SUMMARY REPORT 651 WEST LAUREL BAY BOULEVARD (FORMERLY 486 WEST LAUREL BAY BOULEVARD) 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 651 WEST LAUREL BAY BOULEVARD (FORMERLY 486 WEST LAUREL BAY BOULEVARD) 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

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



Summary Report 651 West Laurel Bay Boulevard (Formerly 486 West Laurel Bay Boulevard) Laurel Bay Military Housing Area, Marine Corps Air Station Beaufort June 2021

Table of Contents

1.0	INTRODUCTION	. 1
1.1 1.2	BACKGROUND INFORMATION UST REMOVAL AND ASSESSMENT PROCESS	
2.0	SAMPLING ACTIVITIES AND RESULTS	. 3
2.1	UST REMOVAL AND SOIL SAMPLING	-
2.2 2.3	SOIL ANALYTICAL RESULTS	
2.4	GROUNDWATER ANALYTICAL RESULTS	.5
3.0	PROPERTY STATUS	. 5
4.0	REFERENCES	. 5

Tables

Table 1	Laboratory Analytical Results - Soil
Table 2	Laboratory Analytical Results - Groundwater

Appendices

- Appendix A Multi-Media Selection Process for LBMH
- Appendix B UST Assessment Report
- Appendix C Laboratory Analytical Report Groundwater
- Appendix D Regulatory Correspondence



List of Acronyms

bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, and xylenes
СТО	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
РАН	polynuclear aromatic hydrocarbon
PAH	polynuclear aromatic hydrocarbon
PAH QAPP	polynuclear aromatic hydrocarbon Quality Assurance Program Plan
PAH QAPP RBSL	polynuclear aromatic hydrocarbon Quality Assurance Program Plan risk-based screening level
PAH QAPP RBSL SCDHEC	polynuclear aromatic hydrocarbon Quality Assurance Program Plan risk-based screening level South Carolina Department of Health and Environmental Control
PAH QAPP RBSL SCDHEC Site	polynuclear aromatic hydrocarbon Quality Assurance Program Plan risk-based screening level South Carolina Department of Health and Environmental Control LBMH area at MCAS Beaufort, South Carolina



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 651 West Laurel Bay Boulevard (Formerly 486 West Laurel Bay Boulevard). 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 651 West Laurel Bay Boulevard (Formerly 486 West Laurel Bay Boulevard). Details regarding the soil investigation at this site are provided in the *SCDHEC UST Assessment Report – 486 West Laurel Bay Boulevard* (MCAS Beaufort, 2013). The UST Assessment Report is provided in Appendix B. Details regarding the IGWA sampling activities at this site are provided in the *Initial Groundwater Investigation Report – February and March 2017* (Resolution Consultants, 2017). The laboratory report that includes the pertinent IGWA analytical results for this site is presented in Appendix C.

2.1 UST Removal and Soil Sampling

On February 5, 2013, a single 280 gallon heating oil UST was removed from underneath the front concrete porch at 651 West Laurel Bay Boulevard (Formerly 486 West Laurel Bay Boulevard). 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 6'7" 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 651 West Laurel Bay Boulevard (Formerly 486 West Laurel Bay Boulevard) were greater than the SCDHEC RBSLs, which indicated further investigation was required. In a letter dated August 24, 2016, SCDHEC requested an IGWA for 651 West Laurel Bay Boulevard (Formerly 486 West Laurel Bay Boulevard) 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 6, 2017, a temporary monitoring well was installed at 651 West Laurel Bay Boulevard (Formerly 486 West Laurel Bay Boulevard), 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 651 West Laurel Bay Boulevard (Formerly 486 West Laurel Bay Boulevard) 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 651 West Laurel Bay Boulevard (Formerly 486 West Laurel Bay Boulevard). This NFA determination was obtained in a letter dated July 27, 2017. SCDHEC's NFA letter is provided in Appendix D.

4.0 **REFERENCES**

Marine Corps Air Station Beaufort, 2013. *South Carolina Department of Health and Environmental Control (SCDHEC) Underground Storage Tank Assessment Report – 486 West Laurel Bay Boulevard, Laurel Bay Military Housing Area*, October 2013.



- Resolution Consultants, 2017. *Initial Groundwater Investigation Report February and March* 2017 for Laurel Bay Military Housing Area, Multiple Properties, Laurel Bay Military Housing Area, Marine Corps Air Station Beaufort, Beaufort, South Carolina, June 2017.
- South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2013. *Quality Assurance Program Plan for the Underground Storage Tank Management* Division, *Revision 2.0*, April 2013.
- South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2015. *Quality Assurance Program Plan for the Underground Storage Tank Management* Division, *Revision 3.0*, May 2015.
- South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2016. *Quality Assurance Program Plan for the Underground Storage Tank Management* Division, *Revision 3.1*, February 2016.
- South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2017. *R.61-92, Part 280, Underground Storage Tank Control Regulations*, March 2017.
- South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2018. *Underground Storage Tank Assessment Instructions for Permanent Closure and Change-In-Service*, March 2018.
- South Carolina Department of Health and Environmental Control Bureau of Water, 2016. *R.61-71, Well Standards*, June 2016.

Tables



Table 1Laboratory Analytical Results - Soil651 West Laurel Bay Blvd. (Formerly 486 West Laurel Bay Blvd.)Laurel Bay Military Housing AreaMarine Corps Air Station BeaufortBeaufort, South Carolina

Constituent	SCDHEC RBSLs ⁽¹⁾	Results Sample Collected 02/05/13			
Volatile Organic Compounds Analyzed by EPA Method 8260B (mg/kg)					
Benzene	0.003	ND			
Ethylbenzene	1.15	ND			
Naphthalene	0.036	0.0460			
Toluene	0.627	ND			
Xylenes, Total	13.01	0.000766			
Semivolatile Organic Compounds Ar	nalyzed 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 651 West Laurel Bay Blvd. (Formerly 486 West Laurel Bay Blvd.) 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 03/07/17
Volatile Organic Compounds Analyzed	l by EPA Method 8260B (µg,	/L)	
Benzene	5	16.24	ND
Ethylbenzene	700	45.95	ND
Naphthalene	25	29.33	0.92
Toluene	1000	105,445	ND
Xylenes, Total	10,000	2,133	ND
Semivolatile Organic Compounds Ana	lyzed by EPA Method 8270D) (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:

⁽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).

⁽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

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 Only	
KELEIVED	
OCT 2 3 20133	
SC DHEC - Buresau of Land & Waste Management	

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

I. OWNERSHIP OF UST (S)

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

II. SITE IDENTIFICATION AND LOCATION

Permit I.D. #	
Laurel Bay Milita	y Housing Area, Marine Corps Air Station, Beaufort, SC
Facility Name or Company	Site Identifier
	vd., Laurel Bay Military Housing Area
Street Address or State Roa	l (as applicable)
Beaufort,	Beaufort
City	County

Attachment 2

Insurance Statement

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

Is there now, or has there ever been an insurance policy or other financial mechanism that covers this UST release? YES____ NO____ (check one)

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

My policy provider is: ______ The policy deductible is: ______ The policy limit is: ______

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

IV. REQUEST FOR SUPERB FUNDING

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

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

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

Name (Type or print.)

Signature

To be completed by Notary Public:

Sworn before me this _____ day of _____, 20____

(Name)

Notary Public for the state of ______. Please affix State seal if you are commissioned outside South Carolina

VI. UST INFORMATION

	400
	LaurelBB
Product(ex. Gas. Kerosene)	Heating oil
Capacity(ex. 1k, 2k)	280 gal
Age	Late 1950s
Construction Material(ex. Steel, FRP)	Steel
	Mid 1980s
Month/Year of Last Use	
Depth (ft.) To Base of Tank	6'7"
Spill Prevention Equipment Y/N	No
Overfill Prevention Equipment Y/N	No
Method of Closure Removed/Filled	Removed
Data Tanka Romayad/Eillad	2/5/2013
Date Taiks Kellioved/Filled	
Visible Corrosion or Pitting Y/N	Yes
Visible Holes Y/N	Yes
	Construction Material(ex. Steel, FRP) Month/Year of Last Use Depth (ft.) To Base of Tank Spill Prevention Equipment Y/N Overfill Prevention Equipment Y/N Method of Closure Removed/Filled Date Tanks Removed/Filled

486

M. Method of disposal for any USTs removed from the ground (attach disposal manifests) UST 486LaurelBB was removed from the ground and disposed at a Subtitle "D" landfill. See Attachment "A".

N. Method of disposal for any liquid petroleum, sludges, or wastewaters removed from the USTs (attach disposal manifests) UST 486LaurelBB had been previously filled with sand by others.

O. If any corrosion, pitting, or holes were observed, describe the location and extent for each UST <u>Corrosion</u>, pitting and holes were found throughout the tank.

VII. PIPING INFORMATION

		486			
		LaurelBB			
		Steel			
A.	Construction Material(ex. Steel, FRP)	& Copper			
B.	Distance from UST to Dispenser	N/A			
C.	Number of Dispensers	N/A			
D.	Type of System Pressure or Suction	Suction			
E.	Was Piping Removed from the Ground? Y/N	No			
F.	Visible Corrosion or Pitting Y/N	Yes			
G.	Visible Holes Y/N	No			
H.	Age	Late 1950s			
I.	If any corrosion, pitting, or holes were observed, describe the location and extent for each piping run.				

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

VIII. BRIEF SITE DESCRIPTION AND HISTORY

The USTs at the residences are constructed of single wall steel and formerly contained fuel oil for heating. These USTs were installed in the late 1950s and last used in the mid 1980s.

IX. SITE CONDITIONS

	Yes	No	Unk
A. Were any petroleum-stained or contaminated soils found in the UST excavation, soil borings, trenches, or monitoring wells?If yes, indicate depth and location on the site map.		Х	
Tryes, indicate depth and location on the site map.			
B. Were any petroleum odors detected in the excavation, soil borings, trenches, or monitoring wells?		Х	
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?		х	
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?		x	
If yes, indicate location and thickness.			

X. SAMPLE INFORMATION

A. SCDHEC Lab Certification Number 84009

В.

Sample #	Location	Sample Type (Soil/Water)	Soil Type (Sand/Clay)	Depth*	Date/Time of Collection	Collected by	OVA #
486 LaurelBB	Excav at fill end	Soil	Sandy	6'7"	2/5/13 1410 hrs	P. Shaw	
8							
9							
10							
11							
12							
13							
14							
15							
16							
17				-		· · · · · · · · · · · · · · · · · · ·	
18							
19							
20							

* = Depth Below the Surrounding Land Surface

XI. SAMPLING METHODOLOGY

Provide a detailed description of the methods used to collect <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.

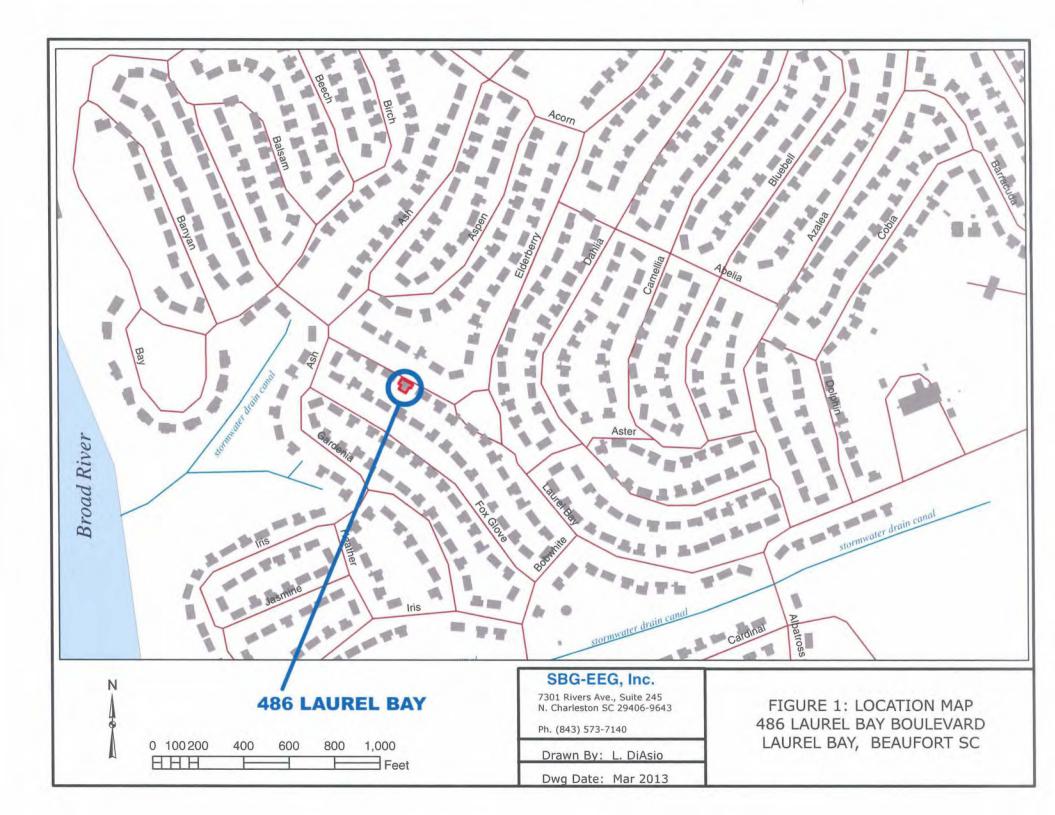
XII. RECEPTORS

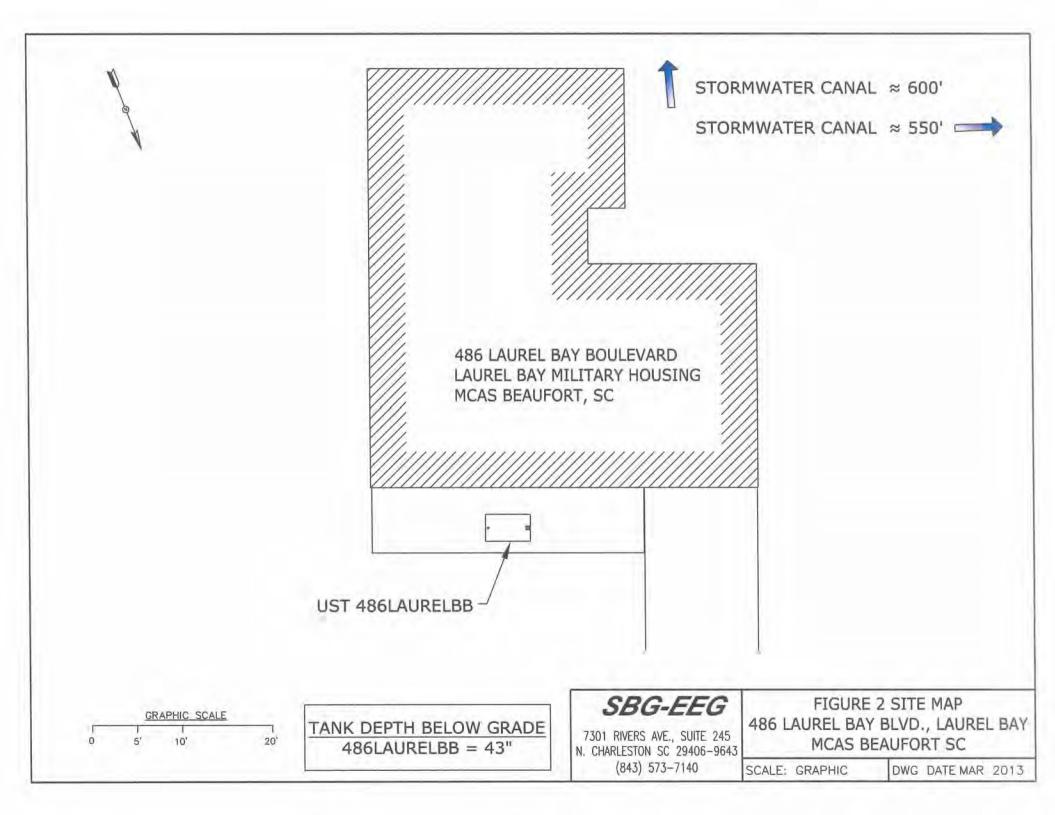
		Yes	No
A.	Are there any lakes, ponds, streams, or wetlands located within 1000 feet of the UST system?	*X	
	*Stormwater drainage ca	nal	
	If yes, indicate type of receptor, distance, and direction on site map.		
B.	Are there any public, private, or irrigation water supply wells within 1000 feet of the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

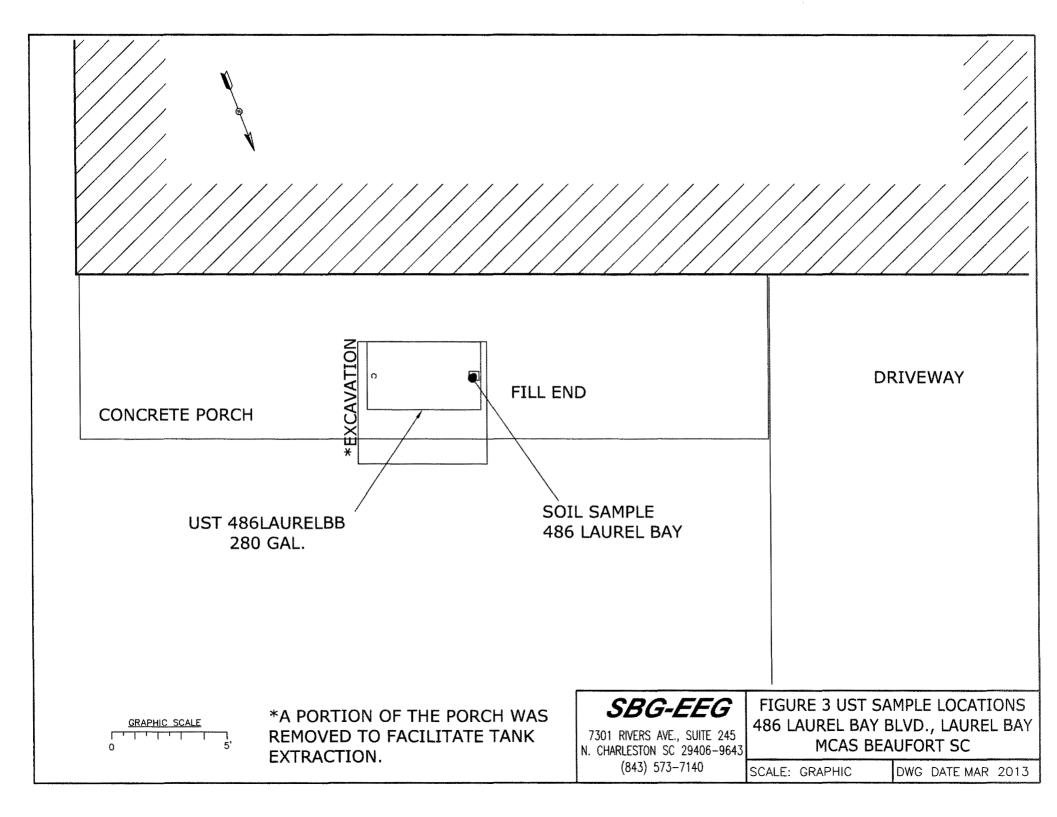
XIII. SITE MAP

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 486LaurelBB.



Picture 2: UST 486LaureIBB 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.

CoC UST	486LaurelBB				
Benzene	ND				
Toluene	ND				
Ethylbenzene	ND				
Xylenes	0.000766 mg/	kg			
Naphthalene	0.0460 mg/kg				
Benzo (a) anthracene	ND				
Benzo (b) fluoranthene	ND				
Benzo (k) fluoranthene	ND				
Chrysene	ND				
Dibenz (a, h) anthracene	ND				
ТРН (ЕРА 3550)					
CoC					
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 (µg/l)	W-1	W-2	W -3	W -4
Free Product Thickness	None				
Benzene	5				
Toluene	1,000				
Ethylbenzene	700				
Xylenes	10,000				
Total BTEX	N/A				
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)



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: 490-19382-1

Client Project/Site: Laurel Bay Housing Project

For:

LINKS

Review your project results through

Total Access

Have a Question?

Ask

The

www.testamericainc.com

Visit us at:

Expert

Environmental Enterprise Group 10179 Highway 78 Ladson, South Carolina 29456

Attn: Mr. Tom McElwee

Kuth Hay

Authorized for release by: 2/25/2013 6:35:06 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.

Table of Contents

1
2
3
4
5
3
14
19
21
23
24
25
28

2

Sample Summary

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

3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	
490-19382-1	436 Elderberry	Solid	02/04/13 15:30	02/13/13 08:30	
490-19382-2	486 Laural Bay	Solid	02/05/13 14:10	02/13/13 08:30	
490-19382-3	835 Azalea	Solid	02/06/13 13:30	02/13/13 08:30	
490-19382-4	834 Azalea	Solid	02/07/13 10:45	02/13/13 08:30	
490-19382-5	452 Elderberry	Solid	02/04/13 15:30	02/13/13 08:30	
490-19382-6	513 Laurel Bay	Solid	02/05/13 14:00	02/13/13 08:30	
490-19382-7	602 Dahlia	Solid	02/05/13 16:00	02/13/13 08:30	
490-19382-8	837 Azalea	Solid	02/06/13 12:45	02/13/13 08:30	

TestAmerica Nashville

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

Job ID: 490-19382-1

Laboratory: TestAmerica Nashville

Narrative

Job Narrative 490-19382-1

Comments No additional comments.

Receipt

The samples were received on 2/13/2013 8:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.0° C.

GC/MS VOA

Method(s) 82608: Surrogate recovery for the following sample(s) was outside control limits: 436 Elderberry (490-19382-1), 486 Laural Bay (490-19382-2). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8260B: The naphthalene in this samples is likely due to carryover. The second attempt to run this sample resulted in all three internal standards failing.

Method(s) 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 58742.

Method(s) 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 58452.

No other analytical or quality issues were noted.

GC/MS Semi VOA

Method(s) 8270D: The matrix spike / matrix spike duplicate (MS/MSD) percent recoveries and %RPD for batch 58454 were outside control limits. This is attributed to an abundance of target analytes at concentrations significantly higher than the spike concentration.

Method(s) 8270D: Surrogate recovery for the following sample(s) was outside control limits: 436 Elderberry (490-19382-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No other analytical or quality issues were noted.

Organic Prep

No analytical or quality issues were noted

VOA Prep

No analytical or quality issues were noted.

Definitions/Glossary

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

5

Qualifiers

GC/MS VOA

GOING FOI		
Qualifier	Qualifier Description	
×	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.	
GC/MS Sen	ni VOA	
Qualifier	Qualifier Description	
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.	

- 4 MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
- E Result exceeded calibration range. F MS or MSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
0	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client Sample ID: 436 Elderberry

Date Collected: 02/04/13 15:30 Date Received: 02/13/13 08:30

Lab Sample ID: 490-19382-1 Matrix: Solid Percent Solids: 81.0

Method: 8260B - Volatile Orga	anic Compounds (GC/MS)							
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00214	0.000717	mg/Kg	- 83.	02/13/13 15:19	02/14/13 13:14	1
Ethylbenzene	0.832		0.139	0.0473	mg/Kg	a.	02/13/13 15:17	02/15/13 10:37	1
Naphthalene	8.50		0.347	0.118	mg/Kg	137	02/13/13 15:17	02/15/13 10:37	1
Toluene	0.0267		0.00214	0.000792	mg/Kg	17	02/13/13 15:19	02/14/13 13:14	7
Xylenes, Total	4.80		0.347	0.0473	mg/Kg	11.	02/13/13 15:17	02/15/13 10:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		70 - 130				02/13/13 15:19	02/14/13 13:14	1
1,2-Dichloroethane-d4 (Surr)	78		70 - 130				02/13/13 15:17	02/15/13 10:37	1
4-Bromofluorobenzene (Surr)	450	×	70 - 130				02/13/13 15:19	02/14/13 13:14	1
4-Bromofluorobenzene (Surr)	106		70 - 130				02/13/13 15:17	02/15/13 10:37	1
Dibromofluoromethane (Surr)	96		70 - 130				02/13/13 15:19	02/14/13 13:14	1
Dibromofluoromethane (Surr)	93		70 - 130				02/13/13 15:17	02/15/13 10:37	1
Toluene-d8 (Surr)	146	x	70 - 130				02/13/13 15:19	02/14/13 13:14	1
Toluene-d8 (Surr)	88		70 - 130				02/13/13 15:17	02/15/13 10:37	1
Method: 8270D - Semivolatile	Organic Compou	nds (GC/MS))						
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.535		0.0817	0.0122	mg/Kg	12	02/14/13 06:01	02/14/13 18:07	1
Acenaphthylene	0.553		0.0817	0.0110	mg/Kg	13	02/14/13 06:01	02/14/13 18:07	1
Anthracene	0.333		0.0817	0.0110	mg/Kg	13	02/14/13 06:01	02/14/13 18:07	1
Benzo[a]anthracene	0.0766	J	0.0817	0.0183	mg/Kg	12	02/14/13 06:01	02/14/13 18:07	1
Benzo[a]pyrene	ND		0.0817	0.0146	mg/Kg	13	02/14/13 06:01	02/14/13 18:07	1
Benzo[b]fluoranthene	0.0312	J	0.0817	0.0146	mg/Kg	11	02/14/13 06:01	02/14/13 18:07	1
Benzo[g.h,i]perylene	ND		0.0817	0.0110	mg/Kg	21	02/14/13 06:01	02/14/13 18:07	1
Benzo[k]fluoranthene	0.0619	J	0.0817	0.0171	mg/Kg	11	02/14/13 06:01	02/14/13 18:07	1
1-Methylnaphthalene	9.80		0.408	0.0853	mg/Kg	4	02/14/13 06:01	02/15/13 17:48	5
Pyrene	0.590		0.0817	0.0146	mg/Kg	α.	02/14/13 06:01	02/14/13 18:07	1
Phenanthrene	2.65		0.408	0.0548	mg/Kg	11	02/14/13 06:01	02/15/13 17:48	5
Chrysene	0.140		0.0817	0.0110	mg/Kg	12	02/14/13 06:01	02/14/13 18:07	1
Dibenz(a,h)anthracene	ND		0.0817	0.00853	mg/Kg	11	02/14/13 06:01	02/14/13 18:07	1
Fluoranthene	ND		0.0817	0.0110	mg/Kg	0	02/14/13 06:01	02/14/13 18:07	1
Fluorene	2.15		0.0817	0.0146	mg/Kg	- 17	02/14/13 06:01	02/14/13 18:07	1
Indeno[1,2,3-cd]pyrene	ND		0.0817	0.0122	mg/Kg	12	02/14/13 06:01	02/14/13 18:07	1
Naphthalene	2,95		0.408	0.0548	mg/Kg	17	02/14/13 06:01	02/15/13 17:48	5
2-Methylnaphthalene	14.7		0.408	0.0975	mg/Kg	-0	02/14/13 06:01	02/15/13 17:48	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	67		29 - 120				02/14/13 06:01	02/14/13 18:07	1
Terphenyl-d14 (Surr)	84		13 - 120				02/14/13 06:01	02/14/13 18:07	1
Nitrobenzene-d5 (Surr)	50		27 - 120				02/14/13 06:01	02/14/13 18:07	1
General Chemistry								See door too	
Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	81		0.10	0.10	%			02/13/13 14:23	1

Client Sample ID: 486 Laural Bay

Date Collected: 02/05/13 14:10 Date Received: 02/13/13 08:30

Lab Sample ID: 490-19382-2 Matrix: Solid Percent Solids: 97.6

Method: 8260B - Volatile Orga		GC/MS) Qualifier	RL	MDI	Unit	D	Prepared	Analyzed	Dil Fac
Analyte	ND	Quanner	0.00221	0.000741	mg/Kg		02/13/13 15:19	02/14/13 13:45	1
Benzene	ND		0.00221	0.000741	mg/Kg	17	02/13/13 15:19	02/14/13 13:45	1
Ethylbenzene	0.0460		0.00553	0.00188	mg/Kg	й	02/13/13 15:19	02/14/13 13:45	1
Naphthalene	ND		0.00221	0.000818	mg/Kg		02/13/13 15:19	02/14/13 13:45	1
Toluene	0.000766		0.00553	0.000741	mg/Kg	न	02/13/13 15:19	02/14/13 13:45	t
Xylenes, Total	0,000160	4	0.00000	0.000141	mania				
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		70 - 130				02/13/13 15:19	02/14/13 13:45	1
4-Bromofluorobenzene (Surr)	108		70 - 130				02/13/13 15:19	02/14/13 13:45	1
Dibromofluoromethane (Surr)	97		70 - 130				02/13/13 15:19	02/14/13 13:45	1
Toluene-d8 (Surr)	69	×	70 - 130				02/13/13 15:19	02/14/13 13:45	1
Method: 8270D - Semivolatile	Organic Compou	nds (GC/MS)						
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0675	0.0101	mg/Kg	0	02/14/13 06:01	02/14/13 19:10	1
Acenaphthylene	ND		0.0675	0.00907	mg/Kg	23	02/14/13 06:01	02/14/13 19:10	1
Anthracene	ND		0.0675	0.00907	mg/Kg	17	02/14/13 06:01	02/14/13 19:10	1
Benzo[a]anthracene	ND		0.0675	0.0151	mg/Kg	55	02/14/13 06:01	02/14/13 19:10	1
Benzo[a]pyrene	ND		0.0675	0.0121	mg/Kg	11	02/14/13 06:01	02/14/13 19:10	1
Benzo[b]fluoranthene	ND		0.0675	0.0121	mg/Kg	14	02/14/13 06:01	02/14/13 19:10	1
Benzo[g.h.l]perylene	ND		0.0675	0.00907	mg/Kg	<u>G</u> .	02/14/13 06:01	02/14/13 19:10	3
Benzo[k]fluoranthene	ND		0.0675	0.0141	mg/Kg	a.	02/14/13 06:01	02/14/13 19:10	1
1-Methylnaphthalene	ND		0.0675	0.0141	mg/Kg		02/14/13 06:01	02/14/13 19:10	1
Pyrene	0.0486	a l	0.0675	0.0121	mg/Kg	-	02/14/13 06:01	02/14/13 19:10	1
Phenanthrene	ND		0.0675	0.00907	mg/Kg	11	02/14/13 06:01	02/14/13 19:10	1
Chrysene	ND		0.0675	0.00907	mg/Kg		02/14/13 06:01	02/14/13 19:10	1
Dibenz(a,h)anthracene	ND		0.0675	0.00706	mg/Kg	4	02/14/13 06:01	02/14/13 19:10	1
Fluoranthene	ND		0.0675	0.00907	mg/Kg	12	02/14/13 06:01	02/14/13 19:10	1
Fluorene	ND		0.0675	0.0121	mg/Kg	17	02/14/13 06:01	02/14/13 19:10	1
Indeno[1,2,3-cd]pyrene	ND		0.0675	0.0101	mg/Kg	15	02/14/13 06:01	02/14/13 19:10	1
Naphthalene	ND		0.0675	0.00907	mg/Kg	9	02/14/13 06:01	02/14/13 19:10	1
2-Methylnaphthalene	ND		0.0675	0.0161	mg/Kg	α.	02/14/13 06:01	02/14/13 19:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	50		29 - 120				02/14/13 06:01	02/14/13 19:10	1
Terphenyl-d14 (Surr)	83		13 - 120				02/14/13 06:01	02/14/13 19:10	1
Nitrobenzene-d5 (Surr)	46		27 - 120				02/14/13 06:01	02/14/13 19:10	1
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	98		0.10	0,10	%			02/13/13 14:23	1

Client Sample ID: 835 Azalea

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

Lab Sample ID: 490-19382-3 Matrix: Solid Percent Solids: 76.5

Method: 8260B - Volatile Orga		(GC/MS) Qualifier	RL	-	11-12	D	Description		DU
Analyte					Unit	D II	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00279	0.000933	mg/Kg	10	02/13/13 15:19	02/15/13 10:07	1
Ethylbenzene	ND		0.00279	0.000933	mg/Kg		02/13/13 15:19	02/15/13 10:07	1
Naphthalene	ND		0.00696	0.00237	mg/Kg	11	02/13/13 15:19	02/15/13 10:07	1
Toluene	ND		0.00279	0.00103	mg/Kg		02/13/13 15:19	02/15/13 10:07	1
Xylenes, Total	ND		0.00696	0.000933	mg/Kg	(d)	02/13/13 15:19	02/15/13 10:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		70 - 130				02/13/13 15:19	02/15/13 10:07	1
4-Bromofluorobenzene (Surr)	109		70 - 130				02/13/13 15:19	02/15/13 10:07	1
Dibromofluoromethane (Surr)	98		70 - 130				02/13/13 15:19	02/15/13 10:07	1
Toluene-d8 (Surr)	94		70 - 130				02/13/13 15:19	02/15/13 10:07	t.
Method: 8270D - Semivolatile	Organic Compou	inds (GC/MS	S)						
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0865	0.0129	mg/Kg	3	02/14/13 06:01	02/14/13 19:31	1
Acenaphthylene	ND		0.0865	0.0116	mg/Kg	11	02/14/13 06:01	02/14/13 19:31	1
Anthracene	ND		0.0865	0.0116	mg/Kg	11	02/14/13 06:01	02/14/13 19:31	1
Benzo[a]anthracene	ND		0.0865	0.0194	mg/Kg	-	02/14/13 06:01	02/14/13 19:31	1
Benzo[a]pyrene	ND		0.0865	0.0155	mg/Kg	a.	02/14/13 06:01	02/14/13 19:31	1
Benzo[b]fluoranthene	ND		0.0865	0.0155	mg/Kg	D.	02/14/13 06:01	02/14/13 19:31	1
Benzo[g,h,i]perylene	ND		0.0865	0.0116	mg/Kg		02/14/13 06:01	02/14/13 19:31	1
Benzo[k]fluoranthene	ND		0.0865	0.0181	mg/Kg	5	02/14/13 06:01	02/14/13 19:31	1
1-Methylnaphthalene	ND		0.0865	0.0181	mg/Kg	17.	02/14/13 06:01	02/14/13 19:31	1
Pyrene	ND		0.0865	0.0155	mg/Kg	11	02/14/13 06:01	02/14/13 19:31	1
Phenanthrene	ND		0.0865	0.0116	mg/Kg	ri,	02/14/13 06:01	02/14/13 19:31	1
Chrysene	ND		0.0865	0.0116	mg/Kg	32	02/14/13 06:01	02/14/13 19:31	1
Dibenz(a,h)anthracene	ND		0.0865	0.00904	mg/Kg	ц	02/14/13 06:01	02/14/13 19:31	1
Fluoranthene	ND		0.0865	0.0116	mg/Kg	а.	02/14/13 06:01	02/14/13 19:31	t
Fluorene	ND		0.0865	0.0155	mg/Kg	13	02/14/13 06:01	02/14/13 19:31	1
Indeno[1,2,3-cd]pyrene	ND		0.0865	0.0129	mg/Kg	12	02/14/13 06:01	02/14/13 19:31	1
Naphthalene	ND		0.0865	0.0116	mg/Kg		02/14/13 06:01	02/14/13 19:31	1
2-Methylnaphthalene	ND		0.0865	0.0207	mg/Kg	10	02/14/13 06:01	02/14/13 19:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	45		29 - 120				02/14/13 06:01	02/14/13 19:31	1
Terphenyl-d14 (Surr)	71		13 - 120				02/14/13 06:01	02/14/13 19:31	1
Nitrobenzene-d5 (Surr)	45		27 - 120				02/14/13 06:01	02/14/13 19:31	7
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	76		0.10		%			02/13/13 14:23	1

Client Sample ID: 834 Azalea

Date Collected: 02/07/13 10:45 Date Received: 02/13/13 08:30

Lab Sample ID: 490-19382-4 Matrix: Solid Percent Solids: 97.7

Method: 8260B - Volatile Orga	anic Compounds	(GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00264	0.000883	mg/Kg	12	02/13/13 15:19	02/14/13 14:45	1 📷
Ethylbenzene	ND		0.00264	0.000883	mg/Kg	12	02/13/13 15:19	02/14/13 14:45	1
Naphthalene	0.00559	3	0.00659	0.00224	mg/Kg	17	02/13/13 15:19	02/14/13 14:45	1
Toluene	ND		0.00264	0.000976	mg/Kg	17	02/13/13 15:19	02/14/13 14:45	1
Xylenes, Total	ND		0.00659	0.000883	mg/Kg	-10	02/13/13 15:19	02/14/13 14:45	4
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		70 - 130				02/13/13 15:19	02/14/13 14:45	1
4-Bromofluorobenzene (Surr)	107		70 - 130				02/13/13 15:19	02/14/13 14:45	1
Dibromofluoromethane (Surr)	97		70 - 130				02/13/13 15:19	02/14/13 14:45	7
Toluene-d8 (Surr)	85		70 - 130				02/13/13 15:19	02/14/13 14:45	1
Method: 8270D - Semivolatile	Organic Compou	inds (GC/M	5)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0674	0.0101	mg/Kg	9	02/14/13 06:01	02/14/13 19:53	1
Acenaphthylene	ND		0.0674	0.00905	mg/Kg	11	02/14/13 06:01	02/14/13 19:53	1
Anthracene	ND		0.0674	0.00905	mg/Kg	Ð	02/14/13 06:01	02/14/13 19:53	1
Benzo[a]anthracene	ND		0.0674	0.0151	mg/Kg	50	02/14/13 06:01	02/14/13 19:53	1
Benzo[a]pyrene	ND		0.0674	0.0121	mg/Kg	e.	02/14/13 06:01	02/14/13 19:53	1
Benzo[b]fluoranthene	ND		0.0674	0.0121	mg/Kg	13	02/14/13 06:01	02/14/13 19:53	1
Benzo[g,h,i]perylene	ND		0,0674	0.00905	mg/Kg	<u>,0</u> ,	02/14/13 06:01	02/14/13 19:53	1
Benzo[k]fluoranthene	ND		0,0674	0.0141	mg/Kg	9	02/14/13 06:01	02/14/13 19:53	1
1-Methylnaphthalene	ND		0.0674	0.0141	mg/Kg	(II)	02/14/13 06:01	02/14/13 19:53	1
Pyrene	ND		0.0674	0.0121	mg/Kg	10)	02/14/13 06:01	02/14/13 19:53	1
Phenanthrene	ND		0.0674	0.00905	mg/Kg	a	02/14/13 06:01	02/14/13 19:53	1
Chrysene	ND		0.0674	0.00905	mg/Kg	10	02/14/13 06:01	02/14/13 19:53	1
Dibenz(a,h)anthracene	ND		0.0674	0.00704	mg/Kg	.13	02/14/13 06:01	02/14/13 19:53	1
Fluoranthene	ND		0.0674	0.00905	mg/Kg	12	02/14/13 06:01	02/14/13 19:53	1
Fluorene	ND		0.0674	0.0121	mg/Kg	12	02/14/13 06:01	02/14/13 19:53	1
Indeno[1,2,3-cd]pyrene	ND		0.0674	0.0101	mg/Kg		02/14/13 06:01	02/14/13 19:53	1
Naphthalene	ND		0.0674	0.00905	mg/Kg	13	02/14/13 06:01	02/14/13 19:53	1
2-Methylnaphthalene	ND		0.0674	0.0161	mg/Kg	11	02/14/13 06:01	02/14/13 19:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	52		29 - 120				02/14/13 06:01	02/14/13 19:53	1
Terphenyl-d14 (Surr)	70		13 - 120				02/14/13 06:01	02/14/13 19:53	1
Nitrobenzene-d5 (Surr)	49		27 - 120				02/14/13 06:01	02/14/13 19:53	1
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	98		0.10	0.10	9/4			02/13/13 14:23	1

Client Sample ID: 452 Elderberry

Date Collected: 02/04/13 15:30 Date Received: 02/13/13 08:30

Lab Sample ID: 490-19382-5 Matrix: Solid Percent Solids: 84.0

Method: 8260B - Volatile Orga Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00272	0.000911	mg/Kg	0	02/13/13 15:19	02/14/13 15:15	1
Ethylbenzene	ND		0.00272	0.000911	mg/Kg	(3)	02/13/13 15:19	02/14/13 15:15	1
Naphthalene	0.00300	J.	0.00680	0.00231	mg/Kg	37.	02/13/13 15:19	02/14/13 15:15	1
Toluene	ND		0.00272	0.00101	mg/Kg	12	02/13/13 15:19	02/14/13 15:15	1
Xylenes, Total	ND		0.00680	0.000911	mg/Kg	a	02/13/13 15:19	02/14/13 15:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		70 - 130				02/13/13 15:19	02/14/13 15:15	1
4-Bromofluorobenzene (Surr)	108		70 - 130				02/13/13 15.19	02/14/13 15:15	7
Dibromofluoromethane (Surr)	99		70 - 130				02/13/13 15:19	02/14/13 15:15	1
Toluene-d8 (Surr)	90		70 - 130				02/13/13 15:19	02/14/13 15:15	1
Method: 8270D - Semivolatile	Organic Compou	nds (GC/MS	5)						
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0783	0.0117	mg/Kg	12	02/14/13 06:01	02/14/13 20:14	1
Acenaphthylene	ND		0.0783	0.0105	mg/Kg	12	02/14/13 06:01	02/14/13 20:14	1
Anthracene	ND		0.0783	0.0105	mg/Kg	10	02/14/13 06:01	02/14/13 20:14	1
Benzo[a]anthracene	ND		0.0783	0.0175	mg/Kg	12	02/14/13 06:01	02/14/13 20:14	1
Benzo[a]pyrene	0.0463	3	0.0783	0.0140	mg/Kg	. 9	02/14/13 06:01	02/14/13 20:14	1
Benzo(b)fluoranthene	0.0222	J	0.0783	0.0140	mg/Kg	2	02/14/13 06:01	02/14/13 20:14	1
Benzolg, h, i)perylene	ND		0.0783	0.0105	mg/Kg	19	02/14/13 06:01	02/14/13 20:14	1
Benzo[k]fluoranthene	0.0607	3	0.0783	0.0164	mg/Kg	12	02/14/13 06:01	02/14/13 20:14	1
1-Methylnaphthalene	ND		0.0783	0.0164	mg/Kg	10	02/14/13 06:01	02/14/13 20:14	1
Pyrene	ND		0.0783	0.0140	mg/Kg	10	02/14/13 06:01	02/14/13 20:14	1
Phenanthrene	ND		0.0783	0.0105	mg/Kg	12	02/14/13 06:01	02/14/13 20:14	- 1
Chrysene	0.0525	3	0.0783	0.0105	mg/Kg	13	02/14/13 06:01	02/14/13 20:14	1
Dibenz(a,h)anthracene	ND		0.0783	0.00818	mg/Kg	12	02/14/13 06:01	02/14/13 20:14	1
Fluoranthene	ND		0.0783	0.0105	mg/Kg	2	02/14/13 06:01	02/14/13 20:14	1
Fluorene	ND		0.0783	0.0140	mg/Kg	-37	02/14/13 06:01	02/14/13 20:14	1
Indeno[1,2,3-cd]pyrene	ND		0.0783	0.0117	mg/Kg	12	02/14/13 06:01	02/14/13 20:14	1
Naphthalene	ND		0.0783	0.0105	mg/Kg	12	02/14/13 06:01	02/14/13 20:14	1
2-Methylnaphthalene	ND		0.0783	0.0187	mg/Kg	Ŕ	02/14/13 06:01	02/14/13 20:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	DII Fac
2-Fluorobiphenyl (Surr)	45		29 - 120				02/14/13 06:01	02/14/13 20:14	1
Terphenyl-d14 (Surr)	74		13 - 120				02/14/13 06:01	02/14/13 20:14	1
Nitrobenzene-d5 (Sun)	42		27 _ 120				02/14/13 06:01	02/14/13 20:14	1
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	84		0.10	0.10	%			02/13/13 14:23	1

Client Sample ID: 513 Laurel Bay

Date Collected: 02/05/13 14:00 Date Received: 02/13/13 08:30

Lab Sample ID: 490-19382-6 Matrix: Solid Percent Solids: 94.6

Method: 8260B - Volatile Orga		GC/MS) Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Analyte	ND	Qualifier	0.00220	0.000737	mg/Kg		02/13/13 15:19	02/14/13 15:45	1
Benzene	ND		0.00220	0.000737	mg/Kg	3	02/13/13 15:19	02/14/13 15:45	1
Ethylbenzene	ND		0.00550	0.00187	mg/Kg	a	02/13/13 15:19	02/14/13 15:45	1
Naphthalene	ND		0.00220	0.000814	mg/Kg		02/13/13 15:19	02/14/13 15:45	Ť
Toluene	ND		0.00550	0.000737	mg/Kg	0	02/13/13 15:19	02/14/13 15:45	1
Xylenes, Total	ND		0.00550	0.000101	mana		02/10/10 10/10		
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1.2-Dichloroethane-d4 (Surr)	91		70 - 130				02/13/13 15:19	02/14/13 15:45	1
4-Bromofluorobenzene (Surr)	109		70 - 130				02/13/13 15:19	02/14/13 15:45	1
Dibromofluoromethane (Surr)	98		70 - 130				02/13/13 15:19	02/14/13 15:45	7
Toluene-d8 (Surr)	88		70 - 130				02/13/13 15:19	02/14/13 15:45	1
Method: 8270D - Semivolatile	Organic Compou	nds (GC/MS	5)						
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0692	0.0103	mg/Kg	n	02/14/13 06:01	02/14/13 20:35	1
Acenaphthylene	ND		0.0692	0.00929	mg/Kg	Ċ.	02/14/13 06:01	02/14/13 20:35	1
Anthracene	ND		0.0692	0.00929	mg/Kg	17	02/14/13 06:01	02/14/13 20:35	1
Benzo[a]anthracene	ND		0,0692	0.0155	mg/Kg	Ω.	02/14/13 06:01	02/14/13 20:35	1
Benzo[a]pyrene	ND		0.0692	0.0124	mg/Kg	я	02/14/13 06:01	02/14/13 20:35	1
Benzo[b]fluoranthene	ND		0.0692	0.0124	mg/Kg	11	02/14/13 06:01	02/14/13 20:35	1
Benzo[g,h,i]perylene	ND		0.0692	0.00929	mg/Kg	12	02/14/13 06:01	02/14/13 20:35	1
Benzo[k]fluoranthene	ND		0,0692	0.0145	mg/Kg	n	02/14/13 06:01	02/14/13 20:35	1
1-Methylnaphthalene	ND		0.0692	0.0145	mg/Kg	0	02/14/13 06:01	02/14/13 20:35	1
Pyrene	ND		0.0692	0.0124	mg/Kg	0	02/14/13 06:01	02/14/13 20:35	1
Phenanthrene	ND		0.0692	0.00929	mg/Kg	n	02/14/13 06:01	02/14/13 20:35	1
Chrysene	ND		0,0692	0.00929	mg/Kg	0	02/14/13 06:01	02/14/13 20:35	1
Dibenz(a,h)anthracene	ND		0.0692	0.00723	mg/Kg	11	02/14/13 06:01	02/14/13 20:35	1
Fluoranthene	ND		0.0692	0.00929	mg/Kg	0	02/14/13 06:01	02/14/13 20:35	1
Fluorene	ND		0.0692	0.0124	mg/Kg	8	02/14/13 06:01	02/14/13 20:35	1
Indeno[1,2,3-cd]pyrene	ND		0.0692	0.0103	mg/Kg	0	02/14/13 06:01	02/14/13 20:35	1
Naphthalene	ND		0.0692	0.00929	mg/Kg	1	02/14/13 06:01	02/14/13 20:35	1
2-Methylnaphthalene	ND		0.0692	0.0165	mg/Kg	0	02/14/13 06:01	02/14/13 20:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	52	and the second	29 - 120				02/14/13 06:01	02/14/13 20:35	1
Terphenyl-d14 (Surr)	75		13 - 120				02/14/13 06:01	02/14/13 20:35	1
Nitrobenzene-d5 (Surr)	48		27 - 120				02/14/13 06:01	02/14/13 20:35	1
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
		a contraction of the		0.10	%			02/13/13 14:23	

Client Sample ID: 602 Dahlia

Date Collected: 02/05/13 16:00 Date Received: 02/13/13 08:30

Lab Sample ID: 490-19382-7 Matrix: Solid Percent Solids: 90.6

Method: 8260B - Volatile Org	anic Compounds	(GC/MS)								
Analyte	Contraction of the second s	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene	ND		0.00211	0.000706	mg/Kg	17	02/13/13 15:19	02/14/13 16:16	1	
Ethylbenzene	ND		0.00211	0.000706	mg/Kg	10	02/13/13 15:19	02/14/13 16:16	1	
Naphthalene	ND		0.00527	0.00179	mg/Kg	10	02/13/13 15:19	02/14/13 16:16	1	1
Toluene	ND		0.00211	0.000780	mg/Kg	10	02/13/13 15:19	02/14/13 16:16	1	
Xylenes, Total	ND		0.00527	0.000706	mg/Kg	2	02/13/13 15:19	02/14/13 16:16	ť	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	93		70 - 130				02/13/13 15:19	02/14/13 16:16	1	
4-Bromofluorobenzene (Surr)	105		70 - 130				02/13/13 15:19	02/14/13 16:16	1	
Dibromofluoromethane (Surr)	98		70 - 130				02/13/13 15:19	02/14/13 16:16	7	
Toluene-d8 (Surr)	92		70 - 130				02/13/13 15:19	02/14/13 16:16	1	
Method: 8270D - Semivolatile	Organic Compou	nds (GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Acenaphthene	ND		0.0735	0.0110	mg/Kg		02/14/13 06:01	02/14/13 20:56	1	
Acenaphthylene	ND		0.0735	0.00987	mg/Kg	10	02/14/13 06:01	02/14/13 20:56	1	
Anthracene	ND		0,0735	0.00987	mg/Kg	0	02/14/13 06:01	02/14/13 20:56	1	
Benzo[a]anthracene	ND		0.0735	0.0164	mg/Kg	21	02/14/13 06:01	02/14/13 20:56	1	
Benzo[a]pyrene	0.0269	1	0.0735	0.0132	mg/Kg	11	02/14/13 06:01	02/14/13 20:56	1	
Benzo[b]fluoranthene	0.0146	J	0.0735	0.0132	mg/Kg	9	02/14/13 06:01	02/14/13 20:56	1	
Benzo[g,h,i]perylene	0.0400	J	0.0735	0.00987	mg/Kg	13	02/14/13 06:01	02/14/13 20:56	1	
Benzo[k]fluoranthene	0,0380	J	0.0735	0.0153	mg/Kg	a.	02/14/13 06:01	02/14/13 20:56	1	
1-Methylnaphthalene	ND		0.0735	0.0153	mg/Kg	10.	02/14/13 06:01	02/14/13 20:56	1	
Pyrene	ND		0.0735	0.0132	mg/Kg	P	02/14/13 06:01	02/14/13 20:56	1	
Phenanthrene	ND		0.0735	0.00987	mg/Kg	12	02/14/13 06:01	02/14/13 20:56	1	
Chrysene	ND		0.0735	0.00987	mg/Kg	15	02/14/13 06:01	02/14/13 20:56	1	
Dibenz(a,h)anthracene	ND		0.0735	0.00767	mg/Kg	- 13	02/14/13 06:01	02/14/13 20:56	1	
Fluoranthene	ND		0.0735	0.00987	mg/Kg	п	02/14/13 06:01	02/14/13 20:56	1	
Fluorene	ND		0.0735	0.0132	mg/Kg	Ĥ.	02/14/13 06:01	02/14/13 20:56	1	
Indeno[1,2,3-cd]pyrene	0.0272	J	0.0735	0.0110	mg/Kg	0	02/14/13 06:01	02/14/13 20:56	1	
Naphthalene	ND		0.0735	0.00987	mg/Kg	1.12	02/14/13 06:01	02/14/13 20:56	1	
2-Methylnaphthalene	ND		0.0735	0.0175	mg/Kg	10	02/14/13 06:01	02/14/13 20:56	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
2-Fluorobiphenyl (Surr)	55		29 - 120				02/14/13 06:01	02/14/13 20:56	7	
Terphenyl-d14 (Surr)	78		13 - 120				02/14/13 06:01	02/14/13 20:56	7	
Nitrobenzene-d5 (Surr)	52		27 - 120				02/14/13 06:01	02/14/13 20:56	7	
General Chemistry										
Analyte		Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac	
Percent Solids	91		0.10	0.10	%			02/13/13 14:23	1	

Client Sample ID: 837 Azalea

Date Collected: 02/06/13 12:45 Date Received: 02/13/13 08:30

Lab Sample ID: 490-19382-8 Matrix: Solid

Percent Solids: 95.2

		0.0440								
Method: 8260B - Volatile Org		(GC/MS) Qualifier		MDL	Unit	D		A	Dil Fac	
Analyte	Result		RL 0.00226	0.000756		1	Prepared 02/13/13 15:19	Analyzed	Ull Fac	
Benzene	ND		0.00226			n	02/13/13 15:19	02/14/13 16:46 02/14/13 16:46	1	
Ethylbenzene				0.000756		ü			1	Į.
Naphthalene	ND		0.00564	0.00192		10	02/13/13 15:19	02/14/13 16:46		
Toluene	ND		0.00226	0.000835			02/13/13 15:19	02/14/13 16:46	1	
Xylenes, Total	ND		0.00564	0.000756	mg/Kg		02/13/13 15:19	02/14/13 16:46	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
1.2-Dichloroethane-d4 (Surr)	94		70 - 130				02/13/13 15:19	02/14/13 16:46	1	
4-Bromofluorobenzene (Surr)	107		70 - 130				02/13/13 15:19	02/14/13 16:46	1	
Dibromofluoromethane (Surr)	98		70 - 130				02/13/13 15:19	02/14/13 16:46	1	
Toluene-d8 (Surr)	92		70 - 130				02/13/13 15:19	02/14/13 16:46	1	
Method: 8270D - Semivolatile	Organic Compou	inds (GC/M	5)							
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Acenaphthene	ND		0.0696	0.0104	mg/Kg	12	02/14/13 06:01	02/14/13 21:17	1	
Acenaphthylene	ND		0.0696	0.00935	mg/Kg		02/14/13 06:01	02/14/13 21:17	1	
Anthracene	ND		0.0696	0.00935	mg/Kg	a	02/14/13 06:01	02/14/13 21:17	1	
Benzo[a]anthracene	ND		0.0696	0.0156	mg/Kg	10	02/14/13 06:01	02/14/13 21:17	1	
Benzo[a]pyrene	ND		0.0696	0.0125	mg/Kg	3	02/14/13 06:01	02/14/13 21:17	1	
Benzo[b]fluoranthene	ND		0.0696	0.0125	mg/Kg		02/14/13 06:01	02/14/13 21:17		
Benzo[g,h,i]perylene	ND		0.0696	0.00935	mg/Kg	12	02/14/13 06:01	02/14/13 21:17	1	
Benzo[k]fluoranthene	ND		0.0696	0.0145	mg/Kg	ė.	02/14/13 06:01	02/14/13 21:17	1	
1-Methylnaphthalene	ND		0.0696	0.0145	mg/Kg	5	02/14/13 06:01	02/14/13 21:17	1	
Pyrene	ND		0.0696	0.0125	mg/Kg	1.0	02/14/13 06:01	02/14/13 21:17	1	
Phenanthrene	ND		0.0696	0.00935	mg/Kg		02/14/13 06:01	02/14/13 21:17	1	
Chrysene	ND		0.0696	0.00935	mg/Kg	12	02/14/13 06:01	02/14/13 21:17	1	
Dibenz(a,h)anthracene	ND		0.0696	0.00727	mg/Kg	17	02/14/13 06:01	02/14/13 21:17	1	
Fluoranthene	ND		0.0696	0.00935	mg/Kg	22	02/14/13 06:01	02/14/13 21:17	1	
Fluorene	ND		0.0696	0.0125	mg/Kg	12	02/14/13 06:01	02/14/13 21:17	1	
Indeno[1,2,3-cd]pyrene	ND		0.0696	0.0104	mg/Kg	22	02/14/13 06:01	02/14/13 21:17	1	
Naphthalene	ND		0.0696	0.00935	mg/Kg	21	02/14/13 06:01	02/14/13 21:17	1	
2-Methylnaphthalene	ND		0.0696	0.0166	mg/Kg	43	02/14/13 06:01	02/14/13 21:17	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
2-Fluorobiphenyl (Surr)	51	Quanner	29 - 120				02/14/13 06:01	02/14/13 21:17	J	
Terphenyl-d14 (Surr)	73		13 - 120				02/14/13 06:01	02/14/13 21:17	7	
Nitrobenzene-d5 (Surr)	48		27 - 120				02/14/13 06:01	02/14/13 21:17	i	
Caparal Chamistry										
General Chemistry Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Percent Solids	95	suamer	0.10		%	U	гтератец	02/13/13 14:23	Dil Fac	

Method: 8260B - Volatile Or	ganic Cor	npo	unds (C	GC/MS)										
Lab Sample ID: MB 490-58452/6	5											Client S	Sample ID: Meth	od Blank
Matrix: Solid													Prep Type:	Total/NA
Analysis Batch: 58452														
		MB	MB											
Analyte	Re	sult	Qualifier		RL		MDL	Unit		D	P	repared	Analyzed	Dil Fac
Benzene		ND		0.	.00200	0.00	0670	mg/K	g				02/14/13 08:13	1
Ethylbenzene		ND		0.	.00200	0.00	0670	mg/K	g				02/14/13 08:13	1
Naphthalene		ND		0.	00500	0.0	0170	mg/K	g				02/14/13 08:13	1
Toluene		ND		0.	00200	0.00	0740	mg/K	g				02/14/13 08:13	1
Xylenes, Total		ND		0.	00500	0.00	0670	mg/K	g				02/14/13 08:13	1
		МВ	MB											
Surrogate	%Reco	very	Qualifier	Lim	its						P	repared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)		91		70 -	130								02/14/13 08:13	1
4-Bromofluorobenzene (Surr)		107		70 -	130								02/14/13 08:13	1
Dibromofluoromethane (Surr)		98		70 -	130								02/14/13 08:13	1
Toluene-d8 (Surr)		94		70 -	130								02/14/13 08:13	1
Lab Sample ID: LCS 490-58452/	3									Clie	ent	Sample	ID: Lab Control	Sample
Matrix: Solid													Prep Type:	
Analysis Batch: 58452													State of the	1.5.0320.025.2.
				Spike		LCS	LCS						%Rec.	
Analyte				Added		Result	Qual	ifier	Unit		D	%Rec	Limits	
Benzene				0.0500		0.04774			mg/Kg			95	75 - 127	
Ethylbenzene				0.0500		0.04816			mg/Kg			96	80 - 134	
Naphthalene				0.0500		0.05627			mg/Kg			113	69 - 150	
Toluene				0.0500		0.04446			mg/Kg			89	80 - 132	
Xylenes, Total				0.150		0.1443			mg/Kg			96	80.137	
	LCS	LCS												
Surrogate	%Recovery	Quali	fier	Limits										
1,2-Dichloroethane-d4 (Surr)	89			70 - 130										
4-Bromofluorobenzene (Surr)	98			70 - 130										
Dibromofluoromethane (Surr)	100			70.130										
Toluene-d8 (Surr)	91			70 - 130										
Lab Sample ID: LCSD 490-58452	1/4								CII	ent S	am	ple ID: L	ab Control Sam	ple Dup
Matrix: Solid									26		restati	estatutes (a	Prep Type: 1	
Analysis Batch: 58452													and states	STANTS.
				e 16		1000	1000	-						

			Spike	LCSD	LCSD				%Rec.		RPD
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene			0.0500	0.04929		mg/Kg		99	75 - 127	3	50
Ethylbenzene			0.0500	0.04977		mg/Kg		100	80 - 134	3	50
Naphthalene			0.0500	0.05933		mg/Kg		119	69 - 150	5	50
Toluene			0.0500	0.04612		mg/Kg		92	80 - 132	4	50
Xylenes, Total			0.150	0.1479		mg/Kg		99	80 - 137	2	50
	LCSD	LCSD									
Surrogate	%Recovery	Qualifier	Limits								
1,2-Dichloroethane-d4 (Surr)	89		70 - 130								
4-Bromofluorobenzene (Surr)	100		70 - 130								
Dibromofluoromethane (Surr)	101		70 - 130								
Toluene-d8 (Surr)	93		70 - 130								

Client Sample ID; Method Blank

Prep Type: Total/NA

7

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

Lab Sample ID: MB 490-58742/6 Matrix: Solid Analysis Batch: 58742

Analysis Batch: 58742											
	MB	MB									
Analyte	Result	Qualifier	R	L I	MDL	Unit		D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.0020	0.000	670	mg/Kg				02/15/13 08:37	1
Ethylbenzene	ND		0.0020	0.000	0670	mg/Kg				02/15/13 08:37	1
Naphthalene	ND		0.0050	0.00	170	mg/Kg				02/15/13 08:37	1
Toluene	ND		0.0020	0.000	0740	mg/Kg				02/15/13 08:37	1
Xylenes, Total	ND		0.0050	0.000	670	mg/Kg				02/15/13 08:37	1
	MB	MB									
Surrogate	%Recovery	Qualifier	Limits						Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		70 - 130							02/15/13 08:37	1
4-Bromofluorobenzene (Surr)	106		70 - 130							02/15/13 08:37	1
Dibromofluoromethane (Surr)	98		70 - 130							02/15/13 08:37	1
Toluene-d8 (Surr)	93		70 - 130							02/15/13 08:37	1
Lab Sample ID: MB 490-58742/7									Client S	Sample ID: Metho	d Blank
Matrix: Solid										Prep Type:	
Analysis Batch: 58742										See State	1.4.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1
	MB	MB									
Analyte	Result	Qualifier	RL		NDL	Unit		D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.100	0.0	335	mg/Kg				02/15/13 09:07	1
Ethylbenzene	ND		0.100	0.0	335	mg/Kg				02/15/13 09:07	1
Naphthalene	ND		0,250	0.0	850	mg/Kg				02/15/13 09:07	1
Toluene	ND		0.100	0.0	370	mg/Kg				02/15/13 09:07	1
Xylenes, Total	ND		0.250	0.0	335	mg/Kg				02/15/13 09:07	1
	MB	MB									
Surrogate	%Recovery	Qualifier	Limits						Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		70 - 130							02/15/13 09:07	1
4-Bromofluorobenzene (Surr)	107		70 - 130							02/15/13 09:07	1
Dibromofluoromethane (Surr)	95		70 - 130							02/15/13 09:07	1
Toluene-d8 (Surr)	87		70 - 130							02/15/13 09:07	t
Lab Sample ID: LCS 490-58742/3								Clien	t Sample	ID: Lab Control	Sample
Matrix: Solid									La carriera	Prep Type: 1	1 - 1 - 1 - 1 - 1 - 1
Analysis Batch: 58742											
			Spike	LCS I						%Rec.	
Analyte			Added	Result I	Quali		Unit	D	%Rec	Limits	
Benzene			0.0500	0.04395			mg/Kg		88	75 - 127	
Ethylbenzene			0.0500	0.04341			mg/Kg		87	80 - 134	
Naphthalene			0.0500	0.05558			mg/Kg		111	69 - 150	
Toluene			0.0500	0.03985			mg/Kg		80	80 - 132	
Xylenes, Total			0.150	0.1288			mg/Kg		86	80 - 137	
	LCS LCS										

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	88		70 - 130
4-Bromofluorobenzene (Surr)	101		70 - 130
Dibromofluoromethane (Surr)	100		70 - 130
Toluene-d8 (Surr)	89		70 - 130

Prep Type: Total/NA

7

Client Sample ID: Lab Control Sample Dup

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

Lab Sample ID: LCSD 490-58742/4 Matrix: Solid 1

Analyte

Acenaphthene

Analysis Batch: 58742									1.4			
			Spike	LCSD	LCSD				%Rec.		RPD	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Benzene			0.0500	0.04786		mg/Kg		96	75 - 127	9	50	
Ethylbenzene			0.0500	0.04848		mg/Kg		97	80 - 134	11	50	
Naphthalene			0.0500	0.05941		mg/Kg		119	69 - 150	7	50	
Toluene			0.0500	0.04428		mg/Kg		89	80 - 132	11	50	
Xylenes, Total			0.150	0.1455		mg/Kg		97	80 - 137	12	50	
	LCSD	LCSD										
Surrogate	%Recovery	Qualifier	Limits									
1,2-Dichloroethane-d4 (Surr)	88		70 - 130									
4-Bromofluorobenzene (Surr)	102		70 - 130									
Dibromofluoromethane (Surr)	98		70 - 130									
Toluene-d8 (Surr)	91		70 - 130									

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

MB MB

ND

Result Qualifier

Lab Sample ID: MB 490-58454/1-A Matrix: Solid Analysis Batch: 58693

Client Sample ID: Method Blank Prep Type: Total/NA Prep Batch: 58454 Dil Fac RL MDL Unit D Prepared Analyzed 0.0670 02/14/13 06:01 02/14/13 17:24 1 0.0100 mg/Kg 02/14/13 06:01 02/14/13 17:24 0.0670 0.00900 mg/Kg

ND		0.0670	0.00900	mg/Kg	02/14/13 06:01	02/14/13 17:24	1
ND		0.0670	0.00900	mg/Kg	02/14/13 06:01	02/14/13 17:24	1
ND		0.0670	0.0150	mg/Kg	02/14/13 06:01	02/14/13 17:24	1
ND		0.0670	0.0120	mg/Kg	02/14/13 06:01	02/14/13 17:24	1
ND		0.0670	0.0120	mg/Kg	02/14/13 06:01	02/14/13 17:24	1
ND		0.0670	0.00900	mg/Kg	02/14/13 06:01	02/14/13 17:24	1
ND		0.0670	0.0140	mg/Kg	02/14/13 06:01	02/14/13 17:24	1
ND		0.0670	0.0140	mg/Kg	02/14/13 06:01	02/14/13 17:24	1
ND		0.0670	0.0120	mg/Kg	02/14/13 06:01	02/14/13 17:24	1
ND		0.0670	0.00900	mg/Kg	02/14/13 06:01	02/14/13 17:24	1
ND		0.0670	0.00900	mg/Kg	02/14/13 06:01	02/14/13 17:24	1
ND		0.0670	0.00700	mg/Kg	02/14/13 06:01	02/14/13 17:24	1
ND		0.0670	0.00900	mg/Kg	02/14/13 06:01	02/14/13 17:24	1
ND		0.0670	0.0120	mg/Kg	02/14/13 06:01	02/14/13 17:24	1
ND		0.0670	0.0100	mg/Kg	02/14/13 06:01	02/14/13 17:24	1
ND		0.0670	0.00900	mg/Kg	02/14/13 06:01	02/14/13 17:24	1
ND		0.0670	0.0160	mg/Kg	02/14/13 06:01	02/14/13 17:24	1
MB	MB						
%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
65		29 - 120			02/14/13 06:01	02/14/13 17:24	1
80		13 - 120			02/14/13 06:01	02/14/13 17:24	1
63		27 - 120			02/14/13 06:01	02/14/13 17:24	T
	ND ND ND ND ND ND ND ND ND ND ND ND ND N	ND ND	ND 0.0670 ND 0.0570 ND	ND 0.0670 0.00900 ND 0.0670 0.0150 ND 0.0670 0.0120 ND 0.0670 0.0120 ND 0.0670 0.0120 ND 0.0670 0.0120 ND 0.0670 0.0140 ND 0.0670 0.0140 ND 0.0670 0.0140 ND 0.0670 0.0120 ND 0.0670 0.0120 ND 0.0670 0.00900 ND 0.0670 0.0120 ND 0.0670 0.0100 ND 0.0670 0.0100 ND 0.0670 0.0160 ND 0.0670 0.0160 ND 0.0670 0.0160 ND 0.0670 0.0160 ND	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 0.0120 mg/Kg ND 0.0670 0.0120 mg/Kg ND 0.0670 0.0140 mg/Kg ND 0.0670 0.0140 mg/Kg ND 0.0670 0.0140 mg/Kg ND 0.0670 0.0140 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 0.0100 mg/Kg ND 0.0670 0.0100 mg/Kg ND 0.0670 0.0100 mg/Kg ND 0.0670	ND 0.0670 0.00900 mg/Kg 02/14/13 06.01 ND 0.0670 0.0150 mg/Kg 02/14/13 06.01 ND 0.0670 0.0120 mg/Kg 02/14/13 06.01 ND 0.0670 0.0140 mg/Kg 02/14/13 06.01 ND 0.0670 0.0140 mg/Kg 02/14/13 06.01 ND 0.0670 0.0140 mg/Kg 02/14/13 06.01 ND 0.0670 0.0120 mg/Kg 02/14/13 06.01 ND 0.0670 0.00900 mg/Kg 02/14/13 06.01 ND 0.0670 0.00900 mg/Kg 02/14/13 06.01 ND 0.0670 0.0100 mg/Kg 02/14/13	ND 0.0670 0.00900 mg/Kg 02/14/13 06:01 02/14/13 17:24 ND 0.0670 0.0150 mg/Kg 02/14/13 06:01 02/14/13 17:24 ND 0.0670 0.0120 mg/Kg 02/14/13 06:01 02/14/13 17:24 ND 0.0670 0.0120 mg/Kg 02/14/13 06:01 02/14/13 17:24 ND 0.0670 0.00900 mg/Kg 02/14/13 06:01 02/14/13 17:24 ND 0.0670 0.00900 mg/Kg 02/14/13 06:01 02/14/13 17:24 ND 0.0670 0.0140 mg/Kg 02/14/13 06:01 02/14/13 17:24 ND 0.0670 0.0140 mg/Kg 02/14/13 06:01 02/14/13 17:24 ND 0.0670 0.0120 mg/Kg 02/14/13 06:01 02/14/13 17:24 ND 0.0670 0.00900 mg/Kg 02/14/13 06:01 02/14/13 17:24 ND 0.0670 0.00900 mg/Kg 02/14/13 06:01 02/14/13 17:24 ND 0.0670 0.00900 mg/Kg 02/14/13 06:

Client Sample ID: Lab Control Sample

Client Sample ID: 436 Elderberry

Prep Type: Total/NA

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

66

Lab Sample ID; LCS 490-58454/2-A Matrix: Solid

Fun antibic ist reas too hot							Period III	Southers	THE LUD CONTROL	a cut the lar
Matrix: Solid									Prep Type: Te	otal/NA
Analysis Batch: 58693									Prep Batch	58454
			Spike	LCS	LCS				%Rec.	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	
Acenaphthylene			1.67	1.411		mg/Kg		85	38 - 120	
Anthracene			1.67	1.303		mg/Kg		78	46 - 124	
Benzo[a]anthracene			1.67	1.399		mg/Kg		84	45 - 120	
Benzo[a]pyrene			1.67	1.361		mg/Kg		82	45 - 120	
Benzo[b]fluoranthene			1.67	1.579		mg/Kg		95	42 - 120	
Benzo[g,h,i]perylene			1.67	1.353		mg/Kg		81	38 - 120	
Benzo[k]fluoranthene			1.67	1.242		mg/Kg		75	42 - 120	
1-Methylnaphthalene			1.67	1.383		mg/Kg		83	32 - 120	
Pyrene			1,67	1.383		mg/Kg		83	43 - 120	
Phenanthrene			1.67	1.373		mg/Kg		82	45 - 120	
Chrysene			1.67	1.372		mg/Kg		82	43 - 120	
Dibenz(a,h)anthracene			1.67	1.401		mg/Kg		84	32 - 128	
Fluoranthene			1.67	1,354		mg/Kg		81	46 - 120	
Fluorene			1.67	1.381		mg/Kg		83	42 - 120	
Indeno[1,2,3-cd]pyrene			1.67	1.393		mg/Kg		84	41 - 121	
Naphthalene			1.67	1.380		mg/Kg		83	32 - 120	
2-Methylnaphthalene			1.67	1.401		mg/Kg		84	28 - 120	
	LCS	LCS								
Surrogate	%Recovery	Qualifier	Limits							
2-Fluorobiphenyl (Surr)	67		29 - 120							
Terphenyl-d14 (Surr)	83		13 - 120							

Lab Sample ID: 490-19382-1 MS Matrix: Solid

Analysis Ratch: 58693

Nitrobenzene-d5 (Surr)

Analysis Batch: 58693									Prep Batch: 58454
	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Acenaphthylene	0.553		2.03	2.660		mg/Kg	1	104	25 - 120
Anthracene	0.333		2.03	2.659		mg/Kg	9	115	28 - 125
Benzo[a]anthracene	0.0766	J	2.03	1.866		mg/Kg	18	88	23 - 120
Benzo[a]pyrene	ND		2.03	1.623		mg/Kg	2	80	15 - 128
Benzo[b]fluoranthene	0.0312	J	2.03	1.878		mg/Kg	ä.	91	12 - 133
Benzo[g,h,i]perylene	ND		2.03	1.629		mg/Kg	-3	80	22 - 120
Benzo[k]/luoranthene	0.0619	J	2.03	1.606		mg/Kg	12	76	28 - 120
1-Methylnaphthalene	12.0		2.03	19.16	E 4	mg/Kg	ß	353	10 - 120
Pyrene	0.590		2.03	2.574		mg/Kg	, E	98	20 - 123
Phenanthrene	5.27		2.03	7.890	EF	mg/Kg	11	129	21 - 122
Chrysene	0,140		2.03	1.586		mg/Kg	96	71	20 - 120
Dibenz(a,h)anthracene	ND		2.03	1.661		mg/Kg	0.	82	12 - 128
Fluoranthene	ND		2.03	2.048		mg/Kg	Ċ.	101	10 - 143
Fluorene	2.15		2.03	4.480	E	mg/Kg	#	115	20 - 120
Indeno[1,2,3-cd]pyrene	ND		2.03	1.662		mg/Kg	1.10	82	22 - 121
Naphthalene	4.37		2.03	5.912	E	mg/Kg		76	10 - 120
2-Methylnaphthalene	14.5		2.03	23.52	E 4	mg/Kg	-	446	13 - 120

27 - 120

TestAmerica Nashville

7

2/25/2013

Client Sample ID: 436 Elderberry

Client Sample ID: 436 Elderberry

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

88

92

62

Lab Sample ID: 490-19382-1 MS Matrix: Solid Analysis Batch: 58693

MS MS Limits Surrogate %Recovery Qualifier 2-Fluorobiphenyl (Surr) 29 - 120 102 Terphenyl-d14 (Surr) 94 13 - 120 Nitrobenzene-d5 (Surr) 63 27 - 120

Lab Sample ID: 490-19382-1 MSD Matrix: Solid

the second secon								and the second state of the	and the second s	A DESTRUCTION OF THE OWNER	
Matrix: Solid									Prep 1	Type: To	tal/NA
Analysis Batch: 58693									Prep	Batch:	58454
	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acenaphthylene	0.553		2.06	3.139	F	mg/Kg	Ē	126	25 - 120	16	50
Anthracene	0.333		2.06	2.376		mg/Kg	E.	99	28 - 125	11	49
Benzo[a]anthracene	0.0766	J	2.06	1.770		mg/Kg	12	82	23 - 120	5	50
Benzo[a]pyrene	ND		2,06	1.583		mg/Kg	12	77	15 - 128	2	50
Benzo[b]fluoranthene	0.0312	J	2.06	1.790		mg/Kg	- 105	86	12 - 133	5	50
Benzo[g,h,i]perylene	ND		2.06	1.577		mg/Kg	12	77	22 - 120	3	50
Benzo[k]fluoranthene	0.0619	J	2.06	1.578		mg/Kg	- 0°	74	28 - 120	2	45
1-Methylnaphthalene	12.0		2.06	16.26	E 4	mg/Kg	0	208	10 - 120	16	50
Pyrene	0.590		2.06	2.402		mg/Kg	10	88	20 - 123	7	50
Phenanthrene	5.27		2.06	6.662	E	mg/Kg	71	68	21 - 122	17	50
Chrysene	0.140		2.06	1.636		mg/Kg	3	73	20 - 120	3	49
Dibenz(a,h)anthracene	ND		2.06	1.626		mg/Kg	17	79	12 - 128	2	50
Fluoranthene	ND		2.06	1.798		mg/Kg	0	87	10 - 143	13	50
Fluorene	2.15		2.06	5.146	EF	mg/Kg	-	146	20 - 120	14	50
Indeno[1,2,3-cd]pyrene	ND		2.06	1.607		mg/Kg	(井)	78	22 - 121	3	50
Naphthalene	4.37		2.06	5.230	E	mg/Kg	1	42	10 - 120	12	50
2-Methylnaphthalene	14.5		2,06	19.48	E 4	mg/Kg	75	245	13 - 120	19	50
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								

Method: Moisture - Percent Moisture

2-Fluorobiphenyl (Surr)

Terphenyl-d14 (Surr)

Nitrobenzene-d5 (Surr)

Lab Sample ID: 490-1937	7-8-1 DU						Client Sample ID: Dup	olicate
Matrix: Solid							Prep Type: To	tal/NA
Analysis Batch: 58360								
	Sample	Sample	DU	DU				RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
Percent Solids	96		95		%			

29 - 120

13-120

27.120

Prep Type: Total/NA Prep Batch: 58454

GC/MS VOA

Prep Batch: 58390

Prep Batch: 58390					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-19382-1	436 Elderberry	Total/NA	Solid	5035	
Prep Batch: 58391					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-19382-1	436 Elderberry	Total/NA	Solid	5035	
490-19382-2	486 Laural Bay	Total/NA	Solid	5035	
490-19382-3	835 Azalea	Total/NA	Solid	5035	
490-19382-4	834 Azalea	Total/NA	Solid	5035	
490-19382-5	452 Elderberry	Total/NA	Solid	5035	
490-19382-6	513 Laurel Bay	Total/NA	Solid	5035	
490-19382-7	602 Dahlia	Total/NA	Solid	5035	
490-19382-8	837 Azalea	Total/NA	Solid	5035	
malysis Batch: 58452	1				
	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
Lab Sample ID	436 Elderberry	Total/NA	Solid	8260B	58391
490-19382-1 490-19382-2	486 Laural Bay	Total/NA	Solid	8260B	58391
	834 Azalea	Total/NA	Solid	8260B	58391
490-19382-4	452 Elderberry	Total/NA	Solid	8260B	58391
490-19382-5	513 Laurel Bay	Total/NA	Solid	8260B	58391
490-19382-6	602 Dahlia	Total/NA	Solid	8260B	58391
490-19382-7		Total/NA	Solid	8260B	58391
490-19382-8	837 Azalea Lab Control Sample	Total/NA	Solid	8260B	
LCS 490-58452/3	Lab Control Sample Dup	Total/NA	Solid	8260B	
LCSD 490-58452/4 MB 490-58452/6	Method Blank	Total/NA	Solid	8260B	
Analysis Batch: 58742					
		Pres Tune	Matrix	Method	Prep Batch
Lab Sample ID	Client Sample ID	Prep Type Total/NA	Solid	8260B	58390
490-19382-1	436 Elderberry	Total/NA	Solid	8260B	58391
490-19382-3	835 Azalea	Total/NA	Solid	8260B	1.547.72
LCS 490-58742/3	Lab Control Sample		Solid	8260B	
LCSD 490-58742/4	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 490-58742/6	Method Blank	Total/NA Total/NA	Solid	8260B	
MB 490-58742/7	Method Blank	(blaintri	Conta		
SC/MS Semi VOA					
rep Batch: 58454					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-19382-1	436 Elderberry	Total/NA	Solid	3550C	
490-19382-1 MS	436 Elderberry	Total/NA	Solid	3550C	
490-19382-1 MSD	436 Elderberry	Total/NA	Solid	3550C	
490-19382-2	486 Laural Bay	Total/NA	Solid	3550C	
490-19382-3	835 Azalea	Total/NA	Solid	3550C	
490-19382-4	834 Azalea	Total/NA	Solid	3550C	
490-19382-5	452 Elderberry	Total/NA	Solid	3550C	
490-19382-6	513 Laurel Bay	Total/NA	Solid	3550C	
490-19382-7	602 Dahlia	Total/NA	Solid	3550C	
490-19382-8	837 Azalea	Total/NA	Solid	3550C	
TOU IOULU	and the second s				

TestAmerica Nashville

QC Association Summary

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

GC/MS Semi VOA (Continued)

Prep Batch: 58454 (Continued)

Prep Batch: 58454 (C	ontinuea)				
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 490-58454/1-A	Method Blank	Total/NA	Solid	3550C	
Analysis Batch: 5869	3				
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-19382-1	436 Elderberry	Total/NA	Solid	8270D	58454
490-19382-1 MS	436 Elderberry	Total/NA	Solid	8270D	58454
490-19382-1 MSD	436 Elderberry	Total/NA	Solid	8270D	58454
490-19382-2	486 Laural Bay	Total/NA	Solid	8270D	58454 8
490-19382-3	835 Azalea	Total/NA	Solid	8270D	58454
490-19382-4	834 Azalea	Total/NA	Solid	8270D	58454
490-19382-5	452 Elderberry	Total/NA	Solid	8270D	58454
490-19382-6	513 Laurel Bay	Total/NA	Solid	8270D	58454
490-19382-7	602 Dahlia	Total/NA	Solid	8270D	58454
490-19382-8	837 Azalea	Total/NA	Solid	8270D	58454
LCS 490-58454/2-A	Lab Control Sample	Total/NA	Solid	8270D	58454
MB 490-58454/1-A	Method Blank	Total/NA	Solid	8270D	58454
Analysis Batch: 5890	9				
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-19382-1	436 Elderberry	Total/NA	Solid	8270D	58454
General Chemistry	у				
Analysis Batch: 5836	D				
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-19377-B-1 DU	Duplicate	Total/NA	Solid	Moisture	
490-19382-1	436 Elderberry	Total/NA	Solid	Moisture	
490-19382-2	486 Laural Bay	Total/NA	Solid	Moisture	
490-19382-3	835 Azalea	Total/NA	Solid	Moisture	
490-19382-4	834 Azalea	Total/NA	Solid	Moisture	
490-19382-5	452 Elderberry	Total/NA	Solid	Moisture	
490-19382-6	513 Laurel Bay	Total/NA	Solid	Moisture	
490-19382-7	602 Dahlia	Total/NA	Solid	Moisture	
490-19382-8	837 Azalea	Total/NA	Solid	Moisture	

Lab Chronicle

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

Client Sample ID: 436 Elderberry

Date Collected: 02/04/13 15:30 Date Received: 02/13/13 08:30

Lab Sample ID: 490-19382-1

Lab Sample ID: 490-19382-2

Lab Sample ID: 490-19382-3

Lab Sample ID: 490-19382-4

Matrix: Solid

Matrix: Solid

Matrix: Solid

Percent Solids: 97.7

Percent Solids: 76.5

Percent Solids: 97.6

Matrix: Solid Percent Solids: 81.0

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			58391	02/13/13 15:19	ML	TAL NSH
Total/NA	Analysis	8260B		1	58452	02/14/13 13:14	AF	TAL NSH
Total/NA	Prep	5035			58390	02/13/13 15:17	ML	TAL NSH
Total/NA	Analysis	8260B		1	58742	02/15/13 10:37	AF	TAL NSH
Total/NA	Prep	3550C			58454	02/14/13 06:01	AK	TAL NSH
Total/NA	Analysis	8270D		1	58693	02/14/13 18:07	BS	TAL NSH
Total/NA	Analysis	8270D		5	58909	02/15/13 17:48	JS	TAL NSH
Total/NA	Analysis	Moisture		1	58360	02/13/13 14:23	RS	TAL NSH

Client Sample ID: 486 Laural Bay

Date Collected: 02/05/13 14:10

Date Received: 02/13/13 08:30

	Batch	Batch		Dilution	Batch	Prepared			
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab	
Total/NA	Prep	5035			58391	02/13/13 15:19	ML	TAL NSH	
Total/NA	Analysis	8260B		1	58452	02/14/13 13:45	AF	TAL NSH	
Total/NA	Prep	3550C			58454	02/14/13 06:01	AK	TAL NSH	
Total/NA	Analysis	8270D		1	58693	02/14/13 19:10	BS	TAL NSH	
Total/NA	Analysis	Moisture		1	58360	02/13/13 14:23	RS	TAL NSH	

Client Sample ID: 835 Azalea Date Collected: 02/06/13 13:30 Date Received: 02/13/13 08:30

Batch Batch Dilution Batch Prepared Prep Type Туре Method Run Factor Number or Analyzed Analyst Lab Total/NA Prep 5035 58391 02/13/13 15:19 ML TAL NSH Total/NA Analysis 8260B 58742 02/15/13 10:07 AF TAL NSH 1 02/14/13 06:01 AK TAL NSH Total/NA Prep 3550C 58454 Total/NA Analysis 8270D 58693 02/14/13 19:31 BS TAL NSH Total/NA Analysis Moisture 58360 02/13/13 14:23 RS TAL NSH

Client Sample ID: 834 Azalea Date Collected: 02/07/13 10:45 Date Received: 02/13/13 08:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			58391	02/13/13 15:19	ML	TAL NSH
Total/NA	Analysis	8260B		1	58452	02/14/13 14:45	AF	TAL NSH
Total/NA	Prep	3550C			58454	02/14/13 06:01	AK	TAL NSH
Total/NA	Analysis	8270D		1	58693	02/14/13 19:53	BS	TAL NSH
Total/NA	Analysis	Moisture		T	58360	02/13/13 14:23	RS	TAL NSH

TestAmerica Nashville

Lab Chronicle

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

Client Sample ID: 452 Elderberry

Date Collected: 02/04/13 15:30 Date Received: 02/13/13 08:30

Lab Sample ID: 490-19382-5

Lab Sample ID: 490-19382-6

Lab Sample ID: 490-19382-7

Lab Sample ID: 490-19382-8

Matrix: Solid Percent Solids: 84.0

Matrix: Solid

Matrix: Solid

Matrix: Solid

Percent Solids: 95.2

Percent Solids: 94.6

9

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			58391	02/13/13 15:19	ML	TAL NSH
Total/NA	Analysis	8260B		1	58452	02/14/13 15:15	AF	TAL NSH
Total/NA	Prep	3550C			58454	02/14/13 06:01	AK	TAL NSH
Total/NA	Analysis	8270D		1	58693	02/14/13 20:14	BS	TAL NSH
Total/NA	Analysis	Moisture		1	58360	02/13/13 14:23	RS	TAL NSH

Client Sample ID: 513 Laurel Bay Date Collected: 02/05/13 14:00

Date Received: 02/13/13 08:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			58391	02/13/13 15:19	ML	TAL NSH
Total/NA	Analysis	8260B		1	58452	02/14/13 15:45	AF	TAL NSH
Total/NA	Prep	3550C			58454	02/14/13 06:01	AK	TAL NSH
Total/NA	Analysis	8270D		1	58693	02/14/13 20:35	BS	TAL NSH
Total/NA	Analysis	Moisture		T	58360	02/13/13 14:23	RS	TALNSH

Client Sample ID: 602 Dahlia Date Collected: 02/05/13 16:00

Date Received	: 02/13/13 08:3	30							Percent Solids: 90.6
	Batch	Batch		Dilution	Batch	Prepared			
Ргер Туре	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab	
Total/NA	Prep	5035			58391	02/13/13 15:19	ML	TALNSH	
Total/NA	Analysis	8260B		1	58452	02/14/13 16:16	AF	TAL NSH	
Total/NA	Prep	3550C			58454	02/14/13 06:01	AK	TAL NSH	
Total/NA	Analysis	8270D		1	58693	02/14/13 20:56	BS	TAL NSH	
Total/NA	Analysis	Moisture		1	58360	02/13/13 14:23	RS	TAL NSH	

Client Sample ID: 837 Azalea Date Collected: 02/06/13 12:45

Date Received: 02/13/13 08:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			58391	02/13/13 15:19	ML	TAL NSH
Total/NA	Analysis	8260B		1	58452	02/14/13 16:46	AF	TAL NSH
Total/NA	Prep	3550C			58454	02/14/13 06:01	AK	TAL NSH
Total/NA	Analysis	8270D		1	58693	02/14/13 21:17	BS	TAL NSH
Total/NA	Analysis	Moisture		1	58360	02/13/13 14:23	RS	TAL NSH

Laboratory References:

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

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 perifications held by this Laboratory are limed. Not all perifications are appleable to this report.

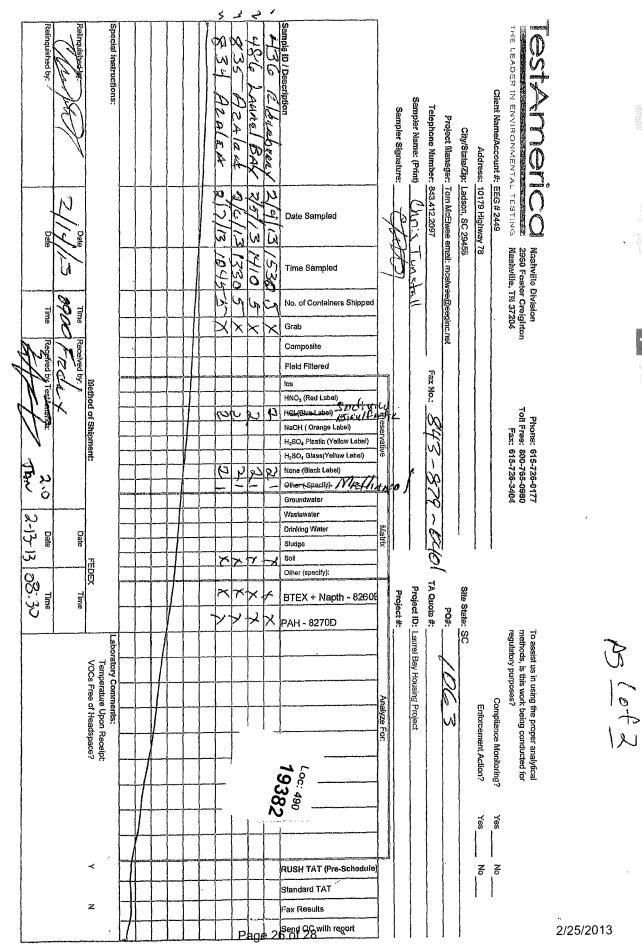
Authority	Program ACIL	EPA Region	Certification ID 393	Expiration Date 10-30-13
A2LA	ISO/IEC 17025		0453.07	12-31-13
Alabama	State Program	4	41150	05-31-13
Alaska (UST)	State Program	10	UST-087	07-24-13
Arizona	State Program	9	AZ0473	05-05-13
Arkansas DEQ	State Program	6	88-0737	04-25-13
California	NELAP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

TestAmerica Nashville

TestAmerica		
THE LEADER IN ENVIRONMENTAL TESTING NASHVIIIO, TN	COOLER RECEIPT FORM	490-19382 Chain of Custody
Cooler Received/Opened On 2/13/2013	<u>@ 0830</u>	
1. Tracking #9685	(last 4 digits, FedEx)	
Courier: <u>Fedex</u> IR Gun ID_946	60220	
2. Temperature of rep. sample or temp	blank when opened: 2. ^C _Degrees Celsius	
3. If Item #2 temperature is 0°C or less,	was the representative sample or temp blank	frozen? YES NO. (NA)
4. Were custody seals on outside of co	oler?	TESNONA
If yes, how many and where: (2)	Teon+1Back	
5. Were the seals intact, signed, and da	ted correctly?	ES.NONA
6. Were custody papers inside cooler?		(ES).NONA
I certify that I opened the cooler and ans	swered questions 1-6 (intial)	®
7. Were custody seals on containers:	YES NO and Intact	YESNO.
Were these signed and dated correct	ly?	YESNO.
8. Packing mat'l used? (Bubblewrap) Pl	lastic bag Peanuts Vermiculite Foam Inser	t Paper Other None
9. Cooling process:	(Ice) Ice-pack Ice (direct contact)	Dry ice Other None
10. Did all containers arrive in good con	ndition (unbroken)?	YES.NONA
11. Were all container labels complete (a	#, date, signed, pres., etc)?	ES NONA
12. Did all container labels and tags agr	ee with custody papers?	YES.NONA
13a. Were VOA vials received?		YES NO NA
b. Was there any observable headspa	ice present in any VOA vial?	YESNO
14. Was there a Trip Blank in this cooler	YESNO.(NA) If multiple coolers, s	sequence #
I certify that I unloaded the cooler and ar	nswered questions 7-14 (intial)	- F
15a. On pres'd bottles, did pH test strips	s suggest preservation reached the correct pH	level? YESNO.NA
b. Did the bottle labels indicate that the	he correct preservatives were used	YES.NONA
16. Was residual chlorine present?		YESNO.
I certify that I checked for chlorine and p	H as per SOP and answered questions 15-16 (intial)
17. Were custody papers properly filled	out (ink, signed, etc)?	YES NO NA
18. Did you sign the custody papers in the	he appropriate place?	(YES).NONA
19. Were correct containers used for the	analysis requested?	YES.NONA
20. Was sufficient amount of sample sen	nt in each container?	YES NO NA
I certify that I entered this project into LIN	MS and answered questions 17-20 (intial)	<u> </u>
I certify that I attached a label with the un	nique LIMS number to each container (intial)	65
21. Were there Non-Conformance issues	at login? YES. NO Was a NCM generated?	YES. NO. #

12

an and the second of the second s



Ì

				2		f	$b_3 2 of 2$. ,		2/25/2013
		2960	ville Division Foster Creighton wille, TN 37204	Toll Free	: 615-726-0177 : 800-765-0980 : 615-726-3404	I	Fo assist us in using the proper analytical methods, is this work being conducted for egulatory purposes?				
	Client Name/Account #:	EEG - SBG # 2449	·····				Compliance Monitoring?	Yes	No		
	Address:	10179 Highway 78					Enforcement Action?	Yes	No		
	City/State/Zip:	Ladson, SC 29456				Site State:	<u>sc</u>				
	Project Manager:	Tom McElwee email:	mcelwee@eeginc.n			PO#:_	1063				
	Telephone Number:	843,412,2097		Fax No.: 893	-879-0401	TA Quote #:			<u> </u>	<u> </u>	
	Sampler Name: (Print)	hutt	Show	<u></u>		Project ID:	Laurel Bay Housing Project				
	Sampler Signature:		21-		Q	Project #:					
5				<u>Preserva</u>	ative 3 Matrix		Analyze For:		1		1
2 S	Sample ID / Description 452 Eldenberrey 513 LARRE BAY	2/4/1315	COC Inne samped V V No. of Containers Shipped	Composite Field Filtered Ica HNO _A (Red Label) Kort (Red Label) Kort (Control Label) NaOH (Orange Label) L SOD Pizetic (Volture Label)	A contract of the contract of	→ × soli Other (specify): × × BTEX + Napth - 8260 × × PAH - 8270D	Loc: 49 1938	° \$2	RUSH TAT (Pre-Schedule	Standard IAI Fax Results	Page 2 Send 058 with report
α	GO2 DAhlia-a	2/5/13/16	609 5 ×	2	21	V × X					
20	837 AZA/ZA		455 x	Z	21	XXX					
	÷	77									
14											
					╺╁┈┼╾╎╴┨╶┼╾┤╴┾╸						
	Special Instructions: Relinquished by Relinquished by:	2/12/13 Date	Time 0900 Time	Method of Shipi Received by: Frace K Received by settimenta:	ment: Date 2.0 Date TA: 2-13-13	FEDEX Time Time	Laboratory Comments: Temperature Upon Receipt: VOCs Free of Headspace?		Y	N	

Comment

Client: Environmental Enterprise Group

Login Number: 19382	
List Number: 1	

Creator: Ford, Easton

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

Job Number: 490-19382-1

List Source: TestAmerica Nashville

ATTACHMENT A

NON-HAZARDOUS MANIFEST						2. Page 1	of	· · · · · · · · · · · · · · · · · · ·			
		5 - C				1		2.			
3. Generator's Mailing Address:	Gen	erator's Site	Address (If di	fferent than m	ailing):	A. Manife	st Number				
MCAS BEAUFORT						W	WMNA		01519110		
LAUREL BAY HOUSING							B. State	Generator'	s ID		
BEAUFORT, SC 29904											
4. Generator's Phone 843-87 5. Transporter 1 Company Name Same	79-0411	6.	US EPA ID	Number							
10179 Hwy 75	nal et konton mend h			C. State Transport				r's ID			
Ladina de 29.	6.3			D. Transporter's				Phone			
7. Transporter 2 Company Name		8.	US EPA ID	Number		E. State Transporter's ID					
				n Allex Bark		******				est de la composition (est acteur)	
9. Designated Facility Name and Site	Address	10.	US EPA I	D Number			F. Transporter's Phone				
HICKORY HILL LANDFILL						G. State Facility ID					
2621 LOW COUNTRY DRIVE				na en al las		H. State F	acility Phone	843-987-4643			
RIDGELAND, SC 29936											
		<u> </u>		12. Cor	itainers	13. Total	14. Unit	1			
11. Description of Waste Materials				No.	Туре	Quantity	Wt./Vol.	.	Misc. Comme	nts	
a. HEATING OIL TANK FILLED W	/ITH SAND			Byra		11.07	- grade - C.	1773	3633	P.	
WM Brofi	e # 102655SC				100 Y	1111	10N	*			
b.	le # 1020555C				aper.			-			
				1.1			All				
WM Profile #	e de trata										
C						· . · ·		1			
								1			
	· · · · · · · · · · · · · · · · · · ·	:									
d. 21 - 2				t a	1	in a star Naci	ten fransf				
M/M Drofile #	WAR THE PARAMETER										
I. Additional Descriptions for Materia				K. Dispos	al Location			1			
				Cell Grid				Level			
15. Special Handling Instructions and A	Additional Information			Gria		5131	ANDAL	RR.Y	ise	30 6	
UST Sufach		152 F	Eldenb	RRAY	-7		1 100001		- P	Azal	
N 424 Elderb	ERE(5) L	136 E	Elderb	R. R. Royd	~5)	486 L	muan1,	Bra ver			
Purchase Order #		EME	RGENCY CON	ТАСТ / РНС	NE NO.:		the second	/			
16. GENERATOR'S CERTIFICATE:											
hereby certify that the above-describe accurately described, classified and page				•				, have bee	n fully and	d	
Printed Name			re "On behalf		ung to app	Silcable regu		Month	Day	Year	
<u></u>	1, alle			<u> </u>	and the second s	Alter State and the second sec		- Z		13	
17. Transporter 1 Acknowledgement of	f Receipt of Materials	1						Т.	r	T	
Printed Name	share.	Signatu	re	Is	artific .			Month	Day	Year	
18. Transporter 2 Acknowledgement o	f Receipt of Materials	I	- / × *					1	1.16	L	
Printed Name		Signatu	re	<i>[</i> /				Month	Day	Year	
Tome Rail	112.01	a	* AAAA -	IC-1	10.			L	1-	1	
19. Certificate of Final Treatment/Disp	osal		VIK KK	<u> </u>	the for the American	Contrate (Mel)		N N	/		
certify, on behalf of the above listed to		to the best o	of my knowled	lge, the abo	ve-describ	ed waste w	as managed ir	n complian	ce with all		
pplicable laws, regulations, permits ar	d licenses on the date	s listed abov	/e.								
	cation of receipt of nor	n-hazardous	materials cov	ered by thi	s manifest.			1	T	r	
20. Facility Owner or Operator: Certifi	, · · · ·	1 ~		(I.					-		
20. Facility Owner or Operator: Certifi Printed Name	and the second s	Signatu	re 	- Call	11			Month	Day	Year	

Appendix C Laboratory Analytical Report - Groundwater



Volatile Organic Compounds by GC/MS

Client: AECOM - Res	solution Consultants
---------------------	----------------------

Description: BEALB486TW01WG20170307

Laboratory ID: SC08036-008 Matrix: Aqueous

Date Sampled:03/07/2017 1105

Date Received: 03/08/2017											
RunPrep Method15030B	Analytical Method 8260B	Dilution 1		5 Date Analyst 17 1254 PMV	Prep	Date	Batch 36622				
Parameter		Nu	CAS mber	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	0.92	J	1.0	0.80	0.40	ug/L	1
Toluene		108·	-88-3	8260B	0.80	U	1.0	0.80	0.40	ug/L	1
Xylenes (total)		1330	-20-7	8260B	0.80	U	1.0	0.80	0.40	ug/L	1
Surrogate	Q %	Run 1 Recovery	Acceptane Limits								
Bromofluorobenzene		108	85-114								
Dibromofluoromethane		103	80-119								
1,2-Dichloroethane-d4		97	81-118								
Toluene-d8		98	89-112								

PQL = Practical quantitation limitB = Detected in the method blankE = Quantitation of compound exceeded the calibration rangeH = Out of holding timeQ = Surrogate failureND = Not detected at or above the MDLJ = Estimated result < PQL and \geq MDLP = The RPD between two GC columns exceeds 40%N = Recovery is out of criteriaL = LCS/LCSD failureWhere applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"S = MS/MSD failure

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

Client: AECOM - Resolution Consultants

Description: BEALB486TW01WG20170307

Laboratory ID: SC08036-008

Date Sampled:03/07/2017 1105

Matrix: Aqueous

Date Received: 03/08/2017

RunPrep Method13520C	Analytical Method 8270D	•	sis Date Analyst 2017 2135 RBH	Prep Date 03/09/2017 173	Batch 36 36656			
Parameter		CAS Number	Analytical Method	Result Q	LOQ	LOD	DL	Units Run
Benzo(a)anthracene		56-55-3	8270D	0.10 U	0.20	0.10	0.040	ug/L 1
Benzo(b)fluoranthene		205-99-2	8270D	0.10 U	0.20	0.10	0.040	ug/L 1
Benzo(k)fluoranthene		207-08-9	8270D	0.10 U	0.20	0.10	0.040	ug/L 1
Chrysene		218-01-9	8270D	0.10 U	0.20	0.10	0.040	ug/L 1
Dibenzo(a,h)anthracene		53-70-3	8270D	0.10 U	0.20	0.10	0.040	ug/L 1
Surrogate	Q %	Run 1 Accepta Recovery Lim						
Nitrobenzene-d5		68 44-1	20					
2-Fluorobiphenyl		64 44-1	19					
Terphenyl-d14		90 50-1	34					

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

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





August 24, 2016

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

RE: IGWA Laurel Bay Underground Tank Assessment Reports

Dear Mr. Drawdy:

The South Carolina Department of Health and Environmental Control (the Department) received the Underground Storage Tanks (USTs) Assessment Reports for the addresses listed in the attachment. The regulatory authority for the investigation and cleanup of releases from these tank systems is the South Carolina Pollution Control Act (S.C. Code Ann. §48-1-10 <u>et seq</u>., 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	
377 Aspen	1143 Iris	
409 Elderberry	1202 Cardinal	
486 Laurel Bay	1212 Cardinal	
515 Laurel Bay	1222 Cardinal	10
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	1995.
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,

Lalpt

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

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

Draft Final Initial Groundwater Investigation Report for (52 addresses)

Permanent Well Installation recommedation (3 Addresses):

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

No Further Action recommendation (49 addresses):

113 Birch Drive 0 121 Banyan Drive 0 122 Banyan Drive 0 **159 Cypress Street** 0 221 Cypress Street 0 274 Birch Drive 0 279 Birch Drive 0 283 Birch Drive 0 328 Ash Street 0 346 Ash Street 0 359 Aspen Street 0 370 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 Q 542 Laurel Bay Boulevard 0 593 Aster Street 0 630 Dahlia Drive 0 641 Dahlia Drive 0 693 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 0 935 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 0 1202 Cardinal Lane 0 0 1212 Cardinal Lane 0 1222 Cardinal Lane 1224 Cardinal Lane 0 1226 Dove Lane 0 1236 Dove Lane 0 1245 Dove Lane 0 1247 Dove Lane 0 0 1274 Albatross Drive 1319 Albatross Drive 0 1337 Albatross Drive 0 1346 Cardinal Lane 0