12 10:11	11/07/12 13:27	2
Pyrene	0.402		0.0669	0.0120	mg/Kg	\$	11/05/12 10:11	11/05/12 21:28	
Phenanthrene	5.57		0.335	0.0450	mg/Kg		11/05/12 10:11	11/06/12 12:58	3
Chrysene	ND		0.0669	0.00899	mg/Kg	*	11/05/12 10:11	11/05/12 21:28	
Dibenz(a,h)anthracene	ND		0.0669	0.00699	mg/Kg	*	11/05/12 10:11	11/05/12 21:28	
Fluoranthene	0.142		0.0669	0.00899	mg/Kg	0	11/05/12 10:11	11/05/12 21:28	
Fluorene	2.29		0.0669	0.0120	mg/Kg	0	11/05/12 10:11	11/05/12 21:28	
Indeno[1,2,3-cd]pyrene	ND		0.0669	0.00999	mg/Kg	袋	11/05/12 10:11	11/05/12 21:28	19
Naphthalene	6.49		0.335	0.0450	mg/Kg	0	11/05/12 10:11	11/06/12 12:58	
2-Methylnaphthalene	28.4		1.34	0.320	mg/Kg	\$	11/05/12 10:11	11/07/12 13:27	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fa
2-Fluorobiphenyl (Surr)	41		29 - 120				11/05/12 10:11	11/05/12 21:28	
2-Fluorobiphenyl (Surr)	56		29 - 120				11/05/12 10:11	11/07/12 13:27	20
Terphenyl-d14 (Surr)	49		13 - 120				11/05/12 10:11	11/05/12 21:28	
Terphenyl-d14 (Surr)	48		13 - 120				11/05/12 10:11	11/07/12 13:27	20
Nitrobenzene-d5 (Surr)	58		27 - 120				11/05/12 10:11	11/05/12 21:28	
Nitrobenzene-d5 (Surr)	99		27 - 120				11/05/12 10:11	11/07/12 13:27	20
General Chemistry								202202	- 21
Analyte		Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	79		0.10	0.10	%			10/31/12 13:47	

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-10215-1

Client Sample ID: 1102 Iris-1

Date Collected: 10/25/12 15:15

Date Received: 10/30/12 08:30

Lab Sample ID: 490-10215-5

Matrix: Solid

Percent Solids: 77.6

Analyte	nic Compounds Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND	444411	0.00235	0.000787	mg/Kg	- 0	10/30/12 15:55	11/02/12 13:04	
Ethylbenzene	0.567		0.139	0.0474		**	10/30/12 15:54	11/05/12 12:54	
Naphthalene	13.4		0.348	0.118	0 0	***	10/30/12 15:54	11/05/12 12:54	
Toluene	0.00296		0.00235	0.000869	mg/Kg	ø	10/30/12 15:55	11/02/12 13:04	
Xylenes, Total	0.0534		0.00587	0.000787		ø	10/30/12 15:55	11/02/12 13:04	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108	A	70 - 130				10/30/12 15:55	11/02/12 13:04	
1,2-Dichloroethane-d4 (Surr)	95		70 - 130				10/30/12 15:54	11/05/12 12:54	
4-Bromofluorobenzene (Surr)	552	×	70 - 130				10/30/12 15:55	11/02/12 13:04	
4-Bromofluorobenzene (Surr)	79	^	70 - 130				10/30/12 15:54	11/05/12 12:54	
Dibromofluoromethane (Surr)	115		70 - 130				10/30/12 15:55	11/02/12 13:04	
Dibromofluoromethane (Surr)	100		70 - 130				10/30/12 15:54	11/05/12 12:54	
	202	v	70 - 130				10/30/12 15:55	11/02/12 13:04	
Toluene-d8 (Surr) Toluene-d8 (Surr)	101	^	70 - 130				10/30/12 15:54	11/05/12 12:54	
Method: 8270D - Semivolatile  Analyte		nds (GC/MS Qualifier	S) RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.813		0.0664	0.00992	mg/Kg	Ø	11/05/12 10:11	11/05/12 21:49	-
Acenaphthylene	0.225		0.0664	0.00893		0	11/05/12 10:11	11/05/12 21:49	
Anthracene	0.584		0.0664	0.00893	mg/Kg		11/05/12 10:11	11/05/12 21:49	
Benzo[a]anthracene	0.372		0.0664		mg/Kg	₩.	11/05/12 10:11	11/05/12 21:49	
Benzo[a]pyrene	0.0510	J	0.0664		mg/Kg	*	11/05/12 10:11	11/05/12 21:49	-
Benzo[b]fluoranthene	0.0772		0.0664		mg/Kg	0	11/05/12 10:11	11/05/12 21:49	
Benzo[g,h,i]perylene	0.0527	J	0.0664	0.00893		0	11/05/12 10:11	11/05/12 21:49	
Benzo[k]fluoranthene	0.0459		0.0664		mg/Kg	0	11/05/12 10:11	11/05/12 21:49	
1-Methylnaphthalene	14.5	•	0.332	0.0694	-	**	11/05/12 10:11	11/06/12 13:19	
Pyrene	5.05		0.332		mg/Kg	0	11/05/12 10:11	11/06/12 13:19	
Phenanthrene	7.61		0.332	0.0446		0	11/05/12 10:11	11/06/12 13:19	
	0.227		0.0664	0.00893		*	11/05/12 10:11	11/05/12 21:49	
Chrysene Dibenz(a,h)anthracene	ND		0.0664	0.00694		•	11/05/12 10:11	11/05/12 21:49	
The control of the co			0.332	0.0446	mg/Kg	***	11/05/12 10:11	11/06/12 13:19	
Fluoranthene	7.51		0.0664	0.0119	mg/Kg	•	11/05/12 10:11	11/05/12 21:49	
Fluorene	1.13		0.0664	0.00992	400 100	ø	11/05/12 10:11	11/05/12 21:49	
Indeno[1,2,3-cd]pyrene	0.0590	J	0.332		mg/Kg	*	11/05/12 10:11	11/06/12 13:19	
Naphthalene 2-Methylnaphthalene	5.67 21.9		1.33		mg/Kg mg/Kg	ø	11/05/12 10:11	11/06/12 13:19	20
		Ougliff	Limite				Dranasad	Analyzad	D# 5-
Surrogate	%Recovery	Qualifier	Limits 29 - 120				Prepared 11/05/12 10:11	Analyzed 11/05/12 21:49	Dil Fac
2-Fluorobiphenyl (Surr)	36 48		29 - 120				11/05/12 10:11	11/07/12 13:48	20
2-Fluorobiphenyl (Surr)	37		13 - 120				11/05/12 10:11	11/05/12 21:49	20
Terphenyl-d14 (Surr)			13 - 120				11/05/12 10:11	11/05/12 21:49	
Terphenyl-d14 (Surr)	44								20
Nitrobenzene-d5 (Surr) Nitrobenzene-d5 (Surr)	78 93		27 - 120 27 - 120				11/05/12 10:11 11/05/12 10:11	11/05/12 21:49 11/07/12 13:48	20
0									
General Chemistry	Dec. 4	Qualifier	DI	DI	Unit		Proposed	Analyzad	DH E
Analyte Percent Solids	Result 78	Qualifier	RL 0.10	0.10	Unit	D	Prepared	Analyzed 10/31/12 13:47	Dil Fac

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-10215-1

Client Sample ID: 1103 Iris Date Collected: 10/25/12 15:00 Lab Sample ID: 490-10215-6

Date Collected: 10/25/12 15:00 Date Received: 10/30/12 08:30 Matrix: Solid Percent Solids: 86.6

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00198	0.000665	mg/Kg	O	10/30/12 15:55	11/02/12 12:32	1
Ethylbenzene	ND		0.00198	0.000665	mg/Kg	-02	10/30/12 15:55	11/02/12 12:32	1
Naphthalene	ND		0.00496	0.00169	mg/Kg	335	10/30/12 15:55	11/02/12 12:32	1
Toluene	ND		0.00198	0.000734	mg/Kg	0	10/30/12 15:55	11/02/12 12:32	1
Xylenes, Total	ND		0.00496	0.000665	mg/Kg	Ø-	10/30/12 15:55	11/02/12 12:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		70 - 130				10/30/12 15:55	11/02/12 12:32	1
4-Bromofluorobenzene (Surr)	103		70 - 130				10/30/12 15:55	11/02/12 12:32	1
Dibromofluoromethane (Surr)	110		70 - 130				10/30/12 15:55	11/02/12 12:32	1
Toluene-d8 (Surr)	95		70 - 130				10/30/12 15:55	11/02/12 12:32	1
Method: 8270D - Semivolatile	Organic Compou	nds (GC/Ms	3)						
Analyte	The state of the s	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0666	0.00993	mg/Kg	305	11/08/12 11:46	11/10/12 18:54	1
Acenaphthylene	ND		0.0666	0.00894	mg/Kg	32	11/08/12 11:46	11/10/12 18:54	1
Anthracene	ND		0.0666	0.00894	mg/Kg	<b>\$</b>	11/08/12 11:46	11/10/12 18:54	1
Benzo[a]anthracene	0.0358	J	0.0666	0.0149	mg/Kg	*	11/08/12 11:46	11/10/12 18:54	1
Benzo[a]pyrene	ND		0.0666	0.0119	mg/Kg	**	11/08/12 11:46	11/10/12 18:54	1
Benzo[b]fluoranthene	0.0390	J	0.0666	0.0119	mg/Kg	0	11/08/12 11:46	11/10/12 18:54	1
Benzo[g,h,i]perylene	ND		0.0666	0.00894	mg/Kg	o	11/08/12 11:46	11/10/12 18:54	1
Benzo[k]fluoranthene	0.0358	J	0.0666	0.0139	mg/Kg	0	11/08/12 11:46	11/10/12 18:54	1
1-Methylnaphthalene	ND		0.0666	0.0139	mg/Kg	405	11/08/12 11:46	11/10/12 18:54	1
Pyrene	0.0422	J	0.0666	0.0119	mg/Kg	0	11/08/12 11:46	11/10/12 18:54	1
Phenanthrene	ND		0.0666	0.00894	mg/Kg	0	11/08/12 11:46	11/10/12 18:54	1
Chrysene	0.0375	J	0.0666	0.00894	mg/Kg	305	11/08/12 11:46	11/10/12 18:54	1
Dibenz(a,h)anthracene	ND		0.0666	0.00695	mg/Kg	0	11/08/12 11:46	11/10/12 18:54	1
Fluoranthene	0.0415	J	0.0666	0.00894	mg/Kg	٥	11/08/12 11:46	11/10/12 18:54	1
Fluorene	ND		0.0666	0.0119	mg/Kg	0	11/08/12 11:46	11/10/12 18:54	1
Indeno[1,2,3-cd]pyrene	ND		0.0666	0.00993	mg/Kg	•	11/08/12 11:46	11/10/12 18:54	1
Naphthalene	ND		0.0666	0.00894	mg/Kg	\$2	11/08/12 11:46	11/10/12 18:54	1
2-Methylnaphthalene	ND		0.0666	0.0159	mg/Kg	Ø	11/08/12 11:46	11/10/12 18:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	62		29 - 120				11/08/12 11:46	11/10/12 18:54	1
Terphenyl-d14 (Surr)	71		13 - 120				11/08/12 11:46	11/10/12 18:54	1
Nitrobenzene-d5 (Surr)	68		27 - 120				11/08/12 11:46	11/10/12 18:54	1
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac

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

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

MB MB

Lab Sample ID: MB 490-32902/6

Matrix: Solid

Analysis Batch: 32902

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

	Ргер Туре: 1	otal/NA
Prepared	Analyzed	Dil Fac
	11/02/12 11:31	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00200	0.000670	mg/Kg	-		11/02/12 11:31	1
Ethylbenzene	ND		0.00200	0.000670	mg/Kg			11/02/12 11:31	1
Naphthalene	ND		0.00500	0.00170	mg/Kg			11/02/12 11:31	1
Toluene	ND		0.00200	0.000740	mg/Kg			11/02/12 11:31	1
Xylenes, Total	ND		0.00500	0.000670	mg/Kg			11/02/12 11:31	1
	МВ	МВ							

	MID MID				
Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99	70 - 130		11/02/12 11:31	1
4-Bromofluorobenzene (Surr)	99	70 - 130		11/02/12 11:31	1
Dibromofluoromethane (Surr)	107	70 - 130		11/02/12 11:31	1
Toluene-d8 (Surr)	97	70 - 130		11/02/12 11:31	1
The state of the s					

Lab Sample ID: LCS 490-32902/3

Matrix: Solid

Analysis Batch: 32902

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

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.0500	0.04557		mg/Kg				
Ethylbenzene	0.0500	0.04493		mg/Kg				
Naphthalene	0.0500	0.03698		mg/Kg				
Toluene	0.0500	0.04299		mg/Kg				
Xylenes, Total	0.150	0.1393		mg/Kg				

LCS LCS

Surrogate %Recovery Qualifier Limits

1,2-Dichloroethane-d4 (Surr)

4-Bromofluorobenzene (Surr)

Dibromofluoromethane (Surr)

Toluene-d8 (Surr)

Lab Sample ID: 490-10429-A-10-D MS

Matrix: Solid

Analysis Batch: 32902

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 32932

	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Benzene	ND		0.0426	0.03969		mg/Kg		93	31 - 143
Ethylbenzene	ND		0.0426	0.03496		mg/Kg		82	23 - 161
Naphthalene	ND		0.0426	0.005284		mg/Kg		12	10 - 176
Toluene	ND		0.0426	0.03622		mg/Kg		85	30 - 155
Xylenes, Total	ND		0.128	0.1041		mg/Kg		81	25 - 162

MS	MS
	,,,,

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	106	Qualifier	70 - 130
4-Bromofluorobenzene (Surr)	100		70 - 130
			.65-155
Dibromofluoromethane (Surr)	111		70 - 130
Toluene-d8 (Surr)	99		70 - 130

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

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

Lab Sample ID: 490-10429-A-10-E MSD

Matrix: Solid

Analysis Batch: 32902

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 32932

A THE STATE OF THE	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	ND		0.0478	0.04221		mg/Kg		88	31 - 143	6	50
Ethylbenzene	ND		0.0478	0.03892		mg/Kg		81	23 - 161	11	50
Naphthalene	ND		0.0478	0.007524		mg/Kg		16	10 - 176	35	50
Toluene	ND		0.0478	0.03853		mg/Kg		81	30 - 155	6	50
Xylenes, Total	ND		0.143	0.1167		mg/Kg		81	25 - 162	11	50

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	106		70 - 130
4-Bromofluorobenzene (Surr)	103		70 - 130
Dibromofluoromethane (Surr)	110		70 - 130
Toluene-d8 (Surr)	97		70 - 130

Lab Sample ID: 490-10480-A-12-D MS

Matrix: Solid

Analysis Batch: 33503

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 33200

	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Benzene	0.000587	J	0.0473	0.04721		mg/Kg		100	31 - 143
Ethylbenzene	ND		0.0473	0.04706		mg/Kg		100	23 - 161
Naphthalene	0.00157	J	0.0473	0.03445		mg/Kg		61	10 - 176
Toluene	0.000663	J	0.0473	0.04539		mg/Kg		96	30 - 155
Xylenes, Total	ND		0.142	0.1400		mg/Kg		99	25 - 162

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	93		70 - 130
4-Bromofluorobenzene (Surr)	103		70 - 130
Dibromofluoromethane (Surr)	101		70 - 130
Toluene-d8 (Surr)	96		70 - 130

Lab Sample ID: 490-10480-A-12-E MSD Client Sample ID: Matrix Spike Duplicate

Matrix: Solid

Analysis Batch: 33503

Prep Type: Total/NA

Prep Batch: 33200

The state of the s	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.000587	J	0.0430	0.04100		mg/Kg		95	31 - 143	14	50
Ethylbenzene	ND		0.0430	0.03954		mg/Kg		92	23 - 161	17	50
Naphthalene	0.00157	J	0.0430	0.02604		mg/Kg		47	10 - 176	28	50
Toluene	0.000663	J	0.0430	0.03848		mg/Kg		90	30 - 155	16	50
Xylenes, Total	ND		0.129	0.1170		mg/Kg		91	25 - 162	18	50

MSD MSD

Surrogate	%Recovery	Qualifier	Limits					
1,2-Dichloroethane-d4 (Surr)	94		70 - 130					
4-Bromofluorobenzene (Surr)	102		70 - 130					
Dibromofluoromethane (Surr)	103		70 - 130					
Toluene-d8 (Surr)	95		70 - 130					

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

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

Lab Sample ID: MB 490-33503/7

Matrix: Solid

Analysis Batch: 33503

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

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.100	0.0340	mg/Kg			11/05/12 12:24	1
Ethylbenzene	ND		0.100	0.0340	mg/Kg			11/05/12 12:24	1
Naphthalene	ND		0.250	0.0850	mg/Kg			11/05/12 12:24	1
Toluene	ND		0.100	0.0370	mg/Kg			11/05/12 12:24	1
Xylenes, Total	ND		0.250	0.0340	mg/Kg			11/05/12 12:24	1

MB MB Limits Analyzed Dil Fac Surrogate %Recovery Qualifier Prepared 99 70 - 130 11/05/12 12:24 1,2-Dichloroethane-d4 (Surr) 70 - 130 4-Bromofluorobenzene (Surr) 101 11/05/12 12:24 Dibromofluoromethane (Surr) 109 70 - 130 11/05/12 12:24 95 70 - 130 11/05/12 12:24 Toluene-d8 (Surr)

Lab Sample ID: LCS 490-33503/3

Matrix: Solid

Analysis Batch: 33503

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

	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Benzene	0.0500	0.04580		mg/Kg		92	75 - 127
Ethylbenzene	0.0500	0.04255		mg/Kg		85	80 - 134
Naphthalene	0.0500	0.03957		mg/Kg		79	69 - 150
Toluene	0.0500	0.04039		mg/Kg		81	80 - 132
Xylenes, Total	0.150	0.1323		mg/Kg		88	80 - 137

Limits
70 - 130
70 - 130
70 - 130
70 - 130

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

Lab Sample ID: MB 490-33536/1-A

Matrix: Solid

Analysis Batch: 33545

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

Prep Batch: 33536

Allalysis Batch. 33343	мв	МВ						Fiep Batci	1. 33330
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0670	0.0100	mg/Kg		11/05/12 10:11	11/05/12 18:40	1
Acenaphthylene	ND		0.0670	0.00900	mg/Kg		11/05/12 10:11	11/05/12 18:40	1
Anthracene	ND		0.0670	0.00900	mg/Kg		11/05/12 10:11	11/05/12 18:40	1
Benzo[a]anthracene	ND		0.0670	0.0150	mg/Kg		11/05/12 10:11	11/05/12 18:40	1
Benzo[a]pyrene	ND		0.0670	0.0120	mg/Kg		11/05/12 10:11	11/05/12 18:40	1
Benzo[b]fluoranthene	ND		0.0670	0.0120	mg/Kg		11/05/12 10:11	11/05/12 18:40	1
Benzo[g,h,i]perylene	ND		0.0670	0.00900	mg/Kg		11/05/12 10:11	11/05/12 18:40	1
Benzo[k]fluoranthene	ND		0.0670	0.0140	mg/Kg		11/05/12 10:11	11/05/12 18:40	1
1-Methylnaphthalene	ND		0.0670	0.0140	mg/Kg		11/05/12 10:11	11/05/12 18:40	1
Pyrene	ND		0.0670	0.0120	mg/Kg		11/05/12 10:11	11/05/12 18:40	1
Phenanthrene	ND		0.0670	0.00900	mg/Kg		11/05/12 10:11	11/05/12 18:40	1
Chrysene	ND		0.0670	0.00900	mg/Kg		11/05/12 10:11	11/05/12 18:40	1
Dibenz(a,h)anthracene	ND		0.0670	0.00700	mg/Kg		11/05/12 10:11	11/05/12 18:40	1

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

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

Lab Sample ID: MB 490-33536/1-A

Matrix: Solid

Analysis Batch: 33545

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

Prep Batch: 33536

	МВ	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND		0.0670	0.00900	mg/Kg		11/05/12 10:11	11/05/12 18:40	1
Fluorene	ND		0.0670	0.0120	mg/Kg		11/05/12 10:11	11/05/12 18:40	1
Indeno[1,2,3-cd]pyrene	ND		0.0670	0.0100	mg/Kg		11/05/12 10:11	11/05/12 18:40	1
Naphthalene	ND		0.0670	0.00900	mg/Kg		11/05/12 10:11	11/05/12 18:40	1
2-Methylnaphthalene	ND		0.0670	0.0160	mg/Kg		11/05/12 10:11	11/05/12 18:40	1

MB MB

Surrogate	%Recovery Quality	fier Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	65	29 - 120	11/05/12 10:11	11/05/12 18:40	1
Terphenyl-d14 (Surr)	84	13 - 120	11/05/12 10:11	11/05/12 18:40	1
Nitrobenzene-d5 (Surr)	63	27 - 120	11/05/12 10:11	11/05/12 18:40	1

Lab Sample ID: LCS 490-33536/2-A

Matrix: Solid

Analysis Batch: 33545

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 33536

Service and Servic	Spike	LCS L	cs		%Rec.
Analyte	Added	Result Q	ualifier Unit	D %Rec	Limits
Acenaphthylene	1.67	1.547	mg/Kg	93	38 - 120
Anthracene	1.67	1.449	mg/Kg	87	46 - 124
Benzo[a]anthracene	1.67	1.552	mg/Kg	93	45 - 120
Benzo[a]pyrene	1.67	1.766	mg/Kg	106	45 - 120
Benzo[b]fluoranthene	1.67	1.735	mg/Kg	104	42 - 120
Benzo[g,h,i]perylene	1.67	1.411	mg/Kg	85	38 - 120
Benzo[k]fluoranthene	1.67	1.587	mg/Kg	95	42 - 120
1-Methylnaphthalene	1.67	1.254	mg/Kg	75	32 - 120
Pyrene	1.67	1.423	mg/Kg	85	43 - 120
Phenanthrene	1.67	1.418	mg/Kg	85	45 - 120
Chrysene	1.67	1.334	mg/Kg	80	43 - 120
Dibenz(a,h)anthracene	1.67	1.447	mg/Kg	87	32 - 128
Fluoranthene	1.67	1.549	mg/Kg	93	46 - 120
Fluorene	1.67	1.519	mg/Kg	91	42 - 120
Indeno[1,2,3-cd]pyrene	1.67	1.441	mg/Kg	86	41 - 121
Naphthalene	1.67	1.368	mg/Kg	82	32 - 120
2-Methylnaphthalene	1.67	1.269	mg/Kg	76	28 - 120

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl (Surr)	68		29 - 120
Terphenyl-d14 (Surr)	79		13 - 120
Nitrobenzene-d5 (Surr)	58		27 - 120

Lab Sample ID: 490-10245-C-1-B MS

Matrix: Solid

Analysis Batch: 33545

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

Prep Batch: 33536

	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Acenaphthylene	ND		1.41	0.9531		mg/Kg		67	25 - 120
Anthracene	ND		1.41	0.8931		mg/Kg		63	28 - 125
Benzo[a]anthracene	ND		1.41	0.9148		mg/Kg		65	23 - 120
Benzo[a]pyrene	ND		1.41	0.9961		mg/Kg		70	15 - 128
Benzo[b]fluoranthene	ND		1.41	0.9996		mg/Kg		71	12 - 133

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

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

Lab Sample ID: 490-10245-C-1-B MS

Matrix: Solid

Analysis Batch: 33545

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

Prep Batch: 33536

	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Benzo[g,h,i]perylene	ND		1.41	0.8520		mg/Kg		60	22 - 120
Benzo[k]fluoranthene	ND		1.41	0.9056		mg/Kg		64	28 - 120
1-Methylnaphthalene	ND		1.41	0.8046		mg/Kg		57	10 - 120
Pyrene	ND		1.41	0.8661		mg/Kg		61	20 - 123
Phenanthrene	ND		1.41	0.8637		mg/Kg		61	21 - 122
Chrysene	ND		1.41	0.8944		mg/Kg		63	20 - 120
Dibenz(a,h)anthracene	ND		1.41	0.9118		mg/Kg		64	12 - 128
Fluoranthene	ND		1.41	0.9505		mg/Kg		67	10 - 143
Fluorene	ND		1.41	0.9103		mg/Kg		64	20 - 120
Indeno[1,2,3-cd]pyrene	ND		1.41	0.8784		mg/Kg		62	22 - 121
Naphthalene	ND		1.41	0.8590		mg/Kg		61	10 - 120
2-Methylnaphthalene	ND		1.41	0.7989		mg/Kg		56	13 - 120

Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl (Surr)	48		29 - 120
Terphenyl-d14 (Surr)	59		13 - 120
Nitrobenzene-d5 (Surr)	47		27 - 120

Lab Sample ID: 490-10245-C-1-C MSD

Matrix: Solid

Analysis Batch: 33545

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 33536

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acenaphthylene	ND		1.40	1.064		mg/Kg		76	25 - 120	11	50
Anthracene	ND		1.40	1.026		mg/Kg		73	28 - 125	14	49
Benzo[a]anthracene	ND		1.40	1.043		mg/Kg		74	23 - 120	13	50
Benzo[a]pyrene	ND		1.40	1.155		mg/Kg		82	15 - 128	15	50
Benzo[b]fluoranthene	ND		1.40	1.143		mg/Kg		82	12 - 133	13	50
Benzo[g,h,i]perylene	ND		1.40	0.9598		mg/Kg		68	22 - 120	12	50
Benzo[k]fluoranthene	ND		1.40	1.020		mg/Kg		73	28 - 120	12	45
1-Methylnaphthalene	ND		1.40	0.8747		mg/Kg		62	10 - 120	8	50
Pyrene	ND		1.40	0.9800		mg/Kg		70	20 - 123	12	50
Phenanthrene	ND		1.40	1.008		mg/Kg		72	21 - 122	15	50
Chrysene	ND		1.40	0.9685		mg/Kg		69	20 - 120	8	49
Dibenz(a,h)anthracene	ND		1.40	1.011		mg/Kg		72	12 - 128	10	50
Fluoranthene	ND		1.40	1.087		mg/Kg		78	10 - 143	13	50
Fluorene	ND		1.40	1.014		mg/Kg		72	20 - 120	11	50
Indeno[1,2,3-cd]pyrene	ND		1.40	1.024		mg/Kg		73	22 - 121	15	50
Naphthalene	ND		1.40	0.9689		mg/Kg		69	10 - 120	12	50
2-Methylnaphthalene	ND		1.40	0.8810		mg/Kg		63	13 - 120	10	50

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl (Surr)	52		29 - 120
Terphenyl-d14 (Surr)	62		13 - 120
Nitrobenzene-d5 (Surr)	50		27 - 120

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

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

Lab Sample ID: MB 490-34510/1-A

Matrix: Solid

Analysis Batch: 35149

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

Prep Batch: 34510

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0670	0.0100	mg/Kg		11/08/12 11:46	11/10/12 17:43	1
Acenaphthylene	ND		0.0670	0.00900	mg/Kg		11/08/12 11:46	11/10/12 17:43	1
Anthracene	ND		0.0670	0.00900	mg/Kg		11/08/12 11:46	11/10/12 17:43	1
Benzo[a]anthracene	ND		0.0670	0.0150	mg/Kg		11/08/12 11:46	11/10/12 17:43	1
Benzo[a]pyrene	ND		0.0670	0.0120	mg/Kg		11/08/12 11:46	11/10/12 17:43	1
Benzo[b]fluoranthene	ND		0.0670	0.0120	mg/Kg		11/08/12 11:46	11/10/12 17:43	1
Benzo[g,h,i]perylene	ND		0.0670	0.00900	mg/Kg		11/08/12 11:46	11/10/12 17:43	1
Benzo[k]fluoranthene	ND		0.0670	0.0140	mg/Kg		11/08/12 11:46	11/10/12 17:43	1
1-Methylnaphthalene	ND		0.0670	0.0140	mg/Kg		11/08/12 11:46	11/10/12 17:43	1
Pyrene	ND		0.0670	0.0120	mg/Kg		11/08/12 11:46	11/10/12 17:43	1
Phenanthrene	ND		0.0670	0.00900	mg/Kg		11/08/12 11:46	11/10/12 17:43	1
Chrysene	ND		0.0670	0.00900	mg/Kg		11/08/12 11:46	11/10/12 17:43	1
Dibenz(a,h)anthracene	ND		0.0670	0.00700	mg/Kg		11/08/12 11:46	11/10/12 17:43	1
Fluoranthene	ND		0.0670	0.00900	mg/Kg		11/08/12 11:46	11/10/12 17:43	1
Fluorene	ND		0.0670	0.0120	mg/Kg		11/08/12 11:46	11/10/12 17:43	1
Indeno[1,2,3-cd]pyrene	ND		0.0670	0.0100	mg/Kg		11/08/12 11:46	11/10/12 17:43	1
Naphthalene	ND		0.0670	0.00900	mg/Kg		11/08/12 11:46	11/10/12 17:43	1
2-Methylnaphthalene	ND		0.0670	0.0160	mg/Kg		11/08/12 11:46	11/10/12 17:43	1

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	82	29 - 120	11/08/12 11:46	11/10/12 17:43	1
Terphenyl-d14 (Surr)	90	13 - 120	11/08/12 11:46	11/10/12 17:43	1
Nitrobenzene-d5 (Surr)	82	27 - 120	11/08/12 11:46	11/10/12 17:43	1

Lab Sample ID: LCS 490-34510/2-A

Matrix: Solid

Analysis Batch: 35149

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 34510

	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Acenaphthylene	1.67	1.346		mg/Kg		81	38 - 120
Anthracene	1.67	1.593		mg/Kg		96	46 - 124
Benzo[a]anthracene	1.67	1.608		mg/Kg		96	45 - 120
Benzo[a]pyrene	1.67	1.589		mg/Kg		95	45 - 120
Benzo[b]fluoranthene	1.67	1.483		mg/Kg		89	42 - 120
Benzo[g,h,i]perylene	1.67	1.371		mg/Kg		82	38 - 120
Benzo[k]fluoranthene	1.67	1.516		mg/Kg		91	42 - 120
1-Methylnaphthalene	1.67	1.317		mg/Kg		79	32 - 120
Pyrene	1.67	1.634		mg/Kg		98	43 - 120
Phenanthrene	1.67	1.523		mg/Kg		91	45 - 120
Chrysene	1.67	1.563		mg/Kg		94	43 - 120
Dibenz(a,h)anthracene	1.67	1.433		mg/Kg		86	32 - 128
Fluoranthene	1.67	1.722		mg/Kg		103	46 - 120
Fluorene	1.67	1.430		mg/Kg		86	42 - 120
Indeno[1,2,3-cd]pyrene	1.67	1.438		mg/Kg		86	41 - 121
Naphthalene	1.67	1.505		mg/Kg		90	32 - 120
2-Methylnaphthalene	1.67	1.410		mg/Kg		85	28 - 120

LCS LCS

Surrogate	%Recovery	Qualifier	Limits	
2-Fluorobiphenyl (Surr)	67		29 - 120	

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

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

Lab Sample ID: LCS 490-34510/2-A

Matrix: Solid

Analysis Batch: 35149

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

Prep Batch: 34510

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
Terphenyl-d14 (Surr)	92		13 - 120
Nitrobenzene-d5 (Surr)	76		27 - 120

Lab Sample ID: 490-10215-6 MS

Matrix: Solid

Analysis Batch: 35149

Client Sample ID: 1103 Iris Prep Type: Total/NA

Prep Batch: 34510

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	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Acenaphthylene	ND		1.66	1.225		mg/Kg	0	74	25 - 120	
Anthracene	ND		1.66	1.148		mg/Kg	-02	69	28 - 125	
Benzo[a]anthracene	0.0358	J	1.66	1.479		mg/Kg	٥	87	23 - 120	
Benzo[a]pyrene	ND		1.66	1.350		mg/Kg	0	81	15 - 128	
Benzo[b]fluoranthene	0.0390	J	1.66	1.357		mg/Kg	0	80	12 - 133	
Benzo[g,h,i]perylene	ND		1.66	1.294		mg/Kg	0	78	22 - 120	
Benzo[k]fluoranthene	0.0358	J	1.66	1.398		mg/Kg	0	82	28 - 120	
1-Methylnaphthalene	ND		1.66	1.028		mg/Kg	*	62	10 - 120	
Pyrene	0.0422	J	1.66	1.497		mg/Kg	ø	88	20 - 123	
Phenanthrene	ND		1.66	1.344		mg/Kg	Ø	81	21 - 122	
Chrysene	0.0375	J	1.66	1.448		mg/Kg	0	85	20 - 120	
Dibenz(a,h)anthracene	ND		1.66	1.292		mg/Kg	0	78	12 - 128	
Fluoranthene	0.0415	J	1.66	1.457		mg/Kg	0	85	10 - 143	
Fluorene	ND		1.66	1,147		mg/Kg	o	69	20 - 120	
Indeno[1,2,3-cd]pyrene	ND		1.66	1.343		mg/Kg	O	81	22 - 121	
Naphthalene	ND		1.66	1.241		mg/Kg	**	75	10 - 120	
2-Methylnaphthalene	ND		1.66	1.214		mg/Kg	0	73	13 - 120	

Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl (Surr)	61		29 - 120
Terphenyl-d14 (Surr)	82		13 - 120
Nitrobenzene-d5 (Surr)	70		27 - 120

Lab Sample ID: 490-10215-6 MSD

Matrix: Solid

Analysis Batch: 35149

Client Sample ID: 1103 Iris

Prep Type: Total/NA Prep Batch: 34510

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	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acenaphthylene	ND		1.65	1.300		mg/Kg	Ф	79	25 - 120	6	50
Anthracene	ND		1.65	1.188		mg/Kg	Ф	72	28 - 125	3	49
Benzo[a]anthracene	0.0358	J	1.65	1.400		mg/Kg	0	83	23 - 120	5	50
Benzo[a]pyrene	ND		1.65	1.362		mg/Kg	O	82	15 - 128	1	50
Benzo[b]fluoranthene	0.0390	J	1.65	1.379		mg/Kg	Ø	81	12 - 133	2	50
Benzo[g,h,i]perylene	ND		1.65	1.308		mg/Kg	ø	79	22 - 120	1	50
Benzo[k]fluoranthene	0.0358	J	1.65	1.332		mg/Kg	O	78	28 - 120	5	45
1-Methylnaphthalene	ND		1.65	1.208		mg/Kg	ø	73	10 - 120	16	50
Pyrene	0.0422	J	1.65	1.332		mg/Kg	O	78	20 - 123	12	50
Phenanthrene	ND		1.65	1.302		mg/Kg	章	79	21 - 122	3	50
Chrysene	0.0375	J	1.65	1.411		mg/Kg	101	83	20 - 120	3	49
Dibenz(a,h)anthracene	ND		1.65	1.359		mg/Kg	0	82	12 - 128	5	50
Fluoranthene	0.0415	J	1.65	1.254		mg/Kg	40	73	10 - 143	15	50

# **QC Sample Results**

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-10215-1

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

Lab Sample ID: 490-10215-6 MSD

Matrix: Solid

Analysis Batch: 35149

Client Sample ID: 1103 Iris

Prep Type: Total/NA

Prep Batch: 34510

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Fluorene	ND		1.65	1.302		mg/Kg	Ф	79	20 - 120	13	50
Indeno[1,2,3-cd]pyrene	ND		1.65	1.345		mg/Kg	Ø.	81	22 - 121	0	50
Naphthalene	ND		1.65	1.305		mg/Kg	₩.	79	10 - 120	5	50
2-Methylnaphthalene	ND		1.65	1.223		mg/Kg	尊	74	13 - 120	1	50

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl (Surr)	62		29 - 120
Terphenyl-d14 (Surr)	77		13 - 120
Nitrobenzene-d5 (Surr)	65		27 - 120

#### Method: Moisture - Percent Moisture

Lab Sample ID: 490-10215-1 DU

Matrix: Solid

Analysis Batch: 32397

Client Sample ID: 1179 Bobwhite

Prep Type: Total/NA

	Sample	Sample	DU	DU				RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
Percent Solids	88		88		%		0.01	20

# **QC Association Summary**

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-10215-1

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Prep Batch: 3	21	24
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Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-10215-4	1133 Iris	Total/NA	Solid	5035	
490-10215-5	1102 Iris-1	Total/NA	Solid	5035	

#### Prep Batch: 32125

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-10215-1	1179 Bobwhite	Total/NA	Solid	5035	
490-10215-2	1374 Dove	Total/NA	Solid	5035	
490-10215-3	1221 Cardinal	Total/NA	Solid	5035	
490-10215-4	1133 Iris	Total/NA	Solid	5035	
490-10215-5	1102 Iris-1	Total/NA	Solid	5035	
490-10215-6	1103 Iris	Total/NA	Solid	5035	

#### Analysis Batch: 32902

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-10215-1	1179 Bobwhite	Total/NA	Solid	8260B	32125
490-10215-2	1374 Dove	Total/NA	Solid	8260B	32125
490-10215-4	1133 Iris	Total/NA	Solid	8260B	32125
490-10215-5	1102 Iris-1	Total/NA	Solid	8260B	32125
490-10215-6	1103 Iris	Total/NA	Solid	8260B	32125
490-10429-A-10-D MS	Matrix Spike	Total/NA	Solid	8260B	32932
490-10429-A-10-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8260B	32932
LCS 490-32902/3	Lab Control Sample	Total/NA	Solid	8260B	
MB 490-32902/6	Method Blank	Total/NA	Solid	8260B	

## Prep Batch: 32932

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-10429-A-10-D MS	Matrix Spike	Total/NA	Solid	5035	
490-10429-A-10-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

#### Prep Batch: 33200

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-10480-A-12-D MS	Matrix Spike	Total/NA	Solid	5035	
490-10480-A-12-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

#### Analysis Batch: 33503

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-10215-3	1221 Cardinal	Total/NA	Solid	8260B	32125
490-10215-4	1133 Iris	Total/NA	Solid	8260B	32124
490-10215-5	1102 Iris-1	Total/NA	Solid	8260B	32124
490-10480-A-12-D MS	Matrix Spike	Total/NA	Solid	8260B	33200
490-10480-A-12-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8260B	33200
LCS 490-33503/3	Lab Control Sample	Total/NA	Solid	8260B	
MB 490-33503/7	Method Blank	Total/NA	Solid	8260B	

#### GC/MS Semi VOA

#### Prep Batch: 33536

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-10215-1	1179 Bobwhite	Total/NA	Solid	3550C	
490-10215-2	1374 Dove	Total/NA	Solid	3550C	
490-10215-3	1221 Cardinal	Total/NA	Solid	3550C	
490-10215-4	1133 Iris	Total/NA	Solid	3550C	

# **QC Association Summary**

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-10215-1

# GC/MS Semi VOA (Continued)

Prep	Batch:	33536	(Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-10215-5	1102 Iris-1	Total/NA	Solid	3550C	
490-10245-C-1-B MS	Matrix Spike	Total/NA	Solid	3550C	
490-10245-C-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	3550C	
LCS 490-33536/2-A	Lab Control Sample	Total/NA	Solid	3550C	
MB 490-33536/1-A	Method Blank	Total/NA	Solid	3550C	

#### Analysis Batch: 33545

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-10215-1	1179 Bobwhite	Total/NA	Solid	8270D	33536
490-10215-2	1374 Dove	Total/NA	Solid	8270D	33536
490-10215-3	1221 Cardinal	Total/NA	Solid	8270D	33536
490-10215-4	1133 Iris	Total/NA	Solid	8270D	33536
490-10215-5	1102 Iris-1	Total/NA	Solid	8270D	33536
490-10245-C-1-B MS	Matrix Spike	Total/NA	Solid	8270D	33536
490-10245-C-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8270D	33536
LCS 490-33536/2-A	Lab Control Sample	Total/NA	Solid	8270D	33536
MB 490-33536/1-A	Method Blank	Total/NA	Solid	8270D	33536

#### Analysis Batch: 33778

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-10215-4	1133 Iris	Total/NA	Solid	8270D	33536
490-10215-5	1102 Iris-1	Total/NA	Solid	8270D	33536

#### Analysis Batch: 34127

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-10215-4	1133 Iris	Total/NA	Solid	8270D	33536
490-10215-5	1102 Iris-1	Total/NA	Solid	8270D	33536

#### Prep Batch: 34510

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-10215-6	1103 Iris	Total/NA	Solid	3550C	
490-10215-6 MS	1103 Iris	Total/NA	Solid	3550C	
490-10215-6 MSD	1103 Iris	Total/NA	Solid	3550C	
LCS 490-34510/2-A	Lab Control Sample	Total/NA	Solid	3550C	
MB 490-34510/1-A	Method Blank	Total/NA	Solid	3550C	

#### Analysis Batch: 35149

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-10215-6	1103 Iris	Total/NA	Solid	8270D	34510
490-10215-6 MS	1103 Iris	Total/NA	Solid	8270D	34510
490-10215-6 MSD	1103 Iris	Total/NA	Solid	8270D	34510
LCS 490-34510/2-A	Lab Control Sample	Total/NA	Solid	8270D	34510
MB 490-34510/1-A	Method Blank	Total/NA	Solid	8270D	34510

#### **General Chemistry**

#### Analysis Batch: 32397

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-10215-1	1179 Bobwhite	Total/NA	Solid	Moisture	
490-10215-1 DU	1179 Bobwhite	Total/NA	Solid	Moisture	
490-10215-2	1374 Dove	Total/NA	Solid	Moisture	
490-10215-3	1221 Cardinal	Total/NA	Solid	Moisture	

# **QC Association Summary**

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

TestAmerica Job ID: 490-10215-1

# General Chemistry (Continued)

Analysis Batch: 32397 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-10215-4	1133 Iris	Total/NA	Solid	Moisture	
490-10215-5	1102 Iris-1	Total/NA	Solid	Moisture	
490-10215-6	1103 Iris	Total/NA	Solid	Moisture	

#### **Lab Chronicle**

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-10215-1

Client Sample ID: 1179 Bobwhite

Date Collected: 10/22/12 16:30 Date Received: 10/30/12 08:30 Lab Sample ID: 490-10215-1

Matrix: Solid

Perc	ent	Solids:	87.8

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			32125	10/30/12 15:55	ML	TAL NSH
Total/NA	Analysis	8260B		1	32902	11/02/12 15:07	KK	TAL NSH
Total/NA	Prep	3550C			33536	11/05/12 10:11	AK	TAL NSH
Total/NA	Analysis	8270D		1	33545	11/05/12 20:25	WS	TAL NSH
Total/NA	Analysis	Moisture		1	32397	10/31/12 13:47	RS	TAL NSH

Client Sample ID: 1374 Dove

Date Collected: 10/22/12 16:30 Date Received: 10/30/12 08:30 Lab Sample ID: 490-10215-2

Matrix: Solid Percent Solids: 92.6

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			32125	10/30/12 15:55	ML	TAL NSH
Total/NA	Analysis	8260B		1	32902	11/02/12 14:37	KK	TAL NSH
Total/NA	Prep	3550C			33536	11/05/12 10:11	AK	TAL NSH
Total/NA	Analysis	8270D		-1	33545	11/05/12 20:46	WS	TAL NSH
Total/NA	Analysis	Moisture		1	32397	10/31/12 13:47	RS	TAL NSH

Client Sample ID: 1221 Cardinal

Date Collected: 10/23/12 14:45 Date Received: 10/30/12 08:30 Lab Sample ID: 490-10215-3

Matrix: Solid Percent Solids: 87.8

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			32125	10/30/12 15:55	ML	TAL NSH
Total/NA	Analysis	8260B		1	33503	11/05/12 13:31	KK	TAL NSH
Total/NA	Prep	3550C			33536	11/05/12 10:11	AK	TAL NSH
Total/NA	Analysis	8270D		1	33545	11/05/12 21:07	WS	TAL NSH
Total/NA	Analysis	Moisture		1	32397	10/31/12 13:47	RS	TAL NSH

Client Sample ID: 1133 Iris

Date Collected: 10/24/12 14:45 Date Received: 10/30/12 08:30 Lab Sample ID: 490-10215-4

Matrix: Solid Percent Solids: 79.3

Dilution Batch Prepared Batch Batch Prep Type Type Method Run Factor Number or Analyzed Analyst Lab Prep 32125 10/30/12 15:55 ML TAL NSH 5035 Total/NA Total/NA Analysis 8260B 1 32902 11/02/12 13:35 KK TAL NSH 32124 10/30/12 15:54 ML TAL NSH Total/NA Prep 5035 Total/NA Analysis 8260B 33503 11/05/12 15:34 KK TAL NSH Total/NA Prep 3550C 33536 11/05/12 10:11 AK TAL NSH Total/NA Analysis 8270D 1 33545 11/05/12 21:28 WS TAL NSH 33778 11/06/12 12:58 WS TAL NSH Total/NA Analysis 8270D 5 Total/NA Analysis 8270D 20 34127 11/07/12 13:27 SCS TAL NSH 32397 10/31/12 13:47 RS TAL NSH Total/NA Analysis 1 Moisture

#### **Lab Chronicle**

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-10215-1

Client Sample ID: 1102 Iris-1

Date Collected: 10/25/12 15:15 Date Received: 10/30/12 08:30 Lab Sample ID: 490-10215-5

Matrix: Solid

Percent Solids: 77.6

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			32125	10/30/12 15:55	ML	TAL NSH
Total/NA	Analysis	8260B		1	32902	11/02/12 13:04	KK	TAL NSH
Total/NA	Prep	5035			32124	10/30/12 15:54	ML	TAL NSH
Total/NA	Analysis	8260B		1	33503	11/05/12 12:54	KK	TAL NSH
Total/NA	Prep	3550C			33536	11/05/12 10:11	AK	TAL NSH
Total/NA	Analysis	8270D		1	33545	11/05/12 21:49	ws	TAL NSH
Total/NA	Analysis	8270D		5	33778	11/06/12 13:19	ws	TAL NSH
Total/NA	Analysis	8270D		20	34127	11/07/12 13:48	SCS	TAL NSH
Total/NA	Analysis	Moisture		1	32397	10/31/12 13:47	RS	TAL NSH

Client Sample ID: 1103 Iris

Date Collected: 10/25/12 15:00

Date Received: 10/30/12 08:30

Lab Sample ID: 490-10215-6

Matrix: Solid Percent Solids: 86.6

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			32125	10/30/12 15:55	ML	TAL NSH
Total/NA	Analysis	8260B		1	32902	11/02/12 12:32	кк	TAL NSH
Total/NA	Prep	3550C			34510	11/08/12 11:46	AK	TAL NSH
Total/NA	Analysis	8270D		1	35149	11/10/12 18:54	JS	TAL NSH
Total/NA	Analysis	Moisture		1	32397	10/31/12 13:47	RS	TAL NSH

#### Laboratory References:

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

# **Method Summary**

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-10215-1

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: 490-10215-1

#### Laboratory: TestAmerica Nashville

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

ACIL		393	10-30-13
ISO/IEC 17025		0453.07	12-31-13
State Program	4	41150	05-31-13
State Program	10	UST-087	07-24-13
State Program	9	AZ0473	05-05-13
State Program	6	88-0737	04-25-13
NELAC	9	1168CA	10-31-13
Canada		3744	03-08-14
State Program	8	N/A	02-28-13
State Program	1	PH-0220	12-31-13
NELAC	4	E87358	06-30-13
NELAC	5	200010	12-09-12
State Program	7	131	05-01-14
NELAC	7	E-10229	10-31-13
State Program	4	90038	12-31-12
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		316	03-31-13
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			12-31-12
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# COOLER RECEIP



Cooler Received	Opened On 10/30/2012	@ 0830	490-10215 Chain	of Custody
1. Tracking #	2514	_(last 4 digits, FedEx)		uolody
Courier: FedEx	IR Gun ID 97310166			
2. Temperature	of rep. sample or temp	blank when opened: 1, 7	Degrees Celsius	
3. If Item #2 tem	perature is 0°C or less, v	was the representative sam	ple or temp blank frozen?	YES NO. (NA)
	seals on outside of coo	one from	wt Back	YESNONA
	s intact, signed, and dat	ted correctly?		YES NONA
	papers inside cooler?	0.50.000.0000		YESNONA
A. Charles A. A.		swered questions 1-6 (intial	DA	(12)
	seals on containers:	6	NO and Intact	YESNO. NA
	gned and dated correctl		and intact	YESNONA
		astic bag Peanuts Vermi	aulita Fassa based Bases	7 = 7 100 2 2 1 111
9. Cooling proce		0	(direct contact) Dry ice	
	iners arrive in good con			YES. NONA
11. Were all conf	tainer labels complete (#	#, date, signed, pres., etc)?		(YES)NONA
12. Did all contai	iner labels and tags agre	ee with custody papers?		YES)NONA
13a. Were VOA v	vials received?			YES. NONA
b. Was there a	ny observable headspa	ce present in any VOA vial	?	YESNO.NA
14. Was there a	Trip Blank in this cooler	? YESNO. NA I	f multiple coolers, sequenc	ce # MA
I certify that I unle	oaded the cooler and an	nswered questions 7-14 (int	tial)	<u> </u>
15a. On pres'd b	ottles, did pH test strips	s suggest preservation read	hed the correct pH level?	YESNO NA
b. Did the bot	tle labels indicate that th	he correct preservatives we	ere used (	YESNONA
16. Was residual	chlorine present?			YESNO(NA
I certify that I che	cked for chlorine and p	H as per SOP and answere	d questions 15-16 (intial)	_£
17. Were custody	y papers properly filled	out (ink, signed, etc)?	Action Section 1	YES).NONA
18. Did you sign	the custody papers in the	he appropriate place?		YES).NONA
19. Were correct	containers used for the	analysis requested?		YES).NONA
	nt amount of sample sen	And St. Committee of the Committee of th	(	YESNONA
		MS and answered questions	s 17-20 (intial)	A
		nique LIMS number to each	1	5
	Charles Charles Control		a PIPE generated? YES.(.)	- ·

Sampler Name: (Print)    Project ID: Laurel Bay Housing Project By Sampler Signature:   Project ID: Laurel Bay Housing Project By Sampler Signature:   Project ID: Laurel Bay Housing Project By Sampler Signature:   Project ID: Laurel Bay Housing Project By Sampler Signature:   Project ID: Laurel Bay Housing Project By Sampler Signature:   Project ID: Laurel Bay Housing P
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# **Login Sample Receipt Checklist**

Client: Environmental Enterprise Group

Job Number: 490-10215-1

SDG Number:

List Source: TestAmerica Nashville

Login Number: 10215 List Number: 1 Creator: Ford, Easton

Creator: Ford, Easton		
Question	Answer Comment	
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	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	
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 <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

Residual Chlorine Checked.

N/A

# ATTACHMENT A



# **NON-HAZARDOUS MANIFEST**

	1. Generator's US E	PA ID No. Ma	nifest Doc	No.	2. Page 1 of			
	NON-HAZARDOUS MANIFEST				1			
	3. Generator's Mailing Address: Ge					st Number	1	
	MCAS, BEAUFORT	enerator's Site Address (If d	ifferent than m	nailing):		'MNA		
	LAUREL BAY HOUSING						00316840	
	i					B. State	Generator's ID	
	BEAUFORT, SC 29907							
	4. Generator's Phone 843-228-6461	<del></del>			10000000000000000		<del></del>	
	5. Transporter 1 Company Name	6. US EPA II	Number				<u>1,4                                    </u>	
	EEG, INC.					ransporter's II		
-	· ·				D. Transp	orter's Phone	843-879-0411	
Ì	7. Transporter 2 Company Name	8. US EPA IC	) Number					
						ransporter's II	<u> </u>	
ļ				<del>-</del>	F. Transpo	orter's Phone	80 v	
	9. Designated Facility Name and Site Address	10. US EPA	D Number					
	HICKORY HILL LANDFILL				G. State F	acility ID		
-	2621 LOW COUNTRY ROAD			_	H. State F	acility Phone	843-987-4643	
	RIDGELAND, SC 29936							
G	11. Description of Waste Materials			ntainers	13. Total	14. Unit	I. Misc. Comments	
E			No.	Туре	Quantity	Wt./Vol.		
N	a. HEATING OIL TANKS FILLED WITH SAND							
Ε	40055500							
R	WM Profile # 102655SC							
Α	b.							
R	WM Profile #							
	c.							
	WM Profile #	4						
Ī	d.							
1								
	14/84 D CI- II		F1.570 (5.15) (5.					
1	WM Profile # J. Additional Descriptions for Materials Listed Above		K. Disposal Location					
ı	Additional Descriptions for Materials disted Above		K. Dispos	ai Location				
ı			Cell				Level	
			Grid					
Ī	15. Special Handling Instructions and Additional Informatio	n ´	1	\$ 65771	n	1	6) 576 Laurel	
1	UST'S (Rim: 2) 1103	3 IR/S	ر ا	) 571	AZA	IFA	BAY	
	1) 1102 I RIS-2 3) 134	15 CARDIN	01 5	100	4 R.	swh. to	. 27	
ŀ	Purchase Order #	EMERGENCY-CON	<del></del>		1 1-00 K	J(X), 11, 4 6	·	
ŀ		CIVILINGEINGFEOR	inei / Fill					
	16. GENERATOR'S CERTIFICATE:	harridani (* 1.2	.d. b. 655 -	264			one have a finite of	
	I hereby certify that the above-described materials are not I accurately described, classified and packaged and are in pro	nazardous wastes as define	ed by CFR P.	art 261 or a rding to an	ny applicable	e state law, na Istions	ive been fully and	
ŀ	Printed Name	Signature "On behalt		iding to app	Jiicabic regui	acions.	Month Day Year	
	Ly 61 8.00				200		13 4 5	
т	17. Transporter 1 Acknowledgement of Receipt of Material	S			***************************************		The state of the s	
R	Printed Name	Signature		λ. Λ.			Month Day Year	
N S	TAMES MALDWIN	Hamed	- Ka	بديلايال			13 6 12	
P	18. Transporter 2 Acknowledgement of Receipt of Material							
R	Printed Name	Signature				<del></del>	Month Day Year	
E		_						
"		_						
F	19. Certificate of Final Treatment/Disposal							
A.	I certify, on behalf of the above listed treatment facility, tha		dge, the ab	ove-describ	ed waste w	as managed in	compliance with all	
H	applicable laws, regulations, permits and licenses on the dat			1				
į	20. Facility Owner or Operator: Certification of receipt of n		vered by th	iis manifest				
Ý	Printed Name	Signature	and the second s				Month Day Year	
$\perp$	JONI STELL	_T /O~	٠ ٠	154-21	<u>u</u>		112 6 12	

White-TREATMENT, STORAGE, DISPOSAL FACILITY COPY

Blue- GENERATOR #2 COPY

Yellow- GENERATOR #1 COPY

# Appendix C Regulatory Correspondence





#### Catherine B. Templeton, Director

Proposatives and proportion the builds of the patelor and the environment.

May 15, 2014

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

RE: No Further Action

Laurel Bay Underground Storage Tank Assessment Reports for:

See attached sheet

Dear Mr. Drawdy,

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

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

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

If you have any questions, please contact me at kriegkm@dhec.sc.gov or 803-898-0255.

Sincerely,

Kent Krieg

Department of Defense Corrective Action Section

Bureau of Land and Waste Management

South Carolina Department of Health and Environmental Control

Cc: Russell Berry (via email)

Craig Ehde (via email)



Catherine B. Templeton, Director

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				= <del></del>
1345 Cardinal		*		
1349 Cardinal				
1355 Cardinal				
1366 Cardinal				
1374 Dove				
1375 Dove				
1415 Albatross			<u>_</u>	<del></del>