SUMMARY REPORT
243 FOXGLOVE STREET (FORMERLY 1032 FOXGLOVE 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 SUMMARY REPORT
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9324 Virginia Avenue Norfolk, Virginia 23511-3095

Prepared by:



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

Contract Number: N62470-14-D-9016

CTO WE52

JUNE 2021



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List of Acronyms

bgs below ground surface

BTEX benzene, toluene, ethylbenzene, and xylenes

CTO Contract Task Order

COPC constituents of potential concern

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 243 Foxglove Street (Formerly 1032 Foxglove 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 243 Foxglove Street (Formerly 1032 Foxglove Street). Details regarding the soil investigation at this site are provided in the *SCDHEC UST Assessment Report – 1032 Foxglove Street* (MCAS Beaufort, 2009). 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 – July 2013* (Resolution Consultants, 2015). 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 May 26, 2009, a single 280 gallon heating oil UST was removed from the landscaped area adjacent to the concrete porch at 243 Foxglove Street (Formerly 1032 Foxglove 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' 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 243 Foxglove Street (Formerly 1032 Foxglove Street) were greater than the SCDHEC RBSLs, which indicated further investigation was required. In a letter dated August 19, 2009, SCDHEC requested an IGWA for 243 Foxglove Street (Formerly 1032 Foxglove 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 July 23, 2013, a temporary monitoring well was installed at 243 Foxglove Street (Formerly 1032 Foxglove 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 in Figures 2 and 3 of the UST Assessment Report (Appendix B). Further details are provided in the *Initial Groundwater Investigation Report – July 2013* (Resolution Consultants, 2015).



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 – July 2013* (Resolution Consultants, 2015).

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 243 Foxglove Street (Formerly 1032 Foxglove 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 243 Foxglove Street (Formerly 1032 Foxglove Street). This NFA determination was obtained in a letter dated August 6, 2015. SCDHEC's NFA letter is provided in Appendix D.

4.0 REFERENCES

- Marine Corps Air Station Beaufort, 2009. South Carolina Department of Health and Environmental Control (SCDHEC) Underground Storage Tank Assessment Report 1032 Foxglove Street, Laurel Bay Military Housing Area, August 2009.
- Resolution Consultants, 2015. *Initial Groundwater Investigation Report July 2013 for Laurel Bay Military Housing Area, Multiple Properties, Laurel Bay Military Housing Area, Marine Corps Air Station Beaufort, Beaufort, South Carolina*, June 2015.
- South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2013. *Quality Assurance Program Plan for the Underground Storage Tank Management* Division, *Revision 2.0*, April 2013.





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

Tables



Table 1

Laboratory Analytical Results - Soil 243 Foxglove Street (Formerly 1032 Foxglove Street) Laurel Bay Military Housing Area Marine Corps Air Station Beaufort Beaufort, South Carolina

Constituent	SCDHEC RBSLs (1)	Results Sample Collected 05/26/09
Volatile Organic Compounds Analyz	ed by EPA Method 8260B (mg/kg)	
Benzene	0.003	ND
Ethylbenzene	1.15	ND
Naphthalene	0.036	0.0545
Toluene	0.627	ND ND
Xylenes, Total	13.01	ND
Semivolatile Organic Compounds Ar	nalyzed by EPA Method 8270D (mg/kg)	
Benzo(a)anthracene	0.66	0.617
Benzo(b)fluoranthene	0.66	0.525
Benzo(k)fluoranthene	0.66	0.308
Chrysene	0.66	0.630
Dibenz(a,h)anthracene	0.66	0.0820

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 - 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

 ${\sf SCDHEC - South \ Carolina \ Department \ Of \ Health \ and \ Environmental \ Control}$

⁽¹⁾ South Carolina Risk-Based Screening Levels from the Quality Assurance Program Plan for the Underground Storage Tank Management Division, Revision 1.0 and 1.1 (SCDHEC, May 2001 and SCDHEC, February 2011) and the Underground Storage Tank Assessment Guidelines (SCDHEC, February 2006).

Table 2

Laboratory Analytical Results - Groundwater 243 Foxglove Street (Formerly 1032 Foxglove Street) Laurel Bay Military Housing Area Marine Corps Air Station Beaufort Beaufort, South Carolina

Constituent	SCDHEC RBSLs (1)	Site-Specific Groundwater VISLs (µg/L) ⁽²⁾	Results Sample Collected 07/24/13		
Volatile Organic Compounds Analyzed	l by EPA Method 8260B (µg	/L)			
Benzene	5	16.24	ND		
Ethylbenzene	700	45.95	ND		
Naphthalene	25	29.33	0.23		
Toluene	1000	105,445	ND		
Xylenes, Total	10,000	2,133	ND		
Semivolatile Organic Compounds Ana	Semivolatile Organic Compounds Analyzed by EPA Method 8270D (μg/L)				
Benzo(a)anthracene	10	NA	ND		
Benzo(b)fluoranthene	10	NA	ND		
Benzo(k)fluoranthene	10	NA	ND		
Chrysene	10	NA	ND		
Dibenz(a,h)anthracene	10	NA	ND		

Notes:

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

Bold font indicates the analyte was detected.

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

EPA - United States Environmental Protection Agency

JE - Johnson & Ettinger

NA - Not Applicable

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

RBSL - Risk-Based Screening Level

SCDHEC - South Carolina Department Of Health and Environmental Control

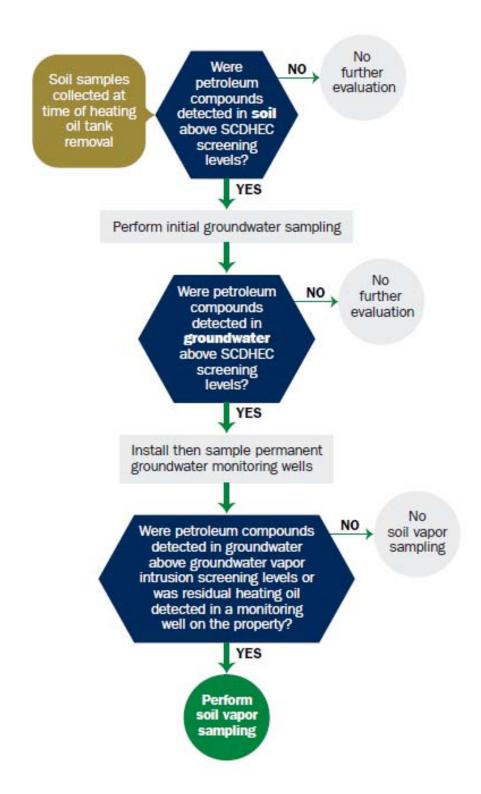
μg/L - micrograms per liter

VISL - Vapor Intrusion Screening Level

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

Appendix A Multi-Media Selection Process for LBMH



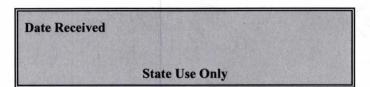


Appendix A - Multi-Media Selection Process for LBMH

Appendix B UST Assessment Report



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

04254

AUG 1 7 2009

SITE ASSESSMENT, REMEDIATION & REVITALIZATION

I. OWNERSHIP OF UST (S)

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

II. SITE IDENTIFICATION AND LOCATION

Permit I.D. #	
Laurel Bay Milit	ary Housing Area, Marine Corps Air Station, Beaufort, SC
Facility Name or Compar	ny Site Identifier
1032 Foxglove St	t., Laurel Bay Military Housing Area
Street Address or State R	oad (as applicable)
Beaufort,	Beaufort
City	County

Attachment 2

III. INSURANCE INFORMATION

Insurance Statement
The petroleum release reported to DHEC on at Permit ID Number may qualify to receive state monies to pay for appropriate site rehabilitation activities. Before participation is allowed in the State Clean-up fund, written confirmation of the existence or non-existence of an environmental insurance policy is required. This section must be completed.
Is there now, or has there ever been an insurance policy or other financial mechanism that covers this UST release? YES NO (check one)
If you answered YES to the above question, please complete the following information:
My policy provider is: The policy deductible is: The policy limit is:
If you have this type of insurance, please include a copy of the policy with this report.
IV. REQUEST FOR SUPERB FUNDING
I DO / DO NOT wish to participate in the SUPERB Program. (Circle one.)
V. CERTIFICATION (To be signed by the UST owner)
I certify that I have personally examined and am familiar with the information submitted in this and all attached documents; and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete.
Name (Type or print.)
Signature
To be completed by Notary Public:
Sworn before me this day of, 20
(Name)
Notary Public for the state of Please affix State seal if you are commissioned outside South Carolina

TIT TION THEODY CANADA	
VI. UST INFORMATION	1032Foxglove
Product(ex. Gas, Kerosene)	Heating Oil
Capacity(ex. 1k, 2k)	280 gal
Age	Late 1950s
Construction Material(ex. Steel, FRP)	Steel
Month/Year of Last Use	Mid 1980s
Depth (ft.) To Base of Tank	6 '
Spill Prevention Equipment Y/N	No
Overfill Prevention Equipment Y/N	No
Method of Closure Removed/Filled	Removed
Date Tanks Removed/Filled	5/26/09
Visible Corrosion or Pitting Y/N	Yes
Visible Holes Y/N	Yes
Method of disposal for any USTs removed from the UST 1032Foxglove was removed from	ne ground (attach disposal manifests) n the ground and disposed of at a
Subtitle "D" landfill. See Attack	ment "A."
Method of disposal for any liquid petroleum, sludg disposal manifests) UST 1032Foxglove had been previo	ges, or wastewaters removed from the USTs (attach usly filled with sand by others.
If any corrosion, pitting, or holes were observed, of Corrosion, pitting and holes were	lescribe the location and extent for each UST e found on the entire surface of the

VII. PIPING INFORMATION

	1032Foxglove
	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	Yes
Visible Corrosion or Pitting Y/N	No
Visible Holes Y/N	No
Age	Late 1950s
	nd on the surface of the steel ve
pipe. Copper supply and return	lines were sound.
VIII. BRIEF SITE DESCR The USTs at the residences are co	
and formerly contained fuel oil	_
installed in the late 1950s and	last used in the mid 1980s.

IX. SITE CONDITIONS

	Yes	No	Unk
A. Were any petroleum-stained or contaminated soils found in the UST excavation, soil borings, trenches, or monitoring wells? If yes, indicate depth and location on the site map.		х	
B. Were any petroleum odors detected in the excavation, soil borings, trenches, or monitoring wells? *A mild odor came from excavation. 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)?		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 96012001

B.

	Location	Sample Type (Soil/Water)	Soil Type (Sand/Clay)	Depth*	Date/Time of Collection	Collected by	OVA#
1032 Foxglove	Excav at fill end	Soil	Sandy	6'	5/26/09 1630 hrs	P. Shaw	
					1030 1115		
						-	
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 th
testing laboratory. The grab method was utilized to fill the sample
containers leaving as little head space as possible and immediately
capped. Soil samples were extracted from area below tank. The
samples were marked, logged, and immediately placed in a sample cooler
packed with ice to maintain an approximate temperature of 4 degrees
Centigrade. Tools were thoroughly cleaned and decontaminated with
the seven step decon process after each use. The samples remained in
custody of SBG-EEG, Inc. until they were transferred to Test America
Incorporated for analysis as documented in the Chain of Custody Record.

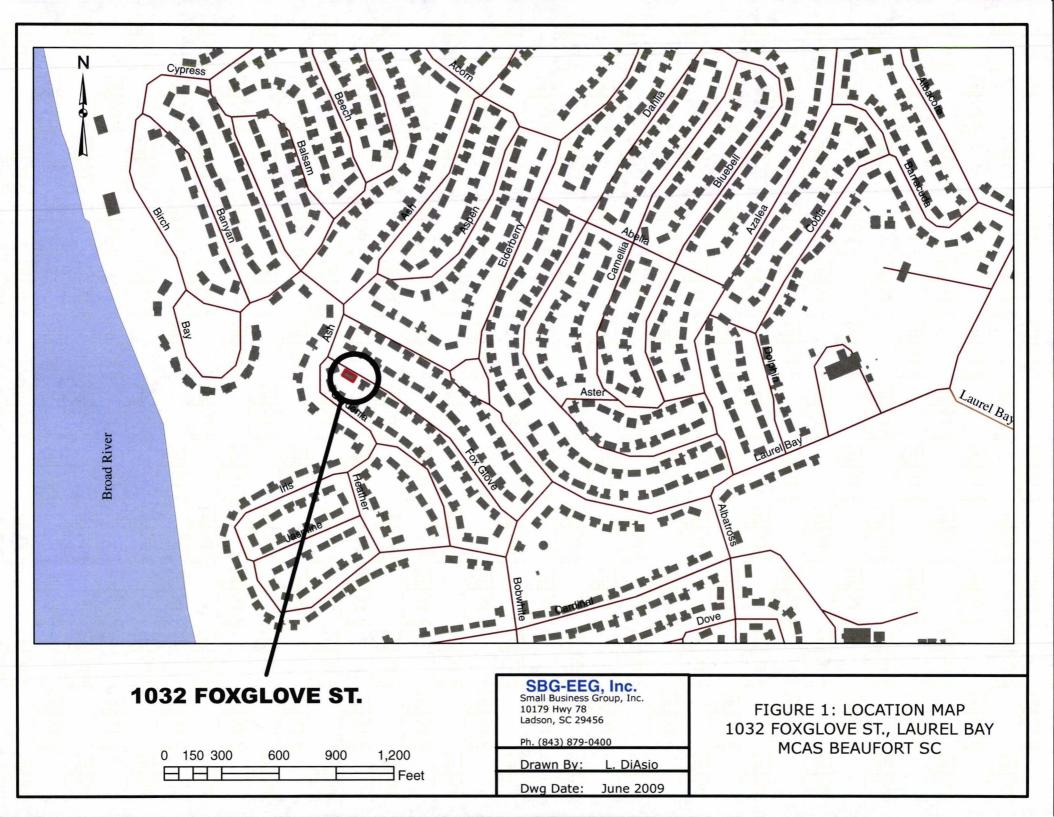
XII. RECEPTORS

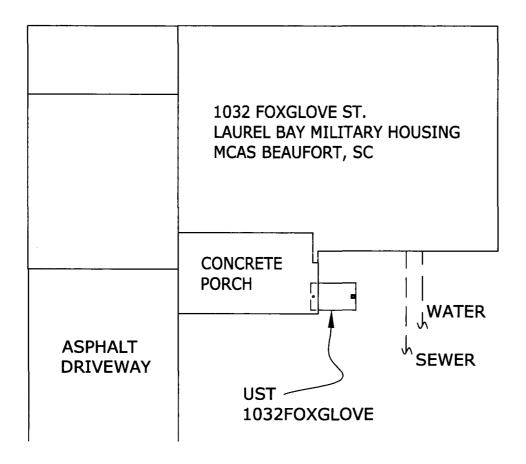
Yes No Are there any lakes, ponds, streams, or wetlands located within 1000 feet of the UST system? Х If yes, indicate type of receptor, distance, and direction on site map. B. Are there any public, private, or irrigation water supply wells within Х 1000 feet of the UST system? If yes, indicate type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

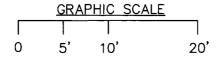
XIII. SITE MAP

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

(Attach Site Map Here)





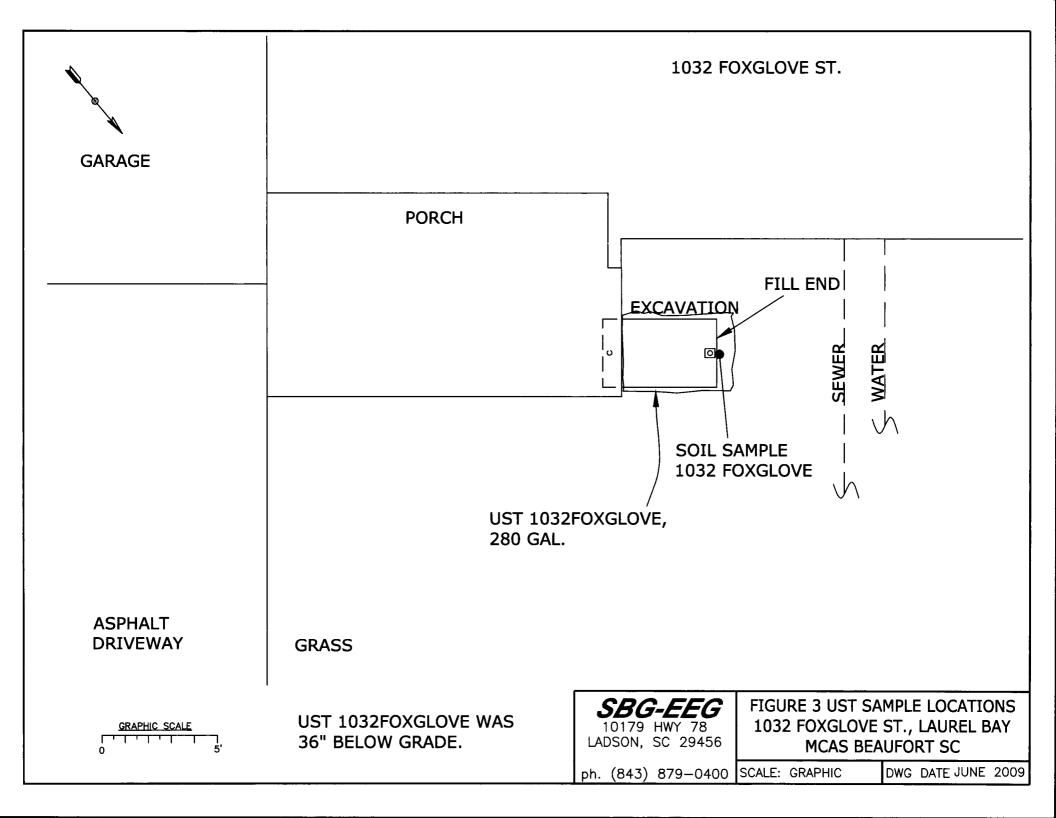


SBG-EEG 10179 HWY 78 LADSON, SC 29456

FIGURE 2 SITE MAP 1032 FOXGLOVE ST., LAUREL BAY MCAS BEAUFORT SC

ph. (843) 879-0400 SCALE: GRAPHIC

DWG DATE JUNE 2009





Picture 1: Location of UST 1032 Foxglove prior to 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	1032 Foxglove
Benzene	ND
Toluene	ND
Ethylbenzene	ND
Xylenes	ND
Naphthalene	0.0545 mg/kg
Benzo (a) anthracene	0.617 mg/kg
Benzo (b) fluoranthene	0.525 mg/kg
Benzo (k) fluoranthene	0.308 mg/kg
Chrysene	0.630 mg/kg
Dibenz (a, h) anthracene	0.0820 mg/kg
TPH (EPA 3550)	
СоС	
Benzene	
Toluene	
Ethylbenzene	
Xylenes	
Naphthalene	
Benzo (a) anthracene	
Benzo (b) fluoranthene	
Benzo (k) fluoranthene	
Chrysene	
Dibenz (a, h) anthracene	
TPH (EPA 3550)	

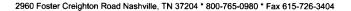
SUMMARY OF ANALYSIS RESULTS (cont'd)
Enter the ground water analytical data for each sample for all CoC in the table below. If free product is present, indicate the measured thickness to the nearest 0.01 feet.

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)





June 16, 2009

11:01:55AM

Client:

Attn:

EEG - Small Business Group, Inc. (2449)

10179 Highway 78

Ladson, SC 29456

Tom McElwee

Work Order: NSE2473

Project Name:

Laurel Bay Housing Project

Project Nbr: P/O Nbr:

[none] 08087

Date Received: 05/29/09

SAMPLE IDENTIFICATION	LAB NUMBER	COLLECTION DATE AND TIME
1033 Foxglove	NSE2473-01	05/26/09 10:30
1032 Foxglove	NSE2473-02	05/26/09 16:30
1040 Iris	NSE2473-03	05/27/09 10:40
1041 Gardenia	NSE2473-04	05/27/09 14:15
1042 Gardenia	NSE2473-05	05/28/09 09:30
1047 Gardenia	NSE2473-06	05/28/09 13:30

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report. If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-800-765-0980. Any opinions, if expressed, are outside the scope of the Laboratory's accreditation.

This material is intended only for the use of the individual(s) or entity to whom it is addressed, and may contain information that is privileged and confidential. If you are not the intended recipient, or the employee or agent responsible for delivering this material to the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this material is strictly prohibited. If you have received this material in error, please notify us immediately at 615-726-0177.

The Chain(s) of Custody, 2 pages, are included and are an integral part of this report.

These results relate only to the items tested. This report shall not be reproduced except in full and with permission of the laboratory.

All solids results are reported in wet weight unless specifically stated.

Estimated uncertainty is available upon request.

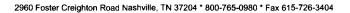
This report has been electronically signed.

Lemos a Hage

Report Approved By:

Ken A. Hayes

Senior Project Manager





Client EEG - Small Business Group, Inc. (2449)

10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order:

NSE2473

Project Name:

Laurel Bay Housing Project

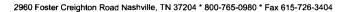
Project Number:

[none]

Received: 05/29/09 08:00

ANA	T 3/	TIC	A T	DE	DOL	T
ANA	. Y	111	AI.	Kr.	PUIN	(

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
and the second s								2200
Sample ID: NSE2473-01 (1033 Fox	glove - Soil) S	Sampled:	05/26/09 10:30					
General Chemistry Parameters								
% Dry Solids	81.8		%	0.500	1	06/10/09 09:06	SW-846	9061067
Selected Volatile Organic Compounds	by EPA Method	d 8260B						
Benzene	ND	RL1	mg/kg dry	0.101	50	06/03/09 17:54	SW846 8260B	9060692
Ethylbenzene	6.70		mg/kg dry	0.101	50	06/03/09 17:54	SW846 8260B	9060692
Naphthalene	36.7		mg/kg dry	5.06	1000	06/03/09 18:57	SW846 8260B	9060692
Toluene	ND	RL1	mg/kg dry	0.101	50	06/03/09 17:54	SW846 8260B	9060692
Xylenes, total	19.3		mg/kg dr y	0.253	50	06/03/09 17:54	SW846 8260B	9060692
Surr: 1,2-Dichloroethane-d4 (41-150%)	98 %					06/03/09 17:54	SW846 8260B	9060692
Surr: 1,2-Dichloroethane-d4 (41-150%)	100 %					06/03/09 18:57	SW846 8260B	9060692
Surr: Dibromofluoromethane (75-125%)	98 %					06/03/09 17:54	SW846 8260B	9060692
Surr: Dibromofluoromethane (75-125%)	97 %					06/03/09 18:57	SW846 8260B	9060692
Surr: Toluene-d8 (76-129%)	95 %					06/03/09 17:54	SW846 8260B	9060692
Surr: Toluene-d8 (76-129%)	86 %					06/03/09 18:57	SW846 8260B	9060692
Surr: 4-Bromofluorobenzene (67-147%) Surr: 4-Bromofluorobenzene (67-147%)	116 % 103 %					06/03/09 17:54 06/03/09 18:57	SW846 8260B SW846 8260B	9060692 9060692
•						00/03/09 18.37	3# 840 8200B	9000092
Polyaromatic Hydrocarbons by EPA 82								
Acenaphthene	1.44		mg/kg dry	0.0813	1	06/03/09 14:54	SW846 8270D	9054554
Acenaphthylene	ND		mg/kg dry	0.0813	1	06/03/09 14:54	SW846 8270D	9054554
Anthracene	3.16		mg/kg dry	0.0813	1	06/03/09 14:54	SW846 8270D	9054554
Benzo (a) anthracene	3.14		mg/kg dry	0.0813	1	06/03/09 14:54	SW846 8270D	9054554
Benzo (a) pyrene	1.15		mg/kg dry	0.0813	1	06/03/09 14:54	SW846 8270D	9054554
Benzo (b) fluoranthene	1.56		mg/kg dry	0.0813	1	06/03/09 14:54	SW846 8270D	9054554
Benzo (g,h,i) perylene	0.353		mg/kg dry	0.0813	1	06/03/09 14:54	SW846 8270D	9054554
Benzo (k) fluoranthene	1.04		mg/kg dry	0.0813	1	06/03/09 14:54	SW846 8270D	9054554
Chrysene	2.61		mg/kg dry	0.0813	1	06/03/09 14:54	SW846 8270D	9054554
Dibenz (a,h) anthracene	0.236		mg/kg dry	0.0813	1	06/03/09 14:54	SW846 8270D	9054554
Fluoranthene	22.1		mg/kg dry	0.813	10	06/03/09 17:37	SW846 8270D	9054554
Fluorene	ND		mg/kg dry	0.0813	1	06/03/09 14:54	SW846 8270D	9054554
Indeno (1,2,3-cd) pyrene	0.397		mg/kg dry	0.0813	1	06/03/09 14:54	SW846 8270D	9054554
Naphthalene	13.3		mg/kg dry	0.813	10	06/03/09 17:37	SW846 8270D	9054554
Phenanthrene	30.0		mg/kg dry	0.813	10	06/03/09 17:37	SW846 8270D	9054554
Pyrene	15.7		mg/kg dry	0.813	10	06/03/09 17:37	SW846 8270D	9054554
I-Methylnaphthalene	33.7		mg/kg dry	0.813	10	06/03/09 17:37	SW846 8270D	9054554
2-Methylnaphthalene	47.7		mg/kg dry	4.07	50	06/05/09 13:44	SW846 8270D	9054554
Surr: Terphenyl-d14 (18-120%)	64 %		C C -7			06/03/09 14:54	SW846 8270D	9054554
Surr: 2-Fluorobiphenyl (14-120%)	62 %					06/03/09 14:54	SW846 8270D	9054554
Surr: Nitrobenzene-d5 (17-120%)	20 %					06/03/09 14:54	SW846 8270D	9054554





Client EEG - Small Business Group, Inc. (2449)

10179 Highway 78 Ladson, SC 29456

Ladson, SC 29456 Tom McElwee

Attn

Work Order:

NSE2473

Project Name:

Laurel Bay Housing Project

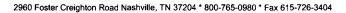
Project Number:

[none]

Received: 05/29/09 08:00

A INT A	I VTIC	AT DI	FPART

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NSE2473-02 (1032 Fox	glove - Soil) Sa	ampled: (05/26/09 16:30					
General Chemistry Parameters								
% Dry Solids	82.4		%	0.500	1	06/10/09 09:06	SW-846	9061067
Selected Volatile Organic Compounds	by EPA Method	8260B						
Benzene	ND		mg/kg dry	0.00229	1	06/02/09 17:16	SW846 8260B	9060479
Ethylbenzene	ND		mg/kg dry	0.00229	1	06/02/09 17:16	SW846 8260B	9060479
Naphthalene	0.0545		mg/kg dry	0.00540	1	06/03/09 14:50	SW846 8260B	9060692
Toluene	ND		mg/kg dry	0.00229	1	06/02/09 17:16	SW846 8260B	9060479
Xylenes, total	ND		mg/kg dry	0.00572	1	06/02/09 17:16	SW846 8260B	9060479
Surr: 1,2-Dichloroethane-d4 (41-150%)	56 %					06/02/09 17:16	SW846 8260B	9060479
Surr: 1,2-Dichloroethane-d4 (41-150%)	67 %					06/03/09 14:50	SW846 8260B	9060692
Surr: Dibromofluoromethane (75-125%)	95 %					06/02/09 17:16	SW846 8260B	9060479
Surr: Dibromofluoromethane (75-125%)	95 %					06/03/09 14:50	SW846 8260B	9060692
Surr: Toluene-d8 (76-129%)	82 %					06/02/09 17:16	SW846 8260B	9060479
Surr: Toluene-d8 (76-129%)	102 %					06/03/09 14:50	SW846 8260B	9060692
Surr: 4-Bromofluorobenzene (58-150%)	104 %					06/02/09 17:16	SW846 8260B	9060479
Surr: 4-Bromofluorobenzene (67-147%)	172 %	ZX				06/03/09 14:50	SW846 8260B	9060692
Polyaromatic Hydrocarbons by EPA 82	270D							
Acenaphthene	ND		mg/kg dry	0.0808	1	06/03/09 15:17	SW846 8270D	9054554
Acenaphthylene	ND		mg/kg dry	0.0808	1	06/03/09 15:17	SW846 8270D	9054554
Anthracene	ND		mg/kg dry	0.0808	1	06/03/09 15:17	SW846 8270D	9054554
Benzo (a) anthracene	0.617		mg/kg dry	0.0808	1	06/03/09 15:17	SW846 8270D	9054554
Benzo (a) pyrene	0.336		mg/kg dry	0.0808	1	06/03/09 15:17	SW846 8270D	9054554
Benzo (b) fluoranthene	0.525		mg/kg dry	0.0808	1	06/03/09 15:17	SW846 8270D	9054554
Benzo (g,h,i) perylene	0.151		mg/kg dry	0.0808	1	06/03/09 15:17	SW846 8270D	9054554
Benzo (k) fluoranthene	0.308		mg/kg dry	0.0808	1	06/03/09 15:17	SW846 8270D	9054554
Chrysene	0.630		mg/kg dry	0.0808	1	06/03/09 15:17	SW846 8270D	9054554
Dibenz (a,h) anthracene	0.0820		mg/kg dry	0.0808	1	06/03/09 15:17	SW846 8270D	9054554
Fluoranthene	1.48		mg/kg dry	0.0808	1	06/03/09 15:17	SW846 8270D	9054554
Fluorene	ND		mg/kg dry	0.0808	1	06/03/09 15:17	SW846 8270D	9054554
Indeno (1,2,3-cd) pyrene	0.149		mg/kg dry	0.0808	1	06/03/09 15:17	SW846 8270D	9054554
Naphthalene	ND		mg/kg dry	0.0808	1	06/03/09 15:17	SW846 8270D	9054554
Phenanthrene	ND		mg/kg dry	0.0808	1	06/03/09 15:17	SW846 8270D	9054554
Pyrene	1.35		mg/kg dry	0.0808	1	06/03/09 15:17	SW846 8270D	9054554
1-Methylnaphthalene	ND		mg/kg dry	0.0808	1	06/03/09 15:17	SW846 8270D	9054554
2-Methylnaphthalene	0.0917		mg/kg dry	0.0808	1	06/03/09 15:17	SW846 8270D	9054554
Surr: Terphenyl-d14 (18-120%)	51 %		mg/kg ury	0,000	1	06/03/09 15:17	SW846 8270D	9054554
Surr: 2-Fluorobiphenyl (14-120%)	31 % 47 %					06/03/09 15:17	SW846 8270D	9054554
Surr: Nitrobenzene-d5 (17-120%)	56 %					06/03/09 15:17	SW846 8270D	9054554





Client EEG - Small Business Group, Inc. (2449)

10179 Highway 78

Ladson, SC 29456 Tom McElwee

Attn

Work Order:

NSE2473

Project Name:

Laurel Bay Housing Project

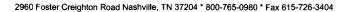
Project Number:

[none]

Received: 05/29/09 08:00

ANALYTICAL REPORT

					Dilution	Analysis		
Analyte	Result	Flag	Units	MRL	Factor	Date/Time	Method	Batch
Sample ID: NSE2473-03 (1040 Iris	- Soil) Sample	ed: 05/27/	09 10:40					
General Chemistry Parameters	•							
% Dry Solids	96.4		%	0.500	1	06/10/09 09:06	SW-846	9061067
Selected Volatile Organic Compounds	by EPA Method	8260B						
Benzene	ND		mg/kg dry	0.00223	1	06/02/09 17:46	SW846 8260B	9060479
Ethylbenzene	ND		mg/kg dry	0.00223	1	06/02/09 17:46	SW846 8260B	9060479
Naphthalene	ND		mg/kg dry	0.00558	1	06/02/09 17:46	SW846 8260B	9060479
Toluene	ND		mg/kg dry	0.00223	1	06/02/09 17:46	SW846 8260B	9060479
Xylenes, total	ND		mg/kg dry	0.00558	1	06/02/09 17:46	SW846 8260B	9060479
Surr: 1,2-Dichloroethane-d4 (41-150%)	63 %					06/02/09 17:46	SW846 8260B	9060479
Surr: Dibromofluoromethane (75-125%)	95 %					06/02/09 17:46	SW846 8260B	9060479
Surr: Toluene-d8 (76-129%)	82 %					06/02/09 17:46	SW846 8260B	9060479
Surr: 4-Bromofluorobenzene (58-150%)	106 %					06/02/09 17:46	SW846 8260B	9060479
Polyaromatic Hydrocarbons by EPA 82	270D							
Acenaphthene	ND		mg/kg dry	0.0694	l	06/03/09 15:41	SW846 8270D	9054554
Acenaphthylene	ND		mg/kg dry	0.0694	1	06/03/09 15:41	SW846 8270D	9054554
Anthracene	ND		mg/kg dry	0.0694	1	06/03/09 15:41	SW846 8270D	9054554
Benzo (a) anthracene	ND		mg/kg dry	0.0694	1	06/03/09 15:41	SW846 8270D	9054554
Benzo (a) pyrene	ND		mg/kg dry	0.0694	1	06/03/09 15:41	SW846 8270D	9054554
Benzo (b) fluoranthene	ND		mg/kg dry	0.0694	1	06/03/09 15:41	SW846 8270D	9054554
Benzo (g,h,i) perylene	ND		mg/kg dry	0.0694	1	06/03/09 15:41	SW846 8270D	9054554
Benzo (k) fluoranthene	ND		mg/kg dry	0.0694	1	06/03/09 15:41	SW846 8270D	9054554
Chrysene	ND		mg/kg dry	0.0694	1	06/03/09 15:41	SW846 8270D	9054554
Dibenz (a,h) anthracene	ND		mg/kg dry	0.0694	1	06/03/09 15:41	SW846 8270D	9054554
Fluoranthene	ND		mg/kg dry	0.0694	1	06/03/09 15:41	SW846 8270D	9054554
Fluorene	ND		mg/kg dry	0.0694	1	06/03/09 15:41	SW846 8270D	9054554
Indeno (1,2,3-cd) pyrene	ND		mg/kg dry	0.0694	1	06/03/09 15:41	SW846 8270D	9054554
Naphthalene	ND		mg/kg dry	0.0694	1	06/03/09 15:41	SW846 8270D	9054554
Phenanthrene	ND		mg/kg dry	0.0694	1	06/03/09 15:41	SW846 8270D	9054554
Pyrene	ND		mg/kg dry	0.0694	1	06/03/09 15:41	SW846 8270D	9054554
1-Methylnaphthalene	ND		mg/kg dry	0.0694	1	06/03/09 15:41	SW846 8270D	9054554
2-Methylnaphthalene	ND		mg/kg dry	0.0694	1	06/03/09 15:41	SW846 8270D	9054554
Surr: Terphenyl-d14 (18-120%)	46 %		J		-	06/03/09 15:41	SW846 8270D	9054554
Surr: 2-Fluorobiphenyl (14-120%)	42 %					06/03/09 15:41	SW846 8270D	9054554
Surr: Nitrobenzene-d5 (17-120%)	50 %					06/03/09 15:41	SW846 8270D	9054554





EEG - Small Business Group, Inc. (2449) Client

> 10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order:

NSE2473

Project Name:

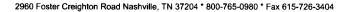
Laurel Bay Housing Project

Project Number: Received:

[none]

05/29/09 08:00

ANALYTICAL REPORT											
Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch			
Sample ID: NSE2473-04 (1041 Gar	denia - Soil) S	ampled:	05/27/09 14:15								
General Chemistry Parameters	•	•									
% Dry Solids	92.0		%	0.500	1	06/10/09 09:06	SW-846	9061067			
Selected Volatile Organic Compounds to	w EDA Method	8260B									
- -	ND	0200B	ma/lea dus	0.00222		04/03/00 19:14	CW946 9360D	0060470			
Benzene Ethalla annua			mg/kg dry	0.00232	1	06/02/09 18:16	SW846 8260B	9060479			
Ethylbenzene	ND		mg/kg dry	0.00232	1	06/02/09 18:16	SW846 8260B	9060479			
Naphthalene	ND		mg/kg dry	0.00579	1	06/02/09 18:16	SW846 8260B	9060479			
Toluene	ND		mg/kg dry	0.00232	1	06/02/09 18:16	SW846 8260B	9060479			
Xylenes, total	ND		mg/kg dry	0.00579	1	06/02/09 18:16	SW846 8260B	9060479			
Surr: 1,2-Dichloroethane-d4 (41-150%)	76 %					06/02/09 18:16	SW846 8260B	9060479			
Surr: Dibromofluoromethane (75-125%)	96 %					06/02/09 18:16	SW846 8260B	9060479			
Surr: Toluene-d8 (76-129%)	84 %					06/02/09 18:16	SW846 8260B	9060479			
Surr: 4-Bromofluorobenzene (58-150%)	106 %					06/02/09 18:16	SW846 8260B	9060479			
Polyaromatic Hydrocarbons by EPA 82											
Acenaphthene	ND		mg/kg dry	0.0728	Î	06/03/09 16:04	SW846 8270D	9054554			
Acenaphthylene	ND		mg/kg dry	0.0728	1	06/03/09 16:04	SW846 8270D	9054554			
Anthracene	ND		mg/kg dry	0.0728	1	06/03/09 16:04	SW846 8270D	9054554			
Benzo (a) anthracene	ND		mg/kg dry	0.0728	1	06/03/09 16:04	SW846 8270D	9054554			
Benzo (a) pyrene	ND		mg/kg dry	0.0728	1	06/03/09 16:04	SW846 8270D	9054554			
Benzo (b) fluoranthene	ND		mg/kg dry	0.0728	1	06/03/09 16:04	SW846 8270D	9054554			
Benzo (g,h,i) perylene	ND		mg/kg dry	0.0728	1	06/03/09 16:04	SW846 8270D	9054554			
Benzo (k) fluoranthene	ND		mg/kg dry	0.0728	1	06/03/09 16:04	SW846 8270D	9054554			
Chrysene	ND		mg/kg dry	0.0728	1	06/03/09 16:04	SW846 8270D	9054554			
Dibenz (a,h) anthracene	ND		mg/kg dry	0.0728	1	06/03/09 16:04	SW846 8270D	9054554			
Fluoranthene	ND		mg/kg dry	0,0728	1	06/03/09 16:04	SW846 8270D	9054554			
Fluorene	ND		mg/kg dry	0.0728	1	06/03/09 16:04	SW846 8270D	9054554			
Indeno (1,2,3-cd) pyrene	ND		mg/kg dry	0.0728	1	06/03/09 16:04	SW846 8270D	9054554			
Naphthalene	ND		mg/kg dry	0.0728	1	06/03/09 16:04	SW846 8270D	9054554			
Phenanthrene	ND		mg/kg dry	0.0728	1	06/03/09 16:04	SW846 8270D	9054554			
•	ND ND		mg/kg dry	0.0728	1	06/03/09 16:04	SW846 8270D	9054554			
Pyrene 1. Methylpenhthelene	ND ND			0.0728	1	06/03/09 16:04	SW846 8270D SW846 8270D	9054554			
1-Methylnaphthalene			mg/kg dry								
2-Methylnaphthalene	ND		mg/kg dry	0.0728	1	06/03/09 16:04	SW846 8270D	9054554			
Surr: Terphenyl-d14 (18-120%)	48 %					06/03/09 16:04	SW846 8270D	9054554			
Surr: 2-Fluorobiphenyl (14-120%)	41 %					06/03/09 16:04	SW846 8270D	9054554			
Surr: Nitrobenzene-d5 (17-120%)	44 %					06/03/09 16:04	SW846 8270D	9054554			





10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order:

NSE2473

Project Name:

Laurel Bay Housing Project

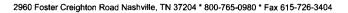
Project Number:

[none]

Received: 05/29/09 08:00

Λ	N	AI	V	ric	AΤ	DI	PO	RT

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NSE2473-05 (1042 Gar	denia - Soil) S	ampled:	05/28/09 09:30					
General Chemistry Parameters								
% Dry Solids	93.0		%	0.500	1	06/10/09 09:06	SW-846	9061067
Selected Volatile Organic Compounds	by EPA Method	8260B						
Benzene	ND		mg/kg dry	0.00205	1	06/02/09 18:46	SW846 8260B	9060479
Ethylbenzene	ND		mg/kg dry	0.00205	1	06/02/09 18:46	SW846 8260B	9060479
Naphthalene	ND		mg/kg dry	0.00513	1	06/02/09 18:46	SW846 8260B	9060479
Toluene	ND		mg/kg dry	0.00205	1	06/02/09 18:46	SW846 8260B	9060479
Xylenes, total	ND		mg/kg dry	0.00513	1	06/02/09 18:46	SW846 8260B	9060479
Surr: 1,2-Dichloroethane-d4 (41-150%)	70 %					06/02/09 18:46	SW846 8260B	9060479
Surr: Dibromofluoromethane (75-125%)	93 %					06/02/09 18:46	SW846 8260B	9060479
Surr: Toluene-d8 (76-129%)	83 %					06/02/09 18:46	SW846 8260B	9060479
Surr: 4-Bromofluorobenzene (58-150%)	107 %					06/02/09 18:46	SW846 8260B	9060479
Polyaromatic Hydrocarbons by EPA 82	70D							
Acenaphthene	ND		mg/kg dry	0.0718	1	06/03/09 16:27	SW846 8270D	9054554
Acenaphthylene	ND		mg/kg dry	0.0718	1	06/03/09 16:27	SW846 8270D	9054554
Anthracene	ND		mg/kg dry	0.0718	1	06/03/09 16:27	SW846 8270D	9054554
Benzo (a) anthracene	ND		mg/kg dry	0.0718	1	06/03/09 16:27	SW846 8270D	9054554
Benzo (a) pyrene	ND		mg/kg dry	0.0718	1	06/03/09 16:27	SW846 8270D	9054554
Benzo (b) fluoranthene	ND		mg/kg dry	0.0718	1	06/03/09 16:27	SW846 8270D	9054554
Benzo (g,h,i) perylene	ND		mg/kg dry	0.0718	1	06/03/09 16:27	SW846 8270D	9054554
Benzo (k) fluoranthene	ND		mg/kg dry	0.0718	1	06/03/09 16:27	SW846 8270D	9054554
Chrysene	ND		mg/kg dry	0.0718	1	06/03/09 16:27	SW846 8270D	9054554
Dibenz (a,h) anthracene	ND		mg/kg dry	0.0718	1	06/03/09 16:27	SW846 8270D	9054554
Fluoranthene	ND		mg/kg dry	0.0718	1	06/03/09 16:27	SW846 8270D	9054554
Fluorene	ND		mg/kg dry	0.0718	1	06/03/09 16:27	SW846 8270D	9054554
Indeno (1,2,3-cd) pyrene	ND		mg/kg dry	0.0718	1	06/03/09 16:27	SW846 8270D	9054554
Naphthalene	ND		mg/kg dry	0.0718	1	06/03/09 16:27	SW846 8270D	9054554
Phenanthrene	ND		mg/kg dry	0.0718	1	06/03/09 16:27	SW846 8270D	9054554
Pyrene	ND		mg/kg dry	0.0718	1	06/03/09 16:27	SW846 8270D	9054554
1-Methylnaphthalene	ND		mg/kg dry	0.0718	1	06/03/09 16:27	SW846 8270D	9054554
2-Methylnaphthalene	ND		mg/kg dry	0.0718	1	06/03/09 16:27	SW846 8270D	9054554
Surr: Terphenyl-d14 (18-120%)	56 %					06/03/09 16:27	SW846 8270D	9054554
Surr: 2-Fluorobiphenyl (14-120%)	49 %					06/03/09 16:27	SW846 8270D	9054554
Surr: Nitrobenzene-d5 (17-120%)	55 %					06/03/09 16:27	SW846 8270D	9054554





10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order:

NSE2473

Project Name:

Laurel Bay Housing Project

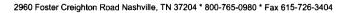
Project Number:

[none]

Received: 05/29/09 08:00

ANA	\mathbf{LY}	ΓICAΙ	. REP	ORT

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NSE2473-06 (1047 Gar	denia - Soil) S	ampled: (05/28/09 13:30					
General Chemistry Parameters								
% Dry Solids	97.2		%	0.500	1	06/10/09 09:06	SW-846	9061067
Selected Volatile Organic Compounds	by EPA Method	8260B						
Benzene	ND		mg/kg dry	0.00225	1	06/02/09 19:15	SW846 8260B	9060479
Ethylbenzene	ND		mg/kg dry	0.00225	1	06/02/09 19:15	SW846 8260B	9060479
Naphthalene	ND		mg/kg dry	0.00563	1	06/02/09 19:15	SW846 8260B	9060479
Toluene	ND		mg/kg dry	0.00225	1	06/02/09 19:15	SW846 8260B	9060479
Xylenes, total	ND		mg/kg dry	0.00563	1	06/02/09 19:15	SW846 8260B	9060479
Surr: 1,2-Dichloroethane-d4 (41-150%)	89 %					06/02/09 19:15	SW846 8260B	9060479
Surr: Dibromofluoromethane (75-125%)	98 %					06/02/09 19:15	SW846 8260B	9060479
Surr: Toluene-d8 (76-129%)	88 %					06/02/09 19:15	SW846 8260B	9060479
Surr: 4-Bromofluorobenzene (58-150%)	127 %					06/02/09 19:15	SW846 8260B	9060479
Polyaromatic Hydrocarbons by EPA 82	270D							
Acenaphthene	ND		mg/kg dry	0.0685	1	06/03/09 16:51	SW846 8270D	9054554
Acenaphthylene	ND		mg/kg dry	0.0685	1	06/03/09 16:51	SW846 8270D	9054554
Anthracene	ND		mg/kg dry	0.0685	I	06/03/09 16:51	SW846 8270D	9054554
Benzo (a) anthracene	ND		mg/kg dry	0.0685	1	06/03/09 16:51	SW846 8270D	9054554
Benzo (a) pyrenc	ND		mg/kg dry	0.0685	1	06/03/09 16:51	SW846 8270D	9054554
Benzo (b) fluoranthene	ND		mg/kg dry	0.0685	1	06/03/09 16:51	SW846 8270D	9054554
Benzo (g,h,i) perylene	ND		mg/kg dry	0.0685	1	06/03/09 16:51	SW846 8270D	9054554
Benzo (k) fluoranthene	ND		mg/kg dry	0.0685	1	06/03/09 16:51	SW846 8270D	9054554
Chrysene	ND		mg/kg dry	0.0685	1	06/03/09 16:51	SW846 8270D	9054554
Dibenz (a,h) anthracene	ND		mg/kg dry	0.0685	1	06/03/09 16:51	SW846 8270D	9054554
Fluoranthene	ND		mg/kg dry	0.0685	1	06/03/09 16:51	SW846 8270D	9054554
Fluorene	ND		mg/kg dry	0.0685	1	06/03/09 16:51	SW846 8270D	9054554
Indeno (1,2,3-cd) pyrene	ND		mg/kg dry	0.0685	1	06/03/09 16:51	SW846 8270D	9054554
Naphthalene	ND		mg/kg dry	0.0685	1	06/03/09 16:51	SW846 8270D	9054554
Phenanthrene	ND		mg/kg dry	0.0685	1	06/03/09 16:51	SW846 8270D	9054554
Pyrene	ND		mg/kg dry	0.0685	1	06/03/09 16:51	SW846 8270D	9054554
1-Methylnaphthalene	ND		mg/kg dry	0.0685	1	06/03/09 16:51	SW846 8270D	9054554
2-Methylnaphthalene	ND		mg/kg dry	0.0685	1	06/03/09 16:51	SW846 8270D	9054554
Surr: Terphenyl-d14 (18-120%)	45 %		- •			06/03/09 16:51	SW846 8270D	9054554
Surr: 2-Fluorobiphenyl (14-120%)	43 %					06/03/09 16:51	SW846 8270D	9054554
Surr: Nitrobenzene-d5 (17-120%)	49 %					06/03/09 16:51	SW846 8270D	9054554





10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order:

NSE2473

Project Name:

Laurel Bay Housing Project

Project Number: Received: [none]

05/29/09 08:00

SAMPLE EXTRACTION DATA

Parameter	Batch	Lab Number	Wt/Vol Extracted	Extracted Vol	Date	Analyst	Extraction Method
Polyaromatic Hydrocarbons by EPA	A 8270D						
SW846 8270D	9054554	NSE2473-01	30.21	1.00	06/01/09 13:05	CDJ	EPA 3550B
SW846 8270D	9054554	NSE2473-01RE1	30.21	1.00	06/01/09 13:05	CDJ	EPA 3550B
SW846 8270D	9054554	NSE2473-01RE2	30.21	1.00	06/01/09 13:05	CDJ	EPA 3550B
SW846 8270D	9054554	NSE2473-02	30.18	1.00	06/01/09 13:05	CDJ	EPA 3550B
SW846 8270D	9054554	NSE2473-03	30.05	1.00	06/01/09 13:05	CDJ	EPA 3550B
SW846 8270D	9054554	NSE2473-04	30.02	1.00	06/01/09 13:05	CDJ	EPA 3550B
SW846 8270D	9054554	NSE2473-05	30.11	1.00	06/01/09 13:05	CDJ	EPA 3550B
SW846 8270D	9054554	NSE2473-06	30.20	1.00	06/01/09 13:05	CDJ	EPA 3550B
Selected Volatile Organic Compou	nds by EPA Method 8	3260B					
SW846 8260B	9060479	NSE2473-01	5.98	5.00	05/26/09 10:30	JRL	EPA 5035
SW846 8260B	9060692	NSE2473-01RE1	6.04	5.00	05/26/09 10:30	JRL	EPA 5035
SW846 8260B	9060692	NSE2473-01RE2	6.04	5.00	05/26/09 10:30	JRL	EPA 5035
SW846 8260B	9060479	NSE2473-02	5.30	5.00	05/26/09 16:30	JRL	EPA 5035
SW846 8260B	9060692	NSE2473-02RE1	5.62	5.00	05/26/09 16:30	JRL	EPA 5035
SW846 8260B	9060479	NSE2473-03	4.65	5.00	05/27/09 10:40	JRL	EPA 5035
SW846 8260B	9060479	NSE2473-04	4.69	5.00	05/27/09 14:15	JRL	EPA 5035
SW846 8260B	9060479	NSE2473-05	5.24	5.00	05/28/09 09:30	JRL	EPA 5035
SW846 8260B	9060479	NSE2473-06	4.57	5.00	05/28/09 13:30	JRL	EPA 5035



10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

10179 Highway 78

Work Order:

NSE2473

Project Name:

Laurel Bay Housing Project

Project Number:

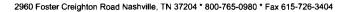
[none]

Received:

05/29/09 08:00

PROJECT QUALITY CONTROL DATA Blank

Analyte	Blank Value	Q	Units	Q.C. Batch	Lab Number	Analyzed Date/Time
Selected Volatile Organic Compo	ounds by EPA Method	8260B				
9060479-BLK1						
Benzene	< 0.000670		mg/kg wet	9060479	9060479-BLK1	06/02/09 15:47
Ethylbenzene	< 0.000670		mg/kg wet	9060479	9060479-BLK1	06/02/09 15:47
Naphthalene	< 0.00170		mg/kg wet	9060479	9060479-BLK1	06/02/09 15:47
Toluene	< 0.000400		mg/kg wet	9060479	9060479-BLK1	06/02/09 15:47
Xylenes, total	< 0.00130		mg/kg wet	9060479	9060479-BLK1	06/02/09 15:47
Surrogate: 1,2-Dichloroethane-d4	81%			9060479	9060479-BLK1	06/02/09 15:47
Surrogate: Dibromofluoromethane	98%			9060479	9060479-BLK1	06/02/09 15:47
Surrogate: Toluene-d8	90%			9060479	9060479-BLK1	06/02/09 15:47
Surrogate: 4-Bromofluorobenzene	103%			9060479	9060479-BLK1	06/02/09 15:47
9060692-BLK1						
Benzene	< 0.000670		mg/kg wet	9060692	9060692-BLK1	06/03/09 14:21
Ethylbenzene	< 0.000670		mg/kg wet	9060692	9060692-BLK1	06/03/09 14:21
Naphthalene	< 0.00170		mg/kg wet	9060692	9060692-BLK1	06/03/09 14:21
Toluene	< 0.000400		mg/kg wet	9060692	9060692-BLK1	06/03/09 14:21
Xylenes, total	< 0.00130		mg/kg wet	9060692	9060692-BLK1	06/03/09 14:21
Surrogate: 1,2-Dichloroethane-d4	63%			9060692	9060692-BLK1	06/03/09 14:21
Surrogate: Dibromofluoromethane	93%			9060692	9060692-BLK1	06/03/09 14:21
Surrogate: Toluene-d8	87%			9060692	9060692-BLK1	06/03/09 14:21
Common day A Brown of Common Lawrence						
Surrogate: 4-Bromofluorobenzene	102%			9060692	9060692-BLK1	06/03/09 14:21
Polyaromatic Hydrocarbons by l				9060692	9060692-BLK1	06/03/09 14:21
·				9060692	9060692-BLK1	06/03/09 14:21
Polyaromatic Hydrocarbons by l			mg/kg wet	9060692 9054554	9060692-BLK1 9054554-BLK1	06/03/09 14:21 06/03/09 13:22
Polyaromatic Hydrocarbons by I 9054554-BLK1	EPA 8270D		mg∕kg wet mg∕kg wet			
Polyaromatic Hydrocarbons by I 9054554-BLK1 Acenaphthene	EPA 8270D <0.0320			9054554	9054554-BLK1	06/03/09 13:22
Polyaromatic Hydrocarbons by I 9054554-BLK1 Acenaphthene Acenaphthylene	EPA 8270D <0.0320 <0.0310		mg/kg wet	9054554 9054554	9054554-BLK1 9054554-BLK1	06/03/09 13:22 06/03/09 13:22
Polyaromatic Hydrocarbons by I 9054554-BLK1 Acenaphthene Acenaphthylene Anthracene	<pre><0.0320 <0.0310 <0.0330</pre>		mg/kg wet	9054554 9054554 9054554	9054554-BLK1 9054554-BLK1 9054554-BLK1	06/03/09 13:22 06/03/09 13:22 06/03/09 13:22
Polyaromatic Hydrocarbons by I 9054554-BLK1 Acenaphthene Acenaphthylene Anthracene Benzo (a) anthracene	EPA 8270D <0.0320 <0.0310 <0.0330 <0.0380		mg/kg wet mg/kg wet mg/kg wet	9054554 9054554 9054554 9054554	9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1	06/03/09 13:22 06/03/09 13:22 06/03/09 13:22 06/03/09 13:22
Polyaromatic Hydrocarbons by I 9054554-BLK1 Acenaphthene Acenaphthylene Anthracene Benzo (a) anthracene Benzo (a) pyrene	<pre><0.0320 <0.0310 <0.0330 <0.0380 <0.0300</pre>		mg/kg wet mg/kg wet mg/kg wet mg/kg wet	9054554 9054554 9054554 9054554 9054554	9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1	06/03/09 13:22 06/03/09 13:22 06/03/09 13:22 06/03/09 13:22 06/03/09 13:22
Polyaromatic Hydrocarbons by I 9054554-BLK1 Acenaphthene Acenaphthylene Anthracene Benzo (a) anthracene Benzo (a) pyrene Benzo (b) fluoranthene	EPA 8270D <0.0320 <0.0310 <0.0330 <0.0380 <0.0300 <0.0300		mg/kg wet mg/kg wet mg/kg wet mg/kg wet mg/kg wet	9054554 9054554 9054554 9054554 9054554 9054554	9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1	06/03/09 13:22 06/03/09 13:22 06/03/09 13:22 06/03/09 13:22 06/03/09 13:22
Polyaromatic Hydrocarbons by I 9054554-BLK1 Acenaphthene Acenaphthylene Anthracene Benzo (a) anthracene Benzo (a) pyrene Benzo (b) fluoranthene Benzo (g,h,i) perylene	EPA 8270D <0.0320 <0.0310 <0.0330 <0.0380 <0.0300 <0.0300 <0.0300 		mg/kg wet mg/kg wet mg/kg wet mg/kg wet mg/kg wet mg/kg wet	9054554 9054554 9054554 9054554 9054554 9054554 9054554	9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1	06/03/09 13:22 06/03/09 13:22 06/03/09 13:22 06/03/09 13:22 06/03/09 13:22 06/03/09 13:22
Polyaromatic Hydrocarbons by I 9054554-BLK1 Acenaphthene Acenaphthylene Anthracene Benzo (a) anthracene Benzo (a) pyrene Benzo (b) fluoranthene Benzo (g,h,i) perylene Benzo (k) fluoranthene	COLORADO SERVIDADO SERV		mg/kg wet	9054554 9054554 9054554 9054554 9054554 9054554 9054554	9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1	06/03/09 13:22 06/03/09 13:22 06/03/09 13:22 06/03/09 13:22 06/03/09 13:22 06/03/09 13:22 06/03/09 13:22
Polyaromatic Hydrocarbons by I 9054554-BLK1 Acenaphthene Acenaphthylene Anthracene Benzo (a) anthracene Benzo (a) pyrene Benzo (b) fluoranthene Benzo (k) fluoranthene Chrysene	 <0.0320 <0.0310 <0.0330 <0.0380 <0.0300 <0.0300 <0.0300 <0.0300 <0.0400 		mg/kg wet	9054554 9054554 9054554 9054554 9054554 9054554 9054554 9054554	9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1	06/03/09 13:22 06/03/09 13:22 06/03/09 13:22 06/03/09 13:22 06/03/09 13:22 06/03/09 13:22 06/03/09 13:22 06/03/09 13:22
Polyaromatic Hydrocarbons by I 9054554-BLK1 Acenaphthene Acenaphthylene Anthracene Benzo (a) anthracene Benzo (a) pyrene Benzo (b) fluoranthene Benzo (g,h,i) perylene Benzo (k) fluoranthene Chrysene Dibenz (a,h) anthracene	 <0.0320 <0.0310 <0.0330 <0.0380 <0.0300 <0.0300 <0.0300 <0.0400 <0.0310 		mg/kg wet	9054554 9054554 9054554 9054554 9054554 9054554 9054554 9054554 9054554	9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1	06/03/09 13:22 06/03/09 13:22 06/03/09 13:22 06/03/09 13:22 06/03/09 13:22 06/03/09 13:22 06/03/09 13:22 06/03/09 13:22 06/03/09 13:22 06/03/09 13:22
Polyaromatic Hydrocarbons by I 9054554-BLK1 Acenaphthene Acenaphthylene Anthracene Benzo (a) anthracene Benzo (a) pyrene Benzo (b) fluoranthene Benzo (g,h,i) perylene Benzo (k) fluoranthene Chrysene Dibenz (a,h) anthracene Fluoranthene	COMPANSION STATES OF THE PARSION STATES OF THE PARSION OF THE P		mg/kg wet	9054554 9054554 9054554 9054554 9054554 9054554 9054554 9054554 9054554 9054554	9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1	06/03/09 13:22 06/03/09 13:22
Polyaromatic Hydrocarbons by I 9054554-BLK1 Acenaphthene Acenaphthylene Anthracene Benzo (a) anthracene Benzo (b) fluoranthene Benzo (b) fluoranthene Benzo (k) fluoranthene Chrysene Dibenz (a,h) anthracene Fluoranthene Fluorene	 <0.0320 <0.0310 <0.0330 <0.0380 <0.0300 <0.0300 <0.0300 <0.0300 <0.0340 <0.0340 <0.0340 <0.0360 		mg/kg wet	9054554 9054554 9054554 9054554 9054554 9054554 9054554 9054554 9054554 9054554	9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1	06/03/09 13:22 06/03/09 13:22
Polyaromatic Hydrocarbons by I 9054554-BLK1 Acenaphthene Acenaphtylene Anthracene Benzo (a) anthracene Benzo (a) pyrene Benzo (b) fluoranthene Benzo (g,h,i) perylene Benzo (k) fluoranthene Chrysene Dibenz (a,h) anthracene Fluoranthene Fluorene Indeno (1,2,3-cd) pyrene	 <0.0320 <0.0310 <0.0330 <0.0380 <0.0300 <0.0300 <0.0300 <0.0300 <0.0300 <0.0340 <0.0340 <0.0360 <0.0310 		mg/kg wet	9054554 9054554 9054554 9054554 9054554 9054554 9054554 9054554 9054554 9054554 9054554 9054554	9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1	06/03/09 13:22 06/03/09 13:22
Polyaromatic Hydrocarbons by I 9054554-BLK1 Acenaphthene Acenaphthylene Anthracene Benzo (a) anthracene Benzo (a) pyrene Benzo (b) fluoranthene Benzo (g,h,i) perylene Benzo (k) fluoranthene Chrysene Dibenz (a,h) anthracene Fluoranthene Fluorene Indeno (1,2,3-cd) pyrene Naphthalene Phenanthrene	COMPANSION STATE OF THE PARSION STATE OF THE PAR		mg/kg wet	9054554 9054554 9054554 9054554 9054554 9054554 9054554 9054554 9054554 9054554 9054554 9054554 9054554	9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1	06/03/09 13:22 06/03/09 13:22
Polyaromatic Hydrocarbons by I 9054554-BLK1 Acenaphthene Acenaphtylene Anthracene Benzo (a) anthracene Benzo (a) pyrene Benzo (b) fluoranthene Benzo (g,h,i) perylene Benzo (k) fluoranthene Chrysene Dibenz (a,h) anthracene Fluoranthene Fluorene Indeno (1,2,3-cd) pyrene Naphthalene	 <0.0320 <0.0310 <0.0330 <0.0380 <0.0300 <0.0300 <0.0300 <0.0300 <0.0340 <0.0340 <0.0340 <0.0360 <0.0310 <0.0340 <0.0340 <0.0340 <0.0340 <0.0340 <0.0340 		mg/kg wet	9054554 9054554 9054554 9054554 9054554 9054554 9054554 9054554 9054554 9054554 9054554 9054554 9054554	9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1 9054554-BLK1	06/03/09 13:22 06/03/09 13:22





10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order:

NSE2473

Project Name:

Laurel Bay Housing Project

Project Number:

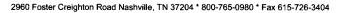
Received:

[none] 05/29/09 08:00

PROJECT QUALITY CONTROL DATA

Blank - Cont.

Analyte	Blank Value	Q	Units	Q.C. Batch	Lab Number	Analyzed Date/Time
Polyaromatic Hydrocarbons by	y EPA 8270D					
9054554-BLK1						
Surrogate: Terphenyl-d14	77%			9054554	9054554-BLK1	06/03/09 13:22
Surrogate: 2-Fluorobiphenyl	51%			9054554	9054554-BLK1	06/03/09 13:22
Surrogate: Nitrobenzene-d5	57%			9054554	9054554-BLK1	06/03/09 13:22





10179 Highway 78 Ladson, SC 29456

Tom McElwee

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Work Order:

NSE2473

Project Name:

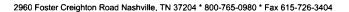
Laurel Bay Housing Project

Project Number: Received: [none] 05/29/09 08:00

PROJECT QUALITY CONTROL DATA

Duplicate

Analyte	Orig. Val.	Duplicate	Q	Units	RPD	Limit	Batch	Sample Duplicated	% Rec.	Analyzed Date/Time
General Chemistry Parameters										
9061067-DUP1										
% Dry Solids	81.5	81.8		%	0.4	20	9061067	NSE2457-16		06/10/09 09:06





10179 Highway 78 Ladson, SC 29456

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Work Order:

NSE2473

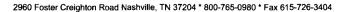
Project Name:

Laurel Bay Housing Project

Project Number: Received: [none] 05/29/09 08:00

PROJECT QUALITY CONTROL DATA LCS

Analyte	Known Val.	Analyzed Val	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
Selected Volatile Organic Compour	nds by EPA Method 82	60B						
9060479-BS1								
Benzene	50.0	49.2		ug/kg	98%	78 - 126	9060479	06/02/09 14:06
Ethylbenzene	50.0	53.4		ug/kg	107%	79 - 130	9060479	06/02/09 14:06
Naphthalene	50.0	48.8		ug/kg	98%	72 - 150	9060479	06/02/09 14:06
Toluene	50.0	44.8		ug/kg	90%	76 - 126	9060479	06/02/09 14:06
Xylenes, total	150	156		ug/kg	104%	80 - 130	9060479	06/02/09 14:06
Surrogate: 1,2-Dichloroethane-d4	50.0	30.2			60%	41 - 150	9060479	06/02/09 14:06
Surrogate: Dibromofluoromethane	50.0	48.3			97%	75 - 125	9060479	06/02/09 14:06
Surrogate: Toluene-d8	50.0	44.7			89%	76 - 129	9060479	06/02/09 14:06
Surrogate: 4-Bromofluorobenzene	50.0	50.0			100%	58 - 150	9060479	06/02/09 14:06
9060692-BS1								
Benzene	50.0	48.1		ug/kg	96%	78 - 126	9060692	06/03/09 12:12
Ethylbenzene	50.0	50.2		ug/kg	100%	79 - 130	9060692	06/03/09 12:12
Naphthalene	50.0	46.8		ug/kg	94%	72 - 150	9060692	06/03/09 12:12
Toluene	50.0	42.4		ug/kg	85%	76 - 126	9060692	06/03/09 12:12
Xylenes, total	150	146		ug/kg	97%	80 - 130	9060692	06/03/09 12:12
Surrogate: 1,2-Dichloroethane-d4	50.0	34.2			68%	41 - 150	9060692	06/03/09 12:12
Surrogate: Dibromofluoromethane	50.0	49.4			99%	75 - 125	9060692	06/03/09 12:12
Surrogate: Toluene-d8	50.0	44.2			88%	76 - 129	9060692	06/03/09 12:12
Surrogate: 4-Bromofluorobenzene	50.0	50.0			100%	67 - 147	9060692	06/03/09 12:12
Polyaromatic Hydrocarbons by EP.	A 8270D							
9054554-BS1								
Acenaphthene	1.67	1.17		mg/kg wet	70%	49 - 120	9054554	06/03/09 13:44
Acenaphthylene	1.67	1.23		mg/kg wet	74%	52 - 120	9054554	06/03/09 13:44
Anthracene	1.67	1.32		mg/kg wet	79%	58 - 120	9054554	06/03/09 13:44
Benzo (a) anthracene	1.67	1.26		mg/kg wet	76%	57 - 120	9054554	06/03/09 13:44
Benzo (a) pyrene	1.67	1.25		mg/kg wet	75%	55 - 120	9054554	06/03/09 13:44
Benzo (b) fluoranthene	1.67	1.32		mg/kg wet	79%	51 - 123	9054554	06/03/09 13:44
Benzo (g,h,i) perylene	1.67	1.25		mg/kg wet	75%	49 - 121	9054554	06/03/09 13:44
Benzo (k) fluoranthene	1.67	1.08		mg/kg wet	65%	42 - 129	9054554	06/03/09 13:44
Chrysene	1.67	1.20		mg/kg wet	72%	55 - 120	9054554	06/03/09 13:44
Dibenz (a,h) anthracene	1.67	1.28		mg/kg wet	77%	50 - 123	9054554	06/03/09 13:44
Fluoranthene	1.67	1.25		mg/kg wet	75%	58 - 120	9054554	06/03/09 13:44
Fluorene	1.67	1.23		mg/kg wet	74%	54 - 120	9054554	06/03/09 13:44
Indeno (1,2,3-cd) pyrene	1.67	1.30		mg/kg wet	78%	50 - 122	9054554	06/03/09 13:44
Naphthalene	1.67	1.05		mg/kg wet	63%	28 - 107	9054554	06/03/09 13:44
Phenanthrene	1.67	1.19		mg/kg wet	72%	56 - 120	9054554	06/03/09 13:44
Pyrene	1.67	1.21		mg/kg wet	73%	56 - 120	9054554	06/03/09 13:44
i-Methylnaphthalene	1.67	1.01		mg/kg wet	60%	36 - 120	9054554	06/03/09 13:44
2-Methylnaphthalene	1.67	1.11		mg/kg wet	67%	36 - 120	9054554	06/03/09 13:44





10179 Highway 78 Ladson, SC 29456

Tom McElwee

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Work Order:

NSE2473

Project Name:

Laurel Bay Housing Project

Project Number:

[none]

Received: 05/29/09 08:00

PROJECT QUALITY CONTROL DATA LCS - Cont.

Analyte	Known Val.	Analyzed Val	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
Polyaromatic Hydrocarbons by EPA 82	70D							
9054554-BS1								
Surrogate: Terphenyl-d14	1.67	1.19			71%	18 - 120	9054554	06/03/09 13:44
Surrogate: 2-Fluorobiphenyl	1.67	1.10			66%	14 - 120	9054554	06/03/09 13:44
Surrogate: Nitrobenzene-d5	1.67	1.19			71%	17 - 120	9054554	06/03/09 13:44



10179 Highway 78 Ladson, SC 29456

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Work Order:

NSE2473

Project Name:

Laurel Bay Housing Project

Project Number:

Received:

[none]

05/29/09 08:00

PROJECT QUALITY CONTROL DATA LCS Dup

Analyte	Orig. Val.	Duplicate	Q	Units	Spike Conc	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
Selected Volatile Organic Compound	ds by EPA	Method 826	50B									
9060479-BSD1												
Benzene		48.3		ug/kg	50.0	97%	78 - 126	2	50	9060479		06/02/09 13:36
Ethylbenzene		51.9		ug/kg	50.0	104%	79 - 130	3	50	9060479		06/02/09 13:36
Naphthalene		52.2		ug/kg	50.0	104%	72 - 150	7	50	9060479		06/02/09 13:36
Toluene		43.8		ug/kg	50.0	88%	76 - 126	2	50	9060479		06/02/09 13:36
Xylenes, total		152		ug/kg	150	102%	80 - 130	2	50	9060479		06/02/09 13:36
Surrogate: 1,2-Dichloroethane-d4		33.8		ug/kg	50.0	68%	41 - 150			9060479		06/02/09 13:36
Surrogate: Dibromofluoromethane		49.2		ug/kg	50.0	98%	75 - 125			9060479		06/02/09 13:36
Surrogate: Toluene-d8		44.5		ug/kg	50.0	89%	76 - 129			9060479		06/02/09 13:36
Surrogate: 4-Bromofluorobenzene		49.8		ug/kg	50.0	100%	58 - 150			9060479		06/02/09 13:36
9060692-BSD1												
Benzene		52.8		ug/kg	50.0	106%	78 - 126	9	50	9060692		06/03/09 12:42
Ethylbenzene		55.1		ug/kg	50.0	110%	79 - 130	9	50	9060692		06/03/09 12:42
Naphthalene		55.1		ug/kg	50.0	110%	72 - 150	16	50	9060692		06/03/09 12:42
Toluene		46.2		ug/kg	50.0	92%	76 - 126	9	50	9060692		06/03/09 12:42
Xylenes, total		162		ug/kg	150	108%	80 - 130	11	50	9060692		06/03/09 12:42
Surrogate: 1,2-Dichloroethane-d4		34.5		ug/kg	50.0	69%	41 - 150			9060692		06/03/09 12:42
Surrogate: Dibromofluoromethane		49.8		ug/kg	50.0	100%	75 - 125			9060692		06/03/09 12:42
Surrogate: Toluene-d8		43.5		ug/kg	50.0	87%	76 - 129			9060692		06/03/09 12:42
Surrogate: 4-Bromofluorobenzene		50.1		ug/kg	50.0	100%	67 - 147			9060692		06/03/09 12:42



10179 Highway 78 Ladson, SC 29456

Tom McElwee

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Work Order:

NSE2473

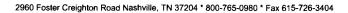
Project Name:

Laurel Bay Housing Project

Project Number: Received: [none] 05/29/09 08:00

PROJECT QUALITY CONTROL DATA Matrix Spike

Analyte	Orig. Val.	MS Val	Q	Units	Spike Conc	% Rec.	Target Range	Batch	Sample Spiked	Analyzed Date/Time
Selected Volatile Organic Compound	ls by EPA Met	thod 8260B								
9060479-MS1										
Benzene	ND	48.8		ug/kg	50.0	98%	42 - 141	9060479	NSE2547-01	06/02/09 21:02
Ethylbenzene	ND	51.9		ug/kg	50.0	104%	21 - 165	9060479	NSE2547-01	06/02/09 21:02
Naphthalene	ND	46.7		ug/kg	50.0	93%	10 - 160	9060479	NSE2547-01	06/02/09 21:02
Toluene	ND	42.4		ug/kg	50.0	85%	45 - 145	9060479	NSE2547-01	06/02/09 21:02
Xylenes, total	ND	151		ug/kg	150	101%	31 - 159	9060479	NSE2547-01	06/02/09 21:02
Surrogate: 1,2-Dichloroethane-d4		41.6		ug/kg	50.0	83%	41 - 150	9060479	NSE2547-01	06/02/09 21:02
Surrogate: Dibromofluoromethane		49.4		ug/kg	50.0	99%	75 - 125	9060479	NSE2547-01	06/02/09 21:02
Surrogate: Toluene-d8		42.7		ug/kg	50.0	85%	76 - 129	9060479	NSE2547-01	06/02/09 21:02
Surrogate: 4-Bromofluorobenzene		50.8		ug/kg	50.0	102%	58 - 150	9060479	NSE2547-01	06/02/09 21:02
9060692-MS1										
Benzene	ND	68.0		ug/kg	50.0	136%	42 - 141	9060692	NSE2076-04	06/03/09 19:27
Ethylbenzene	ND	68.5		ug/kg	50.0	137%	21 - 165	9060692	NSE2076-04	06/03/09 19:27
Naphthalene	ND	84.3	M 7	ug/kg	50.0	169%	10 - 160	9060692	NSE2076-04	06/03/09 19:27
Toluene	ND	58.8		ug/kg	50.0	118%	45 - 145	9060692	NSE2076-04	06/03/09 19:27
Xylenes, total	ND	201		ug/kg	150	134%	31 - 159	9060692	NSE2076-04	06/03/09 19:27
Surrogate: 1,2-Dichloroethane-d4		45.2		ug/kg	50.0	90%	41 - 150	9060692	NSE2076-04	06/03/09 19:27
Surrogate: Dibromofluoromethane		49.8		ug/kg	50.0	100%	75 - 125	9060692	NSE2076-04	06/03/09 19:27
Surrogate: Toluene-d8		43.2		ug/kg	50.0	86%	76 - 129	9060692	NSE2076-04	06/03/09 19:27
Surrogate: 4-Bromofluorobenzene		53.2		ug/kg	50.0	106%	67 - 147	9060692	NSE2076-04	06/03/09 19:27
Polyaromatic Hydrocarbons by EPA	8270D									
9054554-MS1										
Acenaphthene	ND	1.10		mg/kg dry	1.76	62%	42 - 120	9054554	NSE2473-05	06/03/09 14:07
Acenaphthylene	ND	1.15		mg/kg dry	1.76	65%	32 - 120	9054554	NSE2473-05	06/03/09 14:07
Anthracene	ND	1.20		mg/kg dry	1.76	68%	10 - 200	9054554	NSE2473-05	06/03/09 14:07
Benzo (a) anthracene	ND	1.15		mg/kg dry	1.76	65%	41 - 120	9054554	NSE2473-05	06/03/09 14:07
Benzo (a) pyrene	ND	1.15		mg/kg dry	1.76	65%	33 - 121	9054554	NSE2473-05	06/03/09 14:07
Benzo (b) fluoranthene	ND	1.28		mg/kg dry	1.76	73%	26 - 137	9054554	NSE2473-05	06/03/09 14:07
Benzo (g,h,i) perylene	ND	1.20		mg/kg dry	1.76	68%	21 - 124	9054554	NSE2473-05	06/03/09 14:07
Benzo (k) fluoranthene	ND	1.02		mg/kg dry	1.76	58%	14 - 140	9054554	NSE2473-05	06/03/09 14:07
Chrysene	ND	1.12		mg/kg dry	1.76	64%	28 - 123	9054554	NSE2473-05	06/03/09 14:07
Dibenz (a,h) anthracene	ND	1.22		mg/kg dry	1.76	69%	25 - 127	9054554	NSE2473-05	06/03/09 14:07
Fluoranthene	ND	1.20		mg/kg dry	1.76	68%	38 - 120	9054554	NSE2473-05	06/03/09 14:07
Fluorene	ND	1.14		mg/kg dry	1.76	65%	41 - 120	9054554	NSE2473-05	06/03/09 14:07
Indeno (1,2,3-cd) pyrene	ND	1.22		mg/kg dry	1.76	69%	25 - 123	9054554	NSE2473-05	06/03/09 14:07
Naphthalene	ND	0.980		mg/kg dry	1.76	56%	25 - 120	9054554	NSE2473-05	06/03/09 14:07
Phenanthrene	ND	1.11		mg/kg dry	1.76	63%	37 - 120	9054554	NSE2473-05	06/03/09 14:07





10179 Highway 78 Ladson, SC 29456

Tom McElwee

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Work Order:

NSE2473

Project Name:

Laurel Bay Housing Project

Project Number:

[none]

Received: 05/29/09 08:00

PROJECT QUALITY CONTROL DATA Matrix Spike - Cont.

Analyte	Orig. Val.	MS Val	Q Units	Spike Conc	% Rec.	Target Range	Batch	Sample Spiked	Analyzed Date/Time
Polyaromatic Hydrocarbons by EPA	8270D								
9054554-MS1									
Pyrene	ND	1.14	mg/kg dry	1.76	65%	29 - 125	9054554	NSE2473-05	06/03/09 14:07
1-Methylnaphthalene	ND	0.944	mg/kg dry	1.76	54%	19 - 120	9054554	NSE2473-05	06/03/09 14:07
2-Methylnaphthalene	ND	1.02	mg/kg dry	1.76	58%	11 - 120	9054554	NSE2473-05	06/03/09 14:07
Surrogate: Terphenyl-d14		1.08	mg/kg dry	1.76	61%	18 - 120	9054554	NSE2473-05	06/03/09 14:07
Surrogate: 2-Fluorobiphenyl		0.984	mg/kg dry	1.76	56%	14 - 120	9054554	NSE2473-05	06/03/09 14:07
Surrogate: Nitrobenzene-d5		1.07	mg/kg dry	1.76	61%	17 - 120	9054554	NSE2473-05	06/03/09 14:07



10179 Highway 78 Ladson, SC 29456

Tom McElwee

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Work Order:

NSE2473

Project Name:

Laurel Bay Housing Project

Project Number:

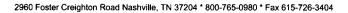
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Received:

05/29/09 08:00

PROJECT QUALITY CONTROL DATA Matrix Spike Dup

Analyte	Orig. Val.	Duplicate	Q	Units	Spike Conc	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
Selected Volatile Organic Comp	ounds by EPA	Method 82	60B									
9060479-MSD1	J											
Benzene	ND	50.9		ug/kg	50.0	102%	42 - 141	4	50	9060479	NSE2547-01	06/02/09 21:32
Ethylbenzene	ND	54.6		ug/kg	50.0	109%	21 - 165	5	50	9060479	NSE2547-01	06/02/09 21:32
Naphthalene	ND	46.1		ug/kg	50.0	92%	10 - 160	1	50	9060479	NSE2547-01	06/02/09 21:32
Toluene	ND	44.8		ug/kg	50.0	90%	45 - 145	6	50	9060479	NSE2547-01	06/02/09 21:32
Xylenes, total	ND	159		ug/kg	150	106%	31 - 159	5	50	9060479	NSE2547-01	06/02/09 21:32
Surrogate: 1,2-Dichloroethane-d4		36.5		ug/kg	50.0	73%	41 - 150			9060479	NSE2547-01	06/02/09 21:32
Surrogate: Dibromofluoromethane		49.9		ug/kg	50.0	100%	75 - 125			9060479	NSE2547-01	06/02/09 21:32
Surrogate: Toluene-d8		43.0		ug/kg	50.0	86%	76 - 129			9060479	NSE2547-01	06/02/09 21:32
Surrogate: 4-Bromofluorobenzene		51.0		ug/kg	50.0	102%	58 - 150			9060479	NSE2547-01	06/02/09 21:32
9060692-MSD1												
Benzene	ND	82.7	M7	ug/kg	50.0	165%	42 - 141	19	50	9060692	NSE2076-04	06/03/09 19:57
Ethylbenzene	ND	86.6	M7	ug/kg	50.0	173%	21 - 165	23	50	9060692	NSE2076-04	06/03/09 19:57
Naphthalene	ND	82.3	M7	ug/kg	50.0	165%	10 - 160	2	50	9060692	NSE2076-04	06/03/09 19:57
Toluene	ND	70.5		ug/kg	50.0	141%	45 - 145	18	50	9060692	NSE2076-04	06/03/09 19:57
Xylenes, total	ND	250	M7	ug/kg	150	167%	31 - 159	22	50	9060692	NSE2076-04	06/03/09 19:57
Surrogate: 1,2-Dichloroethane-d4		29.6		ug/kg	50.0	59%	41 - 150			9060692	NSE2076-04	06/03/09 19:57
Surrogate: Dibromofluoromethane		47.6		ug/kg	50.0	95%	75 - 125			9060692	NSE2076-04	06/03/09 19:57
Surrogate: Toluene-d8		42.4		ug/kg	50.0	85%	76 - 129			9060692	NSE2076-04	06/03/09 19:57
Surrogate: 4-Bromofluorobenzene		50.2		ug/kg	50.0	100%	67 - 147			9060692	NSE2076-04	06/03/09 19:57
Polyaromatic Hydrocarbons by	EPA 8270D											
9054554-MSD1												
Acenaphthene	ND	1.03	mg/kg dry 1.74 61% 32 - 120 8 30 9054554 NSE24 mg/kg dry 1.74 65% 10 - 200 6 50 9054554 NSE24 mg/kg dry 1.74 62% 41 - 120 7 30 9054554 NSE24 mg/kg dry 1.74 60% 33 - 121 8 33 9054554 NSE24 mg/kg dry 1.74 60% 26 - 137 21 42 9054554 NSE24 mg/kg dry 1.74 62% 21 - 124 11 32 9054554 NSE24 mg/kg dry 1.74 59% 14 - 140 0.7 39 9054554 NSE24 mg/kg dry 1.74 59% 28 - 123 9 34 9054554 NSE24 mg/kg dry 1.74 64% 25 - 127 9 31 9054554 NSE24 mg/kg dry 1.74 64% 38 - 120 8 35 9054554 NSE24 mg/kg dry 1.74 64% 38 - 120 8 35 9054554 NSE24 mg/kg dry 1.74 64% 38 - 120 8 35 9054554 NSE24 mg/kg dry 1.74 64% 38 - 120 8 35 9054554 NSE24 mg/kg dry 1.74 64% 25 - 127 9 31 9054554 NSE24 mg/kg dry 1.74 64% 25 - 120 3 32 9054554 NSE24 mg/kg dry 1.74 64% 25 - 123 10 32 9054554 NSE24 mg/kg dry 1.74 64% 25 - 123 10 32 9054554 NSE24 mg/kg dry 1.74 64% 25 - 120 3 42 9054554 NSE24 mg/kg dry 1.74 66% 37 - 120 6 32 9054554 NSE24 mg/kg dry 1.74 60% 37 - 120 6 32 9054554 NSE24 mg/kg dry 1.74 60% 37 - 120 6 32 9054554 NSE24 mg/kg dry 1.74 60% 37 - 120 6 32 9054554 NSE24 mg/kg dry 1.74 61% 29 - 125 8 40 9054554 NSE24 mg/kg dry 1.74 61% 29 - 125 8 40 9054554 NSE24		NSE2473-05	06/03/09 14:31						
Acenaphthylene	ND	1.06		mg/kg dry	1.74	61%	32 - 120	8	30	9054554	NSE2473-05	06/03/09 14:31
Anthracene	ND	1.13		mg/kg dry	1.74	65%	10 - 200	6	50	9054554	NSE2473-05	06/03/09 14:31
Benzo (a) anthracene	ND	1.08		mg/kg dry	1.74	62%	41 - 120	7	30	9054554	NSE2473-05	06/03/09 14:31
Benzo (a) pyrene	ND	1.06		mg/kg dry	1.74	61%	33 - 121	8	33	9054554	NSE2473-05	06/03/09 14:31
Benzo (b) fluoranthene	ND	1.04		mg/kg dry	1.74	60%	26 - 137	21	42	9054554	NSE2473-05	06/03/09 14:31
Benzo (g,h,i) perylene	ND	1.08		mg/kg dry	1.74	62%	21 - 124	11	32	9054554	NSE2473-05	06/03/09 14:31
Benzo (k) fluoranthene	ND	1.03		mg/kg dry	1.74	59%	14 - 140	0.7	39	9054554	NSE2473-05	06/03/09 14:31
Chrysene	ND	1.03		mg/kg dry	1.74	59%	28 - 123	9	34	9054554	NSE2473-05	06/03/09 14:31
Dibenz (a,h) anthracene	ND	1.11		mg/kg dry	1.74	64%	25 - 127	9	31	9054554	NSE2473-05	06/03/09 14:31
Fluoranthene	ND	1.11		mg/kg dry	1.74	64%	38 - 120	8	35	9054554	NSE2473-05	06/03/09 14:31
Fluorene	ND	1.06		mg/kg dry	1.74	61%	41 - 120	7	37	9054554	NSE2473-05	06/03/09 14:31
Indeno (1,2,3-cd) pyrene	ND	1.11		mg/kg dry	1.74	64%	25 - 123	10	32	9054554	NSE2473-05	06/03/09 14:31
Naphthalene	ND	0.950		mg/kg dry	1.74	55%	25 - 120	3	42	9054554	NSE2473-05	06/03/09 14:31
Phenanthrene	ND	1.05		mg/kg dry	1.74	60%	37 - 120	6	32	9054554	NSE2473-05	06/03/09 14:31
Pyrene	ND	1.06		mg/kg dry	1.74	61%	29 - 125	8	40	9054554	NSE2473-05	06/03/09 14:31
1-Methylnaphthalene	ND	0.906		mg/kg dry	1.74	52%	19 - 120	4	45	9054554	NSE2473-05	06/03/09 14:31
2-Methylnaphthalene	ND	0.980		mg/kg dry	1.74	56%	11 - 120	4	50	9054554	NSE2473-05	06/03/09 14:31





10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order:

NSE2473

Project Name:

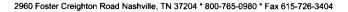
Laurel Bay Housing Project

Project Number: Received: [none] 05/29/09 08:00

PROJECT QUALITY CONTROL DATA

Matrix Spike Dup - Cont.

Analyte	Orig. Val.	Duplicate	Q 0 0 0 0	Units	Spike Conc	% Rec.	Target Range	RPD Limit	Batch	Sample Duplicated	Analyzed Date/Time
Polyaromatic Hydrocarbons by EPA	8270D										
9054554-MSD1											
Surrogate: Terphenyl-d14		1.05		mg/kg dry	1.74	60%	18 - 120		9054554	NSE2473-05	06/03/09 14:31
Surrogate: 2-Fluorobiphenyl		0.953		mg/kg dry	1.74	55%	14 - 120		9054554	NSE2473-05	06/03/09 14:31
Surrogate: Nitrobenzene-d5		1.07		mg/kg dry	1.74	62%	17 - 120		9054554	NSE2473-05	06/03/09 14:31





10179 Highway 78 Ladson, SC 29456

Tom McElwce

Work Order:

NSE2473

Project Name:

Laurel Bay Housing Project

Project Number:

[none]

Received:

05/29/09 08:00

CERTIFICATION SUMMARY

TestAmerica Nashville

Attn

Mcthod Matrix
SW846 8260B Soil
SW846 8270D Soil
SW-846 Soil

AIHA

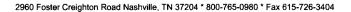
N/A

Nelac

South Carolina X

X

X





10179 Highway 78 Ladson, SC 29456

Tom McElwee

Attn

Work Order:

NSE2473 Laurel Bay Housing Project

Project Name: Project Number:

Received:

[none] 05/29/09 08:00

DATA QUALIFIERS AND DEFINITIONS

M7 The MS and/or MSD were above the acceptance limits. See Blank Spike (LCS).

RL1 Reporting limit raised due to sample matrix effects.

ZX Due to sample matrix effects, the surrogate recovery was outside the acceptance limits.

ND Not detected at the reporting limit (or method detection limit if shown)

METHOD MODIFICATION NOTES



THE LEADER IN ENVIRONMENTAL TESTING Nashville, TN

COOLER RECEI



NSE2473

Cooler Received/Opened On_05/29/09 @ 08:00	
1. Tracking #(last 4 digits, Fed.	
Courier:FED-EX	
2. Temperature of rep. sample or temp blank when opened Degrees Celsius	
3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen?	YES (NO).NA
4. Were custody seals on outside of cooler?	YE3NONA
If yes, how many and where:	
5. Were the seals intact, signed, and dated correctly?	ES NONA
6. Were custody papers inside cooler?	YES. NONA
I certify that I opened the cooler and answered questions 1-6 (intial)	
7. Were custody seals on containers: YES NO and Intact	YESNO
Were these signed and dated correctly?	YESNO. NA
8. Packing mat'l used? Subblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper	r Other None
9. Cooling process: 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)?	YESNONA
12. Did all container labels and tags agree with custody papers?	YES)NONA
13a. Were VOA vials received?	(ES)NONA
b. Was there any observable headspace present in any VOA vial?	YESNONA
14. Was there a Trip Blank in this cooler? YES NA If multiple coolers, sequence	ce #
certify that I unloaded the cooler and answered questions 7-14 (intial)	
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
If preservation in-house was needed, record standard ID of preservative used here_	
16. Was residual chlorine present?	YESNO
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)?	ESNONA
18. Did you sign the custody papers in the appropriate place?	ESNONA
19. Were correct containers used for the analysis requested?	NONA
20. Was sufficient amount of sample sent in each container?	ÆSNONA
certify that I entered this project into LIMS and answered questions 17-20 (intial)	
certify that I attached a label with the unique LIMS number to each container (intial)	_@_
21. Were there Non-Conformance issues at login? YES. (NO) Was a PIPE generated? YES.	NO).#

NSE2473

06/12/09 23:59

I HE LEADER IN ENVIRONMENTA		Nashville 2960 Fos Nashville	ter Cre	eighte	on			To	oll F	ree:	800	5-726)-765 5-726	-098	0							meth	ods, is		rk bein	oroper a g condi	•				
Client Name/Account #:	EEG # 2449																						(Compli	ance M	onitorir	ıg?	Yes		_ No
Address:	10179 Highway	78	,																					Enfor	cement	Action	?	Yes		No
City/State/Zip:	Ladson, SC 294	156																	Site	State:	sc									
Project Manager:	Tom McElwee	mail: mcel	vee@e	eginc.	net															PO#:		0	82	<u> </u>						
Telephone Number:	843.412.2097					F	ax No	هد	<u> </u>	13	_	8	79	-0	240	2['	T.	A Qu	ote #:										
Sampler Name: (Print)	PR4	4.5	hA	w	,														Proje	ct ID:	Laure	l Bay i	Housing	Proje	ct					
Sampler Signature:	A																		Proj	ect #:										
		1						37	rese	ervati	ve		N		Ma	trix		Τ					Α	nalyze	For:					1
Sample ID / Description 1033 FOXS/OVR 1032 FOXS/OVE 1040 TRIS 1041 GARDENIA 1042 GARDENIA 1047 GARDENIA	5/26/09 5/26/09 5/27/09 5/28/09 5/28/09	1630 1040 1415 0930	5 5	de o	Composite	Field Filtered	30	A C C C C C C C C C C C C C C C C C C C	NaOH (Orange Label)	H ₂ SO ₄ Plastic (Yellow Label)	H ₂ SO ₄ Glass(Yellow Label)	A A A A A A Mone (Black Labe)	Other (Specify)///	Groundwater	Drinking Water		X X X X	 - -	WWWWBTEX+Napth-8260	S S S PAH - 8270C					NS	247	73~	01 02 03 04 05 06		RUSH TAT (Pre-Schedule)
			 	+-	 		H	F	F	П		Ŧ	1	Ŧ	\Box	\exists	7	Ŧ	_					†	+	\vdash		+	 	†
				1			H	+	T	П	П	\top	十	十	П	_	十	十				1	1	 	1				\vdash	au
Special Instructions:	5/28/	6,	i i	me	Rece	ived b		nod of	f Shi	pme	nt:				Da		FED		Time		Labo	Temp	Commoerature s Free	Upon	Receip	; 3	e e	<u> </u>		Υ
Relinquished by:	Date		Tir		Rece	ived b			Ž					5	Da			08	Time				· · · · ·							

ATTACHMENT A



NON-HAZARDOUS MANIFEST

CARRE

100	ise print or type. (Form designed for use on elite (12-pitch) typewriter.)					
	NON-HAZARDOUS MANIFEST 1. Generator's US EPA ID No.	Manifest Document No.	2. Pag of 1			
	MCAS, Beaufort Laurel Bay Housing Beaufort SC 29904 4. Generator's Phone 8.43 228.6460			MNA .	LUt	1354/I
	4. Generator's Phone 843 228-8460 5. Transporter 1 Company Name 6. US EPA ID No.	ımber	C. State	Transporter's ID		
	EEG. inc.	i		sporter's Phone	2 970	0411
	7. Transporter 2 Company Name 8. US EPA ID No.	ımber	E. State	Transporter's ID	W W . W	
		1111	F. Tran	sporter's Phone		
	Designated Facility Name and Site Address 10. US EPA ID No.	ımber	G. State	Facility's ID	;	
	HICKORY HILL LANDFILL ROUTE 1, BOX 121 PIDGELAND SC 20036	1111	H. Facil	ity's Phone	3 967-	4643
	11. Description of Waste Materials	12. Co	ritainers	13. Total	14. Unit	l.
	at the ration of the Warnet William I was to the Council	No	Type	Quantity	Wt./Vol.	Misc. Comments
G	*Heating Oil Tank filled with Sand WM Profile # 1026558C	0 0 1		8.70		
ENERAT	b.					
TOR	WM Profile #					
n	c. WM Profile #		:			•
						
		*				
-:	WM Profile #					
	J. Additional Descriptions for Materials Listed Above		K. Dis	sposal Location		
	Landfill Solidification		Cell		Leve	el
	Bio Remediation		Grid			}
	15. Special Handling Instructions and Additional Information 5 EA 4575 91041 GARDENIA	4) 103	? Fo	15/00 2		
	Purchase Order # EMERGENCY CO	NTACT: 5) 10	133 F	OX5100E		
	16. GENERATOR'S CERTIFICATION:					
	I hereby certify that the above-described materials are not hazar applicable state law, have been fully and accurately described, of for transportation according to applicable regulations.					
	Charles H. Herron Charles Charles	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Nc.	~~~		Month Day Year 0160121019
T B	17. Transporter 1 Acknowledgement of Receipt of Materials					
A N	Printed/Typed Name Signature	$\Lambda \subset$	Λ			Month Day Year
S P	James Baldwin Jam	es Pale	Win			61619101
TRANSPORTER	18. Transporter 2 Acknowledgement of Receipt of Materials Y Printed/Typed Name Signature					Month Day Year
E R	<u>'</u>					
,	19. Certificate of Final Treatment/Disposal					
k C	I certify, on behalf of the above listed treatment facility, that to the was managed in compliance with all applicable laws, regulations					
ŀ	20. Facitilty Owner or Operator: Certification of receipt of non-hazardous materials covered by the	nis manifest.				
Y	Printed/Typed Name Signature	mother	(,			Month Day Year
	Jan Cultins Island		λUV)		LECKBUII

Appendix C Laboratory Analytical Report - Groundwater



Volatile Organic Compounds by GC/MS

Client: AECOM - Resolution Consultants

Description: BEALB1032TW01WG20130724

Laboratory ID: OG25027-001 Matrix: Aqueous

Date Sampled: 07/24/2013 1010

5030B

Date Received: 07/25/2013 Run Prep Method Analytical Method Dilution Analysis Date

8260B

Analyst Prep Date Batch ALL 26393

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	LOD	DL	Units	Run
Benzene	71-43-2	8260B	ND		0.50	0.25	0.027	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		0.50	0.25	0.17	ug/L	1
Naphthalene	91-20-3	8260B	0.23	BJ	0.50	0.25	0.12	ug/L	1
Toluene	108-88-3	8260B	ND		0.50	0.25	0.17	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		0.50	0.25	0.17	ug/L	1
	Run 1 Accent:	ance							

08/02/2013 1306

Surrogate	Q	% Recovery	Limits
1,2-Dichloroethane-d4		103	70-120
Toluene-d8		98	85-120
Bromofluorobenzene		108	75-120
Dibromofluoromethane		98	85-115

PQL = Practical quantitation limit ND = Not detected at or above the MDL B = Detected in the method blank $J = Estimated result < PQL and >_MDL$

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

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

H = Out of holding time N = Recovery is out of criteria

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

Semivolatile Organic Compounds by GC/MS

Analysis Date

Client: AECOM - Resolution Consultants

Analytical Method

Dilution

Description: BEALB1032TW01WG20130724

Laboratory ID: OG25027-001

Matrix: Aqueous

Date Sampled: 07/24/2013 1010

Date Received: 07/25/2013

Run Prep Method

Analyst Prep Date Batch

1	3520C	8270D	1 0	7/26/2013	1156 RBH	07/25/20	13 1509	25843				
Paramet	er		N	CAS umber	Analytical Method	Result	Q	LOQ	LOD	DL	Units	Run
Benzo(a)	anthracene		5	6-55-3	8270D	ND		0.22	0.11	0.088	ug/L	1
Benzo(b)	fluoranthene		20	5-99-2	8270D	ND		0.22	0.11	0.094	ug/L	1
Benzo(k)	fluoranthene		20	7-08-9	8270D	ND		0.22	0.11	0.099	ug/L	1
Chrysene	е		21	8-01-9	8270D	ND		0.22	0.11	0.058	ug/L	1
Dibenzo((a,h)anthracene		5	3-70-3	8270D	ND		0.22	0.11	0.062	ug/L	1
Surrogate	e	Q	Run 1 % Recover	Accepta y Limit								
2-Fluorob	piphenyl		67	50-1	10							
Nitrobenz	zene-d5		73	40-1	10							
Terpheny	yl-d14		64	50-1	35							

PQL = Practical quantitation limit
ND = Not detected at or above the MDL

B = Detected in the method blank

 $\label{eq:power_power} E = \mbox{Quantitation of compound exceeded the calibration range} \\ P = \mbox{The RPD between two GC columns exceeds 40\%}$

H = Out of holding time

Q = Surrogate failure L = LCS/LCSD failure

 $ND = Not \ detected \ at \ or \ above \ the \ MDL \\ J = Estimated \ result \ < PQL \ and \ \ge MDL \\ P = The \\ Where \ applicable, \ all \ soil \ sample \ analysis \ are \ reported \ on \ a \ dry \ weight \ basis \ unless \ flagged \ with \ a "W"$

N = Recovery is out of criteria

S = MS/MSD failure

Appendix D Regulatory Correspondence





C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

August 19, 2009

Commanding Officer

ATTN: S-4 NREAO (Craig Ehde)

MCAS

PO Box 55001

Beaufort, SC 29904-5001

Re:

MCAS – Laurel Bay Housing – 1032 Foxglove St.

Site ID # 04254

UST Closure Reports received August 17, 2009

Beaufort County

Dear Mr. Ehde:

The purpose of this letter is to verify a release of fuel oil at the referenced residence. According to information received by the Department, the source of the release is from past onsite use of fuel oil USTs. To date, initial activities by the facility have included tank removal and soil sampling. Based on the information contained in the closure report, a potential violation of the South Carolina Pollution Control Act has occurred in that there has been an unauthorized release of petroleum to the environment.

Additional assessment activities are required for this site. Specifically the Department requests that a groundwater sample be collected from this site. Please note, the Department approved a groundwater-sampling proposal for Laurel Bay submitted by MCAS under separate cover dated 16 June 2008.

Should you have any questions, please contact me at 803-896-4179 (office phone), 803-896-6245 (fax) or cookejt@dhec.sc.gov.

Sincerely.

Jan T. Cooke, Hydrogeologist AST Petroleum Restoration

& Site Environmental Investigations Section

Land Revitalization Division

Bureau of Land and Waste Management SC Dept. of Health & Environmental Control

cc: Region 8 District EQC

Tri-Command Communities; Attn: Mr. Robert Bible; 600 Laurel Bay Road Beaufort, SC

29906

Technical File



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

August 6, 2015

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

RE: Approval Response to Comments and Concurrence with Final Initial Groundwater Investigation Report-July 2013

Laurel Bay Military Housing Area Multiple Properties

Dated June 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 addresses attached. 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 10 stated addresses. For the remaining 25 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,

Laurel Petrus

FURX

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-July 2013

Specifice Property Recommendations Dated August 6, 2015

Draft Final Initial Groundwater Investigation Report for (35 addresses/38 tanks)

119 Banyan	156 Laurel Bay
128 Banyan	1033 Foxglove
132 Banyan	1055 Gardenia
135 Birch	1059 Gardenia
148 Laurel Bay	1168 Jasmine
No Furth	er Action recommendation (25 addresses/27 tanks):
115 Banyan	386 Acorn
116 Banyan	395 Acorn
120 Banyan	399 Acorn
124 Banyan	1021 Foxglove
124 Builyun	
	1027 Foxglove
125 Banyan	1027 Foxglove 1030 Foxglove
125 Banyan 136 Birch	
125 Banyan 136 Birch 140 Laurel Bay	1030 Foxglove
125 Banyan 136 Birch 140 Laurel Bay 144 Laurel Bay 152 Laurel Bay	1030 Foxglove 1032 Foxglove
125 Banyan 136 Birch 140 Laurel Bay 144 Laurel Bay	1030 Foxglove 1032 Foxglove 1053 Gardenia
125 Banyan 136 Birch 140 Laurel Bay 144 Laurel Bay 152 Laurel Bay	1030 Foxglove 1032 Foxglove 1053 Gardenia 1058 Gardenia