SUMMARY REPORT 208 ASH STREET (FORMERLY 321 ASH STREET) LAUREL BAY MILITARY HOUSING AREA MARINE CORPS AIR STATION BEAUFORT BEAUFORT, SC

> Revision: 0 Prepared for:

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

and



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

JUNE 2021

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Prepared by:



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

Contract Number: N62470-14-D-9016 CTO WE52 JUNE 2021



Summary Report 208 Ash Street (Formerly 321 Ash Street) Laurel Bay Military Housing Area, Marine Corps Air Station Beaufort June 2021

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List of Acronyms

bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, and xylenes
СТО	Contract Task Order
COPC	constituents of potential concern
ft	feet
IDIQ	Indefinite Delivery, Indefinite Quantity
IGWA	Initial Groundwater Assessment
JV	Joint Venture
LBMH	Laurel Bay Military Housing
MCAS	Marine Corps Air Station
NAVFAC Mid-Lant	Naval Facilities Engineering Command Mid-Atlantic
NFA	No Further Action
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 208 Ash Street (Formerly 321 Ash Street). 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 208 Ash Street (Formerly 321 Ash Street). Details regarding the soil investigation at this site are provided in the *SCDHEC UST Assessment Report – 321 Ash Street* (MCAS Beaufort, 2011). The UST Assessment Report is provided in Appendix B. Details regarding the IGWA sampling activities at this site are provided in the *Initial Groundwater Investigation Report – November and December 2015* (Resolution Consultants, 2016). The laboratory report that includes the pertinent IGWA analytical results for this site is presented in Appendix C.

2.1 UST Removal and Soil Sampling

On June 29, 2011, a single 280 gallon heating oil UST was removed from the front landscaped bed area adjacent to the driveway at 208 Ash Street (Formerly 321 Ash Street). The former UST location is indicated on Figures 2 and 3 of the UST Assessment Report (Appendix B). The UST was removed, cleaned, and shipped offsite for recycling. There was no visual evidence (i.e.,



staining or sheen) of petroleum impact at the time of the UST removal. According to the UST Assessment Report (Appendix B), the depth to the base of the UST was 6'0" 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 guidelines.

2.2 Soil Analytical Results

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

The soil sample results were submitted by MCAS Beaufort to SCDHEC utilizing SCDHEC's UST Assessment Report form (Appendix B). The results of the soil sampling at the former UST location were used by MCAS Beaufort, in consultation with SCDHEC, to determine a path forward (i.e., additional sampling or NFA) for the property. The soil results collected from 208 Ash Street (Formerly 321 Ash Street) were greater than the SCDHEC RBSLs, which indicated further investigation was required. In a letter dated July 1, 2015, SCDHEC requested an IGWA for 208 Ash Street (Formerly 321 Ash Street) to determine if the groundwater was impacted by petroleum COPCs. SCDHEC's request letter is provided in Appendix D.

2.3 Groundwater Sampling

On November 10, 2015, a temporary monitoring well was installed at 208 Ash Street (Formerly 321 Ash Street), in accordance with the South Carolina Well Standards and Regulations (R.61-71.H-I, updated June 24, 2016). In order to provide data that can be used to determine whether COPCs are migrating to underlying groundwater, the monitoring well was placed in the same general location as the former heating oil UST. The former UST location is indicated on Figures 2 and 3 of the UST Assessment Report (Appendix B). Further details are provided in the *Initial Groundwater Investigation Report – November and December 2015* (Resolution Consultants, 2016).



The sampling strategy for this phase of the investigation required a one-time sampling event of the temporarily installed monitoring well. Following well installation and development, groundwater samples were collected using low-flow methods and shipped to an offsite laboratory for analysis of the petroleum COPCs. Upon completion of groundwater sampling, the temporary well was abandoned in accordance with the South Carolina Well Standards and Regulations R.61-71 (SCDHEC, 2016). Field forms are provided in the *Initial Groundwater Investigation Report – November and December 2015* (Resolution Consultants, 2016).

2.4 Groundwater Analytical Results

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

The groundwater results collected from 208 Ash Street (Formerly 321 Ash Street) were less than the SCDHEC RBSLs and the site specific groundwater VISLs (Table 2), which indicated that the groundwater was not impacted by COPCs associated with the former UST at concentrations that present a potential risk to human health and the environment.

3.0 **PROPERTY STATUS**

Based on the analytical results for groundwater, SCDHEC made the determination that NFA was required for 208 Ash Street (Formerly 321 Ash Street). This NFA determination was obtained in a letter dated June 8, 2016. SCDHEC's NFA letter is provided in Appendix D.

4.0 **REFERENCES**

- Marine Corps Air Station Beaufort, 2011. *South Carolina Department of Health and Environmental Control (SCDHEC) Underground Storage Tank Assessment Report – 320 Ash Street, Laurel Bay Military Housing Area*, December 2011.
- Resolution Consultants, 2016. *Initial Groundwater Investigation Report November and December 2015 for Laurel Bay Military Housing Area, Multiple Properties, Laurel Bay Military Housing Area, Marine Corps Air Station Beaufort, Beaufort, South Carolina*, April 2016.



- South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2013. *Quality Assurance Program Plan for the Underground Storage Tank Management* Division, *Revision 2.0*, April 2013.
- South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2015. *Quality Assurance Program Plan for the Underground Storage Tank Management* Division, *Revision 3.0*, May 2015.
- South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2016. *Quality Assurance Program Plan for the Underground Storage Tank Management* Division, *Revision 3.1*, February 2016.
- South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2017. *R.61-92, Part 280, Underground Storage Tank Control Regulations,* March 2017.
- South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2018. *Underground Storage Tank Assessment Instructions for Permanent Closure and Change-In-Service*, March 2018.
- South Carolina Department of Health and Environmental Control Bureau of Water, 2016. *R.61-71, Well Standards*, June 2016.

Tables



Table 1Laboratory Analytical Results - Soil208 Ash Street (Formerly 321 Ash Street)Laurel Bay Military Housing AreaMarine Corps Air Station BeaufortBeaufort, South Carolina

Constituent	SCDHEC RBSLs ⁽¹⁾	Results Sample Collected 06/29/11				
Volatile Organic Compounds Analyzed by EPA Method 8260B (mg/kg)						
Benzene	0.003	ND				
Ethylbenzene	1.15	0.0620				
Naphthalene	0.036	4.12				
Toluene	0.627	ND				
Xylenes, Total	13.01	0.0283				
Semivolatile Organic Compounds Ana	alyzed by EPA Method 8270D (mg/kg)					
Benzo(a)anthracene	0.66	0.120				
Benzo(b)fluoranthene	0.66	0.0837				
Benzo(k)fluoranthene	0.66	0.0453				
Chrysene	0.66	0.128				
Dibenz(a,h)anthracene	0.66	ND				

Notes:

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

Bold font indicates the analyte was detected.

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

EPA - United States Environmental Protection Agency

mg/kg - milligrams per kilogram

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

RBSL - Risk-Based Screening Level

SCDHEC - South Carolina Department Of Health and Environmental Control

Table 2Laboratory Analytical Results - Groundwater208 Ash Street (Formerly 321 Ash Street)Laurel Bay Military Housing AreaMarine Corps Air Station BeaufortBeaufort, South Carolina

Constituent	SCDHEC RBSLs ⁽¹⁾	Site-Specific Groundwater VISLs (µg/L) ⁽²⁾	Results Sample Collected 11/10/15
Volatile Organic Compounds Analyzed	by EPA Method 8260B (µ	g/L)	
Benzene	5	16.24	ND
Ethylbenzene	700	45.95	0.33
Naphthalene	25	29.33	11
Toluene	1000	105,445	ND
Xylenes, Total	10,000	2,133	ND
Semivolatile Organic Compounds Ana	yzed by EPA Method 8270)D (µg/L)	
Benzo(a)anthracene	10	NA	0.98
Benzo(b)fluoranthene	10	NA	0.80
Benzo(k)fluoranthene	10	NA	0.23
Chrysene	10	NA	0.84
Dibenz(a,h)anthracene	10	NA	ND

Notes:

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

⁽²⁾ Site-specific groundwater VISLs were calculated using the EPA JE Model Spreadsheets (Version 3.1, February 2004) and conservative Bold font indicates the analyte was detected.

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

EPA - United States Environmental Protection Agency

JE - Johnson & Ettinger

NA - Not Applicable

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

RBSL - Risk-Based Screening Level

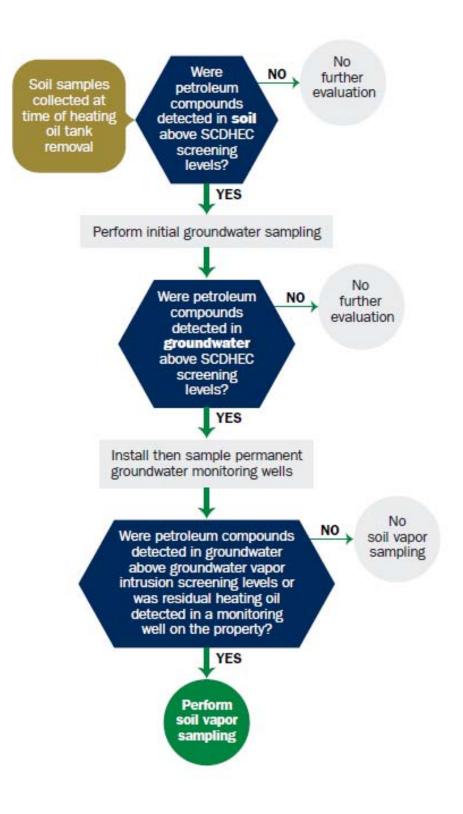
SCDHEC - South Carolina Department Of Health and Environmental Control

µg/L - micrograms per liter

VISL - Vapor Intrusion Screening Level

Appendix A Multi-Media Selection Process for LBMH





Appendix A - Multi-Media Selection Process for LBMH

Appendix B UST Assessment Report



Attachment 1

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

Date Received State Use Only		Submit Completed Form To: UST Program SCDHEC 2600 Bull Street Columbia, South Carolina 29201		
RECEIVED		Telephone (803) 896-7957		
DEC 0 8 2011				
SC DHEC - Bureau of Land & Waste Management				
	I. OWNERSHIP	OF UST (S)		
	a Officen Atta M	FAQ (Craig Ebde)		
MCAS Beaufort, Commandin Owner Name (Corporation, Individu				
Owner Name (Corporation, Individu P.O. Box 55001 Mailing Address Beaufort,		29904-5001		
Dwner Name (Corporation, Individu P.O. Box 55001 Mailing Address	ual, Public Agency, Other)			
Owner Name (Corporation, Individu P.O. Box 55001 Mailing Address Beaufort,	ual, Public Agency, Other) South Carolina	29904-5001		

II. SITE IDENTIFICATION AND LOCATION

Attachment 2

III. INSURANCE INFORMATION

Insurance Statement

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

Is there now, or has there ever been an insurance policy or other financial mechanism that covers this UST release? **YES NO** (check one)

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

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

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

IV. REQUEST FOR SUPERB FUNDING

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

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

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

Name (Type or print.)

Signature

To be completed by Notary Public:

Sworn before me this _____ day of _____, 20____

(Name)

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

VI. UST INFORMATION

	VI. UST INFORMATION	321Ash
A.	Product(ex. Gas, Kerosene)	Heating oil
B.	Capacity(ex. 1k, 2k)	280 gal
C.	Age	Late 1950s
D.	Construction Material(ex. Steel, FRP)	Steel
Е·	Month/Year of Last Use	Mid 1980s
F.	Depth (ft.) To Base of Tank	6'
G.	Spill Prevention Equipment Y/N	No
H∙	Overfill Prevention Equipment Y/N	No
I.	Method of Closure Removed/Filled	Removed
J _.	Date Tanks Removed/Filled	6/29/11
K.	Visible Corrosion or Pitting Y/N	Yes
L.	Visible Holes Y/N	Yes

M. Method of disposal for any USTs removed from the ground (attach disposal manifests) UST 321Ash was removed from the ground, cleaned and recycled. See Attachment "A."

N. Method of disposal for any liquid petroleum, sludges, or wastewaters removed from the USTs (attach disposal manifests)
 Contaminated water was pumped from UST 321Ash and disposed by MCAS.

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

VII. PIPING INFORMATION

	321Ash
	Steel
Construction Material(ex. Steel, FRP)	& Copper
Distance from UST to Dispenser	N/A
Number of Dispensers	N/A
Type of System Pressure or Suction	Suction
Was Piping Removed from the Ground? Y/N	No
Visible Corrosion or Pitting Y/N	Yes
Visible Holes Y/N	No
Age	Late 1950s
-	scribe the location and extent for each piping run.
	Distance from UST to Dispenser Number of Dispensers Type of System Pressure or Suction Was Piping Removed from the Ground? Y/N Visible Corrosion or Pitting Y/N

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

VIII. BRIEF SITE DESCRIPTION AND HISTORY

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

	Yes	No	Unk
 A. Were any petroleum-stained or contaminated soils found in the UST excavation, soil borings, trenches, or monitoring wells? If yes, indicate depth and location on the site map. 		Х	
 B. Were any petroleum odors detected in the excavation, soil borings, trenches, or monitoring wells? If yes, indicate location on site map and describe the odor (strong, mild, etc.) 		X	
C. Was water present in the UST excavation, soil borings, or trenches? If yes, how far below land surface (indicate location and depth)?		X	
 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: 		x	
E. Was a petroleum sheen or free product detected on any excavation or boring waters?If yes, indicate location and thickness.		x	

IX. SITE CONDITIONS

X. SAMPLE INFORMATION

A. SCDHEC Lab Certification Number _____84009

В.

». I				7	7	1	r
Sample #	Location	Sample Type (Soil/Water)	Soil Type (Sand/Clay)	Depth*	Date/Time of Collection	Collected by	OVA #
321Ash	Excav at fill end	Soil	Sandy	6'	6/29/11 1245 hrs	P. Shaw	
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

* = Depth Below the Surrounding Land Surface

XI. SAMPLING METHODOLOGY

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

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

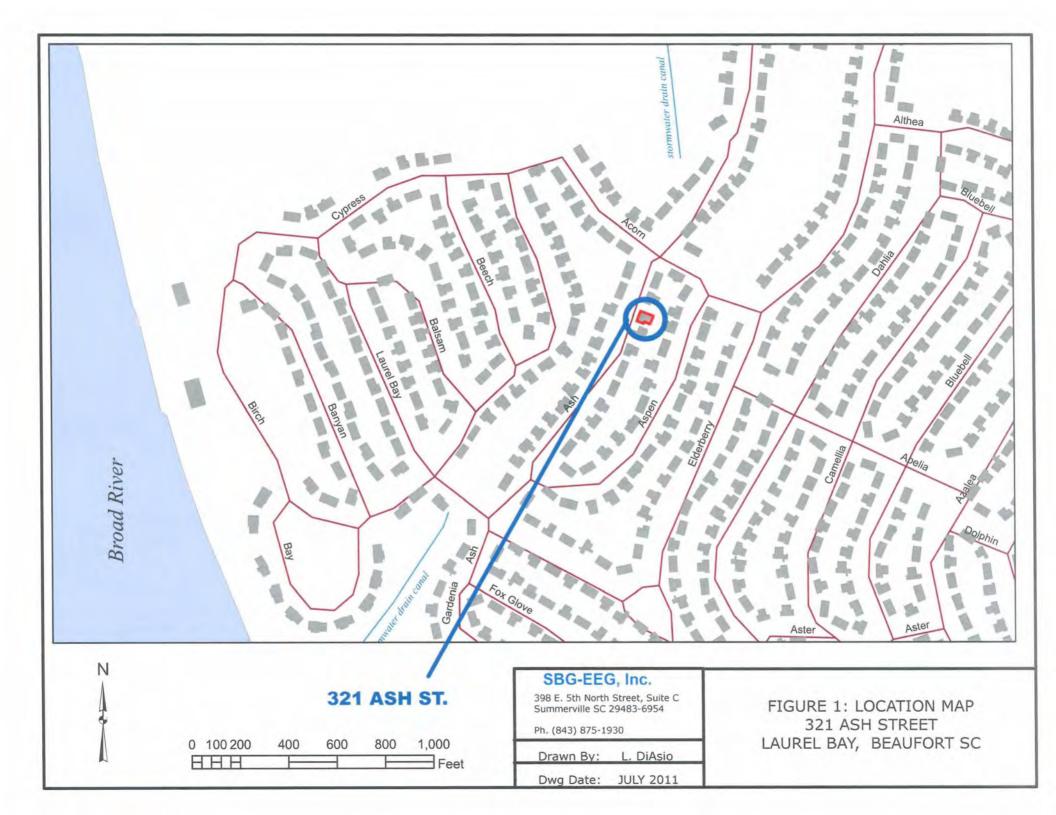
XII. RECEPTORS

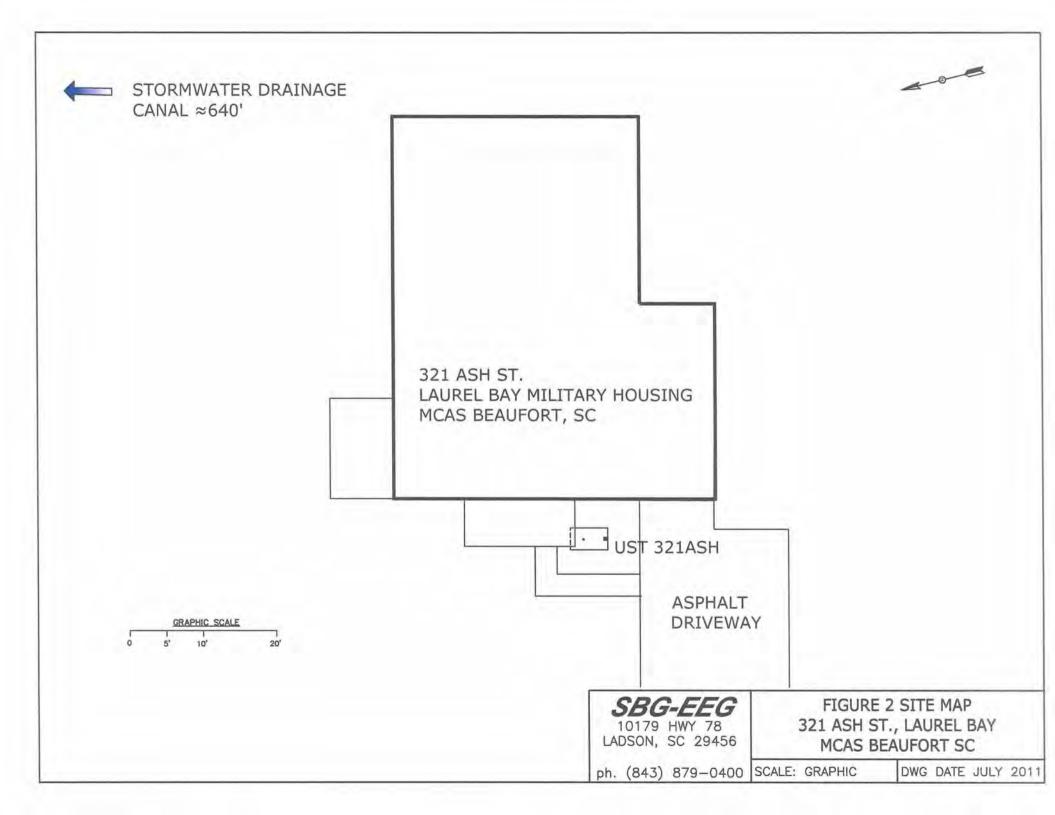
P		Yes	No
A.	Are there any lakes, ponds, streams, or wetlands located within 1000 feet of the UST system?	*X	
	*~640' to stormwater car	lal	
	If yes, indicate type of receptor, distance, and direction on site map.		
B.	Are there any public, private, or irrigation water supply wells within 1000 feet of the UST system?		Х
	If yes, indicate type of well, distance, and direction on site map.		
C.	Are there any underground structures (e.g., basements) Located within 100 feet of the UST system?		Х
	If yes, indicate type of structure, distance, and direction on site map.		
D.	Are there any underground utilities (e.g., telephone, electricity, gas, water, sewer, storm drain) located within 100 feet of the UST system that could potentially come in contact with the	*X	
	contamination? *Sewer, water, electri	-	
	cable & fiber o If yes, indicate the type of utility, distance, and direction on the site map.	ptic	
E.	Has contaminated soil been identified at a depth less than 3 feet below land surface in an area that is not capped by asphalt or concrete?		Х
	If yes, indicate the area of contaminated soil on the site map.		

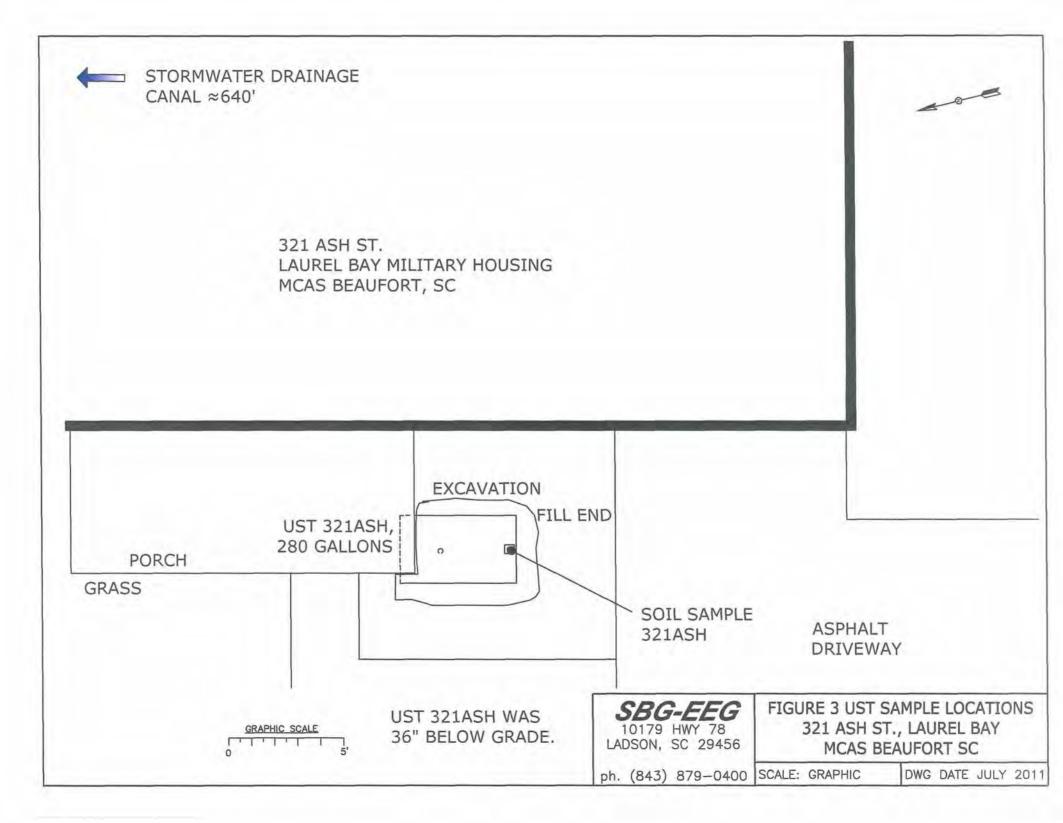
XIII. SITE MAP

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

(Attach Site Map Here)









Picture 1: Location of UST 321Ash.



Picture 2: UST 321Ash.

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	321Ash					
Benzene	ND					
Toluene	ND	1				
Ethylbenzene	0.0620 mg/kg	3	:	1		
Xylenes	0.0283 mg/kg	3				
Naphthalene	4.12 mg/kg					
Benzo (a) anthracene	0.120 mg/kg					
Benzo (b) fluoranthene	0.0837 mg/kg					
Benzo (k) fluoranthene	0.0453 mg/kg	J				
Chrysene	0.128 mg/kg					
Dibenz (a, h) anthracene	ND					
TPH (EPA 3550)						
		·····				
CoC						
Benzene						
Toluene						
Ethylbenzene						
Xylenes						
Naphthalene						
Benzo (a) anthracene						
Benzo (b) fluoranthene						
Benzo (k) fluoranthene						
Chrysene						
Dibenz (a, h) anthracene						

TPH (EPA 3550)

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

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

XV. ANALYTICAL RESULTS

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

(Attach Certified Analytical Results and Chain-of-Custody Here) (Please see Form #4) THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Nashville 2960 Foster Creighton Road Nashville, TN 37204 Tel: 800-765-0980

TestAmerica Job ID: NUG0346

Client Project/Site: [none] Client Project Description: Laurel Bay Housing Project

For:

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Expert

EEG - Small Business Group, Inc. (2449) 10179 Highway 78 Ladson, SC 29456

Attn: Tom McElwee

Vin Sa Hay

Authorized for release by: 07/19/2011 02:28:15 PM

Ken A. Hayes Senior Project Manager ken.hayes@testamericainc.com

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.

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Sample Summary

Client: EEG - Small Business Group, Inc. (2449) Project/Site: [none]

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
NUG0346-01	308 Ash	Soil	06/27/11 13:15	07/02/11 08:30
NUG0346-02	318 Ash	Soil	06/28/11 12:15	07/02/11 08:30
NUG0346-03	321 Ash	Soil	06/29/11 12:45	07/02/11 08:30
NUG0346-04	747 Bluebell	Soil	06/30/11 11:15	07/02/11 08:30

Qualifiers

RE, RE1 (etc.)

%R

acuanticio	
GCMS Volati	les
Qualifier	Qualifier Description
J	Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL).
	Concentrations within this range are estimated.
ZX	Due to sample matrix effects, the surrogate recovery was outside the acceptance limits.
GCMS Semiv	olatiles
Qualifier	Qualifier Description
J	Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). Concentrations within this range are estimated.
Glossary	
Abbreviation	These commonly used abbreviations may or may not be present in this report.
à	Listed under the "D" column to designate that the result is reported on a dry weight basis.
EPA	United States Environmental Protection Agency
ND	Not Detected above the reporting level.
MDL	Method Detection Limit
RL	Reporting Limit

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

Indicates a Re-extraction or Reanalysis of the sample.

Percent Recovery

Client Sample ID: 308 Ash

Date Collected: 06/27/11 13:15

Date Received: 07/02/11 08:30

Lab Sample ID: NUG0346-01 Matrix: Soil Percent Solids: 77.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00238	0.00131	mg/kg dry	Q	06/27/11 13:15	07/06/11 18:21	1.00
Ethylbenzene	ND		0.00238	0.00117	mg/kg dry	×	06/27/11 13:15	07/06/11 18:21	1.00
Naphthalene	0.0104		0.00595	0.00202	mg/kg dry	\$	06/27/11 13:15	07/06/11 18:21	1.00
Toluene	ND		0.00238	0.00106	mg/kg dry	^o	06/27/11 13:15	07/06/11 18:21	1.00
Xylenes, total	ND		0.00595	0.00226	mg/kg dry	\$	06/27/11 13:15	07/06/11 18:21	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	92		67 - 138				06/27/11 13:15	07/06/11 18:21	1.00
Dibromofluoromethane	99		75-125				06/27/11 13:15	07/06/11 18:21	1.00
Toluene-d8	96		76 - 129				06/27/11 13:15	07/06/11 18:21	1.00
4-Bromofluorobenzene	100		67 - 147				06/27/11 13:15	07/06/11 18:21	1.00

Method: SW846 8270D - Polyaromatic Hydrocarbons by EPA 8270D

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND	-	0.0843	0.0176	mg/kg dry	\$	07/05/11 13:00	07/06/11 06:31	1,00
Acenaphthylene	ND		0.0843	0.0252	mg/kg dry	\$	07/05/11 13:00	07/06/11 06:31	1.00
Anthracene	ND		0.0843	0.0113	mg/kg dry	0	07/05/11 13:00	07/06/11 06:31	1.00
Benzo (a) anthracene	ND		0.0843	0.0138	mg/kg dry	\$	07/05/11 13:00	07/06/11 06:31	1.00
Benzo (a) pyrene	ND		0.0843	0.0101	mg/kg dry	0	07/05/11 13:00	07/06/11 06:31	1.00
Benzo (b) fluoranthene	ND		0.0843	0.0478	mg/kg dry	Ťŕ	07/05/11 13:00	07/06/11 06:31	1.00
Benzo (g,h,i) perylene	ND		0.0843	0.0113	mg/kg dry	15	07/05/11 13:00	07/06/11 06:31	1.00
Benzo (k) fluoranthene	ND		0.0843	0.0466	mg/kg dry	¢,	07/05/11 13:00	07/06/11 06:31	1.00
Chrysene	ND		0.0843	0.0390	mg/kg dry	¢	07/05/11 13:00	07/06/11 06:31	1.00
Dibenz (a,h) anthracene	ND		0.0843	0.0189	mg/kg dry	ø	07/05/11 13:00	07/06/11 06:31	1.00
Fluoranthene	ND		0.0843	0.0138	mg/kg dry	12	07/05/11 13:00	07/06/11 06:31	1,00
Fluorene	ND		0.0843	0.0252	mg/kg dry	\$	07/05/11 13:00	07/06/11 06:31	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0843	0.0390	mg/kg dry	ø	07/05/11 13:00	07/06/11 06:31	1.00
Naphthalene	ND		0.0843	0.0176	mg/kg dry	÷	07/05/11 13:00	07/06/11 06:31	1.00
Phenanthrene	ND		0.0843	0.0126	mg/kg dry	Ċ.	07/05/11 13:00	07/06/11 06:31	1.00
Pyrene	ND		0.0843	0.0289	mg/kg dry	¢	07/05/11 13:00	07/06/11 06:31	1.00
1-Methylnaphthalene	ND		0.0843	0.0151	mg/kg dry	ø	07/05/11 13:00	07/06/11 06:31	1.00
2-Methylnaphthalene	ND		0.0843	0.0264	mg/kg dry	Q.	07/05/11 13:00	07/06/11 06:31	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Terphenyl-d14	76		18 - 120				07/05/11 13:00	07/06/11 06:31	1.00
2-Fluorobiphenyl	56		14 - 120				07/05/11 13:00	07/06/11 06:31	1.00
Nitrobenzene-d5	53		17 - 120				07/05/11 13:00	07/06/11 06:31	1.00
Method: SW-846 - General C	Chemistry Paramete	rs							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Dry Solids	77.8		0.500	0.500	%		07/13/11 15:38	07/14/11 12:26	1.00

Client Sample ID: 318 Ash

Date Collected: 06/28/11 12:15 Date Received: 07/02/11 08:30

Lab Sample ID: NUG0346-02 Matrix: Soil Percent Solids: 83.9

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00203	0.00112	mg/kg dry	Q.	06/28/11 12:15	07/06/11 18:53	1.00
Ethylbenzene	0.0132		0.00203	0.000994	mg/kg dry	0	06/28/11 12:15	07/06/11 18:53	1.00
Naphthalene	0.0140		0.00507	0.00172	mg/kg dry	12	06/28/11 12:15	07/06/11 18:53	1.00
Toluene	0.00122	J	0.00203	0.000902	mg/kg dry	\$	06/28/11 12:15	07/06/11 18:53	1.00
Xylenes, total	0.0120		0.00507	0.00193	mg/kg dry	ġ.	06/28/11 12:15	07/06/11 18:53	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	84		67 - 138				06/28/11 12:15	07/06/11 18:53	1.00
Dibromofluoromethane	92		75 - 125				06/28/11 12:15	07/06/11 18:53	1.00
Toluene-d8	112		76 - 129				06/28/11 12:15	07/06/11 18:53	1.00
4-Bromofluorobenzene	328	ZX	67 - 147				06/28/11 12:15	07/06/11 18:53	1.00

Method: SW846 8270D - Polyaromatic Hydrocarbons by EPA 8270D

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0794	0.0166	mg/kg dry	4	07/05/11 13:00	07/06/11 06:51	1.00
Acenaphthylene	ND		0,0794	0.0237	mg/kg dry	12	07/05/11 13:00	07/06/11 06:51	1.00
Anthracene	0.421		0.0794	0.0107	mg/kg dry	0	07/05/11 13:00	07/06/11 06:51	1.00
Benzo (a) anthracene	0.0581	J	0.0794	0.0130	mg/kg dry	0	07/05/11 13:00	07/06/11 06:51	1.00
Benzo (a) pyrene	ND		0.0794	0.00948	mg/kg dry	\$3	07/05/11 13:00	07/06/11 06:51	1.00
Benzo (b) fluoranthene	ND		0.0794	0.0450	mg/kg dry	3,5	07/05/11 13:00	07/06/11 06:51	1.00
Benzo (g,h,i) perylene	ND		0.0794	0.0107	mg/kg dry	10	07/05/11 13:00	07/06/11 06:51	1.00
Benzo (k) fluoranthene	ND		0.0794	0.0439	mg/kg dry		07/05/11 13:00	07/06/11 06:51	1.00
Chrysene	0.0834		0.0794	0.0367	mg/kg dry	23	07/05/11 13:00	07/06/11 06:51	1.00
Dibenz (a,h) anthracene	ND		0.0794	0.0178	mg/kg dry	0	07/05/11 13:00	07/06/11 06:51	1.00
Fluoranthene	0.181		0.0794	0.0130	mg/kg dry	-13	07/05/11 13:00	07/06/11 06:51	1.00
Fluorene	1.41		0.0794	0.0237	mg/kg dry	-	07/05/11 13:00	07/06/11 06:51	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0794	0.0367	mg/kg dry	\$	07/05/11 13:00	07/06/11 06:51	1.00
Naphthalene	0.157		0.0794	0.0166	mg/kg dry	\$	07/05/11 13:00	07/06/11 06:51	1.00
Phenanthrene	3.46		0.0794	0.0119	mg/kg dry	32	07/05/11 13:00	07/06/11 06:51	1,00
Pyrene	0.449		0.0794	0.0273	mg/kg dry	¢	07/05/11 13:00	07/06/11 06:51	1.00
1-Methylnaphthalene	0.707		0.0794	0.0142	mg/kg dry	¢	07/05/11 13:00	07/06/11 06:51	1.00
2-Methylnaphthalene	0.810		0.0794	0.0249	mg/kg dry	¢	07/05/11 13:00	07/06/11 06:51	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Terphenyl-d14	87		18 - 120				07/05/11 13:00	07/06/11 06:51	1.00
2-Fluorobiphenyl	57		14 - 120				07/05/11 13:00	07/06/11 06:51	1.00
Nitrobenzene-d5	54		17 - 120				07/05/11 13:00	07/06/11 06:51	1.00
Method: SW-846 - General C	hemistry Paramete	rs							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Dry Solids	83.9		0.500	0,500	%		07/13/11 15:38	07/14/11 12:26	1.00

Client Sample ID: 321 Ash

Date Collected: 06/29/11 12:45 Date Received: 07/02/11 08:30

Lab Sample ID: NUG0346-03 Matrix: Soil Percent Solids: 79.8

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00243	0.00134	mg/kg dry	ō.	06/29/11 12:45	07/06/11 19:25	1,00
Ethylbenzene	0.0620		0,00243	0.00119	mg/kg dry	\$	06/29/11 12:45	07/06/11 19:25	1.00
Toluene	ND		0.00243	0.00108	mg/kg dry	ø	06/29/11 12:45	07/06/11 19:25	1.00
Xylenes, total	0.0283		0.00608	0.00231	mg/kg dry	Q.	06/29/11 12:45	07/06/11 19:25	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	75		67 - 138				06/29/11 12:45	07/06/11 19:25	1.00
Dibromofluoromethane	78		75 - 125				06/29/11 12:45	07/06/11 19:25	1.00
Toluene-d8	130	ZX	76 - 129				06/29/11 12:45	07/06/11 19:25	1.00
4-Bromofluorobenzene	574	ZX	67 - 147				06/29/11 12:45	07/06/11 19:25	1.00

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	4.12		0.317	0.108	mg/kg dry	\$	06/29/11 12:45	07/12/11 15:42	50.0
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	119		67 - 138				06/29/11 12:45	07/12/11 15:42	50.0
Dibromofluoromethane	95		75 - 125				06/29/11 12:45	07/12/11 15:42	50.0
Toluene-d8	99		76 - 129				06/29/11 12:45	07/12/11 15:42	50.0
4-Bromofluorobenzene	106		67 - 147				06/29/11 12:45	07/12/11 15:42	50.0

Method: SW846 8270D - Polyaromatic Hydrocarbons by EPA 8270D

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.406		0.0820	0.0171	mg/kg dry	ō	07/05/11 13:00	07/06/11 07:11	1.00
Acenaphthylene	ND		0.0820	0.0245	mg/kg dry	\$2	07/05/11 13:00	07/06/11 07:11	1.00
Anthracene	0.213		0.0820	0.0110	mg/kg dry	ø	07/05/11 13:00	07/06/11 07:11	1.00
Benzo (a) anthracene	0.120		0.0820	0.0135	mg/kg dry	Ŏ.	07/05/11 13:00	07/06/11 07:11	1.00
Benzo (a) pyrene	0.0579	J	0.0820	0.00979	mg/kg dry	Ċ.	07/05/11 13:00	07/06/11 07:11	1.00
Benzo (b) fluoranthene	0.0837		0.0820	0.0465	mg/kg dry	Ø.	07/05/11 13:00	07/06/11 07:11	1.00
Benzo (g,h,i) perylene	ND		0.0820	0.0110	mg/kg dry	-355	07/05/11 13:00	07/06/11 07:11	1.00
Benzo (k) fluoranthene	0.0453	J	0.0820	0.0453	mg/kg dry	-12	07/05/11 13:00	07/06/11 07:11	1.00
Chrysene	0.128		0.0820	0.0380	mg/kg dry	0	07/05/11 13:00	07/06/11 07:11	1.00
Dibenz (a,h) anthracene	ND		0.0820	0.0184	mg/kg dry	45	07/05/11 13:00	07/06/11 07:11	1.00
Fluoranthene	0.311		0.0820	0.0135	mg/kg dry	\diamond	07/05/11 13:00	07/06/11 07:11	1.00
Fluorene	1.33		0.0820	0.0245	mg/kg dry	Ó	07/05/11 13:00	07/06/11 07:11	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0820	0.0380	mg/kg dry	0	07/05/11 13:00	07/06/11 07:11	1.00
Naphthalene	0.670		0.0820	0.0171	mg/kg dry	0	07/05/11 13:00	07/06/11 07:11	1.00
Phenanthrene	3.17		0.0820	0.0122	mg/kg dry	\approx	07/05/11 13:00	07/06/11 07:11	1.00
Pyrene	0.468		0.0820	0.0282	mg/kg dry	\$	07/05/11 13:00	07/06/11 07:11	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Terphenyl-d14	93		18 - 120				07/05/11 13:00	07/06/11 07:11	1.00
2-Fluorobiphenyl	55		14 - 120				07/05/11 13:00	07/06/11 07:11	1.00

Method: SW846 8270D - Polyaromatic Hydrocarbons by EPA 8270D - RE1

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Nitrobenzene-d5

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	4.21		0.410	0.0735	mg/kg dry	4	07/05/11 13:00	07/06/11 10:53	5.00
2-Methylnaphthalene	8.14		0.410	0.129	mg/kg dry	4	07/05/11 13:00	07/06/11 10:53	5.00

17-120

07/06/11 07:11

1.00

07/05/11 13:00

Client Sample ID: 321 Ash

Date	conected:	06/29/11	12.40	
Date	Received:	07/02/11	08:30	

Lab Sample ID: NUG0346-03 Matrix: Soil Percent Solids: 79.8

Method: SW-846 - General	Chemistry Paramete	rs							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Dry Solids	79.8		0.500	0.500	%		07/13/11 15:38	07/14/11 12:26	1.00

Client Sample ID: 747 Bluebell

Date Collected: 06/30/11 11:15 Date Received: 07/02/11 08:30

Lab Sample ID: NUG0346-04 Matrix: Soil Percent Solids: 75.3

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00218	0.00120	mg/kg dry	th	06/30/11 11:15	07/06/11 19:57	1.00
Toluene	0.00178	J	0.00218	0.000972	mg/kg dry	¢	06/30/11 11:15	07/06/11 19:57	1.00
Xylenes, total	0.137		0.00546	0.00208	mg/kg dry	0	06/30/11 11:15	07/06/11 19:57	1.00
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	80		67 - 138				06/30/11 11:15	07/06/11 19:57	1.00
Dibromofluoromethane	85		75-125				06/30/11 11:15	07/06/11 19:57	1.00
Toluene-d8	150	ZX	76 - 129				06/30/11 11:15	07/06/11 19:57	1.00
4-Bromofluorobenzene	260	ZX	67 - 147				06/30/11 11:15	07/06/11 19:57	1.00

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	0.409		0.113	0.0552	mg/kg dry		06/30/11 11:15	07/12/11 15:14	50.0
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	122		67 - 138				06/30/11 11:15	07/12/11 15:14	50.0
Dibromofluoromethane	95		75 - 125				06/30/11 11:15	07/12/11 15:14	50.0
Toluene-d8	98		76 - 129				06/30/11 11:15	07/12/11 15:14	50.0
4-Bromofluorobenzene	109		67 - 147				06/30/11 11:15	07/12/11 15:14	50.0

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B - RE2

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	11.7		0,563	0.191	mg/kg dry	õ	06/30/11 11:15	07/14/11 01:25	100
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	106		67 - 138				06/30/11 11:15	07/14/11 01:25	100
Dibromofluoromethane	94		75 - 125				06/30/11 11:15	07/14/11 01:25	100
Toluene-d8	67	ZX	76 - 129				06/30/11 11:15	07/14/11 01:25	100
4-Bromofluorobenzene	107		67 - 147				06/30/11 11:15	07/14/11 01:25	100

Method: SW846 8270D - Polyaromatic Hydrocarbons by EPA 8270D - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	1.93		0.869	0.182	mg/kg dry	\$	07/05/11 13:00	07/06/11 11:13	10.0
Acenaphthylene	1.07		0.869	0.259	mg/kg dry	0	07/05/11 13:00	07/06/11 11:13	10.0
Anthracene	0.847	J	0.869	0.117	mg/kg dry	\$	07/05/11 13:00	07/06/11 11:13	10.0
Benzo (a) anthracene	ND		0.869	0,143	mg/kg dry	0	07/05/11 13:00	07/06/11 11 13	10.0
Benzo (a) pyrene	ND		0.869	0.104	mg/kg dry	<u>1</u>	07/05/11 13:00	07/06/11 11:13	10.0
Benzo (b) fluoranthene	ND		0.869	0.493	mg/kg dry	0	07/05/11 13:00	07/06/11 11:13	10.0
Benzo (g,h,i) perylene	ND		0.869	0.117	mg/kg dry	Ó	07/05/11 13:00	07/06/11 11:13	10.0
Benzo (k) fluoranthene	ND		0.869	0.480	mg/kg dry	ø	07/05/11 13:00	07/06/11 11:13	10.0
Chrysene	ND		0.869	0.402	mg/kg dry	0	07/05/11 13:00	07/06/11 11:13	10.0
Dibenz (a,h) anthracene	ND		0.869	0.195	mg/kg dry	Q.	07/05/11 13:00	07/06/11 11:13	10.0
Fluoranthene	ND		0.869	0.143	mg/kg dry	<>	07/05/11 13:00	07/06/11 11:13	10.0
Fluorene	6.52		0,869	0.259	mg/kg dry	5	07/05/11 13:00	07/06/11 11:13	10.0
Indeno (1,2,3-cd) pyrene	ND		0.869	0.402	mg/kg dry	Q	07/05/11 13:00	07/06/11 11:13	10.0
Naphthalene	8.48		0.869	0.182	mg/kg dry	ø	07/05/11 13:00	07/06/11 11:13	10.0
Phenanthrene	10.8		0.869	0.130	mg/kg dry	Ð	07/05/11 13:00	07/06/11 11:13	10.0
Pyrene	0.636	J	0.869	0.298	mg/kg dry	0	07/05/11 13:00	07/06/11 11:13	10.0
1-Methylnaphthalene	27.1		0.869	0.156	mg/kg dry	0	07/05/11 13:00	07/06/11 11:13	10.0

Client Sample ID: 747 Bluebell

Date Collected: 06/30/11 11:15 Date Received: 07/02/11 08:30

Lab Sample ID: NUG0346-04 Matrix: Soil Percent Solids: 75.3

Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Terphenyl-d14	88		18 - 120				07/05/11 13:00	07/06/11 11:13	10.0
2-Fluorobiphenyl	63		14 - 120				07/05/11 13:00	07/06/11 11:13	10.0
Nitrobenzene-d5	100		17 - 120				07/05/11 13:00	07/06/11 11:13	10.0
Method: SW846 8270D - Po	lyaromatic Hydroca	rbons by El	PA 8270D - RE2						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	48.5		1.74	0 545	ma/ka dry	t)r	07/05/11 13:00	07/06/11 12:01	
a monty maprendicite	40.0		674	0,545	ing/ig ury		0,,00,1,,,00	0//00/11 12.01	20.0
Method: SW-846 - General		rs		0,040	inging dry			07/00/11 12:01	20.0
	Chemistry Paramete	rs Qualifier	RL	MDL		D	Prepared	Analyzed	20.0 Dil Fac
Method: SW-846 - General	Chemistry Paramete				Unit	D			

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B

Lab Sample ID: 11G0464-BLK1							Client Sa	ample ID: Metho	d Blank
Matrix: Soil								Prep Typ	e: Total
Analysis Batch: U012052							14	Prep Batch: 110	0464 P
	Blank	Blank							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00200	0.00110	mg/kg wet		07/06/11 11:37	07/06/11 14:36	1.00
Ethylbenzene	ND		0.00200	0.000980	mg/kg wet		07/06/11 11:37	07/06/11 14:36	1.00
Naphthalene	ND		0.00500	0.00170	mg/kg wet		07/06/11 11:37	07/06/11 14:36	1.00
Toluene	ND		0.00200	0.000890	mg/kg wet		07/06/11 11:37	07/06/11 14:36	1.00
Xylenes, total	ND		0.00500	0,00190	mg/kg wet		07/06/11 11:37	07/06/11 14:36	1.00
	Blank	Blank							
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	93		67 - 138				07/06/11 11:37	07/06/11 14:36	1.00
Dibromofluoromethane	102		75 - 125				07/06/11 11:37	07/06/11 14:36	1.00
Toluene-d8	93		76 - 129				07/06/11 11:37	07/06/11 14:36	1.00
4-Bromofluorobenzene	98		67 - 147				07/06/11 11:37	07/06/11 14:36	1.00

Lab Sample ID: 11G0464-BS1 Matrix: Soil

Analysis Batch: U012052

	Spike	LCS	LCS				% Rec.
Analyte	Added	Result	Qualifier	Unit	D	% Rec	Limits
Benzene	50.0	53.6		ug/kg		107	78 - 126
Ethylbenzene	50.0	57.4		ug/kg		115	79 - 130
Naphthalene	50.0	43.6		ug/kg		87	72 - 150
Toluene	50.0	56.2		ug/kg		112	76 - 126
Xylenes, total	150	177		ug/kg		118	80 - 130
10	5 105						

LUS	LUS	
% Recovery	Qualifier	Limits
86		67 - 138
98		75 - 125
94		76 - 129
88		67 - 147
	% Recovery 86 98 94	86 98 94

Lab Sample ID: 11G0464-BSD1 Matrix: Soil

Analusia Potabi 1012052

Analysis Batch: U012052						F	rep Batch	: 11G0	464_P
and the second second	Spike	LCS Dup	LCS Dup				% Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	% Rec	Limits	RPD	Limit
Benzene	50,0	52,0		ug/kg		104	78 - 126	3	50
Ethylbenzene	50.0	57.2		ug/kg		114	79 - 130	0.5	50
Naphthalene	50.0	43.2		ug/kg		86	72 - 150	1	50
Toluene	50.0	56.1		ug/kg		112	76 - 126	0.2	50
Xylenes, total	150	176		ug/kg		117	80 - 130	1	50

	LCS Dup	LCS Dup	
Surrogate	% Recovery	Qualifier	Limits
1,2-Dichloroethane-d4	82		67 - 138
Dibromofluoromethane	93		75 - 125
Toluene-d8	95		76 - 129
4-Bromofluorobenzene	90		67 - 147

Client Sample ID: Lab Control Sample

Prep Type: Total Prep Batch: 11G0464_P

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

114	79 - 130	0.5	50	
86	72 - 150	1	50	
112	76 - 126	0.2	50	
117	80 - 130	1	50	

QC Sample Results

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Lab Sample ID: 11G0464-MS1 Matrix: Soil									Sample ID: Matrix Spike Prep Type: Total
Analysis Batch: U012052	20000	Same	1.00			2		1	Prep Batch: 11G0464_P
		Sample	Spike	Matrix Spike					% Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	% Rec	Limits
Benzene	ND		0.0595	0.0539		mg/kg dry	0	91	42 - 141
Ethylbenzene	ND		0.0595	0.0519		mg/kg dry	0	87	21 - 165
Naphthalene	ND		0.0595	0.0126		mg/kg dry	0	21	10 - 160
Toluene	ND		0.0595	0.0546		mg/kg dry	0	92	45 - 145
Xylenes, total	ND		0.178	0.147		mg/kg dry	4	82	31 - 159
	Matrix Spike	Matrix Spike							
Surrogate	% Recovery	Qualifier	Limits						
1.2-Dichloroethane-d4	84		67 - 138						
Dibromofluoromethane	92		75 - 125						
Toluene-d8	99		76 - 129						
4-Bromofluorobenzene	98		67 - 147						

Lab Sample ID: 11G0464-MSD1 Matrix: Soil

Analysis Batch: U012052

	Sample	Sample	Spike	Matrix Spike Dup	Matrix Spil	ke Dur			% Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	% Rec	Limits	RPD	Limit
Benzene	ND		0.0595	0.0693		mg/kg dry		116	42 - 141	25	50
Ethylbenzene	ND		0.0595	0.0654		mg/kg dry	-01	110	21 - 165	23	50
Naphthalene	ND		0.0595	0.0156		mg/kg dry	0	26	10 - 160	21	50
Toluene	ND		0.0595	0.0685		mg/kg dry	0	115	45 - 145	23	50
Xylenes, total	ND		0.178	0.187		mg/kg dry	0	105	31 . 159	24	50

	Matrix Spike Dup	Matrix Spike	e Dup
Surrogate	% Recovery	Qualifier	Limits
1,2-Dichloroethane-d4	95		67 - 138
Dibromofluoromethane	108		75 - 125
Toluene-d8	107		76 - 129
4-Bromofluorobenzene	98		67 - 147

Lab Sample ID: 11G1211-BLK1 Matrix: Soil

Analysis Batch: U012543

Client Sample ID: Method Blank

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total

Prep Batch: 11G0464_P

Prep Type: Total Prep Batch: 11G1211_P

	Blank	Blank							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00200	0.00110	mg/kg wet		07/07/11 12:07	07/12/11 14:17	1.00
Ethylbenzene	ND		0.00200	0.000980	mg/kg wet		07/07/11 12:07	07/12/11 14:17	1.00
Naphthalene	ND		0.00500	0.00170	mg/kg wet		07/07/11 12:07	07/12/11 14:17	1.00
Toluene	ND		0.00200	0.000890	mg/kg wet		07/07/11 12:07	07/12/11 14:17	1.00
Xylenes, total	ND		0.00500	0.00190	mg/kg wet		07/07/11 12:07	07/12/11 14:17	1.00
	Blank	Blank							
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	122		67 - 138				07/07/11 12:07	07/12/11 14:17	1.00
Dibromofluoromethane	104		75 - 125				07/07/11 12:07	07/12/11 14:17	1.00
Toluene-d8	100		76 - 129				07/07/11 12:07	07/12/11 14:17	1.00
4-Bromofluorobenzene	103		67 - 147				07/07/11 12:07	07/12/11 14:17	1.00

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Lab Sample ID: 11G1211-BLK2							Client Sa	mple ID: Metho	d Blank
Matrix: Soil								Prep Typ	e: Total
Analysis Batch: U012543							F	Prep Batch: 110	51211_P
	Blank	Blank							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.100	0.0550	mg/kg wet		07/07/11 12:07	07/12/11 14:45	50.0
Ethylbenzene	ND		0.100	0.0490	mg/kg wet		07/07/11 12:07	07/12/11 14:45	50.0
Naphthalene	ND		0.250	0.0850	mg/kg wet		07/07/11 12:07	07/12/11 14:45	50.0
Toluene	ND		0.100	0.0445	mg/kg wet		07/07/11 12:07	07/12/11 14:45	50.0
Xylenes, total	ND		0.250	0.0950	mg/kg wet		07/07/11 12:07	07/12/11 14:45	50.0
	Blank	Blank							
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	122		67 - 138				07/07/11 12:07	07/12/11 14:45	50.0
Dibromofluoromethane	94		75 - 125				07/07/11 12:07	07/12/11 14:45	50.0
Toluene-d8	98		76 - 129				07/07/11 12:07	07/12/11 14:45	50.0
4-Bromofluorobenzene	103		67 - 147				07/07/11 12:07	07/12/11 14:45	50.0

Lab Sample ID: 11G1211-BS1 Matrix: Soil Analysis Batch: U012543

Client Sample ID: Lab Control Sample Prep Type: Total Prep Batch: 11G1211_P

Client Sample ID: Lab Control Sample Dup

Prep Type: Total

Spike	LCS	LCS				% Rec.
Added	Result	Qualifier	Unit	D	% Rec	Limits
50.0	49.4	1	ug/kg		99	78 - 126
50.0	52.0		ug/kg		104	79 - 130
50.0	56.5		ug/kg		113	72 - 150
50.0	51.9		ug/kg		104	76 - 126
150	151		ug/kg		101	80 - 130
	Added 50.0 50.0 50.0 50.0 50.0	Added Result 50.0 49.4 50.0 52.0 50.0 56.5 50.0 51.9	Added Result Qualifier 50.0 49.4	Added Result Qualifier Unit 50.0 49.4 ug/kg 50.0 52.0 ug/kg 50.0 56.5 ug/kg 50.0 51.9 ug/kg	Added Result Qualifier Unit D 50.0 49.4 ug/kg ug/kg	Added Result Qualifier Unit D % Rec 50.0 49.4 ug/kg 99 50.0 52.0 ug/kg 104 50.0 56.5 ug/kg 113 50.0 51.9 ug/kg 104

	LCS	LCS	
Surrogate	% Recovery	Qualifier	Limits
1,2-Dichloroethane-d4	119		67 - 138
Dibromofluoromethane	105		75 - 125
Toluene-d8	98		76 - 129
4-Bromofluorobenzene	102		67 - 147

Lab Sample ID: 11G1211-BSD1 Matrix: Soil

Analysis Batch: U012543						F	Prep Batch	1: 11G1	211_P
	Spike	LCS Dup	LCS Dup				% Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	% Rec	Limits	RPD	Limit
Benzene	50.0	48.1		ug/kg		96	78 - 126	3	50
Ethylbenzene	50.0	50.2		ug/kg		100	79 - 130	4	50
Naphthalene	50.0	55.5		ug/kg		111	72 - 150	2	50
Toluene	50.0	50.4		ug/kg		101	76 - 126	3	50
Xylenes, total	150	146		ug/kg		97	80 - 130	4	50

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S Dup LCS Dup	
covery Qualifier	Limits
119	67 - 138
105	75 - 125
99	76 - 129
101	67 - 147
	Covery 119 105 99

QC Sample Results

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Lab Sample ID: 11G1211-MS1 Matrix: Soil								Clie	ent Sample ID: 321 Ash Prep Type: Total
Analysis Batch: U012543								F	Prep Batch: 11G1211_P
	Sample	Sample	Spike	Matrix Spike	Matrix Spil	ke			% Rec.
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	% Rec	Limits
Benzene	ND		3.17	2.62		mg/kg dry	17.5	83	42 - 141
Ethylbenzene	0.0710		3.17	2.87		mg/kg dry	-12	88	21 - 165
Naphthalene	4.12		3.17	7.91		mg/kg dry	÷	119	10 - 160
Toluene	ND		3.17	2.74		mg/kg dry	0	87	45 - 145
Xylenes, total	ND		9.51	8.17		mg/kg dry	\$	86	31 - 159
	Matrix Spike	Matrix Spike							
Surrogate	% Recovery	Qualifier	Limits						

76 Recovery	Quanner	Linns
116		67 - 138
98		75 - 125
98		76 - 129
107		67 _ 147
	116 98 98	98 98

Lab Sample ID: 11G1211-MSD1 Matrix: Soil Analysis Batch: U012543

a transmit with the second state of a second state of a									and the second se		
	Sample	Sample	Spike	Matrix Spike Dup	Matrix Spi	ke Duş			% Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	% Rec	Limits	RPD	Limit
Benzene	ND	1	3.17	2.53	-	mg/kg dry	\$	80	42 - 141	3	50
Ethylbenzene	0.0710		3.17	2.79		mg/kg dry	0	86	21 - 165	3	50
Naphthalene	4.12		3.17	7.52		mg/kg dry	\diamond	107	10 - 160	5	50
Toluene	ND		3.17	2.68		mg/kg dry	\$	84	45 - 145	2	50
Xylenes, total	ND		9.51	7.93		mg/kg dry	ō.	83	31 - 159	3	50

	Matrix Spike Dup	Matrix Spike Dup				
Surrogate	% Recovery	Qualifier	Limits			
1,2-Dichloroethane-d4	114		67 - 138			
Dibromofluoromethane	100		75 - 125			
Toluene-d8	100		76 - 129			
4-Bromofluorobenzene	105		67 - 147			

Lab Sample ID: 11G3394-BLK1 Matrix: Soil

Analysis Batch: U012524							1	Prep Batch: 110	3394_P
	Blank	Blank							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.00200	0.00110	mg/kg wet		07/13/11 18:39	07/13/11 23:20	1.00
Ethylbenzene	ND		0.00200	0.000980	mg/kg wet		07/13/11 18:39	07/13/11 23:20	1.00
Naphthalene	ND		0.00500	0.00170	mg/kg wet		07/13/11 18:39	07/13/11 23:20	1.00
Toluene	ND		0.00200	0.000890	mg/kg wet		07/13/11 18:39	07/13/11 23:20	1.00
Xylenes, total	ND		0.00500	0.00190	mg/kg wet		07/13/11 18:39	07/13/11 23:20	1.00
	Blank	Blank							
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	100		67 - 138				07/13/11 18:39	07/13/11 23:20	1.00
Dibromofluoromethane	78		75 - 125				07/13/11 18:39	07/13/11 23:20	1.00
Toluene-d8	102		76 - 129				07/13/11 18:39	07/13/11 23:20	1.00
4-Bromofluorobenzene	100		67 - 147				07/13/11 18:39	07/13/11 23:20	1.00

Client Sample ID: 321 Ash Prep Type: Total Prep Batch: 11G1211_P

Client Sample ID: Method Blank

Prep Type: Total

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Lab Sample ID: 11G3394-BLK2							Client Sa	mple ID: Metho	
Matrix: Soil								Prep Typ	e: Tota
Analysis Batch: U012524							F	Prep Batch: 110	3394_F
	Blank	Blank							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.100	0.0550	mg/kg wet		07/13/11 18:39	07/14/11 00:54	50.0
Ethylbenzene	ND		0.100	0.0490	mg/kg wet		07/13/11 18:39	07/14/11 00:54	50.0
Naphthalene	ND		0.250	0.0850	mg/kg wet		07/13/11 18:39	07/14/11 00:54	50.0
Toluene	ND		0,100	0.0445	mg/kg wet		07/13/11 18:39	07/14/11 00:54	50.0
Xylenes, total	ND		0.250	0.0950	mg/kg wet		07/13/11 18:39	07/14/11 00:54	50.0
	Blank	Blank							
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4	87		67 - 138				07/13/11 18:39	07/14/11 00:54	50.0
Dibromofluoromethane	99		75 - 125				07/13/11 18:39	07/14/11 00:54	50.0
Toluene-d8	99		76 - 129				07/13/11 18:39	07/14/11 00:54	50.0
4-Bromofluorobenzene	102		67 - 147				07/13/11 18:39	07/14/11 00:54	50.0

Lab Sample ID: 11G3394-BS1 Matrix: Soil Analysis Batch: U012524

LCS LCS % Rec. Spike Analyte Added Result Qualifier Unit % Rec Limits D 50.0 51.9 78 - 126 Benzene ug/kg 104 50.0 Ethylbenzene 55.4 ug/kg 79 - 130 111 Naphthalene 50.0 58.6 ug/kg 117 72 - 150 76 - 126 50.0 53.7 Toluene ug/kg 107 Xylenes, total 150 166 ug/kg 110 80 - 130

LCS	LCS	
% Recovery	Qualifier	Limits
100		67 - 138
95		75 - 125
100		76 - 129
101		67 - 147
	% Recovery 100 95 100	100 95 100

Lab Sample ID: 11G3394-MS1 Matrix: Soil

Analysis Batch: U012524 Matrix Spike Matrix Spike Sample Sample Spike % Rec. Analyte Added **Result** Qualifier Limits **Result Qualifier** Unit D % Rec 6.64 7.28 0 42 - 141 Benzene ND mg/kg dry 110 Ethylbenzene 0.436 6.64 8.39 0 21 - 165 mg/kg dry 120 Naphthalene 11.7 6.64 21.5 52 10 - 160 mg/kg dry 148 ¢. 45 - 145 7.66 Toluene ND 6.64 mg/kg dry 115 Xylenes, total ND 19.9 23.5 mg/kg dry 4 118 31 - 159

Matrix Spike	Matrix Spike	
% Recovery	Qualifier	Limits
82		67 - 138
78		75 - 125
99		76 - 129
106		67 - 147
	% Recovery 82 78 99	78 99

C

Prep Batch: 11G3394_P

lient Sample	ID: Lab Control Sample	
	Prep Type: Total	

Client Sample ID: 747 Bluebo	ell

Prep Batch: 11G3394_P

QC Sample Results

Method: SW846 8260B - Volatile Organic Compounds by EPA Method 8260B (Continued)

Lab Sample ID: 11G3394-N Matrix: Soil Analysis Batch: U012524	ISD1								Sample ID: Pre Prep Batch	p Type:	: Total
	Sample	Sample	Spike	Natrix Spike Dup	Matrix Spi	ke Dur			% Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	% Rec	Limits	RPD	Limit
Benzene	ND		6.64	6.60		mg/kg dry	1,5	99	42 - 141	10	50
Ethylbenzene	0.436		6.64	7_53		mg/kg dry	\$	107	21 - 165	11	50
Naphthalene	11.7		6,64	20.8		mg/kg dry	\$	136	10 - 160	4	50
Toluene	ND		6.64	7.24		mg/kg dry	\$	109	45 - 145	6	50
Xylenes, total	ND		19.9	21.3		mg/kg dry	\$	107	31 - 159	10	50
	Matrix Spike Dup	Matrix Spike	e Dup								
Surrogate	% Recovery	Qualifier	Limits								
1,2-Dichloroethane-d4	104		67 - 138								
Dibromofluoromethane	90		75 - 125								
Toluene-d8	101		76 - 129								
4-Bromofluorobenzene	107		67 - 147								

Method: SW846 8270D - Polyaromatic Hydrocarbons by EPA 8270D

Blank Blank

Lab Sample ID: 11G0601-BLK1 Matrix: Soil

Analysis Batch: 11G0601

Client Sample ID: Method Blank

Prep Type: Total Prep Batch: 11G0601 P

	Blank	Blank							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.0670	0.0140	mg/kg wet		07/05/11 13:00	07/06/11 02:57	1.00
Acenaphthylene	ND		0.0670	0.0200	mg/kg wet		07/05/11 13:00	07/06/11 02:57	1.00
Anthracene	ND		0.0670	0.00900	mg/kg wet		07/05/11 13:00	07/06/11 02:57	1.00
Benzo (a) anthracene	ND		0.0670	0.0110	mg/kg wet		07/05/11 13:00	07/06/11 02:57	1.00
Benzo (a) pyrene	ND		0.0670	0.00800	mg/kg wet		07/05/11 13:00	07/06/11 02:57	1.00
Benzo (b) fluoranthene	ND		0.0670	0.0380	mg/kg wet		07/05/11 13:00	07/06/11 02:57	1.00
Benzo (g,h,i) perylene	ND		0.0670	0.00900	mg/kg wet		07/05/11 13:00	07/06/11 02:57	1.00
Benzo (k) fluoranthene	ND		0.0670	0.0370	mg/kg wet		07/05/11 13:00	07/06/11 02:57	1.00
Chrysene	ND		0.0670	0.0310	mg/kg wet		07/05/11 13:00	07/06/11 02:57	1.00
Dibenz (a,h) anthracene	ND		0.0670	0.0150	mg/kg wet		07/05/11 13:00	07/06/11 02:57	1.00
Fluoranthene	ND		0.0670	0.0110	mg/kg wet		07/05/11 13:00	07/06/11 02:57	1.00
Fluorene	ND		0.0670	0.0200	mg/kg wet		07/05/11 13:00	07/06/11 02:57	1.00
Indeno (1,2,3-cd) pyrene	ND		0.0670	0.0310	mg/kg wet		07/05/11 13:00	07/06/11 02:57	1.00
Naphthalene	ND		0.0670	0.0140	mg/kg wet		07/05/11 13:00	07/06/11 02:57	1.00
Phenanthrene	ND		0.0670	0.0100	mg/kg wet		07/05/11 13:00	07/06/11 02:57	1.00
Pyrene	ND		0.0670	0.0230	mg/kg wet		07/05/11 13:00	07/06/11 02:57	1.00
1-Methylnaphthalene	ND		0.0670	0.0120	mg/kg wet		07/05/11 13:00	07/06/11 02:57	1.00
2-Methylnaphthalene	ND		0.0670	0.0210	mg/kg wet		07/05/11 13:00	07/06/11 02:57	1.00
	Blank	Blank							
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Terphenyl-d14	88		18 - 120				07/05/11 13:00	07/06/11 02:57	1.00
2-Fluorobiphenyl	60		14 - 120				07/05/11 13:00	07/06/11 02:57	1.00
Nitrobenzene-d5	57		17 - 120				07/05/11 13:00	07/06/11 02:57	1.00

Lab Sample ID: 11G0601-BS1 **Client Sample ID: Lab Control Sample** Matrix: Soil Prep Type: Total Analysis Batch: 11G0601 Prep Batch: 11G0601_P Spike LCS LCS % Rec. Analyte Added **Result** Qualifier Unit D % Rec Limits Acenaphthene 1.67 1.26 mg/kg wet 76 49 - 120

TestAmerica Nashville 07/19/2011

Client Sample ID: Matrix Spike

Prep Type: Total

Method: SW846 8270D - Polyaromatic Hydrocarbons by EPA 8270D (Continued)

Lab Sample ID: 11G0601-BS1						Cli	ent	Sample	D: Lab Control Sa	mple
Matrix: Soil									Prep Type:	Total
Analysis Batch: 11G0601								F	Prep Batch: 11G06	01_P
			Spike	LCS	LCS				% Rec.	
Analyte			Added	Result	Qualifier	Unit	D	% Rec	Limits	
Acenaphthylene			1.67	1.28		mg/kg wet		77	52 - 120	
Anthracene			1.67	1.39		mg/kg wet		84	58 _ 120	
Benzo (a) anthracene			1.67	1.41		mg/kg wet		85	57 - 120	
Benzo (a) pyrene			1.67	1.55		mg/kg wet		93	55 - 120	
Benzo (b) fluoranthene			1.67	1.58		mg/kg wet		95	51 - 123	
Benzo (g,h,i) perylene			1.67	1.44		mg/kg wet		87	49 - 121	
Benzo (k) fluoranthene			1.67	1.34		mg/kg wet		80	42 - 129	
Chrysene			1.67	1.41		mg/kg wet		85	55 - 120	
Dibenz (a,h) anthracene			1.67	1,43		mg/kg wet		86	50 - 123	
Fluoranthene			1.67	1.41		mg/kg wet		85	58 - 120	
Fluorene			1.67	1.34		mg/kg wet		81	54 - 120	
Indeno (1,2,3-cd) pyrene			1.67	1,42		mg/kg wet		85	50 - 122	
Naphthalene			1.67	1.23		mg/kg wet		74	28 - 120	
Phenanthrene			1.67	1.36		mg/kg wet		82	56 - 120	
Pyrene			1.67	1.38		mg/kg wet		83	56 - 120	
1-Methylnaphthalene			1.67	0.929		mg/kg wet		56	36 - 120	
2-Methylnaphthalene			1.67	1.11		mg/kg wet		66	36 - 120	
	LCS	LCS								
Surrogate	% Recovery	Qualifier	Limits							

Surrogate	% Recovery	Qualifier	Limits
Terphenyl-d14	86		18-120
2-Fluorobiphenyl	62		14 - 120
Nitrobenzene-d5	50		17-120

Lab Sample ID: 11G0601-MS1 Matrix: Soil

Analysis Batch: 11G0601

Analysis Batch: 11G0601	Sample	Sample	Spike	Matrix Spike	Matrix Spil	ke			Prep Batch: 11G0601_P % Rec.
Analyte	and the second second	Qualifier	Added	Result	Qualifier	Unit	D	% Rec	Limits
Acenaphthene	ND		2.52	1.79		mg/kg dry	\$	71	42 - 120
Acenaphthylene	ND		2.52	1.83		mg/kg dry	÷	73	32 - 120
Anthracene	ND		2.52	2.03		mg/kg dry	9	81	10 - 200
Benzo (a) anthracene	0.0649		2.52	2.03		mg/kg dry	\$	78	41 - 120
Benzo (a) pyrene	0.0679		2.52	2.14		mg/kg dry	¢.	82	33 - 121
Benzo (b) fluoranthene	0.0709		2.52	2.28		mg/kg dry	83-	88	26 - 137
Benzo (g.h.i) perylene	ND		2.52	1.84		mg/kg dry	10	73	21 - 124
Benzo (k) fluoranthene	0,0605		2.52	1.83		mg/kg dry	57	70	14 - 140
Chrysene	0.0639		2.52	2.05		mg/kg dry	32	79	28 - 123
Dibenz (a,h) anthracene	ND		2.52	1.90		mg/kg dry	p	75	25 - 127
Fluoranthene	0.0724		2.52	2.05		mg/kg dry	11	79	38 - 120
Fluorene	ND		2.52	1,93		mg/kg dry	0	77	41 - 120
Indeno (1,2,3-cd) pyrene	ND		2.52	1.96		mg/kg dry	ġ.	78	25 - 123
Naphthalene	ND		2.52	1.75		mg/kg dry	α.	70	25 - 120
Phenanthrene	ND		2.52	1.99		mg/kg dry	\$	79	37 - 120
Pyrene	0.0768		2.52	2,08		mg/kg dry	ø	80	29 - 125
1-Methylnaphthalene	ND		2.52	1.32		mg/kg dry	\$	53	19 - 120
2-Methylnaphthalene	ND		2.52	1.57		mg/kg dry	\$	63	11 - 120
	Matrix Saika	Matrix Calka							

	Matrix Spike	Matrix Spike	
Surrogate	% Recovery	Qualifier	Limits
Terphenyl-d14	77		18-120

TestAmerica Nashville 07/19/2011

Client Sample ID: Matrix Spike

Prep Type: Total Prep Batch: 11G0601_P

Method: SW846 8270D - Polyaromatic Hydrocarbons by EPA 8270D (Continued)

Lab Sample ID: 11G0601-MS1 Matrix: Soil

Analysis	Batch:	11G0601

	Matrix Spike	Matrix Spike	
Surrogate	% Recovery	Qualifier	Limits
2-Fluorobiphenyl	54		14 - 120
Nitrobenzene-d5	49		17-120

Lab Matr

Ana

Lab Sample ID: 11G0601-MS	D1				Clier	nt Sa	mple ID:	Matrix Sp	ike Dup	olicate
Matrix: Soil								Pre	p Type:	: Total
Analysis Batch: 11G0601							- 1	Prep Batch	h: 11G0	601_P
	Sample Sample	Spike	Matrix Spike Dup	Matrix Spi	ke Dur			% Rec.		RPD
Analyte	Result Qualifier	Added	Result	Qualifier	Unit	D	% Rec	Limits	RPD	Limit
Acenaphthene	ND	2.50	1.55		mg/kg dry	\$	62	42 - 120	14	40
Acenaphthylene	ND	2.50	1.56		mg/kg dry	Ċ.	63	32 - 120	16	30
Anthracene	ND	2.50	1.73		mg/kg dry	Q.	69	10 - 200	16	50
Benzo (a) anthracene	0.0649	2.50	1.76		mg/kg dry	-02	68	41 - 120	14	30
Benzo (a) pyrene	0.0679	2.50	1.90		mg/kg dry	-53-	73	33 - 121	12	33
Benzo (b) fluoranthene	0.0709	2.50	2.14		mg/kg dry	374	83	26 - 137	6	42
Benzo (g.h.i) perylene	ND	2.50	1.63		mg/kg dry	0	65	21 - 124	12	32
Benzo (k) fluoranthene	0.0605	2.50	1.40		mg/kg dry	-85	54	14 - 140	27	39
Chrysene	0.0639	2.50	1.73		mg/kg dry	φ	67	28 - 123	17	34
Dibenz (a,h) anthracene	ND	2.50	1.64		mg/kg dry	\$	65	25 - 127	15	31
Fluoranthene	0.0724	2.50	1.86		mg/kg dry	\$	72	38 - 120	9	35
Fluorene	ND	2.50	1.63		mg/kg dry	Ċ.	65	41 - 120	17	37
Indeno (1,2,3-cd) pyrene	ND	2.50	1.67		mg/kg dry	ø	67	25 - 123	16	32
Naphthalene	ND	2.50	1.59		mg/kg dry	101	63	25 - 120	10	42
Phenanthrene	ND	2.50	1.72		mg/kg dry	\$\$F	69	37 - 120	14	32
Pyrene	0.0768	2.50	1.89		mg/kg dry	\$	73	29 - 125	9	40
1-Methylnaphthalene	ND	2.50	1.21		mg/kg dry	0	48	19 - 120	9	45
2-Methylnaphthalene	ND	2.50	1.44		mg/kg dry	Ø	57	11 - 120	9	50
Δ	Natrix Spike Dup Matrix Spike	Dup								
and the second sec										

	maurix Spine Dup	Maura Spike	= Dup
Surrogate	% Recovery	Qualifier	Limits
Terphenyl-d14	65		18 - 120
2-Fluorobiphenyl	46		14 - 120
Nitrobenzene-d5	46		17 - 120

Method: SW-846 - General Chemistry Parameters

Lab Sample ID: 11G2361-DUP1							Client Sample ID: Du	plicate
Matrix: Soil							Prep Type	: Total
Analysis Batch: 11G2361							Prep Batch: 11G2	361_P
	Sample	Sample	Duplicate	Duplicate				RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
% Dry Solids	73.1		72.9	_	%		0.2	20

QC Association Summary

Client: EEG - Small Business Group, Inc. (2449) Project/Site: [none]

GCMS Volatiles

Analysis Batch: U012	052				
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11G0464-BS1	Lab Control Sample	Total	Soil	SW846 8260B	11G0464_F
11G0464-BSD1	Lab Control Sample Dup	Total	Soil	SW846 8260B	11G0464_F
11G0464-BLK1	Method Blank	Total	Soil	SW846 8260B	11G0464_F
NUG0346-01	308 Ash	Total	Soil	SW846 8260B	11G0464_F
NUG0346-02	318 Ash	Total	Soil	SW846 8260B	11G0464_F
NUG0346-03	321 Ash	Total	Soil	SW846 8260B	11G0464_F
NUG0346-04	747 Bluebell	Total	Soil	SW846 8260B	11G0464_F
11G0464-MS1	Matrix Spike	Total	Soil	SW846 8260B	11G0464_P
11G0464-MSD1	Matrix Spike Duplicate	Total	Soil	SW846 8260B	11G0464_F
Analysis Batch: U012	524				
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11G3394-BS1	Lab Control Sample	Total	Soll	SW846 8260B	11G3394_P
11G3394-BLK1	Method Blank	Total	Soil	SW846 8260B	11G3394_P
11G3394-BLK2	Method Blank	Total	Soil	SW846 8260B	11G3394_P
NUG0346-04 - RE2	747 Bluebell	Total	Soil	SW846 8260B	11G3394_P
11G3394-MS1	747 Bluebell	Total	Soil	SW846 8260B	11G3394_P
11G3394-MSD1	747 Bluebell	Total	Soil	SW846 8260B	11G3394_P
Analysis Batch: U012	543				
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11G1211-BS1	Lab Control Sample	Total	Soil	SW846 8260B	11G1211_P
11G1211-BSD1	Lab Control Sample Dup	Total	Soil	SW846 8260B	11G1211_P
11G1211-BLK1	Method Blank	Total	Soil	SW846 8260B	11G1211_P
11G1211-BLK2	Method Blank	Total	Soil	SW846 8260B	11G1211_P
NUG0346-04 - RE1	747 Bluebell	Total	Soil	SW846 8260B	11G1211_P
NUG0346-03 - RE1	321 Ash	Total	Soil	SW846 8260B	11G1211_P
11G1211-MS1	321 Ash	Total	Soil	SW846 8260B	11G1211_P
11G1211-MSD1	321 Ash	Total	Soil	SW846 8260B	11G1211_P
Prep Batch: 11G0464_	P				
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11G0464-BS1	Lab Control Sample	Total	Soil	EPA 5035	
11G0464-BSD1	Lab Control Sample Dup	Total	Soil	EPA 5035	
11G0464-BLK1	Method Blank	Total	Soil	EPA 5035	
NUG0346-01	308 Ash	Total	Soil	EPA 5035	
NUG0346-02	318 Ash	Total	Soil	EPA 5035	
NUG0346-03	321 Ash	Total	Soil	EPA 5035	
NUG0346-04	747 Bluebell	Total	Soil	EPA 5035	
11G0464-MS1	Matrix Spike	Total	Soil	EPA 5035	
11G0464-MSD1	Matrix Spike Duplicate	Total	Soil	EPA 5035	
Prep Batch: 11G1211_	P				
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11G1211-BS1	Lab Control Sample	Total	Soil	EPA 5035	
11G1211-BSD1	Lab Control Sample Dup	Total	Soil	EPA 5035	
11G1211-BLK1	Method Blank	Total	Soil	EPA 5035	
11G1211-BLK2	Method Blank	Total	Soil	EPA 5035	
NUG0346-04 - RE1	747 Bluebell	Total	Soil	EPA 5035	
NUG0346-03 - RE1	321 Ash	Total	Soil	EPA 5035	
11G1211-MS1	321 Ash	Total	Soil	EPA 5035	
11G1211-MSD1	321 Ash	Total	Soil	EPA 5035	

QC Association Summary

Client: EEG - Small Business Group, Inc. (2449) Project/Site: [none]

GCMS Volatiles (Continued)

Prep Batch: 11G3394_P	Pre	p B	atc	h: *	110	3 3	394	P
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Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11G3394-BS1	Lab Control Sample	Total	Soil	EPA 5035	
11G3394-BLK1	Method Blank	Total	Soil	EPA 5035	
11G3394-BLK2	Method Blank	Total	Soil	EPA 5035	
NUG0346-04 - RE2	747 Bluebell	Total	Soil	EPA 5035	
11G3394-MS1	747 Bluebell	Total	Soil	EPA 5035	
11G3394-MSD1	747 Bluebell	Total	Soil	EPA 5035	

GCMS Semivolatiles

Analysis Batch: 11G0601

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11G0601-BLK1	Method Blank	Total	Soil	SW846 8270D	11G0601_P
11G0601-BS1	Lab Control Sample	Total	Soil	SW846 8270D	11G0601_P
11G0601-MS1	Matrix Spike	Total	Soil	SW846 8270D	11G0601_P
11G0601-MSD1	Matrix Spike Duplicate	Total	Soil	SW846 8270D	11G0601_P
NUG0346-01	308 Ash	Total	Soil	SW846 8270D	11G0601_P
NUG0346-02	318 Ash	Total	Soil	SW846 8270D	11G0601_P
NUG0346-03	321 Ash	Total	Soil	SW846 8270D	11G0601_P
NUG0346-03 - RE1	321 Ash	Total	Soil	SW846 8270D	11G0601_P
NUG0346-04 - RE1	747 Bluebell	Total	Soil	SW846 8270D	11G0601_P
NUG0346-04 - RE2	747 Bluebell	Total	Soil	SW846 8270D	11G0601_P

Prep Batch: 11G0601_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11G0601-BLK1	Method Blank	Total	Soil	EPA 3550C	
11G0601-BS1	Lab Control Sample	Total	Soil	EPA 3550C	
11G0601-MS1	Matrix Spike	Total	Soil	EPA 3550C	
11G0601-MSD1	Matrix Spike Duplicate	Total	Soil	EPA 3550C	
NUG0346-01	308 Ash	Total	Soil	EPA 3550C	
NUG0346-02	318 Ash	Total	Soil	EPA 3550C	
NUG0346-03	321 Ash	Total	Soil	EPA 3550C	
NUG0346-03 - RE1	321 Ash	Total	Soil	EPA 3550C	
NUG0346-04 - RE1	747 Bluebell	Total	Soil	EPA 3550C	
NUG0346-04 - RE2	747 Bluebell	Total	Soil	EPA 3550C	

Extractions

Analysis Batch: 11G2361

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11G2361-DUP1	Duplicate	Total	Soil	SW-846	11G2361_P
NUG0346-01	308 Ash	Total	Soil	SW-846	11G2361_P
NUG0346-02	318 Ash	Total	Soil	SW-846	11G2361_P
NUG0346-03	321 Ash	Total	Soil	SVV-846	11G2361_P
NUG0346-04	747 Bluebell	Total	Soil	SW-846	11G2361_P

Prep Batch: 11G2361_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
11G2361-DUP1	Duplicate	Total	Soil	% Solids	_
NUG0346-01	308 Ash	Total	Soil	% Solids	
NUG0346-02	318 Ash	Total	Soil	% Solids	
NUG0346-03	321 Ash	Total	Soil	% Solids	
NUG0346-04	747 Bluebell	Total	Soil	% Solids	

Lab Sample ID: NUG0346-01 Matrix: Soil

Lab Sample ID: NUG0346-02

Percent Solids: 77.8

Matrix: Soil

Percent Solids: 83.9

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	Or Analyzed	Analyst	Lab
Total	Prep	EPA 5035		0.926	11G0464_P	06/27/11 13:15	AAN	TAL NSH
Total	Analysis	SW846 8260B		1.00	U012052	07/06/11 18:21	MJH	TAL NSH
Total	Prep	EPA 3550C		0.979	11G0601_P	07/05/11 13:00	JJR	TAL NSH
Total	Analysis	SW846 8270D		1.00	11G0601	07/06/11 06:31	BES	TAL NSH
Total	Prep	% Solids		1.00	11G2361_P	07/13/11 15:38	RRS	TAL NSH
Total	Analysis	SW-846		1.00	11G2361	07/14/11 12:26	AMS	TAL NSH

Client Sample ID: 318 Ash

Date Collected: 06/28/11 12:15 Date Received: 07/02/11 08:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	Or Analyzed	Analyst	Lab
Total	Prep	EPA 5035		0.850	11G0464_P	06/28/11 12:15	AAN	TAL NSH
Total	Analysis	SW846 8260B		1.00	U012052	07/06/11 18:53	MJH	TAL NSH
Total	Prep	EPA 3550C		0,994	11G0601_P	07/05/11 13:00	JJR	TAL NSH
Total	Analysis	SW846 8270D		1.00	11G0601	07/06/11 06:51	BES	TAL NSH
Total	Prep	% Solids		1.00	11G2361_P	07/13/11 15:38	RRS	TAL NSH
Total	Analysis	SW-846		1.00	11G2361	07/14/11 12:26	AMS	TAL NSH

Client Sample ID: 321 Ash

Date Collected: 06/29/11 12:45 Date Received: 07/02/11 08:30

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	Or Analyzed	Analyst	Lab
Total	Prep	EPA 5035		0.971	11G0464_P	06/29/11 12:45	AAN	TAL NSH
Total	Analysis	SW846 8260B		1.00	U012052	07/06/11 19:25	MJH	TAL NSH
Total	Prep	EPA 5035	RE1	1.01	11G1211_P	06/29/11 12:45	AAN	TAL NSH
Total	Analysis	SW846 8260B	RE1	50.0	U012543	07/12/11 15:42	MJH	TAL NSH
Total	Prep	EPA 3550C		0.977	11G0601_P	07/05/11 13:00	JJR	TAL NSH
Fotal	Analysis	SW846 8270D		1.00	11G0601	07/06/11 07:11	BES	TAL NSH
Total	Prep	EPA 3550C	RE1	0.977	11G0601_P	07/05/11 13:00	JJR	TAL NSH
Total	Analysis	SW846 8270D	RE1	5.00	11G0601	07/06/11 10:53	BES	TAL NSH
Fotal	Prep	% Solids		1.00	11G2361_P	07/13/11 15:38	RRS	TAL NSH
Total	Analysis	SW-846		1.00	11G2361	07/14/11 12:26	AMS	TAL NSH

Client Sample ID: 747 Bluebell Date Collected: 06/30/11 11:15 Date Received: 07/02/11 08:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total	Prep	EPA 5035		0.822	11G0464_P	06/30/11 11:15	AAN	TAL NSH
Total	Analysis	SW846 8260B		1.00	U012052	07/06/11 19:57	MJH	TAL NSH
Total	Prep	EPA 5035	RE1	0.847	11G1211_P	06/30/11 11:15	AAN	TAL NSH
Total	Analysis	SW846 8260B	RE1	50.0	U012543	07/12/11 15:14	MJH	TAL NSH
Total	Prep	EPA 5035	RE2	0.847	11G3394_P	06/30/11 11:15	AAN	TAL NSH

TestAmerica Nashville 07/19/2011

Lab Sample ID: NUG0346-03

Lab Sample ID: NUG0346-04

Matrix: Soil

Percent Solids: 75.3

Matrix: Soil Percent Solids: 79.8

Client Sample ID: 747 Bluebell Date Collected: 06/30/11 11:15

Pace	ouncored	1. 00(2011)	1 10.40
Date	Received	: 07/02/11	08:30

Lab	Sample ID:	NUG0346-04
		Matrix: Soil
	Perce	ent Solids: 75.3

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	Or Analyzed	Analyst	Lab
Total	Analysis	SW846 8260B	RE2	100	U012524	07/14/11 01:25	MJH	TAL NSH
Total	Prep	EPA 3550C	RE1	0.977	11G0601_P	07/05/11 13:00	JJR	TAL NSH
Total	Analysis	SW846 8270D	RE1	10.0	11G0601	07/06/11 11:13	BES	TAL NSH
Total	Prep	EPA 3550C	RE2	0.977	11G0601_P	07/05/11 13:00	JJR	TAL NSH
Total	Analysis	SW846 8270D	RE2	20.0	11G0601	07/06/11 12:01	BES	TAL NSH
Total	Prep	% Solids		1.00	11G2361_P	07/13/11 15:38	RRS	TAL NSH
Total	Analysis	SW-846		1.00	11G2361	07/14/11 12:26	AMS	TAL NSH

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Road, Nashville, TN 37204, TEL 800-765-0980

Method	Method Description	Protocol	Laboratory
SW-846	General Chemistry Parameters		TAL NSH
SW846 8260B	Volatile Organic Compounds by EPA Method 8260B		TAL NSH
SW846 8270D	Polyaromatic Hydrocarbons by EPA 8270D		TAL NSH

Protocol References:

Laboratory References:

TAL NSH = TestAmerica Nashville, 2960 Foster Creighton Road, Nashville, TN 37204, TEL 800-765-0980

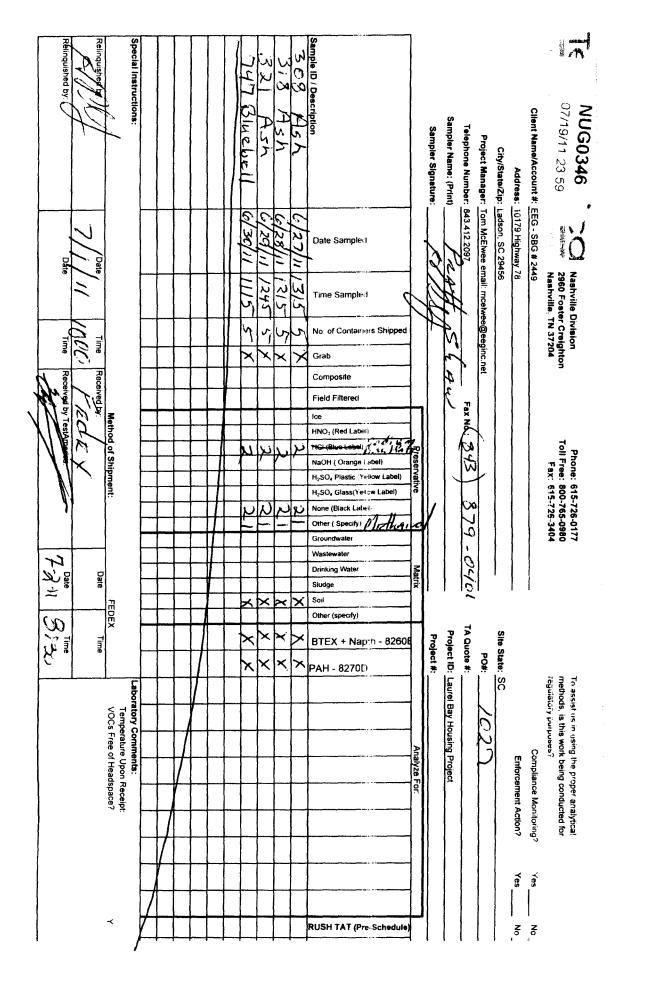
Certification Summary

Client: EEG - Small Business Group, Inc. (2449) Project/Site: [none]

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Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Nashville	A2LA	ISO/IEC 17025		0453.07
TestAmerica Nashville	A2LA	WY UST		453.07
TestAmerica Nashville	AIHA	IHLAP		100790
TestAmerica Nashville	Alabama	State Program	4	41150
FestAmerica Nashville	Alaska	Alaska UST	10	UST-087
FestAmerica Nashville	Arizona	State Program	9	AZ0473
FestAmerica Nashville	Arkansas	State Program	6	88-0737
FestAmerica Nashville	CALA	CALA		3744
estAmerica Nashville	California	NELAC	9	1168CA
estAmerica Nashville	Colorado	State Program	8	N/A
FestAmerica Nashville	Connecticut	State Program	1	PH-0220
FestAmerica Nashville	Florida	NELAC	4	E87358
FestAmerica Nashville	Illinois	NELAC	5	200010
estAmerica Nashville	lowa	State Program	7	131
estAmerica Nashville	Kansas	NELAC	7	E-10229
estAmerica Nashville	Kentucky	Kentucky UST	4	19
estAmerica Nashville	Kentucky	State Program	4	90038
FestAmerica Nashville	Louisiana	NELAC	6	LA100011
FestAmerica Nashville	Louisiana	NELAC	6	30613
estAmerica Nashville	Maryland	State Program	3	316
estAmerica Nashville	Massachusetts	State Program	1	M-TN032
estAmerica Nashville	Minnesota	NELAC	5	047-999-345
estAmerica Nashville	Mississippi	State Program	4	N/A
estAmerica Nashville	Montana	MT DEQ UST	8	NA
estAmerica Nashville	Nevada	State Program	9	TN00032
estAmerica Nashville	New Hampshire	NELAC	1	2963
estAmerica Nashville	New Jersey	NELAC	2	TN965
estAmerica Nashville	New York	NELAC	2	11342
estAmerica Nashville	North Carolina	North Carolina DENR	4	387
estAmerica Nashville	North Dakota	State Program	8	R-146
estAmerica Nashville	Ohio	OVAP	5	CL0033
estAmerica Nashville	Oklahoma	State Program	6	9412
FestAmerica Nashville	Oregon	NELAC	10	TN200001
restAmerica Nashville	Pennsylvania	NELAC	3	68-00585
estAmerica Nashville	Rhode Island	State Program	1	LAO00268
FestAmerica Nashville	South Carolina	State Program	4	84009
estAmerica Nashville	South Carolina	State Program	4	84009
estAmerica Nashville	Tennessee	State Program	4	2008
estAmerica Nashville	Texas	NELAC	6	T104704077-09-TX
estAmerica Nashville	USDA	USDA		S-48469
estAmerica Nashville	Utah	NELAC	8	TAN
restAmerica Nashville	Virginia	NELAC Secondary AB	3	460152
estAmerica Nashville	Virginia	State Program	3	00323
restAmerica Nashville	Washington	State Program	10	C789
estAmerica Nashville	West Virginia	West Virginia DEP	3	219
	Wisconsin	State Program	5	998020430

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



07/19/2011

ATTACHMENT A

UST Certificate of Disposal

CONTRACTOR

Small Business Group, Inc. 10179 Highway 78 Ladson, SC 29456

TEL (843) 879-0403 FAX (843) 879-0401

TANK ID & LOCATION

UST 321Ash; 321 Ash Street, Laurel Bay Housing Area, MCAS Beaufort, S.C.

DISPOSAL LOCATION

Coastal Auto Salvage Co., Inc. 130 Laurel Bay Road Beaufort, S.C. 29906

TYPE OF TANK SIZE (GAL)

Steel

280

CLEANING/DISPOSAL METHOD

The tank and piping were unearthed, cut open, cleaned with a pressure washer, cut into sections, and recycled.

DISPOSAL CERTIFICATION

I certify that the above tank, piping and equipment has been properly cleaned and disposed of.

 $\frac{TRhEee}{(Name)} = \frac{9/9/11}{(Date)}$

Appendix C Laboratory Analytical Report - Groundwater



Volatile Organic Compounds by GC/MS

Description: BEALB321TW01WG20151110

Laboratory ID: QK11025-009 Matrix: Aqueous

Date Sampled:11/10/2015 1340

Dibromofluoromethane

Date Received: 11/11/2015 Analytical Method Dilution Analysis Date Analyst Batch **Run Prep Method Prep Date** 5030B 8260B 11/18/2015 1505 PAP 89908 1 1 CAS Analytical Parameter Result Q LOQ LOD DL Units Run Number Method Benzene 71-43-2 8260B 0.45 U 5.0 0.45 0.21 ug/L 1 Ethylbenzene 100-41-4 8260B 0.33 5.0 0.51 ug/L J 0.21 1 Naphthalene 91-20-3 8260B 11 в 5.0 0.96 0.14 ug/L 1 8260B Toluene 108-88-3 0.48 U 5.0 0.48 0.24 ug/L 1 Xylenes (total) 1330-20-7 8260B 0.57 U 5.0 0.57 0.32 ug/L 1 Run 1 Acceptance Surrogate Q % Recovery Limits Bromofluorobenzene 99 75-120 1.2-Dichloroethane-d4 98 70-120 Toluene-d8 96 85-120

85-115

101

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

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

Semivolatile Organic Compounds by GC/MS (SIM)

Description: BEALB321TW01WG20151110

Laboratory ID: QK11025-009

Date Sampled:11/10/2015 1340

Matrix: Aqueous

Date Received: 11/11/2015

RunPrep Method13520C	Analytical Method 8270D (SIM)		l ysis Date Analyst I/2015 1648 RBH	•	Date Batch 015 1646 89585			
Parameter		CAS Number	Analytical Method	Result	Q LOQ	LOD	DL	Units Ru
Benzo(a)anthracene		56-55-3	8270D (SIM)	0.98	J 1.0	0.20	0.095	ug/L 1
Benzo(b)fluoranthene		205-99-2	8270D (SIM)	0.80	J 1.0	0.20	0.095	ug/L 1
Benzo(k)fluoranthene		207-08-9	8270D (SIM)	0.23	J 1.0	0.20	0.12	ug/L 1
Chrysene		218-01-9	8270D (SIM)	0.84	J 1.0	0.20	0.11	ug/L 1
Dibenzo(a,h)anthracene		53-70-3	8270D (SIM)	0.40	U 1.0	0.40	0.20	ug/L 1
Surrogate		Run 1 Accep Recovery Li	tance mits					
2-Methylnaphthalene-d10		83 15-	139					
Fluoranthene-d10		95 23-	154					

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

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





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: IGWA 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 Tank 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 <u>et seq.</u>, as amended).

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

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,

that M. They

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: IGWA Dated 7/1/2015

Laurel Bay Underground Storage Tank Assessment Reports for: (97 addresses/110 tanks)

118 Banyan	343 Ash Tank 2
126 Banyan	344 Ash Tank 2
127 Banyan	347 Ash Tank 2
130 Banyan Tank 1	378 Aspen Tank 2
141 Laurel Bay	379 Aspen
151 Laurel Bay	382 Aspen Tank 1
224 Cypress	382 Aspen Tank 2
227 Cypress	394 Acorn Tank 2
256 Beech Tank 2	400 Elderberry
257 Beech Tank 1	432 Elderberry
257 Beech Tank 2	436 Elderberry
264 Beech	473 Dogwood Tank 2
265 Beech Tank 2	482 Laurel Bay
265 Beech Tank 3	517 Laurel Bay
275 Birch	586 Aster
277 Birch Tank 1	632 Dahlia
285 Birch	639 Dahlia Tank 2
292 Birch Tank 3	643 Dahlia Tank 1
297 Birch	644 Dahlia Tank 1
301 Ash	644 Dahlia Tank 2
306 Ash	646 Dahlia Tank 1
310 Ash Tank 1	646 Dahlia Tank 2
313 Ash	665 Camellia
315 Ash Tank 2	699 Abelia
316 Ash	744 Blue Bell
319 Ash	745 Blue Bell Tank 1
320 Ash	747 Blue Bell Tank 1
321 Ash	747 Blue Bell Tank 2
329 Ash	747 Blue Bell Tank 3
330 Ash Tank 2	749 Blue Bell Tank 1
331 Ash	749 Blue Bell Tank 2
332 Ash	751 Blue Bell
333 Ash	762 Althea
335 Ash Tank 1	765 Althea Tank 2
335 Ash Tank 2	766 Althea Tank 4
341 Ash	767 Althea Tank 1
342 Ash Tank 1	768 Althea Tank 2
342 Ash Tank 2	768 Althea Tank 3

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL 2600 Bull Street • Columbia, SC 29201 • Phone: (803) 898-3432 • www.scdhec.gov Laurel Bay Underground Storage Tank Assessment Reports for: (98 addresses/110 tanks) cont.

768 Althea Tank 4	1067 Gardenia
769 Althea Tank 1	1077 Heather
769 Althea Tank 2	1081 Heather
775 Althea	1101 Iris Tank 2
819 Azalea	1104 Iris
840 Azalea	1105 Iris Tank 2
878 Cobia	1124 Iris Tank 2
891 Cobia	1142 Iris Tank 2
913 Barracuda	1146 Iris Tank 2
916 Barracuda	1218 Cardinal
923 Albacore	1240 Dove
1004 Bobwhite	1266 Dove
1022 Foxglove	1292 Eagle
1031 Foxglove	1299 Eagle Tank 1
1034 Foxglove Tank 2	1302 Eagle
1061 Gardenia Tank 3	1336 Albatross
1064 Gardenia	1351 Cardinal



Catherine E. Heigel, Director Promoting and protecting the health of the public and the environment

> Division of Waste Management Bureau of Land and Waste Management

June 8, 2016

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

RE: Approval and Concurrence with Draft Final Initial Groundwater Investigation Report-November and December 2015 Laurel Bay Military Housing Area Multiple Properties Dated April 2015

Dear Mr. Drawdy,

The South Carolina Department of Health and Environmental Control (the Department) received groundwater data in the above referenced Groundwater Investigation Report for the attached addresses on May 2, 2016. The regulatory authority for the investigation and cleanup of releases from these tank systems is the South Carolina Pollution Control Act (S.C. Code Ann. §48-1-10 et seq., as amended).

Per the Department's request, groundwater samples were collected from the attached referenced addresses. The Department reviewed the groundwater data and previous investigations and it agrees with the conclusions and recommendations included in the document. To further assess the impact to groundwater, permanent wells should be installed at the 15 stated addresses. For the remaining 80 addresses, there is no indication of contamination on the property 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 petruslb@dhec.sc.gov or 803-898-0294.

Sincerely,

LISTS

Laurel Petrus RCRA Federal Facilities Section

Attachment: Specific Property Recommendations

Cc: Russell Berry, EQC Region 8 (via email) Shawn Dolan, Resolution Consultants (via email) Bryan Beck, NAVFAC MIDATLANTIC (via email) Craig Ehde (via email) Attachment to: Petrus to Drawdy

Subject: Draft Final Initial Groundwater Investigation Report-November and December 2015 Specific Property Recommendations Dated June 8, 2016

Draft Final Initial Groundwater Investigation Report for (95 addresses)

Permanent Monitoring Well Investigation recommendation (15 addresses)		
130 Banyan Drive	473 Dogwood Drive	
256 Beech Street	747 Blue Bell Lane	
285 Birch Drive	749 Blue Bell Lane	
292 Birch Drive	775 Althea Street	
330 Ash Street	1034 Foxglove Street	
331 Ash Street	1104 Iris Lane	
335 Ash Street	1124 Iris Lane	
342 Ash Street		
2 - 10-1		

118 Banyan Drive	644 Dahlia Drive	
126 Banyan Drive	646 Dahlia Drive	
127 Banyan Drive	665 Camellia Drive	
141 Laurel Bay Blvd	699 Abelia Street	
151 Laurel Bay Blvd	744 Blue Bell Lane	10
224 Cypress Street	745 Blue Bell Lane	
227 Cypress Street	751 Blue Bell Lane	
257 Beech Street	762 Althea Street	
264 Beech Street	765 Althea Street	
265 Beech Street	766 Althea Street	
275 Birch Drive	767 Althea Street	
277 Birch Drive	768 Althea Street	
297 Birch Drive	769 Althea Street	
301 Ash Street	819 Azalea Drive	
306 Ash Street	840 Azalea Drive	
310 Ash Street	878 Cobia Drive	
313 Ash Street	891 Cobia Drive	
315 Ash Street	913 Barracuda Drive	
316 Ash Street	916 Barracuda Drive	
319 Ash Street	923 Wren Lane	
320 Ash Street	1004 Bobwhite Drive	
321 Ash Street	1022 Foxglove Street	
329 Ash Street	1031 Foxglove Street	
332 Ash Street	1061 Gardenia Drive	
333 Ash Street	1064 Gardenia Drive	
341 Ash Street	1067 Gardenia Drive	
347 Ash Street	1077 Heather Street	
378 Aspen Street	1081 Heather Street	
379 Aspen Street	1101 Iris Lane	
382 Aspen Street	1105 Iris Lane	
394 Acorn Street	1142 Iris Lane	
400 Elderberry Drive	1146 Iris Lane	
432 Elderberry Drive	1218 Cardinal Lane	
436 Elderberry Drive	1240 Dove Lane	
482 Laurel Bay Blvd	1266 Dove Lane	
517 Laurel Bay Blvd	1292 Eagle Lane	
586 Aster Street	1299 Eagle Lane	
632 Dahlia Drive	1302 Eagle Lane	
639 Dahlia Drive	1336 Albatross Drive	
643 Dahlia Drive	1351 Cardinal Lane	

Attachment to: Petrus to Drawdy Subject: Draft Final Initial Groundwater Investigation Report-November and December 2015 Specific Property Recommendations Dated June 8, 2016, Page 2