SUMMARY REPORT
191 BIRCH ROAD (FORMERLY 282 BIRCH ROAD)
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

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

Table of Contents

Tables

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
LTM	long-term monitoring
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
UFP SAP	Uniform Federal Policy Sampling and Analysis Plan
USEPA	United States Environmental Protection Agency
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 191 Birch Road (Formerly 282 Birch Road). 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 UST. 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 heating oil USTs and conduct sampling activities to determine if, and to what extent, petroleum constituents may have impacted the surrounding environment. MCAS Beaufort coordinated with the 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 IGWA sampling process utilizes temporary groundwater sampling points that are typically installed and sampled within the same day. The intent of the sampling point is to determine the presence or absence of the aforementioned COPCs in groundwater and identify whether former UST locations may require additional delineation of COPCs in groundwater. These sampling points are not subjected to the same installation standards as permanent monitoring wells and, as such; the data obtained from the IGWA wells can sometimes be biased high and is considered preliminary data. In order to confirm the presence of any impact to groundwater, a permanent well is installed where IGWA sampling has indicated the presence of COPCs is in excess of the SCDHEC RBSLs for groundwater. If COPCs are found to be present in the permanent well, additional permanent wells are installed to delineate the extent of impact to groundwater and a sampling program (long-term monitoring [LTM]) is established. LTM is conducted at the property until COPC concentrations in groundwater sampled from all permanent monitoring wells are less than the SCDHEC RBSLs for three or more consecutive sampling events. Groundwater analytical results from permanent wells 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 191 Birch Road (Formerly 282 Birch Road). The sampling activities at 191 Birch Road (Formerly 282 Birch Road) comprised a soil investigation, IGWA sampling, installation and sampling of four permanent monitoring wells and LTM sampling. Details regarding the soil investigation at this site are provided in the *SCDHEC UST Assessment Report – 282 Birch Road* (MCAS Beaufort, 2008). The UST Assessment Report is provided in Appendix B. Details regarding the IGWA

sampling activities at this site are provided in the *Report of Findings for Laurel Bay Military Housing Area Investigation of Potential Impacts to Groundwater from Former Heating Oil Underground Storage Tanks* (Tetra Tech NUS, Inc, 2010). The pertinent IGWA analytical results for this site are presented in Appendix C. Details regarding the permanent well installations and initial sampling activities at this site are provided in the *November 2011 Report of Findings for Laurel Bay Military Housing Area Investigation of Potential Impacts to Groundwater from Former Heating Oil Underground Storage Tanks* (Tetra Tech NUS, Inc, 2012). The laboratory reports that include the pertinent groundwater analytical results for this site are presented in Appendix D. Details regarding the LTM activities to date at this site are provided in the *2016 Groundwater Monitoring Report* (Resolution Consultants, 2016). A comprehensive table of the historical groundwater analytical results for all permanent monitoring wells at the site through 2016 is presented in Appendix E.

2.1 UST Removal and Soil Sampling

On July 6, 2007, a single 280 gallon heating oil UST was removed from the front landscaped area, adjacent to the house at 191 Birch Road (Formerly 282 Birch Road). The former UST location is indicated on the figures of the UST Assessment Report (Appendix B). The UST was removed and properly disposed of (i.e., shipped offsite for recycling or transported to a landfill). There was no visual evidence (i.e., staining or sheen) of petroleum impact at the time of the UST removal. According to the UST Assessment Report (Appendix B), the depth to the base of the UST was 5'8" bgs and a single soil sample was collected from that depth. An additional soil sample was collected from the side of the excavation at a depth of 5'0" bgs. The samples were collected from the fill port side of the former UST to represent a worst case scenario 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 reports are included in the UST Assessment Report presented in Appendix B. The laboratory analytical data reports include 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 No Further Action [NFA]) for the property. The soil results collected from the former UST location at 191 Birch Road (Formerly 282 Birch Road) were less than the SCDHEC RBSLs, however, SCDHEC determined that a potential violation of the South Carolina Pollution Control Act had occurred, which indicated further investigation was required. In a letter dated September 8, 2008, SCDHEC requested an IGWA for 191 Birch Road (Formerly 282 Birch Road) to determine if the groundwater was impacted by petroleum COPCs. SCDHEC's request letter is provided in Appendix F.

2.3 Initial Groundwater Sampling

On February 23, 2010, a single temporary monitoring well was installed at 191 Birch Road (Formerly 282 Birch Road), in accordance with the South Carolina Well Standards and Regulations (R.61-71.H-I, updated June 24, 2016). In order to provide data that can be used to determine whether COPCs are migrating to underlying groundwater, the monitoring well was placed in the same general location as the former heating oil UST. The former UST location is indicated on the figures of the UST Assessment Report (Appendix B). Further details are provided in the *Report of Findings for Laurel Bay Military Housing Area Investigation of Potential Impacts to Groundwater from Former Heating Oil Underground Storage Tanks* (Tetra Tech NUS, Inc, 2010).

The sampling strategy for this phase of the investigation required a one-time sampling event of the temporary monitoring well. Following well installation and development, a groundwater sample was 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.H-I (SCDHEC, 2016). Field forms are provided in the *Report of Findings for Laurel Bay Military Housing Area Investigation of Potential Impacts to Groundwater from Former Heating Oil Underground Storage Tanks* (Tetra Tech NUS, Inc, 2010).

2.4 Initial 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 191 Birch Road (Formerly 282 Birch Road) were greater than the SCDHEC RBSLs and the site specific groundwater VISLs (Table 2), which indicated further investigation was required. In a letter dated April 6, 2011, SCDHEC requested a permanent well be installed for 191 Birch Road (Formerly 282 Birch Road) to confirm the impact to groundwater detected in the temporary well sample. SCDHEC's request letter is provided in Appendix F.

2.5 Permanent Well Groundwater Sampling

In November 2011, four permanent monitoring wells were installed at 191 Birch Road (Formerly 282 Birch Road), 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, a permanent monitoring well, MW136, was placed in the same general location as the former heating oil UST and the IGWA sample location. The former UST location is indicated on the figures of the UST Assessment Report (Appendix B). Three additional permanent wells (MW137, MW138 and MW139) were also installed around the property at 191 Birch Road (Formerly 282 Birch Road) to delineate potential contamination. Further details are provided in the *November 2011 Report of Findings for Laurel Bay Military Housing Area Investigation of Potential Impacts to Groundwater from Former Heating Oil Underground Storage Tanks* (Tetra Tech NUS, Inc, 2012).

The sampling strategy for this phase of the investigation required an initial sampling event of the permanent monitoring wells. 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. Field forms are provided in the *November 2011 Report of Findings for Laurel Bay Military Housing Area Investigation of Potential Impacts to Groundwater from Former Heating Oil Underground Storage Tanks* (Tetra Tech NUS, Inc, 2012).

2.6 Permanent Well Groundwater Analytical Results

A summary of the laboratory analytical results and SCDHEC RBSLs is presented in Table 3. A copy of the laboratory analytical data reports are included in Appendix D.

The groundwater results collected from 191 Birch Road (Formerly 282 Birch Road) at MW136 were greater than the SCDHEC RBSLs (Table 3), which indicated that further investigation was required. In a letter dated July 5, 2012, SCDHEC requested that LTM be carried out for 191 Birch Road (Formerly 282 Birch Road) to continue to monitor the impact to groundwater

detected in the permanent well sample (MW136). SCDHEC's request letter is provided in Appendix F.

2.7 Long Term Monitoring

The LTM program at 191 Birch Road (Formerly 282 Birch Road) consisted of annual groundwater sampling at the four permanent monitoring wells. LTM sampling activities were conducted annually from 2013 until 2016 at the referenced site. The latest groundwater sampling details are provided in the *2016 Groundwater Monitoring Report* (Resolution Consultants, 2016).

The sampling strategy for this phase of the investigation required annual LTM sampling of the permanent wells until an optimized monitoring strategy (e.g., reduced COPCs, reduced sampling frequency, reduce number of wells, etc.) or NFA determination could made for the site. During each LTM sampling event, groundwater samples were collected using low-flow methods and shipped to an offsite laboratory for analysis of the petroleum COPCs. Field forms from the most recent sampling event at 191 Birch Road (Formerly 282 Birch Road) are provided in the *2016 Groundwater Monitoring Report* (Resolution Consultants, 2016).

2.8 Long Term Monitoring Analytical Results

A summary of the laboratory analytical results and SCDHEC RBSLs is presented in Table 4. A comprehensive table of the historical groundwater analytical results for all permanent monitoring wells at the site through 2016 is presented in Appendix E. The associated laboratory analytical data reports are located in each of the annual LBMH groundwater monitoring reports.

The groundwater results collected from 191 Birch Road (Formerly 282 Birch Road) were less than the SCDHEC RBSLs and the site specific groundwater VISLs (Table 4) during the 2014, 2015 and 2016 groundwater sampling events. This indicated that the groundwater was no longer impacted by COPCs associated with the former UST at concentrations that may present a potential risk to human health and the environment.

3.0 PROPERTY STATUS

Based on the analytical results for groundwater collected from the permanent monitoring wells during the three most recent sampling events, SCDHEC made the determination that NFA was

required for 191 Birch Road (Formerly 282 Birch Road). The NFA determination for groundwater was obtained in a letter dated December 12, 2016. SCDHEC's letter is provided in Appendix F.

4.0 REFERENCES

Marine Corps Air Station Beaufort, 2008. *South Carolina Department of Health and Environmental Control (SCDHEC) Underground Storage Tank Assessment Report – 282 Birch Road, Laurel Bay Military Housing Area*, January 2008.

Resolution Consultants, 2016. *2016 Groundwater Monitoring Report for Laurel Bay Military Housing Area, Long-Term Monitoring (LTM), Laurel Bay Military Housing Area, Marine Corps Air Station Beaufort, Beaufort, South Carolina*, October 2016.

South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2013. *Quality Assurance Program Plan for the Underground Storage Tank Management* Division*, Revision 2.0*, April 2013.

South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2015. *Quality Assurance Program Plan for the Underground Storage Tank Management* Division*, Revision 3.0*, May 2015.

South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2016. *Quality Assurance Program Plan for the Underground Storage Tank Management* Division*, Revision 3.1*, February 2016.

South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2017. *R.61-92, Part 280, Underground Storage Tank Control Regulations*, March 2017.

South Carolina Department of Health and Environmental Control Bureau of Land and Waste Management, 2018. *Underground Storage Tank Assessment Instructions for Permanent Closure and Change-In-Service*, March 2018.

South Carolina Department of Health and Environmental Control Bureau of Water, 2016. *R.61-71, Well Standards*, June 2016.

Tetra Tech NUS, Inc, 2010. *Report of Findings for Laurel Bay Military Housing Area Investigation of Potential Impacts to Groundwater from Former Heating Oil Underground Storage Tanks*, July 2010.

Tetra Tech NUS, Inc, 2012. *November 2011 Report of Findings for Laurel Bay Military Housing Area Investigation of Potential Impacts to Groundwater from Former Heating Oil Underground Storage Tanks*, June 2012.

Tables

Table 1
Laboratory Analytical Results - Soil
191 Birch Road (Formerly 282 Birch Road)
Laurel Bay Military Housing Area
Marine Corps Air Station Beaufort
Beaufort, South Carolina

Constituent	SCDHEC RBSLs [1]	Results Samples Collected 07/06/07	
		282 Birch Bottom 01	282 Birch Side 02
Volatile Organic Compounds Analyzed by EPA Method 8260B (mg/kg)			
Benzene	0.003	ND	ND
Ethylbenzene	1.15	**0.000146**	ND
Naphthalene	0.036	**0.000808**	**0.000433**
Toluene	0.627	ND	ND
Xylenes, Total	13.01	**0.000354**	**0.000146**
Semivolatile Organic Compounds Analyzed by EPA Method 8270 (mg/kg)			
Benzo(a)anthracene	0.066	**0.0282**	ND
Benzo(b)fluoranthene	0.066	ND	**0.0348**
Benzo(k)fluoranthene	0.066	ND	ND
Chrysene	0.066	ND	**0.0452**
Dibenz(a,h)anthracene	0.066	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 (SCDHEC, May 2001).

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 - Inital Groundwater
191 Birch Road (Formerly 282 Birch Road)
Laurel Bay Military Housing Area
Marine Corps Air Station Beaufort
Beaufort, South Carolina

Constituent	SCDHEC RBSLs [1]	Site-Specific Groundwater VISLs[2]	Results Samples Collected 02/24/10
Volatile Organic Compounds Analyzed by EPA Method 8260B (µg/L)			
Benzene	5	16.24	ND
Ethylbenzene	700	45.95	**1.24**
Naphthalene	25	29.33	**31.3**
Toluene	1000	105,445	ND
Xylenes, Total	10,000	2,133	**3.03**
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 1.0 (SCDHEC, May 2001).

[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

Table 3
Laboratory Analytical Results - Permanent Monitoring Well Groundwater
191 Birch Road (Formerly 282 Birch Road)
Laurel Bay Military Housing Area
Marine Corps Air Station Beaufort
Beaufort, South Carolina

Constituent	SCDHEC RBSLs [1]	Site-Specific Groundwater VISLs[2]	Results Samples Collected 11/15/11, 11/16/11, and 11/17/11			
			MW136 11/15/11	MW137 11/16/11	MW138 11/17/11	MW139 11/15/11
Volatile Organic Compounds Analyzed by EPA Method 8260B (µg/L)						
Benzene	5	16.24	**2.4**	ND	ND	ND
Ethylbenzene	700	45.95	**17**	ND	ND	ND
Naphthalene	25	29.33	**120**	ND	ND	ND
Toluene	1000	105,445	**0.33**	ND	ND	ND
Xylenes, Total	10,000	2,133	**14**	ND	ND	ND
Semivolatile Organic Compounds Analyzed by EPA Method 8270D (µg/L)						
Benzo(a)anthracene	10	NA	ND	ND	ND	ND
Benzo(b)fluoranthene	10	NA	ND	ND	ND	ND
Benzo(k)fluoranthene	10	NA	ND	ND	ND	ND
Chrysene	10	NA	ND	ND	ND	ND
Dibenz(a,h)anthracene	10	NA	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 1.1 (SCDHEC, February 2011).

[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 D.
RBSL - Risk-Based Screening Level
SCDHEC - South Carolina Department Of Health and Environmental Control
µg/L - micrograms per liter
VISL - Vapor Intrusion Screening Level

Table 4
Laboratory Analytical Results - Long Term Monitoring
191 Birch Road (Formerly 282 Birch Road)
Laurel Bay Military Housing Area
Marine Corps Air Station Beaufort
Beaufort, South Carolina

Constituent		Benzene	Ethylbenzene	Naphthalene	Toluene	Xylenes	Benzo(a) anthracene	Benzo(b) fluoranthene	Benzo(k) fluoranthene	Chrysene	Dibenz(a,h) anthracene
SCDHEC RBSLs [1] (µg/L)		5	700	25	1000	10,000	10	10	10	10	10
Site-Specific Groundwater VISLs [2] (µg/L)		16.24	45.95	29.33	105,445	2,133	N/A	N/A	N/A	N/A	N/A
Well ID	**Sample Date**										
BEALB282MW136	7/30/2013	**0.41**	**1.2**	**57**	ND	ND	ND	ND	ND	ND	ND
	9/12/2014	ND	**0.76**	**14**	ND	ND	ND	ND	ND	ND	ND
	9/15/2015	ND	NA	**16**	NA	NA	NA	NA	NA	NA	NA
	7/28/2016	NA	NA	**15**	NA	NA	NA	NA	NA	NA	NA
BEALB282MW137	7/30/2013	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	9/12/2014	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	9/15/2015	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA
	7/28/2016	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA
BEALB282MW138	7/30/2013	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	9/12/2014	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	9/15/2015	ND	NA	**0.14**	NA	NA	NA	NA	NA	NA	NA
	7/27/2016	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA
BEALB282MW139	7/30/2013	ND	ND	**0.41**	ND	ND	ND	ND	ND	ND	ND
	9/12/2014	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	9/15/2015	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA
	7/27/2016	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA

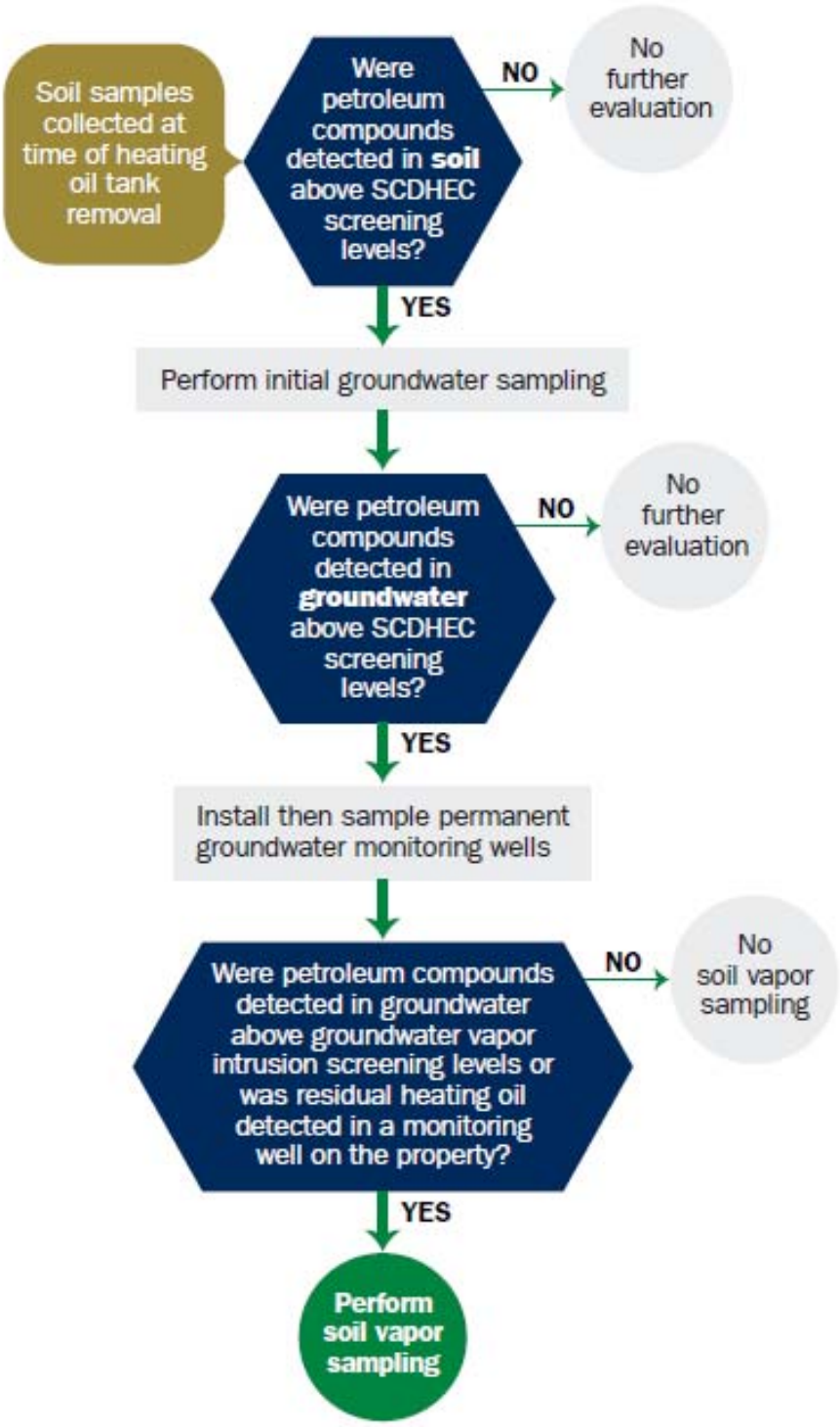
[1] South Carolina Risk-Based Screening Levels from the Quality Assurance Program Plan for the Underground Storage Tank Management Division, Revision 3.1 (SCDHEC, February 2016).

[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.
JE - Johnson & Ettinger
N/A - not applicable
NA - not analyzed
ND - not detected at the reporting limit (or method detection limit if shown on the laboratory report). A comprehensive table of the historical groundwater analytical results for all permanent monitoring wells at the site through 2016 is presented in Appendix E.
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	
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)

Beaufort Military Complex Family Housing
Owner Name (Corporation, Individual, Public Agency, Other)

1510 Laurel Bay Blvd.
Mailing Address

Beaufort	SC	29906
City	State	Zip Code

843	379-3305	Kyle Broadfoot
Area Code	Telephone Number	Contact Person

II. SITE IDENTIFICATION AND LOCATION

N/A
Permit I.D. #

Actus Lend Lease Construction
Facility Name or Company Site Identifier

282 Birch
Street Address or State Road (as applicable)

Beaufort, SC	29906	Beaufort
City	ZIP	County

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 DIESEL					
B.	Capacity..(ex. 1k, 2k)..... (APPROX)	280G 350G					
C.	Age.....						
D.	Construction Material..(ex. Steel, FRP).....	Steel					
E.	Month/Year of Last Use.....						
F.	Depth (ft.) To Base of Tank.....	68"					
G.	Spill Prevention Equipment Y/N.....	N					
H.	Overfill Prevention Equipment Y/N.....	N					
I.	Method of Closure (Removed/Filled).....	Removed					
J.	Date Tanks Removed/Filled.....	7-6-07					
K.	Visible Corrosion or Pitting Y/N.....	Y					
L.	Visible Holes Y/N.....	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)

TREATMENT FACILITY - BROADHURST LANDFILL
Solidification And SUBTITLE D LANDFILL

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

THERE WERE MANY SMALL HOLES ALONG THE SIDES OF THE UST.

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.....	Electric Pump					
E. Was Piping Removed from the Ground? Y/N	Y					
F. Visible Corrosion or Pitting Y/N.....	N					
G. Visible Holes Y/N.....	N					
H. Age.....						

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

Vent Pipe And Fill pipe were mildly RUSTED —

VII. BRIEF SITE DESCRIPTION AND HISTORY

Home Heating Oil TANK - RESIDENTIAL

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 #
						ECHEVARRIA	
1	BOTTOM	S	SAND	68"	7-6-07 920	[illegible]	ND
2	SIDE	S	MIX	60"	930	[illegible]	ND
3							
4							
5							
6							
7							
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 8260 B Volatile Organic Compounds
- Preservative: 2ea Sodium Bisulfate 1ea
EPA Method 8270 Poly Aromatic Hydrocarbons
- No Preservative

One (1) Sidewall and One (1) Bottom Sample were secured from tank excavation Samples were stored and shipped in an insulated cooler w/ 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.		X
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.		✓

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.

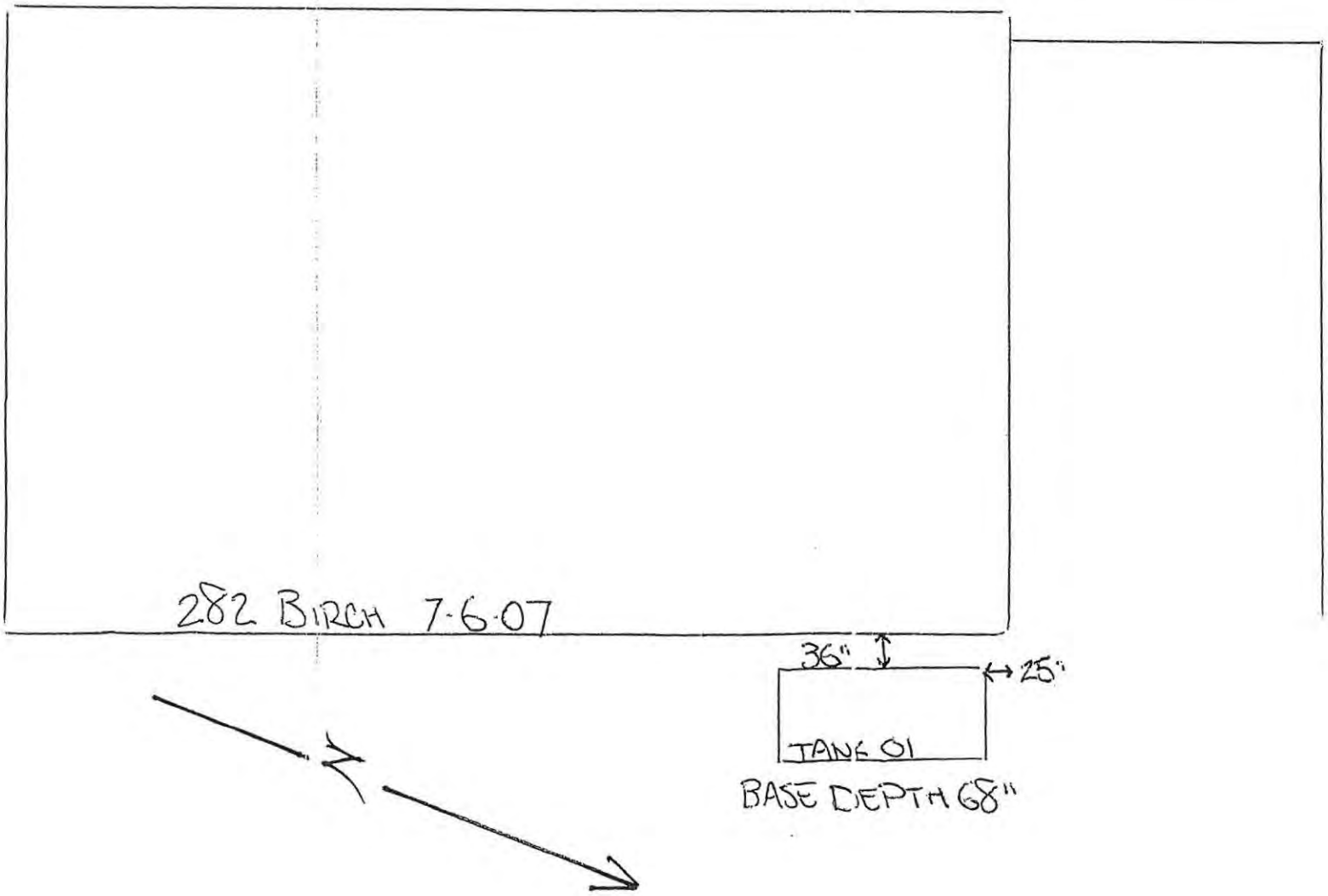
CoC	SB-1	SB-2	SB-3	SB-4	SB-5	SB-6	SB-7	SB-8
Benzene								
Toluene								
Ethylbenzene								
Xylenes								
Naphthalene								
Benzo(a)anthracene								
Benzo(b)flouranthene								
Benzo(k)flouranthene								
Chrysene								
Dibenz(a,h)anthracene								
TPH (EPA 3550)								

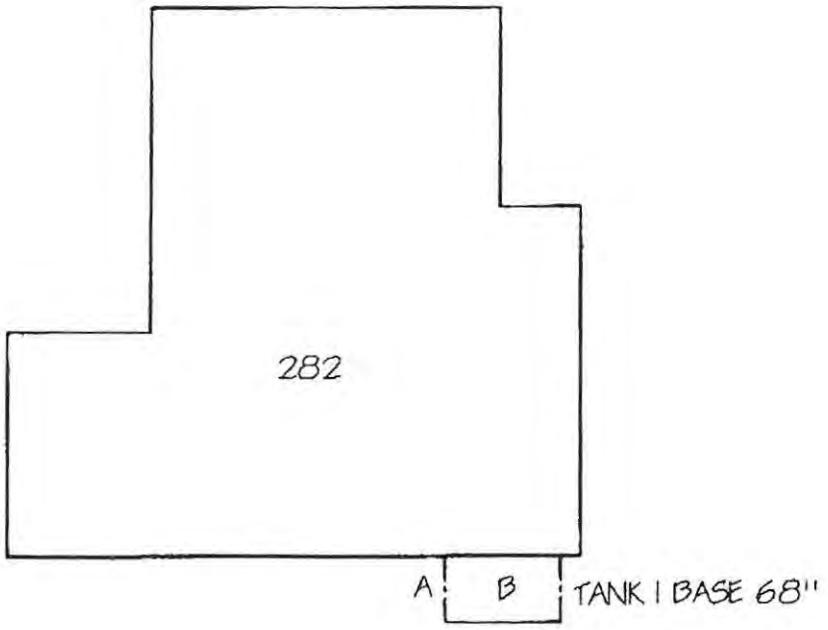
CoC	SB-9	SB-10	SB-11	SB-12	SB-13	SB-14	SB-15	SB-16
Benzene								
Toluene								
Ethylbenzene								
Xylenes								
Naphthalene								
Benzo(a)anthracene								
Benzo(b)flouranthene								
Benzo(k)flouranthene								
Chrysene								
Dibenz(a,h)anthracene								
TPH (EPA 3550)								

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				


282 BIRCH 7-6-07
36"
25"
TANK 01
BASE DEPTH 68"
N



BIRCH DRIVE

N

TANK I EXCAVATION

A-SOIL TEST SIDE SAMPLE @ 55"
B-SOIL TEST BOTTOM SAMPLE @ 68"

CUSTOMER: BEAUFORT MILITARY COMPLEX FAMILY HOUSING	SCALE: 1/16"=1'-0"	EPG INC.
SITE ADDRESS: 282 BIRCH DRIVE	SUPPLIER: EPG INC.	P.O. BOX 1096
	DATE: 9/27/2007	MOUNT PLEASANT, SC 29465-1096

792 BIRCH
07.06.2007 10:26

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)

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

Work Order: OQG0164
Project: LAUREL BAY
Project Number: EP2362

Sampled: 07/02/07-07/06/07
Received: 07/10/07

LABORATORY REPORT
Sample ID: 286 BIRCH SIDE 04 - Lab Number: OQG0164-12 - Matrix: Solid/Soil

CAS #	Analyte	Result	Q	Units	MDL	PQL	Dil Factor	Analyzed Date/Time	By	Method	Batch
Polynuclear Aromatic Hydrocarbons by EPA Method 8270 - Cont.											
90-12-0	1-Methylnaphthalene	103	U	ug/kg dry	103	205	1	07/13/07 12:56	REM	EPA 8270C	7G11007
218-01-9	Chrysene	24.6	U	ug/kg dry	24.6	205	1	07/13/07 12:56	REM	EPA 8270C	7G11007
53-70-3	Dibenz (a,h) anthracene	26.9	U	ug/kg dry	26.9	205	1	07/13/07 12:56	REM	EPA 8270C	7G11007
206-44-0	Fluoranthene	29.5	U	ug/kg dry	29.5	205	1	07/13/07 12:56	REM	EPA 8270C	7G11007
86-73-7	Fluorene	80.3	U	ug/kg dry	80.3	205	1	07/13/07 12:56	REM	EPA 8270C	7G11007
193-39-5	Indeno (1,2,3-cd) pyrene	26.6	U	ug/kg dry	26.6	205	1	07/13/07 12:56	REM	EPA 8270C	7G11007
91-57-6	2-Methylnaphthalene	87.5	U	ug/kg dry	87.5	205	1	07/13/07 12:56	REM	EPA 8270C	7G11007
91-20-3	Naphthalene	82.4	U	ug/kg dry	82.4	205	1	07/13/07 12:56	REM	EPA 8270C	7G11007
85-01-8	Phenanthrene	48.4	U	ug/kg dry	48.4	205	1	07/13/07 12:56	REM	EPA 8270C	7G11007
129-00-0	Pyrene	41.7	U	ug/kg dry	41.7	205	1	07/13/07 12:56	REM	EPA 8270C	7G11007
Surrogate: 2-Fluorobiphenyl (24-121%)		*63 %*									
Surrogate: Nitrobenzene-d5 (19-111%)		*61 %*									
Surrogate: Terphenyl-d14 (44-171%)		*93 %*									

LABORATORY REPORT
Sample ID: 282 BIRCH BOTTOM 01 - Lab Number: OQG0164-13 - Matrix: Solid/Soil

CAS #	Analyte	Result	Q	Units	MDL	PQL	Dil Factor	Analyzed Date/Time	By	Method	Batch
General Chemistry Parameters											
NA	**% Solids**	**75.8**		%.	0.100	0.100	1	07/11/07 16:45	RRP	EPA 160.3	7G11027
Volatile Organic Compounds by EPA Method 8260B											
71-43-2	Benzene	0.0954	U	ug/kg dry	0.0954	0.261	1	07/11/07 14:05	JWT	EPA 8260B	7G12014
100-41-4	**Ethylbenzene**	**0.146**	I	ug/kg dry	0.110	0.261	1	07/11/07 14:05	JWT	EPA 8260B	7G12014
91-20-3	**Naphthalene**	**0.808**		ug/kg dry	0.144	0.261	1	07/11/07 14:05	JWT	EPA 8260B	7G12014
108-88-3	Toluene	0.225	U	ug/kg dry	0.225	0.261	1	07/11/07 14:05	JWT	EPA 8260B	7G12014
1330-20-7	**Xylenes, total**	**0.354**		ug/kg dry	0.135	0.261	1	07/11/07 14:05	JWT	EPA 8260B	7G12014
Surrogate: 1,2-Dichloroethane-d4 (73-137%)		*113 %*									
Surrogate: 4-Bromofluorobenzene (59-118%)		*102 %*									
Surrogate: Dibromofluoromethane (55-145%)		*105 %*									
Surrogate: Toluene-d8 (70-130%)		*97 %*									
Polynuclear Aromatic Hydrocarbons by EPA Method 8270											
83-32-9	Acenaphthene	97.7	U	ug/kg dry	97.7	220	1	07/13/07 13:18	REM	EPA 8270C	7G11007
208-96-8	Acenaphthylene	129	U	ug/kg dry	129	220	1	07/13/07 13:18	REM	EPA 8270C	7G11007
120-12-7	Anthracene	70.3	U	ug/kg dry	70.3	220	1	07/13/07 13:18	REM	EPA 8270C	7G11007
56-55-3	**Benzo (a) anthracene**	**28.2**	I	ug/kg dry	23.9	220	1	07/13/07 13:18	REM	EPA 8270C	7G11007
205-99-2	Benzo (b) fluoranthene	23.2	U	ug/kg dry	23.2	220	1	07/13/07 13:18	REM	EPA 8270C	7G11007
207-08-9	Benzo (k) fluoranthene	23.2	U	ug/kg dry	23.2	220	1	07/13/07 13:18	REM	EPA 8270C	7G11007
191-24-2	Benzo (g,h,i) perylene	22.9	U	ug/kg dry	22.9	220	1	07/13/07 13:18	REM	EPA 8270C	7G11007
50-32-8	Benzo (a) pyrene	27.1	U	ug/kg dry	27.1	220	1	07/13/07 13:18	REM	EPA 8270C	7G11007
90-12-0	1-Methylnaphthalene	111	U	ug/kg dry	111	220	1	07/13/07 13:18	REM	EPA 8270C	7G11007
218-01-9	Chrysene	26.4	U	ug/kg dry	26.4	220	1	07/13/07 13:18	REM	EPA 8270C	7G11007
53-70-3	Dibenz (a,h) anthracene	28.9	U	ug/kg dry	28.9	220	1	07/13/07 13:18	REM	EPA 8270C	7G11007
206-44-0	**Fluoranthene**	**40.5**	I	ug/kg dry	31.7	220	1	07/13/07 13:18	REM	EPA 8270C	7G11007

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

Work Order: OQG0164
Project: LAUREL BAY
Project Number: EP2362

Sampled: 07/02/07-07/06/07
Received: 07/10/07

LABORATORY REPORT
Sample ID: 282 BIRCH BOTTOM 01 - Lab Number: OQG0164-13 - Matrix: Solid/Soil

CAS #	Analyte	Result	Q	Units	MDL	PQL	Dil Factor	Analyzed Date/Time	By	Method	Batch
Polynuclear Aromatic Hydrocarbons by EPA Method 8270 - Cont.											
86-73-7	Fluorene	86.3	U	ug/kg dry	86.3	220	1	07/13/07 13:18	REM	EPA 8270C	7G11007
193-39-5	Indeno (1,2,3-cd) pyrene	28.5	U	ug/kg dry	28.5	220	1	07/13/07 13:18	REM	EPA 8270C	7G11007
91-57-6	2-Methylnaphthalene	94.0	U	ug/kg dry	94.0	220	1	07/13/07 13:18	REM	EPA 8270C	7G11007
91-20-3	Naphthalene	88.5	U	ug/kg dry	88.5	220	1	07/13/07 13:18	REM	EPA 8270C	7G11007
85-01-8	Phenanthrene	52.0	U	ug/kg dry	52.0	220	1	07/13/07 13:18	REM	EPA 8270C	7G11007
129-00-0	Pyrene	44.8	U	ug/kg dry	44.8	220	1	07/13/07 13:18	REM	EPA 8270C	7G11007
Surrogate: 2-Fluorobiphenyl (24-121%)		*70 %*									
Surrogate: Nitrobenzene-d5 (19-111%)		*68 %*									
Surrogate: Terphenyl-d14 (44-171%)		*94 %*									

LABORATORY REPORT
Sample ID: 282 BIRCH SIDE 02 - Lab Number: OQG0164-14 - Matrix: Solid/Soil

CAS #	Analyte	Result	Q	Units	MDL	PQL	Dil Factor	Analyzed Date/Time	By	Method	Batch
General Chemistry Parameters											
NA	**% Solids**	**73.8**		%.	0.100	0.100	1	07/12/07 12:45	RRP	EPA 160.3	7G12029
Volatile Organic Compounds by EPA Method 8260B											
71-43-2	Benzene	0.0954	U	ug/kg dry	0.0954	0.261	1	07/11/07 14:22	JWT	EPA 8260B	7G12014
100-41-4	Ethylbenzene	0.110	U	ug/kg dry	0.110	0.261	1	07/11/07 14:22	JWT	EPA 8260B	7G12014
91-20-3	**Naphthalene**	**0.433**		ug/kg dry	0.144	0.261	1	07/11/07 14:22	JWT	EPA 8260B	7G12014
108-88-3	Toluene	0.225	U	ug/kg dry	0.225	0.261	1	07/11/07 14:22	JWT	EPA 8260B	7G12014
1330-20-7	**Xylenes, total**	**0.146**	I	ug/kg dry	0.135	0.261	1	07/11/07 14:22	JWT	EPA 8260B	7G12014
Surrogate: 1,2-Dichloroethane-d4 (73-137%)		*105 %*									
Surrogate: 4-Bromofluorobenzene (59-118%)		*97 %*									
Surrogate: Dibromofluoromethane (55-145%)		*104 %*									
Surrogate: Toluene-d8 (70-130%)		*99 %*									
Polynuclear Aromatic Hydrocarbons by EPA Method 8270											
83-32-9	Acenaphthene	100	U	ug/kg dry	100	226	1	07/13/07 13:40	REM	EPA 8270C	7G11007
208-96-8	Acenaphthylene	132	U	ug/kg dry	132	226	1	07/13/07 13:40	REM	EPA 8270C	7G11007
120-12-7	Anthracene	72.2	U	ug/kg dry	72.2	226	1	07/13/07 13:40	REM	EPA 8270C	7G11007
56-55-3	Benzo (a) anthracene	24.5	U	ug/kg dry	24.5	226	1	07/13/07 13:40	REM	EPA 8270C	7G11007
205-99-2	**Benzo (b) fluoranthene**	**34.8**	I	ug/kg dry	23.8	226	1	07/13/07 13:40	REM	EPA 8270C	7G11007
207-08-9	Benzo (k) fluoranthene	23.8	U	ug/kg dry	23.8	226	1	07/13/07 13:40	REM	EPA 8270C	7G11007
191-24-2	**Benzo (g,h,i) perylene**	**313**		ug/kg dry	23.5	226	1	07/13/07 13:40	REM	EPA 8270C	7G11007
50-32-8	**Benzo (a) pyrene**	**198**	I	ug/kg dry	27.9	226	1	07/13/07 13:40	REM	EPA 8270C	7G11007
90-12-0	1-Methylnaphthalene	114	U	ug/kg dry	114	226	1	07/13/07 13:40	REM	EPA 8270C	7G11007
218-01-9	**Chrysene**	**45.2**	I	ug/kg dry	27.1	226	1	07/13/07 13:40	REM	EPA 8270C	7G11007
53-70-3	Dibenz (a,h) anthracene	29.7	U	ug/kg dry	29.7	226	1	07/13/07 13:40	REM	EPA 8270C	7G11007
206-44-0	Fluoranthene	32.6	U	ug/kg dry	32.6	226	1	07/13/07 13:40	REM	EPA 8270C	7G11007
86-73-7	Fluorene	88.6	U	ug/kg dry	88.6	226	1	07/13/07 13:40	REM	EPA 8270C	7G11007
193-39-5	**Indeno (1,2,3-cd) pyrene**	**189**	I	ug/kg dry	29.3	226	1	07/13/07 13:40	REM	EPA 8270C	7G11007
91-57-6	2-Methylnaphthalene	96.5	U	ug/kg dry	96.5	226	1	07/13/07 13:40	REM	EPA 8270C	7G11007
91-20-3	Naphthalene	90.9	U	ug/kg dry	90.9	226	1	07/13/07 13:40	REM	EPA 8270C	7G11007

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

Work Order: OQG0164
Project: LAUREL BAY
Project Number: EP2362

Sampled: 07/02/07-07/06/07
Received: 07/10/07

LABORATORY REPORT
Sample ID: 282 BIRCH SIDE 02 - Lab Number: OQG0164-14 - Matrix: Solid/Soil

CAS #	Analyte	Result	Q	Units	MDL	PQL	Dil Factor	Analyzed Date/Time	By	Method	Batch
Polynuclear Aromatic Hydrocarbons by EPA Method 8270 - Cont.											
85-01-8	Phenanthrene	53.4	U	ug/kg dry	53.4	226	1	07/13/07 13:40	REM	EPA 8270C	7G11007
129-00-0	Pyrene	46.0	U	ug/kg dry	46.0	226	1	07/13/07 13:40	REM	EPA 8270C	7G11007
Surrogate: 2-Fluorobiphenyl (24-121%)		*60 %*									
Surrogate: Nitrobenzene-d5 (19-111%)		*58 %*									
Surrogate: Terphenyl-d14 (44-171%)		*86 %*									

LABORATORY REPORT
Sample ID: 280 BIRCH BOTTOM 01 - Lab Number: OQG0164-15 - Matrix: Solid/Soil

CAS #	Analyte	Result	Q	Units	MDL	PQL	Dil Factor	Analyzed Date/Time	By	Method	Batch
General Chemistry Parameters											
NA	**% Solids**	**87.1**		%.	0.100	0.100	1	07/12/07 12:45	RRP	EPA 160.3	7G12029
Volatile Organic Compounds by EPA Method 8260B											
71-43-2	**Benzene**	**0.337**		ug/kg dry	0.0834	0.228	1	07/11/07 14:39	JWT	EPA 8260B	7G12014
100-41-4	**Ethylbenzene**	**0.497**		ug/kg dry	0.0964	0.228	1	07/11/07 14:39	JWT	EPA 8260B	7G12014
91-20-3	**Naphthalene**	**1.95**		ug/kg dry	0.126	0.228	1	07/11/07 14:39	JWT	EPA 8260B	7G12014
108-88-3	Toluene	0.197	U	ug/kg dry	0.197	0.228	1	07/11/07 14:39	JWT	EPA 8260B	7G12014
1330-20-7	**Xylenes, total**	**0.511**		ug/kg dry	0.118	0.228	1	07/11/07 14:39	JWT	EPA 8260B	7G12014
Surrogate: 1,2-Dichloroethane-d4 (73-137%)		*111 %*									
Surrogate: 4-Bromofluorobenzene (59-118%)		*97 %*									
Surrogate: Dibromofluoromethane (55-145%)		*103 %*									
Surrogate: Toluene-d8 (70-130%)		*98 %*									
Polynuclear Aromatic Hydrocarbons by EPA Method 8270											
83-32-9	Acenaphthene	85.0	U	ug/kg dry	85.0	192	1	07/13/07 14:03	REM	EPA 8270C	7G11007
208-96-8	Acenaphthylene	112	U	ug/kg dry	112	192	1	07/13/07 14:03	REM	EPA 8270C	7G11007
120-12-7	Anthracene	61.1	U	ug/kg dry	61.1	192	1	07/13/07 14:03	REM	EPA 8270C	7G11007
56-55-3	Benzo (a) anthracene	20.8	U	ug/kg dry	20.8	192	1	07/13/07 14:03	REM	EPA 8270C	7G11007
205-99-2	Benzo (b) fluoranthene	20.2	U	ug/kg dry	20.2	192	1	07/13/07 14:03	REM	EPA 8270C	7G11007
207-08-9	Benzo (k) fluoranthene	20.2	U	ug/kg dry	20.2	192	1	07/13/07 14:03	REM	EPA 8270C	7G11007
191-24-2	Benzo (g,h,i) perylene	19.9	U	ug/kg dry	19.9	192	1	07/13/07 14:03	REM	EPA 8270C	7G11007
50-32-8	Benzo (a) pyrene	23.6	U	ug/kg dry	23.6	192	1	07/13/07 14:03	REM	EPA 8270C	7G11007
90-12-0	**1-Methylnaphthalene**	**153**	I	ug/kg dry	96.2	192	1	07/13/07 14:03	REM	EPA 8270C	7G11007
218-01-9	Chrysene	22.9	U	ug/kg dry	22.9	192	1	07/13/07 14:03	REM	EPA 8270C	7G11007
53-70-3	Dibenz (a,h) anthracene	25.2	U	ug/kg dry	25.2	192	1	07/13/07 14:03	REM	EPA 8270C	7G11007
206-44-0	**Fluoranthene**	**116**	I	ug/kg dry	27.6	192	1	07/13/07 14:03	REM	EPA 8270C	7G11007
86-73-7	Fluorene	75.0	U	ug/kg dry	75.0	192	1	07/13/07 14:03	REM	EPA 8270C	7G11007
193-39-5	Indeno (1,2,3-cd) pyrene	24.8	U	ug/kg dry	24.8	192	1	07/13/07 14:03	REM	EPA 8270C	7G11007
91-57-6	**2-Methylnaphthalene**	**256**		ug/kg dry	81.8	192	1	07/13/07 14:03	REM	EPA 8270C	7G11007
91-20-3	Naphthalene	77.0	U	ug/kg dry	77.0	192	1	07/13/07 14:03	REM	EPA 8270C	7G11007
85-01-8	**Phenanthrene**	**103**	I	ug/kg dry	45.2	192	1	07/13/07 14:03	REM	EPA 8270C	7G11007
129-00-0	**Pyrene**	**76.2**	I	ug/kg dry	39.0	192	1	07/13/07 14:03	REM	EPA 8270C	7G11007
Surrogate: 2-Fluorobiphenyl (24-121%)		*51 %*									
Surrogate: Nitrobenzene-d5 (19-111%)		*48 %*									

0260164 page 1 of 1

TestAmerica
ANALYTICAL TESTING CORPORATION

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

Client Name: EPG Client #: 2411
Address:
City/State/Zip Code:
Project Manager: JOHN MAHONEY
Telephone Number: Fax:
Sampler Name: (Print Name) CHRIS ECHEVARRIA
Sampler Signature:

Project Name: LAUREL BAY
Project #: EP 2362
Site/Location ID: State: SC
Report To:
Invoice To:
Quote #: PO#:

TAT
X 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 + NAPTH 8260	PAH 8270	REMARKS
290 BIRCH BOTTOM 01	7-2-07	1040	G							1	2	2	X	X	01
290 BIRCH SIDE 02	7-2-07	1050	C							1	2	2	X	X	02
290 BIRCH BOTTOM 03	7-2-07	1130	G							1	2	2	X	X	03
290 BIRCH SIDE 04	7-2-07	1140	C							1	2	2	X	X	04
288 BIRCH BOTTOM 01	7-2-07	1340	G							1	2	2	X	X	05
288 BIRCH SIDE 02	7-2-07	1350	C							1	2	2	X	X	06
288 BIRCH BOTTOM 03	7-2-07	1400	G							1	2	2	X	X	07
288 BIRCH SIDE 04	7-2-07	1410	C							1	2	2	X	X	08
286 BIRCH BOTTOM 01	7-5-07	1440	G							1	2	2	X	X	09
286 BIRCH SIDE 02	7-5-07	1450	C							1	2	2	X	X	10

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

Special Instructions:

Relinquished By: John Mahoney	Date: 7/9/07	Time: 1520	Received By:	Date: 7/9/07	Time: 1520
Relinquished By:	Date: 7/9/07	Time: 1730	Received By:	Date: 7/10	Time: 9:20
Relinquished By:	Date:	Time:	Received By	Date:	Time:

LABORATORY COMMENTS:
Init Lab Temp:
Rec Lab Temp: 2.6
Custody Seals: (Y) N N/A
Bottles Supplied by Test America: Y N
8602 3259 1060
Method of Shipment: FedEx to TA-Orlando

TestAmerica
ANALYTICAL TESTING CORPORATION

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

Client Name: EPG   Client #: 2411
Address:
City/State/Zip Code:
Project Manager: JOHN MAHONEY
Telephone Number: Fax:
Sampler Name: (Print Name) CHRIS ECHEVARRIA
Sampler Signature: [signature]

Project Name: LAUREL BAY
Project #: EP 2362
Site/Location ID: State: SC
Report To:
Invoice To:
Quote #:   PO#:

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

Matrix: SL - Sludge, DW - Drinking Water, GW - Groundwater, S - Soil/Solid, WW - Wastewater, Specify Other

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix	HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify)	BTEX + NAPTH 8260	PAH 8270	REMARKS	
286 BIRCH BOTTOM 03	7-5-07	1510	G							1	2	2	X	X		11
286 BIRCH SIDE 04	7-5-07	1520	C							1	2	2	X	X		12
282 BIRCH BOTTOM 01	7-6-07	920	G							1	2	2	X	X		13
282 BIRCH SIDE 02	7-6-07	930	C							1	2	2	X	X		14
280 BIRCH BOTTOM 01	7-6-07	1200	G							1	2	2	X	X		15
280 BIRCH SIDE 02	7-6-07	1210	C							1	2	2	X	X		16
280 BIRCH BOTTOM 03	7-6-07	1220	G							1	2	2	X	X		17
280 BIRCH SIDE 04	7-6-07	1230	C							1	2	2	X	X		18

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

Special Instructions:

Relinquished By	Date	Time	Received By	Date	Time
John Mahoney	7/9/07	1520	[signature]	7/9/07	1520
[signature]	7/9/07	1730	[signature]	7/10	9:20

LABORATORY COMMENTS:
Init Lab Temp: 2.6
Rec Lab Temp:
Custody Seals: Y N N/A
Bottles Supplied by Test America: Y N
8623 2591 1060
Method of Shipment: FedEx to TA Orlando

Appendix C
Analytical Data - Initial Groundwater

CDM - AECOM
Multimedia Joint Venture

TABLE 4-1

SUMMARY OF ANALYTICAL RESULTS FOR GROUNDWATER
REPORT OF FINDINGS - LAUREL BAY MILITARY HOUSING
MCAS BEAUFORT, SOUTH CAROLINA

		282 Birch Road	1118 Iris Lane		
LOCATION	South Carolina	LBTW123	LBMW124	LBMW125	LBMW126
SAMPLE ID	State Screening	BEA-LB282GW1230210	BEA-LB1118GW1240310	BEA-LB1118GW1250310	BEA-LB1118GW1260310
SAMPLE DATE	Values[1]	20100224	20100302	20100303	20100303
PAHS (UG/L)					
1-METHYLNAPHTHALENE	10	**26.2**	0.612 U	1.15 U	1.06 U
2-METHYLNAPHTHALENE	10	**38.8**	0.612 U	1.15 U	1.06 U
ACENAPHTHENE	NC	0.667 U	0.633 U	1.15 U	1.06 U
ACENAPHTHYLENE	NC	0.43 U	0.408 U	1.15 U	1.06 U
ANTHRACENE	NC	0.43 U	0.408 U	1.15 U	1.06 U
BENZO(A)ANTHRACENE	10	0.43 U	0.408 U	1.15 U	1.06 U
BENZO(A)PYRENE	10	0.43 U	0.408 U	1.15 U	1.06 U
BENZO(B)FLUORANTHENE	10	0.43 U	0.408 U	1.15 U	1.06 U
BENZO(G,H,I)PERYLENE	NC	0.43 U	0.408 U	1.15 U	1.06 U
BENZO(K)FLUORANTHENE	10	0.43 U	0.408 U	1.15 U	1.06 U
CHRYSENE	10	0.43 U	0.408 U	1.15 U	1.06 U
DIBENZO(A,H)ANTHRACENE	10	0.43 U	0.408 U	1.15 U	1.06 U
FLUORANTHENE	NC	0.43 U	0.408 U	1.15 U	1.06 U
FLUORENE	NC	1.42	0.408 U	1.15 U	1.06 U
INDENO(1,2,3-CD)PYRENE	NC	0.43 U	0.408 U	1.15 U	1.06 U
PHENANTHRENE	NC	0.844 J	0.408 U	1.15 U	1.06 U
PYRENE	NC	0.645 U	0.612 U	1.15 U	1.06 U
VOCS (UG/L)					
BENZENE	5	0.6 U	0.6 U	0.6 U	0.6 U
ETHYLBENZENE	700	1.24	0.5 U	0.5 U	0.5 U
METHYL TERT-BUTYL ETHER[2]	40				
NAPHTHALENE	25	**31.3**	0.5 U	0.5 U	0.5 U
TOLUENE	1000	0.5 U	0.5 U	0.5 U	0.5 U
TOTAL XYLENES	10000	3.03	0.6 U	0.6 U	0.6 U

Appendix D
Laboratory Analytical Reports – Permanent Well Groundwater

CDM - AECOM
Multimedia Joint Venture

Volatile Organic Compounds by GC/MS

Client: Tetra Tech NUS
Laboratory ID: MK16015-012
Description: BEALB-282-GW-MW136-1111
Matrix: Aqueous
Date Sampled: 11/15/2011 1535
Date Received: 11/16/2011

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	1	11/23/2011 1303	BM		72392

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Benzene	71-43-2	8260B	2.4	J	5.0	0.15	ug/L	2
Ethylbenzene	100-41-4	8260B	17		5.0	0.17	ug/L	2
Naphthalene	91-20-3	8260B	120		5.0	0.32	ug/L	2
Toluene	108-88-3	8260B	0.33	J	5.0	0.16	ug/L	2
Xylenes (total)	1330-20-7	8260B	14		5.0	0.19	ug/L	2

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
Bromofluorobenzene		101	75-120
1,2-Dichloroethane-d4		99	70-120
Toluene-d8		98	85-120

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
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
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Semivolatile Organic Compounds by GC/MS

Client: Tetra Tech NUS
Description: BEALB-282-GW-MW136-1111
Date Sampled: 11/15/2011 1535
Date Received: 11/16/2011

Laboratory ID: MK16015-012
Matrix: Aqueous

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	11/25/2011 1731	JGH	11/17/2011 1436	71923
2	3520C	8270D	2	11/28/2011 1542	JGH	11/17/2011 1436	71923

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acenaphthene	83-32-9	8270D	2.6		1.0	0.18	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		5.2	0.16	ug/L	1
Anthracene	120-12-7	8270D	ND		1.0	0.12	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		1.0	0.077	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		5.2	0.10	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		1.0	0.077	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		5.2	0.087	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		1.0	0.13	ug/L	1
Chrysene	218-01-9	8270D	ND		1.0	0.10	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		5.2	0.14	ug/L	1
Fluoranthene	206-44-0	8270D	ND		1.0	0.10	ug/L	1
Fluorene	86-73-7	8270D	5.7		5.2	0.14	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		1.0	0.097	ug/L	1
1-Methylnaphthalene	90-12-0	8270D	49		1.0	0.082	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	67		2.1	0.37	ug/L	2
Naphthalene	91-20-3	8270D	38		5.2	0.20	ug/L	1
Phenanthrene	85-01-8	8270D	3.6	J	5.2	0.12	ug/L	1
Pyrene	129-00-0	8270D	ND		1.0	0.10	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
Nitrobenzene-d5		79	40-110		104	40-110
2-Fluorobiphenyl		87	50-110		73	50-110
Terphenyl-d14		72	50-135		59	50-135

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL
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
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Volatile Organic Compounds by GC/MS

Client: Tetra Tech NUS
Description: BEALB-282-GW-MW137-1111
Date Sampled: 11/16/2011 0950
Date Received: 11/18/2011

Laboratory ID: MK16015-014
Matrix: Aqueous

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/23/2011 1344	BM		72392

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Benzene	71-43-2	8260B	ND		5.0	0.15	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	0.17	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	0.32	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	0.16	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	0.19	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		92	75-120
1,2-Dichloroethane-d4		92	70-120
Toluene-d8		95	85-120

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL

E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
* = Reportable result (only when report all runs)

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

Semivolatile Organic Compounds by GC/MS

Client: Tetra Tech NUS
Description: BEALB-282-GW-MW137-1111
Date Sampled: 11/16/2011 0950
Date Received: 11/18/2011

Laboratory ID: MK16015-014
Matrix: Aqueous

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	12/01/2011 0021	JGH	11/21/2011 1210	72157

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acenaphthene	83-32-9	8270D	ND		1.1	0.18	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		5.3	0.17	ug/L	1
Anthracene	120-12-7	8270D	ND		1.1	0.13	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		1.1	0.079	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		5.3	0.11	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		1.1	0.079	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		5.3	0.088	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		1.1	0.14	ug/L	1
Chrysene	218-01-9	8270D	ND		1.1	0.10	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		5.3	0.15	ug/L	1
Fluoranthene	206-44-0	8270D	ND		1.1	0.11	ug/L	1
Fluorene	86-73-7	8270D	ND		5.3	0.15	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		1.1	0.099	ug/L	1
1-Methylnaphthalene	90-12-0	8270D	ND		1.1	0.084	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		1.1	0.19	ug/L	1
Naphthalene	91-20-3	8270D	ND		5.3	0.20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		5.3	0.13	ug/L	1
Pyrene	129-00-0	8270D	ND		1.1	0.11	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Nitrobenzene-d5		89	40-110
2-Fluorobiphenyl		83	50-110
Terphenyl-d14		84	50-135

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
B = Detected in the method blank
J = Estimated result < PQL and >_MDL
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
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Volatile Organic Compounds by GC/MS

Client: Tetra Tech NUS
Description: BEALB-282-GW-MW138-1111
Date Sampled: 11/17/2011 1450
Date Received: 11/18/2011

Laboratory ID: MK16015-019
Matrix: Aqueous

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	11/23/2011 1530	BM		72392

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Benzene	71-43-2	8260B	ND		5.0	0.15	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	0.17	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	0.32	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	0.16	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	0.19	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		101	75-120
1,2-Dichloroethane-d4		112	70-120
Toluene-d8		97	85-120

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

B = Detected in the method blank
J = Estimated result < PQL and >_MDL

E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
* = Reportable result (only when report all runs)

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

Semivolatile Organic Compounds by GC/MS

Client: Tetra Tech NUS
Description: BEALB-282-GW-MW138-1111
Date Sampled: 11/17/2011 1450
Date Received: 11/18/2011

Laboratory ID: MK16015-019
Matrix: Aqueous

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	12/01/2011 2004	JGH	11/21/2011 1210	72157

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acenaphthene	83-32-9	8270D	0.29	J	1.1	0.18	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		5.3	0.17	ug/L	1
Anthracene	120-12-7	8270D	ND		1.1	0.13	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		1.1	0.080	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		5.3	0.11	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		1.1	0.080	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		5.3	0.089	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		1.1	0.14	ug/L	1
Chrysene	218-01-9	8270D	ND		1.1	0.11	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		5.3	0.15	ug/L	1
Fluoranthene	206-44-0	8270D	ND		1.1	0.11	ug/L	1
Fluorene	86-73-7	8270D	0.44	J	5.3	0.15	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		1.1	0.10	ug/L	1
1-Methylnaphthalene	90-12-0	8270D	ND		1.1	0.085	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		1.1	0.19	ug/L	1
Naphthalene	91-20-3	8270D	ND		5.3	0.20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		5.3	0.13	ug/L	1
Pyrene	129-00-0	8270D	ND		1.1	0.11	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Nitrobenzene-d5		63	40-110
2-Fluorobiphenyl		61	50-110
Terphenyl-d14		67	50-135

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

B = Detected in the method blank
J = Estimated result < PQL and ≥ MDL

E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
* = Reportable result (only when report all runs)

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

Volatile Organic Compounds by GC/MS

Client: Tetra Tech NUS
Laboratory ID: MK16015-007
Description: BEALB-282-GW-MW139-1111
Matrix: Aqueous
Date Sampled: 11/15/2011 1005
Date Received: 11/16/2011

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	1	11/22/2011 2310	JJG		72325

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Benzene	71-43-2	8260B	ND		5.0	0.15	ug/L	2
Ethylbenzene	100-41-4	8260B	ND		5.0	0.17	ug/L	2
Naphthalene	91-20-3	8260B	ND		5.0	0.32	ug/L	2
Toluene	108-88-3	8260B	ND		5.0	0.16	ug/L	2
Xylenes (total)	1330-20-7	8260B	ND		5.0	0.19	ug/L	2

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

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
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
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"
* = Reportable result (only when report all runs)

Semivolatile Organic Compounds by GC/MS

Client: Tetra Tech NUS
Description: BEALB-282-GW-MW139-1111
Date Sampled: 11/15/2011 1005
Date Received: 11/16/2011

Laboratory ID: MK16015-007
Matrix: Aqueous

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	3520C	8270D	1	11/21/2011 0022	JGH	11/17/2011 1436	71923

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
Acenaphthene	83-32-9	8270D	0.27	J	1.1	0.18	ug/L	1
Acenaphthylene	208-96-8	8270D	ND		5.3	0.17	ug/L	1
Anthracene	120-12-7	8270D	ND		1.1	0.13	ug/L	1
Benzo(a)anthracene	56-55-3	8270D	ND		1.1	0.079	ug/L	1
Benzo(a)pyrene	50-32-8	8270D	ND		5.3	0.11	ug/L	1
Benzo(b)fluoranthene	205-99-2	8270D	ND		1.1	0.079	ug/L	1
Benzo(g,h,i)perylene	191-24-2	8270D	ND		5.3	0.088	ug/L	1
Benzo(k)fluoranthene	207-08-9	8270D	ND		1.1	0.14	ug/L	1
Chrysene	218-01-9	8270D	ND		1.1	0.10	ug/L	1
Dibenzo(a,h)anthracene	53-70-3	8270D	ND		5.3	0.15	ug/L	1
Fluoranthene	206-44-0	8270D	ND		1.1	0.11	ug/L	1
Fluorene	86-73-7	8270D	0.56	J	5.3	0.15	ug/L	1
Indeno(1,2,3-c,d)pyrene	193-39-5	8270D	ND		1.1	0.099	ug/L	1
1-Methylnaphthalene	90-12-0	8270D	0.44	J	1.1	0.084	ug/L	1
2-Methylnaphthalene	91-57-6	8270D	ND		1.1	0.19	ug/L	1
Naphthalene	91-20-3	8270D	0.44	J	5.3	0.20	ug/L	1
Phenanthrene	85-01-8	8270D	ND		5.3	0.13	ug/L	1
Pyrene	129-00-0	8270D	ND		1.1	0.11	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Nitrobenzene-d5		53	40-110
2-Fluorobiphenyl		58	50-110
Terphenyl-d14	N	41	50-135

PQL = Practical quantitation limit
ND = Not detected at or above the MDL
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

B = Detected in the method blank
J = Estimated result < PQL and > MDL

E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
* = Reportable result (only when report all runs)

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

Appendix E
Historical Groundwater Analytical Results

CDM - AECOM
Multimedia Joint Venture

Table 4
Summary of Analytical Results
Laurel Bay Military Housing Area
MCAS Beaufort, South Carolina

LBMH Area Address		282 Birch Drive	282 Birch Drive	282 Birch Drive	282 Birch Drive
Well ID		MW136	MW137	MW138	MW139
Sample ID	SCDHEC	BEALB282MW136WG20130730	BEALB282MW137WG20130730	BEALB282MW138WG20130730	BEALB282MW139WG20130730
Lab Sample ID	RBSL[1]	OG30003-016	OG30003-014	OG30003-015	OG30003-017
Date Collected		07/30/13	07/30/13	07/30/13	07/30/13
Volatile Organic Compounds by Method 8260B (µg/L)					
Benzene	5	**0.41** J/	< 0.25	< 0.25	< 0.25
Ethylbenzene	700	**1.2**	< 0.25	< 0.25	< 0.25
Naphthalene	25	**57**	< 0.25	< 0.25	**0.41** J/
Toluene	1,000	< 0.25	< 0.25	< 0.25	< 0.25
Xylenes, Total	10,000	< 0.25	< 0.25	< 0.25	< 0.25
Semivolatile Organic Compounds by Method 8270D (µg/L)					
Benzo(a)anthracene	10	< 0.11	< 0.10	< 0.10	< 0.10
Benzo(b)fluoranthene	10	< 0.11	< 0.10	< 0.10	< 0.10
Benzo(k)fluoranthene	10	< 0.11	< 0.10	< 0.10	< 0.10
Chrysene	10	< 0.11	< 0.10	< 0.10	< 0.10
Dibenz(a,h)anthracene	10	< 0.11	< 0.10	< 0.10	< 0.10

LBMH Area Address		388 Acorn Drive	388 Acorn Drive	388 Acorn Drive	388 Acorn Drive
Well ID		MW110	MW110-C	MW111	MW112
Sample ID	SCDHEC	BEALB388MW110WG20130729	BEALB388MW110WG20130729-C	BEALB388MW111WG20130729	BEALB388MW112WG20130729
Lab Sample ID	RBSL[1]	OG30003-001	OG30003-002	OG30003-004	OG30003-003
Date Collected		07/29/13	07/29/13	07/29/13	07/29/13
Volatile Organic Compounds by Method 8260B (µg/L)					
Benzene	5	**0.25** J/	< 0.25	< 0.25	< 0.25
Ethylbenzene	700	**15**	< 0.25	< 0.25	< 0.25
Naphthalene	25	**72**	< 0.25	< 0.25	**14**
Toluene	1,000	< 0.25	< 0.25	< 0.25	< 0.25
Xylenes, Total	10,000	**23**	< 0.25	< 0.25	< 0.25
Semivolatile Organic Compounds by Method 8270D (µg/L)					
Benzo(a)anthracene	10	**0.33**	NA	< 0.10	< 0.11
Benzo(b)fluoranthene	10	**0.19** J/	NA	< 0.10	< 0.11
Benzo(k)fluoranthene	10	< 0.11	NA	< 0.10	< 0.11
Chrysene	10	**0.20** J/	NA	< 0.10	< 0.11
Dibenz(a,h)anthracene	10	< 0.11	NA	< 0.10	< 0.11

LBMH Area Address		391 Acorn Drive	391 Acorn Drive	391 Acorn Drive	391 Acorn Drive
Well ID		MW113	MW113-C	MW114	MW114-A
Sample ID	SCDHEC	BEALB391MW113WG20130730	BEALB391MW113WG20130730-C	BEALB391MW114WG20130729	BEALB391MW114WG20130729-A
Lab Sample ID	RBSL[1]	OG30003-009	OG30003-010	OG30003-007	OG30003-008
Date Collected		07/30/13	07/30/13	07/29/13	07/29/13
Volatile Organic Compounds by Method 8260B (µg/L)					
Benzene	5	< 0.25	< 0.25	< 0.25	< 0.25
Ethylbenzene	700	< 0.25	< 0.25	< 0.25	< 0.25
Naphthalene	25	< 0.25	< 0.25	**6.6**	**6.3**
Toluene	1,000	< 0.25	< 0.25	< 0.25	< 0.25
Xylenes, Total	10,000	< 0.25	< 0.25	< 0.25	< 0.25
Semivolatile Organic Compounds by Method 8270D (µg/L)					
Benzo(a)anthracene	10	< 0.11	NA	< 0.11	< 0.11
Benzo(b)fluoranthene	10	< 0.11	NA	< 0.11	< 0.11
Benzo(k)fluoranthene	10	< 0.11	NA	< 0.11	< 0.11
Chrysene	10	< 0.11	NA	< 0.11	< 0.11
Dibenz(a,h)anthracene	10	< 0.11	NA	< 0.11	< 0.11

LBMH Area Address		391 Acorn Drive	391 Acorn Drive	398 Acorn Drive	398 Acorn Drive
Well ID		MW115	MW116	MW104	MW105
Sample ID	SCDHEC	BEALB391MW115WG20130729	BEALB391MW116WG20130729	BEALB398MW104WG20130730	BEALB398MW105WG20130730
Lab Sample ID	RBSL[1]	OG30003-006	OG30003-005	OG30003-013	OG30003-012
Date Collected		07/29/13	07/29/13	07/30/13	07/30/13
Volatile Organic Compounds by Method 8260B (µg/L)					
Benzene	5	< 0.25	< 0.25	< 0.25	< 0.25
Ethylbenzene	700	< 0.25	< 0.25	< 0.25	< 0.25
Naphthalene	25	< 0.25	**3.7**	< 0.25	< 0.25
Toluene	1,000	< 0.25	< 0.25	< 0.25	< 0.25
Xylenes, Total	10,000	< 0.25	< 0.25	< 0.25	< 0.25
Semivolatile Organic Compounds by Method 8270D (µg/L)					
Benzo(a)anthracene	10	< 0.12	< 0.10	< 0.10	< 0.11
Benzo(b)fluoranthene	10	< 0.12	< 0.10	< 0.10	< 0.11
Benzo(k)fluoranthene	10	< 0.12	< 0.10	< 0.10	< 0.11
Chrysene	10	< 0.12	< 0.10	< 0.10	< 0.11
Dibenz(a,h)anthracene	10	< 0.12	< 0.10	< 0.10	< 0.11

Table 4
Summary of Analytical Results
Laurel Bay Military Housing Area
MCAS Beaufort, South Carolina

LBMH Area Address		398 Acorn Drive		437 Elderberry Drive		437 Elderberry Drive		437 Elderberry Drive	
Well ID		MW106		MW133		MW133-A		MW134	
Sample ID	SCDHEC	BEALB398MW106WG20130730		BEALB437MW133WG20130731		BEALB437MW133WG20130731-A		BEALB437MW134WG20130731	
Lab Sample ID	RBSL[1]	OG30003-011		OH01003-006		OH01003-007		OH01003-008	
Date Collected		07/30/13		07/31/13		07/31/13		07/31/13	
Volatile Organic Compounds by Method 8260B (µg/L)									
Benzene	5	**0.71**		**0.93**		**0.96**		< 0.50	
Ethylbenzene	700	**0.18**	**J/**	**25**		**26**		< 0.50	
Naphthalene	25	**0.93**		**110**		**110**		**6.9**	
Toluene	1,000	< 0.25		**0.57**		**0.61**		< 0.50	
Xylenes, Total	10,000	< 0.25		**49**		**50**		< 0.50	
Semivolatile Organic Compounds by Method 8270D (µg/L)									
Benzo(a)anthracene	10	< 0.11		< 0.21	*/Q	< 0.21	*/Q	< 0.21	
Benzo(b)fluoranthene	10	< 0.11		< 0.21	*/Q	< 0.21	*/Q	< 0.21	
Benzo(k)fluoranthene	10	< 0.11		< 0.21	*/Q	< 0.21	*/Q	< 0.21	
Chrysene	10	< 0.11		< 0.21	*/Q	< 0.21	*/Q	< 0.21	
Dibenz(a,h)anthracene	10	< 0.11		< 0.21	*/Q	< 0.21	*/Q	< 0.21	

LBMH Area Address		437 Elderberry Drive		437 Elderberry Drive		437 Elderberry Drive		437 Elderberry Drive	
Well ID		MW135		MW140		MW140-C		MW141	
Sample ID	SCDHEC	BEALB437MW135WG20130731		BEALB437MW140WG20130731		BEALB437MW140WG20130731-C		BEALB437MW141WG20130731	
Lab Sample ID	RBSL[1]	OH01003-005		OH01003-001		OH01003-002		OH01003-003	
Date Collected		07/31/13		07/31/13		07/31/13		07/31/13	
Volatile Organic Compounds by Method 8260B (µg/L)									
Benzene	5	< 0.50		< 0.50		< 0.50		< 0.50	
Ethylbenzene	700	< 0.50		< 0.50		< 0.50		< 0.50	
Naphthalene	25	< 0.50		< 0.50		< 0.50		< 0.50	
Toluene	1,000	< 0.50		< 0.50		< 0.50		< 0.50	
Xylenes, Total	10,000	< 0.50		< 0.50		< 0.50		< 0.50	
Semivolatile Organic Compounds by Method 8270D (µg/L)									
Benzo(a)anthracene	10	< 0.21		< 0.21		NA		< 0.21	
Benzo(b)fluoranthene	10	< 0.21		< 0.21		NA		< 0.21	
Benzo(k)fluoranthene	10	< 0.21		< 0.21		NA		< 0.21	
Chrysene	10	< 0.21		< 0.21		NA		< 0.21	
Dibenz(a,h)anthracene	10	< 0.21		< 0.21		NA		< 0.21	

LBMH Area Address		437 Elderberry Drive		441 Elderberry Drive		441 Elderberry Drive		441 Elderberry Drive	
Well ID		MW142		MW117		MW118		MW119	
Sample ID	SCDHEC	BEALB437MW142WG20130731		BEALB441MW117WG20130731		BEALB441MW118WG20130731		BEALB441MW119WG20130731	
Lab Sample ID	RBSL[1]	OH01003-004		OH01003-009		OH01003-010		OH01003-011	
Date Collected		07/31/13		07/31/13		07/31/13		07/31/13	
Volatile Organic Compounds by Method 8260B (µg/L)									
Benzene	5	< 0.50		< 0.50		< 0.50		< 0.50	
Ethylbenzene	700	< 0.50		< 0.50		< 0.50		**0.22**	**J/**
Naphthalene	25	**0.33**	**J/**	< 0.50		**6.9**		**7.0**	
Toluene	1,000	< 0.50		< 0.50		< 0.50		< 0.50	
Xylenes, Total	10,000	**0.18**	**J/**	< 0.50		< 0.50		< 0.50	
Semivolatile Organic Compounds by Method 8270D (µg/L)									
Benzo(a)anthracene	10	< 0.21		< 0.21		< 0.21		< 0.21	
Benzo(b)fluoranthene	10	< 0.21		< 0.21		< 0.21		< 0.21	
Benzo(k)fluoranthene	10	< 0.21		< 0.21		< 0.21		< 0.21	
Chrysene	10	< 0.21		< 0.21		< 0.21		< 0.21	
Dibenz(a,h)anthracene	10	< 0.21		< 0.21		< 0.21		< 0.21	

LBMH Area Address		1054 Gardenia Drive		1054 Gardenia Drive		1054 Gardenia Drive		1054 Gardenia Drive	
Well ID		DMW1		MW2		MW2-A		MW4	
Sample ID	SCDHEC	1054DMW1WG20130801		1054MW2WG20130801		1054MW2WG20130801-A		1054MW4WG20130801	
Lab Sample ID	RBSL[1]	OH01003-017		OH01003-018		OH01003-019		OH01003-020	
Date Collected		08/01/13		08/01/13		08/01/13		08/01/13	
Volatile Organic Compounds by Method 8260B (µg/L)									
Benzene	5	< 0.50		< 0.50		< 0.50		< 0.50	
Ethylbenzene	700	< 0.50		< 0.50		< 0.50		< 0.50	
Naphthalene	25	< 0.50		**3.7**		**3.7**		< 0.50	
Toluene	1,000	< 0.50		< 0.50		< 0.50		< 0.50	
Xylenes, Total	10,000	< 0.50		< 0.50		< 0.50		< 0.50	
Semivolatile Organic Compounds by Method 8270D (µg/L)									
Benzo(a)anthracene	10	< 0.20		< 0.21		< 0.21		< 0.20	
Benzo(b)fluoranthene	10	< 0.20		< 0.21		< 0.21		< 0.20	
Benzo(k)fluoranthene	10	< 0.20		< 0.21		< 0.21		< 0.20	
Chrysene	10	< 0.20		< 0.21		< 0.21		< 0.20	
Dibenz(a,h)anthracene	10	< 0.20		< 0.21		< 0.21		< 0.20	

Table 4
Summary of Analytical Results
Laurel Bay Military Housing Area
MCAS Beaufort, South Carolina

LBMH Area Address		1054 Gardenia Drive		1054 Gardenia Drive		1054 Gardenia Drive		1054 Gardenia Drive	
Well ID		MW7		MW127		MW128		MW128-C	
Sample ID	SCDHEC	1054MW7WG20130801		BEALB1054MW127WG20130801		BEALB1054MW128WG20130801		BEALB1054MW128WG20130801-C	
Lab Sample ID	RBSL[1]	OH01003-016		OH01003-014		OH01003-012		OH01003-013	
Date Collected		08/01/13		08/01/13		08/01/13		08/01/13	
Volatile Organic Compounds by Method 8260B (µg/L)									
Benzene	5	< 0.50		< 0.50		< 0.50		< 0.50	
Ethylbenzene	700	< 0.50		**2.5**		**4.4**		< 0.50	
Naphthalene	25	**3.6**		**25**		**42**		< 0.50	
Toluene	1,000	< 0.50		< 0.50		**0.20**	**J/**	< 0.50	
Xylenes, Total	10,000	< 0.50		**0.62**		**6.3**		< 0.50	
Semivolatile Organic Compounds by Method 8270D (µg/L)									
Benzo(a)anthracene	10	< 0.21		< 0.21	*/Q	< 0.21	*/Q	NA	
Benzo(b)fluoranthene	10	< 0.21		< 0.21	*/Q	< 0.21	*/Q	NA	
Benzo(k)fluoranthene	10	< 0.21		< 0.21	*/Q	< 0.21	*/Q	NA	
Chrysene	10	< 0.21		< 0.21	*/Q	< 0.21	*/Q	NA	
Dibenz(a,h)anthracene	10	< 0.21		< 0.21	*/Q	< 0.21	*/Q	NA	

LBMH Area Address		1054 Gardenia Drive		1472 Cardinal Lane		1472 Cardinal Lane		1472 Cardinal Lane	
Well ID		MW129		MW130		MW130-A		MW131	
Sample ID	SCDHEC	BEALB1054MW129WG20130801		BEALB1472MW130WG20130802		BEALB1472MW130WG20130802-A		BEALB1472MW131WG20130802	
Lab Sample ID	RBSL[1]	OH01003-015		OH03004-006		OH03004-007		OH03004-005	
Date Collected		08/01/13		08/02/13		08/02/13		08/02/13	
Volatile Organic Compounds by Method 8260B (µg/L)									
Benzene	5	**0.32**	**J/**	**3.3**		**3.2**		< 0.25	
Ethylbenzene	700	**18**		**13**		**13**		< 0.25	
Naphthalene	25	**73**		**37**		**37**		< 0.25	
Toluene	1,000	**2.1**		**0.33**	**J/**	**0.32**	**J/**	< 0.25	
Xylenes, Total	10,000	**35**		**19**		**18**		< 0.25	
Semivolatile Organic Compounds by Method 8270D (µg/L)									
Benzo(a)anthracene	10	< 0.21		< 0.11	/Q	< 0.11		< 0.11	
Benzo(b)fluoranthene	10	< 0.21		< 0.11	/Q	< 0.11		< 0.11	
Benzo(k)fluoranthene	10	< 0.21		< 0.11	/Q	< 0.11		< 0.11	
Chrysene	10	< 0.21		< 0.11	/Q	< 0.11		< 0.11	
Dibenz(a,h)anthracene	10	< 0.21		< 0.11	/Q	< 0.11		< 0.11	

LBMH Area Address		1472 Cardinal Lane		1472 Cardinal Lane		1472 Cardinal Lane		1472 Cardinal Lane	
Well ID		MW132		MW143		MW144		MW144-C	
Sample ID	SCDHEC	BEALB1472MW132WG20130802		BEALB1472MW143WG20130802		BEALB1472MW144WG20130802		BEALB1472MW144WG20130802-C	
Lab Sample ID	RBSL[1]	OH03004-004		OH03004-003		OH03004-001		OH03004-002	
Date Collected		08/02/13		08/02/13		08/02/13		08/02/13	
Volatile Organic Compounds by Method 8260B (µg/L)									
Benzene	5	< 0.25		< 0.25		< 0.25		< 0.25	
Ethylbenzene	700	< 0.25		< 0.25		< 0.25		< 0.25	
Naphthalene	25	< 0.25		**3.8**		**4.1**		< 0.25	
Toluene	1,000	< 0.25		< 0.25		< 0.25		< 0.25	
Xylenes, Total	10,000	< 0.25		< 0.25		< 0.25		< 0.25	
Semivolatile Organic Compounds by Method 8270D (µg/L)									
Benzo(a)anthracene	10	< 0.10		< 0.11		< 0.11	/Q	NA	
Benzo(b)fluoranthene	10	< 0.10		< 0.11		< 0.11	/Q	NA	
Benzo(k)fluoranthene	10	< 0.10		< 0.11		< 0.11	/Q	NA	
Chrysene	10	< 0.10		< 0.11		< 0.11	/Q	NA	
Dibenz(a,h)anthracene	10	< 0.10		< 0.11		< 0.11	/Q	NA	

LBMH Area Address		1472 Cardinal Lane
Well ID		MW145
Sample ID	SCDHEC	BEALB1472MW145WG20130801
Lab Sample ID	RBSL[1]	OH01003-021
Date Collected		08/01/13
Volatile Organic Compounds by Method 8260B (µg/L)		
Benzene	5	< 0.50
Ethylbenzene	700	< 0.50
Naphthalene	25	< 0.50
Toluene	1,000	< 0.50
Xylenes, Total	10,000	< 0.50
Semivolatile Organic Compounds by Method 8270D (µg/L)		
Benzo(a)anthracene	10	< 0.21
Benzo(b)fluoranthene	10	< 0.21
Benzo(k)fluoranthene	10	< 0.21
Chrysene	10	< 0.21
Dibenz(a,h)anthracene	10	< 0.21

Notes:
[1] SCDHEC RBSL - South Carolina Department of Health and Environmental Control Risk Based Screening Level
-A - Indicates a field duplicate sample.
-C - Indicates a trip blank sample.
BOLD font indicates the analyte was detected.
LBMH - Laurel Bay Military Housing
NA - Not Analyzed
NS - No Standard
Shading indicates the concentration exceeds the SCDHEC RBSL.
See Table 6 for explanation of data qualifiers.
µg/L - micrograms per liter

Table 4
Summary of Analytical Results - September 2014
Laurel Bay Military Housing Area
MCAS Beaufort, South Carolina

LBMH Area Address		282 Birch Drive		282 Birch Drive		282 Birch Drive		282 Birch Drive	
Well ID		MW136		MW136-a		MW136-c		MW137	
Sample ID	SCDHEC	BEALB282MW136WG20140912		BEALB282MW136WG20140912-a		BEALB282MW136WG20140912-c		BEALB282MW137WG20140912	
Lab Sample ID	RBSL[1]	PI13008-002		PI13008-003		PI13008-001		PI13008-005	
Date Collected		09/12/14		09/12/14		09/12/14		09/12/14	
Volatile Organic Compounds by Method 8260B (µg/L)									
Benzene	5	< 0.40		< 0.40		< 0.40		< 0.40	
Ethylbenzene	700	**0.76**	**J/**	**0.76**	**J/**	< 0.20		< 0.20	
Naphthalene	25	**14**		**15**		< 0.20		< 0.20	
Toluene	1,000	< 0.20		< 0.20		< 0.20		< 0.20	
Xylenes, Total	10,000	< 0.40		< 0.40		< 0.40		< 0.40	
Semivolatile Organic Compounds by Method 8270D (µg/L)									
Benzo(a)anthracene	10	< 0.040		< 0.040		NA		< 0.040	
Benzo(b)fluoranthene	10	< 0.040		< 0.040		NA		< 0.040	
Benzo(k)fluoranthene	10	< 0.040		< 0.040		NA		< 0.040	
Chrysene	10	< 0.040		< 0.040		NA		< 0.040	
Dibenz(a,h)anthracene	10	< 0.080		< 0.080		NA		< 0.080	

LBMH Area Address		282 Birch Drive		282 Birch Drive		282 Birch Drive		388 Acorn Drive	
Well ID		MW138		MW139		MW139-d		MW110	
Sample ID	SCDHEC	BEALB282MW138WG20140912		BEALB282MW139WG20140912		BEALB282MW139WG20140912-d		BEALB388MW110WG20140910	
Lab Sample ID	RBSL[1]	PI13008-004		PI13008-006		PI13008-007		PI11022-002	
Date Collected		09/12/14		09/12/14		09/12/14		09/10/14	
Volatile Organic Compounds by Method 8260B (µg/L)									
Benzene	5	< 0.40		< 0.40		< 0.40		**2**	**J/**
Ethylbenzene	700	< 0.20		< 0.20		< 0.20		**14**	
Naphthalene	25	< 0.20		< 0.20		< 0.20		**71**	
Toluene	1,000	< 0.20		< 0.20		< 0.20		< 0.20	
Xylenes, Total	10,000	< 0.40		< 0.40		< 0.40		**18**	
Semivolatile Organic Compounds by Method 8270D (µg/L)									
Benzo(a)anthracene	10	< 0.040		< 0.040		< 0.040		< 0.040	
Benzo(b)fluoranthene	10	< 0.040		< 0.040		< 0.040		< 0.040	
Benzo(k)fluoranthene	10	< 0.040		< 0.040		< 0.040		< 0.040	
Chrysene	10	< 0.040		< 0.040		< 0.040		< 0.040	
Dibenz(a,h)anthracene	10	< 0.080		< 0.080		< 0.080		< 0.080	

LBMH Area Address		388 Acorn Drive		388 Acorn Drive		388 Acorn Drive		391 Acorn Drive	
Well ID		MW110-c		MW111		MW112		MW113	
Sample ID	SCDHEC	BEALB388MW110WG20140910-c		BEALB388MW111WG20140910		BEALB388MW112WG20140910		BEALB391MW113WG20140910	
Lab Sample ID	RBSL[1]	PI11022-001		PI11022-003		PI11022-004		PI11022-007	
Date Collected		09/10/14		09/11/14		09/10/14		09/10/14	
Volatile Organic Compounds by Method 8260B (µg/L)									
Benzene	5	< 0.40		< 0.40		< 0.40		< 0.40	
Ethylbenzene	700	< 0.20		< 0.20		< 0.20		< 0.20	
Naphthalene	25	< 0.20		**0.48**	**J/**	**26**		< 0.20	
Toluene	1,000	< 0.20		< 0.20		< 0.20		< 0.20	
Xylenes, Total	10,000	< 0.40		< 0.40		< 0.40		< 0.40	
Semivolatile Organic Compounds by Method 8270D (µg/L)									
Benzo(a)anthracene	10	NA		< 0.040		< 0.040		< 0.040	
Benzo(b)fluoranthene	10	NA		< 0.040		< 0.040		< 0.040	
Benzo(k)fluoranthene	10	NA		< 0.040		< 0.040		< 0.040	
Chrysene	10	NA		< 0.040		< 0.040		< 0.040	
Dibenz(a,h)anthracene	10	NA		< 0.080		< 0.080		< 0.080	

LBMH Area Address		391 Acorn Drive		391 Acorn Drive		391 Acorn Drive		398 Acorn Drive	
Well ID		MW114		MW115		MW116		MW104	
Sample ID	SCDHEC	BEALB391MW114WG20140910		BEALB391MW115WG20140910		BEALB391MW116WG20140910		BEALB398MW104WG20140910	
Lab Sample ID	RBSL[1]	PI11022-008		PI11022-005		PI11022-006		PI11022-010	
Date Collected		09/10/14		09/10/14		09/10/14		09/10/14	
Volatile Organic Compounds by Method 8260B (µg/L)									
Benzene	5	< 0.40		< 0.40		< 0.40		< 0.40	
Ethylbenzene	700	< 0.20		< 0.20		< 0.20		< 0.20	
Naphthalene	25	**12**		**0.89**	**J/**	**0.57**	**J/**	< 0.20	
Toluene	1,000	< 0.20		< 0.20		< 0.20		< 0.20	
Xylenes, Total	10,000	< 0.40		< 0.40		< 0.40		< 0.40	
Semivolatile Organic Compounds by Method 8270D (µg/L)									
Benzo(a)anthracene	10	< 0.040		< 0.040		< 0.040		< 0.040	
Benzo(b)fluoranthene	10	< 0.040		< 0.040		< 0.040		< 0.040	
Benzo(k)fluoranthene	10	< 0.040		< 0.040		< 0.040		< 0.040	
Chrysene	10	< 0.040		< 0.040		< 0.040		< 0.040	
Dibenz(a,h)anthracene	10	< 0.080		< 0.080		< 0.080		< 0.080	

Table 4
Summary of Analytical Results - September 2014
Laurel Bay Military Housing Area
MCAS Beaufort, South Carolina

LBMH Area Address		398 Acorn Drive		398 Acorn Drive		437 Elderberry Drive		437 Elderberry Drive	
Well ID		MW105		MW106		MW133		MW133-a	
Sample ID	SCDHEC	BEALB398MW105WG20140910		BEALB398MW106WG20140910		BEALB437MW133WG20140911		BEALB437MW133WG20140911-a	
Lab Sample ID	RBSL[1]	PI11022-009		PI11022-011		PI12015-006		PI12015-007	
Date Collected		09/10/14		09/10/14		09/11/14		09/11/14	
Volatile Organic Compounds by Method 8260B (µg/L)									
Benzene	5	< 0.40		< 0.40		**0.40**	**J/**	**0.41**	**J/**
Ethylbenzene	700	< 0.20		< 0.20		**8.8**		**9.3**	
Naphthalene	25	< 0.20		< 0.20		**41**		**45**	
Toluene	1,000	< 0.20		< 0.20		< 0.20		< 0.20	
Xylenes, Total	10,000	< 0.40		< 0.40		**18**		**19**	
Semivolatile Organic Compounds by Method 8270D (µg/L)									
Benzo(a)anthracene	10	< 0.040		< 0.040		< 0.040		< 0.040	
Benzo(b)fluoranthene	10	< 0.040		< 0.040		< 0.040		< 0.040	
Benzo(k)fluoranthene	10	< 0.040		< 0.040		< 0.040		< 0.040	
Chrysene	10	< 0.040		< 0.040		< 0.040		< 0.040	
Dibenz(a,h)anthracene	10	< 0.080		< 0.080		< 0.080		< 0.080	

LBMH Area Address		437 Elderberry Drive		437 Elderberry Drive		437 Elderberry Drive		437 Elderberry Drive	
Well ID		MW134		MW135		MW140		MW141	
Sample ID	SCDHEC	BEALB437MW134WG20140911		BEALB437MW135WG20140911		BEALB437MW140WG20140911		BEALB437MW141WG20140911	
Lab Sample ID	RBSL[1]	PI12015-010		PI12015-009		PI12015-003		PI12015-001	
Date Collected		09/11/14		09/11/14		09/11/14		09/11/14	
Volatile Organic Compounds by Method 8260B (µg/L)									
Benzene	5	< 0.40		< 0.40		< 0.40		< 0.40	
Ethylbenzene	700	< 0.20		< 0.20		< 0.20		< 0.20	
Naphthalene	25	**1.1**		< 0.20		< 0.20		< 0.20	
Toluene	1,000	< 0.20		< 0.20		< 0.20		< 0.20	
Xylenes, Total	10,000	< 0.40		< 0.40		< 0.40		< 0.40	
Semivolatile Organic Compounds by Method 8270D (µg/L)									
Benzo(a)anthracene	10	< 0.040		< 0.040		< 0.040		< 0.040	
Benzo(b)fluoranthene	10	< 0.040		< 0.040		< 0.040		< 0.040	
Benzo(k)fluoranthene	10	< 0.040		< 0.040		< 0.040		< 0.040	
Chrysene	10	< 0.040		< 0.040		< 0.040		< 0.040	
Dibenz(a,h)anthracene	10	< 0.080		< 0.080		< 0.080		< 0.080	

LBMH Area Address		437 Elderberry Drive		437 Elderberry Drive		441 Elderberry Drive		441 Elderberry Drive	
Well ID		MW141-c		MW142		MW117		MW118	
Sample ID	SCDHEC	BEALB437MW141WG20140911-c		BEALB437MW142WG20140911		BEALB441MW117WG20140911		BEALB441MW118WG20140911	
Lab Sample ID	RBSL[1]	PI12015-013		PI12015-002		PI12015-008		PI12015-005	
Date Collected		09/11/14		09/11/14		09/11/14		09/11/14	
Volatile Organic Compounds by Method 8260B (µg/L)									
Benzene	5	< 0.40		< 0.40		< 0.40		< 0.40	
Ethylbenzene	700	< 0.20		< 0.20		< 0.20		< 0.20	
Naphthalene	25	< 0.20		< 0.20		**0.54**	**J/**	**2.7**	
Toluene	1,000	< 0.20		< 0.20		< 0.20		< 0.20	
Xylenes, Total	10,000	< 0.40		< 0.40		< 0.40		< 0.40	
Semivolatile Organic Compounds by Method 8270D (µg/L)									
Benzo(a)anthracene	10	NA		< 0.040		< 0.040		< 0.040	
Benzo(b)fluoranthene	10	NA		< 0.040		< 0.040		< 0.040	
Benzo(k)fluoranthene	10	NA		< 0.040		< 0.040		< 0.040	
Chrysene	10	NA		< 0.040		< 0.040		< 0.040	
Dibenz(a,h)anthracene	10	NA		< 0.080		< 0.080		< 0.080	

LBMH Area Address		441 Elderberry Drive		1054 Gardenia Drive		1054 Gardenia Drive		1054 Gardenia Drive	
Well ID		MW119		DMW1		MW2		MW4	
Sample ID	SCDHEC	BEALB441MW119WG20140911		1054DMW1WG20140911		1054MW2WG20140911		1054MW4WG20140911	
Lab Sample ID	RBSL[1]	PI12015-004		PI12015-016		PI12015-019		PI12015-011	
Date Collected		09/11/14		09/11/14		09/11/14		09/11/14	
Volatile Organic Compounds by Method 8260B (µg/L)									
Benzene	5	< 0.40		< 0.40		< 0.40		< 0.40	
Ethylbenzene	700	**0.33**	**J/**	< 0.20		< 0.20		< 0.20	
Naphthalene	25	**8.1**		< 0.20		**0.45**	**J/**	< 0.20	
Toluene	1,000	< 0.20		< 0.20		< 0.20		< 0.20	
Xylenes, Total	10,000	< 0.40		< 0.40		< 0.40		< 0.40	
Semivolatile Organic Compounds by Method 8270D (µg/L)									
Benzo(a)anthracene	10	< 0.040		< 0.040		< 0.040		< 0.040	
Benzo(b)fluoranthene	10	< 0.040		< 0.040		< 0.040		< 0.040	
Benzo(k)fluoranthene	10	< 0.040		< 0.040		< 0.040		< 0.040	
Chrysene	10	< 0.040		< 0.040		< 0.040		< 0.040	
Dibenz(a,h)anthracene	10	< 0.080		< 0.080		< 0.080		< 0.080	

Table 4
Summary of Analytical Results - September 2014
Laurel Bay Military Housing Area
MCAS Beaufort, South Carolina

LBMH Area Address		1054 Gardenia Drive	1054 Gardenia Drive	1054 Gardenia Drive	1054 Gardenia Drive
Well ID		MW7	MW127	MW128	MW129
Sample ID	SCDHEC	1054MW7WG20140911	BEALB1054MW127WG20140911	BEALB1054MW128WG20140911	BEALB1054MW129WG20140911
Lab Sample ID	RBSL[1]	PI12015-014	PI12015-012	PI12015-015	PI12015-017
Date Collected		09/11/14	09/11/14	09/11/14	09/11/14
Volatile Organic Compounds by Method 8260B (µg/L)					
Benzene	5	< 0.40	< 0.40	< 0.40	**0.19 J/**
Ethylbenzene	700	< 0.20	**2.3**	**2.4**	**13**
Naphthalene	25	< 0.20	**15**	**18**	**54**
Toluene	1,000	**1.5**	< 0.20	< 0.20	**1.3**
Xylenes, Total	10,000	< 0.40	**1.1**	**2.5**	**25**
Semivolatile Organic Compounds by Method 8270D (µg/L)					
Benzo(a)anthracene	10	< 0.040	< 0.040	< 0.040	< 0.040
Benzo(b)fluoranthene	10	< 0.040	< 0.040	< 0.040	< 0.040
Benzo(k)fluoranthene	10	< 0.040	< 0.040	< 0.040	< 0.040
Chrysene	10	< 0.040	< 0.040	< 0.040	< 0.040
Dibenz(a,h)anthracene	10	< 0.080	< 0.080	< 0.080	< 0.080

LBMH Area Address		1054 Gardenia Drive	1472 Cardinal Lane	1472 Cardinal Lane	1472 Cardinal Lane
Well ID		MW129-a	MW130	MW130-a	MW131
Sample ID	SCDHEC	BEALB1054MW129WG20140911-a	BEALB1472MW130WG20140912	BEALB1472MW130WG20140912-a	BEALB1472MW131WG20140912
Lab Sample ID	RBSL[1]	PI12015-018	PI13008-012	PI13008-013	PI13008-010
Date Collected		09/11/14	09/12/14	09/12/14	09/12/14
Volatile Organic Compounds by Method 8260B (µg/L)					
Benzene	5	**0.19 J/**	**5.6**	**5.8**	< 0.40
Ethylbenzene	700	**12**	**17**	**19**	< 0.20
Naphthalene	25	**44**	**36**	**40**	< 0.20
Toluene	1,000	**1.3**	**0.40 J/**	**0.42 J/**	< 0.20
Xylenes, Total	10,000	**22**	**14 /J**	**18**	< 0.40
Semivolatile Organic Compounds by Method 8270D (µg/L)					
Benzo(a)anthracene	10	< 0.040	< 0.040	< 0.040	< 0.040
Benzo(b)fluoranthene	10	< 0.040	< 0.040	< 0.040	< 0.040
Benzo(k)fluoranthene	10	< 0.040	< 0.040	< 0.040	< 0.040
Chrysene	10	< 0.040	< 0.040	< 0.040	< 0.040
Dibenz(a,h)anthracene	10	< 0.080	< 0.080	< 0.080	< 0.080

LBMH Area Address		1472 Cardinal Lane	1472 Cardinal Lane	1472 Cardinal Lane	1472 Cardinal Lane
Well ID		MW132	MW143	MW144	MW145
Sample ID	SCDHEC	BEALB1472MW132WG20140912	BEALB1472MW143WG20140912	BEALB1472MW144WG20140912	BEALB1472MW145WG20140912
Lab Sample ID	RBSL[1]	PI13008-014	PI13008-009	PI13008-008	PI13008-011
Date Collected		09/12/14	09/12/14	09/12/14	09/12/14
Volatile Organic Compounds by Method 8260B (µg/L)					
Benzene	5	< 0.40	< 0.40	< 0.40	< 0.40
Ethylbenzene	700	< 0.20	< 0.20	< 0.20	< 0.20
Naphthalene	25	< 0.20	< 0.20	< 0.20	< 0.20
Toluene	1,000	< 0.20	< 0.20	< 0.20	< 0.20
Xylenes, Total	10,000	< 0.40	< 0.40	< 0.40	< 0.40
Semivolatile Organic Compounds by Method 8270D (µg/L)					
Benzo(a)anthracene	10	< 0.040	< 0.040	< 0.040	< 0.040
Benzo(b)fluoranthene	10	< 0.040	< 0.040	< 0.040	< 0.040
Benzo(k)fluoranthene	10	< 0.040	< 0.040	< 0.040	< 0.040
Chrysene	10	< 0.040	< 0.040	< 0.040	< 0.040
Dibenz(a,h)anthracene	10	< 0.080	< 0.080	< 0.080	< 0.080

Notes:
[1] SCDHEC RBSL - South Carolina Department of Health and Environmental Control Risk Based Screening Level
-a - Indicates a field duplicate sample.
-c - Indicates a trip blank sample.
-d - Indicates a rinsate blank sample.
J/ - Indicates an estimated result < PQL and > MDL.
/J - Indicates the analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
LBMH - Laurel Bay Military Housing
NA - Not Analyzed
NS - No Standard
BOLD font indicates the analyte was detected.
Shading indicates the concentration exceeds the SCDHEC RBSL.

Table 4
Summary of Analytical Results in Groundwater Samples - September 2015
MCAS Beaufort - Laurel Bay
Beaufort, South Carolina

LBMH Area Address		282 Birch Drive	282 Birch Drive	282 Birch Drive	282 Birch Drive	388 Acorn Drive	388 Acorn Drive	388 Acorn Drive
Well ID		BEALB282MW136	BEALB282MW137	BEALB282MW138	BEALB282MW139	BEALB388MW110	BEALB388MW111	BEALB388MW112
Sample ID	SC RBSL	BEALB282MW136	BEALB282MW137	BEALB282MW138	BEALB282MW139	BEALB388MW110	BEALB388MW111	BEALB388MW112
Lab Sample ID		WG20150915	WG20150915	WG20150915	WG20150915	WG20150914	WG20150914	WG20150914
Date Collected		QI15011-013	QI15011-016	QI15011-011	QI15011-008	QI15011-007	QI15011-005	QI15011-001
		09/15/15	09/15/15	09/15/15	09/15/15	09/14/15	09/14/15	09/14/15
Volatile Organic Compounds by Method 8260B (µg/L)								
Benzene	5	< 0.45	< 0.45	< 0.45	< 0.45	**0.75 J/**	< 0.45	< 0.45
Naphthalene	25	**16**	< 0.96	**0.14 J/**	< 0.96	**49 B/J**	< 0.96	**6.8 B/J**

LBMH Area Address		391 Acorn Drive	391 Acorn Drive	391 Acorn Drive	391 Acorn Drive	398 Acorn Drive	398 Acorn Drive	398 Acorn Drive
Well ID		BEALB391MW113	BEALB391MW114	BEALB391MW115	BEALB391MW116	BEALB398MW104	BEALB398MW105	BEALB398MW106
Sample ID	SC RBSL	BEALB391MW113	BEALB391MW114	BEALB391MW115	BEALB391MW116	BEALB398MW104	BEALB398MW105	BEALB398MW106
Lab Sample ID		WG20150915	WG20150914	WG20150914	WG20150914	WG20150915	WG20150915	WG20150915
Date Collected		QI15011-010	QI15011-006	QI15011-004	QI15011-003	QI15011-017	QI15011-015	QI15011-012
		09/15/15	09/14/15	09/14/15	09/14/15	09/15/15	09/15/15	09/15/15
Volatile Organic Compounds by Method 8260B (µg/L)								
Benzene	5	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45
Naphthalene	25	< 0.96	**0.51 BJ/J**	**0.63 BJ/J**	**19 B/J**	< 0.96	**0.18 J/**	< 0.96

LBMH Area Address		437 Elderberry Drive	437 Elderberry Drive	437 Elderberry Drive	437 Elderberry Drive	437 Elderberry Drive	437 Elderberry Drive	1054 Gardenia Drive
Well ID		BEALB437MW133	BEALB437MW134	BEALB437MW135	BEALB437MW140	BEALB437MW141	BEALB437MW142	BEALB1054DMW1
Sample ID	SC RBSL	BEALB437MW133	BEALB437MW134	BEALB437MW135	BEALB437MW140	BEALB437MW141	BEALB437MW142	BEALB1054DMW1
Lab Sample ID		WG20150915	WG20150915	WG20150915	WG20150915	WG20150915	WG20150915	WG20150916
Date Collected		QI15011-024	QI15011-021	QI15011-018	QI15011-019	QI15011-022	QI15011-020	QI17024-006
		09/15/15	09/15/15	09/15/15	09/15/15	09/15/15	09/15/15	09/16/15
Volatile Organic Compounds by Method 8260B (µg/L)								
Benzene	5	**1.5 J/**	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45
Naphthalene	25	**180 B/J**	**0.86 J/**	< 0.96	< 0.96	< 0.96	< 0.96	< 0.96

LBMH Area Address		1054 Gardenia Drive	1054 Gardenia Drive	1054 Gardenia Drive	1054 Gardenia Drive	1054 Gardenia Drive	1054 Gardenia Drive
Well ID		BEALB1054MW2	BEALB1054MW4	BEALB1054MW7	BEALB1054MW127	BEALB1054MW128	BEALB1054MW129
Sample ID	SC RBSL	BEALB1054MW2	BEALB1054MW4	BEALB1054MW7	BEALB1054MW127	BEALB1054MW128	BEALB1054MW129
Lab Sample ID		WG20150916	WG20150916	WG20150916	WG20150916	WG20150916	WG20150916
Date Collected		QI17024-001	QI17024-009	QI17024-008	QI17024-007	QI17024-005	QI17024-003
		09/16/15	09/16/15	09/16/15	09/16/15	09/16/15	09/16/15
Volatile Organic Compounds by Method 8260B (µg/L)							
Benzene	5	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45
Naphthalene	25	< 0.96	< 0.96	< 0.96	**17**	**23 B/J**	**54 B/J**

Notes:
NS - No Standard
SC RBSL - South Carolina Risk-Based Screening Level from South Carolina Risk-Based Corrective Action for Petroleum Releases (SCDHEC, May 2001).
Bold font indicates the analyte was detected.
Bold font and shading indicates the concentration exceeds the SC RBSL.

Flags:
B/ - Detected in an associated blank as well as in the sample.
J/ - Estimated result less than the Practical Quantitation Limit (PQL) and greater than or equal to the Method Detection Limit (MDL).
/J - Estimated detected result.
/UJ - Estimated non-detected result.

Table 5
Summary of Analytical Results in Groundwater Samples - November and December 2015
MCAS Beaufort - Laurel Bay
Beaufort, South Carolina

LBMH Area Address	SC RBSL	119 Banyan Drive	119 Banyan Drive	119 Banyan Drive	119 Banyan Drive	128 Banyan Drive	128 Banyan Drive
Sample ID		BEALB119MW01	BEALB119MW02	BEALB119MW03	BEALB119MW04	BEALB128MW01	BEALB128MW02
Lab Sample ID		WG20151211	WG20151211	WG20151211	WG20151214	WG20151214	WG20151214
Date Collected		QL11039-004	QL11039-003	QL11039-001	QL16007-001	QL16007-010	QL16007-008
		12/11/15	12/11/15	12/11/15	12/14/15	12/14/15	12/14/15
Volatile Organic Compounds by Method 8260B (µg/L)							
Benzene	5	< 0.45	< 0.45	< 0.45	< 0.45	**0.68** J/	< 0.45
Ethylbenzene	700	**5.0**	< 0.51	< 0.51	< 0.51	**6.5**	< 0.51
Naphthalene	25	**36** /J	< 0.96	< 0.96	< 0.96	**29**	< 0.96
Toluene	1000	< 0.48	**0.31** J/	< 0.48	< 0.48	**0.42** J/	< 0.48
Xylenes, Total	10,000	**3.3** J/	< 0.57	< 0.57	< 0.57	**21**	< 0.57
Semi-Volatiles by Method 8270D_SIM (µg/L)							
Benzo[a]anthracene	10	**0.065** J/	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040
Benzo[b]fluoranthene	10	**0.034** J/	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040
Benzo[k]fluoranthene	10	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040
Chrysene	10	**0.079** J/J	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040
Dibenz[a,h]anthracene	10	< 0.080	< 0.080	< 0.080	< 0.080	< 0.080	< 0.080

LBMH Area Address	SC RBSL	128 Banyan Drive	128 Banyan Drive	132 Banyan Drive	132 Banyan Drive	132 Banyan Drive	132 Banyan Drive
Sample ID		BEALB128MW03	BEALB128MW04	BEALB132MW01	BEALB132MW02	BEALB132MW03	BEALB132MW04
Lab Sample ID		WG20151214	WG20151214	WG20151215	WG20151215	WG20151215	WG20151215
Date Collected		QL16007-006	QL16007-003	QL17067-001	QL16007-020	QL16007-017	QL16007-012
		12/14/15	12/14/15	12/15/15	12/15/15	12/15/15	12/15/15
Volatile Organic Compounds by Method 8260B (µg/L)							
Benzene	5	< 0.45	< 0.45	**7.9**	**0.50** J/	< 0.45	< 0.45
Ethylbenzene	700	< 0.51	< 0.51	**42**	< 0.51	< 0.51	< 0.51
Naphthalene	25	< 0.96	< 0.96	**150** /J	**2.8** J/	< 0.96	**0.47** J/
Toluene	1000	< 0.48	**7.4**	< 0.48	< 0.48	< 0.48	< 0.48
Xylenes, Total	10,000	< 0.57	< 0.57	**39**	< 0.57	< 0.57	< 0.57
Semi-Volatiles by Method 8270D_SIM (µg/L)							
Benzo[a]anthracene	10	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040
Benzo[b]fluoranthene	10	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040
Benzo[k]fluoranthene	10	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040
Chrysene	10	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040
Dibenz[a,h]anthracene	10	< 0.080	< 0.080	< 0.080	< 0.080	< 0.080	< 0.080

Table 5
Summary of Analytical Results in Groundwater Samples - November and December 2015
MCAS Beaufort - Laurel Bay
Beaufort, South Carolina

LBMH Area Address	SC RBSL	135 Birch Drive	135 Birch Drive	135 Birch Drive	135 Birch Drive	148 Laurel Bay Boulevard	148 Laurel Bay Boulevard
Sample ID		BEALB135MW01	BEALB135MW02	BEALB135MW03	BEALB135MW04	BEALB148MW01	BEALB148MW02
Lab Sample ID		WG20151215	WG20151214	WG20151214	WG20151214	WG20151216	WG20151216
Date Collected		QL16007-011	QL16007-007	QL16007-004	QL16007-009	QL17067-011	QL17067-008
		12/15/15	12/14/15	12/14/15	12/14/15	12/16/15	12/16/15
Volatile Organic Compounds by Method 8260B (µg/L)							
Benzene	5	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45
Ethylbenzene	700	**3.4 J/**	< 0.51	< 0.51	< 0.51	**13**	**0.60 J/**
Naphthalene	25	**79**	< 0.96	< 0.96	< 0.96	**110 /J**	**48 /J**
Toluene	1000	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	**0.24 J/**
Xylenes, Total	10,000	**0.36 J/**	< 0.57	< 0.57	< 0.57	**8.9**	< 0.57
Semi-Volatiles by Method 8270D_SIM (µg/L)							
Benzo[a]anthracene	10	< 0.040	< 0.040	< 0.040	< 0.040	**0.045 J/**	< 0.040
Benzo[b]fluoranthene	10	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040
Benzo[k]fluoranthene	10	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040
Chrysene	10	< 0.040	< 0.040	< 0.040	< 0.040	**0.043 J/**	< 0.040
Dibenz[a,h]anthracene	10	< 0.080	< 0.080	< 0.080 /UJ	< 0.080	< 0.080	< 0.080

LBMH Area Address	SC RBSL	148 Laurel Bay Boulevard	148 Laurel Bay Boulevard	156 Laurel Bay Boulevard	156 Laurel Bay Boulevard	156 Laurel Bay Boulevard	156 Laurel Bay Boulevard
Sample ID		BEALB148MW03	BEALB148MW04	BEALB156MW01	BEALB156MW02	BEALB156MW03	BEALB156MW04
Lab Sample ID		WG20151216	WG20151215	WG20151215	WG20151215	WG20151215	WG20151215
Date Collected		QL17067-005	QL17067-003	QL16007-018	QL16007-013	QL16007-015	QL16007-014
		12/16/15	12/15/15	12/15/15	12/15/15	12/15/15	12/15/15
Volatile Organic Compounds by Method 8260B (µg/L)							
Benzene	5	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45
Ethylbenzene	700	**0.56 J/**	< 0.51	**9.2**	< 0.51	< 0.51	< 0.51
Naphthalene	25	**6.6 /J**	< 0.96	**72**	< 0.96	< 0.96	< 0.96
Toluene	1000	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48
Xylenes, Total	10,000	< 0.57	< 0.57	**25**	< 0.57	< 0.57	< 0.57
Semi-Volatiles by Method 8270D_SIM (µg/L)							
Benzo[a]anthracene	10	< 0.040	< 0.040	< 0.20	< 0.040	< 0.040	< 0.040
Benzo[b]fluoranthene	10	< 0.040	< 0.040	< 0.20	< 0.040	< 0.040	< 0.040
Benzo[k]fluoranthene	10	< 0.040	< 0.040	< 0.20	< 0.040	< 0.040	< 0.040
Chrysene	10	< 0.040	< 0.040	< 0.20	< 0.040	< 0.040	< 0.040
Dibenz[a,h]anthracene	10	< 0.080	< 0.080	< 0.40	< 0.080	< 0.080	< 0.080

Table 5
Summary of Analytical Results in Groundwater Samples - November and December 2015
MCAS Beaufort - Laurel Bay
Beaufort, South Carolina

LBMH Area Address	SC RBSL	156 Laurel Bay Boulevard	1033 Foxglove Street	1033 Foxglove Street	1033 Foxglove Street	1033 Foxglove Street	1055 Gardenia Drive
Sample ID		BEALB156MW05	BEALB1033MW01	BEALB1033MW02	BEALB1033MW03	BEALB1033MW04	BEALB1055MW01
Lab Sample ID		WG20151215	WG20151216	WG20151216	WG20151216	WG20151215	WG20151216
Date Collected		QL16007-016	QL17067-006	QL17067-004	QL17067-009	QL16007-021	QL17067-018
		12/15/15	12/16/15	12/16/15	12/16/15	12/15/15	12/16/15
Volatile Organic Compounds by Method 8260B (µg/L)							
Benzene	5	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45
Ethylbenzene	700	< 0.51	< 0.51	< 0.51	< 0.51	< 0.51	**3.6 J/**
Naphthalene	25	< 0.96	**1.1 J/J**	< 0.96	**0.30 J/J**	**0.71 J/**	**39 /J**
Toluene	1000	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48
Xylenes, Total	10,000	< 0.57	< 0.57	< 0.57	< 0.57	< 0.57	**0.32 J/**
Semi-Volatiles by Method 8270D_SIM (µg/L)							
Benzo[a]anthracene	10	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040
Benzo[b]fluoranthene	10	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040
Benzo[k]fluoranthene	10	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040
Chrysene	10	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040
Dibenz[a,h]anthracene	10	< 0.080	< 0.080	< 0.080	< 0.080	< 0.080	< 0.080

LBMH Area Address	SC RBSL	1055 Gardenia Drive	1055 Gardenia Drive	1055 Gardenia Drive	1059 Gardenia Drive	1059 Gardenia Drive	1059 Gardenia Drive
Sample ID		BEALB1055MW02	BEALB1055MW03	BEALB1055MW04	BEALB1059MW01	BEALB1059MW02	BEALB1059MW03
Lab Sample ID		WG20151216	WG20151216	WG20151216	WG20151216	WG20151216	WG20151216
Date Collected		QL17067-017	QL17067-015	QL17067-013	QL17067-010	QL17067-012	QL17067-014
		12/16/15	12/16/15	12/16/15	12/16/15	12/16/15	12/16/15
Volatile Organic Compounds by Method 8260B (µg/L)							
Benzene	5	< 0.45	< 0.45	< 0.45	**1.8 J/**	< 0.45	< 0.45
Ethylbenzene	700	< 0.51	< 0.51	< 0.51	**8.8**	**2.7 J/**	< 0.51
Naphthalene	25	< 0.96	< 0.96	< 0.96	**39 /J**	**10 /J**	< 0.96
Toluene	1000	< 0.48	< 0.48	< 0.48	**3.8 J/**	< 0.48	< 0.48
Xylenes, Total	10,000	< 0.57	< 0.57	< 0.57	**39**	< 0.57	< 0.57
Semi-Volatiles by Method 8270D_SIM (µg/L)							
Benzo[a]anthracene	10	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040
Benzo[b]fluoranthene	10	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040
Benzo[k]fluoranthene	10	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040
Chrysene	10	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040
Dibenz[a,h]anthracene	10	< 0.080	< 0.080	< 0.080	< 0.080	< 0.080	< 0.080

Table 5
Summary of Analytical Results in Groundwater Samples - November and December 2015
MCAS Beaufort - Laurel Bay
Beaufort, South Carolina

LBMH Area Address	SC RBSL	1059 Gardenia Drive	1168 Jasmine Street	1168 Jasmine Street	1168 Jasmine Street	1168 Jasmine Street
Sample ID		BEALB1059MW04	BEALB1168MW01	BEALB1168MW02	BEALB1168MW03	BEALB1168MW04
Lab Sample ID		WG20151216	WG20151217	WG20151217	WG20151217	WG20151217
Date Collected		QL17067-016	QL17067-021	QL17067-019	QL17067-020	QL17067-023
		12/16/15	12/17/15	12/17/15	12/17/15	12/17/15
Volatile Organic Compounds by Method 8260B (µg/L)						
Benzene	5	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45
Ethylbenzene	700	< 0.51	**0.71** J/J	< 0.51	< 0.51	< 0.51
Naphthalene	25	< 0.96	**1.9** J/J	< 0.96	< 0.96	< 0.96
Toluene	1000	< 0.48	< 0.48	< 0.48	< 0.48	< 0.48
Xylenes, Total	10,000	< 0.57	< 0.57	< 0.57	< 0.57	< 0.57
Semi-Volatiles by Method 8270D_SIM (µg/L)						
Benzo[a]anthracene	10	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040
Benzo[b]fluoranthene	10	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040
Benzo[k]fluoranthene	10	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040
Chrysene	10	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040
Dibenz[a,h]anthracene	10	< 0.080	< 0.080	< 0.080	< 0.080	< 0.080

Notes:
SC RBSL - South Carolina Risk-Based Screening Level from South Carolina Risk-Based Corrective Action for Petroleum Releases (SCDHEC, May 2015)
Bold font indicates the analyte was detected.
Bold font and shading indicates the concentration exceeds the SC RBSL.

Flags:
J/ - Estimated result less than the Practical Quantitation Limit (PQL) and greater than or equal to the Method Detection Limit (MDL).
/J - Estimated detected result.
/UJ - Estimated non-detected result.

Table 4
Summary of Analytical Results in Groundwater Samples - July and August 2016
MCAS Beaufort - Laurel Bay
Beaufort, South Carolina

LBMH Area Address		119 Banyan Drive			119 Banyan Drive			119 Banyan Drive			119 Banyan Drive		
Well ID		BEALB119MW01			BEALB119MW02			BEALB119MW03			BEALB119MW04		
Sample ID	SCDHEC	BEALB119MW01WG20160728			BEALB119MW02WG20160728			BEALB119MW03WG20160728			BEALB119MW04WG20160728		
Lab Sample ID	RBSL	RG30008-007			RG30008-005			RG30008-004			RG30008-001		
Date Collected		07/28/16			07/28/16			07/28/16			07/28/16		
Volatile Organic Compounds by Method 8260B (µg/L)													
Benzene	5	<	0.80		<	0.80		<	0.80		<	0.80	
Ethylbenzene	700	<	0.80		<	0.80		<	0.80		<	0.80	
Naphthalene	25	<	0.80		<	0.80		<	0.80		<	0.80	
Toluene	1000	<	0.80		<	0.80		<	0.80		<	0.80	
Xylenes, Total	10,000	<	0.80		<	0.80		<	0.80		<	0.80	
Semivolatile Organic Compounds by Method 8270D (µg/L)													
Benzo(a)anthracene	10	<	0.10	/UJ	<	0.10		<	0.10	/UJ	<	0.10	
Benzo(b)fluoranthene	10	<	0.10	/UJ	<	0.10		<	0.10	/UJ	<	0.10	
Benzo(k)fluoranthene	10	<	0.10	/UJ	<	0.10		<	0.10	/UJ	<	0.10	
Chrysene	10	<	0.10	/UJ	<	0.10		<	0.10	/UJ	<	0.10	
Dibenz(a,h)anthracene	10	<	0.10	/UJ	<	0.10		<	0.10	/UJ	<	0.10	

LBMH Area Address		128 Banyan Drive			128 Banyan Drive			128 Banyan Drive			128 Banyan Drive		
Well ID		BEALB128MW01			BEALB128MW02			BEALB128MW03			BEALB128MW04		
Sample ID	SCDHEC	BEALB128MW01WG20160728			BEALB128MW02WG20160728			BEALB128MW03WG20160729			BEALB128MW04WG20160729		
Lab Sample ID	RBSL	RG30008-003			RG30008-006			RG30008-011			RG30008-008		
Date Collected		07/28/16			07/28/16			07/29/16			07/29/16		
Volatile Organic Compounds by Method 8260B (µg/L)													
Benzene	5	**1.7**			<	0.80		**1.4**			<	0.80	
Ethylbenzene	700	**18**			<	0.80		**7.1**			<	0.80	
Naphthalene	25	**51**			<	0.80		**39**			<	0.80	
Toluene	1000	**0.87**	**J/**		<	0.80		<	0.80		<	0.80	
Xylenes, Total	10,000	**19**			<	0.80		**15**			<	0.80	
Semivolatile Organic Compounds by Method 8270D (µg/L)													
Benzo(a)anthracene	10	<	0.10		<	0.10		<	0.10	/UJ	<	0.10	
Benzo(b)fluoranthene	10	<	0.10		<	0.10		<	0.10	/UJ	<	0.10	
Benzo(k)fluoranthene	10	<	0.10		<	0.10		<	0.10	/UJ	<	0.10	
Chrysene	10	<	0.10		<	0.10		<	0.10	/UJ	<	0.10	
Dibenz(a,h)anthracene	10	<	0.10		<	0.10		<	0.10	/UJ	<	0.10	

Table 4
Summary of Analytical Results in Groundwater Samples - July and August 2016
MCAS Beaufort - Laurel Bay
Beaufort, South Carolina

LBMH Area Address		132 Banyan Drive	132 Banyan Drive	132 Banyan Drive	132 Banyan Drive
Well ID		BEALB132MW01	BEALB132MW02	BEALB132MW03	BEALB132MW04
Sample ID	SCDHEC	BEALB132MW01WG20160729	BEALB132MW02WG20160729	BEALB132MW03WG20160729	BEALB132MW04WG20160729
Lab Sample ID	RBSL	RG30008-012	RG30008-014	RG30008-013	RG30008-010
Date Collected		07/29/16	07/29/16	07/29/16	07/29/16
Volatile Organic Compounds by Method 8260B (µg/L)					
Benzene	5	**30**	< 0.80	< 0.80	< 0.80
Ethylbenzene	700	**78**	< 0.80	< 0.80	< 0.80
Naphthalene	25	**200**	< 0.80	< 0.80	< 0.80
Toluene	1000	< 0.80	< 0.80	< 0.80	< 0.80
Xylenes, Total	10,000	**60**	< 0.80	< 0.80	< 0.80
Semivolatile Organic Compounds by Method 8270D (µg/L)					
Benzo(a)anthracene	10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo(b)fluoranthene	10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo(k)fluoranthene	10	< 0.10	< 0.10	< 0.10 /UJ	< 0.10
Chrysene	10	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)anthracene	10	< 0.10	< 0.10	< 0.10	< 0.10

LBMH Area Address		135 Birch Drive	135 Birch Drive	135 Birch Drive	135 Birch Drive
Well ID		BEALB135MW01	BEALB135MW02	BEALB135MW03	BEALB135MW04
Sample ID	SCDHEC	BEALB135MW01WG20160802	BEALB135MW02WG20160801	BEALB135MW03WG20160802	BEALB135MW04WG20160801
Lab Sample ID	RBSL	RH03025-004	RH03025-021	RH03025-001	RH03025-018
Date Collected		08/02/16	08/01/16	08/02/16	08/01/16
Volatile Organic Compounds by Method 8260B (µg/L)					
Benzene	5	< 0.80	< 0.80	< 0.80	< 0.80
Ethylbenzene	700	**2.4**	< 0.80	< 0.80	< 0.80
Naphthalene	25	**45**	< 0.80	< 0.80	< 0.80
Toluene	1000	< 0.80	< 0.80	< 0.80	< 0.80
Xylenes, Total	10,000	< 0.80	< 0.80	< 0.80	< 0.80
Semivolatile Organic Compounds by Method 8270D (µg/L)					
Benzo(a)anthracene	10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo(b)fluoranthene	10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo(k)fluoranthene	10	< 0.10	< 0.10	< 0.10	< 0.10
Chrysene	10	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)anthracene	10	< 0.10	< 0.10	< 0.10	< 0.10

Table 4
Summary of Analytical Results in Groundwater Samples - July and August 2016
MCAS Beaufort - Laurel Bay
Beaufort, South Carolina

LBMH Area Address		148 Laurel Bay Boulevard	148 Laurel Bay Boulevard	148 Laurel Bay Boulevard	156 Laurel Bay Boulevard
Well ID		BEALB148MW02	BEALB148MW03	BEALB148MW04	BEALB156MW01
Sample ID	SCDHEC	BEALB148MW02WG20160802	BEALB148MW03WG20160802	BEALB148MW04WG20160802	BEALB156MW01WG20160801
Lab Sample ID	RBSL	RH03025-012	RH03025-010	RH03025-008	RH03025-015
Date Collected		08/02/16	08/02/16	08/02/16	08/01/16
Volatile Organic Compounds by Method 8260B (µg/L)					
Benzene	5	< 0.80	< 0.80	< 0.80	< 0.80
Ethylbenzene	700	< 0.80	**0.93** **J/**	< 0.80	**13**
Naphthalene	25	**18**	**16**	< 0.80	**110**
Toluene	1000	< 0.80	< 0.80	< 0.80	< 0.80
Xylenes, Total	10,000	< 0.80	< 0.80	< 0.80	**18**
Semivolatile Organic Compounds by Method 8270D (µg/L)					
Benzo(a)anthracene	10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo(b)fluoranthene	10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo(k)fluoranthene	10	< 0.10	< 0.10	< 0.10	< 0.10
Chrysene	10	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)anthracene	10	< 0.10	< 0.10	< 0.10	< 0.10

LBMH Area Address		156 Laurel Bay Boulevard	156 Laurel Bay Boulevard	156 Laurel Bay Boulevard	156 Laurel Bay Boulevard
Well ID		BEALB156MW02	BEALB156MW03	BEALB156MW04	BEALB156MW05
Sample ID	SCDHEC	BEALB156MW02WG20160801	BEALB156MW03WG20160801	BEALB156MW04WG20160801	BEALB156MW05WG20160803
Lab Sample ID	RBSL	RH03025-017	RH03025-020	RH03025-019	RH04025-001
Date Collected		08/01/16	08/01/16	08/01/16	08/03/16
Volatile Organic Compounds by Method 8260B (µg/L)					
Benzene	5	< 0.80	< 0.80	< 0.80	< 0.80
Ethylbenzene	700	< 0.80	< 0.80	< 0.80	< 0.80
Naphthalene	25	< 0.80	< 0.80	< 0.80	< 0.80
Toluene	1000	< 0.80	< 0.80	< 0.80	< 0.80
Xylenes, Total	10,000	< 0.80	< 0.80	< 0.80	< 0.80
Semivolatile Organic Compounds by Method 8270D (µg/L)					
Benzo(a)anthracene	10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo(b)fluoranthene	10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo(k)fluoranthene	10	< 0.10	< 0.10	< 0.10 /UJ	< 0.10
Chrysene	10	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)anthracene	10	< 0.10	< 0.10	< 0.10	< 0.10

Table 4
Summary of Analytical Results in Groundwater Samples - July and August 2016
MCAS Beaufort - Laurel Bay
Beaufort, South Carolina

LBMH Area Address		282 Birch Drive	282 Birch Drive	282 Birch Drive	282 Birch Drive
Well ID		BEALB282MW136	BEALB282MW137	BEALB282MW138	BEALB282MW139
Sample ID	SCDHEC	BEALB282MW136WG20160728	BEALB282MW137WG20160728	BEALB282MW138WG20160727	BEALB282MW139WG20160727
Lab Sample ID	RBSL	RG29004-021	RG29004-019	RG29004-017	RG29004-015
Date Collected		07/28/16	07/28/16	07/27/16	07/27/16
Volatile Organic Compounds by Method 8260B (µg/L)					
Benzene	5	NA	NA	NA	NA
Ethylbenzene	700	NA	NA	NA	NA
Naphthalene	25	**15**	< 0.80	< 0.80	< 0.80
Toluene	1000	NA	NA	NA	NA
Xylenes, Total	10,000	NA	NA	NA	NA
Semivolatile Organic Compounds by Method 8270D (µg/L)					
Benzo(a)anthracene	10	NA	NA	NA	NA
Benzo(b)fluoranthene	10	NA	NA	NA	NA
Benzo(k)fluoranthene	10	NA	NA	NA	NA
Chrysene	10	NA	NA	NA	NA
Dibenz(a,h)anthracene	10	NA	NA	NA	NA

LBMH Area Address		388 Acorn Drive	388 Acorn Drive	388 Acorn Drive	437 Elderberry Drive
Well ID		BEALB388MW110	BEALB388MW111	BEALB388MW112	BEALB437MW133
Sample ID	SCDHEC	BEALB388MW110WG20160727	BEALB388MW111WG20160727	BEALB388MW112WG20160727	BEALB437MW133WG20160727
Lab Sample ID	RBSL	RG29004-003	RG29004-006	RG29004-008	RG29004-012
Date Collected		07/27/16	07/27/16	07/27/16	07/27/16
Volatile Organic Compounds by Method 8260B (µg/L)					
Benzene	5	NA	NA	NA	NA
Ethylbenzene	700	NA	NA	NA	NA
Naphthalene	25	**30**	< 0.80	**2.8**	**77**
Toluene	1000	NA	NA	NA	NA
Xylenes, Total	10,000	NA	NA	NA	NA
Semivolatile Organic Compounds by Method 8270D (µg/L)					
Benzo(a)anthracene	10	NA	NA	NA	NA
Benzo(b)fluoranthene	10	NA	NA	NA	NA
Benzo(k)fluoranthene	10	NA	NA	NA	NA
Chrysene	10	NA	NA	NA	NA
Dibenz(a,h)anthracene	10	NA	NA	NA	NA

Table 4
Summary of Analytical Results in Groundwater Samples - July and August 2016
MCAS Beaufort - Laurel Bay
Beaufort, South Carolina

LBMH Area Address		437 Elderberry Drive	437 Elderberry Drive	437 Elderberry Drive	437 Elderberry Drive
Well ID		BEALB437MW134	BEALB437MW135	BEALB437MW140	BEALB437MW141
Sample ID	SCDHEC	BEALB437MW134WG20160727	BEALB437MW135WG20160727	BEALB437MW140WG20160727	BEALB437MW141WG20160727
Lab Sample ID	RBSL	RG29004-010	RG29004-007	RG29004-005	RG29004-001
Date Collected		07/27/16	07/27/16	07/27/16	07/27/16
Volatile Organic Compounds by Method 8260B (µg/L)					
Benzene	5	NA	NA	NA	NA
Ethylbenzene	700	NA	NA	NA	NA
Naphthalene	25	**0.88 J/**	< 0.80	< 0.80	< 0.80
Toluene	1000	NA	NA	NA	NA
Xylenes, Total	10,000	NA	NA	NA	NA
Semivolatile Organic Compounds by Method 8270D (µg/L)					
Benzo(a)anthracene	10	NA	NA	NA	NA
Benzo(b)fluoranthene	10	NA	NA	NA	NA
Benzo(k)fluoranthene	10	NA	NA	NA	NA
Chrysene	10	NA	NA	NA	NA
Dibenz(a,h)anthracene	10	NA	NA	NA	NA

LBMH Area Address		437 Elderberry Drive	1054 Gardenia Drive	1054 Gardenia Drive	1054 Gardenia Drive
Well ID		BEALB437MW142	BEALB1054DMW1	BEALB1054MW2	BEALB1054MW4
Sample ID	SCDHEC	BEALB437MW142WG20160727	BEALB1054DMW1WG20160727	BEALB1054MW2WG20160727	BEALB1054MW4WG20160728
Lab Sample ID	RBSL	RG29004-004	RG29004-013	RG29004-011	RG29004-020
Date Collected		07/27/16	07/27/16	07/27/16	07/28/16
Volatile Organic Compounds by Method 8260B (µg/L)					
Benzene	5	NA	NA	NA	NA
Ethylbenzene	700	NA	NA	NA	NA
Naphthalene	25	**2.4**	**0.99 J/**	< 0.80	< 0.80
Toluene	1000	NA	NA	NA	NA
Xylenes, Total	10,000	NA	NA	NA	NA
Semivolatile Organic Compounds by Method 8270D (µg/L)					
Benzo(a)anthracene	10	NA	NA	NA	NA
Benzo(b)fluoranthene	10	NA	NA	NA	NA
Benzo(k)fluoranthene	10	NA	NA	NA	NA
Chrysene	10	NA	NA	NA	NA
Dibenz(a,h)anthracene	10	NA	NA	NA	NA

Table 4
Summary of Analytical Results in Groundwater Samples - July and August 2016
MCAS Beaufort - Laurel Bay
Beaufort, South Carolina

LBMH Area Address		1054 Gardenia Drive	1054 Gardenia Drive	1054 Gardenia Drive	1054 Gardenia Drive
Well ID		BEALB1054MW7	BEALB1054MW127	BEALB1054MW128	BEALB1054MW129
Sample ID	SCDHEC	BEALB1054MW7WG20160727	BEALB1054MW127WG20160728	BEALB1054MW128WG20160727	BEALB1054MW129WG20160728
Lab Sample ID	RBSL	RG29004-014	RG29004-023	RG29004-016	RG29004-024
Date Collected		07/27/16	07/28/16	07/27/16	07/28/16
Volatile Organic Compounds by Method 8260B (µg/L)					
Benzene	5	NA	NA	NA	NA
Ethylbenzene	700	NA	NA	NA	NA
Naphthalene	25	< 0.80	**8.3**	**4.9**	**29**
Toluene	1000	NA	NA	NA	NA
Xylenes, Total	10,000	NA	NA	NA	NA
Semivolatile Organic Compounds by Method 8270D (µg/L)					
Benzo(a)anthracene	10	NA	NA	NA	NA
Benzo(b)fluoranthene	10	NA	NA	NA	NA
Benzo(k)fluoranthene	10	NA	NA	NA	NA
Chrysene	10	NA	NA	NA	NA
Dibenz(a,h)anthracene	10	NA	NA	NA	NA

LBMH Area Address		1055 Gardenia Drive	1055 Gardenia Drive	1055 Gardenia Drive	1055 Gardenia Drive
Well ID		BEALB1055MW01	BEALB1055MW02	BEALB1055MW03	BEALB1055MW04
Sample ID	SCDHEC	BEALB1055MW01WG20160802	BEALB1055MW02WG20160802	BEALB1055MW03WG20160802	BEALB1055MW04WG20160802
Lab Sample ID	RBSL	RH03025-006	RH03025-007	RH03025-003	RH03025-009
Date Collected		08/02/16	08/02/16	08/02/16	08/02/16
Volatile Organic Compounds by Method 8260B (µg/L)					
Benzene	5	< 0.80	< 0.80	< 0.80	< 0.80
Ethylbenzene	700	< 0.80	< 0.80	< 0.80	< 0.80
Naphthalene	25	< 0.80	< 0.80	< 0.80	< 0.80
Toluene	1000	< 0.80	< 0.80	< 0.80	< 0.80
Xylenes, Total	10,000	< 0.80	< 0.80	< 0.80	< 0.80
Semivolatile Organic Compounds by Method 8270D (µg/L)					
Benzo(a)anthracene	10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo(b)fluoranthene	10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo(k)fluoranthene	10	< 0.10	< 0.10	< 0.10	< 0.10
Chrysene	10	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)anthracene	10	< 0.10	< 0.10	< 0.10	< 0.10

Table 4
Summary of Analytical Results in Groundwater Samples - July and August 2016
MCAS Beaufort - Laurel Bay
Beaufort, South Carolina

LBMH Area Address		1059 Gardenia Drive			1059 Gardenia Drive			1059 Gardenia Drive		
Well ID		BEALB1059MW02			BEALB1059MW03			BEALB1059MW04		
Sample ID	SCDHEC	BEALB1059MW02WG20160803			BEALB1059MW03WG20160803			BEALB1059MW04WG20160802		
Lab Sample ID	RBSL	RH04025-004			RH04025-003			RH03025-011		
Date Collected		08/03/16			08/03/16			08/02/16		
Volatile Organic Compounds by Method 8260B (µg/L)										
Benzene	5	<	0.80		<	0.80		<	0.80	
Ethylbenzene	700	<	0.80		<	0.80		<	0.80	
Naphthalene	25		**4.4**		<	0.80		<	0.80	
Toluene	1000	<	0.80		<	0.80		<	0.80	
Xylenes, Total	10,000		**0.86**	**J/**	<	0.80		<	0.80	
Semivolatile Organic Compounds by Method 8270D (µg/L)										
Benzo(a)anthracene	10	<	0.10		<	0.10		<	0.10	
Benzo(b)fluoranthene	10	<	0.10		<	0.10		<	0.10	
Benzo(k)fluoranthene	10	<	0.10		<	0.10		<	0.10	
Chrysene	10	<	0.10		<	0.10		<	0.10	
Dibenz(a,h)anthracene	10	<	0.10		<	0.10		<	0.10	

Notes:
Bold font indicates the analyte was detected.
Bold font and shading indicates the concentration exceeds the SCDHEC RBSL
LBMH - Laurel Bay Military Housing
SCDHEC RBSL - South Carolina Department of Health and Environmental Control Risk-Based Screening Level from the Quality Assurance Program Plan for the Underground Storage Tank Management Division (SCDHEC, February 2016).
Flags:
J/ - Estimated result less than the Practical Quantitation Limit (PQL) and greater than or equal to the Method Detection Limit (MDL)
/UJ - The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample

Appendix F
Regulatory Correspondence

CDM - AECOM
Multimedia Joint Venture

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8 September 2008

Beaufort Military Complex Family Housing
ATTN: Kyle Broadfoot
1510 Laurel Bay Blvd.
Beaufort, SC 29906

Re: MCAS – Laurel Bay Housing – 282 Birch
Site ID # 04035
UST Closure Reports received 31 January 2008
Beaufort County

Dear Mr. Broadfoot:

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 803-898-3553 (office phone), 803-898-2893 (fax) or bishopma@dhec.sc.gov.

Sincerely,

Michael Bishop, Hydrogeologist
Groundwater Quality Section
Bureau of Water

cc: Region 8 District EQC (via pdf)
MCAS, Commanding Officer, Attention: S-4 NREAO (William Drawdy) (via pdf)
Technical File (via pdf)

Received 4/14/11

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Coleman F. Buckhouse, MD

Bureau of Land and Waste Management
Division of Waste Management

April 6, 2011

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

Facility: Marine Corps Air Station, Beaufort
EPA ID #: SC1 750 216 169

RE: Review
Report of Findings for Laurel Bay Military Housing Area
Dated July 2010 and
Well Installation and Sampling Work Plan for
Laurel Bay Military Housing
Dated March 2011

Dear Mr. Drawdy:

The South Carolina Department of Health and Environmental Control (the Department) received the above referenced Report of Findings for Laurel Bay Military Housing Area on July 23, 2010 and Addendum to Well Installation and Sampling Work Plan for Laurel Bay Military Housing on March 4, 2011. Heating oil stored in underground storage tanks (USTs) historically heated homes in Laurel Bay. The USTs are no longer used for storing heating oil, and MCAS Beaufort is currently removing these USTs and evaluating their integrity. This Report of Findings and Well Installation and Sampling Work Plan document the groundwater conditions following limited soil sampling and temporary monitoring wells showed evidence of groundwater contamination related to some of the heating oil USTs.

Based on this review, the Department has generated the attached memorandum by Michael W. Danielsen from the Federal Facilities Groundwater Section. The response to the Department's comments may be addressed by submitting revised pages to be inserted into the original document, or by submitting another document. If new or revised pages

are submitted, please indicate whether each submitted page is a revision to an existing page in the original document or a new page not contained in the original document. Each revised page should be coded. For example, 32(R-7/30/07) would be page 32, revised 7/30/07. In addition to revisions, please provide a summary of the comment responses and revision pages.

Please note that the Department's review is based on available information provided by the MCAS. Any information found to be contradictory to this decision might require additional action. Furthermore, the Department retains the right to request further investigation if deemed necessary.

If you have any questions regarding this issue, please contact me at (803) 896-6675 or petruslb@dhec.sc.gov.

Sincerely,

Laurel B. Petrus, Environmental Engineer Associate
Corrective Action Engineering Section

Attachments

cc: Michael W. Danielsen, Hydrogeologist
Russell Berry, EQC Region 8
Dan Owens, NAVFAC SE

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South Carolina Department of Health
and Environmental Control

Federal Facilities
Groundwater Section
2600 Bull Street
Columbia, SC 29201
Telephone (803) 896-4000
Fax (803) 896-4002

MEMORANDUM

TO: Laurel Petrus, Environmental Engineer Associate
Corrective Action Engineering Section
Division of Waste Management
Bureau of Land and Waste Management

FROM: Michael W. Danielsen, Hydrogeologist
Federal Facilities Groundwater Section
Division of Waste Management
Bureau of Land and Waste Management

DATE: April 5, 2011

RE: Marine Corps Air Station (MCAS)
Beaufort, South Carolina
SC1 750 216 169

Report of Findings for Laurel Bay Military Housing Area
Dated July 2010 (Received July 23, 2010)

Addendum to Well Installation and Sampling Work Plan for
Laurel Bay Military Housing Area
Dated March 2011 (Received March 4, 2011)

The above referenced Findings Report provides information from the installation of 35 monitoring wells as part of an ongoing effort to remove underground residential heating oil tanks (USTs) from the Laurel Bay Military Housing Area.

The Addendum to Well Installation and Sampling Work Plan provides the proposed well installation locations and sampling recommended in the Finding Report.

The documents referenced above have been reviewed with respect to the S.C. Pollution Control Act 48-1-10 and the S.C. Hazardous Waste Management Act, and other appropriate guidance documents.

Please see the attached comments.

CC: BLWM file # 50500

Report of Findings for Laurel Bay Military Housing Area and Addendum to Well Installation and Sampling Work Plan for Laurel Bay Military Housing Area
MCAS
Federal Facilities Groundwater Section
Comments prepared by
Michael W. Danielsen April 5, 2011

Report of Findings for Laurel Bay Military Housing Area

1. **Page 11 Section 6.0, Recommendations**

This section recommends no further action (NFA), annual monitoring, or expansion of the monitoring well network as follows:

NFA for:

- 201 Balsam Street,
- 390 Acorn Drive,
- 391 Acorn Drive,
- 299 Birch Lane,
- 1118 Iris Lane,

Annual groundwater monitoring for benzene, toluene, ethylene, xylene (BTEX), naphthalene, and polyaromatic hydrocarbons (PAH) at:

- 398 Acorn Drive,
- 388 Acorn Drive,
- 441 Elderberry Lane,
- 282 Birch Road,
- 1054 Gardenia Drive,

Expansion of the monitoring well networks and performance of annual groundwater monitoring for 1-methylnapthalene, 2-methylnapthalene, and/or naphthalene at the following:

- 437 Elderberry Lane- Install three additional monitoring wells downgradient of MW133.
- 1472 Cardinal Lane- Install three additional monitoring wells sidegradient and downgradient of MW130 to bound the contaminant plume.

In addition, all new monitoring wells will be sampled for BTEX, naphthalene, and PAH.

The Federal Facilities Groundwater Section (FFGS) agrees with these recommendations. However, the MCAS should be advised that all future documents must include plume maps of constituents for proper assessment of contaminants in relation to monitoring locations and site boundaries.

2. **Figure 3-1 Monitoring Wells at Acorn Drive and Birch Drive**

This figure illustrates the water table using wells located at 299 Birch Road, 398 Acorn Drive, 390 Acorn Drive, 388 Acorn Drive, and 391 Acorn Drive. Analytical information from Table 4-1, Summary of Analytical Results for Groundwater, indicates that samples from monitoring well MW106 at 398 Acorn Drive exceeds the South Carolina Screening values for 1-methylnapthalene Risk Based Screening Levels (RBSL=10ug/L-14.2ug/L), 2-methylnapthalene (RBSL=10ug/L- 16.8 ug/L), and naphthalene RBSL=25ug/L-29.9ug/L). However this report does not propose to install downgradient monitoring wells.

The MCAS should propose downgradient monitoring well locations from MW106 to determine the extent of groundwater contamination.

3. **Figure 3-2 Monitoring Wells at Balsam Street and Birch Road**

This figure shows the monitoring wells associated with 201 Balsam Street and 282 Birch Road, along with a partial potentiometric surface. The analytical information from Table 4-1, Summary of Analytical Results for Groundwater, indicates that samples from monitoring well TW123 located at 282 Birch Road exceeds the South Carolina Screening values for 1-methylnapthalene (RBSL=10ug/L-26.2ug/L), 2-methylnapthalene (RBSL=10ug/L- 38.8 ug/L), and naphthalene RBSL=25ug/L-31.3ug/L). However this report does not propose to install additional downgradient monitoring wells to determine the extent of groundwater contamination.

The MCAS should propose to install additional downgradient monitoring wells downgradient of TW123 to determine extent of the petroleum contaminants detected in MW123 and to determine the groundwater flow direction in the area.

Note. This comment was adequately addressed by the March 2011 Addendum to Well Installation and Sampling Work Plan for Laurel Bay Military Housing Area.

4. **Figure 3-4 Monitoring Wells at 437-441 Elderberry Lane**

This figure illustrates the water table using wells located at 437 through 441 Elderberry Lane. The analytical information from Table 4-1 indicates that samples from monitoring well MW119 exceed the South Carolina Screening values for 1-methylnapthalene (RBSL=10ug/L-10.6ug/L), and 2-methylnapthalene (RBSL=10ug/L- 11.9 ug/L). However this report does not propose to install downgradient monitoring wells.

Based on the exceedances and field data the MCAS should propose downgradient monitoring well locations from MW119 to determine if there is groundwater contamination beyond MW119.

5. **Figure 6-1 Proposed Monitoring Wells at 437-441 Elderberry Lane**

This figure shows the proposed monitoring wells sidegradient and downgradient of 437 Elderberry Lane. This figure and appropriate text should be revised to include an additional monitoring well downgradient of monitoring well MW119 at 441 Elderberry Lane due to the detections of petroleum constituents in MW119. Please see comment #4 above.

6. **Attachment E Groundwater Level Measurement Sheet**

The groundwater measurement sheet lists 25 of the groundwater levels for wells MW1 through MW126. The groundwater levels for wells MW127-MW135 are not provided. Please provide the groundwater levels for these wells in future reports.

<u>Addendum to Well Installation and Sampling Work Plan for Laurel Bay Military Housing Area</u>

7. **Page 3 Section 2.0, Proposed Sampling program**

This section proposes the installation of three permanent monitoring wells at 437 Elderberry Drive and 1472 Cardinal Lane and four piezometers at 282 Birch Road.
The work plan proposes that if the locations of the piezometers are not ideally located downgradient of the potential source area to be converted to permanent monitoring wells, permanent monitoring well locations will be designated and installed downgradient. The text should be revised to state that if the piezometers are not ideally located downgradient of the potential source area they will be properly abandoned and new permanent monitoring well locations will be designated. The

MCAS should consider requesting three to four additional monitoring wells to avoid any delay in seeking approval of additional monitoring wells due to the probability of the piezometers being abandoned.

8. The MCAS should consider revising the work plan addendum to address the comments for the findings report listed above.

50500

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BOARD:
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Glenn A. McCall
Coleman F. Buckhouse, MD

Bureau of Land and Waste Management
Division of Waste Management

July 5, 2012

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

Facility: Marine Corps Air Station, Beaufort
EPA ID #: SC1 750 216 169

RE: Review
Draft Report of Findings for Laurel Bay Military Housing Investigation of Potential Impacts to Groundwater from Former Heating Oil Underground Storage Tanks, Dated June 2012

282 Birch Road
388 and 398 Acorn Drive
437 and 441 Elderberry Drive
1472 Cardinal Lane
1054 Gardenia Drive

Dear Mr. Drawdy:

The South Carolina Department of Health and Environmental Control (the Department) received the above referenced Draft Report of Findings for Laurel Bay Military Housing Area on June 18, 2012. Heating oil stored in underground storage tanks (USTs) historically heated homes in Laurel Bay. The USTs are no longer used for storing heating oil, and MCAS Beaufort is currently removing these USTs and evaluating their integrity. This Report of Findings documents the installation of additional permanent monitoring wells and updates the groundwater conditions at seven homes. Limited soil sampling, permanent and temporary monitoring wells had previously shown evidence of groundwater contamination related to the heating oil USTs at the homes. The Department agrees with the recommendation to continue annual monitoring of these wells and the wells located at 391 Acorn Drive.

23a

SCANNED
8-30-19 EK

Based on this review, the Department has generated the attached memorandum by Joe Bowers from the Federal Facilities Groundwater Section. The response to the Department's comments may be addressed by submitting revised pages to be inserted into the original document, or by submitting another document. If new or revised pages are submitted, please indicate whether each submitted page is a revision to an existing page in the original document or a new page not contained in the original document. Each revised page should be coded. For example, 32(R-7/30/07) would be page 32, revised 7/30/07. In addition to revisions, please provide a summary of the comment responses and revision pages.

Please note that the Department's review is based on available information provided by the MCAS. Any information found to be contradictory to this decision might require additional action. Furthermore, the Department retains the right to request further investigation if deemed necessary.

If you have any questions regarding this issue, please contact me at (803) 896-6675 or petruslb@dhec.sc.gov.

Sincerely,

Laurel B. Petrus, Environmental Engineer Associate
Corrective Action Engineering Section

Attachments

cc: Joe Bowers, FFGS
Russell Berry, EQC Region 8
Dan Owens, NAVFAC SE
Stephanie Warino, Tetra Tech

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C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment

MEMORANDUM

TO: Laurel Petrus, Environmental Engineer Associate
Corrective Action Engineering Section
Division of Waste Management
Bureau of Land and Waste Management

FROM: Joe B. Bowers, P.G., Manager
Federal Facilities Groundwater Section
Division of Hydrogeology
Bureau of Land and Waste Management

DATE: July 5, 2012

RE: Marine Corps Air Station (MCAS)
SC1 750 216 169
Beaufort County

Review of the Report of Findings for November 2011 Laurel Bay Military Housing Area, Investigation of Potential Impacts to Groundwater – Former Heating Oil Underground Storage Tanks, dated June 2012

The South Carolina Department of Health and Environmental Control (the Department) received the above referenced Report of Findings for Laurel Bay Military Housing Area on June 18, 2012. Heating oil stored in underground storage tanks (USTs) historically heated homes in Laurel Bay. The USTs are no longer used for storing heating oil, and MCAS Beaufort is currently removing these USTs and evaluating their integrity. This Report of Findings documents the installation of additional permanent monitoring wells and collection of groundwater samples from monitoring wells located adjacent to homes in Laurel Bay.

Based on review of this document, the Federal Facilities Groundwater Section did not generate any comments. The MCAS should proceed with the proposals for groundwater monitoring as outlined in this report.

Should you have any questions regarding this review, you may contact me at (803) 896-4024 or bowersjb@dhec.sc.gov.

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
2600 Bull Street • Columbia, SC 29201 • Phone: (803) 898-3432 • www.scdhec.gov

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Healthy People. Healthy Communities.

December 12, 2016

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

RE: Approval Draft Final 2016 Groundwater Monitoring Report

Dear Mr. Drawdy:

The South Carolina Department of Health and Environmental Control (the Department) received the groundwater monitoring report on November 1, 2016 for Laurel Bay Military Housing Area. The regulatory authority for the investigation and cleanup of releases from these tank systems is the South Carolina Pollution Control Act (S.C. Code Ann. §48-1-10 et seq., as amended).

The Department reviewed the groundwater data and previous investigations and it agrees with the conclusions and recommendations included in the document. Groundwater monitoring should continue at the stated addresses.

For 282 Birch Drive, the naphthalene concentration has been below the RBSL for three consecutive monitoring events and therefore no further action 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, Environmental Engineer Associate
Bureau of Land and Waste Management

Cc: Russell Berry, EQC Region 8
Shawn Dolan, Resolution Consultants
Bryan Beck, NAVFAC MIDATLANTIC