SUMMARY REPORT
107 WEST DOVE LANE (FORMERLY 1236 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 SUMMARY REPORT
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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

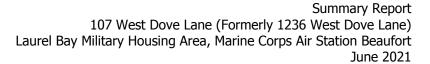
CTO WE52

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

ft feet

IDIQ Indefinite Delivery, Indefinite Quantity

IGWA Initial Groundwater Assessment

JV Joint Venture

LBMH Laurel Bay Military Housing MCAS Marine Corps Air Station

NAVFAC Mid-Lant Naval Facilities Engineering Command Mid-Atlantic

NFA No Further Action

PAH polynuclear aromatic hydrocarbon QAPP Quality Assurance Program Plan

RBSL risk-based screening level

SCDHEC South Carolina Department of Health and Environmental Control

Site LBMH area at MCAS Beaufort, South Carolina

UST underground storage tank
VISL vapor intrusion screening level



1.0 INTRODUCTION

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

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

This report summarizes the results the environmental investigation activities associated with the storage of home heating oil and the potential release of petroleum constituents at the referenced property. Based on the results of the investigation, a No Further Action (NFA) determination has been made by the South Carolina Department of Health and Environmental Control (SCDHEC) for 107 West Dove Lane (Formerly 1236 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 107 West Dove Lane (Formerly 1236 West Dove Lane). Details regarding the soil investigation at this site are provided in the *SCDHEC UST Assessment Report – 1236 Dove Lane* (MCAS Beaufort, 2012). The UST Assessment Report is provided in Appendix B. Details regarding the IGWA sampling activities at this site are provided in the *Initial Groundwater Investigation Report – February and March 2017* (Resolution Consultants, 2017). The laboratory report that includes the pertinent IGWA analytical results for this site is presented in Appendix C.

2.1 UST Removal and Soil Sampling

On August 7, 2012, a single 280 gallon heating oil UST was removed from the concrete porch area at 107 West Dove Lane (Formerly 1236 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, cleaned, and shipped offsite for recycling. There was no visual evidence (i.e.,



staining or sheen) of petroleum impact at the time of the UST removal. According to the UST Assessment Report (Appendix B), the depth to the base of the UST was 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, 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 107 West Dove Lane (Formerly 1236 West Dove Lane) were greater than the SCDHEC RBSLs, which indicated further investigation was required. In a letter dated August 24, 2016, SCDHEC requested an IGWA for 107 West Dove Lane (Formerly 1236 West Dove Lane) to determine if the groundwater was impacted by petroleum COPCs. SCDHEC's request letter is provided in Appendix D.

2.3 Groundwater Sampling

On March 9, 2017, a temporary monitoring well was installed at 107 West Dove Lane (Formerly 1236 West Dove Lane), in accordance with the South Carolina Well Standards and Regulations (R.61-71.H-I, updated June 24, 2016). In order to provide data that can be used to determine whether COPCs are migrating to underlying groundwater, the monitoring well was placed in the same general location as the former heating oil UST. The former UST location is indicated on Figures 2 and 3 of the UST Assessment Report (Appendix B). Further details are provided in the *Initial Groundwater Investigation Report – February and March 2017* (Resolution Consultants, 2017).



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

2.4 Groundwater Analytical Results

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

The groundwater results collected from 107 West Dove Lane (Formerly 1236 West Dove Lane) were less than the SCDHEC RBSLs and the site specific groundwater VISLs (Table 2), which indicated that the groundwater was not impacted by COPCs associated with the former UST at concentrations that present a potential risk to human health and the environment.

3.0 PROPERTY STATUS

Based on the analytical results for groundwater, SCDHEC made the determination that NFA was required for 107 West Dove Lane (Formerly 1236 West Dove Lane). This NFA determination was obtained in a letter dated July 27, 2017. SCDHEC's NFA letter is provided in Appendix D.

4.0 REFERENCES

- Marine Corps Air Station Beaufort, 2012. South Carolina Department of Health and Environmental Control (SCDHEC) Underground Storage Tank Assessment Report 1236

 Dove Lane, Laurel Bay Military Housing Area, October 2012.
- Resolution Consultants, 2017. *Initial Groundwater Investigation Report February and March*2017 for Laurel Bay Military Housing Area, Multiple Properties, Laurel Bay Military
 Housing Area, Marine Corps Air Station Beaufort, Beaufort, South Carolina, June 2017.
- South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2013. *Quality Assurance Program Plan for the Underground Storage Tank Management* Division, *Revision 2.0*, April 2013.





- South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2015. *Quality Assurance Program Plan for the Underground Storage Tank Management* Division, *Revision 3.0*, May 2015.
- South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2016. *Quality Assurance Program Plan for the Underground Storage Tank Management* Division, *Revision 3.1*, February 2016.
- South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2017. *R.61-92, Part 280, Underground Storage Tank Control Regulations*, March 2017.
- South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2018. *Underground Storage Tank Assessment Instructions for Permanent Closure and Change-In-Service*, March 2018.
- South Carolina Department of Health and Environmental Control Bureau of Water, 2016. *R.61-71, Well Standards*, June 2016.

Tables



Table 1

Laboratory Analytical Results - Soil 107 West Dove Lane (Formerly 1236 West Dove Lane) Laurel Bay Military Housing Area Marine Corps Air Station Beaufort

Beaufort, South Carolina

Constituent	SCDHEC RBSLs (1)	Results Sample Collected 08/14/12				
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 Ar	alyzed by EPA Method 8270D (mg/kg)					
Benzo(a)anthracene	0.66	ND				
Benzo(b)fluoranthene	0.66	ND				
Benzo(k)fluoranthene	0.66	ND				
Chrysene	0.66	ND				
Dibenz(a,h)anthracene	0.66	ND				

Notes:

⁽¹⁾ South Carolina Risk-Based Screening Levels from the Quality Assurance Program Plan for the Underground Storage Tank Management Division, Revision 3.0 and 3.1 (SCDHEC, May 2015 and SCDHEC, February 2016) and the Underground Storage Tank Assessment Guidelines (SCDHEC, February 2006).

Bold font indicates the analyte was detected.

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

EPA - United States Environmental Protection Agency

mg/kg - milligrams per kilogram

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

RBSL - Risk-Based Screening Level

SCDHEC - South Carolina Department Of Health and Environmental Control

Table 2

Laboratory Analytical Results - Groundwater 107 West Dove Lane (Formerly 1236 West Dove Lane) Laurel Bay Military Housing Area Marine Corps Air Station Beaufort

Beaufort, South Carolina

Constituent	SCDHEC RBSLs (1)	Site-Specific Groundwater VISLs (µg/L) ⁽²⁾	Results Sample Collected 03/09/17
Volatile Organic Compounds Analyze	ed by EPA Method 8260B (µg	/L)	
Benzene	5	16.24	ND
Ethylbenzene	700	45.95	ND
Naphthalene	25	29.33	ND
Toluene	1000	105,445	ND
Xylenes, Total	10,000	2,133	ND
Semivolatile Organic Compounds An	alyzed by EPA Method 8270) (μg/L)	
Benzo(a)anthracene	10	NA	ND
Benzo(b)fluoranthene	10	NA	ND
Benzo(k)fluoranthene	10	NA	ND
Chrysene	10	NA	ND
Dibenz(a,h)anthracene	10	NA	ND

Notes:

⁽²⁾ Site-specific groundwater VISLs were calculated using the EPA JE Model Spreadsheets (Version 3.1, February 2004) and conservative modeling inputs representative of a small single-story house with an 8 foot ceiling. Site-specific groundwater VISLs were developed based on a target risk level of 1x10⁻⁶, a target hazard quotient of 1 (per target organ), and a default residential exposure scenario, assuming exposure for 24 hours/day, 350 days/year, for 26 years. Modeling was performed for a range of depths to groundwater for application as appropriate in different areas of the Laurel Bay Military Housing Area. The most conservative levels are presented for comparison. Refer to Appendix H of the Uniform Federal Policy Sampling Analysis and Sampling Plan for Vapor Media, Revision 4 (Resolution Consultants, April 2017) for additional information.

Bold font indicates the analyte was detected.

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

EPA - United States Environmental Protection Agency

JE - Johnson & Ettinger

NA - Not Applicable

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

RBSL - Risk-Based Screening Level

SCDHEC - South Carolina Department Of Health and Environmental Control

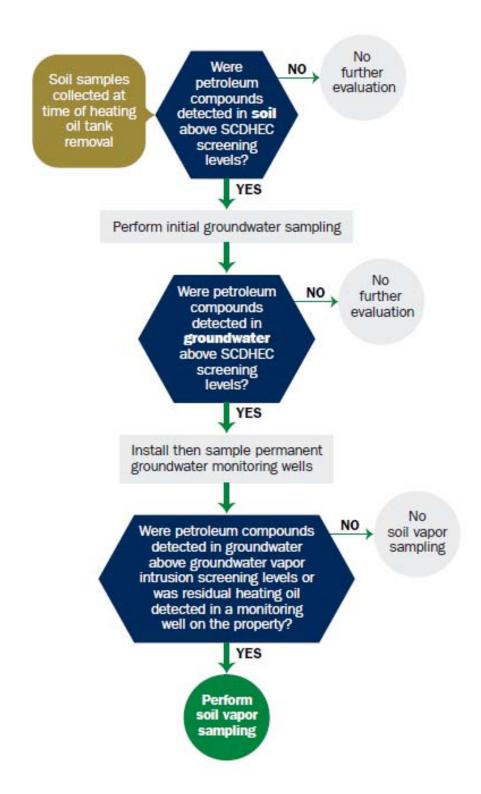
µg/L - micrograms per liter

VISL - Vapor Intrusion Screening Level

⁽¹⁾ South Carolina Risk-Based Screening Levels from the Quality Assurance Program Plan for the Underground Storage Tank Management Division, Revision 3.1 (SCDHEC, February 2016).

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

Date Received		
	State Use O	

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	EAO (Craig Ehde)
P.O. Box 55001	on, Individual, Public Agency, Other)	
Mailing Address		
Beaufort,	South Carolina	29904-5001
City	State	Zip Code
843	228-7317	Craiq 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
1236 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

1236Dove
Heating oil
280 gal
Late 1950s
Steel
Mid 1980s
6'
No
No
Removed
8/7/2012
Yes
Yes
ground (attach disposal manifests) e ground and disposed at a
hment "A."
L

VII. PIPING INFORMATION

	1236Dove
	Steel
Construction Material(ex. Steel, FRP)	& Copper
Distance from UST to Dispenser	N/A
Number of Dispensers	N/A
Type of System Pressure or Suction	Suction
Was Piping Removed from the Ground? Y/N	No
Visible Corrosion or Pitting Y/N	Yes
Visible Holes Y/N	No
Age	Late 1950s
If any corrosion, pitting, or holes were observed, or	lescribe the location and extent for each piping re
Corrosion and pitting were found	d on the surface of the steel ver
pipe. The copper supply and re-	
pres. The copper bapper and re	turn lines were sound.
	turn lines were sound.
	turn lines were sound.
prec. The copper pappry and re	turn lines were sound.
VIII. BRIEF SITE DESCR	IPTION AND HISTORY
	IPTION AND HISTORY onstructed of single wall steel
VIII. BRIEF SITE DESCR The USTs at the residences are co	IPTION AND HISTORY onstructed of single wall steel for heating. These USTs were
VIII. BRIEF SITE DESCR The USTs at the residences are co	IPTION AND HISTORY onstructed of single wall steel for heating. These USTs were
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VIII. BRIEF SITE DESCR The USTs at the residences are co	IPTION AND HISTORY onstructed of single wall steel for heating. These USTs were

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

X. SAMPLE INFORMATION

A. SCDHEC Lab Certification Number 84009

B.

				4 bannaran			
Sample #	Location	Sample Type (Soil/Water)	Soil Type (Sand/Clay)	Depth*	Date/Time of Collection	Collected by	OVA#
1236	Excav at		~]		8/14/12		
Dove-a	fill end	Soil	Sandy	6'	1515 hrs	P. Shaw	
Note	: This ta	ink was res	ampled due	to the	priginal sa	mple's	
temp	erature l	eing out o	f tolerance	when r	eceived at	the lab.	
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18					, comment		
19							
20							

^{* =} Depth Below the Surrounding Land Surface

XI. SAMPLING METHODOLOGY

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

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

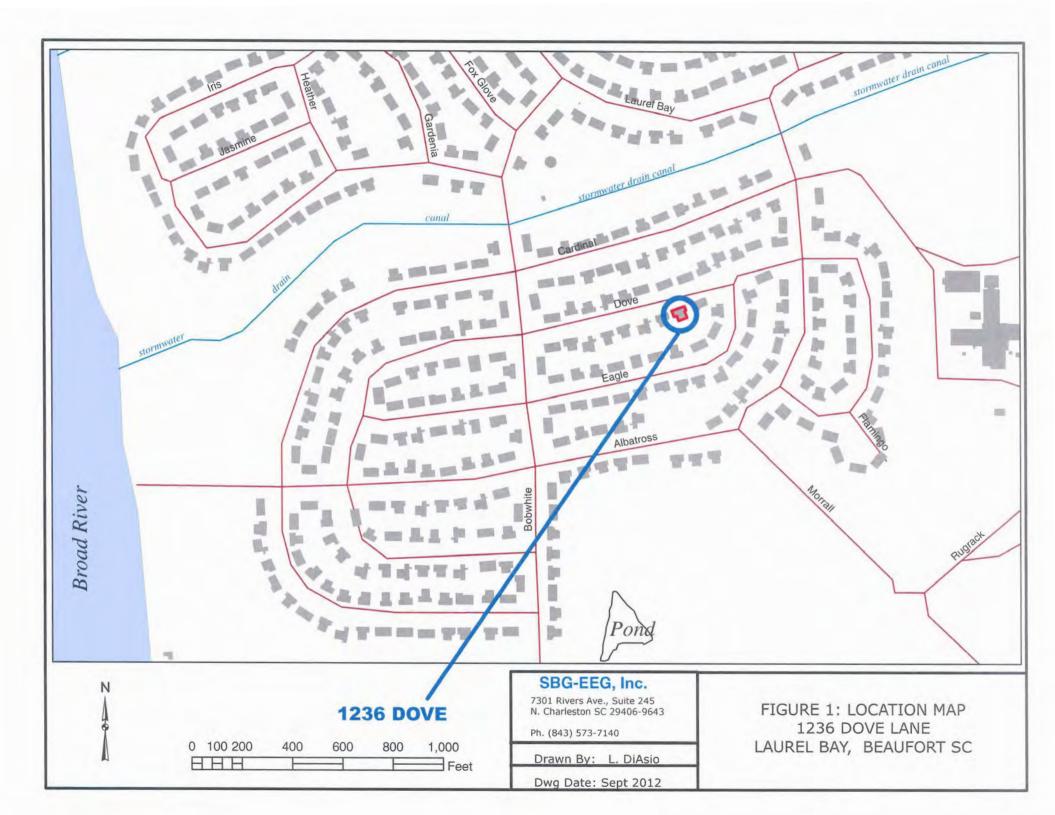
XII. RECEPTORS

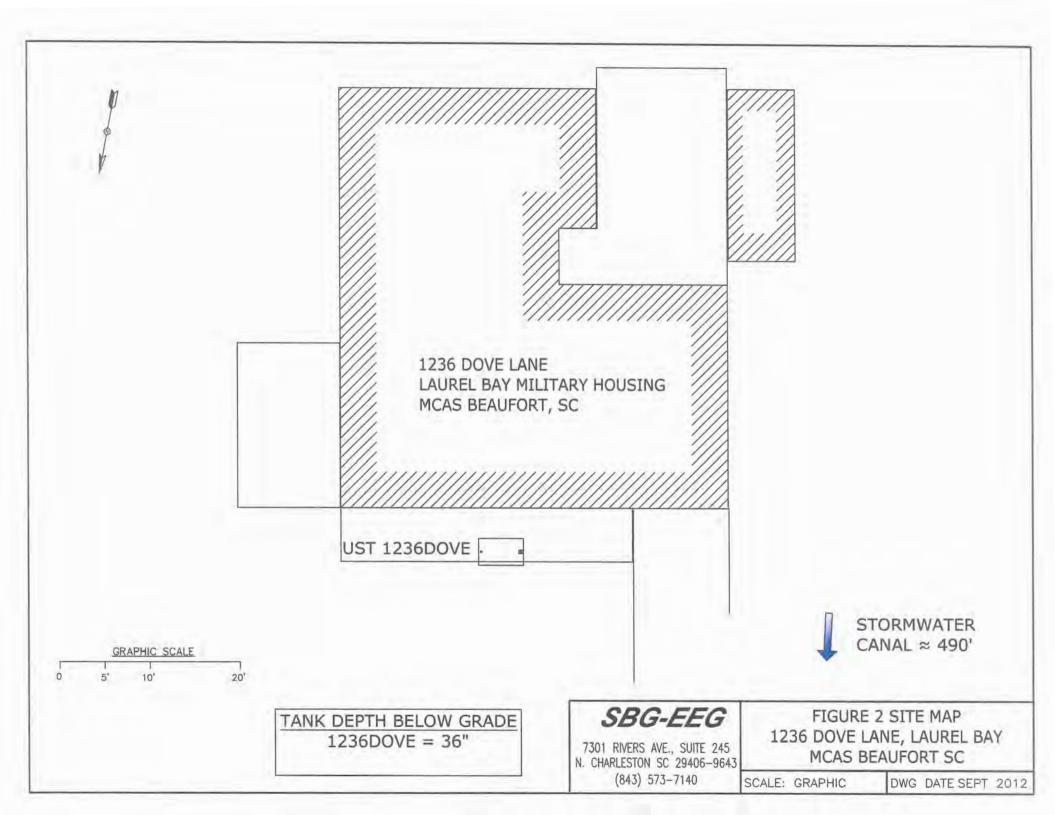
Yes No Are there any lakes, ponds, streams, or wetlands located within * X 1000 feet of the UST system? *stormwater canal If yes, indicate type of receptor, distance, and direction on site map. B. Are there any public, private, or irrigation water supply wells within Χ 1000 feet of the UST system? If yes, indicate type of well, distance, and direction on site map. C. Are there any underground structures (e.g., basements) Χ Located within 100 feet of the UST system? If yes, indicate type of structure, distance, and direction on site map. D. Are there any underground utilities (e.g., telephone, electricity, gas, * X water, sewer, storm drain) located within 100 feet of the UST system that could potentially come in contact with the *Sewer, water, electricity, contamination? cable, fiber optic & storm drain 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 Χ below land surface in an area that is not capped by asphalt or concrete? If yes, indicate the area of contaminated soil on the site map.

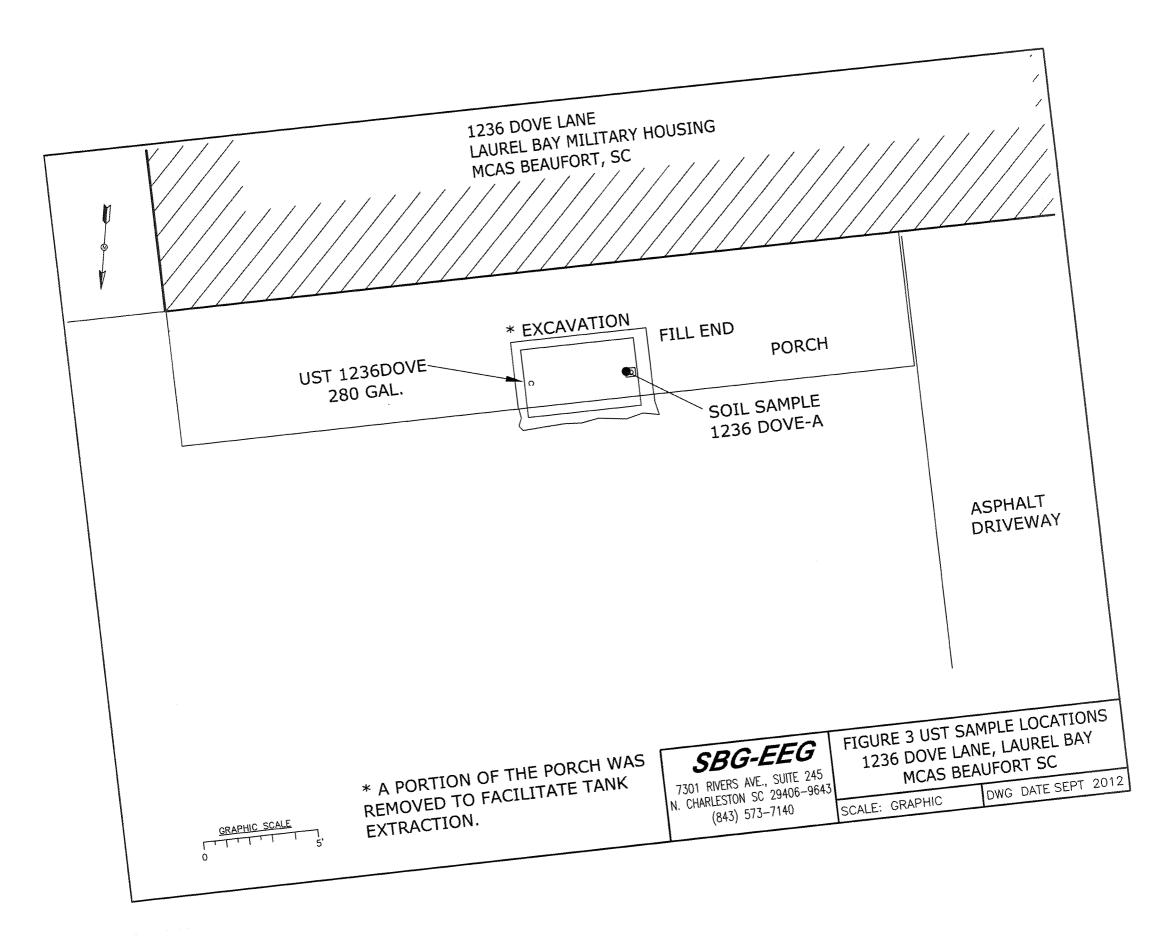
XIII. SITE MAP

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

(Attach Site Map Here)









Picture 1: Location of UST 1236Dove.



Picture 2: UST 1236Dove excavation.

XIV. SUMMARY OF ANALYSIS RESULTS

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

	1		1	1	T-	7	1
CoC UST	1236Dove						
Benzene	ND						
Toluene	ND						
Ethylbenzene	ND						
Xylenes	ND						
Naphthalene	ND						
Benzo (a) anthracene	ND						
Benzo (b) fluoranthene	ND						
Benzo (k) fluoranthene	ND						
Chrysene	ND						
Dibenz (a, h) anthracene	ND						
TPH (EPA 3550)							
СоС	1						
Benzene							
Toluene							
Ethylbenzene							
Xylenes							
Naphthalene							
Benzo (a) anthracene							
Benzo (b) fluoranthene							
Benzo (k) fluoranthene							
Chrysene							
Dibenz (a, h) anthracene							
TPH (EPA 3550)							

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

CoC	RBSL	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: 490-4605-1

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: 8/31/2012 4:18:11 PM

Ken Hayes Project Manager I

ken.hayes@testamericainc.com

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

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

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

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Sample Summary

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-4605-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-4605-1	1167 Jasmine	Solid	08/14/12 10:45	08/21/12 08:15
490-4605-2	1236 Dove - a	Solid	08/14/12 15:15	08/21/12 08:15
490-4605-3	630 Dahlia - a	Solid	08/14/12 15:45	08/21/12 08:15
490-4605-4	771 Althea - a	Solid	08/14/12 16:15	08/21/12 08:15
490-4605-5	1305 Eagle	Solid	08/15/12 15:30	08/21/12 08:15
490-4605-6	1417 Albatross	Solid	08/16/12 15:45	08/21/12 08:15

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

Job ID: 490-4605-1

Laboratory: TestAmerica Nashville

Narrative

Job Narrative 490-4605-1

Comments

No additional comments.

Receipt

The samples were received on 8/21/2012 8:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.9° C.

GC/MS VOA

Method(s) 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 15022. See LCS/LCSD

Method(s) 8260B: Due to sample matrix effect on the internal standard (ISTD), a dilution was required for the following sample(s): 771 Althea - a (490-4605-4).

Method(s) 8260B; Surrogate recovery for the following sample(s) was outside control limits: 1167 Jasmine (490-4605-1). Evidence of matrix interference is present.

Method(s) 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 15621.

Method(s) 8260B: The method blank for batch 15621 contained Methylene Chloride, Bromodichloromethane, Toluene, and Xylenes above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

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

TestAmerica Job ID: 490-4605-1

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

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description	
X	Surrogate is outside control limits	

J Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

B Compound was found in the blank and sample,

GC/MS Semi VOA

Qualifier Qualifier Description

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.
10	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)



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

TestAmerica Job ID: 490-4605-1

Client Sample ID: 1167 Jasmine

Date Collected: 08/14/12 10:45 Date Received: 08/21/12 08:15 Lab Sample ID: 490-4605-1

Matrix: Solid Percent Solids: 81,6

Method: 8260B - Volatile Orga	anic Compounds	(GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.101	0.0339	mg/Kg	4	08/22/12 15:09	08/24/12 13:21	1
Ethylbenzene	0.873		0.101	0.0339	mg/Kg	10	08/22/12 15:09	08/24/12 13:21	1
Naphthalene	0.677		0.306	0.104	mg/Kg	10	08/22/12 15:18	08/27/12 15:56	1
Toluene	0,102		0.101	0.0375	mg/Kg	- 0	08/22/12 15:09	08/24/12 13:21	1
Xylenes, Total	6.20		0.253	0.0339	mg/Kg	4	08/22/12 15:09	08/24/12 13:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	117		70 - 130				08/22/12 15:09	08/24/12 13:21	1
1,2-Dichloroethane-d4 (Surr)	101		70 - 130				08/22/12 15:18	08/27/12 15:56	1
4-Bromofluorobenzene (Surr)	138	X	70 - 130				08/22/12 15:09	08/24/12 13:21	1
4-Bromofluorobenzene (Surr)	.98		70 - 130				08/22/12 15:18	08/27/12 15:56	1
Dibromofluoromethane (Surr)	101		70 - 130				08/22/12 15:09	08/24/12 13:21	1
Dibromofluoromethane (Surr)	92		70 - 130				08/22/12 15:18	08/27/12 15:56	1
Toluene-d8 (Surr)	111		70 - 130				08/22/12 15:09	08/24/12 13:21	7
Toluene-d8 (Surr)	100		70 - 130				08/22/12 15:18	08/27/12 15:56	1
Method: 8270D - Semivolatile	Organic Compou	nds (GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0658	0.00982	mg/Kg	Q.	08/24/12 09:30	08/25/12 21:47	1
Acenaphthylene	ND		0.0658	0.00884	mg/Kg	0	08/24/12 09:30	08/25/12 21:47	1
Anthracene	0.169		0.0658	0.00884	mg/Kg	0	08/24/12 09:30	08/25/12 21:47	1
Benzo[a]anthracene	0.0378	J	0.0658	0.0147	mg/Kg	9	08/24/12 09:30	08/25/12 21:47	1
Benzo[a]pyrene	ND		0.0658	0.0118	mg/Kg		08/24/12 09:30	08/25/12 21:47	1
Benzo[b]fluoranthene	0.0398	J	0.0658	0.0118	mg/Kg	0	08/24/12 09:30	08/25/12 21:47	1
Benzo[g,h,i]perylene	ND		0.0658	0.00884	mg/Kg	0	08/24/12 09:30	08/25/12 21:47	1
Benzo[k]fluoranthene	ND		0.0658	0.0137	mg/Kg	0	08/24/12 09:30	08/25/12 21:47	1
Pyrene	0,155		0.0658	0.0118	mg/Kg	0	08/24/12 09:30	08/25/12 21:47	1
Phenanthrene	1.45		0.0658	0.00884	mg/Kg	0	08/24/12 09:30	08/25/12 21:47	1
Chrysene	0.0454	1	0.0658	0.00884	mg/Kg	0	08/24/12 09:30	08/25/12 21:47	1
Dibenz(a,h)anthracene	ND		0.0658	0.00687	mg/Kg	a	08/24/12 09:30	08/25/12 21:47	1
luoranthene	0.122		0.0658	0.00884	mg/Kg	0	08/24/12 09:30	08/25/12 21:47	1
luorene	0.581		0.0658	0.0118	mg/Kg	0	08/24/12 09:30	08/25/12 21:47	1
ndeno[1,2,3-cd]pyrene	ND		0.0658	0.00982	mg/Kg	308	08/24/12 09:30	08/25/12 21:47	1
Naphthalene	0.738		0.0658	0.00884	mg/Kg	Ġ.	08/24/12 09:30	08/25/12 21:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
-Fluorobiphenyl (Surr)	68		29 - 120				08/24/12 09:30	08/25/12 21:47	1
Ferphenyl-d14 (Surr)	91		13 - 120				08/24/12 09:30	08/25/12 21:47	1
litrobenzene-d5 (Surr)	84		27 - 120				08/24/12 09:30	08/25/12 21:47	1
General Chemistry									
analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	82		0.10	0.10	%			08/21/12 15:03	1

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

TestAmerica Job ID: 490-4605-1

Lab Sample ID: 490-4605-2

Matrix: Solid Percent Solids: 93.7

Client Sample ID: 1236 Dove - a

Date Collected: 08/14/12 15:15 Date Received: 08/21/12 08:15

Percent Solids

THE PARTY OF THE P								e ci cette doi	ma, 55/1
Method: 8260B - Volatile Org	anic Compounds	(GC/MS)							
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.105	0.0352	mg/Kg	0	08/22/12 15:09	08/24/12 13:50	1
Ethylbenzene	ND		0.105	0.0352	mg/Kg	0	08/22/12 15:09	08/24/12 13:50	1
Naphthalene	ND		0.263	0.0894	mg/Kg	0	08/22/12 15:09	08/24/12 13:50	1
Toluene	ND		0.105	0.0389	mg/Kg	03	08/22/12 15:09	08/24/12 13:50	1
Xylenes, Total	ND		0.263	0.0352	mg/Kg	0	08/22/12 15:09	08/24/12 13:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		70 - 130				08/22/12 15:09	08/24/12 13:50	1
4-Bromofluorobenzene (Surr)	103		70 - 130				08/22/12 15:09	08/24/12 13:50	1
Dibromofluoromethane (Surr)	94		70 - 130				08/22/12 15:09	08/24/12 13:50	7
Toluene-d8 (Surr)	104		70 - 130				08/22/12 15:09	08/24/12 13:50	1
Method: 8270D - Semivolatile	Organic Compou	nds (GC/MS	S)						
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0665	0.00992	mg/Kg	9	08/24/12 09:30	08/25/12 23:05	1
Acenaphthylene	ND		0.0665	0.00893	mg/Kg	0	08/24/12 09:30	08/25/12 23:05	1
Anthracene	ND		0.0665	0.00893	mg/Kg	-0	08/24/12 09:30	08/25/12 23:05	1
Benzo[a]anthracene	ND		0.0665	0.0149	mg/Kg	0	08/24/12 09:30	08/25/12 23:05	1
Benzo[a]pyrene	ND		0.0665	0.0119	mg/Kg		08/24/12 09:30	08/25/12 23:05	7
Benzo[b]fluoranthene	ND		0.0665	0.0119	mg/Kg	103	08/24/12 09:30	08/25/12 23:05	4
Benzo[g,h,i]perylene	ND		0.0665	0.00893	mg/Kg	9	08/24/12 09:30	08/25/12 23:05	1
Benzo[k]fluoranthene	ND		0.0665	0.0139	mg/Kg	-0	08/24/12 09:30	08/25/12 23:05	1
Pyrene	ND		0.0665	0.0119	mg/Kg	(1)	08/24/12 09:30	08/25/12 23:05	1
Phenanthrene	ND		0.0665	0.00893	mg/Kg	13	08/24/12 09:30	08/25/12 23:05	1
Chrysene	ND		0.0665	0.00893	mg/Kg	4	08/24/12 09:30	08/25/12 23:05	1
Dibenz(a,h)anthracene	ND		0.0665	0.00694	mg/Kg	10	08/24/12 09:30	08/25/12 23:05	1
Fluoranthene	ND		0.0665	0.00893	mg/Kg	10	08/24/12 09:30	08/25/12 23:05	1
Fluorene	ND		0.0665	0.0119	mg/Kg	-	08/24/12 09:30	08/25/12 23:05	4
Indeno[1,2,3-cd]pyrene	ND		0.0665	0.00992	mg/Kg	-3	08/24/12 09:30	08/25/12 23:05	1
Naphthalene	ND		0.0665	0.00893	mg/Kg	D	08/24/12 09:30	08/25/12 23:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	54		29 - 120				08/24/12 09:30	08/25/12 23:05	1
Terphenyl-d14 (Surr)	80		13 - 120				08/24/12 09:30	08/25/12 23:05	1
Nitrobenzene-d5 (Surr)	55		27 - 120				08/24/12 09:30	08/25/12 23:05	1
General Chemistry									
Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Devenut Callala	0.4		0.40	0.40	n/				

08/21/12 15:03

0.10

0.10 %

94

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-4605-1

Client Sample ID: 630 Dahlia - a

Date Collected: 08/14/12 15:45 Date Received: 08/21/12 08:15 Lab Sample ID: 490-4605-3

Matrix: Solid Percent Solids: 87.4

The state of the s									
Method: 8260B - Volatile Orga				MDI	115-31			14 - 30 - 12	
Analyte		Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.110	0.0367			08/22/12 15:09	08/24/12 14:19	1
Ethylbenzene	ND		0.110	0.0367	mg/Kg	0	08/22/12 15:09	08/24/12 14:19	-1
Naphthalene	ND		0.274	0.0931	mg/Kg	0	08/22/12 15:09	08/24/12 14:19	1
Toluene	ND		0.110	0.0405	mg/Kg	0	08/22/12 15:09	08/24/12 14:19	1
Xylenes, Total	ND		0.274	0.0367	mg/Kg	0	08/22/12 15:09	08/24/12 14:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		70 - 130				08/22/12 15:09	08/24/12 14:19	1
4-Bromofluorobenzene (Surr)	126		70 - 130				08/22/12 15:09	08/24/12 14:19	1
Dibromofluoromethane (Surr)	102		70 - 130				08/22/12 15:09	08/24/12 14:19	1
Toluene-d8 (Surr)	97		70 - 130				08/22/12 15:09	08/24/12 14:19	7
Method: 8270D - Semivolatile	Organic Compou	nds (GC/MS	3)						
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0667	0.00995	mg/Kg	.8	08/24/12 09:30	08/25/12 23:31	1
Acenaphthylene	ND		0.0667	0.00896	mg/Kg	0	08/24/12 09:30	08/25/12 23:31	1
Anthracene	ND		0.0667	0.00896	mg/Kg	0	08/24/12 09:30	08/25/12 23:31	1
Benzo[a]anthracene	ND		0.0667	0.0149	mg/Kg	9	08/24/12 09:30	08/25/12 23:31	1
Benzo[a]pyrene	ND		0.0667	0.0119	mg/Kg	38	08/24/12 09:30	08/25/12 23:31	1
Benzo[b]fluoranthene	ND		0.0667	0.0119	mg/Kg	30	08/24/12 09:30	08/25/12 23:31	1
Benzo[g,h,i]perylene	ND		0.0667	0.00896	mg/Kg	0	08/24/12 09:30	08/25/12 23:31	1
Benzo[k]fluoranthene	ND		0,0667	0.0139	mg/Kg	p.	08/24/12 09:30	08/25/12 23:31	1
Pyrene	ND		0.0667	0.0119	mg/Kg	-0	08/24/12 09:30	08/25/12 23:31	1
Phenanthrene	ND		0.0667	0.00896	mg/Kg	10	08/24/12 09:30	08/25/12 23:31	- 1
Chrysene	ND		0.0667	0.00896	mg/Kg	0	08/24/12 09:30	08/25/12 23:31	4
Dibenz(a,h)anthracene	ND		0.0667	0.00697	mg/Kg		08/24/12 09:30	08/25/12 23:31	1
Fluoranthene	ND		0.0667	0.00896	mg/Kg	+	08/24/12 09:30	08/25/12 23:31	1
Fluorene	ND		0.0667	0.0119	mg/Kg	0	08/24/12 09:30	08/25/12 23:31	1
Indeno[1,2,3-cd]pyrene	ND		0.0667	0.00995	mg/Kg	0	08/24/12 09:30	08/25/12 23:31	1
Naphthalene	ND		0.0667	0.00896	mg/Kg	0	08/24/12 09:30	08/25/12 23:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	62		29 - 120				08/24/12 09:30	08/25/12 23:31	1
Terphenyl-d14 (Surr)	86		13 - 120				08/24/12 09:30	08/25/12 23:31	1
Nitrobenzene-d5 (Surr)	62		27 - 120				08/24/12 09:30	08/25/12 23:31	7
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	87		0.10	0.10	%			08/21/12 15:03	1

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-4605-1

Client Sample ID: 771 Althea - a

Date Collected: 08/14/12 16:15 Date Received: 08/21/12 08:15

Percent Solids

Lab Sample ID: 490-4605-4

Matrix: Solid Percent Solids: 80.9

Method: 8260B - Volatile Orga	anic Compounds	(GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.0602	J	0,105	0.0351	mg/Kg	0	08/22/12 15:09	08/24/12 14:48	1
Ethylbenzene	0.235		0.127	0.0431	mg/Kg	0	08/22/12 15:18	08/27/12 16:25	1
Naphthalene	8.43		0.317	0.108	mg/Kg	0	08/22/12 15:18	08/27/12 16:25	1
Toluene	0.575		0.105	0.0388	mg/Kg	0	08/22/12 15:09	08/24/12 14:48	1
Xylenes, Total	1.13	В	0.317	0.0431	mg/Kg	D	08/22/12 15:18	08/27/12 16:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	114		70 - 130				08/22/12 15:09	08/24/12 14:48	1
1,2-Dichloroethane-d4 (Surr)	99		70 - 130				08/22/12 15:18	08/27/12 16:25	1
4-Bromofluorobenzene (Surr)	0	X	70 - 130				08/22/12 15:09	08/24/12 14:48	1
4-Bromofluorobenzene (Surr)	103		70 - 130				08/22/12 15:18	08/27/12 16:25	7
Dibromofluoromethane (Surr)	106		70 - 130				08/22/12 15:09	08/24/12 14:48	1
Dibromofluoromethane (Surr)	92		70 - 130				08/22/12 15:18	08/27/12 16:25	7
Toluene-d8 (Surr)	162	X	70 - 130				08/22/12 15:09	08/24/12 14:48	1
Toluene-d8 (Surr)	101		70 - 130				08/22/12 15:18	08/27/12 16:25	1
Method: 8270D - Semivolatile	Organic Compou	nds (GC/MS	S)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.800		0.0657	0.00981	mg/Kg	\$	08/24/12 09:30	08/25/12 23:57	1
Acenaphthylene	ND		0.0657	0.00883	mg/Kg	-03	08/24/12 09:30	08/25/12 23:57	1
Anthracene	0.341		0.0657	0.00883	mg/Kg	9	08/24/12 09:30	08/25/12 23:57	1
Benzo[a]anthracene	0.221		0.0657	0.0147	mg/Kg	0	08/24/12 09:30	08/25/12 23:57	1
Benzo[a]pyrene	0.0981		0.0657	0.0118	mg/Kg	- 0	08/24/12 09:30	08/25/12 23:57	1
Benzo[b]fluoranthene	0.195		0.0657	0.0118	mg/Kg	Q	08/24/12 09:30	08/25/12 23:57	1
Benzo[g,h,i]perylene	0.0552	J	0.0657	0.00883	mg/Kg	0	08/24/12 09:30	08/25/12 23:57	1
Benzo[k]fluoranthene	0.0744		0.0657	0.0137	mg/Kg	-6	08/24/12 09:30	08/25/12 23:57	1
Pyrene	0.626		0.0657	0.0118	mg/Kg	-0	08/24/12 09:30	08/25/12 23:57	1
Phenanthrene	4.22		0.131	0.0177	mg/Kg	9	08/24/12 09:30	08/27/12 16:43	2
Chrysene	0,271		0.0657	0.00883	mg/Kg		08/24/12 09:30	08/25/12 23:57	1
Dibenz(a,h)anthracene	0.0432	Ĵ.	0.0657	0.00687	mg/Kg		08/24/12 09:30	08/25/12 23:57	1
Fluoranthene	0.443		0.0657	0.00883	mg/Kg	0	08/24/12 09:30	08/25/12 23:57	1
Fluorene	1.34		0.0657	0.0118	mg/Kg	0	08/24/12 09:30	08/25/12 23:57	1
Indeno[1,2,3-cd]pyrene	0.0575	J	0.0657	0.00981	mg/Kg	0	08/24/12 09:30	08/25/12 23:57	1
Naphthalene	0.917		0.0657	0.00883		ō-	08/24/12 09:30	08/25/12 23:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	55		29 - 120				08/24/12 09:30	08/25/12 23:57	1
Terphenyl-d14 (Surr)	83		13 - 120				08/24/12 09:30	08/25/12 23:57	1
Nitrobenzene-d5 (Surr)	61		27 - 120				08/24/12 09:30	08/25/12 23:57	1
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac

08/21/12 15:03

81

0.10 %

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-4605-1

Client Sample ID: 1305 Eagle

Date Collected: 08/15/12 15:30 Date Received: 08/21/12 08:15 Lab Sample ID: 490-4605-5

Matrix: Solid Percent Solids: 97.6

Method: 8260B - Volatile Orga	nic Compounds	(GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.108	0.0362	mg/Kg	(0)	08/22/12 15:09	08/24/12 15:17	1
Ethylbenzene	ND		0.108	0.0362	mg/Kg	0	08/22/12 15:09	08/24/12 15:17	1
Naphthalene	0.118	J	0,270	0.0920	mg/Kg	0	08/22/12 15:09	08/24/12 15:17	1
Toluene	ND		0.108	0.0400	mg/Kg	D	08/22/12 15:09	08/24/12 15:17	1
Xylenes, Total	ND		0.270	0.0362	mg/Kg	8	08/22/12 15:09	08/24/12 15:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1.2-Dichloroethane-d4 (Surr)	106		70 - 130				08/22/12 15:09	08/24/12 15:17	1
4-Bromofluorobenzene (Surr)	98		70 - 130				08/22/12 15:09	08/24/12 15:17	1
Dibromofluoromethane (Surr)	95		70 - 130				08/22/12 15:09	08/24/12 15.17	1
Toluene-d8 (Surr)	117		70 - 130				08/22/12 15:09	08/24/12 15:17	1
Method: 8270D - Semivolatile	Organic Compou	inds (GC/MS	3)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0665	0.00993	mg/Kg	0	08/24/12 09:30	08/26/12 00:22	1
Acenaphthylene	ND		0.0665	0.00894	mg/Kg	0	08/24/12 09:30	08/26/12 00:22	1
Anthracene	ND		0.0665	0.00894	mg/Kg	.0	08/24/12 09:30	08/26/12 00:22	1
Benzo[a]anthracene	ND		0.0665	0.0149	mg/Kg	-0	08/24/12 09:30	08/26/12 00:22	1
Benzo[a]pyrene	ND		0.0665	0.0119	mg/Kg	0	08/24/12 09:30	08/26/12 00:22	1
Benzo[b]fluoranthene	ND		0.0665	0.0119	mg/Kg	,0,	08/24/12 09:30	08/26/12 00:22	1
Benzo[g,h,i]perylene	ND		0.0665	0.00894	mg/Kg	9	08/24/12 09:30	08/26/12 00:22	1
Benzo[k]fluoranthene	ND		0.0665	0.0139	mg/Kg	0	08/24/12 09:30	08/26/12 00:22	1
Pyrene	ND		0.0665	0.0119	mg/Kg	0	08/24/12 09:30	08/26/12 00:22	1
Phenanthrene	ND		0.0665	0.00894	mg/Kg	D.	08/24/12 09:30	08/26/12 00:22	-1
Chrysene	ND		0.0665	0.00894	mg/Kg	0	08/24/12 09:30	08/26/12 00:22	4
Dibenz(a,h)anthracene	ND		0.0665	0,00695	mg/Kg	100	08/24/12 09:30	08/26/12 00:22	1
Fluoranthene	ND		0.0665	0.00894	mg/Kg	Q	08/24/12 09:30	08/26/12 00:22	1
Fluorene	ND		0.0665	0.0119	mg/Kg	2	08/24/12 09:30	08/26/12 00:22	1
ndeno[1,2,3-cd]pyrene	ND		0.0665	0.00993	mg/Kg	1-3	08/24/12 09:30	08/26/12 00:22	1
Naphthalene	ND		0.0665	0.00894	mg/Kg	13	08/24/12 09:30	08/26/12 00:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	59		29 - 120				08/24/12 09:30	08/26/12 00:22	1
Terphenyl-d14 (Surr)	79		13 - 120				08/24/12 09:30	08/26/12 00:22	1
Nitrobenzene-d5 (Surr)	58		27 - 120				08/24/12 09:30	08/26/12 00:22	1
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	98		0.10	0.10	%			08/21/12 15:03	1

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

TestAmerica Job ID: 490-4605-1

Client Sample ID: 1417 Albatross

Date Collected: 08/16/12 15:45 Date Received: 08/21/12 08:15 Lab Sample ID: 490-4605-6

Matrix: Solid Percent Solids: 81.2

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Method: 8260B - Volatile Orga	anic Compounds	(GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.102	0.0343	mg/Kg	0	08/22/12 15:09	08/24/12 15:47	1
Ethylbenzene	ND		0.102	0.0343	mg/Kg	0	08/22/12 15:09	08/24/12 15:47	1
Naphthalene	ND		0.256	0.0870	mg/Kg	0	08/22/12 15:09	08/24/12 15:47	1
Toluene	ND		0,102	0.0379	mg/Kg	0	08/22/12 15:09	08/24/12 15:47	1
Xylenes, Total	ND		0.256	0.0343	mg/Kg	0	08/22/12 15:09	08/24/12 15:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		70 - 130				08/22/12 15:09	08/24/12 15:47	1
4-Bromofluorobenzene (Surr)	125		70 - 130				08/22/12 15:09	08/24/12 15:47	1
Dibromofluoromethane (Surr)	89		70 - 130				08/22/12 15:09	08/24/12 15:47	1
Toluene-d8 (Surr)	106		70 - 130				08/22/12 15:09	08/24/12 15:47	1
Method: 8270D - Semivolatile	Organic Compou	inds (GC/MS	3)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0658	0.00982	mg/Kg	8	08/24/12 09:30	08/26/12 00:48	1
Acenaphthylene	ND		0.0658	0.00884	mg/Kg	0	08/24/12 09:30	08/26/12 00:48	1
Anthracene	ND		0.0658	0.00884	mg/Kg	0	08/24/12 09:30	08/26/12 00:48	1
Benzo[a]anthracene	ND		0.0658	0.0147	mg/Kg	10	08/24/12 09:30	08/26/12 00:48	Ť
Benzo[a]pyrene	ND		0.0658	0.0118	mg/Kg	9	08/24/12 09:30	08/26/12 00:48	1
Benzo[b]fluoranthene	ND		0.0658	0.0118	mg/Kg	33	08/24/12 09:30	08/26/12 00:48	1
Benzo[g,h,i]perylene	ND		0.0658	0.00884	mg/Kg	6	08/24/12 09:30	08/26/12 00:48	-1
Benzo[k]fluoranthene	ND		0.0658	0.0137	mg/Kg	10	08/24/12 09:30	08/26/12 00:48	1.
Pyrene	ND		0.0658	0.0118	mg/Kg	D	08/24/12 09:30	08/26/12 00:48	1
Phenanthrene	ND		0.0658	0.00884	mg/Kg	0.	08/24/12 09:30	08/26/12 00:48	1
Chrysene	ND		0.0658	0.00884	mg/Kg	0	08/24/12 09:30	08/26/12 00:48	1
Dibenz(a,h)anthracene	ND		0.0658	0.00687	mg/Kg		08/24/12 09:30	08/26/12 00:48	4
Fluoranthene	ND		0.0658	0.00884	mg/Kg	0	08/24/12 09:30	08/26/12 00:48	1
Fluorene	ND		0.0658	0.0118	mg/Kg	- 2	08/24/12 09:30	08/26/12 00:48	1
Indeno[1,2,3-cd]pyrene	ND		0.0658	0.00982	mg/Kg	-0-	08/24/12 09:30	08/26/12 00:48	1
Naphthalene	ND		0.0658	0.00884	mg/Kg	0	08/24/12 09:30	08/26/12 00:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	65		29 - 120				08/24/12 09:30	08/26/12 00:48	1
Terphenyl-d14 (Surr)	85		13 - 120				08/24/12 09:30	08/26/12 00:48	1
Nitrobenzene-d5 (Surr)	61		27 - 120				08/24/12 09:30	08/26/12 00:48	1
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	81		0.10	0.10	%			08/21/12 15:03	1

TestAmerica Job ID: 490-4605-1

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

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

Lab Sample ID: MB 490-15022/6

Matrix: Solid

Analysis Batch: 15022

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

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00200	0.000670	mg/Kg			08/24/12 11:53	1
Ethylbenzene	ND		0.00200	0.000670	mg/Kg			08/24/12 11:53	1
Naphthalene	ND		0.00500	0.00170	mg/Kg			08/24/12 11:53	3
Toluene	ND		0.00200	0.000740	mg/Kg			08/24/12 11:53	1
Xylenes, Total	ND		0.00500	0.000670	mg/Kg			08/24/12 11:53	1
	MB	MB							
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		70 - 130					08/24/12 11:53	1
4-Bromofluorobenzene (Surr)	100		70 - 130					08/24/12 11:53	1
Dibromofluoromethane (Surr)	98		70 - 130					08/24/12 11:53	1

70 - 130

102

99

Lab Sample ID: MB 490-15022/7

Matrix: Solid

Toluene-d8 (Surr)

Analysis Batch: 15022

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

08/24/12 11:53

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.100	0.0335	mg/Kg			08/24/12 12:22	1
Ethylbenzene	ND		0.100	0.0335	mg/Kg			08/24/12 12:22	1
Naphthalene	ND		0.250	0.0850	mg/Kg			08/24/12 12:22	1
Toluene	ND		0.100	0.0370	mg/Kg			08/24/12 12:22	1
Xylenes, Total	ND		0.250	0.0335	mg/Kg			08/24/12 12:22	1
	MB	MB							
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		70 - 130					08/24/12 12:22	1
4-Bromofluorobenzene (Surr)	104		70 - 130					08/24/12 12:22	1
Dibromofluoromethane (Surr)	101		70 - 130					08/24/12 12:22	1

70 - 130

Lab Sample ID: LCS 490-15022/3

Matrix: Solid

Toluene-d8 (Surr)

Analysis Batch: 15022

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

08/24/12 12:22

	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Benzene	0.0500	0.04735		mg/Kg		95	75 - 127
Ethylbenzene	0.0500	0.05154		mg/Kg		103	80 - 134
Naphthalene	0.0500	0.05063		mg/Kg		101	69 - 150
Toluene	0.0500	0.05479		mg/Kg		110	80 - 132
Xylenes, Total	0.150	0.1512		mg/Kg		101	80 - 137

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	101		70 - 130
4-Bromofluorobenzene (Surr)	97		70 - 130
Dibromofluoromethane (Surr)	96		70 - 130
Toluene-d8 (Surr)	108		70 - 130

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

Lab Sample ID:	LCSD 490-15022/4
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Matrix: Solid

Analysis Batch: 15022

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

Charles and Control	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.0500	0.04753		mg/Kg		95	75 - 127	0	50
Ethylbenzene	0.0500	0.04869		mg/Kg		97	80 - 134	6	50
Naphthalene	0.0500	0.05278		mg/Kg		106	69 - 150	4	50
Toluene	0.0500	0.04803		mg/Kg		96	80 - 132	13	50
Xylenes, Total	0.150	0.1444		mg/Kg		96	80 + 137	5	50

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	108		70 - 130
4-Bromofluorobenzene (Surr)	125		70 - 130
Dibromofluoromethane (Surr)	98		70 - 130
Toluene-d8 (Surr)	99		70 - 130

Lab Sample ID: MB 490-15621/6

Matrix: Solid

Analysis Batch: 15621

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	Result Qu		MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND	0.00200	0.000680	mg/Kg			08/27/12 12:30	1
Ethylbenzene	ND	0.00200	0.000680	mg/Kg			08/27/12 12:30	1
Naphthalene	ND	0.00500	0.00170	mg/Kg			08/27/12 12:30	1
Toluene	0.001202 J	0.00200	0.000740	mg/Kg			08/27/12 12:30	1
Xylenes, Total	0.001207 J	0.00500	0.000680	mg/Kg			08/27/12 12:30	.1

MB MB

MB MB

Result Qualifier

MB MB

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99	70 - 130		08/27/12 12:30	1
4-Bromofluorobenzene (Surr)	104	70 - 130		08/27/12 12:30	1
Dibromofluoromethane (Surr)	94	70 - 130		08/27/12 12:30	1
Toluene-d8 (Surr)	99	70 - 130		08/27/12 12:30	1

Lab Sample ID: MB 490-15621/7

Matrix: Solid

Analyte

Analysis Batch: 15621

Client	Sample	ID:	Method	Blank	
	Pre	an T	Vne To	tal/NA	

 Prepared
 Analyzed
 Dil Fac

 08/27/12 12:59
 1

 08/27/12 12:59
 1

Benzene	MD	0.100	0.0540 mg/kg	06/2//12 12:39	1
Ethylbenzene	ND	0.100	0.0340 mg/Kg	08/27/12 12:59	1
Naphthalene	ND	0.250	0.0850 mg/Kg	08/27/12 12:59	1
Toluene	0.05284 J	0.100	0.0370 mg/Kg	08/27/12 12:59	1
Xylenes, Total	0.05238 J	0.250	0.0340 mg/Kg	08/27/12 12:59	1

RL

MDL Unit

	MB MB				
Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101	70 - 130		08/27/12 12:59	1
4-Bromofluorobenzene (Surr)	105	70 - 130		08/27/12 12:59	1
Dibromofluoromethane (Surr)	94	70 - 130		08/27/12 12:59	1
Toluene-d8 (Surr)	101	70 - 130		08/27/12 12:59	1

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

Lab Sample ID: LCS 490-15621/3

Matrix: Solid

Analysis Batch: 15621

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

Analyte Added Result Qu	ualifier Unit D	0.0	
Analyte Added Result Qu		%Rec	Limits
Benzene 0.0500 0.04607	mg/Kg	92	75 - 127
Ethylbenzene 0.0500 0.04670	mg/Kg	93	80 - 134
Naphthalene 0.0500 0.05064	mg/Kg	101	69 - 150
Toluene 0.0500 0.05422	mg/Kg	108	80 - 132
Xylenes, Total 0.150 0.1466	mg/Kg	98	80 - 137

LCS LCS %Recovery Qualifier Limits Surrogate 70 - 130 1,2-Dichloroethane-d4 (Surr) 107 4-Bromofluorobenzene (Surr) 100 70 - 130 Dibromofluoromethane (Surr) 70 - 130 100 Toluene-d8 (Surr) 115 70 - 130

Lab Sample ID: LCSD 490-15621/4

Matrix: Solid

Analysis Batch: 15621

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.0500	0.04323		mg/Kg		86	75 - 127	6	50
Ethylbenzene	0.0500	0.04667		mg/Kg		93	80 - 134	0	50
Naphthalene	0.0500	0.05099		mg/Kg		102	69 - 150	1	50
Toluene	0.0500	0.04755		mg/Kg		95	80 - 132	13	50
Xylenes, Total	0.150	0.1451		mg/Kg		97	80 - 137	1	50

LCSD LCSD Surrogate %Recovery Qualifier Limits 1,2-Dichloroethane-d4 (Surr) 103 70 - 130 4-Bromofluorobenzene (Surr) 100 70 - 130 Dibromofluoromethane (Surr) 98 70 - 130 Toluene-d8 (Surr) 106 70 - 130

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

Lab Sample ID: MB 490-15031/1-A

Matrix: Solid

Analysis Batch: 15380

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

Prep Batch: 15031

MB	MB							
Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
ND		0.0670	0.0100	mg/Kg		08/24/12 09:30	08/25/12 20:55	1
ND		0.0670	0.00900	mg/Kg		08/24/12 09:30	08/25/12 20:55	1
ND		0.0670	0.00900	mg/Kg		08/24/12 09:30	08/25/12 20:55	-1
ND		0.0670	0.0150	mg/Kg		08/24/12 09:30	08/25/12 20:55	1
ND		0.0670	0.0120	mg/Kg		08/24/12 09:30	08/25/12 20:55	1
ND		0.0670	0.0120	mg/Kg		08/24/12 09:30	08/25/12 20:55	1
ND		0.0670	0.00900	mg/Kg		08/24/12 09:30	08/25/12 20:55	1
ND		0.0670	0.0140	mg/Kg		08/24/12 09:30	08/25/12 20:55	1
ND		0.0670	0.0120	mg/Kg		08/24/12 09:30	08/25/12 20:55	1
ND		0.0670	0.00900	mg/Kg		08/24/12 09:30	08/25/12 20:55	1
ND		0.0670	0.00900	mg/Kg		08/24/12 09:30	08/25/12 20:55	4
ND		0.0670	0.00700	mg/Kg		08/24/12 09:30	08/25/12 20:55	1
ND		0.0670	0.00900	mg/Kg		08/24/12 09:30	08/25/12 20:55	1
	Result ND	Result Qualifier ND ND ND ND ND ND ND ND ND N	Result Qualifier RL ND 0.0670 ND 0.0670	Result Qualifier RL MDL ND 0.0670 0.0100 ND 0.0670 0.00900 ND 0.0670 0.00900 ND 0.0670 0.0150 ND 0.0670 0.0120 ND 0.0670 0.00900 ND 0.0670 0.0120 ND 0.0670 0.0140 ND 0.0670 0.0120 ND 0.0670 0.00900 ND 0.0670 0.00900	Result Qualifier RL MDL Unit ND 0.0670 0.0100 mg/Kg ND 0.0670 0.00900 mg/Kg ND 0.0670 0.0150 mg/Kg ND 0.0670 0.0120 mg/Kg ND 0.0670 0.0120 mg/Kg ND 0.0670 0.00900 mg/Kg ND 0.0670 0.00900 mg/Kg ND 0.0670 0.0120 mg/Kg ND 0.0670 0.0120 mg/Kg ND 0.0670 0.00900 mg/Kg	Result Qualifier RL MDL Unit D ND 0.0670 0.0100 mg/Kg Mg/Kg <td>Result Qualifier RL MDL Unit D Prepared ND 0.0670 0.0100 mg/Kg 08/24/12 09:30 ND 0.0670 0.00900 mg/Kg 08/24/12 09:30 ND 0.0670 0.00900 mg/Kg 08/24/12 09:30 ND 0.0670 0.0150 mg/Kg 08/24/12 09:30 ND 0.0670 0.0120 mg/Kg 08/24/12 09:30 ND 0.0670 0.0120 mg/Kg 08/24/12 09:30 ND 0.0670 0.00900 mg/Kg 08/24/12 09:30 ND 0.0670 0.0140 mg/Kg 08/24/12 09:30 ND 0.0670 0.0120 mg/Kg 08/24/12 09:30 ND 0.0670 0.00900 mg/Kg 08/24/12 09:30</td> <td>Result Qualifier RL MDL Unit D Prepared Analyzed ND 0.0670 0.0100 mg/Kg 08/24/12 09:30 08/25/12 20:55 ND 0.0670 0.00900 mg/Kg 08/24/12 09:30 08/25/12 20:55 ND 0.0670 0.00900 mg/Kg 08/24/12 09:30 08/25/12 20:55 ND 0.0670 0.0150 mg/Kg 08/24/12 09:30 08/25/12 20:55 ND 0.0670 0.0120 mg/Kg 08/24/12 09:30 08/25/12 20:55 ND 0.0670 0.0120 mg/Kg 08/24/12 09:30 08/25/12 20:55 ND 0.0670 0.00900 mg/Kg 08/24/12 09:30 08/25/12 20:55 ND 0.0670 0.0140 mg/Kg 08/24/12 09:30 08/25/12 20:55 ND 0.0670 0.0120 mg/Kg 08/24/12 09:30 08/25/12 20:55 ND 0.0670 0.00900 mg/Kg 08/24/12 09:30 08/25/12 20:55 ND 0.0670 0.00900 mg/Kg<</td>	Result Qualifier RL MDL Unit D Prepared ND 0.0670 0.0100 mg/Kg 08/24/12 09:30 ND 0.0670 0.00900 mg/Kg 08/24/12 09:30 ND 0.0670 0.00900 mg/Kg 08/24/12 09:30 ND 0.0670 0.0150 mg/Kg 08/24/12 09:30 ND 0.0670 0.0120 mg/Kg 08/24/12 09:30 ND 0.0670 0.0120 mg/Kg 08/24/12 09:30 ND 0.0670 0.00900 mg/Kg 08/24/12 09:30 ND 0.0670 0.0140 mg/Kg 08/24/12 09:30 ND 0.0670 0.0120 mg/Kg 08/24/12 09:30 ND 0.0670 0.00900 mg/Kg 08/24/12 09:30	Result Qualifier RL MDL Unit D Prepared Analyzed ND 0.0670 0.0100 mg/Kg 08/24/12 09:30 08/25/12 20:55 ND 0.0670 0.00900 mg/Kg 08/24/12 09:30 08/25/12 20:55 ND 0.0670 0.00900 mg/Kg 08/24/12 09:30 08/25/12 20:55 ND 0.0670 0.0150 mg/Kg 08/24/12 09:30 08/25/12 20:55 ND 0.0670 0.0120 mg/Kg 08/24/12 09:30 08/25/12 20:55 ND 0.0670 0.0120 mg/Kg 08/24/12 09:30 08/25/12 20:55 ND 0.0670 0.00900 mg/Kg 08/24/12 09:30 08/25/12 20:55 ND 0.0670 0.0140 mg/Kg 08/24/12 09:30 08/25/12 20:55 ND 0.0670 0.0120 mg/Kg 08/24/12 09:30 08/25/12 20:55 ND 0.0670 0.00900 mg/Kg 08/24/12 09:30 08/25/12 20:55 ND 0.0670 0.00900 mg/Kg<

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

Lab Sample ID: MB 490-15031/1-A

Matrix: Solid

Analysis Batch: 15380

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

Prep Batch: 15031

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	ND		0.0670	0.0120	mg/Kg		08/24/12 09:30	08/25/12 20:55	1
Indeno[1,2,3-cd]pyrene	ND		0.0670	0.0100	mg/Kg		08/24/12 09:30	08/25/12 20:55	1
Naphthalene	ND		0.0670	0.00900	mg/Kg		08/24/12 09:30	08/25/12 20:55	1

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	78	29 - 120	08/24/12 09:30	08/25/12 20:55	1
Terphenyl-d14 (Surr)	102	13 - 120	08/24/12 09:30	08/25/12 20:55	1
Nitrobenzene-d5 (Surr)	70	27 - 120	08/24/12 09:30	08/25/12 20:55	1

Lab Sample ID: LCS 490-15031/2-A

Matrix: Solid

Analysis Batch: 15380

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 15031

	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Acenaphthylene	1.67	1.504		mg/Kg		90	38 - 120
Anthracene	1.67	1.458		mg/Kg		87	46 - 124
Benzo[a]anthracene	1.67	1.500		mg/Kg		90	45 - 120
Benzo[a]pyrene	1.67	1,613		mg/Kg		97	45 - 120
Benzo[b]fluoranthene	1.67	1.500		mg/Kg		90	42 - 120
Benzo[g,h,i]perylene	1.67	1.415		mg/Kg		85	38 - 120
Benzo[k]fluoranthene	1.67	1.407		mg/Kg		84	42 - 120
Pyrene	1.67	1.576		mg/Kg		95	43 - 120
Phenanthrene	1.67	1.457		mg/Kg		87	45 - 120
Chrysene	1.67	1.461		mg/Kg		88	43 - 120
Dibenz(a,h)anthracene	1.67	1.466		mg/Kg		88	32 - 128
Fluoranthene	1.67	1.438		mg/Kg		86	46 - 120
Fluorene	1.67	1.511		mg/Kg		91	42 - 120
Indeno[1,2,3-cd]pyrene	1.67	1.461		mg/Kg		88	41 - 121
Naphthalene	1.67	1.298		mg/Kg		78	32 - 120

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl (Surr)	66		29 - 120
Terphenyl-d14 (Surr)	82		13 - 120
Nitrobenzene-d5 (Surr)	60		27 - 120

Lab Sample ID: 490-4605-1 MS

Matrix: Solid

Analysis Batch: 15380

Client Sample ID: 1167 Jasmine

Prep Type: Total/NA

Prep Batch: 15031

	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Acenaphthylene	ND		1.67	1.312		mg/Kg	0	79	25 - 120
Anthracene	0.169		1.67	1.701		mg/Kg	ø	92	28 - 125
Benzo[a]anthracene	0.0378	J	1.67	1.466		mg/Kg	0	86	23 - 120
Benzo[a]pyrene	ND		1.67	1.568		mg/Kg	-0	94	15 - 128
Benzo[b]fluoranthene	0.0398	J	1.67	1.538		mg/Kg	6	90	12 - 133
Benzo[g,h,i]perylene	ND		1.67	1.507		mg/Kg	10	90	22 - 120
Benzo[k]fluoranthene	ND		1.67	1.434		mg/Kg		86	28 - 120
Pyrene	0.155		1.67	1.490		mg/Kg		80	20 - 123
Phenanthrene	1.45		1.67	2.904		mg/Kg	0	87	21 - 122

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

Lab Sample ID: 490-4605-1 MS

Matrix: Solid

Analysis Batch: 15380

Client Sample ID: 1167 Jasmine Prep Type: Total/NA Prep Batch: 15031

	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Chrysene	0.0454	J	1.67	1.591		mg/Kg	C	93	20 - 120
Dibenz(a,h)anthracene	ND		1.67	1.539		mg/Kg	0.	92	12 - 128
Fluoranthene	0.122		1.67	1.570		mg/Kg	0	87	10 - 143
Fluorene	0.581		1.67	1.931		mg/Kg	0.	81	20 - 120
Indeno[1,2,3-cd]pyrene	ND		1.67	1.505		mg/Kg	0.	90	22 - 121
Naphthalene	0.738		1.67	1.636		mg/Kg	10	54	10 - 120

Surrogate	%Recovery Qualifier	Limits
2-Fluorobiphenyl (Surr)	60	29 - 120
Terphenyl-d14 (Surr)	77	13 - 120
Nitrobenzene-d5 (Surr)	68	27 - 120

Client Sample ID: 1167 Jasmine

Prep Type: Total/NA

Prep Batch: 15031

Lab Sample ID: 490-4605-1 MSD Matrix: Solid

Analysis Batch: 15380

Analysis Daton. 10000									rich	Date.	12021
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acenaphthylene	ND		1.66	1.609		mg/Kg	*	97	25 - 120	20	50
Anthracene	0.169		1.66	1.869		mg/Kg	0	102	28 - 125	9	49
Benzo[a]anthracene	0.0378	J	1.66	1.593		mg/Kg		94	23 - 120	8	50
Benzo[a]pyrene	ND		1.66	1.890		mg/Kg	.0	114	15 - 128	19	50
Benzo[b]fluoranthene	0.0398	J	1.66	1.608		mg/Kg	d	94	12 - 133	4	50
Benzo[g,h,i]perylene	ND		1.66	1.572		mg/Kg	0	95	22 - 120	4	50
Benzo[k]fluoranthene	ND		1.66	1.580		mg/Kg	ė.	95	28 - 120	10	45
Pyrene	0.155		1.66	1.715		mg/Kg	6	94	20 - 123	14	50
Phenanthrene	1.45		1.66	3.068		mg/Kg	6	98	21 - 122	6	50
Chrysene	0.0454	J	1.66	1.596		mg/Kg	4	93	20 - 120	0	49
Dibenz(a,h)anthracene	ND		1.66	1.660		mg/Kg	0	100	12 - 128	8	50
Fluoranthene	0.122		1.66	1.690		mg/Kg	Ģ	94	10 - 143	7	50
Fluorene	0.581		1.66	2.096		mg/Kg	10	91	20 - 120	8	50
Indeno[1,2,3-cd]pyrene	ND		1.66	1.596		mg/Kg	*	96	22 - 121	6	50
Naphthalene	0.738		1.66	1,789		mg/Kg	- 0	63	10 - 120	9	50

MSD MSD

%Recovery	Qualifier	Limits
64		29 - 120
78		13 - 120
63		27 - 120
	64 78	78

Method: Moisture - Percent Moisture

Lab Sample ID: 490-4605-1 DU

Matrix: Solid

Analysis Batch: 14093

	Cample	Cample	DII	DU				DDD
	Sample	Sample	DO	Du				RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
Percent Solids	82		82		%		0.08	20

Prep Type: Total/NA

Client Sample ID: 1167 Jasmine

QC Association Summary

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

TestAmerica Job ID: 490-4605-1

GC/MS VOA

Prep	Batch: 1	14487
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Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-4605-1	1167 Jasmine	Total/NA	Solid	5035	
490-4605-2	1236 Dove - a	Total/NA	Solid	5035	
490-4605-3	630 Dahlia - a	Total/NA	Solid	5035	
490-4605-4	771 Althea - a	Total/NA	Solid	5035	
490-4605-5	1305 Eagle	Total/NA	Solid	5035	
490-4605-6	1417 Albatross	Total/NA	Solid	5035	

Prep Batch: 14489

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-4605-1	1167 Jasmine	Total/NA	Solid	5035	
490-4605-4	771 Althea - a	Total/NA	Solid	5035	

Analysis Batch: 15022

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-4605-1	1167 Jasmine	Total/NA	Solid	8260B	14487
490-4605-2	1236 Dove - a	Total/NA	Solid	8260B	14487
490-4605-3	630 Dahlia - a	Total/NA	Solid	8260B	14487
490-4605-4	771 Althea - a	Total/NA	Solid	8260B	14487
490-4605-5	1305 Eagle	Total/NA	Solid	8260B	14487
490-4605-6	1417 Albatross	Total/NA	Solid	8260B	14487
LCS 490-15022/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 490-15022/4	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 490-15022/6	Method Blank	Total/NA	Solid	8260B	
MB 490-15022/7	Method Blank	Total/NA	Solid	8260B	

Analysis Batch: 15621

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-4605-1	1167 Jasmine	Total/NA	Solid	8260B	14489
490-4605-4	771 Althea - a	Total/NA	Solid	8260B	14489
LCS 490-15621/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 490-15621/4	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 490-15621/6	Method Blank	Total/NA	Solid	8260B	
MB 490-15621/7	Method Blank	Total/NA	Solid	8260B	

GC/MS Semi VOA

Prep Batch: 15031

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-4605-1	1167 Jasmine	Total/NA	Solid	3550C	
490-4605-1 MS	1167 Jasmine	Total/NA	Solid	3550C	
490-4605-1 MSD	1167 Jasmine	Total/NA	Solid	3550C	
490-4605-2	1236 Dove - a	Total/NA	Solid	3550C	
490-4605-3	630 Dahlia - a	Total/NA	Solid	3550C	
490-4605-4	771 Althea - a	Total/NA	Solid	3550C	
490-4605-5	1305 Eagle	Total/NA	Solid	3550C	
490-4605-6	1417 Albatross	Total/NA	Solid	3550C	
LCS 490-15031/2-A	Lab Control Sample	Total/NA	Solid	3550C	
MB 490-15031/1-A	Method Blank	Total/NA	Solid	3550C	
Analysis Batch: 15380					

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-4605-1	1167 Jasmine	Total/NA	Solid	8270D	15031

QC Association Summary

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

TestAmerica Job ID: 490-4605-1

Prep Batch

GC/MS Semi VOA (Continued)

Analysis Batch: 15380 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method
490-4605-1 MS	1167 Jasmine	Total/NA	Solid	8270D
490-4605-1 MSD	1167 Jasmine	Total/NA	Solid	8270D
490-4605-2	1236 Dove - a	Total/NA	Solid	8270D
490-4605-3	630 Dahlia - a	Total/NA	Solid	8270D
490-4605-4	771 Althea - a	Total/NA	Solid	8270D
490-4605-5	1305 Eagle	Total/NA	Solid	8270D
490-4605-6	1417 Albatross	Total/NA	Solid	8270D
LCS 490-15031/2-A	Lab Control Sample	Total/NA	Solid	8270D
MB 490-15031/1-A	Method Blank	Total/NA	Solid	8270D
Analysis Batch: 15732				

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-4605-4	771 Althea - a	Total/NA	Solid	8270D	15031

General Chemistry

Analysis Batch: 14093

Client Sample ID	Prep Type	Matrix	Method	Prep Batch
1167 Jasmine	Total/NA	Solid	Moisture	12.2
1167 Jasmine	Total/NA	Solid	Moisture	
1236 Dove - a	Total/NA	Solid	Moisture	
630 Dahlia - a	Total/NA	Solid	Moisture	
771 Althea - a	Total/NA	Solid	Moisture	
1305 Eagle	Total/NA	Solid	Moisture	
1417 Albatross	Total/NA	Solid	Moisture	
	1167 Jasmine 1167 Jasmine 1236 Dove - a 630 Dahlia - a 771 Althea - a 1305 Eagle	1167 Jasmine Total/NA 1167 Jasmine Total/NA 1236 Dove - a Total/NA 630 Dahlia - a Total/NA 771 Althea - a Total/NA 1305 Eagle Total/NA	1167 Jasmine Total/NA Solid 1167 Jasmine Total/NA Solid 1236 Dove - a Total/NA Solid 630 Dahlia - a Total/NA Solid 771 Althea - a Total/NA Solid 1305 Eagle Total/NA Solid	1167 Jasmine Total/NA Solid Moisture 1167 Jasmine Total/NA Solid Moisture 1236 Dove - a Total/NA Solid Moisture 630 Dahlia - a Total/NA Solid Moisture 771 Althea - a Total/NA Solid Moisture 1305 Eagle Total/NA Solid Moisture

TestAmerica Job ID: 490-4605-1

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

Client Sample ID: 1167 Jasmine

Date Collected: 08/14/12 10:45 Date Received: 08/21/12 08:15

Lab Sample ID: 490-4605-1

Matrix: Solid

Percent Solids: 81.6

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14487	08/22/12 15:09	KK	TAL NSH
Total/NA	Analysis	8260B		1	15022	08/24/12 13:21	KK	TAL NSH
Total/NA	Prep	5035			14489	08/22/12 15:18	KK	TAL NSH
Total/NA	Analysis	8260B		1	15621	08/27/12 15:56	KK	TAL NSH
Total/NA	Prep	3550C			15031	08/24/12 09:30	AK	TAL NSH
Total/NA	Analysis	8270D		1	15380	08/25/12 21:47	JS	TAL NSH
Total/NA	Analysis	Moisture		4	14093	08/21/12 15:03	ML	TAL NSH

Client Sample ID: 1236 Dove - a

Date Collected: 08/14/12 15:15 Date Received: 08/21/12 08:15 Lab Sample ID: 490-4605-2

Matrix: Solid Percent Solids: 93.7

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14487	08/22/12 15:09	KK	TAL NSH
Total/NA	Analysis	8260B		1	15022	08/24/12 13:50	KK	TAL NSH
Total/NA	Prep	3550C			15031	08/24/12 09:30	AK	TAL NSH
Total/NA	Analysis	8270D		1	15380	08/25/12 23:05	JS	TAL NSH
Total/NA	Analysis	Moisture		1	14093	08/21/12 15:03	ML	TAL NSH

Client Sample ID: 630 Dahlia - a

Date Collected: 08/14/12 15:45 Date Received: 08/21/12 08:15 Lab Sample ID: 490-4605-3

Matrix: Solid Percent Solids: 87.4

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14487	08/22/12 15:09	KK	TAL NSH
Total/NA	Analysis	8260B		1	15022	08/24/12 14:19	KK	TAL NSH
Total/NA	Prep	3550C			15031	08/24/12 09:30	AK	TAL NSH
Total/NA	Analysis	8270D		-1	15380	08/25/12 23:31	JS	TAL NSH
Total/NA	Analysis	Moisture		1	14093	08/21/12 15:03	ML	TAL NSH

Client Sample ID: 771 Althea - a

Batch

Batch

Date Collected: 08/14/12 16:15 Date Received: 08/21/12 08:15

Lab Sample ID: 490-4605-4

Matrix: Solid Percent Solids: 80.9

Prepared Prep Type Type Method Run Factor Number or Analyzed Analyst Total/NA 5035 Prep 14487 08/22/12 15:09 KK TAL NSH Total/NA Analysis 8260B 15022 08/24/12 14:48 1 KK TAL NSH Total/NA 5035 14489 08/22/12 15:18 Prep KK TAL NSH Total/NA Analysis 8260B 15621 08/27/12 16:25 KK TAL NSH 1

Batch

Total/NA Prep 3550C 15031 08/24/12 09:30 AK TAL NSH Total/NA 8270D 15380 08/25/12 23:57 Analysis 1 JS TAL NSH Total/NA Analysis 8270D 2 15732 08/27/12 16:43 BS TAL NSH Total/NA Analysis Moisture 14093 08/21/12 15:03 ML TAL NSH

Dilution

Lab Chronicle

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-4605-1

Lab Sample ID: 490-4605-5

Matrix: Solid

Percent Solids: 97.6

Client Sample ID: 1305 Eagle	
Date Collected: 08/15/12 15:30	
Date Received: 08/21/12 08:15	

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14487	08/22/12 15:09	KK	TAL NSH
Total/NA	Analysis	8260B		1	15022	08/24/12 15:17	KK	TAL NSH
Total/NA	Prep	3550C			15031	08/24/12 09:30	AK	TAL NSH
Total/NA	Analysis	8270D		1	15380	08/26/12 00:22	JS	TAL NSH
Total/NA	Analysis	Moisture		1	14093	08/21/12 15:03	ML	TAL NSH

Client Sample ID: 1417 Albatross

Date Collected: 08/16/12 15:45 Date Received: 08/21/12 08:15 Lab Sample ID: 490-4605-6 Matrix: Solid

Percent Solids: 81.2

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			14487	08/22/12 15:09	KK	TAL NSH
Total/NA	Analysis	8260B		1	15022	08/24/12 15:47	KK	TAL NSH
Total/NA	Prep	3550C			15031	08/24/12 09:30	AK	TAL NSH
Total/NA	Analysis	8270D		1	15380	08/26/12 00:48	JS	TAL NSH
Total/NA	Analysis	Moisture		1	14093	08/21/12 15:03	ML	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: 490-4605-1

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

Laboratory: TestAmerica Nashville

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

Authority	Program ACIL	EPA Region	Certification ID 393	Expiration Dat 10-30-12
A2LA	ISO/IEC 17025		0453.07	12-31-13
Alabama	State Program	4	41150	05-31-13
Alaska (UST)	State Program	10	UST-087	07-24-13
Arizona	State Program	9	AZ0473	05-05-13
Arkansas DEQ	State Program	6	88-0737	04-25-13
California	NELAC	9	1168CA	10-31-12
Canadian Assoc Lab Accred (CALA)	Canada		3744	03-08-14
Colorado	State Program	8	N/A	02-28-13
Connecticut	State Program	1	PH-0220	12-31-13
Florida	NELAC	4	E87358	06-30-13
Illinois	NELAC	5	200010	12-09-12
lowa	State Program	7	131	05-01-14
Kansas	NELAC	7	E-10229	10-31-12
Kentucky	State Program	4	90038	12-31-12
Kentucky (UST)	State Program	4	19	09-15-13
Louisiana	NELAC	6	LA110014	12-31-12
Louisiana	NELAC	6	30613	06-30-13
Maryland	State Program	3	316	03-31-13
		1	M-TN032	06-30-13
Massachusetts	State Program NELAC			
Minnesota		5	047-999-345	12-31-12
Mississippi	State Program	4	N/A	06-30-13
Montana (UST)	State Program	8	NA TNOSCOS	01-01-15
Nevada	State Program	9	TN00032	09-30-12
New Hampshire	NELAC	1	2963	10-09-12
New Jersey	NELAC	2	TN965	06-30-13
New York	NELAC	2	11342	04-01-13
North Carolina DENR	State Program	4	387	12-31-12
North Dakola	State Program	8	R-146	06-30-13
Ohio VAP	State Program	5	CL0033	01-19-14
Oklahoma	State Program	6	9412	08-31-12
Oregon	NELAC	10	TN200001	04-30-13
Pennsylvania	NELAC	3	68-00585	06-30-13
Rhode Island	State Program	1	LAO00268	12-30-12
South Carolina	State Program	4	84009 (001)	02-28-13
South Carolina	State Program	4	84009 (002)	02-23-14
Tennessee	State Program	4	2008	02-23-14
rexas exas	NELAC	6	T104704077-09-TX	08-31-13
JSDA	Federal		S-48469	11-02-13
Jtah	NELAC	8	TAN	06-30-13
Virginia	NELAC	3	460152	06-14-13
Vashington	State Program	10	C789	07-19-13
West Virginia DEP	State Program	3	219	02-28-13
Visconsin	State Program	5	998020430	08-31-13
Wyoming (UST)	A2LA	8	453.07	12-31-13



COOLER RECEIPT FORM



491	U-40UD CHAIN OI
Cooler Received/Opened On 8/21/2012 @ 8:15 1. Tracking #	530502
,	
Courier: Fed-ex IR Gun ID_12080142 2. Temperature of rep. sample or temp blank when opened: 31 Degrees Celsius	
	A
3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen	Salar In
4. Were custody seals on outside of cooler?	҉ЙЕЗ̀NONA
If yes, how many and where: 2 front Jback	
5. Were the seals intact, signed, and dated correctly?	YESNONA
6. Were custody papers inside cooler?	(YES)NONA
I certify that I opened the cooler and answered questions 1-6 (intial)	
7. Were custody seals on containers: YES (A)O and Intact	YESNO
Were these signed and dated correctly?	YESNONA
8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper	er Other None
9. Cooling process:	e Other None
10. Did all containers arrive in good condition (unbroken)?	€ESNONA
11. Were all container labels complete (#, date, signed, pres., etc)?	NONA
12. Did all container labels and tags agree with custody papers?	YESNONA
13a. Were VOA vials received?	ESNONA
b. Was there any observable headspace present in any VOA vial?	YES��NA ~ S⇒/L
14. Was there a Trip Blank in this cooler? YESNONOIf multiple coolers, sequen	ce# <u>M</u>
I certify that I unloaded the cooler and answered questions 7-14 (intial)	<u> </u>
15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level?	YESNONA
b. Did the bottle labels indicate that the correct preservatives were used	YES-NONA
16. Was residual chlorine present?	YESNONA
Lertify that Lehecked for chlorine and pH as per SOP and answered questions 15-16 (intial)	F
17. Were custody papers properly filled out (ink, signed, etc)?	ESNONA
18. Did you sign the custody papers in the appropriate place?	(ES)NONA
19. Were correct containers used for the analysis requested?	₩SNONA
20. Was sufficient amount of sample sent in each container?	YES).NONA
I certify that I entered this project into LIMS and answered questions 17-20 (intial)	-
I certify that I attached a label with the unique LIMS number to each container (intial)	<i></i>
21. Were there Non-Conformance issues at login? YES (.NO) Was a PIPE generated? YES	NO#

,	<u>TestAmer</u>	ica	1
	THE LEADER IN ENVIRONMENTA	L TESTING	ħ
	Client Name/Account #:	EEG - SBG # 24	4
	Address:	10179 Highway	7
	City/State/Zip:	Ladson, SC 294	5
	Project Manager:	Tom McElwee e	n
	Telephone Number:	843.412.2097	
	Sampler Name: (Print)	- 12	2
	Sampler Signature:		
	,	pa	
	· /	1 -#	ł

Phone: 615-726-0177 Toll Free: 800-765-0980 Fax: 615-726-3404 Nashville Division 2960 Foster Creighton Nashville, TN 37204

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

Client Name/Account #:	EEG - SBG # 24	49																			Complia	ance Mo	onitoring	g?	Yes		No_
Address:	10179 Highway	78																			Enfor	cement	Action?	·	Yes		No
City/State/Zip:	Ladson, SC 294	56												_		Site	State	: SC									- 1
Project Manager:	Tom McElwee e	mail: mcelw	ее@ее	ginc.ne	t												PO	#:	7	0	63	5					
Telephone Number:	843.412.2097		£			Fax	5 - c	37	9-	- (09	10	7		TA Quote #:												
Sampler Name: (Print)		24 H	- 5	5 6	91)									Project ID: Laurel Bay Housing Project												
Sampler Signature:	,	\mathcal{F}	Y /	121											•		oject i				9						
				1/	7	Γ		Prese	rvativ	e	7		М	atrix		T					Analyze	For:					
Sample ID / Description HTG 1167 DASMINI 1236 DOUE - 0 1630 DAHTIA - 0 1771 AITHEA - 0 1305 EAGLE 1417 Albatnoss	8/14/12 8/14/12 8/14/12 8/14/12 8/16/13	1045 1515 1545 1615 1545	US S CONTAINERS Shipped	X X X X X X	Composite Field Filtered	lce lce	HNO ₃ (Red Label)	NO NON (Orange Label)	<u></u>	H ₂ SO ₄ Glass(Yellow Label)	NN NONe (Black Labe)	Groundwater	Wastewater Drinking Water		X X X Soli	XXXX BTEX + Naoth - 82608	00100	1 - 02/00 1 - 02/00				460					RUSH TAT (Pre-Schedule)
					=	╪	-	_	H	_	+-	\vdash	-	┿	+	╄	_			-	-	-	<u> </u>	 	ļ	 	
				\vdash		+	$\vdash \vdash$	-	+	+	+	$\vdash +$	+	╁	\vdash	+-	+	\mp	-	+-	+					-	
						1	$\dagger \dagger$	+	\vdash	+	$\dashv \dashv$	$\vdash \vdash$	+	+	++	1-	+				_	+		-			
Special Instructions:	Date		Tin	ne R	teceive		thod	of Shi	pmen	ıt:	1			Date	FED	EX Tim	ne	Lab	Tem	peratu	nents: re Upon e of Hea				<u> </u>		Y
CYPY	8/20/	12	10	20		Ed	2	×																			ļ
Relinquished by	Date		Tin	ne F	Received	by	S tAm	rice.	2	3	3,9			ວate ຊາ–/	2	Tin PSH							~~~~				

Login Sample Receipt Checklist

Client: Environmental Enterprise Group

Job Number: 490-4605-1

Login Number: 4605

List Source: TestAmerica Nashville

List Number: 1 Creator: Ford, Easton

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

$\underline{\text{ATTACHMENT } A}$



NON-HAZARDOUS MANIFEST

NON HAZADDOUS MANUFEST	1. Generator's US EPA I	D No.	Manifest Doc	No.	2. Page 1	l of					
NON-HAZARDOUS MANIFEST						1					
3. Generator's Mailing Address:	Gener	ator's Site Address	(If different than n	nailing):	A. Manif	est Number					
MCAS, BEAUFORT					V	/MNA	0031	.6835			
LAUREL BAY HOUSING						's ID					
BEAUFORT, SC 29907						D. State	ocherator	3.10			
4. Generator's Phone 843-2	28-6461										
5. Transporter 1 Company Name	-11-11-11	6. US EP.	A ID Number	11/10-1	M. Ay		A		HORI		
EEG, INC.					C. State	ransporter's I	D	- (TVEST)	Variable .		
			5-17-17		D. Transp	orter's Phone	843	879-04	11		
7. Transporter 2 Company Name		8. US EPA	A ID Number								
					ransporter's I						
9. Designated Facility Name and Site	Address	10 115 5	DA ID Noveles		F. Transp	orter's Phone		SIDENE	40.00		
HICKORY HILL LANDFILL	Address	10. US EI	PA ID Number		0.01	100 100					
2621 LOW COUNTRY ROAD					G. State I						
RIDGELAND, SC 29936		17-7-54 (19) 10)			H. State I	acility Phone	843-	987-464	13		
RIDGELAND, SC 29936											
11 Description of Marks Marks 1			12. Co	ntainers	13. Total	14. Unit					
11. Description of Waste Materials			No.	Туре	Quantity	Wt./Vol.	I.	Misc. Comme	ents		
a. HEATING OIL TANKS FILLED	WITH SAND			The			33 7 18				
	Not a superior to			Total .			14				
WM Profi	le # 102655SC		12:10	A ment	Jak men	ALL ST					
b.					Contract of						
WM Profile #	A District Land		Towns !			A September	The same	W Marie			
c.					TO THE	400					
						5.7.7					
WM Profile #		ALCOHOL:	ST BUT			Marian			411		
d.				1	Man Me	W. Marie	800				
THE WAY SHOW IN THE STATE OF						1760					
WM Profile #			1 - 2 / Jac. 1	Bales S	The State of	6-7000	DESTRUCTION OF THE PARTY OF THE	ESSIT			
J. Additional Descriptions for Materi	als Listed Above	150/51-101	K. Dispos	al Location							
The second of the second			- Establish	All products							
			Cell			100	Level		- 11111		
15 Special Handling Instructions and	Additional Information	1	Grid	11	71 10		1)11	15			
15. Special Handling Instructions and	Additional miorination	6 Albat	R055	40 7	11 14	ITHEA	6)11	61			
1) 12.62 DOUE	V	6 DOUR		5) (307	Dahlin		JASI	niwi		
Purchase Order #	3) 123	EMERGENCY C	ONTACT / DUC		00	24/1/11/					
		EIVIERGENCT	ONTACT / PHC	INE NO.:							
16. GENERATOR'S CERTIFICATE:	ad materials are not become	-d	and by CED D	-+ 261							
I hereby certify that the above-describ- accurately described, classified and page							ve been tu	lly and			
Printed Name	1 proper	Signature "On beh		77	1 A	7	Month	Day	Year		
1, moth	1 Whale		Demo	Chy L	Mal	4	8	22	12		
17. Transporter 1 Acknowledgement of	f Receipt of Materials		, 11	11		1		VIII			
Printed Name	Thurst	Signature	1/18	1	0		Month	Day	Year		
112H 112	TIME	(*	1-11				8	22	12		
18. Transporter 2 Acknowledgement o	f Receipt of Materials		0								
Printed Name		Signature	-				Month	Day	Year		
JAMES Baldwin	J	Hames	Bald.	-			8	23	15		
19. Certificate of Final Treatment/Disp		11-11-11							-		
I certify, on behalf of the above listed to	reatment facility, that to t	he best of my know	ledge, the abo	ve-describe	ed waste wa	s managed in	complianc	e with all			
applicable laws, regulations, permits ar											
20. Facility Owner or Operator: Certific	cation of receipt of non-ha	azardous materials	covered by thi	s manifest.							
Printed Name		Signature	700	1	-		Month	Day	Year		
Kum III metu	5	KITTE	1/1/17	leli	10		08	23	12		
White- TREATMENT, STORAGE, DISPOS	AL FACILITY COPY	Blue- GENERATOR	R #2 COPY		Yell	ow- GENERAT	OR #1 COE	V			

Appendix C Laboratory Analytical Report - Groundwater



Volatile Organic Compounds by GC/MS

Client: AECOM - Resolution Consultants

Description: BEALB1236TW01WG20170309

Laboratory ID: SC11009-009 Matrix: Aqueous

Batch

37143

Date Sampled:03/09/2017 1420 Date Received: 03/11/2017

Run Prep Method Analytical Method Dilution Analysis Date Analyst Prep Date 5030B 8260B 03/15/2017 1446 PMV

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

	Surrogate	\circ		Acceptance
_		Q	% Recovery	Limits
	Bromofluorobenzene		107	85-114
	Dibromofluoromethane		93	80-119
	1,2-Dichloroethane-d4		102	81-118
	Toluene-d8		91	89-112

PQL = Practical quantitation limit ND = Not detected at or above the MDL B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range P = The RPD between two GC columns exceeds 40%

H = Out of holding time

Q = Surrogate failure L = LCS/LCSD failure

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

 $J = Estimated result < PQL and <math>\geq MDL$

N = Recovery is out of criteria

S = MS/MSD failure Page: 20 of 34

Semivolatile Organic Compounds by GC/MS

Client: AECOM - Resolution Consultants

Description: BEALB1236TW01WG20170309

Laboratory ID: SC11009-009 Matrix: Aqueous

Date Sampled:03/09/2017 1420 Date Received: 03/11/2017

Run Prep Method Analytical Method Dilution Analysis Date Analyst Prep Date Batch 3520C 8270D 03/17/2017 2343 RBH 03/15/2017 1020 37108

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

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Nitrobenzene-d5		54	44-120
2-Fluorobiphenyl		50	44-119
Terphenyl-d14		75	50-134

PQL = Practical quantitation limit

B = Detected in the method blank

E = Quantitation of compound exceeded the calibration range

H = Out of holding time

Q = Surrogate failure

Page: 21 of 34

ND = Not detected at or above the MDL Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

 $J = Estimated \ result < PQL \ and \ge MDL$

P = The RPD between two GC columns exceeds 40%

N = Recovery is out of criteria

L = LCS/LCSD failure S = MS/MSD failure

Appendix D Regulatory Correspondence





August 24, 2016

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

RE:

Laurel Bay Underground Tank Assessment Reports

Dear Mr. Drawdy:

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

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

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

If you have any questions, please contact me at petruslb@dhec.sc.gov or 803-898-0294.

Sincerely,

LIPT

Laurel Petrus, Environmental Engineer Associate RCRA Federal Facilities Section

Cc: Russell Berry, EQC Region 8 (via email)

> Shawn Dolan, Resolution Consultants (via email) Bryan Beck, NAVFAC MIDATLANTIC (via email)

Craig Ehde (via email)

Attachment to: Petrus to Drawdy, August 24, 2016
Subject: IGWA, Laurel Bay Underground Tank Assessment Reports

Draft Final Initial Groundwater Investigation Report for (41 addresses)

122 Banyan	905 Barracuda	
159 Cypress Tank 2	921 Barracuda	
221 Cypress	935 Albacore	
283 Birch Tank 2	946 Albacore	
328 Ash Tank 2	1037 Iris	
346 Ash	1039 Iris	
359 Aspen	1110 Iris	*
370 Aspen	1134 Iris	1048
377 Aspen	1143 Iris	
409 Elderberry	1202 Cardinal	
486 Laurel Bay	1212 Cardinal	
515 Laurel Bay	1222 Cardinal	
542 Laurel Bay	1224 Cardinal	
593 Aster	1226 Dove	
630 Dahlia	1236 Dove	
693 Camellia	1245 Dove	
723 Blue Bell	1247 Dove	
774 Althea	1274 Albatross	598
860 Dolphin	1319 Albatross	
873 Cobia	1337 Albatross	
883 Cobia		



July 27, 2017

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

RE:

Draft Final Initial Groundwater Investigation Report, February and March 2017

Dear Mr. Drawdy:

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

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

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

If you have any questions, please contact me at petruslb@dhec.sc.gov or 803-898-0294.

Sincerely,

Lal Rt

Cc: Russell Berry, EQC Region 8

Bureau of Land and Waste Management

Shawn Dolan, Resolution Consultants

Bryan Beck, NAVFAC MIDLANT

Laurel Petrus, Environmental Engineer Associate

Attachment to:

Petrus to Drawdy

Dated July 27, 2017

Draft Final Initial Groundwater Investigation Report for (52 addresses)

Permanent Well Installation recommedation (3 Addresses):

- 254 Beech Street (110 ug/L)
- 268 Beech Street (28 ug/L) 0
- 774 Althea Street (35 ug/L)

No Further Action recommendation (49 addresses):

- 113 Birch Drive
- 121 Banyan Drive
- 122 Banyan Drive
- 159 Cypress Street 0
- 221 Cypress Street 0
- 274 Birch Drive 0
- 279 Birch Drive 0
- 283 Birch Drive 0
- 328 Ash Street
- 346 Ash Street
- 359 Aspen Street
- 370 Aspen Street 0
- 377 Aspen Street 0
- 409 Elderberry Drive 0
- 465 Dogwood Drive
- 0 480 Laurel Bay Boulevard
- 0 486 Laurel Bay Boulevard
- 0 515 Laurel Bay Boulevard O
- 542 Laurel Bay Boulevard
- 593 Aster Street
- 630 Dahlia Drive
- 641 Dahlia Drive
- 693 Camelia Drive 0
- 723 Bluebell Lane 0
- 860 Dolphin Street 0
- 873 Cobia Drive 0
- 883 Cobia Drive 0
- 905 Barracuda Drive 0
- 921 Barracuda Drive
- 935 Albacore Street 0
- 946 Albacore Street 0
- 1037 Iris Lane 0
- 1039 Iris Lane 0
- 1110 Iris Lane 0
- 1134 Iris Lane 0
- 1143 Iris Lane 0
- 1177 Bobwhite Drive
- 1202 Cardinal Lane
- 1212 Cardinal Lane
- 0 1222 Cardinal Lane 1224 Cardinal Lane
- 1226 Dove Lane
- 1236 Dove Lane
- 1245 Dove Lane
- 1247 Dove Lane
- 0 1274 Albatross Drive
- 1319 Albatross Drive 0
- 1337 Albatross Drive 0
- 1346 Cardinal Lane