

**SUMMARY REPORT
21 BAY CIRCLE (FORMERLY 10 BAY CIRCLE)
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

**SUMMARY REPORT
21 BAY CIRCLE (FORMERLY 10 BAY CIRCLE)
LAUREL BAY MILITARY HOUSING AREA
MARINE CORPS AIR STATION BEAUFORT
BEAUFORT, SC**

**Revision: 0
Prepared for:**

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

and



Naval Facilities Engineering Command Atlantic

**9324 Virginia Avenue
Norfolk, Virginia 23511-3095**

Prepared by:



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

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

Table of Contents

1.0	INTRODUCTION	1
1.1	BACKGROUND INFORMATION.....	1
1.2	UST REMOVAL AND ASSESSMENT PROCESS.....	2
2.0	SAMPLING ACTIVITIES AND RESULTS.....	3
2.1	UST REMOVAL AND SAMPLING ACTIVITIES.....	4
2.2	UST REMOVAL SOIL AND GROUNDWATER ANALYTICAL RESULTS.....	4
2.3	TIER 2 SOIL SAMPLING.....	5
2.4	TIER 2 SOIL ANALYTICAL RESULTS	5
2.5	TIER 2 GROUNDWATER SAMPLING	5
2.6	TIER 2 GROUNDWATER ANALYTICAL RESULTS.....	6
3.0	PROPERTY STATUS	6
4.0	REFERENCES.....	6

Tables

Table 1	Laboratory Analytical Results – Soil – UST Assessment Report
Table 2	Laboratory Analytical Results – Groundwater – UST Assessment Report
Table 3	Laboratory Analytical Results – Soil – Tier 2 Assessment
Table 4	Laboratory Analytical Results – Groundwater – Tier 2 Assessment

Appendices

Appendix A	Multi-Media Selection Process for LBMH
Appendix B	UST Assessment Report
Appendix C	Laboratory Analytical Reports - Soil - Tier 2 Assessment
Appendix D	Laboratory Analytical Reports - Groundwater - Tier 2 Assessment
Appendix E	Regulatory Correspondence

List of Acronyms

bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, and xylenes
CTO	Contract Task Order
COPC	constituents of potential concern
ft	feet
IDIQ	Indefinite Delivery, Indefinite Quantity
IGWA	Initial Groundwater Assessment
JV	Joint Venture
LBMH	Laurel Bay Military Housing
MCAS	Marine Corps Air Station
NAVFAC Mid-Lant	Naval Facilities Engineering Command Mid-Atlantic
NFA	No Further Action
PAH	polynuclear aromatic hydrocarbon
QAPP	Quality Assurance Program Plan
RBSL	risk-based screening level
SCDHEC	South Carolina Department of Health and Environmental Control
Site	LBMH area at MCAS Beaufort, South Carolina
UST	underground storage tank
VISL	vapor intrusion screening level

1.0 INTRODUCTION

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

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

This report summarizes the results the environmental investigation activities associated with the storage of home heating oil and the potential release of petroleum constituents at the referenced property. Based on the results of the investigation, a No Further Action (NFA) determination has been made by the South Carolina Department of Health and Environmental Control (SCDHEC) for 21 Bay Circle (Formerly 10 Bay Circle). This NFA determination indicates that there are no unacceptable risks to human health or the environment for the petroleum constituents associated with the home heating oil USTs. The following information is included in this report:

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

1.1 Background Information

The LBMH area is located approximately 3.5 miles west of MCAS Beaufort. The area is approximately 970 acres in size and serves as an enlisted and officer family housing area. The area is configured with single family and duplex residential structures, and includes recreation, open space, and community facilities. The community includes approximately 1,300 housing units, including legacy Capehart style homes and newer duplex style homes. The housing area

is bordered on the west by salt marshes and the Broad River, and to the north, east and south by uplands. Forested areas lie along the northern and northeastern borders.

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

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

The LBMH UST removal and assessment process is described below in Section 1.2. The LBMH multi-media investigation selection process tree, used to evaluate the environmental impact of USTs for most sites at LBMH, is presented in Appendix A. It should be noted that because the USTs were removed prior to 2007, the subject property of this report did not follow the typical multi-media investigation selection process presented in Appendix A.

1.2 UST Removal and Assessment Process

As stated above, the assessment process at this property did not follow the typical process presented in Appendix A.

During the UST removal process, soil samples were collected from around 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 hydrocarbons (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.

A groundwater sample was also collected from the base of the excavation and analyzed for the petroleum COPCs.

The results of the soil and groundwater sampling at each former UST location were used to determine the presence or absence of petroleum COPCs in soil and/or groundwater and identify whether former UST locations may require additional delineation of COPCs in soil and groundwater. The results of the additional soil sampling and initial groundwater assessment (IGWA) sampling (if necessary) are used to determine the presence or absence of the aforementioned COPCs in groundwater and identify whether former UST locations will require additional delineation of COPCs in groundwater. In order to delineate the extent of impact to groundwater, permanent wells are installed and a sampling program is established for those former UST locations where IGWA sampling has indicated the presence of COPCs in excess of the SCDHEC RBSLs for groundwater. Groundwater analytical results are also compared to the site specific groundwater vapor intrusion screening levels (VISLs) to evaluate the potential for vapor intrusion and the necessity for an investigation associated with this media.

2.0 SAMPLING ACTIVITIES AND RESULTS

The following section presents the sampling activities and associated results for 21 Bay Circle (Formerly 10 Bay Circle). Details regarding the soil and groundwater investigation conducted during the UST removals at this site are provided in the *SCDHEC UST Assessment Report – 10 Bay Circle* (MCAS Beaufort, 2004). The UST Assessment Report is provided in Appendix B. Details regarding the additional soil and IGWA sampling activities at this site are provided in the

Tier II Assessment Report Laurel Bay Housing Area 1, 7, 8, 9 and 10 Bay Circle (ADVENT Environmental, Inc, 2005). The laboratory reports that include the pertinent soil and IGWA analytical results for this site are presented in Appendices C and D, respectively.

2.1 UST Removal and Sampling Activities

On May 6, 2004, three 280 gallon heating oil USTs were removed from the side grassed area adjacent to the carport at 21 Bay Circle (Formerly 10 Bay Circle). The former UST locations are indicated on the sketch included in the UST Assessment Report (Appendix B). The USTs were removed and properly disposed of (i.e., shipped offsite for recycling or transported to a landfill). Visual evidence (i.e., staining or sheen) of petroleum impact was recorded at the time of the UST removals. According to the UST Assessment Report (Appendix B), the depths to the bases of the USTs were 5'6" bgs (Tank 1), 5'0" bgs (Tank 2) and 6'6" bgs (Tank 3) and soil samples were collected during the excavation.

A groundwater sample was collected from the base of the excavation, following the UST removals at 21 Bay Circle (Formerly 10 Bay Circle). Further details are provided in the *SCDHEC UST Assessment Report – 10 Bay Circle* (MCAS Beaufort, 2004).

Soil and groundwater samples were collected 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 UST Removal Soil and Groundwater Analytical Results

A summary of the soil laboratory analytical results and SCDHEC RBSLs is presented in Table 1. A summary of the groundwater laboratory analytical results and SCDHEC RBSLs is presented in Table 2. 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 and groundwater results for the additional PAHs that were analyzed, but do not have associated RBSLs.

The soil and groundwater sample results were submitted by MCAS Beaufort to SCDHEC utilizing SCDHEC's UST Assessment Report form (Appendix B). The results of the soil and groundwater sampling at the former UST location were used by MCAS Beaufort, in consultation with SCDHEC, to determine a path forward (i.e., additional sampling or NFA) for the property. The soil and groundwater results collected from 21 Bay Circle (Formerly 10 Bay Circle) were greater

than the SCDHEC RBSLs, which indicated further investigation was required. In a letter dated September 13, 2004, SCDHEC requested additional assessment for 21 Bay Circle (Formerly 10 Bay Circle). SCDHEC's request letter is provided in Appendix E.

2.3 Tier 2 Soil Sampling

In May 2005, four soil borings were advanced at 21 Bay Circle (Formerly 10 Bay Circle). The soil borings were collocated with the temporary monitoring wells discussed in Section 2.5. A single soil sample was collected from each soil boring and shipped to an offsite laboratory for analysis of the petroleum COPCs. Further details are provided in the *Tier II Assessment Report Laurel Bay Housing Area 1, 7, 8, 9 and 10 Bay Circle* (ADVENT Environmental, Inc., 2005).

2.4 Tier 2 Soil 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 as Appendix C.

The soil results collected from 21 Bay Circle (Formerly 10 Bay Circle) were less than the SCDHEC RBSLs (Table 3), which indicated that the soil was not impacted by COPCs associated with the former UST at concentrations that present a potential risk to human health and the environment.

2.5 Tier 2 Groundwater Sampling

In May 2005, the four soil borings were converted into temporary monitoring wells and then sampled at 21 Bay Circle (Formerly 10 Bay Circle), in accordance with the South Carolina Well Standards and Regulations (R.61-71.H-I, updated June 24, 2016). Further details are provided in the *Tier II Assessment Report Laurel Bay Housing Area 1, 7, 8, 9 and 10 Bay Circle* (ADVENT Environmental, Inc, 2005).

The sampling strategy for this phase of the investigation required a one-time sampling event of the temporarily installed monitoring wells. Following well installation, groundwater samples were collected via grab methods and shipped to an offsite laboratory for analysis of the petroleum COPCs. Upon completion of groundwater sampling, the temporary wells were abandoned in accordance with the South Carolina Well Standards and Regulations R.61-71 (SCDHEC, 2016). Field forms are provided in the *Tier II Assessment Report Laurel Bay Housing Area 1, 7, 8, 9 and 10 Bay Circle* (ADVENT Environmental, Inc, 2005).

2.6 Tier 2 Groundwater Analytical Results

A summary of the laboratory analytical results and SCDHEC RBSLs is presented in Table 4. A copy of the laboratory analytical data report is included in Appendix D.

The groundwater results collected from 21 Bay Circle (Formerly 10 Bay Circle) were less than the SCDHEC RBSLs and the site-specific groundwater VISLs (Table 4), which indicated that the groundwater was not impacted by COPCs associated with the former UST at concentrations that present a potential risk to human health and the environment.

3.0 PROPERTY STATUS

Based on the analytical results for groundwater from the temporary monitoring wells, SCDHEC made the determination that NFA was required for 21 Bay Circle (Formerly 10 Bay Circle). This NFA determination was obtained in a letter dated October 27, 2005. SCDHEC's NFA letter is provided in Appendix D.

4.0 REFERENCES

Marine Corps Air Station Beaufort, 2004. *South Carolina Department of Health and Environmental Control (SCDHEC) Underground Storage Tank Assessment Report – 10 Bay Circle, Laurel Bay Military Housing Area*, August 2004.

ADVENT Environmental, Inc, 2005. *Tier II Assessment Report Laurel Bay Housing Area 1, 7, 8, 9 and 10 Bay Circle Marine Corps Air Station, Beaufort, South Carolina*, September 2005.

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

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

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

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

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

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

Tables

Table 1
Laboratory Analytical Results - Soil - UST Assessment Report
21 Bay Circle (Formerly 10 Bay Circle)
Laurel Bay Military Housing Area
Marine Corps Air Station Beaufort
Beaufort, South Carolina

Constituent	SCDHEC RBSLs ⁽¹⁾	Results								
		Samples Collected 05/04/04 and 05/06/04								
		UST1-1 05/04/04	UST1-2 05/04/04	UST1-3 05/04/04	UST2-1 05/06/04	UST2-2 05/06/04	UST2-3 05/06/04	UST2-4 05/06/04	UST3-1 05/06/04	UST3-2 05/06/04
Volatile Organic Compounds Analyzed by EPA Method 8260B (mg/kg)										
Benzene	0.003	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	1.551	ND	ND	ND	ND	0.031	0.180	ND	0.130	2.700
Naphthalene	0.047	0.024	ND	ND	0.066	0.110	6.600	0.080	0.820	25.000
Toluene	0.627	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes, Total	13.01	ND	ND	ND	ND	ND	ND	ND	0.098	0.007
Semivolatile Organic Compounds Analyzed by EPA Method 8270C (mg/kg)										
Benzo(a)anthracene	0.066	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	0.066	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	0.066	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	0.066	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenz(a,h)anthracene	0.066	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

⁽¹⁾ South Carolina Risk-Based Screening Levels from the Quality Assurance Program Plan for the Underground Storage Tank Management Division, Revision 1.0 (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 - Groundwater - UST Assessment Report
21 Bay Circle (Formerly 10 Bay Circle)
Laurel Bay Military Housing Area
Marine Corps Air Station Beaufort
Beaufort, South Carolina

Constituent	SCDHEC RBSLs ⁽¹⁾	Results Sample Collected 05/05/04
Volatile Organic Compounds Analyzed by EPA Method 8260B (µg/L)		
Benzene	5	ND
Ethylbenzene	700	ND
Naphthalene	25	5.3
Toluene	1,000	ND
Xylenes, Total	10,000	ND
Semivolatile Organic Compounds Analyzed by EPA Method 8270D (µg/L)		
Benzo(a)anthracene	10	ND
Benzo(b)fluoranthene	10	ND
Benzo(k)fluoranthene	10	ND
Chrysene	10	ND
Dibenz(a,h)anthracene	10	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

JE - Johnson & Ettinger

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 B.

RBSL - Risk-Based Screening Level

SCDHEC - South Carolina Department Of Health and Environmental Control

µg/L - micrograms per liter

Table 3
Laboratory Analytical Results - Soil - Tier 2 Assessment
21 Bay Circle (Formerly 10 Bay Circle)
Laurel Bay Military Housing Area
Marine Corps Air Station Beaufort
Beaufort, South Carolina

Constituent	SCDHEC RBSLs ⁽¹⁾	Results Samples Collected 05/19/05 and 05/20/05			
		010SB01 05/20/05	010SB02 05/20/05	010SB03 05/19/05	010SB14 05/20/05
Volatile Organic Compounds Analyzed by EPA Method 8260B (mg/kg)					
Benzene	0.007	ND	ND	ND	ND
Ethylbenzene	1.15	ND	ND	ND	ND
Naphthalene	0.036	ND	ND	ND	ND
Toluene	1.45	ND	ND	ND	ND
Xylenes, Total	14.5	ND	ND	ND	ND
Semivolatile Organic Compounds Analyzed by EPA Method 8270C (mg/kg)					
Benzo(a)anthracene	0.066	ND	ND	ND	ND
Benzo(b)fluoranthene	0.066	ND	ND	ND	ND
Benzo(k)fluoranthene	0.066	ND	ND	ND	ND
Chrysene	0.066	ND	ND	ND	ND
Dibenz(a,h)anthracene	0.066	ND	ND	ND	ND

Notes:

⁽¹⁾ South Carolina Risk-Based Screening Levels from the Quality Assurance Program Plan for the Underground Storage Tank Management Division, Revision 1.0 (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 C.

RBSL - Risk-Based Screening Level

SCDHEC - South Carolina Department Of Health and Environmental Control

Table 4
Laboratory Analytical Results - Groundwater - Tier 2 Assessment
21 Bay Circle (Formerly 10 Bay Circle)
Laurel Bay Military Housing Area
Marine Corps Air Station Beaufort
Beaufort, South Carolina

Constituent	SCDHEC RBSLs ⁽¹⁾	Site-Specific Groundwater VISLs (µg/L) ⁽²⁾	Results Sample Collected 05/23/05			
			10TMW01	10TMW02	10TMW03	10TMW14
Volatile Organic Compounds Analyzed by EPA Method 8260B (µg/L)						
Benzene	5	16.24	ND	ND	ND	ND
Ethylbenzene	700	45.95	ND	ND	ND	ND
Naphthalene	25	29.33	ND	ND	ND	ND
Toluene	1,000	105,445	ND	ND	ND	ND
Xylenes, Total	10,000	2,133	ND	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 1.0 (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 1×10^{-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

Appendix A
Multi-Media Selection Process for LBMH



Appendix A - Multi-Media Selection Process for LBMH

Appendix B
UST Assessment Report

ASSESSMENT REPORT

LAURAL BAY HOUSING AREA, # 10-LAURAL BAY
MARINE CORPS AIR STATION, BEAUFORT, SOUTH CAROLINA

Prepared for:



Naval Facilities Engineering Command
North Charleston, South Carolina

Contract Number
N62467-04-M-0113

Prepared By:

ADVENT Environmental, Inc.
498 Wando Park Blvd.
Suite 500
Mt. Pleasant SC 29464

A handwritten signature in black ink, appearing to read "BRC".

Brian R. Crawford, R.E.M
Project Manager

A handwritten signature in black ink, appearing to read "Jeffery C. Smoak".

Jeffery C. Smoak, P.E.
Principal

August 2004
ADVENT 04-515

RECEIVED

SEP 13 2004

Water Monitoring, Assessment &
Protection Division

Executive Summary

The initial Statement of Work was to remove one Underground Storage Tank (UST) at 10 Bay Circle in the Laurel Bay Housing Area at the Marine Corps Air Station in Beaufort, South Carolina. While onsite performing the UST removal two additional USTs were found in relation to the site. A NAVFAC Southern Division representative was onsite and approved the removal of the two additional USTs.

The three USTs along with the contaminated soils were removed and disposed of (see assessment report). During the tank removals a total of nine (9) soil samples and one (1) ground-water sample were collected from the three excavated areas. Samples were sent to a certified laboratory and tested for constituents as required by the South Carolina Department of Health and Environmental Control (DHEC) guidance document dated March 15, 2000. PPE, plastic debris, and decon water were stored in 55 gallon drums. Contaminated soils generated during the excavation were stored in two 20 yard dumpsters. The IDW was stored temporarily on site until characterization of the material was completed after which it was transported by Cannon Containers and disposed of at Oakridge Landfill.

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



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

I. OWNERSHIP OF UST(S)

Marine Corp Air Station		
Owner Name (Corporation, Individual, Public Agency, Other)		
Bldg 601 2nd Floor Geiger Blvd MCAS		
Mailing Address		
Beaufort	South Carolina	29904-5001
City	State	Zip Code
843	228-7317	Alice Howard
Area Code	Telephone Number	Contact Person

II. SITE IDENTIFICATION AND LOCATION

Permit ID. #	Laural Bay Housing- MCAS Beaufort, SC
Facility Name or Company Site Identifier	
10 Laural Bay Circle	
Street Address or State Road (as applicable)	
Beaufort	Beaufort
City	County

III. CLOSURE INFORMATION

May 4, 2004	May 6, 2004	Three (3)
Closure Started	Closure Completed	Number of USTs Closed
ADVENT Environmental, Inc		
Consultant	UST Removal Contractor	

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 these individuals responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete.	
Name (Type or print)	Alice G. Howard
Signature	<i>Alice G. Howard</i>

V. UST INFORMATION

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

Tank 1	Tank 2	Tank 3	Tank 4	Tank 5	Tank 6
heating oil	heating oil	heating oil			
280 Gal	280 Gal	280 Gal			
> 40	> 40	> 40			
steel	steel	steel			
N/A	N/A	N/A			
5.5 ft	5.0 ft	6.5 ft			
no	no	no			
no	no	no			
re-moval	re-moval	re-moval			
5/6/04	5/6/04	5/6/04			
yes	yes	yes			
yes	yes	yes			

- M. Method of disposal for any USTs removed from the ground (attach disposal manifests)
Tanks were cut up and cleaned for scrap metal. All metal was sent to Charleston

steel and metal company. (see manifest)

- N. Method of disposal for any liquid petroleum, sludges, or waste waters removed from the USTs (attach disposal manifests)

All oily water found in the tanks were removed by a vacuum truck and

disposed (see manifest)

- O. If any corrosion, pitting, or holes were observed, describe the location and extent for each UST
All three USTs had visual corrosion and pitting located on the body of the tanks (See photos)

VIII. SITE CONDITIONS

	Yes	No	Unk
<p>A. Were any petroleum-stained or contaminated soils found in the UST excavation, soil borings, trenches, or monitoring wells?</p> <p>If yes, indicate depth and location on the site map.</p>	X		
<p>B. Were any petroleum odors detected in the excavation, soil borings, trenches, or monitoring wells?</p> <p>If yes, indicate location on site map and describe the odor (strong, mild, etc.) Mild odor in Excavations</p>	X		
<p>C. Was water present in the UST excavation, soil borings, or trenches?</p> <p>If yes, how far below land surface (indicate location and depth)? Note: Ground water was removed at 6 ft in excavation from ust 2</p>	X		
<p>D. Did contaminated soils remain stockpiled on site after closure?</p> <p>If yes, indicate the stockpile location on the site map.</p> <p>Name of DHEC representative authorizing soil removal:</p>		X	
<p>E. Was a petroleum sheen or free product detected on any excavation or boring waters?</p> <p>If yes, indicate location and thickness.</p>		X	

IX. SAMPLE INFORMATION

A. SCDHEC Lab Certification Number:

B.

SAMPLE #	LOCATION	SAMPLE TYPE (SOIL/WATER)	SOIL TYPE (SAND/CLAY)	DEPTH*	DATE/TIME OF COLLECTION	COLLECTED BY	OVA #
UST 1-1		Soil	sand	6.5	5-4-04/ 1647	LNF	0.0
UST 1-2		Soil	sand	6.5	5-4-04/ 1700	LNF	0.0
UST 1-3		Soil	sand	6.5	5-4-04/ 1715	LNF	0.0
UST 2-1		water	n/a	6.0	5-5-04/ 1230	LNF	0.0
UST 2-1		Soil	sand	6.0	5-6-04/ 1400	LNF	0.0
UST 2-2		Soil	sand	5.5	5-6-04/ 1415	LNF	0.0
UST 2-3		Soil	sand	6.0	5-6-04/ 1435	LNF	0.0
UST 2-4		Soil	sand	6.0	5-6-04/ 1445	LNF	0.0
UST 3-1		Soil	sand	6.0	5-6-04/ 1505	LNF	0.0
UST 3-2		Soil	sand	6.0	5-6-04/ 1520	LNF	0.0

* Depth Below Surrounding Land Surface (bls)

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.

Soil samples were collected using "grab method" and stored at 4 C using ice.
Groundwater samples were collected using Bailers and stored at 4 C using ice.

Methods: Soil: BTEX-8260; Naphthalene 8260; PAH 8270

Methods Water: BTEX-8260; Naphthalene-8260; PAH-8270; MtBE-8260

XI. RECEPTORS

	Yes	No
<p>A. Are there any lakes, ponds, streams, or wetlands located within 1000 feet of the UST system?</p> <p>If yes, indicate type of receptor, distance, and direction on site map. See Site Map</p>	X	
<p>B. Are there any public, private, or irrigation water supply wells within 1000 feet of the UST system?</p> <p>If yes, indicate type of well, distance, and direction on site map.</p>		X
<p>C. Are there any underground structures (e.g., basements) Located within 100 feet of the UST system?</p> <p>If yes, indicate type of structure, distance, and direction on site map.</p>		X
<p>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?</p> <p>If yes, indicate the type of utility, distance, and direction on the site map.</p>	X	
<p>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?</p> <p>If yes, indicate the area of contaminated soil on the site map.</p>		X



Start of excavation



Removal of UST 1



Tank with visual pitting



Tank 2 being removed



Tank 2



Tank 3

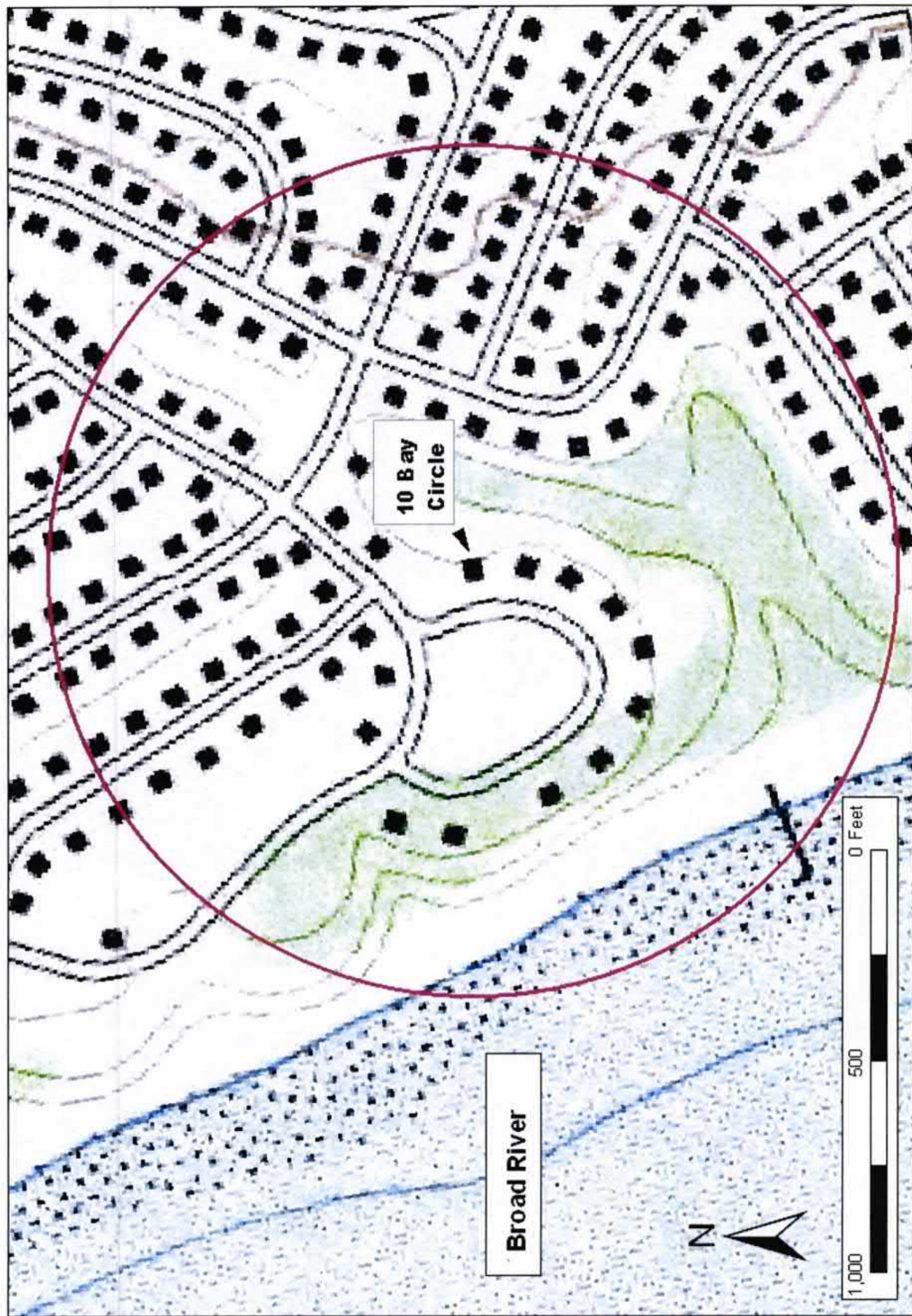


Excavated soil containment

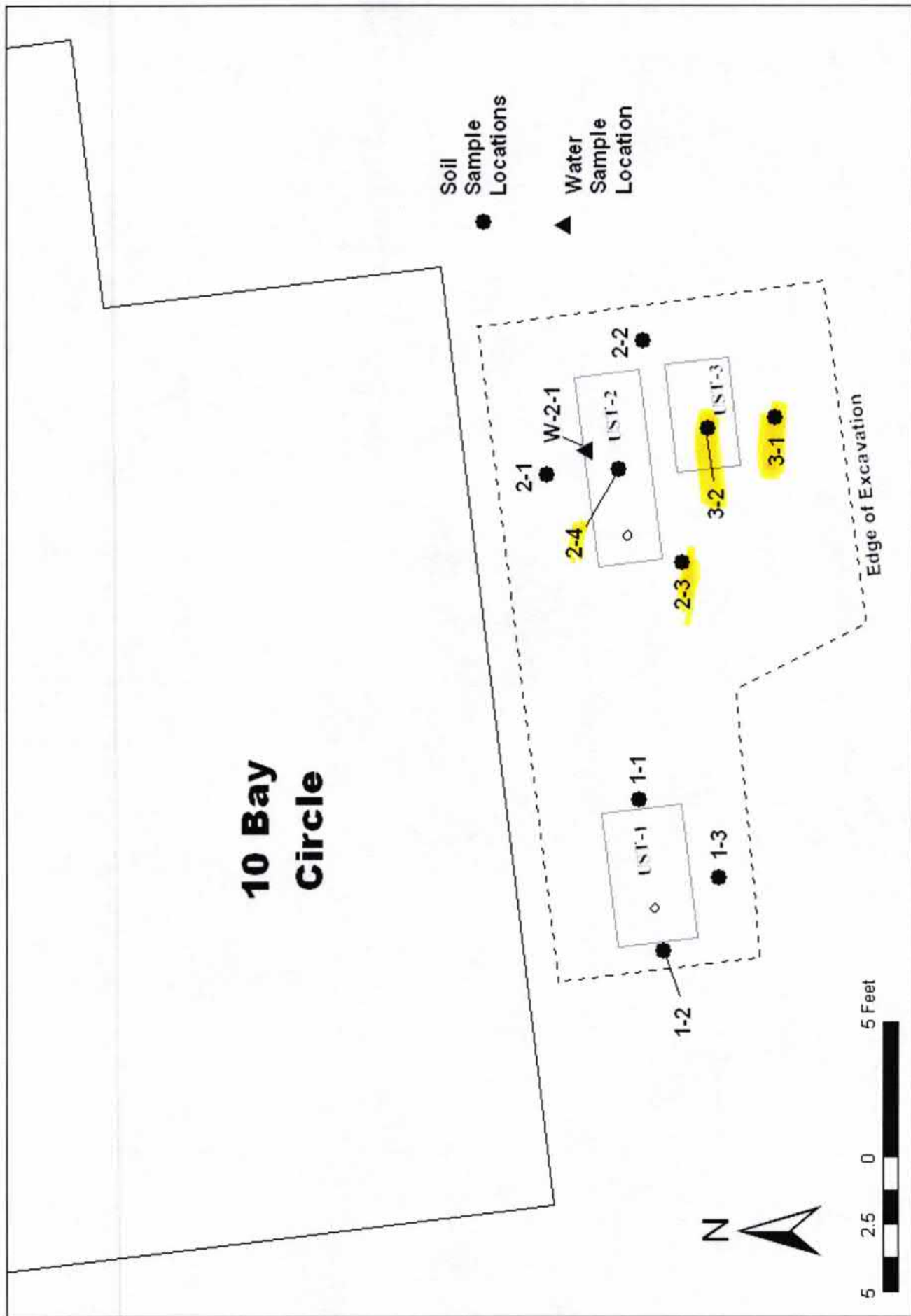


Fill dirt being spread over the excavation areas.

10 Bay Circle - MCAS Beaufort, SC



UST and Sample Locations 10 Bay Circle - MCAS Beaufort, SC



Water Recovery

Non-Hazardous Wastewater Manifest

Number: 246

1. Generator's EPA ID# (if applicable):

Waste ID Number:

2. Generator's Name and Mailing Address:

Office
MCAS Beaufort (Laurel Bay)
PO Box 55001
MCAS
Beaufort, S.C.

Phone (843) 838-7539 (74 line)

P O #:

3. Agent of Generator and Mailing Address:

Phone ()

P O #:

4. Transporter Company Name:

Ferris

Phone ()

Truck & Trailer License Number:

5. Transporter U.S. EPA ID#:

6. Facility Name and Site Address:

U S Water Recovery
435 Old Mt. Holly Rd.
Mt. Holly, SC 29445

Phone: (843) 797-8674

Fax: (843) 797-2126

Mailing Address:

U S Water Recovery
P O Box 70397
North Charleston, SC 29415

Phone: (843) 744-0118

Fax (843) 744-0730

7. Facility U.S. EPA ID#:

Start Level:

End Level:

Total Gallons:

Tank Number

500 gal.

1

8. U.S. DOT Description

Container
No. Type

Unit
LB

Quantity

1. Non-Hazardous, non-regulated waste water

001

TT

~~LB~~

5700 LB

5700 gal. 500

500 gal. 500

9. Generator's Certification: I hereby declare that the contents of this consignment are not hazardous by definition or listing and are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and the laws of the State of South Carolina. I further certify that the contents of this consignment are as represented by the description contained on the Waste Profile Form previously submitted to and approved by the Designated Facility.

Printed/Typed Name:

Signature:

Date:

Charles H. Heiron

Charles H. Heiron

5/4/04

10. Transporter Acknowledgement of Receipt of Materials

Printed/Typed Name:

Signature:

Date:

Steve Crum

[Signature]

5-4-04

11. Discrepancy Indication space:

12. Facility Owner or Operator: Certification of Receipt of Materials

Printed/Typed Name:

Signature:

Date:

Mark [Signature]

[Signature]

5/4/04

White - Facility

Yellow - Transporter

Pink - Generator



South Carolina Department of Health and Environmental Control

Bureau of Solid & Hazardous Waste Mgt.
2600 Bull Street, Columbia, SC 29211
Phone: (803) 896-4000
Emergency & Holidays: (803) 253-1148

PLEASE PRINT or TYPE

(Form designed for use on elite (12-pitch) typewriter)

Form Approved, OMB No. 2050-0039 Expires 9-30-99

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's U.S. EPA ID No. SC 2750216169	Manifest Document No. 07718	2. Page 1 of 1	Information in the shaded areas is not required by Federal law, but is by State law.
3. Generator's Name and Mailing Address MCAS BEAUFORT BEAUFORT, SC. 29904		4. Generator's Phone 843-388-1851		5. State (Mandatory Document Number)	
5. Transporter 1 Company Name TRANSGLOBAL		6. U.S. EPA ID Number SC 0000075515		7. State (Mandatory Document Number)	
7. Transporter 2 Company Name		8. U.S. EPA ID Number		8. State (Mandatory Document Number)	
9. Designated Facility Name and Site Address SOUTHEASTERN CHEMICAL & SOLVENT CO. 755 INDUSTRIAL ROAD, SUMTER, SC, 29150		10. U.S. EPA ID Number SC 0036275626		9. State (Mandatory Document Number)	
11. U.S. DoI Description (including Proper Shipping Name, Hazard Class, and ID Number)		12. Containers No. Type		13. Total Quantity	14. Unit Wt/Vol
a. DECON WATER NON HAZARDOUS NON REGULATED 70905		1 DF		455 P	REG
b. PPE AND DEBRIS NON HAZARDOUS NON REGULATED 70904		1 DM		300 P	REG
c.					
d.					
15. Special Handling Instructions and Additional Information Send CD to Global 24 Hour Emergency: Global's Chemtel: 1-800-255-3924 Non Emergency: Global, 1-843-583-8818 and LARRY FOWLER, (843) 388-1851		Public reporting burden for this collection of information is estimated to average: 37 minutes for generators, 15 minutes for transporters, and 10 minutes for waste management and disposal facilities. This includes time for reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding this burden estimate, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-222, U.S. Environmental Protection Agency, 401 M St., S.W., Washington, D.C. 20460, and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503.			
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and the laws of the State of South Carolina. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment. OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.					
Printed/Typed Name W. G. Duke, Jr.		Signature <i>[Signature]</i>		Month Day Year 06 21 04	
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Type Name Tommy McMillan		Signature <i>[Signature]</i>		Month Day Year 06 21 04	
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name		Signature		Month Day Year	
19. Discrepancy Indication Space		a. [] lbs. c. [] lbs. b. [] lbs. d. [] lbs.			
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 18. Printed/Typed Name		Signature		Month Day Year	



OAKRIDGE LANDFILL
A WASTE MANAGEMENT COMPANY

SPECIAL WASTE MANIFEST

Approval # VB3852
Expiration 05/27/05

Generator: MCAS BEAUFORT

Account Number: 490-429

Location/Address: POB 65001 BEAUFORT SC (07)

Tele Number: 843-277-2800 Contact: WILL SNEED

Generator Signature: Charles H. Hen
June 9, 2004

***** TO BE COMPLETED BY TRANSPORTER *****

Transporter of Waste: CANNON CONTAINER Truck: 29Date: 6/9/04Driver's Signature: [Signature]

***** TO BE COMPLETED BY OAKRIDGE LANDFILL *****

Disposal Site: Oakridge Landfill DWP 130

Description of Waste: SOL/SOIL

Ticket Number: 20000Tonnage: 8109Received By: [Signature]Date: 6/15/04

Scale Ticket
CHARLESTON STEEL & METAL CO.
 Since 1893
PLANT LOCATIONS 78251
 107 Brigade Street Hwy. 52 N. Mt. Holly
 727-7278 722-1340, 761-3161
 P.O. Box 814
 Charleston, S.C. 29402

Scale Ticket
CHARLESTON STEEL & METAL CO.
 Since 1893
PLANT LOCATIONS 75637
 107 Brigade Street Hwy. 52 N. Mt. Holly
 722-7278 722-1340, 761-3161
 P.O. Box 814
 Charleston, S.C. 29402

5-13-04
 498 WANDO PK Blvd.
 MT. PLEASANT

TIN	STEEL	CAST IRON
GROSS	4380	GROSS
TARE	4060	TARE
NET	320	NET

Radiators		
Brass		
Copper		9.60
Insulated Copper		
Alum. & Copper		
Clean Alum.		
Irony Alum.		
Alum. Cans		
Lead		
Stainless Steel		
Total		9.60

Check # _____ Total _____
 SC/Fed ID # _____

THE UNDERSIGNED REPRESENTS TO AND COVENANTS AND AGREES WITH THE BUYER THAT HE IS THE LAWFUL OWNER OF THE ABOVE DESCRIBED MERCHANDISE: THAT THE SAME IS FREE FROM ALL INCUMBRANCES. THAT THE UNDERSIGNED WILL WARRANT AND DEFEND THE TITLE OF THE SAID PROPERTY.

Received Payment: _____ Weighed By: _____

5-13-04
 Name James Weeg
 Address 498 WANDO PK Blvd.
 MT. PLEASANT

TIN	STEEL	CAST IRON
GROSS	4440	GROSS
TARE	4120	TARE
NET	320	NET

Radiators		
Brass		
Copper		8.00
Insulated Copper		
Alum. & Copper		
Clean Alum.		
Irony Alum.		
Alum. Cans		
Lead		
Stainless Steel		
Total		8.00

Check # _____ Total _____
 SC/Fed ID # _____

THE UNDERSIGNED REPRESENTS TO AND COVENANTS AND AGREES WITH THE BUYER THAT HE IS THE LAWFUL OWNER OF THE ABOVE DESCRIBED MERCHANDISE: THAT THE SAME IS FREE FROM ALL INCUMBRANCES. THAT THE UNDERSIGNED WILL WARRANT AND DEFEND THE TITLE OF THE SAID PROPERTY.

Received Payment: _____ Weighed By: _____

SOIL CONSULTANTS, INC.

Table 1: Summary of Soil and Groundwater Sample Analytical Data
10 Laurel Bay MCAS Beaufort

Soil Results

Constituents	UST1-1 5/4/2004		UST1-2 5/4/2004		UST1-3 5/4/2004		UST2-1 5/6/2004		UST2-2 5/6/2004		UST2-3 5/6/2004		UST2-4 5/6/2004		UST3-1 5/6/2004		UST3-2 5/6/2004	
	Result	Detection Limit	Result	Detection Limit	Result	Detection Limit	Result	Detection Limit	Result	Detection Limit	Result	Detection Limit	Result	Detection Limit	Result	Detection Limit	Result	Detection Limit
Volatile Organic Compounds																		
Method 8260	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Benzene	ND	5.7	ND	5.5	ND	5.2	ND	4.9	ND	4.9	ND	5.0	ND	4.8	ND	4.6	ND	4.1
Toluene	ND	5.7	ND	5.5	ND	5.2	ND	4.9	ND	4.9	ND	5.0	ND	4.8	ND	4.6	ND	4.1
Ethylbenzene	ND	5.7	ND	5.5	ND	5.2	ND	4.9	ND	4.9	ND	5.0	ND	4.8	ND	4.6	ND	1000
m,p-Xylene	ND	11	ND	11	ND	10	ND	9.7	ND	9.7	ND	10.0	ND	9.6	ND	9.3	ND	8.2
o-Xylene	ND	5.7	ND	5.5	ND	5.2	ND	4.9	ND	4.9	ND	5.0	ND	4.8	ND	4.6	ND	4.1
Naphthalene	24	5.7	ND	5.5	ND	5.2	66	4.9	110	4.9	6600	1300	80.0	4.8	820	4.6	25000	1000
Semi-Volatile Organic Compounds																		
Method 8270	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)
Benz(a)anthracene	ND	400	ND	410	ND	410	ND	400	ND	400	ND	410	ND	400	ND	390	ND	400
Benz(b)fluoranthene	ND	400	ND	410	ND	410	ND	400	ND	400	ND	410	ND	400	ND	390	ND	400
Benz(k)fluoranthene	ND	400	ND	410	ND	410	ND	400	ND	400	ND	410	ND	400	ND	390	ND	400
Chrysene	ND	400	ND	410	ND	410	ND	400	ND	400	ND	410	ND	400	ND	390	ND	400
Dibenz(a,h)anthracene	ND	400	ND	410	ND	410	ND	400	ND	400	ND	410	ND	400	ND	390	ND	400

Groundwater Results

Constituents	UST2-1 5/5/2004	
	Result	Detection Limit
Volatile Organic Compounds		
Method 8260	(ug/l)	(ug/l)
Benzene	ND	1.0
Toluene	ND	1.0
Ethylbenzene	ND	1.0
m,p-Xylene	ND	2.0
o-Xylene	ND	1.0
Naphthalene	5.3	1.0
Semi-Volatile Organic Compounds		
Method 8270	(ug/l)	(ug/l)
Benz(a)anthracene	ND	11
Benz(b)fluoranthene	ND	11
Benz(k)fluoranthene	ND	11
Chrysene	ND	11
Dibenz(a,h)anthracene	ND	11

Lab Project Number: 9266760
Client Project ID: MCAS Beauford 04-515

Solid results are reported on a dry weight basis

Lab Sample No: 924217334 Project Sample Number: 9266760-001 Date Collected: 05/04/04 16:47
Client Sample ID: LAUREL BAY 10 UST1-1 Matrix: Soil Date Received: 05/08/04 09:10

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
------------	---------	-------	--------------	----	----------	----	---------	------	--------

Wet Chemistry

Percent Moisture	Method: % Moisture				1.0	05/10/04 10:34	EDF		
Percent Moisture	17.8	%							

GC/MS Semivolatiles

Semivolatile Organics	Prep/Method: EPA 3545 / EPA 8270								
Benzo(a)anthracene	ND	ug/kg	400		1.2	05/15/04 01:34	BET	56-55-3	
Benzo(b)fluoranthene	ND	ug/kg	400		1.2	05/15/04 01:34	BET	205-99-2	
Benzo(k)fluoranthene	ND	ug/kg	400		1.2	05/15/04 01:34	BET	207-08-9	
Chrysene	ND	ug/kg	400		1.2	05/15/04 01:34	BET	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	400		1.2	05/15/04 01:34	BET	53-70-3	
Nitrobenzene-d5 (S)	54	%			1.0	05/15/04 01:34	BET	4165-60-0	
2-Fluorobiphenyl (S)	51	%			1.0	05/15/04 01:34	BET	321-60-8	
Terphenyl-d14 (S)	83	%			1.0	05/15/04 01:34	BET	1718-51-0	
Phenol-d5 (S)	54	%			1.0	05/15/04 01:34	BET	4165-62-2	
2-Fluorophenol (S)	48	%			1.0	05/15/04 01:34	BET	367-12-4	
2,4,6-Tribromophenol (S)	67	%			1.0	05/15/04 01:34	BET		
Date Extracted	05/12/04					05/12/04			

GC/MS Volatiles

GC/MS VOCs 5035/B260 low level	Method: EPA 8260								
Benzene	ND	ug/kg	5.7		1.1	05/16/04 04:21	RWS	71-43-2	
Ethylbenzene	ND	ug/kg	5.7		1.1	05/16/04 04:21	RWS	100-41-4	
Naphthalene	24.	ug/kg	5.7		1.1	05/16/04 04:21	RWS	91-20-3	
Toluene	ND	ug/kg	5.7		1.1	05/16/04 04:21	RWS	108-88-3	
m&p-Xylene	ND	ug/kg	11.		1.1	05/16/04 04:21	RWS		
o-Xylene	ND	ug/kg	5.7		1.1	05/16/04 04:21	RWS	95-47-6	
Toluene-d8 (S)	94	%			1.0	05/16/04 04:21	RWS	2037-26-5	
4-Bromofluorobenzene (S)	90	%			1.0	05/16/04 04:21	RWS	460-00-4	
Dibromofluoromethane (S)	99	%			1.0	05/16/04 04:21	RWS	1868-53-7	
1,2-Dichloroethane-d4 (S)	89	%			1.0	05/16/04 04:21	RWS	17060-07-0	

Date: 05/21/04

Page: 1 of 24

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environmental 99030
FL NELAP E87648



Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627



Pace Analytical Services, Inc.
9800 Kinney Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Lab Project Number: 9266760
Client Project ID: MCAS Beauford 04-515

Lab Sample No: 924217342 Project Sample Number: 9266760-002 Date Collected: 05/04/04 17:00
Client Sample ID: LAUREL BAY 10 UST1-2 Matrix: Soil Date Received: 05/08/04 09:10

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
------------	---------	-------	--------------	----	----------	----	---------	------	--------

Wet Chemistry

Percent Moisture	Method: % Moisture				1.0	05/10/04 10:34	EDF		
Percent Moisture	19.1	%							

GC/MS Semivolatiles

Semivolatile Organics	Prep/Method: EPA 3545 / EPA 8270								
Benzo(a)anthracene	ND	ug/kg	410	1.2	05/15/04 02:11	BET	56-55-3		
Benzo(b)fluoranthene	ND	ug/kg	410	1.2	05/15/04 02:11	BET	205-99-2		
Benzo(k)fluoranthene	ND	ug/kg	410	1.2	05/15/04 02:11	BET	207-08-9		
Chrysene	ND	ug/kg	410	1.2	05/15/04 02:11	BET	218-01-9		
Dibenz(a,h)anthracene	ND	ug/kg	410	1.2	05/15/04 02:11	BET	53-70-3		
Nitrobenzene-d5 (S)	51	%		1.0	05/15/04 02:11	BET	4165-60-0		
2-Fluorobiphenyl (S)	49	%		1.0	05/15/04 02:11	BET	321-60-8		
Terphenyl-d14 (S)	82	%		1.0	05/15/04 02:11	BET	1718-51-0		
Phenol-d5 (S)	51	%		1.0	05/15/04 02:11	BET	4165-62-2		
2-Fluorophenol (S)	47	%		1.0	05/15/04 02:11	BET	367-12-4		
2,4,6-Tribromophenol (S)	58	%		1.0	05/15/04 02:11	BET			
Date Extracted	05/12/04				05/12/04				

GC/MS Volatiles

GC/MS VOCs 5035/8260 low level	Method: EPA 8260								
Benzene	ND	ug/kg	5.5	1.1	05/16/04 04:39	RWS	71-43-2		
Ethylbenzene	ND	ug/kg	5.5	1.1	05/16/04 04:39	RWS	100-41-4		
Naphthalene	ND	ug/kg	5.5	1.1	05/16/04 04:39	RWS	91-20-3		
Toluene	ND	ug/kg	5.5	1.1	05/16/04 04:39	RWS	108-88-3		
m&p-Xylene	ND	ug/kg	11.	1.1	05/16/04 04:39	RWS			
o-Xylene	ND	ug/kg	5.5	1.1	05/16/04 04:39	RWS	95-47-6		
Toluene-d8 (S)	101	%		1.0	05/16/04 04:39	RWS	2037-26-5		
4-Bromofluorobenzene (S)	99	%		1.0	05/16/04 04:39	RWS	460-00-4		
Dibromofluoromethane (S)	103	%		1.0	05/16/04 04:39	RWS	1868-53-7		
1,2-Dichloroethane-d4 (S)	89	%		1.0	05/16/04 04:39	RWS	17060-07-0		

Date: 05/21/04

Page: 2 of 24

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environmental 99030
FL NELAP E87648



Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627

Lab Project Number: 9266760
Client Project ID: MCAS Beauford 04-515

Lab Sample No: 924217359 Project Sample Number: 9266760-003 Date Collected: 05/04/04 17:15
Client Sample ID: LAUREL BAY 10 UST1-3 Matrix: Soil Date Received: 05/08/04 09:10

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
Wet Chemistry									
Percent Moisture	Method: % Moisture				1.0	05/10/04 11:23	EDF		
Percent Moisture	19.5	%							

GC/MS Semivolatiles

Semivolatile Organics	Prep/Method: EPA 3545 / EPA 8270	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
Benzo(a)anthracene	ND	ug/kg	410		1.2	05/15/04 02:49	BET	56-55-3		
Benzo(b)fluoranthene	ND	ug/kg	410		1.2	05/15/04 02:49	BET	205-99-2		
Benzo(k)fluoranthene	ND	ug/kg	410		1.2	05/15/04 02:49	BET	207-08-9		
Chrysene	ND	ug/kg	410		1.2	05/15/04 02:49	BET	218-01-9		
Dibenz(a,h)anthracene	ND	ug/kg	410		1.2	05/15/04 02:49	BET	53-70-3		
Nitrobenzene-d5 (S)	58	%			1.0	05/15/04 02:49	BET	4165-60-0		
2-Fluorobiphenyl (S)	63	%			1.0	05/15/04 02:49	BET	321-60-8		
Terphenyl-d14 (S)	87	%			1.0	05/15/04 02:49	BET	1718-51-0		
Phenol-d5 (S)	56	%			1.0	05/15/04 02:49	BET	4165-62-2		
2-Fluorophenol (S)	52	%			1.0	05/15/04 02:49	BET	367-12-4		
2,4,6-Tribromophenol (S)	65	%			1.0	05/15/04 02:49	BET			
Date Extracted	05/12/04					05/12/04				

GC/MS Volatiles

GC/MS VOCs 5035/8260 low level	Method: EPA 8260	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
Benzene	ND	ug/kg	5.2		1.0	05/17/04 19:34	RWS	71-43-2		
Ethylbenzene	ND	ug/kg	5.2		1.0	05/17/04 19:34	RWS	100-41-4		
Naphthalene	ND	ug/kg	5.2		1.0	05/17/04 19:34	RWS	91-20-3		
Toluene	ND	ug/kg	5.2		1.0	05/17/04 19:34	RWS	108-88-3		
m&p-Xylene	ND	ug/kg	10.		1.0	05/17/04 19:34	RWS			
o-Xylene	ND	ug/kg	5.2		1.0	05/17/04 19:34	RWS	95-47-6		
Toluene-d8 (S)	103	%			1.0	05/17/04 19:34	RWS	2037-26-5		
4-Bromofluorobenzene (S)	96	%			1.0	05/17/04 19:34	RWS	460-00-4		
Dibromofluoromethane (S)	109	%			1.0	05/17/04 19:34	RWS	1868-53-7		
1,2-Dichloroethane-d4 (S)	114	%			1.0	05/17/04 19:34	RWS	17060-07-0		

Date: 05/21/04

Page: 3 of 24

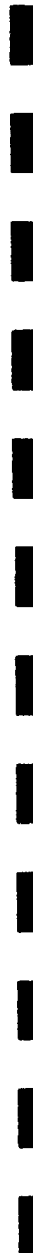
REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environmental 99030
FL NELAP E87648



Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627



Lab Project Number: 9266760
Client Project ID: MCAS Beauford 04-515

Lab Sample No: 924217375 Project Sample Number: 9266760-005 Date Collected: 05/05/04 12:30
Client Sample ID: LAUREL BAY 10 UST2-1 Matrix: Water Date Received: 05/08/04 09:10

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	ReqLmt
GC/MS Semivolatiles									
Semivolatile Organics	Prep/Method: EPA 3510 / EPA 8270								
Benzo(a)anthracene	ND	ug/l	11.		1.1 05/14/04 23:04 BET		56-55-3		
Benzo(b)fluoranthene	ND	ug/l	11.		1.1 05/14/04 23:04 BET		205-99-2		
Benzo(k)fluoranthene	ND	ug/l	11.		1.1 05/14/04 23:04 BET		207-08-9		
Chrysene	ND	ug/l	11.		1.1 05/14/04 23:04 BET		218-01-9		
Dibenz(a,h)anthracene	ND	ug/l	11.		1.1 05/14/04 23:04 BET		53-70-3		
Nitrobenzene-d5 (S)	96	%			1.0 05/14/04 23:04 BET		4165-60-0		
2-Fluorobiphenyl (S)	70	%			1.0 05/14/04 23:04 BET		321-60-8		
Terphenyl-d14 (S)	62	%			1.0 05/14/04 23:04 BET		1718-51-0		
Date Extracted	05/12/04				05/12/04				

GC/MS Volatiles

GC/MS VOCs by 8260, Low level	Method: EPA 8260								
Benzene	ND	ug/l	1.0		1.0 05/17/04 13:06 BCK		71-43-2		
Ethylbenzene	ND	ug/l	1.0		1.0 05/17/04 13:06 BCK		100-41-4		
Methyl-tert-butyl ether	ND	ug/l	1.0		1.0 05/17/04 13:06 BCK		1634-04-4		
Naphthalene	5.3	ug/l	1.0		1.0 05/17/04 13:06 BCK		91-20-3		
Toluene	ND	ug/l	1.0		1.0 05/17/04 13:06 BCK		108-88-3		
m&p-Xylene	ND	ug/l	2.0		1.0 05/17/04 13:06 BCK				
o-Xylene	ND	ug/l	1.0		1.0 05/17/04 13:06 BCK		95-47-6		
Toluene-d8 (S)	96	%			1.0 05/17/04 13:06 BCK		2037-26-5		
4-Bromofluorobenzene (S)	96	%			1.0 05/17/04 13:06 BCK		460-00-4		
Dibromofluoromethane (S)	91	%			1.0 05/17/04 13:06 BCK		1868-53-7		
1,2-Dichloroethane-d4 (S)	93	%			1.0 05/17/04 13:06 BCK		17060-07-0		

Date: 05/21/04

Page: 4 of 24

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environmental 99030
FL NELAP E87648



Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627

Lab Project Number: 9266760
Client Project ID: MCAS Beauford 04-515

Lab Sample No: 924217383 Project Sample Number: 9266760-006 Date Collected: 05/06/04 14:00
Client Sample ID: LAUREL BAY 10 UST2-1 Matrix: Soil Date Received: 05/08/04 09:10

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
Wet Chemistry									
Percent Moisture	Method: % Moisture				1.0 05/10/04 11:24	EDF			
Percent Moisture	17.0	%							

GC/MS Semivolatiles

Semivolatile Organics	Prep/Method: EPA 3545 / EPA 8270								
Benzo(a)anthracene	ND	ug/kg	400		1.2 05/18/04 23:15	BET	56-55-3		
Benzo(b)fluoranthene	ND	ug/kg	400		1.2 05/18/04 23:15	BET	205-99-2		
Benzo(k)fluoranthene	ND	ug/kg	400		1.2 05/18/04 23:15	BET	207-08-9		
Chrysene	ND	ug/kg	400		1.2 05/18/04 23:15	BET	218-01-9		
Dibenz(a,h)anthracene	ND	ug/kg	400		1.2 05/18/04 23:15	BET	53-70-3		
Nitrobenzene-d5 (S)	54	%			1.0 05/18/04 23:15	BET	4165-60-0		
2-Fluorobiphenyl (S)	46	%			1.0 05/18/04 23:15	BET	321-60-8		
Terphenyl-d14 (S)	74	%			1.0 05/18/04 23:15	BET	1718-51-0		
Date Extracted	05/16/04				05/16/04				

GC/MS Volatiles

GC/MS VOCs 5035/8260 low level	Method: EPA 8260								
Benzene	ND	ug/kg	4.9		1.0 05/17/04 20:09	RWS	71-43-2		
Ethylbenzene	ND	ug/kg	4.9		1.0 05/17/04 20:09	RWS	100-41-4		
Naphthalene	66.	ug/kg	4.9		1.0 05/17/04 20:09	RWS	91-20-3		
Toluene	ND	ug/kg	4.9		1.0 05/17/04 20:09	RWS	108-88-3		
m&p-Xylene	ND	ug/kg	9.7		1.0 05/17/04 20:09	RWS			
o-Xylene	ND	ug/kg	4.9		1.0 05/17/04 20:09	RWS	95-47-6		
Toluene-d8 (S)	101	%			1.0 05/17/04 20:09	RWS	2037-26-5		
4-Bromofluorobenzene (S)	92	%			1.0 05/17/04 20:09	RWS	460-00-4		
Dibromofluoromethane (S)	110	%			1.0 05/17/04 20:09	RWS	1868-53-7		
1,2-Dichloroethane-d4 (S)	107	%			1.0 05/17/04 20:09	RWS	17060-07-0		

Date: 05/21/04

Page: 5 of 24

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environmental 99030
FL NELAP E87648



Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627



Pace Analytical Services, Inc.
 9800 Kinney Avenue, Suite 100
 Huntersville, NC 28078
 Phone: 704.875.9092
 Fax: 704.875.9091

Lab Project Number: 9266760
 Client Project ID: MCAS Beauford 04-515

Lab Sample No: 924217391 Project Sample Number: 9266760-007 Date Collected: 05/06/04 14:15
 Client Sample ID: LAUREL BAY 10 UST2-2 Matrix: Soil Date Received: 05/08/04 09:10

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	ReqLmt
Wet Chemistry									
Percent Moisture	Method: % Moisture				1.0 05/10/04 11:24	EDF			
Percent Moisture	18.5	%							

GC/MS Semivolatiles

Semivolatile Organics	Prep/Method: EPA 3545 / EPA 8270								
Benzo(a)anthracene	ND	ug/kg	400		1.2 05/19/04 01:01	BET	56-55-3		
Benzo(b)fluoranthene	ND	ug/kg	400		1.2 05/19/04 01:01	BET	205-99-2		
Benzo(k)fluoranthene	ND	ug/kg	400		1.2 05/19/04 01:01	BET	207-08-9		
Chrysene	ND	ug/kg	400		1.2 05/19/04 01:01	BET	218-01-9		
Dibenz(a,h)anthracene	ND	ug/kg	400		1.2 05/19/04 01:01	BET	53-70-3		
Nitrobenzene-d5 (S)	64	%			1.0 05/19/04 01:01	BET	4165-60-0		
2-Fluorobiphenyl (S)	50	%			1.0 05/19/04 01:01	BET	321-60-8		
Terphenyl-d14 (S)	75	%			1.0 05/19/04 01:01	BET	1718-51-0		
Date Extracted	05/16/04				05/16/04				

GC/MS Volatiles

GC/MS VOCs 5035/8260 low level	Method: EPA 8260								
Benzene	ND	ug/kg	4.9		1.0 05/16/04 06:22	RWS	71-43-2		
Ethylbenzene	31	ug/kg	4.9		1.0 05/16/04 06:22	RWS	100-41-4		
Naphthalene	110	ug/kg	4.9		1.0 05/16/04 06:22	RWS	91-20-3		
Toluene	ND	ug/kg	4.9		1.0 05/16/04 06:22	RWS	108-88-3		
m&p-Xylene	ND	ug/kg	9.7		1.0 05/16/04 06:22	RWS			
o-Xylene	ND	ug/kg	4.9		1.0 05/16/04 06:22	RWS	95-47-6		
Toluene-d8 (S)	97	%			1.0 05/16/04 06:22	RWS	2037-26-5		
4-Bromofluorobenzene (S)	91	%			1.0 05/16/04 06:22	RWS	460-00-4		
Dibromofluoromethane (S)	104	%			1.0 05/16/04 06:22	RWS	1868-53-7		
1,2-Dichloroethane-d4 (S)	95	%			1.0 05/16/04 06:22	RWS	17060-07-0		

Date: 05/21/04

Page: 6 of 24

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.

Asheville Certification IDs
 NC Wastewater 40
 NC Drinking Water 37712
 SC Environmental 99030
 FL NELAP E87648



Charlotte Certification IDs
 NC Wastewater 12
 NC Drinking Water 37706
 SC 99006
 FL NELAP E87627

Lab Project Number: 9266760
Client Project ID: MCAS Beauford 04-515

Lab Sample No: 924217409
Client Sample ID: LAUREL BAY 10 UST2-3

Project Sample Number: 9266760-008
Matrix: Soil

Date Collected: 05/06/04 14:35
Date Received: 05/08/04 09:10

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
Wet Chemistry									
Percent Moisture	Method: % Moisture				1.0 05/10/04 11:24	EDF			
Percent Moisture	18.6	%							

GC/MS Semivolatiles

Semivolatiles Organics	Prep/Method: EPA 3545 / EPA 8270								
Benzo(a)anthracene	ND	ug/kg	410		1.2 05/19/04 02:12	BET	56-55-3		
Benzo(b)fluoranthene	ND	ug/kg	410		1.2 05/19/04 02:12	BET	205-99-2		
Benzo(k)fluoranthene	ND	ug/kg	410		1.2 05/19/04 02:12	BET	207-08-9		
Chrysene	ND	ug/kg	410		1.2 05/19/04 02:12	BET	218-01-9		
Dibenz(a,h)anthracene	ND	ug/kg	410		1.2 05/19/04 02:12	BET	53-70-3		
Nitrobenzene-d5 (S)	78	%			1.0 05/19/04 02:12	BET	4165-60-0		
2-Fluorobiphenyl (S)	81	%			1.0 05/19/04 02:12	BET	321-60-8		
Terphenyl-d14 (S)	87	%			1.0 05/19/04 02:12	BET	1718-51-0		
Date Extracted	05/16/04				05/16/04				

GC/MS Volatiles

GC/MS VOCs 5035/8260 low level	Method: EPA 8260								
Benzene	ND	ug/kg	5.0		1.0 05/16/04 07:48	RWS	71-43-2		
Ethylbenzene	180	ug/kg	5.0		1.0 05/16/04 07:48	RWS	100-41-4		
Naphthalene	6600	ug/kg	1300		251 05/16/04 07:48	RWS	91-20-3		
Toluene	ND	ug/kg	5.0		1.0 05/16/04 07:48	RWS	108-88-3		
m&p-Xylene	ND	ug/kg	10.		1.0 05/16/04 07:48	RWS			
o-Xylene	ND	ug/kg	5.0		1.0 05/16/04 07:48	RWS	95-47-6		
Toluene-d8 (S)	91	%			1.0 05/16/04 07:48	RWS	2037-26-5		
4-Bromofluorobenzene (S)	72	%			1.0 05/16/04 07:48	RWS	460-00-4	1	
Dibromofluoromethane (S)	128	%			1.0 05/16/04 07:48	RWS	1868-53-7	2	
1,2-Dichloroethane-d4 (S)	114	%			1.0 05/16/04 07:48	RWS	17060-07-0		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environmental 99030
FL NELAP E87648



Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627



Pace Analytical Services, Inc.
 9800 Kincey Avenue, Suite 100
 Huntersville, NC 28078
 Phone: 704.875.9092
 Fax: 704.875.9091

Lab Project Number: 9266760
 Client Project ID: MCAS Beauford 04-515

Lab Sample No: 924217417 Project Sample Number: 9266760-009 Date Collected: 05/06/04 14:45
 Client Sample ID: LAUREL BAY 10 UST2-4 Matrix: Soil Date Received: 05/08/04 09:10

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
------------	---------	-------	--------------	----	----------	----	---------	------	--------

Wet Chemistry

Percent Moisture	Method: % Moisture				1.0	05/10/04 11:24	EDF		
Percent Moisture	18.1	%							

GC/MS Semivolatiles

Semivolatile Organics	Prep/Method: EPA 3545 / EPA 8270						
Benzo(a)anthracene	ND	ug/kg	400	1.2	05/19/04 02:48	BET	56-55-3
Benzo(b)fluoranthene	ND	ug/kg	400	1.2	05/19/04 02:48	BET	205-99-2
Benzo(k)fluoranthene	ND	ug/kg	400	1.2	05/19/04 02:48	BET	207-08-9
Chrysene	ND	ug/kg	400	1.2	05/19/04 02:48	BET	218-01-9
Dibenz(a,h)anthracene	ND	ug/kg	400	1.2	05/19/04 02:48	BET	53-70-3
Nitrobenzene-d5 (S)	46	%		1.0	05/19/04 02:48	BET	4165-60-0
2-Fluorobiphenyl (S)	39	%		1.0	05/19/04 02:48	BET	321-60-8
Terphenyl-d14 (S)	68	%		1.0	05/19/04 02:48	BET	1718-51-0
Date Extracted	05/16/04				05/16/04		

GC/MS Volatiles

GC/MS VOCs 5035/8260 low level	Method: EPA 8260						
Benzene	ND	ug/kg	4.8	1.0	05/16/04 05:13	RWS	71-43-2
Ethylbenzene	ND	ug/kg	4.8	1.0	05/16/04 05:13	RWS	100-41-4
Naphthalene	80.	ug/kg	4.8	1.0	05/16/04 05:13	RWS	91-20-3
Toluene	ND	ug/kg	4.8	1.0	05/16/04 05:13	RWS	108-88-3
m&p-Xylene	ND	ug/kg	9.6	1.0	05/16/04 05:13	RWS	
o-Xylene	ND	ug/kg	4.8	1.0	05/16/04 05:13	RWS	95-47-6
Toluene-d8 (S)	93	%		1.0	05/16/04 05:13	RWS	2037-26-5
4-Bromofluorobenzene (S)	87	%		1.0	05/16/04 05:13	RWS	460-00-4
Dibromofluoromethane (S)	108	%		1.0	05/16/04 05:13	RWS	1868-53-7
1,2-Dichloroethane-d4 (S)	92	%		1.0	05/16/04 05:13	RWS	17060-07-0

Date: 05/21/04

Page: 8 of 24

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.



Asheville Certification IDs
 NC Wastewater 40
 NC Drinking Water 37712
 SC Environmental 99030
 FL NELAP E87648

Charlotte Certification IDs
 NC Wastewater 12
 NC Drinking Water 37706
 SC 99006
 FL NELAP E87627



Pace Analytical Services, Inc.
 9800 Kincey Avenue, Suite 100
 Huntersville, NC 28078
 Phone: 704.875.9092
 Fax: 704.875.9091

Lab Project Number: 9266760
 Client Project ID: MCAS Beauford 04-515

Lab Sample No: 924217425
 Client Sample ID: LAUREL BAY 10 UST3-1
 Project Sample Number: 9266760-010
 Matrix: Soil
 Date Collected: 05/06/04 15:05
 Date Received: 05/08/04 09:10

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	ReqLmt
Wet Chemistry									
Percent Moisture	Method: % Moisture				1.0 05/10/04 11:25	EDF			
Percent Moisture	16.4	%							

GC/MS Semivolatiles

Semivolatile Organics	Prep/Method: EPA 3545 / EPA 8270								
Benzo(a)anthracene	ND	ug/kg	390		1.2 05/19/04 03:23	BET	56-55-3		
Benzo(b)fluoranthene	ND	ug/kg	390		1.2 05/19/04 03:23	BET	205-99-2		
Benzo(k)fluoranthene	ND	ug/kg	390		1.2 05/19/04 03:23	BET	207-08-9		
Chrysene	ND	ug/kg	390		1.2 05/19/04 03:23	BET	218-01-9		
Dibenz(a,h)anthracene	ND	ug/kg	390		1.2 05/19/04 03:23	BET	53-70-3		
Nitrobenzene-d5 (S)	44	%			1.0 05/19/04 03:23	BET	4165-60-0		
2-Fluorobiphenyl (S)	48	%			1.0 05/19/04 03:23	BET	321-60-8		
Terphenyl-d14 (S)	75	%			1.0 05/19/04 03:23	BET	1718-51-0		
Date Extracted	05/16/04				05/16/04				

GC/MS Volatiles

GC/MS VOCs 5035/8260 low level	Method: EPA 8260								
Benzene	ND	ug/kg	4.6		0.9 05/16/04 05:30	RWS	71-43-2		
Ethylbenzene	130	ug/kg	4.6		0.9 05/16/04 05:30	RWS	100-41-4		
Naphthalene	820	ug/kg	4.6		0.9 05/16/04 05:30	RWS	91-20-3	3	
Toluene	ND	ug/kg	4.6		0.9 05/16/04 05:30	RWS	108-88-3		
m&p-Xylene	76	ug/kg	9.3		0.9 05/16/04 05:30	RWS			
o-Xylene	22	ug/kg	4.6		0.9 05/16/04 05:30	RWS	95-47-6		
Toluene-d8 (S)	93	%			1.0 05/16/04 05:30	RWS	2037-26-5		
4-Bromofluorobenzene (S)	86	%			1.0 05/16/04 05:30	RWS	460-00-4		
Dibromofluoromethane (S)	108	%			1.0 05/16/04 05:30	RWS	1868-53-7		
1,2-Dichloroethane-d4 (S)	93	%			1.0 05/16/04 05:30	RWS	17060-07-0		

Date: 05/21/04

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, Inc.



Asheville Certification IDs
 NC Wastewater 40
 NC Drinking Water 37712
 SC Environmental 99030
 FL NELAP E87648

Charlotte Certification IDs
 NC Wastewater 12
 NC Drinking Water 37706
 SC 99006
 FL NELAP E87627

Lab Project Number: 9266760
Client Project ID: MCAS Beauford 04-515

Lab Sample No: 924217433
Client Sample ID: LAUREL BAY 10 UST3-2
Project Sample Number: 9266760-011
Matrix: Soil
Date Collected: 05/06/04 15:20
Date Received: 05/08/04 09:10

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
------------	---------	-------	--------------	----	----------	----	---------	------	--------

Wet Chemistry

Percent Moisture
Percent Moisture

Method: % Moisture
17.4 %

1.0 05/10/04 11:25 EDF

GC/MS Semivolatiles

Semivolatile Organics

Benzo(a)anthracene
Benzo(b)fluoranthene
Benzo(k)fluoranthene
Chrysene

Prep/Method: EPA 3545 / EPA 8270

ND	ug/kg	400
ND	ug/kg	400
ND	ug/kg	400
ND	ug/kg	400
ND	ug/kg	400

1.2	05/19/04	03:59	BET	56-55-3
1.2	05/19/04	03:59	BET	205-99-2
1.2	05/19/04	03:59	BET	207-08-9
1.2	05/19/04	03:59	BET	218-01-9
1.2	05/19/04	03:59	BET	53-70-3
1.0	05/19/04	03:59	BET	4165-60-0
1.0	05/19/04	03:59	BET	321-60-8
1.0	05/19/04	03:59	BET	1718-51-0

Dibenz(a,h)anthracene

ND ug/kg 400

Nitrobenzene-d5 (S)

91 %

2-Fluorobiphenyl (S)

64 %

Terphenyl-d14 (S)

77 %

Date Extracted

05/16/04

05/16/04

GC/MS Volatiles

GC/MS VOCs 5035/8260 low level

Method: EPA 8260

Benzen	ND	ug/kg	4.1
Ethylbenzene	2700	ug/kg	1000
Naphthalene	25000	ug/kg	1000
Toluene	ND	ug/kg	4.1
m&p-Xylene	ND	ug/kg	8.2
o-Xylene	7.0	ug/kg	4.1
Toluene-d8 (S)	102	%	
4-Bromofluorobenzene (S)	58	%	
Dibromofluoromethane (S)	123	%	
1,2-Dichloroethane-d4 (S)	113	%	

0.8	05/16/04	05:48	RWS	71-43-2
205	05/16/04	05:48	RWS	100-41-4
205	05/16/04	05:48	RWS	91-20-3
0.8	05/16/04	05:48	RWS	108-88-3
0.8	05/16/04	05:48	RWS	
0.8	05/16/04	05:48	RWS	95-47-6
1.0	05/16/04	05:48	RWS	2037-26-5
1.0	05/16/04	05:48	RWS	460-00-4
1.0	05/16/04	05:48	RWS	1868-53-7
1.0	05/16/04	05:48	RWS	17060-07-0

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Asheville Certification IDs

NC Wastewater	40
NC Drinking Water	37712
SC Environmental	99030
FL NELAP	E87648

Charlotte Certification IDs

NC Wastewater	12
NC Drinking Water	37706
SC	99006
FL NELAP	E87627

PARAMETER FOOTNOTES

Dilution factor shown represents the factor applied to the reported result and reporting limit due to changes in sample preparation, dilution of the extract, or moisture content

Inorganic Wet Chemistry and Metals Analyses were performed at our Pace Asheville laboratory and Organic testing was performed at our Pace Charlotte laboratory unless otherwise footnoted.

Method 9071B modified to use ASE.

All pH, Free Chlorine, Total Chlorine and Ferrous Iron analyses conducted outside of EPA recommended immediate hold time.

ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
(S)	Surrogate
[1]	Low surrogate recovery was confirmed as a matrix effect by a second analysis.
[2]	High surrogate recovery was confirmed as a matrix effect by a second analysis.
[3]	Compound concentration exceeds the calibration range of the instrument (CLP E-Flag).

Date: 05/21/04

Page: 11 of 24

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environmental 99030
FL NELAP E87648



Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627

QUALITY CONTROL DATA

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Lab Project Number: 9266760
Client Project ID: MCAS Beauford 04-515

QC Batch: 99165
QC Batch Method: EPA 3510
Associated Lab Samples: 924217375
Analysis Method: EPA 8270
Analysis Description: Semivolatile Organics

METHOD BLANK: 924227929
Associated Lab Samples: 924217375

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Benzo(k)fluoranthene	ug/l	ND	10.	
Benzo(b)fluoranthene	ug/l	ND	10.	
Benzo(a)anthracene	ug/l	ND	10.	
Chrysene	ug/l	ND	10.	
Dibenz(a,h)anthracene	ug/l	ND	10.	
Nitrobenzene-d5 (S)	%	63		
2-Fluorobiphenyl (S)	%	65		
Terphenyl-d14 (S)	%	73		

LABORATORY CONTROL SAMPLE & LCSD: 924208978 924208986

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	RPD	Footnotes
Benzo(k)fluoranthene	ug/l	50.00	38.17	29.94	76	60	24	
Benzo(b)fluoranthene	ug/l	50.00	43.68	31.04	87	62	34	1
Benzo(a)anthracene	ug/l	50.00	28.15	21.50	56	43	27	
Chrysene	ug/l	50.00	41.88	31.80	84	64	27	
Dibenz(a,h)anthracene	ug/l	50.00	45.21	35.14	90	70	25	
Nitrobenzene-d5 (S)					58	62		
2-Fluorobiphenyl (S)					61	61		
Terphenyl-d14 (S)					89	88		

LABORATORY CONTROL SAMPLE: 924227937

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Benzo(k)fluoranthene	ug/l	50.00	38.53	77	
Benzo(b)fluoranthene	ug/l	50.00	37.95	76	
Benzo(a)anthracene	ug/l	50.00	31.09	62	

Date: 05/21/04

Page: 12 of 24

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environmental 99030
FL NELAP E87648



Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627

QUALITY CONTROL DATA

Pace Analytical Services, Inc.
9800 Kinsey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Lab Project Number: 9266760
Client Project ID: MCAS Beauford 04-515

LABORATORY CONTROL SAMPLE: 924227937

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Chrysene	ug/l	50.00	34.95	70	
Dibenz(a,h)anthracene	ug/l	50.00	25.44	51	
Nitrobenzene-d5 (S)				46	
2-Fluorobiphenyl (S)				50	
Terphenyl-d14 (S)				72	

SAMPLE DUPLICATE: 924227945

Parameter	Units	924206642 Result	DUP Result	RPD	Footnotes
Benzo(k)fluoranthene	ug/l	ND	ND	NC	
Benzo(b)fluoranthene	ug/l	ND	ND	NC	
Benzo(a)anthracene	ug/l	ND	ND	NC	
Chrysene	ug/l	ND	ND	NC	
Dibenz(a,h)anthracene	ug/l	ND	ND	NC	
Nitrobenzene-d5 (S)	%	52	60		
2-Fluorobiphenyl (S)	%	50	57		
Terphenyl-d14 (S)	%	69	79		

Page: 13 of 24

Date: 05/21/04

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environmental 99030
FL NELAP E87648



Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627



Pace Analytical Services, Inc.
9800 Kinsey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

QUALITY CONTROL DATA

Lab Project Number: 9266760
Client Project ID: MCAS Beauford 04-515

QC Batch: 99589
QC Batch Method: EPA 3545
Associated Lab Samples: 924217334 924217342 924217359

Analysis Method: EPA 8270

Analysis Description: Semivolatile Organics

METHOD BLANK: 924231319
Associated Lab Samples: 924217334 924217342 924217359

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Benzo(k)fluoranthene	ug/kg	ND	330	
Benzo(b)fluoranthene	ug/kg	ND	330	
Benzo(a)anthracene	ug/kg	ND	330	
Chrysene	ug/kg	ND	330	
Dibenz(a,h)anthracene	ug/kg	64		
Nitrobenzene-d5 (S)	%	62		
2-Fluorobiphenyl (S)	%	89		
Terphenyl-d14 (S)	%	62		
Phenol-d5 (S)	%	55		
2-Fluorophenol (S)	%	72		
2,4,6-Tribromophenol (S)	%			

LABORATORY CONTROL SAMPLE: 924231327

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Benzo(k)fluoranthene	ug/kg	3333.00	2486	75	
Benzo(b)fluoranthene	ug/kg	3333.00	2548	76	
Benzo(a)anthracene	ug/kg	3333.00	2381	71	
Chrysene	ug/kg	3333.00	2466	74	
Dibenz(a,h)anthracene	ug/kg	3333.00	2269	68	
Nitrobenzene-d5 (S)				65	
2-Fluorobiphenyl (S)				66	
Terphenyl-d14 (S)				88	
Phenol-d5 (S)				71	
2-Fluorophenol (S)				66	
2,4,6-Tribromophenol (S)				81	

Date: 05/21/04

Page: 14 of 24

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environmental 99030
FL NELAP E87648



Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627

QUALITY CONTROL DATA

Lab Project Number: 9266760
Client Project ID: MCAS Beauford 04-515

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 924231335 924231343

Parameter	Units	924201312 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	RPD	Footnotes
Nitrobenzene-d5 (S)						62	58		
2-Fluorobiphenyl (S)						63	58		
Terphenyl-d14 (S)						94	87		
Phenol-d5 (S)						61	58		
2-Fluorophenol (S)						56	56		
2,4,6-Tribromophenol (S)						70	65		

SAMPLE DUPLICATE: 924231350

Parameter	Units	924201361 Result	DUP Result	RPD	Footnotes
Benzo(k)fluoranthene	ug/kg	1000	1600	46	2
Benzo(b)fluoranthene	ug/kg	1000	1400	26	
Benzo(a)anthracene	ug/kg	1200	1800	40	2
Chrysene	ug/kg	1100	1500	27	
Dibenz(a,h)anthracene	ug/kg	ND	ND	NC	
Nitrobenzene-d5 (S)	%	66	54		
2-Fluorobiphenyl (S)	%	66	56		
Terphenyl-d14 (S)	%	92	89		
Phenol-d5 (S)	%	65	54		
2-Fluorophenol (S)	%	55	47		
2,4,6-Tribromophenol (S)	%	65	65		

Date: 05/21/04

Page: 15 of 24

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environmental 99030
FL NELAP E87648



Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627

QUALITY CONTROL DATA

Lab Project Number: 9266760
Client Project ID: MCAS Beauford 04-515

QC Batch: 99825
QC Batch Method: EPA 3545
Associated Lab Samples: 924217383 924217391 924217409 924217417 924217425 924217433

Analysis Method: EPA 8270
Analysis Description: Semivolatile Organics

METHOD BLANK: 924243868
Associated Lab Samples: 924217383 924217391 924217409 924217417 924217425 924217433

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Benzo(k)fluoranthene	ug/kg	ND	330	
Benzo(b)fluoranthene	ug/kg	ND	330	
Benzo(a)anthracene	ug/kg	ND	330	
Chrysene	ug/kg	ND	330	
Dibenz(a,h)anthracene	ug/kg	ND	330	
Nitrobenzene-d5 (S)	%	44		
2-Fluorobiphenyl (S)	%	48		
Terphenyl-d14 (S)	%	73		

LABORATORY CONTROL SAMPLE: 924243876

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Benzo(k)fluoranthene	ug/kg	1667.00	1264	76	
Benzo(b)fluoranthene	ug/kg	1667.00	1244	75	
Benzo(a)anthracene	ug/kg	1667.00	1158	70	
Chrysene	ug/kg	1667.00	1266	76	
Dibenz(a,h)anthracene	ug/kg	1667.00	1030	62	
Nitrobenzene-d5 (S)				54	
2-Fluorobiphenyl (S)				56	
Terphenyl-d14 (S)				75	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 924243884 924243892

Parameter	Units	924217383 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	RPD	Footnotes
Nitrobenzene-d5 (S)						68	56		
2-Fluorobiphenyl (S)						59	47		

Date: 05/21/04

Page: 16 of 24

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environmental 99030
FL NELAP E87648



Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627



Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

QUALITY CONTROL DATA

Lab Project Number: 9266760
Client Project ID: MCAS Beauford 04-515

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 924243884 924243892

Parameter	Units	924217383 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	RPD	Footnotes
Terphenyl-d14 (S)						74	70		

SAMPLE DUPLICATE: 924243900

Parameter	Units	924217391 Result	DUP Result	RPD	Footnotes
Benzo(a)anthracene	ug/kg	ND	ND	NC	
Benzo(b)fluoranthene	ug/kg	ND	ND	NC	
Benzo(k)fluoranthene	ug/kg	ND	ND	NC	
Chrysene	ug/kg	ND	ND	NC	
Dibenz(a,h)anthracene	ug/kg	ND	ND	NC	
Nitrobenzene-d5 (S)	%	64	65		
2-Fluorobiphenyl (S)	%	50	50		
Terphenyl-d14 (S)	%	75	70		

Page: 17 of 24

Date: 05/21/04

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environmental 99030
FL NELAP E87648



Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627

QUALITY CONTROL DATA

Lab Project Number: 9266760
Client Project ID: MCAS Beauford 04-515

QC Batch: 99789
QC Batch Method: EPA 8260
Associated Lab Samples: 924217375

Analysis Method: EPA 8260
Analysis Description: GC/MS VOCs by 8260, low level

METHOD BLANK: 924242936
Associated Lab Samples: 924217375

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Benzene	ug/l	ND	1.0	
Ethylbenzene	ug/l	ND	1.0	
Methyl-tert-butyl ether	ug/l	ND	1.0	
Naphthalene	ug/l	ND	1.0	
Toluene	ug/l	ND	1.0	
m&p-Xylene	ug/l	ND	2.0	
o-Xylene	ug/l	ND	1.0	
Toluene-d8 (S)	%	98		
4-Bromofluorobenzene (S)	%	94		
Dibromofluoromethane (S)	%	90		
1,2-Dichloroethane-d4 (S)	%	86		

LABORATORY CONTROL SAMPLE: 924242944

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Benzene	ug/l	50.00	39.95	80	
Ethylbenzene	ug/l	50.00	42.51	85	
Methyl-tert-butyl ether	ug/l	50.00	39.97	80	
Naphthalene	ug/l	50.00	41.24	82	
Toluene	ug/l	50.00	39.87	80	
m&p-Xylene	ug/l	100.00	90.44	90	
o-Xylene	ug/l	50.00	44.01	88	
Toluene-d8 (S)				99	
4-Bromofluorobenzene (S)				102	
Dibromofluoromethane (S)				92	
1,2-Dichloroethane-d4 (S)				94	

Date: 05/21/04

Page: 18 of 24

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environmental 99030
FL NELAP E87648



Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627

QUALITY CONTROL DATA

Pace Analytical Services, Inc.
9800 Kinney Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Lab Project Number: 9266760
Client Project ID: MCAS Beauford 04-515

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 924242951 924242969

Parameter	Units	924191323 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	RPD	Footnotes
Benzene	ug/l	0	50.00	42.75	42.62	86	85	0	
Toluene	ug/l	0	50.00	43.72	42.72	87	85	2	
Toluene-d8 (S)						102	99		
4-Bromofluorobenzene (S)						102	103		
Dibromofluoromethane (S)						93	96		
1,2-Dichloroethane-d4 (S)						88	96		

Date: 05/21/04

Page: 19 of 24

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environmental 99030
FL NELAP E87648



Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627

QUALITY CONTROL DATA

Lab Project Number: 9266760
Client Project ID: MCAS Beauford 04-515

QC Batch: 99820
QC Batch Method: EPA 8260
Associated Lab Samples: 924217334 924217342 924217359 924217383 924217391
924217409 924217417 924217425 924217433

METHOD BLANK: 924243702
Associated Lab Samples: 924217334 924217342 924217359 924217383 924217391 924217409 924217417
924217425 924217433

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Benzene	ug/kg	ND	5.0	
Ethylbenzene	ug/kg	ND	5.0	
Naphthalene	ug/kg	ND	5.0	
Toluene	ug/kg	ND	5.0	
m&p-Xylene	ug/kg	ND	10.	
o-Xylene	ug/kg	ND	5.0	
Toluene-d8 (S)	%	100		
4-Bromofluorobenzene (S)	%	97		
Dibromofluoromethane (S)	%	101		
1,2-Dichloroethane-d4 (S)	%	96		

LABORATORY CONTROL SAMPLE: 924243710

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Benzene	ug/kg	50.00	54.74	109	
Ethylbenzene	ug/kg	50.00	57.19	114	
Naphthalene	ug/kg	50.00	51.86	104	
Toluene	ug/kg	50.00	53.70	107	
m&p-Xylene	ug/kg	100.00	110.7	111	
o-Xylene	ug/kg	50.00	54.01	108	
Toluene-d8 (S)				100	
4-Bromofluorobenzene (S)				101	
Dibromofluoromethane (S)				98	
1,2-Dichloroethane-d4 (S)				88	

Date: 05/21/04

Page: 20 of 24

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environmental 99030
FL NELAP E87648



Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627

QUALITY CONTROL DATA

Pace Analytical Services, Inc.
9800 Kinsey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Lab Project Number: 9266760
Client Project ID: MCAS Beauford 04-515

MATRIX SPIKE: 924251879

Parameter	Units	924217342 Result	Spike Conc.	MS Result	MS % Rec	Footnotes
Benzene	ug/kg	0	51.08	52.58	103	
Toluene	ug/kg	1.213	51.08	51.25	98	
Toluene-d8 (S)					103	
4-Bromofluorobenzene (S)					99	
Dibromofluoromethane (S)					103	
1,2-Dichloroethane-d4 (S)					107	

SAMPLE DUPLICATE: 924251887

Parameter	Units	924229081 Result	DUP Result	RPD	Footnotes
Benzene	ug/kg	270.0	140.0	63	3
Ethylbenzene	ug/kg	100.0	53.00	65	3
Naphthalene	ug/kg	ND	ND	NC	
Toluene	ug/kg	720.0	700.0	2	
m&p-Xylene	ug/kg	270.0	140.0	63	3
o-Xylene	ug/kg	260.0	150.0	54	3
Toluene-d8 (S)	%	104	102		
4-Bromofluorobenzene (S)	%	96	96		
Dibromofluoromethane (S)	%	96	99		
1,2-Dichloroethane-d4 (S)	%	94	101		

Date: 05/21/04

Page: 21 of 24

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environmental 99030
FL NELAP E87648



Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627





Pace Analytical Services, Inc.
9800 Kincaid Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

QUALITY CONTROL DATA

Lab Project Number: 9266760
Client Project ID: MCAS Beauford 04-515

QC Batch: 99314
QC Batch Method:
Associated Lab Samples: 924217334
Analysis Method: % Moisture
Analysis Description: Percent Moisture
924217342

SAMPLE DUPLICATE: 924218415

Parameter	Units	924213283 Result	DUP Result	RPD	Footnotes
Percent Moisture	%	16.20	17.20	6	

Date: 05/21/04

Page: 22 of 24

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environmental 99030
FL NELAP E87648



Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627



Pace Analytical Services, Inc.
9800 Kinsey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

QUALITY CONTROL DATA

Lab Project Number: 9266760
Client Project ID: MCAS Beauford 04-515

QC Batch: 99322	Analysis Method: % Moisture				
QC Batch Method:	Analysis Description: Percent Moisture				
Associated Lab Samples:	924217359	924217383	924217391	924217409	924217417
	924217425	924217433			

SAMPLE DUPLICATE: 924218548

Parameter	Units	924217359 Result	DUP Result	RPD	Footnotes
Percent Moisture	%	19.50	19.20	2	

Date: 05/21/04

Page: 23 of 24

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environmental 99030
FL NELAP E87648



Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

- LCS(D) Laboratory Control Sample (Duplicate)
- MS(D) Matrix Spike (Duplicate)
- DUP Sample Duplicate
- ND Not detected at or above adjusted reporting limit
- NC Not Calculable
- J Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
- MDL Adjusted Method Detection Limit
- RPD Relative Percent Difference
- (S) Surrogate
- [1] RPD value was outside control limits, however both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
- [2] The calculated RPD was outside QC acceptance limits.
- [3] The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.

Date: 05/21/04

Page: 24 of 24

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.



Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environmental 99030
FL NELAP E87648

Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627

Appendix C
Laboratory Analytical Reports – Soil – Tier 2 Assessment



Pace Analytical Services, Inc.
9800 Kinney Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Pace Analytical Services, Inc.
2225 Riverside Drive
Asheville, NC 28804
Phone: 828.254.7176
Fax: 828.252.4618

Lab Project Number: 9294936

Client Project ID: LaurelBay Tier-II/04-504

Solid results are reported on a dry weight basis

Lab Sample No: 925659724
Client Sample ID: LB10SB-01

Project Sample Number: 9294936-001
Matrix: Soil

Date Collected: 05/19/05 14:00
Date Received: 05/21/05 09:10

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
------------	---------	-------	--------------	----------	----	---------	------	--------

Wet Chemistry

Percent Moisture	Method: % Moisture							
Percent Moisture	18.6	%		05/23/05 09:04	TNS			

GC/MS Semivolatiles

Semivolatile Organics	Prep/Method: EPA 3545 / EPA 8270							
Acenaphthene	ND	ug/kg	410	05/28/05 07:20	BET	83-32-9		
Acenaphthylene	ND	ug/kg	410	05/28/05 07:20	BET	208-96-8		
Anthracene	ND	ug/kg	410	05/28/05 07:20	BET	120-12-7		
Benzo (a) anthracene	ND	ug/kg	410	05/28/05 07:20	BET	56-55-3		
Benzo (a) pyrene	ND	ug/kg	410	05/28/05 07:20	BET	50-32-8		
Benzo (b) fluoranthene	ND	ug/kg	410	05/28/05 07:20	BET	205-99-2		
Benzo (g,h,i) perylene	ND	ug/kg	410	05/28/05 07:20	BET	191-24-2		
Benzo (k) fluoranthene	ND	ug/kg	410	05/28/05 07:20	BET	207-08-9		
Chrysene	ND	ug/kg	410	05/28/05 07:20	BET	218-01-9		
Dibenz (a,h) anthracene	ND	ug/kg	410	05/28/05 07:20	BET	53-70-3		
Fluoranthene	ND	ug/kg	410	05/28/05 07:20	BET	206-44-0		
Fluorene	ND	ug/kg	410	05/28/05 07:20	BET	86-73-7		
Indeno (1,2,3-cd) pyrene	ND	ug/kg	410	05/28/05 07:20	BET	193-39-5		
Naphthalene	ND	ug/kg	410	05/28/05 07:20	BET	91-20-3		
Phenanthrene	ND	ug/kg	410	05/28/05 07:20	BET	85-01-8		
Pyrene	ND	ug/kg	410	05/28/05 07:20	BET	129-00-0		
Nitrobenzene-d5 (S)	62	%		05/28/05 07:20	BET	4165-60-0		
2-Fluorobiphenyl (S)	50	%		05/28/05 07:20	BET	321-60-8		
Terphenyl-d14 (S)	33	%		05/28/05 07:20	BET	1718-51-0		
Date Extracted	05/26/05			05/26/05				

GC Semivolatiles

TPH in Soil by 3545/8015	Prep/Method: EPA 3545 / EPA 8015							
Diesel Fuel	ND	mg/kg	6.1	05/26/05 13:44	KBS	68334-30-5		
n-Pentacosane (S)	71	%		05/26/05 13:44	KBS	629-99-2		
Date Extracted	05/25/05			05/25/05				

GC/MS Volatiles

GC/MS VOCs 5035/8260 low level	Method: EPA 8260							
Benzene	ND	ug/kg	2.8	05/25/05 23:07	RWS	71-43-2		
Ethylbenzene	ND	ug/kg	2.8	05/25/05 23:07	RWS	100-41-4		
Methyl-tert-butyl ether	ND	ug/kg	2.8	05/25/05 23:07	RWS	1634-04-4		

Date: 06/08/05

Page: 1 of 28

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environmental 99030
FL NELAP E87648

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.



Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627



Pace Analytical Services, Inc.
9800 Kinney Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Pace Analytical Services, Inc.
2225 Riverside Drive
Asheville, NC 28804
Phone: 828.254.7176
Fax: 828.252.4618

Lab Project Number: 9294936
Client Project ID: LaurelBay Tier-II/04-504

Lab Sample No: 925659724 Project Sample Number: 9294936-001 Date Collected: 05/19/05 14:00
Client Sample ID: LB10SB-01 Matrix: Soil Date Received: 05/21/05 09:10

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Naphthalene	ND	ug/kg	2.8	05/25/05 23:07	RWS	91-20-3		
Toluene	ND	ug/kg	2.8	05/25/05 23:07	RWS	108-88-3		
m&p-Xylene	ND	ug/kg	5.7	05/25/05 23:07	RWS			
o-Xylene	ND	ug/kg	2.8	05/25/05 23:07	RWS	95-47-6		
Toluene-d8 (S)	100	%		05/25/05 23:07	RWS	2037-26-5		
4-Bromofluorobenzene (S)	97	%		05/25/05 23:07	RWS	460-00-4		
Dibromofluoromethane (S)	93	%		05/25/05 23:07	RWS	1868-53-7		
1,2-Dichloroethane-d4 (S)	95	%		05/25/05 23:07	RWS	17060-07-0		

Date: 06/08/05

Page: 2 of 28

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environmental 99030
FL NELAP E87648

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.



Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627



Pace Analytical Services, Inc.
9800 Kinney Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Pace Analytical Services, Inc.
2225 Riverside Drive
Asheville, NC 28804
Phone: 828.254.7176
Fax: 828.252.4618

Lab Project Number: 9294936

Client Project ID: LaurelBay Tier-II/04-504

Lab Sample No: 925659732
Client Sample ID: LB10SB-02

Project Sample Number: 9294936-002
Matrix: Soil

Date Collected: 05/19/05 14:30
Date Received: 05/21/05 09:10

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Wet Chemistry								
Percent Moisture	Method: % Moisture							
Percent Moisture	17.8	%		05/23/05 09:05	TNS			

GC/MS Semivolatiles

Semivolatile Organics	Prep/Method: EPA 3545 / EPA 8270							
Acenaphthene	ND	ug/kg	400	05/28/05 07:57	BET	83-32-9		
Acenaphthylene	ND	ug/kg	400	05/28/05 07:57	BET	208-96-8		
Anthracene	ND	ug/kg	400	05/28/05 07:57	BET	120-12-7		
Benzo(a)anthracene	ND	ug/kg	400	05/28/05 07:57	BET	56-55-3		
Benzo(a)pyrene	ND	ug/kg	400	05/28/05 07:57	BET	50-32-8		
Benzo(b)fluoranthene	ND	ug/kg	400	05/28/05 07:57	BET	205-99-2		
Benzo(g,h,i)perylene	ND	ug/kg	400	05/28/05 07:57	BET	191-24-2		
Benzo(k)fluoranthene	ND	ug/kg	400	05/28/05 07:57	BET	207-08-9		
Chrysene	ND	ug/kg	400	05/28/05 07:57	BET	218-01-9		
Dibenz(a,h)anthracene	ND	ug/kg	400	05/28/05 07:57	BET	53-70-3		
Fluoranthene	ND	ug/kg	400	05/28/05 07:57	BET	206-44-0		
Fluorene	ND	ug/kg	400	05/28/05 07:57	BET	86-73-7		
Indeno(1,2,3-cd)pyrene	ND	ug/kg	400	05/28/05 07:57	BET	193-39-5		
Naphthalene	ND	ug/kg	400	05/28/05 07:57	BET	91-20-3		
Phenanthrene	ND	ug/kg	400	05/28/05 07:57	BET	85-01-8		
Pyrene	ND	ug/kg	400	05/28/05 07:57	BET	129-00-0		
Nitrobenzene-d5 (S)	69	%		05/28/05 07:57	BET	4165-60-0		
2-Fluorobiphenyl (S)	44	%		05/28/05 07:57	BET	321-60-8		
Terphenyl-d14 (S)	64	%		05/28/05 07:57	BET	1718-51-0		
Date Extracted	05/26/05			05/26/05				

GC Semivolatiles

TPH in Soil by 3545/8015	Prep/Method: EPA 3545 / EPA 8015							
Diesel Fuel	ND	mg/kg	6.1	05/26/05 14:49	KBS	68334-30-5		
n-Pentacosane (S)	57	%		05/26/05 14:49	KBS	629-99-2		
Date Extracted	05/25/05			05/25/05				

GC/MS Volatiles

GC/MS VOCs 5035/8260 low level	Method: EPA 8260							
Benzene	ND	ug/kg	4.2	05/26/05 23:34	RWS	71-43-2		
Ethylbenzene	ND	ug/kg	4.2	05/26/05 23:34	RWS	100-41-4		
Methyl-tert-butyl ether	ND	ug/kg	4.2	05/26/05 23:34	RWS	1634-04-4		
Naphthalene	ND	ug/kg	4.2	05/26/05 23:34	RWS	91-20-3		

Date: 06/08/05

Page: 3 of 28

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environmental 99030
FL NELAP E87648

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.



Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627



Pace Analytical Services, Inc.
9800 Kinney Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Pace Analytical Services, Inc.
2225 Riverside Drive
Asheville, NC 28804
Phone: 828.254.7176
Fax: 828.252.4618

Lab Project Number: 9294936
Client Project ID: LaurelBay Tier-II/04-504

Lab Sample No: 925659732 Project Sample Number: 9294936-002 Date Collected: 05/19/05 14:30
Client Sample ID: LB10SB-02 Matrix: Soil Date Received: 05/21/05 09:10

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Toluene	ND	ug/kg	4.2	05/26/05 23:34	RWS	108-88-3		
m&p-Xylene	ND	ug/kg	8.4	05/26/05 23:34	RWS			
o-Xylene	ND	ug/kg	4.2	05/26/05 23:34	RWS	95-47-6		
Toluene-d8 (S)	93	%		05/26/05 23:34	RWS	2037-26-5		
4-Bromofluorobenzene (S)	87	%		05/26/05 23:34	RWS	460-00-4		
Dibromofluoromethane (S)	90	%		05/26/05 23:34	RWS	1868-53-7		
1,2-Dichloroethane-d4 (S)	94	%		05/26/05 23:34	RWS	17060-07-0		

Date: 06/08/05

Page: 4 of 28

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environmental 99030
FL NELAP E87648

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.



Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627



Pace Analytical Services, Inc.
9800 Kinney Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Pace Analytical Services, Inc.
2225 Riverside Drive
Asheville, NC 28804
Phone: 828.254.7176
Fax: 828.252.4618

Lab Project Number: 9294936

Client Project ID: LaurelBay Tier-II/04-504

Lab Sample No: 925659740
Client Sample ID: LB10SB-03

Project Sample Number: 9294936-003
Matrix: Soil

Date Collected: 05/19/05 15:00
Date Received: 05/21/05 09:10

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Wet Chemistry								
Percent Moisture	Method: % Moisture							
Percent Moisture	15.2	%		05/23/05 09:05	TNS			

GC/MS Semivolatiles

Semivolatile Organics

Prep/Method: EPA 3545 / EPA 8270

Acenaphthene	ND	ug/kg	390	05/28/05 08:35	BET	83-32-9
Acenaphthylene	ND	ug/kg	390	05/28/05 08:35	BET	208-96-8
Anthracene	ND	ug/kg	390	05/28/05 08:35	BET	120-12-7
Benzo (a) anthracene	ND	ug/kg	390	05/28/05 08:35	BET	56-55-3
Benzo (a) pyrene	ND	ug/kg	390	05/28/05 08:35	BET	50-32-8
Benzo (b) fluoranthene	ND	ug/kg	390	05/28/05 08:35	BET	205-99-2
Benzo (g,h,i) perylene	ND	ug/kg	390	05/28/05 08:35	BET	191-24-2
Benzo (k) fluoranthene	ND	ug/kg	390	05/28/05 08:35	BET	207-08-9
Chrysene	ND	ug/kg	390	05/28/05 08:35	BET	218-01-9
Dibenz (a,h) anthracene	ND	ug/kg	390	05/28/05 08:35	BET	53-70-3
Fluoranthene	ND	ug/kg	390	05/28/05 08:35	BET	206-44-0
Fluorene	ND	ug/kg	390	05/28/05 08:35	BET	86-73-7
Indeno (1,2,3-cd) pyrene	ND	ug/kg	390	05/28/05 08:35	BET	193-39-5
Naphthalene	ND	ug/kg	390	05/28/05 08:35	BET	91-20-3
Phenanthrene	ND	ug/kg	390	05/28/05 08:35	BET	85-01-8
Pyrene	ND	ug/kg	390	05/28/05 08:35	BET	129-00-0
Nitrobenzene-d5 (S)	63	%		05/28/05 08:35	BET	4165-60-0
2-Fluorobiphenyl (S)	51	%		05/28/05 08:35	BET	321-60-8
Terphenyl-d14 (S)	65	%		05/28/05 08:35	BET	1718-51-0
Date Extracted	05/26/05			05/26/05		

GC Semivolatiles

TPH in Soil by 3545/8015

Prep/Method: EPA 3545 / EPA 8015

Diesel Fuel	ND	mg/kg	5.9	05/26/05 11:16	KBS	68334-30-5
n-Pentacosane (S)	55	%		05/26/05 11:16	KBS	629-99-2
Date Extracted	05/25/05			05/25/05		

GC/MS Volatiles

GC/MS VOCs 5035/8260 low level Method: EPA 8260

Benzene	ND	ug/kg	2.7	05/26/05 23:51	RWS	71-43-2
Ethylbenzene	ND	ug/kg	2.7	05/26/05 23:51	RWS	100-41-4
Methyl-tert-butyl ether	ND	ug/kg	2.7	05/26/05 23:51	RWS	1634-04-4
Naphthalene	ND	ug/kg	2.7	05/26/05 23:51	RWS	91-20-3

Date: 06/08/05

Page: 5 of 28

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environmental 99030
FL NELAP E87648

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.



Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627



Pace Analytical Services, Inc.
9800 Kinsey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Pace Analytical Services, Inc.
2225 Riverside Drive
Asheville, NC 28804
Phone: 828.254.7176
Fax: 828.252.4618

Lab Project Number: 9294936

Client Project ID: LaurelBay Tier-II/04-504

Lab Sample No: 925659740

Client Sample ID: LB108B-03

Project Sample Number: 9294936-003

Matrix: Soil

Date Collected: 05/19/05 15:00

Date Received: 05/21/05 09:10

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Toluene	ND	ug/kg	2.7	05/26/05 23:51	RWS	108-88-3		
m&p-Xylene	ND	ug/kg	5.3	05/26/05 23:51	RWS			
o-Xylene	ND	ug/kg	2.7	05/26/05 23:51	RWS	95-47-6		
Toluene-d8 (S)	99	%		05/26/05 23:51	RWS	2037-26-5		
4-Bromofluorobenzene (S)	92	%		05/26/05 23:51	RWS	460-00-4		
Dibromofluoromethane (S)	91	%		05/26/05 23:51	RWS	1868-53-7		
1,2-Dichloroethane-d4 (S)	89	%		05/26/05 23:51	RWS	17060-07-0		

Date: 06/08/05

Page: 6 of 28

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environmental 99030
FL NELAP E87648

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.



Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627



Pace Analytical Services, Inc.
9800 Kinney Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Pace Analytical Services, Inc.
2225 Riverside Drive
Asheville, NC 28804
Phone: 828.254.7176
Fax: 828.252.4618

Lab Project Number: 9294937

Client Project ID: Laurel Bay Tier-II/05-504

Solid results are reported on a dry weight basis

Lab Sample No: 925659815
Client Sample ID: 010SB14

Project Sample Number: 9294937-001
Matrix: Soil

Date Collected: 05/20/05 15:00
Date Received: 05/21/05 09:10

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	ReqLmt
------------	---------	-------	--------------	----------	----	---------	------	--------

Wet Chemistry

Percent Moisture	Method: % Moisture							
Percent Moisture	21.4	%		05/23/05 09:28	TNS			

GC/MS Semivolatiles

Semivolatile Organics	Prep/Method: EPA 3545 / EPA 8270							
Acenaphthene	ND	ug/kg	420	05/28/05 19:35	BET	83-32-9		
Acenaphthylene	ND	ug/kg	420	05/28/05 19:35	BET	208-96-8		
Anthracene	ND	ug/kg	420	05/28/05 19:35	BET	120-12-7		
Benzo(a)anthracene	ND	ug/kg	420	05/28/05 19:35	BET	56-55-3		
Benzo(a)pyrene	ND	ug/kg	420	05/28/05 19:35	BET	50-32-8		
Benzo(b)fluoranthene	ND	ug/kg	420	05/28/05 19:35	BET	205-99-2		
Benzo(g,h,i)perylene	ND	ug/kg	420	05/28/05 19:35	BET	191-24-2		
Benzo(k)fluoranthene	ND	ug/kg	420	05/28/05 19:35	BET	207-08-9		
Chrysene	ND	ug/kg	420	05/28/05 19:35	BET	218-01-9		
Dibenz(a,h)anthracene	ND	ug/kg	420	05/28/05 19:35	BET	53-70-3		
Fluoranthene	ND	ug/kg	420	05/28/05 19:35	BET	206-44-0		
Fluorene	ND	ug/kg	420	05/28/05 19:35	BET	86-73-7		
Indeno(1,2,3-cd)pyrene	ND	ug/kg	420	05/28/05 19:35	BET	193-39-5		
Naphthalene	ND	ug/kg	420	05/28/05 19:35	BET	91-20-3		
Phenanthrene	ND	ug/kg	420	05/28/05 19:35	BET	85-01-8		
Pyrene	ND	ug/kg	420	05/28/05 19:35	BET	129-00-0		
Nitrobenzene-d5 (S)	52	%		05/28/05 19:35	BET	4165-60-0		
2-Fluorobiphenyl (S)	43	%		05/28/05 19:35	BET	321-60-8		
Terphenyl-d14 (S)	63	%		05/28/05 19:35	BET	1718-51-0		
Date Extracted	05/26/05			05/26/05				

GC Semivolatiles

TPH in Soil by 3545/8015	Prep/Method: EPA 3545 / EPA 8015							
Diesel Fuel	ND	mg/kg	6.4	05/27/05 22:13	KBS	68334-30-5		
n-Pentacosane (S)	60	%		05/27/05 22:13	KBS	629-99-2		
Date Extracted	05/25/05			05/25/05				

GC/MS Volatiles

GC/MS VOCs 5035/8260 low level	Method: EPA 8260							
Benzene	ND	ug/kg	2.8	05/27/05 05:52	RWS	71-43-2		
Ethylbenzene	ND	ug/kg	2.8	05/27/05 05:52	RWS	100-41-4		
Naphthalene	ND	ug/kg	2.8	05/27/05 05:52	RWS	91-20-3		

Date: 06/08/05

Page: 1 of 14

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environmental 99030
FL NELAP E87648

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.



Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627



Pace Analytical Services, Inc.
9800 Kinney Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Pace Analytical Services, Inc.
2225 Riverside Drive
Asheville, NC 28804
Phone: 828.254.7176
Fax: 828.252.4618

Lab Project Number: 9294937

Client Project ID: Laurel Bay Tier-II/05-504

Lab Sample No: 925659815

Project Sample Number: 9294937-001

Date Collected: 05/20/05 15:00

Client Sample ID: 010SB14

Matrix: Soil

Date Received: 05/21/05 09:10

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
Toluene	ND	ug/kg	2.8	05/27/05 05:52	RWS	108-88-3		
m&p-Xylene	ND	ug/kg	5.6	05/27/05 05:52	RWS			
o-Xylene	ND	ug/kg	2.8	05/27/05 05:52	RWS	95-47-6		
Toluene-d8 (S)	97	%		05/27/05 05:52	RWS	2037-26-5		
4-Bromofluorobenzene (S)	88	%		05/27/05 05:52	RWS	460-00-4		
Dibromofluoromethane (S)	88	%		05/27/05 05:52	RWS	1868-53-7		
1,2-Dichloroethane-d4 (S)	76	%		05/27/05 05:52	RWS	17060-07-0		

Date: 06/08/05

Page: 2 of 14

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environmental 99030
FL NELAP E87648

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.



Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627

Appendix D
Laboratory Analytical Reports – Groundwater – Tier 2 Assessment



Pace Analytical Services, Inc.
9800 Kinsey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Pace Analytical Services, Inc.
2225 Riverside Drive
Asheville, NC 28804
Phone: 828.254.7176
Fax: 828.252.4618

Lab Project Number: 9294933
Client Project ID: Laurel Bay

Lab Sample No: 925659500 Project Sample Number: 9294933-001 Date Collected: 05/20/05 00:00
Client Sample ID: 10TMW-01 Matrix: Water Date Received: 05/21/05 09:10

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
------------	---------	-------	--------------	----------	----	---------	------	--------

Metals

Dissolved Metals, Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead, Dissolved	0.012	mg/l	0.0050	05/30/05 13:35	ALV	7439-92-1		
Date Digested	05/23/05 06:00			05/23/05 06:00				

Wet Chemistry

Iron, Ferrous	Method: SM 3500-Fe D#4							
Iron, Ferrous	ND	mg/l	0.50	05/21/05 14:20	TCM		1	
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	1.5	mg/l	0.10	05/21/05 14:07	ARH			
Oxygen, Dissolved	Method: EPA 360.1							
Oxygen, Dissolved	8.7	mg/l	1.0	05/24/05 13:20	TMR	7782-44-7	1	

GC/MS Semivolatiles

Semivolatile Organics	Prep/Method: EPA 3510 / EPA 8270							
Acenaphthene	ND	ug/l	10.	05/31/05 16:21	BET	83-32-9		
Acenaphthylene	ND	ug/l	10.	05/31/05 16:21	BET	208-96-8		
Anthracene	ND	ug/l	10.	05/31/05 16:21	BET	120-12-7		
Benzo(a)anthracene	ND	ug/l	10.	05/31/05 16:21	BET	56-55-3		
Benzo(a)pyrene	ND	ug/l	10.	05/31/05 16:21	BET	50-32-8		
Benzo(b)fluoranthene	ND	ug/l	10.	05/31/05 16:21	BET	205-99-2		
Benzo(g,h,i)perylene	ND	ug/l	10.	05/31/05 16:21	BET	191-24-2		
Benzo(k)fluoranthene	ND	ug/l	10.	05/31/05 16:21	BET	207-08-9		
Chrysene	ND	ug/l	10.	05/31/05 16:21	BET	218-01-9		
Dibenz(a,h)anthracene	ND	ug/l	10.	05/31/05 16:21	BET	53-70-3		
Fluoranthene	ND	ug/l	10.	05/31/05 16:21	BET	206-44-0		
Fluorene	ND	ug/l	10.	05/31/05 16:21	BET	86-73-7		
Indeno(1,2,3-cd)pyrene	ND	ug/l	10.	05/31/05 16:21	BET	193-39-5		
Naphthalene	ND	ug/l	10.	05/31/05 16:21	BET	91-20-3		
Phenanthrene	ND	ug/l	10.	05/31/05 16:21	BET	85-01-8		
Pyrene	ND	ug/l	10.	05/31/05 16:21	BET	129-00-0		
Nitrobenzene-d5 (S)	70	%		05/31/05 16:21	BET	4165-60-0		
2-Fluorobiphenyl (S)	61	%		05/31/05 16:21	BET	321-60-8		
Terphenyl-d14 (S)	66	%		05/31/05 16:21	BET	1718-51-0		
Date Extracted	05/31/05			05/31/05				

Date: 06/08/05

Page: 1 of 30

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environmental 99030
FL NELAP E87648

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.



Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627



Pace Analytical Services, Inc.
9800 Kinsey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Pace Analytical Services, Inc.
2225 Riverside Drive
Asheville, NC 28804
Phone: 828.254.7176
Fax: 828.252.4618

Lab Project Number: 9294933
Client Project ID: Laurel Bay

Lab Sample No: 925659500 Project Sample Number: 9294933-001 Date Collected: 05/20/05 00:00
Client Sample ID: 10TMW-01 Matrix: Water Date Received: 05/21/05 09:10

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
------------	---------	-------	--------------	----------	----	---------	------	--------

GC Semivolatiles

EDB and DECP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	05/23/05 17:02	JEM	106-93-4		
1,2-Dibromo-3-chloropropane	ND	ug/l	0.050	05/23/05 17:02	JEM	96-12-8		
1,2,3-Trichloropropane	ND	ug/l	0.050	05/23/05 17:02	JEM	96-18-4		
1-Chloro-2-bromopropane (S)	97	%		05/23/05 17:02	JEM	301-79-56		

GC/MS Volatiles

GC/MS VOCs by 8260, low level	Method: EPA 8260							
Benzene	ND	ug/l	1.0	05/27/05 04:34	BCK	71-43-2		
Ethylbenzene	ND	ug/l	1.0	05/27/05 04:34	BCK	100-41-4		
Methyl-tert-butyl ether	ND	ug/l	1.0	05/27/05 04:34	BCK	1634-04-4		
Naphthalene	ND	ug/l	1.0	05/27/05 04:34	BCK	91-20-3		
Toluene	ND	ug/l	1.0	05/27/05 04:34	BCK	108-88-3		
m&p-Xylene	ND	ug/l	2.0	05/27/05 04:34	BCK			
o-Xylene	ND	ug/l	1.0	05/27/05 04:34	BCK	95-47-6		
Toluene-d8 (S)	96	%		05/27/05 04:34	BCK	2037-26-5		
4-Bromofluorobenzene (S)	97	%		05/27/05 04:34	BCK	460-00-4		
Dibromofluoromethane (S)	96	%		05/27/05 04:34	BCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	87	%		05/27/05 04:34	BCK	17060-07-0		

Date: 06/08/05

Page: 2 of 30

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environmental 99030
FL NELAP E87648

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.



Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627



Pace Analytical Services, Inc.
9800 Kinney Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Pace Analytical Services, Inc.
2225 Riverside Drive
Asheville, NC 28804
Phone: 828.254.7176
Fax: 828.252.4618

Lab Project Number: 9294933
Client Project ID: Laurel Bay

Lab Sample No: 925659518 Project Sample Number: 9294933-002 Date Collected: 05/20/05 00:00
Client Sample ID: 10TMW-02 Matrix: Water Date Received: 05/21/05 09:10

Parameters Results Units Report Limit Analyzed By CAS No. Qual RegLmt
Metals

Dissolved Metals, Trace ICP Prep/Method: EPA 3010 / EPA 6010
Lead, Dissolved ND mg/l 0.0050 05/30/05 13:39 ALV 7439-92-1
Date Digested 05/23/05 06:00 05/23/05 06:00

Wet Chemistry

Iron, Ferrous Method: SM 3500-Fe D#4
Iron, Ferrous 0.60 mg/l 0.50 05/21/05 14:20 TCM 1
48 Hour NO3 / NO2 / NOX Method: EPA 353.2
Nitrate as N ND mg/l 0.10 05/21/05 14:07 ARH
Oxygen, Dissolved Method: EPA 360.1
Oxygen, Dissolved 8.0 mg/l 1.0 05/24/05 13:20 TMR 7782-44-7 1

GC/MS Semivolatiles

Semivolatile Organics Prep/Method: EPA 3510 / EPA 8270
Acenaphthene ND ug/l 10. 05/31/05 16:56 BET 83-32-9
Acenaphthylene ND ug/l 10. 05/31/05 16:56 BET 208-96-8
Anthracene ND ug/l 10. 05/31/05 16:56 BET 120-12-7
Benzo(a)anthracene ND ug/l 10. 05/31/05 16:56 BET 56-55-3
Benzo(a)pyrene ND ug/l 10. 05/31/05 16:56 BET 50-32-8
Benzo(b)fluoranthene ND ug/l 10. 05/31/05 16:56 BET 205-99-2
Benzo(g,h,i)perylene ND ug/l 10. 05/31/05 16:56 BET 191-24-2
Benzo(k)fluoranthene ND ug/l 10. 05/31/05 16:56 BET 207-08-9
Chrysene ND ug/l 10. 05/31/05 16:56 BET 218-01-9
Dibenz(a,h)anthracene ND ug/l 10. 05/31/05 16:56 BET 53-70-3
Fluoranthene ND ug/l 10. 05/31/05 16:56 BET 206-44-0
Fluorene ND ug/l 10. 05/31/05 16:56 BET 86-73-7
Indeno(1,2,3-cd)pyrene ND ug/l 10. 05/31/05 16:56 BET 193-39-5
Naphthalene ND ug/l 10. 05/31/05 16:56 BET 91-20-3
Phenanthrene ND ug/l 10. 05/31/05 16:56 BET 85-01-8
Pyrene ND ug/l 10. 05/31/05 16:56 BET 129-00-0
Nitrobenzene-d5 (S) 58 % 05/31/05 16:56 BET 4165-60-0
2-Fluorobiphenyl (S) 49 % 05/31/05 16:56 BET 321-60-8
Terphenyl-d14 (S) 59 % 05/31/05 16:56 BET 1718-51-0
Date Extracted 05/31/05 05/31/05

Date: 06/08/05

Page: 3 of 30

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environmental 99030
FL NELAP E87648

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.



Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627



Pace Analytical Services, Inc.
9800 Kinney Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Pace Analytical Services, Inc.
2225 Riverside Drive
Asheville, NC 28804
Phone: 828.254.7176
Fax: 828.252.4618

Lab Project Number: 9294933
Client Project ID: Laurel Bay

Lab Sample No: 925659518 Project Sample Number: 9294933-002 Date Collected: 05/20/05 00:00
Client Sample ID: 10TMW-02 Matrix: Water Date Received: 05/21/05 09:10

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
------------	---------	-------	--------------	----------	----	---------	------	--------

GC Semivolatiles

EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	05/23/05 17:22	JEM	106-93-4		
1,2-Dibromo-3-chloropropane	ND	ug/l	0.050	05/23/05 17:22	JEM	96-12-8		
1,2,3-Trichloropropane	ND	ug/l	0.050	05/23/05 17:22	JEM	96-18-4		
1-Chloro-2-bromopropane (S)	99	%		05/23/05 17:22	JEM	301-79-56		

GC/MS Volatiles

GC/MS VOCs by 8260, low level	Method: EPA 8260							
Benzene	ND	ug/l	1.0	05/27/05 05:00	BCK	71-43-2		
Ethylbenzene	ND	ug/l	1.0	05/27/05 05:00	BCK	100-41-4		
Methyl-tert-butyl ether	ND	ug/l	1.0	05/27/05 05:00	BCK	1634-04-4		
Naphthalene	ND	ug/l	1.0	05/27/05 05:00	BCK	91-20-3		
Toluene	ND	ug/l	1.0	05/27/05 05:00	BCK	108-88-3		
m&p-Xylene	ND	ug/l	2.0	05/27/05 05:00	BCK			
o-Xylene	ND	ug/l	1.0	05/27/05 05:00	BCK	95-47-6		
Toluene-d8 (S)	97	%		05/27/05 05:00	BCK	2037-26-5		
4-Bromofluorobenzene (S)	99	%		05/27/05 05:00	BCK	460-00-4		
Dibromofluoromethane (S)	94	%		05/27/05 05:00	BCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	88	%		05/27/05 05:00	BCK	17060-07-0		

Date: 06/08/05

Page: 4 of 30

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environmental 99030
FL NELAP E87648

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.



Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627



Pace Analytical Services, Inc.
9800 Kinney Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Pace Analytical Services, Inc.
2225 Riverside Drive
Asheville, NC 28804
Phone: 828.254.7176
Fax: 828.252.4618

Lab Project Number: 9294933
Client Project ID: Laurel Bay

Lab Sample No: 925659526 Project Sample Number: 9294933-003 Date Collected: 05/20/05 00:00
Client Sample ID: 10TMW-03 Matrix: Water Date Received: 05/21/05 09:10

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
------------	---------	-------	--------------	----------	----	---------	------	--------

Metals

Dissolved Metals, Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead, Dissolved	ND	mg/l	0.0050	05/28/05 03:03	ALV	7439-92-1		
Date Digested	05/23/05 06:00			05/23/05 06:00				

Wet Chemistry

Iron, Ferrous	Method: SM 3500-Fe D#4							
Iron, Ferrous	ND	mg/l	0.50	05/21/05 14:20	TCM		1	
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	ND	mg/l	0.10	05/21/05 14:07	ARH			
Oxygen, Dissolved	Method: EPA 360.1							
Oxygen, Dissolved	7.5	mg/l	1.0	05/24/05 13:20	TMR	7782-44-7	1	

GC/MS Semivolatiles

Semivolatile Organics	Prep/Method: EPA 3510 / EPA 8270							
Acenaphthene	ND	ug/l	10.	05/31/05 17:30	BET	83-32-9		
Acenaphthylene	ND	ug/l	10.	05/31/05 17:30	BET	208-96-8		
Anthracene	ND	ug/l	10.	05/31/05 17:30	BET	120-12-7		
Benzo(a)anthracene	ND	ug/l	10.	05/31/05 17:30	BET	56-55-3		
Benzo(a)pyrene	ND	ug/l	10.	05/31/05 17:30	BET	50-32-8		
Benzo(b)fluoranthene	ND	ug/l	10.	05/31/05 17:30	BET	205-99-2		
Benzo(g,h,i)perylene	ND	ug/l	10.	05/31/05 17:30	BET	191-24-2		
Benzo(k)fluoranthene	ND	ug/l	10.	05/31/05 17:30	BET	207-08-9		
Chrysene	ND	ug/l	10.	05/31/05 17:30	BET	218-01-9		
Dibenz(a,h)anthracene	ND	ug/l	10.	05/31/05 17:30	BET	53-70-3		
Fluoranthene	ND	ug/l	10.	05/31/05 17:30	BET	206-44-0		
Fluorene	ND	ug/l	10.	05/31/05 17:30	BET	86-73-7		
Indeno(1,2,3-cd)pyrene	ND	ug/l	10.	05/31/05 17:30	BET	193-39-5		
Naphthalene	ND	ug/l	10.	05/31/05 17:30	BET	91-20-3		
Phenanthrene	ND	ug/l	10.	05/31/05 17:30	BET	85-01-8		
Pyrene	ND	ug/l	10.	05/31/05 17:30	BET	129-00-0		
Nitrobenzene-d5 (S)	68	%		05/31/05 17:30	BET	4165-60-0		
2-Fluorobiphenyl (S)	54	%		05/31/05 17:30	BET	321-60-8		
Terphenyl-d14 (S)	62	%		05/31/05 17:30	BET	1718-51-0		
Date Extracted	05/31/05			05/31/05				

Date: 06/08/05

Page: 5 of 30

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environmental 99030
FL NELAP E87648

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.



Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627



Pace Analytical Services, Inc.
9800 Kinsey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Pace Analytical Services, Inc.
2225 Riverside Drive
Asheville, NC 28804
Phone: 828.254.7176
Fax: 828.252.4618

Lab Project Number: 9294933
Client Project ID: Laurel Bay

Lab Sample No: 925659526 Project Sample Number: 9294933-003 Date Collected: 05/20/05 00:00
Client Sample ID: 10TMW-03 Matrix: Water Date Received: 05/21/05 09:10

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
------------	---------	-------	--------------	----------	----	---------	------	--------

GC Semivolatiles

EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	05/23/05 17:42	JEM	106-93-4		
1,2-Dibromo-3-chloropropane	ND	ug/l	0.050	05/23/05 17:42	JEM	96-12-8		
1,2,3-Trichloropropane	ND	ug/l	0.050	05/23/05 17:42	JEM	96-18-4		
1-Chloro-2-bromopropane (S)	97	%		05/23/05 17:42	JEM	301-79-56		

GC/MS Volatiles

GC/MS VOCs by 8260, low level	Method: EPA 8260							
Benzene	ND	ug/l	1.0	05/27/05 05:25	BCK	71-43-2		
Ethylbenzene	ND	ug/l	1.0	05/27/05 05:25	BCK	100-41-4		
Methyl-tert-butyl ether	ND	ug/l	1.0	05/27/05 05:25	BCK	1634-04-4		
Naphthalene	ND	ug/l	1.0	05/27/05 05:25	BCK	91-20-3		
Toluene	ND	ug/l	1.0	05/27/05 05:25	BCK	108-88-3		
m&p-Xylene	ND	ug/l	2.0	05/27/05 05:25	BCK			
o-Xylene	ND	ug/l	1.0	05/27/05 05:25	BCK	95-47-6		
Toluene-d8 (S)	97	%		05/27/05 05:25	BCK	2037-26-5		
4-Bromofluorobenzene (S)	97	%		05/27/05 05:25	BCK	460-00-4		
Dibromofluoromethane (S)	97	%		05/27/05 05:25	BCK	1868-53-7		
1,2-Dichloroethane-d4 (S)	88	%		05/27/05 05:25	BCK	17060-07-0		

Date: 06/08/05

Page: 6 of 30

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environmental 99030
FL NELAP E87648

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.



Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627



Pace Analytical Services, Inc.
9800 Kinsey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Pace Analytical Services, Inc.
2225 Riverside Drive
Asheville, NC 28804
Phone: 828.254.7176
Fax: 828.252.4618

Lab Project Number: 9295080
Client Project ID: Laural Bay/05-504

Lab Sample No: 925669806 Project Sample Number: 9295080-006 Date Collected: 05/23/05 11:10
Client Sample ID: 10TMW14 Matrix: Water Date Received: 05/24/05 09:15

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
------------	---------	-------	--------------	----------	----	---------	------	--------

Metals

Dissolved Metals, Trace ICP	Prep/Method: EPA 3010 / EPA 6010							
Lead, Dissolved	ND	mg/l	0.0050	06/03/05 03:26	ARH	7439-92-1		
Date Digested	05/27/05 12:00			05/27/05 12:00				

Wet Chemistry

Iron, Ferrous	Method: SM 3500-Fe D#4							
Iron, Ferrous	1.2	mg/l	0.50	05/25/05 03:10	BMF		1	
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2							
Nitrate as N	ND	mg/l	0.10	05/24/05 22:38	JDA1			
Oxygen, Dissolved	Method: EPA 360.1							
Oxygen, Dissolved	8.6	mg/l	1.0	05/31/05 11:00	TMR	7782-44-7	1	

GC/MS Semivolatiles

Semivolatile Organics	Prep/Method: EPA 3510 / EPA 8270							
Acenaphthene	ND	ug/l	11.	05/31/05 23:47	BET	83-32-9		
Acenaphthylene	ND	ug/l	11.	05/31/05 23:47	BET	208-96-8		
Anthracene	ND	ug/l	11.	05/31/05 23:47	BET	120-12-7		
Benzo (a) anthracene	ND	ug/l	11.	05/31/05 23:47	BET	56-55-3		
Benzo (a) pyrene	ND	ug/l	11.	05/31/05 23:47	BET	50-32-8		
Benzo (b) fluoranthene	ND	ug/l	11.	05/31/05 23:47	BET	205-99-2		
Benzo (g,h,i) perylene	ND	ug/l	11.	05/31/05 23:47	BET	191-24-2		
Benzo (k) fluoranthene	ND	ug/l	11.	05/31/05 23:47	BET	207-08-9		
Chrysene	ND	ug/l	11.	05/31/05 23:47	BET	218-01-9		
Dibenz (a,h) anthracene	ND	ug/l	11.	05/31/05 23:47	BET	53-70-3		
Fluoranthene	ND	ug/l	11.	05/31/05 23:47	BET	206-44-0		
Fluorene	ND	ug/l	11.	05/31/05 23:47	BET	86-73-7		
Indeno (1,2,3-cd) pyrene	ND	ug/l	11.	05/31/05 23:47	BET	193-39-5		
Naphthalene	ND	ug/l	11.	05/31/05 23:47	BET	91-20-3		
Phenanthrene	ND	ug/l	11.	05/31/05 23:47	BET	85-01-8		
Pyrene	ND	ug/l	11.	05/31/05 23:47	BET	129-00-0		
Nitrobenzene-d5 (S)	59	%		05/31/05 23:47	BET	4165-60-0		
2-Fluorobiphenyl (S)	45	%		05/31/05 23:47	BET	321-60-8		
Terphenyl-d14 (S)	55	%		05/31/05 23:47	BET	1718-51-0		
Date Extracted	05/31/05			05/31/05				

Date: 06/13/05

Page: 11 of 43

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environmental 99030
FL NELAP E87648

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.



Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627



Pace Analytical Services, Inc.
9800 Kinney Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Pace Analytical Services, Inc.
2225 Riverside Drive
Asheville, NC 28804
Phone: 828.254.7176
Fax: 828.252.4618

Lab Project Number: 9295080
Client Project ID: Loral Bay/05-504

Lab Sample No: 925669806 Project Sample Number: 9295080-006 Date Collected: 05/23/05 11:10
Client Sample ID: 10TMW14 Matrix: Water Date Received: 05/24/05 09:15

Parameters	Results	Units	Report Limit	Analyzed	By	CAS No.	Qual	RegLmt
------------	---------	-------	--------------	----------	----	---------	------	--------

GC Semivolatiles

EDB and DBCP in Water	Method: EPA 8011							
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	05/27/05 16:19	JEM	106-93-4		
1,2-Dibromo-3-chloropropane	ND	ug/l	0.050	05/27/05 16:19	JEM	96-12-8		
1,2,3-Trichloropropane	ND	ug/l	0.050	05/27/05 16:19	JEM	96-18-4		
1-Chloro-2-bromopropane (S)	101	%		05/27/05 16:19	JEM	301-79-56		

GC/MS Volatiles

GC/MS VOCs by 8260, low level	Method: EPA 8260							
Benzene	ND	ug/l	1.0	05/28/05 23:42	MSF	71-43-2		
Ethylbenzene	ND	ug/l	1.0	05/28/05 23:42	MSF	100-41-4		
Methyl-tert-butyl ether	ND	ug/l	1.0	05/28/05 23:42	MSF	1634-04-4		
Naphthalene	ND	ug/l	1.0	05/28/05 23:42	MSF	91-20-3		
Toluene	ND	ug/l	1.0	05/28/05 23:42	MSF	108-88-3		
m&p-Xylene	ND	ug/l	2.0	05/28/05 23:42	MSF			
o-Xylene	ND	ug/l	1.0	05/28/05 23:42	MSF	95-47-6		
Toluene-d8 (S)	98	%		05/28/05 23:42	MSF	2037-26-5		
4-Bromofluorobenzene (S)	93	%		05/28/05 23:42	MSF	460-00-4		
Dibromofluoromethane (S)	100	%		05/28/05 23:42	MSF	1868-53-7		
1,2-Dichloroethane-d4 (S)	100	%		05/28/05 23:42	MSF	17060-07-0		

Date: 06/13/05

Page: 12 of 43

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environmental 99030
FL NELAP E87648

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.



Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627

Appendix E

Regulatory Correspondence

BOARD:
Elizabeth M. Hagood
Chairman
Mark B. Kent
Vice Chairman
Howard L. Brilliant, MD
Secretary



C. Earl Hunter, Commissioner

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

BOARD:
Carl L. Brazell
Louisiana W. Wright
L. Michael Blackmon
Coleman F. Buckhouse, MD

13 September 2004

**RECEIVED
NREAO**
Date 22 Sept 04

United States Marine Corps Air Station
Commanding Officer
Attention: S-4 NREAO (A.G. Howard)
P.O. Box 55001
Beaufort, SC 29904-5001

Re: MCAS - Heating Oil Tank(s) – Laurel Bay Circle Unit #10
Site ID # 02696
Tank Closure report received 13 September 2004
Beaufort County

Dear Ms. Howard:

The Department has completed technical review of the referenced document. Interpretation of the analytical data provided in the referenced report indicates that chemicals of concern are above established Risk-Based Screening Levels in soils and additional investigative and/or remedial actions are warranted.

Please respond to the undersigned by 31 December 2004 with an investigation proposal to conduct Tier I assessment activities at the referenced site. The assessment should include the following:

- Delineation of the horizontal and vertical extent of the chemicals of concern (CoC) in the soil and groundwater;
- Identification and evaluation of all the exposure pathways and potential receptors;
- Characterization of the nature of the CoC present;
- Definition of the site geology and hydrogeology;
- Recommendations for additional actions.

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 A. Bishop, Hydrogeologist
Groundwater Quality Section
Bureau of Water

cc: Low Country District EQC
Stacey French – BLWM
Commander NAVFACENGCOM Southern Division, Attn: Code ES24 (Gabriel Magwood), P.O. Box 190010, North
Charleston, SC 29419-9010
Technical File

BOARD:
Elizabeth M. Hagood
Chairman
Edwin H. Cooper, III
Vice Chairman
Steven G. Kisner
Secretary



C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.
27 October 2005

BOARD:
Henry C. Scott
Paul C. Aughtry, III
Glenn A. McCall
Coleman F. Buckhouse, MD

United States Marine Corps Air Station
Attention: S-4 NREAO (A.G. Howard)
P.O. Box 55001
Beaufort, SC 29904-5001

Re: MCAS – Laurel Bay Circle #'s 10, 9, 8, 7, and 1
Site ID #'s 02696, 02770, 02771, 02769, and 02768
Tier II Assessment Report received 11 October 2005
No Further Action
Beaufort County

Dear Ms. Howard:

The Department has reviewed the referenced assessment report. As submitted, the report documents current and historical efforts to monitor soil and groundwater for hydrocarbon contamination at the subject site. Based on this review, it appears that identified contamination at this site is below established maximum contaminant levels.

Based on the information and analytical data submitted, the Department recognizes that MCAS has adequately addressed the known environmental contamination identified on the property to date in accordance with the approved scope of work. Consequently, no further investigation is required at this time. Please note, this statement pertains only to the portion of the site addressed in the referenced report and does not apply to other areas of the site and/or any other potential regulatory violations. Further, the Department retains the right to request further investigation if deemed necessary.

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 A. Bishop, Hydrogeologist
Groundwater Quality Section
Bureau of Water

B. Thomas Knight, Manager
Groundwater Quality Section
Bureau of Water

cc: Region 8 District EQC
Commander NAVFACENGCOM Southern Division, Attn: Code ES24 (Gabriel Magwood), P.O. Box 190010, North
Charleston, SC 29419-9010
Technical File