SUMMARY REPORT
400 ALBATROSS DRIVE (FORMERLY 1335 ALBATROSS DRIVE)
LAUREL BAY MILITARY HOUSING AREA
MARINE CORPS AIR STATION BEAUFORT
BEAUFORT, SC

Revision: 0 Prepared for:

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

and



Naval Facilities Engineering Command Atlantic 9324 Virginia Avenue Norfolk, Virginia 23511-3095 SUMMARY REPORT
400 ALBATROSS DRIVE (FORMERLY 1335 ALBATROSS DRIVE)
LAUREL BAY MILITARY HOUSING AREA
MARINE CORPS AIR STATION BEAUFORT
BEAUFORT, SC

Revision: 0 Prepared for:

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

and



Naval Facilities Engineering Command Atlantic

9324 Virginia Avenue Norfolk, Virginia 23511-3095

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



Table of Contents

1.0		TION1
1.1 1.2		ND INFORMATION
2.0	SAMPLING	ACTIVITIES AND RESULTS3
2.1 2.2		VAL AND SOIL SAMPLING
3.0	PROPERTY	STATUS4
4.0	REFERENC	ES4
Table	1	Table Laboratory Analytical Results - Soil
Table	1	Edboratory Analytical Results - Soil
		Appendices
Appen	dix A	Multi-Media Selection Process for LBMH
Appen		UST Assesment Report
Appen	dix C	Regulatory Correspondence





List of Acronyms

bgs below ground surface

BTEX benzene, toluene, ethylbenzene, and xylenes

CTO Contract Task Order

COPC constituents of potential concern

IDIQ Indefinite Delivery, Indefinite Quantity

IGWA Initial Groundwater Assessment

JV Joint Venture

LBMH Laurel Bay Military Housing MCAS Marine Corps Air Station

NAVFAC Mid-Lant Naval Facilities Engineering Command Mid-Atlantic

NFA No Further Action

PAH polynuclear aromatic hydrocarbon

QAPP Quality Assurance Program Plan

RBSL risk-based screening level

SCDHEC South Carolina Department of Health and Environmental Control

Site LBMH area at MCAS Beaufort, South Carolina

UST underground storage tank

VISL vapor intrusion screening level



1.0 INTRODUCTION

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

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

This report summarizes the results the environmental investigation activities associated with the storage of home heating oil and the potential release of petroleum constituents at the referenced property. Based on the results of the investigation, a No Further Action (NFA) determination has been made by the South Carolina Department of Health and Environmental Control (SCDHEC) for 400 Albatross Drive (Formerly 1335 Albatross Drive). This NFA determination indicates that there are no unacceptable risks to human health or the environment for the petroleum constituents associated with the home heating oil USTs. The following information is included in this report:

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

1.1 Background Information

The LBMH area is located approximately 3.5 miles west of MCAS Beaufort. The area is approximately 970 acres in size and serves as an enlisted and officer family housing area. The area is configured with single family and duplex residential structures, and includes recreation, open space, and community facilities. The community includes approximately 1,300 housing units, including legacy Capehart style homes and newer duplex style homes. The housing area is bordered on the west by salt marshes and the Broad River, and to the north, east and south by uplands. Forested areas lie along the northern and northeastern borders.



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

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

1.2 UST Removal and Assessment Process

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

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

Soil sample results were submitted by MCAS Beaufort to SCDHEC utilizing SCDHEC's UST Assessment Report form. In accordance with SCDHEC's *QAPP for the UST Management Division* (SCDHEC, 2016), the soil screening levels consists of SCDHEC risk-based screening levels (RBSLs). It should be noted that the RBSLs for select PAHs were revised in Revision 2.0 of the QAPP (SCDHEC, 2013) and were revised again in Revision 3.0 (SCDHEC, 2015). The screening levels





used for evaluation at each site were those levels that were in effect at the time of reporting and review by SCDHEC.

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

2.0 SAMPLING ACTIVITIES AND RESULTS

The following section presents the sampling activities and associated results for 400 Albatross Drive (Formerly 1335 Albatross Drive). Details regarding the soil investigation at this site are provided in the *SCDHEC UST Assessment Report – 1335 Albatross Drive* (MCAS Beaufort, 2013). The UST Assessment Report is provided in Appendix B.

2.1 UST Removal and Soil Sampling

On April 24, 2013, a single 280 gallon heating oil UST was removed from the front yard under the driveway area at 400 Albatross Drive (Formerly 1335 Albatross Drive). The former UST location is indicated on Figures 2 and 3 of the UST Assessment Report (Appendix B). The UST was removed and properly disposed of (i.e., shipped offsite for recycling or transported to a landfill). There was no visual evidence (i.e., staining or sheen) of petroleum impact at the time of the UST removal. According to the UST Assessment Report (Appendix B), the depth to the base of the UST was 6'0" 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 quidelines.

2.2 Soil Analytical Results

A summary of the laboratory analytical results and SCDHEC RBSLs is presented in Table 1. A copy of the laboratory analytical data report is included in the UST Assessment Report presented in Appendix B. The laboratory analytical data report includes the soil results for the additional PAHs that were analyzed, but do not have associated RBSLs.

The soil sample results were submitted by MCAS Beaufort to SCDHEC utilizing SCDHEC's UST Assessment Report form (Appendix B). The results of the soil sampling at the former UST location were used by MCAS Beaufort, in consultation with SCDHEC, to determine a path forward (i.e., additional sampling or NFA) for the property. The soil results collected from 400 Albatross Drive (Formerly 1335 Albatross Drive) were less than the SCDHEC RBSLs, which indicated the subsurface was not impacted by COPCs associated with the former UST at concentrations that presented a potential risk to human health and the environment.

3.0 PROPERTY STATUS

Based on the analytical results for soil, SCDHEC made the determination that NFA was required for 400 Albatross Drive (Formerly 1335 Albatross Drive). This NFA determination was obtained in a letter dated July 1, 2015. SCDHEC's NFA letter is provided in Appendix C.

4.0 REFERENCES

- Marine Corps Air Station Beaufort, 2013. South Carolina Department of Health and Environmental Control (SCDHEC) Underground Storage Tank Assessment Report 1335 Albatross Drive, Laurel Bay Military Housing Area, October 2013.
- South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2013. *Quality Assurance Program Plan for the Underground Storage Tank Management* Division, *Revision 2.0*, April 2013.
- South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2015. *Quality Assurance Program Plan for the Underground Storage Tank Management* Division, *Revision 3.0*, May 2015.





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

Table



Table 1 Laboratory Analytical Results - Soil

400 Albatross Drive (Formerly 1335 Albatross Drive)

Laurel Bay Military Housing Area Marine Corps Air Station Beaufort Beaufort, South Carolina

Constituent	SCDHEC RBSLs (1)	Results Sample Collected 04/24/13
Volatile Organic Compounds Analyze	d by EPA Method 8260B (mg/kg)	
Benzene	0.003	ND
Ethylbenzene	1.15	ND
Naphthalene	0.036	ND
Toluene	0.627	ND
Xylenes, Total	13.01	ND
Semivolatile Organic Compounds An	alyzed by EPA Method 8270D (mg/kg)	
Benzo(a)anthracene	0.66	ND
Benzo(b)fluoranthene	0.66	ND
Benzo(k)fluoranthene	0.66	ND
Chrysene	0.66	ND
Dibenz(a,h)anthracene	0.66	ND

Notes:

Bold font indicates the analyte was detected.

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

EPA - United States Environmental Protection Agency

mg/kg - milligram per kilogram

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

RBSL - Risk-Based Screening Level

SCDHEC - South Carolina Department Of Health and Environmental Control

⁽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).

Appendix A Multi-Media Selection Process for LBMH





Appendix A - Multi-Media Selection Process for LBMH

Appendix B UST Assessment Report



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



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

OCT 2 3 20143

SC DHEC - Bureau of Land-& Waste Management

I. OWNERSHIP OF UST (S)

City State Zip Code	
City State Zip Code	
Beaufort, South Carolina 29904-5001	

II. SITE IDENTIFICATION AND LOCATION

Permit I.D. #	— 	andra Gama	Nin Otation	Desire (20
Laurel Bay Milita	ry Housing Area, Ma	arine corps	Air Station,	Beaufort, S	SC
Facility Name or Company	Site Identifier				
1335 Albatross Dr	rive, Laurel Bay Mi	litary Hous	ing Area		
Street Address or State Roa	d (as applicable)				
Beaufort,	Beaufort				
City	County				

Attachment 2

III. INSURANCE INFORMATION

	III. INSUR	RANCE INFORMATION
	Insura	ance Statement
qualify to receive state monie	s to pay for appropriat fund, written confirma	at Permit ID Number may te site rehabilitation activities. Before participation is nation of the existence or non-existence of an environmental completed.
Is there now, or has th UST release? YES_		rance policy or other financial mechanism that covers this one)
If you answere	d YES to the above qu	uestion, please complete the following information:
	My policy provider is The policy deductible The policy limit is:	s:
If you have this type of	of insurance, please inc	clude a copy of the policy with this report.
I DO / DO NOT wi		e SUPERB Program. (Circle one.)
V.	CERTIFICATIO	N (To be signed by the UST owner)
attached documents; and the information, I believe that the information of the informatio	ally examined and an	m familiar with the information submitted in this and all quiry of those individuals responsible for obtaining this ation is true, accurate, and complete.
Name (Type or print.)		
Signature		
To be completed by No	otary Public:	
Sworn before me this	day of	, 20
(Name)		
Notary Public for the state of_ Please affix State seal if you a	are commissioned outs	side South Carolina

VI. UST INFORMATION	1335 Albatross
Product(ex. Gas, Kerosene)	Heating oil
Capacity(ex. 1k, 2k)	280 gal
Age	Late 1950s
Construction Material(ex. Steel, FRP)	Steel
Month/Year of Last Use	Mid 80s
Depth (ft.) To Base of Tank	61
Spill Prevention Equipment Y/N	No
Overfill Prevention Equipment Y/N	No
Method of Closure Removed/Filled	Removed
Date Tanks Removed/Filled	4/24/2013
Visible Corrosion or Pitting Y/N	Yes
Visible Holes Y/N	Yes
Method of disposal for any USTs removed from UST 1335Albatross was removed	n the ground (attach disposal manifests) from the ground and disposed at a
Subtitle "D" landfill. See At	tachment "A".
disposal manifests)	udges, or wastewaters removed from the USTs (at

VII. PIPING INFORMATION

	Albatross
	Steel
Construction Material(ex. Steel, FRP)	& Copper
Construction wateriar(cx. steet, 1 kg)	N / 7
Distance from UST to Dispenser	N/A
Number of Dispensers	N/A
Type of System Pressure or Suction	Suction
Was Piping Removed from the Ground? Y/N	No
Visible Corrosion or Pitting Y/N	Yes
Visible Holes Y/N	No
Age	Late 1950s
	, describe the location and extent for each piping
Corrosion and pitting were fou	nd on the surface of the steel ve
The second secon	
pipe. Copper supply and return	lines were sound.
	lines were sound.
	lines were sound.
pipe. Copper supply and return	
pipe. Copper supply and return VIII. BRIEF SITE DESC	RIPTION AND HISTORY
pipe. Copper supply and return VIII. BRIEF SITE DESC	RIPTION AND HISTORY constructed of single wall steel
VIII. BRIEF SITE DESC	RIPTION AND HISTORY constructed of single wall steel for heating. These USTs were
VIII. BRIEF SITE DESC The USTs at the residences are and formerly contained fuel oil	RIPTION AND HISTORY constructed of single wall steel for heating. These USTs were
VIII. BRIEF SITE DESC The USTs at the residences are and formerly contained fuel oil	RIPTION AND HISTORY constructed of single wall steel for heating. These USTs were
VIII. BRIEF SITE DESC The USTs at the residences are and formerly contained fuel oil	RIPTION AND HISTORY constructed of single wall steel for heating. These USTs were
VIII. BRIEF SITE DESC The USTs at the residences are and formerly contained fuel oil	RIPTION AND HISTORY constructed of single wall steel for heating. These USTs were

IX. SITE CONDITIONS

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

X. SAMPLE INFORMATION

A. SCDHEC Lab Certification Number 84009

B.

Sample #	Location	Sample Type (Soil/Water)	Soil Type (Sand/Clay)	Depth*	Date/Time of Collection	Collected by	OVA#
1335 Albatros	Excav at fill end	Soil	Sand	6'	4/24/13 1400 hrs	P. Shaw	
			4				
		4				/	
8							
9							
10							
11	1						
12	+						
13			Terrori				
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.

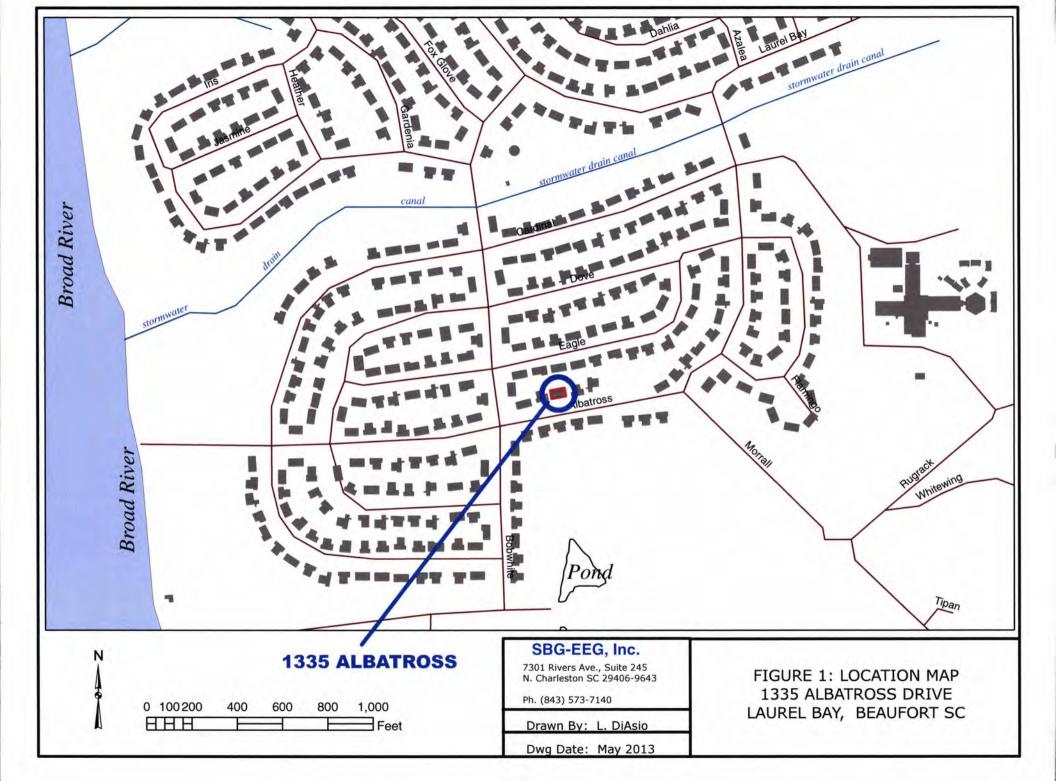
XII. RECEPTORS

		Yes	No
A.	Are there any lakes, ponds, streams, or wetlands located within 1000 feet of the UST system?	*X	
	If yes, indicate type of receptor, distance, and direction on site map.		
В.	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, electricity	*X	
	cable, fiber optic & geother If yes, indicate the type of utility, distance, and direction on the site map.	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.		

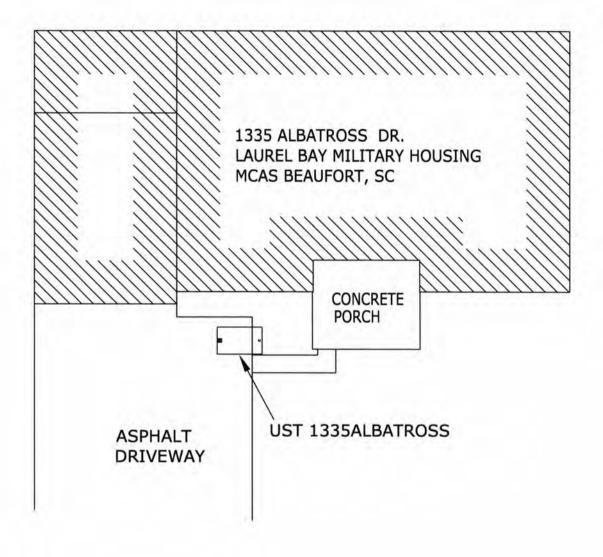
XIII. SITE MAP

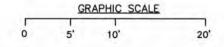
You must supply a <u>scaled</u> site map. It should include all buildings, road names, utilities, tank and dispenser island locations, labeled sample locations, extent of excavation, and any other pertinent information.

(Attach Site Map Here)









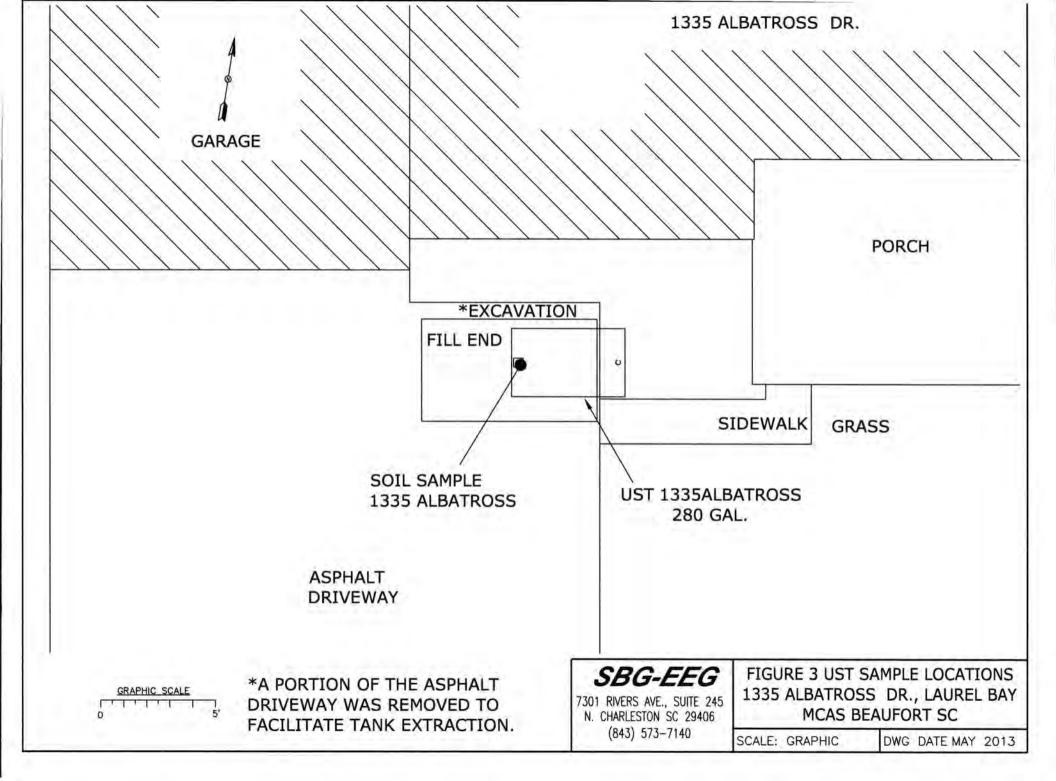
UST 1335ALBATROSS WAS 36" BELOW GRADE.

SBG-EEG

7301 RIVERS AVE., SUITE 245 N. CHARLESTON SC 29406 (843) 573-7140 FIGURE 2 SITE MAP 1335 ALBATROSS DR., LAUREL BAY MCAS BEAUFORT SC

SCALE: GRAPHIC

DWG DATE MAY 2013





Picture 1: Location of UST 1335Albatross.



Picture 2: UST 1335Albatross 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	1335Albatros	Б			
Benzene	ND				
Toluene	ND				
Ethylbenzene	ND				
Xylenes	ND			11.	
Naphthalene	ND				
Benzo (a) anthracene	ND				
Benzo (b) fluoranthene	ND				
Benzo (k) fluoranthene	ND				
Chrysene	ND				
Dibenz (a, h) anthracene	ND				
TPH (EPA 3550)					
CoC					
Benzene					
Toluene					
Ethylbenzene					
Xylenes					
Naphthalene				1100	
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			No.	
Ethylbenzene	700			4	
Xylenes	10,000				
Total BTEX	N/A				9
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		7 = 1		

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)



www.testamericainc.com

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Nashville 2960 Foster Creighton Drive Nashville, TN 37204

Tel: (615)726-0177

TestAmerica Job ID: 490-25526-1

Client Project/Site: Laurel Bay Housing Project

For:

Environmental Enterprise Group 10179 Highway 78 Ladson, South Carolina 29456

Attn: Mr. Tom McElwee

Kuth Haye

Authorized for release by: 5/13/2013 5:12:06 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.

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

Table of Contents

 	-	_		_	_		_	 -	_	 	_						
 																	1
																	17
																	19
																	20
																	21
																	22

















Sample Summary

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

TestAmerica Job ID: 490-25526-1

2

E 4	
•	
	ī

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
490-25526-1	1458 Cardinal	Soil	04/23/13 15:30	05/01/13 08:00
490-25526-2	1335 Albatross	Soil	04/24/13 14:00	05/01/13 08:00
490-25526-3	1438 Dove-1	Soil	04/22/13 12:15	05/01/13 08:00
490-25526-4	1188 Bobwhite	Soil	04/22/13 15:45	05/01/13 08:00

5

6

7

8

9

10

Ш

12

Case Narrative

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-25526-1

TestAmerica Nashville 5/13/2013

Job ID: 490-25526-1

Laboratory: TestAmerica Nashville

Narrative

Job Narrative 490-25526-1

Comments

No additional comments.

Receipt

The samples were received on 5/1/2013 8:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.6° C.

GC/MS VOA

Method(s) 8260B: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with batch 76738.

No other analytical or quality issues were noted.

GC/MS Semi VOA

No analytical or quality issues were noted.

Organic Prep

Method(s) Moisture: The sample duplicate precision for the following sample associated with batch 76389 was outside control limits: (490-25521-1 DU). The associated Laboratory Control Sample / Laboratory Control Sample Duplicate (LCS/LCSD) precision met acceptance criteria.

No other analytical or quality issues were noted.

VOA Prep

No analytical or quality issues were noted.

Definitions/Glossary

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-25526-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description

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

Glossary

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

DER Duplicate error ratio (normalized absolute difference)

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision level concentration
MDA Minimum detectable activity
EDL Estimated Detection Limit
MDC Minimum detectable concentra

MDC Minimum detectable concentration
MDL Method Detection Limit
ML Minimum Level (Dioxin)

ND Not detected at the reporting limit (or MDL or EDL if shown)

PQL Practical Quantitation Limit

QC Quality Control
RER Relative error ratio

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin)
TEQ Toxicity Equivalent Quotient (Dioxin)

Client Sample Results

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-25526-1

Client Sample ID: 1458 Cardinal

Date Collected: 04/23/13 15:30 Date Received: 05/01/13 08:00

Analyte

Percent Solids

Lab Sample ID: 490-25526-1

Matrix: Soil Percent Solids:

c.	2011	
:	74.7	

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00242	0.000810	mg/Kg	D	05/01/13 16:08	05/03/13 09:46	1
Ethylbenzene	ND		0.00242	0.000810	mg/Kg	30	05/01/13 16:08	05/03/13 09:46	1
Naphthalene	ND		0.00605	0.00206	mg/Kg	121	05/01/13 16:08	05/03/13 09:46	1
Toluene	ND		0.00242	0.000895	mg/Kg	ü	05/01/13 16:08	05/03/13 09:46	1
Xylenes, Total	ND		0.00605	0.000810	mg/Kg	n	05/01/13 16:08	05/03/13 09:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		70 - 130				05/01/13 16:08	05/03/13 09:46	1
4-Bromofluorobenzene (Surr)	104		70 - 130				05/01/13 16:08	05/03/13 09:46	1
Dibromofluoromethane (Surr)	106		70 - 130				05/01/13 16:08	05/03/13 09:46	1
Toluene-d8 (Surr)	94		70 - 130				05/01/13 16:08	05/03/13 09:46	1
Method: 8270D - Semivolatile	Organic Compou	nds (GC/MS	S)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0884	0.0132	mg/Kg	II	05/02/13 06:40	05/02/13 23:41	1
Acenaphthylene	ND		0.0884	0.0119	mg/Kg	Ci.	05/02/13 06:40	05/02/13 23:41	1
Anthracene	ND		0.0884	0.0119	mg/Kg	83	05/02/13 06:40	05/02/13 23:41	1
Benzo[a]anthracene	ND		0.0884	0.0198	mg/Kg	п	05/02/13 06:40	05/02/13 23:41	1
Benzo[a]pyrene	ND		0.0884	0.0158	mg/Kg	Ħ	05/02/13 06:40	05/02/13 23:41	1
Benzo[b]fluoranthene	ND		0.0884	0.0158	mg/Kg	172	05/02/13 06:40	05/02/13 23:41	1
Benzo[g,h,i]perylene	ND		0.0884	0.0119	mg/Kg	502	05/02/13 06:40	05/02/13 23:41	1
Benzo[k]fluoranthene	ND		0.0884	0.0185	mg/Kg	22	05/02/13 06:40	05/02/13 23:41	1
1-Methylnaphthalene	ND		0.0884	0.0185	mg/Kg	131	05/02/13 06:40	05/02/13 23:41	1
Pyrene	ND		0.0884	0.0158	mg/Kg	337	05/02/13 06:40	05/02/13 23:41	1
Phenanthrene	ND		0.0884	0.0119	mg/Kg	13	05/02/13 06:40	05/02/13 23:41	1
Chrysene	ND		0.0884	0.0119	mg/Kg		05/02/13 06:40	05/02/13 23:41	1
Dibenz(a,h)anthracene	ND		0.0884	0.00924	mg/Kg	D	05/02/13 06:40	05/02/13 23:41	1
Fluoranthene	ND		0.0884	0.0119	mg/Kg	D	05/02/13 06:40	05/02/13 23:41	1
Fluorene	ND		0.0884	0.0158	mg/Kg	578	05/02/13 06:40	05/02/13 23:41	1
ndeno[1,2,3-cd]pyrene	ND		0.0884	0.0132	mg/Kg	£\$5.	05/02/13 06:40	05/02/13 23:41	1
Naphthalene	ND		0.0884	0.0119	mg/Kg	D	05/02/13 06:40	05/02/13 23:41	1
2-Methylnaphthalene	ND		0.0884	0.0211	mg/Kg	D	05/02/13 06:40	05/02/13 23:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	59		29 - 120				05/02/13 06:40	05/02/13 23:41	1
Terphenyl-d14 (Surr)	81		13 - 120				05/02/13 06:40	05/02/13 23:41	1
Nitrobenzene-d5 (Surr)	62		27 - 120				05/02/13 06:40	05/02/13 23:41	1
General Chemistry									
A material	Dec. II	Our Hilliam	DI	DI	Hole	n	Bronned	Analyzad	Dil For

Analyzed

05/01/13 14:20

Dil Fac

RL

0.10

RL Unit

0.10 %

Prepared

Result Qualifier

75

Client Sample Results

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-25526-1

- 6

Client Sample ID: 1335 Albatross

Date Collected: 04/24/13 14:00 Date Received: 05/01/13 08:00

Analyte Percent Solids Lab Sample ID: 490-25526-2

Matrix: Soil

Percent Solids: 88.4

Date Received: 05/01/13 08:00								Percent Soli	ds: 88.4
Method: 8260B - Volatile Orga	anic Compounds	(GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00236	0.000791	mg/Kg	n	05/01/13 16:08	05/02/13 14:17	1
Ethylbenzene	ND		0.00236	0.000791	mg/Kg	n	05/01/13 16:08	05/02/13 14:17	1
Naphthalene	ND		0.00591	0.00201	mg/Kg	12	05/01/13 16:08	05/02/13 14:17	1
Toluene	ND		0.00236	0.000874	mg/Kg	33	05/01/13 16:08	05/02/13 14:17	-1
Xylenes, Total	ND		0.00591	0.000791	mg/Kg	D	05/01/13 16:08	05/02/13 14:17	-1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		70 - 130				05/01/13 16:08	05/02/13 14:17	1
4-Bromofluorobenzene (Surr)	101		70 - 130				05/01/13 16:08	05/02/13 14:17	1
Dibromofluoromethane (Surr)	103		70 - 130				05/01/13 16:08	05/02/13 14:17	1
Toluene-d8 (Surr)	92		70 - 130				05/01/13 16:08	05/02/13 14:17	1
Method: 8270D - Semivolatile	Organic Compou	inds (GC/MS)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0743	0.0111	mg/Kg	13	05/02/13 06:40	05/03/13 00:04	1
Acenaphthylene	ND		0.0743	0.00998	mg/Kg	R	05/02/13 06:40	05/03/13 00:04	1
Anthracene	ND		0.0743	0.00998	mg/Kg	33	05/02/13 06:40	05/03/13 00:04	1
Benzo[a]anthracene	ND		0.0743	0.0166	mg/Kg	12	05/02/13 06:40	05/03/13 00:04	1
Benzo[a]pyrene	ND		0.0743	0.0133	mg/Kg	D	05/02/13 06:40	05/03/13 00:04	1
Benzo[b]fluoranthene	ND		0.0743	0.0133	mg/Kg	101	05/02/13 06:40	05/03/13 00:04	1
Benzo[g,h,i]perylene	ND		0.0743	0.00998	mg/Kg	13	05/02/13 06:40	05/03/13 00:04	1
Benzo[k]fluoranthene	ND		0.0743	0.0155	mg/Kg	83	05/02/13 06:40	05/03/13 00:04	1
1-Methylnaphthalene	ND		0.0743	0.0155	mg/Kg	B	05/02/13 06:40	05/03/13 00:04	1
Pyrene	ND		0.0743	0.0133	mg/Kg	n	05/02/13 06:40	05/03/13 00:04	1
Phenanthrene	ND		0.0743	0.00998	mg/Kg	0	05/02/13 06:40	05/03/13 00:04	1
Chrysene	ND		0.0743	0.00998	mg/Kg	2.2	05/02/13 06:40	05/03/13 00:04	1
Dibenz(a,h)anthracene	ND		0.0743	0.00776	mg/Kg	123	05/02/13 06:40	05/03/13 00:04	1
Fluoranthene	ND		0.0743	0.00998	mg/Kg	123	05/02/13 06:40	05/03/13 00:04	- 1
Fluorene	ND		0.0743	0.0133	mg/Kg	13	05/02/13 06:40	05/03/13 00:04	1
Indeno[1,2,3-cd]pyrene	ND		0.0743	0.0111	mg/Kg	22	05/02/13 06:40	05/03/13 00:04	1
Naphthalene	ND		0.0743	0.00998	mg/Kg	100	05/02/13 06:40	05/03/13 00:04	1
2-Methylnaphthalene	ND		0.0743	0.0177	mg/Kg	EI	05/02/13 06:40	05/03/13 00:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	72		29 - 120				05/02/13 06:40	05/03/13 00:04	1
Terphenyl-d14 (Surr)	88		13 - 120				05/02/13 06:40	05/03/13 00:04	1
Nitrobenzene-d5 (Surr)	73		27 - 120				05/02/13 06:40	05/03/13 00:04	1
General Chemistry									
Awatisa	Decute	Ougliffee	DI	DI	Half	n	Dranavad	Analyzad	Dil Fac

Analyzed

05/01/13 14:20

Dil Fac

RL

0.10

RL Unit

0.10 %

Prepared

Result Qualifier

88

Client Sample Results

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-25526-1

Client Sample ID: 1438 Dove-1

Date Collected: 04/22/13 12:15 Date Received: 05/01/13 08:00

Analyte

Percent Solids

Lab Sample ID: 490-25526-3

	Matrix:	Soll
Percent	Solids:	81.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00219	0.000733	mg/Kg	n	05/01/13 16:08	05/02/13 14:48	1
Ethylbenzene	ND		0.00219	0.000733	mg/Kg	177	05/01/13 16:08	05/02/13 14:48	1
Naphthalene	0.00311	J	0.00547	0.00186	mg/Kg	D	05/01/13 16:08	05/02/13 14:48	1
Toluene	ND		0.00219	0.000810	mg/Kg	300	05/01/13 16:08	05/02/13 14:48	1
Xylenes, Total	0.00127	J	0.00547	0.000733	mg/Kg	n	05/01/13 16:08	05/02/13 14:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		70 - 130				05/01/13 16:08	05/02/13 14:48	1
4-Bromofluorobenzene (Surr)	128		70 - 130				05/01/13 16:08	05/02/13 14:48	1
Dibromofluoromethane (Surr)	101		70 - 130				05/01/13 16:08	05/02/13 14:48	1
Toluene-d8 (Surr)	99		70 - 130				05/01/13 16:08	05/02/13 14:48	1
Method: 8270D - Semivolatile	Organic Compou	nds (GC/MS	5)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0662	0.00988	mg/Kg	n	05/04/13 09:07	05/05/13 22:29	1
Acenaphthylene	0.0805		0.0662	0.00890	mg/Kg	n	05/04/13 09:07	05/05/13 22:29	1
Anthracene	ND		0.0662	0.00890	mg/Kg	II	05/04/13 09:07	05/05/13 22:29	1
Benzo[a]anthracene	ND		0.0662	0.0148	mg/Kg	13	05/04/13 09:07	05/05/13 22:29	1
Benzo[a]pyrene	ND		0.0662	0.0119	mg/Kg	33	05/04/13 09:07	05/05/13 22:29	1
Benzo[b]fluoranthene	ND		0.0662	0.0119	mg/Kg	11	05/04/13 09:07	05/05/13 22:29	1
Benzo[g,h,i]perylene	ND		0.0662	0.00890	mg/Kg	D	05/04/13 09:07	05/05/13 22:29	1
Benzo[k]fluoranthene	ND		0.0662	0.0138	mg/Kg	D	05/04/13 09:07	05/05/13 22:29	1
1-Methylnaphthalene	ND		0.0662	0.0138	mg/Kg	n	05/04/13 09:07	05/05/13 22:29	1
Pyrene	ND		0.0662	0.0119	mg/Kg	13	05/04/13 09:07	05/05/13 22:29	1
Phenanthrene	ND		0.0662	0.00890	mg/Kg	11	05/04/13 09:07	05/05/13 22:29	1
Chrysene	ND		0.0662	0.00890	mg/Kg	0	05/04/13 09:07	05/05/13 22:29	1
Dibenz(a,h)anthracene	ND		0.0662	0.00692	mg/Kg	33	05/04/13 09:07	05/05/13 22:29	1
Fluoranthene	ND		0.0662	0.00890	mg/Kg	11	05/04/13 09:07	05/05/13 22:29	1
Fluorene	ND		0.0662	0.0119	mg/Kg	E	05/04/13 09:07	05/05/13 22:29	1
Indeno[1,2,3-cd]pyrene	ND		0.0662	0.00988	mg/Kg	13	05/04/13 09:07	05/05/13 22:29	1
Naphthalene	ND		0.0662	0.00890	mg/Kg	12	05/04/13 09:07	05/05/13 22:29	- 1
2-Methylnaphthalene	ND		0.0662	0.0158	mg/Kg	II	05/04/13 09:07	05/05/13 22:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	DII Fac
2-Fluorobiphenyl (Surr)	59		29 - 120				05/04/13 09:07	05/05/13 22:29	1
Terphenyl-d14 (Surr)	79		13 - 120				05/04/13 09:07	05/05/13 22:29	1
Nitrobenzene-d5 (Surr)	59		27 - 120				05/04/13 09:07	05/05/13 22:29	1
General Chemistry									
							4	The second second	

Analyzed

05/01/13 14:20

Dil Fac

RL

0.10

RL Unit

0.10 %

Result Qualifier

82

Client Sample Results

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

TestAmerica Job ID: 490-25526-1

2

Client Sample ID: 1188 Bobwhite

Date Collected: 04/22/13 15:45 Date Received: 05/01/13 08:00

Nitrobenzene-d5 (Surr)

General Chemistry

Analyte

Percent Solids

Lab Sample ID: 490-25526-4

Matrix: Soil

Percent Solids: 80.9

Method: 8260B - Volatile Orga Analyte	and the same of th	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00215	0.000720	mg/Kg	Ω	05/01/13 16:08	05/02/13 15:19	1
Ethylbenzene	ND		0.00215	0.000720	mg/Kg	D.	05/01/13 16:08	05/02/13 15:19	1
Naphthalene	ND		0.00537	0.00183	mg/Kg	ū	05/01/13 16:08	05/02/13 15:19	1
Toluene	ND		0.00215	0.000795	mg/Kg	325	05/01/13 16:08	05/02/13 15:19	1
Xylenes, Total	ND		0.00537	0.000720	mg/Kg	Ü	05/01/13 16:08	05/02/13 15:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		70 - 130				05/01/13 16:08	05/02/13 15:19	1
4-Bromofluorobenzene (Surr)	105		70 - 130				05/01/13 16:08	05/02/13 15:19	1
Dibromofluoromethane (Surr)	102		70 - 130				05/01/13 16:08	05/02/13 15:19	1
Toluene-d8 (Surr)	95		70 - 130				05/01/13 16:08	05/02/13 15:19	1
Method: 8270D - Semivolatile	Organic Compou	nds (GC/MS	S)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0817	0.0122	mg/Kg	12	05/02/13 06:40	05/03/13 00:51	1
Acenaphthylene	ND		0.0817	0.0110	mg/Kg	п	05/02/13 06:40	05/03/13 00:51	1
Anthracene	ND		0.0817	0.0110	mg/Kg	12	05/02/13 06:40	05/03/13 00:51	1
Benzo[a]anthracene	ND		0.0817	0.0183	mg/Kg	12	05/02/13 06:40	05/03/13 00:51	1
Benzo[a]pyrene	ND		0.0817	0.0146	mg/Kg	D	05/02/13 06:40	05/03/13 00:51	1
Benzo[b]fluoranthene	ND		0.0817	0.0146	mg/Kg	XI.	05/02/13 06:40	05/03/13 00:51	1
Benzo[g,h,i]perylene	ND		0.0817	0.0110	mg/Kg	CI.	05/02/13 06:40	05/03/13 00:51	1
Benzo[k]fluoranthene	ND		0.0817	0.0171	mg/Kg	22	05/02/13 06:40	05/03/13 00:51	1
1-Methylnaphthalene	ND		0.0817	0.0171	mg/Kg	n	05/02/13 06:40	05/03/13 00:51	1
Pyrene	ND		0.0817	0.0146	mg/Kg	n	05/02/13 06:40	05/03/13 00:51	1
Phenanthrene	ND		0.0817	0.0110	mg/Kg	n	05/02/13 06:40	05/03/13 00:51	1
Chrysene	ND		0.0817	0.0110	mg/Kg	335	05/02/13 06:40	05/03/13 00:51	1
Dibenz(a,h)anthracene	ND		0.0817	0.00854	mg/Kg	Œ	05/02/13 06:40	05/03/13 00:51	1
Fluoranthene	ND		0.0817	0.0110	mg/Kg	D	05/02/13 06:40	05/03/13 00:51	1
Fluorene	ND		0.0817	0.0146	mg/Kg	Ħ	05/02/13 06:40	05/03/13 00:51	1
Indeno[1,2,3-cd]pyrene	ND		0.0817	0.0122	mg/Kg	Œ	05/02/13 06:40	05/03/13 00:51	1
Naphthalene	ND		0.0817	0.0110	mg/Kg	325	05/02/13 06:40	05/03/13 00:51	1
2-Methylnaphthalene	ND		0.0817	0.0195	mg/Kg	n	05/02/13 06:40	05/03/13 00:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	71		29 - 120				05/02/13 06:40	05/03/13 00:51	1
Terphenyl-d14 (Surr)	86		13 - 120				05/02/13 06:40	05/03/13 00:51	1
							of other partition and a first	TOUNDARY SUFFICE	

05/03/13 00:51

Analyzed

05/01/13 14:20

Dil Fac

05/02/13 06:40

Prepared

27 - 120

RL

0.10

RL Unit

0.10 %

72

81

Result Qualifier

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-25526-1

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

Lab Sample ID: 490-25538-A-4-D MS

Matrix: Solid

Analysis Batch: 76457

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 76425

	Sample	Sample	Spike	MS	MS				%Rec.	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.00187		0.0330	0.03198		mg/Kg		91	31 - 143	
Ethylbenzene	ND		0.0330	0.02524		mg/Kg		77	23 - 161	
Naphthalene	0.00169	J	0.0330	0.03311		mg/Kg		95	10 - 176	
Toluene	ND		0.0330	0.02652		mg/Kg		80	30 - 155	
Xylenes, Total	ND		0.0989	0.07636		mg/Kg		77	25 - 162	

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	98		70 - 130
4-Bromofluorobenzene (Surr)	102		70 - 130
Dibromofluoromethane (Surr)	107		70 - 130
Toluene-d8 (Surr)	93		70 - 130

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 76425

Analysis Batch: 76457

Matrix: Solid

Lab Sample ID: 490-25538-A-4-E MSD

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.00187		0.0332	0.03142		mg/Kg		89	31 - 143	2	50
Ethylbenzene	ND		0.0332	0.02538		mg/Kg		76	23 - 161	1	50
Naphthalene	0.00169	J	0.0332	0.02692		mg/Kg		76	10 - 176	21	50
Toluene	ND		0.0332	0.02573		mg/Kg		77	30 - 155	3	50
Xylenes, Total	ND		0.0997	0.07276		mg/Kg		73	25 - 162	5	50

MSD MSD

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	97		70 - 130
4-Bromofluorobenzene (Surr)	101		70 - 130
Dibromofluoromethane (Surr)	108		70 - 130
Toluene-d8 (Surr)	93		70 - 130

Client Sample ID: Method Blank

Prep Type: Total/NA

Matrix: Solid

Analysis Batch: 76457

Lab Sample ID: MB 490-76457/6

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00200	0.000670	mg/Kg			05/02/13 07:43	1
Ethylbenzene	ND		0.00200	0.000670	mg/Kg			05/02/13 07:43	1
Naphthalene	ND		0.00500	0.00170	mg/Kg			05/02/13 07:43	1
Toluene	ND		0.00200	0.000740	mg/Kg			05/02/13 07:43	1
Xylenes, Total	ND		0.00500	0.000670	mg/Kg			05/02/13 07:43	1

	MB MB				
Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100	70 - 130		05/02/13 07:43	1
4-Bromofluorobenzene (Surr)	102	70 - 130		05/02/13 07:43	1
Dibromofluoromethane (Surr)	106	70 - 130		05/02/13 07:43	1
Toluene-d8 (Surr)	96	70 - 130		05/02/13 07:43	1

TestAmerica Nashville

Page 10 of 25

5/13/2013

Spike

Added

0.0500

0.0500

0.0500

0.0500

0.150

LCS LCS

0.04698

0.04643

0.06576

0.04647

0.1381

Result Qualifier

Unit

mg/Kg

mg/Kg

mg/Kg

mg/Kg

mg/Kg

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-25526-1

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

Lab Sample ID: LCS 490-76457/3

Matrix: Solid

Analyte

Benzene

Toluene

Surrogate

Ethylbenzene

Naphthalene

Xylenes, Total

Analysis Batch: 76457

1,2-Dichloroethane-d4 (Surr)

4-Bromofluorobenzene (Surr)

Dibromofluoromethane (Surr)

Analysis Databy 76467

Lab Sample ID: LCSD 490-76457/4

Toluene-d8 (Surr)

Matrix: Solid

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

%Rec.

%Rec Limits 75 - 127 94 93 80 - 134 132 69 - 150 93 80 - 132 92 80 - 137

LCS LCS %Recovery Qualifier Limits 98 70 - 130 99 70 - 130 107 70 - 130 70 - 130 97

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analysis Batch: 76457	Spike	LCED	LCSD				%Rec.		RPD
Analyte	Added		Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.0500	0.04851		mg/Kg		97	75 - 127	3	50
Ethylbenzene	0.0500	0.04655		mg/Kg		93	80 - 134	0	50
Naphthalene	0.0500	0.07080		mg/Kg		142	69 - 150	7	50
Toluene	0.0500	0.04622		mg/Kg		92	80 - 132	1	50
Xylenes, Total	0.150	0.1391		mg/Kg		93	80 - 137	1	50

LCSD LCSD %Recovery Qualifier Limits Surrogate 97 70 - 130 1,2-Dichloroethane-d4 (Surr) 4-Bromofluorobenzene (Surr) 99 70 - 130 Dibromofluoromethane (Surr) 107 70 - 130 Toluene-d8 (Surr) 98 70 - 130

Lab Sample ID: MB 490-76738/6

Matrix: Solid

Analysis Batch: 76738

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

MB MB Dil Fac Result Qualifier RL MDL Unit Prepared Analyzed Analyte 0.00200 0.000670 mg/Kg 05/03/13 08:45 ND Benzene 05/03/13 08:45 ND 0.00200 0.000670 mg/Kg Ethylbenzene Naphthalene ND 0.00500 0.00170 mg/Kg 05/03/13 08:45 1 ND 0.00200 0.000740 mg/Kg 05/03/13 08:45 Toluene 0.00500 05/03/13 08:45 Xylenes, Total ND 0.000670 mg/Kg

	INID	MID				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		70 - 130		05/03/13 08:45	1
4-Bromofluorobenzene (Surr)	102		70 - 130		05/03/13 08:45	1
Dibromofluoromethane (Surr)	106		70 - 130		05/03/13 08:45	1
Toluene-d8 (Surr)	99		70 - 130		05/03/13 08:45	1

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-25526-1

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

Lab Sample ID: LCS 490-76738/3

Matrix: Solid

Analysis Batch: 76738

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Benzene	0.0500	0.04636		mg/Kg		93	75 - 127	
Ethylbenzene	0.0500	0.04619		mg/Kg		92	80 - 134	
Naphthalene	0.0500	0.06075		mg/Kg		121	69 - 150	
Toluene	0.0500	0.04567		mg/Kg		91	80 - 132	
Xylenes, Total	0.150	0.1369		mg/Kg		91	80 - 137	

Limits

70 - 130

70 - 130

70 - 130

70 - 130

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

Lab Sample ID: LCSD 490-76738/4

Matrix: Solid

Toluene-d8 (Surr)

Surrogate

Analysis Batch: 76738

1,2-Dichloroethane-d4 (Surr)

4-Bromofluorobenzene (Surr)

Dibromofluoromethane (Surr)

Analysis Buton. 10700	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzene	0.0500	0.04927		mg/Kg		99	75 - 127	6	50
Ethylbenzene	0.0500	0.04979		mg/Kg		100	80 - 134	8	50
Naphthalene	0.0500	0.06627		mg/Kg		133	69 - 150	9	50
Toluene	0.0500	0.04745		mg/Kg		95	80 - 132	4	50
Xylenes, Total	0.150	0.1515		mg/Kg		101	80 - 137	10	50

LCSD LCSD

LCS LCS

%Recovery Qualifier

95

102

106

97

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	97		70 - 130
4-Bromofluorobenzene (Surr)	102		70 - 130
Dibromofluoromethane (Surr)	107		70 - 130
Toluene-d8 (Surr)	95		70 - 130

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

Lab Sample ID: MB 490-76464/1-A

Matrix: Solid

Analysis Batch: 76635

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

Prep Batch: 76464

Total Control of the	МВ	МВ						V	
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0670	0.0100	mg/Kg		05/02/13 06:40	05/02/13 17:49	1
Acenaphthylene	ND		0.0670	0.00900	mg/Kg		05/02/13 06:40	05/02/13 17:49	1
Anthracene	ND		0.0670	0.00900	mg/Kg		05/02/13 06:40	05/02/13 17:49	1
Benzo[a]anthracene	ND		0.0670	0.0150	mg/Kg		05/02/13 06:40	05/02/13 17:49	1
Benzo[a]pyrene	ND		0.0670	0.0120	mg/Kg		05/02/13 06:40	05/02/13 17:49	1
Benzo[b]fluoranthene	ND		0.0670	0.0120	mg/Kg		05/02/13 06:40	05/02/13 17:49	1
Benzo[g,h,i]perylene	ND		0.0670	0.00900	mg/Kg		05/02/13 06:40	05/02/13 17:49	1
Benzo[k]fluoranthene	ND		0.0670	0.0140	mg/Kg		05/02/13 06:40	05/02/13 17:49	1
1-Methylnaphthalene	ND		0.0670	0.0140	mg/Kg		05/02/13 06:40	05/02/13 17:49	1
Pyrene	ND		0.0670	0.0120	mg/Kg		05/02/13 06:40	05/02/13 17:49	1
Phenanthrene	ND		0.0670	0.00900	mg/Kg		05/02/13 06:40	05/02/13 17:49	1

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-25526-1

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

MB MB %Recovery Qualifier

79

94

82

Lab Sample ID: MB 490-76464/1-A

Matrix: Solid

Analysis Batch: 76635

Client Sample	ID:	Method	Blank
---------------	-----	--------	-------

Prep Type: Total/NA

Prep Batch: 76464

1	Dil Fac	
:49	1	8
:49	1	
:49	1	7

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	ND		0.0670	0.00900	mg/Kg		05/02/13 06:40	05/02/13 17:49	1
Dibenz(a,h)anthracene	ND		0.0670	0.00700	mg/Kg		05/02/13 06:40	05/02/13 17:49	1
Fluoranthene	ND		0.0670	0.00900	mg/Kg		05/02/13 06:40	05/02/13 17:49	1
Fluorene	ND		0.0670	0.0120	mg/Kg		05/02/13 06:40	05/02/13 17:49	1
Indeno[1,2,3-cd]pyrene	ND		0.0670	0.0100	mg/Kg		05/02/13 06:40	05/02/13 17:49	1
Naphthalene	ND		0.0670	0.00900	mg/Kg		05/02/13 06:40	05/02/13 17:49	1
2-Methylnaphthalene	ND		0.0670	0.0160	mg/Kg		05/02/13 06:40	05/02/13 17:49	1

Limits Analyzed Dil Fac Prepared 29 - 120 05/02/13 06:40 05/02/13 17:49 13 - 120 05/02/13 06:40 05/02/13 17:49 27 - 120 05/02/13 06:40 05/02/13 17:49

Lab Sample ID: LCS 490-76464/2-A

Matrix: Solid

Surrogate

Analysis Batch: 76635

2-Fluorobiphenyl (Surr)

Nitrobenzene-d5 (Surr)

Terphenyl-d14 (Surr)

Client	Sample	ID:	Lab	Control	Sample
			Dron	Tyme: 1	Total/NIA

Prep Batch: 76464

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Acenaphthylene	1.67	1.437		mg/Kg		86	38 - 120	
Anthracene	1.67	1.454		mg/Kg		87	46 - 124	
Benzo[a]anthracene	1.67	1.389		mg/Kg		83	45 - 120	
Benzo[a]pyrene	1.67	1.416		mg/Kg		85	45 - 120	
Benzo[b]fluoranthene	1.67	1.346		mg/Kg		81	42 - 120	
Benzo[g,h,i]perylene	1.67	1.323		mg/Kg		79	38 - 120	
Benzo[k]fluoranthene	1.67	1.334		mg/Kg		80	42 - 120	
1-Methylnaphthalene	1.67	1.130		mg/Kg		68	32 - 120	
Pyrene	1.67	1.418		mg/Kg		85	43 - 120	
Phenanthrene	1.67	1.307		mg/Kg		78	45 - 120	
Chrysene	1.67	1.303		mg/Kg		78	43 - 120	
Dibenz(a,h)anthracene	1.67	1.343		mg/Kg		81	32 - 128	
Fluoranthene	1.67	1.377		mg/Kg		83	46 - 120	
Fluorene	1.67	1.333		mg/Kg		80	42 - 120	
Indeno[1,2,3-cd]pyrene	1.67	1.351		mg/Kg		81	41 - 121	
Naphthalene	1.67	1.030		mg/Kg		62	32 - 120	
2-Methylnaphthalene	1.67	1.119		mg/Kg		67	28 - 120	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl (Surr)	71		29 - 120
Terphenyl-d14 (Surr)	84		13 - 120
Nitrobenzene-d5 (Surr)	70		27 - 120

Lab Sample ID: 490-25531-A-1-B MS

Matrix: Solid

Analysis Batch: 76635

Client Sample	ID:	Matrix	Spike
Pro	T	me To	AM/Ict

Prep Batch: 76464

7.12	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Acenaphthylene	ND		1.66	1.388		mg/Kg		84	25 - 120
Anthracene	ND		1.66	1.406		mg/Kg		85	28 - 125

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-25526-1

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

Lab Sample ID: 490-25531-A-1-B MS

Matrix: Solid

Analysis Batch: 76635

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

Prep Batch: 76464

	Sample	Sample	Spike	MS	MS				%Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Benzo[a]anthracene	ND		1.66	1.350		mg/Kg		81	23 - 120
Benzo[a]pyrene	ND		1.66	1.369		mg/Kg		82	15 - 128
Benzo[b]fluoranthene	ND		1.66	1.287		mg/Kg		78	12 - 133
Benzo[g,h,i]perylene	ND		1.66	1.221		mg/Kg		74	22 - 120
Benzo[k]fluoranthene	ND		1.66	1.242		mg/Kg		75	28 - 120
1-Methylnaphthalene	0.135		1.66	1.123		mg/Kg		59	10 - 120
Pyrene	ND		1.66	1.447		mg/Kg		87	20 - 123
Phenanthrene	ND		1.66	1.260		mg/Kg		76	21 - 122
Chrysene	ND		1.66	1.286		mg/Kg		77	20 - 120
Dibenz(a,h)anthracene	ND		1.66	1.239		mg/Kg		75	12 - 128
Fluoranthene	ND		1.66	1.290		mg/Kg		78	10 - 143
Fluorene	ND		1.66	1.287		mg/Kg		78	20 - 120
Indeno[1,2,3-cd]pyrene	ND		1.66	1.217		mg/Kg		73	22 - 121
Naphthalene	0.193		1.66	1.102		mg/Kg		55	10 - 120
2-Methylnaphthalene	0.161		1.66	1.123		mg/Kg		58	13 - 120

Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl (Surr)	71		29 - 120
Terphenyl-d14 (Surr)	85		13 - 120
Nitrobenzene-d5 (Surr)	76		27 - 120

Lab Sample ID: 490-25531-A-1-C MSD

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 76464

Matrix: Solid Analysis Batch: 76635 Sample Sample %Rec.

	Campic	Jumpie	Opine	mod	MOD				mitec.		141 0	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Acenaphthylene	ND		1.62	1.319		mg/Kg		81	25 - 120	5	50	
Anthracene	ND		1.62	1.372		mg/Kg		85	28 - 125	2	49	
Benzo[a]anthracene	ND		1.62	1.351		mg/Kg		83	23 - 120	0	50	
Benzo[a]pyrene	ND		1.62	1.340		mg/Kg		83	15 - 128	2	50	
Benzo[b]fluoranthene	ND		1.62	1.235		mg/Kg		76	12 - 133	4	50	
Benzo[g,h,i]perylene	ND		1.62	1.195		mg/Kg		74	22 - 120	2	50	
Benzo[k]fluoranthene	ND		1.62	1.241		mg/Kg		77	28 - 120	0	45	
1-Methylnaphthalene	0.135		1.62	1.125		mg/Kg		61	10 - 120	0	50	
Pyrene	ND		1.62	1.437		mg/Kg		89	20 - 123	1	50	
Phenanthrene	ND		1.62	1.218		mg/Kg		75	21 - 122	3	50	
Chrysene	ND		1.62	1.257		mg/Kg		78	20 - 120	2	49	
Dibenz(a,h)anthracene	ND		1.62	1.193		mg/Kg		74	12 - 128	4	50	
Fluoranthene	ND		1.62	1.246		mg/Kg		77	10 - 143	3	50	
Fluorene	ND		1.62	1.233		mg/Kg		76	20 - 120	4	50	
Indeno[1,2,3-cd]pyrene	ND		1.62	1.189		mg/Kg		73	22 - 121	2	50	
Naphthalene	0.193		1.62	1.106		mg/Kg		56	10 - 120	0	50	
2-Methylnaphthalene	0.161		1.62	1.126		mg/Kg		60	13 - 120	0	50	

Surrogate	%Recovery Qualifier	Limits
2-Fluorobiphenyl (Surr)	69	29 - 120
Terphenyl-d14 (Surr)	86	13 - 120

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-25526-1

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

Lab Sample ID: 490-25531-A-1-C MSD

Matrix: Solid

Surrogate

Analysis Batch: 76635

Nitrobenzene-d5 (Surr)

Client Sample ID: Matrix Spike Duplicate

Prepared

05/04/13 09:07

05/04/13 09:07

05/04/13 09:07

05/04/13 09:07

05/04/13 09:07

Prep Type: Total/NA

Prep Batch: 76464

MSD MSD

%Recovery Qualifier Limits 27 - 120 70

Lab Sample ID: MB 490-76995/1-A

Matrix: Solid

Phenanthrene Chrysene

Analysis Batch: 77106

Client Sample ID: Method Blank

Analyzed

05/05/13 16:43

05/05/13 16:43

05/05/13 16:43

05/05/13 16:43

05/05/13 16:43

Prep Type: Total/NA

Prep Batch: 76995

Dil Fac

1

1

1

1

1

1

1

Result Qualifier Analyte Acenaphthene ND

05/04/13 09:07 05/05/13 16:43 0.0670 0.0100 mg/Kg Acenaphthylene ND 0.0670 0.00900 mg/Kg 05/04/13 09:07 05/05/13 16:43 Anthracene ND 0.0670 0.00900 mg/Kg 05/04/13 09:07 05/05/13 16:43 ND 0.0670 0.0150 mg/Kg 05/04/13 09:07 05/05/13 16:43 Benzo[a]anthracene 0.0670 Benzo[a]pyrene ND 0.0120 mg/Kg 05/04/13 09:07 05/05/13 16:43 Benzo[b]fluoranthene ND 0.0670 0.0120 mg/Kg 05/04/13 09:07 05/05/13 16:43 ND 0.0670 0.00900 mg/Kg 05/04/13 09:07 05/05/13 16:43 Benzo[g,h,i]perylene 0.0670 05/05/13 16:43 Benzo[k]fluoranthene ND 0.0140 mg/Kg 05/04/13 09:07 1-Methylnaphthalene ND 0.0670 0.0140 mg/Kg 05/04/13 09:07 05/05/13 16:43 0.0670 Pyrene ND 0.0120 mg/Kg 05/04/13 09:07 05/05/13 16:43

0.0670

0.0670

RL

MDL Unit

0.00900 mg/Kg

mg/Kg

0.00900

ND 0.0670 0.00700 Dibenz(a,h)anthracene mg/Kg Fluoranthene ND 0.0670 0.00900 mg/Kg Fluorene ND 0.0670 0.0120 mg/Kg Indeno[1,2,3-cd]pyrene ND 0.0670 0.0100 Naphthalene ND

ND

ND

ND

77

mg/Kg 05/04/13 09:07 05/05/13 16:43 0.0670 0.00900 mg/Kg 05/04/13 09:07 05/05/13 16:43 0.0670 05/04/13 09:07 05/05/13 16:43 0.0160 mg/Kg

MB MB Surrogate %Recovery Qualifier 79 2-Fluorobiphenyl (Surr) 85 Terphenyl-d14 (Surr)

Limits Prepared Analyzed Dil Fac 29 - 120 05/04/13 09:07 05/05/13 16:43 1 13 - 120 05/04/13 09:07 05/05/13 16:43 1 27 - 120 05/04/13 09:07 05/05/13 16:43 1

Lab Sample ID: LCS 490-76995/2-A

Matrix: Solid

Nitrobenzene-d5 (Surr)

2-Methylnaphthalene

Analysis Batch: 77106

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

Prep Batch: 76995

The state of the s	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Acenaphthylene	1.67	1,442		mg/Kg		87	38 - 120
Anthracene	1.67	1.496		mg/Kg		90	46 - 124
Benzo[a]anthracene	1.67	1.418		mg/Kg		85	45 - 120
Benzo[a]pyrene	1.67	1.419		mg/Kg		85	45 - 120
Benzo[b]fluoranthene	1.67	1.377		mg/Kg		83	42 - 120
Benzo[g,h,i]perylene	1.67	1.261		mg/Kg		76	38 - 120
Benzo[k]fluoranthene	1.67	1.325		mg/Kg		80	42 - 120
1-Methylnaphthalene	1.67	1.170		mg/Kg		70	32 - 120
Pyrene	1.67	1.410		mg/Kg		85	43 - 120
Phenanthrene	1.67	1.299		mg/Kg		78	45 - 120
Chrysene	1.67	1.300		mg/Kg		78	43 - 120
Dibenz(a,h)anthracene	1.67	1.295		mg/Kg		78	32 - 128

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-25526-1

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

Lab Sample ID: LCS 490-76995/2-A Matrix: Solid

Lab Sample ID: LCSD 490-76995/3-A

Matrix: Solid

Analysis Batch: 77106

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 76995

	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Fluoranthene	1.67	1.394		mg/Kg		84	46 - 120
Fluorene	1.67	1.340		mg/Kg		80	42 - 120
Indeno[1,2,3-cd]pyrene	1.67	1.299		mg/Kg		78	41 - 121
Naphthalene	1.67	1.075		mg/Kg		64	32 - 120
2-Methylnaphthalene	1.67	1.160		mg/Kg		70	28 - 120

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl (Surr)	70		29 - 120
Terphenyl-d14 (Surr)	83		13 - 120
Nitrobenzene-d5 (Surr)	73		27 - 120

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analysis Batch: 77106							Prep Batch: 76995		
	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acenaphthylene	1.67	1.424		mg/Kg		85	38 - 120	1	50
Anthracene	1.67	1.482		mg/Kg		89	46 - 124	1	49
Benzo[a]anthracene	1.67	1.407		mg/Kg		84	45 - 120	1	50
Benzo[a]pyrene	1.67	1.414		mg/Kg		85	45 - 120	0	50
Benzo[b]fluoranthene	1.67	1.319		mg/Kg		79	42 - 120	4	50
Benzo[g,h,i]perylene	1.67	1.276		mg/Kg		77	38 - 120	1	50
Benzo[k]fluoranthene	1.67	1.348		mg/Kg		81	42 - 120	2	45
1-Methylnaphthalene	1.67	1.147		mg/Kg		69	32 - 120	2	50
Pyrene	1.67	1.391		mg/Kg		83	43 - 120	1	50
Phenanthrene	1.67	1.319		mg/Kg		79	45 - 120	2	50
Chrysene	1.67	1.301		mg/Kg		78	43 - 120	0	49
Dibenz(a,h)anthracene	1.67	1.316		mg/Kg		79	32 - 128	2	50
Fluoranthene	1.67	1.413		mg/Kg		85	46 - 120	1	50
Fluorene	1.67	1.340		mg/Kg		80	42 - 120	0	50
Indeno[1,2,3-cd]pyrene	1.67	1.311		mg/Kg		79	41 - 121	1	50
Naphthalene	1.67	1.057		mg/Kg		63	32 - 120	2	50
2-Methylnaphthalene	1.67	1.159		mg/Kg		70	28 - 120	0	50

Surrogate	%Recovery Qua	lifier Limits
2-Fluorobiphenyl (Surr)	70	29 - 120
Terphenyl-d14 (Surr)	81	13 - 120
Nitrobenzene-d5 (Surr)	69	27 - 120

Method: Moisture - Percent Moisture

Lab Sample ID: 490-25521-D-1 DU

Matrix: Solid							Prep Type: To	tal/NA
Analysis Batch: 76389								
	Sample	Sample	DU	DU				RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
Percent Solids	86		92		%			

TestAmerica Nashville

Client Sample ID: Duplicate

Page 16 of 25

5/13/2013

QC Association Summary

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-25526-1

GC/MS VOA

Pre	n B	atch	1: 7	6425
110	2	att		UTLU

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-25538-A-4-D MS	Matrix Spike	Total/NA	Solid	5035	
490-25538-A-4-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

Prep Batch: 76434

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-25526-1	1458 Cardinal	Total/NA	Soil	5035	
490-25526-2	1335 Albatross	Total/NA	Soil	5035	
490-25526-3	1438 Dove-1	Total/NA	Soil	5035	
490-25526-4	1188 Bobwhite	Total/NA	Soil	5035	

Analysis Batch: 76457

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-25526-2	1335 Albatross	Total/NA	Soil	8260B	76434
490-25526-3	1438 Dove-1	Total/NA	Soil	8260B	76434
490-25526-4	1188 Bobwhite	Total/NA	Soil	8260B	76434
490-25538-A-4-D MS	Matrix Spike	Total/NA	Solid	8260B	76425
490-25538-A-4-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8260B	76425
LCS 490-76457/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 490-76457/4	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 490-76457/6	Method Blank	Total/NA	Solid	8260B	

Analysis Batch: 76738

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-25526-1	1458 Cardinal	Total/NA	Soil	8260B	76434
LCS 490-76738/3	Lab Control Sample	Total/NA	Solid	8260B	
LCSD 490-76738/4	Lab Control Sample Dup	Total/NA	Solid	8260B	
MB 490-76738/6	Method Blank	Total/NA	Solid	8260B	

GC/MS Semi VOA

Prep Batch: 76464

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-25526-1	1458 Cardinal	Total/NA	Soil	3550C	
490-25526-2	1335 Albatross	Total/NA	Soil	3550C	
490-25526-4	1188 Bobwhite	Total/NA	Soil	3550C	
490-25531-A-1-B MS	Matrix Spike	Total/NA	Solid	3550C	
490-25531-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	3550C	
LCS 490-76464/2-A	Lab Control Sample	Total/NA	Solid	3550C	
MB 490-76464/1-A	Method Blank	Total/NA	Solid	3550C	

Analysis Batch: 76635

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-25526-1	1458 Cardinal	Total/NA	Soil	8270D	76464
490-25526-2	1335 Albatross	Total/NA	Soil	8270D	76464
490-25526-4	1188 Bobwhite	Total/NA	Soil	8270D	76464
490-25531-A-1-B MS	Matrix Spike	Total/NA	Solid	8270D	76464
490-25531-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8270D	76464
LCS 490-76464/2-A	Lab Control Sample	Total/NA	Solid	8270D	76464
MB 490-76464/1-A	Method Blank	Total/NA	Solid	8270D	76464

QC Association Summary

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

TestAmerica Job ID: 490-25526-1

Z.

GC/MS Semi VOA (Continued)

Prep Batch: 76995

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-25526-3	1438 Dove-1	Total/NA	Soil	3550C	
LCS 490-76995/2-A	Lab Control Sample	Total/NA	Solid	3550C	
LCSD 490-76995/3-A	Lab Control Sample Dup	Total/NA	Solid	3550C	
MB 490-76995/1-A	Method Blank	Total/NA	Solid	3550C	

8

Analysis Batch: 77106

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-25526-3	1438 Dove-1	Total/NA	Soil	8270D	76995
LCS 490-76995/2-A	Lab Control Sample	Total/NA	Solid	8270D	76995
LCSD 490-76995/3-A	Lab Control Sample Dup	Total/NA	Solid	8270D	76995
MB 490-76995/1-A	Method Blank	Total/NA	Solid	8270D	76995



General Chemistry

Analysis Batch: 76389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
490-25521-D-1 DU	Duplicate	Total/NA	Solid	Moisture	
490-25526-1	1458 Cardinal	Total/NA	Soil	Moisture	
490-25526-2	1335 Albatross	Total/NA	Soil	Moisture	
490-25526-3	1438 Dove-1	Total/NA	Soil	Moisture	
490-25526-4	1188 Bobwhite	Total/NA	Soil	Moisture	

Lab Chronicle

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-25526-1

Client Sample ID: 1458 Cardinal

Client Sample ID: 1335 Albatross

Date Collected: 04/24/13 14:00

Date Received: 05/01/13 08:00

Date Collected: 04/23/13 15:30 Date Received: 05/01/13 08:00 Lab Sample ID: 490-25526-1

Matrix: Soil

Percent Solids: 74.7

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			76434	05/01/13 16:08	ML	TAL NSH
Total/NA	Analysis	8260B		1	76738	05/03/13 09:46	AF	TAL NSH
Total/NA	Prep	3550C			76464	05/02/13 06:40	JP	TAL NSH
Total/NA	Analysis	8270D		1	76635	05/02/13 23:41	KP	TAL NSH
Total/NA	Analysis	Moisture		1	76389	05/01/13 14:20	RS	TAL NSH

Lab Sample ID: 490-25526-2

Matrix: Soil

Percent Solids: 88.4

Batch Batch Dilution Batch Prepared Prep Type Method Factor Number or Analyzed Type Run Analyst Lab Total/NA Prep 5035 76434 05/01/13 16:08 ML TAL NSH Total/NA 8260B 76457 05/02/13 14:17 AF TAL NSH Analysis 3550C TAL NSH Total/NA Prep 76464 05/02/13 06:40 JP 8270D 05/03/13 00:04 TAL NSH Total/NA Analysis 76635 KP TAL NSH Total/NA Analysis 76389 05/01/13 14:20 RS Moisture

Client Sample ID: 1438 Dove-1

Date Collected: 04/22/13 12:15

Date Received: 05/01/13 08:00

Lab Sample ID: 490-25526-3

Matrix: Soil

Percent Solids: 81.8

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			76434	05/01/13 16:08	ML	TAL NSH
Total/NA	Analysis	8260B		1	76457	05/02/13 14:48	AF	TAL NSH
Total/NA	Prep	3550C			76995	05/04/13 09:07	JP	TAL NSH
Total/NA	Analysis	8270D		1	77106	05/05/13 22:29	JS	TAL NSH
Total/NA	Analysis	Moisture		1	76389	05/01/13 14:20	RS	TAL NSH

Client Sample ID: 1188 Bobwhite

Date Collected: 04/22/13 15:45

Date Received: 05/01/13 08:00

Lab Sample ID: 490-25526-4

Matrix: Soil

Percent Solids: 80.9

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5035			76434	05/01/13 16:08	ML	TAL NSH
Total/NA	Analysis	8260B		1	76457	05/02/13 15:19	AF	TAL NSH
Total/NA	Prep	3550C			76464	05/02/13 06:40	JP	TAL NSH
Total/NA	Analysis	8270D		1	76635	05/03/13 00:51	KP	TAL NSH
Total/NA	Analysis	Moisture		1	76389	05/01/13 14:20	RS	TAL NSH

Laboratory References:

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

Method Summary

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

Method Description

Percent Moisture

Volatile Organic Compounds (GC/MS)

Semivolatile Organic Compounds (GC/MS)

TestAmerica Job ID: 490-25526-1

Protocol	Laboratory	
CIMIDAG	TAL NICH	

R1

S	W846	TAL NSH	
S	W846	TAL NSH	
E	PA	TAL NSH	

5

Protocol References:

Method 8260B

8270D

Moisture

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

U

0

10

IU

12

13

Certification Summary

Client: Environmental Enterprise Group Project/Site: Laurel Bay Housing Project TestAmerica Job ID: 490-25526-1

2

Laboratory: TestAmerica Nashville

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

uthority	Program	EPA Region	Certification ID	Expiration Date
	ACIL		393	10-30-13
2LA	ISO/IEC 17025		0453.07	12-31-13
labama	State Program	4	41150	05-31-13
laska (UST)	State Program	10	UST-087	07-24-13
rizona	State Program	9	AZ0473	05-05-14 *
rkansas DEQ	State Program	6	88-0737	04-25-13 *
alifornia	NELAP	9	1168CA	10-31-13
onnecticut	State Program	1	PH-0220	12-31-13
orida	NELAP	4	E87358	06-30-13
inois	NELAP	5	200010	12-09-13
wa	State Program	7	131	05-01-14
ansas	NELAP	7	E-10229	10-31-13
entucky (UST)	State Program	4	19	09-15-13
puisiana	NELAP	6	30613	06-30-13
aryland	State Program	3	316	03-31-14
assachusetts	State Program	1	M-TN032	06-30-13
innesota	NELAP	5	047-999-345	12-31-13
ississippi	State Program	4	N/A	06-30-13
ontana (UST)	State Program	8	NA	01-01-15
evada	State Program	9	TN00032	07-31-13
w Hampshire	NELAP	1	2963	10-10-13
ew Jersey	NELAP	2	TN965	06-30-13
w York	NELAP	2	11342	04-01-14
orth Carolina DENR	State Program	4	387	12-31-13
orth Dakota	State Program	8	R-146	06-30-13
nio VAP	State Program	5	CL0033	01-19-14
regon	NELAP	10	TN200001	04-29-14
ennsylvania	NELAP	3	68-00585	06-30-13
hode Island	State Program	1	LAO00268	12-30-13
outh Carolina	State Program	4	84009 (001)	05-31-14 *
outh Carolina	State Program	4	84009 (002)	02-23-14
ennessee	State Program	4	2008	02-23-14
exas	NELAP	6	T104704077-09-TX	08-31-13
SDA	Federal		S-48469	11-02-13
ah	NELAP	8	TAN	06-30-13
rginia	NELAP	3	460152	06-14-13
/ashington	State Program	10	C789	07-19-13
Vest Virginia DEP	State Program	3	219	02-28-14
/isconsin	State Program	5	998020430	08-31-13
/yoming (UST)	A2LA	8	453.07	12-31-13

^{*} Expired certification is currently pending renewal and is considered valid.

Charleston



THE LEADER IN ENVIRONMENTAL TESTING	THE RESERVE OF THE PARTY OF THE PARTY.	
Nashville, TN	COOLER RECEIPT FORM	
Cooler Received/Opened On 5/1/13 (2 0800	490-25526 Chain of Custody
1. Tracking #8196	(last 4 digits, FedEx)	- 0-10-10-10-10-10-10-10-10-10-10-10-10-10
Courier: FedEx IR Gun ID 1		
2. Temperature of rep. sample or ter	np blank when opened: 1 6 Degrees C	Celsius
3. If Item #2 temperature is 0°C or les	s, was the representative sample or temp blank	k frozen? YES NO. NA
4. Were custody seals on outside of	cooler? one front & Ba	YES NONA
If yes, how many and where:	one front T Da	256
5. Were the seals intact, signed, and	dated correctly?	(YES)NONA
6. Were custody papers inside coole	n	YES NONA
I south that I susual the sealer and		10100

6. Were custody papers inside cooler?		Dett all	ACT	(YES).NONA	Satespa
I certify that I opened the cooler and answered	questions 1-6	(intial)	1		Enter
7. Were custody seals on containers:	YES	(NO)	and Intact	YESNO	
Were these signed and dated correctly?				YESNO.NA	
8. Packing mat'l used? Subblewra Plastic	pag Peanuts	Vermiculite	Foam Insert	Paper Other None	
	14 <u>-</u>				

7. Were custody seals on containers: YES (NO) and Intact	YESNO(A)
Were these signed and dated correctly?	YESNO.NA
8. Packing mat'l used? Bubblewra Plastic bag Peanuts Vermiculite Foam Insert Pape	er Other None
9. Cooling process: (Ce) Ice-pack Ice (direct contact) Dry ice	Other None
10. Did all containers arrive in good condition (unbroken)?	ESNONA
11. Were all container labels complete (#, date, signed, pres., etc)?	ES.NONA
12. Did all container labels and tags agree with custody papers?	ES.NONA
13a. Were VOA vials received?	ESNONA
b. Was there any observable headspace present in any VOA vial?	YESNO.
14. Was there a Trip Blank in this cooler? YES NA If multiple coolers, sequen	ce #
I certify that I unloaded the cooler and answered questions 7-14 (intial)	(A)
15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level?	YESNO
b. Did the bottle labels indicate that the correct preservatives were used	ESNONA
16. Was residual chlorine present?	YESNONA
I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial)	_@
17. Were custody papers properly filled out (ink, signed, etc)?	TES NONA
18. Did you sign the custody papers in the appropriate place?	ESNONA
19. Were correct containers used for the analysis requested?	(ES)NONA
20. Was sufficient amount of sample sent in each container?	ESNONA
I certify that I entered this project into LIMS and answered questions 17-20 (intial)	@
I certify that I attached a label with the unique LIMS number to each container (intial)	@

Cooler Receipt Form.doc

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

	/quished by: /	DE C	1	zial Instructions:		8			80.		1335 AlbAtness	1758 CARDINA!	ple ID / Description		Sampler Signature:	Sampler Name: (Print)	Telephone Number: 843,412,2097	Project Manage	Address City/State/Zi	Client Name/Account #: EEG - SBG # 2449	estAmerica	1 2 3 4 5
	Date	4/30/1									4/24/13 1400	4/23/13/15		, , ,		れ が が	r: 843.412.2097	Project Manager: Tom McElwee email: mcelwee@eeginc.net	Address: 10179 Highway 78 City/State/Zip: Ladson, SC 29456	#: EEG - SBG # 2449		6 7 - 8
4	Time Rec	13 OA 00									N S O	1530 5 K	No. of Containers Shipper Grab Composite	8		mastall		mcelwee@eeginc.net			Nashville Division 2980 Foster Creighton Nashville, TN 37204	10
while Strow	Received by TestAmerica:	Fadex	Method of Shipment:								2 2	ಬ	Field Filtered Ice HNO ₃ (Red Label) MCH (Glue-Label) NaOH (Orange Label) H ₂ SO ₄ Piastic (Yellow Label) None (Black Label)	Breservative	e		Fax No: 843-8				Phone: 615-726-0177 Toll Free: 800-765-0980 Fax: 615-726-3404	13
5.1.13	Date	Dete	FEDEX								X	X	Other (Spedify) May 44 Groundwater Wastowater Drinking Water Studge Soil Other (specify):	Matrix	01		879-0401				8-0177 5-0980 5-3404	
0800	Time	ITTO		Lab			1				メメ	XX	BTEX + Napth - 8260	0	Project #:	Project ID: Laure	TA Quote #:	PO#:	Site State: SC		To as methoregula	Rol
			VOCs Free of Headspace?	Laboratory Comments:										Analyze For:		Project ID: Laurel Bay Housing Project		1035	Enforcement Action?	Compliance Monitoring?	To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?	20/02
			4							_			RUSH TAT (Pre-Schedul Standard TAT	le					YesNo	Yes No		Loc: 490 25526
			z		7					Pa	qe	23	Fax Results Send QC with report								5/13	3/2013

		quished by: / /	A WAR		Salinstructions:							1188 Bobwhite	1438 DOUR -1	ple ID / Description			Sampler Signature:	Sampler Name: (Print)	Telephone Number: 843.4128097	Project Manager	City/State/Zip	Address	Client Name/Account #: EEG - SBG # 2449	E LEADER IN ENVIRONMENTAL TESTING		1 2 3 4 5	
		Dafe	4/30/13	-					-		13	4/22/13/1545	4/24/3 12/5	Date Sam		1	Mon	IRATIS	843.412/8097	Project Manager: Tom McElwee email: mcelwee@eeginc.net	City/State/Zip: Ladson, SC 29456	Address: 10179 Highway 78	: EEG - SBG # 2449			6 7 8	
		Time	0960	J								1	シス	No. of Con	ainers Shipped			haw		elwee@eeginc.r				Nashville Division 2960 Foster Creighton Nashville, TN 37204		10	
	3	Received by TestAmerica:	FR ORY	Method of Shipment:							,	2	1 2 1 211	Composite Field Filtere Ice HNO ₃ (Red L HO!+Blue Lei NaOH (Oran H ₂ SO ₄ Piest H ₂ SO ₄ Glass None (Black Other (Spec Groundwater Wastewater	ge Label) (Yellow Label) Abel)	'n	le lol		Fax No.: 843-879-040	net				Phone: 615-726-0177 Toll Free: 800-765-0980 Fax: 615-726-3404		12	
-	6113	Date	Date	FEDEX				-					X Y	Drinking Wat Studge Soil Other (specif	n:	Matrix	-	9	TA		s						
	970	Time	Time		Laboratory Comments: Temperature Upon Receipt 1.6c							× ×	XX	PAH - 82	roD	Arratyze For:	Project #:	Project ID: Laurel Bay Housing Project	Quote #:	PO# 1035	Site State: SC	Enforcement Action? Yes	Compliance Monitoring? Yes_	To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?		C-2-17	
				×		7					Pa	ge	24	RUSH TAT Standard T. Fax Results Send QC w	i.	,						No	No	. 5/	25520 13/201		

Job Number: 490-25526-1

Client: Environmental Enterprise Group

List Source: TestAmerica Nashville

Login Number: 25526 List Number: 1

Creator: McBride Mike

Creator: McBride, Mike		
Question	Answer	Comment
Radioactivity wasn't checked or is = background as measured by a survey meter.</td <td>True</td> <td></td>	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
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").	True	

Multiphasic samples are not present.

Residual Chlorine Checked.

Samples do not require splitting or compositing.

True True

N/A

ATTACHMENT A



NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT	Tata transmit	0.11		N1-	100-4			-	
NON-HAZARDOUS MANIFEST	1. Generator's US EPA I	D No.	Manifest Doo	: No.	2. Page 1		7/63	6.6	
3. Generator's Mailing Address: MCAS BEAUFORT LAUREL BAY HOUSING	Gener	ator's Site Addres	S (If different than	mailing):	1 1 1 1 1 1 1	MNA	015191	.40	
BEAUFORT, SC 29904 4. Generator's Phone 843-8	79-0411					B. State	Generator's II)	
5. Transporter 1 Company Name		6. US E	PA ID Number			ransporter's I			70
7. Transporter 2 Company Name	10 91101	8. US E	PA ID Number		E. State T	ransporter's I		03-15	-00
9. Designated Facility Name and Site HICKORY HILL LANDFILL	Address	10. US	EPA ID Numbe	,	F. Transp	orter's Phone			
2621 LOW COUNTRY DRIVE RIDGELAND, SC 29936						acility Phone	843-98	7-4643	
11. Description of Waste Materials	*		12. C No.	ontainers Type	13. Total Quantity	14. Unit Wt./Vol.	I. Mise	. Comments	5
a. HEATING OIL TANK FILLED WM Prof			1	204	7.11	7310	7/6	36	6
b. WM Profile #	1020333C								
c. WM Profile #									
d. WM Profile #									
J. Additional Descriptions for Mater			K. Dispo	osal Location	1		Level		
15. Special Handling Instructions and STS FROM DI458 CARD	2) 13		BATRO BATRO EBER Y CONTACT/PR	RyVE) 655) 684	CAMI	1114	a) 13 A!ba	28 FRZ
16. GENERATOR'S CERTIFICATE: I hereby certify that the above-descriaccurately described, classified and printed Name			nsportation acc				w, have been	fully and	Year
17. Transporter 1 Acknowledgement	t of Receipt of Materials	Signature	Jen	olhy	un	1	8 Month	79 Day	Year
18. Transporter 2 Acknowledgement	ShAW of Receipt of Materials	Z Z	4/10	1			8	14	13
Printed Name		Signature					Month	Day	Year
19. Certificate of Final Treatment/Di I certify, on behalf of the above listed applicable laws, regulations, permits	treatment facility, that to		nowledge, the a	above-descr	ibed waste v	vas managed	in compliance	with all	
20. Facility Owner or Operator: Cert	ification of receipt of non-	-hazardous materi	ials covered by	this manifes	st.		0		
Printed Name	1 -	Signature		-/	110		Month	Day	Year

Gold- TRANSPORTER #1 COPY

Pink- FACILITY USE ONLY

Appendix C Regulatory Correspondence





Catherine E. Heigel, Director

Promoting and protecting the health of the public and the environment

July 1, 2015

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

RE: No Further Action

Laurel Bay Underground Storage Tank Assessment Reports for:

See attached sheet

Dear Mr. Drawdy,

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

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

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

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

Sincerely,

Kent Krieg

Department of Defense Corrective Action Section

Bureau of Land and Waste Management

South Carolina Department of Health and Environmental Control

Cc: Russell Berry (via email)

Craig Ehde (via email) Bryan Beck (via email)



Catherine E. Heigel, Director

Promoting and protecting the health of the public and the environment

Attachment to: Krieg to Drawdy

Subject: NFA
Dated 7/1/2015

Laurel Bay Underground Storage Tank Assessment Reports for: (153 addresses/161 tanks)

111 BitCh 363 Aspen 364 Aspen 364 Aspen 364 Aspen 369 Aspen 369 Aspen 369 Aspen 373 Aspen 369 Aspen 373 Aspen 369 Aspen 373 Aspen 373 Aspen 373 Aspen 373 Aspen 374 Aspen 375 Aspen 376 Aspen 376 Aspen 377 Aspen 377 Aspen 378	111 Direct	262 Asman
131 Banyan 366 Aspen 134 Banyan 369 Aspen 145 Laurel Bay 373 Aspen 150 Laurel Bay 381 Aspen 153 Laurel Bay 401 Elderberry 154 Laurel Bay 402 Elderberry 155 Laurel Bay 404 Elderberry 200 Balsam 410 Elderberry 202 Balsam 420 Elderberry 203 Balsam 424 Elderberry 208 Balsam 435 Elderberry Tank 3 210 Balsam 452 Elderberry 211 Balsam 460 Elderberry 220 Cypress 465 Dogwood 222 Cypress 477 Laurel Bay 223 Cypress 487 Laurel Bay 225 Beech Tank 2 513 Laurel Bay 271 Beech Tank 1 519 Laurel Bay 271 Beech Tank 2 524 Laurel Bay 284 Birch Tank 1 535 Laurel Bay 284 Birch Tank 2 553 Dahlia 308 Ash 590 Aster 311 Ash 591 Aster 312 Ash 610 Dahlia 317 Ash 612 Dahlia 318 Ash 628 Dahlia 337 Ash 636 Dahlia 3	111 Birch	363 Aspen
134 Banyan 369 Aspen 145 Laurel Bay 373 Aspen 150 Laurel Bay 381 Aspen 153 Laurel Bay 401 Elderberry 154 Laurel Bay 402 Elderberry 155 Laurel Bay 404 Elderberry 200 Balsam 410 Elderberry 202 Balsam 420 Elderberry 203 Balsam 424 Elderberry 208 Balsam 435 Elderberry Tank 3 210 Balsam 452 Elderberry 211 Balsam 460 Elderberry 220 Cypress 465 Dogwood 222 Cypress 477 Laurel Bay 223 Cypress 487 Laurel Bay 252 Beech Tank 2 513 Laurel Bay 271 Beech Tank 1 519 Laurel Bay 271 Beech Tank 2 524 Laurel Bay 284 Birch Tank 1 535 Laurel Bay 284 Birch Tank 2 553 Dahlia 308 Ash 590 Aster 311 Ash 591 Aster 312 Ash 610 Dahlia 318 Ash 628 Dahlia 337 Ash 636 Dahlia 351 Ash Tank 1 637 Dahlia Tank 1 351 Ash Tank 2 637 Dahlia Tank 2	•	1
145 Laurel Bay 373 Aspen 150 Laurel Bay 381 Aspen 153 Laurel Bay 401 Elderberry 154 Laurel Bay 402 Elderberry 155 Laurel Bay 404 Elderberry 200 Balsam 410 Elderberry 202 Balsam 420 Elderberry 203 Balsam 424 Elderberry 208 Balsam 435 Elderberry Tank 3 210 Balsam 452 Elderberry 211 Balsam 466 Elderberry 220 Cypress 465 Dogwood 222 Cypress 477 Laurel Bay 223 Cypress 487Laurel Bay 252 Beech Tank 2 513 Laurel Bay 271 Beech Tank 1 519 Laurel Bay 271 Beech Tank 2 524 Laurel Bay 284 Birch Tank 1 535 Laurel Bay 284 Birch Tank 2 553 Dahlia 308 Ash 590 Aster 311 Ash 591 Aster 312 Ash 610 Dahlia 317 Ash 612 Dahlia 318 Ash 628 Dahlia 351 Ash Tank 1 637 Dahlia Tank 1 351 Ash Tank 2 637 Dahlia Tank 2		1
150 Laurel Bay 381 Aspen 153 Laurel Bay 401 Elderberry 154 Laurel Bay 402 Elderberry 155 Laurel Bay 404 Elderberry 200 Balsam 410 Elderberry 202 Balsam 420 Elderberry 203 Balsam 424 Elderberry 208 Balsam 435 Elderberry Tank 3 210 Balsam 452 Elderberry 211 Balsam 460 Elderberry 220 Cypress 465 Dogwood 222 Cypress 487 Laurel Bay 223 Cypress 487 Laurel Bay 252 Beech Tank 2 513 Laurel Bay 271 Beech Tank 1 519 Laurel Bay 271 Beech Tank 2 524 Laurel Bay 284 Birch Tank 1 535 Laurel Bay 284 Birch Tank 2 553 Dahlia 308 Ash 590 Aster 311 Ash 591 Aster 312 Ash 610 Dahlia 317 Ash 612 Dahlia 318 Ash 628 Dahlia 351 Ash Tank 1 637 Dahlia Tank 1 351 Ash Tank 2 637 Dahlia Tank 2	<u> </u>	
153 Laurel Bay 401 Elderberry 154 Laurel Bay 402 Elderberry 155 Laurel Bay 404 Elderberry 200 Balsam 410 Elderberry 202 Balsam 420 Elderberry 203 Balsam 424 Elderberry 208 Balsam 435 Elderberry Tank 3 210 Balsam 452 Elderberry 211 Balsam 460 Elderberry 220 Cypress 465 Dogwood 222 Cypress 477 Laurel Bay 223 Cypress 487Laurel Bay 252 Beech Tank 2 513 Laurel Bay 271 Beech Tank 1 519 Laurel Bay 284 Birch Tank 2 524 Laurel Bay 284 Birch Tank 2 553 Dahlia 308 Ash 590 Aster 311 Ash 591 Aster 312 Ash 610 Dahlia 317 Ash 612 Dahlia 318 Ash 628 Dahlia 351 Ash Tank 1 637 Dahlia Tank 1 351 Ash Tank 2 637 Dahlia Tank 2		
154 Laurel Bay 402 Elderberry 155 Laurel Bay 404 Elderberry 200 Balsam 410 Elderberry 202 Balsam 420 Elderberry 203 Balsam 424 Elderberry 208 Balsam 435 Elderberry Tank 3 210 Balsam 452 Elderberry 211 Balsam 460 Elderberry 220 Cypress 465 Dogwood 222 Cypress 477 Laurel Bay 223 Cypress 487 Laurel Bay 252 Beech Tank 2 513 Laurel Bay 271 Beech Tank 1 519 Laurel Bay 271 Beech Tank 2 524 Laurel Bay 284 Birch Tank 1 535 Laurel Bay 284 Birch Tank 2 553 Dahlia 308 Ash 590 Aster 311 Ash 591 Aster 312 Ash 610 Dahlia 317 Ash 612 Dahlia 318 Ash 628 Dahlia 337 Ash 636 Dahlia 351 Ash Tank 1 637 Dahlia Tank 1 351 Ash Tank 2 637 Dahlia Tank 2		1
155 Laurel Bay 404 Elderberry 200 Balsam 410 Elderberry 202 Balsam 420 Elderberry 203 Balsam 424 Elderberry 208 Balsam 435 Elderberry Tank 3 210 Balsam 452 Elderberry 211 Balsam 460 Elderberry 220 Cypress 465 Dogwood 222 Cypress 477 Laurel Bay 223 Cypress 487 Laurel Bay 252 Beech Tank 2 513 Laurel Bay 271 Beech Tank 1 519 Laurel Bay 271 Beech Tank 2 524 Laurel Bay 284 Birch Tank 1 535 Laurel Bay 284 Birch Tank 2 553 Dahlia 308 Ash 590 Aster 311 Ash 591 Aster 312 Ash 610 Dahlia 317 Ash 612 Dahlia 318 Ash 628 Dahlia 337 Ash 636 Dahlia 351 Ash Tank 1 637 Dahlia Tank 1 351 Ash Tank 2 637 Dahlia Tank 2		
200 Balsam 410 Elderberry 202 Balsam 420 Elderberry 203 Balsam 424 Elderberry 208 Balsam 435 Elderberry Tank 3 210 Balsam 452 Elderberry 211 Balsam 460 Elderberry 220 Cypress 465 Dogwood 222 Cypress 477 Laurel Bay 223 Cypress 487Laurel Bay 252 Beech Tank 2 513 Laurel Bay 271 Beech Tank 1 519 Laurel Bay 271 Beech Tank 2 524 Laurel Bay 284 Birch Tank 1 535 Laurel Bay 284 Birch Tank 2 553 Dahlia 308 Ash 590 Aster 311 Ash 591 Aster 312 Ash 610 Dahlia 317 Ash 612 Dahlia 318 Ash 628 Dahlia 337 Ash 636 Dahlia 351 Ash Tank 1 637 Dahlia Tank 1 351 Ash Tank 2 637 Dahlia Tank 2		ž
202 Balsam 420 Elderberry 203 Balsam 424 Elderberry 208 Balsam 435 Elderberry Tank 3 210 Balsam 452 Elderberry 211 Balsam 460 Elderberry 220 Cypress 465 Dogwood 222 Cypress 477 Laurel Bay 223 Cypress 487 Laurel Bay 252 Beech Tank 2 513 Laurel Bay 271 Beech Tank 1 519 Laurel Bay 271 Beech Tank 2 524 Laurel Bay 284 Birch Tank 1 535 Laurel Bay 284 Birch Tank 2 553 Dahlia 308 Ash 590 Aster 311 Ash 591 Aster 312 Ash 610 Dahlia 317 Ash 612 Dahlia 318 Ash 628 Dahlia 337 Ash 636 Dahlia 351 Ash Tank 1 637 Dahlia Tank 1 351 Ash Tank 2 637 Dahlia Tank 2		ž
203 Balsam 424 Elderberry 208 Balsam 435 Elderberry Tank 3 210 Balsam 452 Elderberry 211 Balsam 460 Elderberry 220 Cypress 465 Dogwood 222 Cypress 477 Laurel Bay 223 Cypress 487 Laurel Bay 252 Beech Tank 2 513 Laurel Bay 271 Beech Tank 1 519 Laurel Bay 271 Beech Tank 2 524 Laurel Bay 284 Birch Tank 1 535 Laurel Bay 284 Birch Tank 2 553 Dahlia 308 Ash 590 Aster 311 Ash 591 Aster 312 Ash 610 Dahlia 317 Ash 612 Dahlia 318 Ash 628 Dahlia 337 Ash 636 Dahlia 351 Ash Tank 1 637 Dahlia Tank 1 351 Ash Tank 2 637 Dahlia Tank 2		J
208 Balsam 435 Elderberry Tank 3 210 Balsam 452 Elderberry 211 Balsam 460 Elderberry 220 Cypress 465 Dogwood 222 Cypress 477 Laurel Bay 223 Cypress 487Laurel Bay 252 Beech Tank 2 513 Laurel Bay 271 Beech Tank 1 519 Laurel Bay 271 Beech Tank 2 524 Laurel Bay 284 Birch Tank 1 535 Laurel Bay 284 Birch Tank 2 553 Dahlia 308 Ash 590 Aster 311 Ash 591 Aster 312 Ash 610 Dahlia 317 Ash 612 Dahlia 318 Ash 628 Dahlia 337 Ash 636 Dahlia 351 Ash Tank 1 637 Dahlia Tank 1 351 Ash Tank 2 637 Dahlia Tank 2	202 Balsam	420 Elderberry
210 Balsam 452 Elderberry 211 Balsam 460 Elderberry 220 Cypress 465 Dogwood 222 Cypress 477 Laurel Bay 223 Cypress 487 Laurel Bay 252 Beech Tank 2 513 Laurel Bay 271 Beech Tank 1 519 Laurel Bay 271 Beech Tank 2 524 Laurel Bay 284 Birch Tank 1 535 Laurel Bay 284 Birch Tank 2 553 Dahlia 308 Ash 590 Aster 311 Ash 591 Aster 312 Ash 610 Dahlia 317 Ash 612 Dahlia 318 Ash 628 Dahlia 337 Ash 636 Dahlia 351 Ash Tank 1 637 Dahlia Tank 1 351 Ash Tank 2 637 Dahlia Tank 2	203 Balsam	424 Elderberry
211 Balsam 460 Elderberry 220 Cypress 465 Dogwood 222 Cypress 477 Laurel Bay 223 Cypress 487Laurel Bay 252 Beech Tank 2 513 Laurel Bay 271 Beech Tank 1 519 Laurel Bay 271 Beech Tank 2 524 Laurel Bay 284 Birch Tank 1 535 Laurel Bay 284 Birch Tank 2 553 Dahlia 308 Ash 590 Aster 311 Ash 591 Aster 312 Ash 610 Dahlia 317 Ash 612 Dahlia 318 Ash 628 Dahlia 337 Ash 636 Dahlia 351 Ash Tank 1 637 Dahlia Tank 1 351 Ash Tank 2 637 Dahlia Tank 2	208 Balsam	435 Elderberry Tank 3
220 Cypress 465 Dogwood 222 Cypress 477 Laurel Bay 223 Cypress 487Laurel Bay 252 Beech Tank 2 513 Laurel Bay 271 Beech Tank 1 519 Laurel Bay 271 Beech Tank 2 524 Laurel Bay 284 Birch Tank 1 535 Laurel Bay 284 Birch Tank 2 553 Dahlia 308 Ash 590 Aster 311 Ash 591 Aster 312 Ash 610 Dahlia 317 Ash 612 Dahlia 318 Ash 628 Dahlia 337 Ash 636 Dahlia 351 Ash Tank 1 637 Dahlia Tank 1 351 Ash Tank 2 637 Dahlia Tank 2	210 Balsam	452 Elderberry
222 Cypress 477 Laurel Bay 223 Cypress 487Laurel Bay 252 Beech Tank 2 513 Laurel Bay 271 Beech Tank 1 519 Laurel Bay 271 Beech Tank 2 524 Laurel Bay 284 Birch Tank 1 535 Laurel Bay 284 Birch Tank 2 553 Dahlia 308 Ash 590 Aster 311 Ash 591 Aster 312 Ash 610 Dahlia 317 Ash 612 Dahlia 318 Ash 628 Dahlia 337 Ash 636 Dahlia 351 Ash Tank 1 637 Dahlia Tank 1 351 Ash Tank 2 637 Dahlia Tank 2	211 Balsam	460 Elderberry
223 Cypress 487Laurel Bay 252 Beech Tank 2 513 Laurel Bay 271 Beech Tank 1 519 Laurel Bay 271 Beech Tank 2 524 Laurel Bay 284 Birch Tank 1 535 Laurel Bay 284 Birch Tank 2 553 Dahlia 308 Ash 590 Aster 311 Ash 591 Aster 312 Ash 610 Dahlia 317 Ash 612 Dahlia 318 Ash 628 Dahlia 337 Ash 636 Dahlia 351 Ash Tank 1 637 Dahlia Tank 1 351 Ash Tank 2 637 Dahlia Tank 2	220 Cypress	465 Dogwood
252 Beech Tank 2 513 Laurel Bay 271 Beech Tank 1 519 Laurel Bay 271 Beech Tank 2 524 Laurel Bay 284 Birch Tank 1 535 Laurel Bay 284 Birch Tank 2 553 Dahlia 308 Ash 590 Aster 311 Ash 591 Aster 312 Ash 610 Dahlia 317 Ash 612 Dahlia 318 Ash 628 Dahlia 337 Ash 636 Dahlia 351 Ash Tank 1 637 Dahlia Tank 1 351 Ash Tank 2 637 Dahlia Tank 2	222 Cypress	477 Laurel Bay
271 Beech Tank 1 519 Laurel Bay 271 Beech Tank 2 524 Laurel Bay 284 Birch Tank 1 535 Laurel Bay 284 Birch Tank 2 553 Dahlia 308 Ash 590 Aster 311 Ash 591 Aster 312 Ash 610 Dahlia 317 Ash 612 Dahlia 318 Ash 628 Dahlia 337 Ash 636 Dahlia 351 Ash Tank 1 637 Dahlia Tank 1 351 Ash Tank 2 637 Dahlia Tank 2	223 Cypress	487Laurel Bay
271 Beech Tank 2 524 Laurel Bay 284 Birch Tank 1 535 Laurel Bay 284 Birch Tank 2 553 Dahlia 308 Ash 590 Aster 311 Ash 591 Aster 312 Ash 610 Dahlia 317 Ash 612 Dahlia 318 Ash 628 Dahlia 337 Ash 636 Dahlia 351 Ash Tank 1 637 Dahlia Tank 1 351 Ash Tank 2 637 Dahlia Tank 2	252 Beech Tank 2	513 Laurel Bay
284 Birch Tank 1 535 Laurel Bay 284 Birch Tank 2 553 Dahlia 308 Ash 590 Aster 311 Ash 591 Aster 312 Ash 610 Dahlia 317 Ash 612 Dahlia 318 Ash 628 Dahlia 337 Ash 636 Dahlia 351 Ash Tank 1 637 Dahlia Tank 1 351 Ash Tank 2 637 Dahlia Tank 2	271 Beech Tank 1	519 Laurel Bay
284 Birch Tank 2 553 Dahlia 308 Ash 590 Aster 311 Ash 591 Aster 312 Ash 610 Dahlia 317 Ash 612 Dahlia 318 Ash 628 Dahlia 337 Ash 636 Dahlia 351 Ash Tank 1 637 Dahlia Tank 1 351 Ash Tank 2 637 Dahlia Tank 2	271 Beech Tank 2	524 Laurel Bay
308 Ash 590 Aster 311 Ash 591 Aster 312 Ash 610 Dahlia 317 Ash 612 Dahlia 318 Ash 628 Dahlia 337 Ash 636 Dahlia 351 Ash Tank 1 637 Dahlia Tank 1 351 Ash Tank 2 637 Dahlia Tank 2	284 Birch Tank 1	535 Laurel Bay
311 Ash 591 Aster 312 Ash 610 Dahlia 317 Ash 612 Dahlia 318 Ash 628 Dahlia 337 Ash 636 Dahlia 351 Ash Tank 1 637 Dahlia Tank 1 351 Ash Tank 2 637 Dahlia Tank 2	284 Birch Tank 2	553 Dahlia
312 Ash 610 Dahlia 317 Ash 612 Dahlia 318 Ash 628 Dahlia 337 Ash 636 Dahlia 351 Ash Tank 1 637 Dahlia Tank 1 351 Ash Tank 2 637 Dahlia Tank 2	308 Ash	590 Aster
317 Ash 612 Dahlia 318 Ash 628 Dahlia 337 Ash 636 Dahlia 351 Ash Tank 1 637 Dahlia Tank 1 351 Ash Tank 2 637 Dahlia Tank 2	311 Ash	591 Aster
318 Ash 628 Dahlia 337 Ash 636 Dahlia 351 Ash Tank 1 637 Dahlia Tank 1 351 Ash Tank 2 637 Dahlia Tank 2	312 Ash	610 Dahlia
337 Ash 636 Dahlia 351 Ash Tank 1 637 Dahlia Tank 1 351 Ash Tank 2 637 Dahlia Tank 2	317 Ash	612 Dahlia
351 Ash Tank 1 637 Dahlia Tank 1 351 Ash Tank 2 637 Dahlia Tank 2	318 Ash	628 Dahlia
351 Ash Tank 2 637 Dahlia Tank 2	337 Ash	636 Dahlia
	351 Ash Tank 1	637 Dahlia Tank 1
	351 Ash Tank 2	637 Dahlia Tank 2
355 Ash Tank 2 642 Dahlia Tank 1		
360 Aspen 642 Dahlia Tank 2	360 Aspen	

Laurel Bay Underground Storage Tank Assessment Reports for: (153 addresses/161 tanks) cont.

655 Camellia	920 Albacore
662 Camellia	922 Barracuda Tank 1
683 Camellia	922 Barracuda Tank 2
684 Camellia	924 Albacore
689 Abelia	925 Albacore
694 Abelia	926 Albacore
695 Abelia	930 Albacore
741 Blue Bell	931 Albacore
742 Blue Bell	933 Albacore
755 Althea	936 Albacore
757 Althea	938 Albacore
776 Laurel Bay	939 Albacore
777 Azalea	940 Albacore
779 Laurel Bay	1010 Foxglove
781 Laurel Bay	1066 Gardenia
802 Azalea	1068 Gardenia
816 Azalea	1071 Heather Tank 2
822 Azalea	1100 Iris Tank 2
823 Azalea	1128 Iris
825 Azalea	1178 Bobwhite
828 Azalea	1204 Cardinal
837 Azalea	1208 Cardinal
851 Dolphin	1209 Cardinal
856 Dolphin	1210 Cardinal
857 Dolphin	1215 Cardinal
861 Dolphin	1216 Cardinal
864 Dolphin	1217 Cardinal Tank 1
868 Dolphin	1217 Cardinal Tank 2
872 Dolphin	1233 Dove
879 Cobia	1244 Dove
886 Cobia	1250 Dove
888 Cobia	1252 Dove
889 Cobia	1254 Dove
901 Barracuda	1256 Dove
902 Barracuda	1258 Dove
903 Barracuda	1263 Dove
904 Barracuda	1269 Dove
909 Barracuda	1276 Dove
910 Barracuda	1283 Dove
914 Barracuda	1285 Dove
915 Barracuda	1288 Eagle

Laurel Bay Underground Storage Tank Assessment Reports for: (153 addresses/161 tanks) cont.

1296 Eagle	1330 Albatross
1307 Eagle	1331 Albatross
1321 Albatross	1333 Albatross
1322 Albatross	1334 Albatross
1327 Albatross	1335 Albatross
1328 Albatross	