SUMMARY REPORT
58 JASMINE STREET (FORMERLY 1166 JASMINE STREET)
LAUREL BAY MILITARY HOUSING AREA
MARINE CORPS AIR STATION BEAUFORT
BEAUFORT, SC

Revision: 0
Prepared for:

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

and

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

JUNE 2021

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Prepared by:

CDM - AECOM
Multimedia Joint Venture

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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Appendices

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 58 Jasmine Street (Formerly 1166 Jasmine 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 58 Jasmine Street (Formerly 1166 Jasmine Street). Details regarding the soil investigation at this site are provided in the *SCDHEC UST Assessment Report – 1166 Jasmine 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 August 14, 2007, two 280 gallon heating oil USTs were removed at 58 Jasmine Street (Formerly 1166 Jasmine Street). Tank 1 was removed from the landscaped bed area, adjacent to the house at the north eastern portion of the front yard. Tank 2 was removed from the landscaped bed area, adjacent to the house at the north western portion of the front yard. The

former UST locations are indicated in the figures of the UST Assessment Report (Appendix B). The USTs were 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 depths to the bases of the USTs were 5'5" (Tank 1) and 4'8" (Tank 2) bgs and a single soil sample was collected for each at that depth. An additional soil sample was collected at the side of the excavation for each tank at a depth of 4'5" (Tank 1) and 4'0" (Tank 2). The samples were collected from the fill port side of the former USTs to represent a worst case scenario.

Following UST removal, a soil sample was collected from the base and side of each 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 58 Jasmine Street (Formerly 1166 Jasmine Street) were greater than the SCDHEC RBSLs, which indicated further investigation was required. In a letter dated April 20, 2009, SCDHEC requested an IGWA for 58 Jasmine Street (Formerly 1166 Jasmine 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 25, 2013, a temporary monitoring well was installed at 58 Jasmine Street (Formerly 1166 Jasmine 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 locations are indicated in the figures 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 58 Jasmine Street (Formerly 1166 Jasmine 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 USTs 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 58 Jasmine Street (Formerly 1166 Jasmine 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 – 1166 Jasmine Street, Laurel Bay Military Housing Area*, March 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
58 Jasmine Street (Formerly 1166 Jasmine Street)
Laurel Bay Military Housing Area
Marine Corps Air Station Beaufort
Beaufort, South Carolina

Constituent	SCDHEC RBSLs [(1)]	Results Samples Collected 08/14/07			
		1166 Jasmine Bottom 1	1166 Jasmine Side 02	1166 Jasmine Bottom 01 (Tank 2)	1166 Jasmine Side 02 (Tank 2)
Volatile Organic Compounds Analyzed by EPA Method 8260B (mg/kg)					
Benzene	0.003	ND	ND	ND	ND
Ethylbenzene	1.15	ND	ND	ND	**0.000376**
Naphthalene	0.036	**0.000592**	**0.00103**	**0.000725**	**0.00385**
Toluene	0.627	**0.00054**	**0.000686**	**0.000573**	**0.000656**
Xylenes, Total	13.01	**0.00054**	**0.000429**	**0.000442**	**0.00261**
Semivolatile Organic Compounds Analyzed by EPA Method 8270D (mg/kg)					
Benzo(a)anthracene	0.66	ND	ND	ND	ND
Benzo(b)fluoranthene	0.66	ND	ND	ND	ND
Benzo(k)fluoranthene	0.66	ND	ND	ND	ND
Chrysene	0.66	ND	**0.0939**	ND	ND
Dibenz(a,h)anthracene	0.66	ND	ND	ND	ND

Notes:

[(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).

Bold font indicates the analyte was detected.

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

EPA - United States Environmental Protection Agency

mg/kg - milligrams per kilogram

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

RBSL - Risk-Based Screening Level

SCDHEC - South Carolina Department Of Health and Environmental Control

Table 2
Laboratory Analytical Results - Groundwater
58 Jasmine Street (Formerly 1166 Jasmine 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 07/25/13
Volatile Organic Compounds Analyzed by EPA Method 8260B (µg/L)			
Benzene	5	16.24	**0.47**
Ethylbenzene	700	45.95	**2.0**
Naphthalene	25	29.33	**16**
Toluene	1000	105,445	ND
Xylenes, Total	10,000	2,133	**0.53**
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:

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

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

Bold font indicates the analyte was detected.

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

EPA - United States Environmental Protection Agency

JE - Johnson & Ettinger

NA - Not Applicable

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

RBSL - Risk-Based Screening Level

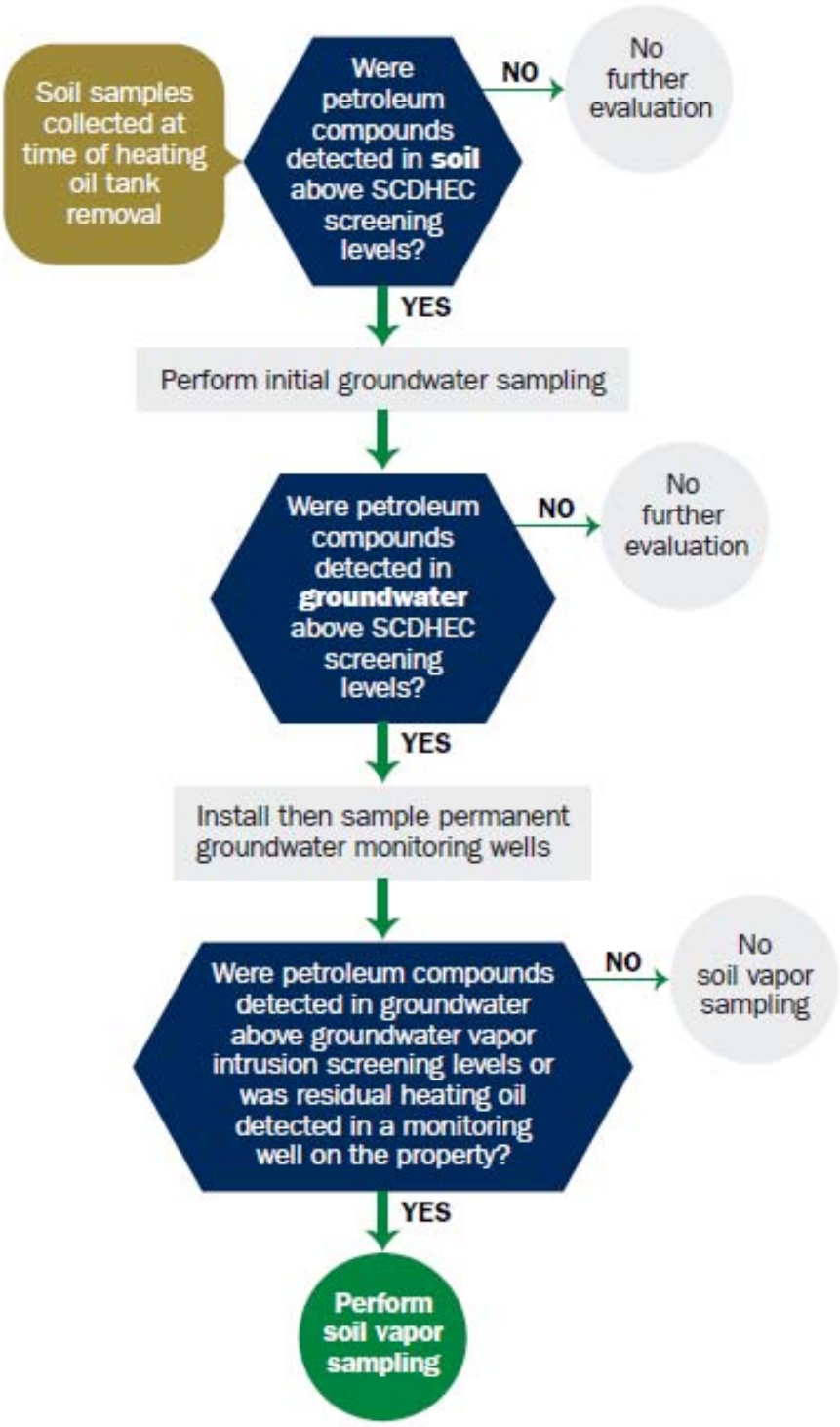
SCDHEC - South Carolina Department Of Health and Environmental Control

µg/L - micrograms per liter

VISL - Vapor Intrusion Screening Level

Appendix A
Multi-Media Selection Process for LBMH

CDM - AECOM
Multimedia Joint Venture



Appendix A - Multi-Media Selection Process for LBMH

Appendix B
UST Assessment Report

CDM - AECOM
Multimedia Joint Venture

Attachment 1

South Carolina Department of Health and Environmental Control (SCDHEC)

Underground Storage Tank (UST) Assessment Report

Date Received

For State Use Only

Submit Completed Form To:
UST Program
SCDHEC
2600 Bull Street
Columbia, South Carolina 29201
Telephone (803) 896-6240

I. OWNERSHIP OF UST (S)

Owner Name (Corporation, Individual, Public Agency, Other)

Beaufort Military Complex Family Housing

Mailing Address

1510 Laurel Bay Blvd.

City	State	Zip Code
Beaufort	SC	29906

Area Code	Telephone Number	Contact Person
843	379-3305	Luke Asterman

II. SITE IDENTIFICATION AND LOCATION

Permit I.D. # N/A

Facility Name or Company Site Identifier A Actus Lend Lease, LLC

Street Address or State Road (as applicable) 466 JASMINE

City	ZIP	County
Beaufort, SC	29906	Beaufort

Attachment 2

III. INSURANCE INFORMATION

Insurance Statement

The petroleum release reported to DHEC on N/A at Permit ID # 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.

And

I **do/do not** (circle one) wish to participate in the Superb Program.

IV. CERTIFICATION (To be signed by the UST owner/operator.)

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

V. UST INFORMATION

	Tank 1	Tank 2	Tank 3	Tank 4	Tank 5	Tank 6
A. Product...(ex. Gas, Kerosene).....	#2 Fuel	#2 FUEL				
B. Capacity..(ex. 1k, 2k).....	280 G	280G				
C. Age.....						
D. Construction Material..(ex. Steel, FRP).....	Steel	STEEL				
E. Month/Year of Last Use.....						
F. Depth (ft.) To Base of Tank.....	65"	56"				
G. Spill Prevention Equipment Y/N.....	N					
H. Overfill Prevention Equipment Y/N.....	N					
I. Method of Closure Removed/Filled.....	Removal	Removed				
J. Date Tanks Removed/Filled.....	8/14/07	8/14/07				
K. Visible Corrosion or Pitting Y/N.....	N	N				
L. Visible Holes Y/N.....	Y	Y				

M. Method of disposal for any USTs removed from the ground (attach disposal manifests)

Recycling: Scrap Steel

N. Method of disposal for any liquid petroleum, sludges, or wastewaters removed from the USTs (attach disposal manifests) Republic- Broadhurst Landfill

Solidification & Subtitle D Landfill

O. If any corrosion, pitting, or holes were observed, describe the location and extent for each UST

TANK #1 HAD PINHOLES ALL OVER BASE OF UST
TANK #2 HAD BEEN PREVIOUSLY EXCAVATED, CUT AND FILLED WITH SAND.

VI. PIPING INFORMATION

	Tank 1	Tank 2	Tank 3	Tank 4	Tank 5	Tank 6
A. Construction Material..(ex. Steel, FRP).....	Steel					
B. Distance from UST to Dispenser.....	N/A					
C. Number of Dispensers.....	-0-					
D. Type of System Pressure or Suction.....	Elect Pump	Elect Pump				
E. Was Piping Removed from the Ground? Y/N	Y	Y				
F. Visible Corrosion or Pitting Y/N.....	N	N				
G. Visible Holes Y/N.....	N	N				
H. Age.....						

I. If any corrosion, pitting, or holes were observed, describe the location and extent for each piping run.

VII. BRIEF SITE DESCRIPTION AND HISTORY

RESIDENTIAL HOME HEATING OIL TANK

VIII. SITE CONDITIONS

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

IX. SAMPLE INFORMATION

A. SCDHEC Lab Certification Number DW: 84009002

B.

Sample #	Location	Sample Type (Soil/Water)	Soil Type (Sand/Clay)	Depth*	Date/Time of Collection	Collected by	OVA #
						M. Jones	
1	BOTTOM	S	SAND	65"	8-14-07	~~A. MANNEY~~	ND
2	SIDE	S	SAND	53"	8-14-07	A. MANNEY	ND
3							
4	TANK	(2)					
5							
6	BOTTOM	S	SAND	56"	8-14-7	M. Jones	ND
7	SIDE	S	SAND	48	8-14-07	M. Jones	ND
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

* = Depth Below the Surrounding Land Surface

X.

SAMPLING METHODOLOGY

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

EPA Method 8260B : Volatile Organic Compounds
- Preservatives: 2 ea. Sodium Bisulfate; 1 ea. Methanol

EPA Method 8270 : Polyaromatic Hydrocarbons
- No Preservative

One (1) sidewall and one (1) bottom sample were secured from each UST excavation. Samples were stored and shipped in an insulated cooler with wet Ice.

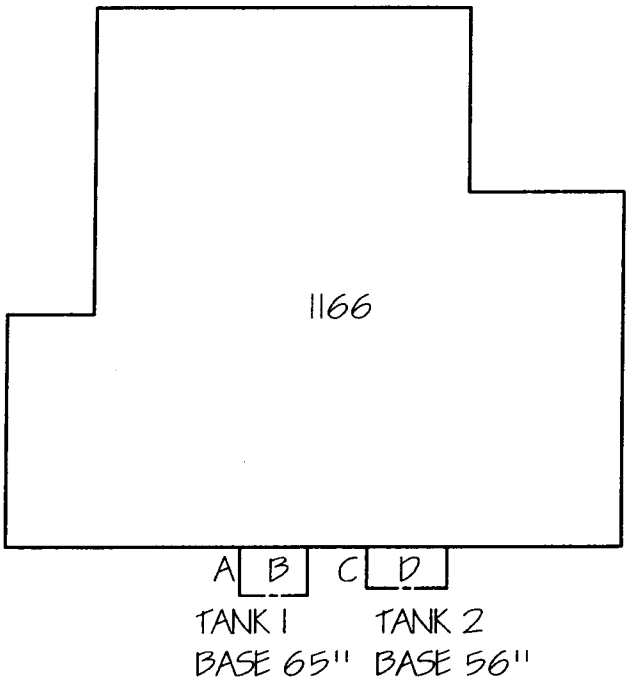
XI. RECEPTORS

	Yes	No
A. Are there any lakes, ponds, streams, or wetlands located within 1000 feet of the UST system? If yes, indicate type of receptor, distance, and direction on site map.		
B. Are there any public, private, or irrigation water supply wells within 1000 feet of the UST system? If yes, indicate type of well, distance, and direction on site map.		✓
C. Are there any underground structures (e.g., basements) Located within 100 feet of the UST system? If yes, indicate type of structure, distance, and direction on site map.		✓
D. Are there any underground utilities (e.g., telephone, electricity, gas, water, sewer, storm drain) located within 100 feet of the UST system that could potentially come in contact with the contamination? 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 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.		✓

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)



JASMINE STREET

N

TANK 1 EXCAVATION

A-SOIL TEST SIDE SAMPLE @ 53"
B-SOIL TEST BOTTOM SAMPLE @ 65"

TANK 2 EXCAVATION

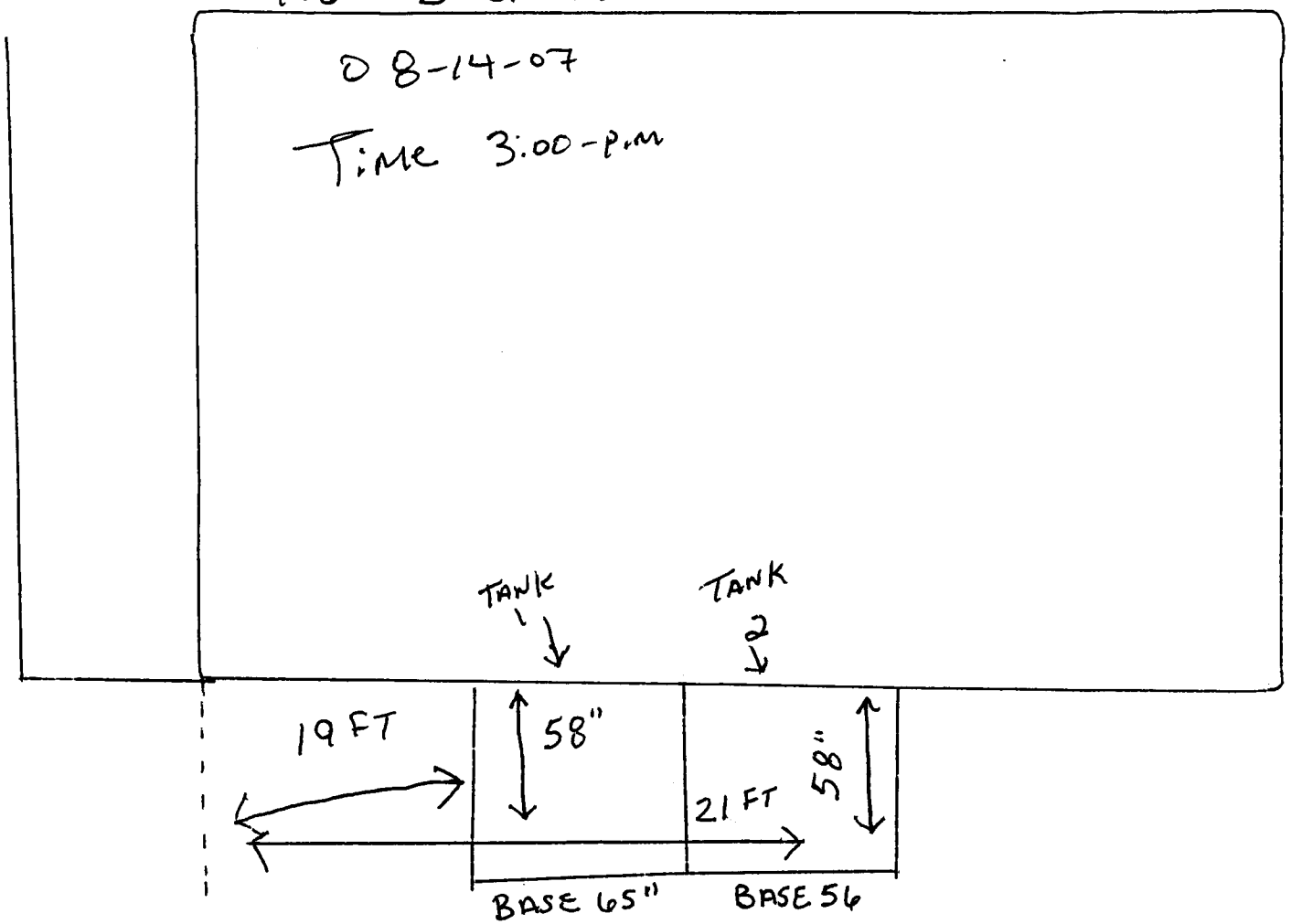
C-SOIL TEST SIDE SAMPLE @ 48"
D-SOIL TEST BOTTOM SAMPLE @ 56"

CUSTOMER: BEAUFORT MILITARY COMPLEX FAMILY HOUSING	SCALE: 1/16"=1'-0"	EPG INC.
SITE ADDRESS: 1166 JASMINE STREET	SUPPLIER: EPG INC.	P.O. BOX 1096
	DATE: 9/22/2007	MOUNT PLEASANT, SC 29465-1096

1166 Jasmine ST.

08-14-07

Time 3:00-p.m

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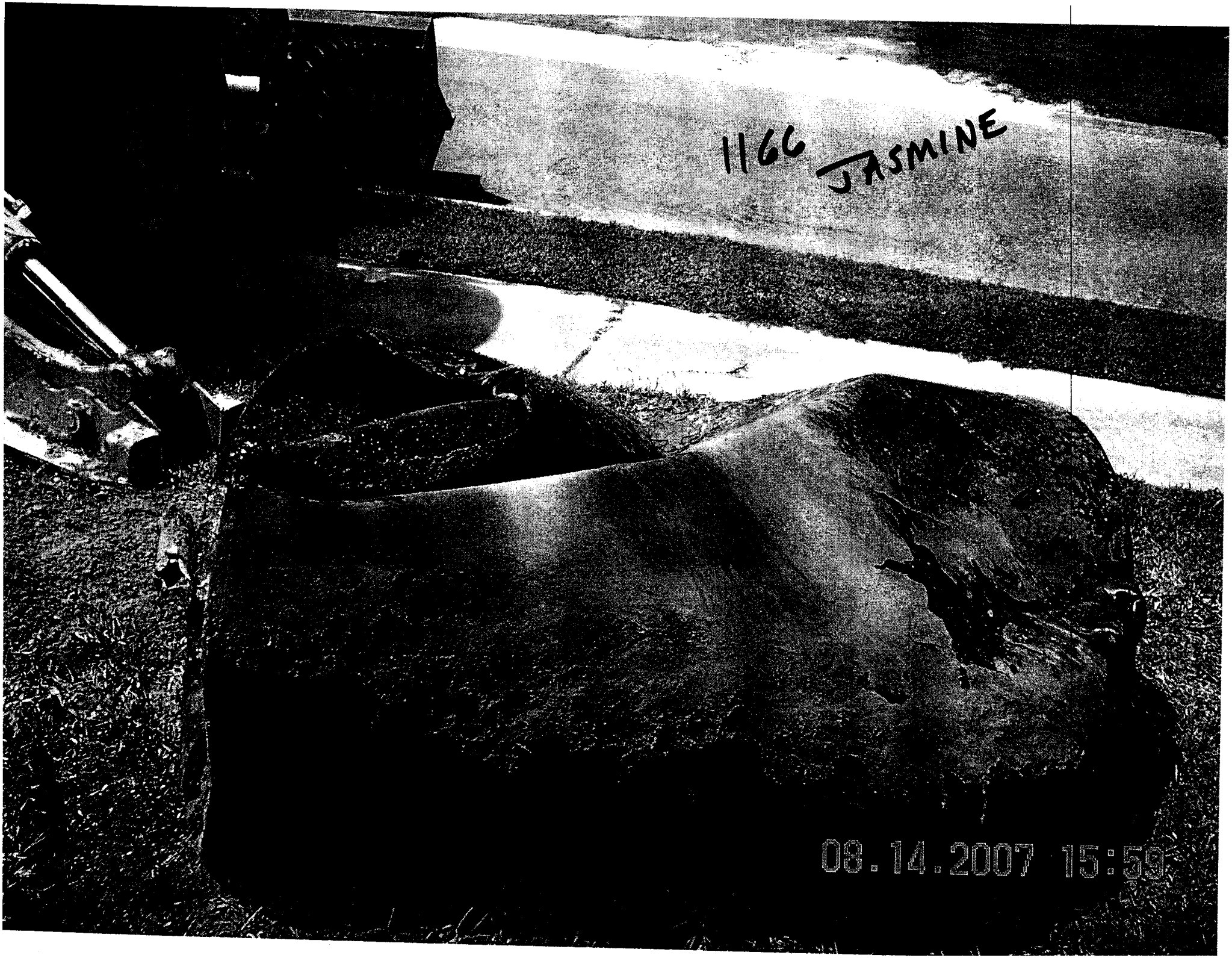
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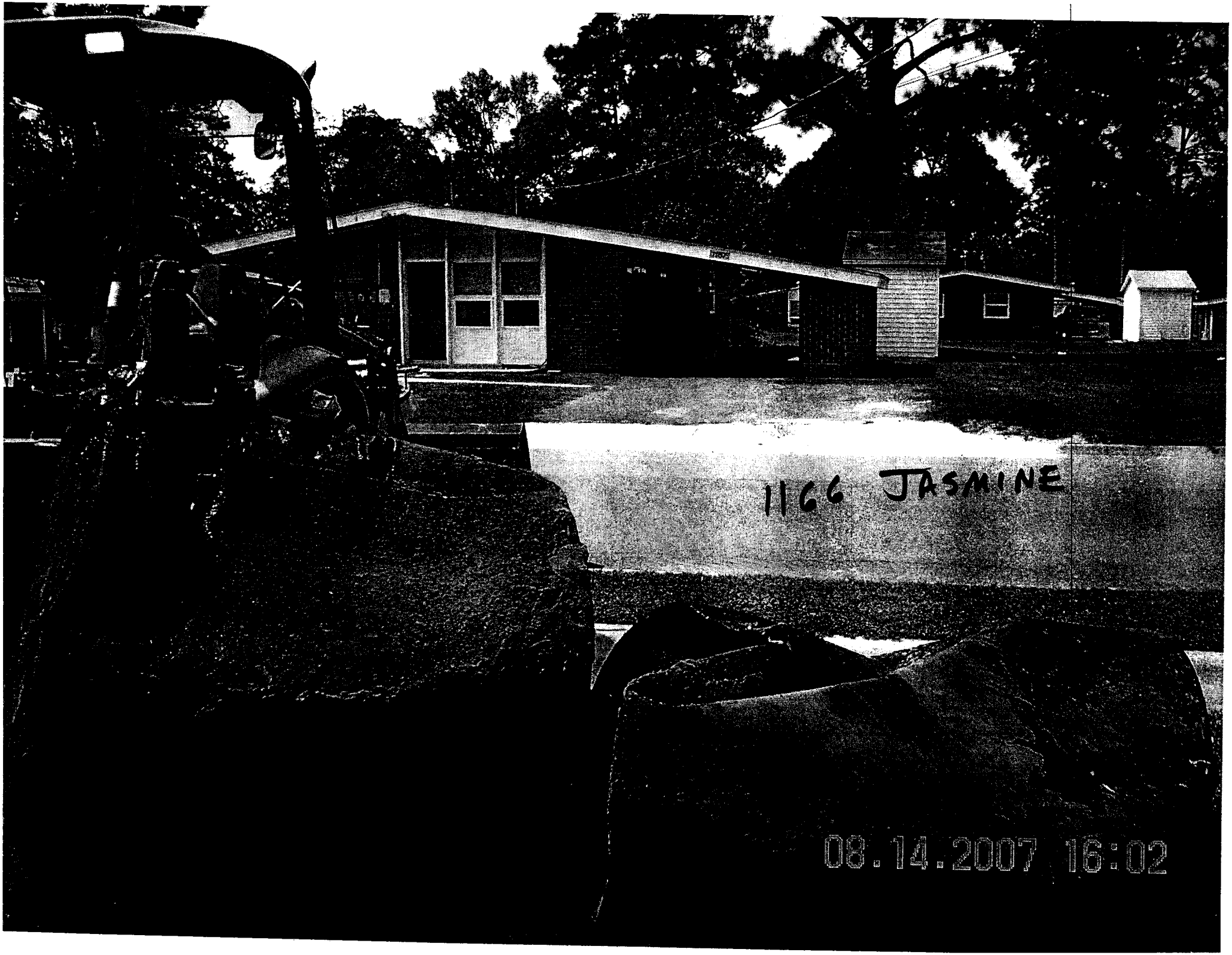
1166 JASMINE
08.14.2007 16:02

SUMMARY OF ANALYSIS RESULTS N/A

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

CoC	SB-1	SB-2	SB-3	SB-4	SB-5	SB-6	SB-7	SB-8
Benzene								
Toluene								
Ethylbenzene								
Xylenes								
Naphthalene								
Benzo(a)anthracene								
Benzo(b)flouranthene								
Benzo(k)flouranthene								
Chrysene								
Dibenz(a,h)anthracene								
TPH (EPA 3550)								

CoC	SB-9	SB-10	SB-11	SB-12	SB-13	SB-14	SB-15	SB-16
Benzene								
Toluene								
Ethylbenzene								
Xylenes								
Naphthalene								
Benzo(a)anthracene								
Benzo(b)flouranthene								
Benzo(k)flouranthene								
Chrysene								
Dibenz(a,h)anthracene								
TPH (EPA 3550)								

SUMMARY OF ANALYSIS RESULTS (cont'd) N/A

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				
MTBE	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	.05				
Lead	Site specific				

ANALYTICAL RESULTS

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

(Attach Certified Analytical Results and Chain-of-Custody Here)
(Please see Form #4)

TestAmerica
ANALYTICAL TESTING CORPORATION

OGH0567

Client Name: EPG
Client #:
Address:
City/State/Zip Code:
Project Manager: John Mahoney
Telephone Number:
Fax:
Sampler Name: (Print Name) Mack Jones
Sampler Signature:

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

Project Name: Laure Bay
Project #: EP-2362
Site/Location ID:
State: SC
Report To: John Mahoney
Invoice To:
Quote #:
PO#:

TAT
___ Standard
___ Rush (surcharges may apply)
Date Needed:
Fax Results: Y N

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix: SL - Sludge, DW - Drinking Water, GW - Groundwater, S - Soil/Solid, WW - Wastewater, Specify Other	Preservation & # of Containers: HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify)	Analyze For: BTEX + MAPTH 8260	PAH 8270	REMARKS
1109 LR:S - BOTTOM-01	8-13-7	9:30	G							1	2	2	X	X	-01
1109 LR:S - SIDE-02	8-13-7	9:30	C							1	2	2	X	X	-02
1115 LR:S - BOTTOM-01	8-13-7	12:00	G							1	2	2	X	X	-03
1115 LR:S - SIDE-02	8-13-7	12:00	C							1	2	2	X	X	-04
1168 JASMINE BOTTOM	8-13-7	4:00	G							1	2	2	X	X	-05
1168 JASMINE-SIDE-02	8-13-7	4:00	C							1	2	2	X	X	-06
1166 JASMINE BOTTOM	8-14-7	3:00	G							1	2	2	X	X	-01
1166 JASMINE-SIDE-02	8-14-7	3:00	C							1	2	2	X	X	-08
Tank 1 1166 JASMINE-BOTTOM-1	8-14-7	3:00	G							1	2	2	X	X	-09
Tank 2 1166 JASMINE-SIDE-02	8-14-7	3:00	C							1	2	2	X	X	TD

Special Instructions:

QC Deliverables
___ None
X Level 2 (Batch QC)
___ Level 3
___ Level 4
Other:

	Date	Time		Date	Time
Relinquished By: John Mahoney	8/22	1215	Received By: T Krumlaft	8/22/07	1215
Relinquished By: T Krumlaft	8/22/07	1730	Received By		
Relinquished By:			Received By		

LABORATORY COMMENTS:
Init Lab Temp:
Rec Lab Temp: 4.0
Custody Seals: Y N N/A
Bottles Supplied by Test America: Y N
Method of Shipment: 8626 4331 4942 FedEx To TA-Q

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
4310 East Anderson Road Orlando, FL 32812 * 800-851-2560 * Fax 407-856-0886

Client: EPG, INC.
PO BOX 1096
MT PLEASANT, SC 29465
Attn: JOHN MAHONEY

Work Order: OQH0567
Project: LAUREL BAY
Project Number: EP-2362

Sampled: 08/13/07-08/14/07
Received: 08/23/07

LABORATORY REPORT

Sample ID: 1168 JASMINE-SIDE-02 - Lab Number: OQH0567-06 - Matrix: Solid/Soil

CAS #	Analyte	Result	Q	Units	MDL	PQL	Dil Factor	Analyzed Date/Time	By	Method	Batch
olynuclear Aromatic Hydrocarbons by EPA Method 8270 - Cont.											
)-12-0	1-Methylnaphthalene	96.9	U	ug/kg dry	96.9	193	1	09/01/07 01:37	JLS	EPA 8270C	7H27033
18-01-9	Chrysene	23.1	U	ug/kg dry	23.1	193	1	09/01/07 01:37	JLS	EPA 8270C	7H27033
3-70-3	Dibenz (a,h) anthracene	25.4	U	ug/kg dry	25.4	193	1	09/01/07 01:37	JLS	EPA 8270C	7H27033
)6-44-0	Fluoranthene	27.8	U	ug/kg dry	27.8	193	1	09/01/07 01:37	JLS	EPA 8270C	7H27033
5-73-7	Fluorene	75.6	U	ug/kg dry	75.6	193	1	09/01/07 01:37	JLS	EPA 8270C	7H27033
)3-39-5	Indeno (1,2,3-cd) pyrene	25.0	U	ug/kg dry	25.0	193	1	09/01/07 01:37	JLS	EPA 8270C	7H27033
-57-6	2-Methylnaphthalene	82.3	U	ug/kg dry	82.3	193	1	09/01/07 01:37	JLS	EPA 8270C	7H27033
-20-3	Naphthalene	77.6	U	ug/kg dry	77.6	193	1	09/01/07 01:37	JLS	EPA 8270C	7H27033
5-01-8	Phenanthrene	45.6	U	ug/kg dry	45.6	193	1	09/01/07 01:37	JLS	EPA 8270C	7H27033
29-00-0	Pyrene	39.2	U	ug/kg dry	39.2	193	1	09/01/07 01:37	JLS	EPA 8270C	7H27033
rrogate: 2-Fluorobiphenyl (24-121%)		*47 %*									
rrogate: Nitrobenzene-d5 (19-111%)		*44 %*									
rrogate: Terphenyl-d14 (44-171%)		*70 %*									

LABORATORY REPORT

Sample ID: 1166 JASMINE-BOTTOM-1 - Lab Number: OQH0567-07 - Matrix: Solid/Soil

AS #	Analyte	Result	Q	Units	MDL	PQL	Dil Factor	Analyzed Date/Time	By	Method	Batch
eneral Chemistry Parameters											
	% Solids	**82.3**	Q	%.	0.100	0.100	1	08/27/07 17:50	RRP	EPA 160.3	7H27039
olatile Organic Compounds by EPA Method 8260B											
-43-2	Benzene	0.159	U	ug/kg dry	0.159	0.435	1	08/27/07 13:02	JWT	EPA 8260B	7H24014
)-41-4	Ethylbenzene	0.184	U	ug/kg dry	0.184	0.435	1	08/27/07 13:02	JWT	EPA 8260B	7H24014
20-3	**Naphthalene**	**0.592**		ug/kg dry	0.240	0.435	1	08/27/07 13:02	JWT	EPA 8260B	7H24014
-88-3	**Toluene**	**0.540**		ug/kg dry	0.376	0.435	1	08/27/07 13:02	JWT	EPA 8260B	7H24014
0-20-7	**Xylenes, total**	**0.540**		ug/kg dry	0.226	0.435	1	08/27/07 13:02	JWT	EPA 8260B	7H24014
rogate: 1,2-Dichloroethane-d4 (73-137%)		*116 %*									
rogate: 4-Bromofluorobenzene (59-118%)		*103 %*									
ogate: Dibromofluoromethane (55-145%)		*113 %*									
ogate: Toluene-d8 (80-117%)		*108 %*									
ynuclear Aromatic Hydrocarbons by EPA Method 8270											
2-9	Acenaphthene	89.9	U	ug/kg dry	89.9	203	1	09/01/07 01:59	JLS	EPA 8270C	7H27033
96-8	Acenaphthylene	119	U	ug/kg dry	119	203	1	09/01/07 01:59	JLS	EPA 8270C	7H27033
12-7	Anthracene	64.7	U	ug/kg dry	64.7	203	1	09/01/07 01:59	JLS	EPA 8270C	7H27033
-3	Benzo (a) anthracene	22.0	U	ug/kg dry	22.0	203	1	09/01/07 01:59	JLS	EPA 8270C	7H27033
9-2	Benzo (b) fluoranthene	21.4	U	ug/kg dry	21.4	203	1	09/01/07 01:59	JLS	EPA 8270C	7H27033
8-9	Benzo (k) fluoranthene	21.4	U	ug/kg dry	21.4	203	1	09/01/07 01:59	JLS	EPA 8270C	7H27033
4-2	Benzo (g,h,i) perylene	21.1	U	ug/kg dry	21.1	203	1	09/01/07 01:59	JLS	EPA 8270C	7H27033
-8	Benzo (a) pyrene	25.0	U	ug/kg dry	25.0	203	1	09/01/07 01:59	JLS	EPA 8270C	7H27033
-0	1-Methylnaphthalene	102	U	ug/kg dry	102	203	1	09/01/07 01:59	JLS	EPA 8270C	7H27033
1-9	Chrysene	24.3	U	ug/kg dry	24.3	203	1	09/01/07 01:59	JLS	EPA 8270C	7H27033
3	Dibenz (a,h) anthracene	26.7	U	ug/kg dry	26.7	203	1	09/01/07 01:59	JLS	EPA 8270C	7H27033
-0	Fluoranthene	29.2	U	ug/kg dry	29.2	203	1	09/01/07 01:59	JLS	EPA 8270C	7H27033

TestAmerica - Orlando, FL
Enid Ortiz For Shali Brown
Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
4310 East Anderson Road Orlando, FL 32812 * 800-851-2560 * Fax 407-856-0886

Client: EPG, INC.
PO BOX 1096
MT PLEASANT, SC 29465
Attn: JOHN MAHONEY

Work Order: OQH0567
Project: LAUREL BAY
Project Number: EP-2362

Sampled: 08/13/07-08/14/07
Received: 08/23/07

LABORATORY REPORT
Sample ID: 1166 JASMINE-BOTTOM-1 - Lab Number: OQH0567-07 - Matrix: Solid/Soil

CAS #	Analyte	Result	Q	Units	MDL	PQL	Dil Factor	Analyzed Date/Time	By	Method	Batch
olynuclear Aromatic Hydrocarbons by EPA Method 8270 - Cont.											
5-73-7	Fluorene	79.4	U	ug/kg dry	79.4	203	1	09/01/07 01:59	JLS	EPA 8270C	7H27033
93-39-5	Indeno (1,2,3-cd) pyrene	26.3	U	ug/kg dry	26.3	203	1	09/01/07 01:59	JLS	EPA 8270C	7H27033
1-57-6	2-Methylnaphthalene	86.5	U	ug/kg dry	86.5	203	1	09/01/07 01:59	JLS	EPA 8270C	7H27033
1-20-3	Naphthalene	81.5	U	ug/kg dry	81.5	203	1	09/01/07 01:59	JLS	EPA 8270C	7H27033
5-01-8	Phenanthrene	47.9	U	ug/kg dry	47.9	203	1	09/01/07 01:59	JLS	EPA 8270C	7H27033
29-00-0	Pyrene	41.2	U	ug/kg dry	41.2	203	1	09/01/07 01:59	JLS	EPA 8270C	7H27033
urrogate: 2-Fluorobiphenyl (24-121%)		*35 %*									
urrogate: Nitrobenzene-d5 (19-111%)		*33 %*									
urrogate: Terphenyl-d14 (44-171%)		*45 %*									

LABORATORY REPORT
Sample ID: 1166 JASMINE-SIDE-02 - Lab Number: OQH0567-08 - Matrix: Solid/Soil

CAS #	Analyte	Result	Q	Units	MDL	PQL	Dil Factor	Analyzed Date/Time	By	Method	Batch
eneral Chemistry Parameters											
A	**% Solids**	**79.9**	Q	%.	0.100	0.100	1	08/28/07 18:25	RRP	EPA 160.3	7H28045
olatile Organic Compounds by EPA Method 8260B											
-43-2	Benzene	0.127	U	ug/kg dry	0.127	0.346	1	08/27/07 13:21	JWT	EPA 8260B	7H24014
0-41-4	Ethylbenzene	0.146	U	ug/kg dry	0.146	0.346	1	08/27/07 13:21	JWT	EPA 8260B	7H24014
-20-3	**Naphthalene**	**1.03**		ug/kg dry	0.191	0.346	1	08/27/07 13:21	JWT	EPA 8260B	7H24014
8-88-3	**Toluene**	**0.686**		ug/kg dry	0.299	0.346	1	08/27/07 13:21	JWT	EPA 8260B	7H24014
30-20-7	**Xylenes, total**	**0.429**		ug/kg dry	0.180	0.346	1	08/27/07 13:21	JWT	EPA 8260B	7H24014
rogate: 1,2-Dichloroethane-d4 (73-137%)		*117 %*									
rogate: 4-Bromofluorobenzene (59-118%)		*102 %*									
rogate: Dibromofluoromethane (55-145%)		*113 %*									
rogate: Toluene-d8 (80-117%)		*107 %*									
lynuclear Aromatic Hydrocarbons by EPA Method 8270											
32-9	Acenaphthene	92.7	U	ug/kg dry	92.7	209	1	09/01/07 02:21	JLS	EPA 8270C	7H27033
3-96-8	Acenaphthylene	122	U	ug/kg dry	122	209	1	09/01/07 02:21	JLS	EPA 8270C	7H27033
1-12-7	Anthracene	66.7	U	ug/kg dry	66.7	209	1	09/01/07 02:21	JLS	EPA 8270C	7H27033
55-3	Benzo (a) anthracene	22.6	U	ug/kg dry	22.6	209	1	09/01/07 02:21	JLS	EPA 8270C	7H27033
-99-2	Benzo (b) fluoranthene	22.0	U	ug/kg dry	22.0	209	1	09/01/07 02:21	JLS	EPA 8270C	7H27033
-08-9	Benzo (k) fluoranthene	22.0	U	ug/kg dry	22.0	209	1	09/01/07 02:21	JLS	EPA 8270C	7H27033
-24-2	Benzo (g,h,i) perylene	21.7	U	ug/kg dry	21.7	209	1	09/01/07 02:21	JLS	EPA 8270C	7H27033
32-8	**Benzo (a) pyrene**	**166**	I	ug/kg dry	25.7	209	1	09/01/07 02:21	JLS	EPA 8270C	7H27033
12-0	1-Methylnaphthalene	105	U	ug/kg dry	105	209	1	09/01/07 02:21	JLS	EPA 8270C	7H27033
-01-9	**Chrysene**	**93.9**	I	ug/kg dry	25.0	209	1	09/01/07 02:21	JLS	EPA 8270C	7H27033
70-3	Dibenz (a,h) anthracene	27.5	U	ug/kg dry	27.5	209	1	09/01/07 02:21	JLS	EPA 8270C	7H27033
-44-0	Fluoranthene	30.1	U	ug/kg dry	30.1	209	1	09/01/07 02:21	JLS	EPA 8270C	7H27033
73-7	Fluorene	81.8	U	ug/kg dry	81.8	209	1	09/01/07 02:21	JLS	EPA 8270C	7H27033
-39-5	**Indeno (1,2,3-cd) pyrene**	**57.2**	I	ug/kg dry	27.1	209	1	09/01/07 02:21	JLS	EPA 8270C	7H27033
7-6	2-Methylnaphthalene	89.2	U	ug/kg dry	89.2	209	1	09/01/07 02:21	JLS	EPA 8270C	7H27033
0-3	Naphthalene	84.0	U	ug/kg dry	84.0	209	1	09/01/07 02:21	JLS	EPA 8270C	7H27033

TestAmerica - Orlando, FL
Enid Ortiz For Shali Brown
Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
4310 East Anderson Road Orlando, FL 32812 * 800-851-2560 * Fax 407-856-0886

Client: EPG, INC.
PO BOX 1096
MT PLEASANT, SC 29465
Attn: JOHN MAHONEY

Work Order: OQH0567
Project: LAUREL BAY
Project Number: EP-2362

Sampled: 08/13/07-08/14/07
Received: 08/23/07

LABORATORY REPORT
Sample ID: 1166 JASMINE-SIDE-02 - Lab Number: OQH0567-08 - Matrix: Solid/Soil

CAS #	Analyte	Result	Q	Units	MDL	PQL	Dil Factor	Analyzed Date/Time	By	Method	Batch
olynuclear Aromatic Hydrocarbons by EPA Method 8270 - Cont.											
5-01-8	Phenanthrene	49.3	U	ug/kg dry	49.3	209	1	09/01/07 02:21	JLS	EPA 8270C	7H27033
29-00-0	Pyrene	42.5	U	ug/kg dry	42.5	209	1	09/01/07 02:21	JLS	EPA 8270C	7H27033
rrogate: 2-Fluorobiphenyl (24-121%)		*47 %*									
rrogate: Nitrobenzene-d5 (19-111%)		*52 %*									
rrogate: Terphenyl-d14 (44-171%)		*143 %*									

LABORATORY REPORT
Sample ID: 1166 JASMINE-BOTTOM-01 (TANK 2) - Lab Number: OQH0567-09 - Matrix: Solid/Soil

CAS #	Analyte	Result	Q	Units	MDL	PQL	Dil Factor	Analyzed Date/Time	By	Method	Batch
eneral Chemistry Parameters											
A	**% Solids**	**83.2**	Q	%	0.100	0.100	1	08/28/07 18:25	RRP	EPA 160.3	7H28045
olatile Organic Compounds by EPA Method 8260B											
1-43-2	Benzene	0.133	U	ug/kg dry	0.133	0.362	1	08/27/07 13:41	JWT	EPA 8260B	7H24014
0-41-4	Ethylbenzene	0.153	U	ug/kg dry	0.153	0.362	1	08/27/07 13:41	JWT	EPA 8260B	7H24014
1-20-3	**Naphthalene**	**0.725**		ug/kg dry	0.200	0.362	1	08/27/07 13:41	JWT	EPA 8260B	7H24014
8-88-3	**Toluene**	**0.573**		ug/kg dry	0.313	0.362	1	08/27/07 13:41	JWT	EPA 8260B	7H24014
330-20-7	**Xylenes, total**	**0.442**		ug/kg dry	0.188	0.362	1	08/27/07 13:41	JWT	EPA 8260B	7H24014
rrogate: 1,2-Dichloroethane-d4 (73-137%)		*119 %*									
rrogate: 4-Bromofluorobenzene (59-118%)		*102 %*									
rrogate: Dibromofluoromethane (55-145%)		*113 %*									
rrogate: Toluene-d8 (80-117%)		*107 %*									
olynuclear Aromatic Hydrocarbons by EPA Method 8270											
83-32-9	Acenaphthene	88.9	U	ug/kg dry	88.9	201	1	09/01/07 02:43	JLS	EPA 8270C	7H27033
208-96-8	Acenaphthylene	117	U	ug/kg dry	117	201	1	09/01/07 02:43	JLS	EPA 8270C	7H27033
120-12-7	Anthracene	64.0	U	ug/kg dry	64.0	201	1	09/01/07 02:43	JLS	EPA 8270C	7H27033
56-55-3	Benzo (a) anthracene	21.7	U	ug/kg dry	21.7	201	1	09/01/07 02:43	JLS	EPA 8270C	7H27033
205-99-2	Benzo (b) fluoranthene	21.1	U	ug/kg dry	21.1	201	1	09/01/07 02:43	JLS	EPA 8270C	7H27033
207-08-9	Benzo (k) fluoranthene	21.1	U	ug/kg dry	21.1	201	1	09/01/07 02:43	JLS	EPA 8270C	7H27033
191-24-2	Benzo (g,h,i) perylene	20.8	U	ug/kg dry	20.8	201	1	09/01/07 02:43	JLS	EPA 8270C	7H27033
50-32-8	**Benzo (a) pyrene**	**84.9**	I	ug/kg dry	24.7	201	1	09/01/07 02:43	JLS	EPA 8270C	7H27033
91-57-6	1-Methylnaphthalene	101	U	ug/kg dry	101	201	1	09/01/07 02:43	JLS	EPA 8270C	7H27033
218-01-9	Chrysene	24.0	U	ug/kg dry	24.0	201	1	09/01/07 02:43	JLS	EPA 8270C	7H27033
53-70-3	Dibenz (a,h) anthracene	26.4	U	ug/kg dry	26.4	201	1	09/01/07 02:43	JLS	EPA 8270C	7H27033
206-44-0	Fluoranthene	28.9	U	ug/kg dry	28.9	201	1	09/01/07 02:43	JLS	EPA 8270C	7H27033
86-73-7	Fluorene	78.5	U	ug/kg dry	78.5	201	1	09/01/07 02:43	JLS	EPA 8270C	7H27033
193-39-5	Indeno (1,2,3-cd) pyrene	26.0	U	ug/kg dry	26.0	201	1	09/01/07 02:43	JLS	EPA 8270C	7H27033
91-57-6	2-Methylnaphthalene	85.6	U	ug/kg dry	85.6	201	1	09/01/07 02:43	JLS	EPA 8270C	7H27033
120-3	Naphthalene	80.6	U	ug/kg dry	80.6	201	1	09/01/07 02:43	JLS	EPA 8270C	7H27033
01-8	Phenanthrene	47.3	U	ug/kg dry	47.3	201	1	09/01/07 02:43	JLS	EPA 8270C	7H27033
129-00-0	Pyrene	40.8	U	ug/kg dry	40.8	201	1	09/01/07 02:43	JLS	EPA 8270C	7H27033
ogate: 2-Fluorobiphenyl (24-121%)		*46 %*									
ogate: Nitrobenzene-d5 (19-111%)		*66 %*									

TestAmerica - Orlando, FL
Enid Ortiz For Shali Brown
Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
4310 East Anderson Road Orlando, FL 32812 * 800-851-2560 * Fax 407-856-0886

Client: EPG, INC.
PO BOX 1096
MT PLEASANT, SC 29465
Attn: JOHN MAHONEY

Work Order: OQH0567
Project: LAUREL BAY
Project Number: EP-2362

Sampled: 08/13/07-08/14/07
Received: 08/23/07

LABORATORY REPORT

Sample ID: 1166 JASMINE-BOTTOM-01 (TANK 2) - Lab Number: OQH0567-09 - Matrix: Solid/Soil

CAS #	Analyte	Result	Q	Units	MDL	PQL	Dil Factor	Analyzed Date/Time	By	Method	Batch
olynuclear Aromatic Hydrocarbons by EPA Method 8270 - Cont.											
urrogate: Terphenyl-d14 (44-171%)		*134 %*									

LABORATORY REPORT

Sample ID: 1166 JASMINE-SIDE-02 (TANK 2) - Lab Number: OQH0567-10 - Matrix: Solid/Soil

CAS #	Analyte	Result	Q	Units	MDL	PQL	Dil Factor	Analyzed Date/Time	By	Method	Batch
eneral Chemistry Parameters											
A	**% Solids**	**87.8**	Q	%.	0.100	0.100	1	08/28/07 18:25	RRP	EPA 160.3	7H28045
olatile Organic Compounds by EPA Method 8260B											
-43-2	Benzene	0.117	U	ug/kg dry	0.117	0.318	1	08/27/07 14:00	JWT	EPA 8260B	7H24014
0-41-4	**Ethylbenzene**	**0.376**		ug/kg dry	0.135	0.318	1	08/27/07 14:00	JWT	EPA 8260B	7H24014
-20-3	**Naphthalene**	**3.85**		ug/kg dry	0.176	0.318	1	08/27/07 14:00	JWT	EPA 8260B	7H24014
8-88-3	**Toluene**	**0.656**		ug/kg dry	0.275	0.318	1	08/27/07 14:00	JWT	EPA 8260B	7H24014
30-20-7	**Xylenes, total**	**2.61**		ug/kg dry	0.165	0.318	1	08/27/07 14:00	JWT	EPA 8260B	7H24014
rrogate: 1,2-Dichloroethane-d4 (73-137%)		*116 %*									
rrogate: 4-Bromofluorobenzene (59-118%)		*100 %*									
rrogate: Dibromofluoromethane (55-145%)		*111 %*									
rrogate: Toluene-d8 (80-117%)		*106 %*									
olynuclear Aromatic Hydrocarbons by EPA Method 8270											
-32-9	Acenaphthene	84.3	U	ug/kg dry	84.3	190	1	09/01/07 03:06	JLS	EPA 8270C	7H27033
8-96-8	Acenaphthylene	111	U	ug/kg dry	111	190	1	09/01/07 03:06	JLS	EPA 8270C	7H27033
0-12-7	Anthracene	60.7	U	ug/kg dry	60.7	190	1	09/01/07 03:06	JLS	EPA 8270C	7H27033
-55-3	Benzo (a) anthracene	20.6	U	ug/kg dry	20.6	190	1	09/01/07 03:06	JLS	EPA 8270C	7H27033
5-99-2	Benzo (b) fluoranthene	20.0	U	ug/kg dry	20.0	190	1	09/01/07 03:06	JLS	EPA 8270C	7H27033
7-08-9	Benzo (k) fluoranthene	20.0	U	ug/kg dry	20.0	190	1	09/01/07 03:06	JLS	EPA 8270C	7H27033
1-24-2	Benzo (g,h,i) perylene	19.7	U	ug/kg dry	19.7	190	1	09/01/07 03:06	JLS	EPA 8270C	7H27033
32-8	Benzo (a) pyrene	23.4	U	ug/kg dry	23.4	190	1	09/01/07 03:06	JLS	EPA 8270C	7H27033
12-0	1-Methylnaphthalene	95.5	U	ug/kg dry	95.5	190	1	09/01/07 03:06	JLS	EPA 8270C	7H27033
3-01-9	Chrysene	22.8	U	ug/kg dry	22.8	190	1	09/01/07 03:06	JLS	EPA 8270C	7H27033
70-3	Dibenz (a,h) anthracene	25.0	U	ug/kg dry	25.0	190	1	09/01/07 03:06	JLS	EPA 8270C	7H27033
1-44-0	Fluoranthene	27.4	U	ug/kg dry	27.4	190	1	09/01/07 03:06	JLS	EPA 8270C	7H27033
73-7	Fluorene	74.5	U	ug/kg dry	74.5	190	1	09/01/07 03:06	JLS	EPA 8270C	7H27033
-39-5	Indeno (1,2,3-cd) pyrene	24.6	U	ug/kg dry	24.6	190	1	09/01/07 03:06	JLS	EPA 8270C	7H27033
57-6	2-Methylnaphthalene	81.1	U	ug/kg dry	81.1	190	1	09/01/07 03:06	JLS	EPA 8270C	7H27033
20-3	Naphthalene	76.4	U	ug/kg dry	76.4	190	1	09/01/07 03:06	JLS	EPA 8270C	7H27033
01-8	Phenanthrene	44.9	U	ug/kg dry	44.9	190	1	09/01/07 03:06	JLS	EPA 8270C	7H27033
-00-0	Pyrene	38.7	U	ug/kg dry	38.7	190	1	09/01/07 03:06	JLS	EPA 8270C	7H27033
rogate: 2-Fluorobiphenyl (24-121%)		*40 %*									
rogate: Nitrobenzene-d5 (19-111%)		*37 %*									
rogate: Terphenyl-d14 (44-171%)		*64 %*									

Appendix C
Laboratory Analytical Report - Groundwater

CDM - AECOM
Multimedia Joint Venture

Volatile Organic Compounds by GC/MS

Client: AECOM - Resolution Consultants
Laboratory ID: OG26003-006
Description: BEALB1166TW01WG20130725
Matrix: Aqueous
Date Sampled: 07/25/2013 1500
Date Received: 07/26/2013

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	08/03/2013 1626	MLH		26441

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	LOD	DL	Units	Run
Benzene	71-43-2	8260B	0.47	J	0.50	0.25	0.027	ug/L	1
Ethylbenzene	100-41-4	8260B	2.0		0.50	0.25	0.17	ug/L	1
Naphthalene	91-20-3	8260B	16	B	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	0.53		0.50	0.25	0.17	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		104	70-120
Toluene-d8		101	85-120
Bromofluorobenzene		114	75-120
Dibromofluoromethane		99	85-115

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

Semivolatile Organic Compounds by GC/MS

Client: AECOM - Resolution Consultants
Laboratory ID: OG26003-006
Description: BEALB1166TW01WG20130725
Matrix: Aqueous
Date Sampled: 07/25/2013 1500
Date Received: 07/26/2013

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	07/30/2013 1601	RBH	07/29/2013 1434	26002

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	LOD	DL	Units	Run
Benzo(a)anthracene	56-55-3	8270D	ND		0.22	0.11	0.092	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		0.22	0.11	0.098	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		0.22	0.11	0.10	ug/L	1
Chrysene	218-01-9	8270D	ND		0.22	0.11	0.061	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		0.22	0.11	0.065	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
2-Fluorobiphenyl		84	50-110
Nitrobenzene-d5		92	40-110
Terphenyl-d14		58	50-135

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

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

Appendix D
Regulatory Correspondence

CDM - AECOM
Multimedia Joint Venture

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

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

April 20, 2009

Commanding Officer
ATTN: S-4 NREAO (Craig Ehde)
MCAS
PO Box 55001
Beaufort, SC 29904-5001

Re: MCAS – Laurel Bay Housing – 1166 Jasmine
Site ID # 04159
Soil Sampling Results received March 24, 2009
Beaufort County

Dear Mr. Ehde:

The Department has reviewed the referenced report. The submitted analytical results indicates that petroleum constituents are above established Risk-Based Screening Levels and additional investigative and/or remedial actions are warranted. The Department recommends that a groundwater monitoring well be installed to determine if there has been an impact to groundwater. Please submit the proposal to conduct the necessary assessment and/or remedial measures at this site no later than July 28, 2009.

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
Division of Site Assessment, Remediation & Revitalization
Bureau of Land and Waste Management

cc: Region 8 District EQC
Tri-Command Communities; Attn: Mr. Robert Bible; 600 Laurel Bay Road Beaufort, SC 29906

D H E C
PROMOTE PROTECT PROSPER
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
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)

Permanent Monitoring Well Investigation recommendation (10 addresses/11 tanks)	
119 Banyan	156 Laurel Bay
128 Banyan	1033 Foxglove
132 Banyan	1055 Gardenia
135 Birch	1059 Gardenia
148 Laurel Bay	1168 Jasmine
No Further Action recommendation (25 addresses/27 tanks):	
115 Banyan	386 Acorn
116 Banyan	395 Acorn
120 Banyan	399 Acorn
124 Banyan	1021 Foxglove
125 Banyan	1027 Foxglove
136 Birch	1030 Foxglove
140 Laurel Bay	1032 Foxglove
144 Laurel Bay	1053 Gardenia
152 Laurel Bay	1058 Gardenia
160 Cypress	1061 Gardenia
263 Beech	1166 Jasmine
269 Birch	1169 Jasmine
295 Birch	