

ANNUAL GROUNDWATER MONITORING REPORT 2004-2005
BUILDING AS-4158 SITE
MARINE CORPS AIR STATION NEW RIVER
NORTH CAROLINA
VOLUME I
Revision 0

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6506 Hampton Boulevard
Building C, Room 311
Norfolk, Virginia 23508

Prepared by:

Engineering and Environment, Inc.
824 Gum Branch Road, Suite S
Jacksonville, North Carolina, Virginia 28540

We hereby certify that the Report shown and marked in this submittal is proposed to be incorporated into Contract Number N62470-03-D-4000, is in compliance with the contract drawings and specifications, can be installed in the allocated spaces, and is submitted for Government approval.

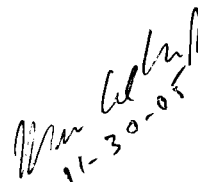


Certified by QC Project Manager
William C. Morris, North Carolina P.G. #1218



Project Manager
William C. Morris, North Carolina P.G. #1218

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LIST OF ACRONYMS/ABBREVIATIONS

AFVR	Aggressive Fluid/Vapor Recovery
AS/SVE	Air Sparge/Soil Vapor Extraction
AST	Aboveground Storage Tank
bgs	below ground surface
CAP	Corrective Action Plan
Catlin	Richard Catlin and Associates, Inc., Catlin Engineers and Scientists
Δh	change in head measured along direction of groundwater flow
ΔL	straight-line distance between groundwater head measurement locations.
DI	Deionized Water
DWM	Division of Waste Management
EEL	Engineering and Environment, Inc.
EPA	United States Environmental Protection Agency
ft/dy	feet per day
GSI	Groundwater Technology Government Services, Inc
i	hydraulic gradient
K	hydraulic conductivity
L	Liter
Law	Law Engineering, Inc.
MCB	Marine Corps Base
MCAS	Marine Corps Air Station
MTBE	Methyl tert butyl ether
msl	mean sea level
NAVFACENGCOM	Naval Facilities Engineering Command
NCAC	North Carolina Administrative Code
NCDENR	North Carolina Department of Environment and Natural Resources
NCGS	North Carolina Geological Survey
NCGWQS	North Carolina Groundwater Quality Standard
n_e	effective porosity
PAH	Polynuclear Aromatic Hydrocarbons
PVC	Polyvinyl Chloride
PID	Photoionization Detector
QC	Quality Control
Shaw	Shaw Environmental, Inc.
ug/L	micrograms per liter
UST	Underground Storage Tank
V	groundwater linear flow velocity
VOC	Volatile Organic Compound

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EXECUTIVE SUMMARY

On behalf of the Department of the Navy, Atlantic Division, Naval Facilities Engineering Command, Engineering and Environment, Inc. has prepared this annual groundwater monitoring report for the Building AS-4158 Site, Marine Corps Air Station New River, North Carolina. The report presents the findings of groundwater remediation and monitoring activities conducted from April 2004 through August 2005.

The site is located on Marine Corps Air Station New River New River in Onslow County, North Carolina. The Building AS-4158 site has been assigned incident number 10804 by the North Carolina Department of Environmental Resources. Previous investigations indicate the site meets criteria as a High Risk site and for Industrial/Commercial land use.

In August 1992, three 3,000-gallon underground storage tanks (one gasoline, two diesel) were removed from the site and replaced with two 10,000-gallon diesel aboveground storage tanks (still in use). During the underground storage tank removal, free product was observed on groundwater in the excavation, indicating a release from the underground storage tanks had occurred.

Subsequent investigations indicated that petroleum constituents in soil were limited to the immediate vicinity and downgradient of the former underground storage tank system, and free product was observed in an area downgradient of the former underground storage tank system. Dissolved-phase hydrocarbons were limited primarily to shallow groundwater. The extent of affect soil and groundwater was considered delineated.

In 1995, a Correction Action Plan was prepared for the site. The Correction Action Plan indicated potential receptors included Southwest Creek and its associated marsh, and a water supply well located approximately 650 feet from the site. It was recommended to install an air sparge/soil vapor extraction system to remediate soil and groundwater at the site. Also in 1995, product recovery was initiated via installation of a passive skimmer in well MW-9. The skimmer is no longer present.

In 1998, the current air sparge/soil vapor extraction system was installed and placed into operation. In December 1999, the system was deactivated as constituent concentrations had decreased to low levels, but was restarted in 2001 due to increased concentrations. The system generally has remained in operation since that time.

In January 2002, a leak in an underground fuel transfer line was discovered. The product line was repaired in November 2002. From April 1998 through December 2002, approximately 110 gallons of free-phase product was recovered from monitoring well MW-9.

In September 2004, additional soil assessment was conducted at the site. Findings of the investigation indicated that no additional soil remediation activities were needed.

An optimization study and revised corrective action plan was conducted at the site in 2005. The study indicated the site meets criteria for classification as Industrial/Commercial Land Use and

High Risk site, based on an inactive water supply well located within 1,000 feet of the site. The study recommended in part to conduct free product delineation activities in the vicinity of well MW-9, deactivate the western air sparge/soil vapor extraction line (line #1), and reduce the frequency and number of wells included in the groundwater monitoring programs.

The current program was initiated in April 2004 and completed in August 2005. The program included: system inspections, monitoring, and maintenance conducted approximately three times per week; well gauging at 17 site wells conducted monthly; and groundwater sampling at 12 to 14 monitoring wells conducted quarterly.

Data from the program indicate only limited measurable free product remains at the site. Free product was observed only at well MW-9 during three of 17 gauging events, with measurable thicknesses ranging from 0.01 foot to 0.10 foot. No polynuclear aromatic hydrocarbons were detected at any site well during the current monitoring program. Benzene was the only volatile organic compound detected above North Carolina Groundwater Quality Standards, and detection of benzene at concentrations above the North Carolina Groundwater Quality Standard was limited to three shallow wells located in the center of the site. Benzene concentrations decreased over the course of the monitoring program, such that benzene concentrations were below the North Carolina Groundwater Quality Standard in all site wells during the final sampling event. It is recommended to deactivate the western air sparge/soil vapor extraction line (line #1), as measurable free product is not present and dissolved phase constituents are no longer present at concentrations above North Carolina Groundwater Quality Standards in wells in this portion of the site. It also is recommended to reduce the sampling frequency to semi-annually at reduced number of wells, with findings reported annually.

SECTION 1 INTRODUCTION

On behalf of the Department of the Navy, Atlantic Division, Naval Facilities Engineering Command (NAVFACENGCOM), Engineering and Environment, Inc. (EEI) has prepared this annual groundwater monitoring report for Building AS-4158 Site, Marine Corps Air Station (MCAS) New River. The report presents the findings of groundwater monitoring and remediation activities conducted from April 2004 through August 2005. This report and the methods used to acquire the data in support of this report have been prepared in accordance with the North Carolina Department of Environmental Resources (NCDENR), Division of Waste Management (DWM), Underground Storage Tank (UST) Section guidelines (NCDENR, 2002 and 2003) and the site specific work prepared for this site by EEI (EEI, 2003).

The Building AS-4158 site has been assigned incident number 10804 by NCDENR. Previous investigations indicate the site meets criteria as a High Risk site and for Industrial/Commercial land use (Catlin, 2005).

1.1 Site Description

The site is located on MCAS New River in Onslow County, North Carolina (34° 42', 58" N, 77° 27', 26" W) (Figure 1-1). Within New River, the site is on Demarco Road, west of the airfield. The facility is used to provide fuel and maintenance to vehicles at the air station.

The site is generally flat, and most of the area is paved. Building AS-4158 is located at the north end of the site. Two 10,000-gallon aboveground storage tanks (ASTs) used for diesel storage are located towards the southern end of the site. Fuel is transported via an underground pipeline from the ASTs to the dispensers located adjacent to Building AS-4158. One 1,000-gallon used oil AST reportedly is use at the site (Catlin, 2005). No permanent surface water bodies are present at the site. The nearest mapped body of water is Southwest Creek; the creek and associated marsh are located approximately 1,000 west of the site. (Figure 1-1).

The nearest water supply well, we AS-4150, is located less than 1,000 feet from the site. The well is not in use at this time and is not expected to be in use in the near future (Catlin, 2005).

1.2 Site History

In August 1992, three 3,000-gallon USTs (one gasoline, two diesel) were removed from the site and replaced with two 10,000-gallon diesel ASTs (still in use). During the UST removal, free product was observed on groundwater in the excavation, indicating a release from the USTs had occurred (Figure 1-2) (Law, 1994).

An investigation was conducted in 1993, which included installation of three monitoring wells (wells MW-1, MW-2, and MW-3), collection of soil samples, and collection of groundwater samples. The investigation revealed limited petroleum hydrocarbons were present in subsurface soils. No measurable free product was observed at the three wells. Benzene and ethylbenzene concentrations in groundwater exceeded North Carolina Groundwater Quality Standards

(NCGWQSSs). It was recommended to install additional monitoring wells and collect additional soil samples (GSI, 1993).

Additional assessment was conducted in 1994, involving collection of hydropunch groundwater samples, installation of 12 shallow and three deep surficial aquifer monitoring wells, installation of one six-inch diameter pumping well, collection of soil and groundwater samples, and conducting an aquifer pumping test. The assessment indicated that petroleum constituents in soil were limited to the immediate vicinity and downgradient of the former UST system, and free product was observed in an area downgradient of the former UST system. Dissolved-phase hydrocarbons were limited primarily to shallow groundwater. The extent of affect soil and groundwater was considered delineated. It was recommended in part to proceed with development of a Correction Action Plan (CAP) (Law, 1994).

In 1995, a CAP was prepared for the site. The CAP indicated potential receptors included Southwest Creek and its associated marsh, and a water supply well located approximately 650 feet from the site. The CAP recommended installation of an air sparge/soil vapor extraction (AS/SVE) system to remediate soil and groundwater at the site. Also in 1995, product recovery was initiated via installation of a passive skimmer in well MW-9 (Catlin, 1995). (The skimmer is no present in the well.)

An AS/SVE system which includes two north-south oriented horizontal AS wells, two north-south oriented horizontal SVE wells, and two (relatively short) east-west SVE wells, were installed at the site, with the system activated in April 1998 (Jones, 2004). The system remained in operation through December 1999, as dissolved-phase constituent concentrations had decreased to very low concentrations, and measurable free product was no longer present at well MW-9. The system was restarted in 2001 due to increasing dissolved-phase constituent concentrations (Shaw, 2004). The system generally has remained in operation since that time.

In January 2002, a leak in an underground fuel transfer line was discovered. The release subsequently was confirmed by pressure testing the line. The product line was repaired in November 2002. From April 1998 through December 2002, approximately 110 gallons of free-phase product was recovered from monitoring well MW-9 via hand bailing and use of a vacuum truck (Shaw, 2004).

In September 2004, additional soil assessment was conducted at the site. No petroleum constituents were detected in soil samples collected during the investigation. It was recommended that no additional soil remediation activities be conducted (Catlin, 2005).

An optimization study and revised CAP was conducted at the site in 2005. The study indicated the site meets criteria for classification as Industrial/Commercial Land Use and High Risk site. The High Risk classification is based on a water supply well (AS-4150) located within 1,000 feet of the site. The study indicated the supply well was not being used and was not planned to be used in the near future. It was recommended that, if the supply well is placed back into service, alternate remedial strategies should be considered and additional monitoring activities be conducted. It also was recommended to conduct free product delineation activities in the vicinity of well MW-9, and deactivate the western AS/SVE line (line #1). A reduction in the frequency

of groundwater monitoring (to semi-annual events) at a reduced number of monitoring wells was recommended.

The current program was initiated in April 2004 and completed in August 2005. The program included: system inspections, monitoring, and maintenance conducted approximately three times per week; well gauging at 18 site wells conducted monthly; and groundwater sampling at 12 to 14 monitoring wells conducted quarterly.

Data for the current monitoring program are discussed in the following sections. Section 2 describes field methods used at the site. Section 3 discusses hydrogeologic characteristics of the site. Laboratory analytical results, product gauging data, and mass recovery data are presented in Section 4. Section 5 provides conclusions and recommendations based on review of the data. References cited in the report are listed in Section 6. Figures and tables are organized after the text. Supporting documentation (field records, previous program groundwater quality, and laboratory analytical reports) are contained in Appendices A, B, and C, respectively, with Appendix C (laboratory analytical reports) presented Volume II.

SECTION 2

FIELD PROGRAM

Field methods employed during the groundwater monitoring program are discussed briefly below. Activities were conducted in accordance with NCDENR guidance (NCDENR, 2002 and 2003) and as per the work plan (EEI, 2003), which details the field methods.

2.1 Well Gauging

The following 17 wells were gauged monthly from April 2004 through August 2005: MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, MW-13, MW-14, MW-15, MW-16, MW-17, and MW-18. (Well MW-12 was not gauged as the well could not be located and may have been abandoned.) Monthly field data gauging sheets are presented in Appendix A

Wells were gauged using an electronic interface probe to measure the depth to water and depth to product (if present). Data were recorded to the nearest 0.01 foot and referenced to the surveyed top of casing. Measurable free product was detected at well MW-9 during three of the monthly gauging events. With the exception of well MW-9, no other well exhibited measurable free product during the monitoring program.

2.2 Groundwater Sampling

Groundwater samples were collected quarterly in April 2004, July 2004, October 2004, January 2005, April 2005, and July 2005 from the following monitoring wells: MW-4, MW-5, MW-7, MW-8, MW-9, MW-10, MW-11, MW-13, MW-14, MW-15, MW-17, and MW-18. Monitoring well MW-1 was incorporated into the program in October 2004. Monitoring well MW-3 was sampled during the July 2005 event. Monitoring well MW-9 was not sampled during the July 2004 and January 2005 events, as measurable free product was present in the well during the events. One duplicate sample was collected during each quarterly field event.

Monitoring well groundwater samples were collected using low-flow purging techniques. A Grundfos Redi-Flo II stainless steel submersible pump discharging through polyethylene tubing was used to purge and sample the wells. Water quality indicator parameters (pH, temperature, conductivity, oxidation-reduction potential, dissolved oxygen, and turbidity) were measured and recorded repeatedly during the purge. Purging was continued until water quality indicator parameters had stabilized or until a maximum of five well casing volumes had been purged. If a well purged to dryness, the well was allowed to recharge, and a sample then was collected. Samples were collected immediately upon completion of the purge (after allowing for a short recharge period, if required) by filling the laboratory-prepared sample bottles directly from the discharge tubing. Samples were kept in an iced cooler from the time of collection until received by the laboratory.

Groundwater samples collected during this event were analyzed for the following parameters:

- VOCs, EPA Method 602
- SVOCs, EPA Method 610

Samples were submitted under chain-of-custody to Accutest Analytical Laboratories in Orlando, Florida. Samples were delivered to the laboratory via overnight commercial courier.

2.3 Equipment Decontamination and Waste Handling Procedures

During each sampling event, the pump was decontaminated before first use and after each use by pumping a mixture of Alconox soap and potable water through the pump. The pump then was rinsed by pumping potable water through it, and final-rinsed with deionized (DI) water. New polyethylene tubing was used at each well.

Down-hole gauging equipment were decontaminated after each use by washing with an Alconox/DI water mixture, followed by a DI water rinse. Water quality probes were decontaminated with a DI rinse.

Well purge water and equipment decontamination water generated during the sampling event were contained in a portable holding tank. The water was processed through a groundwater treatment system located at Lot 203 on Marine Corps Base Camp Lejeune. Used tubing and other miscellaneous material were collected and bagged as they were generated. This material was treated as normal solid waste and placed in EEI's refuse container.

2.4 Well Maintenance

During the sampling events, any brush, debris, and/or litter in the vicinity of the well heads were cleared. The well heads, casing risers, well pads, bollards, well caps, locks, etc. were inspected for damage or deterioration. During the monitoring program, all wells appeared to be undamaged and in serviceable condition.

2.5 System Operation and Maintenance

The system includes two north-south oriented horizontal air sparge (AS) wells and two overlying horizontal soil vapor extraction (SVE) wells. AS and SVE line #1 includes approximately 430 feet of screen; AS and SVE line #2 includes approximately 500 feet of screen. Two additional horizontal SVE sections are installed perpendicular to SVE line #2, one located near well MW-9 and the other located immediately south of Building AS-4158; these lines include approximately 50 feet and 100 feet of screen, respectively (Figure 1-2). AS/SVE system components are housed in a building located at the southern end of the site. The AS system consists of an air compressor, compressed air receiver, in-line filter, regulator, and flow meters. The SVE system consists of a positive displacement vapor extraction blower, two soil vapor headers, a moisture separator, a particulate filter, and an ambient air bypass valve (used to regulate total vacuum applied to the SVE well field). A 500-gallon vertical polyethylene tank is used to store condensate from the air receiver and to collect fluid from the moisture separator.

System monitoring and maintenance was performed regularly, with site visits conducted approximately three times per week. Instrument readings conducted during the site visits included AS flow rates, AS/SVE pressures/vacuums, temperatures, tank liquid levels, electricity usage, and motor run times. Servicing (oil changes, belt re-tensioning or replacement, filter changes, etc.) was conducted as per manufactures instructions or as needed based on system inspection. Emptying of the polyethylene holding tank was conducted as needed.

The system generally operated continuously except during equipment servicing/repair, power outages, high level water alarms, etc. The AS/SVE system was inactive at the time EEI began conducting activities at the site. On 29 March 2004, EEI attempted to start the system, but the system was inoperative. From 29 March through 20 May 2004, troubleshooting and repairs were conducted; during this period, the system operated intermittently. On May 20, the system was placed into continuous operation, and operated without interruption through 14 July. During as site visit on 16 July 2004, the system was observed to be inactive. Inspection of the system revealed extensive damage to several electrical components, and it appeared that the system had been struck by lightening. Repair and replacement of wiring and electrical components were conducted, and the system was reactivated on 5 September 2004. The system operated without significant interruptions for the remainder of the monitoring program.

Photoionization detector (PID) readings were recorded monthly in 2004 and weekly beginning in 2005. Readings were recorded by attaching the PID instrument inlet to a port located on the discharge stack of the SVE system, or by filling a tedlar bag from the SVE header (inflated by placing the bag in vacuum chamber) and then connecting the PID instrument inlet to the inflated tedlar bag. Beginning in 2005, vapor velocity readings, vapor temperature, and vapor vacuum/pressure were recorded at the time the PID readings were recorded.

SECTION 3 HYDROGEOLOGY

The hydrogeologic characteristics of the subsurface substantially control the movement of groundwater, which strongly influences contaminant movement. The regional geologic setting provides a framework for understanding and interpreting the site-specific hydrogeology. Knowledge of the latter allows for evaluating groundwater flow at a scale relevant to the monitoring program.

3.1 Regional Hydrogeology

The site is located in the eastern portion of the Coastal Plain Physiographic Province of North Carolina. The Coastal Plain consists of nearly flat to gently dipping sedimentary strata of varying composition that overlie a crystalline basement complex. Approximately 80 miles northwest of the site, the Coastal Plain pinches out where it contacts the Piedmont Physiographic Province along the Fall Line. East of the Fall Line, the sediments gradually thicken, reaching a maximum thickness of approximately 10,000 feet at Cape Hatteras, North Carolina. In the vicinity of the site, the sedimentary sequence is estimated to be approximately 2,000 feet thick (NCGS, 1988).

Surficial deposits of Quaternary age are present in and around the area of the site, typically at thicknesses ranging from about 25 to 80 feet. The uppermost mapped unit in the area of the site is identified as the River Bend Formation of Tertiary age, described as a calcareous limestone interlaced with indurated sandy, molluscan limestone (NCGS, 1985). The River Bend Formation overlies the Castle Hayne Formation, also of Tertiary age. The Castle Hayne Formation is described as gray to cream colored, fine grained to fossiliferous calcareous limestone with minor amounts of fine quartz, glauconite, and phosphate (NCGS, 1988). The thickness of the Castle Hayne Formation in the vicinity of the site is estimated at approximately 300 feet. The Castle Hayne aquifer is a primary source of potable water for the area.

3.2 Site Hydrogeology

The site is generally flat, and most of the area is paved. No permanent surface water bodies are present at the site. The nearest mapped body of water is Southwest Creek; the creek and associated marsh are located less than 1,000 west of the site.

The Building AS-4158 site lies within the Lower Coastal Plain Soil System and the Coastal Plain/Castle Hayne Limestone hydrologic area. Soils encountered between ground surface and approximately 11 feet below grade consist of clayey fine sands to fine sands. Fine to medium sands, organics, clay lenses, and discontinuous peat layers have been encountered at the site at depths ranging from 11 to 21 feet below the ground surface (bgs). This material is underlain by fine to medium sand mixed with shell fragments; the shell fragments become increasingly abundant with increasing depth to approximately 50 feet bgs, the maximum depth of borings advanced at the site (Law, 1994).

All of the monitoring wells at the site are screened in the saturated sediments of the surficial aquifer. Most wells are screened in the upper portion of the surficial aquifer; three wells (MW-16, MW-17, and M-18) have been installed in the deeper portion of the surficial aquifer. Table 3-1 presents a summary of available well construction data as reported from previous studies.

Using the top-of-casing elevations and gauging data recorded at the site, groundwater elevations for the site monitoring wells were calculated. Table 3-2 presents groundwater elevation data for gauging events conducted during the current monitoring program. For wells exhibiting measurable free product, the groundwater elevation was corrected by adding 80 percent of the product thickness to the calculated groundwater elevation. (The product thickness was multiplied by 80 percent as the specific gravity of the product is estimated to be 0.8.) (Product thickness data are summarized in Table 4-2 and discussed in Section 4; field measurements of depth-to-water and depth-to-product respectively are summarized in Tables A-1 and A-2 of Appendix A.)

The elevation data for the shallow wells were used to construct shallow surficial aquifer groundwater elevation maps for gauging events corresponding to the six groundwater sampling events conducted during the current monitoring program. (Flow maps for wells screened in the deeper portion of the surficial aquifer could not be constructed as the deeper wells are arrayed nearly linearly.) From the shallow well maps, groundwater flow direction can be estimated. Figures 3-1 through 3-6 respectively present groundwater elevation maps for the April, July, and October 2004 events, and the January, April, and July 2005 sampling events

From the figures, groundwater flow patterns generally are consistent, with groundwater flowing east into the site from the southwest. In the central portion of the site, relatively elevated groundwater levels are observed, forming a southwest-to-northeast divide, with maximum groundwater elevations typically observed at well MW-9. Groundwater flows away from the divide to the northwest and southeast. (The flow map for the 4 April 2005 gauging event does not exhibit the northwesterly flow component; however, wells MW-10 and MW-14, both located in the northwestern portion of the site, could not be accessed for gauging when the synoptic water levels were recorded, so elevation data are not available in this area of the site for that event.)

The observed flow pattern is different than that typically observed during the previous monitoring program, where groundwater flows into the site from the east and west towards a trough west of well MW-9, then flows away from the site to the north and south (Shaw, 2004). However, one set of gauging data from the previous monitoring (for 15 April 2002), exhibited a flow pattern generally similar to that observed during the current program (Shaw, 2004).

The horizontal gradient i (unitless) is calculated using the standard equation $i = \Delta h / \Delta L$, where Δh is the change in head measured along the direction of groundwater flow, and ΔL is the straight-line distance between the measurement locations. Using data from the current program monitoring events, the horizontal gradient has been calculated using data from well pairs that are closely aligned with the groundwater flow direction. Selected well pairs include MW-9 / MW-8 and MW-9 / MW-10 (Table 3-3).

From Table 3-3, the average horizontal gradient for the listed gauging events is 0.086 to the southeast for well pair MW-9 / MW-8 and 0.12 to the northwest for well pair MW-9 / MW-10. (The well pair average is calculated by summing all of the calculated gradients for the pair and dividing by the total number of gauging events for the pair).

The groundwater linear flow velocity V is calculated using the standard equation $V = (Ki) / n_e$, where i is the horizontal gradient (discussed above), K is the hydraulic conductivity, and n_e is the effective porosity. Previous investigations have provided estimates of shallow zone K based on an aquifer pumping test conducted in 1994; the shallow zone estimate for n_e was based on examination of subsurface soil samples collected during the 1994 investigation. The investigation identified values for K of: 16.7 feet per day (ft/dy), 13.2 ft/dy, and 7.2 ft/dy (Law, 1994). The geometric mean of these values is 11.7 ft/dy. (A geometric mean rather than an arithmetic mean is calculated, as the hydraulic conductivities follow a log normal distribution [Dominico and Schwatz, 1990]). The investigation identified a value of 0.20 for n_e (Law, 1994).

Using the average values for shallow zone K and n_e and the shallow zone horizontal gradients calculated for the three shallow well pairs discussed above, linear flow velocities for the gauging events have been calculated (Table 3-3). From Table 3-3, the average linear velocity is 5.0 ft/dy to the southeast for well pair MW-9 / MW-8 and 6.8 ft/day to the northwest for well pair MW-9 / MW-10. The calculated velocities do not account for tortuosity (a parameter describing the deviation from a straight line flow path as groundwater moves around and between grains of soil). Consequently, at scales comparable to the size of the site, the linear velocity will overestimate the effective distance groundwater will travel for a given period of time.

Vertical gradients (unitless) have been calculated using elevation data from the current monitoring program for shallow/deep well pairs MW-4 / MW-16, MW-9 / MW-17, and MW-15 / MW-18 (Table 3-4). From Table 3-4, a relatively low, positive (downward) vertical gradient is present at the three well pairs, averaging 0.035, 0.033, and 0.027 respectively for well pairs MW-4 / MW-16, MW-9 / MW-17, and MW-15 / MW-18. The gradients indicate the potential for downward flow of groundwater from the shallow portion of the surficial aquifer to the deeper portion of the surficial aquifer.

SECTION 4

GROUNDWATER QUALITY MONITORING RESULTS

Groundwater samples were collected quarterly from April 2004 through August 2005 at site monitoring wells. Samples were analyzed for VOCs and PAHs. Well gauging was conducted monthly at site wells.

4.1 Laboratory Analytical Results

Groundwater samples were collected quarterly in April 2004, July 2004, October 2004, January 2005, April 2005, and July 2005 from the following monitoring wells: MW-4, MW-5, MW-7, MW-8, MW-9, MW-10, MW-11, MW-13, MW-14, MW-15, MW-17, and MW-18. Monitoring well MW-1 was incorporated into the program in October 2004. Monitoring well MW-3 was sampled during the July 2005 event. Monitoring well MW-9 was not sampled during the July 2004 and January 2005 events, as measurable free product was present in the well during the events. One duplicate sample was collected during each quarterly field event; trip blanks were provided by the laboratory for each event. Groundwater samples were analyzed by Accutest Laboratories for VOCs (EPA Method 602 with total xylene isomers and methyl tert butyl ether), and PAHs (EPA Method 610). Appendix C presents the laboratory analytical reports for each quarterly sampling event.

4.1.1 Groundwater Analytical Results

Table 4-1 summarizes the laboratory analytical results for groundwater samples collected during the current monitoring program. Appendix B presents summary tables of laboratory analytical results for the previous monitoring program, as excerpted from the previous monitoring report (Shaw, 2004). Laboratory analytical reports for groundwater samples collected the current monitoring program are presented in Appendix C (Volume II).

From Table 4-1, no PAHs were detected in any site wells during the current monitoring program, and no VOCs were detected in any deep surficial aquifer monitoring wells during the current monitoring program. For shallow surficial aquifer monitoring wells, detected VOC included benzene, ethylbenzene, toluene, total xylenes, and methyl tert butyl ether. Of these VOCs, only benzene was reported at concentrations above the NCGWQS (of 1 ug/L), and the detection of benzene was limited to wells MW-9, MW-11, and MW-13, located in the central area of the site. Benzene concentrations exceeded the NCGWQS at wells MW-9, MW-11, and MW-13 during the April and October 2004 sampling events, and at wells MW-11 and MW-13 during the July 2004 and January 2005 sampling events (well MW-9 was not sampled during these two events as measurable free product was present). During the April 2005 event, benzene was detected above the NCGWQS only at well MW-9 (benzene concentration of 1.8 ug/L). During the July 2005 event, benzene was not detected above the NCGWQS at any site well. In general, while benzene concentrations exhibit some variability over time (primarily at well MW-13; see Table 4-1), benzene concentrations have decreased over the duration of the monitoring program.

Figures 4-1 through 4-6 illustrate benzene concentrations in shallow surficial aquifer wells for the six quarterly groundwater sampling events conducted from April 2004 through July 2005,

respectively. A review of the figures indicates that benzene in groundwater is limited to the central portion of the site and, over the course of the current monitoring program, the extent of benzene has decreased substantially. This is particularly evident in the July 2006 map (Figure 4-6), for which benzene is not present above the NCGWQS at any site well.

Historical groundwater quality data, excerpted from the previous monitoring report, is presented in Appendix B (Shaw, 2004). The data indicate concentrations of both VOCs and PAHs have decreased substantially over time (e.g., at well MW-9, benzene was reported at a concentration of 69 ug/L in January 2003, as compared to an estimated benzene concentration of 0.67 ug/L reported at this well for the July 2005 event). The historical and current data indicate that previous and on-going remediation activities are effective at addressing dissolved-phase petroleum constituents in groundwater at the site.

4.1.2 Quality Assurance/Quality Control and Data Verification

Quality control (QC) samples collected during the monitoring program included laboratory-supplied trip blanks and field duplicate samples. Trip blanks were submitted to Accutest Laboratories for analysis for VOCs only. With the exception of toluene, reported at an estimated concentration of 0.94 ug/L for the July 2004 trip blank, no VOCs were detected in the trip blank samples. Field duplicate samples were collected during each quarterly sampling event, and results of the duplicate samples are listed in Table 4-1. The primary and QC samples were submitted to Accutest Laboratories for the same analyses. Results for each of the primary/duplicate sample sets were consistent.

Data verification was performed by EEI on the complete set of the primary investigative samples, and included a review of the following:

- Holding times
- Blanks
- Laboratory control spikes
- Surrogate recoveries
- Internal standards
- Calibrations

An assessment of the results indicated the data are usable for project purposes.

4.2 Free Product Gauging Results

During the current monitoring program, gauging was conducted monthly at 17 site wells from April 2004 through August 2005 (17 gauging events). During this period, measurable free product was observed only at well MW-9 during three of the events (0.01 foot on 6 May 2004, 0.10 foot on 12 July 2004, and 0.02 foot on 4 January 2005). No other wells exhibited measurable free product during the current monitoring program. Table 4-2 summarizes product thickness data for the current monitoring program. Field measurements (depth-to-water and depth-to-product) respectively are summarized in Tables A-1 and A-2 of Appendix A. Field gauging data records for the monthly gauging events also are presented in Appendix A.

The product thickness data have been used to prepare maps of the estimated extent of free product at the site. Figures 4-7 through 4-9 respectively present free product thickness data for May 2004, July 2004, and January 2005, the three events for which measurable free product was observed.

From the maps, measurable free product is present in a limited area around well MW-9. The infrequent occurrence and minor thicknesses observed at monitoring well MW-9 indicate the extent of measurable free product in this area, when present, is restricted to the immediate vicinity of the well.

Gauging data from the previous monitoring program, excerpted from the previous monitoring report, are presented in Appendix A (Shaw, 2004). The data indicate substantial reductions in free product have occurred over time (e.g., well MW-9 exhibited 2.90 feet of free product in January 2002 as compared to the current program data, in which a maximum free product thickness of 0.10 foot was observed.)

4.3 Soil Vapor Extraction System Vapor Sampling

Beginning in January 2005 and continuing through August 2005, PID readings (as well as flow velocities, SVE vapor velocities, temperatures, pressures/vacuums) were recorded at the site, typically on a weekly basis. The data were used to estimate mass removal rates for the SVE system. (PID readings were recorded monthly in 2004. However, measurements of the vapor flow were not made. Consequently, there are insufficient data to calculate mass removal rates from the 2004 PID readings.)

PID readings of the SVE vapor discharge typically did not exceed background levels. The maximum PID reading of 0.4 part per million (volume-volume basis) was record 29 January 2005. The calculated cumulative mass removed by the SVE system from 1 January 2005 through 26 August 2005 was 1.07 pounds. Table A-3 in Appendix A summarizes the field measurements and presents the mass removal calculations based on the field measurements. Calculations follow NCDENR guidance (NCDENR, 2002); calculation methods and modifications to address the petroleum constituents present at the site follow Table A-3.

As part of an emissions monitoring program, in December 2004 EEI collected a sample of the SVE vapor from the SVE discharge stack for analysis for VOCs, with results presented in February 2005. The data indicated a very low mass removal rate of approximately 0.13 gram per year for total VOCs.

The very low mass removal rates are expected given the very limited presence of free product and dissolved phase constituents at the site. The data indicate past and on-going remediation activities have effectively addressed petroleum affected vadose zone soils, free product, and dissolved phase petroleum constituents.

SECTION 5 CONCLUSIONS AND RECOMMENDATIONS

Conclusions and recommendations have been developed based on a review of site data. Each is discussed below.

5.1 Conclusions

The following conclusions have been drawn based on site data:

- Previous investigations indicated diesel and gasoline were released from three former USTs located at site.
- A water supply well is located within 1,000 feet of the site. The well is not in use at this time and is not expected to be in use in the near future. The nearest mapped surface water body is located less than 1,000 west of the site.
- A recent soil investigation indicated petroleum constituents were not present at detectable concentrations, and no additional soil remediation activities are needed.
- Shallow surficial aquifer groundwater flow is to the northwest and southeast from the center of the site. A slight downward vertical gradient is present between the upper and lower portions of the surficial aquifer.
- Only limited measurable free product was observed the monitoring program. Free product was observed only at well MW-9 during three of 17 gauging events, with measurable thicknesses ranging from 0.01 foot to 0.10 foot.
- No PAHs were detected at any site well during the current monitoring program. Benzene was the only VOC detected above NCGWQSs, and detection of benzene at concentrations above the NCGWQS was limited to three shallow wells located in the center of the site. Benzene concentrations decreased over the course of the monitoring program, such that benzene concentrations were below the NCGWQS in all site wells during the final sampling event.
- On-going remedial response includes operation of an AS/SVE system. Current mass removal rates for the system are very low. This is expected given the near-absence of measurable free product and the limited, very low dissolved-phase constituents remaining at the site.
- The data indicate the AS/SVE system is effective at addressing free product and dissolved-phase constituents at the site.

5.2 Recommendations

A remedial action optimization study / revised corrective action plan was completed for the site in 2005. The findings of this investigation generally support the conclusions and recommendations of the 2005 study.

The following recommendations are made based on the findings of this monitoring program:

- Deactivate AS/SVE line #1, as measurable free product is not present and dissolved phase constituents are no longer present at concentrations above NCGWQSSs in wells in this portion of the site.
- Reduce the sampling frequency from quarterly to semi-annually. Limit sampling to the following wells: MW-4, MW-5, MW-6, MW-7, MW-9, MW-10, MW-11, MW-13, MW-14, and MW-16.
- Report findings annually.

SECTION 6 REFERENCES

Catlin, 1995. (Richard Catlin and Associates, Inc). 11 September 1995. Leaking Underground Storage Tank Corrective Action Plan, Building AS-4158, Marine Corps Air Station New River, North Carolina. Prepared for the Department of the Navy.

Catlin, 2005. (Catlin Engineers and Scientists). 3 August 2005. Remedial Action Optimization and Revised Corrective Action Plan, Building AS-4158, Marine Corps Air Station New River, North Carolina. Prepared for the Department of the Navy.

Dominico and Schwatz, 1990. (Domenico, P.A. and Schwartz, F.W.). 1990. Physical and Chemical Hydrogeology. John Wiley and Sons, Inc. New York, New York.

EEI, 2003. (Engineering and Environment, Inc.). November 2003. Field Sampling Plan for Site and Laboratory Activities at Marine Corps Base Camp Lejeune, North Carolina. Prepared for the Department of the Navy.

GSI, 1993. (Groundwater Technology Government Services, Inc.). 26 May 1993. Three Well Site Check Report, Building AS-4158, Marine Corps Air Station New River, North Carolina. Prepared for the Department of the Navy.

Law, 1994. (Law Engineering, Inc.). 12 May 1994. Leaking Underground Storage Tank Site Assessment Report, Building AS-4158, Marine Corps Air Station New River, North Carolina. Prepared for the Department of the Navy.

Martinez, 2005 (Martinez, Isidoro). Fuel Properties web site, accessed 15 June 2005. <http://imartinez.etsin.upm.es/dat1/eCombus.htm>.

NCDENR, 2002. (North Carolina Department of Environment and Natural Resources). 1 July 2001 (Change 1, 20 August 2002). Guidelines for Assessment and Corrective Action.

NCDENR, 2003. (North Carolina Department of Environment and Natural Resources). 1 September 2003. UST Section Guidelines for Sampling, Version 1.2.

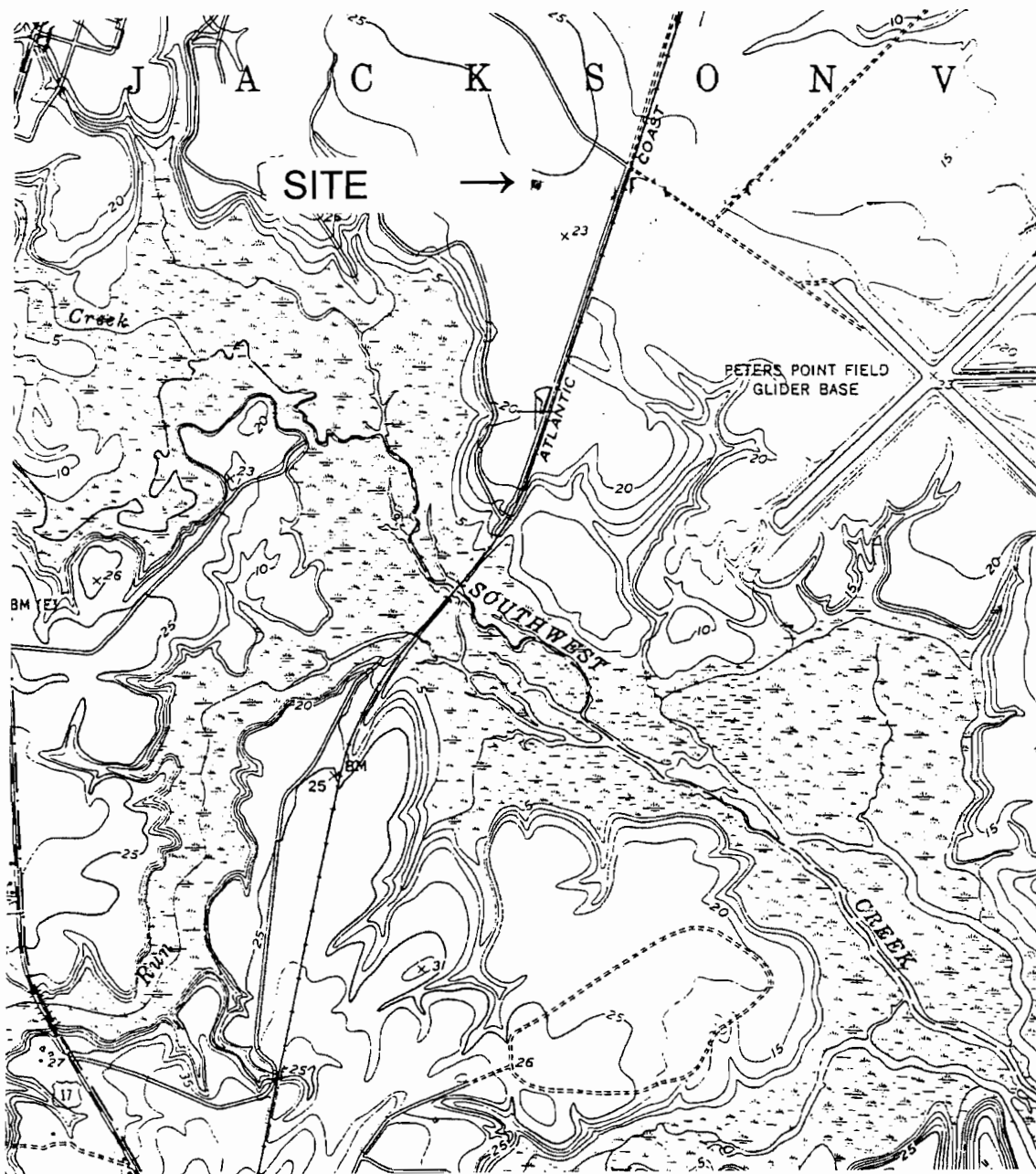
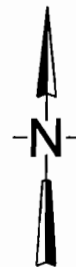
NCGS, 1985. (North Carolina Geological Survey). 1985. Geologic Map of North Carolina, scale 1:500,000.

NCGS, 1988. (North Carolina Geological Survey). 4 November 1988. Preliminary Explanatory Text for the 1985 Geologic Map of North Carolina, Contractual Report 88-1.

PHPV, 2003 (The Petroleum HPV Testing Group). 31 December 2003. Test Plan, Kerosene/Jet Fuel Category. Submitted to the U.S. Environmental Protection Agency.

Shaw, 2004. (Shaw Environmental, Inc.). January 2004. Final Annual Monitoring Report, Soil and Groundwater Remediation, Building AS-4158, Marine Corps Air Station New River, North Carolina. Prepared for the Department of the Navy.

FIGURES

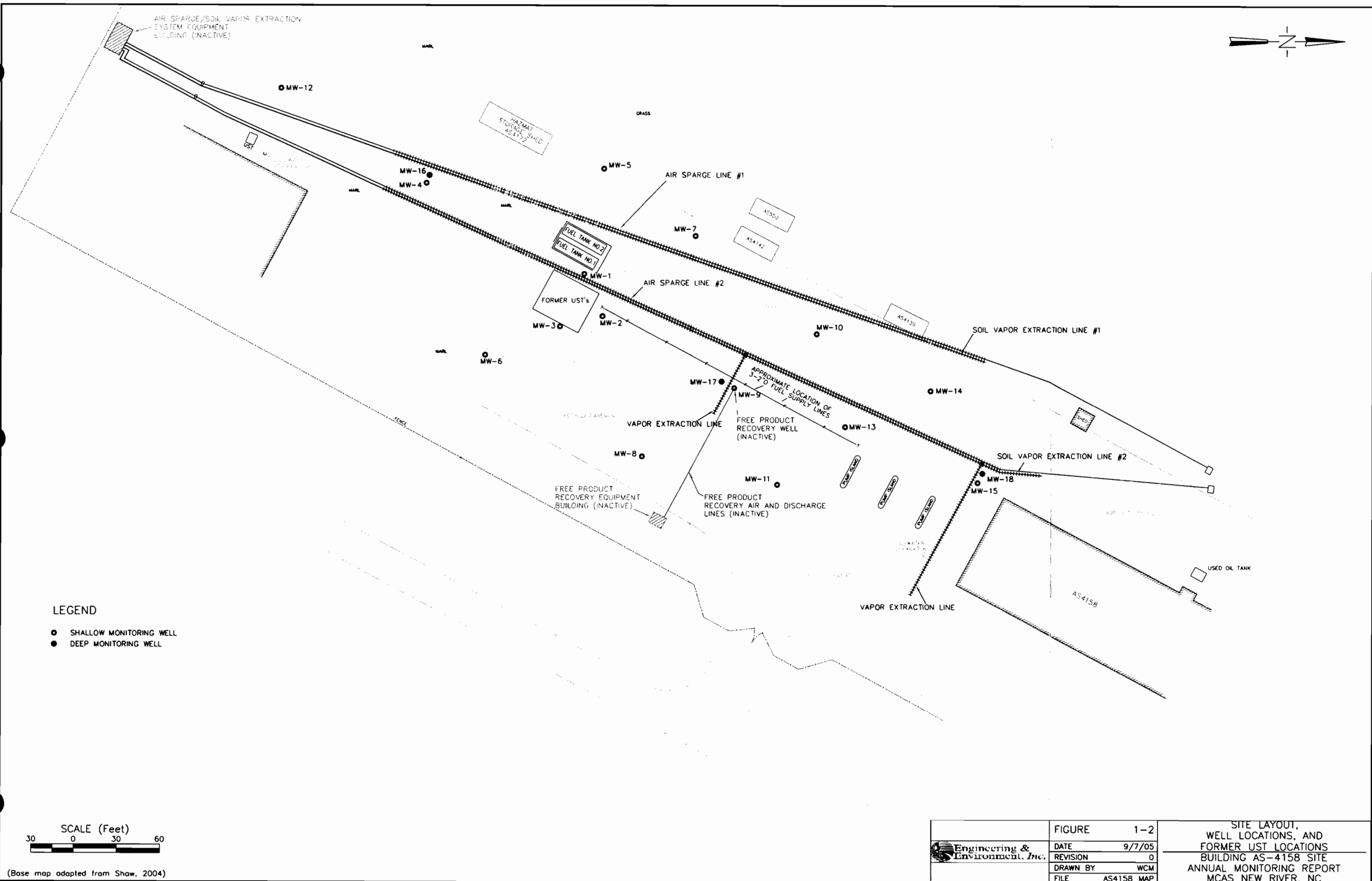


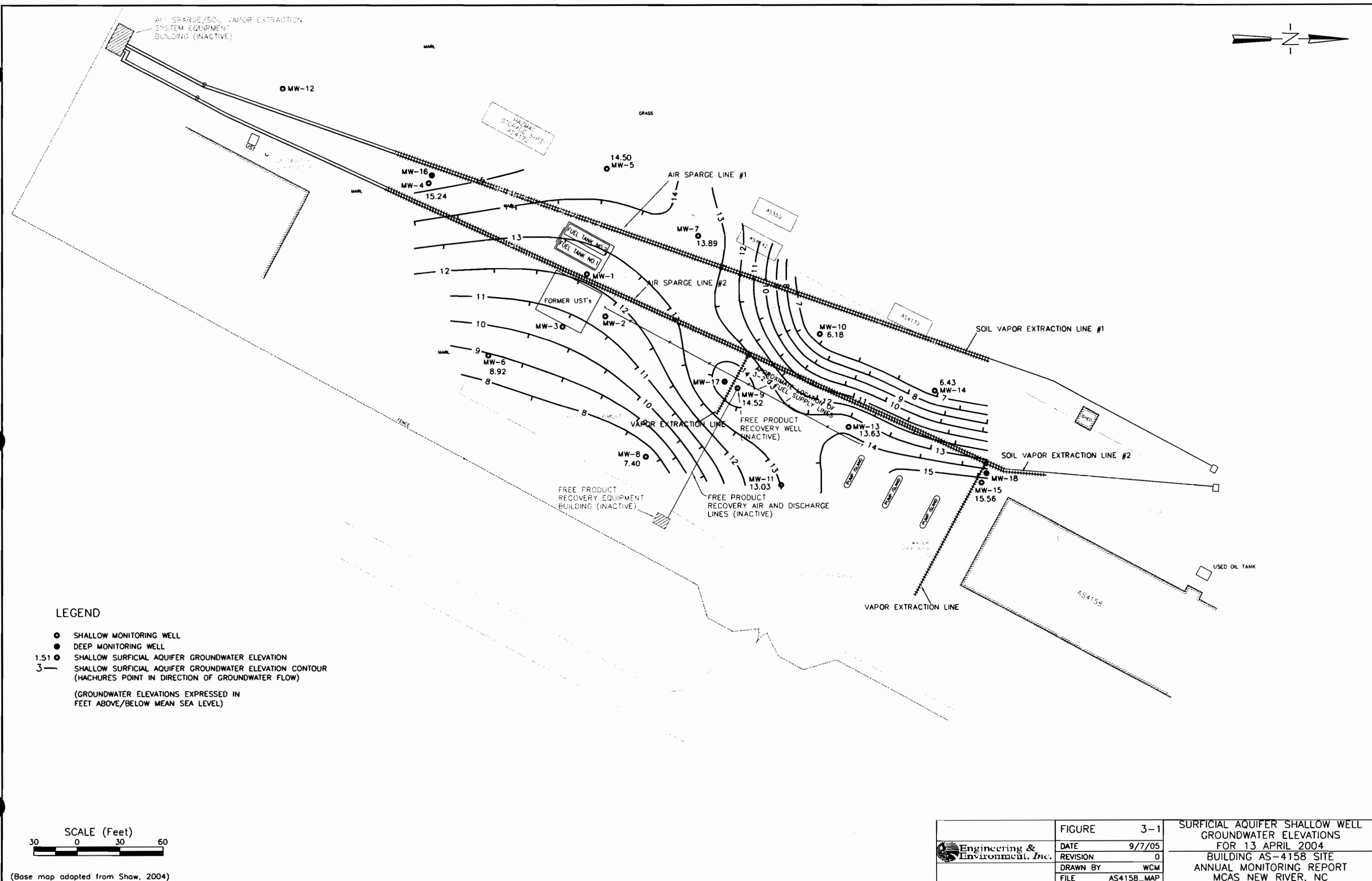
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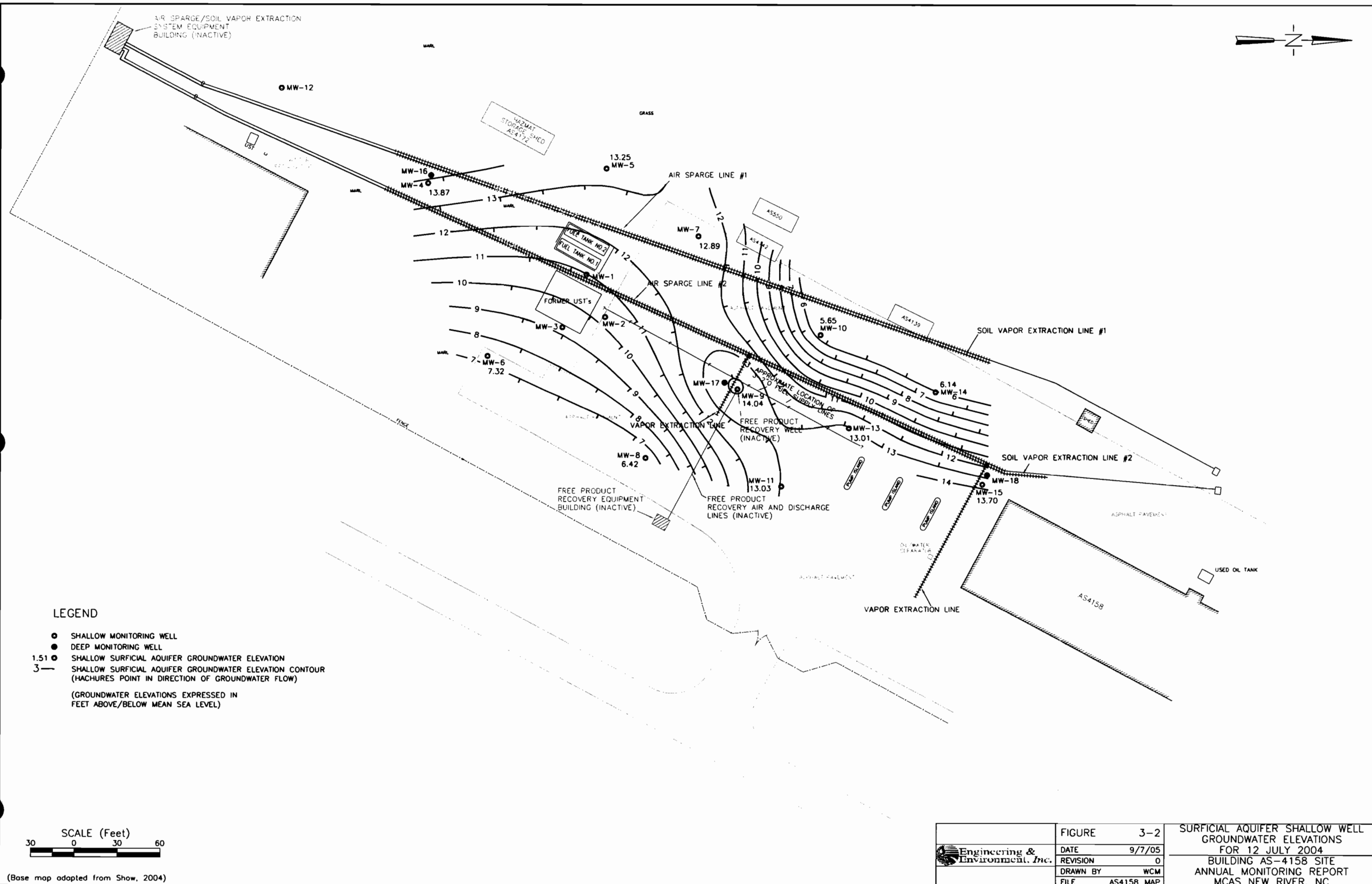
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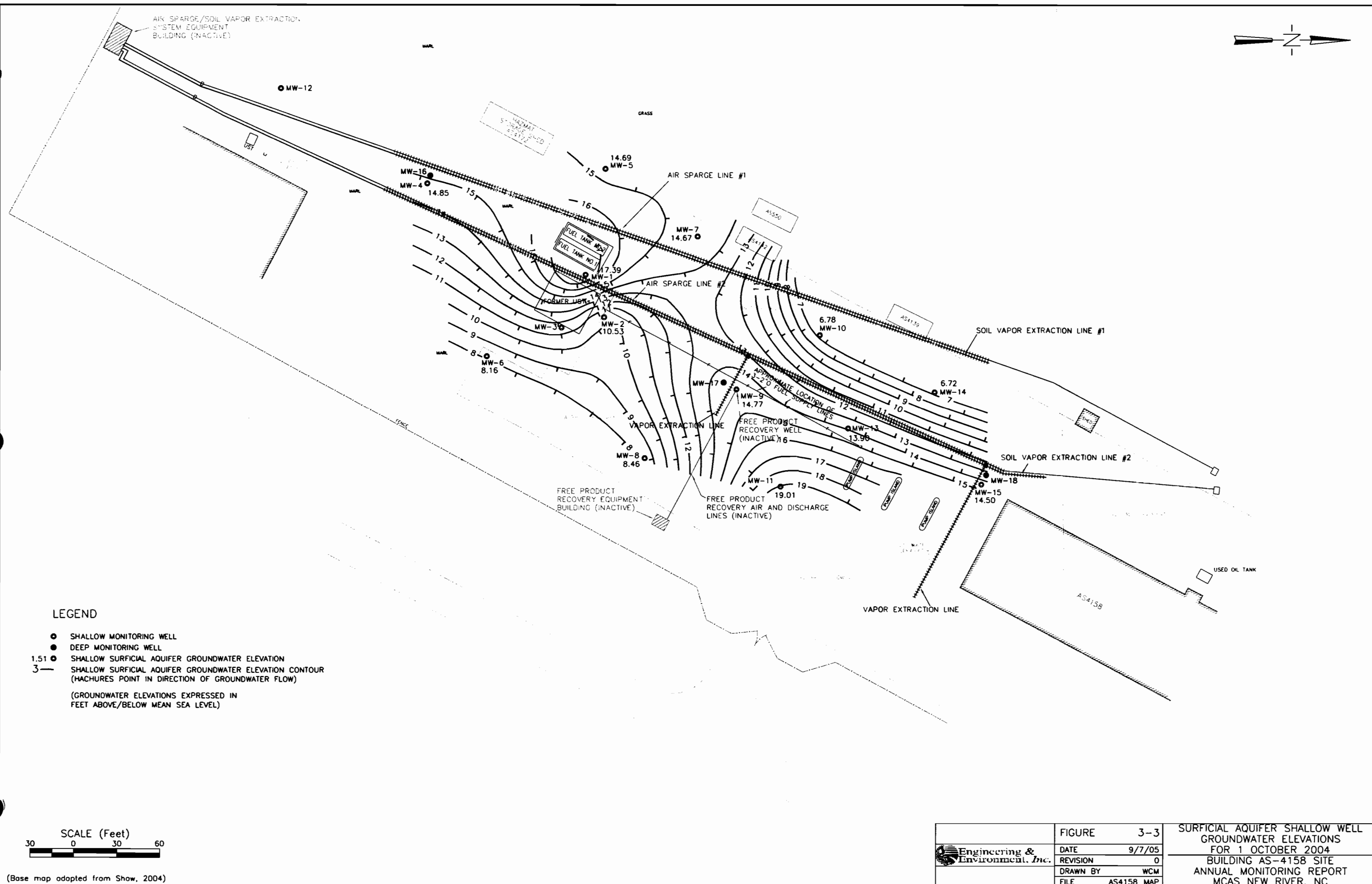
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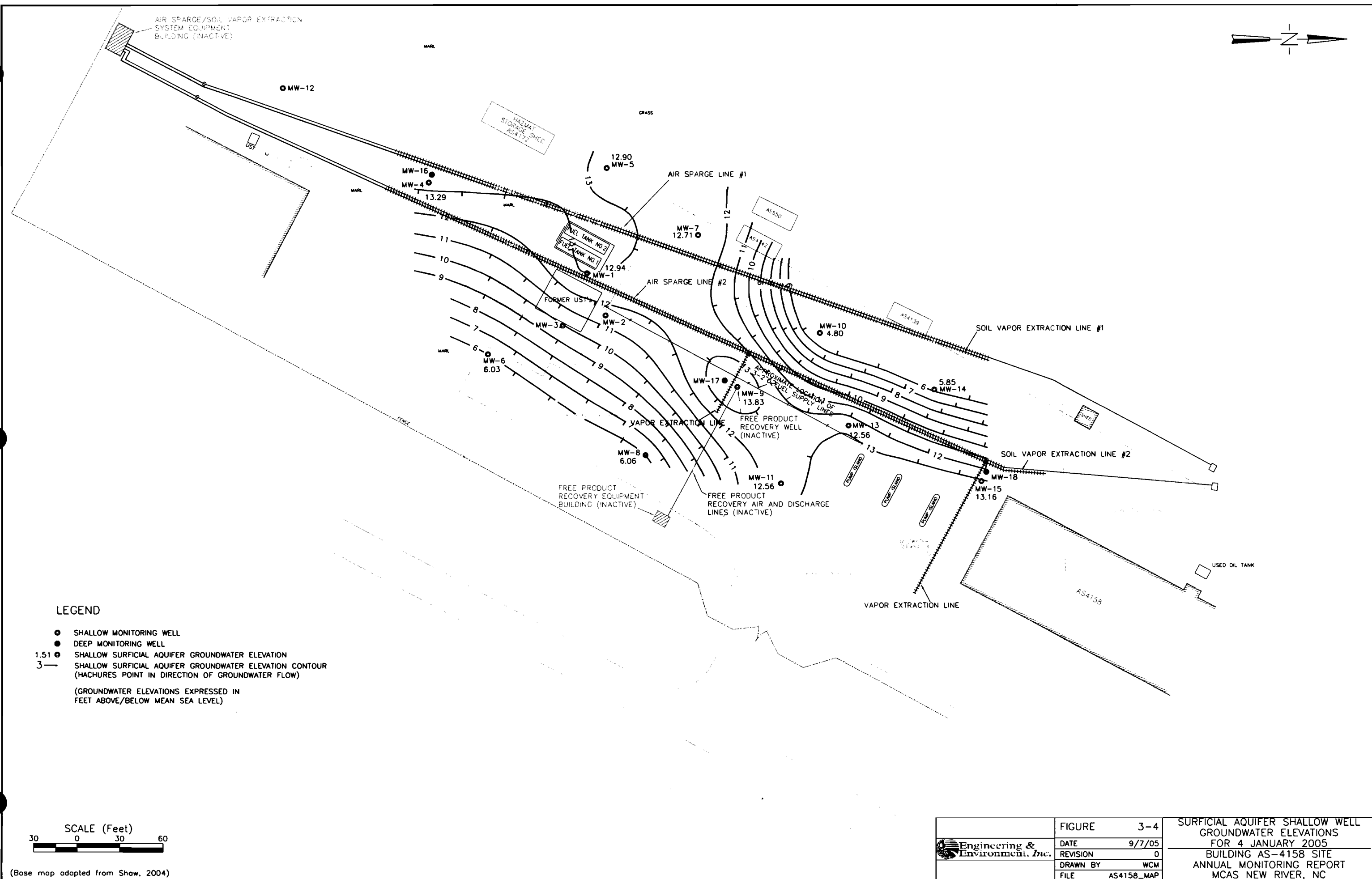
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 ANNUAL MONITORING REPORT
 MCAS NEW RIVER, NC

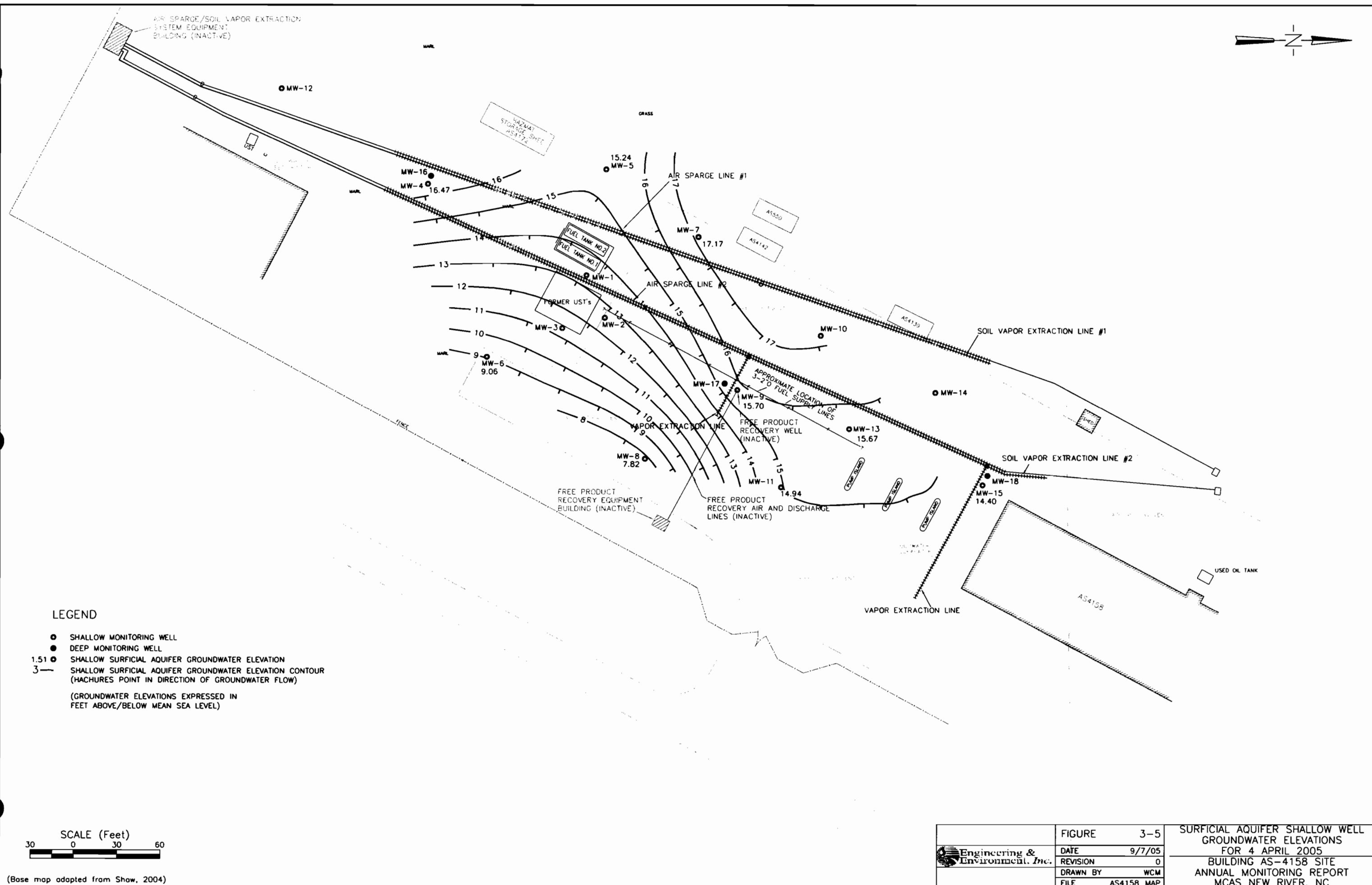


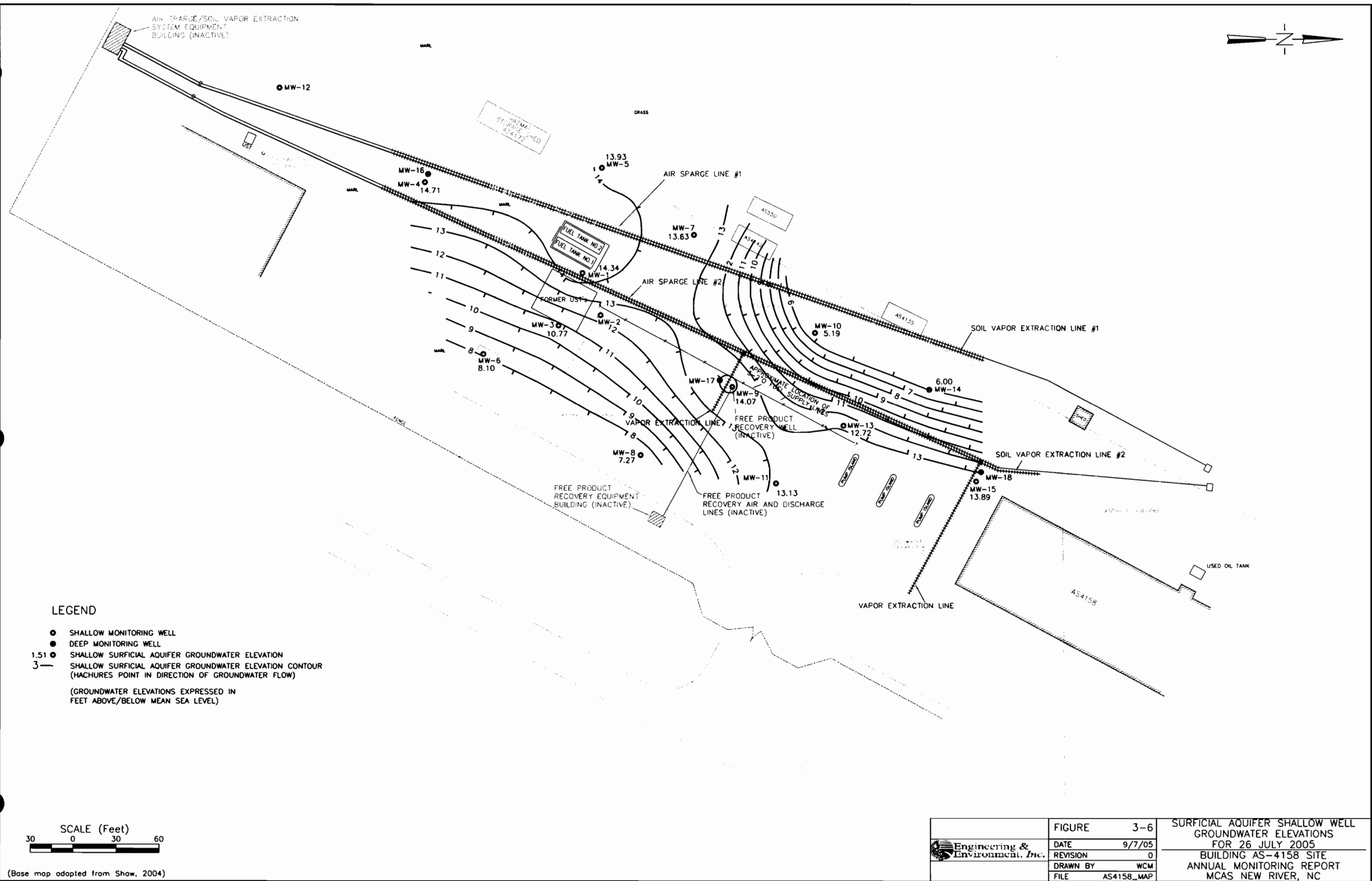


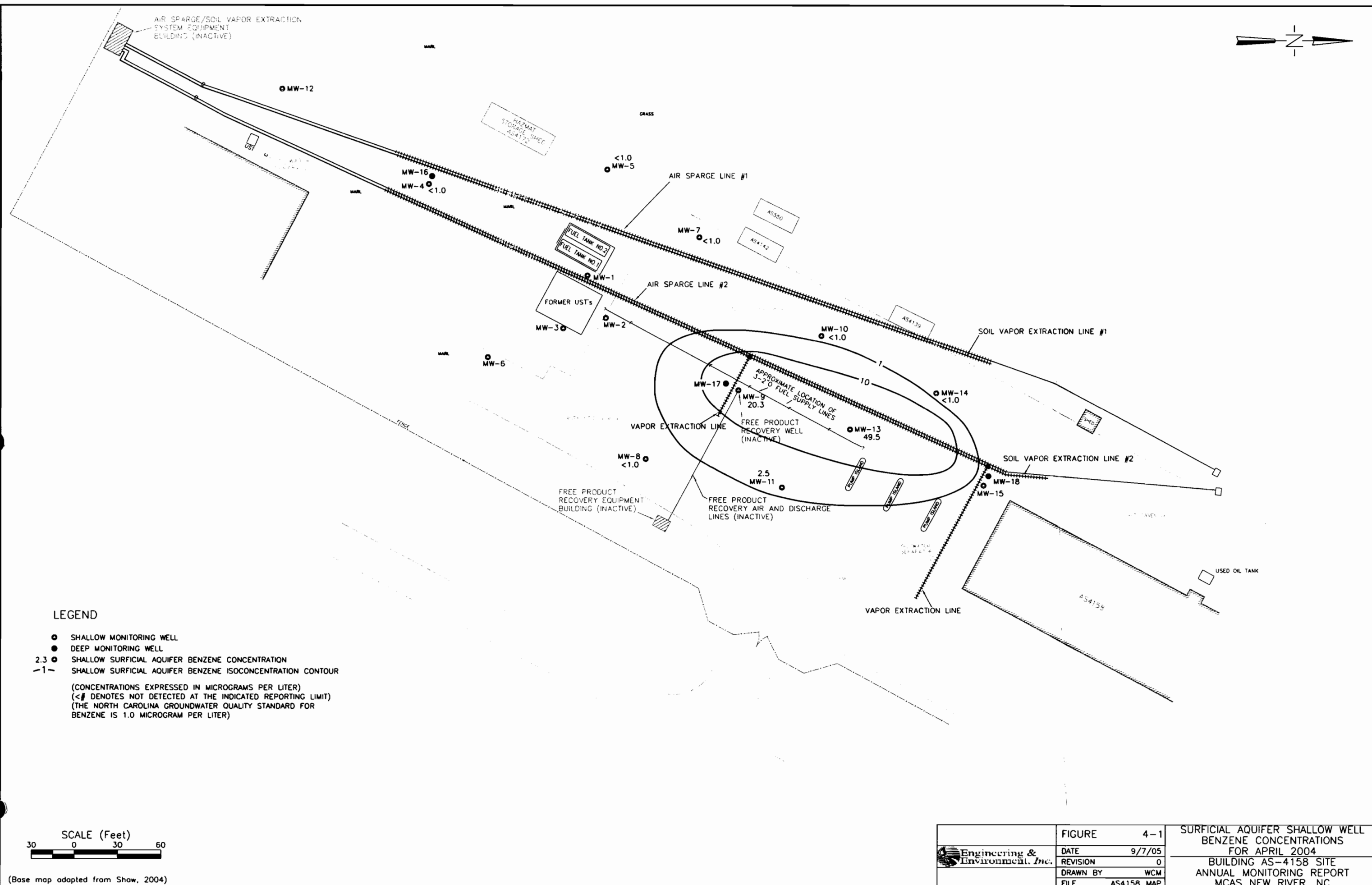








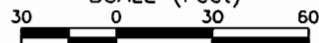




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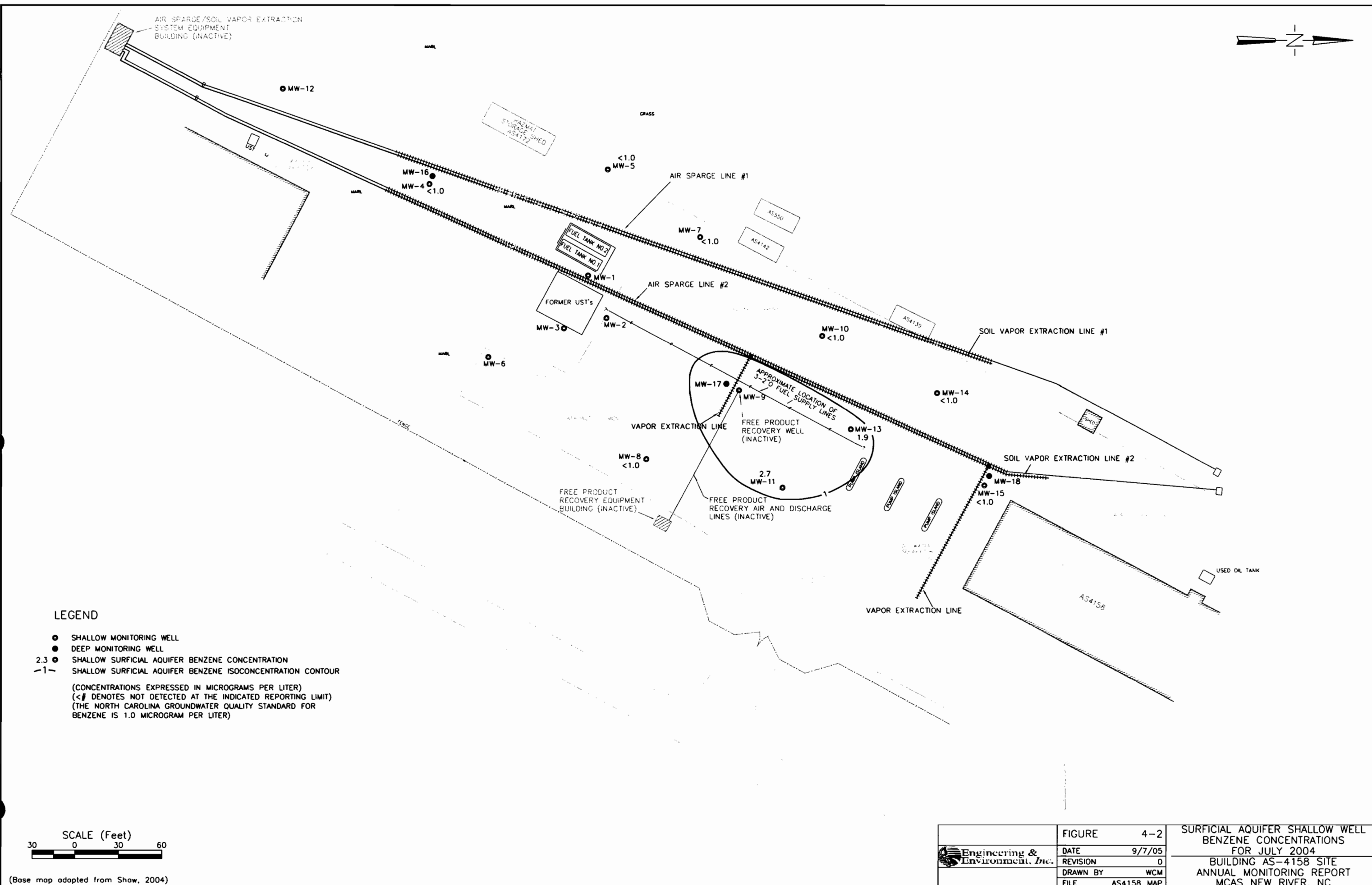
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 - DEEP MONITORING WELL
 - 2.3 ● SHALLOW SURFICIAL AQUIFER BENZENE CONCENTRATION
 - 1- SHALLOW SURFICIAL AQUIFER BENZENE ISOCONCENTRATION CONTOUR
- (CONCENTRATIONS EXPRESSED IN MICROGRAMS PER LITER)
(<# DENOTES NOT DETECTED AT THE INDICATED REPORTING LIMIT)
(THE NORTH CAROLINA GROUNDWATER QUALITY STANDARD FOR BENZENE IS 1.0 MICROGRAM PER LITER)

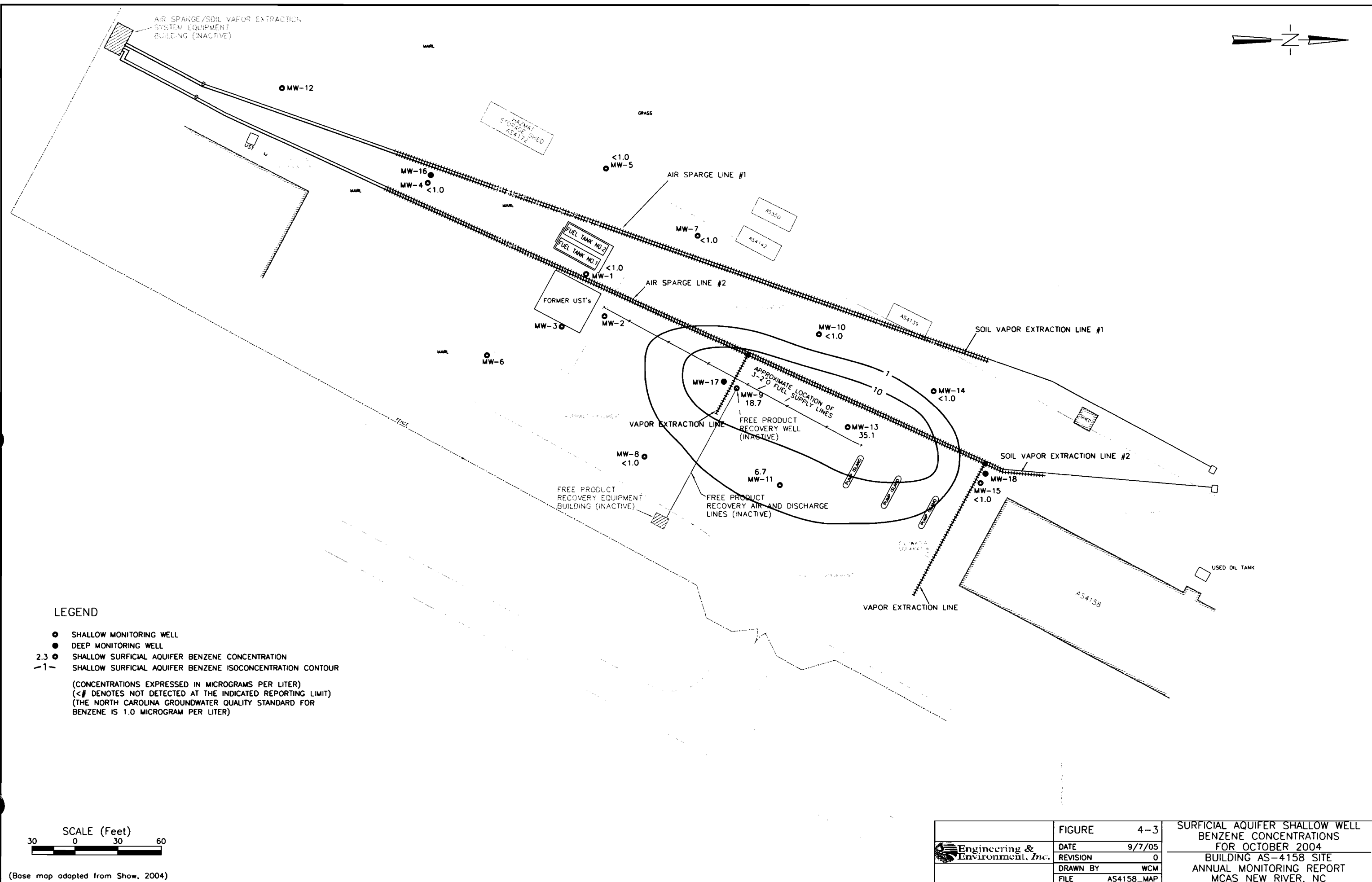
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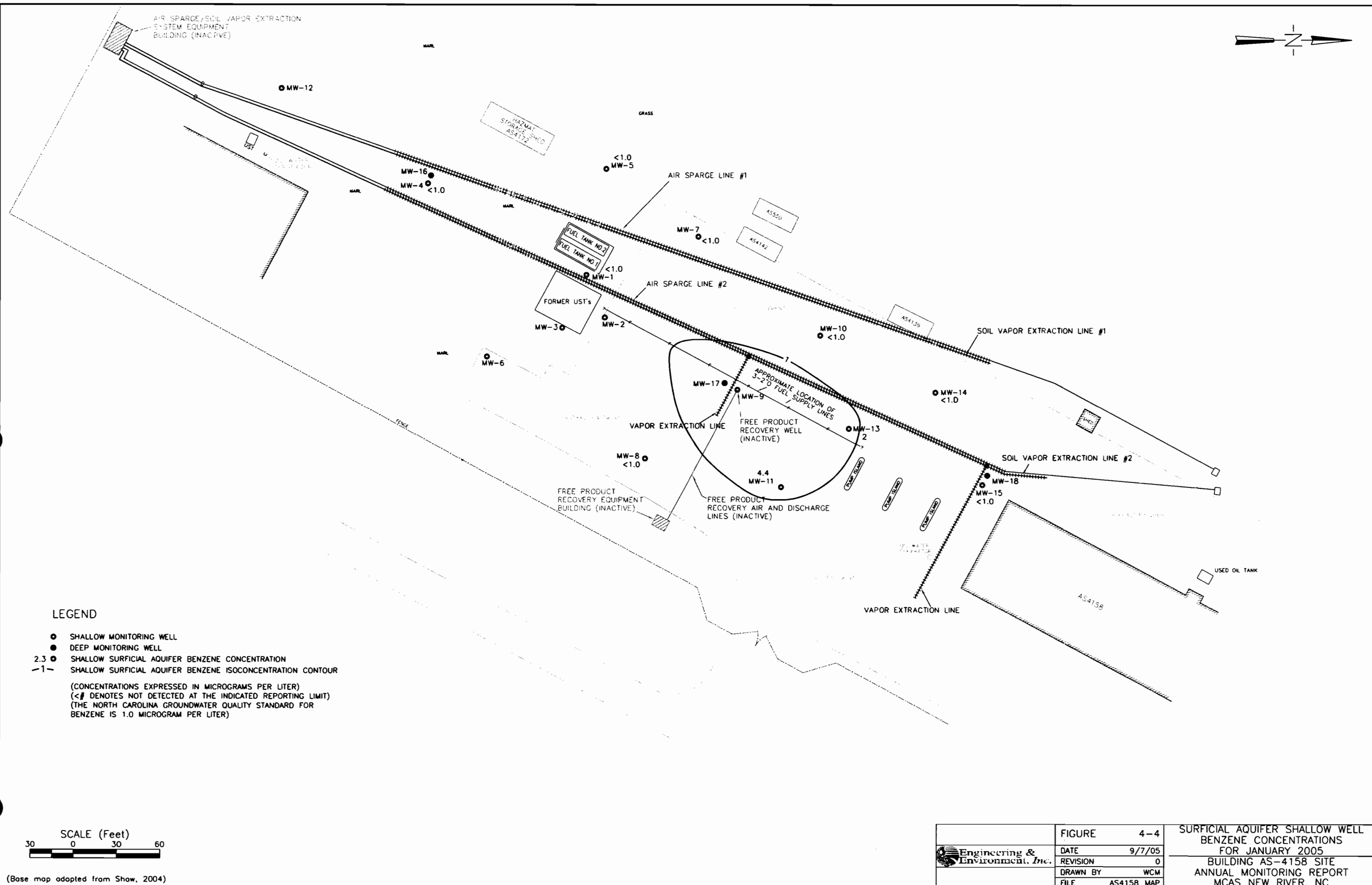


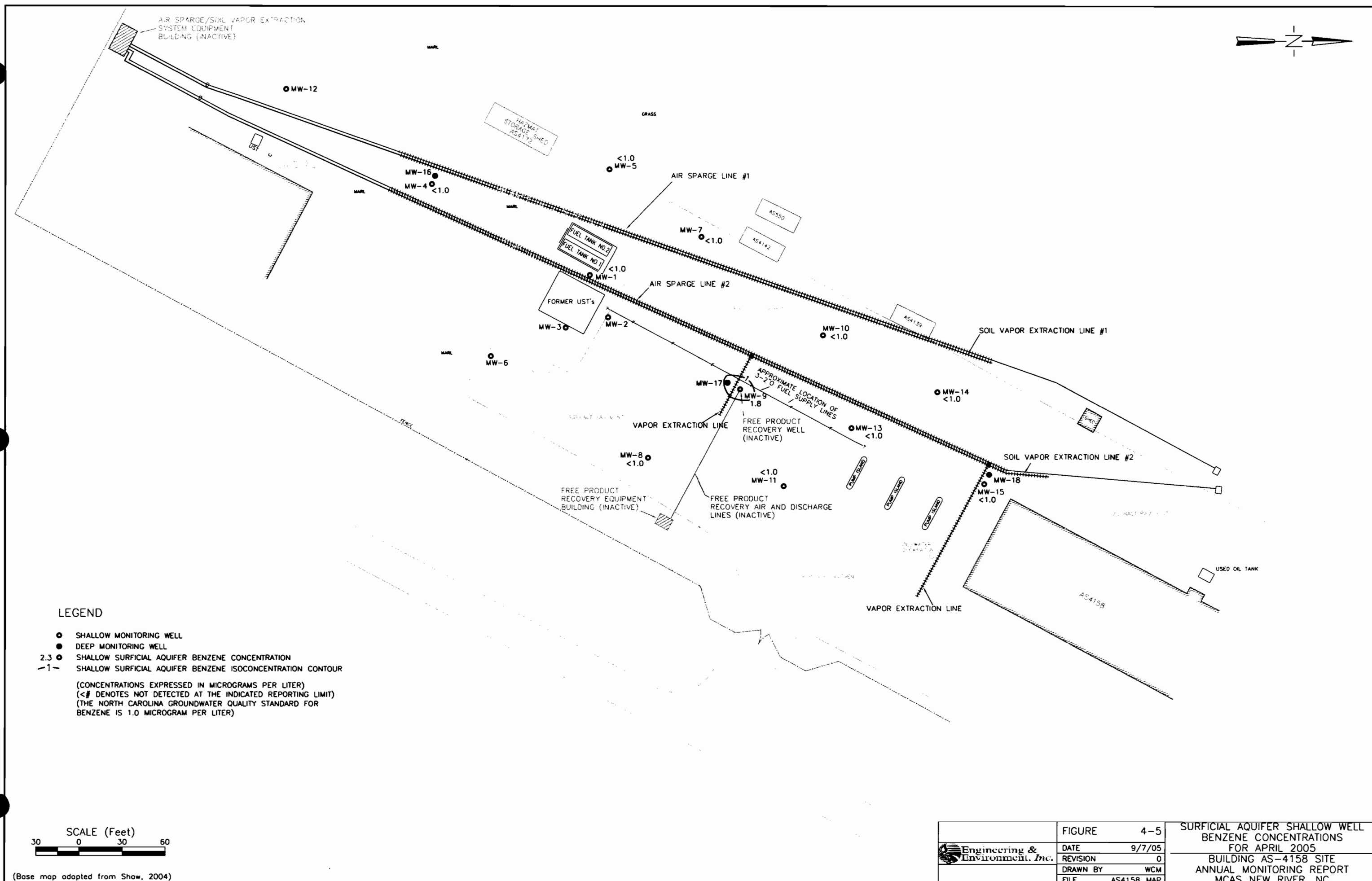
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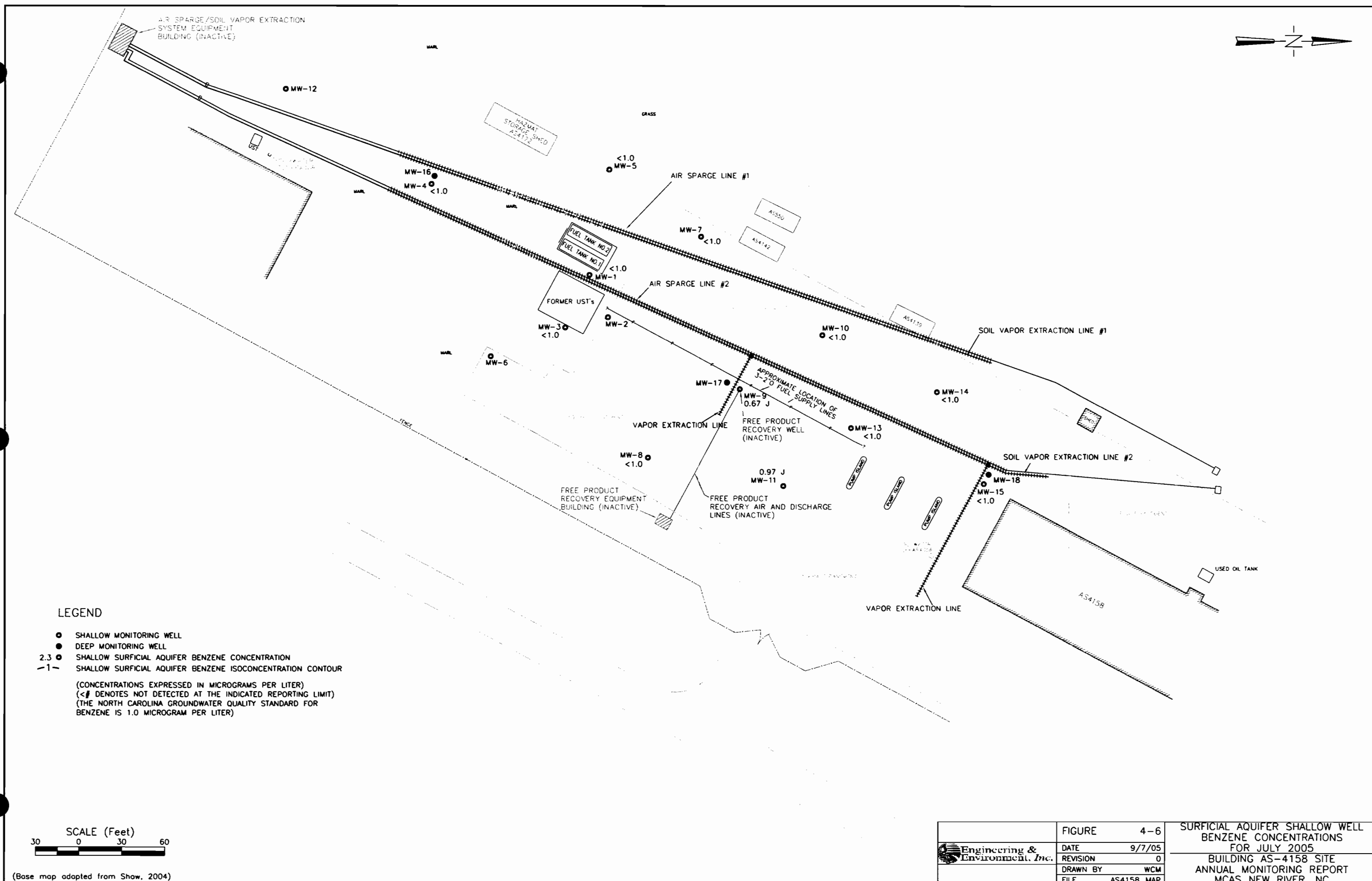
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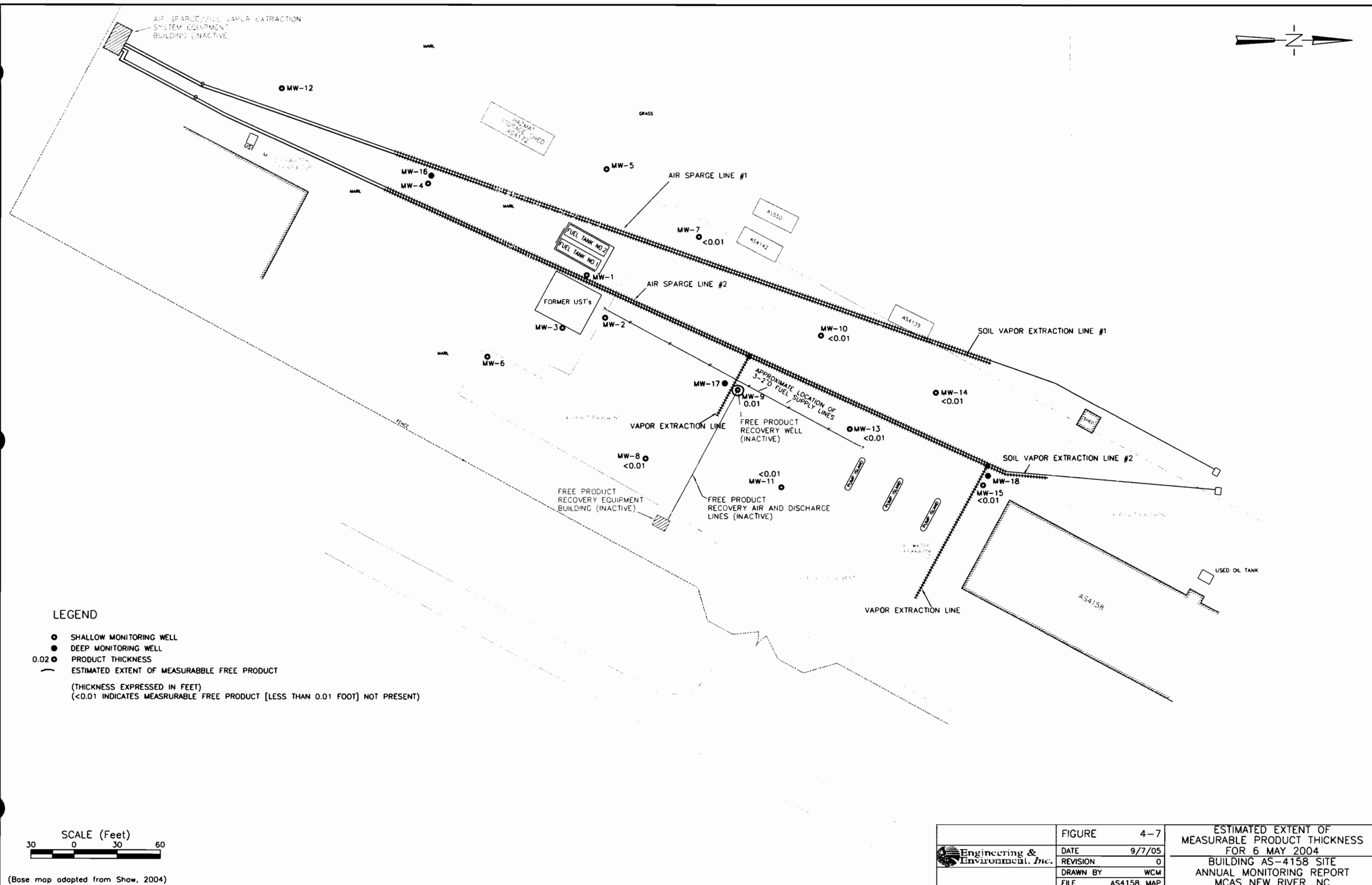


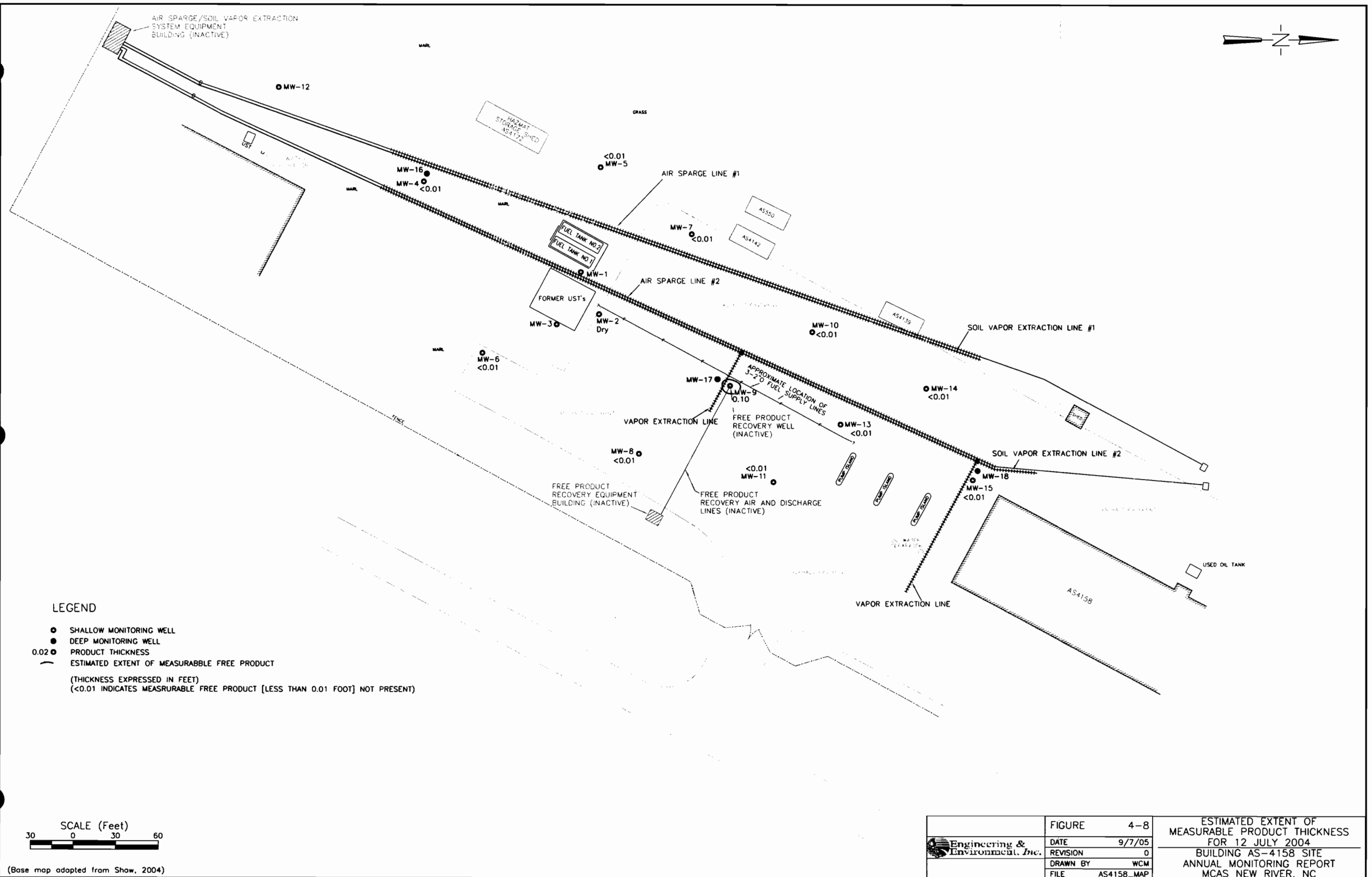


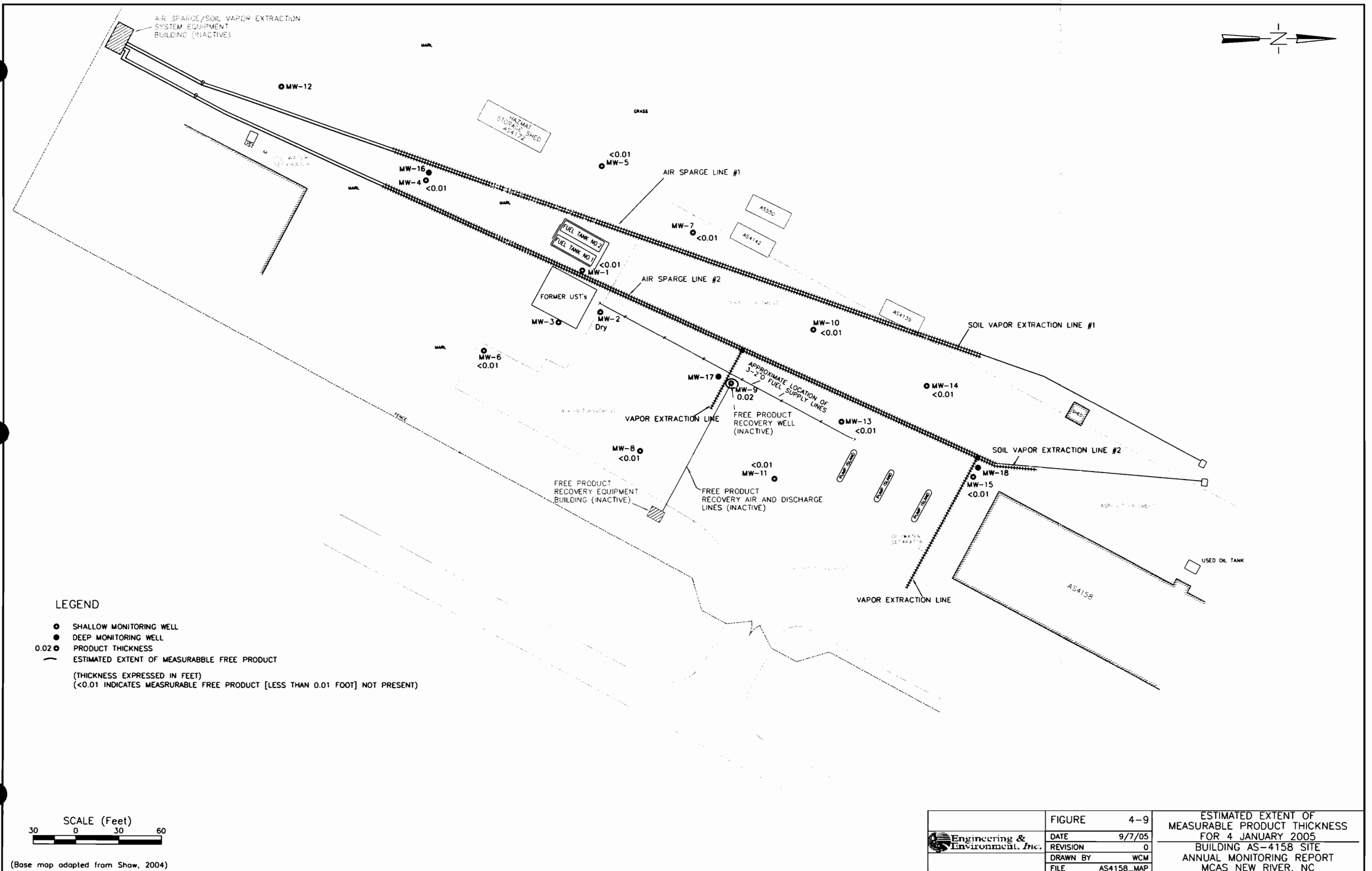












TABLES

TABLE 3-1
Monitor Well Construction Summary
 Building 4158 Site

Well Identification	Date Installed	Inner Casing Diameter (inches)	Top of Casing Elevation ⁽¹⁾ (feet MSL)	Total Well Depth ⁽¹⁾ (feet BGS)	Screened Interval ⁽¹⁾ (feet BGS)		Hydrogeologic Zone
MW1	03/23/93	2	21.39	17.5	2.5	17.5	Shallow
MW2	03/24/93	2	15.51	17.5	2.5	17.5	Shallow
MW3	03/23/93	2	17.70	17.5	2.5	17.5	Shallow
MW4	01/12/94	2	22.19	16.5	6.0	16.5	Shallow
MW5	01/12/94	2	22.10	16.5	6.0	16.5	Shallow
MW6	01/12/94	2	15.55	16.5	6.0	16.5	Shallow
MW7	01/12/94	2	22.11	16.5	6.0	16.5	Shallow
MW8	01/12/94	2	16.27	17.0	6.5	17.0	Shallow
MW9	12/29/93	2	23.14	17.0	6.5	17.0	Shallow
MW10	12/29/93	2	15.73	16.5	6.0	16.5	Shallow
MW11	12/29/93	2	23.84	17.0	6.5	17.0	Shallow
MW12	12/29/93	2	22.03	16.0	5.5	16.0	Shallow
MW13	12/29/93	2	24.12	17.0	6.5	17.0	Shallow
MW14	12/30/93	2	15.73	16.5	6.0	16.5	Shallow
MW15	12/29/93	2	23.99	17.0	6.5	17.0	Shallow
MW16	01/13/94	2	22.19	50.0	45.0	50.0	Deep
MW17	01/12/94	2	23.05	50.5	45.0	50.5	Deep
MW18	01/17/94	2	23.88	50.5	45.0	50.5	Deep

⁽¹⁾ Top of Casing elevations expressed in feet/above/below mean sea level; ground surface elevations (and all associated BGS depths) estimated

MSL - mean sea level

BGS - below ground surface

BTOC - below top of casing

InD: Insufficient data or data unavailable

TABLE 3-2
Groundwater Elevation Data

Location	Top of Casing Elevation ⁽¹⁾	Screen Zone	Groundwater Elevation (feet MSL)																
			4/13/04	5/6/04	6/9/04	7/12/04	8/12/04	9/21/04	10/1/04	11/4/04	12/9/04	1/4/05	2/4/05	3/1/05	4/4/05	5/3/05	6/8/05	7/26/05	8/25/05
MW1	21.39	Shallow	NM	NM	NM	NM	13.79	15.81	17.39	13.62	13.06	12.94	13.02	NM	NM	13.44	13.86	14.34	13.76
MW2	15.51	Shallow	Dry	8.69	Dry	Dry	NM	9.91	10.53	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
MW3	17.70	Shallow	NM	NM	NM	NM	10.08	NM	NM	NM	NM	NM	NM	NM	NM	9.63	10.05	10.77	9.81
MW4	22.19	Shallow	15.24	NM	14.14	13.87	13.96	15.99	14.85	13.94	13.61	13.29	13.47	15.37	16.47	13.57	13.96	14.71	14.29
MW5	22.10	Shallow	14.50	NM	13.67	13.25	13.58	15.28	14.69	13.70	13.15	12.90	13.00	13.50	15.24	13.28	13.52	13.93	13.49
MW6	15.55	Shallow	8.92	9.58	6.83	7.32	7.34	NM	8.16	6.67	6.17	6.03	6.08	7.28	9.06	NM	6.96	8.10	6.62
MW7	22.11	Shallow	13.89	14.34	13.31	12.89	13.21	14.79	14.67	13.52	13.16	12.71	12.10	12.87	17.17	13.06	13.13	13.63	14.29
MW8	16.27	Shallow	7.40	8.07	7.14	6.42	7.19	9.08	8.46	7.11	6.37	6.06	6.87	7.01	7.82	6.55	6.83	7.27	7.13
MW9	23.14	Shallow	14.52	14.66	14.44	14.04	13.97	13.32	14.77	14.58	13.84	13.83	12.43	14.17	15.70	13.92	13.91	14.07	13.54
MW10	15.73	Shallow	6.18	6.60	6.17	5.65	6.28	7.75	6.78	5.64	5.03	4.80	4.71	7.21	NM	7.03	4.39	5.19	5.87
MW11	23.84	Shallow	13.03	14.03	13.41	13.03	14.22	15.54	19.01	13.46	12.83	12.56	12.59	12.52	14.94	12.72	12.72	13.13	12.91
MW12	22.03	Shallow	Abd	Abd	Abd	Abd	Abd	Abd	Abd	Abd	Abd	Abd	Abd	Abd	Abd	Abd	Abd	Abd	Abd
MW13	24.12	Shallow	13.63	13.95	13.34	13.01	13.17	14.25	13.90	13.43	12.84	12.56	13.43	12.64	15.67	12.69	12.28	12.72	12.94
MW14	15.73	Shallow	6.43	6.52	6.55	6.14	6.13	7.00	6.72	6.46	6.24	5.85	6.19	6.60	NM	6.11	6.01	6.00	6.59
MW15	23.99	Shallow	15.56	14.81	13.29	13.70	13.74	14.49	14.50	14.11	13.43	13.16	13.27	11.17	14.40	13.74	13.97	13.89	14.40
MW16	22.19	Deep	13.84	14.51	13.27	12.81	13.04	14.76	13.81	13.29	NM	12.34	13.72	12.26	13.41	12.60	12.93	13.23	12.67
MW17	23.05	Deep	13.36	14.07	12.84	12.62	12.73	14.31	13.92	12.85	12.40	12.07	12.53	12.10	13.64	12.32	12.57	12.74	12.43
MW18	23.88	Deep	13.24	13.85	12.60	13.38	12.68	14.05	13.52	12.67	12.18	12.05	13.43	12.06	13.35	12.25	12.43	12.92	12.28

⁽¹⁾ Top of casing elevation expressed in feet above/below MSL

MSL: mean sea level

Groundwater elevations corrected for free product as needed by adding (0.8 x product thickness) to uncorrected groundwater elevation

Abd: Abandoned; well not found and apparently abandoned

NM: Not measured; the well was not accessible (under water, blocked by a vehicle, etc.)

TABLE 3-3
Horizontal Hydraulic Gradients and Average Linear Velocities
Building 4158 Site

Zone	Shallow					Shallow					Averages for Date	
Well Pair	MW9 to MW8					MW9 to MW10						
Horizontal Distance (feet)	80					69						
Date Measured	Groundwater Elevation (feet MSL)		Flow Direction	Horizontal Gradient <i>i</i>	Linear Velocity (feet/day)	Groundwater Elevation (feet MSL)		Flow Direction	Horizontal Gradient <i>i</i>	Linear Velocity (feet/day)	Horizontal Gradient <i>i</i>	Average Linear Velocity (feet/day)
	MW9	MW8				MW9	MW10					
4/13/2004	14.52	7.40	SE	0.0890	5.207	14.52	6.18	NW	0.1209	7.071	0.1049	6.139
5/6/2004	14.66	8.07	SE	0.0824	4.817	14.66	6.60	NW	0.1168	6.832	0.0996	5.825
6/9/2004	14.44	7.14	SE	0.0913	5.338	14.44	6.17	NW	0.1199	7.012	0.1056	6.175
7/12/2004	14.04	6.42	SE	0.0953	5.572	14.04	5.65	NW	0.1216	7.113	0.1084	6.343
8/12/2004	13.97	7.19	SE	0.0848	4.958	13.97	6.28	NW	0.1114	6.520	0.0981	5.739
9/21/2004	13.32	9.08	SE	0.0530	3.101	13.32	7.75	NW	0.0807	4.722	0.0669	3.911
10/1/2004	14.77	8.46	SE	0.0789	4.614	14.77	6.78	NW	0.1158	6.774	0.0973	5.694
11/4/2004	14.58	7.11	SE	0.0934	5.462	14.58	5.64	NW	0.1296	7.580	0.1115	6.521
12/9/2004	13.84	6.37	SE	0.0934	5.462	13.84	5.03	NW	0.1277	7.469	0.1105	6.466
1/4/2005	13.83	6.06	SE	0.0971	5.679	13.83	4.80	NW	0.1308	7.652	0.1139	6.666
2/4/2005	12.43	6.87	SE	0.0695	4.066	12.43	4.71	NW	0.1119	6.545	0.0907	5.305
3/1/2005	14.17	7.01	SE	0.0895	5.236	14.17	7.21	NW	0.1009	5.901	0.0952	5.568
4/4/2005	15.70	7.82	SE	0.0985	5.762	15.70	NM				0.0985	5.762
5/3/2005	13.92	6.55	SE	0.0921	5.389	13.92	7.03	NW	0.0999	5.842	0.0960	5.615
6/8/2005	13.91	6.83	SE	0.0885	5.177	13.91	4.39	NW	0.1380	8.071	0.1132	6.624
7/26/2005	14.07	7.27	SE	0.0850	4.973	14.07	5.19	NW	0.1287	7.529	0.1068	6.251
8/25/2005	13.54	7.13	SE	0.0801	4.687	13.54	5.87	NW	0.1112	6.503	0.0956	5.595
Pair Average				0.0860	5.029				0.1166	6.821		

Horizontal hydraulic conductivity, shallow zone (K_h): 11.70 feet/day

Effective porosity, shallow zone (n_e): 0.20 (dimensionless)

MSL - mean sea level

NM: Not measured

Blank entries indicate there are insufficient gauging data for to calculate horizontal gradient

Average linear velocity = $K_h i / n_e$; assumes homogeneous isotropic porous aquifer

TABLE 3-4
Vertical Hydraulic Gradients
Building 4158 Site

Well Pair	MW4	to	MW16	MW9	to	MW17	MW15	to	MW18	
Zone	Shallow		Deep	Shallow		Deep	Shallow		Deep	
Screen Midpoint Distance (feet)	36.0			36.1			36.1			
Date Measured	Groundwater Elevation (feet MSL)		Vertical Gradient <i>i</i>	Groundwater Elevation (feet MSL)		Vertical Gradient <i>i</i>	Groundwater Elevation (feet MSL)		Vertical Gradient <i>i</i>	Average for Date <i>i</i>
	MW4 : MW16			MW9 : MW17			MW15 : MW18			
4/13/2004	15.24	13.84	0.039	14.52	13.36	0.032	15.56	13.24	0.064	0.045
5/6/2004	NM	14.51		14.66	14.07	0.016	14.81	13.85	0.027	0.021
6/9/2004	14.14	13.27	0.024	14.44	12.84	0.044	13.29	12.60	0.019	0.029
7/12/2004	13.87	12.81	0.029	14.04	12.62	0.039	13.70	13.38	0.009	0.026
8/12/2004	13.96	13.04	0.026	13.97	12.73	0.034	13.74	12.68	0.029	0.030
9/21/2004	15.99	14.76	0.034	13.32	14.31	-0.027	14.49	14.05	0.012	0.006
10/1/2004	14.85	13.81	0.029	14.77	13.92	0.024	14.50	13.52	0.027	0.027
11/4/2004	13.94	13.29	0.018	14.58	12.85	0.048	14.11	12.67	0.040	0.035
12/9/2004	13.61	NM		13.84	12.40	0.040	13.43	12.18	0.035	0.037
1/4/2005	13.29	12.34	0.026	13.83	12.07	0.049	13.16	12.05	0.031	0.035
2/4/2005	13.47	13.72	-0.007	12.43	12.53	-0.003	13.27	13.43	-0.004	-0.005
3/1/2005	15.37	12.26	0.086	14.17	12.10	0.057	11.17	12.06	-0.025	0.040
4/4/2005	16.47	13.41	0.085	15.70	13.64	0.057	14.40	13.35	0.029	0.057
5/3/2005	13.57	12.60	0.027	13.92	12.32	0.044	13.74	12.25	0.041	0.038
6/8/2005	13.96	12.93	0.029	13.91	12.57	0.037	13.97	12.43	0.043	0.036
7/26/2005	14.71	13.23	0.041	14.07	12.74	0.037	13.89	12.92	0.027	0.035
8/25/2005	14.29	12.67	0.045	13.54	12.43	0.031	14.40	12.28	0.059	0.045
Pair Average			0.035			0.033			0.027	
Shallow to Deep Average			0.032 (dimensionless)							
Blank entries indicate there are insufficient gauging data for to calculate vertical gradient										

MSL - mean sea level

NM: Not measured

Table 4-1 (Page 1 of 6)
Summary of Laboratory Analyses for Groundwater
Building AS-4158
April 2004

Sample Location	NCGWQS	MW-4	MW-5	MW-7	MW-8	MW-9*	MW-10
Date Sampled		04/14/04	04/14/04	04/14/04	04/15/04	04/16/04	04/16/04
EPA 602 (µg/L)							
Benzene	1	<1.0	<1.0	<1.0	<1.0	20.3	<1.0
Ethylbenzene	29	<1.0	<1.0	<1.0	<1.0	5.2	<1.0
Toluene	1000	<1.0	<1.0	<1.0	<1.0	7.3	<1.0
Xylenes (total)	530	<3.0	<3.0	<3.0	<3.0	62.3	<3.0
Methyl Tert Butyl Ether	200	<1.0	<1.0	<1.0	<1.0	2.2	<1.0
Total BTEX		ND	ND	ND	ND	95.1	ND
EPA 610 (µg/L)							
Acenaphthene	80	<5.2	<5.2	<5.2	<5.2	<110	<5.0
Acenaphthylene	210	<5.2	<5.2	<5.2	<5.2	<110	<5.0
Anthracene	2100	<5.2	<5.2	<5.2	<5.2	<110	<5.0
Benzo(a)anthracene	0.05	<5.2	<5.2	<5.2	<5.2	<110	<5.0
Fluoranthene	280	<5.2	<5.2	<5.2	<5.2	<110	<5.0
Fluorene	280	<5.2	<5.2	<5.2	<5.2	<110	<5.0
1-Methylnaphthalene	RL	<5.2	<5.2	<5.2	<5.2	<110	<5.0
2-Methylnaphthalene	14	<5.2	<5.2	<5.2	<5.2	<110	<5.0
Naphthalene	21	<5.2	<5.2	<5.2	<5.2	<110	<5.0
Phenanthrene	210	<5.2	<5.2	<5.2	<5.2	<110	<5.0
Pyrene	210	<5.2	<5.2	<5.2	<5.2	<110	<5.0
Sample Location	NCGWQS	MW-11	MW-13*	MW-14	MW-17	MW-18	DUP**
Date Sampled		04/15/04	04/15/04	04/16/04	04/16/04	04/15/04	04/15/04
EPA 602 (µg/L)							
Benzene	1	2.5	49.5	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	29	<1.0	4.5	<1.0	<1.0	<1.0	<1.0
Toluene	1000	<1.0	1.1	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	530	<3.0	9.7	<3.0	<3.0	<3.0	<3.0
Methyl Tert Butyl Ether	200	6.8	47.4	<1.0	31.9	<1.0	<1.0
Total BTEX		2.5	64.8	ND	ND	ND	ND
EPA 610 (µg/L)							
Acenaphthene	80	<5.0	<20	<5.1	<5.0	<5.0	<5.1
Acenaphthylene	210	<5.0	<20	<5.1	<5.0	<5.0	<5.1
Anthracene	2100	<5.0	<20	<5.1	<5.0	<5.0	<5.1
Benzo(a)anthracene	0.05	<5.0	<20	<5.1	<5.0	<5.0	<5.1
Fluoranthene	280	<5.0	<20	<5.1	<5.0	<5.0	<5.1
Fluorene	280	<5.0	<20	<5.1	<5.0	<5.0	<5.1
1-Methylnaphthalene	RL	<5.0	<20	<5.1	<5.0	<5.0	<5.1
2-Methylnaphthalene	14	<5.0	<20	<5.1	<5.0	<5.0	<5.1
Naphthalene	21	<5.0	<20	<5.1	<5.0	<5.0	<5.1
Phenanthrene	210	<5.0	<20	<5.1	<5.0	<5.0	<5.1
Pyrene	210	<5.0	<20	<5.1	<5.0	<5.0	<5.1

* Polynuclear aromatic hydrocarbons exhibited elevated reporting limits due to matrix interference effects

** DUP is a duplicate sample collected at well MW-18

ND: None detected; no benzene, toluene, ethylbenzene, or xylene isomers were detected

NCGWQS: North Carolina Groundwater Quality Standard

RL: Reporting Limit, no NCGWQS established for the constituent; therefore, the NCGWQS for the constituent is the reporting limit

µg/L: micrograms per liter

<#: not detected at the indicated reporting limit

J: estimated concentration less than reporting limit

Bold type indicates detectable concentrations.

Shaded area indicates detectable concentration above the North Carolina Groundwater Quality Standards

Table 4-1 (Page 2 of 6)
Summary of Laboratory Analyses for Groundwater
Building AS-4158
July 2004

Sample Location	NCGWQS	MW-4	MW-5	MW-7	MW-8	MW-10	MW-11
Date Sampled		07/12/04	07/12/04	07/12/04	07/13/04	07/12/04	07/13/04
EPA 602 (µg/L)							
Benzene	1	<1.0	<1.0	<1.0	<1.0	<1.0	2.7
Ethylbenzene	29	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	1000	1.3	1.1	0.83 J	<1.0	0.79 J	<1.0
Xylenes (total)	530	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Methyl Tert Butyl Ether	200	<1.0	<1.0	<1.0	<1.0	<1.0	7.0
Total BTEX		1.3	1.1	0.83	ND	0.79	2.7
EPA 610 (µg/L)							
Acenaphthene	80	<4.8	<4.9	<4.8	<4.9	<4.9	<4.8
Acenaphthylene	210	<4.8	<4.9	<4.8	<4.9	<4.9	<4.8
Anthracene	2100	<4.8	<4.9	<4.8	<4.9	<4.9	<4.8
Benzo(a)anthracene	0.05	<4.8	<4.9	<4.8	<4.9	<4.9	<4.8
Fluoranthene	280	<4.8	<4.9	<4.8	<4.9	<4.9	<4.8
Fluorene	280	<4.8	<4.9	<4.8	<4.9	<4.9	<4.8
1-Methylnaphthalene	RL	<4.8	<4.9	<4.8	<4.9	<4.9	<4.8
2-Methylnaphthalene	14	<4.8	<4.9	<4.8	<4.9	<4.9	<4.8
Naphthalene	21	<4.8	<4.9	<4.8	<4.9	<4.9	<4.8
Phenanthrene	210	<4.8	<4.9	<4.8	<4.9	<4.9	<4.8
Pyrene	210	<4.8	<4.9	<4.8	<4.9	<4.9	<4.8
Sample Location	NCGWQS	MW-13	MW-14	MW-15	MW-17	MW-18	DUP**
Date Sampled		07/13/04	07/12/04	07/12/04	07/13/04	07/12/04	07/12/04
EPA 602 (µg/L)							
Benzene	1	1.9	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	29	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	1000	<1.0	1.4	0.98 J	<1.0	<1.0	<1.0
Xylenes (total)	530	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Methyl Tert Butyl Ether	200	35.7	<1.0	<1.0	30.2	<1.0	<1.0
Total BTEX		1.9	1.4	0.98	ND	ND	ND
EPA 610 (µg/L)							
Acenaphthene	80	<5.1	<4.9	<4.9	<4.8	<4.8	<4.8
Acenaphthylene	210	<5.1	<4.9	<4.9	<4.8	<4.8	<4.8
Anthracene	2100	<5.1	<4.9	<4.9	<4.8	<4.8	<4.8
Benzo(a)anthracene	0.05	<5.1	<4.9	<4.9	<4.8	<4.8	<4.8
Fluoranthene	280	<5.1	<4.9	<4.9	<4.8	<4.8	<4.8
Fluorene	280	<5.1	<4.9	<4.9	<4.8	<4.8	<4.8
1-Methylnaphthalene	RL	<5.1	<4.9	<4.9	<4.8	<4.8	<4.8
2-Methylnaphthalene	14	<5.1	<4.9	<4.9	<4.8	<4.8	<4.8
Naphthalene	21	<5.1	<4.9	<4.9	<4.8	<4.8	<4.8
Phenanthrene	210	<5.1	<4.9	<4.9	<4.8	<4.8	<4.8
Pyrene	210	<5.1	<4.9	<4.9	<4.8	<4.8	<4.8

** DUP is a duplicate sample collected at well MW-18

ND: None detected; no benzene, toluene, ethylbenzene, or xylene isomers were detected

NCGWQS: North Carolina Groundwater Quality Standard

RL: Reporting Limit, no NCGWQS established for the constituent; therefore, the NCGWQS for the constituent is the reporting limit

µg/L: micrograms per liter

<#: not detected at the indicated reporting limit

J: estimated concentration less than reporting limit

Bold type indicates detectable concentrations.

Shaded area indicates detectable concentration above the North Carolina Groundwater Quality Standards

Table 4-1 (Page 3 of 6)
Summary of Laboratory Analyses for Groundwater
Building AS-4158
October 2004

Sample Location	NCGWQS	MW-1	MW-4	MW-5	MW-7	MW-8	MW-9	MW-10
Date Sampled		10/07/04	10/07/04	10/07/04	10/07/04	10/08/04	10/08/04	10/07/04
EPA 602 (µg/L)								
Benzene	1	<1.0	<1.0	<1.0	<1.0	<1.0	18.7	<1.0
Ethylbenzene	29	<1.0	<1.0	<1.0	<1.0	<1.0	6.0	<1.0
Toluene	1000	0.72 J	0.57 J	0.61 J	0.51 J	0.72 J	5.3 J	<1.0
Xylenes (total)	530	<3.0	<3.0	<3.0	<3.0	<3.0	62.2	<3.0
Methyl Tert Butyl Ether	200	<1.0	<1.0	<1.0	<1.0	<1.0	1.2	<1.0
Total BTEX		0.72	0.57	0.61	0.51	0.72	92.2	ND
EPA 610 (µg/L)								
Acenaphthene	80	<4.9	<4.8	<5.0	<4.8	<4.8	<53	<4.8
Acenaphthylene	210	<4.9	<4.8	<5.0	<4.8	<4.8	<53	<4.8
Anthracene	2100	<4.9	<4.8	<5.0	<4.8	<4.8	<53	<4.8
Benzo(a)anthracene	0.05	<4.9	<4.8	<5.0	<4.8	<4.8	<53	<4.8
Fluoranthene	280	<4.9	<4.8	<5.0	<4.8	<4.8	<53	<4.8
Fluorene	280	<4.9	<4.8	<5.0	<4.8	<4.8	<53	<4.8
1-Methylnaphthalene	RL	<4.9	<4.8	<5.0	<4.8	<4.8	<53	<4.8
2-Methylnaphthalene	14	<4.9	<4.8	<5.0	<4.8	<4.8	<53	<4.8
Naphthalene	21	<4.9	<4.8	<5.0	<4.8	<4.8	<53	<4.8
Phenanthrene	210	<4.9	<4.8	<5.0	<4.8	<4.8	<53	<4.8
Pyrene	210	<4.9	<4.8	<5.0	<4.8	<4.8	<53	<4.8
Sample Location	NCGWQS	MW-11	MW-13	MW-14	MW-15	MW-17	MW-18	DUP*
Date Sampled		10/08/04	10/07/04	10/07/04	10/07/04	10/08/04	10/07/04	10/07/04
EPA 602 (µg/L)								
Benzene	1	6.7	35.1	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	29	<1.0	3.6	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	1000	0.58 J	1.9	0.68 J	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	530	<3.0	8.3	<3.0	<3.0	<3.0	<3.0	<3.0
Methyl Tert Butyl Ether	200	3.3	38.4	<1.0	<1.0	28.1	<1.0	<1.0
Total BTEX		7.28	48.9	0.68	ND	ND	ND	ND
EPA 610 (µg/L)								
Acenaphthene	80	<4.8	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8
Acenaphthylene	210	<4.8	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8
Anthracene	2100	<4.8	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8
Benzo(a)anthracene	0.05	<4.8	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8
Fluoranthene	280	<4.8	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8
Fluorene	280	<4.8	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8
1-Methylnaphthalene	RL	<4.8	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8
2-Methylnaphthalene	14	<4.8	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8
Naphthalene	21	<4.8	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8
Phenanthrene	210	<4.8	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8
Pyrene	210	<4.8	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8

* DUP is a duplicate sample collected at well MW-18

ND: None detected; no benzene, toluene, ethylbenzene, or xylene isomers were detected

NCGWQS: North Carolina Groundwater Quality Standard

RL: Reporting Limit, no NCGWQS established for the constituent; therefore, the NCGWQS for the constituent is the reporting limit

µg/L: micrograms per liter

<#: not detected at the indicated reporting limit

J: estimated concentration less than reporting limit

Bold type indicates detectable concentrations.

Shaded area indicates detectable concentration above the North Carolina Groundwater Quality Standards

Table 4-1 (Page 4 of 6)
Summary of Laboratory Analyses for Groundwater
Building AS-4158
January 2005

Sample Location	NCGWQS	MW-1	MW-4	MW-5	MW-7	MW-8	MW-10	MW-11
Date Sampled		01/04/05	01/04/05	01/04/05	01/04/05	01/04/05	01/04/05	01/04/05
EPA 602 (µg/L)								
Benzene	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.4
Ethylbenzene	29	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	1000	0.89 J	0.73 J	<1.0	0.64 J	<1.0	<1.0	0.98 J
Xylenes (total)	530	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	1.1 J
Methyl Tert Butyl Ether	200	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	7.8
Total BTEX		0.89	0.73	ND	0.64	ND	ND	6.48
EPA 610 (µg/L)								
Acenaphthene	80	<4.9	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8
Acenaphthylene	210	<4.9	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8
Anthracene	2100	<4.9	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8
Benzo(a)anthracene	0.05	<4.9	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8
Fluoranthene	280	<4.9	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8
Fluorene	280	<4.9	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8
1-Methylnaphthalene	RL	<4.9	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8
2-Methylnaphthalene	14	<4.9	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8
Naphthalene	21	<4.9	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8
Phenanthrene	210	<4.9	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8
Pyrene	210	<4.9	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8

Sample Location	NCGWQS	MW-13	MW-14	MW-15	MW-17	MW-18	DUP*
Date Sampled		01/04/05	01/04/05	01/04/05	01/04/05	01/04/05	01/04/05
EPA 602 (µg/L)							
Benzene	1	2	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	29	0.9 J	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	1000	1 J	0.65 J	1.3	<1.0	<1.0	<1.0
Xylenes (total)	530	2.7 J	<3.0	1.1 J	<3.0	<3.0	<3.0
Methyl Tert Butyl Ether	200	53.7	<1.0	<1.0	33.7	<1.0	<1.0
Total BTEX		6.6	0.65	2.4	ND	ND	ND
EPA 610 (µg/L)							
Acenaphthene	80	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8
Acenaphthylene	210	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8
Anthracene	2100	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8
Benzo(a)anthracene	0.05	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8
Fluoranthene	280	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8
Fluorene	280	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8
1-Methylnaphthalene	RL	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8
2-Methylnaphthalene	14	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8
Naphthalene	21	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8
Phenanthrene	210	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8
Pyrene	210	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8

* DUP is a duplicate sample collected at well MW-18

ND: None detected; no benzene, toluene, ethylbenzene, or xylene isomers were detected

NCGWQS: North Carolina Groundwater Quality Standard

RL: Reporting Limit, no NCGWQS established for the constituent; therefore, the NCGWQS for the constituent is the reporting limit

µg/L: micrograms per liter

<#: not detected at the indicated reporting limit

J: estimated concentration less than reporting limit

Bold type indicates detectable concentrations.

Shaded area indicates detectable concentration above the North Carolina Groundwater Quality Standards

Table 4-1 (Page 5 of 6)
Summary of Laboratory Analyses for Groundwater
Building AS-4158
April 2005

Sample Location	NCGWQS	MW-1	MW-4	MW-5	MW-7	MW-8	MW-9	MW-10
Date Sampled		04/05/05	04/05/05	04/05/05	04/19/05	04/20/05	04/20/05	04/19/05
EPA 602 (µg/L)								
Benzene	1	<1.0	<1.0	<1.0	<1.0	<1.0	1.8	<1.0
Ethylbenzene	29	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	1000	1.6	1.4	0.6 J	<1.0	0.65 J	0.8 J	<1.0
Xylenes (total)	530	1.5 J	1.1 J	<1.2	<3.0	<3.0	18.1	<3.0
Methyl Tert Butyl Ether	200	<1.0	<1.0	<1.3	<1.0	<1.0	2.3	<1.0
Total BTEX		3.1	2.5	<1.4	ND	0.65	20.71	ND
EPA 610 (µg/L)								
Acenaphthene	80	<4.9	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8
Acenaphthylene	210	<4.9	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8
Anthracene	2100	<4.9	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8
Benzo(a)anthracene	0.05	<4.9	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8
Fluoranthene	280	<4.9	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8
Fluorene	280	<4.9	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8
1-Methylnaphthalene	RL	<4.9	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8
2-Methylnaphthalene	14	<4.9	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8
Naphthalene	21	<4.9	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8
Phenanthrene	210	<4.9	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8
Pyrene	210	<4.9	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8
Sample Location	NCGWQS	MW-11	MW-13	MW-14	MW-15	MW-17	MW-18	DUP*
Date Sampled		04/20/05	04/19/05	04/19/05	04/19/05	04/05/05	04/05/05	04/05/05
EPA 602 (µg/L)								
Benzene	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	29	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	1000	<1.0	<1.0	0.58 J	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	530	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Methyl Tert Butyl Ether	200	80.3	35.7	<1.0	<1.0	33.5	<1.0	<1.0
Total BTEX		ND	ND	0.58	ND	ND	ND	ND
EPA 610 (µg/L)								
Acenaphthene	80	<4.8	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8
Acenaphthylene	210	<4.8	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8
Anthracene	2100	<4.8	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8
Benzo(a)anthracene	0.05	<4.8	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8
Fluoranthene	280	<4.8	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8
Fluorene	280	<4.8	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8
1-Methylnaphthalene	RL	<4.8	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8
2-Methylnaphthalene	14	<4.8	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8
Naphthalene	21	<4.8	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8
Phenanthrene	210	<4.8	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8
Pyrene	210	<4.8	<4.8	<5.0	<4.8	<4.8	<4.8	<4.8

* DUP is a duplicate sample collected at well MW-18

ND: None detected; no benzene, toluene, ethylbenzene, or xylene isomers were detected

NCGWQS: North Carolina Groundwater Quality Standard

RL: Reporting Limit, no NCGWQS established for the constituent; therefore, the NCGWQS for the constituent is the reporting limit

µg/L: micrograms per liter

<#: not detected at the indicated reporting limit

J: estimated concentration less than reporting limit

Bold type indicates detectable concentrations.

Shaded area indicates detectable concentration above the North Carolina Groundwater Quality Standards

Table 4-1 (Page 6 of 6)
Summary of Laboratory Analyses for Groundwater
Building AS-4158
July 2005

Sample Location	NCGWQS	MW-1	MW-3	MW-4	MW-5	MW-7	MW-8	MW-9	MW-10
Date Sampled		07/27/05	07/27/05	07/27/05	07/27/05	07/27/05	07/27/05	07/28/05	07/27/05
EPA 602 (µg/L)									
Benzene	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.67 J	<1.0
Ethylbenzene	29	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	1000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.5	<1.0
Xylenes (total)	530	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	11	<3.0
Methyl Tert Butyl Ether	200	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Total BTEX		ND	ND	ND	ND	ND	ND	14.17	ND
EPA 610 (µg/L)									
Acenaphthene	80	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
Acenaphthylene	210	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
Anthracene	2100	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
Benzo(a)anthracene	0.05	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
Fluoranthene	280	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
Fluorene	280	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
1-Methylnaphthalene	RL	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
2-Methylnaphthalene	14	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
Naphthalene	21	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
Phenanthrene	210	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
Pyrene	210	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8

Sample Location	NCGWQS	MW-11	MW-13	MW-14	MW-15	MW-17	MW-18	DUP*
Date Sampled		07/27/05	07/27/05	07/27/05	07/28/05	07/28/05	07/28/05	07/28/05
EPA 602 (µg/L)								
Benzene	1	0.97 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	29	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	1000	<1.0	<1.0	<1.0	1	<1.0	0.52 J	0.52 J
Xylenes (total)	530	<3.0	<3.0	<3.0	1.6 J	<3.0	<3.0	<3.0
Methyl Tert Butyl Ether	200	29.9	47.4	<1.0	<1.0	29.4	<1.0	<1.0
Total BTEX		0.97	ND	ND	2.6	ND	0.52	0.52
EPA 610 (µg/L)								
Acenaphthene	80	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
Acenaphthylene	210	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
Anthracene	2100	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
Benzo(a)anthracene	0.05	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
Fluoranthene	280	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
Fluorene	280	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
1-Methylnaphthalene	RL	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
2-Methylnaphthalene	14	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
Naphthalene	21	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
Phenanthrene	210	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
Pyrene	210	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8

* DUP is a duplicate sample collected at well MW-18

ND: None detected; no benzene, toluene, ethylbenzene, or xylene isomers were detected

NCGWQS: North Carolina Groundwater Quality Standard

RL: Reporting Limit, no NCGWQS established for the constituent; therefore, the NCGWQS for the constituent is the reporting limit

µg/L: micrograms per liter

<#: not detected at the indicated reporting limit

J: estimated concentration less than reporting limit

Bold type indicates detectable concentrations.

Shaded area indicates detectable concentration above the North Carolina Groundwater Quality Standards

TABLE 4-2
Product Thickness Data

Location	Top of Casing Elevation ⁽¹⁾	Screen Zone	Product Thickness (feet)																
			4/13/04	5/6/04	6/9/04	7/12/04	8/12/04	9/21/04	10/1/04	11/4/04	12/9/04	1/4/05	2/4/05	3/1/05	4/4/05	5/3/05	6/8/05	7/26/05	8/25/05
MW1	21.39	Shallow	NM	NM	NM	NM	--	--	--	--	--	--	--	NM	NM	--	--	--	--
MW2	15.51	Shallow	Dry	--	Dry	Dry	NM	--	--	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
MW3	17.70	Shallow	NM	NM	NM	NM	--	NM	NM	NM	NM	NM	NM	NM	NM	--	--	--	--
MW4	22.19	Shallow	--	NM	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW5	22.10	Shallow	--	NM	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW6	15.55	Shallow	--	--	--	--	--	NM	--	--	--	--	--	--	--	NM	--	--	--
MW7	22.11	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW8	16.27	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW9	23.14	Shallow	--	0.01	--	0.10	--	--	--	--	--	0.02	--	--	--	--	--	--	--
MW10	15.73	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	NM	--	--	--	--
MW11	23.84	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW12	22.03	Shallow	Abd	Abd	Abd	Abd	Abd	Abd	Abd	Abd	Abd	Abd	Abd	Abd	Abd	Abd	Abd	Abd	Abd
MW13	24.12	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW14	15.73	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	NM	--	--	--	--
MW15	23.99	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW16	22.19	Deep	--	--	--	--	--	--	--	--	NM	--	--	--	--	--	--	--	--
MW17	23.05	Deep	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW18	23.88	Deep	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

⁽¹⁾ Top of casing elevation expressed in feet above/below MSL

MSL - mean sea level

--: indicates no measurable product detected

Abd: Abandoned; well not found and apparently abandoned

NM: Not measured; the well was not accessible (under water, blocked by a vehicle, etc.)

TABLE 4-2
Product Thickness Data

Location	Top of Casing Elevation ⁽¹⁾	Screen Zone	Product Thickness (feet)																
			4/13/04	5/6/04	6/9/04	7/12/04	8/12/04	9/21/04	10/1/04	11/4/04	12/9/04	1/4/05	2/4/05	3/1/05	4/4/05	5/3/05	6/8/05	7/26/05	8/25/05
MW1	21.39	Shallow	NM	NM	NM	NM	--	--	--	--	--	--	--	NM	NM	--	--	--	--
MW2	15.51	Shallow	Dry	--	Dry	Dry	NM	--	--	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
MW3	17.70	Shallow	NM	NM	NM	NM	--	NM	NM	NM	NM	NM	NM	NM	NM	--	--	--	--
MW4	22.19	Shallow	--	NM	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW5	22.10	Shallow	--	NM	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW6	15.55	Shallow	--	--	--	--	--	NM	--	--	--	--	--	--	--	NM	--	--	--
MW7	22.11	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW8	16.27	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW9	23.14	Shallow	--	0.01	--	0.10	--	--	--	--	--	0.02	--	--	--	--	--	--	--
MW10	15.73	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	NM	--	--	--	--
MW11	23.84	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW12	22.03	Shallow	Abd	Abd	Abd	Abd	Abd	Abd	Abd	Abd	Abd	Abd	Abd	Abd	Abd	Abd	Abd	Abd	Abd
MW13	24.12	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW14	15.73	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	NM	--	--	--	--
MW15	23.99	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW16	22.19	Deep	--	--	--	--	--	--	--	--	NM	--	--	--	--	--	--	--	--
MW17	23.05	Deep	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW18	23.88	Deep	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

⁽¹⁾ Top of casing elevation expressed in feet above/below MSL

MSL - mean sea level

--: indicates no measurable product detected

Abd: Abandoned; well not found and apparently abandoned

NM: Not measured; the well was not accessible (under water, blocked by a vehicle, etc.)

APPENDIX A
FIELD RECORDS

Current Program Gauging Measurement Summary Tables

TABLE A-1
Depth to Groundwater Data

Location	Top of Casing Elevation ⁽¹⁾	Screen Zone	Depth to Water (feet BTOC)																
			4/13/04	5/6/04	6/9/04	7/12/04	8/12/04	9/21/04	10/1/04	11/4/04	12/9/04	1/4/05	2/4/05	3/1/05	4/4/05	5/3/05	6/8/05	7/26/05	8/25/05
MW1	21.39	Shallow	NM	NM	NM	NM	7.60	5.58	4.00	7.77	8.33	8.45	8.37	NM	NM	7.95	7.53	7.05	7.63
MW2	15.51	Shallow	Dry	6.82	Dry	Dry	NM	5.60	4.98	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
MW3	17.70	Shallow	NM	NM	NM	NM	7.62	NM	NM	NM	NM	NM	NM	NM	NM	8.07	7.65	6.93	7.89
MW4	22.19	Shallow	6.95	NM	8.05	8.32	8.23	6.20	7.34	8.25	8.58	8.90	8.72	6.82	5.72	8.62	8.23	7.48	7.90
MW5	22.10	Shallow	7.60	NM	8.43	8.85	8.52	6.82	7.41	8.40	8.95	9.20	9.10	8.60	6.86	8.82	8.58	8.17	8.61
MW6	15.55	Shallow	6.63	5.97	8.72	8.23	8.21	NM	7.39	8.88	9.38	9.52	9.47	8.27	6.49	NM	8.59	7.45	8.93
MW7	22.11	Shallow	8.22	7.77	8.80	9.22	8.90	7.32	7.44	8.59	8.95	9.40	10.01	9.24	4.94	9.05	8.98	8.48	7.82
MW8	16.27	Shallow	8.87	8.20	9.13	9.85	9.08	7.19	7.81	9.16	9.90	10.21	9.40	9.26	8.45	9.72	9.44	9.00	9.14
MW9	23.14	Shallow	8.62	8.49	8.70	9.18	9.17	9.82	8.37	8.56	9.30	9.33	10.71	8.97	7.44	9.22	9.23	9.07	9.60
MW10	15.73	Shallow	9.55	9.13	9.56	10.08	9.45	7.98	8.95	10.09	10.70	10.93	11.02	8.52	NM	8.70	11.34	10.54	9.86
MW11	23.84	Shallow	10.81	9.81	10.43	10.81	9.62	8.30	4.83	10.38	11.01	11.28	11.25	11.32	8.90	11.12	11.12	10.71	10.93
MW12	22.03	Shallow	Abd	Abd	Abd	Abd	Abd	Abd	Abd	Abd	Abd	Abd	Abd	Abd	Abd	Abd	Abd	Abd	Abd
MW13	24.12	Shallow	10.49	10.17	10.78	11.11	10.95	9.87	10.22	10.69	11.28	11.56	10.69	11.48	8.45	11.43	11.84	11.40	11.18
MW14	15.73	Shallow	9.30	9.21	9.18	9.59	9.60	8.73	9.01	9.27	9.49	9.88	9.54	9.13	NM	9.62	9.72	9.73	9.14
MW15	23.99	Shallow	8.43	9.18	10.70	10.29	10.25	9.50	9.49	9.88	10.56	10.83	10.72	12.82	9.59	10.25	10.02	10.10	9.59
MW16	22.19	Deep	8.35	7.68	8.92	9.38	9.15	7.43	8.38	8.90	NM	9.85	8.47	9.93	8.78	9.59	9.26	8.96	9.52
MW17	23.05	Deep	9.69	8.98	10.21	10.43	10.32	8.74	9.13	10.20	10.65	10.98	10.52	10.95	9.41	10.73	10.48	10.31	10.62
MW18	23.88	Deep	10.64	10.03	11.28	10.50	11.20	9.83	10.36	11.21	11.70	11.83	10.45	11.82	10.53	11.63	11.45	10.96	11.60

⁽¹⁾ Top of casing elevation expressed in feet above/below MSL

BTOC - below top of casing

MSL - mean sea level

Abd: Abandoned; well not found and apparently abandoned

NM: Not measured; the well was not accessible (under water, blocked by a vehicle, etc.)

TABLE A-2
Depth to Product Data

Location	Top of Casing Elevation ⁽¹⁾	Screen Zone	Depth to Product (feet BTOC)																
			4/13/04	5/6/04	6/9/04	7/12/04	8/12/04	9/21/04	10/1/04	11/4/04	12/9/04	1/4/05	2/4/05	3/1/05	4/4/05	5/3/05	6/8/05	7/26/05	8/25/05
MW1	21.39	Shallow	NM	NM	NM	NM	--	--	--	--	--	--	--	NM	NM	--	--	--	--
MW2	15.51	Shallow	Dry	--	Dry	Dry	NM	--	--	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
MW3	17.70	Shallow	NM	NM	NM	NM	NM	--	NM	NM	NM	NM	NM	NM	NM	--	--	--	--
MW4	22.19	Shallow	--	NM	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW5	22.10	Shallow	--	NM	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW6	15.55	Shallow	--	--	--	--	--	--	NM	--	--	--	--	--	--	NM	--	--	--
MW7	22.11	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW8	16.27	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW9	23.14	Shallow	--	8.48	--	9.08	--	--	--	--	9.31	--	--	--	--	--	--	--	--
MW10	15.73	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	NM	--	--	--	--
MW11	23.84	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW12	22.03	Shallow	Abd	Abd	Abd	Abd	Abd	Abd	Abd	Abd	Abd	Abd	Abd	Abd	Abd	Abd	Abd	Abd	Abd
MW13	24.12	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW14	15.73	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	NM	--	--	--	--
MW15	23.99	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW16	22.19	Deep	--	--	--	--	--	--	--	--	NM	--	--	--	--	--	--	--	--
MW17	23.05	Deep	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW18	23.88	Deep	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

⁽¹⁾ Top of casing elevation expressed in feet above/below MSL

BTOC - below top of casing

MSL - mean sea level

"-": Indicates no measurable product detected

Abd: Abandoned; well not found and apparently abandoned

NM: Not measured; the well was not accessible (under water, blocked by a vehicle, etc.)

Current Program Field Gauging Data Sheets

**ENGINEERING AND
ENVIRONMENT, INC.****BLD. 4158 Water Levels****Date 4/13/2004**

Well ID	MW01	Depth to Bottom	16.35	Depth to Product		Depth to Water	no access
Well ID	MW02	Depth to Bottom	7.45	Depth to Product		Depth to Water	dry
Well ID	MW03	Depth to Bottom		Depth to Product		Depth to Water	no access
Well ID	MW04	Depth to Bottom	16.10	Depth to Product		Depth to Water	6.95
Well ID	MW05	Depth to Bottom	15.37	Depth to Product		Depth to Water	7.60
Well ID	MW06	Depth to Bottom	15.65	Depth to Product		Depth to Water	6.63
Well ID	MW07	Depth to Bottom	15.00	Depth to Product		Depth to Water	8.22
Well ID	MW08	Depth to Bottom	16.33	Depth to Product		Depth to Water	8.87
Well ID	MW09	Depth to Bottom	18.80	Depth to Product		Depth to Water	8.62
Well ID	MW10	Depth to Bottom	15.93	Depth to Product		Depth to Water	9.55
Well ID	MW11	Depth to Bottom	16.40	Depth to Product		Depth to Water	10.81
Well ID	MW12*	Depth to Bottom		Depth to Product		Depth to Water	
Well ID	MW13	Depth to Bottom	16.72	Depth to Product		Depth to Water	10.49
Well ID	MW14	Depth to Bottom	15.93	Depth to Product		Depth to Water	9.30
Well ID	MW15	Depth to Bottom	16.43	Depth to Product		Depth to Water	8.43
Well ID	MW16	Depth to Bottom	48.68	Depth to Product		Depth to Water	8.35
Well ID	MW17	Depth to Bottom	49.60	Depth to Product		Depth to Water	9.69
Well ID	MW18	Depth to Bottom	49.79	Depth to Product		Depth to Water	10.64

* well appears to be abandoned

no access - well underwater, covered by vehicle or equipment, etc.

**ENGINEERING AND
ENVIRONMENT, INC.****BLD. 4158 Water Levels****Date 5/6/2004**

Well ID	MW01	Depth to Bottom	16.35	Depth to Product		Depth to Water	no access
Well ID	MW02	Depth to Bottom	7.45	Depth to Product		Depth to Water	6.82
Well ID	MW03	Depth to Bottom		Depth to Product		Depth to Water	no access
Well ID	MW04	Depth to Bottom	16.10	Depth to Product		Depth to Water	no access
Well ID	MW05	Depth to Bottom	15.37	Depth to Product		Depth to Water	no access
Well ID	MW06	Depth to Bottom	15.65	Depth to Product		Depth to Water	5.97
Well ID	MW07	Depth to Bottom	15.00	Depth to Product		Depth to Water	7.77
Well ID	MW08	Depth to Bottom	16.33	Depth to Product		Depth to Water	8.20
Well ID	MW09	Depth to Bottom	18.80	Depth to Product	8.48	Depth to Water	8.49
Well ID	MW10	Depth to Bottom	15.93	Depth to Product		Depth to Water	9.13
Well ID	MW11	Depth to Bottom	16.40	Depth to Product		Depth to Water	9.81
Well ID	MW12*	Depth to Bottom		Depth to Product		Depth to Water	
Well ID	MW13	Depth to Bottom	16.72	Depth to Product		Depth to Water	10.17
Well ID	MW14	Depth to Bottom	15.93	Depth to Product		Depth to Water	9.21
Well ID	MW15	Depth to Bottom	16.43	Depth to Product		Depth to Water	9.18
Well ID	MW16	Depth to Bottom	48.68	Depth to Product		Depth to Water	7.68
Well ID	MW17	Depth to Bottom	49.60	Depth to Product		Depth to Water	8.98
Well ID	MW18	Depth to Bottom	49.79	Depth to Product		Depth to Water	10.03

* well appears to be abandoned

no access - well underwater, covered by vehicle or equipment, etc.

**ENGINEERING AND
ENVIRONMENT, INC.****BLD. 4158 Water Levels****Date****6/9/2004**

Well ID	MW01	Depth to Bottom	16.35	Depth to Product		Depth to Water	no access
Well ID	MW02	Depth to Bottom	7.45	Depth to Product		Depth to Water	dry
Well ID	MW03	Depth to Bottom		Depth to Product		Depth to Water	no access
Well ID	MW04	Depth to Bottom	16.10	Depth to Product		Depth to Water	8.05
Well ID	MW05	Depth to Bottom	15.37	Depth to Product		Depth to Water	8.43
Well ID	MW06	Depth to Bottom	15.65	Depth to Product		Depth to Water	8.72
Well ID	MW07	Depth to Bottom	15.00	Depth to Product		Depth to Water	8.80
Well ID	MW08	Depth to Bottom	16.33	Depth to Product		Depth to Water	9.13
Well ID	MW09	Depth to Bottom	18.80	Depth to Product		Depth to Water	8.70
Well ID	MW10	Depth to Bottom	15.93	Depth to Product		Depth to Water	9.56
Well ID	MW11	Depth to Bottom	16.40	Depth to Product		Depth to Water	10.43
Well ID	MW12*	Depth to Bottom		Depth to Product		Depth to Water	
Well ID	MW13	Depth to Bottom	16.72	Depth to Product		Depth to Water	10.78
Well ID	MW14	Depth to Bottom	15.93	Depth to Product		Depth to Water	9.18
Well ID	MW15	Depth to Bottom	16.43	Depth to Product		Depth to Water	10.70
Well ID	MW16	Depth to Bottom	48.68	Depth to Product		Depth to Water	8.92
Well ID	MW17	Depth to Bottom	49.60	Depth to Product		Depth to Water	10.21
Well ID	MW18	Depth to Bottom	49.79	Depth to Product		Depth to Water	11.28

* well appears to be abandoned

no access - well underwater, covered by vehicle or equipment, etc.

**ENGINEERING AND
ENVIRONMENT, INC.****BLD. 4158 Water Levels****Date 7/12/2004**

Well ID	MW01	Depth to Bottom	16.35	Depth to Product		Depth to Water	no access
Well ID	MW02	Depth to Bottom	7.45	Depth to Product		Depth to Water	dry
Well ID	MW03	Depth to Bottom		Depth to Product		Depth to Water	no access
Well ID	MW04	Depth to Bottom	16.10	Depth to Product		Depth to Water	8.32
Well ID	MW05	Depth to Bottom	15.37	Depth to Product		Depth to Water	8.85
Well ID	MW06	Depth to Bottom	15.65	Depth to Product		Depth to Water	8.23
Well ID	MW07	Depth to Bottom	15.00	Depth to Product		Depth to Water	9.22
Well ID	MW08	Depth to Bottom	16.33	Depth to Product		Depth to Water	9.85
Well ID	MW09	Depth to Bottom	18.80	Depth to Product	9.08	Depth to Water	9.18
Well ID	MW10	Depth to Bottom	15.93	Depth to Product		Depth to Water	10.08
Well ID	MW11	Depth to Bottom	16.40	Depth to Product		Depth to Water	10.81
Well ID	MW12*	Depth to Bottom		Depth to Product		Depth to Water	
Well ID	MW13	Depth to Bottom	16.72	Depth to Product		Depth to Water	11.11
Well ID	MW14	Depth to Bottom	15.93	Depth to Product		Depth to Water	9.59
Well ID	MW15	Depth to Bottom	16.43	Depth to Product		Depth to Water	10.29
Well ID	MW16	Depth to Bottom	48.68	Depth to Product		Depth to Water	9.38
Well ID	MW17	Depth to Bottom	49.60	Depth to Product		Depth to Water	10.43
Well ID	MW18	Depth to Bottom	49.79	Depth to Product		Depth to Water	10.50

* well appears to be abandoned

no access - well underwater, covered by vehicle or equipment, etc.

**ENGINEERING AND
ENVIRONMENT, INC.****BLD. 4158 Water Levels****Date 8/12/2004**

Well ID	MW01	Depth to Bottom	16.35	Depth to Product		Depth to Water	7.60
Well ID	MW02	Depth to Bottom	7.45	Depth to Product		Depth to Water	no access
Well ID	MW03	Depth to Bottom		Depth to Product		Depth to Water	7.62
Well ID	MW04	Depth to Bottom	16.10	Depth to Product		Depth to Water	8.23
Well ID	MW05	Depth to Bottom	15.37	Depth to Product		Depth to Water	8.52
Well ID	MW06	Depth to Bottom	15.65	Depth to Product		Depth to Water	8.21
Well ID	MW07	Depth to Bottom	15.00	Depth to Product		Depth to Water	8.90
Well ID	MW08	Depth to Bottom	16.33	Depth to Product		Depth to Water	9.08
Well ID	MW09	Depth to Bottom	18.80	Depth to Product		Depth to Water	9.17
Well ID	MW10	Depth to Bottom	15.93	Depth to Product		Depth to Water	9.45
Well ID	MW11	Depth to Bottom	16.40	Depth to Product		Depth to Water	9.62
Well ID	MW12*	Depth to Bottom		Depth to Product		Depth to Water	
Well ID	MW13	Depth to Bottom	16.72	Depth to Product		Depth to Water	10.95
Well ID	MW14	Depth to Bottom	15.93	Depth to Product		Depth to Water	9.60
Well ID	MW15	Depth to Bottom	16.43	Depth to Product		Depth to Water	10.25
Well ID	MW16	Depth to Bottom	48.68	Depth to Product		Depth to Water	9.15
Well ID	MW17	Depth to Bottom	49.60	Depth to Product		Depth to Water	10.32
Well ID	MW18	Depth to Bottom	49.79	Depth to Product		Depth to Water	11.20

* well appears to be abandoned

no access - well underwater, covered by vehicle or equipment, etc.

**ENGINEERING AND
ENVIRONMENT, INC.****BLD. 4158 Water Levels****Date 9/21/2004**

Well ID	MW01	Depth to Bottom	16.35	Depth to Product		Depth to Water	5.58
Well ID	MW02	Depth to Bottom	7.45	Depth to Product		Depth to Water	5.60
Well ID	MW03	Depth to Bottom		Depth to Product		Depth to Water	no access
Well ID	MW04	Depth to Bottom	16.10	Depth to Product		Depth to Water	6.20
Well ID	MW05	Depth to Bottom	15.37	Depth to Product		Depth to Water	6.82
Well ID	MW06	Depth to Bottom	15.65	Depth to Product		Depth to Water	
Well ID	MW07	Depth to Bottom	15.00	Depth to Product		Depth to Water	7.32
Well ID	MW08	Depth to Bottom	16.33	Depth to Product		Depth to Water	7.19
Well ID	MW09	Depth to Bottom	18.80	Depth to Product		Depth to Water	9.82
Well ID	MW10	Depth to Bottom	15.93	Depth to Product		Depth to Water	7.98
Well ID	MW11	Depth to Bottom	16.40	Depth to Product		Depth to Water	8.30
Well ID	MW12*	Depth to Bottom		Depth to Product		Depth to Water	
Well ID	MW13	Depth to Bottom	16.72	Depth to Product		Depth to Water	9.87
Well ID	MW14	Depth to Bottom	15.93	Depth to Product		Depth to Water	8.73
Well ID	MW15	Depth to Bottom	16.43	Depth to Product		Depth to Water	9.50
Well ID	MW16	Depth to Bottom	48.68	Depth to Product		Depth to Water	7.43
Well ID	MW17	Depth to Bottom	49.60	Depth to Product		Depth to Water	8.74
Well ID	MW18	Depth to Bottom	49.79	Depth to Product		Depth to Water	9.83

* well appears to be abandoned

no access - well underwater, covered by vehicle or equipment, etc.

**ENGINEERING AND
ENVIRONMENT, INC.****BLD. 4158 Water Levels****Date 10/1/2004**

Well ID	MW01	Depth to Bottom	16.35	Depth to Product		Depth to Water	4.00
Well ID	MW02	Depth to Bottom	7.45	Depth to Product		Depth to Water	4.98
Well ID	MW03	Depth to Bottom		Depth to Product		Depth to Water	no access
Well ID	MW04	Depth to Bottom	16.10	Depth to Product		Depth to Water	7.34
Well ID	MW05	Depth to Bottom	15.37	Depth to Product		Depth to Water	7.41
Well ID	MW06	Depth to Bottom	15.65	Depth to Product		Depth to Water	7.39
Well ID	MW07	Depth to Bottom	15.00	Depth to Product		Depth to Water	7.44
Well ID	MW08	Depth to Bottom	16.33	Depth to Product		Depth to Water	7.81
Well ID	MW09	Depth to Bottom	18.80	Depth to Product		Depth to Water	8.37
Well ID	MW10	Depth to Bottom	15.93	Depth to Product		Depth to Water	8.95
Well ID	MW11	Depth to Bottom	16.40	Depth to Product		Depth to Water	4.83
Well ID	MW12*	Depth to Bottom		Depth to Product		Depth to Water	
Well ID	MW13	Depth to Bottom	16.72	Depth to Product		Depth to Water	10.22
Well ID	MW14	Depth to Bottom	15.93	Depth to Product		Depth to Water	9.01
Well ID	MW15	Depth to Bottom	16.43	Depth to Product		Depth to Water	9.49
Well ID	MW16	Depth to Bottom	48.68	Depth to Product		Depth to Water	8.38
Well ID	MW17	Depth to Bottom	49.60	Depth to Product		Depth to Water	9.13
Well ID	MW18	Depth to Bottom	49.79	Depth to Product		Depth to Water	10.36

* well appears to be abandoned

no access - well underwater, covered by vehicle or equipment, etc.



**ENGINEERING AND
ENVIRONMENT, INC.**

BLD. 4158 Water Levels

Date 11/4/2004

Well ID	MW01	Depth to Bottom	16.35	Depth to Product		Depth to Water	7.77
Well ID	MW02	Depth to Bottom	7.45	Depth to Product		Depth to Water	dry
Well ID	MW03	Depth to Bottom		Depth to Product		Depth to Water	no access
Well ID	MW04	Depth to Bottom	16.10	Depth to Product		Depth to Water	8.25
Well ID	MW05	Depth to Bottom	15.37	Depth to Product		Depth to Water	8.40
Well ID	MW06	Depth to Bottom	15.65	Depth to Product		Depth to Water	8.88
Well ID	MW07	Depth to Bottom	15.00	Depth to Product		Depth to Water	8.59
Well ID	MW08	Depth to Bottom	16.33	Depth to Product		Depth to Water	9.16
Well ID	MW09	Depth to Bottom	18.80	Depth to Product		Depth to Water	8.56
Well ID	MW10	Depth to Bottom	15.93	Depth to Product		Depth to Water	10.09
Well ID	MW11	Depth to Bottom	16.40	Depth to Product		Depth to Water	10.38
Well ID	MW12*	Depth to Bottom		Depth to Product		Depth to Water	
Well ID	MW13	Depth to Bottom	16.72	Depth to Product		Depth to Water	10.69
Well ID	MW14	Depth to Bottom	15.93	Depth to Product		Depth to Water	9.27
Well ID	MW15	Depth to Bottom	16.43	Depth to Product		Depth to Water	9.88
Well ID	MW16	Depth to Bottom	48.68	Depth to Product		Depth to Water	8.90
Well ID	MW17	Depth to Bottom	49.60	Depth to Product		Depth to Water	10.20
Well ID	MW18	Depth to Bottom	49.79	Depth to Product		Depth to Water	11.21

* well appears to be abandoned

no access - well underwater, covered by vehicle or equipment, etc.

**ENGINEERING AND
ENVIRONMENT, INC.****BLD. 4158 Water Levels****Date 12/9/2004**

Well ID	MW01	Depth to Bottom	16.35	Depth to Product		Depth to Water	8.33
Well ID	MW02	Depth to Bottom	7.45	Depth to Product		Depth to Water	dry
Well ID	MW03	Depth to Bottom		Depth to Product		Depth to Water	no access
Well ID	MW04	Depth to Bottom	16.10	Depth to Product		Depth to Water	8.58
Well ID	MW05	Depth to Bottom	15.37	Depth to Product		Depth to Water	8.95
Well ID	MW06	Depth to Bottom	15.65	Depth to Product		Depth to Water	9.38
Well ID	MW07	Depth to Bottom	15.00	Depth to Product		Depth to Water	8.95
Well ID	MW08	Depth to Bottom	16.33	Depth to Product		Depth to Water	9.90
Well ID	MW09	Depth to Bottom	18.80	Depth to Product		Depth to Water	9.30
Well ID	MW10	Depth to Bottom	15.93	Depth to Product		Depth to Water	10.70
Well ID	MW11	Depth to Bottom	16.40	Depth to Product		Depth to Water	11.01
Well ID	MW12*	Depth to Bottom		Depth to Product		Depth to Water	
Well ID	MW13	Depth to Bottom	16.72	Depth to Product		Depth to Water	11.28
Well ID	MW14	Depth to Bottom	15.93	Depth to Product		Depth to Water	9.49
Well ID	MW15	Depth to Bottom	16.43	Depth to Product		Depth to Water	10.56
Well ID	MW16	Depth to Bottom	48.68	Depth to Product		Depth to Water	uw
Well ID	MW17	Depth to Bottom	49.60	Depth to Product		Depth to Water	10.65
Well ID	MW18	Depth to Bottom	49.79	Depth to Product		Depth to Water	11.70

* well appears to be abandoned

no access - well underwater, covered by vehicle or equipment, etc.

**ENGINEERING AND
ENVIRONMENT, INC.****BLD. 4158 Water Levels****Date 1/4/2005**

Well ID	MW01	Depth to Bottom	16.35	Depth to Product		Depth to Water	8.45
Well ID	MW02	Depth to Bottom	7.45	Depth to Product		Depth to Water	dry
Well ID	MW03	Depth to Bottom		Depth to Product		Depth to Water	no access
Well ID	MW04	Depth to Bottom	16.10	Depth to Product		Depth to Water	8.90
Well ID	MW05	Depth to Bottom	15.37	Depth to Product		Depth to Water	9.20
Well ID	MW06	Depth to Bottom	15.65	Depth to Product		Depth to Water	9.52
Well ID	MW07	Depth to Bottom	15.00	Depth to Product		Depth to Water	9.40
Well ID	MW08	Depth to Bottom	16.33	Depth to Product		Depth to Water	10.21
Well ID	MW09	Depth to Bottom	18.80	Depth to Product	9.31	Depth to Water	9.33
Well ID	MW10	Depth to Bottom	15.93	Depth to Product		Depth to Water	10.93
Well ID	MW11	Depth to Bottom	16.40	Depth to Product		Depth to Water	11.28
Well ID	MW12*	Depth to Bottom		Depth to Product		Depth to Water	
Well ID	MW13	Depth to Bottom	16.72	Depth to Product		Depth to Water	11.56
Well ID	MW14	Depth to Bottom	15.93	Depth to Product		Depth to Water	9.88
Well ID	MW15	Depth to Bottom	16.43	Depth to Product		Depth to Water	10.83
Well ID	MW16	Depth to Bottom	48.68	Depth to Product		Depth to Water	9.85
Well ID	MW17	Depth to Bottom	49.60	Depth to Product		Depth to Water	10.98
Well ID	MW18	Depth to Bottom	49.79	Depth to Product		Depth to Water	11.83

* well appears to be abandoned

no access - well underwater, covered by vehicle or equipment, etc.

**ENGINEERING AND
ENVIRONMENT, INC.****BLD. 4158 Water Levels****Date 2/4/2005**

Well ID	MW01	Depth to Bottom	16.35	Depth to Product		Depth to Water	8.37
Well ID	MW02	Depth to Bottom	7.45	Depth to Product		Depth to Water	dry
Well ID	MW03	Depth to Bottom		Depth to Product		Depth to Water	no access
Well ID	MW04	Depth to Bottom	16.10	Depth to Product		Depth to Water	8.72
Well ID	MW05	Depth to Bottom	15.37	Depth to Product		Depth to Water	9.10
Well ID	MW06	Depth to Bottom	15.65	Depth to Product		Depth to Water	9.47
Well ID	MW07	Depth to Bottom	15.00	Depth to Product		Depth to Water	10.01
Well ID	MW08	Depth to Bottom	16.33	Depth to Product		Depth to Water	9.40
Well ID	MW09	Depth to Bottom	18.80	Depth to Product	9.31	Depth to Water	10.71
Well ID	MW10	Depth to Bottom	15.93	Depth to Product		Depth to Water	11.02
Well ID	MW11	Depth to Bottom	16.40	Depth to Product		Depth to Water	11.25
Well ID	MW12*	Depth to Bottom		Depth to Product		Depth to Water	
Well ID	MW13	Depth to Bottom	16.72	Depth to Product		Depth to Water	10.69
Well ID	MW14	Depth to Bottom	15.93	Depth to Product		Depth to Water	9.54
Well ID	MW15	Depth to Bottom	16.43	Depth to Product		Depth to Water	10.72
Well ID	MW16	Depth to Bottom	48.68	Depth to Product		Depth to Water	8.47
Well ID	MW17	Depth to Bottom	49.60	Depth to Product		Depth to Water	10.52
Well ID	MW18	Depth to Bottom	49.79	Depth to Product		Depth to Water	10.45

* well appears to be abandoned

no access - well underwater, covered by vehicle or equipment, etc.

**ENGINEERING AND
ENVIRONMENT, INC.****BLD. 4158 Water Levels****Date 3/1/2005**

Well ID	MW01	Depth to Bottom	16.35	Depth to Product		Depth to Water	no access
Well ID	MW02	Depth to Bottom	7.45	Depth to Product		Depth to Water	dry
Well ID	MW03	Depth to Bottom		Depth to Product		Depth to Water	no access
Well ID	MW04	Depth to Bottom	16.10	Depth to Product		Depth to Water	6.82
Well ID	MW05	Depth to Bottom	15.37	Depth to Product		Depth to Water	8.60
Well ID	MW06	Depth to Bottom	15.65	Depth to Product		Depth to Water	8.27
Well ID	MW07	Depth to Bottom	15.00	Depth to Product		Depth to Water	9.24
Well ID	MW08	Depth to Bottom	16.33	Depth to Product		Depth to Water	9.26
Well ID	MW09	Depth to Bottom	18.80	Depth to Product		Depth to Water	8.97
Well ID	MW10	Depth to Bottom	15.93	Depth to Product		Depth to Water	8.52
Well ID	MW11	Depth to Bottom	16.40	Depth to Product		Depth to Water	11.32
Well ID	MW12*	Depth to Bottom		Depth to Product		Depth to Water	
Well ID	MW13	Depth to Bottom	16.72	Depth to Product		Depth to Water	11.48
Well ID	MW14	Depth to Bottom	15.93	Depth to Product		Depth to Water	9.63
Well ID	MW15	Depth to Bottom	16.43	Depth to Product		Depth to Water	12.82
Well ID	MW16	Depth to Bottom	48.68	Depth to Product		Depth to Water	9.93
Well ID	MW17	Depth to Bottom	49.60	Depth to Product		Depth to Water	10.95
Well ID	MW18	Depth to Bottom	49.79	Depth to Product		Depth to Water	11.82

* well appears to be abandoned

no access - well underwater, covered by vehicle or equipment, etc.

**ENGINEERING AND
ENVIRONMENT, INC.****BLD. 4158 Water Levels****Date 4/4/2005**

Well ID	MW01	Depth to Bottom	16.35	Depth to Product		Depth to Water	no access
Well ID	MW02	Depth to Bottom	7.45	Depth to Product		Depth to Water	dry
Well ID	MW03	Depth to Bottom		Depth to Product		Depth to Water	no access
Well ID	MW04	Depth to Bottom	16.10	Depth to Product		Depth to Water	5.72
Well ID	MW05	Depth to Bottom	15.37	Depth to Product		Depth to Water	6.86
Well ID	MW06	Depth to Bottom	15.65	Depth to Product		Depth to Water	6.49
Well ID	MW07	Depth to Bottom	15.00	Depth to Product		Depth to Water	4.94
Well ID	MW08	Depth to Bottom	16.33	Depth to Product		Depth to Water	8.45
Well ID	MW09	Depth to Bottom	18.80	Depth to Product		Depth to Water	7.44
Well ID	MW10	Depth to Bottom	15.93	Depth to Product		Depth to Water	no access
Well ID	MW11	Depth to Bottom	16.40	Depth to Product		Depth to Water	8.90
Well ID	MW12*	Depth to Bottom		Depth to Product		Depth to Water	
Well ID	MW13	Depth to Bottom	16.72	Depth to Product		Depth to Water	8.45
Well ID	MW14	Depth to Bottom	15.93	Depth to Product		Depth to Water	no access
Well ID	MW15	Depth to Bottom	16.43	Depth to Product		Depth to Water	9.59
Well ID	MW16	Depth to Bottom	48.68	Depth to Product		Depth to Water	8.78
Well ID	MW17	Depth to Bottom	49.60	Depth to Product		Depth to Water	9.41
Well ID	MW18	Depth to Bottom	49.79	Depth to Product		Depth to Water	10.53

* well appears to be abandoned

no access - well underwater, covered by vehicle or equipment, etc.

**ENGINEERING AND
ENVIRONMENT, INC.****BLD. 4158 Water Levels****Date 5/3/2005**

Well ID	MW01	Depth to Bottom	16.35	Depth to Product		Depth to Water	7.95
Well ID	MW02	Depth to Bottom	7.45	Depth to Product		Depth to Water	dry
Well ID	MW03	Depth to Bottom		Depth to Product		Depth to Water	8.07
Well ID	MW04	Depth to Bottom	16.10	Depth to Product		Depth to Water	8.62
Well ID	MW05	Depth to Bottom	15.37	Depth to Product		Depth to Water	8.82
Well ID	MW06	Depth to Bottom	15.65	Depth to Product		Depth to Water	9.13
Well ID	MW07	Depth to Bottom	15.00	Depth to Product		Depth to Water	9.05
Well ID	MW08	Depth to Bottom	16.33	Depth to Product		Depth to Water	9.72
Well ID	MW09	Depth to Bottom	18.80	Depth to Product		Depth to Water	9.22
Well ID	MW10	Depth to Bottom	15.93	Depth to Product		Depth to Water	8.70
Well ID	MW11	Depth to Bottom	16.40	Depth to Product		Depth to Water	11.12
Well ID	MW12*	Depth to Bottom		Depth to Product		Depth to Water	
Well ID	MW13	Depth to Bottom	16.72	Depth to Product		Depth to Water	11.43
Well ID	MW14	Depth to Bottom	15.93	Depth to Product		Depth to Water	9.62
Well ID	MW15	Depth to Bottom	16.43	Depth to Product		Depth to Water	10.25
Well ID	MW16	Depth to Bottom	48.68	Depth to Product		Depth to Water	9.59
Well ID	MW17	Depth to Bottom	49.60	Depth to Product		Depth to Water	10.73
Well ID	MW18	Depth to Bottom	49.79	Depth to Product		Depth to Water	11.63

* well appears to be abandoned

no access - well underwater, covered by vehicle or equipment, etc.

**ENGINEERING AND
ENVIRONMENT, INC.****BLD. 4158 Water Levels****Date 6/8/2005**

Well ID	MW01	Depth to Bottom	16.35	Depth to Product		Depth to Water	7.53
Well ID	MW02	Depth to Bottom	7.45	Depth to Product		Depth to Water	dry
Well ID	MW03	Depth to Bottom		Depth to Product		Depth to Water	7.65
Well ID	MW04	Depth to Bottom	16.10	Depth to Product		Depth to Water	8.23
Well ID	MW05	Depth to Bottom	15.37	Depth to Product		Depth to Water	8.50
Well ID	MW06	Depth to Bottom	15.65	Depth to Product		Depth to Water	8.59
Well ID	MW07	Depth to Bottom	15.00	Depth to Product		Depth to Water	8.98
Well ID	MW08	Depth to Bottom	16.33	Depth to Product		Depth to Water	9.44
Well ID	MW09	Depth to Bottom	18.80	Depth to Product		Depth to Water	9.23
Well ID	MW10	Depth to Bottom	15.93	Depth to Product		Depth to Water	11.34
Well ID	MW11	Depth to Bottom	16.40	Depth to Product		Depth to Water	11.12
Well ID	MW12*	Depth to Bottom		Depth to Product		Depth to Water	
Well ID	MW13	Depth to Bottom	16.72	Depth to Product		Depth to Water	11.84
Well ID	MW14	Depth to Bottom	15.93	Depth to Product		Depth to Water	9.72
Well ID	MW15	Depth to Bottom	16.43	Depth to Product		Depth to Water	10.02
Well ID	MW16	Depth to Bottom	48.68	Depth to Product		Depth to Water	9.26
Well ID	MW17	Depth to Bottom	49.60	Depth to Product		Depth to Water	10.48
Well ID	MW18	Depth to Bottom	49.79	Depth to Product		Depth to Water	11.45

* well appears to be abandoned

no access - well underwater, covered by vehicle or equipment, etc.

**ENGINEERING AND
ENVIRONMENT, INC.****BLD. 4158 Water Levels****Date 7/26/2005**

Well ID	MW01	Depth to Bottom	16.35	Depth to Product		Depth to Water	7.05
Well ID	MW02	Depth to Bottom	7.45	Depth to Product		Depth to Water	dry
Well ID	MW03	Depth to Bottom		Depth to Product		Depth to Water	6.93
Well ID	MW04	Depth to Bottom	16.10	Depth to Product		Depth to Water	7.48
Well ID	MW05	Depth to Bottom	15.37	Depth to Product		Depth to Water	8.17
Well ID	MW06	Depth to Bottom	15.65	Depth to Product		Depth to Water	7.45
Well ID	MW07	Depth to Bottom	15.00	Depth to Product		Depth to Water	8.48
Well ID	MW08	Depth to Bottom	16.33	Depth to Product		Depth to Water	9.00
Well ID	MW09	Depth to Bottom	18.80	Depth to Product		Depth to Water	9.37
Well ID	MW10	Depth to Bottom	15.93	Depth to Product		Depth to Water	10.51
Well ID	MW11	Depth to Bottom	16.40	Depth to Product		Depth to Water	10.71
Well ID	MW12*	Depth to Bottom		Depth to Product		Depth to Water	
Well ID	MW13	Depth to Bottom	16.72	Depth to Product		Depth to Water	11.40
Well ID	MW14	Depth to Bottom	15.93	Depth to Product		Depth to Water	9.73
Well ID	MW15	Depth to Bottom	16.43	Depth to Product		Depth to Water	10.10
Well ID	MW16	Depth to Bottom	48.68	Depth to Product		Depth to Water	8.96
Well ID	MW17	Depth to Bottom	49.60	Depth to Product		Depth to Water	10.31
Well ID	MW18	Depth to Bottom	49.79	Depth to Product		Depth to Water	10.96

* well appears to be abandoned

no access - well underwater, covered by vehicle or equipment, etc.

**ENGINEERING AND
ENVIRONMENT, INC.****BLD. 4158 Water Levels****Date 8/25/2005**

Well ID	MW01	Depth to Bottom	16.35	Depth to Product		Depth to Water	7.63
Well ID	MW02	Depth to Bottom	7.45	Depth to Product		Depth to Water	dry
Well ID	MW03	Depth to Bottom		Depth to Product		Depth to Water	7.89
Well ID	MW04	Depth to Bottom	16.10	Depth to Product		Depth to Water	7.90
Well ID	MW05	Depth to Bottom	15.37	Depth to Product		Depth to Water	8.61
Well ID	MW06	Depth to Bottom	15.65	Depth to Product		Depth to Water	8.93
Well ID	MW07	Depth to Bottom	15.00	Depth to Product		Depth to Water	7.82
Well ID	MW08	Depth to Bottom	16.33	Depth to Product		Depth to Water	9.14
Well ID	MW09	Depth to Bottom	18.80	Depth to Product		Depth to Water	9.60
Well ID	MW10	Depth to Bottom	15.93	Depth to Product		Depth to Water	9.86
Well ID	MW11	Depth to Bottom	16.40	Depth to Product		Depth to Water	10.93
Well ID	MW12*	Depth to Bottom		Depth to Product		Depth to Water	
Well ID	MW13	Depth to Bottom	16.72	Depth to Product		Depth to Water	11.18
Well ID	MW14	Depth to Bottom	15.93	Depth to Product		Depth to Water	9.19
Well ID	MW15	Depth to Bottom	16.43	Depth to Product		Depth to Water	9.59
Well ID	MW16	Depth to Bottom	48.68	Depth to Product		Depth to Water	9.52
Well ID	MW17	Depth to Bottom	49.60	Depth to Product		Depth to Water	10.62
Well ID	MW18	Depth to Bottom	49.79	Depth to Product		Depth to Water	11.60

* well appears to be abandoned

no access - well underwater, covered by vehicle or equipment, etc.

Previous Program Gauging Data
(From Shaw, 2004)

Table 1-1
Building AS 4158
Camp Lejeune, North Carolina
Water Level Measurement Summary

Sample Point	1/14/2003				11/20/2002				10/22/2002				9/11/2002			
	Top of Casing Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toe)	Groundwater Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toe)	Groundwater Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toe)	Groundwater Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toe)	Groundwater Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toe)	Groundwater Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toe)	Groundwater Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toe)	Groundwater Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toe)
MW-1																
MW-2	15.51															
MW-3	17.70	†	8.01		7.24		10.46		6.18		9.33		Not Measured			
MW-4	22.19		12.23		10.50		11.69		9.90		7.80		8.57			
MW-5	22.10		12.10		10.72		11.38		10.29		11.90		9.63			
MW-6	15.55		5.45		9.66		5.89		10.39		11.71		9.20			
MW-7	22.11		11.62		11.77		10.34		10.59		4.96		9.65			
MW-8	16.27		5.30		11.31		4.96		10.65		11.46		9.28			
MW-9 (Prod. Recovery Well)	23.14	10.46	10.31	11.36	12.57	10.57	10.57	11.67	11.09	5.18	10.44	9.77	10.38	5.89		
MW-10	15.73		4.10		14.14		1.59		12.70		3.73		9.92			
MW-11	23.84		11.92		12.75		11.09		12.00		5.74		9.99			
MW-12	22.03								12.20		11.64		11.06			
MW-13	24.12		11.74		14.35		9.77		Not Measured				Not Measured			
MW-14	15.73		5.08		10.80		4.93		12.59		11.53		10.99			
MW-15	23.99		12.05		11.74		12.25		10.68		5.05		10.44			
MW-16	22.19		11.46		11.87		10.32		11.76		12.23		11.14			
MW-17	23.05		11.45		12.38		10.67		10.99		11.20		9.95			
MW-18	23.88		11.47		13.32		10.56		11.80		11.25		10.88			
PW-1	22.80								12.61		11.27		11.75			
									Not Measured				Not Measured			

Notes:

† System not operational during water level survey

‡ Groundwater elevation measurements same day prior to APVR event

§ Groundwater elevation measurements same day after APVR event

ft = feet

msl = mean sea level

† Indicates that the depth to hydrocarbon product could not be measured. The product-water interface probe was failing required.

Table 1-1
Building AS 4158
Camp Lejeune, North Carolina
Water Level Measurement Summary

Sample Point	Top of Casing Elevation (ft., msl)	8/20/2002				7/15/2002				5/13/2002				4/15/2002			
		Depth to Hydrocarbon Product (ft. below toe)	Groundwater Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toe)	Groundwater Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toe)	Groundwater Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toe)	Groundwater Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toe)	Groundwater Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toe)	Groundwater Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toe)	Groundwater Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toe)	Groundwater Elevation (ft., msl)
MW-1		Not Measured				Not Measured				9.46		Not Measured		Not Measured			
MW-2	15.51	Dry	8.00			Dry	10.00			Dry				Dry			
MW-3	17.70	9.70				7.70				9.90	7.80			9.86	7.84		
MW-4	22.19	10.35	11.84			11.03	11.16			10.54	11.65			10.37	11.82		
MW-5	22.10	10.28	11.82			10.28	11.82			10.40	11.70			10.23	11.87		
MW-6	15.55	10.80	4.75			11.16	4.39			10.68	4.87			10.57	4.98		
MW-7	22.11	10.41	11.70			11.01	11.10			10.60	11.51			10.60	11.51		
MW-8	16.27	11.20	5.07			11.60	4.67			11.22	5.05			11.11	5.16		
MW-9 (Prod. Recovery Well)	23.14	11.77	10.29	11.77		12.46		*		12.20				11.68	11.46		
MW-10	15.73	10.90	4.83			12.25				11.74				11.83	3.90		
MW-11	23.84	11.96	11.88			12.80	11.04			12.15	11.69			12.12	11.72		
MW-12	22.03	Not Measured				Not Measured				Not Measured				Not Measured			
MW-13	24.12	10.85	13.27			13.01				12.41				12.45	11.67		
MW-14	15.73	10.12	5.61			10.97	4.76			10.75	4.98			10.70	5.03		
MW-15	23.99	10.61	13.38			12.60	11.39			12.01	11.98			11.86	12.13		
MW-16	22.19	11.20	10.99			11.83	10.36			10.92	11.27			10.81	11.38		
MW-17	23.05	1.65	21.40			12.23	10.82			11.81	11.24			11.72	11.33		
MW-18	23.88	12.70	11.18			12.96	10.92			12.60	11.28			12.50	11.38		
PW-1	22.80	Not Measured				Not Measured				Not Measured				Not Measured			

Notes:
 1 System not operational during water level survey
 2 Groundwater elevation measurements same day prior to AFVR event
 3 Groundwater elevation measurements same day after AFVR event
 ft = feet
 toe = top of casing elevation
 msl = mean sea level
 * Indicates that the depth to hydrocarbon product could not be measured

Table 1-1
Building AS 4158
Camp Lejeune, North Carolina
Water Level Measurement Summary

Sample Point	Top of Casing Elevation (ft., msl)	3/19/2002			2/12/2002		
		Depth to Hydrocarbon Product (ft. below toc)	Depth to Groundwater (ft. below toc)	Groundwater Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toc)	Depth to Groundwater (ft. below toc)	Groundwater Elevation (ft., msl)
MW-1			Not Measured			Not Measured	
MW-2	15.51		Dry			Dry	
MW-3	17.70		6.92	10.78		9.30	8.40
MW-4	22.19		10.21	11.98		9.82	12.37
MW-5	22.10		9.83	12.27		10.84	11.26
MW-6	15.55		10.01	5.54		9.82	5.73
MW-7	22.11		10.43	11.68		10.93	11.18
MW-8	16.27		11.05	5.22		11.60	4.67
MW-9 (Prod. Recovery Well)	23.14	11.59	13.12	10.02	11.49	13.99	9.15
MW-10	15.73		11.69			11.40	4.33
MW-11	23.84		12.12	11.72		13.44	10.40
MW-12	22.03		Not Measured			Not Measured	
MW-13	24.12		12.45	11.67		Dry	
MW-14	15.73		10.71	5.02		11.01	4.72
MW-15	23.99		11.78	12.21		13.49	10.50
MW-16	22.19		10.76	11.43		12.10	10.09
MW-17	23.05		11.58	11.47		12.67	10.38
MW-18	23.88		12.34	11.54		13.15	10.73
PW-1	22.80		Not Measured			Not Measured	

Notes:

- * System not operational during water level survey
- * Groundwater elevation measurements same day, prior to APYR event
- * Groundwater elevation measurements same day after APYR event
- R = feet
- toc = top of casing elevation
- msl = mean sea level
- * Indicates that the depth to hydrocarbon product could not be measure

Table 1-1
Building AS 4158
Camp Lejeune, North Carolina
Water Level Measurement Summary

Sample Point	Top of Casing Elevation (ft., msl)	1/15/2002			12/17/2001			11/5/2001		
		Depth to Hydrocarbon Product (ft. below toe)	Depth to Groundwater (ft. below toe)	Groundwater Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toe)	Depth to Groundwater (ft. below toe)	Groundwater Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toe)	Depth to Groundwater (ft. below toe)	Groundwater Elevation (ft., msl)
MW-1			Not Measured							
MW-2	15.51		Dry			8.53			9.38	
MW-3	17.70		7.95	9.75		Dry			Dry	
MW-4	22.19		10.96	11.23		9.50	8.20		9.78	7.92
MW-5	22.10		10.88	11.22		9.58	12.61		10.11	12.08
MW-6	15.55		11.16	4.39		9.90	12.20		10.29	11.81
MW-7	22.11		11.80	10.31		9.95	5.60		10.32	5.23
MW-8	16.27		12.40	3.87		9.48	12.63		10.88	11.23
MW-9 (Prod. Recovery Well)	23.14	12.28	15.18	7.96		11.03	5.24		10.85	5.42
	15.73		Not Measured			10.10	13.04		10.20	12.94
MW-11	23.84		13.69	10.15		9.90	5.83		Not Measured	
MW-12	22.03		Not Measured			11.83	12.01		11.83	12.01
MW-13	24.12		15.45	8.67		Not Measured			Not Measured	
MW-14	15.73		10.70	5.03		13.35	10.77		11.88	12.24
MW-15	23.99		14.20	9.79		9.95	5.78		9.48	6.25
MW-16	22.19		11.63	10.56		10.55	13.44		10.15	13.84
MW-17	23.05		12.50	10.55		10.89	11.30		10.89	11.30
MW-18	23.88		13.64	10.24		11.57	11.48		11.78	11.27
PW-1	22.80		Not Measured			12.50	11.38		12.69	11.19
						Not Measured			Not Measured	

Notes:
 1 System not operational during water level survey.
 2 Groundwater elevation measurements same day prior to AFYR event.
 3 Groundwater elevation measurements same day after AFYR event.
 ft = feet
 msl = mean sea level
 * Indicates that the depth to hydrocarbon product could not be measured

Table 1-1
Building AS 4159
Camp Lejeune, North Carolina
Water Level Measurement Summary

Sample Point	Top of Casing Elevation (ft., msl)	10/15/2001			9/24/2001			7/16/2001		
		Depth to Hydrocarbon Product (ft. below toe)	Groundwater Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toe)	Depth to Groundwater (ft. below toe)	Groundwater Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toe)	Depth to Groundwater (ft. below toe)	Groundwater Elevation (ft., msl)	
MW-1			9.17				9.20		8.50	
MW-2	15.51		Dry				Not Measured		Not Measured	
MW-3	17.70		9.48		8.22		9.25		8.45	9.02
MW-4	22.19		9.79		12.40		9.48		12.71	13.21
MW-5	22.10		9.98		12.12		9.99		12.11	12.60
MW-6	15.55		10.07		5.48		9.65		5.90	6.33
MW-7	22.11		Not Measured				Not Measured		10.94	11.17
MW-8	16.27		10.28		5.99		10.82		5.45	6.07
MW-9 (Prod. Recovery Well)	23.14		10.35		12.79		12.16		10.98	12.51
MW-10	15.73		11.45		4.28		13.85		1.88	2.55
MW-11	23.84		11.81		12.03		13.40		10.44	11.08
MW-12	22.03		Not Measured				Not Measured		Not Measured	
MW-13	24.12		12.17		11.95		16.17		7.95	7.79
MW-14	15.73		10.01		5.72		10.28		5.45	5.86
MW-15	23.99		10.63		13.36		11.29		12.70	13.64
MW-16	22.19		10.65		11.54		10.78		11.41	11.73
MW-17	23.05		11.61		11.44		11.45		11.60	11.48
MW-18	23.88		12.33		11.55		12.71		11.17	11.47
PW-1	22.80		Not Measured				Not Measured		Not Measured	

Notes:

- ¹ System not operational during water level survey
- ² Groundwater elevation measurements same day prior to AFVR event
- ³ Groundwater elevation measurements same day after AFVR event
- ft = feet
- toe = top of casing elevation
- msl = mean sea level
- * Indicates that the depth to hydrocarbon product could not be measured

Table 1-1
Building AS 4158
Camp Lejeune, North Carolina
Water Level Measurement Summary

Sample Point	Top of Casing Elevation (ft., msl)	5/14/2001				4/17/2001				3/16/2001			
		Depth to Hydrocarbon Product (ft. below toc)	Groundwater Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toc)	Groundwater Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toc)	Groundwater Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toc)	Groundwater Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toc)	Groundwater Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toc)	Groundwater Elevation (ft., msl)
MW-1			6.30				7.83						
MW-2	15.51		8.30		7.21		8.43		7.08		Not Measured		8.45
MW-3	17.70		7.80		9.90		7.85		9.85		6.54		11.16
MW-4	22.19		8.90		13.29		8.40		13.79		8.18		14.01
MW-5	22.10		9.10		13.00		8.60		13.50		6.75		15.35
MW-6	15.55		8.98		6.57		8.70		6.85		7.80		7.75
MW-7	22.11		9.59		12.52		9.00		13.11		8.82		13.29
MW-8	16.27		10.27		6.00		9.23		7.04		9.31		6.96
MW-9 (Prod. Recovery Well)	23.14		10.23		12.91		9.28		13.86		9.45		13.69
MW-10	15.73		12.91		2.82		9.80		5.93		10.26		5.47
MW-11	23.84		12.70		11.14		10.70		13.14		10.75		13.09
MW-12	22.03		Not Measured				Not Measured				Not Measured		
MW-13	24.12		15.83		8.29		11.14		12.98		11.22		12.90
MW-14	15.73		9.90		5.83		9.50		6.23		9.68		6.05
MW-15	23.99		10.55		13.44		10.14		13.85		10.30		13.69
MW-16	22.19		10.17		12.02		9.12		13.07		9.13		13.06
MW-17	23.05		11.36		11.69		10.33		12.72		10.20		12.85
MW-18	23.88		12.30		11.58		11.31		12.57		11.19		12.69
PW-1	22.80		Not Measured				Not Measured				Not Measured		

Notes:
 1 System not operational during water level survey.
 2 Groundwater elevation measurements same day prior to AFVR event.
 3 Groundwater elevation measurements same day after AFVR event.
 ft = feet
 toc = top of casing elevation
 msl = mean sea level
 * Indicates that the depth to hydrocarbon product could not be measured

Table 1-1
Building AS 4158
Camp Lejeune, North Carolina
Water Level Measurement Summary

Sample Point	Top of Casing Elevation (ft., msl)	2/15/2001				2/14/2001				2/13/2001			
		Depth to Hydrocarbon Product (ft. below toe)	Groundwater Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toe)	Groundwater Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toe)	Groundwater Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toe)	Groundwater Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toe)	Groundwater Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toe)	Groundwater Elevation (ft., msl)
MW-1		Not Measured				Not Measured				Not Measured			
MW-2	15.51	7.10	8.41			5.59	9.92			5.72	9.79		
MW-3	17.70	6.80	10.90			5.46	12.24			6.05	11.65		
MW-4	22.19	8.16	14.03			7.79	14.40			7.84	14.35		
MW-5	22.10	7.82	14.28			6.86	15.24			6.30	15.80		
MW-6	15.55	8.06	7.49			7.81	7.74			8.50	7.05		
MW-7	22.11	7.31	14.80			6.65	15.46			4.85	17.26		
MW-8	16.27	9.00	7.27			8.54	7.73			8.81	7.46		
MW-9 (Prod. Recovery Well)	23.14	8.74	14.40			8.35	14.79			7.68	15.46		
MW-10	15.73	6.31	9.42			5.45	10.28			3.50	12.23		
MW-11	23.84	8.80	15.04			8.10	15.74			9.95	13.89		
MW-12	22.03	Not Measured				Not Measured				Not Measured			
MW-13	24.12	7.86	16.26			7.65	16.47			7.53	16.59		
MW-14	15.73	8.77	6.96			8.79	6.94			8.94	6.79		
MW-15	23.99	9.65	14.34			9.65	14.34			9.70	14.29		
MW-16	22.19	8.91	13.28			7.78	14.41			4.04	18.15		
MW-17	23.05	9.77	13.28			8.79	14.26			5.68	17.37		
MW-18	23.88	10.62	13.26			9.62	14.26			7.86	16.02		
PW-1	22.80	Not Measured				Not Measured				Not Measured			

Notes:
 * System not operational during water level survey.
 * Groundwater elevation measurements same day prior to AFVR event
 * Groundwater elevation measurements same day after AFVR event
 ft = feet
 toe = top of casing elevation
 msl = mean sea level
 * Indicates that the depth to hydrocarbon product could not be measured

Table 1-1
Building AS 4158
Camp Lejeune, North Carolina
Water Level Measurement Summary

Sample Point	Top of Casing Elevation (ft., msl)	10/18/00 ¹			7/26/00 ¹			4/25/00 ¹		
		Depth to Hydrocarbon Product (ft. below toe)	Groundwater Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toe)	Depth to Groundwater (ft. below toe)	Groundwater Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toe)	Depth to Groundwater (ft. below toe)	Groundwater Elevation (ft., msl)	
MW-1										
MW-2	15.51		7.56		Not Measured	9.81		Not Measured	8.54	
MW-3	17.70		7.99		5.70	12.58		6.97	10.14	
MW-4	22.19		7.51		5.12	16.44		7.56	14.09	
MW-5	22.10		8.10		5.75	15.35		8.10	13.85	
MW-6	15.55		8.25		6.75	8.49		8.25	13.85	
MW-7	22.11		8.72		7.06	13.55		8.17	7.38	
MW-8	16.27		8.68		8.56	6.44		8.14	13.97	
MW-9 (Prod. Recovery Well)	23.14		8.34		9.83	13.59		8.93	7.34	
MW-10	15.73		8.97		9.55	5.46		9.28	13.86	
MW-11	23.84		9.23		10.27	12.95		9.75	5.98	
MW-12	22.03		10.18		10.89			10.08	13.76	
MW-13	24.12		Not Measured		Not Measured			Not Measured		
MW-14	15.73		10.62		11.42	12.70		10.47	13.65	
MW-15	23.99		9.02		9.50	6.23		9.16	6.57	
MW-16	22.19		9.41		10.10	13.89		9.70	14.29	
MW-17	23.05		8.87		8.93	13.26		8.80	13.39	
MW-18	23.88		10.08		10.23	12.82		9.94	13.11	
PW-1	22.80		10.96		11.10	12.78		10.72	13.16	
			Not Measured		Not Measured			Not Measured		

Notes:

- System not operational during water level survey.
¹ Groundwater elevation measurements same day prior to AFVR event.
² Groundwater elevation measurements same day after AFVR event.
ft = feet
msl = mean sea level
* Indicates that the depth to hydrocarbon product could not be measured.

Table 1-1
Building AS 4158
Camp Lejeune, North Carolina
Water Level Measurement Summary

Sample Point	Top of Casing Elevation (ft., msl)	1/12/00 ¹			12/20/1999			11/22/1999		
		Depth to Hydrocarbon Product (ft. below toe)	Groundwater Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toe)	Depth to Hydrocarbon Product (ft. below toe)	Groundwater Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toe)	Depth to Hydrocarbon Product (ft. below toe)	Groundwater Elevation (ft., msl)	
MW-1			7.46		Not Measured		Not Measured		Not Measured	
MW-2	15.51		Not Measured				Not Measured	5.92	9.59	
MW-3	17.70		8.31		8.13	9.57	8.13	6.50	11.20	
MW-4	22.19		8.36		7.53	14.66	7.53	6.84	15.35	
MW-5	22.10		Not Measured		Not Measured		Not Measured	7.37	14.73	
MW-6	15.55		9.29		6.26	7.05	8.50	7.56	7.99	
MW-7	22.11		9.28		12.83		Not Measured	4.76	17.35	
MW-8	16.27		9.63		6.64	7.45	8.82	7.45	8.82	
MW-9 (Prod. Recovery Well)	23.14		11.01		12.13		Not Measured	9.91	13.23	
	15.73		10.51		5.22		Not Measured	4.82	10.91	
MW-10	23.84		10.83		13.01		10.41	9.23	14.61	
MW-11	23.84									
MW-12	22.03		Not Measured		6.43	15.60	6.43	7.19	14.84	
MW-13	24.12		11.38		12.74		11.12	9.35	14.77	
MW-14	15.73		9.20		6.53	6.80	8.93	7.64	8.09	
MW-15	23.99		9.66		14.33	14.48	9.51	8.30	15.69	
MW-16	22.19		9.38		12.81	12.03	10.16	8.30	13.89	
MW-17	23.05		10.51		12.54	12.44	10.61	9.62	13.43	
MW-18	23.88		11.45		12.43		10.44	10.68	13.20	
PW-1	22.80		Not Measured		Not Measured		Not Measured	Not Measured		

Notes:
¹ System not operational during water level survey
² Groundwater elevation measurements same day prior to AFVR event
³ Groundwater elevation measurements same day after AFVR event
 ft = feet
 toe = top of casing elevation
 msl = mean sea level
 * Indicates that the depth to hydrocarbon product could not be measured

Table 1-1
Building AS 4158
Camp Lejeune, North Carolina
Water Level Measurement Summary

Sample Point	Top of Casing Elevation (ft., msl)	10/26/99 ¹				9/23/1999				8/19/1999			
		Depth to Hydrocarbon Product (ft. below toe)	Depth to Groundwater (ft. below toe)	Groundwater Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toe)	Depth to Groundwater (ft. below toe)	Groundwater Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toe)	Depth to Groundwater (ft. below toe)	Groundwater Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toe)	Depth to Groundwater (ft. below toe)	Groundwater Elevation (ft., msl)
MW-1			Not Measured			Not Measured			Not Measured			Not Measured	
MW-2	15.51		Not Measured			5.56	9.95		5.66	9.85		5.66	9.85
MW-3	17.70		5.29	12.41		Not Measured			6.14	11.56		6.14	11.56
MW-4	22.19		5.53	16.66		4.46	17.73		6.40	15.79		6.40	15.79
MW-5	22.10		6.34	15.76		5.96	16.14		7.91	14.19		7.91	14.19
MW-6	15.55		5.50	10.05		4.43	11.12		9.63	5.92		9.63	5.92
MW-7	22.11		7.04	15.07		6.26	15.85		6.00	16.11		6.00	16.11
MW-8	16.27		7.23	9.04		6.65	9.62		8.64	7.63		8.64	7.63
MW-9 (Prod. Recovery Well)	23.14		10.66	12.48		6.54	16.60		8.56	14.58		8.56	14.58
MW-10	15.73		8.61	7.12		10.75	4.98		3.65	12.08		3.65	12.08
MW-11	23.84		9.07	14.77		8.29	15.55		7.91	15.93		7.91	15.93
MW-12	22.03		9.21	12.82		7.15	14.88		8.22	13.81		8.22	13.81
MW-13	24.12		9.72	14.40		7.69	16.43		5.30	18.82		5.30	18.82
MW-14	15.73		8.98	6.75		7.82	7.91		9.40	6.33		9.40	6.33
MW-15	23.99		9.35	14.64		9.32	14.67		9.58	14.41		9.58	14.41
MW-16	22.19		10.63	11.56		6.57	15.62		7.00	15.19		7.00	15.19
MW-17	23.05		7.99	15.06		7.63	15.42		7.90	15.15		7.90	15.15
MW-18	23.88		8.67	15.21		8.64	15.24		9.24	14.64		9.24	14.64
PW-1	22.80		Not Measured			Not Measured			Not Measured			Not Measured	

Notes:

- ¹ System not operational during water level survey
- ² Groundwater elevation measurements same day prior to AJYR event
- ³ Groundwater elevation measurements same day after AJYR event
- ft = feet
- loc = top of casing elevation
- msl = mean sea level
- * Indicates that the depth to hydrocarbon product could not be measured

Table 1-1
Building AS 4158
Camp Lejeune, North Carolina
Water Level Measurement Summary

Sample Point	Top of Casing Elevation (ft., msl)	7/14/99 ¹			5/24/99 ²			5/24/99 ³		
		Depth to Hydrocarbon Product (ft. below toc)	Depth to Groundwater (ft. below toc)	Groundwater Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toc)	Depth to Groundwater (ft. below toc)	Groundwater Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toc)	Depth to Groundwater (ft. below toc)	Groundwater Elevation (ft., msl)
MW-1			Not Measured			6.65			9.03	
MW-2	15.51		Not Measured			Not Measured			Not Measured	
MW-3	17.70		9.54	8.16		7.82	9.88		9.34	8.36
MW-4	22.19		9.22	12.97		8.82	13.37		8.85	13.34
MW-5	22.10		10.63	11.47		8.06	14.04		9.89	12.21
MW-6	15.55		9.39	6.16		9.27	6.28		9.29	6.26
MW-7	22.11		11.91	10.20		10.25	11.86		10.25	11.86
MW-8	16.27		11.12	5.15		10.75	5.52		10.72	5.51
MW-9 (Prod. Recovery Well)	23.14		12.63	10.51		11.85	11.29		10.72	12.42
MW-10	15.73		15.36	0.37		13.26	2.47		14.48	1.25
MW-11	23.84		14.18	9.66		14.09	9.75		14.12	9.72
MW-12	22.03		10.38	11.65		6.70	15.33		9.54	12.49
MW-13	24.12		16.40	7.72		16.22	7.90		16.18	7.94
MW-14	15.73		9.60	6.13		9.01	6.72		9.47	6.26
MW-15	23.99		9.80	14.19		9.51	14.48		9.49	14.50
MW-16	22.19		Not Measured			6.81	15.38		10.76	11.43
MW-17	23.05		12.94	10.11		8.46	14.59		11.94	11.11
MW-18	23.88		13.61	10.27		11.71	12.17		12.78	11.10
PW-1	22.80		Not Measured			Not Measured			Not Measured	

Notes:

- ¹ System not operational during water level survey
- ² Groundwater elevation measurements same day prior to AFVR event
- ³ Groundwater elevation measurements same day after AFVR event
- ft = feet
- toc = top of casing elevation
- msl = mean sea level
- * Indicates that the depth to hydrocarbon product could not be measured

Table 1-1
Building AS 4158
Camp Lejeune, North Carolina
Water Level Measurement Summary

Sample Point	Top of Casing Elevation (ft., msl)	4/22/99 ²			4/8/99 ³			4/8/99 ²		
		Depth to Hydrocarbon Product (ft. below toc)	Depth to Groundwater (ft. below toc)	Groundwater Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toc)	Depth to Groundwater (ft. below toc)	Groundwater Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toc)	Depth to Groundwater (ft. below toc)	Groundwater Elevation (ft., msl)
MW-1			12.03			4.92			4.19	
MW-2	15.51		Not Measured			6.99	8.52		7.08	8.43
MW-3	17.70		11.35	6.35		6.84	10.86		6.82	10.88
MW-4	22.19		9.56	12.63		6.59	15.60	Trace	6.60	15.59
MW-5	22.10		11.49	10.61		6.19	15.91		6.10	16.00
MW-6	15.55		8.94	6.61		7.81	7.74		7.89	7.66
MW-7	22.11		13.67	8.44		5.32	16.79		5.00	17.11
MW-8	16.27		10.74	5.53		8.36	7.91		8.32	7.95
MW-9 (Prod. Recovery Well)	23.14		11.26	11.88		10.29	12.85		7.95	15.19
MW-10	15.73		14.84	0.89		4.51	11.22		4.33	11.40
MW-11	23.84		12.96	10.88		7.62	16.22		7.58	16.26
MW-12	22.03		11.62	10.41		7.17	14.86		7.00	15.03
MW-13	24.12		13.00	11.12		6.29	17.83		6.19	17.93
MW-14	15.73		9.33	6.40		8.44	7.29		8.39	7.34
MW-15	23.99		9.43	14.56		9.21	14.78		9.16	14.83
MW-16	22.19		13.71	8.48		5.99	16.20		5.70	16.49
MW-17	23.05		14.33	8.72		6.94	16.11		6.64	16.41
MW-18	23.88		14.31	9.57		8.28	15.60		8.06	15.82
PW-1	22.80		Not Measured			Not Measured			Not Measured	

Notes:
¹ System not operational during water level survey
² Groundwater elevation measurements same day prior to AFVR event
³ Groundwater elevation measurements same day after AFVR event
 ft = feet
 toc = top of casing elevation
 msl = mean sea level
 * Indicates that the depth to hydrocarbon product could not be measured

Table 1-1
Building AS 4158
Camp Lejeune, North Carolina
Water Level Measurement Summary

Sample Point	Top of Casing Elevation (ft., msl)	3/8/99 ¹			2/5/99 ¹			1/25/99 ¹		
		Depth to Hydrocarbon Product (ft. below toe)	Depth to Groundwater (ft. below toe)	Groundwater Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toe)	Depth to Groundwater (ft. below toe)	Groundwater Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toe)	Depth to Groundwater (ft. below toe)	Groundwater Elevation (ft., msl)
MW-1			Not Measured						Not Measured	
MW-2	15.51		Well Dry			8.52	6.99		7.95	7.56
MW-3	17.70		8.82	8.88		9.12	8.58		4.96	12.74
MW-4	22.19		8.68	13.51		8.40	13.79		6.30	15.89
MW-5	22.10		9.45	12.65		9.55	12.55		9.14	12.96
MW-6	15.55		8.61	6.94		8.70	6.85		7.60	7.95
MW-7	22.11		9.83	12.28		11.62	10.49		4.52	17.59
MW-8	16.27		9.18	7.09		10.65	5.62		10.20	6.07
MW-9 (Prod. Recovery Well)	23.14		9.81	13.33		11.35	11.79		10.16	12.98
MW-10	15.73		11.04	4.69		15.20	0.53		11.76	3.97
MW-11	23.84		11.60	12.24		15.98	7.86		12.65	11.19
MW-12	22.03		8.79	13.24		9.50	12.53		9.33	12.70
MW-13	24.12		12.27	11.85		16.20	7.92		16.12	8.00
MW-14	15.73		9.44	6.29		9.58	6.15		9.52	6.21
MW-15	23.99		9.86	14.13		9.78	14.21		10.00	13.99
MW-16	22.19		10.00	12.19		10.92	11.27		9.90	12.29
MW-17	23.05		9.65	13.40		12.20	10.85		10.84	12.21
MW-18	23.88		12.41	11.47		12.92	10.96		11.95	11.93
PW-1	22.80		Not Measured			Not Measured			9.05	13.75

Notes:

¹ System not operational during water level survey.

² Groundwater elevation measurements same day prior to AFYR event

³ Groundwater elevation measurements same day after AFYR event

ft = feet

loc = top of casing elevation

msl = mean sea level

* Indicates that the depth to hydrocarbon product could not be measured

Table I-1
Building AS 4158
Camp Lejeune, North Carolina
Water Level Measurement Summary

Sample Point	Top of Casing Elevation (ft., msl)	12/10/1998			11/16/1998			10/20/1998		
		Depth to Hydrocarbon Product (ft. below toe)	Depth to Groundwater (ft. below toe)	Groundwater Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toe)	Depth to Groundwater (ft. below toe)	Groundwater Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toe)	Depth to Groundwater (ft. below toe)	Groundwater Elevation (ft., msl)
MW-1		Not Measured					6.91			8.20
MW-2	15.51		8.20	7.31		7.87	7.64			8.51
MW-3	17.70		7.12	10.58		7.41	10.29			8.09
MW-4	22.19		7.69	14.50		7.58	14.61			7.89
MW-5	22.10		7.25	14.85		8.61	13.49			8.76
MW-6	15.55		9.21	6.34		8.55	7.00			8.89
MW-7	22.11		6.17	15.94		7.73	14.38			9.38
MW-8	16.27		9.81	6.46		8.57	7.70			9.30
MW-9 (Prod. Recovery Well)	23.14	8.78	8.80	14.34		8.78	14.36	9.23		9.32
MW-10	15.73		6.35	9.38		4.55	11.18			10.86
MW-11	23.84		11.12	12.72		8.39	15.45			12.42
MW-12	22.03		Not Measured			8.91	13.12			8.31
MW-13	24.12		6.44	17.68		7.50	16.62			16.21
MW-14	15.73		8.51	7.22		8.41	7.32			16.21
MW-15	23.99		9.19	14.80		9.09	14.90			7.91
MW-16	22.19		7.33	14.86		8.48	13.71			8.74
MW-17	23.05		8.27	14.78		9.41	13.64			9.31
MW-18	23.88		10.75	13.13		10.59	13.29			14.68
PW-1	22.80		Not Measured			7.59	15.21			9.42
										12.77
										10.68
										12.37
										11.58
										12.30
										13.74

Notes:
 1. System not operational during water level survey
 2. Groundwater elevation measurements same day prior to AFYR event
 3. Groundwater elevation measurements same day after AFYR event
 ft. = feet
 toe = top of casing elevation
 msl = mean sea level
 * Indicates that the depth to hydrocarbon product could not be measured

Table I-1
Building AS 4158
Camp Lejeune, North Carolina
Water Level Measurement Summary

Sample Point	Top of Casing Elevation (ft., msl)	7/23/1998			7/7/1998			6/24/1998		
		Depth to Hydrocarbon Product (ft. below toe)	Groundwater Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toe)	Depth to Groundwater (ft. below toe)	Groundwater Elevation (ft., msl)	Depth to Hydrocarbon Product (ft. below toe)	Depth to Groundwater (ft. below toe)	Groundwater Elevation (ft., msl)	
MW-1			8.63		3.94			Not Measured		
MW-2	15.51		7.91		6.30	9.21		7.38	8.13	
MW-3	17.70		7.97		5.82	11.88		7.13	10.57	
MW-4	22.19		7.84		5.99	16.20		7.57	14.62	
MW-5	22.10		9.45		Not Measured			8.43	13.67	
MW-6	15.55		7.91		6.68	8.87		8.11	7.44	
MW-7	22.11		10.75		7.05	15.06		8.74	13.37	
MW-8	16.27		8.77		7.82	8.45		8.56	7.71	
MW-9 (Prod. Recovery Well)	23.14		9.01		7.78	15.70	8.90	9.28	14.24	
MW-10	15.73		12.06		7.44			9.54	6.19	
MW-11	23.84		10.82		Not Measured			10.30	13.54	
MW-12	22.03		9.56		9.34	14.50		8.01	14.02	
MW-13	24.12		10.74		7.59	14.44		10.56	13.56	
MW-14	15.73		8.49		8.93	15.19		Not Measured		
MW-15	23.99		8.92		Not Measured			Not Measured		
MW-16	22.19		10.63		8.63	15.36		8.93	15.06	
MW-17	23.05		11.69		8.72	13.47		9.12	13.07	
MW-18	23.88		12.63		9.82	13.23		10.27	12.78	
PW-1	22.80		Not Measured		10.92	12.96		11.35	12.53	
					7.73	15.07		Not Measured		

Notes:
 1. System not operational during water level survey.
 2. Groundwater elevation measurements same day prior to AFR event.
 3. Groundwater elevation measurements same day after AFR event.
 ft = feet
 toe = top of casing elevation
 msl = mean sea level
 * Indicates that the depth to hydrocarbon product could not be measured

Table 1-1
Building AS 4158
Camp Lejeune, North Carolina
Water Level Measurement Summary

Sample Point	Top of Casing Elevation (ft., msl)	5/15/1998			4/24/1998		
		Depth to Hydrocarbon Product (ft. below toe)	Depth to Groundwater (ft. below toe)	Groundwater Elevation (ft., msl)	Depth to Groundwater (ft. below toe)	Depth to Hydrocarbon Product (ft. below toe)	Groundwater Elevation (ft., msl)
MW-1			6.14		4.18		
MW-2	15.51		7.84	7.67	7.55		7.96
MW-3	17.70		6.84	10.86	6.31		11.39
MW-4	22.19		7.07	15.12	7.85		14.34
MW-5	22.10		7.64	14.46	7.14		14.96
MW-6	15.55		7.44	8.11	7.06		8.49
MW-7	22.11		8.17	13.94	7.69		14.42
MW-8	16.27		7.89	8.38	7.78		8.49
MW-9 (Prod. Recovery Well)	23.14		Not Measured		Not Measured		
MW-10	15.73		9.35	6.38	9.48		6.25
MW-11	23.84		11.21	12.63	9.58		14.26
MW-12	22.03		7.41	14.62	7.06		14.97
MW-13	24.12		14.06	10.06	9.27		14.85
MW-14	15.73		8.37	7.36	8.14		7.59
MW-15	23.99		8.82	15.17	8.71		15.28
MW-16	22.19		8.53	13.66	6.75		15.44
MW-17	23.05		9.79	13.26	9.13		13.92
MW-18	23.88		10.91	12.97	10.46		13.42
PW-1	22.80		7.98	14.82	Not Measured		

Notes:

¹ System not operational during water level survey

² Groundwater elevation measurements same day prior to AFVR event

³ Groundwater elevation measurements same day after AFVR event

ft = feet

toe = top of casing elevation

msl = mean sea level

* Indicates that the depth to hydrocarbon product could not be measured

**Soil Vapor Extraction System Vapor Discharge Measurements
And
Mass Removal Calculations**

Table A-3 Soil Vapor Extraction System Mass Removal Calculations - Building AS-4158 Site

Measurement Date	Operational Status		Operational Days in Interval	Stack Temperature (F°)	Stack Gas Velocity (ft/min)	Stack Diameter (in)	Pressure (in H ₂ O)	Measured PPM ("wet")	Calibration Gas	Volume of Mass Removed (gal)		Mass Removed (lbs)		Cumulative Volume of Mass Removed (gal)		Cumulative Mass Removed (lbs)	
	Status	Interval								VOL	Mass	VOL	Mass	VOL	Mass	VOL	Mass
1/6/2005	running	1/1/2005	1/6/2005	77.3	1590	6	-31.7	0.1	Isobutylene	0.00	0.02	0.00	0.02	0.04	0.04	0.02	0.02
1/13/2005	running	1/7/2005	1/13/2005	63.9	2355	6	-28.0	0.1	Isobutylene	0.01	0.06	0.01	0.06	0.05	0.05	0.32	0.32
1/21/2005	running	1/14/2005	1/21/2005	47	1375	6	-34.0	0.4	Isobutylene	0.03	0.17	0.03	0.17	0.07	0.07	0.49	0.49
1/28/2005	running	1/22/2005	1/28/2005	38.4	1645	6	-32.0	0.6	Isobutylene	0.04	0.28	0.04	0.28	0.12	0.12	0.77	0.77
2/4/2005	running	1/29/2005	2/4/2005	42.9	2650	6	-42.0	0.0	Isobutylene	0.00	0.00	0.00	0.00	0.12	0.12	0.77	0.77
2/11/2005	running	2/5/2005	2/11/2005	46.7	1590	6	-34.0	0.2	Isobutylene	0.01	0.09	0.01	0.09	0.13	0.13	0.85	0.85
2/18/2005	running	2/12/2005	2/18/2005	51.9	1510	6	-32.0	0.0	Isobutylene	0.00	0.00	0.00	0.00	0.13	0.13	0.85	0.85
2/25/2005	running	2/19/2005	2/25/2005	47.3	4040	6	-40.0	0.2	Isobutylene	0.03	0.22	0.03	0.22	0.16	0.16	1.07	1.07
2/28/2005	running	2/26/2005	2/28/2005	50.4	2480	6	-50.0	0.0	Isobutylene	0.00	0.00	0.00	0.00	0.16	0.16	1.07	1.07
3/1/2005	running	3/1/2005	3/1/2005	55.7	1436	6	-34.0	0.0	Isobutylene	0.00	0.00	0.00	0.00	0.16	0.16	1.07	1.07
3/25/2005	running	3/12/2005	3/25/2005	66.8	5725	6	-38.0	0.0	Isobutylene	0.00	0.00	0.00	0.00	0.16	0.16	1.07	1.07
3/30/2005	running	3/26/2005	3/30/2005	69.9	1370	6	-38.0	0.0	Isobutylene	0.00	0.00	0.00	0.00	0.16	0.16	1.07	1.07
4/15/2005	running	3/31/2005	4/15/2005	66.1	1115	6	-37.0	0.0	Isobutylene	0.00	0.00	0.00	0.00	0.16	0.16	1.07	1.07
4/22/2005	running	4/16/2005	4/22/2005	79.7	1545	6	-30.0	0.0	Isobutylene	0.00	0.00	0.00	0.00	0.16	0.16	1.07	1.07
4/29/2005	running	4/23/2005	4/29/2005	61.1	1325	6	-30.0	0.0	Isobutylene	0.00	0.00	0.00	0.00	0.16	0.16	1.07	1.07
5/13/2005	running	4/30/2005	5/13/2005	67.9	950	6	-44.0	0.0	Isobutylene	0.00	0.00	0.00	0.00	0.16	0.16	1.07	1.07
5/19/2005	running	5/14/2005	5/19/2005	79.3	3530	6	-35.0	0.0	Isobutylene	0.00	0.00	0.00	0.00	0.16	0.16	1.07	1.07
6/2/2005	running	5/20/2005	6/2/2005	76.1	940	6	-38.0	0.0	Isobutylene	0.00	0.00	0.00	0.00	0.16	0.16	1.07	1.07
6/10/2005	running	6/3/2005	6/10/2005	85.0	1375	6	-30.0	0.0	Isobutylene	0.00	0.00	0.00	0.00	0.16	0.16	1.07	1.07
6/17/2005	running	6/11/2005	6/17/2005	89.3	1790	6	-28.0	0.0	Isobutylene	0.00	0.00	0.00	0.00	0.16	0.16	1.07	1.07
6/24/2005	running	6/18/2005	6/24/2005	88.1	1800	6	-34.0	0.0	Isobutylene	0.00	0.00	0.00	0.00	0.16	0.16	1.07	1.07
7/1/2005	running	6/25/2005	7/1/2005	96.4	1855	6	-34.0	0.0	Isobutylene	0.00	0.00	0.00	0.00	0.16	0.16	1.07	1.07
7/8/2005	running	7/2/2005	7/8/2005	94.8	1610	6	-33.3	0.0	Isobutylene	0.00	0.00	0.00	0.00	0.16	0.16	1.07	1.07
7/15/2005	running	7/9/2005	7/15/2005	91.2	1260	6	-40.0	0.0	Isobutylene	0.00	0.00	0.00	0.00	0.16	0.16	1.07	1.07
7/22/2005	running	7/16/2005	7/22/2005	83.0	775	6	-52.0	0.0	Isobutylene	0.00	0.00	0.00	0.00	0.16	0.16	1.07	1.07
7/29/2005	running	7/23/2005	7/29/2005	92.2	1250	6	-40.0	0.0	Isobutylene	0.00	0.00	0.00	0.00	0.16	0.16	1.07	1.07
8/5/2005	running	7/30/2005	8/5/2005	89.8	1655	6	-30.0	0.0	Isobutylene	0.00	0.00	0.00	0.00	0.16	0.16	1.07	1.07
8/11/2005	running	8/6/2005	8/11/2005	95.8	1880	6	-38.0	0.0	Isobutylene	0.00	0.00	0.00	0.00	0.16	0.16	1.07	1.07
8/26/2005	running	8/12/2005	8/26/2005	88.7	1590	6	-38.0	0.0	Isobutylene	0.00	0.00	0.00	0.00	0.16	0.16	1.07	1.07

A.1 Emissions Calculation Methods

The following material has been adapted from the North Carolina Department of Environment and Natural Resources guidance (NCDENR, 2002). Modifications to apply the method to an assumed evenly weighted mixture of gasoline and diesel fuel are identified in bold.

Emission calculations to Determine Flow as Dry Standard Cubic Feet Per Minute (DSCFM):

$$B_{ws} = (B_{wsW}/18 \text{ lb-mole H}_2\text{O}) / [(1/28.84 \text{ lb-mole dry air}) + (B_{wsW}/18 \text{ lb-mole H}_2\text{O})]$$

$$Q_{std} = (60 \text{ sec/min}) (1-B_{ws}) (V) (A) (528 \text{ R}^0 / T_s)$$

$$Q_{std} = \text{flow at DSCFM}$$

$$B_{wsW} = \text{lb. of water per lb. of dry air (use high temperature psychrometric chart for air-water vapor mixtures in } \textit{Perry's Chemical Engineers' Handbook} \text{)}$$

(used data from Heatcraft Psychrometric Chart, High Temperature, Sea Level; saturation was assumed)

$$B_{ws} = \text{water vapor \% by volume}$$

$$V = \text{velocity in ft/sec (obtain with hot wire anemometer or pitot tube (use average value))}$$

$$A = \text{cross sectional area of discharge stack in sq. ft. at sampling location}$$

$$T_s = \text{stack temperature in degrees Rankin (R}^0\text{), } R^0 = F^0 + 460 \text{ (use average value)}$$

Equations to determine Pollutant Mass Removal rate as gasoline (PMR_g):

$$\text{PPM}_w = \text{PPM}_{\text{measured}}$$

$$\text{PPM}_d = (\text{PPM}_w) / (1-B_{ws})$$

$$\text{PPM}_c = (\text{PPM}_d) (K)$$

$$C_{c:m} = \text{PPM}_c (M_c/K_3)$$

$$C_c = C_{c:m} (62.43 \times 10^{-9} \text{ lb-m}^3/\text{mg-ft}^3)$$

$$\text{PMR}_c = C_c (Q_{std}) (60 \text{ min/hr})$$

$$\text{PMR}_g = (\text{PMR}_c) (M_g/M_{cg})$$

$\text{PPM}_{\text{measured}}$ = obtained directly from OVA or TVA (use average value)

PPM_w = "wet" concentration

PPM_d = "dry" concentration

K = number of carbons in calibration gas (methane $K=1$, propane $K=3$, hexane $K=6$)
(isobutylene was used consistently as the calibration gas)

PPM_c = PPM_v , volumetric concentration of VOC emissions as carbon, dry basis, at STP

$C_{c:m}$ = mg/dsm^3 , mass concentration of VOC emissions as carbon

M_c = 12.01 mg/mg-mole, molecular wt. of carbon

K_3 = $24.07 \text{ dsm}^3/10^6 \text{ mg-mole}$, mass to volume conversion factor at STP

C_c = lb/dscf, mass concentration of VOC emissions as carbon, dry basis, at STP

PMR_c = lb/hr, pollutant mass removal rate of VOC's as carbon

PMR_g = lb/hr, pollutant mass removal rate of VOC's as gasoline

M_g = 103 mg/mg-mole, molecular wt. of gasoline (value may vary depending on contaminant)

(for diesel, a value of 170 mg/mg-mole was used [Martinez, 2005]; averaged gasoline/diesel $M_g = 136.5 \text{ mg/mg-mole}$)

M_{cg} = 89 mg/mg-mole, weight of carbon in gasoline molecule

(for diesel fuel, a value of 144 mg/mg-mole was used [Martinez, 2005]; averaged gasoline/diesel $M_{cg} = 136.5 \text{ mg/mg-mole}$)

NOTE: *To convert lbs. of gasoline emissions to gallons of liquid gasoline, divide by 6.25 lbs/gal.*
(for JP5, a specific gravity of 0.8 was used [PHPV, 2003])

Average values for molecular weight of gasoline, weight of carbon in gasoline molecule, and the conversion of pounds of gasoline emissions to gallons of liquid gasoline are from *Automotive Fuels Reference Book*, by K. Owens and T. Coley, Second Edition, 1995, published by the Society of Automotive Engineers.

A correction to standard pressure was included in the calculation, as follows:

$(29.92 + P_{\text{Hg}}) / P_{\text{STD}}$, where pressure is measured in inches of Mercury and P_{STD} equals 29.92.

APPENDIX B

PREVIOUS PROGRAM GROUNDWATER QUALITY DATA **(From Shaw. 2004)**

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corps Air Station
New River, North Carolina

Parameter	NCDEMR Regulatory Limit	Sample Location Sample ID Sample Date	MW-1					
			USTAS4158-MW01-03A	USTAS4158-MW01-02B	USTAS4158-MW01-01D	USTAS4158-MW01-01C	USTAS4158-MW01-01B	USTAS4158-MW01-00D
Volatile Aromatic Hydrocarbons by USEPA Method 602, ug/L								
Benzene	1		BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene	29		BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200		BQL	BQL	BQL	BQL	BQL	BQL
Toluene	1000		BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530		BQL	BQL	BQL	BQL	BQL	BQL
Polynuclear Aromatic Hydrocarbons by USEPA Method 625/8770C, ug/L								
Naphthalene	21		BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80		BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280		BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210		BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100		BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210		BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit		BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28		BQL	BQL	BQL	BQL	BQL	BQL

Notes
Detected concentrations are indicated in boldface type.
Detected concentrations above the regulatory limits are indicated by shading.
NA indicates that the sample was not analyzed for the constituent.
BQL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corps Air Station
New River, North Carolina

Parameter	NCDEMR Regulatory Limit	Sample Location		MW-1					
		Sample ID	Sample Date	USTAS4158-MW01-00C	USTAS4158-MW01-00A	USTAS4158-MW01-99C	USTAS4158-MW01-99B	USTAS4158-MW01-98D	USTAS4158-MW01-98C1
<i>Volatiles Aromatic Hydrocarbons by USEPA Method 602, ug/L</i>									
Benzene	1			BQL	BQL	BQL	BQL	10/21/1998	7/23/1998
Ethylbenzene	29			BQL	BQL	BQL	BQL		BQL
Methyl-tert-butyl ether (MTBE)	200			BQL	BQL	BQL	BQL		BQL
Toluene	1000			BQL	BQL	BQL	BQL		BQL
Total Xylenes	530			BQL	BQL	BQL	BQL		BQL
<i>Polynuclear Aromatic Hydrocarbons by USEPA Method 625/8270C, ug/L</i>									
Naphthalene	21			BQL	BQL	BQL	BQL		BQL
Acenaphthene	80			BQL	BQL	BQL	BQL		BQL
Fluorene	280			BQL	BQL	BQL	BQL		BQL
Phenanthrene	210			BQL	BQL	BQL	BQL		BQL
Anthracene	2100			BQL	BQL	BQL	BQL		BQL
Pyrene	210			BQL	BQL	BQL	BQL		BQL
1-Methylnaphthalene	Detection Limit			BQL	BQL	BQL	BQL		BQL
2-Methylnaphthalene	28			BQL	BQL	BQL	BQL		BQL

Notes:
 Detected concentrations are indicated in boldface type.
 Detected concentrations above the regulatory limits are indicated by shading.
 NA indicates that the sample was not analyzed for the constituent.
 BQL = Below Laboratory Quantitation Limit
 * verified with laboratory data package
 # verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corps Air Station
New River, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location Sample ID Sample Date	MW-1		MW-2		
			USTAS4158-MW01-98B2	USTAS4158-MW01-98B1	USTAS4158-MW02-01C	USTAS4158-MW02-01B	USTAS4158-MW02-00D
Volatile Aromatic Hydrocarbons by USEPA Method 602, ug/L							
Benzene	1	5/15/1998	1	3/27/1998	7/16/2001	4/17/2001	10/18/2000 *
Ethylbenzene	29		BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200		BQL	BQL	BQL	BQL	BQL
Toluene	1000		BQL	BQL	BQL	BQL	BQL
Total Xylenes	530		BQL	BQL	BQL	BQL	BQL
Polynuclear Aromatic Hydrocarbons by USEPA Method 625/8170C, ug/L							
Naphthalene	21		BQL	BQL	BQL	BQL	BQL
Acenaphthene	80		BQL	BQL	BQL	BQL	BQL
Fluorene	280		BQL	BQL	BQL	BQL	BQL
Phenanthrene	210		BQL	BQL	BQL	BQL	BQL
Anthracene	2100		BQL	BQL	BQL	BQL	BQL
Pyrene	210		BQL	BQL	BQL	BQL	BQL
1-Methylanthracene	Detection Limit		BQL	BQL	BQL	BQL	BQL
2-Methylanthracene	28		BQL	BQL	BQL	BQL	BQL

Notes
Detected concentrations are indicated in boldface type.
Detected concentrations above the regulatory limits are indicated by shading.
NA indicates that the sample was not analyzed for the constituent.
BQL = Below Laboratory Quantitation Limit
* verified with laboratory data package
† verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corps Air Station
New River, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location		MW-2					MW-3
		Sample ID	Sample Date	USTAS4158-MW02-00B	USTAS4158-MW02-99B	USTAS4158-MW02-99A	USTAS4158-MW02-98B2	USTAS4158-MW02-98B1	
Volatile Aromatic Hydrocarbons by USEPA Method 602, ug/L									
	Benzene	1			5/7/1999 *#	1/25/1999 *#	5/15/1998	3/27/1998	1/14/2003 *#
	Ethylbenzene	29		BQL	BQL	BQL	BQL	BQL	BQL
	Methyl-tert-butyl ether (MTBE)	200		BQL	BQL	BQL	BQL	BQL	BQL
	Toluene	1000		BQL	BQL	BQL	BQL	BQL	BQL
Polynuclear Aromatic Hydrocarbons by USEPA Method 625/8270C, ug/L	Total Xylenes	530		BQL	BQL	BQL	BQL	BQL	BQL
	Naphthalene	21		BQL	BQL	NA	18	14	BOL
	Acenaphthene	80		BQL	BQL	NA	BOL	BOL	BOL
	Fluorene	280		BQL	BQL	NA	BOL	BOL	BOL
	Phenanthrene	210		BQL	BQL	NA	BOL	BOL	BOL
	Anthracene	2100		BQL	BQL	NA	BOL	BOL	BOL
	Pyrene	210		BQL	BQL	NA	BOL	BOL	BOL
1-Methylnaphthalene	Detection Limit			BQL	BQL	NA	BOL	BOL	BOL
2-Methylnaphthalene	28			BOL	BOL	NA	BOL	BOL	BOL

Notes:
Detected concentrations are indicated in boldface type.
Detected concentrations above the regulatory limits are indicated by shading.
NA indicates that the sample was not analyzed for the constituent.
BQL = Below Laboratory Quantitation Limit.
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corps Air Station
New River, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location		MW-3					
		Sample ID	Sample Date	USTAS4158-MW03-02D	USTAS4158-MW03-02C	USTAS4158-MW03-02B	USTAS4158-MW03-02A	USTAS4158-MW03-01D	USTAS4158-MW03-01C
Volatile Aromatic Hydrocarbons by USEPA Method 602, ug/L				10/22/2002 *#	7/15/2002 *#	4/15/2002 *#	1/15/2002 *#	10/16/2001 #	7/16/2001 *
	1	Benzene		BQL	BQL	BQL	BQL	BQL	BQL
	29	Ethylbenzene		BQL	BQL	BQL	BQL	BQL	BQL
	200	Methyl-tert-butyl ether (MTBE)		BQL	BQL	BQL	BQL	BQL	BQL
	1000	Toluene		BQL	BQL	BQL	BQL	BQL	BQL
Polynuclear Aromatic Hydrocarbons by USEPA Method 625/8270C, ug/L	530	Total Xylenes		BQL	BQL	BQL	BQL	BQL	BQL
	21	Naphthalene		BQL	BQL	BQL	BQL	BQL	BQL
	80	Acenaphthene		BQL	BQL	BQL	BQL	BQL	BQL
	280	Fluorene		BQL	BQL	BQL	BQL	BQL	BQL
	210	Phenanthrene		BQL	BQL	BQL	BQL	BQL	BQL
	2100	Anthracene		BQL	BQL	BQL	BQL	BQL	BQL
	210	Pyrene		BQL	BQL	BQL	BQL	BQL	BQL
		1-Methylnaphthalene	Detection Limit	BQL	BQL	BQL	BQL	BQL	BQL
	28	2-Methylnaphthalene		BQL	BQL	BQL	BQL	BQL	BQL

Notes:
Detected concentrations are indicated in boldface type.
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BQL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corps Air Station
New River, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location		MW-3					
		Sample ID	Sample Date	USTAS4158-MW03-01B	USTAS4158-MW03-01A	USTAS4158-MW03-00D	USTAS4158-MW03-00C	USTAS4158-MW03-00B	USTAS4158-MW03-00A
Volatile Aromatic Hydrocarbons by USEPA Method 602, ug/L				4/17/2001 *#	1/4/2001 *#	10/18/2000 *	7/27/2000	4/25/2000 *#	1/12/2000 *#
Benzene	1			BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene	29			BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200			BQL	BQL	BQL	BQL	BQL	BQL
Toluene	1000			BQL	13	BQL	BQL	BQL	BQL
Total Xylenes	530			BQL	BQL	BQL	BQL	BQL	BQL
Polynuclear Aromatic Hydrocarbons by USEPA Method 625/8270C, ug/L									
Naphthalene	21			BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80			BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280			BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210			BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100			BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210			BQL	BQL	BQL	BQL	BQL	BQL
1-Methylanthracene	Detection Limit			BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28			BQL	BQL	BQL	BQL	BQL	BQL

Notes:
Detected concentrations are indicated in boldface type.
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* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corps Air Station
New River, North Carolina

Parameter		NCDENR Regulatory Limit	Sample Location		MW-3					
			Sample ID	Sample Date	USTAS4158-MW03-99D	USTAS4158-MW03-99C	USTAS4158-MW03-99B	USTAS4158-MW03-99A	USTAS4158-MW03-98D	
Volatile Aromatic Hydrocarbons by USEPA Method 602, ug/L										
	Benzene	1			BQL	BQL	BQL	1	BQL	BQL
	Ethylbenzene	29			BQL	BQL	BQL	BQL	BQL	BQL
	Methyl-tert-butyl ether (MTBE)	200			BQL	BQL	BQL	BQL	BQL	BQL
	Toluene	1000			BQL	BQL	BQL	BQL	BQL	BQL
	Total Xylenes	530			BQL	BQL	BQL	BQL	BQL	BQL
Polynuclear Aromatic Hydrocarbons by USEPA Method 625/8270C, ug/L										
	Naphthalene	21			BQL	BQL	BQL	BQL	BQL	BQL
	Acenaphthene	80			BQL	BQL	BQL	BQL	BQL	BQL
	Fluorene	280			BQL	BQL	BQL	BQL	BQL	BQL
	Phenanthrene	210			BQL	BQL	BQL	BQL	BQL	BQL
	Anthracene	2100			BQL	BQL	BQL	BQL	BQL	BQL
	Pyrene	210			BQL	BQL	BQL	BQL	BQL	BQL
	1-Methylnaphthalene	Detection Limit			BQL	BQL	BQL	BQL	BQL	BQL
	2-Methylnaphthalene	28			BQL	BQL	BQL	BQL	BQL	BQL

Notes
Detected concentrations are indicated in boldface type.
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Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corps Air Station
New River, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location Sample ID Sample Date	MW-3			MW-4		
			USTAS4158-MW03-98B3	USTAS4158-MW03-98B2	USTAS4158-MW03-98B1	USTAS4158-MW04-03A	USTAS4158-MW04-02D	USTAS4158-MW04-02C
<i>Volatile Aromatic Hydrocarbons by USEPA Method 602, ug/L</i>								
Benzene	1		6/24/1998 BQL	5/15/1998 BQL	3/27/1998 BQL	1/14/2003 *# BQL	10/23/2002 *# BQL	7/15/2002 *# BQL
Ethylbenzene	29		BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200		BQL	BQL	BQL	BQL	BQL	BQL
Toluene	1000		BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530		BQL	BQL	BQL	BQL	BQL	BQL
<i>Polynuclear Aromatic Hydrocarbons by USEPA Method 625/8270C, ug/L</i>								
Naphthalene	21		BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80		BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280		BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210		BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100		BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210		BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit		BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28		BQL	BQL	BQL	BQL	BQL	BQL

Notes
Detected concentrations are indicated in boldface type.
Detected concentrations above the regulatory limits are indicated by shading.
NA indicates that the sample was not analyzed for the constituent.
BQL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corps Air Station
New River, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location		MW-4							
		Sample ID	Sample Date	USTAS4158-MW04-02B	USTAS4158-MW04-02A	USTAS4158-MW04-01D	USTAS4158-MW04-01C	USTAS4158-MW04-01B	USTAS4158-MW04-01A		
Volatile Aromatic Hydrocarbons by USEPA Method 602, ug/L											
Benzene	1			BQL	BQL	BQL	BQL	BQL	BQL	1/4/2001 *#	BQL
Ethylbenzene	29			BQL	BQL	BQL	BQL	BQL	BQL		BQL
Methyl-tert-butyl ether (MTBE)	200			BQL	BQL	BQL	BQL	BQL	BQL		BQL
Toluene	1000			BQL	BQL	BQL	BQL	BQL	BQL		BQL
Total Xylenes	530			BQL	BQL	BQL	BQL	BQL	BQL		BQL
Polynuclear Aromatic Hydrocarbons by USEPA Method 625/8270C, ug/L											
Naphthalene	21			BQL	BQL	BQL	BQL	BQL	BQL		BQL
Acenaphthene	80			BQL	BQL	BQL	BQL	BQL	BQL		BQL
Fluorene	280			BQL	BQL	BQL	BQL	BQL	BQL		BQL
Phenanthrene	210			BQL	BQL	BQL	BQL	BQL	BQL		BQL
Anthracene	2100			BQL	BQL	BQL	BQL	BQL	BQL		BQL
Pyrene	210			BQL	BQL	BQL	BQL	BQL	BQL		BQL
1-Methylaphthalene	Detection Limit			BQL	BQL	BQL	BQL	BQL	BQL		BQL
2-Methylaphthalene	28			BQL	BQL	BQL	BQL	BQL	BQL		BQL

Notes
Detected concentrations are indicated in boldface type.
Detected concentrations above the regulatory limits are indicated by shading.
NA indicates that the sample was not analyzed for the constituent.
BQL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corps Air Station
New River, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location		MW-4					
		Sample ID	Sample Date	USTAS4158-MW04-00D	USTAS4158-MW04-00C	USTAS4158-MW04-00B	USTAS4158-MW04-00A	USTAS4158-MW04-99D	USTAS4158-MW04-99C
Volatile Aromatic Hydrocarbons by USEPA Method 602, ug/L				10/18/2000 *	7/26/2000 *	4/24/2000 *#	1/12/2000 *#	10/20/1999 *#	7/14/1999 *#
	1	Benzene		BQL	BQL	BQL	BQL	BQL	BQL
	29	Ethylbenzene		BQL	BQL	BQL	BQL	BQL	BQL
	200	Methyl-tert-butyl ether (MTBE)		BQL	BQL	BQL	BQL	BQL	BQL
Polynuclear Aromatic Hydrocarbons by USEPA Method 625/8270C, ug/L	1000	Toluene		2	BQL	BQL	BQL	BQL	BQL
	530	Total Xylenes		BQL	BQL	BQL	BQL	BQL	BQL
		Naphthalene		BQL	BQL	BQL	BQL	BQL	BQL
		Acenaphthene		BQL	BQL	BQL	BQL	BQL	BQL
	280	Fluorene		BQL	BQL	BQL	BQL	BQL	BQL
	210	Phenanthrene		BQL	BQL	BQL	BQL	BQL	BQL
	2100	Anthracene		BQL	BQL	BQL	BQL	BQL	BQL
	210	Pyrene		BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit			BQL	BQL	BQL	BQL	BQL	BQL
	28	2-Methylnaphthalene		BQL	BQL	BQL	BQL	BQL	BQL

Notes:
Detected concentrations are indicated in boldface type.
NA indicates that the sample was not analyzed for the constituent.
BQL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corps Air Station
New River, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location		MW-4					
		Sample ID	Sample Date	USTAS4158-MW04-99B	USTAS4158-MW04-99A	USTAS4158-MW04-98D	USTAS4158-MW04-98C1	USTAS4158-MW04-98B3	USTAS4158-MW04-98B2
<i>Volatile Aromatic Hydrocarbons by USEPA Method 602, ug/L</i>									
Benzene	1			BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene	29			BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200			BQL	BQL	BQL	BQL	BQL	BQL
Toluene	1000			BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530			BQL	BQL	BQL	BQL	BQL	BQL
<i>Polynuclear Aromatic Hydrocarbons by USEPA Method 625/8270C, ug/L</i>									
Naphthalene	21			BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80			BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280			BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210			BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100			BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210			BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit			BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28			BQL	BQL	BQL	BQL	BQL	BQL

Notes:
Detected concentrations are indicated in boldface type.
Detected concentrations above the regulatory limits are indicated by shading.
NA indicates that the sample was not analyzed for the constituent.
BQL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corps Air Station
New River, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location		MW-5					
		Sample ID	Sample Date	USTAS4158-MW04-98B1	USTAS4158-MW05-03A	USTAS4158-MW05-02C	USTAS4158-MW05-02C	USTAS4158-MW05-02B	USTAS4158-MW05-02A
Volatile Aromatic Hydrocarbons by USEPA Method 602, ug/L									
Benzene	1			BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene	29			BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200			BQL	BQL	BQL	BQL	BQL	BQL
Toluene	1000			BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530			BQL	BQL	BQL	BQL	BQL	BQL
Polynuclear Aromatic Hydrocarbons by USEPA Method 625/8270C, ug/L									
Naphthalene	21			BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80			BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280			BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210			BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100			BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210			BQL	BQL	BQL	BQL	BQL	BQL
1-Methylanthracene	Detection Limit			BQL	BQL	BQL	BQL	BQL	BQL
2-Methylanthracene	28			BQL	BQL	BQL	BQL	BQL	BQL

Notes:
Detected concentrations are indicated in boldface type.
Detected concentrations above the regulatory limits are indicated by shading.
NA indicates that the sample was not analyzed for the constituent.
BQL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corps Air Station
New River, North Carolina

Parameter	NCDEMR Regulatory Limit	Sample Location		MW-5					
		Sample ID	Sample Date	USTAS4158-MW05-01D	USTAS4158-MW05-01C	USTAS4158-MW05-01B	USTAS4158-MW05-01A	USTAS4158-MW05-00D	USTAS4158-MW05-00C
<i>Volatile Aromatic Hydrocarbons by USEPA Method 602, ug/L</i>									
Benzene	1			BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene	29			BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200			BQL	BQL	BQL	BQL	BQL	BQL
Toluene	1000			BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530			BQL	BQL	BQL	BQL	BQL	BQL
<i>Polynuclear Aromatic Hydrocarbons by USEPA Method 625/8270C, ug/L</i>									
Naphthalene	21			BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80			BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280			BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210			BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100			BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210			BQL	BQL	BQL	BQL	BQL	BQL
1-Methylanthracene	Detection Limit			BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28			BQL	BQL	BQL	BQL	BQL	BQL

Notes:
Detected concentrations are indicated in boldface type.
Detected concentrations above the regulatory limits are indicated by shading.
NA indicates that the sample was not analyzed for the constituent.
BQL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corps Air Station
New River, North Carolina

Parameter	NCIDENR Regulatory Limit	Sample Location Sample ID Sample Date	MW-5				
			USTAS4158-MW05-00B	USTAS4158-MW05-00A	USTAS4158-MW05-99D	USTAS4158-MW05-99C	USTAS4158-MW05-99B
Volatile Aromatic Hydrocarbons by USEPA Method 602, ug/L							
	1		4/24/2000 *#	3/23/2000 *#	10/20/1999 *#	7/14/1999 *#	4/19/1999 *#
		Benzene	BOL	BOL	BOL	BOL	BOL
	29	Ethylbenzene	BOL	BOL	BOL	BOL	BOL
Methyl-tert-butyl ether (MTBE)	200		BOL	BOL	BOL	BOL	BOL
	1000	Toluene	BOL	BOL	BOL	BOL	BOL
Polynuclear Aromatic Hydrocarbons by USEPA Method 625/8270C, ug/L	530	Total Xylenes	BOL	BOL	BOL	BOL	BOL
	21	Naphthalene	BOL	BOL	BOL	BOL	BOL
	80	Acenaphthene	BOL	BOL	BOL	BOL	BOL
	280	Fluorene	BOL	BOL	BOL	BOL	BOL
	210	Phenanthrene	BOL	BOL	BOL	BOL	BOL
	2100	Anthracene	BOL	BOL	BOL	BOL	BOL
	210	Pyrene	BOL	BOL	BOL	BOL	BOL
1-Methylnaphthalene	Detection Limit		BOL	BOL	BOL	BOL	BOL
2-Methylnaphthalene	28		BOL	BOL	BOL	BOL	BOL

Note:
Detected concentrations are indicated in boldface type.
Detected concentrations above the regulatory limits are indicated by shading.
NA indicates that the sample was not analyzed for the constituent.
BOL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corps Air Station
New River, North Carolina

Parameter		NCIDENR Regulatory Limit	Sample Location Sample ID	MW-5		MW-7				
				USTAS4158-MW05-98D		USTAS4158-MW07-03A	USTAS4158-MW07-02D	USTAS4158-MW07-02C	USTAS4158-MW07-02B	USTAS4158-MW07-02A
Volatile Aromatic Hydrocarbons by USEPA Method 602, ug/L			Sample Date	10/21/1998	1/14/2003 *#	10/22/2002 *#	7/15/2002 *#	4/15/2002 *#	1/15/2002 *#	
		1		BQL	BQL	BQL	BQL	BQL	BQL	
Benzene				BQL	BQL	BQL	BQL	BQL	BQL	
Ethylbenzene		29		BQL	BQL	BQL	BQL	BQL	BQL	
Methyl-tert-butyl ether (MTBE)		200		BQL	BQL	BQL	BQL	BQL	BQL	
Toluene		1000		BQL	BQL	BQL	BQL	BQL	BQL	
Total Xylenes		530		BQL	BQL	BQL	BQL	BQL	BQL	
Polynuclear Aromatic Hydrocarbons by USEPA Method 625/8270C, ug/L										
Naphthalene		21		BQL	BQL	BQL	BQL	BQL	BQL	
Acenaphthene		80		BQL	BQL	BQL	BQL	BQL	BQL	
Fluorene		280		BQL	BQL	BQL	BQL	BQL	BQL	
Phenanthrene		210		BQL	BQL	BQL	BQL	BQL	BQL	
Anthracene		2100		BQL	BQL	BQL	BQL	BQL	BQL	
Pyrene		210		BQL	BQL	BQL	BQL	BQL	BQL	
1-Methylnaphthalene		Detection Limit		BQL	BQL	BQL	BQL	BQL	BQL	
2-Methylnaphthalene		28		BQL	BQL	BQL	BQL	BQL	BQL	

Notes:
Detected concentrations are indicated in boldface type.
Detected concentrations above the regulatory limits are indicated by shading.
NA indicates that the sample was not analyzed for the constituent.
BQL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corps Air Station
New River, North Carolina

Parameter	NCDEMR Regulatory Limit	Sample Location		MW-7					
		Sample ID	Sample Date	USTAS4158-MW07-01C	USTAS4158-MW07-01C	USTAS4158-MW07-01A	USTAS4158-MW07-00D	USTAS4158-MW07-00C	USTAS4158-MW07-00B
<i>Volatiles Aromatic Hydrocarbons by USEPA Method 602, ug/L</i>									
Benzene	1			BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene	29			BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200			BQL	BQL	BQL	BQL	BQL	BQL
Toluene	1000			BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530			BQL	BQL	BQL	BQL	BQL	BQL
<i>Polynuclear Aromatic Hydrocarbons by USEPA Method 625/8270C, ug/L</i>									
Naphthalene	21			BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80			BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280			BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210			BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100			BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210			BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit			BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28			BQL	BQL	BQL	BQL	BQL	BQL

NOTE:
Detected concentrations are indicated in boldface type.
Detected concentrations above the regulatory limits are indicated by shading.
NA indicates that the sample was not analyzed for the constituent.
BQL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corps Air Station
New River, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location		MW-7					
		Sample ID	Sample Date	USTAS4158-MW07-00A	USTAS4158-MW07-99D	USTAS4158-MW07-99C	USTAS4158-MW07-99B	USTAS4158-MW07-99A	USTAS4158-MW07-98D
Volatile Aromatic Hydrocarbons by USEPA Method 602, ug/L				1/12/2000 *#	10/20/1999 *#	7/14/1999 *#	4/19/1999 *#	1/25/1999 *#	10/21/1998
Benzene	1			BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene	29			BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200			BQL	BQL	BQL	BQL	BQL	BQL
Toluene	1000			BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530			BQL	BQL	BQL	BQL	BQL	BQL
Polynuclear Aromatic Hydrocarbons by USEPA Method 625/87/90C, ug/L									
Naphthalene	21			BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80			BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280			BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210			BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100			BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210			BQL	BQL	BQL	BQL	BQL	BQL
1-Methyl-naphthalene	Detection Limit			BQL	BQL	BQL	BQL	BQL	BQL
2-Methyl-naphthalene	28			BQL	BQL	BQL	BQL	BQL	BQL

Notes

Detected concentrations are indicated in boldface type.
Detected concentrations above the regulatory limits are indicated by shading.
NA indicates that the sample was not analyzed for the constituent.
BQL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corps Air Station
New River, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location		MW-7			MW-8		
		Sample ID	Sample Date	USTAS4158-MW07-98C1	USTAS4158-MW07-98B3	USTAS4158-MW07-98B2	USTAS4158-MW07-98B1	USTAS4158-MW08-03A	USTAS4158-MW08-02D
Volatiles Aromatic Hydrocarbons by USEPA Method 602, ug/L									
Benzene	1			BOL	BOL	BOL	BOL	BOL	BOL
Ethylbenzene	29			BOL	BOL	BOL	BOL	BOL	BOL
Methyl-tert-butyl ether (MTBE)	200			BOL	BOL	BOL	BOL	BOL	BOL
Toluene	1000			BOL	BOL	BOL	BOL	BOL	BOL
Total Xylenes	530			BOL	BOL	BOL	BOL	BOL	BOL
Polynuclear Aromatic Hydrocarbons by USEPA Method 625/8270C, ug/L									
Naphthalene	21			BOL	BOL	BOL	BOL	BOL	BOL
Acenaphthene	80			BOL	BOL	BOL	BOL	BOL	BOL
Fluorene	280			BOL	BOL	BOL	BOL	BOL	BOL
Phenanthrene	210			BOL	BOL	BOL	BOL	BOL	BOL
Anthracene	2100			BOL	BOL	BOL	BOL	BOL	BOL
Pyrene	210			BOL	BOL	BOL	BOL	BOL	BOL
1-Methylnaphthalene	Detection Limit			BOL	BOL	BOL	BOL	BOL	BOL
2-Methylnaphthalene	28			BOL	BOL	BOL	BOL	BOL	BOL

Notes:
Detected concentrations are indicated in boldface type.
Detected concentrations above the regulatory limits are indicated by shading.
NA indicates that the sample was not analyzed for the constituent.
BOL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corps Air Station
New River, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location Sample ID	MW-8					
			USTAS4158-MW08-02C	USTAS4158-MW08-02B	USTAS4158-MW08-02A	USTAS4158-MW08-01D	USTAS4158-MW08-01C	USTAS4158-MW08-01B
Volatile Aromatic Hydrocarbons by USEPA Method 602, ug/L		Sample Date	7/15/2002 *#	4/15/2002 *#	1/15/2002 *#	10/15/2001 #	7/16/2001 *	4/17/2001 *#
	1	Benzene	BQL	BQL	BQL	BQL	BQL	BQL
	29	Ethylbenzene	BQL	BQL	BQL	BQL	BQL	BQL
	200	Methyl-tert-butyl ether (MTBE)	BQL	BQL	BQL	BQL	BQL	BQL
	1000	Toluene	BQL	BQL	BQL	BQL	BQL	BQL
Polynuclear Aromatic Hydrocarbons by USEPA Method 625.82770C, ug/L	530	Total Xylenes	BQL	BQL	BQL	BQL	BQL	BQL
	21	Naphthalene	BQL	BQL	BQL	BQL	BQL	BQL
	80	Acenaphthene	BQL	BQL	BQL	BQL	BQL	BQL
	280	Fluorene	BQL	BQL	BQL	BQL	BQL	BQL
	210	Phenanthrene	BQL	BQL	BQL	BQL	BQL	BQL
	2100	Anthracene	BQL	BQL	BQL	BQL	BQL	BQL
	210	Pyrene	BQL	BQL	BQL	BQL	BQL	BQL
	Detection Limit	1-Methylnaphthalene	BQL	BQL	BQL	BQL	BQL	BQL
	28	2-Methylnaphthalene	BQL	BQL	BQL	BQL	BQL	BQL

Notes:
Detected concentrations are indicated in boldface type.
Detected concentrations above the regulatory limits are indicated by shading.
NA indicates that the sample was not analyzed for the constituent.
BQL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corps Air Station
New River, North Carolina

Parameter		NCDENR Regulatory Limit	Sample Location Sample ID		MW-8				
Sample Date			USTAS4158-MW08-01A	USTAS4158-MW08-00D	USTAS4158-MW08-00C	USTAS4158-MW08-00B	USTAS4158-MW08-00A	USTAS4158-MW08-99D	
Volatile Aromatic Hydrocarbons by USEPA Method 602, ug/L									
Benzene	1		1/4/2001 *#	10/18/2000 *	7/26/2000 *	4/23/2000 *#	1/12/2000 *#	10/20/1999 *#	
Ethylbenzene	29		BQL	BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200		BQL	BQL	BQL	BQL	BQL	BQL	BQL
Toluene	1000		BQL	BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530		BQL	BQL	BQL	BQL	BQL	BQL	BQL
Polynuclear Aromatic Hydrocarbons by USEPA Method 625/8270C, ug/L									
Naphthalene	21		BQL	BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80		BQL	BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280		BQL	BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210		BQL	BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100		BQL	BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210		BQL	BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit		BQL	BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28		BQL	BQL	BQL	BQL	BQL	BQL	BQL

Notes:
Detected concentrations are indicated in boldface type.
Detected concentrations above the regulatory limits are indicated by shading.
NA indicates that the sample was not analyzed for the constituent.
BQL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corps Air Station
New River, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location Sample ID	MW-8				
			USTAS4158-MW08-99C	USTAS4158-MW08-99B	USTAS4158-MW08-99A	USTAS4158-MW08-98D	USTAS4158-MW08-98C1
Volatile Aromatic Hydrocarbons by USEPA Method 602, ug/L		Sample Date					
Benzene	1		BQL	BQL	BQL	BQL	BQL
Ethylbenzene	29		BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200		BQL	BQL	BQL	BQL	BQL
Toluene	1000		BQL	BQL	BQL	BQL	BQL
Total Xylenes	530		BQL	BQL	BQL	BQL	BQL
Polynuclear Aromatic Hydrocarbons by USEPA Method 625/8270C, ug/L							
Naphthalene	21		BQL	BQL	BQL	BQL	BQL
Acenaphthene	80		BQL	BQL	BQL	BQL	BQL
Fluorene	280		BQL	BQL	BQL	BQL	BQL
Phenanthrene	210		BQL	BQL	BQL	BQL	BQL
Anthracene	2100		BQL	BQL	BQL	BQL	BQL
Pyrene	210		BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit		BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28		BQL	BQL	BQL	BQL	BQL

Notes:
Detected concentrations are indicated in boldface type.
Detected concentrations above the regulatory limits are indicated by shading.
NA indicates that the sample was not analyzed for the constituent.
BQL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corps Air Station
New River, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location Sample ID Sample Date	MW-3 USTAS4158-MW08-98B2 USTAS4158-MW08-98B1
Volatile Aromatic Hydrocarbons by USEPA Method 602, ug/L			
Benzene	1		BQL
Ethylbenzene	29		BQL
Methyl-tert-butyl ether (MTBE)	200		BQL
Toluene	1000		BQL
Total Xylenes	530		BQL
Polynuclear Aromatic Hydrocarbons by USEPA Method 625/8270C, ug/L			
Naphthalene	21		BQL
Acenaphthene	80		BQL
Fluorene	280		BQL
Phenanthrene	210		BQL
Anthracene	2100		BQL
Pyrene	210		BQL
1-Methylnaphthalene	Detection Limit		BQL
2-Methylnaphthalene	28		BQL

Notes:
Detected concentrations are indicated in boldface type.
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NA indicates that the sample was not analyzed for the constituent.
BQL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corps Air Station
New River, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location Sample ID Sample Date	MW-9					
			USTAS4158-MW09-03A	USTAS4158-MW09-02D	USTAS4158-MW09-01D	USTAS4158-MW09-01C	USTAS4158-MW09-01B	USTAS4158-MW09-01A
Volatile Aromatic Hydrocarbons by USEPA Method 602, ug/L								
Benzene	1							
Ethylbenzene	29			10	BOL	1	13	10
Methyl-tert-butyl ether (MTBE)	200		13	17	2	6	BOL	BOL
Toluene	1000		66	BOL	BOL	BOL	BOL	BOL
Total Xylenes	530		400	156	BOL	2	24	32
Polynuclear Aromatic Hydrocarbons by USEPA Method 625/8270C, ug/L								
Naphthalene	21				BOL	BOL		
Acenaphthene	80				BOL	BOL	17	BOL
Fluorene	280		BOL		BOL	BOL	BOL	BOL
Phenanthrene	210				BOL	BOL	BOL	23
Anthracene	2100				BOL	BOL	BOL	BOL
Pyrene	210		200	BOL	BOL	BOL	BOL	14
1-Methylnaphthalene			300		BOL	BOL		
2-Methylnaphthalene			300		BOL	BOL	13	13
	28							35

Notes:
Detected concentrations are indicated in boldface type.
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verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corps Air Station
New River, North Carolina

Parameter	NCDEMR Regulatory Limit	Sample Location Sample ID Sample Date	MW-9				
			USTAS4158-MW09-00D	USTAS4158-MW09-00C	USTAS4158-MW09-00B	USTAS4158-MW09-00A	USTAS4158-MW09-99C
<i>Volatile Aromatic Hydrocarbons by USEPA Method 602, ug/L</i>							
Benzene	1		10/18/2000 *	7/26/2000 *	4/24/2000 **	1/12/2000 **	10/20/1999 **
Ethylbenzene	29		BQL	BQL	BQL	1	BQL
Methyl-tert-butyl ether (MTBE)	200		11	16	23	23	13
Toluene	1000		BQL	BQL	BQL	BQL	BQL
Total Xylenes	530		BQL	BQL	BQL	9	8
<i>Polynuclear Aromatic Hydrocarbons by USEPA Method 625/8270C, ug/L</i>							
Naphthalene	21		BQL	BQL	BQL	13	16
Acenaphthene	80		BQL	BQL	BQL	BQL	BQL
Fluorene	280		BQL	BQL	BQL	20	22
Phenanthrene	210		11	BQL	17	20	29
Anthracene	2100		BQL	BQL	BQL	BQL	BQL
Pyrene	210		13	30	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit		BQL	BQL	BQL	11	63
2-Methylnaphthalene	28		11	BQL	BQL	23	31

Notes:
Detected concentrations are indicated in boldface type.
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Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corps Air Station
New River, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location Sample ID Sample Date	MW-9		MW-10			
			USTAS4158-MW09-99B	USTAS4158-MW09-99B	USTAS4158-MW10-03A	USTAS4158-MW10-02D	USTAS4158-MW10-02C	USTAS4158-MW10-02B
<i>Volatile Aromatic Hydrocarbons by USEPA Method 602, ug/L</i>			5/7/1999 *#	2/16/1999 *#	1/14/2003 *#	10/23/2002 *#	7/15/2002 *#	4/15/2002 *#
Benzene	1				BQL	BQL	BQL	BQL
Ethylbenzene	29				BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200		23	26	BQL	BQL	BQL	BQL
Toluene	1000		BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530		321	470	BQL	BQL	BQL	BQL
<i>Polynuclear Aromatic Hydrocarbons by USEPA Method 625/8270C, ug/L</i>								
Naphthalene	21			BQL	BQL	BQL	BQL	BQL
Acenaphthene	80		BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280		26	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210		37		BQL	BQL	BQL	BQL
Anthracene	2100		BQL		BQL	BQL	BQL	BQL
Pyrene	210		BQL	BQL	BQL	BQL	BQL	BQL
1-Methylbaphthalene	Detection Limit		120		BQL	BQL	BQL	BQL
2-Methylbaphthalene	28		120		BQL	BQL	BQL	BQL

Notes:
Detected concentrations are indicated in boldface type.
Detected concentrations above the regulatory limits are indicated by shading.
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* verified with laboratory data package
verified with electronic data deliverable

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corps Air Station
New River, North Carolina

Parameter	NCDEMR Regulatory Limit	Sample Location Sample ID Sample Date	MW-10					
			USTAS4158-MW10-02A	USTAS4158-MW10-01D	USTAS4158-MW10-01C	USTAS4158-MW10-01B	USTAS4158-MW10-01A	USTAS4158-MW10-00D
Volatiles Aromatic Hydrocarbons by USEPA Method 602, ug/L								
Benzene	1		BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene	29		BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200		BQL	BQL	BQL	BQL	BQL	BQL
Toluene	1000		BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530		BQL	BQL	BQL	BQL	BQL	BQL
Polynuclear Aromatic Hydrocarbons by USEPA Method 625/8270C, ug/L								
Naphthalene	21		BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80		BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280		BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210		BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100		BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210		BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit		BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28		BQL	BQL	BQL	BQL	BQL	BQL

Notes:
Detected concentrations are indicated in boldface type.
NA indicates that the sample was not analyzed for the constituent.
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* verified with laboratory data package
// verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corps Air Station
New River, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location Sample ID	MW-10				
			USTAS4158-MW10-00C	USTAS4158-MW10-00B	USTAS4158-MW10-00A	USTAS4158-MW10-99D	USTAS4158-MW10-99B
Volatiles Aromatic Hydrocarbons by USEPA Method 602, ug/L							
Benzene	1		BQL	BQL	BQL	BQL	BQL
Ethylbenzene	29		BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200		BQL	BQL	BQL	BQL	BQL
Toluene	1000		BQL	BQL	BQL	BQL	BQL
Total Xylenes	530		BQL	BQL	BQL	BQL	BQL
Polynuclear Aromatic Hydrocarbons by USEPA Method 625/8270C, ug/L							
Naphthalene	21		BQL	BQL	BQL	BQL	BQL
Acenaphthene	80		BQL	BQL	BQL	BQL	BQL
Fluorene	280		BQL	BQL	BQL	BQL	BQL
Phenanthrene	210		BQL	BQL	BQL	BQL	BQL
Anthracene	2100		BQL	BQL	BQL	BQL	BQL
Pyrene	210		BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit		BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28		BQL	BQL	BQL	BQL	BQL

Notes:
Detected concentrations are indicated in boldface type.
Detected concentrations above the regulatory limits are indicated by shading.
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* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corps Air Station
New River, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location Sample ID Sample Date	MW-10					MW-11	
			USTAS4158-MW10-98D	USTAS4158-MW10-98C1	USTAS4158-MW10-98B3	USTAS4158-MW10-98B2	USTAS4158-MW10-98B1	USTAS4158-MW11-03A	
<i>Volatile Aromatic Hydrocarbons by USEPA Method 602, ug/L</i>									
Benzene	1		10/21/1998 BQL	7/23/1998 BQL	6/24/1998 BQL	5/15/1998 BQL	3/27/1998 BQL	1/14/2003 *# BQL	BQL
Ethylbenzene	29		BQL	BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200		BQL	BQL	BQL	BQL	BQL	BQL	9
Toluene	1000		BQL	BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530		BQL	BQL	BQL	BQL	BQL	BQL	BQL
<i>Polynuclear Aromatic Hydrocarbons by USEPA Method 625/8270C, ug/L</i>									
Naphthalene	21		BQL	BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80		BQL	BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280		BQL	BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210		BQL	BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100		BQL	BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210		BQL	BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit		BQL	BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28		BQL	BQL	BQL	BQL	BQL	BQL	BQL

Notes:
Detected concentrations are indicated in boldface type.
Detected concentrations above the regulatory limits are indicated by shading.
NA indicates that the sample was not analyzed for the constituent.
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* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corps Air Station
New River, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location Sample ID	MW-11					
			USTAS4158-MW11-02D	USTAS4158-MW11-02	USTAS4158-MW11-02B	USTAS4158-MW11-02A	USTAS4158-MW11-01D	USTAS4158-MW11-01C
Volatile Aromatic Hydrocarbons by USEPA Method 602, ug/L								
Benzene	1	Sample Date	10/23/2002 *#	7/15/2002 *#	4/15/2002 *#	1/15/2002 *#	10/15/2001 #	7/16/2001 *
Ethylbenzene	29		BOL	BOL	BOL	BOL	BOL	BOL
Methyl-tert-butyl ether (MTBE)	200		7	11	7	13	12	8
Toluene	1000		BOL	BOL	BOL	BOL	BOL	BOL
Total Xylenes	530		BOL	BOL	BOL	BOL	BOL	BOL
Polynuclear Aromatic Hydrocarbons by USEPA Method 625/8270C, ug/L								
Naphthalene	21		BOL	BOL	BOL	BOL	BOL	BOL
Acenaphthene	80		BOL	BOL	BOL	BOL	BOL	BOL
Fluorene	280		BOL	BOL	BOL	BOL	BOL	BOL
Phenanthrene	210		BOL	BOL	BOL	BOL	BOL	BOL
Anthracene	2100		BOL	BOL	BOL	BOL	BOL	BOL
Pyrene	210		BOL	BOL	BOL	BOL	BOL	BOL
1-Methylanthracene	Detection Limit		BOL	BOL	BOL	BOL	BOL	BOL
2-Methylanthracene	28		BOL	BOL	BOL	BOL	BOL	BOL

Notes:
Detected concentrations are indicated in boldface type.
Detected concentrations above the regulatory limits are indicated by shading.
NA indicates that the sample was not analyzed for the constituent.
BOL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corps Air Station
New River, North Carolina

Parameter		NCDENR	Sample Location Sample ID Sample Date	MW-11					
Volatile Aromatic Hydrocarbons by USEPA Method 602, ug/L				USTAS4158-MW11-01B 4/17/2001 *#	USTAS4158-MW11-01A 1/4/2001 *#	USTAS4158-MW11-00D 10/18/2000 *	USTAS4158-MW11-00C 7/26/2000 *	USTAS4158-MW11-00B 4/23/2000 *#	USTAS4158-MW11-00A 1/12/2000 *#
Benzene		1							
Ethylbenzene		29		BOL	BOL	BOL	BOL	BOL	BOL
Methyl-tert-butyl ether (MTBE)		200		5	4	7	9	9	7
Toluene		1000		BOL	BOL	BOL	BOL	BOL	BOL
Total Xylenes		530		BOL	BOL	BOL	BOL	BOL	BOL
Polynuclear Aromatic Hydrocarbons by USEPA Method 625/8270C, ug/L									
Naphthalene		21		BOL	BOL	BOL	BOL	BOL	BOL
Acenaphthene		80		BOL	BOL	BOL	BOL	BOL	BOL
Fluorene		280		BOL	BOL	BOL	BOL	BOL	BOL
Phenanthrene		210		BOL	BOL	BOL	BOL	BOL	BOL
Anthracene		2100		BOL	BOL	BOL	BOL	BOL	BOL
Pyrene		210		BOL	BOL	BOL	BOL	BOL	BOL
1-Methylnaphthalene		Detection Limit		BOL	BOL	BOL	BOL	BOL	BOL
2-Methylnaphthalene		28		BOL	BOL	BOL	BOL	BOL	BOL

Notes:
Detected concentrations are indicated in boldface type.
Detected concentrations above the regulatory limits are indicated by shading.
NA indicates that the sample was not analyzed for the constituent.
BQL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corps Air Station
New River, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location Sample ID Sample Date	MW-11				
			USTAS4158-MW11-99D	USTAS4158-MW11-99C	USTAS4158-MW11-99B	USTAS4158-MW11-99A	USTAS4158-MW11-98D
Volatiles Aromatic Hydrocarbons by USEPA Method 602, ug/L							
Benzene	1						
Ethylbenzene	29		BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200		6	13	8	12	40
Toluene	1000		BQL	BQL	BQL	BQL	BQL
Total Xylenes	530		BQL	BQL	BQL	BQL	BQL
Polynuclear Aromatic Hydrocarbons by USEPA Method 625/8270C, ug/L							
Naphthalene	21		BQL	BQL	BQL	BQL	BQL
Acenaphthene	80		BQL	BQL	BQL	BQL	BQL
Fluorene	280		BQL	BQL	BQL	BQL	BQL
Phenanthrene	210		BQL	BQL	BQL	BQL	BQL
Anthracene	2100		BQL	BQL	BQL	BQL	BQL
Pyrene	210		BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit		BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28		BQL	BQL	BQL	BQL	BQL

Notes:

Detected concentrations are indicated in boldface type.
Detected concentrations above the regulatory limits are indicated by shading.
NA indicates that the sample was not analyzed for the constituent.
BQL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corps Air Station
New River, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location Sample ID Sample Date	MW-11			MW-13		
			USTAS4158-MW11-98B3	USTAS4158-MW11-98B2	USTAS4158-MW11-98B1	USTAS4158-MW13-03A	USTAS4158-MW13-02D	USTAS4158-MW13-02C
Volatile Aromatic Hydrocarbons by USEPA Method 602, ug/L								
Benzene	1	6/24/1998		5/15/1998	3/27/1998	1/14/2003 *#	10/23/2002 *#	7/15/2002 *#
Ethylbenzene	29		BQL	BQL	4	BQL	BQL	
Methyl-tert-butyl ether (MTBE)	200		26	7	130	26	17	3
Toluene	1000		BQL	BQL	24	BQL	BQL	67
Total Xylenes	530		BQL	BQL	56	BQL	BQL	2
Polynuclear Aromatic Hydrocarbons by USEPA Method 625/8270C, ug/L								6
Naphthalene	21		BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80		BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280		BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210		BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100		BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210		BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit		BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28		BQL	BQL	BQL	BQL	BQL	BQL

Notes:
Detected concentrations are indicated in boldface type.
NA indicates that the sample was not analyzed for the constituent.
BQL = Below Laboratory Quantitation Limit
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verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corps Air Station
New River, North Carolina

Parameter	NCDEMR Regulatory Limit	Sample Location Sample ID Sample Date	MW-13					
			USTAS4158-MW13-02B	USTAS4158-MW13-02A	USTAS4158-MW13-01D	USTAS4158-MW13-01C	USTAS4158-MW13-01B	USTAS4158-MW13-01A
Volatile Aromatic Hydrocarbons by USEPA Method 602, ug/L								
Benzene	1							
Ethylbenzene	29		BQL	BQL	BQL	BQL		
Methyl-tert-butyl ether (MTBE)	200		34	15	42	62	3	
Toluene	1000		BQL	BQL	BQL	BQL	52	
Total Xylenes	530		BQL	BQL	BQL	BQL	7	
Polynuclear Aromatic Hydrocarbons by USEPA Method 623.8270C, ug/L							13	
Naphthalene	21		BQL	BQL	BQL	BQL		
Acenaphthene	80		BQL	BQL	BQL	BQL	BQL	11
Fluorene	280		BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210		BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100		BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210		BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit		BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	23		BQL	BQL	BQL	BQL	BQL	BQL

Notes:
Detected concentrations are indicated in boldface type.
Detected concentrations above the regulatory limits are indicated by shading.
NA indicates that the sample was not analyzed for the constituent.
BQL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corps Air Station
New River, North Carolina

Parameter	NCDEMR Regulatory Limit	Sample Location Sample ID Sample Date	MW-13					
			USTAS4158-MW13-00D	USTAS4158-MW13-00C	USTAS4158-MW13-00B	USTAS4158-MW13-00A	USTAS4158-MW13-99D	USTAS4158-MW13-99B
Volatiles Aromatic Hydrocarbons by USEPA Method 602, ug/L								
Benzene	1		10/18/2000 *	7/26/2000 *	4/25/2000 *	1/12/2000 *	10/20/1999 *	4/19/1999 *
Ethylbenzene	29							
Methyl-tert-butyl ether (MTBE)	200							
Toluene	1000							
Total Xylenes	530							
Polynuclear Aromatic Hydrocarbons by USEPA Method 625/8270C, ug/L								
Naphthalene	21							
Acenaphthene	80							
Fluorene	280							
Phenanthrene	210							
Anthracene	2100							
Pyrene	210							
1-Methylhaphthalene								
2-Methylhaphthalene	28							

Notes:
Detected concentrations are indicated in boldface type.
Detected concentrations above the regulatory limits are indicated by shading.
NA indicates that the sample was not analyzed for the constituent.
BQL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corps Air Station
New River, North Carolina

Parameter	NCDENR	Sample Location		MW-13				
		Regulatory Limit	Sample Date	USTAS4158-MW13-99A	USTAS4158-MW13-98C1	USTAS4158-MW13-98B3	USTAS4158-MW13-98B2	USTAS4158-MW13-98B1
<i>Volatile Aromatic Hydrocarbons by USEPA Method 602, ug/L</i>								
Benzene	1			2/16/1999 *#	7/23/1998	6/24/1998	5/15/1998	3/27/1998
Ethylbenzene	29			BOL	7		19	230
Methyl-tert-butyl ether (MTBE)	200			7	56	150	BOL	BOL
Toluene	1000			BOL	BOL		BOL	270
Total Xylenes	530			BOL	10		BOL	500
<i>Polynuclear Aromatic Hydrocarbons by USEPA Method 625/8170C, ug/L</i>								
Naphthalene	21			BOL	BOL		BOL	
Acenaphthene	80			BOL	BOL		BOL	BOL
Fluorene	280			BOL	BOL		BOL	BOL
Phenanthrene	210			BOL	BOL		BOL	BOL
Anthracene	2100			BOL	BOL		BOL	BOL
Pyrene	210			BOL	BOL		BOL	BOL
1-Methylnaphthalene	Detection Limit			BOL	BOL		BOL	BOL
2-Methylnaphthalene	28			BOL	BOL	10	BOL	11

Notes:
Detected concentrations are indicated in boldface type.
Detected concentrations above the regulatory limits are indicated by shading.
NA indicates that the sample was not analyzed for the constituent.
BOL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corps Air Station
New River, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location		MW-14					
		Sample ID	Sample Date	USTAS4158-MW14-03A	USTAS4158-MW14-02D	USTAS4158-MW14-02C	USTAS4158-MW14-02B	USTAS4158-MW14-02A	USTAS4158-MW14-01D
Volatile Aromatic Hydrocarbons by USEPA Method 602, ug/L									
	1			BQL	BQL	BQL	BQL	BQL	BQL
	29			BQL	BQL	BQL	BQL	BQL	BQL
	200			BQL	BQL	BQL	BQL	BQL	BQL
	1000			BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530			BQL	BQL	BQL	BQL	BQL	BQL
Polynuclear Aromatic Hydrocarbons by USEPA Method 625/8270C, ug/L									
	21			BQL	BQL	BQL	BQL	BQL	BQL
	80			BQL	BQL	BQL	BQL	BQL	BQL
	280			BQL	BQL	BQL	BQL	BQL	BQL
	210			BQL	BQL	BQL	BQL	BQL	BQL
	2100			BQL	BQL	BQL	BQL	BQL	BQL
	210			BQL	BQL	BQL	BQL	BQL	BQL
	Detection Limit			BQL	BQL	BQL	BQL	BQL	BQL
	28			BQL	BQL	BQL	BQL	BQL	BQL

Notes:
Detected concentrations are indicated in boldface type.
Detected concentrations above the regulatory limits are indicated by shading.
NA indicates that the sample was not analyzed for the constituent.
BQL = Below Laboratory Quantitation Limit
* verified with laboratory data package
* verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corps Air Station
New River, North Carolina

Parameter	NCDENR	Sample Location Sample ID	MW-14					
			USTAS4158-MW14-01C	USTAS4158-MW14-01B	USTAS4158-MW14-01A	USTAS4158-MW14-00D	USTAS4158-MW14-00C	USTAS4158-MW14-00B
Volatile Aromatic Hydrocarbons by USEPA Method 602, ug/L	Regulatory Limit	Sample Date	7/16/2001 *	4/17/2001 *#	1/4/2001 *#	10/18/2000 *	7/26/2000 *	4/25/2000 *#
Benzene	1		BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene	29		BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200		BQL	BQL	BQL	BQL	BQL	BQL
Toluene	1000		BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530		BQL	BQL	BQL	BQL	BQL	BQL
Polynuclear Aromatic Hydrocarbons by USEPA Method 625/8270C, ug/L								
Naphthalene	21		BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80		BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280		BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210		BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100		BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210		BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit		BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28		BQL	BQL	BQL	BQL	BQL	BQL

Notes:
Detected concentrations are indicated in boldface type.
Detected concentrations above the regulatory limits are indicated by shading.
NA indicates that the sample was not analyzed for the constituent.
BQL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corps Air Station
New River, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location Sample ID	MW-14				
			USTAS4158-MW14-00A	USTAS4158-MW14-99D	USTAS4158-MW14-99C	USTAS4158-MW14-99B	USTAS4158-MW14-99A
Volatiles Aromatic Hydrocarbons by USEPA Method 602, ug/L							
Benzene	1	Sample Date	1/12/2000 *#	10/20/1999 *#	7/14/1999 *#	4/19/1999 *#	1/25/1999 *#
Ethylbenzene	29		BOL	BOL	BOL	BOL	BOL
Methyl-tert-butyl ether (MTBE)	200		BOL	BOL	BOL	BOL	BOL
Toluene	1000		BOL	BOL	BOL	BOL	BOL
Total Xylenes	530		BOL	BOL	BOL	BOL	BOL
Polynuclear Aromatic Hydrocarbons by USEPA Method 625/8270C, ug/L							
Naphthalene	21		BOL	BOL	BOL	BOL	BOL
Acenaphthene	80		BOL	BOL	BOL	BOL	BOL
Fluorene	280		BOL	BOL	BOL	BOL	BOL
Phenanthrene	210		BOL	BOL	BOL	BOL	BOL
Anthracene	2100		BOL	BOL	BOL	BOL	BOL
Pyrene	210		BOL	BOL	BOL	BOL	BOL
1-Methyl-naphthalene	Detection Limit		BOL	BOL	BOL	BOL	BOL
2-Methyl-naphthalene	28		BOL	BOL	BOL	BOL	BOL

Notes:
Detected concentrations are indicated in boldface type.
Detected concentrations above the regulatory limits are indicated by shading.
NA indicates that the sample was not analyzed for the constituent.
BOL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corps Air Station
New River, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location		MW-14			MW-15		
		Sample ID	Sample Date	USTAS4158-MW14-98B1	USTAS4158-MW14-98B2	USTAS4158-MW14-98B3	USTAS4158-MW15-03A	USTAS4158-MW15-02D	
Volatile Aromatic Hydrocarbons by USEPA Method 602, ug/L									
Benzene	1			7/23/1998	6/24/1998	5/15/1998	1/14/2003 *#	10/23/2002 *#	
Ethylbenzene	29			BOL	BOL	BOL	BOL	BOL	
Methyl-tert-butyl ether (MTBE)	200			BOL	BOL	BOL	BOL	BOL	
Toluene	1000			BOL	BOL	BOL	BOL	BOL	
Total Xylenes	530			BOL	BOL	BOL	BOL	BOL	
Polynuclear Aromatic Hydrocarbons by USEPA Method 625/8270C, ug/L									
Naphthalene	21			BOL	BOL	BOL	BOL	BOL	
Acenaphthene	80			BOL	BOL	BOL	BOL	BOL	
Fluorene	280			BOL	BOL	BOL	BOL	BOL	
Phenanthrene	210			BOL	BOL	BOL	BOL	BOL	
Anthracene	2100			BOL	BOL	BOL	BOL	BOL	
Pyrene	210			BOL	BOL	BOL	BOL	BOL	
1-Methyl-naphthalene	Detection Limit			BOL	BOL	BOL	BOL	BOL	
2-Methyl-naphthalene	28			BOL	BOL	BOL	BOL	BOL	

Notes:
Detected concentrations are indicated in boldface type.
Detected concentrations above the regulatory limits are indicated by shading.
NA indicates that the sample was not analyzed for the constituent.
BOL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corps Air Station
New River, North Carolina

Parameter	NCDEMR Regulatory Limit	Sample Location Sample ID Sample Date	MW-15					
			USTAS4158-MW15-02C	USTAS4158-MW15-02B	USTAS4158-MW15-02A	USTAS4158-MW15-01D	USTAS4158-MW15-01C	USTAS4158-MW15-01B
Volatile Aromatic Hydrocarbons by USEPA Method 602, ug/L								
Benzene	1		7/15/2002 *#	4/15/2002 *#	1/15/2002 *#	10/15/2001 #	7/16/2001 *	4/17/2001 *#
Ethylbenzene	29		BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200		BQL	BQL	BQL	BQL	BQL	BQL
Toluene	1000		BQL	BQL	BQL	BQL	BQL	1
Total Xylenes	530		BQL	BQL	BQL	BQL	BQL	6
Polynuclear Aromatic Hydrocarbons by USEPA Method 625/8270C, ug/L								
Naphthalene	21		BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80		BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280		BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210		BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100		BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210		BQL	BQL	BQL	BQL	BQL	BQL
1-Methylanthracene	Detection Limit		BQL	BQL	BQL	BQL	BQL	BQL
2-Methylanthracene	28		BQL	BQL	BQL	BQL	BQL	BQL

Notes:
Detected concentrations are indicated in boldface type.
Detected concentrations above the regulatory limits are indicated by shading.
NA indicates that the sample was not analyzed for the constituent.
BQL = Below Laboratory Qualification Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corps Air Station
New River, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location		MW-15					
		Sample ID	Sample Date	USTAS4158-MW15-01A	USTAS4158-MW15-00D	USTAS4158-MW15-00C	USTAS4158-MW15-00B	USTAS4158-MW15-00A	USTAS4158-MW15-99D
Volatiles Aromatic Hydrocarbons by USEPA Method 603, ug/L									
Benzene	1			BOL	BOL	BOL	BOL	BOL	BOL
Ethylbenzene	29			BOL	BOL	BOL	BOL	BOL	BOL
Methyl-tert-butyl ether (MTBE)	200			BOL	BOL	BOL	BOL	BOL	BOL
Toluene	1000			BOL	BOL	BOL	BOL	BOL	BOL
Total Xylenes	530			BOL	BOL	BOL	BOL	BOL	BOL
Polynuclear Aromatic Hydrocarbons by USEPA Method 625/8270C, ug/L									
Naphthalene	21			BOL	BOL	BOL	BOL	BOL	BOL
Acenaphthene	80			BOL	BOL	BOL	BOL	BOL	BOL
Fluorene	280			BOL	BOL	BOL	BOL	BOL	BOL
Phenanthrene	210			BOL	BOL	BOL	BOL	BOL	BOL
Anthracene	2100			BOL	BOL	BOL	BOL	BOL	BOL
Pyrene	210			BOL	BOL	BOL	BOL	BOL	BOL
1-Methylnaphthalene	Detection Limit			BOL	BOL	BOL	BOL	BOL	BOL
2-Methylnaphthalene	28			BOL	BOL	BOL	BOL	BOL	BOL

Notes:
Detected concentrations are indicated in boldface type.
NA indicates that the sample was not analyzed for the constituent.
BOL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corps Air Station
New River, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location		MW-15					
		Sample ID	Sample Date	USTAS4158-MW15-99C	USTAS4158-MW15-99B	USTAS4158-MW15-99A	USTAS4158-MW15-98D	USTAS4158-MW15-98C1	USTAS4158-MW15-98B3
Volatile Aromatic Hydrocarbons by USEPA Method 602, ug/L									
	1	Benzene		BQL	BQL	BQL	10/21/1998	7/23/1998	6/24/1998
	29	Ethylbenzene		BQL	BQL	BQL	BQL	BQL	BQL
	200	Methyl-tert-butyl ether (MTBE)		BQL	BQL	BQL	BQL	BQL	BQL
	1000	Toluene		BQL	BQL	BQL	BQL	BQL	BQL
	530	Total Xylenes		BQL	BQL	BQL	BQL	BQL	BQL
Polynuclear Aromatic Hydrocarbons by USEPA Method 625/8270C, ug/L									
	21	Naphthalene		BQL	BQL	BQL	BQL	BQL	BQL
	80	Acenaphthene		BQL	BQL	BQL	BQL	BQL	BQL
	280	Fluorene		BQL	BQL	BQL	BQL	BQL	BQL
	210	Phenanthrene		BQL	BQL	BQL	BQL	BQL	BQL
	2100	Anthracene		BQL	BQL	BQL	BQL	BQL	BQL
	210	Pyrene		BQL	BQL	BQL	BQL	BQL	BQL
	Detection Limit	1-Methylnaphthalene		BQL	BQL	BQL	BQL	BQL	BQL
	28	2-Methylnaphthalene		BQL	BQL	BQL	BQL	BQL	BQL

Notes:
Detected concentrations are indicated in boldface type.
Detected concentrations above the regulatory limits are indicated by shading.
NA indicates that the sample was not analyzed for the constituent.
BQL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverable

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corps Air Station
New River, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location Sample ID Sample Date	MW-15		MW-17		
			USTAS4158-MW15-98B2	USTAS4158-MW15-98B1	USTAS4158-MW17-03A	USTAS4158-MW17-02D	USTAS4158-MW17-02C
Volatile Aromatic Hydrocarbons by USEPA Method 602, ug/L							
Benzene	1		BOL	1	BOL	BOL	BOL
Ethylbenzene	29		BOL	BOL	BOL	BOL	BOL
Methyl-tert-butyl ether (MTBE)	200		BOL	BOL	5	9	9
Toluene	1000		BOL	BOL	BOL	BOL	BOL
Total Xylenes	530		BOL	BOL	BOL	BOL	BOL
Polynuclear Aromatic Hydrocarbons by USEPA Method 625/8270C, ug/L							
Naphthalene	21		BOL	BOL	BOL	BOL	BOL
Acenaphthene	80		BOL	BOL	BOL	BOL	BOL
Fluorene	280		BOL	BOL	BOL	BOL	BOL
Phenanthrene	210		BOL	BOL	BOL	BOL	BOL
Anthracene	2100		BOL	BOL	BOL	BOL	BOL
Pyrene	210		BOL	BOL	BOL	BOL	BOL
1-Methylnaphthalene	Detection Limit		BOL	BOL	BOL	BOL	BOL
2-Methylnaphthalene	28		BOL	BOL	BOL	BOL	BOL

Notes
Detected concentrations are indicated in boldface type.
Detected concentrations above the regulatory limits are indicated by shading.
NA indicates that the sample was not analyzed for the constituent.
BOL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corps Air Station
New River, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location		MW-17						
		Sample ID	Sample Date	USTAS4158-MW17-02A	USTAS4158-MW17-01D	USTAS4158-MW17-01C	USTAS4158-MW17-01B	USTAS4158-MW17-01A	USTAS4158-MW17-00D	
<i>Volatile Aromatic Hydrocarbons by USEPA Method 602, ug/L</i>										
Benzene	1			BOL	BOL	7/16/2001 *	BOL	1/4/2001 *	BOL	BOL
Ethylbenzene	29			BOL	BOL		BOL		BOL	BOL
Methyl-tert-butyl ether (MTBE)	200			10	8	8	8	3	3	3
Toluene	1000			BOL	BOL	BOL	BOL	BOL	BOL	BOL
Total Xylenes	530			BOL	BOL	BOL	BOL	BOL	BOL	BOL
<i>Polynuclear Aromatic Hydrocarbons by USEPA Method 625/8270C, ug/L</i>										
Naphthalene	21			BOL	BOL	BOL	BOL	BOL	BOL	BOL
Acenaphthene	80			BOL	BOL	BOL	BOL	BOL	BOL	BOL
Fluorene	280			BOL	BOL	BOL	BOL	BOL	BOL	BOL
Phenanthrene	210			BOL	BOL	BOL	BOL	BOL	BOL	BOL
Anthracene	2100			BOL	BOL	BOL	BOL	BOL	BOL	BOL
Pyrene	210			BOL	BOL	BOL	BOL	BOL	BOL	BOL
1-Methyl-naphthalene	Detection Limit			BOL	BOL	BOL	BOL	BOL	BOL	BOL
2-Methyl-naphthalene	28			BOL	BOL	BOL	BOL	BOL	BOL	BOL

Notes
Detected concentrations are indicated in boldface type.
Detected concentrations above the regulatory limits are indicated by shading.
NA indicates that the sample was not analyzed for the constituent.
BOL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corps Air Station
New River, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location Sample ID Sample Date	MW-17					
			USTAS4158-MW17-00C	USTAS4158-MW17-00B	USTAS4158-MW17-00A	USTAS4158-MW17-99D	USTAS4158-MW17-99C	USTAS4158-MW17-99B
Volatle Aromatic Hydrocarbons by USEPA Method 602, ug/L			7/26/2000 *	4/24/2000 *	1/12/2000 *	10/20/1999 *	7/14/1999 *	4/19/1999 *
	1		BQL	BQL	BQL	BQL	BQL	BQL
	29		BQL	BQL	BQL	BQL	BQL	BQL
	200		3	BQL	BQL	BQL	BQL	BQL
	1000		BQL	BQL	BQL	BQL	BQL	BQL
Polynuclear Aromatic Hydrocarbons by USEPA Method 615/8270C, ug/L	530		BQL	BQL	BQL	BQL	BQL	BQL
	21		BQL	BQL	BQL	BQL	BQL	BQL
	80		BQL	BQL	BQL	BQL	BQL	BQL
	280		BQL	BQL	BQL	BQL	BQL	BQL
	210		BQL	BQL	BQL	BQL	BQL	BQL
	2100		BQL	BQL	BQL	BQL	BQL	BQL
	210		BQL	BQL	BQL	BQL	BQL	BQL
	Detection Limit		BQL	BQL	BQL	BQL	BQL	BQL
	28		BQL	BQL	BQL	BQL	BQL	BQL

Notes:
Detected concentrations are indicated in boldface type.
Detected concentrations above the regulatory limits are indicated by shading.
NA indicates that the sample was not analyzed for the constituent.
BQL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corps Air Station
New River, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location		MW-17							
		Sample ID	Sample Date	USTAS4158-MW17-99A	USTAS4158-MW17-98D	USTAS4158-MW17-98C1	USTAS4158-MW17-98B3	USTAS4158-MW17-98B2	USTAS4158-MW17-98B1		
<i>Volatile Aromatic Hydrocarbons by USEPA Method 602, ug/L</i>				1/25/1999 *#	10/21/1998	7/23/1998	6/24/1998	5/15/1998	3/27/1998		
Benzene	1			BOL	BOL	BOL	BOL	BOL	BOL		
Ethylbenzene	29			BOL	BOL	BOL	BOL	BOL	BOL		
Methyl-tert-butyl ether (MTBE)	200			BOL	BOL	BOL	BOL	BOL	BOL		
Toluene	1000			BOL	BOL	BOL	BOL	BOL	BOL		
Total Xylenes	530			BOL	BOL	BOL	BOL	BOL	BOL		
<i>Polynuclear Aromatic Hydrocarbons by USEPA Method 625.87/OC, ug/L</i>											
Naphthalene	21			BOL	BOL	BOL	BOL	BOL	BOL		
Acenaphthene	80			BOL	BOL	BOL	BOL	BOL	BOL		
Fluorene	280			BOL	BOL	BOL	BOL	BOL	BOL		
Phenanthrene	210			BOL	BOL	BOL	BOL	BOL	BOL		
Anthracene	2100			BOL	BOL	BOL	BOL	BOL	BOL		
Pyrene	210			BOL	BOL	BOL	BOL	BOL	BOL		
1-Methylanthracene	Detection Limit			BOL	BOL	BOL	BOL	BOL	BOL		
2-Methylanthracene	28			BOL	BOL	BOL	BOL	BOL	BOL		

Notes:
Detected concentrations are indicated in boldface type.
Detected concentrations above the regulatory limits are indicated by shading.
NA indicates that the sample was not analyzed for the constituent.
BOL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corps Air Station
New River, North Carolina

Parameter	NCDENR Regulatory Limit	Sample Location Sample ID Sample Date	MW-18					
			USTAS4158-MW18-02D	USTAS4158-MW18-02C	USTAS4158-MW18-02B	USTAS4158-MW18-02A	USTAS4158-MW18-01D	USTAS4158-MW18-01B
Volatile Aromatic Hydrocarbons by USEPA Method 603, µg/L								
Benzene	1		BQL	BQL	BQL	BQL	BQL	BQL
Ethylbenzene	29		BQL	BQL	BQL	BQL	BQL	BQL
Methyl-tert-butyl ether (MTBE)	200		BQL	BQL	BQL	BQL	BQL	BQL
Toluene	1000		BQL	BQL	BQL	BQL	BQL	BQL
Total Xylenes	530		BQL	BQL	BQL	BQL	BQL	BQL
Polynuclear Aromatic Hydrocarbons by USEPA Method 625/8270C, µg/L								
Naphthalene	21		BQL	BQL	BQL	BQL	BQL	BQL
Acenaphthene	80		BQL	BQL	BQL	BQL	BQL	BQL
Fluorene	280		BQL	BQL	BQL	BQL	BQL	BQL
Phenanthrene	210		BQL	BQL	BQL	BQL	BQL	BQL
Anthracene	2100		BQL	BQL	BQL	BQL	BQL	BQL
Pyrene	210		BQL	BQL	BQL	BQL	BQL	BQL
1-Methylnaphthalene	Detection Limit		BQL	BQL	BQL	BQL	BQL	BQL
2-Methylnaphthalene	28		BQL	BQL	BQL	BQL	BQL	BQL

Notes
 Detected concentrations are indicated in boldface type.
 Detected concentrations above the regulatory limits are indicated by shading.
 NA indicates that the sample was not analyzed for the constituent.
 BQL = Below Laboratory Quantitation Limit
 * verified with laboratory data package
 # verified with electronic data deliverables

Table 3-1 (continued)
Summary of Detected Concentrations
Groundwater Monitoring Well Samples
Building AS-4158
Marine Corps Air Station
New River, North Carolina

Parameter	NCDENR	Sample Location		MW-18		
		Regulatory Limit	Sample ID	USTAS4158-MW18-00B	USTAS4158-MW18-99C	USTAS4158-MW18-99B
Volatile Aromatic Hydrocarbons by USEPA Method 602, ug/L			Sample Date	4/25/2000 *#	7/14/1999	4/19/1999 *#
Benzene	1			BOL	BOL	BOL
Ethylbenzene	29			BOL	BOL	BOL
Methyl-tert-butyl ether (MTBE)	200			BOL	BOL	BOL
Toluene	1000			BOL	BOL	BOL
Total Xylenes	530			BOL	BOL	BOL
Polynuclear Aromatic Hydrocarbons by USEPA Method 625/8270C, ug/L						
Naphthalene	21			BOL	BOL	BOL
Acenaphthene	80			BOL	BOL	BOL
Fluorene	280			BOL	BOL	BOL
Phenanthrene	210			BOL	BOL	BOL
Anthracene	2100			BOL	BOL	BOL
Pyrene	210			BOL	BOL	BOL
1-Methylnaphthalene	Detection Limit			BOL	BOL	BOL
2-Methylnaphthalene	28			BOL	BOL	BOL

Notes:
Detected concentrations are indicated in boldface type.
Detected concentrations above the regulatory limits are indicated by shading.
NA indicates that the sample was not analyzed for the constituent.
BOL = Below Laboratory Quantitation Limit
* verified with laboratory data package
verified with electronic data deliverables

ANNUAL GROUNDWATER MONITORING REPORT 2004-2005
BUILDING AS-4158 SITE
MARINE CORPS AIR STATION NEW RIVER
NORTH CAROLINA
VOLUME II
Revision 0

Prepared for:

DEPARTMENT OF THE NAVY
Contract No. N62470-03-D-4000

Atlantic Division
Naval Facilities Engineering Command
6506 Hampton Boulevard
Building C, Room 311
Norfolk, Virginia 23508

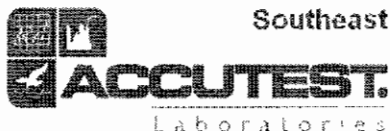
Prepared by:

Engineering and Environment, Inc.
824 Gum Branch Road, Suite S
Jacksonville, North Carolina, Virginia 28540

30 November 2005

APPENDIX C
LABORATORY ANALYTICAL REPORTS

April 2004 Groundwater Laboratory Report



Southeast

06/11/04

Technical Report for

EEI

Bldg. 4158/Camp Lejeune, NC

CTO-010

Accutest Job Number: F23462

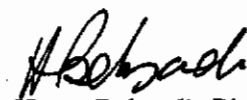
Sampling Dates: 04/14/04 - 04/15/04

Report to:

Total number of pages in report: 62



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.


Harry Behzadi, Ph.D.
Laboratory Director

Certifications: FL (DOH E83510), NC (573), NJ (FL002), MA (FL946), IA (366), LA (03051), KS (E-10327), SC, AK
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Sample Summary

EEI

Job No: F23462

Bldg. 4158/Camp Lejeune, NC
Project No: CTO-010

Sample Number	Collected Date	Time By	Received	Matrix Code Type	Client Sample ID
F23462-1	04/15/04	11:00 BS	04/16/04	AQ Ground Water	UST4158-MW18
F23462-2	04/15/04	10:00 BS	04/16/04	AQ Ground Water	UST4158-MW13
F23462-3	04/15/04	09:20 BS	04/16/04	AQ Ground Water	UST4158-MW11
F23462-4	04/15/04	08:44 BS	04/16/04	AQ Ground Water	UST4158-MW08
F23462-5	04/14/04	12:55 BS	04/16/04	AQ Ground Water	UST4158-MW04
F23462-6	04/14/04	14:20 BS	04/16/04	AQ Ground Water	UST4158-MW07
F23462-7	04/14/04	13:36 BS	04/16/04	AQ Ground Water	UST4158-MW05
F23462-8	04/15/04	00:00 BS	04/16/04	AQ Ground Water	UST4158-DUP
F23462-9	04/15/04	00:00 BS	04/16/04	AQ Trip Blank Water	TRIP BLANK

Accutest Laboratories Southeast, Inc.
Analytical Narrative

Client: EEI

Job No: F23462

Site: Bldg. 4158/Camp Lejeune, NC

Report Date 5/6/2004

8 Samples, 1 Trip Blank were collected on between 04/14/2004 and 04/15/2004 and were received at Accutest on 04/16/2004 properly preserved, at 2.6 Deg. C and intact. These Samples received an Accutest job number of F23462. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified holding times, calibrations and quality control performance criteria were met.

Volatiles by GC By Method EPA 601/602

Matrix: AQ

Batch ID: GEF3119

All samples were run within holding times.

Samples F23423-2MS, F23423-2MSD were used as the QC samples indicated.

All method blanks for this batch passed with no positive results

F23462-3: All hits confirmed by dual column analysis.

Matrix: AQ

Batch ID: GEF3121

All samples were run within holding times.

Samples F23478-3MS, F23478-3MSD were used as the QC samples indicated.

All method blanks for this batch passed with no positive results

F23462-2: All hits confirmed by dual column analysis.

Extractables by GC By Method EPA 610

Matrix: AQ

Batch ID: OP10248

All samples were extracted within holding time for method

All samples were run within holding times.

Samples F23436-5MS, F23436-5MSD were used as the QC samples indicated.

All method blanks for this batch passed with no positive results

Sample F23462-2 (UST4158-MW13) had surrogate, 2-Fluorobiphenyl, above control limits, due to matrix interference.

F23462-2 (UST4158-MW13): 4X dilution required due to matrix interference.

Accutest Laboratories Southeast, Inc. certifies that this report meets the project requirements for analytical data produced for the samples as received at the Accutest Laboratories Southeast location as stated in the Analytical Task Order and the COC. In addition, Accutest Laboratories Southeast, Inc. certifies that data as reported meet the Data Quality Objectives for precision, accuracy and completeness as specified in the Accutest Laboratories Southeast, Inc. Quality Manual for other than conditions detailed above. It is recommended by Accutest Laboratories Southeast, Inc. that this report is to be used in its entirety. Accutest Laboratories Southeast, Inc. is not responsible for any assumptions of data quality if partial data packages are used to interpret data. The Accutest Laboratories Southeast, Inc. Laboratory Director as verified by the signature on the front page has authorized release of this report.

Narrative prepared by:

Date: May 06, 2004

Sue O. Bell, Project Manager (signature on file)

Report of Analysis

Page 1 of 1

Client Sample ID: UST4158-MW18
 Lab Sample ID: F23462-1
 Matrix: AQ - Ground Water
 Method: EPA 601/602
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 04/15/04
 Date Received: 04/16/04
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF038082.D	1	04/26/04	CV	n/a	n/a	GEF3119
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	88%		70-123%
98-08-8	aaa-Trifluorotoluene	91%		73-122%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: UST4158-MW18
 Lab Sample ID: F23462-1
 Matrix: AQ - Ground Water
 Method: EPA 610 EPA 610
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 04/15/04
 Date Received: 04/16/04
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ19722.D	1	05/01/04	SM	04/21/04	OP10248	GIJ962
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.0	2.0	ug/l	
208-96-8	Acenaphthylene	ND	5.0	2.0	ug/l	
120-12-7	Anthracene	ND	5.0	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	2.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	2.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	2.0	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	2.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	2.0	ug/l	
218-01-9	Cbrysene	ND	5.0	2.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	2.0	ug/l	
206-44-0	Fluoranthene	ND	5.0	2.0	ug/l	
86-73-7	Fluorene	ND	5.0	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	2.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	2.0	ug/l	
85-01-8	Phenanthrene	ND	5.0	2.0	ug/l	
129-00-0	Pyrene	ND	5.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	85%		42-123%
84-15-1	o-Terphenyl	92%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: UST4158-MW13
 Lab Sample ID: F23462-2
 Matrix: AQ - Ground Water
 Method: EPA 601/602
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 04/15/04
 Date Received: 04/16/04
 Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EF038122.D	1	04/27/04	CV	n/a	n/a	GEF3121
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	49.5	1.0	0.50	ug/l	
108-88-3	Toluene	1.1	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	4.5	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	9.7	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	47.4	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	95%		70-123%
98-08-8	aaa-Trifluorotoluene	97%		73-122%

(a) All hits confirmed by dual column analysis.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: UST4158-MW13
 Lab Sample ID: F23462-2
 Matrix: AQ - Ground Water
 Method: EPA 610 EPA 610
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 04/15/04
 Date Received: 04/16/04
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	IJ19765.D	4	05/03/04	SM	04/21/04	OP10248	GIJ963
Run #2							

Run #	Initial Volume	Final Volume
Run #1	990 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	20	8.1	ug/l	
208-96-8	Acenaphthylene	ND	20	8.1	ug/l	
120-12-7	Anthracene	ND	20	8.1	ug/l	
56-55-3	Benzo(a)anthracene	ND	20	8.1	ug/l	
50-32-8	Benzo(a)pyrene	ND	20	8.1	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	20	8.1	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	20	8.1	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	20	8.1	ug/l	
218-01-9	Chrysene	ND	20	8.1	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	20	8.1	ug/l	
206-44-0	Fluoranthene	ND	20	8.1	ug/l	
86-73-7	Fluorene	ND	20	8.1	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	20	8.1	ug/l	
91-20-3	Naphthalene	ND	20	8.1	ug/l	
90-12-0	1-Methylnaphthalene	ND	20	8.1	ug/l	
91-57-6	2-Methylnaphthalene	ND	20	8.1	ug/l	
85-01-8	Phenanthrene	ND	20	8.1	ug/l	
129-00-0	Pyrene	ND	20	8.1	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	321% ^b		42-123%
84-15-1	o-Terphenyl	99%		51-123%

(a) Dilution required due to matrix interference.

(b) Outside control limits due to matrix interference.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UST4158-MW11	Date Sampled:	04/15/04
Lab Sample ID:	F23462-3	Date Received:	04/16/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EF038083.D	1	04/26/04	CV	n/a	n/a	GEF3119
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	2.5	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	6.8	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	89%		70-123%
98-08-8	aaa-Trifluorotoluene	93%		73-122%

(a) All hits confirmed by dual column analysis.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UST4158-MW11	Date Sampled:	04/15/04
Lab Sample ID:	F23462-3	Date Received:	04/16/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ19725.D	1	05/01/04	SM	04/21/04	OP10248	GJ962
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.0	2.0	ug/l	
208-96-8	Acenaphthylene	ND	5.0	2.0	ug/l	
120-12-7	Anthracene	ND	5.0	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	2.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	2.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	2.0	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	2.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	2.0	ug/l	
218-01-9	Chrysene	ND	5.0	2.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	2.0	ug/l	
206-44-0	Fluoranthene	ND	5.0	2.0	ug/l	
86-73-7	Fluorene	ND	5.0	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	2.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	2.0	ug/l	
85-01-8	Phenanthrene	ND	5.0	2.0	ug/l	
129-00-0	Pyrene	ND	5.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	72%		42-123%
84-15-1	o-Terphenyl	89%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UST4158-MW08	Date Sampled:	04/15/04
Lab Sample ID:	F23462-4	Date Received:	04/16/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Bldg. 4158/Camp Lejeune, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF038084.D	1	04/26/04	CV	n/a	n/a	GEF3119
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	77%		70-123%
98-08-8	aaa-Trifluorotoluene	81%		73-122%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UST4158-MW08	Date Sampled:	04/15/04
Lab Sample ID:	F23462-4	Date Received:	04/16/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ19726.D	1	05/01/04	SM	04/21/04	OP10248	GIJ962
Run #2							

Run #	Initial Volume	Final Volume
Run #1	960 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.2	2.1	ug/l	
208-96-8	Acenaphthylene	ND	5.2	2.1	ug/l	
120-12-7	Anthracene	ND	5.2	2.1	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.2	2.1	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.2	2.1	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.2	2.1	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.2	2.1	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.2	2.1	ug/l	
218-01-9	Chrysene	ND	5.2	2.1	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.2	2.1	ug/l	
206-44-0	Fluoranthene	ND	5.2	2.1	ug/l	
86-73-7	Fluorene	ND	5.2	2.1	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.2	2.1	ug/l	
91-20-3	Naphthalene	ND	5.2	2.1	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.2	2.1	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.2	2.1	ug/l	
85-01-8	Phenanthrene	ND	5.2	2.1	ug/l	
129-00-0	Pyrene	ND	5.2	2.1	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	67%		42-123%
84-15-1	o-Terphenyl	93%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: UST4158-MW04
 Lab Sample ID: F23462-5
 Matrix: AQ - Ground Water
 Method: EPA 601/602
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 04/14/04
 Date Received: 04/16/04
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF038085.D	1	04/26/04	CV	n/a	n/a	GEF3119
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	90%		70-123%
98-08-8	aaa-Trifluorotoluene	93%		73-122%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: UST4158-MW04
 Lab Sample ID: F23462-5
 Matrix: AQ - Ground Water
 Method: EPA 610 EPA 610
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 04/14/04
 Date Received: 04/16/04
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ19727.D	1	05/01/04	SM	04/21/04	OP10248	GIJ962
Run #2							

Run #	Initial Volume	Final Volume
Run #1	970 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.2	2.1	ug/l	
208-96-8	Acenaphthylene	ND	5.2	2.1	ug/l	
120-12-7	Anthracene	ND	5.2	2.1	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.2	2.1	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.2	2.1	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.2	2.1	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.2	2.1	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.2	2.1	ug/l	
218-01-9	Chrysene	ND	5.2	2.1	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.2	2.1	ug/l	
206-44-0	Fluoranthene	ND	5.2	2.1	ug/l	
86-73-7	Fluorene	ND	5.2	2.1	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.2	2.1	ug/l	
91-20-3	Naphthalene	ND	5.2	2.1	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.2	2.1	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.2	2.1	ug/l	
85-01-8	Phenanthrene	ND	5.2	2.1	ug/l	
129-00-0	Pyrene	ND	5.2	2.1	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	71%		42-123%
84-15-1	o-Terphenyl	97%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID:	UST4158-MW07	Date Sampled:	04/14/04
Lab Sample ID:	F23462-6	Date Received:	04/16/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF038086.D	1	04/26/04	CV	n/a	n/a	GEF3119
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	83%		70-123%
98-08-8	aaa-Trifluorotoluene	88%		73-122%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UST4158-MW07	Date Sampled:	04/14/04
Lab Sample ID:	F23462-6	Date Received:	04/16/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ19728.D	1	05/01/04	SM	04/21/04	OP10248	GIJ962
Run #2							

Run #	Initial Volume	Final Volume
Run #1	970 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.2	2.1	ug/l	
208-96-8	Acenaphthylene	ND	5.2	2.1	ug/l	
120-12-7	Anthracene	ND	5.2	2.1	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.2	2.1	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.2	2.1	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.2	2.1	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.2	2.1	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.2	2.1	ug/l	
218-01-9	Chrysene	ND	5.2	2.1	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.2	2.1	ug/l	
206-44-0	Fluoranthene	ND	5.2	2.1	ug/l	
86-73-7	Fluorene	ND	5.2	2.1	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.2	2.1	ug/l	
91-20-3	Naphthalene	ND	5.2	2.1	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.2	2.1	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.2	2.1	ug/l	
85-01-8	Phenanthrene	ND	5.2	2.1	ug/l	
129-00-0	Pyrene	ND	5.2	2.1	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	62%		42-123%
84-15-1	o-Terphenyl	97%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UST4158-MW05	Date Sampled:	04/14/04
Lab Sample ID:	F23462-7	Date Received:	04/16/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF038087.D	1	04/26/04	CV	n/a	n/a	GEF3119
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	88%		70-123%
98-08-8	aaa-Trifluorotoluene	91%		73-122%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: UST4158-MW05
 Lab Sample ID: F23462-7
 Matrix: AQ - Ground Water
 Method: EPA 610 EPA 610
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 04/14/04
 Date Received: 04/16/04
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ19729.D	1	05/01/04	SM	04/21/04	OP10248	GIJ962
Run #2							

Run #	Initial Volume	Final Volume
Run #1	960 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.2	2.1	ug/l	
208-96-8	Acenaphthylene	ND	5.2	2.1	ug/l	
120-12-7	Anthracene	ND	5.2	2.1	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.2	2.1	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.2	2.1	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.2	2.1	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.2	2.1	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.2	2.1	ug/l	
218-01-9	Chrysene	ND	5.2	2.1	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.2	2.1	ug/l	
206-44-0	Fluoranthene	ND	5.2	2.1	ug/l	
86-73-7	Fluorene	ND	5.2	2.1	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.2	2.1	ug/l	
91-20-3	Naphthalene	ND	5.2	2.1	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.2	2.1	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.2	2.1	ug/l	
85-01-8	Phenanthrene	ND	5.2	2.1	ug/l	
129-00-0	Pyrene	ND	5.2	2.1	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	60%		42-123%
84-15-1	o-Terphenyl	98%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID:	UST4158-DUP	Date Sampled:	04/15/04
Lab Sample ID:	F23462-8	Date Received:	04/16/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF038088.D	1	04/26/04	CV	n/a	n/a	GEF3119
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	88%		70-123%
98-08-8	aaa-Trifluorotoluene	92%		73-122%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: UST4158-DUP
 Lab Sample ID: F23462-8
 Matrix: AQ - Ground Water
 Method: EPA 610 EPA 610
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 04/15/04
 Date Received: 04/16/04
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ19730.D	1	05/01/04	SM	04/21/04	OP10248	GIJ962
Run #2							

Run #	Initial Volume	Final Volume
Run #1	990 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.1	2.0	ug/l	
208-96-8	Acenaphthylene	ND	5.1	2.0	ug/l	
120-12-7	Anthracene	ND	5.1	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.1	2.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.1	2.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.1	2.0	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.1	2.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.1	2.0	ug/l	
218-01-9	Chrysene	ND	5.1	2.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.1	2.0	ug/l	
206-44-0	Fluoranthene	ND	5.1	2.0	ug/l	
86-73-7	Fluorene	ND	5.1	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.1	2.0	ug/l	
91-20-3	Naphthalene	ND	5.1	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.1	2.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.1	2.0	ug/l	
85-01-8	Phenanthrene	ND	5.1	2.0	ug/l	
129-00-0	Pyrene	ND	5.1	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	94%		42-123%
84-15-1	o-Terphenyl	103%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID:	TRIP BLANK	Date Sampled:	04/15/04
Lab Sample ID:	F23462-9	Date Received:	04/16/04
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF038073.D	1	04/26/04	CV	n/a	n/a	GEF3119
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	87%		70-123%
98-08-8	aaa-Trifluorotoluene	93%		73-122%

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody



CHAIN OF CUSTODY

4405 VINELAND ROAD • SUITE C-15
ORLANDO, FL 32811
TEL: 407-425-8700 • FAX: 407-425-0707

ACCUTEST JOB #:

ACCUTEST QUOTE #:

F23462

[illegible]

F23462: Chain of Custody

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ACCUTEST.

ACCUTEST LABORATORIES SOUTHEAST SAMPLE RECEIPT CONFIRMATION

Accutest's Job Number: **F23462**
 Client: Engineering + Environment Project: CTO-DIO/BLD. 4158
 Date Received: 4/16/04 Time Received: 09:00
 # of Coolers Received: 2 Cooler Temperatures: 2.0, 2.6°C
 Delivery Method: FedEx UPS Accutest Courier Greyhound Delivery Other
 Air Bill Number: _____

Cooler Custody Seals Intact ?	<u>Yes</u>	No
Chain of Custody Provided ?	<u>Yes</u>	No
COC Match Bottle Label ID's ?	Yes	<u>No</u>
Sample Labels Present on all bottles ?	<u>Yes</u>	No
All Analyses Marked On COC ?	<u>Yes</u>	No
Are All Bottles Intact ?	Yes	<u>No</u>
Samples Preserved Correctly ?	<u>Yes</u>	No
Correct Number of Containers Used ?	<u>Yes</u>	No
Sufficient Sample Volume ?	<u>Yes</u>	No
Trip Blank Provided ?	<u>Yes</u>	No
Trip Blank on COC ?	<u>Yes</u>	No
Trip Blank Intact ?	<u>Yes</u>	No N/A
Trip Blank Matrix ?	Soil <u>Water</u>	N/A
Number of Encores ?	<u>0</u>	
Number of Soil Field Kits ?	<u>0</u>	

Summary of Comments: Sample #4 was received with 1 broken 60 bottle.
Sample #7 has 1 60 bottle with same id as sample 5, but
they were able to be distinguished by sample time.

Signature: [Signature] Date: 4/16/04
 Review Signature: _____

ASBD 12/30/03

F23462: Chain of Custody
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GC Volatiles



QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Page 1 of 1

Job Number: F23462
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GEF3119-MB	EF038069.D 1		04/26/04	CV	n/a	n/a	GEF3119

The QC reported here applies to the following samples:

Method: EPA 601/602

F23462-1, F23462-3, F23462-4, F23462-5, F23462-6, F23462-7, F23462-8, F23462-9

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
352-33-0	1-Chloro-4-fluorobenzene	87%	70-123%
98-08-8	aaa-Trifluorotoluene	93%	73-122%

Method Blank Summary

Page 1 of 1

Job Number: F23462
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GEF3121-MB	EF038121.D	1	04/27/04	CV	n/a	n/a	GEF3121

The QC reported here applies to the following samples:

Method: EPA 601/602

F23462-2

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Limits
352-33-0	1-Chloro-4-fluorobenzene	86% 70-123%
98-08-8	aaa-Trifluorotoluene	92% 73-122%

Blank Spike Summary

Page 1 of 1

Job Number: F23462
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GEF3119-BS	EF038068.D 1		04/26/04	CV	n/a	n/a	GEF3119

The QC reported here applies to the following samples:

Method: EPA 601/602

F23462-1, F23462-3, F23462-4, F23462-5, F23462-6, F23462-7, F23462-8, F23462-9

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	20.0	100	86-121
100-41-4	Ethylbenzene	20	19.9	100	81-126
1634-04-4	Methyl Tert Butyl Ether	20	19.3	97	76-117
108-88-3	Toluene	20	20.4	102	82-123
1330-20-7	Xylenes (total)	60	60.2	100	82-125

CAS No.	Surrogate Recoveries	BSP	Limits
352-33-0	1-Chloro-4-fluorobenzene	101%	70-123%
98-08-8	aaa-Trifluorotoluene	98%	73-122%

Blank Spike Summary

Page 1 of 1

Job Number: F23462
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GEF3121-BS	EF038120.D	1	04/27/04	CV	n/a	n/a	GEF3121

The QC reported here applies to the following samples:

Method: EPA 601/602

F23462-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	19.5	98	86-121
100-41-4	Ethylbenzene	20	19.0	95	81-126
1634-04-4	Methyl Tert Butyl Ether	20	19.0	95	76-117
108-88-3	Toluene	20	19.5	98	82-123
1330-20-7	Xylenes (total)	60	57.1	95	82-125

CAS No.	Surrogate Recoveries	BSP	Limits
352-33-0	1-Chloro-4-fluorobenzene	100%	70-123%
98-08-8	aaa-Trifluorotoluene	101%	73-122%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: F23462
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F23423-2MS	EF038076.D	1	04/26/04	CV	n/a	n/a	GEF3119
F23423-2MSD	EF038077.D	1	04/26/04	CV	n/a	n/a	GEF3119
F23423-2 ^a	EF038075.D	1	04/26/04	CV	n/a	n/a	GEF3119

The QC reported here applies to the following samples:

Method: EPA 601/602

F23462-1, F23462-3, F23462-4, F23462-5, F23462-6, F23462-7, F23462-8, F23462-9

CAS No.	Compound	F23423-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		20	19.9	100	19.8	99	1	77-125/6
100-41-4	Ethylbenzene	0.62	J	20	20.0	97	19.8	96	1	74-127/6
1634-04-4	Methyl Tert Butyl Ether	ND		20	19.8	99	19.4	97	2	66-127/9
108-88-3	Toluene	1.5		20	21.2	99	21.3	99	0	77-124/5
1330-20-7	Xylenes (total)	3.4		60	61.5	97	61.5	97	0	76-125/5

CAS No.	Surrogate Recoveries	MS	MSD	F23423-2	Limits
352-33-0	1-Chloro-4-fluorobenzene	99%	96%	91%	70-123%
98-08-8	aaa-Trifluorotoluene	98%	95%	93%	73-122%

(a) All hits confirmed by dual column analysis.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: F23462
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F23478-3MS	EF038128.D	1	04/27/04	CV	n/a	n/a	GEF3121
F23478-3MSD	EF038129.D	1	04/27/04	CV	n/a	n/a	GEF3121
F23478-3	EF038127.D	1	04/27/04	CV	n/a	n/a	GEF3121

The QC reported here applies to the following samples:

Method: EPA 601/602

F23462-2

CAS No.	Compound	F23478-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		20	19.6	98	19.6	98	0	77-125/6
100-41-4	Ethylbenzene	ND		20	19.5	98	19.3	97	1	74-127/6
1634-04-4	Methyl Tert Butyl Ether	ND		20	19.2	96	19.5	98	2	66-127/9
108-88-3	Toluene	ND		20	19.7	99	19.7	99	0	77-124/5
1330-20-7	Xylenes (total)	ND		60	58.5	98	58.2	97	1	76-125/5

CAS No.	Surrogate Recoveries	MS	MSD	F23478-3	Limits
352-33-0	1-Chloro-4-fluorobenzene	99%	96%	88%	70-123%
98-08-8	aaa-Trifluorotoluene	96%	94%	93%	73-122%

Volatile Surrogate Recovery Summary

Page 1 of 1

Job Number: F23462
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Method: EPA 601/602

Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a	S2 ^a
F23462-1	EF038082.D	88.0	91.0
F23462-2	EF038122.D	95.0	97.0
F23462-3	EF038083.D	89.0	93.0
F23462-4	EF038084.D	77.0	81.0
F23462-5	EF038085.D	90.0	93.0
F23462-6	EF038086.D	83.0	88.0
F23462-7	EF038087.D	88.0	91.0
F23462-8	EF038088.D	88.0	92.0
F23462-9	EF038073.D	87.0	93.0
F23423-2MS	EF038076.D	99.0	98.0
F23423-2MSD	EF038077.D	96.0	95.0
F23478-3MS	EF038128.D	99.0	96.0
F23478-3MSD	EF038129.D	96.0	94.0
GEF3119-BS	EF038068.D	101.0	98.0
GEF3119-MB	EF038069.D	87.0	93.0
GEF3121-BS	EF038120.D	100.0	101.0
GEF3121-MB	EF038121.D	86.0	92.0

Surrogate
Compounds

Recovery
Limits

S1 = 1-Chloro-4-fluorobenzene 70-123%
S2 = aaa-Trifluorotoluene 73-122%

(a) Recovery from GC signal #2

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F23462
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GEF3119-CC3086	Injection Date:	04/26/04
Lab File ID:	EF038067.D	Injection Time:	09:04
Instrument ID:	GCEF	Method:	EPA 601/602

	S1 ^a RT	S2 ^a RT
Check Std	8.81	5.73

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
GEF3119-BS	EF038068.D	04/26/04	09:42	8.81	5.74
GEF3119-MB	EF038069.D	04/26/04	10:06	8.82	5.74
ZZZZZZ	EF038070.D	04/26/04	10:39	8.82	5.74
ZZZZZZ	EF038071.D	04/26/04	11:03	8.82	5.75
ZZZZZZ	EF038072.D	04/26/04	11:28	8.82	5.75
F23462-9	EF038073.D	04/26/04	11:52	8.83	5.75
ZZZZZZ	EF038074.D	04/26/04	12:16	8.83	5.75
F23423-2	EF038075.D	04/26/04	12:41	8.83	5.75
F23423-2MS	EF038076.D	04/26/04	13:05	8.83	5.76
F23423-2MSD	EF038077.D	04/26/04	13:29	8.83	5.76

Surrogate
Compounds

S1 = 1-Chloro-4-fluorobenzene
S2 = aaa-Trifluorotoluene

(a) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F23462
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GEF3119-CC3086	Injection Date:	04/26/04
Lab File ID:	EF038078.D	Injection Time:	13:53
Instrument ID:	GCEF	Method:	EPA 601/602

S1 ^a S2 ^a
RT RT

Check Std	8.83	5.76

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
ZZZZZZ	EF038079.D	04/26/04	14:18	8.83	5.76
ZZZZZZ	EF038080.D	04/26/04	14:42	8.83	5.75
ZZZZZZ	EF038081.D	04/26/04	15:06	8.83	5.76
F23462-1	EF038082.D	04/26/04	15:31	8.83	5.76
F23462-3	EF038083.D	04/26/04	15:55	8.83	5.76
F23462-4	EF038084.D	04/26/04	16:19	8.83	5.76
F23462-5	EF038085.D	04/26/04	16:43	8.83	5.76
F23462-6	EF038086.D	04/26/04	17:08	8.83	5.76
F23462-7	EF038087.D	04/26/04	17:32	8.83	5.76
F23462-8	EF038088.D	04/26/04	17:56	8.83	5.76

Surrogate Compounds

S1 = 1-Chloro-4-fluorobenzene
S2 = aaa-Trifluorotoluene

(a) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F23462
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GEF3121-CC3086	Injection Date:	04/27/04
Lab File ID:	EF038119.D	Injection Time:	08:48
Instrument ID:	GCEF	Method:	EPA 601/602

	S1 ^a RT	S2 ^a RT
Check Std	8.84	5.76

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
GEF3121-BS	EF038120.D	04/27/04	09:12	8.84	5.76
GEF3122-BS	EF038120.D	04/27/04	09:12	8.84	5.76
GEF3121-MB	EF038121.D	04/27/04	09:36	8.84	5.76
GEF3122-MB	EF038121.D	04/27/04	09:36	8.84	5.76
F23462-2	EF038122.D	04/27/04	10:03	8.83	5.76
ZZZZZZ	EF038123.D	04/27/04	10:30	8.84	5.76
ZZZZZZ	EF038124.D	04/27/04	10:57	8.84	5.76
ZZZZZZ	EF038125.D	04/27/04	11:21	8.84	5.76
ZZZZZZ	EF038126.D	04/27/04	11:46	8.84	5.76
F23478-3	EF038127.D	04/27/04	12:10	8.84	5.77
F23478-3MS	EF038128.D	04/27/04	12:34	8.84	5.76
F23478-3MSD	EF038129.D	04/27/04	12:59	8.84	5.76

Surrogate
Compounds

S1 = 1-Chloro-4-fluorobenzene

S2 = aaa-Trifluorotoluene

(a) Retention time from GC signal #2

Initial Calibration Summary

Page 1 of 1

Job Number: F23462
 Account: EEINCJX EEI
 Project: Bldg. 4158/Camp Lejeune, NC

Sample: GEF3086-ICC3086
 Lab FileID: EF037161.D

Response Factor Report VOA1

Method : C:\HPCHEM\1\METHODS\DUAL0402.M (Chemstation Integrator)
 Title : EPA 602 & 5030B/8021B
 Last Update : Wed Feb 18 11:36:12 2004
 Response via : Initial Calibration

Calibration Files

1 =EF037159.D 2 =EF037160.D 3 =EF037161.D
 4 =EF037162.D 5 =EF037163.D 6 =EF037164.D

	Compound	1	2	3	4	5	6	Avg	%RSD
1)	Methyl tert Butyl E	1.276	1.624	1.510	1.675	1.631	1.566	1.547 E3	9.35
2)	Di-Isopropyl ether	2.195	2.821	2.627	2.787	2.746	2.703	2.647 E3	8.75
3)	Benzene	5.074	6.259	5.893	6.187	6.179	6.135	5.954 E3	7.55
4) S	a,a,a-TFT(S)	1.816	1.751	1.810	1.883	1.902	1.835	1.833 E3	2.96
5)	Toluene	4.447	5.300	5.081	5.290	5.328	5.315	5.127 E3	6.74
6) S	1-Chloro-4-Fluorobenzene	2.666	2.537	2.768	2.891	2.954	2.841	2.776 E3	5.54
7)	Chlorobenzene		5.488	4.881	5.056	5.172	5.072	5.134 E3	4.36
8)	Ethylbenzene		4.645	4.219	4.323	4.384	4.330	4.380 E3	3.65
9)	m,p-Xylene	4.248	4.839	4.620	4.836	4.868	4.804	4.702 E3	5.10
10)	o-Xylene	3.771	4.371	4.167	4.318	4.362	4.284	4.212 E3	5.42
11)	1,3-Dichlorobenzene	3.666	2.970	3.187	3.434	3.643	3.553	3.409 E3	8.13
12)	1,4-Dichlorobenzene	3.918	3.096	3.357	3.669	3.918	3.769	3.621 E3	9.13
13)	1,2-Dichlorobenzene	2.745	1.809	2.000	2.240	2.393	2.267	2.242 E3	14.42
----- Linear regression ----- Coefficient = 0.9979									
Response Ratio = -2125.74861 + 2323.29160 *A									

Signal #2

1)	Methyl tert Butyl E		1.365	1.247	1.369	1.338	1.274	1.319 E3	4.21
2)	Di-Isopropyl ether	1.673	2.214	2.089	2.219	2.176	2.128	2.083 E3	9.95
3)	Benzene	4.014	5.079	4.907	5.118	5.097	5.073	4.881 E3	8.84
4) S	a,a,a-TFT(S)	1.410	1.379	1.437	1.481	1.501	1.447	1.443 E3	3.09
5)	Toluene	3.443	4.219	4.126	4.338	4.358	4.296	4.130 E3	8.41
6) S	1-Chloro-4-Fluorobenzene	1.952	1.916	2.112	2.229	2.271	2.182	2.110 E3	6.95
7)	Chlorobenzene		4.876	4.177	4.291	4.296	4.218	4.372 E3	6.55
8)	Ethylbenzene	3.506	3.808	3.622	3.705	3.735	3.648	3.671 E3	2.84
9)	m,p-Xylene	3.469	4.060	3.903	4.091	4.162	4.064	3.958 E3	6.42
10)	o-Xylene	2.878	3.399	3.368	3.500	3.455	3.400	3.333 E3	6.84
11)	1,3-Dichlorobenzene	2.789	2.342	2.544	2.827	2.936	2.800	2.706 E3	8.13
12)	1,4-Dichlorobenzene	2.761	2.369	2.561	2.797	2.912	2.843	2.707 E3	7.52
13)	1,2-Dichlorobenzene	2.077	1.463	1.654	1.840	2.001	1.883	1.820 E3	12.49
----- Linear regression ----- Coefficient = 0.9974									
Response Ratio = -2078.61480 + 1936.41963 *A									

(#) = Out of Range

DUAL0402.M

Mon Apr 05 09:15:09 2004 EF

Continuing Calibration Summary

Page 1 of 1

Job Number: F23462
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GEF3119-CC3086
Lab FileID: EF038067.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\042604\EF038067.D\FID1A.CH Vial: 1
Signal #2 : C:\HPCHEM\1\DATA\042604\EF038067.D\FID2B.CH
Acq On : 26 Apr 2004 9:04 am Operator: ClaireV
Sample : CC3086-40 Inst : VOA1
Misc : gc3425,gef3119,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL0402.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Mon Apr 26 09:25:30 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	40.000	38.608	3.5	89	0.00
2	Di-Isopropyl ether	40.000	38.525	3.7	91	0.00
3	Benzene	40.000	39.735	0.7	96	0.00
4 S	a,a,a-TFT(S)	20.000	20.063	-0.3	98	0.00
5	Toluene	40.000	40.617	-1.5	98	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	21.047	-5.2	101	0.00
7	Chlorobenzene	40.000	39.180	2.1	99	0.00
8	Ethylbenzene	40.000	39.236	1.9	99	0.00
9	m,p-Xylene	80.000	81.408	-1.8	99	0.00
10	o-Xylene	40.000	41.087	-2.7	100	0.00
11	1,3-Dichlorobenzene	40.000	41.900	-4.7	104	0.00
12	1,4-Dichlorobenzene	40.000	42.285	-5.7	104	0.00
13	1,2-Dichlorobenzene	40.000	42.659	-6.6	108	0.00

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	40.000	37.122	7.2	89	0.00
2	Di-Isopropyl ether	40.000	37.871	5.3	89	0.00
3	Benzene	40.000	38.529	3.7	92	0.00
4 S	a,a,a-TFT(S)	20.000	19.315	3.4	94	0.00
5	Toluene	40.000	39.689	0.8	94	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	20.410	-2.1	97	0.00
7	Chlorobenzene	40.000	37.450	6.4	95	0.00
8	Ethylbenzene	40.000	38.361	4.1	95	0.00
9	m,p-Xylene	80.000	78.960	1.3	96	0.00
10	o-Xylene	40.000	39.965	0.1	95	0.00
11	1,3-Dichlorobenzene	40.000	40.783	-2.0	98	0.00
12	1,4-Dichlorobenzene	40.000	41.794	-4.5	101	0.00
13	1,2-Dichlorobenzene	40.000	41.196	-3.0	106	0.00

Average % D = 3.2

(#) = Out of Range
EF037162.D DUAL0402.M

SPCC's out = 0 CCC's out = 0
Tue Apr 27 09:22:00 2004 EF

Continuing Calibration Summary

Page 1 of 1

Job Number: F23462
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GEF3119-CC3086
Lab FileID: EF038078.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\042604\EF038078.D\FID1A.CH Vial: 11
Signal #2 : C:\HPCHEM\1\DATA\042604\EF038078.D\FID2B.CH
Acq On : 26 Apr 2004 1:53 pm Operator: ClaireV
Sample : cc3086-20 Inst : VOA1
Misc : gc3427,gef3119,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL0402.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Mon Apr 26 09:25:30 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	22.228	-11.1	114	0.02
2	Di-Isopropyl ether	20.000	20.110	-0.5	101	0.02
3	Benzene	20.000	20.017	-0.1	101	0.02
4 S	a,a,a-TFT(S)	20.000	19.780	1.1	100	0.02
5	Toluene	20.000	20.167	-0.8	102	0.03
6 S	1-Chloro-4-Fluorobenzene	20.000	20.337	-1.7	102	0.02
7	Chlorobenzene	20.000	19.505	2.5	103	0.02
8	Ethylbenzene	20.000	19.479	2.6	101	0.02
9	m,p-Xylene	40.000	40.185	-0.5	102	0.02
10	o-Xylene	20.000	20.122	-0.6	102	0.02
11	1,3-Dichlorobenzene	20.000	20.834	-4.2	111	0.03
12	1,4-Dichlorobenzene	20.000	21.099	-5.5	114	0.03
13	1,2-Dichlorobenzene	20.000	22.327	-11.6	124	0.03

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	20.971	-4.9	111	0.02
2	Di-Isopropyl ether	20.000	19.567	2.2	98	0.02
3	Benzene	20.000	19.623	1.9	98	0.03
4 S	a,a,a-TFT(S)	20.000	19.090	4.6	96	0.03
5	Toluene	20.000	19.675	1.6	98	0.03
6 S	1-Chloro-4-Fluorobenzene	20.000	19.586	2.1	98	0.02
7	Chlorobenzene	20.000	18.685	6.6	98	0.02
8	Ethylbenzene	20.000	19.056	4.7	97	0.02
9	m,p-Xylene	40.000	38.512	3.7	98	0.02
10	o-Xylene	20.000	19.736	1.3	98	0.02
11	1,3-Dichlorobenzene	20.000	20.107	-0.5	107	0.03
12	1,4-Dichlorobenzene	20.000	20.361	-1.8	108	0.03
13	1,2-Dichlorobenzene	20.000	21.347	-6.7	119	0.03

Average % D = 3.3

(#) = Out of Range
EF037161.D DUAL0402.M

SPCC's out = 0 CCC's out = 0
Tue Apr 27 09:22:26 2004 EF

Continuing Calibration Summary

Page 1 of 1

Job Number: F23462
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GEF3119-CC3086
Lab FileID: EF038089.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\042604\EF038089.D\FID1A.CH Vial: 22
Signal #2 : C:\HPCHEM\1\DATA\042604\EF038089.D\FID2B.CH
Acq On : 26 Apr 2004 6:20 pm Operator: ClaireV
Sample : cc3086-20 Inst : VOA1
Misc : gc3427,gef3119,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL0402.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Mon Apr 26 09:25:30 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	20.781	-3.9	106	0.02
2	Di-Isopropyl ether	20.000	19.264	3.7	97	0.02
3	Benzene	20.000	19.039	4.8	96	0.02
4 S	a,a,a-TFT(S)	20.000	19.509	2.5	99	0.03
5	Toluene	20.000	18.899	5.5	95	0.03
6 S	1-Chloro-4-Fluorobenzene	20.000	19.565	2.2	98	0.02
7	Chlorobenzene	20.000	18.427	7.9	97	0.03
8	Ethylbenzene	20.000	18.409	8.0	96	0.02
9	m,p-Xylene	40.000	37.585	6.0	96	0.02
10	o-Xylene	20.000	19.082	4.6	96	0.03
11	1,3-Dichlorobenzene	20.000	19.228	3.9	103	0.03
12	1,4-Dichlorobenzene	20.000	19.414	2.9	105	0.03
13	1,2-Dichlorobenzene	20.000	20.361	-1.8	113	0.03

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	19.948	0.3	105	0.01
2	Di-Isopropyl ether	20.000	18.868	5.7	94	0.02
3	Benzene	20.000	18.689	6.6	93	0.02
4 S	a,a,a-TFT(S)	20.000	19.084	4.6	96	0.03
5	Toluene	20.000	18.733	6.3	94	0.03
6 S	1-Chloro-4-Fluorobenzene	20.000	19.172	4.1	96	0.02
7	Chlorobenzene	20.000	17.904	10.5	94	0.02
8	Ethylbenzene	20.000	18.164	9.2	92	0.02
9	m,p-Xylene	40.000	36.653	8.4	93	0.02
10	o-Xylene	20.000	18.739	6.3	93	0.02
11	1,3-Dichlorobenzene	20.000	18.898	5.5	101	0.03
12	1,4-Dichlorobenzene	20.000	19.144	4.3	101	0.03
13	1,2-Dichlorobenzene	20.000	20.042	-0.2	111	0.03

Average % D = 5.0

(#) = Out of Range
EF037161.D DUAL0402.M

SPCC's out = 0 CCC's out = 0
Tue Apr 27 09:22:27 2004 EF

Continuing Calibration Summary

Page 1 of 1

Job Number: F23462
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GEF3121-CC3086
Lab FileID: EF038119.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\042704\EF038119.D\FID1A.CH Vial: 1
Signal #2 : C:\HPCHEM\1\DATA\042704\EF038119.D\FID2B.CH
Acq On : 27 Apr 2004 8:48 am Operator: ClaireV
Sample : CC3086-40 Inst : VOA1
Misc : gc3427,gef3121,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL0402.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Mon Apr 26 09:25:28 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	40.000	39.042	2.4	90	0.03
2	Di-Isopropyl ether	40.000	38.466	3.8	91	0.03
3	Benzene	40.000	39.729	0.7	96	0.04
4 S	a,a,a-TFT(S)	20.000	20.453	-2.3	100	0.04
5	Toluene	40.000	40.593	-1.5	98	0.04
6 S	1-Chloro-4-Fluorobenzene	20.000	21.737	-8.7	104	0.03
7	Chlorobenzene	40.000	40.028	-0.1	102	0.03
8	Ethylbenzene	40.000	39.595	1.0	100	0.03
9	m,p-Xylene	80.000	82.095	-2.6	100	0.03
10	o-Xylene	40.000	41.211	-3.0	101	0.03
11	1,3-Dichlorobenzene	40.000	44.769	-11.9	111	0.04
12	1,4-Dichlorobenzene	40.000	44.805	-12.0	111	0.03
13	1,2-Dichlorobenzene	40.000	46.823	-17.1#	119	0.03

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	40.000	37.193	7.0	90	0.02
2	Di-Isopropyl ether	40.000	37.239	6.9	87	0.03
3	Benzene	40.000	38.176	4.6	91	0.03
4 S	a,a,a-TFT(S)	20.000	19.497	2.5	95	0.03
5	Toluene	40.000	39.430	1.4	94	0.04
6 S	1-Chloro-4-Fluorobenzene	20.000	20.720	-3.6	98	0.03
7	Chlorobenzene	40.000	37.278	6.8	95	0.03
8	Ethylbenzene	40.000	38.302	4.2	95	0.03
9	m,p-Xylene	80.000	79.223	1.0	96	0.03
10	o-Xylene	40.000	39.894	0.3	95	0.03
11	1,3-Dichlorobenzene	40.000	42.917	-7.3	103	0.03
12	1,4-Dichlorobenzene	40.000	43.471	-8.7	105	0.03
13	1,2-Dichlorobenzene	40.000	45.079	-12.7	116	0.03

Average % D = 5.2

(#) = Out of Range
EF037162.D DUAL0402.M

SPCC's out = 0 CCC's out = 0
Wed Apr 28 08:51:32 2004 EF

Continuing Calibration Summary

Page 1 of 1

Job Number: F23462
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GEF3121-CC3086
Lab FileID: EF038130.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\042704\EF038130.D\FID1A.CH Vial: 11
Signal #2 : C:\HPCHEM\1\DATA\042704\EF038130.D\FID2B.CH
Acq On : 27 Apr 2004 1:23 pm Operator: ClaireV
Sample : cc3086-20 Inst : VOA1
Misc : gc3434,gef3121,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL0402.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Mon Apr 26 09:25:28 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	21.322	-6.6	109	0.03
2	Di-Isopropyl ether	20.000	19.977	0.1	101	0.03
3	Benzene	20.000	20.034	-0.2	101	0.03
4 S	a,a,a-TFT(S)	20.000	19.766	1.2	100	0.03
5	Toluene	20.000	19.937	0.3	101	0.04
6 S	1-Chloro-4-Fluorobenzene	20.000	20.142	-0.7	101	0.03
7	Chlorobenzene	20.000	19.533	2.3	103	0.03
8	Ethylbenzene	20.000	19.565	2.2	102	0.03
9	m,p-Xylene	40.000	39.897	0.3	102	0.03
10	o-Xylene	20.000	20.123	-0.6	102	0.03
11	1,3-Dichlorobenzene	20.000	20.811	-4.1	111	0.04
12	1,4-Dichlorobenzene	20.000	20.756	-3.8	112	0.04
13	1,2-Dichlorobenzene	20.000	21.953	-9.8	122	0.04

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	20.063	-0.3	106	0.02
2	Di-Isopropyl ether	20.000	19.429	2.9	97	0.03
3	Benzene	20.000	19.557	2.2	97	0.03
4 S	a,a,a-TFT(S)	20.000	19.100	4.5	96	0.03
5	Toluene	20.000	19.491	2.5	98	0.04
6 S	1-Chloro-4-Fluorobenzene	20.000	19.524	2.4	98	0.03
7	Chlorobenzene	20.000	18.696	6.5	98	0.03
8	Ethylbenzene	20.000	19.087	4.6	97	0.03
9	m,p-Xylene	40.000	38.418	4.0	97	0.03
10	o-Xylene	20.000	19.664	1.7	97	0.03
11	1,3-Dichlorobenzene	20.000	20.008	-0.0	106	0.04
12	1,4-Dichlorobenzene	20.000	20.408	-2.0	108	0.04
13	1,2-Dichlorobenzene	20.000	21.143	-5.7	117	0.04

Average % D = 2.7

(#) = Out of Range
EF037161.D DUAL0402.M

SPCC's out = 0 CCC's out = 0
Wed Apr 28 08:52:12 2004 EF

GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Page 1 of 1

Job Number: F23462
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10248-MB	IJ19714.D	1	04/30/04	SM	04/21/04	OP10248	GJJ962

The QC reported here applies to the following samples:

Method: EPA 610

F23462-1, F23462-2, F23462-3, F23462-4, F23462-5, F23462-6, F23462-7, F23462-8

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.0	2.0	ug/l	
208-96-8	Acenaphthylene	ND	5.0	2.0	ug/l	
120-12-7	Anthracene	ND	5.0	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	2.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	2.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	2.0	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	2.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	2.0	ug/l	
218-01-9	Chrysene	ND	5.0	2.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	2.0	ug/l	
206-44-0	Fluoranthene	ND	5.0	2.0	ug/l	
86-73-7	Fluorene	ND	5.0	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	2.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	2.0	ug/l	
85-01-8	Phenanthrene	ND	5.0	2.0	ug/l	
129-00-0	Pyrene	ND	5.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Limits
321-60-8	2-Fluorobiphenyl	80% 42-123%
84-15-1	o-Terphenyl	98% 51-123%

Method Blank Summary

Page 1 of 1

Job Number: F23462
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10248-MB	IJ19763.D	1	05/03/04	SM	04/21/04	OP10248	GIJ963

The QC reported here applies to the following samples:

Method: EPA 610

F23462-1, F23462-2, F23462-3, F23462-4, F23462-5, F23462-6, F23462-7, F23462-8

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.0	2.0	ug/l	
208-96-8	Acenaphthylene	ND	5.0	2.0	ug/l	
120-12-7	Anthracene	ND	5.0	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	2.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	2.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	2.0	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	2.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	2.0	ug/l	
218-01-9	Chrysene	ND	5.0	2.0	ug/l	
53-70-3	Dihenzo(a,h)anthracene	ND	5.0	2.0	ug/l	
206-44-0	Fluoranthene	ND	5.0	2.0	ug/l	
86-73-7	Fluorene	ND	5.0	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	2.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	2.0	ug/l	
85-01-8	Phenanthrene	ND	5.0	2.0	ug/l	
129-00-0	Pyrene	ND	5.0	2.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
321-60-8	2-Fluorobiphenyl	83%	42-123%
84-15-1	o-Terphenyl	98%	51-123%

Blank Spike Summary

Page 1 of 1

Job Number: F23462
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10248-BS	IJ19713.D	1	04/30/04	SM	04/21/04	OP10248	GIJ962

The QC reported here applies to the following samples:

Method: EPA 610

F23462-1, F23462-2, F23462-3, F23462-4, F23462-5, F23462-6, F23462-7, F23462-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	25	24.4	98	71-113
208-96-8	Acenaphthylene	25	23.6	94	63-102
120-12-7	Anthracene	25	26.3	105	71-110
56-55-3	Benzo(a)anthracene	25	22.9	92	70-114
50-32-8	Benzo(a)pyrene	25	24.7	99	67-114
205-99-2	Benzo(b)fluoranthene	25	22.7	91	69-115
191-24-2	Benzo(g,h,i)perylene	25	25.6	102	61-117
207-08-9	Benzo(k)fluoranthene	25	26.7	107	69-111
218-01-9	Chrysene	25	27.9	112	70-114
53-70-3	Dibenzo(a,h)anthracene	25	25.6	102	64-114
206-44-0	Fluoranthene	25	25.5	102	71-114
86-73-7	Fluorene	25	24.8	99	69-111
193-39-5	Indeno(1,2,3-cd)pyrene	25	22.0	88	63-112
91-20-3	Naphthalene	25	21.4	86	66-105
90-12-0	1-Methylnaphthalene	25	25.2	101	71-112
91-57-6	2-Methylnaphthalene	25	21.6	86	65-106
85-01-8	Phenanthrene	25	23.4	94	69-112
129-00-0	Pyrene	25	25.9	104	70-114

CAS No.	Surrogate Recoveries	BSP	Limits
321-60-8	2-Fluorobiphenyl	89%	42-123%
84-15-1	o-Terphenyl	103%	51-123%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: F23462
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10248-MS	IJ19720.D	1	04/30/04	SM	04/21/04	OP10248	GJJ962
OP10248-MSD	IJ19721.D	1	05/01/04	SM	04/21/04	OP10248	GJJ962
F23436-5	IJ19719.D	1	04/30/04	SM	04/21/04	OP10248	GJJ962

The QC reported here applies to the following samples:

Method: EPA 610

F23462-1, F23462-2, F23462-3, F23462-4, F23462-5, F23462-6, F23462-7, F23462-8

CAS No.	Compound	F23436-5 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		26	24.4	94	24.7	95	1	59-123/20
208-96-8	Acenaphthylene	ND		26	24.2	93	25.0	96	3	51-114/20
120-12-7	Anthracene	ND		26	27.6	106	27.5	106	0	64-114/17
56-55-3	Benzo(a)anthracene	ND		26	24.8	95	24.5	94	1	66-115/17
50-32-8	Benzo(a)pyrene	ND		26	26.6	102	26.4	101	1	62-118/17
205-99-2	Benzo(b)fluoranthene	ND		26	24.5	94	24.2	93	1	66-117/17
191-24-2	Benzo(g,h,i)perylene	ND		26	27.9	107	27.8	107	0	59-120/17
207-08-9	Benzo(k)fluoranthene	ND		26	28.6	110	28.5	109	0	64-116/16
218-01-9	Chrysene	ND		26	29.1	112	29.4	113	1	66-117/16
53-70-3	Dibenzo(a,h)anthracene	ND		26	28.4	109	28.2	108	1	57-124/18
206-44-0	Fluoranthene	ND		26	27.1	104	26.9	103	1	67-116/17
86-73-7	Fluorene	ND		26	25.6	98	25.9	99	1	58-122/19
193-39-5	Indeno(1,2,3-cd)pyrene	ND		26	24.2	93	23.9	92	1	59-116/18
91-20-3	Naphthalene	ND		26	21.0	81	22.0	84	5	47-114/20
90-12-0	1-Methylnaphthalene	ND		26	25.3	97	26.4	101	4	55-128/21
91-57-6	2-Methylnaphthalene	ND		26	21.8	84	22.6	87	4	51-117/21
85-01-8	Phenanthrene	ND		26	24.9	96	24.8	95	0	63-116/18
129-00-0	Pyrene	ND		26	27.5	106	27.3	105	1	67-116/17

CAS No.	Surrogate Recoveries	MS	MSD	F23436-5	Limits
321-60-8	2-Fluorobiphenyl	86%	89%	77%	42-123%
84-15-1	o-Terphenyl	104%	104%	91%	51-123%

Semivolatile Surrogate Recovery Summary

Page 1 of 1

Job Number: F23462
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Method: EPA 610

Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a	S2 ^a
F23462-1	IJ19722.D	85.0	92.0
F23462-2	IJ19765.D	321.0* ^b	99.0
F23462-3	IJ19725.D	72.0	89.0
F23462-4	IJ19726.D	67.0	93.0
F23462-5	IJ19727.D	71.0	97.0
F23462-6	IJ19728.D	62.0	97.0
F23462-7	IJ19729.D	60.0	98.0
F23462-8	IJ19730.D	94.0	103.0
OP10248-BS	IJ19713.D	89.0	103.0
OP10248-MB	IJ19714.D	80.0	98.0
OP10248-MB	IJ19763.D	83.0	98.0
OP10248-MS	IJ19720.D	86.0	104.0
OP10248-MSD	IJ19721.D	89.0	104.0

Surrogate
Compounds

Recovery
Limits

S1 = 2-Fluorobiphenyl 42-123%

S2 = o-Terphenyl 51-123%

(a) Recovery from GC signal #1

(b) Outside control limits due to matrix interference.

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F23462
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std: GIJ962-CC928	Injection Date: 04/30/04
Lab File ID: IJ19712.D	Injection Time: 19:44
Instrument ID: GCIJ	Method: EPA 610

				S1 ^a RT	S2 ^a RT
Check Std				5.70	10.23
Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
OP10248-BS	IJ19713.D	04/30/04	20:13	5.70	10.23
OP10248-MB	IJ19714.D	04/30/04	20:41	5.70	10.23
ZZZZZZ	IJ19715.D	04/30/04	21:10	5.70	10.23
ZZZZZZ	IJ19716.D	04/30/04	21:39	5.70	10.23
ZZZZZZ	IJ19717.D	04/30/04	22:08	5.71	10.24
ZZZZZZ	IJ19718.D	04/30/04	22:37	5.70	10.23
F23436-5	IJ19719.D	04/30/04	23:06	5.70	10.24
OP10248-MS	IJ19720.D	04/30/04	23:34	5.70	10.23
OP10248-MSD	IJ19721.D	05/01/04	00:03	5.70	10.23
F23462-1	IJ19722.D	05/01/04	00:32	5.71	10.24

Surrogate
Compounds

S1 = 2-Fluorobiphenyl
S2 = o-Terphenyl

(a) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F23462
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GJJ962-CC928	Injection Date:	05/01/04
Lab File ID:	IJ19723.D	Injection Time:	01:01
Instrument ID:	GCIJ	Method:	EPA 610

S1 ^a	S2 ^a
RT	RT

Check Std	5.70	10.23

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
F23462-3	IJ19725.D	05/01/04	01:58	5.71	10.24
F23462-4	IJ19726.D	05/01/04	02:27	5.70	10.24
F23462-5	IJ19727.D	05/01/04	02:56	5.70	10.24
F23462-6	IJ19728.D	05/01/04	03:25	5.70	10.23
F23462-7	IJ19729.D	05/01/04	03:53	5.70	10.23
F23462-8	IJ19730.D	05/01/04	04:22	5.70	10.24
ZZZZZZ	IJ19731.D	05/01/04	04:51	5.70	10.23
ZZZZZZ	IJ19732.D	05/01/04	05:20	5.71	10.23
ZZZZZZ	IJ19733.D	05/01/04	05:49	5.70	10.23

Surrogate
Compounds

S1 = 2-Fluorobiphenyl
S2 = o-Terphenyl

(a) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F23462
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GIJ963-CC928	Injection Date:	05/03/04
Lab File ID:	IJ19762.D	Injection Time:	16:10
Instrument ID:	GCIJ	Method:	EPA 610

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	5.71	6.50	10.24	11.63

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
OP10248-MB	IJ19763.D	05/03/04	16:39	5.70		10.24	
ZZZZZZ	IJ19764.D	05/03/04	17:07	5.70		10.23	
F23462-2	IJ19765.D	05/03/04	17:36	5.71		10.23	
ZZZZZZ	IJ19766.D	05/03/04	18:05	0.00		0.00	
GIJ963-ECC928	IJ19767.D	05/03/04	18:34	5.71	6.50	10.24	11.63

Surrogate
Compounds

S1 = 2-Fluorobiphenyl
S2 = o-Terphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

Initial Calibration Summary

Page 1 of 2

Job Number: F23462
 Account: EEINCJX EEI
 Project: Bldg. 4158/Camp Lejeune, NC

Sample: GIJ928-ICC928
 Lab FileID: IJ19184.D

Response Factor Report FID 1

Method : C:\HPCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
 Title : PAH's BY EPA 610 OR 8100
 Last Update : Wed Jan 14 07:33:44 2004
 Response via : Initial Calibration

Calibration Files

5 =IJ19182.D 10 =IJ19183.D 20 =IJ19184.D
 30 =IJ19185.D 40 =IJ19186.D 50 =IJ19187.D

Compound	5	10	20	30	40	50	Avg	%RSD
1) Naphthalene	1.607	1.598	1.575	1.579	1.577	1.616	1.592 E4	1.09
2) 2-Methyl Naphthalen	1.554	1.537	1.522	1.524	1.527	1.567	1.538 E4	1.19
3) 1-Methyl Naphthalen	1.555	1.518	1.494	1.492	1.499	1.537	1.516 E4	1.71
4) S 2-Fluorobiphenyl	1.350	1.381	1.324	1.363	1.369	1.411	1.366 E4	2.15
5) Acenaphthylene	1.620	1.559	1.559	1.561	1.571	1.619	1.582 E4	1.90
6) Acenaphthene	1.646	1.634	1.607	1.601	1.598	1.650	1.623 E4	1.45
7) Fluorene	1.585	1.598	1.573	1.573	1.563	1.614	1.585 E4	1.19
8) Phenanthrene	1.508	1.553	1.554	1.565	1.560	1.612	1.559 E4	2.14
9) Anthracene	1.724	1.667	1.601	1.594	1.580	1.623	1.631 E4	3.34
10) S 0-Terphenyl	1.734	1.666	1.624	1.614	1.602	1.647	1.648 E4	2.92
11) Fluoranthene	1.655	1.637	1.592	1.602	1.573	1.629	1.615 E4	1.90
12) Pyrene	1.691	1.677	1.582	1.588	1.582	1.624	1.624 E4	3.03
13) Benzo(a)Anthracene	1.533	1.581	1.568	1.589	1.589	1.627	1.581 E4	1.94
14) Chrysene	1.776	1.698	1.618	1.612	1.598	1.626	1.654 E4	4.17
15) Benzo(b)Fluoranthen	1.523	1.557	1.576	1.597	1.597	1.667	1.586 E4	3.07
16) Benzo(k)Fluoranthen	1.875	1.794	1.675	1.657	1.642	1.643	1.714 E4	5.68
17) Benzo(a) Pyrene	1.594	1.580	1.533	1.534	1.530	1.566	1.556 E4	1.77
18) Indeno(1,2,3-cd)pyr	1.531	1.543	1.512	1.519	1.530	1.570	1.534 E4	1.34
19) Dibenzo(a,h)anthrac	1.704	1.650	1.574	1.563	1.565	1.596	1.609 E4	3.53
20) Benzo(g,h,i) Peryle	1.695	1.636	1.601	1.568	1.565	1.599	1.611 E4	3.03

Signal #2 Calibration Files

5 =IJ19182.D 10 =IJ19183.D 20 =IJ19184.D
 30 =IJ19185.D 40 =IJ19186.D 50 =IJ19187.D

Compound	5	10	20	30	40	50	Avg	%RSD
1) Naphthalene	2.282	2.241	2.198	2.201	2.200	2.251	2.229 E4	1.55
2) 2-Methyl Naphthalen	2.158	2.125	2.102	2.112	2.113	2.173	2.130 E4	1.35
3) 1-Methyl Naphthalen	2.126	2.093	2.064	2.069	2.067	2.126	2.091 E4	1.40
4) S 2-Fluorobiphenyl	1.918	1.924	1.910	1.913	1.913	1.971	1.925 E4	1.19
5) Acenaphthylene	2.229	2.224	2.198	2.197	2.190	2.260	2.216 E4	1.19
6) Acenaphthene	2.262	2.254	2.227	2.226	2.214	2.286	2.245 E4	1.20
7) Fluorene	2.204	2.205	2.172	2.170	2.158	2.230	2.190 E4	1.25
8) Phenanthrene	2.035	2.098	2.092	2.119	2.133	2.221	2.116 E4	2.89
9) Anthracene	2.448	2.264	2.200	2.186	2.154	2.230	2.247 E4	4.68
10) S 0-Terphenyl	2.304	2.281	2.234	2.234	2.220	2.288	2.260 E4	1.55
11) Fluoranthene	2.265	2.245	2.190	2.198	2.193	2.250	2.223 E4	1.51
12) Pyrene	2.354	2.274	2.216	2.221	2.220	2.278	2.260 E4	2.38
13) Benzo(a)Anthracene	2.307	2.283	2.226	2.235	2.229	2.280	2.260 E4	1.52
14) Chrysene	2.291	2.247	2.206	2.204	2.183	2.228	2.226 E4	1.74
15) Benzo(b)Fluoranthen	2.238	2.246	2.201	2.211	2.221	2.293	2.235 E4	1.48
16) Benzo(k)Fluoranthen	2.330	2.308	2.226	2.242	2.237	2.277	2.270 E4	1.86
17) Benzo(a) Pyrene	2.192	2.172	2.113	2.123	2.121	2.172	2.149 E4	1.56
18) Indeno(1,2,3-cd)pyr	2.166	2.158	2.122	2.146	2.172	2.256	2.170 E4	2.11
19) Dibenzo(a,h)anthrac	2.304	2.248	2.132	2.118	2.081	2.093	2.162 E4	4.23
20) Benzo(g,h,i) Peryle	2.246	2.214	2.140	2.139	2.152	2.202	2.182 E4	2.07

Initial Calibration Summary

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Job Number: F23462
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GIJ928-ICC928
Lab FileID: IJ19184.D

Average % RSD = 2.2

(#) = Out of Range

8100_H2.M

Wed Jan 14 08:50:40 2004

Continuing Calibration Summary

Page 1 of 2

Job Number: F23462
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GIJ962-CC928
Lab FileID: IJ19712.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\0430PAH\IJ19712.D\FID1B.CH Vial: 12
Signal #2 : C:\HPCHEM\1\DATA\0430PAH\IJ19712.D\FID2A.CH
Acq On : 30 Apr 2004 7:44 pm Operator: sarahm
Sample : cc928-30 Inst : FID 1
Misc : op10317,gij962,480,,,1,1,water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\HPCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
Title : PAH's BY EPA 610 OR 8100
Last Update : Mon May 03 09:29:55 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Naphthalene	30.000	29.438	1.9	99	0.00	4.06- 4.26
2	2-Methyl Naphthalene	30.000	28.438	5.2	96	0.00	4.97- 5.17
3	1-Methyl Naphthalene	30.000	30.832	-2.8	104	0.00	5.11- 5.31
4 S	2-Fluorobiphenyl	30.000	30.179	-0.6	101	0.00	5.60- 5.80
5	Acenaphthylene	30.000	29.227	2.6	99	0.00	6.31- 6.51
6	Acenaphthene	30.000	30.164	-0.5	102	0.00	6.63- 6.83
7	Fluorene	30.000	29.369	2.1	99	0.00	7.50- 7.70
8	Phenanthrene	30.000	27.961	6.8	93	0.00	9.17- 9.37
9	Anthracene	30.000	30.310	-1.0	103	0.00	9.25- 9.45
10 S	0-Terphenyl	30.000	30.056	-0.2	102	0.00	10.13-10.33
11	Fluoranthene	30.000	29.541	1.5	99	0.00	11.36-11.56
12	Pyrene	30.000	30.095	-0.3	103	0.00	11.73-11.93
13	Benzo(a)Anthracene	30.000	27.389	8.7	91	0.00	14.05-14.25
14	Chrysene	30.000	31.551	-5.2	108	0.00	14.12-14.32
15	Benzo(b)Fluoranthene	30.000	26.850	10.5	89	0.00	15.95-16.15
16	Benzo(k)Fluoranthene	30.000	31.647	-5.5	109	0.00	16.00-16.20
17	Benzo(a) Pyrene	30.000	29.542	1.5	100	0.00	16.45-16.65
18	Indeno(1,2,3-cd)pyrene	30.000	27.097	9.7	91	0.00	18.12-18.32
19	Dibenzo(a,h)anthracene	30.000	30.702	-2.3	105	0.00	18.20-18.40
20	Benzo(g,h,i) Perylene	30.000	30.691	-2.3	105	0.01	18.44-18.64

***** Signal #2 *****

1	Naphthalene	30.000	29.404	2.0	99	0.00	4.74- 4.94
2	2-Methyl Naphthalene	30.000	28.818	3.9	97	0.00	5.62- 5.82
3	1-Methyl Naphthalene	30.000	31.418	-4.7	106	0.00	5.88- 6.08
4 S	2-Fluorobiphenyl	30.000	29.864	0.5	100	0.00	6.40- 6.60
5	Acenaphthylene	30.000	29.603	1.3	100	0.00	7.49- 7.69
6	Acenaphthene	30.000	30.591	-2.0	103	0.00	7.73- 7.93
7	Fluorene	30.000	29.391	2.0	99	0.00	8.61- 8.81
8	Phenanthrene	30.000	27.030	9.9	90	0.00	10.63-10.83
9	Anthracene	30.000	32.137	-7.1	110	0.00	10.68-10.88
10 S	0-Terphenyl	30.000	30.376	-1.3	102	0.00	11.52-11.72
11	Fluoranthene	30.000	29.507	1.6	100	0.00	12.99-13.19
12	Pyrene	30.000	30.684	-2.3	104	0.00	13.53-13.73
13	Benzo(a)Anthracene	30.000	29.238	2.5	99	0.00	15.90-16.10
14	Chrysene	30.000	30.645	-2.1	103	0.00	16.07-16.27
15	Benzo(b)Fluoranthene	30.000	27.947	6.8	94	0.00	17.95-18.15
16	Benzo(k)Fluoranthene	30.000	32.497	-8.3	110	0.00	18.00-18.20
17	Benzo(a) Pyrene	30.000	29.711	1.0	100	0.00	18.67-18.87
18	Indeno(1,2,3-cd)pyrene	30.000	27.727	7.6	93	0.00	20.42-20.62

Continuing Calibration Summary

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Job Number: F23462
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GIJ962-CC928
Lab FileID: IJ19712.D

19	Dibenzo(a,h)anthracene	30.000	33.101	-10.3	113	0.00	20.49-20.69
20	Benzo(g,h,i) Perylene	30.000	30.791	-2.6	105	0.00	21.03-21.23

(#) = Out of Range
IJ19185.D 8100_H2.M

SPCC's out = 0 CCC's out = 0
Mon May 03 10:19:47 2004

Continuing Calibration Summary

Job Number: F23462
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GJ962-CC928
Lab FileID: IJ19723.D

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Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\0430PAH\IJ19723.D\FID1B.CH Vial: 23
Signal #2 : C:\HPCHEM\1\DATA\0430PAH\IJ19723.D\FID2A.CH
Acq On : 1 May 2004 1:01 am Operator: sarahm
Sample : cc928-20 Inst : FID 1
Misc : op10248,gij962,990,,,1,1,water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\HPCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
Title : PAH's BY EPA 610 OR 8100
Last Update : Mon May 03 09:29:55 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Naphthalene	20.000	20.396	-2.0	103	0.00	4.06- 4.26
2	2-Methyl Naphthalene	20.000	19.484	2.6	98	0.00	4.97- 5.17
3	1-Methyl Naphthalene	20.000	22.122	-10.6	112	0.00	5.11- 5.31
4 S	2-Fluorobiphenyl	20.000	20.844	-4.2	108	0.00	5.60- 5.80
5	Acenaphthylene	20.000	20.358	-1.8	103	0.00	6.31- 6.51
6	Acenaphthene	20.000	21.015	-5.1	106	0.00	6.63- 6.83
7	Fluorene	20.000	20.357	-1.8	103	0.00	7.50- 7.70
8	Phenanthrene	20.000	18.993	5.0	95	0.00	9.17- 9.37
9	Anthracene	20.000	22.486	-12.4	115	0.00	9.25- 9.45
10 S	0-Terphenyl	20.000	21.116	-5.6	107	0.00	10.13-10.33
11	Fluoranthene	20.000	20.675	-3.4	105	0.00	11.36-11.56
12	Pyrene	20.000	21.110	-5.5	108	0.00	11.73-11.93
13	Benzo(a)Anthracene	20.000	18.646	6.8	94	0.00	14.05-14.25
14	Chrysene	20.000	22.396	-12.0	115	0.00	14.12-14.32
15	Benzo(b)Fluoranthene	20.000	18.158	9.2	91	0.00	15.95-16.15
16	Benzo(k)Fluoranthene	20.000	21.763	-8.8	111	0.00	16.00-16.20
17	Benzo(a) Pyrene	20.000	20.832	-4.2	106	0.00	16.45-16.65
18	Indeno(1,2,3-cd)pyrene	20.000	18.613	6.9	94	0.00	18.12-18.32
19	Dibenzo(a,h)anthracene	20.000	21.840	-9.2	112	0.00	18.20-18.40
20	Benzo(g,h,i) Perylene	20.000	22.067	-10.3	111	0.00	18.44-18.64

***** Signal #2 *****

1	Naphthalene	20.000	20.520	-2.6	104	0.00	4.74- 4.94
2	2-Methyl Naphthalene	20.000	19.940	0.3	101	0.00	5.62- 5.82
3	1-Methyl Naphthalene	20.000	22.170	-10.9	112	0.00	5.88- 6.08
4 S	2-Fluorobiphenyl	20.000	21.529	-7.6	108	0.00	6.40- 6.60
5	Acenaphthylene	20.000	20.742	-3.7	105	0.00	7.49- 7.69
6	Acenaphthene	20.000	21.307	-6.5	107	0.00	7.73- 7.93
7	Fluorene	20.000	20.420	-2.1	103	0.00	8.61- 8.81
8	Phenanthrene	20.000	18.000	10.0	91	0.00	10.63-10.83
9	Anthracene	20.000	21.500	-7.5	110	0.00	10.68-10.88
10 S	0-Terphenyl	20.000	21.402	-7.0	108	0.00	11.52-11.72
11	Fluoranthene	20.000	20.702	-3.5	105	0.00	12.99-13.19
12	Pyrene	20.000	21.527	-7.6	110	0.00	13.53-13.73
13	Benzo(a)Anthracene	20.000	20.430	-2.1	104	0.00	15.90-16.10
14	Chrysene	20.000	21.754	-8.8	110	0.00	16.07-16.27
15	Benzo(b)Fluoranthene	20.000	19.213	3.9	98	0.00	17.95-18.15
16	Benzo(k)Fluoranthene	20.000	21.269	-6.3	108	0.00	18.00-18.20
17	Benzo(a) Pyrene	20.000	20.880	-4.4	106	0.00	18.67-18.87
18	Indeno(1,2,3-cd)pyrene	20.000	19.106	4.5	98	0.00	20.42-20.62

Continuing Calibration Summary

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Job Number: F23462
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GIJ962-CC928
Lab FileID: IJ19723.D

19	Dibenzo(a,h)anthracene	20.000	21.185	-5.9	107	0.00	20.49-20.69
20	Benzo(g,h,i) Perylene	20.000	21.292	-6.5	109	0.00	21.03-21.23

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

IJ19184.D B100_H2.M

Mon May 03 10:19:09 2004

6.6
6

Continuing Calibration Summary

Job Number: F23462
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GIJ962-CC928
Lab FileID: IJ19734.D

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Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\0430PAH\IJ19734.D\FID1B.CH Vial: 34
Signal #2 : C:\HPCHEM\1\DATA\0430PAH\IJ19734.D\FID2A.CH
Acq On : 1 May 2004 6:17 am Operator: sarahm
Sample : cc92B-20 Inst : FID 1
Misc : op10248,gij962,960,,,1,1,water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\HPCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
Title : PAH's BY EPA 610 OR 8100
Last Update : Mon May 03 09:29:53 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Naphthalene	20.000	21.064	-5.3	106	0.00	4.06- 4.26
2	2-Methyl Naphthalene	20.000	20.156	-0.8	102	0.00	4.97- 5.17
3	1-Methyl Naphthalene	20.000	22.824	-14.1	116	0.00	5.11- 5.31
4 S	2-Fluorobiphenyl	20.000	21.527	-7.6	111	0.00	5.60- 5.80
5	Acenaphthylene	20.000	21.657	-8.3	110	0.00	6.31- 6.51
6	Acenaphthene	20.000	21.738	-8.7	110	0.00	6.63- 6.83
7	Fluorene	20.000	20.938	-4.7	105	0.00	7.50- 7.70
8	Phenanthrene	20.000	19.576	2.1	98	0.00	9.17- 9.37
9	Anthracene	20.000	20.379	-1.9	104	0.00	9.25- 9.45
10 S	0-Terphenyl	20.000	21.689	-8.4	110	0.00	10.13-10.33
11	Fluoranthene	20.000	21.224	-6.1	108	0.00	11.36-11.56
12	Pyrene	20.000	21.671	-8.4	111	0.00	11.73-11.93
13	Benzo(a)Anthracene	20.000	19.150	4.3	97	0.00	14.05-14.25
14	Chrysene	20.000	21.314	-6.6	109	0.00	14.12-14.32
15	Benzo(b)Fluoranthene	20.000	19.073	4.6	96	0.00	15.95-16.15
16	Benzo(k)Fluoranthene	20.000	20.366	-1.8	104	0.00	16.00-16.20
17	Benzo(a) Pyrene	20.000	21.418	-7.1	109	0.00	16.45-16.65
18	Indeno(1,2,3-cd)pyrene	20.000	19.215	3.9	97	0.00	18.12-18.32
19	Dibenzo(a,h)anthracene	20.000	22.327	-11.6	114	0.00	18.20-18.40
20	Benzo(g,h,i) Perylene	20.000	22.472	-12.4	113	0.00	18.44-18.64

***** Signal #2 *****

1	Naphthalene	20.000	21.124	-5.6	107	0.00	4.74- 4.94
2	2-Methyl Naphthalene	20.000	20.549	-2.7	104	0.00	5.62- 5.82
3	1-Methyl Naphthalene	20.000	22.487	-12.4	114	0.00	5.88- 6.08
4 S	2-Fluorobiphenyl	20.000	21.196	-6.0	107	0.00	6.40- 6.60
5	Acenaphthylene	20.000	21.430	-7.1	108	0.00	7.49- 7.69
6	Acenaphthene	20.000	21.937	-9.7	111	0.00	7.73- 7.93
7	Fluorene	20.000	20.981	-4.9	106	0.00	8.61- 8.81
8	Phenanthrene	20.000	18.861	5.7	95	0.00	10.63-10.83
9	Anthracene	20.000	21.598	-8.0	110	0.00	10.68-10.88
10 S	0-Terphenyl	20.000	21.995	-10.0	111	0.00	11.52-11.72
11	Fluoranthene	20.000	21.770	-8.8	111	0.00	12.99-13.19
12	Pyrene	20.000	22.388	-11.9	114	0.00	13.53-13.73
13	Benzo(a)Anthracene	20.000	21.053	-5.3	107	0.00	15.90-16.10
14	Chrysene	20.000	22.315	-11.6	113	0.00	16.07-16.27
15	Benzo(b)Fluoranthene	20.000	19.880	0.6	101	0.00	17.95-18.15
16	Benzo(k)Fluoranthene	20.000	21.725	-8.6	111	0.00	18.00-18.20
17	Benzo(a) Pyrene	20.000	21.490	-7.4	109	0.00	18.67-18.87
18	Indeno(1,2,3-cd)pyrene	20.000	19.933	0.3	102	0.00	20.42-20.62

Continuing Calibration Summary

Page 2 of 2

Job Number: F23462
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GIJ962-CC928
Lab FileID: IJ19734.D

19	Dibenzo(a,h)anthracene	20.000	22.297	-11.5	113	0.00	20.49-20.69
20	Benzo(g,h,i) Perylene	20.000	22.539	-12.7	115	0.00	21.03-21.23

(#) = Out of Range
IJ19184.D 8100_H2.M

SPCC's out = 0 CCC's out = 0
Mon May 03 13:54:11 2004

Continuing Calibration Summary

Page 1 of 2

Job Number: F23462
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GJJ963-CC928
Lab FileID: IJ19762.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\0503PAH\IJ19762.D\FID1B.CH Vial: 8
Signal #2 : C:\HPCHEM\1\DATA\0503PAH\IJ19762.D\FID2A.CH
Acq On : 3 May 2004 4:10 pm Operator: sarahm
Sample : cc928-30 Inst : FID 1
Misc : op10269,gij963,900,,,1,10,water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\HPCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
Title : PAH's BY EPA 610 OR 8100
Last Update : Mon May 03 09:29:55 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Naphthalene	30.000	29.598	1.3	99	0.00	4.06- 4.26
2	2-Methyl Naphthalene	30.000	28.511	5.0	96	0.00	4.97- 5.17
3	1-Methyl Naphthalene	30.000	31.313	-4.4	106	0.00	5.11- 5.31
4 S	2-Fluorobiphenyl	30.000	30.456	-1.5	102	0.00	5.60- 5.80
5	Acenaphthylene	30.000	29.600	1.3	100	0.00	6.31- 6.51
6	Acenaphthene	30.000	30.443	-1.5	103	0.00	6.63- 6.83
7	Fluorene	30.000	29.706	1.0	100	0.00	7.50- 7.70
8	Phenanthrene	30.000	28.231	5.9	94	0.00	9.17- 9.37
9	Anthracene	30.000	32.018	-6.7	109	0.00	9.25- 9.45
10 S	0-Terphenyl	30.000	30.548	-1.8	104	0.00	10.13-10.33
11	Fluoranthene	30.000	29.829	0.6	100	0.01	11.36-11.56
12	Pyrene	30.000	30.466	-1.6	104	0.00	11.73-11.93
13	Benzo(a)Anthracene	30.000	27.605	8.0	92	0.01	14.05-14.25
14	Chrysene	30.000	32.068	-6.9	110	0.01	14.12-14.32
15	Benzo(b)Fluoranthene	30.000	27.059	9.8	90	0.01	15.95-16.15
16	Benzo(k)Fluoranthene	30.000	32.020	-6.7	110	0.02	16.00-16.20
17	Benzo(a) Pyrene	30.000	29.910	0.3	101	0.01	16.45-16.65
18	Indeno(1,2,3-cd)pyrene	30.000	27.587	8.0	93	0.02	18.12-18.32
19	Dibenzo(a,h)anthracene	30.000	31.280	-4.3	107	0.01	18.20-18.40
20	Benzo(g,h,i) Perylene	30.000	31.453	-4.8	108	0.02	18.44-18.64

***** Signal #2 *****

1	Naphthalene	30.000	29.674	1.1	100	0.00	4.74- 4.94
2	2-Methyl Naphthalene	30.000	29.169	2.8	98	0.00	5.62- 5.82
3	1-Methyl Naphthalene	30.000	31.028	-3.4	105	0.00	5.88- 6.08
4 S	2-Fluorobiphenyl	30.000	30.243	-0.8	101	0.00	6.40- 6.60
5	Acenaphthylene	30.000	30.180	-0.6	101	0.00	7.49- 7.69
6	Acenaphthene	30.000	31.000	-3.3	104	0.00	7.73- 7.93
7	Fluorene	30.000	29.717	0.9	100	0.00	8.61- 8.81
8	Phenanthrene	30.000	27.483	8.4	92	0.00	10.63-10.83
9	Anthracene	30.000	32.668	-8.9	112	0.00	10.68-10.88
10 S	0-Terphenyl	30.000	30.888	-3.0	104	0.00	11.52-11.72
11	Fluoranthene	30.000	30.218	-0.7	102	0.00	12.99-13.19
12	Pyrene	30.000	31.080	-3.6	105	0.00	13.53-13.73
13	Benzo(a)Anthracene	30.000	29.619	1.3	100	0.00	15.90-16.10
14	Chrysene	30.000	30.982	-3.3	104	0.00	16.07-16.27
15	Benzo(b)Fluoranthene	30.000	28.201	6.0	95	0.01	17.95-18.15
16	Benzo(k)Fluoranthene	30.000	32.919	-9.7	111	0.00	18.00-18.20
17	Benzo(a) Pyrene	30.000	30.217	-0.7	102	0.00	18.67-18.87
18	Indeno(1,2,3-cd)pyrene	30.000	28.516	4.9	96	0.01	20.42-20.62

Continuing Calibration Summary

Page 2 of 2

Job Number: F23462
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GIJ963-CC928
Lab FileID: IJ19762.D

19	Dibenzo(a,h)anthracene	30.000	34.060	-13.5	116	0.00	20.49-20.69
20	Benzo(g,h,i) Perylene	30.000	31.905	-6.4	109	0.01	21.03-21.23

(#) = Out of Range
IJ19185.D 8100_H2.M

SPCC's out = 0 CCC's out = 0
Tue May 04 07:56:18 2004

Continuing Calibration Summary

Page 1 of 2

Job Number: F23462
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GIJ963-ECC928
Lab FileID: IJ19767.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\0503PAH\IJ19767.D\FID1B.CH Vial: 13
Signal #2 : C:\HPCHEM\1\DATA\0503PAH\IJ19767.D\FID2A.CH
Acq On : 3 May 2004 6:34 pm Operator: sarahm
Sample : ecc928-20 Inst : FID 1
Misc : op10269,gij963,900,,,1,20,water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\HPCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
Title : PAH's BY EPA 610 OR 8100
Last Update : Mon May 03 09:29:55 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Naphthalene	20.000	19.134	4.3	97	0.00	4.06- 4.26
2	2-Methyl Naphthalene	20.000	18.389	8.1	93	0.00	4.97- 5.17
3	1-Methyl Naphthalene	20.000	21.290	-6.4	108	0.00	5.11- 5.31
4 S	2-Fluorobiphenyl	20.000	20.058	-0.3	104	0.00	5.60- 5.80
5	Acenaphthylene	20.000	20.032	-0.2	102	0.01	6.31- 6.51
6	Acenaphthene	20.000	20.273	-1.4	102	0.01	6.63- 6.83
7	Fluorene	20.000	19.467	2.7	98	0.01	7.50- 7.70
8	Phenanthrene	20.000	17.815	10.9	89	0.01	9.17- 9.37
9	Anthracene	20.000	21.689	-8.4	111	0.01	9.25- 9.45
10 S	0-Terphenyl	20.000	20.171	-0.9	102	0.01	10.13-10.33
11	Fluoranthene	20.000	19.609	2.0	99	0.01	11.36-11.56
12	Pyrene	20.000	20.055	-0.3	103	0.01	11.73-11.93
13	Benzo(a)Anthracene	20.000	17.495	12.5	88	0.01	14.05-14.25
14	Chrysene	20.000	22.176	-10.9	113	0.01	14.12-14.32
15	Benzo(b)Fluoranthene	20.000	16.782	16.1#	84	0.01	15.95-16.15
16	Benzo(k)Fluoranthene	20.000	22.488	-12.4	115	0.00	16.00-16.20
17	Benzo(a) Pyrene	20.000	19.952	0.2	101	0.01	16.45-16.65
18	Indeno(1,2,3-cd)pyrene	20.000	17.627	11.9	89	0.00	18.12-18.32
19	Dibenzo(a,h)anthracene	20.000	21.072	-5.4	108	0.01	18.20-18.40
20	Benzo(g,h,i) Perylene	20.000	21.329	-6.6	107	0.01	18.44-18.64

***** Signal #2 *****

1	Naphthalene	20.000	19.740	1.3	100	0.00	4.74- 4.94
2	2-Methyl Naphthalene	20.000	19.179	4.1	97	0.00	5.62- 5.82
3	1-Methyl Naphthalene	20.000	21.538	-7.7	109	0.00	5.88- 6.08
4 S	2-Fluorobiphenyl	20.000	20.762	-3.8	105	0.00	6.40- 6.60
5	Acenaphthylene	20.000	20.012	-0.1	101	0.00	7.49- 7.69
6	Acenaphthene	20.000	20.597	-3.0	104	0.00	7.73- 7.93
7	Fluorene	20.000	19.632	1.8	99	0.00	8.61- 8.81
8	Phenanthrene	20.000	17.266	13.7	87	0.00	10.63-10.83
9	Anthracene	20.000	22.798	-14.0	116	0.00	10.68-10.88
10 S	0-Terphenyl	20.000	20.539	-2.7	104	0.00	11.52-11.72
11	Fluoranthene	20.000	20.337	-1.7	103	0.00	12.99-13.19
12	Pyrene	20.000	20.885	-4.4	107	0.01	13.53-13.73
13	Benzo(a)Anthracene	20.000	19.611	1.9	100	0.00	15.90-16.10
14	Chrysene	20.000	20.787	-3.9	105	0.00	16.07-16.27
15	Benzo(b)Fluoranthene	20.000	18.467	7.7	94	0.00	17.95-18.15
16	Benzo(k)Fluoranthene	20.000	22.442	-12.2	114	0.00	18.00-18.20
17	Benzo(a) Pyrene	20.000	20.301	-1.5	103	0.00	18.67-18.87
18	Indeno(1,2,3-cd)pyrene	20.000	18.589	7.1	95	0.00	20.42-20.62

Continuing Calibration Summary

Page 2 of 2

Job Number: F23462
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GIJ963-ECC928
Lab FileID: IJ19767.D

19	Dibenzo(a,h)anthracene	20.000	22.330	-11.6	113	0.00	20.49-20.69
20	Benzo(g,h,i) Perylene	20.000	21.452	-7.3	109	0.00	21.03-21.23

(#) = Out of Range
IJ19184.D 8100_H2.M

SPCC's out = 0 CCC's out = 0
Tue May 04 07:55:55 2004



06/11/04

Technical Report for

EEI

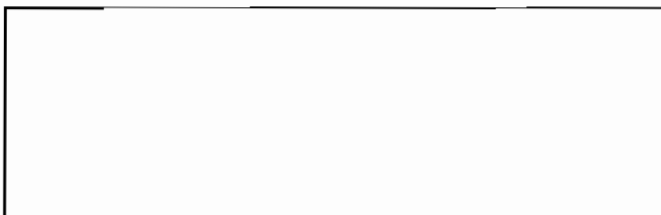
Bldg. 4158/Camp Lejeune, NC

CTO-010

Accutest Job Number: F23512

Sampling Date: 04/16/04

Report to:



Total number of pages in report: 60



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Harry Behzadi
Harry Behzadi, Ph.D.
Laboratory Director

Certifications: FL (DOH E83510), NC (573), NJ (FL002), MA (FL946), IA (366), LA (03051), KS (E-10327), SC, AK
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Sample Summary

EEI

Job No: F23512

Bldg. 4158/Camp Lejeune, NC
Project No: CTO-010

Sample Number	Collected Date	Time By	Received	Matrix Code Type	Client Sample ID
F23512-1	04/16/04	11:30 BS	04/17/04	AQ Ground Water	UST4158-MW09
F23512-2	04/16/04	10:55 BS	04/17/04	AQ Ground Water	UST4158-MW17
F23512-3	04/16/04	10:25 BS	04/17/04	AQ Ground Water	UST4158-MW10
F23512-4	04/16/04	09:45 BS	04/17/04	AQ Ground Water	UST4158-MW14
F23512-5	04/16/04	00:00 BS	04/17/04	AQ Trip Blank Water	TRIP BLANK

Accutest Laboratories Southeast, Inc.
Analytical Narrative

Client: EEI

Job No: F23512

Site: Bldg. 4158/Camp Lejeune, NC

Report Date 5/6/2004

4 Samples, 1 Trip Blank were collected on 04/16/2004 and were received at Accutest on 04/17/2004 properly preserved, at 3.8 Deg. C and intact. These Samples received an Accutest job number of F23512. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified holding times, calibrations and quality control performance criteria were met.

Volatiles by GC By Method EPA 601/602

Matrix: AQ

Batch ID: GEF3125

All samples were run within holding times.

All method blanks for this batch passed with no positive results

Samples F23597-4MS, F23597-4MSD were used as the QC samples indicated.

Matrix: AQ

Batch ID: GEF3126

All samples were run within holding times.

All method blanks for this batch passed with no positive results

Samples F23659-1MS, F23659-1MSD were used as the QC samples indicated.

F23512-1: All hits confirmed by dual column analysis.

Extractables by GC By Method EPA 610

Matrix: AQ

Batch ID: OP10269

All samples were extracted within holding time for method

All samples were run within holding times.

Samples F23496-3MS, F23496-3MSD were used as the QC samples indicated.

All method blanks for this batch passed with no positive results

Recoveries for 1-Methylnaphthalene, 2-Methylnaphthalene are outside control limits in the MS/MSD. The Blank Spike is within control limits. Data not adversely affected.

Sample F23512-1 (UST4158-MW09) have surrogates outside control limits due to a dilution. 20X dilution required due to matrix interference.

Accutest Laboratories Southeast, Inc. certifies that this report meets the project requirements for analytical data produced for the samples as received at the Accutest Laboratories Southeast location as stated in the Analytical Task Order and the COC. In addition, Accutest Laboratories Southeast, Inc. certifies that data as reported meet the Data Quality Objectives for precision, accuracy and completeness as specified in the Accutest Laboratories Southeast, Inc. Quality Manual for other than conditions detailed above. It is recommended by Accutest Laboratories Southeast, Inc. that this report is to be used in its entirety. Accutest Laboratories Southeast, Inc. is not responsible for any assumptions of data quality if partial data packages are used to interpret data. The Accutest Laboratories Southeast, Inc. Laboratory Director as verified by the signature on the front page has authorized release of this report.

Narrative prepared by:

Date: May 06, 2004

Sue O. Bell, Project Manager (signature on file)

Report of Analysis

Client Sample ID: UST4158-MW09
 Lab Sample ID: F23512-1
 Matrix: AQ - Ground Water
 Method: EPA 601/602
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 04/16/04
 Date Received: 04/17/04
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EF038241.D	1	04/29/04	CV	n/a	n/a	GEF3126
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	20.3	1.0	0.50	ug/l	
108-88-3	Toluene	7.3	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	5.2	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	62.3	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	2.2	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	103%		70-123%
98-08-8	aaa-Trifluorotoluene	99%		73-122%

(a) All hits confirmed by dual column analysis.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UST4158-MW09	Date Sampled:	04/16/04
Lab Sample ID:	F23512-1	Date Received:	04/17/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	IJ19766.D	20	05/03/04	SM	04/23/04	OP10269	GIJ963
Run #2							

Run #	Initial Volume	Final Volume
Run #1	900 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	110	44	ug/l	
208-96-8	Acenaphthylene	ND	110	44	ug/l	
120-12-7	Anthracene	ND	110	44	ug/l	
56-55-3	Benzo(a)anthracene	ND	110	44	ug/l	
50-32-8	Benzo(a)pyrene	ND	110	44	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	110	44	ug/l	
191-24-2	Benzo(g,b,i)perylene	ND	110	44	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	110	44	ug/l	
218-01-9	Chrysene	ND	110	44	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	110	44	ug/l	
206-44-0	Fluoranthene	ND	110	44	ug/l	
86-73-7	Fluorene	ND	110	44	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	44	ug/l	
91-20-3	Naphthalene	ND	110	44	ug/l	
90-12-0	1-Methylnaphthalene	ND	110	44	ug/l	
91-57-6	2-Methylnaphthalene	ND	110	44	ug/l	
85-01-8	Phenanthrene	ND	110	44	ug/l	
129-00-0	Pyrene	ND	110	44	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	0% ^b		42-123%
84-15-1	o-Terphenyl	0% ^b		51-123%

(a) Dilution required due to matrix interference.

(b) Outside control limits due to dilution.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: UST4158-MW17
 Lab Sample ID: F23512-2
 Matrix: AQ - Ground Water
 Method: EPA 601/602
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 04/16/04
 Date Received: 04/17/04
 Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EF038220.D	1	04/29/04	CV	n/a	n/a	GEF3125
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	31.9	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	92%		70-123%
98-08-8	aaa-Trifluorotoluene	97%		73-122%

(a) All hits confirmed by dual column analysis.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UST4158-MW17	Date Sampled:	04/16/04
Lab Sample ID:	F23512-2	Date Received:	04/17/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Bldg. 4158/Camp Lejeune, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ19746.D	1	05/01/04	SM	04/23/04	OP10269	G1J962
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.0	2.0	ug/l	
208-96-8	Acenaphthylene	ND	5.0	2.0	ug/l	
120-12-7	Anthracene	ND	5.0	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	2.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	2.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	2.0	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	2.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	2.0	ug/l	
218-01-9	Chrysene	ND	5.0	2.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	2.0	ug/l	
206-44-0	Fluoranthene	ND	5.0	2.0	ug/l	
86-73-7	Fluorene	ND	5.0	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	2.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	2.0	ug/l	
85-01-8	Phenanthrene	ND	5.0	2.0	ug/l	
129-00-0	Pyrene	ND	5.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	89%		42-123%
84-15-1	o-Terphenyl	94%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: UST4158-MW10
Lab Sample ID: F23512-3
Matrix: AQ - Ground Water
Method: EPA 601/602
Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 04/16/04
Date Received: 04/17/04
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF038216.D	1	04/29/04	CV	n/a	n/a	GEF3125
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ng/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	86%		70-123%
98-08-8	aaa-Trifluorotoluene	90%		73-122%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UST4158-MW10	Date Sampled:	04/16/04
Lab Sample ID:	F23512-3	Date Received:	04/17/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Bldg. 4158/Camp Lejeune, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ19747.D	1	05/01/04	SM	04/23/04	OP10269	GJ962
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.0	2.0	ug/l	
208-96-8	Acenaphthylene	ND	5.0	2.0	ug/l	
120-12-7	Anthracene	ND	5.0	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	2.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	2.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	2.0	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	2.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	2.0	ug/l	
218-01-9	Chrysene	ND	5.0	2.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	2.0	ug/l	
206-44-0	Fluoranthene	ND	5.0	2.0	ug/l	
86-73-7	Fluorene	ND	5.0	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	2.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	2.0	ug/l	
85-01-8	Phenanthrene	ND	5.0	2.0	ug/l	
129-00-0	Pyrene	ND	5.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	74%		42-123%
84-15-1	o-Terphenyl	96%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UST4158-MW14	Date Sampled:	04/16/04
Lab Sample ID:	F23512-4	Date Received:	04/17/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Bldg. 4158/Camp Lejeune, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF038217.D	1	04/29/04	CV	n/a	n/a	GEF3125
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	84%		70-123%
98-08-8	aaa-Trifluorotoluene	87%		73-122%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UST4158-MW14	Date Sampled:	04/16/04
Lab Sample ID:	F23512-4	Date Received:	04/17/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	IJ19748.D	1	05/01/04	SM	04/23/04	OP10269	GIJ962

Run #1	Initial Volume	Final Volume
Run #2	990 ml	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.1	2.0	ug/l	
208-96-8	Acenaphthylene	ND	5.1	2.0	ug/l	
120-12-7	Anthracene	ND	5.1	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.1	2.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.1	2.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.1	2.0	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.1	2.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.1	2.0	ug/l	
218-01-9	Chrysene	ND	5.1	2.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.1	2.0	ug/l	
206-44-0	Fluoranthene	ND	5.1	2.0	ug/l	
86-73-7	Fluorene	ND	5.1	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.1	2.0	ug/l	
91-20-3	Naphthalene	ND	5.1	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.1	2.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.1	2.0	ug/l	
85-01-8	Phenanthrene	ND	5.1	2.0	ug/l	
129-00-0	Pyrene	ND	5.1	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	60%		42-123%
84-15-1	o-Terphenyl	84%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: TRIP BLANK
Lab Sample ID: F23512-5
Matrix: AQ - Trip Blank Water
Method: EPA 601/602
Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 04/16/04
Date Received: 04/17/04
Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF038218.D	1	04/29/04	CV	n/a	n/a	GEF3125
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	85%		70-123%
98-08-8	aaa-Trifluorotoluene	91%		73-122%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

4408 VINELAND ROAD • SUITE C-15
ORLANDO, FL 32811
TEL: 407-425-6700 • FAX: 407-425-0707

ACCUTEST JOB #

F23512

CLIENT INFORMATION

FACILITY INFORMATION

ANALYTICAL INFORMATION

MATRIX CODES

Engineering + Environment Inc.
NAME
824 Gum Branch rd Suite S
ADDRESS
Jacksonville NC 28540
CITY, STATE ZIP

Proj 4158 / CTO 010
PROJECT NAME

LOCATION

PROJECT NO.

SEND REPORT TO:
PHONE # 910-989-3214

FAX # 910-989-3341

DW - DRINKING WATER
GW - GROUND WATER
WW - WASTE WATER
SQ - SOIL
SL - SLUDGE
OI - OIL
LIQ - OTHER LIQUID
SOL - OTHER SOLID

ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION		SAMPLED BY	MATRIX	# OF BOTTLES	PRESERVATION						LAB USE ONLY
		DATE	TIME				HCl	NOH	NOH2	NOH3	NOH4	NOH5	
1	UST 4158-MW09	4/16/04	11:30	BS	GW	5	X					X	3 2
2	UST 4158-MW17	4/16/04	10:55	BS	GW	5	X					X	3 2
3	UST 4158-MW10	4/16/04	10:25	BS	GW	5	X					X	3 2
4	UST 4158-MW14	4/16/04	09:45	BS	GW	5	X					X	3 2
5	Trip blank	4/16/04	13:10										

DATA TURNAROUND INFORMATION

DATA DELIVERABLE INFORMATION

COMMENTS/REMARKS

☒ STANDARD
☐ 48 HOUR RUSH
☐ 24 HOUR EMERGENCY
☐ OTHER

APPROVED BY:

☐ STANDARD
☐ COMMERCIAL "B"
☐ DISK DELIVERABLE
☐ STATE FORMS
☒ OTHER (SPECIFY) NECSG

EMERGENCY OR RUSH IS FAX DATA
UNLESS PREVIOUSLY APPROVED

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

RELINQUISHED BY: 1. <u>Det. J. L. Smith</u>	DATE/TIME:	RECEIVED BY: 1. <u>FED X</u>	DATE/TIME:	RELINQUISHED BY: 2. <u>FED X</u>	DATE/TIME:	RECEIVED BY: 2. <u>2. J. L. Smith</u>
RELINQUISHED BY: 3.	DATE/TIME:	RECEIVED BY: 3.	DATE/TIME:	RELINQUISHED BY: 4.	DATE/TIME:	RECEIVED BY:
RELINQUISHED BY: 5.	DATE/TIME:	RECEIVED BY: 5.	DATE/TIME:	RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:

SEAL # 3-8

PRESERVE WHERE APPLICABLE

ON ICE

TEMPERATURE

ACCUTEST LABORATORIES SOUTHEAST SAMPLE RECEIPT CONFIRMATION

Accutest's Job Number: F23512
 Client: ENGINEERING + ENVIRONMENT Project: BLDG 4158/CTD 016
 Date Received: 4/17/04 Time Received: 10:00
 # of Coolers Received: 1 Cooler Temperatures: 3.8
 Delivery Method: FedEx UPS Accutest Courier Greyhound Delivery Other
 Air Bill Number: _____

Cooler Custody Seals Intact ?	<u>Yes</u>	No
Chain of Custody Provided ?	<u>Yes</u>	No
COC Match Bottle Label ID's ?	<u>Yes</u>	No
Sample Labels Present on all bottles ?	<u>Yes</u>	No
All Analyses Marked On COC ?	<u>Yes</u>	No
Are All Bottles Intact ?	<u>Yes</u>	No
Samples Preserved Correctly ?	<u>Yes</u>	No
Correct Number of Containers Used ?	<u>Yes</u>	No
Sufficient Sample Volume ?	<u>Yes</u>	No
Trip Blank Provided ?	<u>Yes</u>	No
Trip Blank on COC ?	<u>Yes</u>	No
Trip Blank Intact ?	<u>Yes</u>	No N/A
Trip Blank Matrix ?	Soil <u>Water</u>	N/A
Number of Encores ?	<u>0</u>	
Number of Soil Field Kits ?	<u>0</u>	

Summary of Comments: _____

Signature: [Signature] Date: 4/17/04

Review Signature: _____

ASBD 12/30/03

F23512: Chain of Custody
 Page 2 of 2

GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Page 1 of 1

Job Number: F23512
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GEF3125-MB	EF038203.D	1	04/28/04	CV	n/a	n/a	GEF3125

The QC reported here applies to the following samples:

Method: EPA 601/602

F23512-2, F23512-3, F23512-4, F23512-5

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Limits
352-33-0	1-Chloro-4-fluorobenzene	89% 70-123%
98-08-8	aaa-Trifluorotoluene	92% 73-122%

Method Blank Summary

Page 1 of 1

Job Number: F23512
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GEF3126-MB	EF038240.D 1		04/29/04	CV	n/a	n/a	GEF3126

The QC reported here applies to the following samples:

Method: EPA 601/602

F23512-1

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
352-33-0	1-Chloro-4-fluorobenzene	90%	70-123%
98-08-8	aaa-Trifluorotoluene	95%	73-122%

Blank Spike Summary

Page 1 of 1

Job Number: F23512
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GEF3125-BS	EF038202.D	1	04/28/04	CV	n/a	n/a	GEF3125

The QC reported here applies to the following samples:

Method: EPA 601/602

F23512-2, F23512-3, F23512-4, F23512-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	19.4	97	86-121
100-41-4	Ethylbenzene	20	19.2	96	81-126
1634-04-4	Methyl Tert Butyl Ether	20	19.0	95	76-117
108-88-3	Toluene	20	19.4	97	82-123
1330-20-7	Xylenes (total)	60	58.1	97	82-125

CAS No.	Surrogate Recoveries	BSP	Limits
352-33-0	1-Chloro-4-fluorobenzene	97%	70-123%
98-08-8	aaa-Trifluorotoluene	96%	73-122%

Blank Spike Summary

Page 1 of 1

Job Number: F23512
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GEF3126-BS	EF038239.D 1		04/29/04	CV	n/a	n/a	GEF3126

The QC reported here applies to the following samples:

Method: EPA 601/602

F23512-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	19.1	96	86-121
100-41-4	Ethylbenzene	20	18.6	93	81-126
1634-04-4	Methyl Tert Butyl Ether	20	18.3	92	76-117
108-88-3	Toluene	20	18.9	95	82-123
1330-20-7	Xylenes (total)	60	56.2	94	82-125

CAS No.	Surrogate Recoveries	BSP	Limits
352-33-0	1-Chloro-4-fluorobenzene	99%	70-123%
98-08-8	aaa-Trifluorotoluene	100%	73-122%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: F23512
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F23597-4MS	EF038205.D	1	04/28/04	CV	n/a	n/a	GEF3125
F23597-4MSD	EF038206.D	1	04/28/04	CV	n/a	n/a	GEF3125
F23597-4	EF038204.D	1	04/28/04	CV	n/a	n/a	GEF3125

The QC reported here applies to the following samples:

Method: EPA 601/602

F23512-2, F23512-3, F23512-4, F23512-5

CAS No.	Compound	F23597-4 ug/l	Spike Q	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	20	19.6	98	19.5	98	1	77-125/6
100-41-4	Ethylbenzene	ND	20	19.3	97	18.9	95	2	74-127/6
1634-04-4	Methyl Tert Butyl Ether	ND	20	19.8	99	18.9	95	5	66-127/9
108-88-3	Toluene	ND	20	19.7	99	19.5	98	1	77-124/5
1330-20-7	Xylenes (total)	ND	60	57.6	96	56.7	95	2	76-125/5

CAS No.	Surrogate Recoveries	MS	MSD	F23597-4	Limits
352-33-0	1-Chloro-4-fluorobenzene	99%	98%	75%	70-123%
98-08-8	aaa-Trifluorotoluene	97%	98%	78%	73-122%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: F23512
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F23659-1MS	EF038247.D	1	04/29/04	CV	n/a	n/a	GEF3126
F23659-1MSD	EF038248.D	1	04/29/04	CV	n/a	n/a	GEF3126
F23659-1 ^a	EF038246.D	1	04/29/04	CV	n/a	n/a	GEF3126

The QC reported here applies to the following samples:

Method: EPA 601/602

F23512-1

CAS No.	Compound	F23659-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		20	18.9	95	18.8	94	1	77-125/6
100-41-4	Ethylbenzene	1.6		20	20.1	93	19.7	91	2	74-127/6
1634-04-4	Methyl Tert Butyl Ether	0.81	J	20	19.3	92	19.0	91	2	66-127/9
108-88-3	Toluene	0.63	J	20	19.2	93	19.1	92	1	77-124/5
1330-20-7	Xylenes (total)	ND		60	55.6	93	54.7	91	2	76-125/5

CAS No.	Surrogate Recoveries	MS	MSD	F23659-1	Limits
352-33-0	1-Chloro-4-fluorobenzene	96%	100%	91%	70-123%
98-08-8	aaa-Trifluorotoluene	97%	101%	96%	73-122%

(a) All hits confirmed by dual column analysis.

Volatile Surrogate Recovery Summary

Page 1 of 1

Job Number: F23512
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Method: EPA 601/602 Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a	S2 ^a
F23512-1	EF038241.D	103.0	99.0
F23512-2	EF038220.D	92.0	97.0
F23512-3	EF038216.D	86.0	90.0
F23512-4	EF038217.D	84.0	87.0
F23512-5	EF038218.D	85.0	91.0
F23597-4MS	EF038205.D	99.0	97.0
F23597-4MSD	EF038206.D	98.0	98.0
F23659-1MS	EF038247.D	96.0	97.0
F23659-1MSD	EF038248.D	100.0	101.0
GEF3125-BS	EF038202.D	97.0	96.0
GEF3125-MB	EF038203.D	89.0	92.0
GEF3126-BS	EF038239.D	99.0	100.0
GEF3126-MB	EF038240.D	90.0	95.0

Surrogate Compounds	Recovery Limits

S1 = 1-Chloro-4-fluorobenzene	70-123%
S2 = aaa-Trifluorotoluene	73-122%

(a) Recovery from GC signal #2

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F23512
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GEF3125-CC3086	Injection Date:	04/28/04
Lab File ID:	EF038208.D	Injection Time:	23:45
Instrument ID:	GCEF	Method:	EPA 601/602

	S1 ^a RT	S2 ^a RT
Check Std	8.86	5.78

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
ZZZZZZ	EF038209.D	04/29/04	00:09	8.86	5.78
ZZZZZZ	EF038210.D	04/29/04	00:33	8.86	5.78
ZZZZZZ	EF038211.D	04/29/04	01:00	8.86	5.78
ZZZZZZ	EF038212.D	04/29/04	01:24	8.86	5.78
ZZZZZZ	EF038213.D	04/29/04	01:49	8.86	5.78
ZZZZZZ	EF038214.D	04/29/04	02:13	8.86	5.78
ZZZZZZ	EF038215.D	04/29/04	02:38	8.86	5.78
F23512-3	EF038216.D	04/29/04	03:02	8.86	5.78
F23512-4	EF038217.D	04/29/04	03:26	8.86	5.78
F23512-5	EF038218.D	04/29/04	03:50	8.86	5.78

Surrogate Compounds

S1 = 1-Chloro-4-fluorobenzene
S2 = aaa-Trifluorotoluene

(a) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F23512
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GEF3125-CC3086	Injection Date:	04/29/04
Lab File ID:	EF038219.D	Injection Time:	04:15
Instrument ID:	GCEF	Method:	EPA 601/602

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	9.06	8.86	6.00	5.78

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
F23512-2	EF038220.D	04/29/04	04:39		8.86		5.78
ZZZZZZ	EF038221.D	04/29/04	05:03		8.86		5.78
ZZZZZZ	EF038222.D	04/29/04	05:27		8.86		5.78
ZZZZZZ	EF038223.D	04/29/04	05:52		8.86		5.78
ZZZZZZ	EF038224.D	04/29/04	06:16		8.86		5.78
ZZZZZZ	EF038225.D	04/29/04	06:40		8.86		5.78
ZZZZZZ	EF038226.D	04/29/04	07:07		8.86		5.78
GEF3125-ECC3086	EF038230.D	04/29/04	08:49	9.07	8.86	6.00	5.78

Surrogate Compounds

S1 = 1-Chloro-4-fluorobenzene
S2 = aaa-Trifluorotoluene

- (a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F23512
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GEF3126-ICC3126	Injection Date:	04/29/04
Lab File ID:	EF038234.D	Injection Time:	11:35
Instrument ID:	GCEF	Method:	EPA 601/602

	S1 ^a RT	S2 ^a RT
Check Std	8.86	5.78

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
GEF3126-BS	EF038239.D	04/29/04	13:36	8.86	5.78
GEF3126-MB	EF038240.D	04/29/04	14:01	8.86	5.78
F23512-1	EF038241.D	04/29/04	14:25	8.86	5.78
ZZZZZZ	EF038242.D	04/29/04	14:49	8.86	5.78
ZZZZZZ	EF038243.D	04/29/04	15:16	8.86	5.78
ZZZZZZ	EF038244.D	04/29/04	15:43	8.86	5.78
ZZZZZZ	EF038245.D	04/29/04	16:09	8.86	5.78
F23659-1	EF038246.D	04/29/04	16:34	8.86	5.78
F23659-1MS	EF038247.D	04/29/04	16:58	8.86	5.78
F23659-1MSD	EF038248.D	04/29/04	17:22	8.86	5.78

Surrogate Compounds

S1 = 1-Chloro-4-fluorobenzene
S2 = aaa-Trifluorotoluene

(a) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F23512
Account: EEINCJX EE1
Project: Bldg. 4158/Camp Lejeune, NC

Check Std: GEF3124-CC3086	Injection Date: 04/28/04
Lab File ID: EF038197.D	Injection Time: 19:11
Instrument ID: GCEF	Method: EPA 601/602

	S1 ^a RT	S2 ^a RT
Check Std	8.86	5.78

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
ZZZZZZ	EF038199.D	04/28/04	20:04	8.86	5.78
ZZZZZZ	EF038200.D	04/28/04	20:31	8.86	5.78
GEF3125-BS	EF038202.D	04/28/04	21:19	8.86	5.78
GEF3125-MB	EF038203.D	04/28/04	21:43	8.86	5.78
F23597-4	EF038204.D	04/28/04	22:08	8.86	5.78
F23597-4MS	EF038205.D	04/28/04	22:32	8.85	5.78
F23597-4MSD	EF038206.D	04/28/04	22:56	8.86	5.78
ZZZZZZ	EF038207.D	04/28/04	23:20	8.86	5.78

Surrogate Compounds

S1 = 1-Chloro-4-fluorobenzene
S2 = aaa-Trifluorotoluene

(a) Retention time from GC signal #2

Initial Calibration Summary

Page 1 of 1

Job Number: F23512
 Account: EEINCJX EEI
 Project: Bldg. 4158/Camp Lejeune, NC

Sample: GEF3086-ICC3086
 Lab FileID: EF037161.D

Response Factor Report VOA1

Method : C:\HPCHEM\1\METHODS\DUALL0402.M (Chemstation Integrator)
 Title : EPA 602 & 5030B/8021B
 Last Update : Wed Feb 18 11:36:12 2004
 Response via : Initial Calibration

Calibration Files

1 =EF037159.D 2 =EF037160.D 3 =EF037161.D
 4 =EF037162.D 5 =EF037163.D 6 =EF037164.D

	Compound	1	2	3	4	5	6	Avg	%RSD
1)	Methyl tert Butyl E	1.276	1.624	1.510	1.675	1.631	1.566	1.547	E3 9.35
2)	Di-Isopropyl ether	2.195	2.821	2.627	2.787	2.746	2.703	2.647	E3 8.75
3)	Benzene	5.074	6.259	5.893	6.187	6.179	6.135	5.954	E3 7.55
4) S	a,a,a-TFT(S)	1.816	1.751	1.810	1.883	1.902	1.835	1.833	E3 2.96
5)	Toluene	4.447	5.300	5.081	5.290	5.328	5.315	5.127	E3 6.74
6) S	1-Chloro-4-Fluorobe	2.666	2.537	2.768	2.891	2.954	2.841	2.776	E3 5.54
7)	Chlorobenzene		5.488	4.881	5.056	5.172	5.072	5.134	E3 4.36
8)	Ethylbenzene		4.645	4.219	4.323	4.384	4.330	4.380	E3 3.65
9)	m,p-Xylene	4.248	4.839	4.620	4.836	4.868	4.804	4.702	E3 5.10
10)	o-Xylene	3.771	4.371	4.167	4.318	4.362	4.284	4.212	E3 5.42
11)	1,3-Dichlorobenzene	3.666	2.970	3.187	3.434	3.643	3.553	3.409	E3 8.13
12)	1,4-Dichlorobenzene	3.918	3.096	3.357	3.669	3.918	3.769	3.621	E3 9.13
13)	1,2-Dichlorobenzene	2.745	1.809	2.000	2.240	2.393	2.267	2.242	E3 14.42
----- Linear regression ----- Coefficient = 0.9979									
Response Ratio = -2125.74861 + 2323.29160 *A									

Signal #2

1)	Methyl tert Butyl E		1.365	1.247	1.369	1.338	1.274	1.319	E3 4.21
2)	Di-Isopropyl ether	1.673	2.214	2.089	2.219	2.176	2.128	2.083	E3 9.95
3)	Benzene	4.014	5.079	4.907	5.118	5.097	5.073	4.881	E3 8.84
4) S	a,a,a-TFT(S)	1.410	1.379	1.437	1.481	1.501	1.447	1.443	E3 3.09
5)	Toluene	3.443	4.219	4.126	4.338	4.358	4.296	4.130	E3 8.41
6) S	1-Chloro-4-Fluorobe	1.952	1.916	2.112	2.229	2.271	2.182	2.110	E3 6.95
7)	Chlorobenzene		4.876	4.177	4.291	4.296	4.218	4.372	E3 6.55
8)	Ethylbenzene	3.506	3.808	3.622	3.705	3.735	3.648	3.671	E3 2.84
9)	m,p-Xylene	3.469	4.060	3.903	4.091	4.162	4.064	3.958	E3 6.42
10)	o-Xylene	2.878	3.399	3.368	3.500	3.455	3.400	3.333	E3 6.84
11)	1,3-Dichlorobenzene	2.789	2.342	2.544	2.827	2.936	2.800	2.706	E3 8.13
12)	1,4-Dichlorobenzene	2.761	2.369	2.561	2.797	2.912	2.843	2.707	E3 7.52
13)	1,2-Dichlorobenzene	2.077	1.463	1.654	1.840	2.001	1.883	1.820	E3 12.49
----- Linear regression ----- Coefficient = 0.9974									
Response Ratio = -2078.61480 + 1936.41963 *A									

 (#) = Out of Range

DUALL0402.M

Mon Apr 05 09:15:09 2004 EF

Continuing Calibration Summary

Page 1 of 1

Job Number: F23512
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GEF3124-CC3086
Lab FileID: EF038197.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\042804\EF038197.D\FID1A.CH Vial: 22
Signal #2 : C:\HPCHEM\1\DATA\042804\EF038197.D\FID2B.CH
Acq On : 28 Apr 2004 7:11 pm Operator: ClaireV
Sample : cc3086-20 Inst : VOA1
Misc : gc3435,gef3124,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL0402.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Wed Apr 28 10:57:10 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	20.567	-2.8	105	0.00
2	Di-Isopropyl ether	20.000	19.417	2.9	98	0.00
3	Benzene	20.000	19.293	3.5	97	0.00
4 S	a,a,a-TFT(S)	20.000	19.333	3.3	98	0.00
5	Toluene	20.000	19.162	4.2	97	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	19.453	2.7	98	0.00
7	Chlorobenzene	20.000	18.800	6.0	99	0.00
8	Ethylbenzene	20.000	18.704	6.5	97	0.00
9	m,p-Xylene	40.000	38.349	4.1	98	0.00
10	o-Xylene	20.000	19.525	2.4	99	0.00
11	1,3-Dichlorobenzene	20.000	20.308	-1.5	109	0.00
12	1,4-Dichlorobenzene	20.000	20.826	-4.1	112	0.00
13	1,2-Dichlorobenzene	20.000	21.604	-8.0	120	0.00

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	19.320	3.4	102	0.00
2	Di-Isopropyl ether	20.000	18.784	6.1	94	0.00
3	Benzene	20.000	18.625	6.9	93	0.00
4 S	a,a,a-TFT(S)	20.000	18.584	7.1	93	0.00
5	Toluene	20.000	18.689	6.6	94	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	18.832	5.8	94	0.00
7	Chlorobenzene	20.000	17.971	10.1	94	0.00
8	Ethylbenzene	20.000	18.189	9.1	92	0.00
9	m,p-Xylene	40.000	36.711	8.2	93	0.00
10	o-Xylene	20.000	18.859	5.7	93	0.00
11	1,3-Dichlorobenzene	20.000	19.734	1.3	105	0.00
12	1,4-Dichlorobenzene	20.000	20.112	-0.6	106	0.00
13	1,2-Dichlorobenzene	20.000	21.374	-6.9	119	0.00

Average % D = 5.0

(#) = Out of Range
EF037161.D DUAL0402.M

SPCC's out = 0 CCC's out = 0
Thu Apr 29 09:10:33 2004 EF

Continuing Calibration Summary

Page 1 of 1

Job Number: F23512
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GEF3125-CC3086
Lab FileID: EF038208.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\042804\EF038208.D\FID1A.CH Vial: 32
Signal #2 : C:\HPCHEM\1\DATA\042804\EF038208.D\FID28.CH
Acq On : 28 Apr 2004 11:45 pm Operator: ClaireV
Sample : cc3086-20 Inst : VOA1
Misc : gc3434,gef3125,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL0402.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Wed Apr 28 10:57:10 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	20.700	-3.5	106	0.00
2	Di-Isopropyl ether	20.000	19.560	2.2	99	0.00
3	Benzene	20.000	19.438	2.8	98	0.00
4 S	a,a,a-TFT(S)	20.000	19.741	1.3	100	0.00
5	Toluene	20.000	19.232	3.8	97	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	19.698	1.5	99	0.00
7	Chlorobenzene	20.000	18.650	6.8	98	0.00
8	Ethylbenzene	20.000	18.482	7.6	96	0.00
9	m,p-Xylene	40.000	37.727	5.7	96	0.00
10	o-Xylene	20.000	19.150	4.3	97	0.00
11	1,3-Dichlorobenzene	20.000	19.204	4.0	103	0.00
12	1,4-Dichlorobenzene	20.000	19.635	1.8	106	0.00
13	1,2-Dichlorobenzene	20.000	20.452	-2.3	113	0.00

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	19.402	3.0	103	0.00
2	Di-Isopropyl ether	20.000	19.032	4.8	95	0.00
3	Benzene	20.000	19.001	5.0	95	0.00
4 S	a,a,a-TFT(S)	20.000	19.203	4.0	96	0.00
5	Toluene	20.000	18.858	5.7	94	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	19.235	3.8	96	0.00
7	Chlorobenzene	20.000	17.961	10.2	94	0.00
8	Ethylbenzene	20.000	18.191	9.0	92	0.00
9	m,p-Xylene	40.000	36.373	9.1	92	0.00
10	o-Xylene	20.000	18.659	6.7	92	0.00
11	1,3-Dichlorobenzene	20.000	18.611	6.9	99	0.00
12	1,4-Dichlorobenzene	20.000	19.048	4.8	101	0.00
13	1,2-Dichlorobenzene	20.000	19.472	2.6	108	0.00

Average % D = 4.7

(#) = Out of Range
EF037161.D DUAL0402.M

SPCC's out = 0 CCC's out = 0
Thu Apr 29 09:10:35 2004 EF

Continuing Calibration Summary

Page 1 of 1

Job Number: F23512
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GEF3125-CC3086
Lab FileID: EF038219.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\042804\EF038219.D\FID1A.CH Vial: 43
Signal #2 : C:\HPCHEM\1\DATA\042804\EF038219.D\FID2B.CH
Acq On : 29 Apr 2004 4:15 am Operator: ClaireV
Sample : cc3086-20 Inst : VOA1
Misc : gc3440,gef3125,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL0402.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Wed Apr 28 10:57:10 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	20.245	-1.2	104	0.00
2	Di-Isopropyl ether	20.000	18.973	5.1	96	0.00
3	Benzene	20.000	18.261	8.7	92	0.00
4 S	a,a,a-TFT(S)	20.000	19.628	1.9	99	0.00
5	Toluene	20.000	18.122	9.4	91	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	19.822	0.9	99	0.00
7	Chlorobenzene	20.000	18.182	9.1	96	0.00
8	Ethylbenzene	20.000	18.085	9.6	94	0.00
9	m,p-Xylene	40.000	37.004	7.5	94	0.00
10	o-Xylene	20.000	18.781	6.1	95	0.00
11	1,3-Dichlorobenzene	20.000	19.369	3.2	104	0.00
12	1,4-Dichlorobenzene	20.000	19.592	2.0	106	0.00
13	1,2-Dichlorobenzene	20.000	21.057	-5.3	117	0.00

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	19.337	3.3	102	0.00
2	Di-Isopropyl ether	20.000	18.630	6.9	93	0.00
3	Benzene	20.000	18.088	9.6	90	0.00
4 S	a,a,a-TFT(S)	20.000	19.172	4.1	96	0.00
5	Toluene	20.000	17.952	10.2	90	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	19.316	3.4	97	0.00
7	Chlorobenzene	20.000	17.609	12.0	92	0.00
8	Ethylbenzene	20.000	17.808	11.0	90	0.00
9	m,p-Xylene	40.000	35.638	10.9	90	0.00
10	o-Xylene	20.000	18.485	7.6	91	0.00
11	1,3-Dichlorobenzene	20.000	18.850	5.7	100	0.00
12	1,4-Dichlorobenzene	20.000	19.187	4.1	101	0.00
13	1,2-Dichlorobenzene	20.000	20.471	-2.4	114	0.00

Average % D = 6.2

(#) = Out of Range
EF037161.D DUAL0402.M

SPCC's out = 0 CCC's out = 0
Thu Apr 29 09:10:36 2004 EF

Continuing Calibration Summary

Page 1 of 1

Job Number: F23512
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GEF3125-ECC3086
Lab FileID: EF038230.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\042804\EF038230.D\FID1A.CH Vial: 3
Signal #2 : C:\HPCHEM\1\DATA\042804\EF038230.D\FID2B.CH
Acq On : 29 Apr 2004 8:49 am Operator: ClaireV
Sample : ecc3086-20 Inst : VOA1
Misc : gc3440,gef3125,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL0402.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Wed Apr 28 10:57:10 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	22.514	-12.6	115	0.00
2	Di-Isopropyl ether	20.000	20.687	-3.4	104	0.00
3	Benzene	20.000	19.122	4.4	97	0.00
4 S	a,a,a-TFT(S)	20.000	20.617	-3.1	104	0.00
5	Toluene	20.000	18.827	5.9	95	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	20.802	-4.0	104	0.00
7	Chlorobenzene	20.000	18.880	5.6	99	0.00
8	Ethylbenzene	20.000	18.711	6.4	97	0.00
9	m,p-Xylene	40.000	38.297	4.3	97	0.00
10	o-Xylene	20.000	19.655	1.7	99	0.00
11	1,3-Dichlorobenzene	20.000	20.829	-4.1	111	0.00
12	1,4-Dichlorobenzene	20.000	20.912	-4.6	113	0.00
13	1,2-Dichlorobenzene	20.000	22.756	-13.8	127	0.00

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	21.837	-9.2	115	0.00
2	Di-Isopropyl ether	20.000	20.181	-0.9	101	0.00
3	Benzene	20.000	18.720	6.4	93	0.00
4 S	a,a,a-TFT(S)	20.000	19.912	0.4	100	0.00
5	Toluene	20.000	18.445	7.8	92	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	20.107	-0.5	100	0.00
7	Chlorobenzene	20.000	18.262	8.7	96	0.00
8	Ethylbenzene	20.000	18.170	9.1	92	0.02
9	m,p-Xylene	40.000	36.816	8.0	93	0.02
10	o-Xylene	20.000	19.222	3.9	95	0.00
11	1,3-Dichlorobenzene	20.000	20.088	-0.4	107	0.01
12	1,4-Dichlorobenzene	20.000	20.599	-3.0	109	0.00
13	1,2-Dichlorobenzene	20.000	21.936	-9.7	122	0.00

Average % D = 5.5

(#) = Out of Range
EF037161.D DUAL0402.M

SPCC's out = 0 CCC's out = 0
Thu Apr 29 09:10:37 2004 EF

Initial Calibration Summary

Page 1 of 1

Job Number: F23512
 Account: EEINCJX EEI
 Project: Bldg. 4158/Camp Lejeune, NC

Sample: GEF3126-ICC3126
 Lab FileID: EF038234.D

Response Factor Report V0A1

Method : C:\HPCHEM\1\METHODS\DUAL0429.M (Chemstation Integrator)
 Title : EPA 602 & 50308/8021B
 Last Update : Wed Apr 28 10:57:10 2004
 Response via : Initial Calibration

Calibration Files

1 =EF038232.D 2 =EF038233.D 3 =EF038234.D
 4 =EF038235.D 5 =EF038236.D 6 =EF038237.D

	Compound	1	2	3	4	5	6	Avg	%RSD
1)	Methyl tert Butyl E	1.503	1.871	1.826	1.866	1.741	1.844	1.775 E3	7.96
2)	Di-Isopropyl ether	2.922	3.164	3.060	3.025	2.886	2.969	3.005 E3	3.36
3)	Benzene	5.812	6.685	6.652	6.554	6.305	6.446	6.409 E3	5.06
4) S	a,a,a-TFT(S)	1.868	1.800	1.824	1.869	1.853	1.906	1.853 E3	2.01
5)	Toluene	5.111	5.722	5.732	5.677	5.469	5.588	5.550 E3	4.26
6) S	1-Chloro-4-Fluorobe	2.807	2.741	2.816	2.884	2.873	2.936	2.843 E3	2.42
7)	Chlorobenzene		5.956	5.634	5.535	5.297	5.455	5.575 E3	4.41
8)	Ethylbenzene		5.024	4.790	4.672	4.483	4.552	4.704 E3	4.55
9)	m,p-Xylene	4.913	5.292	5.216	5.208	5.035	5.073	5.123 E3	2.74
10)	o-Xylene	4.364	4.750	4.743	4.657	4.472	4.564	4.592 E3	3.36
11)	1,3-Dichlorobenzene	4.056	3.726	3.974	4.061	3.885	4.033	3.956 E3	3.30
12)	1,4-Dichlorobenzene	4.533	4.029	4.292	4.346	4.201	4.403	4.301 E3	4.03
13)	1,2-Dichlorobenzene	3.215	2.609	2.785	2.827	2.709	2.804	2.825 E3	7.33

Signal #2

1)	Methyl tert Butyl E	1.169	1.472	1.455	1.503	1.391	1.452	1.407 E3	8.69
2)	Di-Isopropyl ether	2.180	2.364	2.354	2.336	2.214	2.269	2.286 E3	3.39
3)	Benzene	4.472	5.244	5.350	5.225	5.003	5.140	5.072 E3	6.24
4) S	a,a,a-TFT(S)	1.403	1.363	1.399	1.430	1.418	1.461	1.412 E3	2.31
5)	Toluene	3.836	4.367	4.569	4.466	4.329	4.419	4.331 E3	5.93
6) S	1-Chloro-4-Fluorobe	2.011	1.982	2.102	2.142	2.144	2.193	2.096 E3	3.94
7)	Chlorobenzene		4.981	4.615	4.489	4.275	4.391	4.550 E3	5.97
8)	Ethylbenzene	3.922	3.973	3.960	3.861	3.715	3.781	3.869 E3	2.67
9)	m,p-Xylene	3.936	4.290	4.308	4.245	4.134	4.183	4.183 E3	3.28
10)	o-Xylene	3.225	3.621	3.710	3.631	3.461	3.523	3.529 E3	4.89
11)	1,3-Dichlorobenzene	2.949	2.793	3.112	3.129	3.024	3.100	3.018 E3	4.28
12)	1,4-Dichlorobenzene	3.082	2.858	3.155	3.167	3.091	3.198	3.092 E3	3.98
13)	1,2-Dichlorobenzene	2.403	2.011	2.247	2.290	2.197	2.251	2.233 E3	5.78

(#) = Out of Range

DUAL0429.M

Fri Apr 30 09:48:07 2004 EF

Continuing Calibration Summary

Page 1 of 1

Job Number: F23512
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GEF3126-CC3126
Lab FileID: EF038249.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\042904\EF038249.D\FID1A.CH Vial: 18
Signal #2 : C:\HPCHEM\1\DATA\042904\EF038249.D\FID2B.CH
Acq On : 29 Apr 2004 5:46 pm Operator: ClaireV
Sample : cc3126-20 Inst : VOA1
Misc : gc3444,gef3126,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL0429.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Wed Apr 28 10:57:10 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	20.610	-3.0	100	0.00
2	Di-Isopropyl ether	20.000	19.976	0.1	98	0.00
3	Benzene	20.000	20.428	-2.1	98	0.00
4 S	a,a,a-TFT(S)	20.000	19.737	1.3	100	0.00
5	Toluene	20.000	20.444	-2.2	99	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	19.688	1.6	99	0.00
7	Chlorobenzene	20.000	19.790	1.1	98	0.00
8	Ethylbenzene	20.000	20.003	-0.0	98	0.00
9	m,p-Xylene	40.000	40.475	-1.2	99	0.00
10	o-Xylene	20.000	20.411	-2.1	99	0.00
11	1,3-Dichlorobenzene	20.000	19.904	0.5	99	0.00
12	1,4-Dichlorobenzene	20.000	19.766	1.2	99	0.00
13	1,2-Dichlorobenzene	20.000	19.617	1.9	99	0.00

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	20.688	-3.4	100	0.00
2	Di-Isopropyl ether	20.000	20.124	-0.6	98	0.00
3	Benzene	20.000	20.743	-3.7	98	0.00
4 S	a,a,a-TFT(S)	20.000	19.708	1.5	99	0.00
5	Toluene	20.000	20.540	-2.7	97	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	19.746	1.3	98	0.00
7	Chlorobenzene	20.000	19.729	1.4	97	0.00
8	Ethylbenzene	20.000	20.093	-0.5	98	0.00
9	m,p-Xylene	40.000	40.127	-0.3	97	0.00
10	o-Xylene	20.000	20.474	-2.4	97	0.00
11	1,3-Dichlorobenzene	20.000	20.355	-1.8	99	0.00
12	1,4-Dichlorobenzene	20.000	20.099	-0.5	98	0.00
13	1,2-Dichlorobenzene	20.000	20.099	-0.5	100	0.00

Average % D = 1.5

(#) = Out of Range
EF038234.D DUAL0429.M

SPCC's out = 0 CCC's out = 0
Fri Apr 30 09:47:33 2004 EF

GC Semi-volatiles



QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Page 1 of 1

Job Number: F23512
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10269-MB	IJ19737.D	1	05/01/04	SM	04/23/04	OP10269	GIJ962

The QC reported here applies to the following samples:

Method: EPA 610

F23512-1, F23512-2, F23512-3, F23512-4

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.0	2.0	ug/l	
208-96-8	Acenaphthylene	ND	5.0	2.0	ug/l	
120-12-7	Anthracene	ND	5.0	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	2.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	2.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	2.0	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	2.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	2.0	ug/l	
218-01-9	Chrysene	ND	5.0	2.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	2.0	ug/l	
206-44-0	Fluoranthene	ND	5.0	2.0	ug/l	
86-73-7	Fluorene	ND	5.0	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	2.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	2.0	ug/l	
85-01-8	Phenanthrene	ND	5.0	2.0	ug/l	
129-00-0	Pyrene	ND	5.0	2.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
321-60-8	2-Fluorobiphenyl	85%	42-123%
84-15-1	o-Terphenyl	100%	51-123%

Method Blank Summary

Page 1 of 1

Job Number: F23512
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10269-MB	IJ19756.D	1	05/03/04	SM	04/23/04	OP10269	GIJ963

The QC reported here applies to the following samples:

Method: EPA 610

F23512-1, F23512-2, F23512-3, F23512-4

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.0	2.0	ug/l	
208-96-8	Acenaphthylene	ND	5.0	2.0	ug/l	
120-12-7	Anthracene	ND	5.0	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	2.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	2.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	2.0	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	2.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	2.0	ug/l	
218-01-9	Chrysene	ND	5.0	2.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	2.0	ug/l	
206-44-0	Fluoranthene	ND	5.0	2.0	ug/l	
86-73-7	Fluorene	ND	5.0	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	2.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	2.0	ug/l	
85-01-8	Phenanthrene	ND	5.0	2.0	ug/l	
129-00-0	Pyrene	ND	5.0	2.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
321-60-8	2-Fluorobiphenyl	85%	42-123%
84-15-1	o-Terphenyl	94%	51-123%

Blank Spike Summary

Page 1 of 1

Job Number: F23512
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10269-BS	IJ19736.D	1	05/01/04	SM	04/23/04	OP10269	GIJ962

The QC reported here applies to the following samples:

Method: EPA 610

F23512-1, F23512-2, F23512-3, F23512-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	25	21.8	87	71-113
208-96-8	Acenaphthylene	25	21.4	86	63-102
120-12-7	Anthracene	25	24.1	96	71-110
56-55-3	Benzo(a)anthracene	25	19.9	80	70-114
50-32-8	Benzo(a)pyrene	25	21.8	87	67-114
205-99-2	Benzo(b)fluoranthene	25	19.5	78	69-115
191-24-2	Benzo(g,h,i)perylene	25	22.6	90	61-117
207-08-9	Benzo(k)fluoranthene	25	24.3	97	69-111
218-01-9	Chrysene	25	24.7	99	70-114
53-70-3	Dibenzo(a,h)anthracene	25	22.7	91	64-114
206-44-0	Fluoranthene	25	22.4	90	71-114
86-73-7	Fluorene	25	21.8	87	69-111
193-39-5	Indeno(1,2,3-cd)pyrene	25	19.1	76	63-112
91-20-3	Naphthalene	25	20.1	80	66-105
90-12-0	1-Methylnaphthalene	25	22.6	90	71-112
91-57-6	2-Methylnaphthalene	25	19.6	78	65-106
85-01-8	Phenanthrene	25	20.3	81	69-112
129-00-0	Pyrene	25	22.8	91	70-114

CAS No.	Surrogate Recoveries	BSP	Limits
321-60-8	2-Fluorobiphenyl	86%	42-123%
84-15-1	o-Terphenyl	91%	51-123%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: F23512
Account: EEINCJX EE1
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10269-MS	IJ19759.D	4	05/03/04	SM	04/23/04	OP10269	GIJ963
OP10269-MSD	IJ19760.D	4	05/03/04	SM	04/23/04	OP10269	GIJ963
F23496-3	IJ19740.D	1	05/01/04	SM	04/23/04	OP10269	GIJ962
F23496-3 ^a	IJ19758.D	4	05/03/04	SM	04/23/04	OP10269	GIJ963

The QC reported here applies to the following samples:

Method: EPA 610

F23512-1, F23512-2, F23512-3, F23512-4

CAS No.	Compound	F23496-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		104	96.0	92	94.3	91	2	59-123/20
208-96-8	Acenaphthylene	ND		104	91.7	88	90.0	87	2	51-114/20
120-12-7	Anthracene	ND		104	98.2	94	90.8	78	8	64-114/17
56-55-3	Benzo(a)anthracene	ND		104	79.1	76	76.0	152	0	66-115/17
50-32-8	Benzo(a)pyrene	ND		104	95.5	92	98.0	94	3	62-118/17
205-99-2	Benzo(b)fluoranthene	ND		104	75.5	72	72.7	70	4	66-117/17
191-24-2	Benzo(g,h,i)perylene	ND		104	103	99	102	98	1	59-120/17
207-08-9	Benzo(k)fluoranthene	ND		104	111	106	114	109	3	64-116/16
218-01-9	Chrysene	ND		104	110	105	113	109	3	66-117/16
53-70-3	Dibenzo(a,h)anthracene	ND		104	103	99	102	98	1	57-124/18
206-44-0	Fluoranthene	ND		104	95.0	91	95.2	96	0	67-116/17
86-73-7	Fluorene	ND		104	92.8	89	99.3	95	7	58-122/19
193-39-5	Indeno(1,2,3-cd)pyrene	ND		104	77.1	74	77.0	74	0	59-116/18
91-20-3	Naphthalene	92.7 ^b		104	178	171	161	154	10	47-114/20
90-12-0	1-Methylnaphthalene	40.2 ^b		104	140	134	129	124	8	55-128/21
91-57-6	2-Methylnaphthalene	47.1 ^b		104	133	127	122	117	9	51-117/21
85-01-8	Phenanthrene	ND		104	85.5	82	84.3	81	1	63-116/18
129-00-0	Pyrene	ND		104	96.2	95	96.2	92	0	67-116/17

CAS No.	Surrogate Recoveries	MS	MSD	F23496-3	F23496-3	Limits
321-60-8	2-Fluorobiphenyl	104%	102%	107%	91%	42-123%
84-15-1	o-Terphenyl	92%	89%	99%	89%	51-123%

(a) All hits confirmed by dual column analysis.

(b) Result is from Run #2.

Semivolatile Surrogate Recovery Summary

Page 1 of 1

Job Number: F23512
Account: EE1NCJX EE1
Project: Bldg. 4158/Camp Lejeune, NC

Method: EPA 610

Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a	S2 ^a
F23512-1	IJ19766.D	0.0* ^b	0.0* ^b
F23512-2	IJ19746.D	89.0	94.0
F23512-3	IJ19747.D	74.0	96.0
F23512-4	IJ19748.D	60.0	84.0
OP10269-BS	IJ19736.D	86.0	91.0
OP10269-MB	IJ19737.D	85.0	100.0
OP10269-MB	IJ19756.D	85.0	94.0
OP10269-MS	IJ19759.D	104.0	92.0
OP10269-MSD	IJ19760.D	102.0	89.0

Surrogate Compounds	Recovery Limits

S1 = 2-Fluorobiphenyl 42-123%

S2 = o-Terphenyl 51-123%

(a) Recovery from GC signal #1

(b) Outside control limits due to dilution.

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F23512
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GIJ962-CC928	Injection Date:	05/01/04
Lab File ID:	IJ19734.D	Injection Time:	06:17
Instrument ID:	GCIJ	Method:	EPA 610

	S1 ^a	S2 ^a
	RT	RT
Check Std	5.70	10.23

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
ZZZZZZ	IJ19735.D	05/01/04	06:46	5.70	10.23
OP10269-BS	IJ19736.D	05/01/04	07:15	5.70	10.23
OP10269-MB	IJ19737.D	05/01/04	07:44	5.70	10.24
ZZZZZZ	IJ19738.D	05/01/04	08:12	5.70	10.23
ZZZZZZ	IJ19739.D	05/01/04	08:41	5.71	10.23
F23496-3	IJ19740.D	05/01/04	09:10	5.71	10.23
ZZZZZZ	IJ19743.D	05/01/04	10:36	5.71	10.23

Surrogate Compounds

S1 = 2-Fluorobiphenyl
S2 = o-Terphenyl

(a) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F23512
Account: EEINCJX EE1
Project: Bldg. 4158/Camp Lejeune, NC

Check Std: GIJ962-CC928	Injection Date: 05/01/04
Lab File ID: IJ19745.D	Injection Time: 11:34
Instrument ID: GCIJ	Method: EPA 610

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	5.71	6.50	10.24	11.63

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
F23512-2	IJ19746.D	05/01/04	12:03	5.71		10.24	
F23512-3	IJ19747.D	05/01/04	12:32	5.71		10.24	
F23512-4	IJ19748.D	05/01/04	13:11	5.71		10.24	
ZZZZZZ	IJ19749.D	05/01/04	13:40	5.71		10.23	
ZZZZZZ	IJ19750.D	05/01/04	14:08	5.71		10.23	
ZZZZZZ	IJ19751.D	05/01/04	14:37	5.71		10.24	
ZZZZZZ	IJ19752.D	05/01/04	15:06	5.71		10.24	
GIJ962-ECC928	IJ19754.D	05/01/04	16:04	5.71	6.51	10.24	11.64

Surrogate
Compounds

S1 = 2-Fluorobiphenyl
S2 = o-Terphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F23512
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GJ963-CC928	Injection Date:	05/03/04
Lab File ID:	IJ19755.D	Injection Time:	12:48
Instrument ID:	GCIJ	Method:	EPA 610

S1^a S2^a
RT RT

Check Std	5.70	10.23

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
OP10269-MB	IJ19756.D	05/03/04	13:17	5.70	10.23
ZZZZZZ	IJ19757.D	05/03/04	13:46	5.70	10.23
F23496-3	IJ19758.D	05/03/04	14:15	5.70	10.23
OP10269-MS	IJ19759.D	05/03/04	14:43	5.70	10.23
OP10269-MSD	IJ19760.D	05/03/04	15:12	5.70	10.23

Surrogate
Compounds

S1 = 2-Fluorobiphenyl
S2 = o-Terphenyl

(a) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F23512
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GJ963-CC928	Injection Date:	05/03/04
Lab File ID:	IJ19762.D	Injection Time:	16:10
Instrument ID:	GCIJ	Method:	EPA 610

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	5.71	6.50	10.24	11.63

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
OP10248-MB	IJ19763.D	05/03/04	16:39	5.70		10.24	
ZZZZZZ	IJ19764.D	05/03/04	17:07	5.70		10.23	
ZZZZZZ	IJ19765.D	05/03/04	17:36	5.71		10.23	
F23512-1	IJ19766.D	05/03/04	18:05	0.00		0.00	
GJ963-ECC928	IJ19767.D	05/03/04	18:34	5.71	6.50	10.24	11.63

Surrogate
Compounds

S1 = 2-Fluorobiphenyl
S2 = o-Terphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

Initial Calibration Summary

Page 1 of 2

Job Number: F23512
 Account: EEINCJX EEI
 Project: Bldg. 4158/Camp Lejeune, NC

Sample: GJ928-ICC928
 Lab FileID: IJ19184.D

Response Factor Report FID 1

Method : C:\HPCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
 Title : PAH's 8Y EPA 610 OR 8100
 Last Update : Wed Jan 14 07:33:44 2004
 Response via : Initial Calibration

Calibration Files

5 =IJ19182.D 10 =IJ19183.D 20 =IJ19184.D
 30 =IJ19185.D 40 =IJ19186.D 50 =IJ19187.D

Compound	5	10	20	30	40	50	Avg	%RSD
1) Naphthalene	1.607	1.598	1.575	1.579	1.577	1.616	1.592	E4 1.09
2) 2-Methyl Naphthalen	1.554	1.537	1.522	1.524	1.527	1.567	1.538	E4 1.19
3) 1-Methyl Naphthalen	1.555	1.518	1.494	1.492	1.499	1.537	1.516	E4 1.71
4) S 2-Fluorobiphenyl	1.350	1.381	1.324	1.363	1.369	1.411	1.366	E4 2.15
5) Acenaphthylene	1.620	1.559	1.559	1.561	1.571	1.619	1.582	E4 1.90
6) Acenaphthene	1.646	1.634	1.607	1.601	1.598	1.650	1.623	E4 1.45
7) Fluorene	1.585	1.598	1.573	1.573	1.563	1.614	1.585	E4 1.19
8) Phenanthrene	1.508	1.553	1.554	1.565	1.560	1.612	1.559	E4 2.14
9) Anthracene	1.724	1.667	1.601	1.594	1.580	1.623	1.631	E4 3.34
10) S 0-Terphenyl	1.734	1.666	1.624	1.614	1.602	1.647	1.648	E4 2.92
11) Fluoranthene	1.655	1.637	1.592	1.602	1.573	1.629	1.615	E4 1.90
12) Pyrene	1.691	1.677	1.582	1.588	1.582	1.624	1.624	E4 3.03
13) Benzo(a)Anthracene	1.533	1.581	1.568	1.589	1.589	1.627	1.581	E4 1.94
14) Chrysene	1.776	1.698	1.618	1.612	1.598	1.626	1.654	E4 4.17
15) Benzo(b)Fluoranthene	1.523	1.557	1.576	1.597	1.597	1.667	1.586	E4 3.07
16) Benzo(k)Fluoranthene	1.875	1.794	1.675	1.657	1.642	1.643	1.714	E4 5.68
17) Benzo(a) Pyrene	1.594	1.580	1.533	1.534	1.530	1.566	1.556	E4 1.77
18) Indeno(1,2,3-cd)pyr	1.531	1.543	1.512	1.519	1.530	1.570	1.534	E4 1.34
19) Dibenzo(a,h)anthrac	1.704	1.650	1.574	1.563	1.565	1.596	1.609	E4 3.53
20) Benzo(g,h,i) Peryle	1.695	1.636	1.601	1.568	1.565	1.599	1.611	E4 3.03

Signal #2 Calibration Files

5 =IJ19182.D 10 =IJ19183.D 20 =IJ19184.D
 30 =IJ19185.D 40 =IJ19186.D 50 =IJ19187.D

Compound	5	10	20	30	40	50	Avg	%RSD
1) Naphthalene	2.282	2.241	2.198	2.201	2.200	2.251	2.229	E4 1.55
2) 2-Methyl Naphthalen	2.158	2.125	2.102	2.112	2.113	2.173	2.130	E4 1.35
3) 1-Methyl Naphthalen	2.126	2.093	2.064	2.069	2.067	2.126	2.091	E4 1.40
4) S 2-Fluorobiphenyl	1.918	1.924	1.910	1.913	1.913	1.971	1.925	E4 1.19
5) Acenaphthylene	2.229	2.224	2.198	2.197	2.190	2.260	2.216	E4 1.19
6) Acenaphthene	2.262	2.254	2.227	2.226	2.214	2.286	2.245	E4 1.20
7) Fluorene	2.204	2.205	2.172	2.170	2.158	2.230	2.190	E4 1.25
8) Phenanthrene	2.035	2.098	2.092	2.119	2.133	2.221	2.116	E4 2.89
9) Anthracene	2.448	2.264	2.200	2.186	2.154	2.230	2.247	E4 4.68
10) S 0-Terphenyl	2.304	2.281	2.234	2.234	2.220	2.288	2.260	E4 1.55
11) Fluoranthene	2.265	2.245	2.190	2.198	2.193	2.250	2.223	E4 1.51
12) Pyrene	2.354	2.274	2.216	2.221	2.220	2.278	2.260	E4 2.38
13) Benzo(a)Anthracene	2.307	2.283	2.226	2.235	2.229	2.280	2.260	E4 1.52
14) Chrysene	2.291	2.247	2.206	2.204	2.183	2.228	2.226	E4 1.74
15) Benzo(b)Fluoranthene	2.238	2.246	2.201	2.211	2.221	2.293	2.235	E4 1.48
16) Benzo(k)Fluoranthene	2.330	2.308	2.226	2.242	2.237	2.277	2.270	E4 1.86
17) Benzo(a) Pyrene	2.192	2.172	2.113	2.123	2.121	2.172	2.149	E4 1.56
18) Indeno(1,2,3-cd)pyr	2.166	2.158	2.122	2.146	2.172	2.256	2.170	E4 2.11
19) Dibenzo(a,h)anthrac	2.304	2.248	2.132	2.118	2.081	2.093	2.162	E4 4.23
20) Benzo(g,h,i) Peryle	2.246	2.214	2.140	2.139	2.152	2.202	2.182	E4 2.07

Initial Calibration Summary

Job Number: F23512
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GIJ928-ICC928
Lab FileID: IJ19184.D

Page 2 of 2

Average % RSD = 2.2

(#) = Out of Range

8100_H2.M

Wed Jan 14 08:50:40 2004



Continuing Calibration Summary

Page 1 of 2

Job Number: F23512
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GIJ962-CC928
Lab FileID: IJ19734.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\0430PAH\IJ19734.D\FID1B.CH Vial: 34
Signal #2 : C:\HPCHEM\1\DATA\0430PAH\IJ19734.D\FID2A.CH
Acq On : 1 May 2004 6:17 am Operator: sarahm
Sample : cc928-20 Inst : FID 1
Misc : op10248,gij962,960,,,1,1,water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\HPCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
Title : PAH's BY EPA 610 OR 8100
Last Update : Mon May 03 09:29:53 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Naphthalene	20.000	21.064	-5.3	106	0.00	4.06- 4.26
2	2-Methyl Naphthalene	20.000	20.156	-0.8	102	0.00	4.97- 5.17
3	1-Methyl Naphthalene	20.000	22.824	-14.1	116	0.00	5.11- 5.31
4 S	2-Fluorobiphenyl	20.000	21.527	-7.6	111	0.00	5.60- 5.80
5	Acenaphthylene	20.000	21.657	-8.3	110	0.00	6.31- 6.51
6	Acenaphthene	20.000	21.738	-8.7	110	0.00	6.63- 6.83
7	Fluorene	20.000	20.938	-4.7	105	0.00	7.50- 7.70
8	Phenanthrene	20.000	19.576	2.1	98	0.00	9.17- 9.37
9	Anthracene	20.000	20.379	-1.9	104	0.00	9.25- 9.45
10 S	0-Terphenyl	20.000	21.689	-8.4	110	0.00	10.13-10.33
11	Fluoranthene	20.000	21.224	-6.1	108	0.00	11.36-11.56
12	Pyrene	20.000	21.671	-8.4	111	0.00	11.73-11.93
13	Benzo(a)Anthracene	20.000	19.150	4.3	97	0.00	14.05-14.25
14	Chrysene	20.000	21.314	-6.6	109	0.00	14.12-14.32
15	Benzo(b)Fluoranthene	20.000	19.073	4.6	96	0.00	15.95-16.15
16	Benzo(k)Fluoranthene	20.000	20.366	-1.8	104	0.00	16.00-16.20
17	Benzo(a) Pyrene	20.000	21.418	-7.1	109	0.00	16.45-16.65
18	Indeno(1,2,3-cd)pyrene	20.000	19.215	3.9	97	0.00	18.12-18.32
19	Dibenzo(a,h)anthracene	20.000	22.327	-11.6	114	0.00	18.20-18.40
20	Benzo(g,h,i) Perylene	20.000	22.472	-12.4	113	0.00	18.44-18.64

***** Signal #2 *****

1	Naphthalene	20.000	21.124	-5.6	107	0.00	4.74- 4.94
2	2-Methyl Naphthalene	20.000	20.549	-2.7	104	0.00	5.62- 5.82
3	1-Methyl Naphthalene	20.000	22.487	-12.4	114	0.00	5.88- 6.08
4 S	2-Fluorobiphenyl	20.000	21.196	-6.0	107	0.00	6.40- 6.60
5	Acenaphthylene	20.000	21.430	-7.1	108	0.00	7.49- 7.69
6	Acenaphthene	20.000	21.937	-9.7	111	0.00	7.73- 7.93
7	Fluorene	20.000	20.981	-4.9	106	0.00	8.61- 8.81
8	Phenanthrene	20.000	18.861	5.7	95	0.00	10.63-10.83
9	Anthracene	20.000	21.598	-8.0	110	0.00	10.68-10.88
10 S	0-Terphenyl	20.000	21.995	-10.0	111	0.00	11.52-11.72
11	Fluoranthene	20.000	21.770	-8.8	111	0.00	12.99-13.19
12	Pyrene	20.000	22.388	-11.9	114	0.00	13.53-13.73
13	Benzo(a)Anthracene	20.000	21.053	-5.3	107	0.00	15.90-16.10
14	Chrysene	20.000	22.315	-11.6	113	0.00	16.07-16.27
15	Benzo(b)Fluoranthene	20.000	19.880	0.6	101	0.00	17.95-18.15
16	Benzo(k)Fluoranthene	20.000	21.725	-8.6	111	0.00	18.00-18.20
17	Benzo(a) Pyrene	20.000	21.490	-7.4	109	0.00	18.67-18.87
18	Indeno(1,2,3-cd)pyrene	20.000	19.933	0.3	102	0.00	20.42-20.62

Continuing Calibration Summary

Page 2 of 2

Job Number: F23512
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GIJ962-CC928
Lab FileID: IJ19734.D

19	Dibenzo(a,h)anthracene	20.000	22.297	-11.5	113	0.00	20.49-20.69
20	Benzo(g,h,i) Perylene	20.000	22.539	-12.7	115	0.00	21.03-21.23

(#) = Out of Range
IJ19184.D 8100_H2.M

SPCC's out = 0 CCC's out = 0
Mon May 03 13:54:11 2004

Continuing Calibration Summary

Page 1 of 2

Job Number: F23512
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GIJ962-CC928
Lab FileID: IJ19745.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\0430PAH\IJ19745.D\FID1B.CH Vial: 45
Signal #2 : C:\HPCHEM\1\DATA\0430PAH\IJ19745.D\FID2A.CH
Acq On : 1 May 2004 11:34 am Operator: sarahm
Sample : cc928-20 Inst : FID 1
Misc : op10269,gij962,1000,,,1,1,water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\HPCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
Title : PAH's BY EPA 610 OR 8100
Last Update : Mon May 03 09:29:55 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Naphthalene	20.000	19.806	1.0	100	0.00	4.06- 4.26
2	2-Methyl Naphthalene	20.000	18.983	5.1	96	0.00	4.97- 5.17
3	1-Methyl Naphthalene	20.000	21.115	-5.6	107	0.00	5.11- 5.31
4 S	2-Fluorobiphenyl	20.000	20.175	-0.9	104	0.00	5.60- 5.80
5	Acenaphthylene	20.000	20.329	-1.6	103	0.01	6.31- 6.51
6	Acenaphthene	20.000	20.355	-1.8	103	0.01	6.63- 6.83
7	Fluorene	20.000	19.661	1.7	99	0.01	7.50- 7.70
8	Phenanthrene	20.000	18.317	8.4	92	0.01	9.17- 9.37
9	Anthracene	20.000	21.878	-9.4	111	0.01	9.25- 9.45
10 S	0-Terphenyl	20.000	20.403	-2.0	104	0.00	10.13-10.33
11	Fluoranthene	20.000	20.005	-0.0	101	0.01	11.36-11.56
12	Pyrene	20.000	20.441	-2.2	105	0.01	11.73-11.93
13	Benzo(a)Anthracene	20.000	18.218	8.9	92	0.01	14.05-14.25
14	Chrysene	20.000	21.630	-8.1	111	0.00	14.12-14.32
15	Benzo(b)Fluoranthene	20.000	17.723	11.4	89	0.00	15.95-16.15
16	Benzo(k)Fluoranthene	20.000	22.165	-10.8	113	0.00	16.00-16.20
17	Benzo(a) Pyrene	20.000	20.182	-0.9	102	0.01	16.45-16.65
18	Indeno(1,2,3-cd)pyrene	20.000	17.943	10.3	91	0.00	18.12-18.32
19	Dibenzo(a,h)anthracene	20.000	21.060	-5.3	108	0.01	18.20-18.40
20	Benzo(g,h,i) Perylene	20.000	21.045	-5.2	106	0.01	18.44-18.64

***** Signal #2 *****

1	Naphthalene	20.000	19.718	1.4	100	0.00	4.74- 4.94
2	2-Methyl Naphthalene	20.000	19.236	3.8	97	0.00	5.62- 5.82
3	1-Methyl Naphthalene	20.000	20.978	-4.9	106	0.00	5.88- 6.08
4 S	2-Fluorobiphenyl	20.000	19.879	0.6	100	0.00	6.40- 6.60
5	Acenaphthylene	20.000	20.075	-0.4	101	0.00	7.49- 7.69
6	Acenaphthene	20.000	20.470	-2.3	103	0.00	7.73- 7.93
7	Fluorene	20.000	19.681	1.6	99	0.00	8.61- 8.81
8	Phenanthrene	20.000	17.459	12.7	88	0.00	10.63-10.83
9	Anthracene	20.000	22.409	-12.0	114	0.00	10.68-10.88
10 S	0-Terphenyl	20.000	20.573	-2.9	104	0.00	11.52-11.72
11	Fluoranthene	20.000	19.919	0.4	101	0.00	12.99-13.19
12	Pyrene	20.000	20.702	-3.5	106	0.00	13.53-13.73
13	Benzo(a)Anthracene	20.000	19.792	1.0	100	0.00	15.90-16.10
14	Chrysene	20.000	20.987	-4.9	106	0.00	16.07-16.27
15	Benzo(b)Fluoranthene	20.000	18.583	7.1	94	0.00	17.95-18.15
16	Benzo(k)Fluoranthene	20.000	22.024	-10.1	112	0.00	18.00-18.20
17	Benzo(a) Pyrene	20.000	20.506	-2.5	104	0.00	18.67-18.87
18	Indeno(1,2,3-cd)pyrene	20.000	18.966	5.2	97	0.00	20.42-20.62

Continuing Calibration Summary

Page 2 of 2

Job Number: F23512
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GIJ962-CC928
Lab FileID: IJ19745.D

19	Dibenzo(a,h)anthracene	20.000	21.140	-5.7	107	0.00	20.49-20.69
20	Benzo(g,h,i) Perylene	20.000	22.002	-10.0	112	0.00	21.03-21.23

(#) = Out of Range
IJ19184.D 8100_H2.M

SPCC's out = 0 CCC's out = 0
Mon May 03 10:19:13 2004

Continuing Calibration Summary

Page 1 of 2

Job Number: F23512
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GIJ962-ECC928
Lab FileID: IJ19754.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\043DPAH\IJ19754.D\FID1B.CH Vial: 54
Signal #2 : C:\HPCHEM\1\DATA\043DPAH\IJ19754.D\FID2A.CH
Acq On : 1 May 2004 4:04 pm Operator: sarahm
Sample : ecc928-20 Inst : FID 1
Misc : op10269,gij962,940,,,1,1,water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\HPCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
Title : PAH's BY EPA 610 OR 8100
Last Update : Mon May 03 09:29:55 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Naphthalene	20.000	19.576	2.1	99	0.00	4.06- 4.26
2	2-Methyl Naphthalene	20.000	18.916	5.4	96	0.01	4.97- 5.17
3	1-Methyl Naphthalene	20.000	21.924	-9.6	111	0.01	5.11- 5.31
4 S	2-Fluorobiphenyl	20.000	20.593	-3.0	106	0.01	5.60- 5.80
5	Acenaphthylene	20.000	20.293	-1.5	103	0.01	6.31- 6.51
6	Acenaphthene	20.000	20.456	-2.3	103	0.01	6.63- 6.83
7	Fluorene	20.000	19.606	2.0	99	0.02	7.50- 7.70
8	Phenanthrene	20.000	18.077	9.6	91	0.01	9.17- 9.37
9	Anthracene	20.000	22.050	-10.3	112	0.01	9.25- 9.45
10 S	0-Terphenyl	20.000	20.529	-2.6	104	0.01	10.13-10.33
11	Fluoranthene	20.000	19.990	0.1	101	0.02	11.36-11.56
12	Pyrene	20.000	20.511	-2.6	105	0.01	11.73-11.93
13	Benzo(a)Anthracene	20.000	17.895	10.5	90	0.01	14.05-14.25
14	Chrysene	20.000	22.573	-12.9	115	0.01	14.12-14.32
15	Benzo(b)Fluoranthene	20.000	16.996	15.0#	86	0.01	15.95-16.15
16	Benzo(k)Fluoranthene	20.000	19.395	3.0	99	0.01	16.00-16.20
17	Benzo(a) Pyrene	20.000	20.308	-1.5	103	0.02	16.45-16.65
18	Indeno(1,2,3-cd)pyrene	20.000	17.395	13.0	88	0.01	18.12-18.32
19	Dibenzo(a,h)anthracene	20.000	20.841	-4.2	106	0.02	18.20-18.40
20	Benzo(g,h,i) Perylene	20.000	21.509	-7.5	108	0.01	18.44-18.64

***** Signal #2 *****

1	Naphthalene	20.000	19.669	1.7	100	0.00	4.74- 4.94
2	2-Methyl Naphthalene	20.000	19.046	4.8	97	0.01	5.62- 5.82
3	1-Methyl Naphthalene	20.000	21.318	-6.6	108	0.01	5.88- 6.08
4 S	2-Fluorobiphenyl	20.000	20.497	-2.5	103	0.01	6.40- 6.60
5	Acenaphthylene	20.000	19.970	0.2	101	0.01	7.49- 7.69
6	Acenaphthene	20.000	20.564	-2.8	104	0.01	7.73- 7.93
7	Fluorene	20.000	19.499	2.5	98	0.01	8.61- 8.81
8	Phenanthrene	20.000	17.137	14.3	87	0.01	10.63-10.83
9	Anthracene	20.000	22.603	-13.0	115	0.00	10.68-10.88
10 S	0-Terphenyl	20.000	20.596	-3.0	104	0.01	11.52-11.72
11	Fluoranthene	20.000	19.858	0.7	101	0.01	12.99-13.19
12	Pyrene	20.000	21.073	-5.4	107	0.01	13.53-13.73
13	Benzo(a)Anthracene	20.000	19.728	1.4	100	0.00	15.90-16.10
14	Chrysene	20.000	21.005	-5.0	106	0.01	16.07-16.27
15	Benzo(b)Fluoranthene	20.000	18.490	7.6	94	0.00	17.95-18.15
16	Benzo(k)Fluoranthene	20.000	22.616	-13.1	115	0.00	18.00-18.20
17	Benzo(a) Pyrene	20.000	20.288	-1.4	103	0.00	18.67-18.87
18	Indeno(1,2,3-cd)pyrene	20.000	18.234	8.8	93	0.00	20.42-20.62

Continuing Calibration Summary

Page 2 of 2

Job Number: F23512
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GIJ962-ECC928
Lab FileID: IJ19754.D

19	Dibenzo(a,h)anthracene	20.000	21.788	-8.9	111	0.00	20.49-20.69
20	Benzo(g,h,i) Perylene	20.000	21.207	-6.0	108	0.00	21.03-21.23

(#) = Out of Range

IJ19184.D 8100_H2.M

SPCC's out = 0 CCC's out = 0

Mon May 03 10:19:15 2004

5.5
6

Continuing Calibration Summary

Page 1 of 2

Job Number: F23512
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GJJ963-CC928
Lab FileID: IJ19755.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\0503PAH\IJ19755.D\FID1B.CH Vial: 1
Signal #2 : C:\HPCHEM\1\DATA\0503PAH\IJ19755.D\FID2A.CH
Acq On : 3 May 2004 12:48 pm Operator: sarahm
Sample : cc928-20 Inst : FID 1
Misc : op10269,gij963,1000,,,1,1,water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\HPCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
Title : PAH's BY EPA 610 OR 8100
Last Update : Mon May 03 09:29:55 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Naphthalene	20.000	19.587	2.1	99	0.00	4.06- 4.26
2	2-Methyl Naphthalene	20.000	18.620	6.9	94	0.00	4.97- 5.17
3	1-Methyl Naphthalene	20.000	20.604	-3.0	105	0.00	5.11- 5.31
4 S	2-Fluorobiphenyl	20.000	19.735	1.3	102	0.00	5.60- 5.80
5	Acenaphthylene	20.000	19.933	0.3	101	0.00	6.31- 6.51
6	Acenaphthene	20.000	20.321	-1.6	103	0.00	6.63- 6.83
7	Fluorene	20.000	19.421	2.9	98	0.00	7.50- 7.70
8	Phenanthrene	20.000	17.802	11.0	89	0.00	9.17- 9.37
9	Anthracene	20.000	21.806	-9.0	111	0.00	9.25- 9.45
10 S	0-Terphenyl	20.000	20.122	-0.6	102	0.00	10.13-10.33
11	Fluoranthene	20.000	19.558	2.2	99	0.00	11.36-11.56
12	Pyrene	20.000	20.291	-1.5	104	0.00	11.73-11.93
13	Benzo(a)Anthracene	20.000	17.226	13.9	87	0.00	14.05-14.25
14	Chrysene	20.000	22.118	-10.6	113	0.00	14.12-14.32
15	Benzo(b)Fluoranthene	20.000	16.550	17.3#	83	0.00	15.95-16.15
16	Benzo(k)Fluoranthene	20.000	22.198	-11.0	114	0.00	16.00-16.20
17	Benzo(a) Pyrene	20.000	19.300	3.5	98	0.00	16.45-16.65
18	Indeno(1,2,3-cd)pyrene	20.000	17.260	13.7	88	0.00	18.12-18.32
19	Dibenzo(a,h)anthracene	20.000	20.696	-3.5	106	0.00	18.20-18.40
20	Benzo(g,h,i) Perylene	20.000	21.459	-7.3	108	0.00	18.44-18.64

***** Signal #2 *****

1	Naphthalene	20.000	19.594	2.0	99	0.00	4.74- 4.94
2	2-Methyl Naphthalene	20.000	18.921	5.4	96	0.00	5.62- 5.82
3	1-Methyl Naphthalene	20.000	21.282	-6.4	108	0.00	5.88- 6.08
4 S	2-Fluorobiphenyl	20.000	20.792	-4.0	105	0.00	6.40- 6.60
5	Acenaphthylene	20.000	19.805	1.0	100	0.00	7.49- 7.69
6	Acenaphthene	20.000	20.618	-3.1	104	0.00	7.73- 7.93
7	Fluorene	20.000	19.474	2.6	98	0.00	8.61- 8.81
8	Phenanthrene	20.000	17.218	13.9	87	0.00	10.63-10.83
9	Anthracene	20.000	22.190	-11.0	113	-0.01	10.68-10.88
10 S	0-Terphenyl	20.000	20.468	-2.3	104	0.00	11.52-11.72
11	Fluoranthene	20.000	20.172	-0.9	102	0.00	12.99-13.19
12	Pyrene	20.000	20.672	-3.4	105	0.00	13.53-13.73
13	Benzo(a)Anthracene	20.000	19.317	3.4	98	0.00	15.90-16.10
14	Chrysene	20.000	20.483	-2.4	103	0.00	16.07-16.27
15	Benzo(b)Fluoranthene	20.000	18.125	9.4	92	0.00	17.95-18.15
16	Benzo(k)Fluoranthene	20.000	22.236	-11.2	113	0.00	18.00-18.20
17	Benzo(a) Pyrene	20.000	19.826	0.9	101	0.00	18.67-18.87
18	Indeno(1,2,3-cd)pyrene	20.000	17.958	10.2	92	0.00	20.42-20.62

Continuing Calibration Summary

Page 2 of 2

Job Number: F23512
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GIJ963-CC928
Lab FileID: IJ19755.D

19	Dibenzo(a,h)anthracene	20.000	22.998	-15.0	117	0.00	20.49-20.69
20	Benzo(g,h,i) Perylene	20.000	20.878	-4.4	106	0.00	21.03-21.23

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

IJ19184.D 8100_H2.M

Tue May 04 07:55:53 2004

6.6



Continuing Calibration Summary

Page 1 of 2

Job Number: F23512
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GJ963-CC928
Lab FileID: IJ19762.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\0503PAH\IJ19762.D\FID18.CH Vial: 8
Signal #2 : C:\HPCHEM\1\DATA\0503PAH\IJ19762.D\FID2A.CH
Acq On : 3 May 2004 4:10 pm Operator: sarahm
Sample : cc928-30 Inst : FID 1
Misc : op10269,gij963,900,,,1,10,water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\HPCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
Title : PAH's BY EPA 610 OR 8100
Last Update : Mon May 03 09:29:55 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Naphthalene	30.000	29.598	1.3	99	0.00	4.06- 4.26
2	2-Methyl Naphthalene	30.000	28.511	5.0	96	0.00	4.97- 5.17
3	1-Methyl Naphthalene	30.000	31.313	-4.4	106	0.00	5.11- 5.31
4 S	2-Fluorobiphenyl	30.000	30.456	-1.5	102	0.00	5.60- 5.80
5	Acenaphthylene	30.000	29.600	1.3	100	0.00	6.31- 6.51
6	Acenaphthene	30.000	30.443	-1.5	103	0.00	6.63- 6.83
7	Fluorene	30.000	29.706	1.0	100	0.00	7.50- 7.70
8	Phenanthrene	30.000	28.231	5.9	94	0.00	9.17- 9.37
9	Anthracene	30.000	32.018	-6.7	109	0.00	9.25- 9.45
10 S	0-Terphenyl	30.000	30.548	-1.8	104	0.00	10.13-10.33
11	Fluoranthene	30.000	29.829	0.6	100	0.01	11.36-11.56
12	Pyrene	30.000	30.466	-1.6	104	0.00	11.73-11.93
13	Benzo(a)Anthracene	30.000	27.605	8.0	92	0.01	14.05-14.25
14	Chrysene	30.000	32.068	-6.9	110	0.01	14.12-14.32
15	Benzo(b)Fluoranthene	30.000	27.059	9.8	90	0.01	15.95-16.15
16	Benzo(k)Fluoranthene	30.000	32.020	-6.7	110	0.02	16.00-16.20
17	Benzo(a) Pyrene	30.000	29.910	0.3	101	0.01	16.45-16.65
18	Indeno(1,2,3-cd)pyrene	30.000	27.587	8.0	93	0.02	18.12-18.32
19	Dibenzo(a,h)anthracene	30.000	31.280	-4.3	107	0.01	18.20-18.40
20	Benzo(g,h,i) Perylene	30.000	31.453	-4.8	108	0.02	18.44-18.64

***** Signal #2 *****

1	Naphthalene	30.000	29.674	1.1	100	0.00	4.74- 4.94
2	2-Methyl Naphthalene	30.000	29.169	2.8	98	0.00	5.62- 5.82
3	1-Methyl Naphthalene	30.000	31.028	-3.4	105	0.00	5.88- 6.08
4 S	2-Fluorobiphenyl	30.000	30.243	-0.8	101	0.00	6.40- 6.60
5	Acenaphthylene	30.000	30.180	-0.6	101	0.00	7.49- 7.69
6	Acenaphthene	30.000	31.000	-3.3	104	0.00	7.73- 7.93
7	Fluorene	30.000	29.717	0.9	100	0.00	8.61- 8.81
8	Phenanthrene	30.000	27.483	8.4	92	0.00	10.63-10.83
9	Anthracene	30.000	32.668	-8.9	112	0.00	10.68-10.88
10 S	0-Terphenyl	30.000	30.888	-3.0	104	0.00	11.52-11.72
11	Fluoranthene	30.000	30.218	-0.7	102	0.00	12.99-13.19
12	Pyrene	30.000	31.080	-3.6	105	0.00	13.53-13.73
13	Benzo(a)Anthracene	30.000	29.619	1.3	100	0.00	15.90-16.10
14	Chrysene	30.000	30.982	-3.3	104	0.00	16.07-16.27
15	Benzo(b)Fluoranthene	30.000	28.201	6.0	95	0.01	17.95-18.15
16	Benzo(k)Fluoranthene	30.000	32.919	-9.7	111	0.00	18.00-18.20
17	Benzo(a) Pyrene	30.000	30.217	-0.7	102	0.00	18.67-18.87
18	Indeno(1,2,3-cd)pyrene	30.000	28.516	4.9	96	0.01	20.42-20.62

Continuing Calibration Summary

Page 2 of 2

Job Number: F23512
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GJJ963-CC928
Lab FileID: IJ19762.D

19	Dibenzo(a,h)anthracene	30.000	34.060	-13.5	116	0.00	20.49-20.69
20	Benzo(g,h,i) Perylene	30.000	31.905	-6.4	109	0.01	21.03-21.23

(#) = Out of Range
IJ19185.D 8100_H2.M

SPCC's out = 0 CCC's out = 0
Tue May 04 07:56:18 2004

Continuing Calibration Summary

Page 1 of 2

Job Number: F23512
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GIJ963-ECC928
Lab FileID: IJ19767.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\0503PAH\IJ19767.D\FID1B.CH Vial: 13
Signal #2 : C:\HPCHEM\1\DATA\0503PAH\IJ19767.D\FID2A.CH
Acq On : 3 May 2004 6:34 pm Operator: sarahm
Sample : ecc928-20 Inst : FID 1
Misc : op10269,gij963,900,,,1,20,water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\HPCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
Title : PAH's BY EPA 610 OR 8100
Last Update : Mon May 03 09:29:55 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Naphthalene	20.000	19.134	4.3	97	0.00	4.06- 4.26
2	2-Methyl Naphthalene	20.000	18.389	8.1	93	0.00	4.97- 5.17
3	1-Methyl Naphthalene	20.000	21.290	-6.4	108	0.00	5.11- 5.31
4 S	2-Fluorobiphenyl	20.000	20.058	-0.3	104	0.00	5.60- 5.80
5	Acenaphthylene	20.000	20.032	-0.2	102	0.01	6.31- 6.51
6	Acenaphthene	20.000	20.273	-1.4	102	0.01	6.63- 6.83
7	Fluorene	20.000	19.467	2.7	98	0.01	7.50- 7.70
8	Phenanthrene	20.000	17.815	10.9	89	0.01	9.17- 9.37
9	Anthracene	20.000	21.689	-8.4	111	0.01	9.25- 9.45
10 S	0-Terphenyl	20.000	20.171	-0.9	102	0.01	10.13-10.33
11	Fluoranthene	20.000	19.609	2.0	99	0.01	11.36-11.56
12	Pyrene	20.000	20.055	-0.3	103	0.01	11.73-11.93
13	Benzo(a)Anthracene	20.000	17.495	12.5	88	0.01	14.05-14.25
14	Chrysene	20.000	22.176	-10.9	113	0.01	14.12-14.32
15	Benzo(b)Fluoranthene	20.000	16.782	16.1#	84	0.01	15.95-16.15
16	Benzo(k)Fluoranthene	20.000	22.488	-12.4	115	0.00	16.00-16.20
17	Benzo(a) Pyrene	20.000	19.952	0.2	101	0.01	16.45-16.65
18	Indeno(1,2,3-cd)pyrene	20.000	17.627	11.9	89	0.00	18.12-18.32
19	Dibenzo(a,h)anthracene	20.000	21.072	-5.4	108	0.01	18.20-18.40
20	Benzo(g,h,i) Perylene	20.000	21.329	-6.6	107	0.01	18.44-18.64

***** Signal #2 *****

1	Naphthalene	20.000	19.740	1.3	100	0.00	4.74- 4.94
2	2-Methyl Naphthalene	20.000	19.179	4.1	97	0.00	5.62- 5.82
3	1-Methyl Naphthalene	20.000	21.538	-7.7	109	0.00	5.88- 6.08
4 S	2-Fluorobiphenyl	20.000	20.762	-3.8	105	0.00	6.40- 6.60
5	Acenaphthylene	20.000	20.012	-0.1	101	0.00	7.49- 7.69
6	Acenaphthene	20.000	20.597	-3.0	104	0.00	7.73- 7.93
7	Fluorene	20.000	19.632	1.8	99	0.00	8.61- 8.81
8	Phenanthrene	20.000	17.266	13.7	87	0.00	10.63-10.83
9	Anthracene	20.000	22.798	-14.0	116	0.00	10.68-10.88
10 S	0-Terphenyl	20.000	20.539	-2.7	104	0.00	11.52-11.72
11	Fluoranthene	20.000	20.337	-1.7	103	0.00	12.99-13.19
12	Pyrene	20.000	20.885	-4.4	107	0.01	13.53-13.73
13	Benzo(a)Anthracene	20.000	19.611	1.9	100	0.00	15.90-16.10
14	Chrysene	20.000	20.787	-3.9	105	0.00	16.07-16.27
15	Benzo(b)Fluoranthene	20.000	18.467	7.7	94	0.00	17.95-18.15
16	Benzo(k)Fluoranthene	20.000	22.442	-12.2	114	0.00	18.00-18.20
17	Benzo(a) Pyrene	20.000	20.301	-1.5	103	0.00	18.67-18.87
18	Indeno(1,2,3-cd)pyrene	20.000	18.589	7.1	95	0.00	20.42-20.62

Continuing Calibration Summary

Page 2 of 2

Job Number: F23512
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GIJ963-ECC928
Lab FileID: IJ19767.D

19	Dibenzo(a,h)anthracene	20.000	22.330	-11.6	113	0.00	20.49-20.69
20	Benzo(g,h,i) Perylene	20.000	21.452	-7.3	109	0.00	21.03-21.23

(#) = Out of Range
IJ19184.D 8100_H2.M

SPCC's out = 0 CCC's out = 0
Tue May 04 07:55:55 2004

July 2004 Groundwater Laboratory Report





08/04/04

Technical Report for

EEI

Bldg. 4158/Camp Lejeune, NC

CTO-010

Accutest Job Number: F25393

Sampling Dates: 07/12/04 - 07/13/04

Report to:

EEI
195 South Rosemount Road
Suite 118
Virginia Beach, VA 23452
ATTN: Alfred Kozminski

Total number of pages in report: 106



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Harry Behzadi
Harry Behzadi, Ph.D.
Laboratory Director

Certifications: FL (DOH E83510), NC (573), NJ (FL002), MA (FL946), IA (366), LA (03051), KS (E-10327), SC, AK
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Sample Summary

EEI

Job No: F25393

Bldg. 4158/Camp Lejeune, NC
Project No: CTO-010

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
F25393-1	07/13/04	11:20 BS	07/14/04	AQ	Ground Water	UST4158-MW17
F25393-2	07/12/04	10:50 BS	07/14/04	AQ	Ground Water	UST4158-MW04
F25393-3	07/12/04	15:07 BS	07/14/04	AQ	Ground Water	UST4158-MW15
F25393-4	07/12/04	11:30 BS	07/14/04	AQ	Ground Water	UST4158-MW05
F25393-5	07/12/04	14:25 BS	07/14/04	AQ	Ground Water	UST4158-MW18
F25393-6	07/12/04	12:15 BS	07/14/04	AQ	Ground Water	UST4158-MW07
F25393-7	07/12/04	12:50 BS	07/14/04	AQ	Ground Water	UST4158-MW10
F25393-8	07/13/04	09:25 BS	07/14/04	AQ	Ground Water	UST4158-MW11
F25393-9	07/12/04	13:25 BS	07/14/04	AQ	Ground Water	UST4158-MW14
F25393-10	07/13/04	09:55 BS	07/14/04	AQ	Ground Water	UST4158-MW13
F25393-11	07/13/04	10:35 BS	07/14/04	AQ	Ground Water	UST4158-MW08
F25393-12	07/12/04	00:00 BS	07/14/04	AQ	Ground Water	UST4158-DUP
F25393-13	07/13/04	13:00 BS	07/14/04	AQ	Trip Blank Water	TRIP BLANK

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: EEI

Job No: F25393

Site: Bldg. 4158/Camp Lejeune, NC

Report Date 7/27/04 12:01:25 PM

12 Samples and 1 Trip Blank were collected on between 07/12/2004 and 07/13/2004 and were received at Accutest on 07/14/2004 properly preserved, at 3 Deg. C and intact. These Samples received an Accutest job number of F25393. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GC By Method EPA 601/602

Matrix: AQ

Batch ID: GCD2111

All samples were analyzed within the recommended method holding time.

Sample(s) F25393-11MS, F25393-11MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

F25393-8: All hits confirmed by dual column analysis.

F25393-10: All hits confirmed by dual column analysis.

Matrix: AQ

Batch ID: GCD2122

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

GCD2122-BS: No sample available for MS/MSD.

F25393-13: All hits confirmed by dual column analysis.

Matrix: AQ

Batch ID: GQR1030

Sample(s) F25365-3MS, F25365-3MSD were used as the QC samples indicated.

F25393-2: All hits confirmed by GC/MS.

Matrix: AQ

Batch ID: GQR1032

All samples were analyzed within the recommended method holding time.

Sample(s) F25337-5MS, F25337-5MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

Matrix Spike Duplicate Recovery(s) for Benzene, Ethylbenzene are outside control limits. Probable cause due to matrix interference.

RPD(s) for MSD for Ethylbenzene, Toluene, Xylenes (total) are outside control limits for sample F25337-5MSD. Probable cause due to sample non-homogeneity.

Extractables by GC By Method EPA 610

Matrix: AQ

Batch ID: OP10913

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) F25393-10MS, F25393-10MSD were used as the QC samples indicated.

Matrix Spike Recovery(s) for Acenaphthene, Anthracene, Fluorene are outside control limits. Probable cause due to matrix interference. Refer to Blank Spike for method performance in clean matrix.

Matrix Spike Duplicate Recovery(s) for Acenaphthene, Acenaphthylene, Anthracene, Fluorene, Phenanthrene are outside control limits. See above.

RPD(s) for MSD for Acenaphthylene, Phenanthrene are outside control limits for sample OP10913-MSD. Probable cause due to sample non-homogeneity.

Sample(s) OP10913-MSD have surrogates outside control limits. Probable cause due to matrix interference.

OP10913-MSD for 2-Fluorobiphenyl: Outside control limits due to matrix interference.

Accutest Laboratories Southeast (ALSE) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALSE and as stated on the COC. ALSE certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALSE Quality Manual except as noted above. This report is to be used in its entirety. ALSE is not responsible for any assumptions of data quality if partial data packages are used

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Narrative prepared by:

Svetlana Izosimova, QAO

Date: July 27, 2004



Report of Analysis

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Client Sample ID: UST4158-MW17
 Lab Sample ID: F25393-1
 Matrix: AQ - Ground Water
 Method: EPA 601/602
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 07/13/04
 Date Received: 07/14/04
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QR023610.D	1	07/16/04	RA	n/a	n/a	GQR1030
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Bntyl Ether	30.2	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	89%		70-123%
563-58-6	1,1-Dichloropropene	100%		86-112%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: UST4158-MW17
 Lab Sample ID: F25393-1
 Matrix: AQ - Ground Water
 Method: EPA 610 EPA 610
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 07/13/04
 Date Received: 07/14/04
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ20314.D	1	07/19/04	SM	07/17/04	OP10913	GIJ996
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.8	1.9	ug/l	
120-12-7	Anthracene	ND	4.8	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	1.9	ug/l	
218-01-9	Chrysene	ND	4.8	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	1.9	ug/l	
86-73-7	Fluorene	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
91-20-3	Naphthalene	ND	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.8	1.9	ug/l	
129-00-0	Pyrene	ND	4.8	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	88%		42-123%
84-15-1	o-Terphenyl	100%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID: UST4158-MW04
 Lab Sample ID: F25393-2
 Matrix: AQ - Ground Water
 Method: EPA 601/602
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 07/12/04
 Date Received: 07/14/04
 Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	QR023611.D	1	07/16/04	RA	n/a	n/a	GQR1030
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	1.3	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	91%		70-123%
563-58-6	1,1-Dichloropropene	100%		86-112%

(a) All hits confirmed by GC/MS.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UST4158-MW04	Date Sampled:	07/12/04
Lab Sample ID:	F25393-2	Date Received:	07/14/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ20315.D	1	07/19/04	SM	07/17/04	OP10913	GIJ996
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.8	1.9	ug/l	
120-12-7	Anthracene	ND	4.8	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	1.9	ug/l	
218-01-9	Chrysene	ND	4.8	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	1.9	ug/l	
86-73-7	Fluorene	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
91-20-3	Naphthalene	ND	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.8	1.9	ug/l	
129-00-0	Pyrene	ND	4.8	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	93%		42-123%
84-15-1	o-Terphenyl	101%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: UST4158-MW15
 Lab Sample ID: F25393-3
 Matrix: AQ - Ground Water
 Method: EPA 601/602
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 07/12/04
 Date Received: 07/14/04
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QR023612.D	1	07/16/04	RA	n/a	n/a	GQR1030
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	0.98	1.0	0.50	ug/l	J
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	90%		70-123%
563-58-6	1,1-Dichloropropene	100%		86-112%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UST4158-MW15	Date Sampled:	07/12/04
Lab Sample ID:	F25393-3	Date Received:	07/14/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ20317.D	1	07/19/04	SM	07/17/04	OP10913	G1J996
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1030 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.9	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.9	1.9	ug/l	
120-12-7	Anthracene	ND	4.9	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.9	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.9	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.9	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.9	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.9	1.9	ug/l	
218-01-9	Chrysene	ND	4.9	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.9	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.9	1.9	ug/l	
86-73-7	Fluorene	ND	4.9	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.9	1.9	ug/l	
91-20-3	Naphthalene	ND	4.9	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.9	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.9	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.9	1.9	ug/l	
129-00-0	Pyrene	ND	4.9	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	88%		42-123%
84-15-1	o-Terphenyl	98%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID:	UST4158-MW05	Date Sampled:	07/12/04
Lab Sample ID:	F25393-4	Date Received:	07/14/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QR023613.D	1	07/16/04	RA	n/a	n/a	GQR1030
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	1.1	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	90%		70-123%
563-58-6	1,1-Dichloropropene	101%		86-112%

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UST4158-MW05	Date Sampled:	07/12/04
Lab Sample ID:	F25393-4	Date Received:	07/14/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ20318.D	1	07/19/04	SM	07/17/04	OP10913	GJ996
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1030 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.9	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.9	1.9	ug/l	
120-12-7	Anthracene	ND	4.9	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.9	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.9	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.9	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.9	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.9	1.9	ug/l	
218-01-9	Chrysene	ND	4.9	1.9	ug/l	
53-70-3	Dibenzo(a,b)anthracene	ND	4.9	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.9	1.9	ug/l	
86-73-7	Fluorene	ND	4.9	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.9	1.9	ug/l	
91-20-3	Naphthalene	ND	4.9	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.9	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.9	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.9	1.9	ug/l	
129-00-0	Pyrene	ND	4.9	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	51%		42-123%
84-15-1	o-Terphenyl	72%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID: UST4158-MW18
 Lab Sample ID: F25393-5
 Matrix: AQ - Ground Water
 Method: EPA 601/602
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 07/12/04
 Date Received: 07/14/04
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QR023614.D	1	07/16/04	RA	n/a	n/a	GQR1030
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	89%		70-123%
563-58-6	1,1-Dichloropropene	100%		86-112%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UST4158-MW18	Date Sampled:	07/12/04
Lab Sample ID:	F25393-5	Date Received:	07/14/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ20319.D	1	07/19/04	SM	07/17/04	OP10913	GIJ996
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.8	1.9	ug/l	
120-12-7	Anthracene	ND	4.8	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	1.9	ug/l	
218-01-9	Chrysene	ND	4.8	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	1.9	ug/l	
86-73-7	Fluorene	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
91-20-3	Naphthalene	ND	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.8	1.9	ug/l	
129-00-0	Pyrene	ND	4.8	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorohiphenyl	97%		42-123%
84-15-1	o-Terphenyl	107%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: UST4158-MW07
 Lab Sample ID: F25393-6
 Matrix: AQ - Ground Water
 Method: EPA 601/602
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 07/12/04
 Date Received: 07/14/04
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QR023615.D	1	07/16/04	RA	n/a	n/a	GQR1030
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	0.83	1.0	0.50	ug/l	J
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	89%		70-123%
563-58-6	1,1-Dichloropropene	100%		86-112%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID:	UST4158-MW07	Date Sampled:	07/12/04
Lab Sample ID:	F25393-6	Date Received:	07/14/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ20320.D	1	07/19/04	SM	07/17/04	OP10913	GIJ996
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.8	1.9	ug/l	
120-12-7	Anthracene	ND	4.8	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	1.9	ug/l	
218-01-9	Chrysene	ND	4.8	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	1.9	ug/l	
86-73-7	Fluorene	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
91-20-3	Naphthalene	ND	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.8	1.9	ug/l	
129-00-0	Pyrene	ND	4.8	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	89%		42-123%
84-15-1	o-Terphenyl	101%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: UST4158-MW10
Lab Sample ID: F25393-7
Matrix: AQ - Ground Water
Method: EPA 601/602
Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 07/12/04
Date Received: 07/14/04
Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QR023616.D	1	07/16/04	RA	n/a	n/a	GQR1030
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	0.79	1.0	0.50	ug/l	J
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	89%		70-123%
563-58-6	1,1-Dichloropropene	100%		86-112%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UST4158-MW10	Date Sampled:	07/12/04
Lab Sample ID:	F25393-7	Date Received:	07/14/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ20321.D	1	07/19/04	SM	07/17/04	OP10913	GIJ996
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1030 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.9	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.9	1.9	ug/l	
120-12-7	Anthracene	ND	4.9	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.9	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.9	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.9	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.9	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.9	1.9	ug/l	
218-01-9	Chrysene	ND	4.9	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.9	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.9	1.9	ug/l	
86-73-7	Fluorene	ND	4.9	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.9	1.9	ug/l	
91-20-3	Naphthalene	ND	4.9	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.9	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.9	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.9	1.9	ug/l	
129-00-0	Pyrene	ND	4.9	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	93%		42-123%
84-15-1	o-Terphenyl	104%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID: UST4158-MW11
 Lab Sample ID: F25393-8
 Matrix: AQ - Ground Water
 Method: EPA 601/602
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 07/13/04
 Date Received: 07/14/04
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	CD051205.D	1	07/20/04	RM	n/a	n/a	GCD2111
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	2.7	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	7.0	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	78%		70-123%
98-08-8	aaa-Trifluorotoluene	92%		73-122%

(a) All hits confirmed by dual column analysis.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID:	UST4158-MW11	Date Sampled:	07/13/04
Lab Sample ID:	F25393-8	Date Received:	07/14/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	IJ20322.D	1	07/19/04	SM	07/17/04	OP10913	GJ996

Run #1	Initial Volume	Final Volume
Run #2	1040 ml	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.8	1.9	ug/l	
120-12-7	Anthracene	ND	4.8	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	1.9	ug/l	
218-01-9	Chrysene	ND	4.8	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	1.9	ug/l	
86-73-7	Fluorene	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
91-20-3	Naphthalene	ND	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.8	1.9	ug/l	
129-00-0	Pyrene	ND	4.8	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	86%		42-123%
84-15-1	o-Terphenyl	99%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: UST4158-MW14
 Lab Sample ID: F25393-9
 Matrix: AQ - Ground Water
 Method: EPA 601/602
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 07/12/04
 Date Received: 07/14/04
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QR023659.D	1	07/20/04	RA	n/a	n/a	GQR1032
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	1.4	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	93%		70-123%
352-33-0	1-Chloro-4-fluorobenzene	98%		70-123%
563-58-6	1,1-Dichloropropene	100%		86-112%
563-58-6	1,1-Dichloropropene	106%		86-112%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID:	UST4158-MW14	Date Sampled:	07/12/04
Lab Sample ID:	F25393-9	Date Received:	07/14/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ20323.D	1	07/19/04	SM	07/17/04	OP10913	GJ996
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1030 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.9	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.9	1.9	ug/l	
120-12-7	Anthracene	ND	4.9	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.9	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.9	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.9	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.9	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.9	1.9	ug/l	
218-01-9	Chrysene	ND	4.9	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.9	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.9	1.9	ug/l	
86-73-7	Fluorene	ND	4.9	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.9	1.9	ug/l	
91-20-3	Naphthalene	ND	4.9	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.9	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.9	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.9	1.9	ug/l	
129-00-0	Pyrene	ND	4.9	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	57%		42-123%
84-15-1	o-Terphenyl	86%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: UST4158-MW13
 Lab Sample ID: F25393-10
 Matrix: AQ - Ground Water
 Method: EPA 601/602
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 07/13/04
 Date Received: 07/14/04
 Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	CD051206.D	1	07/20/04	RM	n/a	n/a	GCD2111
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	1.9	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	35.7	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	86%		70-123%
98-08-8	aaa-Trifluorotoluene	93%		73-122%

(a) All hits confirmed by dual column analysis.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID:	UST4158-MW13	Date Sampled:	07/13/04
Lab Sample ID:	F25393-10	Date Received:	07/14/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	IJ20324.D	1	07/19/04	SM	07/17/04	OP10913	GJ996

Run #1	Initial Volume	Final Volume
Run #2	980 ml	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.1	2.0	ug/l	
208-96-8	Acenaphthylene	ND	5.1	2.0	ug/l	
120-12-7	Anthracene	ND	5.1	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.1	2.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.1	2.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.1	2.0	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.1	2.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.1	2.0	ug/l	
218-01-9	Chrysene	ND	5.1	2.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.1	2.0	ug/l	
206-44-0	Fluoranthene	ND	5.1	2.0	ug/l	
86-73-7	Fluorene	ND	5.1	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.1	2.0	ug/l	
91-20-3	Naphthalene	ND	5.1	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.1	2.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.1	2.0	ug/l	
85-01-8	Phenanthrene	ND	5.1	2.0	ug/l	
129-00-0	Pyrene	ND	5.1	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	106%		42-123%
84-15-1	o-Terphenyl	106%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UST4158-MW08	Date Sampled:	07/13/04
Lab Sample ID:	F25393-11	Date Received:	07/14/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD051210.D	1	07/20/04	RM	n/a	n/a	GCD2111
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	78%		70-123%
98-08-8	aaa-Trifluorotoluene	92%		73-122%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UST4158-MW08	Date Sampled:	07/13/04
Lab Sample ID:	F25393-11	Date Received:	07/14/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ20328.D	1	07/19/04	SM	07/17/04	OP10913	GIJ996
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1030 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.9	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.9	1.9	ug/l	
120-12-7	Anthracene	ND	4.9	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.9	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.9	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.9	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.9	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.9	1.9	ug/l	
218-01-9	Chrysene	ND	4.9	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.9	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.9	1.9	ug/l	
86-73-7	Fluorene	ND	4.9	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.9	1.9	ug/l	
91-20-3	Naphthalene	ND	4.9	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.9	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.9	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.9	1.9	ug/l	
129-00-0	Pyrene	ND	4.9	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	79%		42-123%
84-15-1	o-Terphenyl	92%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: UST4158-DUP
 Lab Sample ID: F25393-12
 Matrix: AQ - Ground Water
 Method: EPA 601/602
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 07/12/04
 Date Received: 07/14/04
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QR023660.D	1	07/20/04	RA	n/a	n/a	GQR1032
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	91%		70-123%
352-33-0	1-Chloro-4-fluorobenzene	95%		70-123%
563-58-6	1,1-Dichloropropene	100%		86-112%
563-58-6	1,1-Dichloropropene	102%		86-112%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UST4158-DUP	Date Sampled:	07/12/04
Lab Sample ID:	F25393-12	Date Received:	07/14/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Bldg. 4158/Camp Lejeune, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ20329.D	1	07/19/04	SM	07/17/04	OP10913	G1J996
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.8	1.9	ug/l	
120-12-7	Anthracene	ND	4.8	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	1.9	ug/l	
218-01-9	Chrysene	ND	4.8	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	1.9	ug/l	
86-73-7	Fluorene	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
91-20-3	Naphthalene	ND	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.8	1.9	ug/l	
129-00-0	Pyrene	ND	4.8	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	95%		42-123%
84-15-1	o-Terphenyl	105%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: TRIP BLANK
 Lab Sample ID: F25393-13
 Matrix: AQ - Trip Blank Water
 Method: EPA 601/602
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 07/13/04
 Date Received: 07/14/04
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	CD051342.D	1	07/23/04	AJ	n/a	n/a	GCD2122
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	0.94	1.0	0.50	ug/l	J
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	89%		70-123%
98-08-8	aaa-Trifluorotoluene	95%		73-122%

(a) All hits confirmed by dual column analysis.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody



CHAIN OF CUSTODY

4405 VINELAND ROAD • SUITE C-15
ORLANDO, FL 32811
TEL: 407-425-5700 • FAX: 407-425-0707

ACCUTEST JOB #: **F25393**

ACCUTEST QUOTE #:

CLIENT INFORMATION			FACILITY INFORMATION			ANALYTICAL INFORMATION										MATRIX CODES	
Engineering + Environment Inc NAME 824 Bunkerland Rd Suite 5 ADDRESS Valdeseville NC 28640 CITY STATE ZIP			814 4158 PROJECT NAME LOCATION PROJECT NO. FAX # 910-989-8214			602 610										DW - DRINKING WATER GW - GROUND WATER WW - WASTE WATER SO - SOIL SL - SLUDGE OI - OIL LIQ - OTHER LIQUID SOL - OTHER SOLID	
SEND REPORT TO: PHONE # 910-989-8214			FAX # 910-989-8241														
ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	DATE	TIME	SAMPLED BY:	DATE	TIME	ANALYST	TESTS	REMARKS	TESTS	REMARKS	TESTS	REMARKS	TESTS	REMARKS	LAB USE ONLY	
1	4158-MW17	7-13-04	11:20	BS	7-13-04	11:20	BS	5									
2	4158-MW04	7-12-04	10:50	BS	7-12-04	10:50	BS	5									
3	4158-MW15	7-12-04	15:07	BS	7-12-04	15:07	BS	5									
4	4158-MW05	7-12-04	11:30	BS	7-12-04	11:30	BS	5									
5	4158-MW19	7-12-04	14:25	BS	7-12-04	14:25	BS	5									
6	4158-MW07	7-12-04	12:15	BS	7-12-04	12:15	BS	5									
7	4158-MW10	7-12-04	12:50	BS	7-12-04	12:50	BS	5									
8	4158-MW11	7-13-04	9:25	BS	7-13-04	9:25	BS	5									
9	4158-MW14	7-12-04	13:25	BS	7-12-04	13:25	BS	5									
10	4158-MW13	7-13-04	9:55	BS	7-13-04	9:55	BS	5									
11	4158-MW09	7-13-04	10:35	BS	7-13-04	10:35	BS	5									
DATA TURNAROUND INFORMATION			DATA DELIVERABLE INFORMATION			COMMENTS/REMARKS											
☒ STANDARD ☐ 48 HOUR RUSH ☐ 24 HOUR EMERGENCY ☐ OTHER EMERGENCY OR RUSH IN FAX DATA UNLESS PREVIOUSLY APPROVED			☐ STANDARD ☐ COMMERCIAL "B" ☐ DISK DELIVERABLE ☐ STATE FORMS ☒ OTHER (SPECIFY) NCC19 4														
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY																	
RELINQUISHED BY: 1. [Signature]		DATE TIME: 7-13-04		RECEIVED BY: 1. FX		DATE TIME: 7-13-04		RELINQUISHED BY: 2. FX		DATE TIME: 7-13-04		RECEIVED BY: 2. [Signature]		DATE TIME: 7-13-04		RECEIVED BY: 2. [Signature]	
RELINQUISHED BY: 3.		DATE TIME:		RECEIVED BY: 3.		DATE TIME:		RELINQUISHED BY: 4.		DATE TIME:		RECEIVED BY: 4.		DATE TIME:		RECEIVED BY: 4.	
RELINQUISHED BY: 5.		DATE TIME:		RECEIVED BY: 5.		DATE TIME:		RELINQUISHED BY: 6.		DATE TIME:		RECEIVED BY: 6.		DATE TIME:		RECEIVED BY: 6.	
SEAL # 20 24 30 PRESERVE WHEN APPLICABLE OR ICE TEMPERATURE C																	

F25393: Chain of Custody

Page 1 of 3



4406 VINELAND ROAD • SUITE C-15
ORLANDO, FL 32811
TEL: 407-425-6700 • FAX: 407-425-0707

ACCURATE JOB #:

ACCUTEST QUOTE #:[illegible]

4.1

4

F25393: Chain of Custody

Page 2 of 3

ACCUTEST LABORATORIES SOUTHEAST SAMPLE RECEIPT CONFIRMATION

Accutest's Job Number:

F25393

Client: **E + EI**

Project: **RI 4158**

Date Received: **7/14/04**

Time Received: **9:00**

of Coolers Received: **3**

Cooler Temperatures: **2.0 2.4 3.0**

Delivery Method: **FedEx** UPS Accutest Courier Greyhound Delivery Other

Air Bill Number: **Present**

Cooler Custody Seals Intact ?

Yes No

Chain of Custody Provided ?

Yes No

COC Match Bottle Label ID's ?

Yes No

Sample Labels Present on all bottles ?

Yes No

All Analyses Marked On COC ?

Yes No

Are All Bottles Intact ?

Yes No

Samples Preserved Correctly ?

Yes No

Correct Number of Containers Used ?

Yes No

Sufficient Sample Volume ?

Yes No

Trip Blank Provided ?

Yes No

Trip Blank on COC ?

Yes No

Trip Blank Intact ?

Yes No N/A

Trip Blank Matrix ?

Soil **Water** N/A

Number of Encores ?

0

Number of Soil Field Kits ?

0

Summary of Comments:

Signature:

[Signature]

Date:

7/14/04

Review Signature:

ASBD 12/30/03

F25393: Chain of Custody

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ACCUTEST
F25393

GC Volatiles



QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Page 1 of 1

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GCD2111-MB	CD051204.D 1		07/20/04	RM	n/a	n/a	GCD2111

The QC reported here applies to the following samples:

Method: EPA 601/602

F25393-8, F25393-10, F25393-11

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
352-33-0	1-Chloro-4-fluorobenzene	78%	70-123%
98-08-8	aaa-Trifluorotoluene	92%	73-122%

Method Blank Summary

Page 1 of 1

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GQR1032-MB	QR023649.D 1		07/20/04	RA	n/a	n/a	GQR1032

The QC reported here applies to the following samples:

Method: EPA 601/602

F25393-9, F25393-12

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
352-33-0	1-Chloro-4-fluorobenzene	91%	70-123%
352-33-0	1-Chloro-4-fluorobenzene	94%	70-123%
563-58-6	1,1-Dichloropropene	101%	86-112%
563-58-6	1,1-Dichloropropene	103%	86-112%

Method Blank Summary

Page 1 of 1

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GCD2122-MB	CD051332.D1		07/23/04	AJ	n/a	n/a	GCD2122

The QC reported here applies to the following samples:

Method: EPA 601/602

F25393-13

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
352-33-0	1-Chloro-4-fluorobenzene	88%	70-123%
98-08-8	aaa-Trifluorotoluene	97%	73-122%

Method Blank Summary

Page 1 of 1

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GQR1030-MB	QR023597.D 1		07/16/04	RA	n/a	n/a	GQR1030

The QC reported here applies to the following samples:

Method: SW846 8021B

F25393-1, F25393-2, F25393-3, F25393-4, F25393-5, F25393-6, F25393-7

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
352-33-0	1-Chloro-4-fluorobenzene	90%	70-123%
352-33-0	1-Chloro-4-fluorobenzene	103%	70-123%
563-58-6	1,1-Dichloropropene	100%	86-112%
563-58-6	1,1-Dichloropropene	109%	86-112%

Method Blank Summary

Page 1 of 1

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GCD2122-MB	CD051402.D1		07/26/04	AJ	n/a	n/a	GCD2122

The QC reported here applies to the following samples:

Method: SW846 8021B

F25393-13

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
352-33-0	1-Chloro-4-fluorobenzene	90%	70-123%
98-08-8	aaa-Trifluorotoluene	94%	73-122%

Blank Spike Summary

Page 1 of 1

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GCD2111-BS	CD051203.D 1		07/20/04	RM	n/a	n/a	GCD2111

The QC reported here applies to the following samples:

Method: EPA 601/602

F25393-8, F25393-10, F25393-11

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	17.6	88	86-121
100-41-4	Ethylbenzene	20	17.8	89	81-126
1634-04-4	Methyl Tert Butyl Ether	20	17.0	85	76-117
108-88-3	Toluene	20	17.6	88	82-123
1330-20-7	Xylenes (total)	60	53.1	89	82-125

CAS No.	Surrogate Recoveries	BSP	Limits
352-33-0	1-Chloro-4-fluorobenzene	89%	70-123%
98-08-8	aaa-Trifluorotoluene	96%	73-122%

Blank Spike Summary

Page 1 of 1

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GQR1032-BS	QR023648.D 1		07/20/04	RA	n/a	n/a	GQR1032

The QC reported here applies to the following samples:

Method: EPA 601/602

F25393-9, F25393-12

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	21.6	108	86-121
100-41-4	Ethylbenzene	20	21.5	108	81-126
1634-04-4	Methyl Tert Butyl Ether	20	19.4	97	76-117
108-88-3	Toluene	20	21.0	105	82-123
1330-20-7	Xylenes (total)	60	60.5	101	82-125

CAS No.	Surrogate Recoveries	BSP	Limits
352-33-0	1-Chloro-4-fluorobenzene	107%	70-123%
352-33-0	1-Chloro-4-fluorobenzene	106%	70-123%
563-58-6	1,1-Dichloropropene	102%	86-112%
563-58-6	1,1-Dichloropropene	103%	86-112%

Blank Spike Summary

Page 1 of 1

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GCD2122-BS	CD051331.D1		07/23/04	AJ	n/a	n/a	GCD2122

The QC reported here applies to the following samples:

Method: EPA 601/602

F25393-13

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	19.4	97	86-121
100-41-4	Ethylbenzene	20	19.8	99	81-126
1634-04-4	Methyl Tert Butyl Ether	20	18.8	94	76-117
108-88-3	Toluene	20	19.3	97	82-123
1330-20-7	Xylenes (total)	60	57.9	97	82-125

CAS No.	Surrogate Recoveries	BSP	Limits
352-33-0	1-Chloro-4-fluorobenzene	101%	70-123%
98-08-8	aaa-Trifluorotoluene	99%	73-122%

Blank Spike Summary

Page 1 of 1

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GQR1030-BS	QR023596.D 1		07/16/04	RA	n/a	n/a	GQR1030

The QC reported here applies to the following samples:

Method: SW846 8021B

F25393-1, F25393-2, F25393-3, F25393-4, F25393-5, F25393-6, F25393-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	22.5	113	86-121
100-41-4	Ethylbenzene	20	22.2	111	81-126
1634-04-4	Methyl Tert Butyl Ether	20	20.9	105	76-117
108-88-3	Toluene	20	21.3	107	82-123
1330-20-7	Xylenes (total)	60	64.8	108	82-125

CAS No.	Surrogate Recoveries	BSP	Limits
352-33-0	1-Chloro-4-fluorobenzene	105%	70-123%
352-33-0	1-Chloro-4-fluorobenzene	115%	70-123%
563-58-6	1,1-Dichloropropene	101%	86-112%
563-58-6	1,1-Dichloropropene	117%*	86-112%

Blank Spike Summary

Page 1 of 1

Job Number: F25393

Account: EEINCJX EEI

Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GCD2122-BS	CD051401.D	1	07/26/04	AJ	n/a	n/a	GCD2122

The QC reported here applies to the following samples:

Method: SW846 8021B

F25393-13

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	19.4	97	86-121
100-41-4	Ethylbenzene	20	19.3	97	81-126
1634-04-4	Methyl Tert Butyl Ether	20	20.2	101	76-117
108-88-3	Toluene	20	19.2	96	82-123
1330-20-7	Xylenes (total)	60	57.4	96	82-125

CAS No.	Surrogate Recoveries	BSP	Limits
352-33-0	1-Chloro-4-fluorobenzene	100%	70-123%
98-08-8	aaa-Trifluorotoluene	97%	73-122%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F25365-3MS	QR023604.D 1		07/16/04	RA	n/a	n/a	GQR1030
F25365-3MSD	QR023605.D 1		07/16/04	RA	n/a	n/a	GQR1030
F25365-3	QR023600.D 1		07/16/04	RA	n/a	n/a	GQR1030

The QC reported here applies to the following samples:

Method: EPA 601/602

F25393-1, F25393-2, F25393-3, F25393-4, F25393-5, F25393-6, F25393-7

CAS No.	Compound	F25365-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		20	20.7	104	20.2	101	2	77-125/6
100-41-4	Ethylbenzene	ND		20	20.5	103	20.1	101	2	74-127/6
1634-04-4	Methyl Tert Butyl Ether	ND		20	18.0	90	17.6	88	2	66-127/9
108-88-3	Toluene	ND		20	19.8	99	19.4	97	2	77-124/5
1330-20-7	Xylenes (total)	ND		60	59.3	99	58.2	97	2	76-125/5

CAS No.	Surrogate Recoveries	MS	MSD	F25365-3	Limits
352-33-0	1-Chloro-4-fluorobenzene	103%	103%	89%	70-123%
352-33-0	1-Chloro-4-fluorobenzene	109%	106%		70-123%
563-58-6	1,1-Dichloropropene	100%	100%	100%	86-112%
563-58-6	1,1-Dichloropropene	107%	108%		86-112%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F25393-11MS	CD051211.D 1		07/20/04	RM	n/a	n/a	GCD2111
F25393-11MSD	CD051212.D 1		07/20/04	RM	n/a	n/a	GCD2111
F25393-11	CD051210.D 1		07/20/04	RM	n/a	n/a	GCD2111

The QC reported here applies to the following samples:

Method: EPA 601/602

F25393-8, F25393-10, F25393-11

CAS No.	Compound	F25393-11 ug/l	Spike Q	ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	20	17.3	87	16.6	83	4	77-125/6	
100-41-4	Ethylbenzene	ND	20	17.2	86	16.4	82	5	74-127/6	
1634-04-4	Methyl Tert Butyl Ether	ND	20	16.3	82	16.2	81	1	66-127/9	
108-88-3	Toluene	ND	20	17.3	87	16.6	83	4	77-124/5	
1330-20-7	Xylenes (total)	ND	60	50.8	85	48.5	81	5	76-125/5	

CAS No.	Surrogate Recoveries	MS	MSD	F25393-11	Limits
352-33-0	1-Chloro-4-fluorobenzene	89%	89%	78%	70-123%
98-08-8	aaa-Trifluorotoluene	95%	95%	92%	73-122%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F25337-5MS	QR023653.D 10		07/20/04	RA	n/a	n/a	GQR1032
F25337-5MSD	QR023654.D 10		07/20/04	RA	n/a	n/a	GQR1032
F25337-5	QR023652.D 10		07/20/04	RA	n/a	n/a	GQR1032

The QC reported here applies to the following samples:

Method: EPA 601/602

F25393-9, F25393-12

CAS No.	Compound	F25337-5 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	511		200	688	89	655	72* ^a	5	77-125/6
100-41-4	Ethylbenzene	546		200	734	94	681	68* ^a	7*	74-127/6
1634-04-4	Methyl Tert Bntyl Ether	ND		200	192	96	191	96	1	66-127/9
108-88-3	Toluene	56.7		200	252	98	236	90	7*	77-124/5
1330-20-7	Xylenes (total)	691		600	1230	90	1150	77	7*	76-125/5

CAS No.	Surrogate Recoveries	MS	MSD	F25337-5	Limits
352-33-0	1-Chloro-4-fluorobenzene	105%	105%	100%	70-123%
352-33-0	1-Chloro-4-fluorobenzene	113%	112%	107%	70-123%
563-58-6	1,1-Dichloropropene	99%	100%	99%	86-112%
563-58-6	1,1-Dichloropropene	103%	99%	107%	86-112%

(a) Outside control limits due to high level in sample relative to spike amount.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F25628-10MS	CD051430.D 1		07/27/04	AJ	n/a	n/a	GCD2122
F25628-10MSD	CD051431.D 1		07/27/04	AJ	n/a	n/a	GCD2122
F25628-10 ^a	CD051429.D 1		07/27/04	AJ	n/a	n/a	GCD2122

The QC reported here applies to the following samples:

Method: SW846 8021B

F25393-13

CAS No.	Compound	F25628-10 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	4.3		20	23.2	95	12.1	39*	63*	77-125/6
100-41-4	Ethylbenzene	1.0 U		20	19.0	95	11.4	57*	50*	74-127/6
1634-04-4	Methyl Tert Butyl Ether	34.9		20	52.1	86	6.8	-141*	154*	66-127/9
108-88-3	Toluene	1.0 U		20	18.6	93	10.3	52*	57*	77-124/5
1330-20-7	Xylenes (total)	3.0 U		60	55.7	93	30.0	50*	60*	76-125/5

CAS No.	Surrogate Recoveries	MS	MSD	F25628-10	Limits
352-33-0	1-Chloro-4-fluorobenzene	101%	45%*	90%	70-123%
98-08-8	aaa-Trifluorotoluene	98%	91%	95%	73-122%

(a) All hits confirmed by dual column analysis.

Volatile Surrogate Recovery Summary

Page 1 of 1

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Method: EPA 601/602

Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a	S1 ^b	S2 ^a	S2 ^b	S3 ^b
F25393-1	QR023610.D	89.0		100.0		
F25393-2	QR023611.D	91.0		100.0		
F25393-3	QR023612.D	90.0		100.0		
F25393-4	QR023613.D	90.0		101.0		
F25393-5	QR023614.D	89.0		100.0		
F25393-6	QR023615.D	89.0		100.0		
F25393-7	QR023616.D	89.0		100.0		
F25393-8	CD051205.D		78.0			92.0
F25393-9	QR023659.D	93.0	98.0	100.0	106.0	
F25393-10	CD051206.D		86.0			93.0
F25393-11	CD051210.D		78.0			92.0
F25393-12	QR023660.D	91.0	95.0	100.0	102.0	
F25393-13	CD051342.D		89.0			95.0
F25337-5MS	QR023653.D	105.0	113.0	99.0	103.0	
F25337-5MSD	QR023654.D	105.0	112.0	100.0	99.0	
F25365-3MS	QR023604.D	103.0	109.0	100.0	107.0	
F25365-3MSD	QR023605.D	103.0	106.0	100.0	108.0	
F25393-11MS	CD051211.D		89.0			95.0
F25393-11MSD	CD051212.D		89.0			95.0
GCD2111-BS	CD051203.D		89.0			96.0
GCD2111-MB	CD051204.D		78.0			92.0
GCD2122-BS	CD051331.D		101.0			99.0
GCD2122-MB	CD051332.D		88.0			97.0
GQR1032-BS	QR023648.D	107.0	106.0	102.0	103.0	
GQR1032-MB	QR023649.D	91.0	94.0	101.0	103.0	

Surrogate
Compounds

Recovery
Limits

S1 = 1-Chloro-4-fluorobenzene 70-123%
S2 = 1,1-Dichloropropene 86-112%
S3 = aaa-Trifluorotoluene 73-122%

(a) Recovery from GC signal #1

(b) Recovery from GC signal #2

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GCD2111-CC2072	Injection Date:	07/20/04
Lab File ID:	CD051202.D	Injection Time:	09:27
Instrument ID:	GCCD	Method:	EPA 601/602

	S1 ^a RT	S2 ^a RT
Check Std	8.76	5.35

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
GCD2111-BS	CD051203.D	07/20/04	12:44	8.72	5.33
GCD2112-BS	CD051203.D	07/20/04	12:44	8.72	5.33
GCD2111-MB	CD051204.D	07/20/04	13:09	8.72	5.33
GCD2112-MB	CD051204.D	07/20/04	13:09	8.72	5.33
F25393-8	CD051205.D	07/20/04	13:33	8.72	5.33
F25393-10	CD051206.D	07/20/04	13:57	8.74	5.34
ZZZZZZ	CD051208.D	07/20/04	14:48	8.73	5.33
ZZZZZZ	CD051209.D	07/20/04	15:13	8.73	5.34
F25393-11	CD051210.D	07/20/04	15:37	8.74	5.34
F25393-11MS	CD051211.D	07/20/04	16:01	8.73	5.34
F25393-11MSD	CD051212.D	07/20/04	16:26	8.74	5.34

Surrogate Compounds

S1 = 1-Chloro-4-fluorobenzene
S2 = aaa-Trifluorotoluene

(a) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std: GQR1030-CC1029	Injection Date: 07/16/04
Lab File ID: QR023606.D	Injection Time: 15:50
Instrument ID: GCQR	Method: EPA 601/602

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	12.10	12.12	7.16	7.18

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
ZZZZZZ	QR023607.D	07/16/04	16:18		12.12		7.18
ZZZZZZ	QR023608.D	07/16/04	17:08	12.10		7.15	
ZZZZZZ	QR023609.D	07/16/04	17:37	12.10		7.14	
F25393-1	QR023610.D	07/16/04	18:06	12.10		7.15	
F25393-2	QR023611.D	07/16/04	18:34	12.11		7.15	
F25393-3	QR023612.D	07/16/04	19:03	12.11		7.15	
F25393-4	QR023613.D	07/16/04	19:31	12.10		7.16	
F25393-5	QR023614.D	07/16/04	20:00	12.10		7.14	
F25393-6	QR023615.D	07/16/04	20:29	12.10		7.14	
F25393-7	QR023616.D	07/16/04	20:57	12.10		7.14	
GQR1030-ECC1029	QR023618.D	07/16/04	21:55	12.10	12.11	7.15	7.17

Surrogate Compounds

S1 = 1-Chloro-4-fluorobenzene
S2 = 1,1-Dichloropropene

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GQR1032-CC1031	Injection Date:	07/20/04
Lab File ID:	QR023647.D	Injection Time:	10:16
Instrument ID:	GCQR	Method:	EPA 601/602

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	12.10	12.12	7.13	7.15

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
GQR1032-BS	QR023648.D	07/20/04	14:05	12.02	12.04	7.05	7.07
GQR1032-MB	QR023649.D	07/20/04	14:33	12.02	12.04	7.05	7.07
ZZZZZZ	QR023651.D	07/20/04	16:04	12.02	12.04	7.06	7.08
F25337-5	QR023652.D	07/20/04	16:31	12.02	12.04	7.06	7.08
F25337-5MS	QR023653.D	07/20/04	17:48	12.03	12.05	7.06	7.08
F25337-5MSD	QR023654.D	07/20/04	18:15	12.03	12.05	7.07	7.09
ZZZZZZ	QR023655.D	07/20/04	18:43	12.02	12.04	7.07	7.09
ZZZZZZ	QR023657.D	07/20/04	19:44	12.02	12.04	7.06	7.08

Surrogate Compounds

S1 = 1-Chloro-4-fluorobenzene
S2 = 1,1-Dichloropropene

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GQR1032-CC1031	Injection Date:	07/20/04
Lab File ID:	QR023658.D	Injection Time:	20:11
Instrument ID:	GCQR	Method:	EPA 601/602

	S1 ^a	S1 ^b	S2 ^a	S2 ^b
	RT	RT	RT	RT

Check Std	12.02	12.04	7.06	7.08

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
F25393-9	QR023659.D	07/20/04	20:38	12.02	12.04	7.06	7.08
F25393-12	QR023660.D	07/20/04	21:06	12.02	12.05	7.06	7.08
ZZZZZZ	QR023661.D	07/20/04	21:33	12.03	12.05	7.06	7.08
ZZZZZZ	QR023662.D	07/20/04	22:00	12.03	12.05	7.07	7.09
ZZZZZZ	QR023663.D	07/20/04	22:28	12.02	12.04	7.07	7.09
ZZZZZZ	QR023664.D	07/20/04	22:55	12.02	12.04	7.07	7.09
ZZZZZZ	QR023665.D	07/20/04	23:23	12.02	12.04	7.06	7.08
ZZZZZZ	QR023666.D	07/20/04	23:50	12.02	12.04	7.06	7.08

Surrogate
Compounds

S1 = 1-Chloro-4-fluorobenzene
S2 = 1,1-Dichloropropene

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GCD2117-CC2116	Injection Date:	07/23/04
Lab File ID:	CD051330.D	Injection Time:	07:59
Instrument ID:	GCCD	Method:	EPA 601/602

S1 ^a	S2 ^a
RT	RT

Check Std	8.73	5.34

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
GCD2117-BS	CD051331.D	07/23/04	08:35	8.74	5.34
GCD2122-BS	CD051331.D	07/23/04	08:35	8.74	5.34
GCD2117-MB	CD051332.D	07/23/04	09:00	8.75	5.35
GCD2122-MB	CD051332.D	07/23/04	09:00	8.75	5.35
ZZZZZZ	CD051336.D	07/23/04	12:51	8.74	5.35
ZZZZZZ	CD051337.D	07/23/04	13:16	8.74	5.35
ZZZZZZ	CD051338.D	07/23/04	13:43	8.74	5.35
ZZZZZZ	CD051340.D	07/23/04	14:36	8.75	5.35

Surrogate Compounds

SI = 1-Chloro-4-fluorobenzene
S2 = aaa-Trifluorotoluene

(a) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GCD2117-CC2116	Injection Date:	07/23/04
Lab File ID:	CD051341.D	Injection Time:	15:01
Instrument ID:	GCCD	Method:	EPA 601/602

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	9.06	8.75	5.98	5.35

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
F25393-13	CD051342.D	07/23/04	15:25		8.75		5.35
ZZZZZZ	CD051343.D	07/23/04	15:50		8.75		5.35
ZZZZZZ	CD051346.D	07/23/04	17:08	9.05		5.98	
F25515-18	CD051347.D	07/23/04	17:33	9.06		5.98	
F25515-18MS	CD051348.D	07/23/04	17:58	9.06		5.98	
F25515-18MSD	CD051349.D	07/23/04	18:23	9.06		5.98	
ZZZZZZ	CD051350.D	07/23/04	18:49		8.75		5.35
ZZZZZZ	CD051351.D	07/23/04	19:14		8.74		5.35

Surrogate Compounds

S1 = 1-Chloro-4-fluorobenzene
S2 = aaa-Trifluorotoluene

- (a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GCD2I21-CC2116	Injection Date:	07/26/04
Lab File ID:	CD051400.D	Injection Time:	19:50
Instrument ID:	GCCD	Method:	SW846 8021B

S1 ^a	S2 ^a
RT	RT

Check Std	8.74	5.34

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
GCD2121-BS	CD051401.D	07/26/04	20:14	8.75	5.35
GCD2122-BS	CD051401.D	07/26/04	20:14	8.75	5.35
GCD2121-MB	CD051402.D	07/26/04	20:39	8.75	5.36
GCD2122-MB	CD051402.D	07/26/04	20:39	8.75	5.36
ZZZZZZ	CD051404.D	07/26/04	21:30	8.75	5.36
ZZZZZZ	CD051407.D	07/26/04	22:48	8.76	5.35
ZZZZZZ	CD051408.D	07/26/04	23:12	8.75	5.35
ZZZZZZ	CD051409.D	07/26/04	23:36	8.74	5.36

Surrogate Compounds

S1 = 1-Chloro-4-fluorobenzene
S2 = aaa-Trifluorotoluene

(a) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GCD2122-CC2116	Injection Date:	07/27/04
Lab File ID:	CD051422.D	Injection Time:	04:54
Instrument ID:	GCCD	Method:	SW846 8021B

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	9.05	8.74	5.97	5.35

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
ZZZZZZ	CD051423.D	07/27/04	05:18		8.74		5.35
ZZZZZZ	CD051424.D	07/27/04	05:45		8.74		5.35
ZZZZZZ	CD051425.D	07/27/04	06:12		8.74		5.35
ZZZZZZ	CD051426.D	07/27/04	06:36		8.75		5.35
ZZZZZZ	CD051427.D	07/27/04	07:00		8.74		5.35
ZZZZZZ	CD051428.D	07/27/04	07:27		8.74		5.34
F25628-10	CD051429.D	07/27/04	07:51		8.74		5.35
F25628-10MS	CD051430.D	07/27/04	08:16		8.74		5.35
F25628-10MSD	CD051431.D	07/27/04	08:40		8.75		5.35
GCD2122-ECC2116	CD051433.D	07/27/04	09:29	9.06	8.74	5.98	5.35

Surrogate Compounds

S1 = 1-Chloro-4-fluorobenzene
S2 = aaa-Trifluorotoluene

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F25393
Account: EEINCJX EE1
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GQR1030-CC1029	Injection Date:	07/16/04
Lab File ID:	QR023595.D	Injection Time:	10:02
Instrument ID:	GCQR	Method:	EPA 601/602

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	12.10	12.12	7.15	7.17

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
GQR1030-BS	QR023596.D	07/16/04	10:47	12.10	12.12	7.15	7.17
GQR1030-MB	QR023597.D	07/16/04	11:16	12.11	12.13	7.15	7.17
ZZZZZZ	QR023598.D	07/16/04	12:00	12.10		7.15	
ZZZZZZ	QR023599.D	07/16/04	12:29	12.10		7.15	
F25365-3	QR023600.D	07/16/04	12:58	12.11		7.15	
ZZZZZZ	QR023601.D	07/16/04	13:26	12.11		7.15	
ZZZZZZ	QR023602.D	07/16/04	13:55	12.10		7.16	
ZZZZZZ	QR023603.D	07/16/04	14:24	12.10		7.16	
F25365-3MS	QR023604.D	07/16/04	14:52	12.11	12.13	7.16	7.18
F25365-3MSD	QR023605.D	07/16/04	15:21	12.10	12.12	7.16	7.18

Surrogate
Compounds

S1 = 1-Chloro-4-fluorobenzene
S2 = 1,1-Dichloropropene

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

Initial Calibration Summary

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GCD2072-ICC2072
Lab FileID: CD050334.D

Page 1 of 1

Response Factor Report VOA2

Method : C:\HPCHEM\2\METHODS\GCCD0625.M (Chemstation Integrator)
Title : EPA 602/8021B
Last Update : Fri Jun 25 15:51:14 2004
Response via : Initial Calibration

Calibration Files

1 =CD050331.D 2 =CD050332.D 3 =CD050333.D
4 =CD050334.D 5 =CD050335.D 6 =CD050336.D

	Compound	1	2	3	4	5	6	Avg	%RSD
1)	Methyl tert Butyl E		1.383	1.520	1.489	1.480	1.401	1.455	E3 4.06
2)	Di-Isopropyl ether	2.999	2.052	2.196	2.139	2.170	2.130	2.281	E3 15.56
3)	BENZENE	5.369	5.104	5.329	5.244	5.422	5.306	5.296	E3 2.10
4) S	a,a,a-TFT(S)	1.824	1.842	1.867	1.904	1.898	1.908	1.874	E3 1.88
5)	TOLUENE	5.315	5.050	5.317	5.283	5.363	5.364	5.282	E3 2.23
6) S	1-Chloro-4-Fluorobenzene	3.011	3.094	3.310	3.435	3.476	3.478	3.301	E3 6.16
7)	CHLOROBENZENE	7.322	5.358	5.509	5.454	5.627	5.570	5.807	E3 12.88
8)	ETHYLBENZENE	6.705	4.733	4.714	4.608	4.701	4.646	5.018	E3 16.50
9)	m,p-XYLENE	5.092	4.722	5.128	5.103	5.199	5.136	5.064	E3 3.38
10)	o-XYLENE	4.773	4.508	4.801	4.731	4.820	4.790	4.737	E3 2.45
11)	1,3-DICHLOROBENZENE	3.632	3.598	4.129	4.246	4.460	4.433	4.083	E3 9.37
12)	1,4-DICHLOROBENZENE	3.673	3.531	4.163	4.383	4.622	4.715	4.181	E3 11.72
13)	1,2-DICHLOROBENZENE	3.083	2.903	3.350	3.416	3.598	3.601	3.325	E3 8.46

Signal #2 Calibration Files

1 =CD050331.D 2 =CD050332.D 3 =CD050333.D
4 =CD050334.D 5 =CD050335.D 6 =CD050336.D

	Compound	1	2	3	4	5	6	Avg	%RSD
1)	Methyl tert Butyl E	1.537	1.361	1.459	1.426	1.428	1.405	1.436	E3 4.11
2)	Di-Isopropyl ether	2.872	1.927	2.036	1.987	2.007	1.991	2.137	E3 16.95
3)	BENZENE	5.249	4.883	5.160	5.063	5.163	5.152	5.112	E3 2.47
4) S	a,a,a-TFT(S)	1.709	1.663	1.702	1.732	1.752	1.795	1.725	E3 2.62
5)	TOLUENE	5.211	4.909	5.282	5.220	5.306	5.342	5.212	E3 3.00
6) S	1-Chloro-4-Fluorobenzene	2.853	2.970	3.162	3.247	3.343	3.378	3.159	E3 6.62
7)	CHLOROBENZENE	6.085	5.196	5.544	5.552	5.715	5.750	5.640	E3 5.20
8)	ETHYLBENZENE	4.862	4.454	4.752	4.686	4.799	4.805	4.726	E3 3.08
9)	m,p-XYLENE	5.134	4.784	5.125	5.135	5.225	5.226	5.105	E3 3.21
10)	o-XYLENE	4.788	4.573	4.857	4.798	4.861	4.885	4.794	E3 2.39
11)	1,3-DICHLOROBENZENE	3.770	3.646	4.297	4.448	4.694	4.760	4.269	E3 10.94
12)	1,4-DICHLOROBENZENE	3.961	3.871	4.461	4.701	4.953	5.109	4.509	E3 11.32
13)	1,2-DICHLOROBENZENE	3.222	3.005	3.495	3.622	3.802	3.856	3.500	E3 9.52

Average % RSD = 6.9

(#) = Out of Range

GCCD0625.M

Mon Jun 28 08:14:40 2004

QRXY

Continuing Calibration Summary

Page 1 of 1

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GCD2111-CC2072
Lab FileID: CD051202.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\2\DATA\072004\CD051202.D\FID1A.CH Vial: 21
Signal #2 : C:\HPCHEM\2\DATA\072004\CD051202.D\FID2B.CH
Acq On : 20 Jul 2004 9:27 am Operator: RondaM
Sample : CC2072-20 Inst : VOA2
Misc : gc3724,gcd2111,,,,, Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E

Method : C:\HPCHEM\2\METHODS\GCCD0625.M (Chemstation Integrator)
Title : EPA 602/8021B
Last Update : Fri Jul 09 09:16:58 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	18.760	6.2	90	-0.01
2	Di-Isopropyl ether	20.000	18.178	9.1	90	-0.01
3	BENZENE	20.000	18.566	7.2	92	-0.01
4 S	a,a,a-TFT(S)	20.000	19.948	0.3	100	-0.01
5	TOLUENE	20.000	18.895	5.5	94	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	18.357	8.2	92	0.00
7	CHLOROBENZENE	20.000	18.409	8.0	93	0.00
8	ETHYLBENZENE	20.000	19.048	4.8	95	0.00
9	m,p-XYLENE	40.000	38.483	3.8	95	0.00
10	o-XYLENE	20.000	19.420	2.9	96	0.00
11	1,3-DICHLOROBENZENE	20.000	19.286	3.6	95	0.00
12	1,4-DICHLOROBENZENE	20.000	17.908	10.5	93	0.00
13	1,2-DICHLOROBENZENE	20.000	19.626	1.9	97	0.00

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	18.503	7.5	91	-0.01
2	Di-Isopropyl ether	20.000	18.123	9.4	90	-0.01
3	BENZENE	20.000	18.505	7.5	92	0.00
4 S	a,a,a-TFT(S)	20.000	20.721	-3.6	105	0.00
5	TOLUENE	20.000	18.550	7.2	92	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	18.030	9.8	90	0.00
7	CHLOROBENZENE	20.000	17.826	10.9	91	0.00
8	ETHYLBENZENE	20.000	18.420	7.9	92	0.00
9	m,p-XYLENE	40.000	37.226	6.9	93	0.00
10	o-XYLENE	20.000	18.802	6.0	93	0.00
11	1,3-DICHLOROBENZENE	20.000	18.012	9.9	93	0.00
12	1,4-DICHLOROBENZENE	20.000	17.244	13.8	89	0.00
13	1,2-DICHLOROBENZENE	20.000	18.358	8.2	95	0.00

Average % D = 6.9

(#) = Out of Range
CD050333.D GCCD0625.M

SPCC's out = 0 CCC's out = 0
Wed Jul 21 13:14:41 2004 QRCY

Continuing Calibration Summary

Job Number: F25393
Account: BEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GCD2111-CC2072
Lab FileID: CD051213.D

Page 1 of 1

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\2\DATA\072004\CD051213.D\FID1A.CH Vial: 11
Signal #2 : C:\HPCHEM\2\DATA\072004\CD051213.D\FID2B.CH
Acq On : 20 Jul 2004 5:31 pm Operator: AlbertJ
Sample : CC2072-20 Inst : VOA2
Misc : gc3724,gcd2111,,,,, Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E

Method : C:\HPCHEM\2\METHODS\GCCD0625.M (Chemstation Integrator)
Title : EPA 602/8021B
Last Update : Fri Jul 09 09:16:58 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	18.119	9.4	87	-0.03
2	Di-Isopropyl ether	20.000	17.952	10.2	89	-0.03
3	BENZENE	20.000	18.158	9.2	90	-0.04
4 S	a,a,a-TFT(S)	20.000	20.099	-0.5	101	-0.03
5	TOLUENE	20.000	18.602	7.0	92	-0.03
6 S	1-Chloro-4-Fluorobenzene	20.000	18.645	6.8	93	-0.04
7	CHLOROBENZENE	20.000	18.265	8.7	92	-0.04
8	ETHYLBENZENE	20.000	18.689	6.6	93	-0.03
9	m,p-XYLENE	40.000	37.816	5.5	93	-0.03
10	o-XYLENE	20.000	18.940	5.3	93	-0.03
11	1,3-DICHLOROBENZENE	20.000	19.332	3.3	96	-0.02
12	1,4-DICHLOROBENZENE	20.000	18.216	8.9	95	-0.01
13	1,2-DICHLOROBENZENE	20.000	19.571	2.1	97	-0.02

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	17.739	11.3	87	-0.03
2	Di-Isopropyl ether	20.000	17.575	12.1	87	-0.03
3	BENZENE	20.000	17.905	10.5	89	-0.03
4 S	a,a,a-TFT(S)	20.000	19.198	4.0	97	-0.03
5	TOLUENE	20.000	18.059	9.7	89	-0.03
6 S	1-Chloro-4-Fluorobenzene	20.000	18.165	9.2	91	-0.04
7	CHLOROBENZENE	20.000	17.525	12.4	89	-0.04
8	ETHYLBENZENE	20.000	18.056	9.7	90	-0.03
9	m,p-XYLENE	40.000	36.473	8.8	91	-0.03
10	o-XYLENE	20.000	18.486	7.6	91	-0.03
11	1,3-DICHLOROBENZENE	20.000	18.088	9.6	93	-0.02
12	1,4-DICHLOROBENZENE	20.000	17.637	11.8	92	-0.02
13	1,2-DICHLOROBENZENE	20.000	18.483	7.6	95	-0.02

Average % D = 8.0

(#) = Out of Range
CD050333.D GCCD0625.M

SPCC's out = 0 CCC's out = 0
Wed Jul 21 13:14:42 2004 QRCY

Initial Calibration Summary

Page 1 of 1

Job Number: F25393
 Account: EEINCJX EEI
 Project: Bldg. 4158/Camp Lejeune, NC

Sample: GCD2116-ICC2116
 Lab FileID: CD051304.D

Response Factor Report VOA2

Method : C:\HPCHEM\2\METHODS\GCCD0722.M (Chemstation Integrator)
 Title : EPA 602/8021B
 Last Update : Thu Jul 22 15:18:55 2004
 Response via : Initial Calibration

Calibration Files

1 =CD051302.D 2 =CD051303.D 3 =CD051304.D
 4 =CD051305.D 5 =CD051306.D 6 =CD051307.D

	Compound	1	2	3	4	5	6	Avg	%RSD
1)	Methyl tert Butyl E	1.195	1.236	1.237	1.340	1.346	1.299	1.275	E3 4.86
2)	Di-Isopropyl ether	1.943	1.815	1.826	2.011	2.044	2.046	1.947	E3 5.40
3)	BENZENE	4.791	4.304	4.448	4.892	4.954	4.993	4.731	E3 6.06
4) S	a,a,a-TFT(S)	1.703	1.718	1.812	1.912	1.929	1.895	1.828	E3 5.45
5)	TOLUENE	5.217	4.233	4.562	4.947	5.013	5.042	4.836	E3 7.57
6) S	1-Chloro-4-Fluorobe		2.636	2.975	3.149	3.217	3.210	3.038	E3 8.06
7)	CHLOROBENZENE		4.462	4.773	5.125	5.234	5.295	4.978	E3 7.07
8)	ETHYLBENZENE		4.012	4.170	4.380	4.389	4.435	4.277	E3 4.21
9)	m,p-XYLENE	5.033	4.108	4.568	4.860	4.899	4.918	4.731	E3 7.23
10)	o-XYLENE	4.517	3.883	4.266	4.512	4.552	4.560	4.382	E3 6.11
11)	1,3-DICHLOROBENZENE	3.364	3.038	3.656	4.117	4.244	4.276	3.783	E3 13.56
12)	1,4-DICHLOROBENZENE	3.239	2.964	3.611	4.135	4.392	4.672	3.836	E3 17.55
13)	1,2-DICHLOROBENZENE	2.958	2.611	3.038	3.308	3.457	3.499	3.145	E3 10.84

Signal #2 Calibration Files

1 =CD051302.D 2 =CD051303.D 3 =CD051304.D
 4 =CD051305.D 5 =CD051306.D 6 =CD051307.D

	Compound	1	2	3	4	5	6	Avg	%RSD
1)	Methyl tert Butyl E	1.267	1.281	1.309	1.360	1.353	1.358	1.321	E3 3.14
2)	Di-Isopropyl ether	1.950	1.831	1.864	1.925	1.928	1.945	1.907	E3 2.53
3)	BENZENE	5.015	4.580	4.647	4.830	4.854	4.938	4.811	E3 3.49
4) S	a,a,a-TFT(S)	1.691	1.710	1.745	1.813	1.802	1.814	1.763	E3 3.11
5)	TOLUENE	5.588	4.613	4.752	4.979	5.019	5.099	5.008	E3 6.72
6) S	1-Chloro-4-Fluorobe	2.659	2.769	2.960	3.063	3.150	3.181	2.963	E3 7.12
7)	CHLOROBENZENE	5.805	4.740	4.941	5.221	5.362	5.474	5.257	E3 7.26
8)	ETHYLBENZENE	5.016	4.138	4.283	4.507	4.531	4.611	4.515	E3 6.69
9)	m,p-XYLENE	5.459	4.482	4.646	4.886	4.980	5.042	4.916	E3 6.91
10)	o-XYLENE	4.949	4.263	4.422	4.627	4.627	4.690	4.596	E3 5.11
11)	1,3-DICHLOROBENZENE	3.791	3.472	3.913	4.356	4.515	4.641	4.115	E3 11.16
12)	1,4-DICHLOROBENZENE	3.782	3.461	3.971	4.443	4.751	4.960	4.228	E3 13.83
13)	1,2-DICHLOROBENZENE	3.382	2.937	3.270	3.533	3.673	3.780	3.429	E3 8.87

Average % RSD = 7.3

(#)= Out of Range

GCCD0722.M

Fri Jul 23 10:29:12 2004 QRCY

Continuing Calibration Summary

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GCD2117-CC2116
Lab FileID: CD051330.D

Page 1 of 2

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\2\DATA\072304\CD051330.D\FID1A.CH Vial: 28
Acq On : 23 Jul 2004 7:59 am Operator: AlbertJ
Sample : CC2116-40 Inst : VOA2
Misc : gc3755,gcd2117,,,, Multiplr: 1.00
IntFile : PID.E

Data File : C:\HPCHEM\2\DATA\072304\CD051330.D\FID2B.CH Vial: 28
Acq On : 23 Jul 2004 7:59 am Operator: AlbertJ
Sample : ECC2116-40 Inst : VOA2
Misc : gc3732,gcd2116,,,, Multiplr: 1.00
IntFile : FID.E

Method : C:\HPCHEM\2\METHODS\GCCD0722.M (Chemstation Integrator)
Title : EPA 602/8021B
Last Update : Thu Jul 22 15:18:55 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	40.000	41.337	-3.3	98	0.00
2	Di-Isopropyl ether	40.000	38.609	3.5	93	-0.01
3	BENZENE	40.000	35.934	10.2	87	-0.01
4 S	a,a,a-TFT(S)	20.000	19.259	3.7	92	-0.01
5	TOLUENE	40.000	36.436	8.9	89	-0.02
6 S	1-Chloro-4-Fluorobenzene	20.000	20.240	-1.2	98	-0.01
7	CHLOROBENZENE	40.000	38.403	4.0	93	-0.01
8	ETHYLBENZENE	40.000	37.909	5.2	93	-0.02
9	m,p-XYLENE	80.000	76.524	4.3	93	-0.02
10	o-XYLENE	40.000	38.877	2.8	94	-0.02
11	1,3-DICHLOROBENZENE	40.000	37.371	6.6	94	-0.02
12	1,4-DICHLOROBENZENE	40.000	36.703	8.2	96	-0.02
13	1,2-DICHLOROBENZENE	40.000	37.971	5.1	97	-0.02

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	40.000	41.892	-4.7	102	0.00
2	Di-Isopropyl ether	40.000	40.343	-0.9	100	0.00
3	BENZENE	40.000	37.391	6.5	93	0.00
4 S	a,a,a-TFT(S)	20.000	19.918	0.4	97	0.00
5	TOLUENE	40.000	37.268	6.8	94	-0.01
6 S	1-Chloro-4-Fluorobenzene	20.000	21.045	-5.2	102	0.00
7	CHLOROBENZENE	40.000	38.156	4.6	96	0.00
8	ETHYLBENZENE	40.000	37.504	6.2	94	0.00
9	m,p-XYLENE	80.000	75.086	6.1	94	-0.01
10	o-XYLENE	40.000	38.021	4.9	94	-0.01
11	1,3-DICHLOROBENZENE	40.000	36.944	7.6	94	-0.02
12	1,4-DICHLOROBENZENE	40.000	37.132	7.2	98	-0.02
13	1,2-DICHLOROBENZENE	40.000	37.677	5.8	97	-0.02

Average % D = 5.2

Continuing Calibration Summary

Page 2 of 2

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4I58/Camp Lejeune, NC

Sample: GCD2117-CC2116
Lab FileID: CD051330.D

(#) = Out of Range
CD051305.D GCCD0722.M

SPCC's out = 0 CCC's out = 0
Mon Jul 26 09:07:39 2004 QRXY

5.0



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ACCUTEST

F25393

Continuing Calibration Summary

Page 1 of 1

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GCD2117-CC2116
Lab FileID: CD051341.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\2\DATA\072304\CD051341.D\FID1A.CH Vial: 11
Signal #2 : C:\HPCHEM\2\DATA\072304\CD051341.D\FID2B.CH
Acq On : 23 Jul 2004 3:01 pm Operator: AlbertJ
Sample : CC2116-20 Inst : VOA2
Misc : gc3737,gcd2117,,,,, Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E

Method : C:\HPCHEM\2\METHODS\GCCD0722.M (Chemstation Integrator)
Title : EPA 602/8021B
Last Update : Thu Jul 22 15:18:55 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	19.161	4.2	99	0.00
2	Di-Isopropyl ether	20.000	18.029	9.9	96	0.00
3	BENZENE	20.000	17.995	10.0	96	0.00
4 S	a,a,a-TFT(S)	20.000	18.785	6.1	95	0.00
5	TOLUENE	20.000	17.829	10.9	94	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	18.347	8.3	94	0.00
7	CHLOROBENZENE	20.000	17.899	10.5	93	0.00
8	ETHYLBENZENE	20.000	18.816	5.9	96	0.00
9	m,p-XYLENE	40.000	37.560	6.1	97	0.00
10	o-XYLENE	20.000	19.093	4.5	98	0.00
11	1,3-DICHLOROBENZENE	20.000	18.269	8.7	99	0.00
12	1,4-DICHLOROBENZENE	20.000	18.076	9.6	100	0.00
13	1,2-DICHLOROBENZENE	20.000	18.960	5.2	101	0.00

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	19.835	0.8	100	0.00
2	Di-Isopropyl ether	20.000	19.285	3.6	99	0.00
3	BENZENE	20.000	19.155	4.2	99	0.00
4 S	a,a,a-TFT(S)	20.000	19.603	2.0	99	0.00
5	TOLUENE	20.000	18.866	5.7	99	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	20.137	-0.7	101	0.00
7	CHLOROBENZENE	20.000	18.677	6.6	99	0.00
8	ETHYLBENZENE	20.000	19.003	5.0	100	0.01
9	m,p-XYLENE	40.000	37.472	6.3	99	0.00
10	o-XYLENE	20.000	19.272	3.6	100	0.01
11	1,3-DICHLOROBENZENE	20.000	18.546	7.3	100	0.01
12	1,4-DICHLOROBENZENE	20.000	18.349	8.3	100	0.01
13	1,2-DICHLOROBENZENE	20.000	18.978	5.1	101	0.01

Average % D = 6.1

(#) = Out of Range
CD051304.D GCCD0722.M

SPCC's out = 0 CCC's out = 0
Mon Jul 26 09:07:06 2004 QRCY

Continuing Calibration Summary

Page 1 of 1

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GCD2117-CC2116
Lab FileID: CD051352.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\2\DATA\072304\CD051352.D\FID1A.CH Vial: 21
Signal #2 : C:\HPCHEM\2\DATA\072304\CD051352.D\FID2B.CH
Acq On : 23 Jul 2004 7:38 pm Operator: AlbertJ
Sample : CC2116-20 Inst : VOA2
Misc : gc3724,gcd2117,,,,, Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E

Method : C:\HPCHEM\2\METHODS\GCCD0722.M (Chemstation Integrator)
Title : EPA 602/8021B
Last Update : Thu Jul 22 15:18:55 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	18.195	9.0	94	0.00
2	Di-Isopropyl ether	20.000	17.512	12.4	93	0.00
3	BENZENE	20.000	17.553	12.2	93	0.00
4 S	a,a,a-TFT(S)	20.000	17.930	10.4	90	0.00
5	TOLUENE	20.000	17.495	12.5	93	-0.01
6 S	1-Chloro-4-Fluorobenzene	20.000	17.758	11.2	91	-0.01
7	CHLOROBENZENE	20.000	17.579	12.1	92	-0.01
8	ETHYLBENZENE	20.000	18.377	8.1	94	-0.01
9	m,p-XYLENE	40.000	37.678	5.8	98	-0.01
10	o-XYLENE	20.000	19.113	4.4	98	-0.01
11	1,3-DICHLOROBENZENE	20.000	17.701	11.5	96	0.00
12	1,4-DICHLOROBENZENE	20.000	17.908	10.5	99	0.00
13	1,2-DICHLOROBENZENE	20.000	18.407	8.0	98	0.00

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	19.433	2.8	98	0.00
2	Di-Isopropyl ether	20.000	19.394	3.0	99	0.00
3	BENZENE	20.000	19.300	3.5	100	0.00
4 S	a,a,a-TFT(S)	20.000	19.397	3.0	98	0.00
5	TOLUENE	20.000	19.109	4.5	101	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	19.861	0.7	99	0.00
7	CHLOROBENZENE	20.000	18.810	6.0	100	0.00
8	ETHYLBENZENE	20.000	19.257	3.7	101	0.00
9	m,p-XYLENE	40.000	38.215	4.5	101	0.00
10	o-XYLENE	20.000	19.574	2.1	102	0.00
11	1,3-DICHLOROBENZENE	20.000	18.864	5.7	102	0.00
12	1,4-DICHLOROBENZENE	20.000	18.486	7.6	101	0.00
13	1,2-DICHLOROBENZENE	20.000	18.976	5.1	101	0.00

Average % D = 6.9

(#) = Out of Range
CD051304.D GCCD0722.M

SPCC's out = 0 CCC's out = 0
Mon Jul 26 09:07:07 2004 QRCY

Continuing Calibration Summary

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GCD2121-CC2116
Lab FileID: CD051400.D

Page 1 of 1

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\2\DATA\072604\CD051400.D\FID1A.CH Vial: 22
Signal #2 : C:\HPCHEM\2\DATA\072604\CD051400.D\FID2B.CH
Acq On : 26 Jul 2004 7:50 pm Operator: AlbertJ
Sample : CC2116-20 Inst : VOA2
Misc : gc3761,gcd2121,,,,, Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E

Method : C:\HPCHEM\2\METHODS\GCCD0722.M (Chemstation Integrator)
Title : EPA 602/8021B
Last Update : Thu Jul 22 15:18:55 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	19.774	1.1	102	0.00
2	Di-Isopropyl ether	20.000	18.841	5.8	100	0.00
3	BENZENE	20.000	18.728	6.4	100	0.00
4 S	a,a,a-TFT(S)	20.000	18.964	5.2	96	0.00
5	TOLUENE	20.000	18.476	7.6	98	-0.01
6 S	1-Chloro-4-Fluorobenzene	20.000	18.961	5.2	97	-0.02
7	CHLOROBENZENE	20.000	19.052	4.7	99	-0.02
8	ETHYLBENZENE	20.000	19.526	2.4	100	-0.02
9	m,p-XYLENE	40.000	38.974	2.6	101	-0.02
10	o-XYLENE	20.000	19.977	0.1	103	-0.02
11	1,3-DICHLOROBENZENE	20.000	18.734	6.3	102	-0.01
12	1,4-DICHLOROBENZENE	20.000	18.569	7.2	103	-0.01
13	1,2-DICHLOROBENZENE	20.000	19.084	4.6	102	-0.01

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	20.190	-1.0	102	0.00
2	Di-Isopropyl ether	20.000	19.902	0.5	102	0.00
3	BENZENE	20.000	19.461	2.7	101	0.00
4 S	a,a,a-TFT(S)	20.000	19.251	3.7	97	0.00
5	TOLUENE	20.000	19.206	4.0	101	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	19.812	0.9	99	0.00
7	CHLOROBENZENE	20.000	18.848	5.8	100	0.00
8	ETHYLBENZENE	20.000	18.948	5.3	100	0.00
9	m,p-XYLENE	40.000	37.633	5.9	100	0.00
10	o-XYLENE	20.000	19.335	3.3	100	0.00
11	1,3-DICHLOROBENZENE	20.000	18.494	7.5	100	0.00
12	1,4-DICHLOROBENZENE	20.000	18.324	8.4	100	0.00
13	1,2-DICHLOROBENZENE	20.000	18.815	5.9	100	0.00

Average % D = 4.4

(#) = Out of Range
CD051304.D GCCD0722.M

SPCC's out = 0 CCC's out = 0
Wed Jul 28 16:32:38 2004 QRCY

Continuing Calibration Summary

Page 1 of 1

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GCD2121-CC2116
Lab FileID: CD051411.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\2\DATA\072604\CD051411.D\FID1A.CH Vial: 33
Signal #2 : C:\HPCHEM\2\DATA\072604\CD051411.D\FID2B.CH
Acq On : 27 Jul 2004 12:25 am Operator: AlbertJ
Sample : CC2116-20 Inst : VOA2
Misc : gc3760,gcd2121,,,,, Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E

Method : C:\HPCHEM\2\METHODS\GCCD0722.M (Chemstation Integrator)
Title : EPA 602/8021B
Last Update : Thu Jul 22 15:18:55 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	20.914	-4.6	108	0.00
2	Di-Isopropyl ether	20.000	20.205	-1.0	108	0.00
3	BENZENE	20.000	19.630	1.9	104	0.00
4 S	a,a,a-TFT(S)	20.000	20.715	-3.6	105	0.00
5	TOLUENE	20.000	18.938	5.3	100	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	20.200	-1.0	103	0.00
7	CHLOROBENZENE	20.000	18.963	5.2	99	0.00
8	ETHYLBENZENE	20.000	19.132	4.3	98	0.00
9	m,p-XYLENE	40.000	37.865	5.3	98	0.00
10	o-XYLENE	20.000	19.259	3.7	99	0.00
11	1,3-DICHLOROBENZENE	20.000	18.403	8.0	100	0.00
12	1,4-DICHLOROBENZENE	20.000	18.118	9.4	100	0.00
13	1,2-DICHLOROBENZENE	20.000	18.691	6.5	100	0.00

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	20.241	-1.2	102	0.01
2	Di-Isopropyl ether	20.000	19.711	1.4	101	0.01
3	BENZENE	20.000	19.135	4.3	99	0.01
4 S	a,a,a-TFT(S)	20.000	19.845	0.8	100	0.01
5	TOLUENE	20.000	18.537	7.3	98	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	20.088	-0.4	101	0.00
7	CHLOROBENZENE	20.000	18.335	8.3	98	0.00
8	ETHYLBENZENE	20.000	18.421	7.9	97	0.00
9	m,p-XYLENE	40.000	36.492	8.8	97	0.00
10	o-XYLENE	20.000	18.525	7.4	96	0.00
11	1,3-DICHLOROBENZENE	20.000	18.649	6.8	101	0.00
12	1,4-DICHLOROBENZENE	20.000	17.899	10.5	98	0.00
13	1,2-DICHLOROBENZENE	20.000	18.354	8.2	97	0.00

Average % D = 5.1

(#) = Out of Range
CD051304.D GCCD0722.M

SPCC's out = 0 CCC's out = 0
Wed Jul 28 16:32:39 2004 QRCY

Continuing Calibration Summary

Page 1 of 1

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GCD2122-CC2116
Lab FileID: CD051422.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\2\DATA\072604\CD051422.D\FID1A.CH Vial: 43
Signal #2 : C:\HPCHEM\2\DATA\072604\CD051422.D\FID2B.CH
Acq On : 27 Jul 2004 4:54 am Operator: AlbertJ
Sample : CC2116-20 Inst : VOA2
Misc : gc3760,gcd2122,,,,, Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E

Method : C:\HPCHEM\2\METHODS\GCCD0722.M (Chemstation Integrator)
Title : EPA 602/8021B
Last Update : Thu Jul 22 15:18:55-2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	21.007	-5.0	108	0.00
2	Di-Isopropyl ether	20.000	20.751	-3.8	111	0.00
3	BENZENE	20.000	20.626	-3.1	110	0.00
4 S	a,a,a-TFT(S)	20.000	20.578	-2.9	104	0.00
5	TOLUENE	20.000	20.174	-0.9	107	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	20.411	-2.1	104	0.00
7	CHLOROBENZENE	20.000	20.022	-0.1	104	0.00
8	ETHYLBENZENE	20.000	20.235	-1.2	104	0.00
9	m,p-XYLENE	40.000	39.878	0.3	103	0.00
10	o-XYLENE	20.000	20.479	-2.4	105	0.00
11	1,3-DICHLOROBENZENE	20.000	19.194	4.0	104	0.00
12	1,4-DICHLOROBENZENE	20.000	19.130	4.4	107	0.00
13	1,2-DICHLOROBENZENE	20.000	19.543	2.3	105	0.00

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	20.498	-2.5	103	0.00
2	Di-Isopropyl ether	20.000	20.226	-1.1	103	0.00
3	BENZENE	20.000	19.861	0.7	103	0.00
4 S	a,a,a-TFT(S)	20.000	19.537	2.3	99	0.00
5	TOLUENE	20.000	19.365	3.2	102	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	19.828	0.9	99	0.00
7	CHLOROBENZENE	20.000	19.337	3.3	103	0.00
8	ETHYLBENZENE	20.000	19.293	3.5	102	0.00
9	m,p-XYLENE	40.000	38.396	4.0	102	0.00
10	o-XYLENE	20.000	19.725	1.4	103	0.00
11	1,3-DICHLOROBENZENE	20.000	18.946	5.3	103	0.00
12	1,4-DICHLOROBENZENE	20.000	18.820	5.9	103	0.00
13	1,2-DICHLOROBENZENE	20.000	19.199	4.0	102	0.00

Average % D = 2.7

(#) = Out of Range
CD051304.D GCCD0722.M

SPCC's out = 0 CCC's out = 0
Wed Jul 28 16:32:40 2004 QRCY

Continuing Calibration Summary

Page 1 of 1

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GCD2122-ECC2116
Lab FileID: CD051433.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\2\DATA\072704\CD051433.D\FID1A.CH Vial: 2
Signal #2 : C:\HPCHEM\2\DATA\072704\CD051433.D\FID2B.CH
Acq On : 27 Jul 2004 9:29 am Operator: AlbertJ
Sample : CC2116-40 Inst : VOA2
Misc : gc3760,gcd2123,,,, Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E

Method : C:\HPCHEM\2\METHODS\GCCD0722.M (Chemstation Integrator)
Title : EPA 602/8021B
Last Update : Thu Jul 22 15:18:55 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	40.000	42.635	-6.6	101	0.00
2	Di-Isopropyl ether	40.000	40.740	-1.9	99	0.00
3	BENZENE	40.000	39.535	1.2	96	0.00
4 S	a,a,a-TFT(S)	20.000	21.077	-5.4	101	0.00
5	TOLUENE	40.000	38.156	4.6	93	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	21.098	-5.5	102	0.00
7	CHLOROBENZENE	40.000	38.585	3.5	94	0.00
8	ETHYLBENZENE	40.000	37.579	6.1	92	0.00
9	m,p-XYLENE	80.000	75.148	6.1	91	0.00
10	o-XYLENE	40.000	38.347	4.1	93	0.00
11	1,3-DICHLOROBENZENE	40.000	36.746	8.1	92	0.00
12	1,4-DICHLOROBENZENE	40.000	35.561	11.1	93	0.00
13	1,2-DICHLOROBENZENE	40.000	36.929	7.7	94	0.00

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	40.000	39.714	0.7	96	0.00
2	Di-Isopropyl ether	40.000	38.688	3.3	96	0.00
3	BENZENE	40.000	37.376	6.6	93	0.00
4 S	a,a,a-TFT(S)	20.000	19.885	0.6	97	0.00
5	TOLUENE	40.000	36.134	9.7	91	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	20.576	-2.9	100	0.00
7	CHLOROBENZENE	40.000	36.758	8.1	93	0.00
8	ETHYLBENZENE	40.000	36.054	9.9	90	0.00
9	m,p-XYLENE	80.000	71.704	10.4	90	0.00
10	o-XYLENE	40.000	36.882	7.8	92	0.00
11	1,3-DICHLOROBENZENE	40.000	35.450	11.4	90	0.00
12	1,4-DICHLOROBENZENE	40.000	34.889	12.8	91	0.00
13	1,2-DICHLOROBENZENE	40.000	36.527	8.7	94	0.00

Average % D = 6.3

(#) = Out of Range
CD051305.D GCCD0722.M

SPCC's out = 0 CCC's out = 0
Wed Jul 28 11:09:38 2004 QRCY

Initial Calibration Summary

Job Number: F25393
 Account: EEINCJX EEI
 Project: Bldg. 4158/Camp Lejeune, NC

Sample: QOR1029-ICC1029
 Lab FileID: QOR023591.D

Page 1 of 2

Response Factor Report VOA3

Method : X:\HPCHEM\1\METHODS\QOR0715.M (Chemstation Integrator)
 Title : EPA 601/602 & SWA 5030B/8021B
 Last Update : Mon Jul 19 14:36:53 2004
 Response via : Initial Calibration

Calibration Files

1 =QOR023587.D 2 =QOR023588.D 3 =QOR023589.D
 4 =QOR023590.D 5 =QOR023591.D 6 =QOR023592.D 7 =QOR023593.D

Compound	1	2	3	4	5	6	7	Avg	%RSD
1) I Fluorobenzene	-----ISTD-----								
2)c VINYL CHLORIDE	1.096	0.401	0.241	0.203	0.194	0.173	0.154	0.352	96.21#
3) 1,1-Dichloroethen	0.486	0.426	0.368	0.329	0.352	0.307	0.303	0.367	18.28
4) Methyl tert Butyl	0.443	0.441	0.414	0.406	0.363	0.359	0.359	0.398	9.41
5) trans-1,2-Dichlor	1.255	1.373	1.304	1.214	1.188	1.148	1.146	1.233	6.81
6) Di-Isopropyl ethe	0.478	0.530	0.520	0.486	0.477	0.454	0.453	0.485	6.12
7) cis-1,2-Dichloroe	0.682	0.722	0.711	0.667	0.667	0.641	0.649	0.677	4.45
8)S 1,1-Dichloroprope	0.577	0.577	0.575	0.579	0.576	0.575	0.569	0.575	0.53
9) Benzene	2.114	1.911	1.636	1.493	1.448	1.374	1.373	1.621	17.74
10) Trichloroethene	1.052	1.053	1.018	0.957	0.964	0.945	0.962	0.993	4.71
11) 2-Chloroethylvinyl	0.390	0.418	0.484	0.472	0.493	0.495	0.496	0.464	9.16
12) cis-1,3-Dichlorop	0.428	0.449	0.462	0.439	0.451	0.439	0.440	0.444	2.52
13) Toluene	1.687	1.775	1.738	1.613	1.605	1.526	1.527	1.639	5.98
14) trans-1,3-Dichlor	0.485	0.508	0.542	0.532	0.565	0.568	0.579	0.540	6.32
15) Tetrachloroethene	0.828	0.861	0.837	0.784	0.780	0.753	0.755	0.800	5.31
16)S 1-Chloro-4-fluoro	0.944	0.957	1.004	1.030	1.046	1.069	1.069	1.017	5.01
17) Chlorobenzene		2.072	1.963	1.838	1.856	1.791	1.802	1.887	5.80
18) Ethylbenzene	1.458	1.713	1.664	1.551	1.533	1.462	1.456	1.548	6.71
19) m,p-Xylene	1.698	1.906	1.891	1.769	1.757	1.677	1.665	1.766	5.57
20) o-Xylene	1.574	1.698	1.667	1.569	1.545	1.472	1.475	1.571	5.52
21) 1,3-Dichlorobenze	2.033	2.008	2.261	2.211	2.378	2.361	2.423	2.239	7.40
22) 1,4-Dichlorobenze	1.959	1.925	2.207	2.193	2.371	2.395	2.464	2.216	9.56
23) 1,2-Dichlorobenze	1.958	1.946	2.092	2.038	2.118	2.105	2.121	2.054	3.65

Signal #2 Calibration Files

1 =QOR023620.D 2 =QOR023621.D 3 =QOR023622.D
 4 =QOR023623.D 5 =QOR023624.D 6 =QOR023625.D 7 =QOR023626.D

Compound	1	2	3	4	5	6	7	Avg	%RSD
25) I Bromochloromethane	-----ISTD-----								
26)c DICHLORODIFLUOROM	0.068	0.111	0.108	0.100	0.095	0.084	0.076	0.092	17.68
27)c CHLOROMETHANE	0.147	0.192	0.161	0.139	0.133	0.113	0.104	0.141	21.00#
28)c VINYL CHLORIDE #2	0.571	0.696	0.563	0.480	0.473	0.440	0.417	0.520	18.64
29)c BROMOMETHANE	0.250	0.344	0.272	0.223	0.223	0.202	0.186	0.243	21.77#
30)c CHLOROETHANE	0.315	0.395	0.308	0.275	0.260	0.228	0.213	0.285	21.53#
31)c TRICHLOROFLUOROME	0.651	0.803	0.665	0.573	0.582	0.577	0.551	0.629	13.91
32) 1,1-Dichloroethen	0.726	0.779	0.713	0.623	0.621	0.533	0.534	0.647	14.84
33) Methylene Chlorid	1.016	0.793	0.588	0.486	0.483	0.439	0.442	0.607	36.06
34) trans-1,2-Dichlor	1.044	1.241	1.107	0.990	0.986	0.952	0.867	1.027	11.72
35) 1,1-Dichloroethan	1.091	1.329	1.169	1.045	1.079	0.990	0.923	1.090	12.05
36) cis-1,2-Dichloroe	1.124	1.254	1.182	1.079	1.114	1.031	0.962	1.107	8.66
37) Chloroform	2.109	2.233	2.005	1.839	1.871	1.577	1.482	1.874	14.53
38) 1,1,1-Trichloroet	2.033	1.788	1.404	1.176	1.155	1.036	0.958	1.364	29.62
39)S 1,1-Dichloroprope	0.948	0.902	0.833	0.824	0.813	0.830	0.792	0.849	6.53

Initial Calibration Summary

Page 2 of 2

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GQR1029-ICC1029
Lab FileID: QR023591.D

40)	Carbon Tetrachlor	7.354	3.322	1.937	1.679	1.599	1.384	1.312	2.655	82.12
41)	1,2-Dichloroethan	1.589	1.385	1.065	0.927	0.941	0.851	0.778	1.077	27.83
42)	Trichloroethene #	1.540	1.518	1.440	1.283	1.341	1.197	1.131	1.350	11.65
43)	1,2-Dichloropropa	1.529	1.486	1.362	1.212	1.211	1.062	1.013	1.268	15.70
44)	Bromodichlorometh	1.682	1.821	1.734	1.635	1.633	1.425	1.379	1.616	9.91
45)	2-Chloroethylvinyl	0.268	0.323	0.287	0.288	0.288	0.267	0.246	0.281	8.54
46)	cis-1,3-Dichlorop	1.263	1.481	1.459	1.350	1.463	1.330	1.251	1.371	7.07
47)	trans-1,3-Dichlor	0.949	1.161	1.255	1.222	1.356	1.269	1.249	1.209	10.63
48)	1,1,2-Trichloroet	1.779	1.921	1.891	1.738	1.745	1.495	1.416	1.712	11.09
49)	Tetrachloroethene	1.683	1.709	1.598	1.403	1.416	1.223	1.173	1.458	14.67
50)	Dibromochlorometh	1.171	1.435	1.384	1.279	1.310	1.217	1.145	1.277	8.43
51)s	1-Chloro-4-fluoro	0.483	0.473	0.464	0.466	0.458	0.435	0.415	0.456	5.14
52)	Chlorobenzene #2	1.068	0.946	0.744	0.676	0.631	0.630	0.581	0.754	24.35
53)	Bromoform	0.772	0.936	1.011	0.928	1.004	0.951	0.896	0.928	8.62
54)	1,1,2,2-Tetrachlo	1.461	1.516	1.626	1.403	1.450	1.253	1.154	1.409	11.31
55)	1,3-Dichlorobenze	0.995	1.048	1.205	1.133	1.269	1.125	1.088	1.123	8.24
56)	1,4-Dichlorobenze	1.066	1.085	1.211	1.147	1.278	1.123	1.099	1.144	6.62
57)	1,2-Dichlorobenze	1.152	1.232	1.314	1.209	1.304	1.124	1.095	1.204	7.09

Average % RSD = 14.3

(#) = Out of Range

QR0715.M

Mon Jul 19 16:06:17 2004 RPT1

Continuing Calibration Summary

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: QOR1030-CC1029
Lab FileID: QR023595.D

Page 1 of 2

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\071604\QR023595.D\FID1B.CH Vial: 1
Signal #2 : C:\HPCHEM\1\DATA\071604\QR023595.D\AIB2A.CH
Acq On : 16 Jul 2004 10:02 am Operator: RachidA
Sample : CC1029-20 Inst : VOA3
Misc : gc3699, gqr1030, , , , Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: ELCD.E

Method : C:\HPCHEM\1\METHODS\QR0715.M (Chemstation Integrator)
Title : EPA 601/602 & SWA 5030B/8021B
Last Update : Mon Jul 19 14:36:53 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	Fluorobenzene	20.000	20.000	0.0	108	0.00
2 c	VINYL CHLORIDE	20.000	17.499	12.5	97	0.00
3	1,1-Dichloroethene	20.000	18.167	9.2	94	0.00
4	Methyl tert Butyl Ether	40.000	38.698	3.3	115	-0.01
5	trans-1,2-Dichloroethene	20.000	18.159	9.2	102	-0.01
6	Di-Isopropyl ether	20.000	19.258	3.7	106	0.00
7	cis-1,2-Dichloroethene	20.000	19.034	4.8	105	0.00
8 S	1,1-Dichloropropene	20.000	19.877	0.6	108	0.00
9	Benzene	40.000	39.532	1.2	104	0.00
10	Trichloroethene	20.000	17.825	10.9	100	0.00
11	2-Chloroethylvinyl ether	20.000	20.393	-2.0	104	0.00
12	cis-1,3-Dichloropropene	20.000	19.976	0.1	107	0.00
13	Toluene	40.000	37.485	6.3	104	0.00
14	trans-1,3-Dichloropropene	20.000	20.703	-3.5	107	0.00
15	Tetrachloroethene	20.000	18.406	8.0	102	0.00
16 S	1-Chloro-4-fluorobenzene	20.000	20.809	-4.0	110	0.00
17	Chlorobenzene	20.000	19.118	4.4	105	0.00
18	Ethylbenzene	40.000	38.146	4.6	104	0.00
19	m,p-Xylene	80.000	76.628	4.2	104	0.00
20	o-Xylene	40.000	38.297	4.3	106	0.00
21	1,3-Dichlorobenzene	20.000	20.754	-3.8	106	0.00
22	1,4-Dichlorobenzene	20.000	21.095	-5.5	107	0.00
23	1,2-Dichlorobenzene	20.000	20.381	-1.9	107	0.00

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
25 I	Bromochloromethane	20.000	20.000	0.0	116	0.00
26 c	DICHLORODIFLUOROMETHANE	20.000	27.229	-36.1#	149	0.00
27 c	CHLOROMETHANE	20.000	38.172	-90.9#	189	0.00
28 c	VINYL CHLORIDE #2	20.000	19.525	2.4	113	0.00
29 c	BROMOMETHANE	20.000	27.345	-36.7#	151	0.02
30 c	CHLOROETHANE	20.000	29.724	-48.6#	160	0.00
31 c	TRICHLOROFLUOROMETHANE	20.000	18.318	8.4	108	0.00
32	1,1-Dichloroethene #2	20.000	20.549	-2.7	113	-0.01
33	Methylene Chloride	20.000	26.810	-34.0#	149	0.00
34	trans-1,2-Dichloroethene #2	20.000	20.875	-4.4	122	-0.01
35	1,1-Dichloroethane	20.000	19.622	1.9	112	-0.01

Continuing Calibration Summary

Page 2 of 2

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: QQR1030-CC1029
Lab FileID: QR023595.D

36	cis-1,2-Dichloroethene #2	20.000	21.748	-8.7	123	0.00
37	Chloroform	20.000	18.946	5.3	105	0.00
38	1,1,1-Trichloroethane	20.000	18.376	8.1	106	0.00
39 S	1,1-Dichloropropene #2	20.000	22.883	-14.4	139	0.00
40	Carbon Tetrachloride	20.000	17.577	12.1	101	0.00
41	1,2-Dichloroethane	20.000	25.929	-29.6#	144	0.00
42	Trichloroethene #2	20.000	22.606	-13.0	125	0.00
43	1,2-Dichloropropane	20.000	21.476	-7.4	120	0.00
44	Bromodichloromethane	20.000	19.097	4.5	107	0.00
45	2-Chloroethylvinyl ether #2	20.000	22.447	-12.2	128	0.00
46	cis-1,3-Dichloropropene #2	20.000	20.038	-0.2	109	0.00
47	trans-1,3-Dichloropropene #	20.000	19.220	3.9	107	0.00
48	1,1,2-Trichloroethane	20.000	19.920	0.4	111	0.00
49	Tetrachloroethene #2	20.000	24.497	-22.5#	134	0.00
50	Dibromochloromethane	20.000	18.581	7.1	107	0.00
51 s	1-Chloro-4-fluorobenzene #2	20.000	23.208	-16.0#	134	0.00
52	Chlorobenzene #2	20.000	20.964	-4.8	126	0.00
53	Bromoform	20.000	17.361	13.2	100	0.00
54	1,1,2,2-Tetrachloroethane	20.000	21.617	-8.1	120	0.00
55	1,3-Dichlorobenzene #2	20.000	22.879	-14.4	124	0.00
56	1,4-Dichlorobenzene #2	20.000	23.520	-17.6#	127	0.00
57	1,2-Dichlorobenzene #2	20.000	24.134	-20.7#	130	0.00

Average % D = 11.5

(#) = Out of Range
QR023591.D QR0715.M

SPCC's out = 0 CCC's out = 4
Mon Jul 19 14:55:20 2004 QRXY

Continuing Calibration Summary

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: QOR1030-CC1029
Lab FileID: QOR023606.D

Page 1 of 2

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\071604\QOR023606.D\FID1B.CH Vial: 11
Signal #2 : C:\HPCHEM\1\DATA\071604\QOR023606.D\AIB2A.CH
Acq On : 16 Jul 2004 3:50 pm Operator: RachidA
Sample : CC1029-20 Inst : VOA3
Misc : gc3715,qqr1030,,,,, Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: ELCD.E

Method : C:\HPCHEM\1\METHODS\QOR0715.M (Chemstation Integrator)
Title : EPA 601/602 & SWA 5030B/8021B
Last Update : Mon Jul 19 14:36:53 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	Fluorobenzene	20.000	20.000	0.0	111	0.00
2 c	VINYL CHLORIDE	20.000	19.246	3.8	108	0.01
3	1,1-Dichloroethene	20.000	20.361	-1.8	107	0.02
4	Methyl tert Butyl Ether	40.000	36.842	7.9	112	0.00
5	trans-1,2-Dichloroethene	20.000	19.098	4.5	110	0.00
6	Di-Isopropyl ether	20.000	19.148	4.3	108	0.00
7	cis-1,2-Dichloroethene	20.000	19.359	3.2	109	0.00
8 S	1,1-Dichloropropene	20.000	19.878	0.6	110	0.00
9	Benzene	40.000	39.709	0.7	107	0.00
10	Trichloroethene	20.000	18.286	8.6	105	0.00
11	2-Chloroethylvinyl ether	20.000	20.539	-2.7	107	0.00
12	cis-1,3-Dichloropropene	20.000	19.801	1.0	108	0.00
13	Toluene	40.000	37.557	6.1	107	0.00
14	trans-1,3-Dichloropropene	20.000	20.558	-2.8	109	0.00
15	Tetrachloroethene	20.000	19.213	3.9	109	0.00
16 S	1-Chloro-4-fluorobenzene	20.000	20.425	-2.1	110	0.00
17	Chlorobenzene	20.000	19.197	4.0	108	0.00
18	Ethylbenzene	40.000	38.071	4.8	107	0.00
19	m,p-Xylene	80.000	76.164	4.8	106	0.00
20	o-Xylene	40.000	37.668	5.8	106	0.00
21	1,3-Dichlorobenzene	20.000	20.713	-3.6	108	0.00
22	1,4-Dichlorobenzene	20.000	20.908	-4.5	109	0.00
23	1,2-Dichlorobenzene	20.000	20.195	-1.0	109	0.00

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
25 I	Bromochloromethane	20.000	20.000	0.0	111	0.00
26 c	DICHLORODIFLUOROMETHANE	20.000	29.647	-48.2#	152	0.00
27 c	CHLOROMETHANE	20.000	31.478	-57.4#	156	0.00
28 c	VINYL CHLORIDE #2	20.000	22.567	-12.8	123	0.00
29 c	BROMOMETHANE	20.000	24.586	-22.9#	132	-0.01
30 c	CHLOROETHANE	20.000	26.188	-30.9#	138	0.02
31 c	TRICHLOROFLUOROMETHANE	20.000	19.355	3.2	109	0.00
32	1,1-Dichloroethene #2	20.000	22.680	-13.4	118	0.00
33	Methylene Chloride	20.000	21.469	-7.3	116	0.01
34	trans-1,2-Dichloroethene #2	20.000	21.546	-7.7	120	0.00
35	1,1-Dichloroethane	20.000	20.759	-3.8	113	0.00

Continuing Calibration Summary

Page 2 of 2

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GQR1030-CC1029
Lab FileID: QR023606.D

36	cis-1,2-Dichloroethene #2	20.000	21.233	-6.2	115	0.00
37	Chloroform	20.000	19.731	1.3	104	0.00
38	1,1,1-Trichloroethane	20.000	19.530	2.3	107	0.00
39 S	1,1-Dichloropropene #2	20.000	21.661	-8.3	125	0.00
40	Carbon Tetrachloride	20.000	20.200	-1.0	109	0.00
41	1,2-Dichloroethane	20.000	22.205	-11.0	120	0.00
42	Trichloroethene #2	20.000	20.724	-3.6	111	0.00
43	1,2-Dichloropropane	20.000	21.332	-6.7	114	0.00
44	Bromodichloromethane	20.000	19.830	0.9	106	0.00
45	2-Chloroethylvinyl ether #2	20.000	21.194	-6.0	116	0.00
46	cis-1,3-Dichloropropene #2	20.000	20.908	-4.5	108	0.00
47	trans-1,3-Dichloropropene #	20.000	19.996	0.0	106	0.00
48	1,1,2-Trichloroethane	20.000	20.324	-1.6	108	0.00
49	Tetrachloroethene #2	20.000	21.929	-9.6	116	0.00
50	Dibromochloromethane	20.000	19.802	1.0	108	0.00
51 s	1-Chloro-4-fluorobenzene #2	20.000	21.875	-9.4	121	0.00
52	Chlorobenzene #2	20.000	21.021	-5.1	120	0.00
53	Bromoform	20.000	18.743	6.3	102	0.00
54	1,1,2,2-Tetrachloroethane	20.000	21.840	-9.2	115	0.00
55	1,3-Dichlorobenzene #2	20.000	21.770	-8.8	113	0.00
56	1,4-Dichlorobenzene #2	20.000	22.277	-11.4	115	0.00
57	1,2-Dichlorobenzene #2	20.000	23.132	-15.7#	119	0.00

Average % D = 7.8

(#) = Out of Range
QR023591.D QR0715.M

SPCC's out = 0 CCC's out = 4
Mon Jul 19 14:55:22 2004 QRXY

Continuing Calibration Summary

Page 1 of 2

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: QQR1030-ECC1029
Lab FileID: QR023618.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\071604\QR023618.D\FID1B.CH Vial: 23
Signal #2 : C:\HPCHEM\1\DATA\071604\QR023618.D\AIB2A.CH
Acq On : 16 Jul 2004 9:55 pm Operator: RachidA
Sample : ECC1029-35 Inst : VOA3
Misc : gc3715, qqr1030, , , , Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: ELCD.E

Method : C:\HPCHEM\1\METHODS\QR0715.M (Chemstation Integrator)
Title : EPA 601/602 & SWA 5030B/8021B
Last Update : Mon Jul 19 14:36:53 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	Fluorobenzene	20.000	20.000	0.0	114	0.00
2 c	VINYL CHLORIDE	35.000	33.367	4.7	111	0.00
3	1,1-Dichloroethene	35.000	34.254	2.1	115	-0.01
4	Methyl tert Butyl Ether	70.000	67.410	3.7	121	-0.02
5	trans-1,2-Dichloroethene	35.000	32.587	6.9	114	-0.01
6	Di-Isopropyl ether	35.000	33.030	5.6	114	-0.01
7	cis-1,2-Dichloroethene	35.000	33.667	3.8	115	0.00
8 S	1,1-Dichloropropene	20.000	19.771	1.1	112	0.00
9	Benzene	70.000	70.402	-0.6	115	0.00
10	Trichloroethene	35.000	34.149	2.4	116	0.00
11	2-Chloroethylvinyl ether	35.000	36.249	-3.6	110	0.00
12	cis-1,3-Dichloropropene	35.000	33.945	3.0	111	0.00
13	Toluene	70.000	65.669	6.2	114	0.00
14	trans-1,3-Dichloropropene	35.000	35.952	-2.7	111	0.00
15	Tetrachloroethene	35.000	32.780	6.3	113	0.00
16 S	1-Chloro-4-fluorobenzene	20.000	20.833	-4.2	113	0.00
17	Chlorobenzene	35.000	33.215	5.1	114	0.00
18	Ethylbenzene	70.000	66.124	5.5	114	0.00
19	m,p-Xylene	140.000	132.800	5.1	113	0.00
20	o-Xylene	70.000	66.135	5.5	115	0.00
21	1,3-Dichlorobenzene	35.000	36.792	-5.1	113	0.00
22	1,4-Dichlorobenzene	35.000	37.343	-6.7	112	0.00
23	1,2-Dichlorobenzene	35.000	35.307	-0.9	112	0.00

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
25 I	Bromochloromethane	20.000	20.000	0.0	115	0.00
26 c	DICHLORODIFLUOROMETHANE	35.000	67.606	-93.2#	172	0.00
27 c	CHLOROMETHANE	35.000	79.098	-126.0#	264	-0.01
28 c	VINYL CHLORIDE #2	35.000	41.378	-18.2	133	0.00
29 c	BROMOMETHANE	35.000	58.610	-67.5#	168	0.01
30 c	CHLOROETHANE	35.000	72.899	-108.3#	186	0.00
31 c	TRICHLOROFLUOROMETHANE	35.000	35.069	-0.2	114	-0.01
32	1,1-Dichloroethene #2	35.000	40.612	-16.0#	137	-0.02
33	Methylene Chloride	35.000	48.179	-37.7#	158	0.00
34	trans-1,2-Dichloroethene #2	35.000	39.989	-14.3	126	-0.01
35	1,1-Dichloroethane	35.000	36.232	-3.5	119	-0.01

Continuing Calibration Summary

Page 2 of 2

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: QQR1030-ECC1029
Lab FileID: QR023618.D

36	cis-1,2-Dichloroethene #2	35.000	40.125	-14.6	129	0.00
37	Chloroform	35.000	32.991	5.7	113	0.00
38	1,1,1-Trichloroethane	35.000	33.189	5.2	112	0.00
39 S	1,1-Dichloropropene #2	20.000	24.115	-20.6#	142	0.00
40	Carbon Tetrachloride	35.000	31.369	10.4	109	0.00
41	1,2-Dichloroethane	35.000	48.795	-39.4#	148	0.00
42	Trichloroethene #2	35.000	42.958	-22.7#	138	0.00
43	1,2-Dichloropropane	35.000	38.244	-9.3	127	0.00
44	Bromodichloromethane	35.000	32.104	8.3	110	0.00
45	2-Chloroethylvinyl ether #2	35.000	38.902	-11.1	125	0.00
46	cis-1,3-Dichloropropene #2	35.000	31.783	9.2	108	0.00
47	trans-1,3-Dichloropropene #	35.000	32.038	8.5	106	0.00
48	1,1,2-Trichloroethane	35.000	36.756	-5.0	123	0.00
49	Tetrachloroethene #2	35.000	42.723	-22.1#	139	0.00
50	Dibromochloromethane	35.000	31.835	9.0	106	0.00
51 s	1-Chloro-4-fluorobenzene #2	20.000	23.010	-15.1#	139	0.00
52	Chlorobenzene #2	35.000	40.650	-16.1#	128	0.00
53	Bromoform	35.000	32.686	6.6	107	0.00
54	1,1,2,2-Tetrachloroethane	35.000	35.309	-0.9	118	0.00
55	1,3-Dichlorobenzene #2	35.000	40.883	-16.8#	134	0.00
56	1,4-Dichlorobenzene #2	35.000	42.290	-20.8#	139	0.00
57	1,2-Dichlorobenzene #2	35.000	43.502	-24.3#	142	0.00

Average % D = 16.2

(#) = Out of Range
QR023592.D QR0715.M

SPCC's out = 0 CCC's out = 4
Mon Jul 19 14:55:48 2004 QRXY

Initial Calibration Summary

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GQR1031-ICC1031
Lab FileID: QR023624.D

Page 1 of 2

Response Factor Report VOA3

Method : X:\HPCHEM\1\METHODS\QR0719.M (Chemstation Integrator)
Title : EPA 601/602 & SWA 5030B/8021B
Last Update : Fri Jul 16 08:33:10 2004
Response via : Initial Calibration

Calibration Files

1 =QR023620.D 2 =QR023621.D 3 =QR023622.D
4 =QR023623.D 5 =QR023624.D 6 =QR023625.D 7 =QR023626.D

Compound	1	2	3	4	5	6	7	Avg	%RSD
1) I Fluorobenzene	-----ISTD-----								
2)c VINYL CHLORIDE	0.522	0.411	0.223	0.204	0.195	0.173	0.150	0.268	52.60#
3) 1,1-Dichloroethen	0.524	0.468	0.332	0.336	0.349	0.334	0.320	0.380	21.31
4) Methyl tert Butyl	0.508	0.516	0.408	0.422	0.419	0.407	0.397	0.440	11.41
5) trans-1,2-Dichlor	1.344	1.397	1.046	1.101	1.103	1.102	1.045	1.163	12.47
6) Di-Isopropyl ethe		0.587	0.470	0.480	0.485	0.464	0.463	0.492	9.64
7) cis-1,2-Dichloroe		0.825	0.643	0.666	0.683	0.665	0.662	0.691	9.73
8)S 1,1-Dichloroprope	0.573	0.568	0.569	0.571	0.564	0.562	0.564	0.567	0.70
9) Benzene	1.999	1.938	1.426	1.464	1.483	1.412	1.394	1.588	16.52
10) Trichloroethene	1.249	1.191	0.891	0.934	0.964	0.923	0.932	1.012	14.31
11) 2-Chloroethylvinyl	0.434	0.457	0.409	0.450	0.486	0.484	0.496	0.459	6.83
12) cis-1,3-Dichlorop	0.492	0.489	0.413	0.440	0.463	0.451	0.453	0.457	6.05
13) Toluene	2.012	1.990	1.541	1.605	1.640	1.564	1.543	1.699	12.30
14) trans-1,3-Dichlor	0.579	0.553	0.489	0.540	0.586	0.588	0.601	0.562	6.84
15) Tetrachloroethene	0.995	0.979	0.744	0.784	0.798	0.768	0.763	0.833	12.81
16)S 1-Chloro-4-fluoro	0.956	0.960	1.004	1.037	1.060	1.074	1.072	1.023	4.94
17) Chlorobenzene	2.443	2.310	1.757	1.835	1.907	1.840	1.830	1.989	13.63
18) Ethylbenzene	1.933	1.918	1.472	1.546	1.571	1.498	1.477	1.631	12.55
19) m,p-Xylene		2.137	1.676	1.759	1.797	1.718	1.689	1.796	9.63
20) o-Xylene	1.876	1.921	1.490	1.554	1.586	1.520	1.498	1.635	11.22
21) 1,3-Dichlorobenze	2.355	2.272	1.996	2.234	2.460	2.432	2.475	2.318	7.31
22) 1,4-Dichlorobenze	2.288	2.180	1.950	2.214	2.456	2.454	2.507	2.293	8.63
23) 1,2-Dichlorobenze	2.267	2.178	1.881	2.039	2.177	2.145	2.162	2.121	5.91

Signal #2 Calibration Files

1 =QR023620.D 2 =QR023621.D 3 =QR023622.D
4 =QR023623.D 5 =QR023624.D 6 =QR023625.D 7 =QR023626.D

Compound	1	2	3	4	5	6	7	Avg	%RSD
25) I Bromochloromethane	-----ISTD-----								
26)c DICHLORODIFLUOROM	0.236	0.241	0.188	0.191	0.195	0.176	0.179	0.201	13.28
27)c CHLOROMETHANE	0.609	0.591	0.408	0.417	0.443	0.419	0.399	0.469	19.24
28)c VINYL CHLORIDE #2	0.822	0.859	0.579	0.572	0.583	0.581	0.539	0.648	20.53#
29)c BROMOMETHANE	0.805	0.529	0.367	0.357	0.379	0.337	0.334	0.444	38.84#
30)c CHLOROETHANE	0.805	0.801	0.543	0.522	0.538	0.512	0.501	0.603	22.73#
31)c TRICHLOROFLUOROME	0.931	0.966	0.637	0.616	0.645	0.621	0.595	0.716	22.36#
32) 1,1-Dichloroethen	1.092	1.013	0.740	0.729	0.745	0.727	0.692	0.820	19.73
33) Methylene Chlorid	2.106	1.545	1.020	0.873	0.860	0.777	0.718	1.128	45.34
34) trans-1,2-Dichlor	1.502	1.488	1.061	1.073	1.092	1.033	0.938	1.170	19.47
35) 1,1-Dichloroethan	1.503	1.427	1.139	1.107	1.159	1.065	1.014	1.202	15.58
36) cis-1,2-Dichloroe	1.618	1.588	1.281	1.279	1.366	1.232	1.164	1.361	12.93
37) Chloroform	2.616	2.485	1.782	1.780	1.833	1.629	1.556	1.954	21.50
38) 1,1,1-Trichloroet	2.298	1.854	1.196	1.146	1.163	1.079	0.971	1.387	35.58
39)S 1,1-Dichloroprope	1.229	1.163	1.135	1.105	1.078	1.073	1.068	1.122	5.27

Initial Calibration Summary

Page 2 of 2

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GQR1031-ICC1031
Lab FileID: QR023624.D

40)	Carbon Tetrachlor	6.093	3.389	1.662	1.528	1.557	1.321	1.279	2.404	74.12
41)	1,2-Dichloroethan	2.522	2.039	1.392	1.297	1.403	1.212	1.160	1.575	32.34
42)	Trichloroethene #	2.363	2.135	1.624	1.665	1.723	1.517	1.459	1.784	18.87
43)	1,2-Dichloropropa	2.041	1.878	1.393	1.306	1.401	1.225	1.193	1.491	22.29
44)	Bromodichlorometh	2.008	1.888	1.490	1.481	1.578	1.378	1.339	1.595	16.06
45)	2-Chloroethylvinyl	0.415	0.400	0.320	0.343	0.350	0.334	0.340	0.357	9.99
46)	cis-1,3-Dichlorop	1.559	1.502	1.254	1.277	1.443	1.308	1.288	1.376	8.97
47)	trans-1,3-Dichlor	1.165	1.234	1.080	1.165	1.315	1.195	1.220	1.196	6.07
48)	1,1,2-Trichloroet	2.388	2.345	1.864	1.913	1.903	1.669	1.636	1.960	15.25
49)	Tetrachloroethene	2.647	2.487	1.876	1.865	1.912	1.647	1.535	1.996	20.85
50)	Dibromochlorometh	1.404	1.458	1.147	1.159	1.234	1.098	1.117	1.231	11.68
51)s	1-Chloro-4-fluoro	0.672	0.645	0.653	0.632	0.639	0.599	0.580	0.631	5.02
52)	Chlorobenzene #2	1.437	1.187	0.796	0.763	0.774	0.738	0.733	0.918	30.40
53)	Bromoform	0.912	0.954	0.810	0.828	0.925	0.902	0.879	0.887	5.85
54)	1,1,2,2-Tetrachlo	1.958	1.955	1.613	1.543	1.647	1.489	1.443	1.664	12.70
55)	1,3-Dichlorobenze	1.450	1.437	1.295	1.279	1.584	1.441	1.394	1.411	7.33
56)	1,4-Dichlorobenze	1.579	1.465	1.284	1.335	1.638	1.465	1.461	1.461	8.50
57)	1,2-Dichlorobenze	1.811	1.620	1.466	1.536	1.699	1.506	1.510	1.593	7.84

Average % RSD = 16.6

(s) = Out of Range

QR0719.M

Wed Jul 21 09:31:56 2004 RPT1

Continuing Calibration Summary

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GQR1032-CC1031
Lab FileID: QR023647.D

Page 1 of 2

Evaluate Continuing Calibration Report

Signal #1 : X:\HPCHEM\1\DATA\072004\QR023647.D\FID1B.CH Vial: 1
Signal #2 : X:\HPCHEM\1\DATA\072004\QR023647.D\AIB2A.CH
Acq On : 20 Jul 2004 10:16 am Operator: RachidA
Sample : CC1031-20 Inst : VOA3
Misc : gc3726,gqr1032,,,,, Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: ELCD.E

Method : X:\HPCHEM\1\METHODS\QR0719.M (Chemstation Integrator)
Title : EPA 601/602 & SWA 5030B/8021B
Last Update : Tue Jul 20 14:48:40 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	Fluorobenzene	20.000	20.000	0.0	95	0.07
2 c	VINYL CHLORIDE	20.000	19.657	1.7	93	0.06
3	1,1-Dichloroethene	20.000	18.655	6.7	87	0.06
4	Methyl tert Butyl Ether	40.000	38.697	3.3	88	0.06
5	trans-1,2-Dichloroethene	20.000	21.165	-5.8	97	0.06
6	Di-Isopropyl ether	20.000	19.067	4.7	91	0.06
7	cis-1,2-Dichloroethene	20.000	19.315	3.4	92	0.06
8 S	1,1-Dichloropropene	20.000	20.118	-0.6	96	0.07
9	Benzene	40.000	40.743	-1.9	92	0.07
10	Trichloroethene	20.000	19.960	0.2	91	0.07
11	2-Chloroethylvinyl ether	20.000	19.331	3.3	86	0.08
12	cis-1,3-Dichloropropene	20.000	19.854	0.7	93	0.08
13	Toluene	40.000	40.687	-1.7	92	0.08
14	trans-1,3-Dichloropropene	20.000	20.455	-2.3	93	0.08
15	Tetrachloroethene	20.000	19.867	0.7	92	0.08
16 S	1-Chloro-4-fluorobenzene	20.000	21.089	-5.4	96	0.08
17	Chlorobenzene	20.000	19.780	1.1	92	0.08
18	Ethylbenzene	40.000	40.592	-1.5	91	0.08
19	m,p-Xylene	80.000	77.435	3.2	92	0.08
20	o-Xylene	40.000	40.518	-1.3	91	0.08
21	1,3-Dichlorobenzene	20.000	20.593	-3.0	92	0.08
22	1,4-Dichlorobenzene	20.000	20.839	-4.2	92	0.08
23	1,2-Dichlorobenzene	20.000	19.702	1.5	91	0.07

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
25 I	Bromochloromethane	20.000	20.000	0.0	109	0.07
26 c	DICHLORODIFLUOROMETHANE	20.000	17.568	12.2	92	0.08
27 c	CHLOROMETHANE	20.000	19.932	0.3	106	0.07
28 c	VINYL CHLORIDE #2	20.000	18.960	5.2	105	0.06
29 c	BROMOMETHANE	20.000	19.766	1.2	102	0.06
30 c	CHLOROETHANE	20.000	20.350	-1.8	109	0.06
31 c	TRICHLOROFLUOROMETHANE	20.000	19.125	4.4	103	0.05
32	1,1-Dichloroethene #2	20.000	18.330	8.4	100	0.05
33	Methylene Chloride	20.000	17.772	11.1	97	0.05
34	trans-1,2-Dichloroethene #2	20.000	20.386	-1.9	110	0.06
35	1,1-Dichloroethane	20.000	20.160	-0.8	107	0.06

Continuing Calibration Summary

Page 2 of 2

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: QQR1032-CC1031
Lab FileID: QR023647.D

36	cis-1,2-Dichloroethene #2	20.000	20.205	-1.0	106	0.06
37	Chloroform	20.000	19.799	1.0	104	0.06
38	1,1,1-Trichloroethane	20.000	18.530	7.3	101	0.07
39 S	1,1-Dichloropropene #2	20.000	20.687	-3.4	117	0.07
40	Carbon Tetrachloride	20.000	19.592	2.0	102	0.07
41	1,2-Dichloroethane	20.000	21.742	-8.7	111	0.07
42	Trichloroethene #2	20.000	20.531	-2.7	107	0.07
43	1,2-Dichloropropane	20.000	19.970	0.2	103	0.08
44	Bromodichloromethane	20.000	19.685	1.6	102	0.08
45	2-Chloroethylvinyl ether #2	20.000	19.988	0.1	106	0.08
46	cis-1,3-Dichloropropene #2	20.000	19.912	0.4	103	0.08
47	trans-1,3-Dichloropropene #	20.000	20.262	-1.3	103	0.08
48	1,1,2-Trichloroethane	20.000	19.648	1.8	103	0.08
49	Tetrachloroethene #2	20.000	20.431	-2.2	106	0.08
50	Dibromochloromethane	20.000	19.690	1.5	101	0.08
51 S	1-Chloro-4-fluorobenzene #2	20.000	21.525	-7.6	116	0.08
52	Chlorobenzene #2	20.000	20.503	-2.5	110	0.08
53	Bromoform	20.000	17.742	11.3	94	0.08
54	1,1,2,2-Tetrachloroethane	20.000	19.994	0.0	105	0.08
55	1,3-Dichlorobenzene #2	20.000	21.155	-5.8	108	0.08
56	1,4-Dichlorobenzene #2	20.000	21.175	-5.9	106	0.08
57	1,2-Dichlorobenzene #2	20.000	21.178	-5.9	108	0.08

Average % D = 3.3

(#) = Out of Range
QR023624.D QR0719.M

SPCC's out = 0 CCC's out = 0
Fri Jul 23 09:52:12 2004 RPT1

Continuing Calibration Summary

Page 1 of 2

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GQR1032-CC1031
Lab FileID: QR023658.D

Evaluate Continuing Calibration Report

Signal #1 : X:\HPCHEM\1\DATA\072004\QR023658.D\FID1B.CH Vial: 11
Signal #2 : X:\HPCHEM\1\DATA\072004\QR023658.D\AIB2A.CH
Acq On : 20 Jul 2004 8:11 pm Operator: RachidA
Sample : cc1031-20 Inst : VOA3
Misc : gc3726,gqr1032,,,, Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: ELCD.E

Method : X:\HPCHEM\1\METHODS\QR0719.M (Chemstation Integrator)
Title : EPA 601/602 & SWA 5030B/8021B
Last Update : Tue Jul 20 14:48:40 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	Fluorobenzene	20.000	20.000	0.0	94	0.00
2 c	VINYL CHLORIDE	20.000	18.565	7.2	89	0.02
3	1,1-Dichloroethene	20.000	18.780	6.1	87	0.00
4	Methyl tert Butyl Ether	40.000	39.894	0.3	90	0.00
5	trans-1,2-Dichloroethene	20.000	20.602	-3.0	94	-0.01
6	Di-Isopropyl ether	20.000	19.424	2.9	93	0.00
7	cis-1,2-Dichloroethene	20.000	19.565	2.2	93	0.00
8 S	1,1-Dichloropropene	20.000	20.011	-0.1	95	0.00
9	Benzene	40.000	41.133	-2.8	92	0.00
10	Trichloroethene	20.000	20.587	-2.9	94	0.00
11	2-Chloroethylvinyl ether	20.000	20.755	-3.8	92	0.00
12	cis-1,3-Dichloropropene	20.000	19.768	1.2	92	0.00
13	Toluene	40.000	41.150	-2.9	92	0.00
14	trans-1,3-Dichloropropene	20.000	20.618	-3.1	93	0.00
15	Tetrachloroethene	20.000	19.951	0.2	92	0.00
16 S	1-Chloro-4-fluorobenzene	20.000	21.037	-5.2	96	0.00
17	Chlorobenzene	20.000	20.033	-0.2	92	0.00
18	Ethylbenzene	40.000	41.056	-2.6	92	0.00
19	m,p-Xylene	80.000	78.039	2.5	92	0.00
20	o-Xylene	40.000	40.483	-1.2	91	0.00
21	1,3-Dichlorobenzene	20.000	20.471	-2.4	91	0.03
22	1,4-Dichlorobenzene	20.000	20.664	-3.3	91	0.03
23	1,2-Dichlorobenzene	20.000	19.982	0.1	92	0.03

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
25 I	Bromochloromethane	20.000	20.000	0.0	118	0.00
26 c	DICHLORODIFLUOROMETHANE	20.000	20.503	-2.5	115	0.12
27 c	CHLOROMETHANE	20.000	19.732	1.3	114	0.03
28 c	VINYL CHLORIDE #2	20.000	17.779	11.1	107	0.02
29 c	BROMOMETHANE	20.000	18.226	8.9	102	0.02
30 c	CHLOROETHANE	20.000	19.418	2.9	112	0.03
31 c	TRICHLOROFLUOROMETHANE	20.000	19.181	4.1	112	0.01
32	1,1-Dichloroethene #2	20.000	18.811	5.9	111	0.00
33	Methylene Chloride	20.000	18.901	5.5	111	0.00
34	trans-1,2-Dichloroethene #2	20.000	19.721	1.4	116	-0.01
35	1,1-Dichloroethane	20.000	19.820	0.9	113	-0.01

Continuing Calibration Summary

Page 2 of 2

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: QQR1032-CC1031
Lab FileID: QR023658.D

36	cis-1,2-Dichloroethene #2	20.000	20.457	-2.3	116	-0.01
37	Chloroform	20.000	19.263	3.7	109	0.00
38	1,1,1-Trichloroethane	20.000	18.525	7.4	109	0.00
39 S	1,1-Dichloropropene #2	20.000	19.785	1.1	121	0.00
40	Carbon Tetrachloride	20.000	19.254	3.7	108	0.00
41	1,2-Dichloroethane	20.000	23.225	-16.1#	127	0.00
42	Trichloroethene #2	20.000	20.965	-4.8	117	0.00
43	1,2-Dichloropropane	20.000	20.312	-1.6	113	0.00
44	Bromodichloromethane	20.000	19.391	3.0	108	0.00
45	2-Chloroethylvinyl ether #2	20.000	20.863	-4.3	119	0.00
46	cis-1,3-Dichloropropene #2	20.000	20.004	-0.0	112	0.00
47	trans-1,3-Dichloropropene #	20.000	20.718	-3.6	114	0.00
48	1,1,2-Trichloroethane	20.000	18.942	5.3	107	0.00
49	Tetrachloroethene #2	20.000	19.198	4.0	109	0.00
50	Dibromochloromethane	20.000	20.090	-0.4	111	0.00
51 S	1-Chloro-4-fluorobenzene #2	20.000	21.588	-7.9	125	0.00
52	Chlorobenzene #2	20.000	20.850	-4.3	120	0.00
53	Bromoform	20.000	18.867	5.7	108	0.00
54	1,1,2,2-Tetrachloroethane	20.000	19.987	0.1	113	0.02
55	1,3-Dichlorobenzene #2	20.000	20.334	-1.7	112	0.03
56	1,4-Dichlorobenzene #2	20.000	21.047	-5.2	114	0.03
57	1,2-Dichlorobenzene #2	20.000	20.726	-3.6	114	0.03

Average % D = 3.5

(#) = Out of Range
QR023624.D QR0719.M

SPCC's out = 0 CCC's out = 0
Fri Jul 23 09:52:12 2004 RPT1

Continuing Calibration Summary

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: QQR1032-CC1031
Lab FileID: QR023668.D

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Evaluate Continuing Calibration Report

Signal #1 : X:\HPCHEM\1\DATA\072004\QR023668.D\FID1B.CH Vial: 21
Signal #2 : X:\HPCHEM\1\DATA\072004\QR023668.D\AIB2A.CH
Acq On : 21 Jul 2004 12:45 am Operator: RachidA
Sample : cc1031-20 Inst : VOA3
Misc : gc3731,gqr1032,,,,, Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: ELCD.E

Method : X:\HPCHEM\1\METHODS\QR0719.M (Chemstation Integrator)
Title : EPA 601/602 & SWA 5030B/8021B
Last Update : Tue Jul 20 14:48:40 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 15% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	Fluorobenzene	20.000	20.000	0.0	95	0.00
2 c	VINYL CHLORIDE	20.000	20.374	-1.9	97	0.02
3	1,1-Dichloroethene	20.000	19.130	4.4	90	0.00
4	Methyl tert Butyl Ether	40.000	39.305	1.7	90	0.00
5	trans-1,2-Dichloroethene	20.000	20.864	-4.3	96	0.00
6	Di-Isopropyl ether	20.000	19.133	4.3	92	0.00
7	cis-1,2-Dichloroethene	20.000	19.328	3.4	93	0.00
8 S	1,1-Dichloropropene	20.000	19.999	0.0	96	0.00
9	Benzene	40.000	40.638	-1.6	92	0.00
10	Trichloroethene	20.000	22.161	-10.8	102	0.00
11	2-Chloroethylvinyl ether	20.000	20.186	-0.9	91	0.00
12	cis-1,3-Dichloropropene	20.000	19.206	4.0	90	0.00
13	Toluene	40.000	40.489	-1.2	92	0.00
14	trans-1,3-Dichloropropene	20.000	19.778	1.1	90	0.00
15	Tetrachloroethene	20.000	19.769	1.2	92	0.00
16 S	1-Chloro-4-fluorobenzene	20.000	20.991	-5.0	96	0.00
17	Chlorobenzene	20.000	19.827	0.9	92	0.00
18	Ethylbenzene	40.000	40.435	-1.1	91	0.01
19	m,p-Xylene	80.000	77.266	3.4	92	0.01
20	o-Xylene	40.000	40.302	-0.8	92	0.01
21	1,3-Dichlorobenzene	20.000	20.185	-0.9	90	0.03
22	1,4-Dichlorobenzene	20.000	20.616	-3.1	92	0.03
23	1,2-Dichlorobenzene	20.000	19.619	1.9	91	0.03

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
25 I	Bromochloromethane	20.000	20.000	0.0	114	0.00
26 c	DICHLORODIFLUOROMETHANE	20.000	22.813	-14.1	124	0.12
27 c	CHLOROMETHANE	20.000	23.961	-19.8	133	0.03
28 c	VINYL CHLORIDE #2	20.000	19.342	3.3	112	0.02
29 c	BROMOMETHANE	20.000	19.701	1.5	107	0.02
30 c	CHLOROETHANE	20.000	21.225	-6.1	119	0.03
31 c	TRICHLOROFLUOROMETHANE	20.000	20.912	-4.6	118	0.01
32	1,1-Dichloroethene #2	20.000	18.903	5.5	108	0.00
33	Methylene Chloride	20.000	20.079	-0.4	114	0.00
34	trans-1,2-Dichloroethene #2	20.000	20.303	-1.5	115	-0.01
35	1,1-Dichloroethane	20.000	20.449	-2.2	114	-0.01

Continuing Calibration Summary

Page 2 of 2

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GQR1032-CC1031
Lab FileID: QR023668.D

36	cis-1,2-Dichloroethene #2	20.000	20.024	-0.1	110	0.00
37	Chloroform	20.000	19.569	2.2	108	0.00
38	1,1,1-Trichloroethane	20.000	19.135	4.3	109	0.00
39 S	1,1-Dichloropropene #2	20.000	20.653	-3.3	123	0.00
40	Carbon Tetrachloride	20.000	19.707	1.5	107	0.00
41	1,2-Dichloroethane	20.000	22.473	-12.4	120	0.00
42	Trichloroethene #2	20.000	21.894	-9.5	119	0.00
43	1,2-Dichloropropane	20.000	20.510	-2.6	111	0.00
44	Bromodichloromethane	20.000	20.383	-1.9	110	0.00
45	2-Chloroethylvinyl ether #2	20.000	20.701	-3.5	115	0.00
46	cis-1,3-Dichloropropene #2	20.000	19.599	2.0	107	0.00
47	trans-1,3-Dichloropropene #	20.000	20.146	-0.7	108	0.00
48	1,1,2-Trichloroethane	20.000	19.753	1.2	108	0.00
49	Tetrachloroethene #2	20.000	19.765	1.2	108	0.00
50	Dibromochloromethane	20.000	20.458	-2.3	110	0.00
51 s	1-Chloro-4-fluorobenzene #2	20.000	21.481	-7.4	121	0.00
52	Chlorobenzene #2	20.000	20.744	-3.7	117	0.00
53	Bromoform	20.000	19.202	4.0	107	0.02
54	1,1,2,2-Tetrachloroethane	20.000	17.482	12.6	97	0.02
55	1,3-Dichlorobenzene #2	20.000	20.696	-3.5	111	0.03
56	1,4-Dichlorobenzene #2	20.000	21.015	-5.1	111	0.03
57	1,2-Dichlorobenzene #2	20.000	21.242	-6.2	113	0.03

Average % D = 3.8

(#) = Out of Range
QR023624.D QR0719.M

SPCC's out = 0 CCC's out = 0
Fri Jul 23 09:52:13 2004 RPT1

GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Page 1 of 1

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10913-MB	IJ20307.D	1	07/19/04	SM	07/17/04	OP10913	GIJ996

The QC reported here applies to the following samples:

Method: EPA 610

F25393-1, F25393-2, F25393-3, F25393-4, F25393-5, F25393-6, F25393-7, F25393-8, F25393-9, F25393-10, F25393-11, F25393-12

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.0	2.0	ug/l	
208-96-8	Acenaphthylene	ND	5.0	2.0	ug/l	
120-12-7	Anthracene	ND	5.0	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	2.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	2.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	2.0	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	2.0	ug/l	
207-08-9	Beuzo(k)fluoranthene	ND	5.0	2.0	ug/l	
218-01-9	Chrysene	ND	5.0	2.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	2.0	ug/l	
206-44-0	Fluoranthene	ND	5.0	2.0	ug/l	
86-73-7	Fluorene	ND	5.0	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	2.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	2.0	ug/l	
85-01-8	Phenanthrene	ND	5.0	2.0	ug/l	
129-00-0	Pyrene	ND	5.0	2.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
321-60-8	2-Fluorobiphenyl	86%	42-123%
84-15-1	o-Terphenyl	100%	51-123%

Blank Spike Summary

Page 1 of 1

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10913-BS	IJ20306.D	1	07/19/04	SM	07/17/04	OP10913	GIJ996

The QC reported here applies to the following samples:

Method: EPA 610

F25393-1, F25393-2, F25393-3, F25393-4, F25393-5, F25393-6, F25393-7, F25393-8, F25393-9, F25393-10, F25393-11, F25393-12

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	25	22.8	91	71-113
208-96-8	Acenaphthylene	25	22.9	92	63-102
120-12-7	Anthracene	25	24.6	98	71-110
56-55-3	Benzo(a)anthracene	25	23.0	92	70-114
50-32-8	Benzo(a)pyrene	25	23.3	93	67-114
205-99-2	Benzo(b)fluoranthene	25	22.7	91	69-115
191-24-2	Benzo(g,h,i)perylene	25	22.0	88	61-117
207-08-9	Benzo(k)fluoranthene	25	22.5	90	69-111
218-01-9	Chrysene	25	23.2	93	70-114
53-70-3	Dibenzo(a,h)anthracene	25	22.0	88	64-114
206-44-0	Fluoranthene	25	23.9	96	71-114
86-73-7	Fluorene	25	23.8	95	69-111
193-39-5	Indeno(1,2,3-cd)pyrene	25	21.6	86	63-112
91-20-3	Naphthalene	25	21.8	87	66-105
90-12-0	1-Methylnaphthalene	25	23.6	94	71-112
91-57-6	2-Methylnaphthalene	25	22.5	90	65-106
85-01-8	Phenanthrene	25	23.9	96	69-112
129-00-0	Pyrene	25	23.9	96	70-114

CAS No.	Surrogate Recoveries	BSP	Limits
321-60-8	2-Fluorobiphenyl	90%	42-123%
84-15-1	o-Terphenyl	97%	51-123%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10913-MS	IJ20325.D	1	07/19/04	SM	07/17/04	OP10913	GIJ996
OP10913-MSD	IJ20326.D	1	07/19/04	SM	07/17/04	OP10913	GIJ996
F25393-10	IJ20324.D	1	07/19/04	SM	07/17/04	OP10913	GIJ996

The QC reported here applies to the following samples:

Method: EPA 610

F25393-1, F25393-2, F25393-3, F25393-4, F25393-5, F25393-6, F25393-7, F25393-8, F25393-9, F25393-10, F25393-11, F25393-12

CAS No.	Compound	F25393-10 ug/l	Spike Q	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND	51	64.8	127*	74.1	145*	13	59-123/20
208-96-8	Acenaphthylene	ND	51	55.2	108	73.4	144*	28*	51-114/20
120-12-7	Anthracene	ND	51	62.1	122*	67.6	132*	8	64-114/17
56-55-3	Benzo(a)anthracene	ND	51	50.5	99	56.8	111	12	66-115/17
50-32-8	Benzo(a)pyrene	ND	51	50.4	99	58.2	114	14	62-118/17
205-99-2	Benzo(b)fluoranthene	ND	51	51.3	101	55.8	109	8	66-117/17
191-24-2	Benzo(g,h,i)perylene	ND	51	48.5	95	54.6	107	12	59-120/17
207-08-9	Benzo(k)fluoranthene	ND	51	47.2	93	51.5	101	9	64-116/16
218-01-9	Chrysene	ND	51	49.3	97	57.2	112	15	66-117/16
53-70-3	Dibenzo(a,h)anthracene	ND	51	49.1	96	55.6	109	12	57-124/18
206-44-0	Fluoranthene	ND	51	50.5	99	57.5	113	13	67-116/17
86-73-7	Fluorene	ND	51	70.4	138*	80.7	158*	14	58-122/19
193-39-5	Indeno(1,2,3-cd)pyrene	ND	51	48.8	96	55.1	108	12	59-116/18
91-20-3	Naphthalene	ND	51	49.1	96	54.1	106	10	47-114/20
90-12-0	1-Methylnaphthalene	ND	51	60.1	118	63.1	124	5	55-128/21
91-57-6	2-Methylnaphthalene	ND	51	46.5	91	54.2	106	15	51-117/21
85-01-8	Phenanthrene	ND	51	50.9	100	62.0	122*	20*	63-116/18
129-00-0	Pyrene	ND	51	49.0	96	57.1	112	15	67-116/17

CAS No.	Surrogate Recoveries	MS	MSD	F25393-10	Limits
321-60-8	2-Fluorobiphenyl	101%	132%* a	106%	42-123%
84-15-1	o-Terphenyl	99%	117%	106%	51-123%

(a) Outside control limits due to matrix interference.

Semivolatile Surrogate Recovery Summary

Page 1 of 1

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Method: EPA 610 Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a	S1 ^b	S2 ^a
F25393-1	IJ20314.D	88.0		100.0
F25393-2	IJ20315.D	93.0		101.0
F25393-3	IJ20317.D	88.0		98.0
F25393-4	IJ20318.D	51.0		72.0
F25393-5	IJ20319.D	97.0		107.0
F25393-6	IJ20320.D	89.0		101.0
F25393-7	IJ20321.D	93.0		104.0
F25393-8	IJ20322.D	86.0		99.0
F25393-9	IJ20323.D	57.0		86.0
F25393-10	IJ20324.D		106.0	106.0
F25393-11	IJ20328.D	79.0		92.0
F25393-12	IJ20329.D	95.0		105.0
OP10913-BS	IJ20306.D	90.0		97.0
OP10913-MB	IJ20307.D	86.0		100.0
OP10913-MS	IJ20325.D		101.0	99.0
OP10913-MSD	IJ20326.D		132.0* ^c	117.0

Surrogate Compounds Recovery Limits

S1 = 2-Fluorobiphenyl 42-123%
S2 = o-Terphenyl 51-123%

- (a) Recovery from GC signal #1
(b) Recovery from GC signal #2
(c) Outside control limits due to matrix interference.

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GJ996-CC993	Injection Date:	07/19/04
Lab File ID:	IJ20305.D	Injection Time:	10:05
Instrument ID:	GCIJ	Method:	EPA 610

S1 ^a	S2 ^a
RT	RT

Check Std	5.83	10.39

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
OP10913-BS	IJ20306.D	07/19/04	10:45	5.83	10.39
OP10913-MB	IJ20307.D	07/19/04	11:14	5.83	10.39
ZZZZZZ	IJ20308.D	07/19/04	11:43	5.83	10.39
ZZZZZZ	IJ20309.D	07/19/04	12:11	5.83	10.39
ZZZZZZ	IJ20311.D	07/19/04	13:09	5.84	10.39
ZZZZZZ	IJ20312.D	07/19/04	13:38	5.84	10.39
F25393-1	IJ20314.D	07/19/04	14:35	5.84	10.39
F25393-2	IJ20315.D	07/19/04	15:04	5.84	10.39

Surrogate
Compounds

S1 = 2-Fluorobiphenyl
S2 = o-Terphenyl

(a) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GJJ996-CC993	Injection Date:	07/19/04
Lab File ID:	IJ20316.D	Injection Time:	15:33
Instrument ID:	GCIJ	Method:	EPA 610

	S1 ^a RT	S1 ^b RT	S2 ^a RT
Check Std	5.84	6.62	10.39

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT
F25393-3	IJ20317.D	07/19/04	16:01	5.84		10.39
F25393-4	IJ20318.D	07/19/04	16:30	5.84		10.39
F25393-5	IJ20319.D	07/19/04	16:59	5.84		10.39
F25393-6	IJ20320.D	07/19/04	17:27	5.84		10.39
F25393-7	IJ20321.D	07/19/04	17:56	5.84		10.39
F25393-8	IJ20322.D	07/19/04	18:25	5.84		10.39
F25393-9	IJ20323.D	07/19/04	18:53	5.84		10.39
F25393-10	IJ20324.D	07/19/04	19:22		6.62	10.40
OP10913-MS	IJ20325.D	07/19/04	19:51		6.62	10.39
OP10913-MSD	IJ20326.D	07/19/04	20:19		6.62	10.39

Surrogate
Compounds

S1 = 2-Fluorobiphenyl
S2 = o-Terphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std: GIJ996-CC993
Lab File ID: IJ20327.D
Instrument ID: GCIJ

Injection Date: 07/19/04
Injection Time: 20:48
Method: EPA 610

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	5.84	6.62	10.39	11.77

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
F25393-11	IJ20328.D	07/19/04	21:16	5.84		10.39	
F25393-12	IJ20329.D	07/19/04	21:45	5.84		10.39	
ZZZZZZ	IJ20330.D	07/19/04	22:14	5.84	6.62	10.39	11.77
ZZZZZZ	IJ20331.D	07/19/04	22:42	5.84	6.62	10.39	11.77
GIJ996-ECC993	IJ20332.D	07/19/04	23:11	5.84	6.62	10.40	11.77

Surrogate Compounds

S1 = 2-Fluorobiphenyl
S2 = o-Terphenyl

- (a) Retention time from GC signal #1
(b) Retention time from GC signal #2

Initial Calibration Summary

Page 1 of 1

Job Number: F25393
 Account: EEINCJX EEI
 Project: Bldg. 4158/Camp Lejeune, NC

Sample: GJJ993-ICC993
 Lab FileID: IJ20270.D

Response Factor Report FID 1

Method : C:\HPCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
 Title : PAH's BY EPA 610 OR 8100
 Last Update : Tue Jul 13 15:27:00 2004
 Response via : Initial Calibration

Calibration Files

5 =IJ20268.D 10 =IJ20269.D 20 =IJ20270.D 30 =IJ20271.D
 40 =IJ20272.D 50 =IJ20273.D

	Compound	5	10	20	30	40	50	Avg	%RSD
1)	Naphthalene	1.457	1.435	1.419	1.433	1.450	1.460	1.442 E4	1.11
2)	2-Methyl Naphthalen	1.397	1.403	1.380	1.394	1.409	1.421	1.401 E4	1.00
3)	1-Methyl Naphthalen	1.392	1.385	1.360	1.372	1.383	1.392	1.381 E4	0.90
4) S	2-Fluorobiphenyl	1.234	1.243	1.232	1.253	1.269	1.280	1.252 E4	1.57
5)	Acenaphthylene	1.450	1.444	1.420	1.436	1.456	1.463	1.445 E4	1.06
6)	Acenaphthene	1.466	1.463	1.439	1.454	1.473	1.484	1.463 E4	1.07
7)	Fluorene	1.424	1.412	1.396	1.412	1.430	1.443	1.420 E4	1.16
8)	Phenanthrene	1.337	1.386	1.384	1.404	1.424	1.438	1.395 E4	2.55
9)	Anthracene	1.350	1.363	1.354	1.372	1.391	1.403	1.372 E4	1.53
10) S	0-Terphenyl	1.437	1.428	1.393	1.404	1.419	1.429	1.418 E4	1.19
11)	Fluoranthene	1.433	1.435	1.419	1.433	1.452	1.463	1.439 E4	1.08
12)	Pyrene	1.436	1.433	1.413	1.428	1.446	1.459	1.436 E4	1.08
13)	Benzo(a)Anthracene	1.364	1.387	1.382	1.403	1.425	1.441	1.400 E4	2.05
14)	Chrysene	1.449	1.434	1.400	1.402	1.422	1.435	1.424 E4	1.37
15)	Benzo(b)Fluoranthene	1.396	1.413	1.410	1.443	1.469	1.489	1.437 E4	2.56
16)	Benzo(k)Fluoranthene	1.520	1.489	1.455	1.467	1.470	1.496	1.483 E4	1.59
17)	Benzo(a) Pyrene	1.354	1.359	1.346	1.361	1.380	1.396	1.366 E4	1.36
18)	Indeno(1,2,3-cd)pyr	1.347	1.369	1.366	1.387	1.408	1.423	1.383 E4	2.04
19)	Dibenzo(a,h)anthrac	1.438	1.425	1.405	1.419	1.434	1.445	1.428 E4	1.00
20)	Benzo(g,h,i) Peryle	1.479	1.435	1.417	1.429	1.444	1.451	1.442 E4	1.48

Signal #2

1)	Naphthalene	2.208	2.189	2.141	2.155	2.171	2.181	2.174 E4	1.10
2)	2-Methyl Naphthalen	2.116	2.104	2.062	2.075	2.095	2.105	2.093 E4	0.98
3)	1-Methyl Naphthalen	2.082	2.069	2.026	2.039	2.062	2.071	2.058 E4	1.05
4) S	2-Fluorobiphenyl	1.908	1.897	1.868	1.881	1.899	1.910	1.894 E4	0.87
5)	Acenaphthylene	2.193	2.176	2.135	2.149	2.171	2.179	2.167 E4	1.00
6)	Acenaphthene	2.237	2.212	2.166	2.181	2.203	2.211	2.202 E4	1.14
7)	Fluorene	2.152	2.143	2.103	2.119	2.139	2.150	2.134 E4	0.90
8)	Phenanthrene	2.092	2.110	2.101	2.114	2.138	2.150	2.117 E4	1.06
9)	Anthracene	2.157	2.126	2.077	2.093	2.108	2.057	2.103 E4	1.70
10) S	0-Terphenyl	2.172	2.150	2.096	2.107	2.124	2.134	2.131 E4	1.31
11)	Fluoranthene	2.195	2.188	2.139	2.155	2.173	2.185	2.173 E4	0.99
12)	Pyrene	2.214	2.199	2.154	2.176	2.195	2.200	2.190 E4	0.97
13)	Benzo(a)Anthracene	2.206	2.198	2.154	2.170	2.191	2.204	2.187 E4	0.94
14)	Chrysene	2.171	2.151	2.118	2.129	2.147	2.162	2.146 E4	0.93
15)	Benzo(b)Fluoranthene	2.202	2.100	2.171	2.219	2.312	2.225	2.205 E4	3.16
16)	Benzo(k)Fluoranthene	2.234	2.218	2.172	2.178	2.207	2.221	2.205 E4	1.13
17)	Benzo(a) Pyrene	2.116	2.096	2.050	2.063	2.083	2.098	2.084 E4	1.16
18)	Indeno(1,2,3-cd)pyr	2.128	2.135	2.125	2.163	2.190	2.223	2.161 E4	1.82
19)	Dibenzo(a,h)anthrac	2.167	2.137	2.077	2.088	2.093	2.073	2.106 E4	1.79
20)	Benzo(g,h,i) Peryle	2.233	2.161	2.118	2.135	2.153	2.160	2.160 E4	1.83

(#) = Out of Range

8100_H2.M

Wed Jul 14 09:32:32 2004

Initial Calibration Verification

Page 1 of 2

Job Number: F25393
 Account: EEINCJX EEI
 Project: Bldg. 4158/Camp Lejeune, NC

Sample: GIJ993-ICV993
 Lab FileID: IJ20274.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\0713PAH\IJ20274.D\FID1B.CH Vial: 8
 Signal #2 : C:\HPCHEM\1\DATA\0713PAH\IJ20274.D\FID2A.CH
 Acq On : 13 Jul 2004 3:24 pm Operator: sarahm
 Sample : icv993-20 Inst : FID 1
 Misc : op10858,gij993,30.0,,,1,1,soil Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\HPCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
 Title : PAH's BY EPA 610 OR 8100
 Last Update : Tue Jul 13 15:27:00 2004
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
 Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Naphthalene	20.000	20.100	-0.5	102	0.01	4.19- 4.39
2	2-Methyl Naphthalene	20.000	20.483	-2.4	104	0.01	5.10- 5.30
3	1-Methyl Naphthalene	20.000	21.442	-7.2	109	0.01	5.25- 5.45
4 S	2-Fluorobiphenyl			NA			
5	Acenaphthylene	20.000	20.331	-1.7	103	0.01	6.46- 6.66
6	Acenaphthene	20.000	20.213	-1.1	103	0.01	6.78- 6.98
7	Fluorene	20.000	20.694	-3.5	105	0.01	7.65- 7.85
8	Phenanthrene	20.000	20.408	-2.0	103	0.01	9.33- 9.53
9	Anthracene	20.000	21.283	-6.4	108	0.01	9.41- 9.61
10 S	0-Terphenyl			NA			
11	Fluoranthene	20.000	20.338	-1.7	103	0.01	11.53-11.73
12	Pyrene	20.000	20.459	-2.3	104	0.01	11.91-12.11
13	Benzo(a)Anthracene	20.000	20.037	-0.2	101	0.01	14.22-14.42
14	Chrysene	20.000	20.336	-1.7	103	0.01	14.29-14.49
15	Benzo(b)Fluoranthene	20.000	20.124	-0.6	103	0.01	16.13-16.33
16	Benzo(k)Fluoranthene	20.000	19.985	0.1	102	0.01	16.18-16.38
17	Benzo(a) Pyrene	20.000	20.820	-4.1	106	0.00	16.62-16.82
18	Indeno(1,2,3-cd)pyrene	20.000	19.801	1.0	100	0.01	18.30-18.50
19	Dibenzo(a,h)anthracene	20.000	20.338	-1.7	103	0.01	18.38-18.58
20	Benzo(g,h,i) Perylene	20.000	20.089	-0.4	102	0.01	18.62-18.82

***** Signal #2 *****

1	Naphthalene	20.000	20.015	-0.1	102	0.01	4.84- 5.04
2	2-Methyl Naphthalene	20.000	20.374	-1.9	103	0.01	5.74- 5.94
3	1-Methyl Naphthalene	20.000	21.198	-6.0	108	0.01	6.00- 6.20
4 S	2-Fluorobiphenyl			NA			
5	Acenaphthylene	20.000	20.120	-0.6	102	0.01	7.62- 7.82
6	Acenaphthene	20.000	19.893	0.5	101	0.01	7.87- 8.07
7	Fluorene	20.000	20.564	-2.8	104	0.01	8.74- 8.94
8	Phenanthrene	20.000	20.150	-0.7	102	0.01	10.78-10.98
9	Anthracene	20.000	20.934	-4.7	106	0.01	10.81-11.01
10 S	0-Terphenyl			NA			
11	Fluoranthene	20.000	20.235	-1.2	103	0.01	13.14-13.34
12	Pyrene	20.000	20.300	-1.5	103	0.01	13.69-13.89
13	Benzo(a)Anthracene	20.000	19.913	0.4	101	0.01	16.05-16.25
14	Chrysene	20.000	20.374	-1.9	103	0.01	16.22-16.42
15	Benzo(b)Fluoranthene	20.000	19.884	0.6	101	0.01	18.11-18.31
16	Benzo(k)Fluoranthene	20.000	19.868	0.7	101	0.01	18.16-18.36
17	Benzo(a) Pyrene	20.000	20.669	-3.3	105	0.01	18.83-19.03
18	Indeno(1,2,3-cd)pyrene	20.000	19.538	2.3	99	0.01	20.61-20.81

Initial Calibration Verification

Page 2 of 2

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GIJ993-ICV993
Lab FileID: IJ20274.D

19	Dibenzo(a,h)anthracene	20.000	20.250	-1.3	103	0.01	20.68-20.88
20	Benzo(g,h,i) Perylene	20.000	19.958	0.2	102	0.02	21.25-21.45

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

IJ20270.D 8100_H2.M

Wed Jul 14 09:59:37 2004

Continuing Calibration Summary

Page 1 of 2

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GIJ996-CC993
Lab FileID: IJ20305.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\0719PAH\IJ20305.D\FID1B.CH Vial: 1
Signal #2 : C:\HPCHEM\1\DATA\0719PAH\IJ20305.D\FID2A.CH
Acq On : 19 Jul 2004 10:05 am Operator: sarahm
Sample : cc993-20 Inst : FID 1
Misc : op10913,gij996,1000,,,1,1,water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\HPCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
Title : PAH's BY EPA 610 OR 8100
Last Update : Tue Jul 13 15:27:00 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Naphthalene	20.000	19.846	0.8	101	0.00	4.19- 4.39
2	2-Methyl Naphthalene	20.000	19.790	1.1	100	0.00	5.10- 5.30
3	1-Methyl Naphthalene	20.000	19.843	0.8	101	0.00	5.25- 5.45
4 S	2-Fluorobiphenyl	20.000	19.727	1.4	100	0.00	5.74- 5.94
5	Acenaphthylene	20.000	19.841	0.8	101	0.00	6.46- 6.66
6	Acenaphthene	20.000	19.975	0.1	102	0.00	6.78- 6.98
7	Fluorene	20.000	19.876	0.6	101	0.00	7.65- 7.85
8	Phenanthrene	20.000	20.026	-0.1	101	0.00	9.33- 9.53
9	Anthracene	20.000	20.575	-2.9	104	0.00	9.41- 9.61
10 S	0-Terphenyl	20.000	20.046	-0.2	102	0.00	10.29-10.49
11	Fluoranthene	20.000	19.920	0.4	101	0.00	11.53-11.73
12	Pyrene	20.000	19.832	0.8	101	0.00	11.91-12.11
13	Benzo(a)Anthracene	20.000	19.639	1.8	99	0.00	14.22-14.42
14	Chrysene	20.000	20.494	-2.5	104	0.00	14.29-14.49
15	Benzo(b)Fluoranthene	20.000	19.909	0.5	101	0.00	16.13-16.33
16	Benzo(k)Fluoranthene	20.000	20.147	-0.7	103	0.00	16.18-16.38
17	Benzo(a) Pyrene	20.000	20.164	-0.8	102	0.00	16.62-16.82
18	Indeno(1,2,3-cd)pyrene	20.000	20.093	-0.5	102	0.00	18.30-18.50
19	Dibenzo(a,h)anthracene	20.000	20.149	-0.7	102	0.00	18.38-18.58
20	Benzo(g,h,i) Perylene	20.000	20.307	-1.5	103	0.00	18.62-18.82

***** Signal #2 *****

1	Naphthalene	20.000	19.885	0.6	101	0.00	4.84- 5.04
2	2-Methyl Naphthalene	20.000	19.846	0.8	101	0.00	5.74- 5.94
3	1-Methyl Naphthalene	20.000	19.856	0.7	101	0.00	6.00- 6.20
4 S	2-Fluorobiphenyl	20.000	19.917	0.4	101	0.00	6.52- 6.72
5	Acenaphthylene	20.000	19.952	0.2	101	0.00	7.62- 7.82
6	Acenaphthene	20.000	19.955	0.2	101	0.00	7.87- 8.07
7	Fluorene	20.000	20.065	-0.3	102	0.00	8.74- 8.94
8	Phenanthrene	20.000	20.201	-1.0	102	0.00	10.78-10.98
9	Anthracene	20.000	19.971	0.1	101	0.00	10.81-11.01
10 S	0-Terphenyl	20.000	20.072	-0.4	102	0.00	11.67-11.87
11	Fluoranthene	20.000	19.997	0.0	102	0.00	13.14-13.34
12	Pyrene	20.000	19.941	0.3	101	0.00	13.69-13.89
13	Benzo(a)Anthracene	20.000	19.845	0.8	101	0.00	16.05-16.25
14	Chrysene	20.000	19.850	0.7	101	0.00	16.22-16.42
15	Benzo(b)Fluoranthene	20.000	19.706	1.5	100	0.00	18.11-18.31
16	Benzo(k)Fluoranthene	20.000	19.991	0.0	101	0.00	18.16-18.36
17	Benzo(a) Pyrene	20.000	20.020	-0.1	102	0.00	18.83-19.03
18	Indeno(1,2,3-cd)pyrene	20.000	20.208	-1.0	103	0.00	20.61-20.81

Continuing Calibration Summary

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Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GJ996-CC993
Lab FileID: IJ20305.D

19	Dibenzo(a,h)anthracene	20.000	20.273	-1.4	103	0.00	20.68-20.88
20	Benzo(g,h,i) Perylene	20.000	20.205	-1.0	103	0.00	21.25-21.45

(#) = Out of Range
IJ20270.D 8100_H2.M

SPCC's out = 0 CCC's out = 0
Tue Jul 20 10:00:51 2004

5.6
6

Continuing Calibration Summary

Page 1 of 2

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GJ996-CC993
Lab FileID: IJ20316.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\0719PAH\IJ20316.D\FID1B.CH Vial: 1
Signal #2 : C:\HPCHEM\1\DATA\0719PAH\IJ20316.D\FID2A.CH
Acq On : 19 Jul 2004 3:33 pm Operator: sarahm
Sample : cc993-20 Inst : FID 1
Misc : op10913,gij996,1030,,,1,1,water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\HPCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
Title : PAH's BY EPA 610 OR 8100
Last Update : Tue Jul 13 15:27:00 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Naphthalene	20.000	20.686	-3.4	105	0.00	4.19- 4.39
2	2-Methyl Naphthalene	20.000	20.762	-3.8	105	0.00	5.10- 5.30
3	1-Methyl Naphthalene	20.000	20.753	-3.8	105	0.00	5.25- 5.45
4 S	2-Fluorobiphenyl	20.000	20.779	-3.9	106	0.00	5.74- 5.94
5	Acenaphthylene	20.000	20.781	-3.9	106	0.00	6.46- 6.66
6	Acenaphthene	20.000	20.831	-4.2	106	0.00	6.78- 6.98
7	Fluorene	20.000	20.867	-4.3	106	0.00	7.65- 7.85
8	Phenanthrene	20.000	21.116	-5.6	106	0.00	9.33- 9.53
9	Anthracene	20.000	21.399	-7.0	108	0.00	9.41- 9.61
10 S	0-Terphenyl	20.000	20.822	-4.1	106	0.00	10.29-10.49
11	Fluoranthene	20.000	20.957	-4.8	106	0.00	11.53-11.73
12	Pyrene	20.000	20.827	-4.1	106	0.00	11.91-12.11
13	Benzo(a)Anthracene	20.000	20.794	-4.0	105	0.00	14.22-14.42
14	Chrysene	20.000	20.734	-3.7	105	0.00	14.29-14.49
15	Benzo(b)Fluoranthene	20.000	20.835	-4.2	106	0.00	16.13-16.33
16	Benzo(k)Fluoranthene	20.000	20.530	-2.7	105	0.00	16.18-16.38
17	Benzo(a) Pyrene	20.000	20.930	-4.6	106	0.00	16.62-16.82
18	Indeno(1,2,3-cd)pyrene	20.000	21.050	-5.3	107	0.00	18.30-18.50
19	Dibenzo(a,h)anthracene	20.000	20.992	-5.0	107	0.00	18.38-18.58
20	Benzo(g,h,i) Perylene	20.000	20.913	-4.6	106	0.00	18.62-18.82

***** Signal #2 *****

1	Naphthalene	20.000	20.459	-2.3	104	0.00	4.84- 5.04
2	2-Methyl Naphthalene	20.000	20.502	-2.5	104	0.00	5.74- 5.94
3	1-Methyl Naphthalene	20.000	20.470	-2.3	104	0.00	6.00- 6.20
4 S	2-Fluorobiphenyl	20.000	20.505	-2.5	104	0.00	6.52- 6.72
5	Acenaphthylene	20.000	20.511	-2.6	104	0.00	7.62- 7.82
6	Acenaphthene	20.000	20.485	-2.4	104	0.00	7.87- 8.07
7	Fluorene	20.000	20.615	-3.1	105	0.00	8.74- 8.94
8	Phenanthrene	20.000	20.763	-3.8	105	0.00	10.78-10.98
9	Anthracene	20.000	20.562	-2.8	104	0.00	10.81-11.01
10 S	0-Terphenyl	20.000	20.567	-2.8	105	0.00	11.67-11.87
11	Fluoranthene	20.000	20.523	-2.6	104	0.00	13.14-13.34
12	Pyrene	20.000	20.628	-3.1	105	0.00	13.69-13.89
13	Benzo(a)Anthracene	20.000	20.472	-2.4	104	0.00	16.05-16.25
14	Chrysene	20.000	20.495	-2.5	104	0.00	16.22-16.42
15	Benzo(b)Fluoranthene	20.000	20.568	-2.8	104	0.00	18.11-18.31
16	Benzo(k)Fluoranthene	20.000	20.615	-3.1	105	0.00	18.16-18.36
17	Benzo(a) Pyrene	20.000	20.592	-3.0	105	0.00	18.83-19.03
18	Indeno(1,2,3-cd)pyrene	20.000	20.662	-3.3	105	0.00	20.61-20.81

Continuing Calibration Summary

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Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GIJ996-CC993
Lab FileID: IJ20316.D

19	Dibenzo(a,h)anthracene	20.000	20.800	-4.0	105	0.00	20.68-20.88
20	Benzo(g,h,i) Perylene	20.000	20.664	-3.3	105	0.00	21.25-21.45

(#) = Out of Range
IJ20270.D 8100_H2.M

SPCC's out = 0 CCC's out = 0
Tue Jul 20 10:00:53 2004

Continuing Calibration Summary

Page 1 of 2

Job Number: F25393
Account: EEINCJX EE1
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GJ996-CC993
Lab FileID: IJ20327.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\0719PAH\IJ20327.D\FID1B.CH Vial: 22
Signal #2 : C:\HPCHEM\1\DATA\0719PAH\IJ20327.D\FID2A.CH
Acq On : 19 Jul 2004 8:48 pm Operator: sarahm
Sample : cc993-30 Inst : FID 1
Misc : op10913,gij996,490,,,1,1,water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\HPCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
Title : PAH's BY EPA 610 OR 8100
Last Update : Tue Jul 13 15:27:00 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Naphthalene	30.000	31.171	-3.9	105	0.00	4.19- 4.39
2	2-Methyl Naphthalene	30.000	31.302	-4.3	105	0.00	5.10- 5.30
3	1-Methyl Naphthalene	30.000	31.189	-4.0	105	0.00	5.25- 5.45
4 S	2-Fluorobiphenyl	30.000	31.510	-5.0	105	0.00	5.74- 5.94
5	Acenaphthylene	30.000	31.319	-4.4	105	0.00	6.46- 6.66
6	Acenaphthene	30.000	31.310	-4.4	105	0.00	6.78- 6.98
7	Fluorene	30.000	31.495	-5.0	106	0.00	7.65- 7.85
8	Phenanthrene	30.000	31.966	-6.6	106	0.00	9.33- 9.53
9	Anthracene	30.000	32.068	-6.9	107	0.00	9.41- 9.61
10 S	0-Terphenyl	30.000	31.204	-4.0	105	0.00	10.29-10.49
11	Fluoranthene	30.000	31.553	-5.2	106	0.00	11.53-11.73
12	Pyrene	30.000	31.379	-4.6	105	0.00	11.91-12.11
13	Benzo(a)Anthracene	30.000	31.742	-5.8	106	0.00	14.22-14.42
14	Chrysene	30.000	31.206	-4.0	106	0.00	14.29-14.49
15	Benzo(b)Fluoranthene	30.000	31.736	-5.8	105	0.00	16.13-16.33
16	Benzo(k)Fluoranthene	30.000	31.044	-3.5	105	0.01	16.18-16.38
17	Benzo(a) Pyrene	30.000	31.560	-5.2	106	0.00	16.62-16.82
18	Indeno(1,2,3-cd)pyrene	30.000	31.207	-4.0	104	0.01	18.30-18.50
19	Dibenzo(a,h)anthracene	30.000	31.031	-3.4	104	0.01	18.38-18.58
20	Benzo(g,h,i) Perylene	30.000	29.985	0.1	101	0.01	18.62-18.82

***** Signal #2 *****

1	Naphthalene	30.000	30.806	-2.7	104	0.00	4.84- 5.04
2	2-Methyl Naphthalene	30.000	30.934	-3.1	104	0.00	5.74- 5.94
3	1-Methyl Naphthalene	30.000	30.897	-3.0	104	0.00	6.00- 6.20
4 S	2-Fluorobiphenyl	30.000	31.008	-3.4	104	0.00	6.52- 6.72
5	Acenaphthylene	30.000	30.959	-3.2	104	0.00	7.62- 7.82
6	Acenaphthene	30.000	30.896	-3.0	104	0.00	7.87- 8.07
7	Fluorene	30.000	31.046	-3.5	104	0.00	8.74- 8.94
8	Phenanthrene	30.000	31.360	-4.5	105	0.00	10.78-10.98
9	Anthracene	30.000	31.020	-3.4	104	0.00	10.81-11.01
10 S	0-Terphenyl	30.000	30.867	-2.9	104	0.00	11.67-11.87
11	Fluoranthene	30.000	30.947	-3.2	104	0.00	13.14-13.34
12	Pyrene	30.000	31.079	-3.6	104	0.00	13.69-13.89
13	Benzo(a)Anthracene	30.000	30.893	-3.0	104	0.00	16.05-16.25
14	Chrysene	30.000	30.918	-3.1	104	0.00	16.22-16.42
15	Benzo(b)Fluoranthene	30.000	30.897	-3.0	102	0.00	18.11-18.31
16	Benzo(k)Fluoranthene	30.000	30.887	-3.0	104	0.00	18.16-18.36
17	Benzo(a) Pyrene	30.000	30.989	-3.3	104	0.00	18.83-19.03
18	Indeno(1,2,3-cd)pyrene	30.000	31.047	-3.5	103	0.00	20.61-20.81

Continuing Calibration Summary

Page 2 of 2

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GIJ996-CC993
Lab FileID: IJ20327.D

19	Dibenzo(a,h)anthracene	30.000	31.120	-3.7	105	0.00	20.68-20.88
20	Benzo(g,h,i) Perylene	30.000	30.177	-0.6	102	0.00	21.25-21.45

(#) = Out of Range
IJ20271.D 8100_H2.M

SPCC's out = 0 CCC's out = 0
Tue Jul 20 10:01:22 2004

6.6
6

Continuing Calibration Summary

Page 1 of 2

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GJ996-ECC993
Lab FileID: IJ20332.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\0719PAH\IJ20332.D\FID1B.CH Vial: 22
Signal #2 : C:\HPCHEM\1\DATA\0719PAH\IJ20332.D\FID2A.CH
Acq On : 19 Jul 2004 11:11 pm Operator: sarahm
Sample : ecc993-30 Inst : FID 1
Misc : op10913,gij996,1040,,,1,1,water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\HPCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
Title : PAH's BY EPA 610 OR 8100
Last Update : Tue Jul 13 15:27:00 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Naphthalene	30.000	31.239	-4.1	105	0.00	4.19- 4.39
2	2-Methyl Naphthalene	30.000	31.385	-4.6	105	0.00	5.10- 5.30
3	1-Methyl Naphthalene	30.000	31.238	-4.1	105	0.00	5.25- 5.45
4 S	2-Fluorobiphenyl	30.000	31.564	-5.2	105	0.00	5.74- 5.94
5	Acenaphthylene	30.000	31.391	-4.6	105	0.00	6.46- 6.66
6	Acenaphthene	30.000	31.440	-4.8	105	0.00	6.78- 6.98
7	Fluorene	30.000	31.569	-5.2	106	0.00	7.65- 7.85
8	Phenanthrene	30.000	32.011	-6.7	106	0.00	9.33- 9.53
9	Anthracene	30.000	31.871	-6.2	106	0.00	9.41- 9.61
10 S	0-Terphenyl	30.000	31.279	-4.3	105	0.00	10.29-10.49
11	Fluoranthene	30.000	31.649	-5.5	106	0.00	11.53-11.73
12	Pyrene	30.000	31.493	-5.0	106	0.00	11.91-12.11
13	Benzo(a)Anthracene	30.000	31.843	-6.1	106	0.01	14.22-14.42
14	Chrysene	30.000	31.296	-4.3	106	0.01	14.29-14.49
15	Benzo(b)Fluoranthene	30.000	31.878	-6.3	106	0.01	16.13-16.33
16	Benzo(k)Fluoranthene	30.000	31.139	-3.8	105	0.01	16.18-16.38
17	Benzo(a) Pyrene	30.000	31.778	-5.9	106	0.00	16.62-16.82
18	Indeno(1,2,3-cd)pyrene	30.000	31.787	-6.0	106	0.01	18.30-18.50
19	Dibenzo(a,h)anthracene	30.000	31.265	-4.2	105	0.01	18.38-18.58
20	Benzo(g,h,i) Perylene	30.000	30.921	-3.1	104	0.02	18.62-18.82

***** Signal #2 *****

1	Naphthalene	30.000	30.830	-2.8	104	0.00	4.84- 5.04
2	2-Methyl Naphthalene	30.000	30.969	-3.2	104	0.00	5.74- 5.94
3	1-Methyl Naphthalene	30.000	30.904	-3.0	104	0.00	6.00- 6.20
4 S	2-Fluorobiphenyl	30.000	31.050	-3.5	104	0.00	6.52- 6.72
5	Acenaphthylene	30.000	30.990	-3.3	104	0.00	7.62- 7.82
6	Acenaphthene	30.000	30.915	-3.0	104	0.00	7.87- 8.07
7	Fluorene	30.000	31.086	-3.6	104	0.00	8.74- 8.94
8	Phenanthrene	30.000	31.424	-4.7	105	0.00	10.78-10.98
9	Anthracene	30.000	31.035	-3.5	104	0.00	10.81-11.01
10 S	0-Terphenyl	30.000	30.924	-3.1	104	0.00	11.67-11.87
11	Fluoranthene	30.000	30.987	-3.3	104	0.00	13.14-13.34
12	Pyrene	30.000	31.157	-3.9	105	0.00	13.69-13.89
13	Benzo(a)Anthracene	30.000	31.010	-3.4	104	0.00	16.05-16.25
14	Chrysene	30.000	31.029	-3.4	104	0.00	16.22-16.42
15	Benzo(b)Fluoranthene	30.000	31.800	-6.0	105	0.00	18.11-18.31
16	Benzo(k)Fluoranthene	30.000	31.425	-4.8	106	0.00	18.16-18.36
17	Benzo(a) Pyrene	30.000	32.434	-8.1	109	0.00	18.83-19.03
18	Indeno(1,2,3-cd)pyrene	30.000	33.067	-10.2	110	0.01	20.61-20.81

Continuing Calibration Summary

Page 2 of 2

Job Number: F25393
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GIJ996-ECC993
Lab FileID: IJ20332.D

19	Dibenzo(a,h)anthracene	30.000	32.192	-7.3	108	0.01	20.68-20.88
20	Benzo(g,h,i) Perylene	30.000	32.059	-6.9	108	0.01	21.25-21.45

(#) = Out of Range
IJ20271.D 8100_H2.M

SPCC's out = 0 CCC's out = 0
Tue Jul 20 10:02:17 2004

October 2004 Groundwater Laboratory Report





Southeast

11/18/04

Technical Report for

EEI

Bldg. 4158/Camp Lejeune, NC

CTO-010

Accutest Job Number: F27319

Sampling Dates: 10/07/04 - 10/08/04

Report to:

EEI
195 South Rosemount Road
Suite 118
Virginia Beach, VA 23452

ATTN: Fred Kozminski

Total number of pages in report: 95



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Harry Behzadi
Harry Behzadi, Ph.D.
Laboratory Director

Certifications: FL (DOH E83510), NC (573), NJ (FL002), MA (FL946), IA (366), LA (03051), KS (E-10327), SC, AK
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Sample Summary

EEI

Job No: F27319

Bldg. 4158/Camp Lejeune, NC
Project No: CTO-010

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
F27319-1	10/07/04	12:50	10/09/04	AQ	Ground Water	UST4158-MW04
F27319-2	10/07/04	13:20	10/09/04	AQ	Ground Water	UST4158-MW01
F27319-3	10/07/04	13:55	10/09/04	AQ	Ground Water	UST4158-MW05
F27319-4	10/07/04	14:25	10/09/04	AQ	Ground Water	UST4158-MW07
F27319-5	10/07/04	14:57	10/09/04	AQ	Ground Water	UST4158-MW10
F27319-6	10/07/04	15:30	10/09/04	AQ	Ground Water	UST4158-MW13
F27319-7	10/07/04	16:10	10/09/04	AQ	Ground Water	UST4158-MW14
F27319-8	10/07/04	16:55	10/09/04	AQ	Ground Water	UST4158-MW18
F27319-9	10/07/04	17:20	10/09/04	AQ	Ground Water	UST4158-MW15
F27319-10	10/07/04	00:00	10/09/04	AQ	Ground Water	UST4158-DUP
F27319-11	10/08/04	08:00	10/09/04	AQ	Ground Water	UST4158-MW08
F27319-12	10/08/04	08:40	10/09/04	AQ	Ground Water	UST4158-MW11
F27319-13	10/08/04	09:20	10/09/04	AQ	Ground Water	UST4158-MW17

Sample Summary

(continued)

EEI

Job No: F27319

Bldg. 4158/Camp Lejeune, NC
Project No: CTO-010

Sample Number	Collected Date	Time By	Received	Matrix Code Type	Client Sample ID
F27319-14	10/08/04	09:55	10/09/04	AQ Ground Water	UST4158-MW09
F27319-15	10/08/04	00:00	10/09/04	AQ Trip Blank Water	TRIP BLANK

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: EEI

Job No: F27319

Site: Bldg. 4158/Camp Lejeune, NC

Report Date: 10/26/2004 9:11:21

14 Samples and 1 Trip Blank were collected on between 10/07/2004 and 10/08/2004 and were received at Accutest on 10/09/2004 properly preserved, at 3.4 Dcg. C and intact. These Samples received an Accutest job number of F27319. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GC by Method EPA 601/602

Matrix: AQ

Batch ID: GEF3404

All samples were analyzed within the recommended method holding time.

Samples F27319-1MS, F27319-1MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

F27319-1: All hits confirmed by dual column analysis.

F27319-2: All hits confirmed by dual column analysis.

F27319-3: All hits confirmed by dual column analysis.

F27319-4: All hits confirmed by dual column analysis.

F27319-6: All hits confirmed by dual column analysis.

F27319-7: All hits confirmed by dual column analysis.

F27319-11: All hits confirmed by dual column analysis.

F27319-12: All hits confirmed by dual column analysis.

Matrix: AQ

Batch ID: GEF3407

All samples were analyzed within the recommended method holding time.

Samples F27451-1MS, F27451-1MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

F27319-14: All hits confirmed by dual column analysis.

Extractables by GC by Method EPA 610

Matrix: AQ

Batch ID: OP11557

All samples were extracted within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F27319-5MS, F27319-5MSD were used as the QC samples indicated.

Blank Spike Recoverys for Acenaphthylene, Anthracene, Chrysene are outside control limits. Method may be biased high, but samples are non-detect.

Matrix Spike Recoverys for Anthracene, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(g,h,i)perylene, Benzo(k)fluoranthene, Chrysene, Fluoranthene, Indeno(1,2,3-cd)pyrene, Phenanthrene, Pyrene are outside control limits.

Probable cause: due to matrix interference.

F27319-6: Confirmed by GC/MS

Matrix: AQ

Batch ID: OP11570

All samples were extracted within the recommended method holding time.

Samples F27319-13MS, F27319-13MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

Sample F27319-14 has surrogates outside control limits. Probable cause: due to matrix interference.

F27319-14: Confirmed by GC/MS. Dilution required due to matrix interference.

F27319-14 for 2-Fluorobiphenyl: Outside control limits due to dilution.

F27319-14 for o-Terphenyl: Outside control limits due to dilution.

Tuesday, October 26, 2004

Accutest Laboratories Southeast (ALSE) certifies that this report meets the project requirements for analytical data produced for the

samples as received at ALSE and as stated on the COC. ALSE certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALSE Quality Manual except as noted above. This report is to be used in its entirety. ALSE is not responsible for any assumptions of data quality if partial data packages are used.

Narrative prepared by:

Date: Oct. 26, 2004

Ellen Pampel, Inorganic QA (signature on file)

Tuesday, October 26, 2004

Report of Analysis

Client Sample ID:	UST4158-MW04	Date Sampled:	10/07/04
Lab Sample ID:	F27319-1	Date Received:	10/09/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EF045173.D	1	10/21/04	CV	n/a	n/a	GEF3404
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	0.57	1.0	0.50	ug/l	J
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	71%		70-123%
98-08-8	aaa-Trifluorotoluene	76%		73-122%

(a) All hits confirmed by dual column analysis.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: UST4158-MW04
 Lab Sample ID: F27319-1
 Matrix: AQ - Ground Water
 Method: EPA 610 EPA 610
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 10/07/04
 Date Received: 10/09/04
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ21044.D	1	10/18/04	AA	10/14/04	OP11557	GIJ1033
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.8	1.9	ug/l	
120-12-7	Anthracene	ND	4.8	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	1.9	ug/l	
218-01-9	Chrysene	ND	4.8	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	1.9	ug/l	
86-73-7	Fluorene	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
91-20-3	Naphthalene	ND	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.8	1.9	ug/l	
129-00-0	Pyrene	ND	4.8	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	63%		42-123%
84-15-1	o-Terphenyl	93%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UST4158-MW01	Date Sampled:	10/07/04
Lab Sample ID:	F27319-2	Date Received:	10/09/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EF045176.D	1	10/21/04	CV	n/a	n/a	GEF3404
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	0.72	1.0	0.50	ug/l	J
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	90%		70-123%
98-08-8	aaa-Trifluorotoluene	97%		73-122%

(a) All bits confirmed by dual column analysis.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: UST4158-MW01
 Lab Sample ID: F27319-2
 Matrix: AQ - Ground Water
 Method: EPA 610 EPA 610
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 10/07/04
 Date Received: 10/09/04
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ21045.D	1	10/18/04	AA	10/14/04	OP11557	GIJ1033
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1030 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.9	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.9	1.9	ug/l	
120-12-7	Anthracene	ND	4.9	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.9	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.9	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.9	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.9	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.9	1.9	ug/l	
218-01-9	Chrysene	ND	4.9	1.9	ug/l	
53-70-3	Dibenzo(a,b)anthracene	ND	4.9	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.9	1.9	ug/l	
86-73-7	Fluorene	ND	4.9	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.9	1.9	ug/l	
91-20-3	Naphthalene	ND	4.9	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.9	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.9	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.9	1.9	ug/l	
129-00-0	Pyrene	ND	4.9	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	58%		42-123%
84-15-1	o-Terphenyl	73%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UST4158-MW05	Date Sampled:	10/07/04
Lab Sample ID:	F27319-3	Date Received:	10/09/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EF045177.D	1	10/21/04	CV	n/a	n/a	GEF3404
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	0.61	1.0	0.50	ug/l	J
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	89%		70-123%
98-08-8	aaa-Trifluorotoluene	95%		73-122%

(a) All hits confirmed by dual column analysis.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: UST4158-MW05
 Lab Sample ID: F27319-3
 Matrix: AQ - Ground Water
 Method: EPA 610 EPA 610
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 10/07/04
 Date Received: 10/09/04
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ21046.D	1	10/18/04	AA	10/14/04	OP11557	G1J1033
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1010 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.0	2.0	ug/l	
208-96-8	Acenaphthylene	ND	5.0	2.0	ug/l	
120-12-7	Anthracene	ND	5.0	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	2.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	2.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	2.0	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	2.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	2.0	ug/l	
218-01-9	Chrysene	ND	5.0	2.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	2.0	ug/l	
206-44-0	Fluoranthene	ND	5.0	2.0	ug/l	
86-73-7	Fluorene	ND	5.0	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	2.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	2.0	ug/l	
85-01-8	Phenanthrene	ND	5.0	2.0	ug/l	
129-00-0	Pyrene	ND	5.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	76%		42-123%
84-15-1	o-Terphenyl	94%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UST4158-MW07	Date Sampled:	10/07/04
Lab Sample ID:	F27319-4	Date Received:	10/09/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EF045178.D	1	10/21/04	CV	n/a	n/a	GEF3404
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	0.51	1.0	0.50	ug/l	J
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	88%		70-123%
98-08-8	aaa-Trifluorotoluene	94%		73-122%

(a) All hits confirmed by dual column analysis.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UST4158-MW07	Date Sampled:	10/07/04
Lab Sample ID:	F27319-4	Date Received:	10/09/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ21047.D	1	10/18/04	AA	10/14/04	OP11557	GIJ1033
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.8	1.9	ug/l	
120-12-7	Anthracene	ND	4.8	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	1.9	ug/l	
218-01-9	Chrysene	ND	4.8	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	1.9	ug/l	
86-73-7	Fluorene	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
91-20-3	Naphthalene	ND	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.8	1.9	ug/l	
129-00-0	Pyrene	ND	4.8	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	64%		42-123%
84-15-1	o-Terphenyl	96%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UST4158-MW10	Date Sampled:	10/07/04
Lab Sample ID:	F27319-5	Date Received:	10/09/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF045179.D	1	10/21/04	CV	n/a	n/a	GEF3404
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	79%		70-123%
98-08-8	aaa-Trifluorotoluene	86%		73-122%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: UST4158-MW10
 Lab Sample ID: F27319-5
 Matrix: AQ - Ground Water
 Method: EPA 610 EPA 610
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 10/07/04
 Date Received: 10/09/04
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ21048.D	1	10/18/04	AA	10/14/04	OP11557	GIJ1033
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.8	1.9	ug/l	
120-12-7	Anthracene	ND	4.8	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	1.9	ug/l	
218-01-9	Chrysene	ND	4.8	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	1.9	ug/l	
86-73-7	Fluorene	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
91-20-3	Naphthalene	ND	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.8	1.9	ug/l	
129-00-0	Pyrene	ND	4.8	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	66%		42-123%
84-15-1	o-Terphenyl	90%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UST4158-MW13	Date Sampled:	10/07/04
Lab Sample ID:	F27319-6	Date Received:	10/09/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Bldg. 4158/Camp Lejeune, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EF045180.D	1	10/21/04	CV	n/a	n/a	GEF3404
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	35.1	1.0	0.50	ug/l	
108-88-3	Toluene	1.9	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	3.6	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	8.3	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	38.4	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	95%		70-123%
98-08-8	aaa-Trifluorotoluene	100%		73-122%

(a) All hits confirmed by dual column analysis.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: UST4158-MW13
 Lab Sample ID: F27319-6
 Matrix: AQ - Ground Water
 Method: EPA 610 EPA 610
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 10/07/04
 Date Received: 10/09/04
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	IJ21051.D	1	10/19/04	AA	10/14/04	OP11557	GIJ1033
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.8	1.9	ug/l	
120-12-7	Anthracene	ND	4.8	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	1.9	ug/l	
218-01-9	Chrysene	ND	4.8	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	1.9	ug/l	
86-73-7	Fluorene	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
91-20-3	Naphthalene	ND	4.8	4.8	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.8	1.9	ug/l	
129-00-0	Pyrene	ND	4.8	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	114%		42-123%
84-15-1	o-Terphenyl	109%		51-123%

(a) Confirmed by GC/MS

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UST4158-MW14	Date Sampled:	10/07/04
Lab Sample ID:	F27319-7	Date Received:	10/09/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EF045182.D	1	10/21/04	CV	n/a	n/a	GEF3404
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	0.68	1.0	0.50	ug/l	J
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	84%		70-123%
98-08-8	aaa-Trifluorotoluene	90%		73-122%

(a) All hits confirmed by dual column analysis.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: UST4158-MW14
 Lab Sample ID: F27319-7
 Matrix: AQ - Ground Water
 Method: EPA 610 EPA 610
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 10/07/04
 Date Received: 10/09/04
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ21053.D	1	10/19/04	AA	10/14/04	OP11557	GIJ1033
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.0	2.0	ug/l	
208-96-8	Acenaphthylene	ND	5.0	2.0	ug/l	
120-12-7	Anthracene	ND	5.0	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	2.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	2.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	2.0	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	2.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	2.0	ug/l	
218-01-9	Chrysene	ND	5.0	2.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	2.0	ug/l	
206-44-0	Fluoranthene	ND	5.0	2.0	ug/l	
86-73-7	Fluorene	ND	5.0	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	2.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	2.0	ug/l	
85-01-8	Phenanthrene	ND	5.0	2.0	ug/l	
129-00-0	Pyrene	ND	5.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	101%		42-123%
84-15-1	o-Terphenyl	106%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UST4158-MW18	Date Sampled:	10/07/04
Lab Sample ID:	F27319-8	Date Received:	10/09/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF045183.D	1	10/21/04	CV	n/a	n/a	GEF3404
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	87%		70-123%
98-08-8	aaa-Trifluorotoluene	95%		73-122%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: UST4158-MW18
 Lab Sample ID: F27319-8
 Matrix: AQ - Ground Water
 Method: EPA 610 EPA 610
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 10/07/04
 Date Received: 10/09/04
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ21054.D	1	10/19/04	AA	10/14/04	OP11557	GIJ1033
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.8	1.9	ug/l	
120-12-7	Anthracene	ND	4.8	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	1.9	ug/l	
218-01-9	Chrysene	ND	4.8	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	1.9	ug/l	
86-73-7	Fluorene	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
91-20-3	Naphthalene	ND	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.8	1.9	ug/l	
129-00-0	Pyrene	ND	4.8	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	109%		42-123%
84-15-1	o-Terphenyl	115%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UST4158-MW15	Date Sampled:	10/07/04
Lab Sample ID:	F27319-9	Date Received:	10/09/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF045184.D	1	10/21/04	CV	n/a	n/a	GEF3404
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	82%		70-123%
98-08-8	aaa-Trifluorotoluene	90%		73-122%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: UST4158-MW15
 Lab Sample ID: F27319-9
 Matrix: AQ - Ground Water
 Method: EPA 610 EPA 610
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 10/07/04
 Date Received: 10/09/04
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ21060.D	1	10/19/04	AA	10/14/04	OP11557	GIJ1034
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.8	1.9	ug/l	
120-12-7	Anthracene	ND	4.8	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	1.9	ug/l	
218-01-9	Chrysene	ND	4.8	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	1.9	ug/l	
86-73-7	Fluorene	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
91-20-3	Naphthalene	ND	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.8	1.9	ug/l	
129-00-0	Pyrene	ND	4.8	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	56%		42-123%
84-15-1	o-Terphenyl	75%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UST4158-DUP	Date Sampled:	10/07/04
Lab Sample ID:	F27319-10	Date Received:	10/09/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF045185.D	1	10/21/04	CV	n/a	n/a	GEF3404
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	86%		70-123%
98-08-8	aaa-Trifluorotoluene	93%		73-122%

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: UST4158-DUP
 Lab Sample ID: F27319-10
 Matrix: AQ - Ground Water
 Method: EPA 610 EPA 610
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 10/07/04
 Date Received: 10/09/04
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ21056.D	1	10/19/04	AA	10/14/04	OP11557	GIJ1033
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.8	1.9	ug/l	
120-12-7	Anthracene	ND	4.8	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	1.9	ug/l	
218-01-9	Chrysene	ND	4.8	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	1.9	ug/l	
86-73-7	Fluorene	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
91-20-3	Naphthalene	ND	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.8	1.9	ug/l	
129-00-0	Pyrene	ND	4.8	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	102%		42-123%
84-15-1	o-Terphenyl	107%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID:	UST4158-MW08	Date Sampled:	10/08/04
Lab Sample ID:	F27319-11	Date Received:	10/09/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EF045186.D	1	10/21/04	CV	n/a	n/a	GEF3404
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	0.72	1.0	0.50	ug/l	J
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	87%		70-123%
98-08-8	aaa-Trifluorotoluene	94%		73-122%

(a) All hits confirmed by dual column analysis.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: UST4158-MW08
 Lab Sample ID: F27319-11
 Matrix: AQ - Ground Water
 Method: EPA 610 EPA 610
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 10/08/04
 Date Received: 10/09/04
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ21035.D	1	10/18/04	AA	10/15/04	OP11570	GIJ1033
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.8	1.9	ug/l	
120-12-7	Anthracene	ND	4.8	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	1.9	ug/l	
218-01-9	Chrysene	ND	4.8	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	1.9	ug/l	
86-73-7	Fluorene	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
91-20-3	Naphthalene	ND	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.8	1.9	ug/l	
129-00-0	Pyrene	ND	4.8	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	99%		42-123%
84-15-1	o-Terphenyl	103%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID:	UST4158-MW11	Date Sampled:	10/08/04
Lab Sample ID:	F27319-12	Date Received:	10/09/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EF045187.D	1	10/21/04	CV	n/a	n/a	GEF3404
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	6.7	1.0	0.50	ug/l	
108-88-3	Toluene	0.58	1.0	0.50	ug/l	J
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	3.3	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	87%		70-123%
98-08-8	aaa-Trifluorotoluene	95%		73-122%

(a) All hits confirmed by dual column analysis.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: UST4158-MW11
 Lab Sample ID: F27319-12
 Matrix: AQ - Ground Water
 Method: EPA 610 EPA 610
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 10/08/04
 Date Received: 10/09/04
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ21036.D	1	10/18/04	AA	10/15/04	OP11570	GJ1033
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.8	1.9	ug/l	
120-12-7	Anthracene	ND	4.8	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	1.9	ug/l	
218-01-9	Chrysene	ND	4.8	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	1.9	ug/l	
86-73-7	Fluorene	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
91-20-3	Naphthalene	ND	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.8	1.9	ug/l	
129-00-0	Pyrene	ND	4.8	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	96%		42-123%
84-15-1	o-Terphenyl	101%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: UST4158-MW17
 Lab Sample ID: F27319-13
 Matrix: AQ - Ground Water
 Method: EPA 601/602
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 10/08/04
 Date Received: 10/09/04
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF045188.D	1	10/21/04	CV	n/a	n/a	GEF3404
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	28.1	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	82%		70-123%
98-08-8	aaa-Trifluorotoluene	90%		73-122%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: UST4158-MW17
 Lab Sample ID: F27319-13
 Matrix: AQ - Ground Water
 Method: EPA 610 EPA 610
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 10/08/04
 Date Received: 10/09/04
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ21037.D	1	10/18/04	AA	10/15/04	OP11570	GIJ1033
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.8	1.9	ug/l	
120-12-7	Anthracene	ND	4.8	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	1.9	ug/l	
218-01-9	Chrysene	ND	4.8	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	1.9	ug/l	
86-73-7	Fluorene	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
91-20-3	Naphthalene	ND	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.8	1.9	ug/l	
129-00-0	Pyrene	ND	4.8	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	97%		42-123%
84-15-1	o-Terphenyl	103%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID: UST4158-MW09
 Lab Sample ID: F27319-14
 Matrix: AQ - Ground Water
 Method: EPA 601/602
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 10/08/04
 Date Received: 10/09/04
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EF045231.D	1	10/22/04	CV	n/a	n/a	GEF3407
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	18.7	1.0	0.50	ug/l	
108-88-3	Toluene	5.3	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	6.0	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	62.2	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	1.2	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	93%		70-123%
98-08-8	aaa-Trifluorotoluene	94%		73-122%

(a) All hits confirmed by dual column analysis.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: UST4158-MW09
 Lab Sample ID: F27319-14
 Matrix: AQ - Ground Water
 Method: EPA 610 EPA 610
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 10/08/04
 Date Received: 10/09/04
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	IJ21066.D	10	10/19/04	AA	10/15/04	OP11570	GIJ1035
Run #2							

Run #	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	53	21	ug/l	
208-96-8	Acenaphthylene	ND	53	21	ug/l	
120-12-7	Anthracene	ND	53	21	ug/l	
56-55-3	Benzo(a)anthracene	ND	53	21	ug/l	
50-32-8	Benzo(a)pyrene	ND	53	21	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	53	21	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	53	21	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	53	21	ug/l	
218-01-9	Chrysene	ND	53	21	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	53	21	ug/l	
206-44-0	Fluoranthene	ND	53	21	ug/l	
86-73-7	Fluorene	ND	53	53	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	53	21	ug/l	
91-20-3	Naphthalene	ND	53	53	ug/l	
90-12-0	1-Methylnaphthalene	ND	53	53	ug/l	
91-57-6	2-Methylnaphthalene	ND	53	53	ug/l	
85-01-8	Phenanthrene	ND	53	53	ug/l	
129-00-0	Pyrene	ND	53	21	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	0% ^b		42-123%
84-15-1	o-Terphenyl	0% ^b		51-123%

(a) Confirmed by GC/MS. Dilution required due to matrix interference.

(b) Outside control limits due to dilution.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK	Date Sampled:	10/08/04
Lab Sample ID:	F27319-15	Date Received:	10/09/04
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF045189.D	1	10/21/04	CV	n/a	n/a	GEF3404
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	86%		70-123%
98-08-8	aaa-Trifluorotoluene	93%		73-122%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

CLIENT INFORMATION			FACILITY INFORMATION			ANALYTICAL INFORMATION										MATRIX CODES														
Engineering + Environment NAME 924 Gumbach rd suite 5 ADDRESS CITY Jacksonville STATE NC ZIP 27510 SEND REPORT TO: PHONE # 910-989-8214			Building 4158 PROJECT NAME LOCATION PROJECT NO. FAX # 910-989-5341													DW - DRINKING WATER GW - GROUND WATER WW - WASTE WATER SO - SOIL SL - SLUDGE OL - OIL LIQ - OTHER LIQUID SOL - OTHER SOLID														
ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION		MATRIX	# OF BOTTLES	PRESERVATION						601	610	LAB USE ONLY																
		DATE	TIME			SAMPLED BY:	ACI	NOI	WIS	HOBA	MOE																			
1	4ST4158-MW04	10-7-04	12:50	BS	EW	5	X				X		3	2																
2	4ST4158-MW01	10-7-04	13:20	BS	EW	5	X				X		3	2																
3	4ST4158-MW05	10-7-04	13:55	BS	EW	5	X				X		3	2																
4	4ST4158-MW07	10-7-04	14:25	BS	EW	5	X				X		3	2																
5	4ST4158-MW10	10-7-04	14:57	BS	EW	5	X				X		3	2																
6	4ST4158-MW13	10-7-04	15:30	BS	EW	5	Y				X		3	2																
7	4ST4158-MW14	10-7-04	16:10	BS	EW	5	X				X		3	2																
8	4ST4158-MW18	10-7-04	16:35	BS	EW	5	X				X		3	2																
9	4ST4159-MW15	10-7-04	17:20	BS	EW	5	X				X		3	2																
10	4ST4158-DUG	10-7-04	—	BS	EW	5	X				X		3	2																
DATA TURNAROUND INFORMATION ☐ STANDARD ☐ 48 HOUR RUSH ☐ 24 HOUR EMERGENCY ☐ OTHER APPROVED BY: _____ EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED		DATA DELIVERABLE INFORMATION ☐ STANDARD ☐ COMMERCIAL "B" ☐ DISK DELIVERABLE ☐ STATE FORMS ☒ OTHER (SPECIFY) <u>NCESA4</u>		COMMENTS/REMARKS 																										
DATE: 10-6-05 RELIQUISHED BY: 1. [Signature] RELIQUISHED BY: 2. [Signature] RELIQUISHED BY: 3. [Signature] RELIQUISHED BY: 4. [Signature] RELIQUISHED BY: 5. [Signature]																														
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY <table border="1"> <thead> <tr> <th>DATE TIME:</th> <th>RECEIVED BY:</th> <th>DATE TIME:</th> <th>RECEIVED BY:</th> </tr> </thead> <tbody> <tr> <td>10-8-04</td> <td>1.</td> <td></td> <td>2.</td> </tr> <tr> <td></td> <td>3.</td> <td></td> <td>4.</td> </tr> <tr> <td></td> <td>5.</td> <td></td> <td></td> </tr> </tbody> </table>															DATE TIME:	RECEIVED BY:	DATE TIME:	RECEIVED BY:	10-8-04	1.		2.		3.		4.		5.		
DATE TIME:	RECEIVED BY:	DATE TIME:	RECEIVED BY:																											
10-8-04	1.		2.																											
	3.		4.																											
	5.																													
SEAL # _____ PRESERVE WHEN APPLICABLE ☐ ON ICE ☐ TEMPERATURE _____																														

F27319: Chain of Custody

Page 1 of 3

ACCUTEST LABORATORIES SOUTHEAST SAMPLE RECEIPT CONFIRMATION

Accutest's Job Number:

F27319

Client:

Engineering & Enviro

Project: Building 4158

Date Received:

10-9-01

Time Received:

3:23:03.4

of Coolers Received:

4

Cooler Temperatures:

3.2 3.2 3.0 3.4

Delivery Method:

FedEx

UPS

Accutest Courier

Greyhound

Delivery

Other

Air Bill Number:

Cooler Custody Seals Intact ?

Yes

No

Chain of Custody Provided ?

Yes

No

COC Match Bottle Label ID's ?

Yes

No

Sample Labels Present on all bottles ?

Yes

No

All Analyses Marked On COC ?

Yes

No

Are All Bottles Intact ?

Yes

No

Samples Preserved Correctly ?

Yes

No

Correct Number of Containers Used ?

Yes

No

Sufficient Sample Volume ?

Yes

No

Trip Blank Provided ?

Yes

No

Trip Blank on COC ?

Yes

No

Trip Blank Intact ?

Yes

No

Trip Blank Matrix ?

Yes

No

Number of Encores ?

Soil

Water

Number of Soil Field Kits ?

0

0

Summary of Comments:

For sample #10, 11, 12
Received 1 Broken Amber Liter of 610.
Sample # 14 Received 1 Amber Liter
of 610 1/2 Full Also 1 Broken Trip 13/mk

Signature:

[Signature]

Review Signature:

Date: 10-9-01

ASDDHW 0511/03

GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Page 1 of 1

Job Number: F27319
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GEF3404-MB	EF045172.D	1	10/21/04	CV	n/a	n/a	GEF3404

The QC reported here applies to the following samples:

Method: EPA 601/602

F27319-1, F27319-2, F27319-3, F27319-4, F27319-5, F27319-6, F27319-7, F27319-8, F27319-9, F27319-10, F27319-11, F27319-12, F27319-13, F27319-15

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
352-33-0	1-Chloro-4-fluorobenzene	81%	70-123%
98-08-8	aaa-Trifluorotoluene	90%	73-122%

Method Blank Summary

Page 1 of 1

Job Number: F27319
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GEF3407-MB	EF045230.D	1	10/22/04	CV	n/a	n/a	GEF3407

The QC reported here applies to the following samples:

Method: EPA 601/602

F27319-14

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	
108-88-3	Tolnene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
352-33-0	1-Chloro-4-fluorobenzene	84%	70-123%
98-08-8	aaa-Trifluorotoluene	91%	73-122%

Blank Spike Summary

Page 1 of 1

Job Number: F27319
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GEF3404-BS	EF045171.D	1	10/21/04	CV	n/a	n/a	GEF3404

The QC reported here applies to the following samples:

Method: EPA 601/602

F27319-1, F27319-2, F27319-3, F27319-4, F27319-5, F27319-6, F27319-7, F27319-8, F27319-9, F27319-10, F27319-11, F27319-12, F27319-13, F27319-15

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	20.3	102	86-121
100-41-4	Ethylbenzene	20	20.0	100	81-126
1634-04-4	Methyl Tert Butyl Ether	20	17.4	87	76-117
108-88-3	Toluene	20	20.3	102	82-123
1330-20-7	Xylenes (total)	60	59.9	100	82-125

CAS No.	Surrogate Recoveries	BSP	Limits
352-33-0	1-Chloro-4-fluorobenzene	99%	70-123%
98-08-8	aaa-Trifluorotoluene	97%	73-122%

Blank Spike Summary

Page 1 of 1

Job Number: F27319
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GEF3407-BS	EF045229.D	1	10/22/04	CV	n/a	n/a	GEF3407

The QC reported here applies to the following samples:

Method: EPA 601/602

F27319-14

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	19.7	99	86-121
100-41-4	Ethylbenzene	20	19.8	99	81-126
1634-04-4	Methyl Tert Butyl Ether	20	17.9	90	76-117
108-88-3	Toluene	20	19.6	98	82-123
1330-20-7	Xylenes (total)	60	58.9	98	82-125

CAS No.	Surrogate Recoveries	BSP	Limits
352-33-0	1-Chloro-4-fluorobenzene	98%	70-123%
98-08-8	aaa-Trifluorotoluene	98%	73-122%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: F27319
Account: EEINCJX EE1
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F27319-1MS	EF045174.D	1	10/21/04	CV	n/a	n/a	GEF3404
F27319-1MSD	EF045175.D	1	10/21/04	CV	n/a	n/a	GEF3404
F27319-1 ^a	EF045173.D	1	10/21/04	CV	n/a	n/a	GEF3404

The QC reported here applies to the following samples:

Method: EPA 601/602

F27319-1, F27319-2, F27319-3, F27319-4, F27319-5, F27319-6, F27319-7, F27319-8, F27319-9, F27319-10, F27319-11, F27319-12, F27319-13, F27319-15

CAS No.	Compound	F27319-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		20	19.6	98	19.7	99	1	77-125/6
100-41-4	Ethylbenzene	ND		20	19.4	97	19.4	97	0	74-127/6
1634-04-4	Methyl Tert Butyl Ether	ND		20	17.8	89	18.0	90	1	66-127/9
108-88-3	Toluene	0.57	J	20	20.0	97	20.2	98	1	77-124/5
1330-20-7	Xylenes (total)	ND		60	57.8	96	57.7	96	0	76-125/5

CAS No.	Surrogate Recoveries	MS	MSD	F27319-1	Limits
352-33-0	1-Chloro-4-fluorobenzene	100%	101%	71%	70-123%
98-08-8	aaa-Trifluorotoluene	99%	101%	76%	73-122%

(a) All hits confirmed by dual column analysis.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: F27319
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F27451-1MS	EF045240.D 1		10/22/04	CV	n/a	n/a	GEF3407
F27451-1MSD	EF045241.D 1		10/22/04	CV	n/a	n/a	GEF3407
F27451-1	EF045232.D 1		10/22/04	CV	n/a	n/a	GEF3407

The QC reported here applies to the following samples:

Method: EPA 601/602

F27319-14

CAS No.	Compound	F27451-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	1.0 U		20	20.2	101	20.2	101	0	77-125/6
100-41-4	Ethylbenzene	1.0 U		20	19.9	100	19.8	99	1	74-127/6
1634-04-4	Methyl Tert Butyl Ether	1.0 U		20	17.9	90	18.3	92	2	66-127/9
108-88-3	Toluene	1.0 U		20	19.9	100	19.9	100	0	77-124/5
1330-20-7	Xylenes (total)	3.0 U		60	58.7	98	58.7	98	0	76-125/5

CAS No.	Surrogate Recoveries	MS	MSD	F27451-1	Limits
352-33-0	1-Chloro-4-fluorobenzene	100%	98%	92%	70-123%
98-08-8	aaa-Trifluorotoluene	100%	98%	96%	73-122%

Volatile Surrogate Recovery Summary

Page 1 of 1

Job Number: F27319

Account: EEINCJX EEI

Project: Bldg. 4158/Camp Lejeune, NC

Method: EPA 601/602

Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a	S2 ^a
F27319-1	EF045173.D	71.0	76.0
F27319-2	EF045176.D	90.0	97.0
F27319-3	EF045177.D	89.0	95.0
F27319-4	EF045178.D	88.0	94.0
F27319-5	EF045179.D	79.0	86.0
F27319-6	EF045180.D	95.0	100.0
F27319-7	EF045182.D	84.0	90.0
F27319-8	EF045183.D	87.0	95.0
F27319-9	EF045184.D	82.0	90.0
F27319-10	EF045185.D	86.0	93.0
F27319-11	EF045186.D	87.0	94.0
F27319-12	EF045187.D	87.0	95.0
F27319-13	EF045188.D	82.0	90.0
F27319-14	EF045231.D	93.0	94.0
F27319-15	EF045189.D	86.0	93.0
F27319-1MS	EF045174.D	100.0	99.0
F27319-1MSD	EF045175.D	101.0	101.0
F27451-1MS	EF045240.D	100.0	100.0
F27451-1MSD	EF045241.D	98.0	98.0
GEF3404-BS	EF045171.D	99.0	97.0
GEF3404-MB	EF045172.D	81.0	90.0
GEF3407-BS	EF045229.D	98.0	98.0
GEF3407-MB	EF045230.D	84.0	91.0

Surrogate Compounds	Recovery Limits

S1 = 1-Chloro-4-fluorobenzene	70-123%

S2 = aaa-Trifluorotoluene	73-122%

(a) Recovery from GC signal #2

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F27319
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GEF3404-CC3403	Injection Date:	10/21/04
Lab File ID:	EF045170.D	Injection Time:	09:02
Instrument ID:	GCEF	Method:	EPA 601/602

	S1 ^a RT	S2 ^a RT
Check Std	8.84	5.76

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
GEF3404-BS	EF045171.D	10/21/04	09:38	8.83	5.75
GEF3405-BS	EF045171.D	10/21/04	09:38	8.83	5.75
GEF3404-MB	EF045172.D	10/21/04	10:03	8.84	5.76
GEF3405-MB	EF045172.D	10/21/04	10:03	8.84	5.76
F27319-1	EF045173.D	10/21/04	10:27	8.84	5.75
F27319-1MS	EF045174.D	10/21/04	10:51	8.84	5.75
F27319-1MSD	EF045175.D	10/21/04	11:16	8.83	5.75
F27319-2	EF045176.D	10/21/04	11:40	8.84	5.75
F27319-3	EF045177.D	10/21/04	12:05	8.84	5.75
F27319-4	EF045178.D	10/21/04	12:29	8.84	5.75
F27319-5	EF045179.D	10/21/04	12:53	8.84	5.75
F27319-6	EF045180.D	10/21/04	13:18	8.83	5.75

Surrogate Compounds

S1 = 1-Chloro-4-fluorobenzene
S2 = aaa-Trifluorotoluene

(a) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F27319
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GEF3404-CC3403	Injection Date:	10/21/04
Lab File ID:	EF045181.D	Injection Time:	13:43
Instrument ID:	GCEF	Method:	EPA 601/602

	S1 ^a RT	S2 ^a RT
Check Std	8.83	5.75

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
F27319-7	EF045182.D	10/21/04	14:08	8.84	5.75
F27319-8	EF045183.D	10/21/04	14:32	8.84	5.75
F27319-9	EF045184.D	10/21/04	14:57	8.84	5.75
F27319-10	EF045185.D	10/21/04	15:21	8.84	5.75
F27319-11	EF045186.D	10/21/04	15:46	8.84	5.75
F27319-12	EF045187.D	10/21/04	16:10	8.83	5.75
F27319-13	EF045188.D	10/21/04	16:35	8.83	5.75
F27319-15	EF045189.D	10/21/04	17:00	8.84	5.75

Surrogate Compounds

S1 = 1-Chloro-4-fluorobenzene
S2 = aaa-Trifluorotoluene

(a) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F27319
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GEF3407-CC3403	Injection Date:	10/22/04
Lab File ID:	EF045228.D	Injection Time:	09:07
Instrument ID:	GCEF	Method:	EPA 601/602

	S1 ^a RT	S2 ^a RT
Check Std	8.84	5.75

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
GEF3407-BS	EF045229.D	10/22/04	09:32	8.84	5.76
GEF3408-BS	EF045229.D	10/22/04	09:32	8.84	5.76
GEF3407-MB	EF045230.D	10/22/04	09:56	8.84	5.76
GEF3408-MB	EF045230.D	10/22/04	09:56	8.84	5.76
F27319-14	EF045231.D	10/22/04	10:20	8.84	5.75
F27451-1	EF045232.D	10/22/04	10:47	8.84	5.75
ZZZZZZ	EF045233.D	10/22/04	11:11	8.84	5.76
ZZZZZZ	EF045234.D	10/22/04	11:36	8.84	5.75
ZZZZZZ	EF045235.D	10/22/04	12:01	8.84	5.75
ZZZZZZ	EF045236.D	10/22/04	12:25	8.84	5.75
ZZZZZZ	EF045237.D	10/22/04	12:50	8.84	5.76
ZZZZZZ	EF045238.D	10/22/04	13:14	8.84	5.75

Surrogate Compounds

S1 = 1-Chloro-4-fluorobenzene
S2 = aaa-Trifluorotoluene

(a) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F27319
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std: GEF3407-CC3403	Injection Date: 10/22/04
Lab File ID: EF045239.D	Injection Time: 13:38
Instrument ID: GCEF	Method: EPA 601/602

	S1 ^a RT	S2 ^a RT
Check Std	8.84	5.75

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
F27451-1MS	EF045240.D	10/22/04	14:03	8.84	5.75
F27451-1MSD	EF045241.D	10/22/04	14:28	8.83	5.75
ZZZZZZ	EF045242.D	10/22/04	14:52	8.84	5.75
ZZZZZZ	EF045243.D	10/22/04	15:17	8.83	5.75
ZZZZZZ	EF045244.D	10/22/04	15:41	8.84	5.75
ZZZZZZ	EF045245.D	10/22/04	16:05	8.84	5.75
ZZZZZZ	EF045247.D	10/22/04	17:00	8.84	5.75
ZZZZZZ	EF045248.D	10/22/04	17:26	8.84	5.75
ZZZZZZ	EF045249.D	10/22/04	17:53	8.83	5.75

Surrogate Compounds

S1 = 1-Chloro-4-fluorobenzene
S2 = aaa-Trifluorotoluene

(a) Retention time from GC signal #2

Initial Calibration Summary

Job Number: F27319
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GEF3403-ICC3403
Lab FileID: EF045139.D

Page 1 of 2

Response Factor Report VOA1

Method : C:\HPCHEM\1\METHODS\DUAL1020.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Wed Oct 20 13:57:57 2004
Response via : Initial Calibration

Calibration Files

1 =EF045137.D 5 =EF045138.D 20 =EF045139.D
40 =EF045140.D 70 =EF045141.D 100 =EF045142.D

Compound	1	5	20	40	70	100	Avg	%RSD
1) Methyl tert Butyl E	1.279	1.429	1.431	1.587	1.443	1.452	1.437	E3 6.80
2) Di-Isopropyl ether	1.870	2.129	2.150	2.271	2.170	2.156	2.124	E3 6.32
3) Benzene	4.422	4.943	4.942	5.171	5.061	4.979	4.920	E3 5.27
4) S a,a,a-TFT(S)	1.483	1.458	1.506	1.546	1.578	1.579	1.525	E3 3.32
5) Toluene	3.784	4.189	4.185	4.388	4.298	4.267	4.185	E3 5.03
6) S 1-Chloro-4-Fluorob	2.146	2.034	2.188	2.243	2.305	2.319	2.206	E3 4.87
7) Chlorobenzene		4.194	4.048	4.113	4.095	4.102	4.110	E3 1.28
8) Ethylbenzene		3.558	3.470	3.584	3.543	3.434	3.518	E3 1.80
9) m,p-Xylene	3.591	3.756	3.829	4.007	3.929	3.869	3.830	E3 3.79
10) o-Xylene	3.144	3.374	3.409	3.570	3.483	3.413	3.399	E3 4.20
11) 1,3-Dichlorobenzene	1.924	1.770	2.422	2.600	2.654	2.786	2.359	E3 17.66
----- Linear regression ----- Coefficient = 0.9988								
Response Ratio = -5292.82233 + 2794.06328 *A								
12) 1,4-Dichlorobenzene	2.031	1.857	2.553	2.763	2.850	3.031	2.514	E3 18.72
----- Linear regression ----- Coefficient = 0.9981								
Response Ratio = -6780.60193 + 3034.44247 *A								
13) 1,2-Dichlorobenzene	1.015	0.866	1.341	1.408	1.498	1.639	1.295	E3 22.85
----- Linear regression ----- Coefficient = 0.9957								
Response Ratio = -4739.51611 + 1634.49408 *A								

Signal #2

1)	Methyl tert Butyl E	1.514	1.521	1.766	1.535	1.528	1.573	E3	6.90
2)	Di-Isopropyl ether	1.790	2.126	2.173	2.303	2.189	2.171	E3	8.21
3)	Benzene	4.545	5.133	5.196	5.401	5.290	5.222	E3	5.88
4) S	a,a,a-TFT(S)	1.487	1.479	1.518	1.564	1.592	1.594	E3	3.33
5)	Toluene	3.792	4.302	4.357	4.536	4.465	4.392	E3	6.17
6) S	1-Chloro-4-Fluorobe	2.044	1.982	2.145	2.259	2.283	2.290	E3	6.08
7)	Chlorobenzene		4.840	4.380	4.415	4.345	4.345	E3	4.74
8)	Ethylbenzene	3.957	3.809	3.783	3.925	3.838	3.763	E3	2.04
9)	m,p-Xylene	3.857	4.049	4.083	4.275	4.212	4.143	E3	3.57
10)	o-Xylene	3.095	3.388	3.499	3.673	3.546	3.492	E3	5.69
11)	1,3-Dichlorobenzene	1.900	1.798	2.487	2.727	2.758	2.885	E3	19.22
----- Linear regression ----- Coefficient = 0.9990									
Response Ratio = -5450.77896 + 2898.12194 *A									
12)	1,4-Dichlorobenzene	1.875	1.758	2.467	2.698	2.788	2.935	E3	20.36
----- Linear regression ----- Coefficient = 0.9985									
Response Ratio = -6530.66510 + 2948.04752 *A									
13)	1,2-Dichlorobenzene	1.018	0.863	1.414	1.504	1.586	1.782	E3	25.81
----- Linear regression ----- Coefficient = 0.9937									
Response Ratio = -5751.34050 + 1769.14337 *A									

Initial Calibration Summary

Page 2 of 2

Job Number: F27319
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GEF3403-ICC3403
Lab FileID: EF045139.D

(#) = Out of Range

DUAL1020.M

Mon Oct 25 09:03:14 2004 EF



Continuing Calibration Summary

Page 1 of 1

Job Number: F27319
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GEF3404-CC3403
Lab FileID: EF045170.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\102104\EF045170.D\FID1A.CH Vial: 1
Signal #2 : C:\HPCHEM\1\DATA\102104\EF045170.D\FID2B.CH
Acq On : 21 Oct 2004 9:02 am Operator: ClaireV
Sample : cc3403-40 Inst : VOA1
Misc : gc4105,gef3404,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL1020.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Wed Oct 20 13:57:57 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	40.000	38.080	4.8	86	0.01
2	Di-Isopropyl ether	40.000	41.204	-3.0	96	0.01
3	Benzene	40.000	41.680	-4.2	99	0.01
4 S	a,a,a-TFT(S)	20.000	18.587	7.1	92	0.01
5	Toluene	40.000	42.029	-5.1	100	0.01
6 S	1-Chloro-4-Fluorobenzene	20.000	19.378	3.1	95	0.02
7	Chlorobenzene	40.000	41.556	-3.9	104	0.02
8	Ethylbenzene	40.000	41.222	-3.1	101	0.02
9	m,p-Xylene	80.000	85.179	-6.5	102	0.02
10	o-Xylene	40.000	42.885	-7.2	102	0.02
11	1,3-Dichlorobenzene	40.000	42.122	-5.3	108	0.01
12	1,4-Dichlorobenzene	40.000	41.659	-4.1	108	0.02
13	1,2-Dichlorobenzene	40.000	40.523	-1.3	109	0.01

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	40.000	37.558	6.1	84	0.00
2	Di-Isopropyl ether	40.000	41.492	-3.7	96	0.00
3	Benzene	40.000	41.617	-4.0	99	0.00
4 S	a,a,a-TFT(S)	20.000	18.581	7.1	91	0.00
5	Toluene	40.000	42.419	-6.0	101	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	19.530	2.3	94	0.02
7	Chlorobenzene	40.000	40.500	-1.3	102	0.01
8	Ethylbenzene	40.000	41.297	-3.2	101	0.01
9	m,p-Xylene	80.000	84.845	-6.1	102	0.02
10	o-Xylene	40.000	42.948	-7.4	101	0.01
11	1,3-Dichlorobenzene	40.000	41.939	-4.8	106	0.00
12	1,4-Dichlorobenzene	40.000	41.916	-4.8	108	0.00
13	1,2-Dichlorobenzene	40.000	40.360	-0.9	109	0.00

Average % D = 4.5

(#) = Out of Range
EF045140.D DUAL1020.M

SPCC's out = 0 CCC's out = 0
Mon Oct 25 10:36:59 2004 EF

Continuing Calibration Summary

Page 1 of 1

Job Number: F27319
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GEF3404-CC3403
Lab FileID: EF045181.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\102104\EF045181.D\FID1A.CH Vial: 11
Signal #2 : C:\HPCHEM\1\DATA\102104\EF045181.D\FID2B.CH
Acq On : 21 Oct 2004 1:43 pm Operator: ClaireV
Sample : cc3403-20 Inst : VOA1
Misc : gc4105,gef3404,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL1020.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Wed Oct 20 13:57:57 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	20.259	-1.3	102	0.00
2	Di-Isopropyl ether	20.000	20.763	-3.8	103	0.00
3	Benzene	20.000	20.744	-3.7	103	0.00
4 S	a,a,a-TFT(S)	20.000	18.402	8.0	93	0.00
5	Toluene	20.000	20.712	-3.6	104	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	18.594	7.0	94	0.00
7	Chlorobenzene	20.000	20.131	-0.7	102	0.00
8	Ethylbenzene	20.000	20.340	-1.7	103	0.00
9	m,p-Xylene	40.000	41.009	-2.5	103	0.00
10	o-Xylene	20.000	20.660	-3.3	103	0.00
11	1,3-Dichlorobenzene	20.000	20.487	-2.4	107	0.00
12	1,4-Dichlorobenzene	20.000	20.096	-0.5	106	0.00
13	1,2-Dichlorobenzene	20.000	20.326	-1.6	106	0.00

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	20.033	-0.2	104	0.00
2	Di-Isopropyl ether	20.000	21.221	-6.1	104	0.00
3	Benzene	20.000	21.153	-5.8	104	0.00
4 S	a,a,a-TFT(S)	20.000	18.699	6.5	95	0.00
5	Toluene	20.000	20.987	-4.9	104	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	18.841	5.8	95	0.00
7	Chlorobenzene	20.000	20.197	-1.0	103	0.00
8	Ethylbenzene	20.000	20.580	-2.9	105	0.00
9	m,p-Xylene	40.000	41.235	-3.1	104	0.00
10	o-Xylene	20.000	21.010	-5.1	104	0.00
11	1,3-Dichlorobenzene	20.000	20.468	-2.3	108	0.00
12	1,4-Dichlorobenzene	20.000	20.395	-2.0	109	0.00
13	1,2-Dichlorobenzene	20.000	20.473	-2.4	108	0.00

Average % D = 3.4

(#) = Out of Range
EF045139.D DUAL1020.M

SPCC's out = 0 CCC's out = 0
Mon Oct 25 10:38:27 2004 EF

Continuing Calibration Summary

Job Number: F27319
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GEF3404-CC3403
Lab FileID: EF045191.D

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Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\102104\EF045191.D\FID1A.CH Vial: 21
Signal #2 : C:\HPCHEM\1\DATA\102104\EF045191.D\FID2B.CH
Acq On : 21 Oct 2004 5:49 pm Operator: ClaireV
Sample : cc3403-20 Inst : VOA1
Misc : gc4105,gef3404,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL1020.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Wed Oct 20 13:57:57 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	18.860	5.7	95	0.00
2	Di-Isopropyl ether	20.000	19.678	1.6	97	0.00
3	Benzene	20.000	19.619	1.9	98	0.00
4 S	a,a,a-TFT(S)	20.000	19.704	1.5	100	0.00
5	Toluene	20.000	19.632	1.8	98	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	19.560	2.2	99	0.00
7	Chlorobenzene	20.000	19.247	3.8	98	0.00
8	Ethylbenzene	20.000	19.235	3.8	98	0.00
9	m,p-Xylene	40.000	38.890	2.8	97	0.00
10	o-Xylene	20.000	19.668	1.7	98	0.00
11	1,3-Dichlorobenzene	20.000	19.384	3.1	101	0.00
12	1,4-Dichlorobenzene	20.000	18.938	5.3	99	0.00
13	1,2-Dichlorobenzene	20.000	18.881	5.6	97	0.00

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	18.699	6.5	97	0.00
2	Di-Isopropyl ether	20.000	20.058	-0.3	98	0.00
3	Benzene	20.000	19.974	0.1	99	0.00
4 S	a,a,a-TFT(S)	20.000	19.909	0.5	101	0.00
5	Toluene	20.000	19.914	0.4	98	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	19.928	0.4	101	0.00
7	Chlorobenzene	20.000	19.275	3.6	98	0.00
8	Ethylbenzene	20.000	19.328	3.4	98	0.00
9	m,p-Xylene	40.000	38.921	2.7	98	0.00
10	o-Xylene	20.000	20.081	-0.4	99	0.00
11	1,3-Dichlorobenzene	20.000	19.325	3.4	102	0.00
12	1,4-Dichlorobenzene	20.000	19.211	3.9	102	0.00
13	1,2-Dichlorobenzene	20.000	19.163	4.2	100	0.00

Average % D = 2.7

(#) = Out of Range
EF045139.D DUAL1020.M

SPCC's out = 0 CCC's out = 0
Mon Oct 25 10:38:28 2004 EF

Continuing Calibration Summary

Page 1 of 1

Job Number: F27319
Account: EEINCJX EE1
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GEF3407-CC3403
Lab FileID: EF045228.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\102204\EF045228.D\FID1A.CH Vial: 1
Signal #2 : C:\HPCHEM\1\DATA\102204\EF045228.D\FID2B.CH
Acq On : 22 Oct 2004 9:07 am Operator: ClaireV
Sample : cc3403-40 Inst : VOA1
Misc : gc4105,gef3407,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL1020.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Sat Oct 23 10:56:28 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	40.000	39.594	1.0	90	0.01
2	Di-Isopropyl ether	40.000	40.455	-1.1	95	0.01
3	Benzene	40.000	40.363	-0.9	96	0.01
4 S	a,a,a-TFT(S)	20.000	19.750	1.3	97	0.01
5	Toluene	40.000	40.439	-1.1	96	0.01
6 S	1-Chloro-4-Fluorobenzene	20.000	20.016	-0.1	98	0.02
7	Chlorobenzene	40.000	38.921	2.7	97	0.02
8	Ethylbenzene	40.000	39.676	0.8	97	0.02
9	m,p-Xylene	80.000	81.663	-2.1	98	0.01
10	o-Xylene	40.000	40.768	-1.9	97	0.01
11	1,3-Dichlorobenzene	40.000	39.003	2.5	100	0.01
12	1,4-Dichlorobenzene	40.000	37.812	5.5	98	0.01
13	1,2-Dichlorobenzene	40.000	35.358	11.6	94	0.01

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	40.000	39.024	2.4	87	0.00
2	Di-Isopropyl ether	40.000	41.455	-3.6	96	0.00
3	Benzene	40.000	40.782	-2.0	97	0.00
4 S	a,a,a-TFT(S)	20.000	20.136	-0.7	99	0.00
5	Toluene	40.000	40.923	-2.3	97	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	20.463	-2.3	98	0.01
7	Chlorobenzene	40.000	38.662	3.3	98	0.00
8	Ethylbenzene	40.000	39.683	0.8	97	0.00
9	m,p-Xylene	80.000	81.504	-1.9	98	0.01
10	o-Xylene	40.000	40.887	-2.2	96	0.00
11	1,3-Dichlorobenzene	40.000	39.243	1.9	99	0.00
12	1,4-Dichlorobenzene	40.000	38.335	4.2	99	0.00
13	1,2-Dichlorobenzene	40.000	35.342	11.6	94	0.00

Average % D = 2.8

(#) = Out of Range
EF045140.D DUAL1020.M

SPCC's out = 0 CCC's out = 0
Mon Oct 25 12:37:45 2004 EF

Continuing Calibration Summary

Page 1 of 1

Job Number: F27319
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GEF3407-CC3403
Lab FileID: EF045239.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\102204\EF045239.D\FID1A.CH Vial: 12
Signal #2 : C:\HPCHEM\1\DATA\102204\EF045239.D\FID2B.CH
Acq On : 22 Oct 2004 1:38 pm Operator: ClaireV
Sample : cc3403-20 Inst : VOA1
Misc : gc4105,gef3407,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL1020.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Sat Oct 23 10:56:28 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	20.326	-1.6	102	0.00
2	Di-Isopropyl ether	20.000	20.617	-3.1	102	0.00
3	Benzene	20.000	20.382	-1.9	101	0.00
4 S	a,a,a-TFT(S)	20.000	19.271	3.6	98	0.00
5	Toluene	20.000	20.055	-0.3	100	0.01
6 S	1-Chloro-4-Fluorobenzene	20.000	19.343	3.3	97	0.01
7	Chlorobenzene	20.000	19.583	2.1	99	0.02
8	Ethylbenzene	20.000	19.954	0.2	101	0.01
9	m,p-Xylene	40.000	40.574	-1.4	101	0.01
10	o-Xylene	20.000	20.430	-2.1	102	0.01
11	1,3-Dichlorobenzene	20.000	20.051	-0.3	105	0.01
12	1,4-Dichlorobenzene	20.000	19.712	1.4	104	0.01
13	1,2-Dichlorobenzene	20.000	18.029	9.9	92	0.01

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	19.987	0.1	103	0.00
2	Di-Isopropyl ether	20.000	20.980	-4.9	103	0.00
3	Benzene	20.000	20.479	-2.4	101	0.00
4 S	a,a,a-TFT(S)	20.000	19.510	2.4	99	0.00
5	Toluene	20.000	20.434	-2.2	101	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	19.847	0.8	100	0.01
7	Chlorobenzene	20.000	19.996	0.0	102	0.01
8	Ethylbenzene	20.000	20.109	-0.5	102	0.01
9	m,p-Xylene	40.000	40.696	-1.7	102	0.01
10	o-Xylene	20.000	20.717	-3.6	102	0.00
11	1,3-Dichlorobenzene	20.000	20.324	-1.6	107	0.00
12	1,4-Dichlorobenzene	20.000	20.060	-0.3	107	0.00
13	1,2-Dichlorobenzene	20.000	18.096	9.5	93	0.00

Average % D = 2.4

(#) = Out of Range
EF045139.D DUAL1020.M

SPCC's out = 0 CCC's out = 0
Mon Oct 25 12:38:14 2004 EF

Continuing Calibration Summary

Page 1 of 1

Job Number: F27319
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GEF3408-CC3403
Lab FileID: EF045250.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\102204\EF045250.D\FID1A.CH Vial: 22
Signal #2 : C:\HPCHEM\1\DATA\102204\EF045250.D\FID2B.CH
Acq On : 22 Oct 2004 6:17 pm Operator: ClaireV
Sample : cc3403-20 Inst : VOA1
Misc : gc4116,gef3408,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL1020.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Sat Oct 23 10:56:28 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	20.874	-4.4	105	0.00
2	Di-Isopropyl ether	20.000	20.727	-3.6	102	0.00
3	Benzene	20.000	20.147	-0.7	100	0.00
4 S	a,a,a-TFT(S)	20.000	19.552	2.2	99	0.00
5	Toluene	20.000	21.634	-8.2	108	0.01
6 S	1-Chloro-4-Fluorobenzene	20.000	19.580	2.1	99	0.01
7	Chlorobenzene	20.000	19.337	3.3	98	0.01
8	Ethylbenzene	20.000	19.769	1.2	100	0.01
9	m,p-Xylene	40.000	40.942	-2.4	102	0.01
10	o-Xylene	20.000	20.470	-2.3	102	0.01
11	1,3-Dichlorobenzene	20.000	19.679	1.6	103	0.01
12	1,4-Dichlorobenzene	20.000	19.334	3.3	102	0.01
13	1,2-Dichlorobenzene	20.000	17.863	10.7	91	0.01

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	20.296	-1.5	105	0.00
2	Di-Isopropyl ether	20.000	20.970	-4.8	103	0.00
3	Benzene	20.000	20.285	-1.4	100	0.00
4 S	a,a,a-TFT(S)	20.000	19.521	2.4	99	0.00
5	Toluene	20.000	21.600	-8.0	107	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	19.371	3.1	98	0.00
7	Chlorobenzene	20.000	19.284	3.6	98	0.00
8	Ethylbenzene	20.000	19.737	1.3	100	0.00
9	m,p-Xylene	40.000	40.093	-0.2	101	0.01
10	o-Xylene	20.000	20.588	-2.9	101	0.00
11	1,3-Dichlorobenzene	20.000	19.389	3.1	102	0.01
12	1,4-Dichlorobenzene	20.000	19.346	3.3	102	0.01
13	1,2-Dichlorobenzene	20.000	17.811	10.9	91	0.01

Average % D = 3.6

(#) = Out of Range
EF045139.D DUAL1020.M

SPCC's out = 0 CCC's out = 0
Mon Oct 25 12:38:16 2004 EF

GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Page 1 of 1

Job Number: F27319
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11557-MB	IJ21043.D	1	10/18/04	AA	10/14/04	OP11557	GIJ1033

The QC reported here applies to the following samples:

Method: EPA 610

F27319-1, F27319-2, F27319-3, F27319-4, F27319-5, F27319-6, F27319-7, F27319-8, F27319-9, F27319-10

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.0	2.0	ug/l	
208-96-8	Acenaphthylene	ND	5.0	2.0	ug/l	
120-12-7	Anthracene	ND	5.0	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	2.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	2.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	2.0	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	2.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	2.0	ug/l	
218-01-9	Chrysene	ND	5.0	2.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	2.0	ug/l	
206-44-0	Fluoranthene	ND	5.0	2.0	ug/l	
86-73-7	Fluorene	ND	5.0	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	2.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	2.0	ug/l	
85-01-8	Phenanthrene	ND	5.0	2.0	ug/l	
129-00-0	Pyrene	ND	5.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Limits	
321-60-8	2-Fluorobiphenyl	76%	42-123%
84-15-1	o-Terphenyl	105%	51-123%

Method Blank Summary

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Job Number: F27319
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11557-MB	IJ21059.D	1	10/19/04	AA	10/14/04	OP11557	GJ1034

The QC reported here applies to the following samples:

Method: EPA 610

F27319-1, F27319-2, F27319-3, F27319-4, F27319-5, F27319-6, F27319-7, F27319-8, F27319-9, F27319-10

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.0	2.0	ug/l	
208-96-8	Acenaphthylene	ND	5.0	2.0	ug/l	
120-12-7	Anthracene	ND	5.0	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	2.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	2.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	2.0	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	2.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	2.0	ug/l	
218-01-9	Chrysene	ND	5.0	2.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	2.0	ug/l	
206-44-0	Fluoranthene	ND	5.0	2.0	ug/l	
86-73-7	Fluorene	ND	5.0	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	2.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	2.0	ug/l	
85-01-8	Pbenanthrene	ND	5.0	2.0	ug/l	
129-00-0	Pyrene	ND	5.0	2.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
321-60-8	2-Fluorobiphenyl	65%	42-123%
84-15-1	o-Terphenyl	98%	51-123%

Method Blank Summary

Page 1 of 1

Job Number: F27319
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11570-MB	IJ21031.D	1	10/18/04	AA	10/15/04	OP11570	GIJ1033

The QC reported here applies to the following samples:

Method: EPA 610

F27319-11, F27319-12, F27319-13, F27319-14

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.0	2.0	ug/l	
208-96-8	Acenaphthylene	ND	5.0	2.0	ug/l	
120-12-7	Anthracene	ND	5.0	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	2.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	2.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	2.0	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	2.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	2.0	ug/l	
218-01-9	Chrysene	ND	5.0	2.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	2.0	ug/l	
206-44-0	Fluoranthene	ND	5.0	2.0	ug/l	
86-73-7	Fluorene	ND	5.0	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	2.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	2.0	ug/l	
85-01-8	Phenanthrene	ND	5.0	2.0	ug/l	
129-00-0	Pyrene	ND	5.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Limits
321-60-8	2-Fluorobiphenyl	77% 42-123%
84-15-1	o-Terphenyl	103% 51-123%

Blank Spike Summary

Page 1 of 1

Job Number: F27319
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11557-BS	IJ21042.D	1	10/18/04	AA	10/14/04	OP11557	GIJ1033

The QC reported here applies to the following samples:

Method: EPA 610

F27319-1, F27319-2, F27319-3, F27319-4, F27319-5, F27319-6, F27319-7, F27319-8, F27319-9, F27319-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	25	26.2	105	71-113
208-96-8	Acenaphthylene	25	26.1	104*	63-102
120-12-7	Anthracene	25	28.8	115*	71-110
56-55-3	Benzo(a)anthracene	25	27.7	111	70-114
50-32-8	Benzo(a)pyrene	25	28.1	112	67-114
205-99-2	Benzo(b)fluoranthene	25	27.7	111	69-115
191-24-2	Benzo(g,h,i)perylene	25	26.7	107	61-117
207-08-9	Benzo(k)fluoranthene	25	27.0	108	69-111
218-01-9	Chrysene	25	28.9	116*	70-114
53-70-3	Dibenzo(a,h)anthracene	25	27.0	108	64-114
206-44-0	Fluoranthene	25	27.9	112	71-114
86-73-7	Fluorene	25	27.5	110	69-111
193-39-5	Indeno(1,2,3-cd)pyrene	25	25.9	104	63-112
91-20-3	Naphthalene	25	24.9	100	66-105
90-12-0	1-Methylnaphthalene	25	26.5	106	71-112
91-57-6	2-Methylnaphthalene	25	26.0	104	65-106
85-01-8	Phenanthrene	25	27.5	110	69-112
129-00-0	Pyrene	25	28.6	114	70-114

CAS No.	Surrogate Recoveries	BSP	Limits
321-60-8	2-Fluorobiphenyl	104%	42-123%
84-15-1	o-Terphenyl	110%	51-123%

Blank Spike Summary

Page 1 of 1

Job Number: F27319
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11570-BS	IJ21030.D	1	10/18/04	AA	10/15/04	OP11570	GIJ1033

The QC reported here applies to the following samples:

Method: EPA 610

F27319-11, F27319-12, F27319-13, F27319-14

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	25	23.5	94	71-113
208-96-8	Acenaphthylene	25	23.4	94	63-102
120-12-7	Anthracene	25	25.2	101	71-110
56-55-3	Benzo(a)anthracene	25	24.1	96	70-114
50-32-8	Benzo(a)pyrene	25	24.9	100	67-114
205-99-2	Benzo(b)fluoranthene	25	24.2	97	69-115
191-24-2	Benzo(g,h,i)perylene	25	24.4	98	61-117
207-08-9	Benzo(k)fluoranthene	25	24.4	98	69-111
218-01-9	Chrysene	25	25.1	100	70-114
53-70-3	Dibenzo(a,h)anthracene	25	24.4	98	64-114
206-44-0	Fluoranthene	25	24.7	99	71-114
86-73-7	Fluorene	25	24.5	98	69-111
193-39-5	Indeno(1,2,3-cd)pyrene	25	23.5	94	63-112
91-20-3	Naphthalene	25	22.6	90	66-105
90-12-0	1-Methylnaphthalene	25	23.7	95	71-112
91-57-6	2-Methylnaphthalene	25	23.2	93	65-106
85-01-8	Phenanthrene	25	24.1	96	69-112
129-00-0	Pyrene	25	25.3	101	70-114

CAS No.	Surrogate Recoveries	BSP	Limits
321-60-8	2-Fluorobiphenyl	92%	42-123%
84-15-1	o-Terphenyl	97%	51-123%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: F27319
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11557-MS	IJ21049.D	1	10/18/04	AA	10/14/04	OP11557	GIJ1033
OP11557-MSD	IJ21050.D	1	10/19/04	AA	10/14/04	OP11557	GIJ1033
F27319-5	IJ21048.D	1	10/18/04	AA	10/14/04	OP11557	GIJ1033

The QC reported here applies to the following samples:

Method: EPA 610

F27319-1, F27319-2, F27319-3, F27319-4, F27319-5, F27319-6, F27319-7, F27319-8, F27319-9, F27319-10

CAS No.	Compound	F27319-5 ug/l	Spike Q	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND	48.1	52.7	110	47.7	99	10	59-123/20
208-96-8	Acenaphthylene	ND	48.1	52.8	110	47.8	99	10	51-114/20
120-12-7	Anthracene	ND	48.1	61.2	127*	53.5	111	13	64-114/17
56-55-3	Benzo(a)anthracene	ND	48.1	58.4	121*	51.0	106	14	66-115/17
50-32-8	Benzo(a)pyrene	ND	48.1	59.9	125*	52.8	110	13	62-118/17
205-99-2	Benzo(b)fluoranthene	ND	48.1	59.0	123*	52.1	108	12	66-117/17
191-24-2	Benzo(g,h,i)perylene	ND	48.1	58.5	122*	51.6	107	13	59-120/17
207-08-9	Benzo(k)fluoranthene	ND	48.1	57.8	120*	50.8	106	13	64-116/16
218-01-9	Chrysene	ND	48.1	60.7	126*	52.7	110	14	66-117/16
53-70-3	Dibenzo(a,h)anthracene	ND	48.1	59.3	123	52.3	109	13	57-124/18
206-44-0	Fluoranthene	ND	48.1	59.0	123*	51.5	107	14	67-116/17
86-73-7	Fluorene	ND	48.1	56.8	118	50.4	105	12	58-122/19
193-39-5	Indeno(1,2,3-cd)pyrene	ND	48.1	56.9	118*	49.9	104	13	59-116/18
91-20-3	Naphthalene	ND	48.1	49.4	103	46.1	96	7	47-114/20
90-12-0	1-Methylnaphthalene	ND	48.1	53.0	110	48.8	102	8	55-128/21
91-57-6	2-Methylnaphthalene	ND	48.1	52.2	109	48.0	100	8	51-117/21
85-01-8	Phenanthrene	ND	48.1	57.9	120*	50.6	105	13	63-116/18
129-00-0	Pyrene	ND	48.1	58.3	121*	52.9	110	10	67-116/17

CAS No.	Surrogate Recoveries	MS	MSD	F27319-5	Limits
321-60-8	2-Fluorobiphenyl	106%	96%	66%	42-123%
84-15-1	o-Terphenyl	118%	104%	90%	51-123%

Matrix Spike/Matrix Spike Duplicate Summary

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Job Number: F27319
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11570-MS	IJ21038.D	1	10/18/04	AA	10/15/04	OP11570	GIJ1033
OP11570-MSD	IJ21039.D	1	10/18/04	AA	10/15/04	OP11570	GIJ1033
F27319-13	IJ21037.D	1	10/18/04	AA	10/15/04	OP11570	GIJ1033

The QC reported here applies to the following samples:

Method: EPA 610

F27319-11, F27319-12, F27319-13, F27319-14

CAS No.	Compound	F27319-13 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND	47.2	46.6	99	44.2	94	5	59-123/20
208-96-8	Acenaphthylene	ND	47.2	46.2	98	43.7	93	6	51-114/20
120-12-7	Anthracene	ND	47.2	50.2	106	48.7	103	3	64-114/17
56-55-3	Benzo(a)anthracene	ND	47.2	49.1	104	49.2	104	0	66-115/17
50-32-8	Benzo(a)pyrene	ND	47.2	51.0	108	51.2	109	0	62-118/17
205-99-2	Benzo(h)fluoranthene	ND	47.2	50.0	106	49.8	106	0	66-117/17
191-24-2	Benzo(g,h,i)perylene	ND	47.2	49.8	106	50.1	106	1	59-120/17
207-08-9	Benzo(k)fluoranthene	ND	47.2	49.7	105	49.9	106	0	64-116/16
218-01-9	Chrysene	ND	47.2	51.9	110	52.0	110	0	66-117/16
53-70-3	Dibenzo(a,h)anthracene	ND	47.2	50.0	106	49.8	106	0	57-124/18
206-44-0	Fluoranthene	ND	47.2	49.8	106	50.0	106	0	67-116/17
86-73-7	Fluorene	ND	47.2	48.9	104	47.5	101	3	58-122/19
193-39-5	Indeno(1,2,3-cd)pyrene	ND	47.2	48.0	102	48.0	102	0	59-116/18
91-20-3	Naphthalene	ND	47.2	43.2	92	40.1	85	7	47-114/20
90-12-0	1-Methylnaphthalene	ND	47.2	46.4	98	43.4	92	7	55-128/21
91-57-6	2-Methylnaphthalene	ND	47.2	45.3	96	42.1	89	7	51-117/21
85-01-8	Phenanthrene	ND	47.2	48.3	102	47.7	101	1	63-116/18
129-00-0	Pyrene	ND	47.2	49.7	105	50.0	106	1	67-116/17

CAS No.	Surrogate Recoveries	MS	MSD	F27319-13	Limits
321-60-8	2-Fluorobiphenyl	93%	88%	97%	42-123%
84-15-1	o-Terphenyl	101%	102%	103%	51-123%

Semivolatile Surrogate Recovery Summary

Page 1 of 1

Job Number: F27319
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Method: EPA 610 Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a	S1 ^b	S2 ^a	S2 ^b
F27319-1	IJ21044.D	63.0		93.0	
F27319-2	IJ21045.D	58.0		73.0	
F27319-3	IJ21046.D	76.0		94.0	
F27319-4	IJ21047.D	64.0		96.0	
F27319-5	IJ21048.D	66.0		90.0	
F27319-6	IJ21051.D		114.0		109.0
F27319-7	IJ21053.D	101.0		106.0	
F27319-8	IJ21054.D	109.0		115.0	
F27319-9	IJ21060.D		56.0		75.0
F27319-10	IJ21056.D	102.0		107.0	
F27319-11	IJ21035.D	99.0		103.0	
F27319-12	IJ21036.D	96.0		101.0	
F27319-13	IJ21037.D	97.0		103.0	
F27319-14	IJ21066.D	0.0* ^c		0.0* ^c	
OP11557-BS	IJ21042.D	104.0		110.0	
OP11557-MB	IJ21043.D	76.0		105.0	
OP11557-MB	IJ21059.D	65.0		98.0	
OP11557-MS	IJ21049.D	106.0		118.0	
OP11557-MSD	IJ21050.D	96.0		104.0	
OP11570-BS	IJ21030.D	92.0		97.0	
OP11570-MB	IJ21031.D	77.0		103.0	
OP11570-MS	IJ21038.D	93.0		101.0	
OP11570-MSD	IJ21039.D	88.0		102.0	

Surrogate Compounds Recovery Limits

S1 = 2-Fluorobiphenyl 42-123%
S2 = o-Terphenyl 51-123%

- (a) Recovery from GC signal #1
- (b) Recovery from GC signal #2
- (c) Outside control limits due to dilution.

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F27319
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GJ1033-CC1001	Injection Date:	10/18/04
Lab File ID:	IJ21029.D	Injection Time:	14:05
Instrument ID:	GCIJ	Method:	EPA 610

S1 ^a	S2 ^a
RT	RT

Check Std	5.83	10.38

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
OP11570-BS	IJ21030.D	10/18/04	14:34	5.84	10.39
OP11570-MB	IJ21031.D	10/18/04	15:03	5.84	10.40
ZZZZZZ	IJ21032.D	10/18/04	15:33	5.85	10.40
ZZZZZZ	IJ21033.D	10/18/04	16:02	5.85	10.40

Surrogate
Compounds

S1 = 2-Fluorobiphenyl
S2 = o-Terphenyl

(a) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F27319
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GJJ1033-CC1001	Injection Date:	10/18/04
Lab File ID:	IJ21034.D	Injection Time:	16:31
Instrument ID:	GCIJ	Method:	EPA 610

	S1 ^a	S2 ^a
	RT	RT
Check Std	5.85	10.40

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
F27319-11	IJ21035.D	10/18/04	17:01	5.85	10.40
F27319-12	IJ21036.D	10/18/04	17:30	5.85	10.40
F27319-13	IJ21037.D	10/18/04	17:59	5.85	10.40
OP11570-MS	IJ21038.D	10/18/04	18:28	5.85	10.40
OP11570-MSD	IJ21039.D	10/18/04	18:58	5.85	10.40

Surrogate
Compounds

S1 = 2-Fluorobiphenyl

S2 = o-Terphenyl

(a) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F27319
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GJJ1033-CC1001	Injection Date:	10/18/04
Lab File ID:	IJ21041.D	Injection Time:	19:56
Instrument ID:	GCIJ	Method:	EPA 610

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	5.84	6.60	10.40	11.74

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
OP11557-BS	IJ21042.D	10/18/04	20:25	5.84		10.39	
OP11557-MB	IJ21043.D	10/18/04	20:54	5.84		10.40	
F27319-1	IJ21044.D	10/18/04	21:23	5.84		10.40	
F27319-2	IJ21045.D	10/18/04	21:52	5.84		10.39	
F27319-3	IJ21046.D	10/18/04	22:21	5.84		10.40	
F27319-4	IJ21047.D	10/18/04	22:49	5.84		10.39	
F27319-5	IJ21048.D	10/18/04	23:18	5.84		10.39	
OP11557-MS	IJ21049.D	10/18/04	23:47	5.84		10.39	
OP11557-MSD	IJ21050.D	10/19/04	00:16	5.84		10.39	
F27319-6	IJ21051.D	10/19/04	00:45		6.60		11.74

Surrogate
Compounds

S1 = 2-Fluorobiphenyl
S2 = o-Terphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F27319
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GIJ1033-CC1001	Injection Date:	10/19/04
Lab File ID:	IJ21052.D	Injection Time:	01:15
Instrument ID:	GCIJ	Method:	EPA 610

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	5.84	6.60	10.40	11.74

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
F27319-7	IJ21053.D	10/19/04	01:44	5.85		10.40	
F27319-8	IJ21054.D	10/19/04	02:12	5.84		10.40	
F27319-10	IJ21056.D	10/19/04	03:11	5.85		10.40	
GIJ1033-ECC1001	IJ21057.D	10/19/04	03:40	5.84	6.60	10.40	11.74

Surrogate
Compounds

S1 = 2-Fluorobiphenyl
S2 = o-Terphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F27319
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GJ1034-CC1001	Injection Date:	10/19/04
Lab File ID:	IJ21058.D	Injection Time:	09:32
Instrument ID:	GCIJ	Method:	EPA 610

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	5.83	6.59	10.38	11.73

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
OP11557-MB	IJ21059.D	10/19/04	10:01	5.84		10.40	
F27319-9	IJ21060.D	10/19/04	10:30		6.60		11.74
GJ1034-ECC1001	IJ21063.D	10/19/04	11:57	5.85	6.60	10.40	11.74

Surrogate
Compounds

S1 = 2-Fluorobiphenyl
S2 = o-Terpbenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2



GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F27319
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GIJ1035-CC1001	Injection Date:	10/19/04
Lab File ID:	IJ21064.D	Injection Time:	15:20
Instrument ID:	GCIJ	Method:	EPA 610

S1 ^a	S2 ^a
RT	RT

Check Std	5.84	10.40

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
F27319-14	IJ21066.D	10/19/04	16:21	0.00	0.00

Surrogate
Compounds

S1 = 2-Fluorobiphenyl

S2 = o-Terphenyl

(a) Retention time from GC signal #1

Initial Calibration Summary

Page 1 of 1

Job Number: F27319
 Account: EEINCJX EEI
 Project: Bldg. 4158/Camp Lejeune, NC

Sample: GJ1001-ICC1001
 Lab FileID: IJ20408.D

Response Factor Report FID 1

Method : C:\HPCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
 Title : PAH's BY EPA 610 OR 8100
 Last Update : Tue Jul 27 15:06:13 2004
 Response via : Initial Calibration

Calibration Files

5 =IJ20405.D 10 =IJ20406.D 20 =IJ20407.D 30 =IJ20408.D
 40 =IJ20409.D 50 =IJ20410.D

	Compound	5	10	20	30	40	50	Avg	%RSD
1)	Naphthalene	1.391	1.389	1.395	1.369	1.414	1.407	1.394	E4 1.12
2)	2-Methyl Naphthalen	1.325	1.334	1.347	1.327	1.375	1.367	1.346	E4 1.57
3)	1-Methyl Naphthalen	1.398	1.391	1.395	1.372	1.415	1.407	1.396	E4 1.06
4) S	2-Fluorobiphenyl	1.224	1.240	1.237	1.229	1.273	1.265	1.245	E4 1.62
5)	Acenaphthylene	1.393	1.391	1.395	1.380	1.429	1.419	1.401	E4 1.34
6)	Acenaphthene	1.405	1.415	1.424	1.403	1.452	1.441	1.424	E4 1.39
7)	Fluorene	1.321	1.352	1.366	1.356	1.405	1.398	1.366	E4 2.28
8)	Phenanthrene	1.282	1.311	1.349	1.347	1.399	1.392	1.346	E4 3.37
9)	Anthracene	1.305	1.359	1.353	1.340	1.380	1.365	1.350	E4 1.93
10) S	0-Terphenyl	1.496	1.471	1.454	1.430	1.475	1.463	1.465	E4 1.49
11)	Fluoranthene	1.388	1.392	1.395	1.378	1.424	1.413	1.399	E4 1.23
12)	Pyrene	1.419	1.373	1.383	1.368	1.416	1.406	1.394	E4 1.60
13)	Benzo(a)Anthracene	1.259	1.306	1.345	1.339	1.401	1.394	1.341	E4 4.00
14)	Chrysene	1.456	1.416	1.381	1.365	1.412	1.402	1.406	E4 2.23
15)	Benzo(b)Fluoranthene	1.279	1.342	1.393	1.389	1.451	1.453	1.384	E4 4.81
16)	Benzo(k)Fluoranthene	1.534	1.511	1.463	1.437	1.471	1.448	1.477	E4 2.54
17)	Benzo(a) Pyrene	1.337	1.327	1.331	1.317	1.365	1.359	1.339	E4 1.40
18)	Indeno(1,2,3-cd)pyr	1.323	1.326	1.356	1.348	1.406	1.400	1.360	E4 2.62
19)	Dibenzo(a,h)anthrac	1.461	1.442	1.419	1.396	1.447	1.436	1.433	E4 1.58
20)	Benzo(g,h,i) Peryle	1.440	1.447	1.437	1.415	1.481	1.453	1.445	E4 1.50

Signal #2

1)	Naphthalene	2.125	2.074	2.063	2.032	2.097	2.080	2.079	E4 1.51
2)	2-Methyl Naphthalen	2.010	1.981	1.982	1.957	2.023	2.008	1.993	E4 1.22
3)	1-Methyl Naphthalen	2.064	2.036	2.039	2.012	2.079	2.066	2.049	E4 1.20
4) S	2-Fluorobiphenyl	1.927	1.848	1.852	1.829	1.888	1.872	1.869	E4 1.87
5)	Acenaphthylene	2.087	2.067	2.062	2.035	2.101	2.083	2.073	E4 1.11
6)	Acenaphthene	2.123	2.098	2.092	2.065	2.132	2.114	2.104	E4 1.15
7)	Fluorene	2.057	2.035	2.038	2.012	2.079	2.060	2.047	E4 1.15
8)	Phenanthrene	2.090	1.991	2.035	2.000	2.077	2.061	2.042	E4 1.99
9)	Anthracene	2.034	2.008	1.988	1.967	2.025	2.003	2.004	E4 1.22
10) S	0-Terphenyl	2.249	2.178	2.151	2.114	2.177	2.156	2.171	E4 2.06
11)	Fluoranthene	2.099	2.073	2.071	2.040	2.104	2.085	2.079	E4 1.12
12)	Pyrene	2.113	2.097	2.142	2.048	2.115	2.095	2.102	E4 1.49
13)	Benzo(a)Anthracene	2.123	2.095	2.088	2.060	2.125	2.105	2.099	E4 1.16
14)	Chrysene	2.108	2.057	2.053	2.022	2.087	2.065	2.065	E4 1.44
15)	Benzo(b)Fluoranthene	2.237	2.173	2.113	2.090	2.163	2.139	2.153	E4 2.40
16)	Benzo(k)Fluoranthene	2.195	2.135	2.121	2.086	2.153	2.128	2.136	E4 1.70
17)	Benzo(a) Pyrene	2.061	2.013	1.997	1.971	2.034	2.013	2.015	E4 1.54
18)	Indeno(1,2,3-cd)pyr	2.028	2.095	2.107	2.082	2.188	2.172	2.112	E4 2.82
19)	Dibenzo(a,h)anthrac	2.135	2.097	2.066	2.028	2.070	2.033	2.072	E4 1.94
20)	Benzo(g,h,i) Peryle	2.154	2.106	2.100	2.069	2.138	2.117	2.114	E4 1.41

(#) = Out of Range

8100_H2.M

Wed Jul 28 08:08:57 2004

Initial Calibration Verification

Page 1 of 2

Job Number: F27319
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GJ1001-ICV1001
Lab FileID: IJ20411.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\0727PAH\IJ20411.D\FID1B.CH Vial: 7
Signal #2 : C:\HPCHEM\1\DATA\0727PAH\IJ20411.D\FID2A.CH
Acq On : 27 Jul 2004 2:22 pm Operator: aubreya
Sample : icv1001-20 Inst : FID 1
Misc : op10954,gij1001,1000,,,1,1,water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\HPCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
Title : PAH's BY EPA 610 OR 8100
Last Update : Tue Jul 27 15:06:13 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Naphthalene	20.000	21.254	-6.3	106	0.00	4.20- 4.40
2	2-Methyl Naphthalene	20.000	21.719	-8.6	108	0.00	5.11- 5.31
3	1-Methyl Naphthalene	20.000	21.904	-9.5	110	0.00	5.26- 5.46
4 S	2-Fluorobiphenyl			-----NA-----			
5	Acenaphthylene	20.000	21.670	-8.4	109	0.00	6.47- 6.67
6	Acenaphthene	20.000	21.584	-7.9	108	0.00	6.79- 6.99
7	Fluorene	20.000	22.266	-11.3	111	0.00	7.67- 7.87
8	Phenanthrene	20.000	21.858	-9.3	109	0.00	9.35- 9.55
9	Anthracene	20.000	22.804	-14.0	114	0.00	9.43- 9.63
10 S	0-Terphenyl			-----NA-----			
11	Fluoranthene	20.000	21.842	-9.2	109	0.00	11.54-11.74
12	Pyrene	20.000	21.870	-9.4	110	0.00	11.92-12.12
13	Benzo(a)Anthracene	20.000	21.718	-8.6	108	0.00	14.23-14.43
14	Chrysene	20.000	21.757	-8.8	111	0.00	14.30-14.50
15	Benzo(b)Fluoranthene	20.000	21.971	-9.9	109	0.00	16.14-16.34
16	Benzo(k)Fluoranthene	20.000	21.163	-5.8	107	0.00	16.19-16.39
17	Benzo(a) Pyrene	20.000	22.356	-11.8	112	0.00	16.63-16.83
18	Indeno(1,2,3-cd)pyrene	20.000	21.256	-6.3	107	0.00	18.31-18.51
19	Dibenzo(a,h)anthracene	20.000	21.517	-7.6	109	0.00	18.39-18.59
20	Benzo(g,h,i) Perylene	20.000	21.645	-8.2	109	0.00	18.64-18.84

***** Signal #2 *****

1	Naphthalene	20.000	21.341	-6.7	107	0.00	4.85- 5.05
2	2-Methyl Naphthalene	20.000	21.853	-9.3	110	0.00	5.75- 5.95
3	1-Methyl Naphthalene	20.000	21.687	-8.4	109	0.00	6.01- 6.21
4 S	2-Fluorobiphenyl			-----NA-----			
5	Acenaphthylene	20.000	21.515	-7.6	108	0.00	7.63- 7.83
6	Acenaphthene	20.000	21.242	-6.2	107	0.00	7.88- 8.08
7	Fluorene	20.000	21.975	-9.9	110	0.00	8.75- 8.95
8	Phenanthrene	20.000	21.481	-7.4	108	0.00	10.78-10.98
9	Anthracene	20.000	22.446	-12.2	113	0.00	10.82-11.02
10 S	0-Terphenyl			-----NA-----			
11	Fluoranthene	20.000	21.720	-8.6	109	0.00	13.15-13.35
12	Pyrene	20.000	21.654	-8.3	106	0.00	13.70-13.90
13	Benzo(a)Anthracene	20.000	21.338	-6.7	107	0.00	16.05-16.25
14	Chrysene	20.000	21.770	-8.8	110	0.00	16.23-16.43
15	Benzo(b)Fluoranthene	20.000	21.095	-5.5	107	0.00	18.12-18.32
16	Benzo(k)Fluoranthene	20.000	21.233	-6.2	107	0.00	18.16-18.36
17	Benzo(a) Pyrene	20.000	22.234	-11.2	112	0.00	18.84-19.04
18	Indeno(1,2,3-cd)pyrene	20.000	20.992	-5.0	105	0.00	20.62-20.82

Initial Calibration Verification

Page 2 of 2

Job Number: F27319
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GIJ1001-ICV1001
Lab FileID: IJ20411.D

19	Dibenzo(a,h)anthracene	20.000	21.714	-8.6	109	0.00	20.68-20.88
20	Benzo(g,h,i) Perylene	20.000	21.433	-7.2	108	0.00	21.26-21.46

(#) = Out of Range
IJ20407.D 8100_H2.M

SPCC's out = 0 CCC's out = 0
Wed Jul 28 08:09:29 2004



Continuing Calibration Summary

Page 1 of 2

Job Number: F27319
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GIJ1033-CC1001
Lab FileID: IJ21029.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\1018PAH\IJ21029.D\FID1B.CH Vial: 1
Signal #2 : C:\HPCHEM\1\DATA\1018PAH\IJ21029.D\FID2A.CH
Acq On : 18 Oct 2004 2:05 pm Operator: aubreya
Sample : cc1001-20 Inst : FID 1
Misc : op11570,gij1033,1000,,,1,1,water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\HPCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
Title : PAH's BY EPA 610 OR 8100
Last Update : Thu Sep 23 10:40:07 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Naphthalene	20.000	20.435	-2.2	102	-0.02	4.19- 4.39
2	2-Methyl Naphthalene	20.000	20.366	-1.8	102	-0.02	5.11- 5.31
3	1-Methyl Naphthalene	20.000	20.484	-2.4	102	-0.02	5.25- 5.45
4 S	2-Fluorobiphenyl	20.000	20.559	-2.8	103	-0.02	5.75- 5.95
5	Acenaphthylene	20.000	20.567	-2.8	103	-0.02	6.47- 6.67
6	Acenaphthene	20.000	20.713	-3.6	104	-0.02	6.79- 6.99
7	Fluorene	20.000	20.666	-3.3	103	-0.02	7.67- 7.87
8	Phenanthrene	20.000	20.414	-2.1	102	-0.02	9.35- 9.55
9	Anthracene	20.000	20.182	-0.9	101	-0.02	9.43- 9.63
10 S	0-Terphenyl	20.000	20.825	-4.1	105	-0.02	10.31-10.51
11	Fluoranthene	20.000	20.912	-4.6	105	-0.03	11.55-11.75
12	Pyrene	20.000	20.768	-3.8	105	-0.03	11.93-12.13
13	Benzo(a)Anthracene	20.000	20.813	-4.1	104	-0.03	14.25-14.45
14	Chrysene	20.000	21.477	-7.4	109	-0.03	14.32-14.52
15	Benzo(b)Fluoranthene	20.000	21.364	-6.8	106	-0.03	16.17-16.37
16	Benzo(k)Fluoranthene	20.000	20.941	-4.7	106	-0.03	16.21-16.41
17	Benzo(a) Pyrene	20.000	21.357	-6.8	107	-0.03	16.66-16.86
18	Indeno(1,2,3-cd)pyrene	20.000	20.838	-4.2	104	-0.04	18.34-18.54
19	Dibenzo(a,h)anthracene	20.000	21.096	-5.5	107	-0.03	18.42-18.62
20	Benzo(g,h,i) Perylene	20.000	21.180	-5.9	107	-0.04	18.67-18.87

***** Signal #2 *****

1	Naphthalene	20.000	21.038	-5.2	106	-0.02	4.84- 5.04
2	2-Methyl Naphthalene	20.000	20.900	-4.5	105	-0.02	5.73- 5.93
3	1-Methyl Naphthalene	20.000	21.071	-5.4	106	-0.02	6.00- 6.20
4 S	2-Fluorobiphenyl	20.000	20.926	-4.6	106	-0.02	6.51- 6.71
5	Acenaphthylene	20.000	20.931	-4.7	105	-0.02	7.62- 7.82
6	Acenaphthene	20.000	21.002	-5.0	106	-0.02	7.86- 8.06
7	Fluorene	20.000	20.981	-4.9	105	-0.02	8.74- 8.94
8	Phenanthrene	20.000	20.377	-1.9	102	-0.03	10.77-10.97
9	Anthracene	20.000	20.676	-3.4	104	-0.03	10.81-11.01
10 S	0-Terphenyl	20.000	21.013	-5.1	106	-0.03	11.66-11.86
11	Fluoranthene	20.000	21.194	-6.0	106	-0.03	13.14-13.34
12	Pyrene	20.000	21.041	-5.2	103	-0.03	13.69-13.89
13	Benzo(a)Anthracene	20.000	21.183	-5.9	106	-0.04	16.05-16.25
14	Chrysene	20.000	21.656	-8.3	109	-0.04	16.22-16.42
15	Benzo(b)Fluoranthene	20.000	20.945	-4.7	107	-0.05	18.12-18.32
16	Benzo(k)Fluoranthene	20.000	21.213	-6.1	107	-0.04	18.16-18.36
17	Benzo(a) Pyrene	20.000	21.074	-5.4	106	-0.04	18.84-19.04
18	Indeno(1,2,3-cd)pyrene	20.000	21.266	-6.3	107	-0.06	20.62-20.82

Continuing Calibration Summary

Page 2 of 2

Job Number: F27319
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GIJ1033-CC1001
Lab FileID: IJ21029.D

19	Dibenzo(a,h)anthracene	20.000	20.962	-4.8	105	-0.06	20.69-20.89
20	Benzo(g,h,i) Perylene	20.000	20.987	-4.9	106	-0.07	21.26-21.46

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

IJ20407.D 8100_H2.M

Tue Oct 19 08:24:11 2004



Continuing Calibration Summary

Job Number: F27319
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GIJ1033-CC1001
Lab FileID: IJ21034.D

Page 1 of 2

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\1018PAH\IJ21034.D\FID1B.CH Vial: 6
Signal #2 : C:\HPCHEM\1\DATA\1018PAH\IJ21034.D\FID2A.CH
Acq On : 18 Oct 2004 4:31 pm Operator: aubreya
Sample : cc1001-30 Inst : FID 1
Misc : op11570,gij1033,1050,,,1,1,water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\HPCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
Title : PAH's BY EPA 610 OR 8100
Last Update : Thu Sep 23 10:40:07 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Naphthalene	30.000	32.980	-9.9	112	0.00	4.19- 4.39
2	2-Methyl Naphthalene	30.000	32.794	-9.3	111	0.00	5.11- 5.31
3	1-Methyl Naphthalene	30.000	33.238	-10.8	113	0.00	5.25- 5.45
4 S	2-Fluorobiphenyl	30.000	33.092	-10.3	112	0.00	5.75- 5.95
5	Acenaphthylene	30.000	33.079	-10.3	112	0.00	6.47- 6.67
6	Acenaphthene	30.000	33.242	-10.8	112	0.00	6.79- 6.99
7	Fluorene	30.000	33.440	-11.5	112	0.00	7.67- 7.87
8	Phenanthrene	30.000	33.262	-10.9	111	0.00	9.35- 9.55
9	Anthracene	30.000	33.646	-12.2	113	0.00	9.43- 9.63
10 S	0-Terphenyl	30.000	33.094	-10.3	113	0.00	10.31-10.51
11	Fluoranthene	30.000	33.392	-11.3	113	0.00	11.55-11.75
12	Pyrene	30.000	33.197	-10.7	113	0.00	11.93-12.13
13	Benzo(a)Anthracene	30.000	33.683	-12.3	112	0.00	14.25-14.45
14	Chrysene	30.000	33.885	-12.9	116	0.00	14.32-14.52
15	Benzo(b)Fluoranthene	30.000	33.782	-12.6	112	-0.01	16.17-16.37
16	Benzo(k)Fluoranthene	30.000	33.272	-10.9	114	-0.01	16.21-16.41
17	Benzo(a) Pyrene	30.000	33.364	-11.2	113	-0.01	16.66-16.86
18	Indeno(1,2,3-cd)pyrene	30.000	33.229	-10.8	112	-0.02	18.34-18.54
19	Dibenzo(a,h)anthracene	30.000	33.680	-12.3	115	-0.02	18.42-18.62
20	Benzo(g,h,i) Perylene	30.000	33.539	-11.8	114	-0.02	18.67-18.87

***** Signal #2 *****

1	Naphthalene	30.000	32.636	-8.8	111	0.00	4.84- 5.04
2	2-Methyl Naphthalene	30.000	32.600	-8.7	111	0.00	5.73- 5.93
3	1-Methyl Naphthalene	30.000	32.764	-9.2	111	0.00	6.00- 6.20
4 S	2-Fluorobiphenyl	30.000	32.516	-8.4	111	0.00	6.51- 6.71
5	Acenaphthylene	30.000	32.795	-9.3	111	0.00	7.62- 7.82
6	Acenaphthene	30.000	32.933	-9.8	112	0.00	7.86- 8.06
7	Fluorene	30.000	32.864	-9.5	111	0.00	8.74- 8.94
8	Phenanthrene	30.000	32.652	-8.8	111	-0.01	10.77-10.97
9	Anthracene	30.000	32.718	-9.1	111	-0.01	10.81-11.01
10 S	0-Terphenyl	30.000	32.655	-8.9	112	-0.02	11.66-11.86
11	Fluoranthene	30.000	32.965	-9.9	112	-0.02	13.14-13.34
12	Pyrene	30.000	32.736	-9.1	112	-0.02	13.69-13.89
13	Benzo(a)Anthracene	30.000	32.831	-9.4	112	-0.02	16.05-16.25
14	Chrysene	30.000	32.921	-9.7	112	-0.02	16.22-16.42
15	Benzo(b)Fluoranthene	30.000	32.672	-8.9	112	-0.03	18.12-18.32
16	Benzo(k)Fluoranthene	30.000	32.992	-10.0	113	-0.03	18.16-18.36
17	Benzo(a) Pyrene	30.000	32.746	-9.2	112	-0.03	18.84-19.04
18	Indeno(1,2,3-cd)pyrene	30.000	32.240	-7.5	109	-0.04	20.62-20.82

Continuing Calibration Summary

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Job Number: F27319
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GIJ1033-CC1001
Lab FileID: IJ21034.D

19	Dibenzo(a,h)anthracene	30.000	32.938	-9.8	112	-0.04	20.69-20.89
20	Benzo(g,h,i) Perylene	30.000	32.921	-9.7	112	-0.04	21.26-21.46

(#) = Out of Range
IJ20408.D 8100_H2.M

SPCC's out = 0 CCC's out = 0
Tue Oct 19 08:23:50 2004



Continuing Calibration Summary

Job Number: F27319
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GIJ1033-CC1001
Lab FileID: IJ21041.D

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Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\1018PAH\IJ21041.D\FID1B.CH Vial: 1
Signal #2 : C:\HPCHEM\1\DATA\1018PAH\IJ21041.D\FID2A.CH
Acq On : 18 Oct 2004 7:56 pm Operator: aubreya
Sample : cc1001-20 Inst : FID 1
Misc : op11570,gij1033,530,,,1,1,water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\HPCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
Title : PAH's BY EPA 610 OR 8100
Last Update : Thu Sep 23 10:40:07 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Naphthalene	20.000	22.304	-11.5	111	0.00	4.19- 4.39
2	2-Methyl Naphthalene	20.000	22.012	-10.1	110	0.00	5.11- 5.31
3	1-Methyl Naphthalene	20.000	22.311	-11.6	112	0.00	5.25- 5.45
4 S	2-Fluorobiphenyl	20.000	22.288	-11.4	112	0.00	5.75- 5.95
5	Acenaphthylene	20.000	22.309	-11.5	112	0.00	6.47- 6.67
6	Acenaphthene	20.000	22.393	-12.0	112	0.00	6.79- 6.99
7	Fluorene	20.000	22.405	-12.0	112	0.00	7.67- 7.87
8	Phenanthrene	20.000	22.036	-10.2	110	0.00	9.35- 9.55
9	Anthracene	20.000	22.891	-14.5	114	0.00	9.43- 9.63
10 S	0-Terphenyl	20.000	22.232	-11.2	112	0.00	10.31-10.51
11	Fluoranthene	20.000	22.318	-11.6	112	-0.01	11.55-11.75
12	Pyrene	20.000	22.100	-10.5	111	0.00	11.93-12.13
13	Benzo(a)Anthracene	20.000	22.284	-11.4	111	-0.01	14.25-14.45
14	Chrysene	20.000	22.945	-14.7	117	-0.01	14.32-14.52
15	Benzo(b)Fluoranthene	20.000	22.346	-11.7	111	-0.02	16.17-16.37
16	Benzo(k)Fluoranthene	20.000	22.644	-13.2	114	-0.02	16.21-16.41
17	Benzo(a) Pyrene	20.000	22.395	-12.0	113	-0.02	16.66-16.86
18	Indeno(1,2,3-cd)pyrene	20.000	21.938	-9.7	110	-0.02	18.34-18.54
19	Dibenzo(a,h)anthracene	20.000	22.920	-14.6	116	-0.02	18.42-18.62
20	Benzo(g,h,i) Perylene	20.000	22.567	-12.8	114	-0.03	18.67-18.87

***** Signal #2 *****

1	Naphthalene	20.000	22.131	-10.7	111	0.00	4.84- 5.04
2	2-Methyl Naphthalene	20.000	22.027	-10.1	111	0.00	5.73- 5.93
3	1-Methyl Naphthalene	20.000	22.295	-11.5	112	0.00	6.00- 6.20
4 S	2-Fluorobiphenyl	20.000	21.874	-9.4	110	0.00	6.51- 6.71
5	Acenaphthylene	20.000	22.173	-10.9	111	0.00	7.62- 7.82
6	Acenaphthene	20.000	22.220	-11.1	112	0.00	7.86- 8.06
7	Fluorene	20.000	22.138	-10.7	111	-0.01	8.74- 8.94
8	Phenanthrene	20.000	21.840	-9.2	110	-0.02	10.77-10.97
9	Anthracene	20.000	22.281	-11.4	112	-0.02	10.81-11.01
10 S	0-Terphenyl	20.000	22.064	-10.3	111	-0.02	11.66-11.86
11	Fluoranthene	20.000	22.224	-11.1	112	-0.02	13.14-13.34
12	Pyrene	20.000	22.041	-10.2	108	-0.02	13.69-13.89
13	Benzo(a)Anthracene	20.000	22.125	-10.6	111	-0.03	16.05-16.25
14	Chrysene	20.000	22.222	-11.1	112	-0.03	16.22-16.42
15	Benzo(b)Fluoranthene	20.000	22.067	-10.3	112	-0.04	18.12-18.32
16	Benzo(k)Fluoranthene	20.000	22.333	-11.7	112	-0.04	18.16-18.36
17	Benzo(a) Pyrene	20.000	22.230	-11.2	112	-0.04	18.84-19.04
18	Indeno(1,2,3-cd)pyrene	20.000	21.602	-8.0	108	-0.05	20.62-20.82

Continuing Calibration Summary

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Job Number: F27319
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GIJ1033-CC1001
Lab FileID: IJ21041.D

19	Dibenzo(a,h)anthracene	20.000	21.517	-7.6	108	-0.06	20.69-20.89
20	Benzo(g,h,i) Perylene	20.000	21.959	-9.8	111	-0.06	21.26-21.46

(#) = Out of Range

IJ20407.D 8100_H2.M

SPCC's out = 0 CCC's out = 0
Tue Oct 19 08:24:12 2004



Continuing Calibration Summary

Job Number: F27319
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GIJ1033-CC1001
Lab FileID: IJ21052.D

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Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\1018PAH\IJ21052.D\FID1B.CH Vial: 6
Signal #2 : C:\HPCHEM\1\DATA\1018PAH\IJ21052.D\FID2A.CH
Acq On : 19 Oct 2004 1:15 am Operator: aubreya
Sample : cc1001-30 Inst : FID 1
Misc : op11557,gij1033,1040,,,1,1,water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\HPCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
Title : PAH's BY EPA 610 OR 8100
Last Update : Thu Sep 23 10:40:07 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT	Window
1	Naphthalene	30.000	33.513	-11.7	114	0.00	4.19-	4.39
2	2-Methyl Naphthalene	30.000	33.234	-10.8	112	0.00	5.11-	5.31
3	1-Methyl Naphthalene	30.000	33.320	-11.1	113	0.00	5.25-	5.45
4 S	2-Fluorobiphenyl	30.000	33.620	-12.1	114	0.00	5.75-	5.95
5	Acenaphthylene	30.000	33.654	-12.2	114	0.00	6.47-	6.67
6	Acenaphthene	30.000	33.699	-12.3	114	0.00	6.79-	6.99
7	Fluorene	30.000	33.916	-13.1	114	0.00	7.67-	7.87
8	Phenanthrene	30.000	33.781	-12.6	113	0.00	9.35-	9.55
9	Anthracene	30.000	34.416	-14.7	116	0.00	9.43-	9.63
10 S	0-Terphenyl	30.000	33.536	-11.8	114	0.00	10.31-	10.51
11	Fluoranthene	30.000	33.972	-13.2	115	-0.01	11.55-	11.75
12	Pyrene	30.000	33.676	-12.3	114	-0.01	11.93-	12.13
13	Benzo(a)Anthracene	30.000	34.298	-14.3	114	0.00	14.25-	14.45
14	Chrysene	30.000	34.398	-14.7	118	-0.01	14.32-	14.52
15	Benzo(b)Fluoranthene	30.000	33.971	-13.2	113	-0.01	16.17-	16.37
16	Benzo(k)Fluoranthene	30.000	34.057	-13.5	117	-0.01	16.21-	16.41
17	Benzo(a) Pyrene	30.000	34.027	-13.4	115	-0.01	16.66-	16.86
18	Indeno(1,2,3-cd)pyrene	30.000	33.718	-12.4	113	-0.02	18.34-	18.54
19	Dibenzo(a,h)anthracene	30.000	32.680	-8.9	112	-0.02	18.42-	18.62
20	Benzo(g,h,i) Perylene	30.000	33.865	-12.9	115	-0.02	18.67-	18.87

***** Signal #2 *****

1	Naphthalene	30.000	33.378	-11.3	114	0.00	4.84-	5.04
2	2-Methyl Naphthalene	30.000	33.327	-11.1	113	-0.01	5.73-	5.93
3	1-Methyl Naphthalene	30.000	33.684	-12.3	114	-0.01	6.00-	6.20
4 S	2-Fluorobiphenyl	30.000	33.235	-10.8	113	-0.01	6.51-	6.71
5	Acenaphthylene	30.000	33.546	-11.8	114	-0.01	7.62-	7.82
6	Acenaphthene	30.000	33.646	-12.2	114	-0.01	7.86-	8.06
7	Fluorene	30.000	33.615	-12.1	114	-0.02	8.74-	8.94
8	Phenanthrene	30.000	33.927	-13.1	115	-0.02	10.77-	10.97
9	Anthracene	30.000	33.537	-11.8	114	-0.02	10.81-	11.01
10 S	0-Terphenyl	30.000	33.392	-11.3	114	-0.02	11.66-	11.86
11	Fluoranthene	30.000	33.688	-12.3	114	-0.02	13.14-	13.34
12	Pyrene	30.000	33.713	-12.4	115	-0.02	13.69-	13.89
13	Benzo(a)Anthracene	30.000	33.644	-12.1	114	-0.03	16.05-	16.25
14	Chrysene	30.000	33.744	-12.5	115	-0.03	16.22-	16.42
15	Benzo(b)Fluoranthene	30.000	34.101	-13.7	117	-0.04	18.12-	18.32
16	Benzo(k)Fluoranthene	30.000	33.581	-11.9	115	-0.04	18.16-	18.36
17	Benzo(a) Pyrene	30.000	33.573	-11.9	114	-0.04	18.84-	19.04
18	Indeno(1,2,3-cd)pyrene	30.000	32.324	-7.7	109	-0.05	20.62-	20.82

Continuing Calibration Summary

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Job Number: F27319
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GIJ1033-CC1001
Lab FileID: IJ21052.D

19	Dibenzo(a,h)anthracene	30.000	32.782	-9.3	112	-0.05	20.69-20.89
20	Benzo(g,h,i) Perylene	30.000	32.956	-9.9	112	-0.06	21.26-21.46

(#) = Out of Range
IJ20408.D 8100_H2.M

SPCC's out = 0 CCC's out = 0
Tue Oct 19 08:23:50 2004



Continuing Calibration Summary

Job Number: F27319
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GIJ1033-ECC1001
Lab FileID: IJ21057.D

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Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\1018PAH\IJ21057.D\FID1B.CH Vial: 1
Signal #2 : C:\HPCHEM\1\DATA\1018PAH\IJ21057.D\FID2A.CH
Acq On : 19 Oct 2004 3:40 am Operator: aubreya
Sample : ecc1001-20 Inst : FID 1
Misc : op11557,gij1033,1040,,,1,1,water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\HPCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
Title : PAH's BY EPA 610 OR 8100
Last Update : Thu Sep 23 10:40:07 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Oev(min)	RT Window
1	Naphthalene	20.000	22.585	-12.9	113	0.00	4.19- 4.39
2	2-Methyl Naphthalene	20.000	22.257	-11.3	111	0.00	5.11- 5.31
3	1-Methyl Naphthalene	20.000	22.639	-13.2	113	0.00	5.25- 5.45
4 S	2-Fluorobiphenyl	20.000	22.632	-13.2	114	0.00	5.75- 5.95
5	Acenaphthylene	20.000	22.685	-13.4	114	0.00	6.47- 6.67
6	Acenaphthene	20.000	22.756	-13.8	114	0.00	6.79- 6.99
7	Fluorene	20.000	22.709	-13.5	114	0.00	7.67- 7.87
8	Phenanthrene	20.000	22.341	-11.7	112	0.00	9.35- 9.55
9	Anthracene	20.000	23.295	-16.5#	116	0.00	9.43- 9.63
10 S	0-Terphenyl	20.000	22.648	-13.2	114	0.00	10.31-10.51
11	Fluoranthene	20.000	22.798	-14.0	114	0.00	11.55-11.75
12	Pyrene	20.000	22.596	-13.0	114	0.00	11.93-12.13
13	Benzo(a)Anthracene	20.000	22.574	-12.9	112	-0.01	14.25-14.45
14	Chrysene	20.000	23.511	-17.6#	120	-0.01	14.32-14.52
15	Benzo(b)Fluoranthene	20.000	22.451	-12.3	112	-0.02	16.17-16.37
16	Benzo(k)Fluoranthene	20.000	23.433	-17.2#	118	-0.02	16.21-16.41
17	Benzo(a) Pyrene	20.000	23.022	-15.1#	116	-0.01	16.66-16.86
18	Indeno(1,2,3-cd)pyrene	20.000	22.215	-11.1	111	-0.02	18.34-18.54
19	Dibenzo(a,h)anthracene	20.000	23.247	-16.2#	117	-0.02	18.42-18.62
20	Benzo(g,h,i) Perylene	20.000	22.904	-14.5	115	-0.03	18.67-18.87

***** Signal #2 *****

1	Naphthalene	20.000	22.531	-12.7	113	0.00	4.84- 5.04
2	2-Methyl Naphthalene	20.000	22.447	-12.2	113	-0.01	5.73- 5.93
3	1-Methyl Naphthalene	20.000	22.793	-14.0	115	-0.01	6.00- 6.20
4 S	2-Fluorobiphenyl	20.000	22.351	-11.8	113	-0.01	6.51- 6.71
5	Acenaphthylene	20.000	22.612	-13.1	114	-0.02	7.62- 7.82
6	Acenaphthene	20.000	22.645	-13.2	114	-0.02	7.86- 8.06
7	Fluorene	20.000	22.667	-13.3	114	-0.02	8.74- 8.94
8	Phenanthrene	20.000	21.348	-6.7	107	-0.02	10.77-10.97
9	Anthracene	20.000	22.972	-14.9	116	-0.02	10.81-11.01
10 S	0-Terphenyl	20.000	22.596	-13.0	114	-0.02	11.66-11.86
11	Fluoranthene	20.000	22.741	-13.7	114	-0.03	13.14-13.34
12	Pyrene	20.000	23.116	-15.6#	113	-0.03	13.69-13.89
13	Benzo(a)Anthracene	20.000	22.714	-13.6	114	-0.03	16.05-16.25
14	Chrysene	20.000	22.876	-14.4	115	-0.03	16.22-16.42
15	Benzo(b)Fluoranthene	20.000	23.591	-18.0#	120	-0.04	18.12-18.32
16	Benzo(k)Fluoranthene	20.000	22.818	-14.1	115	-0.04	18.16-18.36
17	Benzo(a) Pyrene	20.000	22.652	-13.3	114	-0.04	18.84-19.04
18	Indeno(1,2,3-cd)pyrene	20.000	22.595	-13.0	113	-0.06	20.62-20.82

Continuing Calibration Summary

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Job Number: F27319
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GIJ1033-ECC1001
Lab FileID: IJ21057.D

19	Dibenzo(a,h)anthracene	20.000	23.372	-16.9#	117	-0.06	20.69-20.89
20	Benzo(g,h,i) Perylene	20.000	22.155	-10.8	112	-0.07	21.26-21.46

(#) = Out of Range
IJ20407.D 8100_H2.M

SPCC's out = 0 CCC's out = 0
Tue Oct 19 08:24:12 2004



Continuing Calibration Summary

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Job Number: F27319
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GUJ1034-CC1001
Lab FileID: IJ21058.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\1019PAH\IJ21058.D\FID1B.CH Vial: 1
Signal #2 : C:\HPCHEM\1\DATA\1019PAH\IJ21058.D\FID2A.CH
Acq On : 19 Oct 2004 9:32 am Operator: aubreya
Sample : cc1001-20 Inst : FID 1
Misc : op11557,gij1034,1000,,,1,1,water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\HPCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
Title : PAH's BY EPA 610 OR 8100
Last Update : Thu Sep 23 10:40:07 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT	Window
1	Naphthalene	20.000	20.285	-1.4	101	-0.02	4.19-	4.39
2	2-Methyl Naphthalene	20.000	19.935	0.3	100	-0.02	5.11-	5.31
3	1-Methyl Naphthalene	20.000	20.173	-0.9	101	-0.02	5.25-	5.45
4 S	2-Fluorobiphenyl	20.000	20.325	-1.6	102	-0.02	5.75-	5.95
5	Acenaphthylene	20.000	20.394	-2.0	102	-0.02	6.47-	6.67
6	Acenaphthene	20.000	20.498	-2.5	102	-0.02	6.79-	6.99
7	Fluorene	20.000	20.431	-2.2	102	-0.01	7.67-	7.87
8	Phenanthrene	20.000	20.086	-0.4	100	-0.02	9.35-	9.55
9	Anthracene	20.000	21.160	-5.8	106	-0.02	9.43-	9.63
10 S	0-Terphenyl	20.000	20.420	-2.1	103	-0.02	10.31-	10.51
11	Fluoranthene	20.000	20.541	-2.7	103	-0.02	11.55-	11.75
12	Pyrene	20.000	21.150	-5.7	107	-0.02	11.93-	12.13
13	Benzo(a)Anthracene	20.000	20.290	-1.4	101	-0.03	14.25-	14.45
14	Chrysene	20.000	21.408	-7.0	109	-0.03	14.32-	14.52
15	Benzo(b)Fluoranthene	20.000	20.241	-1.2	101	-0.03	16.17-	16.37
16	Benzo(k)Fluoranthene	20.000	21.277	-6.4	107	-0.03	16.21-	16.41
17	Benzo(a) Pyrene	20.000	20.764	-3.8	104	-0.03	16.66-	16.86
18	Indeno(1,2,3-cd)pyrene	20.000	19.418	2.9	97	-0.04	18.34-	18.54
19	Dibenzo(a,h)anthracene	20.000	20.416	-2.1	103	-0.03	18.42-	18.62
20	Benzo(g,h,i) Perylene	20.000	20.084	-0.4	101	-0.04	18.67-	18.87

***** Signal #2 *****

1	Naphthalene	20.000	20.738	-3.7	104	-0.02	4.84-	5.04
2	2-Methyl Naphthalene	20.000	20.599	-3.0	104	-0.03	5.73-	5.93
3	1-Methyl Naphthalene	20.000	20.833	-4.2	105	-0.03	6.00-	6.20
4 S	2-Fluorobiphenyl	20.000	20.487	-2.4	103	-0.03	6.51-	6.71
5	Acenaphthylene	20.000	20.716	-3.6	104	-0.03	7.62-	7.82
6	Acenaphthene	20.000	20.779	-3.9	104	-0.03	7.86-	8.06
7	Fluorene	20.000	20.795	-4.0	104	-0.03	8.74-	8.94
8	Phenanthrene	20.000	22.261	-11.3	112	-0.04	10.77-	10.97
9	Anthracene	20.000	20.679	-3.4	104	-0.04	10.81-	11.01
10 S	0-Terphenyl	20.000	20.723	-3.6	105	-0.04	11.66-	11.86
11	Fluoranthene	20.000	20.911	-4.6	105	-0.04	13.14-	13.34
12	Pyrene	20.000	21.251	-6.3	104	-0.04	13.69-	13.89
13	Benzo(a)Anthracene	20.000	20.887	-4.4	105	-0.05	16.05-	16.25
14	Chrysene	20.000	20.989	-4.9	106	-0.05	16.22-	16.42
15	Benzo(b)Fluoranthene	20.000	20.588	-2.9	105	-0.05	18.12-	18.32
16	Benzo(k)Fluoranthene	20.000	20.855	-4.3	105	-0.05	18.16-	18.36
17	Benzo(a) Pyrene	20.000	20.576	-2.9	104	-0.05	18.84-	19.04
18	Indeno(1,2,3-cd)pyrene	20.000	20.342	-1.7	102	-0.07	20.62-	20.82

Continuing Calibration Summary

Page 2 of 2

Job Number: F27319
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GJ1034-CC1001
Lab FileID: IJ21058.D

19	Dibenzo(a,h)anthracene	20.000	20.230	-1.2	101	-0.07	20.69-20.89
20	Benzo(g,h,i) Perylene	20.000	19.958	0.2	100	-0.08	21.26-21.46

(#) = Out of Range
IJ20407.D 8100_H2.M

SPCC's out = 0 CCC's out = 0
Tue Oct 19 12:31:58 2004



Continuing Calibration Summary

Page 1 of 2

Job Number: F27319
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GJ1034-ECC1001
Lab FileID: IJ21063.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\1019PAH\IJ21063.D\FID1B.CH Vial: 6
Signal #2 : C:\HPCHEM\1\DATA\1019PAH\IJ21063.D\FID2A.CH
Acq On : 19 Oct 2004 11:57 am Operator: aubreya
Sample : ecc1001-30 Inst : FID 1
Misc : op11570,gij1034,950,,,1,1,water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\HPCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
Title : PAH's BY EPA 610 OR 8100
Last Update : Thu Sep 23 10:40:07 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Naphthalene	30.000	31.677	-5.6	108	0.00	4.19- 4.39
2	2-Methyl Naphthalene	30.000	31.455	-4.8	106	0.00	5.11- 5.31
3	1-Methyl Naphthalene	30.000	31.838	-6.1	108	0.00	5.25- 5.45
4 S	2-Fluorobiphenyl	30.000	31.896	-6.3	108	0.00	5.75- 5.95
5	Acenaphthylene	30.000	31.852	-6.2	108	0.00	6.47- 6.67
6	Acenaphthene	30.000	31.909	-6.4	108	0.00	6.79- 6.99
7	Fluorene	30.000	32.097	-7.0	108	0.00	7.67- 7.87
8	Phenanthrene	30.000	31.889	-6.3	106	0.00	9.35- 9.55
9	Anthracene	30.000	32.616	-8.7	110	0.00	9.43- 9.63
10 S	0-Terphenyl	30.000	31.722	-5.7	108	0.00	10.31-10.51
11	Fluoranthene	30.000	32.104	-7.0	109	0.00	11.55-11.75
12	Pyrene	30.000	31.844	-6.1	108	0.00	11.93-12.13
13	Benzo(a)Anthracene	30.000	32.273	-7.6	108	0.00	14.25-14.45
14	Chrysene	30.000	32.709	-9.0	112	0.00	14.32-14.52
15	Benzo(b)Fluoranthene	30.000	32.134	-7.1	107	0.00	16.17-16.37
16	Benzo(k)Fluoranthene	30.000	32.331	-7.8	111	-0.01	16.21-16.41
17	Benzo(a) Pyrene	30.000	32.350	-7.8	110	0.00	16.66-16.86
18	Indeno(1,2,3-cd)pyrene	30.000	31.483	-4.9	106	-0.01	18.34-18.54
19	Dibenzo(a,h)anthracene	30.000	32.317	-7.7	111	-0.02	18.42-18.62
20	Benzo(g,h,i) Perylene	30.000	31.682	-5.6	108	-0.02	18.67-18.87

***** Signal #2 *****

1	Naphthalene	30.000	31.804	-6.0	108	0.00	4.84- 5.04
2	2-Methyl Naphthalene	30.000	31.756	-5.9	108	-0.01	5.73- 5.93
3	1-Methyl Naphthalene	30.000	31.946	-6.5	108	-0.01	6.00- 6.20
4 S	2-Fluorobiphenyl	30.000	31.617	-5.4	108	-0.01	6.51- 6.71
5	Acenaphthylene	30.000	31.924	-6.4	108	-0.01	7.62- 7.82
6	Acenaphthene	30.000	32.005	-6.7	109	-0.01	7.86- 8.06
7	Fluorene	30.000	31.982	-6.6	108	-0.01	8.74- 8.94
8	Phenanthrene	30.000	31.753	-5.8	108	-0.02	10.77-10.97
9	Anthracene	30.000	31.987	-6.6	109	-0.02	10.81-11.01
10 S	0-Terphenyl	30.000	31.715	-5.7	109	-0.02	11.66-11.86
11	Fluoranthene	30.000	32.067	-6.9	109	-0.02	13.14-13.34
12	Pyrene	30.000	31.859	-6.2	109	-0.02	13.69-13.89
13	Benzo(a)Anthracene	30.000	31.980	-6.6	109	-0.03	16.05-16.25
14	Chrysene	30.000	32.062	-6.9	109	-0.03	16.22-16.42
15	Benzo(b)Fluoranthene	30.000	33.492	-11.6	115	-0.04	18.12-18.32
16	Benzo(k)Fluoranthene	30.000	32.030	-6.8	109	-0.04	18.16-18.36
17	Benzo(a) Pyrene	30.000	31.931	-6.4	109	-0.04	18.84-19.04
18	Indeno(1,2,3-cd)pyrene	30.000	30.085	-0.3	102	-0.05	20.62-20.82

Continuing Calibration Summary

Page 2 of 2

Job Number: F27319
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GIJ1034-ECC1001
Lab FileID: IJ21063.D

19	Dibenzo(a,h)anthracene	30.000	31.997	-6.7	109	-0.05	20.69-20.89
20	Benzo(g,h,i) Perylene	30.000	30.806	-2.7	105	-0.06	21.26-21.46

(#) = Out of Range
IJ20408.D 8100_H2.M

SPCC's out = 0 CCC's out = 0
Tue Oct 19 12:31:43 2004



Continuing Calibration Summary

Job Number: F27319
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GJ1035-CC1001
Lab FileID: IJ21064.D

Page 1 of 2

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\1019APAH\IJ21064.D\FID1B.CH Vial: 1
Signal #2 : C:\HPCHEM\1\DATA\1019APAH\IJ21064.D\FID2A.CH
Acq On : 19 Oct 2004 3:20 pm Operator: aubreya
Sample : cc1001-20 Inst : FID 1
Misc : op11570,gij1035,1000,,,1,1,water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\HPCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
Title : PAH's BY EPA 610 OR 8100
Last Update : Wed Oct 20 08:30:47 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Naphthalene	20.000	21.027	-5.1	105	0.00	4.19- 4.39
2	2-Methyl Naphthalene	20.000	20.612	-3.1	103	0.00	5.11- 5.31
3	1-Methyl Naphthalene	20.000	20.748	-3.7	104	0.00	5.25- 5.45
4 S	2-Fluorobiphenyl	20.000	20.872	-4.4	105	0.00	5.75- 5.95
5	Acenaphthylene	20.000	21.089	-5.4	106	0.00	6.47- 6.67
6	Acenaphthene	20.000	21.163	-5.8	106	0.00	6.79- 6.99
7	Fluorene	20.000	21.086	-5.4	105	0.00	7.67- 7.87
8	Phenanthrene	20.000	20.706	-3.5	103	0.00	9.35- 9.55
9	Anthracene	20.000	21.914	-9.6	109	0.00	9.43- 9.63
10 S	0-Terphenyl	20.000	21.439	-7.2	108	0.00	10.31-10.51
11	Fluoranthene	20.000	21.098	-5.5	106	-0.01	11.55-11.75
12	Pyrene	20.000	20.905	-4.5	105	0.00	11.93-12.13
13	Benzo(a)Anthracene	20.000	20.941	-4.7	104	-0.01	14.25-14.45
14	Chrysene	20.000	22.093	-10.5	112	-0.01	14.32-14.52
15	Benzo(b)Fluoranthene	20.000	20.727	-3.6	103	-0.02	16.17-16.37
16	Benzo(k)Fluoranthene	20.000	22.092	-10.5	112	-0.02	16.21-16.41
17	Benzo(a) Pyrene	20.000	21.439	-7.2	108	-0.01	16.66-16.86
18	Indeno(1,2,3-cd)pyrene	20.000	20.262	-1.3	102	-0.02	18.34-18.54
19	Dibenzo(a,h)anthracene	20.000	21.395	-7.0	108	-0.02	18.42-18.62
20	Benzo(g,h,i) Perylene	20.000	21.125	-5.6	106	-0.03	18.67-18.87

***** Signal #2 *****

1	Naphthalene	20.000	21.122	-5.6	106	-0.01	4.84- 5.04
2	2-Methyl Naphthalene	20.000	20.970	-4.8	105	-0.02	5.73- 5.93
3	1-Methyl Naphthalene	20.000	21.101	-5.5	106	-0.02	6.00- 6.20
4 S	2-Fluorobiphenyl	20.000	20.654	-3.3	104	-0.02	6.51- 6.71
5	Acenaphthylene	20.000	21.136	-5.7	106	-0.02	7.62- 7.82
6	Acenaphthene	20.000	21.248	-6.2	107	-0.02	7.86- 8.06
7	Fluorene	20.000	21.090	-5.4	106	-0.02	8.74- 8.94
8	Phenanthrene	20.000	20.778	-3.9	104	-0.02	10.77-10.97
9	Anthracene	20.000	20.940	-4.7	106	-0.02	10.81-11.01
10 S	0-Terphenyl	20.000	21.398	-7.0	108	-0.03	11.66-11.86
11	Fluoranthene	20.000	21.192	-6.0	106	-0.03	13.14-13.34
12	Pyrene	20.000	21.519	-7.6	106	-0.03	13.69-13.89
13	Benzo(a)Anthracene	20.000	21.166	-5.8	106	-0.03	16.05-16.25
14	Chrysene	20.000	21.255	-6.3	107	-0.03	16.22-16.42
15	Benzo(b)Fluoranthene	20.000	20.852	-4.3	106	-0.04	18.12-18.32
16	Benzo(k)Fluoranthene	20.000	21.178	-5.9	107	-0.04	18.16-18.36
17	Benzo(a) Pyrene	20.000	21.148	-5.7	107	-0.04	18.84-19.04
18	Indeno(1,2,3-cd)pyrene	20.000	20.776	-3.9	104	-0.02	20.59-20.79

Continuing Calibration Summary

Page 2 of 2

Job Number: F27319
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GJ1035-CC1001
Lab FileID: IJ21064.D

19	Dibenzo(a,h)anthracene	20.000	20.772	-3.9	104	-0.05	20.69-20.89
20	Benzo(g,h,i) Perylene	20.000	20.127	-0.6	101	-0.07	21.26-21.46

(#) = Out of Range
IJ20407.D 8100_H2.M

SPCC's out = 0 CCC's out = 0
Wed Oct 20 08:35:10 2004



Continuing Calibration Summary

Page 1 of 2

Job Number: F27319
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GUJ1035-CC1001
Lab FileID: IJ21068.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\1019APAH\IJ21068.D\FID1B.CH Vial: 5
Signal #2 : C:\HPCHEM\1\DATA\1019APAH\IJ21068.D\FID2A.CH
Acq On : 19 Oct 2004 5:20 pm Operator: aubreya
Sample : cc1001-30 Inst : FID 1
Misc : op11570,gij1035,950,,,1,1,water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\HPCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
Title : PAH's 8Y EPA 610 OR 8100
Last Update : Wed Oct 20 08:30:47 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Naphthalene	30.000	33.419	-11.4	113	0.00	4.19- 4.39
2	2-Methyl Naphthalene	30.000	33.098	-10.3	112	0.01	5.11- 5.31
3	1-Methyl Naphthalene	30.000	33.188	-10.6	113	0.01	5.25- 5.45
4 S	2-Fluorobiphenyl	30.000	33.423	-11.4	113	0.01	5.75- 5.95
5	Acenaphthylene	30.000	33.443	-11.5	113	0.01	6.47- 6.67
6	Acenaphthene	30.000	33.505	-11.7	113	0.01	6.79- 6.99
7	Fluorene	30.000	33.601	-12.0	113	0.01	7.67- 7.87
8	Phenanthrene	30.000	33.356	-11.2	111	0.01	9.35- 9.55
9	Anthracene	30.000	34.185	-14.0	115	0.00	9.43- 9.63
10 S	0-Terphenyl	30.000	33.784	-12.6	115	0.00	10.31-10.51
11	Fluoranthene	30.000	33.541	-11.8	113	0.00	11.55-11.75
12	Pyrene	30.000	33.249	-10.8	113	0.00	11.93-12.13
13	Benzo(a)Anthracene	30.000	33.723	-12.4	113	0.00	14.25-14.45
14	Chrysene	30.000	34.120	-13.7	117	0.00	14.32-14.52
15	Benzo(b)Fluoranthene	30.000	33.731	-12.4	112	0.00	16.17-16.37
16	Benzo(k)Fluoranthene	30.000	33.569	-11.9	115	0.00	16.21-16.41
17	Benzo(a) Pyrene	30.000	33.721	-12.4	114	0.00	16.66-16.86
18	Indeno(1,2,3-cd)pyrene	30.000	32.830	-9.4	110	0.00	18.34-18.54
19	Dibenzo(a,h)anthracene	30.000	33.681	-12.3	115	0.00	18.42-18.62
20	Benzo(g,h,i) Perylene	30.000	33.143	-10.5	113	0.00	18.67-18.87

***** Signal #2 *****

1	Naphthalene	30.000	33.133	-10.4	113	0.00	4.84- 5.04
2	2-Methyl Naphthalene	30.000	33.016	-10.1	112	0.00	5.73- 5.93
3	1-Methyl Naphthalene	30.000	33.086	-10.3	112	0.00	6.00- 6.20
4 S	2-Fluorobiphenyl	30.000	32.543	-8.5	111	0.00	6.51- 6.71
5	Acenaphthylene	30.000	33.081	-10.3	112	0.00	7.62- 7.82
6	Acenaphthene	30.000	33.150	-10.5	113	0.00	7.86- 8.06
7	Fluorene	30.000	33.105	-10.3	112	0.00	8.74- 8.94
8	Phenanthrene	30.000	32.974	-9.9	112	0.00	10.77-10.97
9	Anthracene	30.000	33.072	-10.2	112	0.00	10.81-11.01
10 S	0-Terphenyl	30.000	33.423	-11.4	114	-0.01	11.66-11.86
11	Fluoranthene	30.000	33.110	-10.4	112	-0.01	13.14-13.34
12	Pyrene	30.000	32.909	-9.7	113	-0.01	13.69-13.89
13	Benzo(a)Anthracene	30.000	33.051	-10.2	112	-0.02	16.05-16.25
14	Chrysene	30.000	33.124	-10.4	113	-0.02	16.22-16.42
15	Benzo(b)Fluoranthene	30.000	32.602	-8.7	112	-0.02	18.12-18.32
16	Benzo(k)Fluoranthene	30.000	33.009	-10.0	113	-0.02	18.16-18.36
17	Benzo(a) Pyrene	30.000	32.977	-9.9	112	-0.02	18.84-19.04
18	Indeno(1,2,3-cd)pyrene	30.000	32.874	-9.6	111	0.00	20.59-20.79

Continuing Calibration Summary

Page 2 of 2

Job Number: F27319
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GIJ1035-CC1001
Lab FileID: IJ21068.D

19	Dibenzo(a,h)anthracene	30.000	33.033	-10.1	112	-0.04	20.69-20.89
20	Benzo(g,h,i) Perylene	30.000	32.741	-9.1	112	-0.04	21.26-21.46

(#) = Out of Range
IJ20408.D 8100_H2.M

SPCC's out = 0 CCC's out = 0
Wed Oct 20 08:35:26 2004

6.6
6



January 2005 Groundwater Laboratory Report





11/30/05

Technical Report for

EEI

Bldg. 4158/Camp Lejeune, NC

CTO-010

Accutest Job Number: F29116

Sampling Dates: 01/04/05 - 01/05/05

Report to:

EEI

bmorris@eeimail.com

ATTN: Bill Morris

Total number of pages in report: 67



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Harry Behzadi
Harry Behzadi, Ph.D.
Laboratory Director

Certifications: FL (DOH E83510), NC (573), NJ (FL002), MA (FL946), IA (366), LA (03051), KS (E-10327), SC, AK
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Sample Summary

EEI

Job No: F29116

Bldg. 4158/Camp Lejeune, NC
Project No: CTO-010

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
F29116-1	01/04/05	10:15 BS	01/06/05	AQ	Ground Water	UST4158-MW4
F29116-2	01/04/05	11:00 BS	01/06/05	AQ	Ground Water	UST4158-MW5
F29116-3	01/04/05	11:50 BS	01/06/05	AQ	Ground Water	UST4158-MW1
F29116-4	01/04/05	12:45 BS	01/06/05	AQ	Ground Water	UST4158-MW7
F29116-5	01/04/05	13:20 BS	01/06/05	AQ	Ground Water	UST4158-MW10
F29116-6	01/04/05	14:00 BS	01/06/05	AQ	Ground Water	UST4158-MW14
F29116-7	01/04/05	14:30 BS	01/06/05	AQ	Ground Water	UST4158-MW15
F29116-8	01/04/05	15:05 BS	01/06/05	AQ	Ground Water	UST4158-MW18
F29116-9	01/05/05	09:45 BS	01/06/05	AQ	Ground Water	UST4158-MW8
F29116-10	01/05/05	10:35 BS	01/06/05	AQ	Ground Water	UST4158-MW11
F29116-11	01/04/05	00:00 BS	01/06/05	AQ	Ground Water	UST4158-DUP
F29116-12	01/05/05	11:25 BS	01/06/05	AQ	Ground Water	UST4158-MW13
F29116-13	01/05/05	12:05 BS	01/06/05	AQ	Ground Water	UST4158-MW17

1

Sample Summary

(continued)

EEI

Job No: F29116

Bldg. 4158/Camp Lejeune, NC
Project No: CTO-010

Sample Number	Collected Date	Time By	Received	Matrix Code Type	Client Sample ID
F29116-14	01/04/05	13:45 BS	01/06/05	AQ Trip Blank Water	TRIP BLANK

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: EEI

Job No: F29116

Site: Bldg. 4158/Camp Lejeune, NC

Report Date: 1/17/2005 9:12:45 AM

13 Samples and 1 Trip Blank were collected on between 01/04/2005 and 01/05/2005 and were received at Accutest on 01/06/2005 properly preserved, at 2.8 Deg. C and intact. These Samples received an Accutest job number of F29116. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GC by Method EPA 601/602

Matrix: AQ

Batch ID: GCD2339

All samples were analyzed within the recommended method holding time.

Samples F29116-5MS, F29116-5MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

F29116-1: All hits confirmed by dual column analysis.

F29116-3: All hits confirmed by dual column analysis.

F29116-4: All hits confirmed by dual column analysis.

F29116-6: All hits confirmed by dual column analysis.

F29116-7: All hits confirmed by dual column analysis.

F29116-10: All hits confirmed by dual column analysis.

F29116-12: All hits confirmed by dual column analysis.

F29116-13: All hits confirmed by dual column analysis.

Extractables by GC by Method EPA 610

Matrix: AQ

Batch ID: OP12217

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

Samples F29116-7MS, F29116-7MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

Accutest Laboratories Southeast (ALSE) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALSE and as stated on the COC. ALSE certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALSE Quality Manual except as noted above. This report is to be used in its entirety. ALSE is not responsible for any assumptions of data quality if partial data packages are used.

Narrative prepared by:

Date: January 17, 2005

Ellen Pampel, Inorganic QA (signature on file)

Monday, January 17, 2005

Report of Analysis

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Client Sample ID: UST4158-MW4
 Lab Sample ID: F29116-1
 Matrix: AQ - Ground Water
 Method: EPA 601/602
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 01/04/05
 Date Received: 01/06/05
 Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	CD056803.D	1	01/07/05	AJ	n/a	n/a	GCD2339
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	0.73	1.0	0.50	ug/l	J
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	96%		59-129%
98-08-8	aaa-Trifluorotoluene	97%		73-122%

(a) All bits confirmed by dual column analysis.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID:	UST4158-MW4	Date Sampled:	01/04/05
Lab Sample ID:	F29116-1	Date Received:	01/06/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL02270.D	1	01/12/05	SD	01/07/05	OP12217	GLL81
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.8	1.9	ug/l	
120-12-7	Anthracene	ND	4.8	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	1.9	ug/l	
218-01-9	Chrysene	ND	4.8	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	1.9	ug/l	
86-73-7	Fluorene	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
91-20-3	Naphthalene	ND	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.8	1.9	ug/l	
129-00-0	Pyrene	ND	4.8	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	71%		42-123%
84-15-1	o-Terphenyl	84%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID: UST4158-MW5
 Lab Sample ID: F29116-2
 Matrix: AQ - Ground Water
 Method: EPA 601/602
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 01/04/05
 Date Received: 01/06/05
 Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD056804.D	1	01/07/05	AJ	n/a	n/a	GCD2339
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	95%		59-129%
98-08-8	aaa-Trifluorotoluene	97%		73-122%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID:	UST4158-MW5	Date Sampled:	01/04/05
Lab Sample ID:	F29116-2	Date Received:	01/06/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Bldg. 4158/Camp Lejeune, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL02271.D	1	01/12/05	SD	01/07/05	OP12217	GLL81
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.8	1.9	ug/l	
120-12-7	Anthracene	ND	4.8	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	1.9	ug/l	
218-01-9	Chrysene	ND	4.8	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	1.9	ug/l	
86-73-7	Fluorene	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
91-20-3	Naphthalene	ND	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.8	1.9	ug/l	
129-00-0	Pyrene	ND	4.8	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	68%		42-123%
84-15-1	o-Terphenyl	82%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID:	UST4158-MW1	Date Sampled:	01/04/05
Lab Sample ID:	F29116-3	Date Received:	01/06/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	CD056805.D	1	01/07/05	AJ	n/a	n/a	GCD2339
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	0.89	1.0	0.50	ug/l	J
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	94%		59-129%
98-08-8	aaa-Trifluorotoluene	97%		73-122%

(a) All hits confirmed by dual column analysis.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID:	UST4158-MW1	Date Sampled:	01/04/05
Lab Sample ID:	F29116-3	Date Received:	01/06/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL02272.D	1	01/12/05	SD	01/07/05	OP12217	GLL81
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1010 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.0	2.0	ug/l	
208-96-8	Acenaphthylene	ND	5.0	2.0	ug/l	
120-12-7	Anthracene	ND	5.0	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	2.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	2.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	2.0	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	2.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	2.0	ug/l	
218-01-9	Chrysene	ND	5.0	2.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	2.0	ug/l	
206-44-0	Fluoranthene	ND	5.0	2.0	ug/l	
86-73-7	Fluorene	ND	5.0	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	2.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	2.0	ug/l	
85-01-8	Pbenanthrene	ND	5.0	2.0	ug/l	
129-00-0	Pyrene	ND	5.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	63%		42-123%
84-15-1	o-Terphenyl	72%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID:	UST4158-MW7	Date Sampled:	01/04/05
Lab Sample ID:	F29116-4	Date Received:	01/06/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	CD056806.D	1	01/07/05	AJ	n/a	n/a	GCD2339
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	0.64	1.0	0.50	ug/l	J
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	97%		59-129%
98-08-8	aaa-Trifluorotoluene	97%		73-122%

(a) All hits confirmed by dual column analysis.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID:	UST4158-MW7	Date Sampled:	01/04/05
Lab Sample ID:	F29116-4	Date Received:	01/06/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL02273.D	1	01/12/05	SD	01/07/05	OP12217	GLL81
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.8	1.9	ug/l	
120-12-7	Anthracene	ND	4.8	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	1.9	ug/l	
218-01-9	Chrysene	ND	4.8	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	1.9	ug/l	
86-73-7	Fluorene	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
91-20-3	Naphthalene	ND	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.8	1.9	ug/l	
129-00-0	Pyrene	ND	4.8	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	50%		42-123%
84-15-1	o-Terphenyl	69%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID: UST4158-MW10
 Lab Sample ID: F29116-5
 Matrix: AQ - Ground Water
 Method: EPA 601/602
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 01/04/05
 Date Received: 01/06/05
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD056807.D	1	01/07/05	AJ	n/a	n/a	GCD2339
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	96%		59-129%
98-08-8	aaa-Trifluorotoluene	97%		73-122%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID:	UST4158-MW10	Date Sampled:	01/04/05
Lab Sample ID:	F29116-5	Date Received:	01/06/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	LL02274.D	1	01/12/05	SD	01/07/05	OP12217	GLL81

Run #1	Initial Volume	Final Volume
Run #2	1050 ml	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.8	1.9	ug/l	
120-12-7	Anthracene	ND	4.8	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	1.9	ug/l	
218-01-9	Chrysene	ND	4.8	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	1.9	ug/l	
86-73-7	Fluorene	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
91-20-3	Naphthalene	ND	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.8	1.9	ug/l	
129-00-0	Pyrene	ND	4.8	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorohiphenyl	73%		42-123%
84-15-1	o-Terphenyl	90%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID:	UST4158-MW14	Date Sampled:	01/04/05
Lab Sample ID:	F29116-6	Date Received:	01/06/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	CD056810.D	1	01/07/05	AJ	n/a	n/a	GCD2339
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	0.65	1.0	0.50	ug/l	J
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	96%		59-129%
98-08-8	aaa-Trifluorotoluene	96%		73-122%

(a) All hits confirmed by dual column analysis.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

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Client Sample ID:	UST4158-MW14	Date Sampled:	01/04/05
Lab Sample ID:	F29116-6	Date Received:	01/06/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL02275.D	1	01/12/05	SD	01/07/05	OP12217	GLL81
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.8	1.9	ug/l	
120-12-7	Anthracene	ND	4.8	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	1.9	ug/l	
218-01-9	Chrysene	ND	4.8	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	1.9	ug/l	
86-73-7	Fluorene	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
91-20-3	Naphthalene	ND	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.8	1.9	ug/l	
129-00-0	Pyrene	ND	4.8	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	49%		42-123%
84-15-1	o-Terphenyl	61%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

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Client Sample ID:	UST4158-MW15	Date Sampled:	01/04/05
Lab Sample ID:	F29116-7	Date Received:	01/06/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	CD056812.D	1	01/07/05	AJ	n/a	n/a	GCD2339
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	1.3	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	1.1	3.0	1.0	ug/l	J
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	96%		59-129%
98-08-8	aaa-Trifluorotoluene	97%		73-122%

(a) All hits confirmed by dual column analysis.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID:	UST4158-MW15	Date Sampled:	01/04/05
Lab Sample ID:	F29116-7	Date Received:	01/06/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL02276.D	1	01/12/05	SD	01/07/05	OP12217	GLL81
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.8	1.9	ug/l	
120-12-7	Anthracene	ND	4.8	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	1.9	ug/l	
218-01-9	Chrysene	ND	4.8	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	1.9	ug/l	
86-73-7	Fluorene	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
91-20-3	Naphthalene	ND	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.8	1.9	ug/l	
129-00-0	Pyrene	ND	4.8	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	58%		42-123%
84-15-1	o-Terphenyl	77%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID:	UST4158-MW18	Date Sampled:	01/04/05
Lab Sample ID:	F29116-8	Date Received:	01/06/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Bldg. 4158/Camp Lejeune, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD056813.D	1	01/07/05	AJ	n/a	n/a	GCD2339
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	96%		59-129%
98-08-8	aaa-Trifluorotoluene	96%		73-122%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

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Client Sample ID: UST4158-MW18
 Lab Sample ID: F29116-8
 Matrix: AQ - Ground Water
 Method: EPA 610 EPA 610
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 01/04/05
 Date Received: 01/06/05
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL02277.D	1	01/12/05	SD	01/07/05	OP12217	GLL81
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.8	1.9	ug/l	
120-12-7	Anthracene	ND	4.8	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	1.9	ug/l	
218-01-9	Chrysene	ND	4.8	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	1.9	ug/l	
86-73-7	Fluorene	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
91-20-3	Naphthalene	ND	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.8	1.9	ug/l	
129-00-0	Pyrene	ND	4.8	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	66%		42-123%
84-15-1	o-Terphenyl	75%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID:	UST4158-MW8	Date Sampled:	01/05/05
Lab Sample ID:	F29116-9	Date Received:	01/06/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Bldg. 4158/Camp Lejeune, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD056814.D	1	01/07/05	AJ	n/a	n/a	GCD2339
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	96%		59-129%
98-08-8	aaa-Trifluorotoluene	97%		73-122%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

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Client Sample ID:	UST4158-MW8	Date Sampled:	01/05/05
Lab Sample ID:	F29116-9	Date Received:	01/06/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Bldg. 4158/Camp Lejeune, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL02279.D	1	01/12/05	SD	01/07/05	OP12217	GLL81
Run #2							

	Initial Volume	Final Volume
Run #1	1010 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.0	2.0	ug/l	
208-96-8	Acenaphthylene	ND	5.0	2.0	ug/l	
120-12-7	Anthracene	ND	5.0	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	2.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	2.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	2.0	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	2.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	2.0	ug/l	
218-01-9	Chrysene	ND	5.0	2.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	2.0	ug/l	
206-44-0	Fluoranthene	ND	5.0	2.0	ug/l	
86-73-7	Fluorene	ND	5.0	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	2.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	2.0	ug/l	
85-01-8	Phenanthrene	ND	5.0	2.0	ug/l	
129-00-0	Pyrene	ND	5.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	82%		42-123%
84-15-1	o-Terphenyl	89%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID: UST4158-MW11
 Lab Sample ID: F29116-10
 Matrix: AQ - Ground Water
 Method: EPA 601/602
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 01/05/05
 Date Received: 01/06/05
 Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	CD056815.D	1	01/07/05	AJ	n/a	n/a	GCD2339
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	4.4	1.0	0.50	ug/l	
108-88-3	Toluene	0.98	1.0	0.50	ug/l	J
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	1.1	3.0	1.0	ug/l	J
1634-04-4	Methyl Tert Butyl Ether	7.8	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	96%		59-129%
98-08-8	aaa-Trifluorotoluene	97%		73-122%

(a) All hits confirmed by dual column analysis.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

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Client Sample ID:	UST4158-MW11	Date Sampled:	01/05/05
Lab Sample ID:	F29116-10	Date Received:	01/06/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL02280.D	1	01/12/05	SD	01/07/05	OP12217	GLL81
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.8	1.9	ug/l	
120-12-7	Anthracene	ND	4.8	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	1.9	ug/l	
218-01-9	Chrysene	ND	4.8	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	1.9	ug/l	
86-73-7	Fluorene	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
91-20-3	Naphthalene	ND	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.8	1.9	ug/l	
129-00-0	Pyrene	ND	4.8	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	62%		42-123%
84-15-1	o-Terphenyl	76%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID: UST4158-DUP
 Lab Sample ID: F29116-11
 Matrix: AQ - Ground Water
 Method: EPA 601/602
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 01/04/05
 Date Received: 01/06/05
 Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD056816.D	1	01/07/05	AJ	n/a	n/a	GCD2339
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	96%		59-129%
98-08-8	aaa-Trifluorotoluene	98%		73-122%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

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Client Sample ID:	UST4158-DUP	Date Sampled:	01/04/05
Lab Sample ID:	F29116-11	Date Received:	01/06/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL02281.D	1	01/12/05	SD	01/07/05	OP12217	GLL81
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.8	1.9	ug/l	
120-12-7	Anthracene	ND	4.8	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	1.9	ug/l	
218-01-9	Chrysene	ND	4.8	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	1.9	ug/l	
86-73-7	Fluorene	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
91-20-3	Naphthalene	ND	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.8	1.9	ug/l	
129-00-0	Pyrene	ND	4.8	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	73%		42-123%
84-15-1	o-Terphenyl	81%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID: UST4158-MW13
 Lab Sample ID: F29116-12
 Matrix: AQ - Ground Water
 Method: EPA 601/602
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 01/05/05
 Date Received: 01/06/05
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	CD056817.D	1	01/07/05	AJ	n/a	n/a	GCD2339
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	2.0	1.0	0.50	ug/l	
108-88-3	Toluene	1.0	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	0.88	1.0	0.50	ug/l	J
1330-20-7	Xylenes (total)	2.7	3.0	1.0	ug/l	J
1634-04-4	Methyl Tert Butyl Ether	53.7	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	97%		59-129%
98-08-8	aaa-Trifluorotoluene	98%		73-122%

(a) All hits confirmed by dual column analysis.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID:	UST4158-MW13	Date Sampled:	01/05/05
Lab Sample ID:	F29116-12	Date Received:	01/06/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL02282.D	1	01/12/05	SD	01/07/05	OP12217	GLL81
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.8	1.9	ug/l	
120-12-7	Anthracene	ND	4.8	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	1.9	ug/l	
218-01-9	Chrysene	ND	4.8	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	1.9	ug/l	
86-73-7	Fluorene	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
91-20-3	Naphthalene	ND	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.8	1.9	ug/l	
129-00-0	Pyrene	ND	4.8	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	77%		42-123%
84-15-1	o-Terphenyl	75%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: UST4158-MW17
 Lab Sample ID: F29116-13
 Matrix: AQ - Ground Water
 Method: EPA 601/602
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 01/05/05
 Date Received: 01/06/05
 Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	CD056818.D	1	01/07/05	AJ	n/a	n/a	GCD2339
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	33.7	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	96%		59-129%
98-08-8	aaa-Trifluorotoluene	97%		73-122%

(a) All hits confirmed by dual column analysis.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID:	UST4158-MW17	Date Sampled:	01/05/05
Lab Sample ID:	F29116-13	Date Received:	01/06/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL02283.D	I	01/12/05	SD	01/07/05	OP12217	GLL81
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.8	1.9	ug/l	
120-12-7	Anthracene	ND	4.8	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	1.9	ug/l	
218-01-9	Chrysene	ND	4.8	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	1.9	ug/l	
86-73-7	Fluorene	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
91-20-3	Naphthalene	ND	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.8	1.9	ug/l	
129-00-0	Pyrene	ND	4.8	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	66%		42-123%
84-15-1	o-Terphenyl	76%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID:	TRIP BLANK	Date Sampled:	01/04/05
Lab Sample ID:	F29116-14	Date Received:	01/06/05
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Bldg. 4158/Camp Lejenne, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD056819.D	1	01/07/05	AJ	n/a	n/a	GCD2339
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	96%		59-129%
98-08-8	aaa-Trifluorotoluene	98%		73-122%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

4405 VINELAND ROAD • SUITE C-15
ORLANDO, FL 32811
TEL: 407-425-8700 • FAX: 407-425-0700

ACCUTEST JOB #:

~~ACC TEST FOOT~~

Laboratories		CLIENT INFORMATION		FACILITY INFORMATION		ANALYTICAL INFORMATION		MATRIX CODES	
Engineering & Environment Inc NAME: 224 Gumbrecht rd. Suite 5 ADDRESS: Jacksonville NC 29540 CITY: 811 Morris STATE: ZIP: SEND REPORT TO: PHONE #: 910-989-3214		812 4158 PROJECT NAME: LOCATION: PROJECT NO.: FAX #: 910-989-3341						DW - DRINKING WATER GW - GROUND WATER WW - WASTE WATER SO - SOIL SL - SLUDGE OL - OIL LIQ - OTHER LIQUID SOL - OTHER SOLID	
ACCUTEST SAMPLE # FIELD ID / POINT OF COLLECTION		COLLECTION DATE TIME SAMPLED BY:		MATRIX # OF BOTTLES PRESERVATION MS MOH HMOB HMOB HMOB HMOB		602 610		LAB USE ONLY	
① UST4158-MW4 1-4-05 10:15 BS GW 5 Y X 2 ② UST4158-MW5 1-4-05 10:00 BS GW 5 Y Y 2 ③ UST4158-MW1 1-4-05 11:50 BS GW 5 Y X 2 ④ UST4158-MW7 1-4-05 12:45 BS GW 5 Y X 2 ⑤ UST4158-MW10 1-4-05 13:20 BS GW 5 X X 2 ⑥ UST4158-MW14 1-4-05 14:00 BS GW 5 X X 2 ⑦ UST4158-MW18 1-4-05 14:30 BS GW 5 Y Y 2 ⑧ UST4158-MW19 1-4-05 15:05 BS GW 5 Y Y 2 ⑨ UST4158-MW8 1-4-05 15:15 BS GW 5 Y X 2 ⑩ UST4158-MW11 1-5-05 10:15 BS GW 5 X X 2 ⑪ UST4158-Dup 1-4-05 - BS GW 5 X X 2									
DATA TURNAROUND INFORMATION		DATA DELIVERABLE INFORMATION		COMMENTS/REMARKS					
☒ STANDARD ☐ 48 HOUR RUSH ☐ 24 HOUR EMERGENCY ☐ OTHER		☐ STANDARD ☐ COMMERCIAL "B" ☐ DISK DELIVERABLE ☐ STATE FORMS ☒ OTHER (SPECIFY) NCSA 4		APPROVED BY: _____ EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED					
RELINQUISHED BY: 1. Bob Seltz RELINQUISHED BY: 3. RELINQUISHED BY: 5.		SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY DATE TIME: 15-05/11:45 RECEIVED BY: FX DATE TIME: 11/6/05 RECEIVED BY: J. L. Lutz							

F29116: Chain of Custody

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CHAIN OF CUSTODY

4405 VINELAND ROAD • SUITE C-15
ORLANDO, FL 32811
TEL: 407-425-6700 • FAX: 407-425-0707

ACCUTEST # **F29116**
ACCUTEST CODE #

CLIENT INFORMATION		FACILITY INFORMATION		ANALYTICAL INFORMATION		MATRIX CODES	
Engineering + Environment Inc. NAME 424 Gundlach rd Suite 5 ADDRESS Jacksonville NC 29540 CITY STATE ZIP 811 Morris SEND REPORT TO: PHONE # 910-989-3214		Rld 4158 PROJECT NAME LOCATION PROJECT NO. FAX # 910-989-3341				DW - DRINKING WATER GW - GROUND WATER WW - WASTE WATER SO - SOIL SL - SLUDGE OI - OIL LIQ - OTHER LIQUID SOL - OTHER SOLID	
ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION		PRESERVATION		LAB USE ONLY	
		DATE	TIME	SAMPLED BY:	MATRIX	NO. OF BOTTLES	
(12)	45T4158-MV13	1-5-05	11:25	AS	EV	5	X
(13)	45T4158-MV17	1-5-05	12:05	AS	EV	5	X
(14)	Trip Blank	1-5-05	13:45	AS			
DATA TURNAROUND INFORMATION		DATA DELIVERABLE INFORMATION		COMMENTS/REMARKS			
☒ STANDARD ☐ 48 HOUR RUSH ☐ 24 HOUR EMERGENCY ☐ OTHER EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED		☐ STANDARD ☐ COMMERCIAL "B" ☐ DISK DELIVERABLE ☐ STATE FORMS ☒ OTHER (SPECIFY) <u>NCSA 4</u>					
Bob Sellers SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY							
RELINQUISHED BY: 1. <u>Bob Sellers</u>	DATE TIME: 1-5-05/13:45	RECEIVED BY: 1. <u>FR</u>	RELINQUISHED BY: 2. <u>FR</u>	DATE TIME: 1/6/05	RECEIVED BY: 2. <u>Paula</u>		
RELINQUISHED BY: 3.	DATE TIME:	RECEIVED BY: 3.	RELINQUISHED BY: 4.	DATE TIME:	RECEIVED BY: 4.		
RELINQUISHED BY: 5.	DATE TIME:	RECEIVED BY: 5.	SEAL #	PRESERVE WHERE APPLICABLE	ON ICE	TEMPERATURE C	

4.1
4

F29116: Chain of Custody
Page 2 of 3

ACCUTEST LABORATORIES SOUTHEAST SAMPLE RECEIPT CONFIRMATION

F29116

Accutest's Job Number: _____
 Client: Engineering + Enviro Project: Bldg 4/58
 Date Received: 1/6/05 Time Received: 09:20
 # of Coolers Received: 3 Cooler Temperatures: 2-6 2-8 2-6
 Delivery Method: FedEx UPS Accutest Courier Greyhound Delivery Other
 Air Bill Number: _____

Cooler Custody Seals Intact ?	☒ Yes	☐ No
Chain of Custody Provided ?	☒ Yes	☐ No
COC Match Bottle Label ID's ?	☒ Yes	☐ No
Sample Labels Present on all bottles ?	☒ Yes	☐ No
All Analyses Marked On COC ?	☒ Yes	☐ No
Are All Bottles Intact ?	☒ Yes	☒ No
Samples Preserved Correctly ?	☒ Yes	☐ No
Correct Number of Containers Used ?	☒ Yes	☒ No
Sufficient Sample Volume ?	☒ Yes	☐ No
Trip Blank Provided ?	☒ Yes	☐ No
Trip Blank on COC ?	☒ Yes	☐ No
Trip Blank Intact ?	☒ Yes	☐ No
Trip Blank Matrix ?	☒ Yes	☐ No
Number of Encores ?	<u>0</u>	<u>0</u>
Number of Soil Field Kits ?	<u>0</u>	<u>0</u>

Summary of Comments: Received 2 Broken Amber

LITERS FOR SAMPLES # 4, 5 (UST 4/58-MW7 1-405 12:45)
(UST 4/58 - MW10 1-4-05 13:20)

Signature: [Signature] Date: 1/6/05
 Review Signature: _____
 ASD 12/03

GC Volatiles



QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Page 1 of 1

Job Number: F29116
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GCD2339-MB	CD056802.D1		01/07/05	AJ	n/a	n/a	GCD2339

The QC reported here applies to the following samples:

Method: EPA 601/602

F29116-1, F29116-2, F29116-3, F29116-4, F29116-5, F29116-6, F29116-7, F29116-8, F29116-9, F29116-10, F29116-11, F29116-12, F29116-13, F29116-14

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Limits
460-00-4	4-Bromofluorobenzene	94% 59-129%
98-08-8	aaa-Trifluorotoluene	96% 73-122%

Blank Spike Summary

Page 1 of 1

Job Number: F29116
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GCD2339-BS	CD056801.D1		01/07/05	AJ	n/a	n/a	GCD2339

The QC reported here applies to the following samples:

Method: EPA 601/602

F29116-1, F29116-2, F29116-3, F29116-4, F29116-5, F29116-6, F29116-7, F29116-8, F29116-9, F29116-10, F29116-11, F29116-12, F29116-13, F29116-14

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	18.8	94	86-121
100-41-4	Ethylbenzene	20	18.6	93	81-126
1634-04-4	Methyl Tert Butyl Ether	20	19.2	96	76-117
108-88-3	Toluene	20	18.4	92	82-123
1330-20-7	Xylenes (total)	60	53.7	90	82-125

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	100%	59-129%
98-08-8	aaa-Trifluorotoluene	100%	73-122%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: F29116
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F29116-5MS	CD056808.D 1		01/07/05	AJ	n/a	n/a	GCD2339
F29116-5MSD	CD056809.D 1		01/07/05	AJ	n/a	n/a	GCD2339
F29116-5	CD056807.D 1		01/07/05	AJ	n/a	n/a	GCD2339

The QC reported here applies to the following samples:

Method: EPA 601/602

F29116-1, F29116-2, F29116-3, F29116-4, F29116-5, F29116-6, F29116-7, F29116-8, F29116-9, F29116-10, F29116-11, F29116-12, F29116-13, F29116-14

CAS No.	Compound	F29116-5 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	20	20.9	105	20.8	104	0	77-125/6
100-41-4	Ethylbenzene	ND	20	21.1	106	21.4	107	1	74-127/6
1634-04-4	Methyl Tert Butyl Ether	ND	20	20.2	101	19.4	97	4	66-127/9
108-88-3	Toluene	ND	20	20.9	105	20.9	105	0	77-124/5
1330-20-7	Xylenes (total)	ND	60	60.2	100	61.4	102	2	76-125/5

CAS No.	Surrogate Recoveries	MS	MSD	F29116-5	Limits
460-00-4	4-Bromofluorobenzene	100%	102%	96%	59-129%
98-08-8	aaa-Trifluorotoluene	99%	99%	97%	73-122%

Volatile Surrogate Recovery Summary

Page 1 of 1

Job Number: F29116
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Method: EPA 601/602 Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a	S2 ^a
F29116-1	CD056803.D	96.0	97.0
F29116-2	CD056804.D	95.0	97.0
F29116-3	CD056805.D	94.0	97.0
F29116-4	CD056806.D	97.0	97.0
F29116-5	CD056807.D	96.0	97.0
F29116-6	CD056810.D	96.0	96.0
F29116-7	CD056812.D	96.0	97.0
F29116-8	CD056813.D	96.0	96.0
F29116-9	CD056814.D	96.0	97.0
F29116-10	CD056815.D	96.0	97.0
F29116-11	CD056816.D	96.0	98.0
F29116-12	CD056817.D	97.0	98.0
F29116-13	CD056818.D	96.0	97.0
F29116-14	CD056819.D	96.0	98.0
F29116-5MS	CD056808.D	100.0	99.0
F29116-5MSD	CD056809.D	102.0	99.0
GCD2339-BS	CD056801.D	100.0	100.0
GCD2339-MB	CD056802.D	94.0	96.0

Surrogate Compounds	Recovery Limits

S1 = 4-Bromofluorobenzene 59-129%

S2 = aaa-Trifluorotoluene 73-122%

(a) Recovery from GC signal #2

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F29116
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GCD2339-CC2338	Injection Date:	01/07/05
Lab File ID:	CD056800.D	Injection Time:	08:33
Instrument ID:	GCCD	Method:	EPA 601/602

S1 ^a S2 ^a
RT RT

Check Std	10.49	5.07

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
GCD2339-BS	CD056801.D	01/07/05	10:25	10.49	5.08
GCD2339-MB	CD056802.D	01/07/05	10:49	10.50	5.08
F29116-1	CD056803.D	01/07/05	12:00	10.49	5.08
F29116-2	CD056804.D	01/07/05	12:24	10.50	5.08
F29116-3	CD056805.D	01/07/05	12:48	10.49	5.08
F29116-4	CD056806.D	01/07/05	13:12	10.50	5.08
F29116-5	CD056807.D	01/07/05	13:36	10.50	5.08
F29116-5MS	CD056808.D	01/07/05	14:00	10.50	5.08
F29116-5MSD	CD056809.D	01/07/05	14:28	10.50	5.08
F29116-6	CD056810.D	01/07/05	14:52	10.49	5.08

Surrogate Compounds

S1 = 4-Bromofluorobenzene
S2 = aaa-Trifluorotoluene

(a) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F29116
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GCD2339-CC2338	Injection Date:	01/07/05
Lab File ID:	CD056811.D	Injection Time:	15:17
Instrument ID:	GCCD	Method:	EPA 601/602

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	10.95	10.50	5.98	5.09

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
F29116-7	CD056812.D	01/07/05	15:41		10.50		5.08
F29116-8	CD056813.D	01/07/05	16:05		10.50		5.09
F29116-9	CD056814.D	01/07/05	16:29		10.50		5.09
F29116-10	CD056815.D	01/07/05	16:53		10.50		5.09
F29116-11	CD056816.D	01/07/05	17:17		10.50		5.08
F29116-12	CD056817.D	01/07/05	17:41		10.50		5.09
F29116-13	CD056818.D	01/07/05	18:06		10.50		5.09
F29116-14	CD056819.D	01/07/05	18:30		10.50		5.09
GCD2339-ECC2338	CD056821.D	01/07/05	19:18	10.96	10.50	5.98	5.09

Surrogate Compounds

S1 = 4-Bromofluorobenzene
S2 = aaa-Trifluorotoluene

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

Initial Calibration Summary

Job Number: F29116
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GCD2338-ICC2338
Lab FileID: CD056794.D

Page 1 of 1

Response Factor Report VOA2

Method : C:\HPCHEM\1\METHODS\GCCD0106.M (Chemstation Integrator)
Title : EPA 602/8021B
Last Update : Thu Jan 06 12:04:58 2005
Response via : Initial Calibration

Calibration Files

1 =CD056791.D 2 =CD056792.D 3 =CD056793.D 4 =CD056794.D
5 =CD056795.D 6 =CD056796.D

Compound	1	2	3	4	5	6	Avg	%RSD
1) Methyl tert Butyl E	8.941	7.567	8.200	8.660	8.241	7.994	8.267	E2 5.87
2) Di-Isopropyl ether	1.242	1.084	1.257	1.239	1.230	1.210	1.211	E3 5.27
3) BENZENE	3.383	2.614	3.029	3.014	2.989	2.945	2.996	E3 8.18
4) S a,a,a-TFT(S)	1.088	1.091	1.098	1.126	1.117	1.117	1.106	E3 1.43
5) TOLUENE	3.550	2.550	2.872	2.906	2.880	2.836	2.932	E3 11.25
---- Linear regr., Force(0,0) ---- Coefficient = 0.9998								
Response Ratio = 0.00000 + 2855.65515 *A								
6) CHLOROBENZENE	2.820	2.598	3.035	3.039	3.054	2.973	2.920	E3 6.16
7) ETHYLBENZENE	2.323	2.217	2.561	2.555	2.556	2.481	2.449	E3 5.94
8) m,p-XYLENE	2.733	2.468	2.798	2.836	2.835	2.781	2.742	E3 5.09
9) o-XYLENE	2.514	2.282	2.601	2.624	2.619	2.560	2.534	E3 5.13
10) S BFB(S)	2.623	2.646	2.749	2.822	2.900	2.897	2.773	E3 4.36
11) 1,3-DICHLOROBENZENE	2.266	2.109	2.462	2.456	2.523	2.468	2.381	E3 6.70
12) 1,4-DICHLOROBENZENE	2.410	2.187	2.539	2.537	2.640	2.627	2.490	E3 6.81
13) 1,2-DICHLOROBENZENE	1.883	1.722	1.984	1.978	2.055	1.991	1.936	E3 6.12

Signal #2

1) Methyl tert Butyl E	8.087	6.767	7.972	8.058	7.853	7.723	7.743	E2 6.42
2) Di-Isopropyl ether	1.143	1.109	1.294	1.272	1.252	1.224	1.216	E3 6.08
3) BENZENE	3.329	2.882	3.303	3.247	3.202	3.139	3.184	E3 5.12
4) S a,a,a-TFT(S)	1.116	1.122	1.148	1.161	1.169	1.175	1.149	E3 2.14
5) TOLUENE	4.126	2.864	3.229	3.195	3.173	3.131	3.286	E3 13.14
---- Linear regr., Force(0,0) ---- Coefficient = 0.9998								
Response Ratio = 0.00000 + 3151.23855 *A								
6) CHLOROBENZENE	3.198	2.960	3.396	3.385	3.397	3.355	3.282	E3 5.33
7) ETHYLBENZENE	2.755	2.536	2.903	2.899	2.868	2.797	2.793	E3 4.97
8) m,p-XYLENE	3.217	2.829	3.155	3.206	3.200	3.121	3.121	E3 4.73
9) o-XYLENE	2.876	2.572	2.945	2.918	2.943	2.854	2.851	E3 4.96
10) S BFB(S)	3.043	3.090	3.201	3.231	3.341	3.340	3.208	E3 3.86
11) 1,3-DICHLOROBENZENE	2.725	2.512	2.889	2.873	2.950	2.846	2.799	E3 5.68
12) 1,4-DICHLOROBENZENE	3.043	2.669	3.016	3.011	3.119	3.106	2.994	E3 5.52
13) 1,2-DICHLOROBENZENE	2.202	2.007	2.321	2.299	2.379	2.308	2.252	E3 5.91

(#) = Out of Range

GCCD0106.M

Fri Jan 07 08:22:37 2005

Initial Calibration Verification

Page 1 of 2

Job Number: F29116
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GCD2338-ICV2338
Lab FileID: CD056797.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\010605\CD056797.D\FID1A.CH Vial: 7
Signal #2 : C:\HPCHEM\1\DATA\010605\CD056797.D\FID2B.CH
Acq On : 6 Jan 2005 12:20 pm Operator: Albertj
Sample : ICV2338-20 Inst : VOA2
Misc : gc4392,gcd2338,,,,, Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E

Method : C:\HPCHEM\1\METHODS\GCCD0106.M (Chemstation Integrator)
Title : EPA 602/8021B
Last Update : Thu Jan 06 12:04:58 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Methyl tert Butyl EtHe	20.000	18.212	8.9	92	0.00	2.93- 3.33
2	Di-Isopropyl ether	20.000	19.450	2.8	94	0.00	3.46- 3.76
3	BENZENE	20.000	19.309	3.5	95	0.00	4.78- 5.08
4 S	a,a,a-TFT(S)	20.000	19.133	4.3	96	0.00	5.82- 6.12

5	TOLUENE	20.000	19.549	2.3	97	0.00	7.24- 7.54

6	CHLOROBENZENE	20.000	20.377	-1.9	98	0.00	9.06- 9.36
7	ETHYLBENZENE	20.000	20.948	-4.7	100	0.00	9.40- 9.70
8	m,p-XYLENE	40.000	40.792	-2.0	100	0.00	9.70-10.00
9	o-XYLENE	20.000	20.285	-1.4	99	0.00	10.24-10.54
10 S	BFB(S)	20.000	20.035	-0.2	101	0.00	10.80-11.10
11	1,3-DICHLOROBENZENE	20.000	21.254	-6.3	103	0.00	12.71-12.91
12	1,4-DICHLOROBENZENE	20.000	20.929	-4.6	103	0.00	12.83-13.03
13	1,2-DICHLOROBENZENE	20.000	21.098	-5.5	103	0.00	13.29-13.59

***** Signal #2 *****

1	Methyl tert Butyl EtHe	20.000	19.209	4.0	93	0.00	2.45- 2.85
2	Di-Isopropyl ether	20.000	21.280	-6.4	100	0.00	3.01- 3.31
3	BENZENE	20.000	20.216	-1.1	97	0.00	4.20- 4.50
4 S	a,a,a-TFT(S)	20.000	19.920	0.4	100	0.00	4.93- 5.23

5	TOLUENE	20.000	20.163	-0.8	98	0.00	6.74- 7.04

6	CHLOROBENZENE	20.000	20.497	-2.5	99	0.00	8.59- 8.89
7	ETHYLBENZENE	20.000	20.894	-4.5	101	0.00	9.04- 9.34
8	m,p-XYLENE	40.000	39.636	0.9	98	0.00	9.34- 9.64
9	o-XYLENE	20.000	20.138	-0.7	97	0.00	9.87-10.17
10 S	BFB(S)	20.000	20.014	-0.1	100	0.00	10.34-10.64
11	1,3-DICHLOROBENZENE	20.000	21.093	-5.5	102	0.00	12.49-12.69
12	1,4-DICHLOROBENZENE	20.000	20.748	-3.7	103	0.00	12.56-12.76
13	1,2-DICHLOROBENZENE	20.000	21.092	-5.5	102	0.00	13.02-13.26

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Continuing Calibration Summary

Page 1 of 2

Job Number: F29116
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GCD2339-CC2338
Lab FileID: CD056800.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\010705\CD056800.D\FID1A.CH Vial: 1
Signal #2 : C:\HPCHEM\1\DATA\010705\CD056800.D\FID2B.CH
Acq On : 7 Jan 2005 8:33 am Operator: Albertj
Sample : CC2338-40 Inst : VOA2
Misc : gc4418,gcd2339,,,,, Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E

Method : C:\HPCHEM\1\METHODS\GCCD0106.M (Chemstation Integrator)
Title : EPA 602/8021B
Last Update : Thu Jan 06 12:04:58 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Methyl tert Butyl EtHe	40.000	38.980	2.6	93	-0.01	2.93- 3.33
2	Di-Isopropyl ether	40.000	39.937	0.2	98	0.00	3.46- 3.76
3	BENZENE	40.000	39.286	1.8	98	0.00	4.78- 5.08
4 S	a,a,a-TFT(S)	20.000	20.377	-1.9	100	0.00	5.82- 6.12
----- Amount Calc. %Drift -----							
5	TOLUENE	40.000	39.783	0.5	98	0.00	7.24- 7.54
----- Amount Calc. %Drift -----							
6	CHLOROBENZENE	40.000	40.464	-1.2	97	0.00	9.06- 9.36
7	ETHYLBENZENE	40.000	40.657	-1.6	97	0.00	9.40- 9.70
8	m,p-XYLENE	80.000	80.188	-0.2	97	0.00	9.70-10.00
9	o-XYLENE	40.000	40.263	-0.7	97	0.00	10.24-10.54
10 S	8FB(S)	20.000	20.257	-1.3	100	0.00	10.80-11.10
11	1,3-DICHLOROBENZENE	40.000	40.354	-0.9	98	0.00	12.71-12.91
12	1,4-DICHLOROBENZENE	40.000	40.002	-0.0	98	0.00	12.83-13.03
13	1,2-DICHLOROBENZENE	40.000	39.575	1.1	97	0.00	13.29-13.59

***** Signal #2 *****

1	Methyl tert Butyl EtHe	40.000	38.816	3.0	93	0.00	2.45- 2.85
2	Di-Isopropyl ether	40.000	40.330	-0.8	96	0.00	3.01- 3.31
3	BENZENE	40.000	39.094	2.3	96	-0.01	4.20- 4.50
4 S	a,a,a-TFT(S)	20.000	20.097	-0.5	99	-0.01	4.93- 5.23
----- Amount Calc. %Drift -----							
5	TOLUENE	40.000	39.300	1.8	97	0.00	6.74- 7.04
----- Amount Calc. %Drift -----							
6	CHLOROBENZENE	40.000	39.799	0.5	96	0.00	8.59- 8.89
7	ETHYLBENZENE	40.000	40.177	-0.4	97	0.00	9.04- 9.34
8	m,p-XYLENE	80.000	80.055	-0.1	97	0.00	9.34- 9.64
9	o-XYLENE	40.000	39.751	0.6	97	0.00	9.87-10.17
10 S	BFB(S)	20.000	20.386	-1.9	101	0.00	10.34-10.64
11	1,3-DICHLOROBENZENE	40.000	39.859	0.4	97	0.00	12.49-12.69
12	1,4-DICHLOROBENZENE	40.000	39.510	1.2	98	0.00	12.56-12.76
13	1,2-DICHLOROBENZENE	40.000	39.638	0.9	97	0.00	13.02-13.26

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Continuing Calibration Summary

Job Number: F29116
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GCD2339-CC2338
Lab FileID: CD056800.D

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CD056794.D GCCD0106.M

Mon Jan 10 08:55:41 2005

5.6
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Continuing Calibration Summary

Page 1 of 2

Job Number: F29116
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GCD2339-CC2338
Lab FileID: CD056811.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\010705\CD056811.D\FID1A.CH Vial: 11
Signal #2 : C:\HPCHEM\1\DATA\010705\CD056811.D\FID2B.CH
Acq On : 7 Jan 2005 3:17 pm Operator: Albertj
Sample : CC2338-20 Inst : VOA2
Misc : gc4418,gcd2339,,,, Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E

Method : C:\HPCHEM\1\METHODS\GCCD0106.M (Chemstation Integrator)
Title : EPA 602/8021B
Last Update : Thu Jan 06 12:04:58 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Methyl tert Butyl EtHe	20.000	19.934	0.3	100	0.00	2.93- 3.33
2	Di-Isopropyl ether	20.000	20.489	-2.4	99	0.00	3.46- 3.76
3	BENZENE	20.000	19.998	0.0	99	0.00	4.78- 5.08
4 S	a,a,a-TFT(S)	20.000	19.945	0.3	100	0.00	5.82- 6.12
----- Amount Calc. %Drift -----							
5	TOLUENE	20.000	20.179	-0.9	100	0.00	7.24- 7.54
----- Amount Calc. %Drift -----							
6	CHLOROBENZENE	20.000	20.593	-3.0	99	0.00	9.06- 9.36
7	ETHYLBENZENE	20.000	20.734	-3.7	99	0.00	9.40- 9.70
8	m,p-XYLENE	40.000	40.628	-1.6	100	0.00	9.70-10.00
9	o-XYLENE	20.000	20.380	-1.9	99	0.00	10.24-10.54
10 S	BFB(S)	20.000	20.005	-0.0	101	0.00	10.80-11.10
11	1,3-DICHLOROBENZENE	20.000	20.491	-2.5	99	0.00	12.71-12.91
12	1,4-DICHLOROBENZENE	20.000	20.089	-0.4	99	0.00	12.83-13.03
13	1,2-DICHLOROBENZENE	20.000	20.266	-1.3	99	0.00	13.29-13.59

***** Signal #2 *****

1	Methyl tert Butyl EtHe	20.000	20.353	-1.8	99	0.00	2.45- 2.85
2	Di-Isopropyl ether	20.000	21.066	-5.3	99	0.00	3.01- 3.31
3	BENZENE	20.000	20.346	-1.7	98	0.00	4.20- 4.50
4 S	a,a,a-TFT(S)	20.000	19.655	1.7	98	0.00	4.93- 5.23
----- Amount Calc. %Drift -----							
5	TOLUENE	20.000	20.142	-0.7	98	0.00	6.74- 7.04
----- Amount Calc. %Drift -----							
6	CHLOROBENZENE	20.000	20.375	-1.9	98	0.00	8.59- 8.89
7	ETHYLBENZENE	20.000	20.515	-2.6	99	0.00	9.04- 9.34
8	m,p-XYLENE	40.000	39.601	1.0	98	0.00	9.34- 9.64
9	o-XYLENE	20.000	20.207	-1.0	98	0.00	9.87-10.17
10 S	BFB(S)	20.000	19.913	0.4	100	0.00	10.34-10.64
11	1,3-DICHLOROBENZENE	20.000	20.284	-1.4	98	0.00	12.49-12.69
12	1,4-DICHLOROBENZENE	20.000	19.986	0.1	99	0.00	12.56-12.76
13	1,2-DICHLOROBENZENE	20.000	20.299	-1.5	99	0.00	13.02-13.26

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Continuing Calibration Summary

Job Number: F29116
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GCD2339-CC2338
Lab FileID: CD056811.D

Page 2 of 2

CD056793.D GCCD0106.M

Mon Jan 10 08:22:29 2005

5.6
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Continuing Calibration Summary

Page 1 of 2

Job Number: F29116
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GCD2339-ECC2338
Lab FileID: CD056821.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\010705\CD056821.D\FID1A.CH Vial: 21
Signal #2 : C:\HPCHEM\1\DATA\010705\CD056821.D\FID2B.CH
Acq On : 7 Jan 2005 7:18 pm Operator: Albertj
Sample : CC2338-20 Inst : VOA2
Misc : gc4425,gcd2340,,,, Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E

Method : C:\HPCHEM\1\METHODS\GCCD0106.M (Chemstation Integrator)
Title : EPA 602/8021B
Last Update : Thu Jan 06 12:04:58 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Methyl tert Butyl Ethe	20.000	20.111	-0.6	101	0.00	2.93- 3.33
2	Di-Isopropyl ether	20.000	19.926	0.4	96	0.00	3.46- 3.76
3	BENZENE	20.000	19.381	3.1	96	0.00	4.78- 5.08
4 S	a,a,a-TFT(S)	20.000	20.151	-0.8	101	0.00	5.82- 6.12
----- Amount Calc. %Drift -----							
5	TOLUENE	20.000	19.484	2.6	97	0.00	7.24- 7.54
----- Amount Calc. %Drift -----							
6	CHLOROBENZENE	20.000	19.847	0.8	95	0.01	9.06- 9.36
7	ETHYLBENZENE	20.000	19.944	0.3	95	0.01	9.40- 9.70
8	m,p-XYLENE	40.000	39.000	2.5	96	0.01	9.70-10.00
9	o-XYLENE	20.000	19.765	1.2	96	0.01	10.24-10.54
10 S	BFB(S)	20.000	20.012	-0.1	101	0.01	10.80-11.10
11	1,3-DICHLOROBENZENE	20.000	19.640	1.8	95	0.00	12.71-12.91
12	1,4-DICHLOROBENZENE	20.000	19.513	2.4	96	0.00	12.83-13.03
13	1,2-DICHLOROBENZENE	20.000	19.651	1.7	96	0.00	13.29-13.59

***** Signal #2 *****

1	Methyl tert Butyl Ethe	20.000	19.751	1.2	96	0.00	2.45- 2.85
2	Di-Isopropyl ether	20.000	20.479	-2.4	96	0.00	3.01- 3.31
3	BENZENE	20.000	19.633	1.8	95	0.00	4.20- 4.50
4 S	a,a,a-TFT(S)	20.000	19.994	0.0	100	0.00	4.93- 5.23
----- Amount Calc. %Drift -----							
5	TOLUENE	20.000	19.546	2.3	95	0.00	6.74- 7.04
----- Amount Calc. %Drift -----							
6	CHLOROBENZENE	20.000	19.919	0.4	96	0.00	8.59- 8.89
7	ETHYLBENZENE	20.000	19.470	2.7	94	0.00	9.04- 9.34
8	m,p-XYLENE	40.000	37.886	5.3	94	0.00	9.34- 9.64
9	o-XYLENE	20.000	19.622	1.9	95	0.00	9.87-10.17
10 S	BFB(S)	20.000	20.039	-0.2	100	0.00	10.34-10.64
11	1,3-DICHLOROBENZENE	20.000	19.504	2.5	94	0.00	12.49-12.69
12	1,4-DICHLOROBENZENE	20.000	19.417	2.9	96	0.00	12.56-12.76
13	1,2-DICHLOROBENZENE	20.000	19.509	2.5	95	0.00	13.02-13.26

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

Continuing Calibration Summary

Job Number: F29116
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Page 2 of 2
Sample: GCD2339-ECC2338
Lab FileID: CD056821.D

CD056793.D GCCD0106.M

Mon Jan 10 08:25:33 2005

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GC Semi-volatiles



QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Page 1 of 1

Job Number: F29116
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12217-MB	LL02269.D	1	01/12/05	SD	01/07/05	OP12217	GLL81

The QC reported here applies to the following samples:

Method: EPA 610

F29116-1, F29116-2, F29116-3, F29116-4, F29116-5, F29116-6, F29116-7, F29116-8, F29116-9, F29116-10, F29116-11, F29116-12, F29116-13

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.0	2.0	ug/l	
208-96-8	Acenaphthylene	ND	5.0	2.0	ug/l	
120-12-7	Anthracene	ND	5.0	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	2.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	2.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	2.0	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	2.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	2.0	ug/l	
218-01-9	Chrysene	ND	5.0	2.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	2.0	ug/l	
206-44-0	Fluoranthene	ND	5.0	2.0	ug/l	
86-73-7	Fluorene	ND	5.0	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	2.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	2.0	ug/l	
85-01-8	Phenanthrene	ND	5.0	2.0	ug/l	
129-00-0	Pyrene	ND	5.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Limits
321-60-8	2-Fluorobiphenyl	51% 42-123%
84-15-1	o-Terphenyl	55% 51-123%

Blank Spike Summary

Page 1 of 1

Job Number: F29116
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12217-BS	LL02268.D	1	01/12/05	SD	01/07/05	OP12217	GLL81

The QC reported here applies to the following samples:

Method: EPA 610

F29116-1, F29116-2, F29116-3, F29116-4, F29116-5, F29116-6, F29116-7, F29116-8, F29116-9, F29116-10, F29116-11, F29116-12, F29116-13

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	25	20.8	83	71-113
208-96-8	Acenaphthylene	25	21.9	88	63-102
120-12-7	Anthracene	25	20.9	84	71-110
56-55-3	Benzo(a)anthracene	25	20.9	84	70-114
50-32-8	Benzo(a)pyrene	25	21.0	84	67-114
205-99-2	Benzo(b)fluoranthene	25	21.3	85	69-115
191-24-2	Benzo(g,h,i)perylene	25	20.7	83	61-117
207-08-9	Benzo(k)fluoranthene	25	21.3	85	69-111
218-01-9	Chrysene	25	20.7	83	70-114
53-70-3	Dibenzo(a,h)anthracene	25	21.5	86	64-114
206-44-0	Fluoranthene	25	21.2	85	71-114
86-73-7	Fluorene	25	21.4	86	69-111
193-39-5	Indeno(1,2,3-cd)pyrene	25	22.1	88	63-112
91-20-3	Naphthalene	25	19.8	79	66-105
90-12-0	1-Methylnaphthalene	25	20.5	82	71-112
91-57-6	2-Methylnaphthalene	25	21.1	84	65-106
85-01-8	Phenanthrene	25	21.1	84	69-112
129-00-0	Pyrene	25	21.4	86	70-114

CAS No.	Surrogate Recoveries	BSP	Limits
321-60-8	2-Fluorobiphenyl	87%	42-123%
84-15-1	o-Terphenyl	97%	51-123%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: F29116
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12217-MS	LL02284.D	1	01/12/05	SD	01/07/05	OP12217	GLL81
OP12217-MSD	LL02285.D	1	01/12/05	SD	01/07/05	OP12217	GLL81
F29116-7	LL02276.D	1	01/12/05	SD	01/07/05	OP12217	GLL81

The QC reported here applies to the following samples:

Method: EPA 610

F29116-1, F29116-2, F29116-3, F29116-4, F29116-5, F29116-6, F29116-7, F29116-8, F29116-9, F29116-10, F29116-11, F29116-12, F29116-13

CAS No.	Compound	F29116-7 ug/l	Spike Q	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND	48.1	35.1	73	36.9	77	5	59-123/20
208-96-8	Acenaphthylene	ND	48.1	37.6	78	39.4	82	5	51-114/20
120-12-7	Anthracene	ND	48.1	37.6	78	37.8	79	1	64-114/17
56-55-3	Benzo(a)anthracene	ND	48.1	39.7	83	40.8	85	3	66-115/17
50-32-8	Benzo(a)pyrene	ND	48.1	41.8	87	42.9	89	3	62-118/17
205-99-2	Benzo(b)fluoranthene	ND	48.1	42.3	88	43.5	90	3	66-117/17
191-24-2	Benzo(g,h,i)perylene	ND	48.1	42.5	88	43.6	91	3	59-120/17
207-08-9	Benzo(k)fluoranthene	ND	48.1	42.1	88	43.1	90	2	64-116/16
218-01-9	Chrysene	ND	48.1	39.8	83	41.0	85	3	66-117/16
53-70-3	Dibenzo(a,h)anthracene	ND	48.1	44.6	93	45.8	95	3	57-124/18
206-44-0	Fluoranthene	ND	48.1	39.6	82	40.7	85	3	67-116/17
86-73-7	Fluorene	ND	48.1	37.2	77	38.5	80	3	58-122/19
193-39-5	Indeno(1,2,3-cd)pyrene	ND	48.1	43.8	91	44.9	93	2	59-116/18
91-20-3	Naphthalene	ND	48.1	32.6	68	34.4	72	5	47-114/20
90-12-0	1-Methylnaphthalene	ND	48.1	33.6	70	35.8	74	6	55-128/21
91-57-6	2-Methylnaphthalene	ND	48.1	34.5	72	36.9	77	7	51-117/21
85-01-8	Phenanthrene	ND	48.1	37.9	79	39.2	82	3	63-116/18
129-00-0	Pyrene	ND	48.1	40.2	84	41.4	86	3	67-116/17

CAS No.	Surrogate Recoveries	MS	MSD	F29116-7	Limits
321-60-8	2-Fluorobiphenyl	70%	72%	58%	42-123%
84-15-1	o-Terphenyl	83%	85%	77%	51-123%

Semivolatile Surrogate Recovery Summary

Page 1 of 1

Job Number: F29116
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Method: EPA 610	Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a	S2 ^a
F29116-1	LL02270.D	71.0	84.0
F29116-2	LL02271.D	68.0	82.0
F29116-3	LL02272.D	63.0	72.0
F29116-4	LL02273.D	50.0	69.0
F29116-5	LL02274.D	73.0	90.0
F29116-6	LL02275.D	49.0	61.0
F29116-7	LL02276.D	58.0	77.0
F29116-8	LL02277.D	66.0	75.0
F29116-9	LL02279.D	82.0	89.0
F29116-10	LL02280.D	62.0	76.0
F29116-11	LL02281.D	73.0	81.0
F29116-12	LL02282.D	77.0	75.0
F29116-13	LL02283.D	66.0	76.0
OP12217-BS	LL02268.D		
OP12217-MB	LL02269.D	51.0	55.0
OP12217-MS	LL02284.D	70.0	83.0
OP12217-MSD	LL02285.D	72.0	85.0

Surrogate Compounds	Recovery Limits

S1 = 2-Fluorobiphenyl	42-123%
S2 = o-Terphenyl	51-123%

(a) Recovery from GC signal #1

6.4



GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F29116
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GLL81-CC81	Injection Date:	01/12/05
Lab File ID:	LL02267.D	Injection Time:	06:44
Instrument ID:	GCLL	Method:	EPA 610

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	6.55	5.24	12.07	10.02

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
OP12217-BS	LL02268.D	01/12/05	07:14		5.24		10.02
OP12217-MB	LL02269.D	01/12/05	07:45	6.54		12.07	
F29116-1	LL02270.D	01/12/05	08:15	6.54		12.07	
F29116-2	LL02271.D	01/12/05	08:45	6.54		12.07	
F29116-3	LL02272.D	01/12/05	09:16	6.54		12.07	
F29116-4	LL02273.D	01/12/05	09:46	6.54		12.07	
F29116-5	LL02274.D	01/12/05	10:17	6.54		12.07	
F29116-6	LL02275.D	01/12/05	10:47	6.54		12.07	
F29116-7	LL02276.D	01/12/05	11:17	6.54		12.07	
F29116-8	LL02277.D	01/12/05	11:47	6.54		12.07	

Surrogate
Compounds

S1 = 2-Fluorobiphenyl

S2 = o-Terphenyl

(a) Retention time from GC signal #1

(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F29116
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GLL81-CC81	Injection Date:	01/12/05
Lab File ID:	LL02278.D	Injection Time:	12:17
Instrument ID:	GCLL	Method:	EPA 610

S1 ^a	S2 ^a
RT	RT

Check Std	6.54	12.07

Lab	Lab	Date	Time	S1 ^a	S2 ^a
Sample ID	File ID	Analyzed	Analyzed	RT	RT
F29116-9	LL02279.D	01/12/05	12:48	6.54	12.07
F29116-10	LL02280.D	01/12/05	13:18	6.54	12.07
F29116-11	LL02281.D	01/12/05	13:48	6.54	12.07
F29116-12	LL02282.D	01/12/05	14:18	6.55	12.07
F29116-13	LL02283.D	01/12/05	14:49	6.54	12.07
OP12217-MS	LL02284.D	01/12/05	15:19	6.54	12.07
OP12217-MSD	LL02285.D	01/12/05	15:49	6.54	12.07

Surrogate
Compounds

S1 = 2-Fluorobiphenyl
S2 = o-Terphenyl

(a) Retention time from GC signal #1

Initial Calibration Verification

Page 1 of 2

Job Number: F29116
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GLL81-ICV81
Lab FileID: LL02251.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\0111PAH\LL02251.D\FID1B.CH Vial: 8
Signal #2 : C:\MSDCHEM\1\DATA\0111PAH\LL02251.D\FID2A.CH
Acq On : 11 Jan 2005 10:40 pm Operator: sarahm
Sample : icv81-20 Inst : FLGSLI
Misc : OP12200, GLL81, 1000, , , 1, 1, water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
Title : PAH's BY EPA 610 OR 8100
Last Update : Wed Jan 12 13:11:26 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Naphthalene	20.000	18.672	6.6	98	0.00	4.70- 4.90
2	2-Methyl Naphthalene	20.000	19.598	2.0	103	0.00	5.62- 5.82
3	1-Methyl Naphthalene	20.000	19.025	4.9	100	0.00	5.89- 6.09
4 S	2-Fluorobiphenyl			-----NA-----			
5	Acenaphthylene	20.000	19.521	2.4	102	0.00	7.61- 7.81
6	Acenaphthene	20.000	18.916	5.4	99	0.00	7.87- 8.07
7	Fluorene	20.000	19.107	4.5	100	0.00	8.81- 9.01
8	Phenanthrene	20.000	18.794	6.0	99	0.00	10.99-11.19
9	Anthracene	20.000	19.290	3.6	101	0.00	11.03-11.23
10 S	0-Terphenyl			-----NA-----			
11	Fluoranthene	20.000	18.738	6.3	99	0.00	13.54-13.74
12	Pyrene	20.000	18.856	5.7	100	0.00	14.13-14.33
13	Benzo(a)Anthracene	20.000	18.584	7.1	99	0.00	16.68-16.88
14	Chrysene	20.000	18.440	7.8	99	0.00	16.86-17.06
15	Benzo(b)Fluoranthene	20.000	18.821	5.9	101	0.00	18.89-19.09
16	Benzo(k)Fluoranthene	20.000	18.734	6.3	100	0.00	18.95-19.15
17	Benzo(a) Pyrene	20.000	18.796	6.0	101	0.00	19.67-19.87
18	Indeno(1,2,3-cd)pyrene	20.000	19.850	0.7	104	0.00	21.53-21.73
19	Dibenzo(a,h)anthracene	20.000	19.706	1.5	102	0.00	21.60-21.80
20	Benzo(g,h,i) Perylene	20.000	18.704	6.5	100	0.02	22.12-22.32

***** Signal #2 *****

1	Naphthalene	20.000	19.490	2.6	99	0.00	3.64- 3.84
2	2-Methyl Naphthalene	20.000	20.353	-1.8	103	0.00	4.51- 4.71
3	1-Methyl Naphthalene	20.000	19.890	0.5	100	0.00	4.65- 4.85
4 S	2-Fluorobiphenyl			-----NA-----			
5	Acenaphthylene	20.000	20.205	-1.0	103	0.00	5.86- 6.06
6	Acenaphthene	20.000	19.506	2.5	99	0.00	6.18- 6.38
7	Fluorene	20.000	19.966	0.2	102	0.00	7.10- 7.30
8	Phenanthrene	20.000	19.758	1.2	101	0.00	8.86- 9.06
9	Anthracene	20.000	20.152	-0.8	102	0.00	8.96- 9.16
10 S	0-Terphenyl			-----NA-----			
11	Fluoranthene	20.000	19.989	0.1	102	0.00	11.23-11.43
12	Pyrene	20.000	19.874	0.6	104	0.00	11.62-11.82
13	Benzo(a)Anthracene	20.000	20.051	-0.3	102	0.00	14.13-14.33
14	Chrysene	20.000	19.679	1.6	101	0.00	14.20-14.40
15	Benzo(b)Fluoranthene	20.000	20.080	-0.4	104	0.00	16.20-16.40
16	Benzo(k)Fluoranthene	20.000	20.024	-0.1	105	0.00	16.25-16.45
17	Benzo(a) Pyrene	20.000	20.241	-1.2	105	-0.01	16.73-16.93
18	Indeno(1,2,3-cd)pyrene	20.000	20.041	-0.2	108	0.00	18.55-18.75

Initial Calibration Verification

Page 2 of 2

Job Number: F29116
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GLL81-ICV81
Lab FileID: LL02251.D

19	Dibenzo(a,h)anthracene	20.000	20.033	-0.2	107	0.00	18.64-18.84
20	Benzo(g,h,i) Perylene	20.000	19.825	0.9	105	0.00	18.88-19.08

(#) = Out of Range
LL02247.D 8100_H2.M

SPCC's out = 0 CCC's out = 0
Thu Jan 13 08:11:51 2005



Continuing Calibration Summary

Job Number: F29116
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GLL81-CC81
Lab FileID: LL02267.D

Page 1 of 2

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\0111PAH\LL02267.D\FID1B.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\0111PAH\LL02267.D\FID2A.CH
Acq On : 1-12-05 06:44:34 AM Operator: sarahm
Sample : ccB1-30 Inst : FLGSLL
Misc : OP12181, GLL81, 1030, , , 1, 1, water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
Title : PAH's BY EPA 610 OR 8100
Last Update : Wed Jan 12 13:11:26 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Naphthalene	30.000	31.217	-4.1	94	0.00	4.70- 4.90
2	2-Methyl Naphthalene	30.000	31.173	-3.9	94	0.00	5.62- 5.82
3	1-Methyl Naphthalene	30.000	31.168	-3.9	94	0.00	5.89- 6.09
4 S	2-Fluorobiphenyl	30.000	31.045	-3.5	94	0.00	6.44- 6.64
5	Acenaphthylene	30.000	32.427	-8.1	96	0.00	7.61- 7.81
6	Acenaphthene	30.000	31.270	-4.2	94	0.00	7.87- 8.07
7	Fluorene	30.000	31.001	-3.3	93	0.00	8.81- 9.01
8	Phenanthrene	30.000	30.502	-1.7	91	0.00	10.99-11.19
9	Anthracene	30.000	31.474	-4.9	95	0.00	11.03-11.23
10 S	0-Terphenyl	30.000	31.101	-3.7	93	0.00	11.97-12.17
11	Fluoranthene	30.000	30.955	-3.2	93	0.00	13.54-13.74
12	Pyrene	30.000	31.018	-3.4	93	0.00	14.13-14.33
13	Benzo(a)Anthracene	30.000	30.918	-3.1	93	0.00	16.68-16.88
14	Chrysene	30.000	30.610	-2.0	93	0.01	16.86-17.06
15	Benzo(b)Fluoranthene	30.000	30.562	-1.9	91	0.01	18.89-19.09
16	Benzo(k)Fluoranthene	30.000	30.736	-2.5	93	0.01	18.95-19.15
17	Benzo(a) Pyrene	30.000	30.591	-2.0	92	0.01	19.67-19.87
18	Indeno(1,2,3-cd)pyrene	30.000	31.085	-3.6	92	0.02	21.53-21.73
19	Dibenzo(a,h)anthracene	30.000	30.993	-3.3	93	0.01	21.60-21.80
20	Benzo(g,h,i) Perylene	30.000	30.559	-1.9	91	0.03	22.12-22.32

***** Signal #2 *****

1	Naphthalene	30.000	30.097	-0.3	102	0.00	3.64- 3.84
2	2-Methyl Naphthalene	30.000	30.021	-0.1	102	0.00	4.51- 4.71
3	1-Methyl Naphthalene	30.000	30.005	-0.0	104	0.00	4.65- 4.85
4 S	2-Fluorobiphenyl	30.000	30.003	-0.0	103	0.00	5.15- 5.35
5	Acenaphthylene	30.000	30.494	-1.6	104	0.00	5.86- 6.06
6	Acenaphthene	30.000	30.185	-0.6	104	0.00	6.18- 6.38
7	Fluorene	30.000	30.160	-0.5	103	0.00	7.10- 7.30
8	Phenanthrene	30.000	30.091	-0.3	103	0.00	8.86- 9.06
9	Anthracene	30.000	30.229	-0.8	102	0.00	8.96- 9.16
10 S	0-Terphenyl	30.000	30.438	-1.5	106	0.00	9.92-10.12
11	Fluoranthene	30.000	30.236	-0.8	104	0.00	11.23-11.43
12	Pyrene	30.000	29.326	2.2	104	0.00	11.62-11.82
13	Benzo(a)Anthracene	30.000	30.840	-2.8	105	0.00	14.13-14.33
14	Chrysene	30.000	29.833	0.6	105	0.00	14.20-14.40
15	Benzo(b)Fluoranthene	30.000	30.713	-2.4	106	0.00	16.20-16.40
16	Benzo(k)Fluoranthene	30.000	29.914	0.3	106	0.00	16.25-16.45
17	Benzo(a) Pyrene	30.000	30.208	-0.7	106	-0.01	16.73-16.93
18	Indeno(1,2,3-cd)pyrene	30.000	30.838	-2.8	109	0.00	18.55-18.75

Continuing Calibration Summary

Page 2 of 2

Job Number: F29116
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GLL81-CC81
Lab FileID: LL02267.D

19	Dibenzo(a,h)anthracene	30.000	30.506	-1.7	109	0.00	18.64-18.84
20	Benzo(g,h,i) Perylene	30.000	30.852	-2.8	109	0.00	18.88-19.08

(#) = Out of Range
LL02248.D 8100_H2.M

SPCC's out = 0 CCC's out = 0
Thu Jan 13 08:13:14 2005



Continuing Calibration Summary

Job Number: F29116
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GLL81-CC81
Lab FileID: LL02278.D

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Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\0111PAH\LL02278.D\FID1B.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\0111PAH\LL02278.D\FID2A.CH
Acq On : 12 Jan 2005 12:17 pm Operator: sarahm
Sample : cc81-30 Inst : FLGSLI
Misc : OP12217,GLL81,1050,,,1,1,water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
Title : PAH's BY EPA 610 OR 8100
Last Update : Wed Jan 12 13:11:26 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Naphthalene	30.000	28.555	4.8	86	0.00	4.70- 4.90
2	2-Methyl Naphthalene	30.000	28.484	5.1	86	0.00	5.62- 5.82
3	1-Methyl Naphthalene	30.000	28.525	4.9	86	0.00	5.89- 6.09
4 S	2-Fluorobiphenyl	30.000	28.441	5.2	86	0.00	6.44- 6.64
5	Acenaphthylene	30.000	29.679	1.1	88	0.00	7.61- 7.81
6	Acenaphthene	30.000	28.646	4.5	86	0.00	7.87- 8.07
7	Fluorene	30.000	28.363	5.5	85	0.00	8.81- 9.01
8	Phenanthrene	30.000	27.866	7.1	83	0.00	10.99-11.19
9	Anthracene	30.000	28.194	6.0	85	0.00	11.03-11.23
10 S	0-Terphenyl	30.000	28.356	5.5	85	0.00	11.97-12.17
11	Fluoranthene	30.000	27.916	6.9	84	0.00	13.54-13.74
12	Pyrene	30.000	27.960	6.8	84	0.00	14.13-14.33
13	Benzo(a)Anthracene	30.000	27.990	6.7	84	0.00	16.68-16.88
14	Chrysene	30.000	27.789	7.4	85	0.01	16.86-17.06
15	Benzo(b)Fluoranthene	30.000	28.590	4.7	85	0.01	18.89-19.09
16	Benzo(k)Fluoranthene	30.000	28.882	3.7	87	0.01	18.95-19.15
17	Benzo(a) Pyrene	30.000	28.896	3.7	86	0.01	19.67-19.87
18	Indeno(1,2,3-cd)pyrene	30.000	29.824	0.6	88	0.01	21.53-21.73
19	Dibenzo(a,h)anthracene	30.000	29.812	0.6	89	0.01	21.60-21.80
20	Benzo(g,h,i) Perylene	30.000	29.377	2.1	88	0.02	22.12-22.32

***** Signal #2 *****

1	Naphthalene	30.000	30.429	-1.4	104	0.00	3.64- 3.84
2	2-Methyl Naphthalene	30.000	30.275	-0.9	103	0.00	4.51- 4.71
3	1-Methyl Naphthalene	30.000	30.318	-1.1	105	0.00	4.65- 4.85
4 S	2-Fluorobiphenyl	30.000	30.221	-0.7	103	0.00	5.15- 5.35
5	Acenaphthylene	30.000	30.810	-2.7	105	0.00	5.86- 6.06
6	Acenaphthene	30.000	30.495	-1.7	105	0.00	6.18- 6.38
7	Fluorene	30.000	30.172	-0.6	103	0.00	7.10- 7.30
8	Phenanthrene	30.000	30.028	-0.1	102	0.00	8.86- 9.06
9	Anthracene	30.000	30.119	-0.4	102	0.00	8.96- 9.16
10 S	0-Terphenyl	30.000	30.977	-3.3	108	0.00	9.92-10.12
11	Fluoranthene	30.000	30.259	-0.9	104	0.00	11.23-11.43
12	Pyrene	30.000	29.379	2.1	104	0.00	11.62-11.82
13	Benzo(a)Anthracene	30.000	30.909	-3.0	105	0.00	14.13-14.33
14	Chrysene	30.000	29.611	1.3	104	0.00	14.20-14.40
15	Benzo(b)Fluoranthene	30.000	31.705	-5.7	110	0.00	16.20-16.40
16	Benzo(k)Fluoranthene	30.000	30.181	-0.6	107	0.00	16.25-16.45
17	Benzo(a) Pyrene	30.000	30.964	-3.2	109	-0.01	16.73-16.93
18	Indeno(1,2,3-cd)pyrene	30.000	33.775	-12.6	119	0.00	18.55-18.75

Continuing Calibration Summary

Page 2 of 2

Job Number: F29116
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GLL81-CC81
Lab FileID: LL02278.D

19	Dibenzo(a,h)anthracene	30.000	33.250	-10.8	118	0.00	18.64-18.84
20	Benzo(g,h,i) Perylene	30.000	33.982	-13.3	121	0.00	18.88-19.08

(#) = Out of Range
LL02248.D 8100_H2.M

SPCC's out = 0 CCC's out = 0
Thu Jan 13 08:13:15 2005



Continuing Calibration Summary

Job Number: F29116
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GLL81-CC81
Lab FileID: LL02287.D

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Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\0111PAH\LL02287.D\FID1B.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\0111PAH\LL02287.D\FID2A.CH
Acq On : 1-12-05 04:49:49 PM Operator: sarahm
Sample : cc81-30 Inst : FLGSLI
Misc : OP12200, GLL81, 1050, , , 1, 1, water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
Title : PAH's BY EPA 610 OR 8100
Last Update : Wed Jan 12 13:11:26 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Naphthalene	30.000	28.975	3.4	87	0.00	4.70- 4.90
2	2-Methyl Naphthalene	30.000	28.917	3.6	87	0.00	5.62- 5.82
3	1-Methyl Naphthalene	30.000	28.936	3.5	87	0.00	5.89- 6.09
4 S	2-Fluorobiphenyl	30.000	28.898	3.7	87	0.00	6.44- 6.64
5	Acenaphthylene	30.000	30.995	-3.3	92	0.00	7.61- 7.81
6	Acenaphthene	30.000	29.177	2.7	87	0.00	7.87- 8.07
7	Fluorene	30.000	29.054	3.2	87	0.00	8.81- 9.01
8	Phenanthrene	30.000	28.869	3.8	86	0.00	10.99-11.19
9	Anthracene	30.000	29.321	2.3	88	0.00	11.03-11.23
10 S	0-Terphenyl	30.000	29.153	2.8	87	0.00	11.97-12.17
11	Fluoranthene	30.000	29.139	2.9	87	0.01	13.54-13.74
12	Pyrene	30.000	29.198	2.7	88	0.00	14.13-14.33
13	Benzo(a)Anthracene	30.000	29.547	1.5	89	0.00	16.68-16.88
14	Chrysene	30.000	29.422	1.9	90	0.01	16.86-17.06
15	Benzo(b)Fluoranthene	30.000	30.840	-2.8	92	0.02	18.89-19.09
16	Benzo(k)Fluoranthene	30.000	30.791	-2.6	93	0.02	18.95-19.15
17	Benzo(a) Pyrene	30.000	31.736	-5.8	95	0.01	19.67-19.87
18	Indeno(1,2,3-cd)pyrene	30.000	30.552	-1.8	91	0.02	21.53-21.73
19	Dibenzo(a,h)anthracene	30.000	30.376	-1.3	91	0.02	21.60-21.80
20	Benzo(g,h,i) Perylene	30.000	30.743	-2.5	92	0.03	22.12-22.32

***** Signal #2 *****

1	Naphthalene	30.000	31.047	-3.5	106	0.00	3.64- 3.84
2	2-Methyl Naphthalene	30.000	31.184	-3.9	106	0.00	4.51- 4.71
3	1-Methyl Naphthalene	30.000	30.997	-3.3	108	0.00	4.65- 4.85
4 S	2-Fluorobiphenyl	30.000	31.201	-4.0	107	0.00	5.15- 5.35
5	Acenaphthylene	30.000	32.040	-6.8	109	0.00	5.86- 6.06
6	Acenaphthene	30.000	31.578	-5.3	108	0.00	6.18- 6.38
7	Fluorene	30.000	31.220	-4.1	107	0.00	7.10- 7.30
8	Phenanthrene	30.000	30.898	-3.0	105	0.00	8.86- 9.06
9	Anthracene	30.000	30.692	-2.3	104	0.00	8.96- 9.16
10 S	0-Terphenyl	30.000	32.308	-7.7	112	0.00	9.92-10.12
11	Fluoranthene	30.000	30.953	-3.2	107	0.00	11.23-11.43
12	Pyrene	30.000	30.092	-0.3	107	0.00	11.62-11.82
13	Benzo(a)Anthracene	30.000	31.769	-5.9	108	0.00	14.13-14.33
14	Chrysene	30.000	30.290	-1.0	107	0.00	14.20-14.40
15	Benzo(b)Fluoranthene	30.000	34.230	-14.1	118	0.00	16.20-16.40
16	Benzo(k)Fluoranthene	30.000	32.681	-8.9	116	0.00	16.25-16.45
17	Benzo(a) Pyrene	30.000	34.444	-14.8	121	-0.01	16.73-16.93
18	Indeno(1,2,3-cd)pyrene	30.000	38.214	-27.4#	135	0.00	18.55-18.75

Continuing Calibration Summary

Page 2 of 2

Job Number: F29116
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GLL81-CC81
Lab FileID: LL02287.D

19	Dibenzo(a,h)anthracene	30.000	36.923	-23.1# 132	0.00	18.64-18.84
20	Benzo(g,h,i) Perylene	30.000	37.129	-23.8# 132	0.01	18.88-19.08

(#) = Out of Range
LL02248.D 8100_H2.M

SPCC's out = 0 CCC's out = 0
Thu Jan 13 08:13:16 2005





April 2005 Groundwater Laboratory Report

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Sample Summary

EEI

Job No: F30905

Bldg. 4158/Camp Lejeune, NC
Project No: CTO-010

Sample Number	Collected Date	Time By	Received	Matrix Code Type	Client Sample ID
F30905-1	04/05/05	09:33 BS	04/07/05	AQ Ground Water	UST4158-MW01
F30905-2	04/05/05	10:10 BS	04/07/05	AQ Ground Water	UST4158-MW04
F30905-3	04/05/05	10:55 BS	04/07/05	AQ Ground Water	UST4158-MW05
F30905-4	04/05/05	13:25 BS	04/07/05	AQ Ground Water	UST4158-MW18
F30905-5	04/05/05	14:10 BS	04/07/05	AQ Ground Water	UST4158-MW17
F30905-6	04/05/05	00:00 BS	04/07/05	AQ Ground Water	UST4158-DUP
F30905-7	04/06/05	14:30 BS	04/07/05	AQ Trip Blank Water	TRIP BLANK

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: EEI

Job No: F30905

Site: Bldg. 4158/Camp Lejeune, NC

Report Date: 4/18/2005 5:10:17 PM

6 Samples and 1 Trip Blank were collected on between 04/05/2005 and 04/06/2005 and were received at Accutest on 04/07/2005 properly preserved, at 2.4 Deg. C and intact. These Samples received an Accutest job number of F30905. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GC by Method EPA 601/602

Matrix: AQ

Batch ID: GCD2455

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F31039-1MS, F31039-1MSD were used as the QC samples indicated.

Matrix: AQ

Batch ID: GQQ120

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F30905-6MS, F30905-6MSD were used as the QC samples indicated.

F30905-5: All hits confirmed by dual column analysis.

F30905-3: All hits confirmed by dual column analysis.

F30905-2: All hits confirmed by dual column analysis.

F30905-1: All hits confirmed by dual column analysis.

Extractables by GC by Method EPA 610

Matrix: AQ

Batch ID: OP12941

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F30900-2MS, F30900-2MSD were used as the QC samples indicated.

Accutest Laboratories Southeast (ALSE) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALSE and as stated on the COC. ALSE certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALSE Quality Manual except as noted above. This report is to be used in its entirety. ALSE is not responsible for any assumptions of data quality if partial data packages are used.

Narrative prepared by:

Date: April 18, 2005

Ellen Pampel, Inorganic QA (signature on file)

Monday, April 18, 2005

Report of Analysis

Page 1 of 1

Client Sample ID:	UST4158-MW01	Date Sampled:	04/05/05
Lab Sample ID:	F30905-1	Date Received:	04/07/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Bldg. 4158/Camp Lejeune, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	QQ002772.D	1	04/13/05	AL	n/a	n/a	GQQ120
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	1.6	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	1.5	3.0	1.0	ug/l	J
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	97%		59-129%
98-08-8	aaa-Trifluorotoluene	99%		73-122%

(a) All bits confirmed by dual column analysis.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID:	UST4158-MW01	Date Sampled:	04/05/05
Lab Sample ID:	F30905-1	Date Received:	04/07/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL03396.D	1	04/18/05	AA	04/08/05	OP12941	GLL135
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.8	1.9	ug/l	
120-12-7	Anthracene	ND	4.8	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	1.9	ug/l	
218-01-9	Chrysene	ND	4.8	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	1.9	ug/l	
86-73-7	Fluorene	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
91-20-3	Naphthalene	ND	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.8	1.9	ug/l	
129-00-0	Pyrene	ND	4.8	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	54%		42-123%
84-15-1	o-Terphenyl	56%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: UST4158-MW04
 Lab Sample ID: F30905-2
 Matrix: AQ - Ground Water
 Method: EPA 601/602
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 04/05/05
 Date Received: 04/07/05
 Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	QQ002773.D	1	04/13/05	AL	n/a	n/a	GQQ120
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	1.4	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	1.1	3.0	1.0	ug/l	J
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	97%		59-129%
98-08-8	aaa-Trifluorotoluene	98%		73-122%

(a) All hits confirmed by dual column analysis.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID:	UST4158-MW04	Date Sampled:	04/05/05
Lab Sample ID:	F30905-2	Date Received:	04/07/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL03384.D	1	04/16/05	AA	04/08/05	OP12941	GLL134
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.0	2.0	ug/l	
208-96-8	Acenaphthylene	ND	5.0	2.0	ug/l	
120-12-7	Anthracene	ND	5.0	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	2.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	2.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	2.0	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	2.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	2.0	ug/l	
218-01-9	Chrysene	ND	5.0	2.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	2.0	ug/l	
206-44-0	Fluoranthene	ND	5.0	2.0	ug/l	
86-73-7	Fluorene	ND	5.0	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	2.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	2.0	ug/l	
85-01-8	Phenanthrene	ND	5.0	2.0	ug/l	
129-00-0	Pyrene	ND	5.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	91%		42-123%
84-15-1	o-Terphenyl	106%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID:	UST4158-MW05	Date Sampled:	04/05/05
Lab Sample ID:	F30905-3	Date Received:	04/07/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Bldg. 4158/Camp Lejeune, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	QQ002776.D	1	04/13/05	AL	n/a	n/a	GQQ120
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	0.61	1.0	0.50	ug/l	J
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	98%		59-129%
98-08-8	aaa-Trifluorotoluene	98%		73-122%

(a) All hits confirmed by dual column analysis.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: UST4158-MW05
 Lab Sample ID: F30905-3
 Matrix: AQ - Ground Water
 Method: EPA 610 EPA 610
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 04/05/05
 Date Received: 04/07/05
 Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL03385.D	1	04/16/05	AA	04/08/05	OP12941	GLL134
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.8	1.9	ug/l	
120-12-7	Anthracene	ND	4.8	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	1.9	ug/l	
218-01-9	Chrysene	ND	4.8	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	1.9	ug/l	
86-73-7	Fluorene	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
91-20-3	Naphthalene	ND	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.8	1.9	ug/l	
129-00-0	Pyrene	ND	4.8	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	99%		42-123%
84-15-1	o-Terphenyl	109%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID:	UST4158-MW18	Date Sampled:	04/05/05
Lab Sample ID:	F30905-4	Date Received:	04/07/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Bldg. 4158/Camp Lejeune, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QQ002777.D	1	04/13/05	AL	n/a	n/a	GQQ120
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	96%		59-129%
98-08-8	aaa-Trifluorotoluene	97%		73-122%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID:	UST4158-MW18	Date Sampled:	04/05/05
Lab Sample ID:	F30905-4	Date Received:	04/07/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL03386.D	1	04/16/05	AA	04/08/05	OP12941	GLL134
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.8	1.9	ug/l	
120-12-7	Anthracene	ND	4.8	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	1.9	ug/l	
218-01-9	Chrysene	ND	4.8	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	1.9	ug/l	
86-73-7	Fluorene	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
91-20-3	Naphthalene	ND	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.8	1.9	ug/l	
129-00-0	Pyrene	ND	4.8	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	84%		42-123%
84-15-1	o-Terphenyl	99%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID:	UST4158-MW17	Date Sampled:	04/05/05
Lab Sample ID:	F30905-5	Date Received:	04/07/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Bldg. 4158/Camp Lejeune, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	QQ002778.D	1	04/13/05	AL	n/a	n/a	GQQ120
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	35.5	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	97%		59-129%
98-08-8	aaa-Trifluorotoluene	97%		73-122%

(a) All hits confirmed by dual column analysis.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID:	UST4158-MW17	Date Sampled:	04/05/05
Lab Sample ID:	F30905-5	Date Received:	04/07/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL03387.D	1	04/16/05	AA	04/08/05	OP12941	GLL134
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.8	1.9	ug/l	
120-12-7	Anthracene	ND	4.8	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	1.9	ug/l	
218-01-9	Chrysene	ND	4.8	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	1.9	ug/l	
86-73-7	Fluorene	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
91-20-3	Naphthalene	ND	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.8	1.9	ug/l	
129-00-0	Pyrene	ND	4.8	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	93%		42-123%
84-15-1	o-Terphenyl	105%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: UST4158-DUP
 Lab Sample ID: F30905-6
 Matrix: AQ - Ground Water
 Method: EPA 601/602
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 04/05/05
 Date Received: 04/07/05
 Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QQ002780.D	1	04/13/05	AL	n/a	n/a	GQQ120
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	97%		59-129%
98-08-8	aaa-Trifluorotoluene	97%		73-122%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID:	UST4158-DUP	Date Sampled:	04/05/05
Lab Sample ID:	F30905-6	Date Received:	04/07/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL03388.D	1	04/16/05	AA	04/08/05	OP12941	GLL134
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.8	1.9	ug/l	
120-12-7	Anthracene	ND	4.8	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	1.9	ug/l	
218-01-9	Chrysene	ND	4.8	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	1.9	ug/l	
86-73-7	Fluorene	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
91-20-3	Naphthalene	ND	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.8	1.9	ug/l	
129-00-0	Pyrene	ND	4.8	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	91%		42-123%
84-15-1	o-Terphenyl	106%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID:	TRIP BLANK	Date Sampled:	04/06/05
Lab Sample ID:	F30905-7	Date Received:	04/07/05
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD059583.D	1	04/15/05	AJ	n/a	n/a	GCD2455
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	89%		59-129%
98-08-8	aaa-Trifluorotoluene	104%		73-122%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody



CHAIN OF CUSTODY

4405 VINELAND ROAD • SUITE C-15
ORLANDO, FL 32811
TEL: 407-425-8700 • FAX: 407-425-0707

ACCUTEST JOB #: **F30905**
ACCUTEST QUOTE #:

CLIENT INFORMATION		FACILITY INFORMATION		ANALYTICAL INFORMATION		MATRIX CODES		
Engineering & Environment Inc. NAME 824 Gumbo Branch rd Suite 5 ADDRESS Jacksonville NC 29540 CITY, STATE ZIP SEND REPORT TO: PHONE # 910-989-3214		PROJECT NAME 816 4158 LOCATION PROJECT NO. FAX # 910-989-3214				DW - DRINKING WATER GW - GROUND WATER WW - WASTE WATER SO - SOIL SL - SLUDGE OI - OIL LIQ - OTHER LIQUID SOL - OTHER SOLID		
ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION		MATRIX	PRESERVATION	DATE	TIME	LAB USE ONLY
		DATE	TIME					
1	4158-MW01	4/15/05	9:33	85	GW	4	X	3 1
2	4158-MW04	4/15/05	10:10	85	GW	5	X	3 2
3	4158-MW05	4/15/05	10:55	85	GW	5	X	3 2
4	4158-MW14	4/15/05	13:25	85	GW	5	X	3 2
5	4158-MW17	4/15/05	14:10	85	GW	5	X	3 2
6	4158-Drop	4/15/05	-	85	GW	5	X	3 2
7	Trip blank	4/16/05	19:30	1				
DATA TURNAROUND INFORMATION		DATA DELIVERABLE INFORMATION		COMMENTS/REMARKS				
☒ STANDARD ☐ 48 HOUR RUSH ☐ 24 HOUR EMERGENCY ☐ OTHER EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED		APPROVED BY: _____ ☐ STANDARD ☐ COMMERCIAL "B" ☐ DISK DELIVERABLE ☐ STATE FORMS ☒ OTHER (SPECIFY) <u>Neesa 4</u>						
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY								
RELINQUISHED BY: 1. <u>Bob Hill</u>	DATE TIME: 4/16/05	RECEIVED BY: 1. <u>FX</u>	DATE TIME: 4-7-05	RELINQUISHED BY: 2. <u>FX</u>	DATE TIME: 4-7-05	RECEIVED BY: 2. <u>Stacy Brown</u>		
RELINQUISHED BY: 3.	DATE TIME:	RECEIVED BY: 3.	DATE TIME:	RELINQUISHED BY: 4.	DATE TIME:	RECEIVED BY: 4.		
RELINQUISHED BY: 5.	DATE TIME:	RECEIVED BY: 5.	DATE TIME:	RELINQUISHED BY:	DATE TIME:	RECEIVED BY:		
PRESERVE WHERE APPLICABLE ☐				ON ICE ☐		TEMPERATURE <u>27</u> C		

F30905: Chain of Custody
Page 1 of 2

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: F30905 CLIENT: engin. + Envt. PROJECT: BH 4158
 DATE/TIME RECEIVED: 4-7-05 / 9:00 # OF COOLERS RECEIVED: 1 COOLER TEMPS: 2.4
 METHOD OF DELIVERY: FEDER UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER
 AIRBILL NUMBERS: 848150641666

COOLER INFORMATION

- ☒ CUSTODY SEAL NOT PRESENT INTACT
- ☐ NO COC RECEIVED
- ☐ ANALYSES NOT MARKED ON COC
- ☐ ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- ☐ SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- ☐ TEMPERATURE CRITERIA NOT MET

TRIP BLANK INFORMATION

- ☐ TRIP BLANK NOT PROVIDED
- ☐ TRIP BLANK NOT ON COC
- ☒ TRIP BLANK INTACT
- ☐ TRIP BLANK NOT INTACT
- ☒ RECEIVED WATER TRIP BLANK
- ☐ RECEIVED SOIL TRIP BLANK

SAMPLE INFORMATION

- ☐ SAMPLE LABELS PRESENT ON ALL BOTTLES
- ☐ CORRECT NUMBER OF CONTAINERS USED
- ☐ SAMPLE RECEIVED IMPROPERLY PRESERVED
- ☐ INSUFFICIENT VOLUME FOR ANALYSIS
- ☐ SAMPLE RECEIVED PAST HOLD TIME
- ☐ TIMES ON COC DON'T MATCH LABEL
- ☐ ID'S ON COC DON'T MATCH LABEL
- ☐ VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- ☐ BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- ☐ NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- ☐ UNCLEAR FILTERING INSTRUCTIONS
- ☐ UNCLEAR COMPOSITING INSTRUCTIONS
- ☐ SAMPLE(S) RECEIVED BROKEN
- ☐ % SOLIDS JAR NOT RECEIVED

SOIL INFORMATION

NUMBER OF ENCORES ? 0
 NUMBER OF 5035 FIELD KITS ? 0

SUMMARY OF COMMENTS: Received only one 1 Liter Amber for sample one. (ref. 4158-mu-01)

TECHNICIAN SIGNATURE/DATE: Petera Erera / 4-7-05 TECHNICIAN SIGNATURE/DATE: W

ASBD02/04/05

GC Volatiles



QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Page 1 of 1

Job Number: F30905
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GCD2455-MB	CD059582.D1		04/15/05	AJ	n/a	n/a	GCD2455

The QC reported here applies to the following samples:

Method: EPA 601/602

F30905-7

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	88%	59-129%
98-08-8	aaa-Trifluorotoluene	105%	73-122%

Method Blank Summary

Page 1 of 1

Job Number: F30905
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GQQ120-MB	QQ002770.D1		04/13/05	AL	n/a	n/a	GQQ120

The QC reported here applies to the following samples:

Method: SW846 8021B

F30905-1, F30905-2, F30905-3, F30905-4, F30905-5, F30905-6

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	97%	59-129%
98-08-8	aaa-Trifluorotoluene	99%	73-122%

Blank Spike Summary

Page 1 of 1

Job Number: F30905
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GCD2455-BS	CD059581.D1		04/15/05	AJ	n/a	n/a	GCD2455

The QC reported here applies to the following samples:

Method: EPA 601/602

F30905-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	19.6	98	86-121
100-41-4	Ethylbenzene	20	18.7	94	81-126
1634-04-4	Methyl Tert Butyl Ether	20	20.5	103	76-117
108-88-3	Toluene	20	20.0	100	82-123
1330-20-7	Xylenes (total)	60	56.6	94	82-125

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	96%	59-129%
98-08-8	aaa-Trifluorotoluene	108%	73-122%

Blank Spike Summary

Page 1 of 1

Job Number: F30905

Account: EEINCJX EEI

Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GQQ120-BS	QQ002769.D1		04/13/05	AL	n/a	n/a	GQQ120

The QC reported here applies to the following samples:

Method: SW846 8021B

F30905-1, F30905-2, F30905-3, F30905-4, F30905-5, F30905-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	20.0	100	86-121
100-41-4	Ethylbenzene	20	20.2	101	81-126
1634-04-4	Methyl Tert Butyl Ether	20	19.9	100	76-117
108-88-3	Toluene	20	20.6	103	82-123
1330-20-7	Xylenes (total)	60	61.1	102	82-125

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	100%	59-129%
98-08-8	aaa-Trifluorotoluene	99%	73-122%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: F30905
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F30905-6MS	QQ002781.D 1		04/13/05	AL	n/a	n/a	GQQ120
F30905-6MSD	QQ002782.D 1		04/13/05	AL	n/a	n/a	GQQ120
F30905-6	QQ002780.D 1		04/13/05	AL	n/a	n/a	GQQ120

The QC reported here applies to the following samples:

Method: EPA 601/602

F30905-1, F30905-2, F30905-3, F30905-4, F30905-5, F30905-6

CAS No.	Compound	F30905-6 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	20	21.8	109	22.2	111	2	77-125/6
100-41-4	Ethylbenzene	ND	20	21.3	107	21.3	107	0	74-127/6
1634-04-4	Methyl Tert Butyl Ether	ND	20	21.9	110	21.7	109	1	66-127/9
108-88-3	Toluene	ND	20	21.7	109	21.8	109	0	77-124/5
1330-20-7	Xylenes (total)	ND	60	64.2	107	64.2	107	0	76-125/5

CAS No.	Surrogate Recoveries	MS	MSD	F30905-6	Limits
460-00-4	4-Bromofluorobenzene	99%	98%	97%	59-129%
98-08-8	aaa-Trifluorotoluene	98%	99%	97%	73-122%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: F30905
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F31039-1MS	CD059584.D 1		04/15/05	AJ	n/a	n/a	GCD2455
F31039-1MSD	CD059585.D 1		04/15/05	AJ	n/a	n/a	GCD2455
F31039-1	CD059586.D 1		04/15/05	AJ	n/a	n/a	GCD2455

The QC reported here applies to the following samples:

Method: EPA 601/602

F30905-7

CAS No.	Compound	F31039-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	1.0 U		20	19.6	98	19.6	98	0	77-125/6
100-41-4	Ethylbenzene	1.0 U		20	18.6	93	18.7	94	1	74-127/6
1634-04-4	Methyl Tert Butyl Ether	1.0 U		20	21.7	109	21.5	108	1	66-127/9
108-88-3	Toluene	1.0 U		20	20.1	101	20.0	100	0	77-124/5
1330-20-7	Xylenes (total)	3.0 U		60	56.6	94	56.7	95	0	76-125/5

CAS No.	Surrogate Recoveries	MS	MSD	F31039-1	Limits
460-00-4	4-Bromofluorobenzene	97%	95%	90%	59-129%
98-08-8	aaa-Trifluorotoluene	108%	109%	106%	73-122%

Volatile Surrogate Recovery Summary

Page 1 of 1

Job Number: F30905
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Method: EPA 601/602

Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a	S2 ^a
F30905-1	QQ002772.D	97.0	99.0
F30905-2	QQ002773.D	97.0	98.0
F30905-3	QQ002776.D	98.0	98.0
F30905-4	QQ002777.D	96.0	97.0
F30905-5	QQ002778.D	97.0	97.0
F30905-6	QQ002780.D	97.0	97.0
F30905-7	CD059583.D	89.0	104.0
F30905-6MS	QQ002781.D	99.0	98.0
F30905-6MSD	QQ002782.D	98.0	99.0
F31039-1MS	CD059584.D	97.0	108.0
F31039-1MSD	CD059585.D	95.0	109.0
GCD2455-BS	CD059581.D	96.0	108.0
GCD2455-MB	CD059582.D	88.0	105.0

Surrogate Compounds	Recovery Limits

S1 = 4-Bromofluorobenzene	59-129%

S2 = aaa-Trifluorotoluene	73-122%

(a) Recovery from GC signal #2

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F30905
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std: GQQ120-CC120	Injection Date: 04/13/05
Lab File ID: QQ002779.D	Injection Time: 19:05
Instrument ID: GCQQ	Method: EPA 601/602

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	11.18	11.22	4.98	4.98

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
F30905-6	QQ002780.D	04/13/05	19:29		11.23		4.98
F30905-6MS	QQ002781.D	04/13/05	19:54		11.22		4.98
F30905-6MSD	QQ002782.D	04/13/05	20:18		11.22		4.98
GQQ120-ECC120	QQ002784.D	04/13/05	21:08	11.18	11.22	4.98	4.98

Surrogate
Compounds

S1 = 4-Bromofluorobenzene
S2 = aaa-Trifluorotoluene

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F30905
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GCD2454-CC2425	Injection Date:	04/15/05
Lab File ID:	CD059576.D	Injection Time:	18:16
Instrument ID:	GCCD	Method:	EPA 601/602

S1^a S2^a
RT RT

Check Std	10.41	5.02

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
ZZZZZZ	CD059577.D	04/15/05	18:40	10.41	5.02
GCD2455-BS	CD059581.D	04/15/05	20:16	10.41	5.02
GCD2455-MB	CD059582.D	04/15/05	20:40	10.41	5.02
F30905-7	CD059583.D	04/15/05	21:04	10.41	5.02
F31039-1MS	CD059584.D	04/15/05	21:28	10.41	5.02
F31039-1MSD	CD059585.D	04/15/05	21:53	10.41	5.02
F31039-1	CD059586.D	04/15/05	22:17	10.41	5.02

Surrogate
Compounds

S1 = 4-Bromofluorobenzene
S2 = aaa-Trifluorotoluene

(a) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F30905
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GQQ120-ICC120	Injection Date:	04/13/05
Lab File ID:	QQ002763.D	Injection Time:	11:06
Instrument ID:	GCQQ	Method:	EPA 601/602

S1 ^a	S2 ^a
RT	RT

Check Std	11.22	4.98

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
GQQ120-BS	QQ002769.D	04/13/05	15:03	11.22	4.97
GQQ120-MB	QQ002770.D	04/13/05	15:27	11.22	4.98
ZZZZZZ	QQ002771.D	04/13/05	15:50	11.22	4.98
F30905-1	QQ002772.D	04/13/05	16:15	11.22	4.98
F30905-2	QQ002773.D	04/13/05	16:39	11.22	4.98
F30905-3	QQ002776.D	04/13/05	17:52	11.22	4.98
F30905-4	QQ002777.D	04/13/05	18:16	11.22	4.97
F30905-5	QQ002778.D	04/13/05	18:41	11.22	4.98

Surrogate Compounds

S1 = 4-Bromofluorobenzene
S2 = aaa-Trifluorotoluene

(a) Retention time from GC signal #2

Initial Calibration Summary

Page 1 of 1

Job Number: F30905
 Account: EEINCJX EEI
 Project: Bldg. 4158/Camp Lejeune, NC

Sample: GCD2425-ICC2425
 Lab FileID: CD058883.D

Response Factor Report VOA2

Method : C:\HPCHEM\1\METHODS\GCD0324.M (Chemstation Integrator)
 Title : EPA 602/80218
 Last Update : Thu Mar 24 15:49:56 2005
 Response via : Initial Calibration

Calibration Files

1 =CD058880.D 2 =CD058886.D 3 =CD058887.D 4 =CD058883.D
 5 =CD058884.D 6 =CD058885.D

	Compound	1	2	3	4	5	6	Avg	%RSD
1)	Methyl tert Butyl E	5.061	6.137	6.132	6.622	6.598	6.476	6.171	E2 9.49
2)	Di-Isopropyl ether	0.990	1.077	1.078	1.161	1.162	1.158	1.104	E3 6.28
3)	BENZENE	2.688	2.866	2.778	3.016	3.010	3.053	2.902	E3 5.11
4) S	a,a,a-TFT(S)	0.910	0.889	0.944	1.039	1.056	1.049	0.981	E3 7.68
5)	TOLUENE	4.022	3.011	2.773	2.961	2.967	2.982	3.119	E3 14.43
---- Linear regr., Force(0,0) ---- Coefficient = 0.9998									
Response Ratio = 0.00000 + 2971.24471 *A									
6)	CHLOROBENZENE	2.649	2.967	2.887	3.083	3.077	3.118	2.963	E3 5.96
7)	ETHYLBENZENE	2.755	2.631	2.556	2.686	2.664	2.687	2.663	E3 2.49
8)	m,p-XYLENE	3.375	2.956	2.907	2.986	2.947	2.957	3.021	E3 5.80
9)	o-XYLENE	2.809	2.696	2.733	2.752	2.715	2.714	2.737	E3 1.47
10) S	BFB(S)	2.668	2.721	3.063	3.167	3.232	3.249	3.017	E3 8.57
11)	1,3-DICHLOROBENZENE	2.460	2.721	2.650	2.696	2.706	2.704	2.656	E3 3.73
12)	1,4-DICHLOROBENZENE	2.696	3.012	2.929	2.968	2.980	3.005	2.932	E3 4.06
13)	1,2-DICHLOROBENZENE	1.977	2.191	2.152	2.148	2.143	2.137	2.124	E3 3.52

Signal #2

1)	Methyl tert Butyl E	6.026	6.985	7.075	6.970	6.725	6.641	6.737	E2 5.73
2)	Di-Isopropyl ether	1.076	1.196	1.195	1.142	1.114	1.101	1.137	E3 4.39
3)	BENZENE	3.052	3.317	3.151	3.006	2.954	2.995	3.079	E3 4.37
4) S	a,a,a-TFT(S)	0.967	0.975	1.003	1.006	1.016	1.014	0.997	E3 2.07
5)	TOLUENE	4.697	3.607	3.167	3.051	2.994	3.030	3.424	E3 19.36
---- Linear regr., Force(0,0) ---- Coefficient = 0.9999									
Response Ratio = 0.00000 + 3025.69850 *A									
6)	CHLOROBENZENE	3.037	3.616	3.329	3.253	3.234	3.219	3.281	E3 5.80
7)	ETHYLBENZENE	3.353	3.233	2.924	2.836	2.790	2.838	2.996	E3 7.92
8)	m,p-XYLENE	4.011	3.523	3.115	3.050	3.056	3.078	3.305	E3 11.80
---- Linear regr., Force(0,0) ---- Coefficient = 0.9999									
Response Ratio = 0.00000 + 3070.55342 *A									
9)	o-XYLENE	3.405	3.242	2.933	2.844	2.776	2.816	3.003	E3 8.63
10) S	BFB(S)	3.190	3.289	3.418	3.464	3.499	3.564	3.404	E3 4.09
11)	1,3-DICHLOROBENZENE	2.943	3.305	2.985	2.932	2.898	2.928	2.999	E3 5.09
12)	1,4-DICHLOROBENZENE	3.322	3.653	3.243	3.190	3.203	3.269	3.313	E3 5.22
13)	1,2-DICHLOROBENZENE	2.317	2.669	2.355	2.323	2.305	2.304	2.379	E3 6.02

(#) = Out of Range

GCD0324.M

Fri Mar 25 13:09:30 2005

Initial Calibration Verification

Page 1 of 2

Job Number: F30905
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GCD2425-ICV2425
Lab FileID: CD058888.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\032405\CD058888.D\FID1A.CH Vial: 1
Signal #2 : C:\HPCHEM\1\DATA\032405\CD058888.D\FID2B.CH
Acq On : 24 Mar 2005 4:04 pm Operator: albertj
Sample : icv2425-20 Inst : VOA2
Misc : gc4718,gcd2425,,,,, Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E

Method : C:\HPCHEM\1\METHODS\GCD0324.M (Chemstation Integrator)
Title : EPA 602/8021B
Last Update : Thu Mar 24 15:49:56 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Methyl tert Butyl EtHe	20.000	19.246	3.8	97	0.00	2.90- 3.30
2	Di-Isopropyl ether	20.000	19.375	3.1	99	0.00	3.44- 3.74
3	BENZENE	20.000	18.420	7.9	96	0.00	4.75- 5.05
4 S	a,a,a-TFT(S)	20.000	20.578	-2.9	107	0.00	5.79- 6.09
----- Amount Calc. %Drift -----							
5	TOLUENE	20.000	18.276	8.6	98	0.01	7.20- 7.50
----- Amount Calc. %Drift -----							
6	CHLOROBENZENE	20.000	19.800	1.0	102	0.01	9.00- 9.30
7	ETHYLBENZENE	20.000	18.738	6.3	98	0.01	9.35- 9.65
8	m,p-XYLENE	40.000	36.923	7.7	96	0.01	9.65- 9.95
9	o-XYLENE	20.000	18.856	5.7	94	0.01	10.19-10.49
10 S	BFB(S)	20.000	20.702	-3.5	102	0.00	10.74-11.04
11	1,3-DICHLOROBENZENE	20.000	20.153	-0.8	101	0.01	12.65-12.85
12	1,4-DICHLOROBENZENE	20.000	18.737	6.3	94	0.01	12.76-12.96
13	1,2-DICHLOROBENZENE	20.000	20.015	-0.1	99	0.01	13.22-13.52

***** Signal #2 *****

1	Methyl tert Butyl EtHe	20.000	20.096	-0.5	96	0.00	2.40- 2.80
2	Di-Isopropyl ether	20.000	20.621	-3.1	98	0.00	2.95- 3.25
3	BENZENE	20.000	19.043	4.8	93	0.00	4.13- 4.43
4 S	a,a,a-TFT(S)	20.000	21.159	-5.8	105	0.00	4.86- 5.16
----- Amount Calc. %Drift -----							
5	TOLUENE	20.000	19.923	0.4	95	0.00	6.66- 6.96
----- Amount Calc. %Drift -----							
6	CHLOROBENZENE	20.000	20.050	-0.3	99	0.00	8.49- 8.79
7	ETHYLBENZENE	20.000	18.580	7.1	95	0.00	8.94- 9.24
----- Amount Calc. %Drift -----							
8	m,p-XYLENE	40.000	38.135	4.7	94	0.00	9.24- 9.54
----- Amount Calc. %Drift -----							
9	o-XYLENE	20.000	18.225	8.9	93	0.00	9.77-10.07
10 S	BFB(S)	20.000	20.234	-1.2	101	0.00	10.24-10.54
11	1,3-DICHLOROBENZENE	20.000	19.589	2.1	98	0.00	12.38-12.58
12	1,4-DICHLOROBENZENE	20.000	18.377	8.1	94	0.01	12.46-12.66
13	1,2-DICHLOROBENZENE	20.000	19.627	1.9	99	0.01	12.92-13.16

Initial Calibration Verification

Job Number: F30905
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GCD2425-ICV2425
Lab FileID: CD058888.D

Page 2 of 2

(#) = Out of Range
CD058887.D GCD0324.M

SPCC's out = 0 CCC's out = 0
Fri Mar 25 13:10:05 2005

5.6



Continuing Calibration Summary

Page 1 of 2

Job Number: F30905
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GCD2454-CC2425
Lab FileID: CD059576.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\041505\CD059576.D\FID1A.CH Vial: 22
Signal #2 : C:\HPCHEM\1\DATA\041505\CD059576.D\FID2B.CH
Acq On : 15 Apr 2005 6:16 pm Operator: albertj
Sample : CC2425-20 Inst : VOA2
Misc : gc4824,gcd2454,,,, Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E

Method : C:\HPCHEM\1\METHODS\GCD0324.M (Chemstation Integrator)
Title : EPA 602/8021B
Last Update : Thu Mar 24 15:49:56 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Methyl tert Butyl EtHe	20.000	20.888	-4.4	105	0.00	2.90- 3.30
2	Di-Isopropyl ether	20.000	19.649	1.8	101	0.00	3.44- 3.74
3	BENZENE	20.000	19.617	1.9	102	0.00	4.75- 5.05
4 S	a,a,a-TFT(S)	20.000	20.933	-4.7	109	0.00	5.79- 6.09
----- Amount Calc. %Drift -----							
5	TOLUENE	20.000	18.802	6.0	101	0.01	7.20- 7.50
----- Amount Calc. %Drift -----							
6	CHLOROBENZENE	20.000	19.819	0.9	102	0.02	9.00- 9.30
7	ETHYLBENZENE	20.000	18.896	5.5	98	0.01	9.35- 9.65
8	m,p-XYLENE	40.000	36.971	7.6	96	0.01	9.65- 9.95
9	o-XYLENE	20.000	19.163	4.2	96	0.01	10.19-10.49
10 S	BF8(S)	20.000	18.466	7.7	91	0.01	10.74-11.04
11	1,3-DICHLOROBENZENE	20.000	18.815	5.9	94	0.01	12.65-12.85
12	1,4-DICHLOROBENZENE	20.000	18.821	5.9	94	0.01	12.76-12.96
13	1,2-DICHLOROBENZENE	20.000	19.060	4.7	94	0.01	13.22-13.52

***** Signal #2 *****

1	Methyl tert Butyl EtHe	20.000	21.453	-7.3	102	0.00	2.40- 2.80
2	Di-Isopropyl ether	20.000	20.547	-2.7	98	0.00	2.95- 3.25
3	BENZENE	20.000	20.188	-0.9	99	0.00	4.13- 4.43
4 S	a,a,a-TFT(S)	20.000	21.575	-7.9	107	0.00	4.86- 5.16
----- Amount Calc. %Drift -----							
5	TOLUENE	20.000	20.799	-4.0	99	0.00	6.66- 6.96
----- Amount Calc. %Drift -----							
6	CHLOROBENZENE	20.000	20.479	-2.4	101	0.01	8.49- 8.79
7	ETHYLBENZENE	20.000	19.399	3.0	99	0.01	8.94- 9.24
----- Amount Calc. %Drift -----							
8	m,p-XYLENE	40.000	39.855	0.4	98	0.01	9.24- 9.54
----- Amount Calc. %Drift -----							
9	o-XYLENE	20.000	19.404	3.0	99	0.01	9.77-10.07
10 S	BFB(S)	20.000	19.049	4.8	95	0.01	10.24-10.54
11	1,3-DICHLOROBENZENE	20.000	19.339	3.3	97	0.01	12.38-12.58
12	1,4-DICHLOROBENZENE	20.000	19.019	4.9	97	0.01	12.46-12.66
13	1,2-DICHLOROBENZENE	20.000	19.545	2.3	99	0.01	12.92-13.16

Continuing Calibration Summary

Page 2 of 2

Job Number: F30905
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GCD2454-CC2425
Lab FileID: CD059576.D

(#) = Out of Range
CD058887.D GCD0324.M

SPCC's out = 0 CCC's out = 0
Mon Apr 18 08:24:16 2005

5.6
5

Continuing Calibration Summary

Page 1 of 2

Job Number: F30905
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GCD2455-CC2425
Lab FileID: CD059587.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\041505\CD059587.D\FID1A.CH Vial: 32
Signal #2 : C:\HPCHEM\1\DATA\041505\CD059587.D\FID2B.CH
Acq On : 15 Apr 2005 10:41 pm Operator: albertj
Sample : CC2425-40 Inst : VOA2
Misc : gc4825,gcd2455,,,,, Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E

Method : C:\HPCHEM\1\METHODS\GCD0324.M (Chemstation Integrator)
Title : EPA 602/8021B
Last Update : Thu Mar 24 15:49:56 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Methyl tert Butyl EtHe	40.000	44.338	-10.8	103	0.00	2.90- 3.30
2	Di-Isopropyl ether	40.000	42.455	-6.1	101	0.00	3.44- 3.74
3	BENZENE	40.000	43.064	-7.7	104	0.01	4.75- 5.05
4 S	a,a,a-TFT(S)	20.000	23.061	-15.3#	109	0.01	5.79- 6.09
----- Amount Calc. %Drift -----							
5	TOLUENE	40.000	41.633	-4.1	104	0.01	7.20- 7.50
----- Amount Calc. %Drift -----							
6	CHLOROBENZENE	40.000	44.206	-10.5	106	0.01	9.00- 9.30
7	ETHYLBENZENE	40.000	42.350	-5.9	105	0.01	9.35- 9.65
8	m,p-XYLENE	80.000	82.316	-2.9	104	0.01	9.65- 9.95
9	o-XYLENE	40.000	42.417	-6.0	105	0.01	10.19-10.49
10 S	BFB(S)	20.000	20.715	-3.6	99	0.01	10.74-11.04
11	1,3-DICHLOROBENZENE	40.000	42.290	-5.7	104	0.02	12.65-12.85
12	1,4-DICHLOROBENZENE	40.000	42.854	-7.1	106	0.02	12.76-12.96
13	1,2-DICHLOROBENZENE	40.000	43.417	-8.5	107	0.01	13.22-13.52

***** Signal #2 *****

1	Methyl tert Butyl EtHe	40.000	43.824	-9.6	106	0.00	2.40- 2.80
2	Di-Isopropyl ether	40.000	41.410	-3.5	103	0.00	2.95- 3.25
3	BENZENE	40.000	40.182	-0.5	103	0.00	4.13- 4.43
4 S	a,a,a-TFT(S)	20.000	22.024	-10.1	109	0.01	4.86- 5.16
----- Amount Calc. %Drift -----							
5	TOLUENE	40.000	41.562	-3.9	103	0.01	6.66- 6.96
----- Amount Calc. %Drift -----							
6	CHLOROBENZENE	40.000	41.151	-2.9	104	0.02	8.49- 8.79
7	ETHYLBENZENE	40.000	39.134	2.2	103	0.02	8.94- 9.24
----- Amount Calc. %Drift -----							
8	m,p-XYLENE	80.000	82.044	-2.6	103	0.02	9.24- 9.54
----- Amount Calc. %Drift -----							
9	o-XYLENE	40.000	39.229	1.9	104	0.02	9.77-10.07
10 S	BFB(S)	20.000	19.694	1.5	97	0.02	10.24-10.54
11	1,3-DICHLOROBENZENE	40.000	40.028	-0.1	102	0.02	12.38-12.58
12	1,4-DICHLOROBENZENE	40.000	40.021	-0.1	104	0.02	12.46-12.66
13	1,2-DICHLOROBENZENE	40.000	40.965	-2.4	105	0.02	12.92-13.16

Continuing Calibration Summary

Page 2 of 2

Job Number: F30905
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GCD2455-CC2425
Lab FileID: CD059587.D

(#) = Out of Range
CD058883.D GCD0324.M

SPCC's out = 0 CCC's out = 0
Mon Apr 18 08:23:45 2005

5.5



Initial Calibration Summary

Page 1 of 2

Job Number: F30905
 Account: EEINCJX EEI
 Project: Bldg. 4158/Camp Lejeune, NC

Sample: GQQ120-ICC120
 Lab FileID: QQ002763.D

Response Factor Report VOA7

Method : C:\MSDCHEM\2\METHODS\DUALL0404.M (Chemstation Integrator)
 Title : EPA 602 & 5030B/8021B
 Last Update : Wed Apr 13 13:50:03 2005
 Response via : Initial Calibration

Calibration Files

1 =QQ002761.D 5 =QQ002762.D 20 =QQ002763.D 40 =QQ002764.D
 70 =QQ002765.D 100 =QQ002766.D

	Compound	1	5	20	40	70	100	Avg	%RSD
1)	Methyl tert Butyl E	1.477	0.892	1.026	1.028	1.015	1.029	1.078 E3	18.81
	---- Linear regr., Force(0,0) ----	Coefficient = 0.9998							
	Response Ratio = 0.00000 + 1024.31040 *A								
2)	Di-Isopropyl ether	2.138	1.877	2.179	2.239	2.187	2.190	2.135 E3	6.10
3)	Benzene	4.969	4.172	4.565	4.643	4.482	4.404	4.539 E3	5.85
4) S	a,a,a-TFT(S)	1.134	1.077	1.066	1.063	1.039	1.033	1.069 E3	3.39
5)	Toluene	3.417	2.877	3.292	3.391	3.315	3.289	3.264 E3	6.02
6)	Chlorobenzene	2.775	2.597	2.996	3.099	3.055	3.016	2.923 E3	6.68
7)	Ethylbenzene	2.899	2.225	2.563	2.641	2.599	2.570	2.583 E3	8.34
8)	m,p-Xylene	3.121	2.403	2.752	2.843	2.799	2.753	2.779 E3	8.27
9)	o-Xylene	3.140	2.587	2.946	3.018	2.957	2.940	2.931 E3	6.30
10) S	BFB(S)	3.044	3.101	3.167	3.137	3.164	3.247	3.143 E3	2.17
11)	1,3-Dichlorobenzene	4.499	3.666	4.184	4.363	4.284	4.241	4.206 E3	6.80
12)	1,4-Dichlorobenzene	4.607	4.100	4.679	4.902	4.838	4.792	4.653 E3	6.26
13)	1,2-Dichlorobenzene	4.321	3.567	4.204	4.290	4.185	4.250	4.136 E3	6.85

Signal #2

1)	Methyl tert Butyl E	1.299	0.896	1.028	1.031	1.016	1.031	1.050 E3	12.65
	---- Linear regr., Force(0,0) ----	Coefficient = 0.9998							
	Response Ratio = 0.00000 + 1026.17830 *A								
2)	Di-Isopropyl ether	2.142	1.189	1.286	1.298	1.270	1.271	1.409 E3	25.61
	---- Linear regr., Force(0,0) ----	Coefficient = 0.9999							
	Response Ratio = 0.00000 + 1273.28140 *A								
3)	Benzene	4.767	3.911	4.385	4.500	4.349	4.295	4.368 E3	6.41
4) S	a,a,a-TFT(S)	1.077	1.031	1.025	1.020	1.004	0.991	1.025 E3	2.87
5)	Toluene	3.191	2.752	3.183	3.266	3.215	3.177	3.131 E3	6.01
6)	Chlorobenzene	2.617	2.489	2.889	2.991	2.982	2.945	2.819 E3	7.55
7)	Ethylbenzene	2.785	2.181	2.517	2.580	2.551	2.525	2.523 E3	7.72
8)	m,p-Xylene	3.031	2.395	2.782	2.856	2.827	2.803	2.782 E3	7.54
9)	o-Xylene	2.640	2.238	2.568	2.642	2.619	2.612	2.553 E3	6.14
10) S	BFB(S)	2.947	2.993	3.040	3.055	3.029	3.076	3.023 E3	1.54
11)	1,3-Dichlorobenzene	3.117	3.306	3.888	4.071	3.998	4.008	3.732 E3	11.03
	---- Linear regr., Force(0,0) ----	Coefficient = 0.9999							
	Response Ratio = 0.00000 + 4007.56265 *A								
12)	1,4-Dichlorobenzene	3.477	3.768	4.409	4.578	4.551	4.557	4.223 E3	11.32
	---- Linear regr., Force(0,0) ----	Coefficient = 0.9999							
	Response Ratio = 0.00000 + 4552.57519 *A								
13)	1,2-Dichlorobenzene	4.574	3.491	4.068	4.210	4.216	4.229	4.131 E3	8.61

(#) = Out of Range

Initial Calibration Summary

Page 2 of 2

Job Number: F30905
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GQQ120-ICC120
Lab FileID: QQ002763.D

DUAL0404.M

Thu Apr 14 11:07:55 2005 GCHH

5.6
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Continuing Calibration Summary

Page 1 of 2

Job Number: F30905
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GQQ120-CC120
Lab FileID: QQ002779.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\2\DATA\041305\QQ002779.D\ELC1A.CH Vial: 18
Signal #2 : C:\MSDCHEM\2\DATA\041305\QQ002779.D\ELC2B.CH
Acq On : 4-13-05 07:05:26 PM Operator: AliciaL
Sample : cc120-40 Inst : VOA7
Misc : gc4813,gqq120,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\2\METHODS\DUAL0404.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Wed Apr 13 13:50:03 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1 Methyl tert Butyl EtHe	40.000	41.398	-3.5	103	0.00	2.33- 2.53
2 Di-Isopropyl ether	40.000	41.696	-4.2	99	0.00	2.69- 2.89
3 Benzene	40.000	39.876	0.3	97	0.00	3.79- 3.99
4 S a,a,a-TFT(S)	20.000	19.638	1.8	99	0.00	4.88- 5.08
5 Toluene	40.000	41.062	-2.7	99	0.00	6.48- 6.68
6 Chlorobenzene	40.000	42.082	-5.2	99	0.00	8.83- 9.03
7 Ethylbenzene	40.000	40.300	-0.7	99	0.00	9.36- 9.56
8 m,p-Xylene	80.000	81.121	-1.4	99	0.00	9.80-10.00
9 o-Xylene	40.000	40.993	-2.5	100	0.00	10.49-10.69
10 S BFB(S)	20.000	19.998	0.0	100	0.00	11.08-11.28
11 1,3-Dichlorobenzene	40.000	40.753	-1.9	98	0.00	12.71-12.91
12 1,4-Dichlorobenzene	40.000	41.656	-4.1	99	0.00	12.79-12.99
13 1,2-Dichlorobenzene	40.000	41.374	-3.4	100	0.00	13.12-13.32

***** Signal #2 *****

1 Methyl tert Butyl EtHe	40.000	41.455	-3.6	103	0.00	2.22- 2.42
2 Di-Isopropyl ether	40.000	41.141	-2.9	101	0.00	2.54- 2.74
3 Benzene	40.000	40.287	-0.7	98	0.00	3.70- 3.90
4 S a,a,a-TFT(S)	20.000	19.705	1.5	99	0.00	4.87- 5.07
5 Toluene	40.000	41.258	-3.1	99	0.00	6.26- 6.46
6 Chlorobenzene	40.000	42.195	-5.5	99	0.00	8.80- 9.00
7 Ethylbenzene	40.000	40.660	-1.6	99	0.00	9.11- 9.31
8 m,p-Xylene	80.000	81.266	-1.6	99	0.00	9.38- 9.58
9 o-Xylene	40.000	41.245	-3.1	100	0.00	10.19-10.39
10 S BFB(S)	20.000	19.879	0.6	98	0.00	11.12-11.32
11 1,3-Dichlorobenzene	40.000	40.312	-0.8	99	0.00	12.64-12.84
12 1,4-Dichlorobenzene	40.000	39.868	0.3	99	0.00	12.75-12.95
13 1,2-Dichlorobenzene	40.000	40.744	-1.9	100	0.00	13.13-13.33

Continuing Calibration Summary

Page 2 of 2

Job Number: F30905
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GQQ120-CC120
Lab FileID: QQ002779.D

(#) = Out of Range
QQ002764.D DUAL0404.M

SPCC's out = 0 CCC's out = 0
Thu Apr 14 09:37:26 2005 GCHH



Continuing Calibration Summary

Page 1 of 2

Job Number: F30905
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GQQ120-ECC120
Lab FileID: QQ002784.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\2\DATA\041305\QQ002784.D\ELC1A.CH Vial: 22
Signal #2 : C:\MSDCHEM\2\DATA\041305\QQ002784.D\ELC2B.CH
Acq On : 4-13-05 09:08:33 PM Operator: AliciaL
Sample : ecc120-20 Inst : VOA7
Misc : gc4813,gqq120,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\2\METHODS\DUAL0404.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Wed Apr 13 13:50:03 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

Compound		Amount	Calc.	%Drift	Area%	Dev(min)	RT Window

1	Methyl tert Butyl EtHe	20.000	20.466	-2.3	102	0.00	2.33- 2.53

2	Di-Isopropyl ether	20.000	20.539	-2.7	101	0.00	2.69- 2.89
3	Benzene	20.000	20.306	-1.5	101	0.00	3.79- 3.99
4 S	a,a,a-TFT(S)	20.000	19.549	2.3	98	0.00	4.88- 5.08
5	Toluene	20.000	20.385	-1.9	101	0.00	6.48- 6.68
6	Chlorobenzene	20.000	20.637	-3.2	101	0.00	8.83- 9.03
7	Ethylbenzene	20.000	19.954	0.2	101	0.00	9.36- 9.56
8	m,p-Xylene	40.000	40.146	-0.4	101	0.00	9.80-10.00
9	o-Xylene	20.000	20.181	-0.9	100	0.00	10.49-10.69
10 S	BFB(S)	20.000	19.693	1.5	98	0.00	11.08-11.28
11	1,3-Dichlorobenzene	20.000	19.909	0.5	100	0.00	12.71-12.91
12	1,4-Dichlorobenzene	20.000	20.187	-0.9	100	0.00	12.79-12.99
13	1,2-Dichlorobenzene	20.000	20.290	-1.4	100	0.00	13.12-13.32
***** Signal #2 *****							

1	Methyl tert Butyl EtHe	20.000	20.429	-2.1	102	0.00	2.22- 2.42
2	Di-Isopropyl ether	20.000	20.699	-3.5	102	0.00	2.54- 2.74

3	Benzene	20.000	20.256	-1.3	101	0.00	3.70- 3.90
4 S	a,a,a-TFT(S)	20.000	19.579	2.1	98	0.00	4.87- 5.07
5	Toluene	20.000	20.287	-1.4	100	0.00	6.26- 6.46
6	Chlorobenzene	20.000	20.584	-2.9	100	0.00	8.80- 9.00
7	Ethylbenzene	20.000	19.992	0.0	100	0.00	9.11- 9.31
8	m,p-Xylene	40.000	39.942	0.1	100	0.00	9.38- 9.58
9	o-Xylene	20.000	20.127	-0.6	100	0.00	10.19-10.39
10 S	BFB(S)	20.000	19.684	1.6	98	0.00	11.12-11.32

11	1,3-Dichlorobenzene	20.000	19.408	3.0	100	0.00	12.64-12.84
12	1,4-Dichlorobenzene	20.000	19.506	2.5	101	0.00	12.75-12.95

13	1,2-Dichlorobenzene	20.000	19.554	2.2	99	0.00	13.13-13.33

Continuing Calibration Summary

Page 2 of 2

Job Number: F30905
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GQQ120-ECC120
Lab FileID: QQ002784.D

(#) = Out of Range
QQ002763.D DUAL0404.M

SPCC's out = 0 CCC's out = 0
Thu Apr 14 09:36:56 2005 GCHH

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GC Semi-volatiles



QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Page 1 of 1

Job Number: F30905
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12941-MB	LL03374.D	1	04/15/05	AA	04/08/05	OP12941	GLL134

The QC reported here applies to the following samples:

Method: EPA 610

F30905-1, F30905-2, F30905-3, F30905-4, F30905-5, F30905-6

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.0	2.0	ug/l	
208-96-8	Acenaphthylene	ND	5.0	2.0	ug/l	
120-12-7	Anthracene	ND	5.0	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	2.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	2.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	2.0	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	2.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	2.0	ug/l	
218-01-9	Chrysene	ND	5.0	2.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	2.0	ug/l	
206-44-0	Fluoranthene	ND	5.0	2.0	ug/l	
86-73-7	Fluorene	ND	5.0	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	2.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	2.0	ug/l	
85-01-8	Phenanthrene	ND	5.0	2.0	ug/l	
129-00-0	Pyrene	ND	5.0	2.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
321-60-8	2-Fluorobiphenyl	83%	42-123%
84-15-1	o-Terphenyl	96%	51-123%

Method Blank Summary

Page 1 of 1

Job Number: F30905
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12941-MB	LL03395.D	1	04/18/05	AA	04/08/05	OP12941	GLL135

The QC reported here applies to the following samples:

Method: EPA 610

F30905-1, F30905-2, F30905-3, F30905-4, F30905-5, F30905-6

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.0	2.0	ug/l	
208-96-8	Acenaphthylene	ND	5.0	2.0	ug/l	
120-12-7	Anthracene	ND	5.0	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	2.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	2.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	2.0	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	2.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	2.0	ug/l	
218-01-9	Chrysene	ND	5.0	2.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	2.0	ug/l	
206-44-0	Fluoranthene	ND	5.0	2.0	ug/l	
86-73-7	Fluorene	ND	5.0	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	2.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	2.0	ug/l	
85-01-8	Phenanthrene	ND	5.0	2.0	ug/l	
129-00-0	Pyrene	ND	5.0	2.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
321-60-8	2-Fluorobiphenyl	83%	42-123%
84-15-1	o-Terphenyl	96%	51-123%

Blank Spike Summary

Page 1 of 1

Job Number: F30905
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12941-BS	LL03373.D	1	04/15/05	AA	04/08/05	OP12941	GLL134

The QC reported here applies to the following samples:

Method: EPA 610

F30905-1, F30905-2, F30905-3, F30905-4, F30905-5, F30905-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	25	22.2	89	71-113
208-96-8	Acenaphthylene	25	22.7	91	63-102
120-12-7	Anthracene	25	21.6	86	71-110
56-55-3	Benzo(a)anthracene	25	20.7	83	70-114
50-32-8	Benzo(a)pyrene	25	22.0	88	67-114
205-99-2	Benzo(b)fluoranthene	25	23.6	94	69-115
191-24-2	Benzo(g,h,i)perylene	25	20.2	81	61-117
207-08-9	Benzo(k)fluoranthene	25	21.8	87	69-111
218-01-9	Chrysene	25	20.9	84	70-114
53-70-3	Dihenzo(a,h)anthracene	25	20.7	83	64-114
206-44-0	Fluoranthene	25	21.8	87	71-114
86-73-7	Fluorene	25	22.4	90	69-111
193-39-5	Indeno(1,2,3-cd)pyrene	25	20.9	84	63-112
91-20-3	Naphthalene	25	21.4	86	66-105
90-12-0	1-Methylnaphthalene	25	22.3	89	71-112
91-57-6	2-Methylnaphthalene	25	22.4	90	65-106
85-01-8	Phenanthrene	25	22.1	88	69-112
129-00-0	Pyrene	25	21.3	85	70-114

CAS No.	Surrogate Recoveries	BSP	Limits
321-60-8	2-Fluorohiphenyl	90%	42-123%
84-15-1	o-Terphenyl	96%	51-123%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: F30905
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP12941-MS	LL03377.D	1	04/15/05	AA	04/08/05	OP12941	GLL134
OP12941-MSD	LL03378.D	1	04/15/05	AA	04/08/05	OP12941	GLL134
F30900-2	LL03376.D	1	04/15/05	AA	04/08/05	OP12941	GLL134

The QC reported here applies to the following samples:

Method: EPA 610

F30905-1, F30905-2, F30905-3, F30905-4, F30905-5, F30905-6

CAS No.	Compound	F30900-2 ug/l	Spike Q	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND	48.1	48.4	101	46.6	97	4	59-123/20
208-96-8	Acenaphthylene	ND	48.1	50.4	105	48.7	101	3	51-114/20
120-12-7	Anthracene	ND	48.1	49.4	103	46.9	98	5	64-114/17
56-55-3	Benzo(a)anthracene	ND	48.1	49.3	103	46.2	96	6	66-115/17
50-32-8	Benzo(a)pyrene	ND	48.1	50.5	105	47.9	100	5	62-118/17
205-99-2	Benzo(b)fluoranthene	ND	48.1	54.2	113	51.1	106	6	66-117/17
191-24-2	Benzo(g,h,i)perylene	ND	48.1	48.7	101	45.3	94	7	59-120/17
207-08-9	Benzo(k)fluoranthene	ND	48.1	50.8	106	48.1	100	5	64-116/16
218-01-9	Chrysene	ND	48.1	49.2	102	46.0	96	7	66-117/16
53-70-3	Dibenzo(a,h)anthracene	ND	48.1	50.3	105	47.0	98	7	57-124/18
206-44-0	Fluoranthene	ND	48.1	50.4	105	47.2	98	7	67-116/17
86-73-7	Fluorene	ND	48.1	50.1	104	48.2	100	4	58-122/19
193-39-5	Indeno(1,2,3-cd)pyrene	ND	48.1	49.9	104	46.7	97	7	59-116/18
91-20-3	Naphthalene	ND	48.1	47.3	98	45.5	95	4	47-114/20
90-12-0	1-Methylnaphthalene	ND	48.1	47.9	100	46.2	96	4	55-128/21
91-57-6	2-Methylnaphthalene	ND	48.1	48.2	100	46.5	97	4	51-117/21
85-01-8	Phenanthrene	ND	48.1	49.9	104	47.6	99	5	63-116/18
129-00-0	Pyrene	ND	48.1	50.1	104	46.9	98	7	67-116/17

CAS No.	Surrogate Recoveries	MS	MSD	F30900-2	Limits
321-60-8	2-Fluorobiphenyl	99%	95%	82%	42-123%
84-15-1	o-Terphenyl	108%	102%	97%	51-123%

Semivolatile Surrogate Recovery Summary

Page 1 of 1

Job Number: F30905
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Method: EPA 610

Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a	S2 ^a
F30905-1	LL03396.D	54.0	56.0
F30905-2	LL03384.D	91.0	106.0
F30905-3	LL03385.D	99.0	109.0
F30905-4	LL03386.D	84.0	99.0
F30905-5	LL03387.D	93.0	105.0
F30905-6	LL03388.D	91.0	106.0
OP12941-BS	LL03373.D	90.0	96.0
OP12941-MB	LL03374.D	83.0	96.0
OP12941-MB	LL03395.D	83.0	96.0
OP12941-MS	LL03377.D	99.0	108.0
OP12941-MSD	LL03378.D	95.0	102.0

Surrogate Compounds	Recovery Limits

S1 = 2-Fluorobiphenyl	42-123%
S2 = o-Terphenyl	51-123%

(a) Recovery from GC signal #1

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F30905
Account: EEINCJX EE1
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GLL134-CC120	Injection Date:	04/15/05
Lab File ID:	LL03372.D	Injection Time:	19:29
Instrument ID:	GCLL	Method:	EPA 610

S1 ^a	S2 ^a
RT	RT

Check Std	6.46	11.97

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
OP12941-BS	LL03373.D	04/15/05	19:59	6.46	11.97
OP12941-MB	LL03374.D	04/15/05	20:29	6.46	11.97
ZZZZZZ	LL03375.D	04/15/05	21:00	6.46	11.97
F30900-2	LL03376.D	04/15/05	21:30	6.46	11.97
OP12941-MS	LL03377.D	04/15/05	22:00	6.46	11.97
OP12941-MSD	LL03378.D	04/15/05	22:31	6.46	11.97
ZZZZZZ	LL03379.D	04/15/05	23:01	6.46	11.97
ZZZZZZ	LL03380.D	04/15/05	23:32	6.46	11.97
ZZZZZZ	LL03381.D	04/16/05	00:02	6.46	11.97

Surrogate
Compounds

S1 = 2-Fluorobiphenyl
S2 = o-Terphenyl

(a) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F30905
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GLL134-CC120	Injection Date:	04/16/05
Lab File ID:	LL03382.D	Injection Time:	00:33
Instrument ID:	GCLL	Method:	EPA 610

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	6.46	5.57	11.97	10.42

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
F30905-2	LL03384.D	04/16/05	01:34	6.46		11.97	
F30905-3	LL03385.D	04/16/05	02:04	6.46		11.97	
F30905-4	LL03386.D	04/16/05	02:35	6.46		11.97	
F30905-5	LL03387.D	04/16/05	03:05	6.46		11.97	
F30905-6	LL03388.D	04/16/05	03:36	6.46		11.97	
ZZZZZZ	LL03389.D	04/16/05	04:06	6.46		11.97	
ZZZZZZ	LL03390.D	04/16/05	04:37	6.46		11.97	
GLL134-ECC120	LL03391.D	04/16/05	05:07	6.46	5.57	11.97	10.42

Surrogate
Compounds

S1 = 2-Fluorobiphenyl
S2 = o-Terphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F30905
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GLL135-CC120	Injection Date:	04/18/05
Lab File ID:	LL03392.D	Injection Time:	09:07
Instrument ID:	GCLL	Method:	EPA 610

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	6.46	5.56	11.97	10.41

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
OP12988-MB	LL03393.D	04/18/05	09:38	6.46		11.97	
ZZZZZZ	LL03394.D	04/18/05	10:08	6.46		11.97	
OP12941-MB	LL03395.D	04/18/05	10:39	6.46		11.97	
F30905-1	LL03396.D	04/18/05	11:09	6.46		11.97	
GLL135-ECC120	LL03397.D	04/18/05	11:39	6.46	5.56	11.97	10.41

Surrogate
Compounds

S1 = 2-Fluorobiphenyl
S2 = o-Terphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

Initial Calibration Summary

Job Number: F30905
 Account: EEINCJX EEI
 Project: Bldg. 4158/Camp Lejeune, NC

Sample: GLL120-ICC120
 Lab FileID: LL03116.D

Page 1 of 1

Response Factor Report FLGSLL

Method : C:\MSDCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
 Title : PAH's BY EPA 610 OR 8100
 Last Update : Wed Mar 23 13:32:01 2005
 Response via : Initial Calibration

Calibration Files

5 =LL03114.D 10 =LL03115.D 20 =LL03116.D 30 =LL03117.D
 40 =LL03118.D 50 =LL03119.D

	Compound	5	10	20	30	40	50	Avg	%RSD
1)	Naphthalene	2.592	2.549	2.617	2.596	2.604	2.780	2.623	E4 3.06
2)	2-Methyl Naphthalen	2.318	2.308	2.385	2.371	2.388	2.566	2.389	E4 3.90
3)	1-Methyl Naphthalen	2.371	2.361	2.431	2.419	2.441	2.626	2.442	E4 3.93
4) S	2-Fluorobiphenyl	2.175	2.141	2.195	2.183	2.196	2.360	2.208	E4 3.49
5)	Acenaphthylene	2.114	2.105	2.217	2.215	2.223	2.400	2.212	E4 4.81
6)	Acenaphthene	2.356	2.376	2.454	2.457	2.491	2.695	2.471	E4 4.90
7)	Fluorene	2.036	2.095	2.195	2.215	2.257	2.459	2.209	E4 6.65
8)	Phenanthrene	2.117	2.140	2.239	2.212	2.255	2.464	2.238	E4 5.52
9)	Anthracene	2.010	2.028	2.148	2.177	2.154	2.347	2.144	E4 5.67
10) S	0-Terphenyl	2.218	2.233	2.300	2.285	2.300	2.501	2.306	E4 4.41
11)	Fluoranthene	2.140	2.138	2.222	2.202	2.209	2.414	2.221	E4 4.56
12)	Pyrene	2.153	2.173	2.243	2.216	2.222	2.431	2.240	E4 4.44
13)	Benzo(a)Anthracene	2.218	2.216	2.256	2.202	2.220	2.428	2.257	E4 3.81
14)	Chrysene	2.415	2.335	2.344	2.261	2.275	2.482	2.352	E4 3.57
15)	Benzo(b)Fluoranthene	2.212	2.300	2.443	2.460	2.479	2.741	2.439	E4 7.42
16)	Benzo(k)Fluoranthene	2.612	2.567	2.599	2.535	2.529	2.750	2.599	E4 3.12
17)	Benzo(a) Pyrene	2.500	2.507	2.598	2.537	2.559	2.759	2.577	E4 3.74
18)	Indeno(1,2,3-cd)pyr	2.556	2.640	2.711	2.682	2.702	2.922	2.702	E4 4.51
19)	Dibenzo(a,h)anthrac	2.642	2.660	2.717	2.654	2.643	2.799	2.686	E4 2.30
20)	Benzo(g,h,i) Peryle	2.650	2.630	2.728	2.693	2.702	2.892	2.716	E4 3.44

Signal #2

1)	Naphthalene	2.488	2.443	2.539	2.484	2.568	2.827	2.558	E4 5.43
2)	2-Methyl Naphthalen	2.371	2.287	2.348	2.293	2.384	2.644	2.388	E4 5.51
3)	1-Methyl Naphthalen	2.483	2.388	2.444	2.383	2.464	2.710	2.479	E4 4.86
4) S	2-Fluorobiphenyl	2.168	2.097	2.160	2.110	2.195	2.424	2.192	E4 5.45
5)	Acenaphthylene	2.222	2.160	2.229	2.188	2.290	2.583	2.279	E4 6.82
6)	Acenaphthene	2.553	2.462	2.528	2.468	2.563	2.817	2.565	E4 5.10
7)	Fluorene	2.344	2.267	2.353	2.306	2.401	2.652	2.387	E4 5.75
8)	Phenanthrene	2.300	2.208	2.308	2.277	2.377	2.618	2.348	E4 6.10
9)	Anthracene	2.200	2.101	2.198	2.169	2.276	2.543	2.248	E4 6.92
10) S	0-Terphenyl	2.624	2.510	2.570	2.500	2.560	2.743	2.585	E4 3.47
11)	Fluoranthene	2.311	2.187	2.282	2.257	2.364	2.587	2.331	E4 5.93
12)	Pyrene	2.360	2.212	2.289	2.257	2.363	2.585	2.345	E4 5.62
13)	Benzo(a)Anthracene	2.280	2.156	2.199	2.161	2.299	2.482	2.263	E4 5.44
14)	Chrysene	2.330	2.196	2.238	2.195	2.331	2.511	2.300	E4 5.21
15)	Benzo(b)Fluoranthene	2.469	2.385	2.440	2.382	2.524	2.668	2.478	E4 4.34
16)	Benzo(k)Fluoranthene	2.523	2.421	2.415	2.360	2.456	2.614	2.465	E4 3.67
17)	Benzo(a) Pyrene	2.464	2.384	2.405	2.349	2.457	2.608	2.444	E4 3.73
18)	Indeno(1,2,3-cd)pyr	2.561	2.484	2.512	2.440	2.524	2.694	2.536	E4 3.44
19)	Dibenzo(a,h)anthrac	2.573	2.493	2.519	2.437	2.520	2.683	2.537	E4 3.30
20)	Benzo(g,h,i) Peryle	2.646	2.581	2.605	2.521	2.597	2.788	2.623	E4 3.44

(#) = Out of Range

8100_H2.M

Thu Mar 24 08:07:29 2005

Initial Calibration Verification

Page 1 of 2

Job Number: F30905
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GLL120-ICV120
Lab FileID: LL03120.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\0323PAH\LL03120.D\FID1B.CH Vial: 7
Signal #2 : C:\MSDCHEM\1\DATA\0323PAH\LL03120.D\FID2A.CH
Acq On : 3-23-05 01:52:37 PM Operator: aubrey
Sample : icv120-20 Inst : FLGSL
Misc : OP12766,GLL120,1000,,,1,1,WATER Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
Title : PAH's BY EPA 610 OR 8100
Last Update : Wed Mar 23 13:32:01 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Naphthalene	20.000	19.597	2.0	98	0.00	4.65- 4.85
2	2-Methyl Naphthalene	20.000	20.832	-4.2	104	0.00	5.57- 5.77
3	1-Methyl Naphthalene	20.000	20.471	-2.4	103	0.00	5.84- 6.04
4 S	2-Fluorobiphenyl			NA			
5	Acenaphthylene	20.000	20.554	-2.8	103	0.00	7.55- 7.75
6	Acenaphthene	20.000	19.969	0.2	101	0.00	7.81- 8.01
7	Fluorene	20.000	20.173	-0.9	102	0.00	8.74- 8.94
8	Phenanthrene	20.000	19.832	0.8	99	0.00	10.92-11.12
9	Anthracene	20.000	20.476	-2.4	102	0.00	10.96-11.16
10 S	0-Terphenyl			NA			
11	Fluoranthene	20.000	20.137	-0.7	101	0.00	13.47-13.67
12	Pyrene	20.000	20.444	-2.2	102	0.00	14.05-14.25
13	Benzo(a)Anthracene	20.000	21.754	-8.8	109	0.00	16.60-16.80
14	Chrysene	20.000	21.231	-6.2	107	0.00	16.79-16.99
15	Benzo(b)Fluoranthene	20.000	22.274	-11.4	111	0.00	18.82-19.02
16	Benzo(k)Fluoranthene	20.000	21.788	-8.9	109	0.00	18.87-19.07
17	Benzo(a) Pyrene	20.000	21.539	-7.7	107	0.00	19.59-19.79
18	Indeno(1,2,3-cd)pyrene	20.000	20.809	-4.0	104	0.00	21.45-21.65
19	Dibenzo(a,h)anthracene	20.000	20.986	-4.9	104	0.00	21.52-21.72
20	Benzo(g,h,i) Perylene	20.000	20.276	-1.4	101	0.00	22.03-22.23

***** Signal #2 *****

1	Naphthalene	20.000	20.511	-2.6	103	0.00	3.97- 4.17
2	2-Methyl Naphthalene	20.000	22.188	-10.9	113	0.00	4.90- 5.10
3	1-Methyl Naphthalene	20.000	21.633	-8.2	110	0.00	5.05- 5.25
4 S	2-Fluorobiphenyl			NA			
5	Acenaphthylene	20.000	22.132	-10.7	113	0.00	6.31- 6.51
6	Acenaphthene	20.000	21.000	-5.0	107	0.00	6.65- 6.85
7	Fluorene	20.000	21.674	-8.4	110	0.00	7.58- 7.78
8	Phenanthrene	20.000	21.284	-6.4	108	0.00	9.38- 9.58
9	Anthracene	20.000	22.086	-10.4	113	0.00	9.47- 9.67
10 S	0-Terphenyl			NA			
11	Fluoranthene	20.000	21.232	-6.2	108	0.00	11.76-11.96
12	Pyrene	20.000	21.319	-6.6	109	0.00	12.16-12.36
13	Benzo(a)Anthracene	20.000	21.115	-5.6	109	0.00	14.68-14.88
14	Chrysene	20.000	20.871	-4.4	107	0.00	14.75-14.95
15	Benzo(b)Fluoranthene	20.000	20.014	-0.1	102	0.00	16.75-16.95
16	Benzo(k)Fluoranthene	20.000	20.233	-1.2	103	0.00	16.80-17.00
17	Benzo(a) Pyrene	20.000	19.858	0.7	101	0.00	17.28-17.48
18	Indeno(1,2,3-cd)pyrene	20.000	19.584	2.1	99	0.00	19.11-19.31

Initial Calibration Verification

Page 2 of 2

Job Number: F30905
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GLL120-ICV120
Lab FileID: LL03120.D

19	Dibenzo(a,h)anthracene	20.000	19.544	2.3	98	0.00	19.20-19.40
20	Benzo(g,h,i) Perylene	20.000	19.073	4.6	96	0.00	19.46-19.66

(#) = Out of Range
LL03116.D 8100_H2.M

SPCC's out = 0 CCC's out = 0
Thu Mar 24 08:07:56 2005

Continuing Calibration Summary

Page 1 of 2

Job Number: F30905
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GLL134-CC120
Lab FileID: LL03372.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\0415PAH\LL03372.D\FID1B.CH Vial: 11
Signal #2 : C:\MSDCHEM\1\DATA\0415PAH\LL03372.D\FID2A.CH
Acq On : 4-15-05 07:29:13 PM Operator: aubrey
Sample : cc120-30 Inst : FLGSL
Misc : OP12988,GLL134,530,,,1,1,water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
Title : PAH's BY EPA 610 OR 8100
Last Update : Fri Apr 15 15:13:18 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Naphthalene	30.000	30.606	-2.0	103	0.00	4.64- 4.84
2	2-Methyl Naphthalene	30.000	30.527	-1.8	103	0.00	5.55- 5.75
3	1-Methyl Naphthalene	30.000	30.610	-2.0	103	0.00	5.82- 6.02
4 S	2-Fluorobiphenyl	30.000	30.102	-0.3	102	0.00	6.36- 6.56
5	Acenaphthylene	30.000	31.432	-4.8	105	0.00	7.52- 7.72
6	Acenaphthene	30.000	30.899	-3.0	104	0.00	7.79- 7.99
7	Fluorene	30.000	30.357	-1.2	101	0.00	8.72- 8.92
8	Phenanthrene	30.000	30.312	-1.0	102	0.00	10.90-11.10
9	Anthracene	30.000	30.345	-1.1	100	0.00	10.93-11.13
10 S	0-Terphenyl	30.000	31.649	-5.5	106	0.00	11.87-12.07
11	Fluoranthene	30.000	29.817	0.6	100	0.00	13.44-13.64
12	Pyrene	30.000	29.029	3.2	98	0.00	14.03-14.23
13	Benzo(a)Anthracene	30.000	28.248	5.8	97	0.00	16.57-16.77
14	Chrysene	30.000	28.520	4.9	99	0.00	16.76-16.96
15	Benzo(b)Fluoranthene	30.000	31.713	-5.7	105	0.00	18.79-18.99
16	Benzo(k)Fluoranthene	30.000	30.139	-0.5	103	0.00	18.84-19.04
17	Benzo(a) Pyrene	30.000	30.723	-2.4	104	0.00	19.56-19.76
18	Indeno(1,2,3-cd)pyrene	30.000	30.511	-1.7	102	0.00	21.42-21.62
19	Dibenzo(a,h)anthracene	30.000	30.439	-1.5	103	0.00	21.48-21.68
20	Benzo(g,h,i) Perylene	30.000	30.091	-0.3	101	0.00	21.99-22.19

***** Signal #2 *****

1	Naphthalene	30.000	30.978	-3.3	106	0.00	3.89- 4.09
2	2-Methyl Naphthalene	30.000	31.003	-3.3	108	0.00	4.81- 5.01
3	1-Methyl Naphthalene	30.000	29.779	0.7	103	0.00	4.96- 5.16
4 S	2-Fluorobiphenyl	30.000	29.907	0.3	104	0.00	5.47- 5.67
5	Acenaphthylene	30.000	30.065	-0.2	104	0.00	6.21- 6.41
6	Acenaphthene	30.000	28.879	3.7	100	0.00	6.55- 6.75
7	Fluorene	30.000	28.347	5.5	98	0.00	7.47- 7.67
8	Phenanthrene	30.000	27.199	9.3	93	0.00	9.26- 9.46
9	Anthracene	30.000	27.320	8.9	94	0.00	9.35- 9.55
10 S	0-Terphenyl	30.000	26.334	12.2	91	0.00	10.32-10.52
11	Fluoranthene	30.000	26.366	12.1	91	0.00	11.64-11.84
12	Pyrene	30.000	26.403	12.0	91	0.00	12.04-12.24
13	Benzo(a)Anthracene	30.000	26.417	11.9	92	0.00	14.55-14.75
14	Chrysene	30.000	26.548	11.5	93	0.00	14.63-14.83
15	Benzo(b)Fluoranthene	30.000	28.068	6.4	97	0.00	16.63-16.83
16	Benzo(k)Fluoranthene	30.000	27.935	6.9	97	0.00	16.68-16.88
17	Benzo(a) Pyrene	30.000	28.834	3.9	100	0.00	17.15-17.35
18	Indeno(1,2,3-cd)pyrene	30.000	31.403	-4.7	109	0.00	18.98-19.18

Continuing Calibration Summary

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Job Number: F30905
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GLL134-CC120
Lab FileID: LL03372.D

19	Dibenzo(a,h)anthracene	30.000	31.033	-3.4	108	0.00	19.07-19.27
20	Benzo(g,h,i) Perylene	30.000	31.540	-5.1	109	0.00	19.33-19.53

(#) = Out of Range
LL03117.D 8100_H2.M

SPCC's out = 0 CCC's out = 0
Mon Apr 18 08:29:43 2005

Continuing Calibration Summary

Job Number: F30905
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GLL134-CC120
Lab FileID: LL03382.D

Page 1 of 2

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\0415PAH\LL03382.D\FID1B.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\0415PAH\LL03382.D\FID2A.CH
Acq On : 16 Apr 2005 12:33 am Operator: aubreya
Sample : cc120-20 Inst : FLGSL
Misc : OP12941,GLL134,1040,,,1,1,water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
Title : PAH's BY EPA 610 OR 8100
Last Update : Fri Apr 15 15:13:18 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Naphthalene	20.000	22.629	-13.1	113	0.00	4.64- 4.84
2	2-Methyl Naphthalene	20.000	22.670	-13.4	114	0.00	5.55- 5.75
3	1-Methyl Naphthalene	20.000	22.693	-13.5	114	0.00	5.82- 6.02
4 S	2-Fluorobiphenyl	20.000	22.468	-12.3	113	0.00	6.36- 6.56
5	Acenaphthylene	20.000	23.588	-17.9#	118	0.00	7.52- 7.72
6	Acenaphthene	20.000	22.969	-14.8	116	0.00	7.79- 7.99
7	Fluorene	20.000	22.506	-12.5	113	0.00	8.72- 8.92
8	Phenanthrene	20.000	22.381	-11.9	112	0.00	10.90-11.10
9	Anthracene	20.000	22.430	-12.1	112	0.00	10.93-11.13
10 S	0-Terphenyl	20.000	23.518	-17.6#	118	0.00	11.87-12.07
11	Fluoranthene	20.000	22.134	-10.7	111	0.00	13.44-13.64
12	Pyrene	20.000	21.688	-8.4	108	0.00	14.03-14.23
13	Benzo(a)Anthracene	20.000	21.788	-8.9	109	0.00	16.57-16.77
14	Chrysene	20.000	22.121	-10.6	111	0.00	16.76-16.96
15	Benzo(b)Fluoranthene	20.000	24.104	-20.5#	120	0.00	18.79-18.99
16	Benzo(k)Fluoranthene	20.000	22.935	-14.7	115	0.00	18.84-19.04
17	Benzo(a) Pyrene	20.000	22.977	-14.9	114	0.00	19.56-19.76
18	Indeno(1,2,3-cd)pyrene	20.000	22.054	-10.3	110	0.00	21.42-21.62
19	Dibenzo(a,h)anthracene	20.000	22.115	-10.6	109	0.00	21.48-21.68
20	Benzo(g,h,i) Perylene	20.000	21.482	-7.4	107	0.00	21.99-22.19

***** Signal #2 *****

1	Naphthalene	20.000	21.616	-8.1	109	0.00	3.89- 4.09
2	2-Methyl Naphthalene	20.000	21.666	-8.3	110	0.00	4.81- 5.01
3	1-Methyl Naphthalene	20.000	20.848	-4.2	106	0.00	4.96- 5.16
4 S	2-Fluorobiphenyl	20.000	20.963	-4.8	106	0.00	5.47- 5.67
5	Acenaphthylene	20.000	21.490	-7.4	110	0.00	6.21- 6.41
6	Acenaphthene	20.000	20.465	-2.3	104	0.00	6.55- 6.75
7	Fluorene	20.000	20.268	-1.3	103	0.00	7.47- 7.67
8	Phenanthrene	20.000	19.588	2.1	100	0.00	9.26- 9.46
9	Anthracene	20.000	19.758	1.2	101	0.00	9.35- 9.55
10 S	0-Terphenyl	20.000	18.962	5.2	95	0.00	10.32-10.52
11	Fluoranthene	20.000	19.067	4.7	97	0.00	11.64-11.84
12	Pyrene	20.000	19.060	4.7	98	0.00	12.04-12.24
13	Benzo(a)Anthracene	20.000	19.050	4.7	98	0.00	14.55-14.75
14	Chrysene	20.000	19.114	4.4	98	0.00	14.63-14.83
15	Benzo(b)Fluoranthene	20.000	20.091	-0.5	102	0.00	16.63-16.83
16	Benzo(k)Fluoranthene	20.000	19.714	1.4	101	0.00	16.68-16.88
17	Benzo(a) Pyrene	20.000	20.307	-1.5	103	0.00	17.15-17.35
18	Indeno(1,2,3-cd)pyrene	20.000	21.342	-6.7	108	0.00	18.98-19.18

Continuing Calibration Summary

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Job Number: F30905
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GLL134-CC120
Lab FileID: LL03382.D

19	Dibenzo(a,h)anthracene	20.000	21.186	-5.9	107	0.00	19.07-19.27
20	Benzo(g,h,i) Perylene	20.000	21.361	-6.8	108	0.00	19.33-19.53

(#) = Out of Range

LL03116.D 8100_H2.M

SPCC's out = 0 CCC's out = 0
Mon Apr 18 08:29:27 2005

Continuing Calibration Summary

Page 1 of 2

Job Number: F30905
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GLL134-ECC120
Lab FileID: LL03391.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\0415PAH\LL03391.D\FID1B.CH Vial: 11
Signal #2 : C:\MSDCHEM\1\DATA\0415PAH\LL03391.D\FID2A.CH
Acq On : 4-16-05 05:07:27 AM Operator: aubrey
Sample : ecc120-30 Inst : FLGSL
Misc : OP12941,GLL134,1040,,,1,1,water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
Title : PAH's BY EPA 610 OR 8100
Last Update : Fri Apr 15 15:13:18 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Naphthalene	30.000	32.599	-8.7	110	0.00	4.64- 4.84
2	2-Methyl Naphthalene	30.000	32.822	-9.4	110	0.00	5.55- 5.75
3	1-Methyl Naphthalene	30.000	32.843	-9.5	110	0.00	5.82- 6.02
4 S	2-Fluorobiphenyl	30.000	32.398	-8.0	109	0.00	6.36- 6.56
5	Acenaphthylene	30.000	34.511	-15.0#	115	0.00	7.52- 7.72
6	Acenaphthene	30.000	33.262	-10.9	112	0.00	7.79- 7.99
7	Fluorene	30.000	33.365	-11.2	111	0.00	8.72- 8.92
8	Phenanthrene	30.000	32.702	-9.0	110	0.00	10.90-11.10
9	Anthracene	30.000	32.861	-9.5	108	0.00	10.93-11.13
10 S	0-Terphenyl	30.000	34.263	-14.2	115	0.00	11.87-12.07
11	Fluoranthene	30.000	32.559	-8.5	109	0.00	13.44-13.64
12	Pyrene	30.000	32.103	-7.0	108	0.00	14.03-14.23
13	Benzo(a)Anthracene	30.000	32.526	-8.4	111	0.00	16.57-16.77
14	Chrysene	30.000	32.632	-8.8	113	0.00	16.76-16.96
15	Benzo(b)Fluoranthene	30.000	35.323	-17.7#	117	0.00	18.79-18.99
16	Benzo(k)Fluoranthene	30.000	33.188	-10.6	113	0.00	18.84-19.04
17	Benzo(a) Pyrene	30.000	33.325	-11.1	113	0.00	19.56-19.76
18	Indeno(1,2,3-cd)pyrene	30.000	31.273	-4.2	105	0.00	21.42-21.62
19	Dibenzo(a,h)anthracene	30.000	31.343	-4.5	106	0.00	21.48-21.68
20	Benzo(g,h,i) Perylene	30.000	30.412	-1.4	102	0.00	21.99-22.19

***** Signal #2 *****

1	Naphthalene	30.000	33.176	-10.6	114	0.00	3.89- 4.09
2	2-Methyl Naphthalene	30.000	33.133	-10.4	115	0.00	4.81- 5.01
3	1-Methyl Naphthalene	30.000	32.172	-7.2	112	0.00	4.96- 5.16
4 S	2-Fluorobiphenyl	30.000	32.449	-8.2	112	0.00	5.47- 5.67
5	Acenaphthylene	30.000	33.606	-12.0	117	0.00	6.21- 6.41
6	Acenaphthene	30.000	31.871	-6.2	110	0.00	6.55- 6.75
7	Fluorene	30.000	31.912	-6.4	110	0.00	7.47- 7.67
8	Phenanthrene	30.000	31.134	-3.8	107	0.00	9.26- 9.46
9	Anthracene	30.000	31.454	-4.8	109	0.00	9.35- 9.55
10 S	0-Terphenyl	30.000	29.931	0.2	103	0.00	10.32-10.52
11	Fluoranthene	30.000	30.505	-1.7	105	0.00	11.64-11.84
12	Pyrene	30.000	30.480	-1.6	106	0.00	12.04-12.24
13	Benzo(a)Anthracene	30.000	30.894	-3.0	108	0.00	14.55-14.75
14	Chrysene	30.000	30.934	-3.1	108	0.00	14.63-14.83
15	Benzo(b)Fluoranthene	30.000	32.311	-7.7	112	0.00	16.63-16.83
16	Benzo(k)Fluoranthene	30.000	32.288	-7.6	112	0.00	16.68-16.88
17	Benzo(a) Pyrene	30.000	32.896	-9.7	114	0.00	17.15-17.35
18	Indeno(1,2,3-cd)pyrene	30.000	33.890	-13.0	117	0.00	18.98-19.18

Continuing Calibration Summary

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Job Number: F30905
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GLL134-ECC120
Lab FileID: LL03391.D

19	Dibenzo(a,h)anthracene	30.000	33.739	-12.5	117	0.00	19.07-19.27
20	Benzo(g,h,i) Perylene	30.000	33.843	-12.8	117	0.00	19.33-19.53

(#) = Out of Range
LL03117.D 8100_H2.M

SPCC's out = 0 CCC's out = 0
Mon Apr 18 08:29:44 2005

Continuing Calibration Summary

Page 1 of 2

Job Number: F30905
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GLL135-CC120
Lab FileID: LL03392.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\0418PAH\LL03392.D\FID1B.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\0418PAH\LL03392.D\FID2A.CH
Acq On : 4-18-05 09:07:48 AM Operator: aubrey
Sample : cc120-20 Inst : FLGSL
Misc : OP12988,GLL135,1000,,1,1,water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
Title : PAH's BY EPA 610 OR 8100
Last Update : Fri Apr 15 15:13:18 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Naphthalene	20.000	20.058	-0.3	101	0.00	4.64- 4.84
2	2-Methyl Naphthalene	20.000	19.957	0.2	100	0.00	5.55- 5.75
3	1-Methyl Naphthalene	20.000	20.056	-0.3	101	0.00	5.82- 6.02
4 S	2-Fluorobiphenyl	20.000	19.855	0.7	100	0.00	6.36- 6.56
5	Acenaphthylene	20.000	19.999	0.0	100	0.00	7.52- 7.72
6	Acenaphthene	20.000	20.169	-0.8	102	0.00	7.79- 7.99
7	Fluorene	20.000	19.702	1.5	99	0.00	8.72- 8.92
8	Phenanthrene	20.000	20.100	-0.5	100	0.00	10.90-11.10
9	Anthracene	20.000	19.918	0.4	99	0.00	10.93-11.13
10 S	0-Terphenyl	20.000	20.871	-4.4	105	0.00	11.87-12.07
11	Fluoranthene	20.000	19.898	0.5	99	0.00	13.44-13.64
12	Pyrene	20.000	19.346	3.3	97	0.00	14.03-14.23
13	Benzo(a)Anthracene	20.000	19.736	1.3	99	0.00	16.57-16.77
14	Chrysene	20.000	20.332	-1.7	102	0.00	16.76-16.96
15	Benzo(b)Fluoranthene	20.000	21.754	-8.8	109	0.00	18.79-18.99
16	Benzo(k)Fluoranthene	20.000	21.832	-9.2	109	0.00	18.84-19.04
17	Benzo(a) Pyrene	20.000	20.729	-3.6	103	0.00	19.56-19.76
18	Indeno(1,2,3-cd)pyrene	20.000	18.490	7.6	92	-0.01	21.42-21.62
19	Dibenzo(a,h)anthracene	20.000	19.106	4.5	94	0.00	21.48-21.68
20	Benzo(g,h,i) Perylene	20.000	18.372	8.1	91	-0.01	21.99-22.19

***** Signal #2 *****

1	Naphthalene	20.000	20.554	-2.8	104	0.00	3.89- 4.09
2	2-Methyl Naphthalene	20.000	20.275	-1.4	103	0.00	4.81- 5.01
3	1-Methyl Naphthalene	20.000	20.200	-1.0	102	0.00	4.96- 5.16
4 S	2-Fluorobiphenyl	20.000	19.839	0.8	101	0.00	5.47- 5.67
5	Acenaphthylene	20.000	20.755	-3.8	106	0.00	6.21- 6.41
6	Acenaphthene	20.000	19.885	0.6	101	0.00	6.55- 6.75
7	Fluorene	20.000	19.461	2.7	99	0.00	7.47- 7.67
8	Phenanthrene	20.000	19.030	4.8	97	0.00	9.26- 9.46
9	Anthracene	20.000	19.367	3.2	99	0.00	9.35- 9.55
10 S	0-Terphenyl	20.000	18.751	6.2	94	0.00	10.32-10.52
11	Fluoranthene	20.000	19.029	4.9	97	0.00	11.64-11.84
12	Pyrene	20.000	19.114	4.4	98	0.00	12.04-12.24
13	Benzo(a)Anthracene	20.000	19.761	1.2	102	0.00	14.55-14.75
14	Chrysene	20.000	19.833	0.8	102	0.00	14.63-14.83
15	Benzo(b)Fluoranthene	20.000	20.872	-4.4	106	0.00	16.63-16.83
16	Benzo(k)Fluoranthene	20.000	20.787	-3.9	106	0.00	16.68-16.88
17	Benzo(a) Pyrene	20.000	21.126	-5.6	107	0.00	17.15-17.35
18	Indeno(1,2,3-cd)pyrene	20.000	21.525	-7.6	109	0.00	18.98-19.18

Continuing Calibration Summary

Page 2 of 2

Job Number: F30905
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GLL135-CC120
Lab FileID: LL03392.D

19	Dibenzo(a,h)anthracene	20.000	21.470	-7.3	108	-0.01	19.07-19.27
20	Benzo(g,h,i) Perylene	20.000	21.292	-6.5	107	0.00	19.33-19.53

(#) = Out of Range
LL03116.D 8100_H2.M

SPCC's out = 0 CCC's out = 0
Mon Apr 18 12:30:42 2005

Continuing Calibration Summary

Page 1 of 2

Job Number: F30905
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GLL135-ECC120
Lab FileID: LL03397.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\0418PAH\LL03397.D\FID1B.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\0418PAH\LL03397.D\FID2A.CH
Acq On : 18 Apr 2005 11:39 am Operator: aubreya
Sample : ecc120-20 Inst : FLGSLI
Misc : OP12988,GLL135,1000,,,1,1,water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
Title : PAH's BY EPA 610 OR 8100
Last Update : Fri Apr 15 15:13:18 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Naphthalene	20.000	20.321	-1.6	102	0.00	4.64- 4.84
2	2-Methyl Naphthalene	20.000	20.268	-1.3	102	0.00	5.55- 5.75
3	1-Methyl Naphthalene	20.000	20.332	-1.7	102	0.00	5.82- 6.02
4 S	2-Fluorobiphenyl	20.000	20.153	-0.8	101	0.00	6.36- 6.56
5	Acenaphthylene	20.000	21.515	-7.6	107	0.00	7.52- 7.72
6	Acenaphthene	20.000	20.572	-2.9	104	0.00	7.79- 7.99
7	Fluorene	20.000	20.071	-0.4	101	0.00	8.72- 8.92
8	Phenanthrene	20.000	20.261	-1.3	101	0.00	10.90-11.10
9	Anthracene	20.000	20.245	-1.2	101	0.00	10.93-11.13
10 S	0-Terphenyl	20.000	21.761	-8.8	109	0.00	11.87-12.07
11	Fluoranthene	20.000	21.128	-5.6	106	0.00	13.44-13.64
12	Pyrene	20.000	21.086	-5.4	105	0.00	14.03-14.23
13	Benzo(a)Anthracene	20.000	22.779	-13.9	114	0.00	16.57-16.77
14	Chrysene	20.000	23.057	-15.3#	116	0.00	16.76-16.96
15	Benzo(b)Fluoranthene	20.000	23.685	-18.4#	118	0.00	18.79-18.99
16	Benzo(k)Fluoranthene	20.000	22.554	-12.8	113	0.00	18.84-19.04
17	Benzo(a) Pyrene	20.000	22.315	-11.6	111	0.00	19.56-19.76
18	Indeno(1,2,3-cd)pyrene	20.000	17.864	10.7	89	-0.01	21.42-21.62
19	Dibenzo(a,h)anthracene	20.000	17.562	12.2	87	0.00	21.48-21.68
20	Benzo(g,h,i) Perylene	20.000	14.631	26.8#	73	-0.02	21.99-22.19

***** Signal #2 *****

1	Naphthalene	20.000	20.863	-4.3	105	0.00	3.89- 4.09
2	2-Methyl Naphthalene	20.000	20.759	-3.8	106	0.00	4.81- 5.01
3	1-Methyl Naphthalene	20.000	20.370	-1.9	103	0.00	4.96- 5.16
4 S	2-Fluorobiphenyl	20.000	20.360	-1.8	103	0.00	5.47- 5.67
5	Acenaphthylene	20.000	21.217	-6.1	108	0.00	6.21- 6.41
6	Acenaphthene	20.000	20.166	-0.8	102	0.00	6.55- 6.75
7	Fluorene	20.000	19.876	0.6	101	0.00	7.47- 7.67
8	Phenanthrene	20.000	19.350	3.2	98	0.00	9.26- 9.46
9	Anthracene	20.000	19.596	2.0	100	0.00	9.35- 9.55
10 S	0-Terphenyl	20.000	19.121	4.4	96	0.00	10.32-10.52
11	Fluoranthene	20.000	19.692	1.5	101	0.00	11.64-11.84
12	Pyrene	20.000	20.002	-0.0	102	0.00	12.04-12.24
13	Benzo(a)Anthracene	20.000	22.367	-11.8	115	0.00	14.55-14.75
14	Chrysene	20.000	22.489	-12.4	116	0.00	14.63-14.83
15	Benzo(b)Fluoranthene	20.000	23.504	-17.5#	119	0.00	16.63-16.83
16	Benzo(k)Fluoranthene	20.000	23.279	-16.4#	119	0.00	16.68-16.88
17	Benzo(a) Pyrene	20.000	23.105	-15.5#	117	0.00	17.15-17.35
18	Indeno(1,2,3-cd)pyrene	20.000	21.195	-6.0	107	0.00	18.98-19.18

Continuing Calibration Summary

Page 2 of 2

Job Number: F30905
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GLL135-ECC120
Lab FileID: LL03397.D

19	Dibenzo(a,h)anthracene	20.000	21.485	-7.4	108	0.00	19.07-19.27
20	Benzo(g,h,i) Perylene	20.000	20.297	-1.5	102	0.00	19.33-19.53

(#) = Out of Range
LL03116.D 8100_H2.M

SPCC's out = 0 CCC's out = 0
Mon Apr 18 12:30:43 2005

66
6



05/03/05

Technical Report for

EEI

Bldg. 4158/Camp Lejeune, NC

CTO-010

Accutest Job Number: F31312

Sampling Dates: 04/19/05 - 04/20/05

Report to:

EEI

bmorris@eeimail.com

ATTN: Bill Morris

Total number of pages in report: 58



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Harry Behzadi
Harry Behzadi, Ph.D.
Laboratory Director

Certifications: FL (DOH E83510), NC (573), NJ (FL002), MA (FL946), IA (366), LA (03051), KS (E-10327), SC, AK
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Sample Summary

EEI

Job No: F31312

Bldg. 4158/Camp Lejeune, NC
Project No: CTO-010

Sample Number	Collected Date	Time By	Received	Matrix Code Type	Client Sample ID
F31312-1	04/19/05	09:45 BS	04/21/05	AQ Ground Water	UST4158-MW07
F31312-2	04/19/05	10:30 BS	04/21/05	AQ Ground Water	UST4158-MW10
F31312-3	04/19/05	11:45 BS	04/21/05	AQ Ground Water	UST4158-MW14
F31312-4	04/19/05	13:05 BS	04/21/05	AQ Ground Water	UST4158-MW13
F31312-5	04/19/05	13:35 BS	04/21/05	AQ Ground Water	UST4158-MW15
F31312-6	04/20/05	13:20 BS	04/21/05	AQ Ground Water	UST4158-MW08
F31312-7	04/20/05	13:40 BS	04/21/05	AQ Ground Water	UST4158-MW11
F31312-8	04/20/05	14:20 BS	04/21/05	AQ Ground Water	UST4158-MW09
F31312-9	04/20/05	15:15 BS	04/21/05	AQ Trip Blank Water	TRIP BLANK

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: EEI

Job No: F31312

Site: Bldg. 4158/Camp Lejeune, NC

Report Date: 5/3/2005 9:15:49 AM

8 Samples and 1 Trip Blank were collected on between 04/19/2005 and 04/20/2005 and were received at Accutest on 04/21/2005 properly preserved, at 3 Deg. C and intact. These Samples received an Aceutest job number of F31312. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GC by Method EPA 601/602

Matrix: AQ

Batch ID: GCD2476

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F31151-2MS, F31151-2MSD were used as the QC samples indicated.

F31312-8: All hits confirmed by dual column analysis.

F31312-7: All hits confirmed by dual column analysis.

F31312-6: All hits confirmed by dual column analysis.

F31312-4: All hits confirmed by dual column analysis.

F31312-3: All hits confirmed by dual column analysis.

Extractables by GC by Method EPA 610

Matrix: AQ

Batch ID: OP13089

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F31312-IMS, F31312-IMSD were used as the QC samples indicated.

Sample F31312-8 has surrogates outside control limits. Probable cause: due to matrix interference.

F31312-8 for o-Terphenyl: Outside control limits due to dilution.

F31312-8 for 2-Fluorobiphenyl: Outside control limits due to dilution.

Accutest Laboratories Southeast (ALSE) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALSE and as stated on the COC. ALSE certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALSE Quality Manual except as noted above. This report is to be used in its entirety. ALSE is not responsible for any assumptions of data quality if partial data packages are used.

Narrative prepared by:

Ellen Pampel, Inorganic QA (signature on file)

Date: May 3, 2005

Tuesday, May 03, 2005

Report of Analysis

Client Sample ID:	UST4158-MW07	Date Sampled:	04/19/05
Lab Sample ID:	F31312-1	Date Received:	04/21/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD060043.D	1	04/29/05	JG	n/a	n/a	GCD2476
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	92%		71-130%
460-00-4	4-Bromofluorobenzene	96%		71-130%
98-08-8	aaa-Trifluorotoluene	93%		71-124%
98-08-8	aaa-Trifluorotoluene	95%		71-124%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: UST4158-MW07
 Lab Sample ID: F31312-1
 Matrix: AQ - Ground Water
 Method: EPA 610 EPA 610
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 04/19/05
 Date Received: 04/21/05
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL03670.D	1	04/26/05	AA	04/25/05	OP13089	GLL144
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1030 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.9	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.9	1.9	ug/l	
120-12-7	Anthracene	ND	4.9	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.9	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.9	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.9	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.9	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.9	1.9	ug/l	
218-01-9	Chrysene	ND	4.9	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.9	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.9	1.9	ug/l	
86-73-7	Fluorene	ND	4.9	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.9	1.9	ug/l	
91-20-3	Naphthalene	ND	4.9	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.9	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.9	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.9	1.9	ug/l	
129-00-0	Pyrene	ND	4.9	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	78%		42-123%
84-15-1	o-Terphenyl	88%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UST4158-MW10	Date Sampled:	04/19/05
Lab Sample ID:	F31312-2	Date Received:	04/21/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD060044.D	1	04/29/05	JG	n/a	n/a	GCD2476
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	90%		71-130%
460-00-4	4-Bromofluorobenzene	95%		71-130%
98-08-8	aaa-Trifluorotoluene	92%		71-124%
98-08-8	aaa-Trifluorotoluene	95%		71-124%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: UST4158-MW10
 Lab Sample ID: F31312-2
 Matrix: AQ - Ground Water
 Method: EPA 610 EPA 610
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 04/19/05
 Date Received: 04/21/05
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL03673.D	1	04/26/05	AA	04/25/05	OP13089	GLL144
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.8	1.9	ug/l	
120-12-7	Anthracene	ND	4.8	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	1.9	ug/l	
218-01-9	Chrysene	ND	4.8	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	1.9	ug/l	
86-73-7	Fluorene	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
91-20-3	Naphthalene	ND	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.8	1.9	ug/l	
129-00-0	Pyrene	ND	4.8	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	84%		42-123%
84-15-1	o-Terphenyl	90%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UST4158-MW14	Date Sampled:	04/19/05
Lab Sample ID:	F31312-3	Date Received:	04/21/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Bldg. 4158/Camp Lejeune, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	CD060045.D	1	04/29/05	JG	n/a	n/a	GCD2476
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	0.58	1.0	0.50	ug/l	J
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	90%		71-130%
460-00-4	4-Bromofluorobenzene	94%		71-130%
98-08-8	aaa-Trifluorotoluene	92%		71-124%
98-08-8	aaa-Trifluorotoluene	95%		71-124%

(a) All hits confirmed by dual column analysis.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UST4158-MW14	Date Sampled:	04/19/05
Lab Sample ID:	F31312-3	Date Received:	04/21/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #2	LL03674.D	1	04/26/05	AA	04/25/05	OP13089	GLL144

Run #1	Initial Volume	Final Volume
Run #2	850 ml	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.9	2.4	ug/l	
208-96-8	Acenaphthylene	ND	5.9	2.4	ug/l	
120-12-7	Anthracene	ND	5.9	2.4	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.9	2.4	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.9	2.4	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.9	2.4	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.9	2.4	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.9	2.4	ug/l	
218-01-9	Chrysene	ND	5.9	2.4	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.9	2.4	ug/l	
206-44-0	Fluoranthene	ND	5.9	2.4	ug/l	
86-73-7	Fluorene	ND	5.9	2.4	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.9	2.4	ug/l	
91-20-3	Naphthalene	ND	5.9	2.4	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.9	2.4	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.9	2.4	ug/l	
85-01-8	Phenanthrene	ND	5.9	2.4	ug/l	
129-00-0	Pyrene	ND	5.9	2.4	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	80%		42-123%
84-15-1	o-Terphenyl	87%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UST4158-MW13	Date Sampled:	04/19/05
Lab Sample ID:	F31312-4	Date Received:	04/21/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Bldg. 4158/Camp Lejeune, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	CD060046.D	1	04/29/05	JG	n/a	n/a	GCD2476
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	35.7	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	96%		71-130%
98-08-8	aaa-Trifluorotoluene	95%		71-124%

(a) All hits confirmed by dual column analysis.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: UST4158-MW13
 Lab Sample ID: F31312-4
 Matrix: AQ - Ground Water
 Method: EPA 610 EPA 610
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 04/19/05
 Date Received: 04/21/05
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL03675.D	1	04/26/05	AA	04/25/05	OP13089	GLL144
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.8	1.9	ug/l	
120-12-7	Anthracene	ND	4.8	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	1.9	ug/l	
218-01-9	Chrysene	ND	4.8	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	1.9	ug/l	
86-73-7	Fluorene	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
91-20-3	Naphthalene	ND	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.8	1.9	ug/l	
129-00-0	Pyrene	ND	4.8	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	93%		42-123%
84-15-1	o-Terphenyl	96%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UST4158-MW15	Date Sampled:	04/19/05
Lab Sample ID:	F31312-5	Date Received:	04/21/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD060047.D	I	04/29/05	JG	n/a	n/a	GCD2476
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	95%		71-130%
98-08-8	aaa-Trifluorotoluene	95%		71-124%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UST4158-MW15	Date Sampled:	04/19/05
Lab Sample ID:	F31312-5	Date Received:	04/21/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL03676.D	1	04/26/05	AA	04/25/05	OP13089	GLL144
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.8	1.9	ug/l	
120-12-7	Anthracene	ND	4.8	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	1.9	ug/l	
218-01-9	Chrysene	ND	4.8	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	1.9	ug/l	
86-73-7	Fluorene	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
91-20-3	Naphthalene	ND	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.8	1.9	ug/l	
129-00-0	Pyrene	ND	4.8	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	61%		42-123%
84-15-1	o-Terphenyl	71%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UST4158-MW08	Date Sampled:	04/20/05
Lab Sample ID:	F31312-6	Date Received:	04/21/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	CD060049.D	1	04/29/05	JG	n/a	n/a	GCD2476
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	0.65	1.0	0.50	ug/l	J
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	96%		71-130%
98-08-8	aaa-Trifluorotoluene	95%		71-124%

(a) All hits confirmed by dual column analysis.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UST4158-MW08	Date Sampled:	04/20/05
Lab Sample ID:	F31312-6	Date Received:	04/21/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL03677.D	1	04/26/05	AA	04/25/05	OP13089	GLL144
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.8	1.9	ug/l	
120-12-7	Anthracene	ND	4.8	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	1.9	ug/l	
218-01-9	Chrysene	ND	4.8	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	1.9	ug/l	
86-73-7	Fluorene	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
91-20-3	Naphthalene	ND	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.8	1.9	ug/l	
129-00-0	Pyrene	ND	4.8	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	75%		42-123%
84-15-1	o-Terphenyl	76%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: UST4158-MW11
 Lab Sample ID: F31312-7
 Matrix: AQ - Ground Water
 Method: EPA 601/602
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 04/20/05
 Date Received: 04/21/05
 Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	CD060050.D	1	04/29/05	JG	n/a	n/a	GCD2476
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	80.3	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	95%		71-130%
98-08-8	aaa-Trifluorotoluene	96%		71-124%

(a) All hits confirmed by dual column analysis.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: UST4158-MW11
 Lab Sample ID: F31312-7
 Matrix: AQ - Ground Water
 Method: EPA 610 EPA 610
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 04/20/05
 Date Received: 04/21/05
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL03679.D	1	04/26/05	AA	04/25/05	OP13089	GLL144
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.8	1.9	ug/l	
120-12-7	Anthracene	ND	4.8	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	1.9	ug/l	
218-01-9	Chrysene	ND	4.8	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	1.9	ug/l	
86-73-7	Fluorene	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
91-20-3	Naphthalene	ND	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.8	1.9	ug/l	
129-00-0	Pyrene	ND	4.8	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	81%		42-123%
84-15-1	o-Terphenyl	91%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: UST4158-MW09
 Lab Sample ID: F31312-8
 Matrix: AQ - Ground Water
 Method: EPA 601/602
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 04/20/05
 Date Received: 04/21/05
 Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	CD060051.D	1	04/29/05	JG	n/a	n/a	GCD2476
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	1.8	1.0	0.50	ug/l	
108-88-3	Toluene	0.81	1.0	0.50	ug/l	J
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	18.1	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	2.3	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	105%		71-130%
98-08-8	aaa-Trifluorotoluene	99%		71-124%

(a) All hits confirmed by dual column analysis.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID:	UST4158-MW09	Date Sampled:	04/20/05
Lab Sample ID:	F31312-8	Date Received:	04/21/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL03687.D	200	04/26/05	AA	04/25/05	OP13089	GLL144
Run #2							

Run #	Initial Volume	Final Volume
Run #1	940 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	1100	430	ug/l	
208-96-8	Acenaphthylene	ND	1100	430	ug/l	
120-12-7	Anthracene	ND	1100	430	ug/l	
56-55-3	Benzo(a)anthracene	ND	1100	430	ug/l	
50-32-8	Benzo(a)pyrene	ND	1100	430	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1100	430	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1100	430	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1100	430	ug/l	
218-01-9	Chrysene	ND	1100	430	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1100	430	ug/l	
206-44-0	Fluoranthene	ND	1100	430	ug/l	
86-73-7	Fluorene	ND	1100	430	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1100	430	ug/l	
91-20-3	Naphthalene	ND	1100	430	ug/l	
90-12-0	1-Methylnaphthalene	ND	1100	430	ug/l	
91-57-6	2-Methylnaphthalene	ND	1100	430	ug/l	
85-01-8	Phenanthrene	ND	1100	430	ug/l	
129-00-0	Pyrene	ND	1100	430	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	0% ^a		42-123%
84-15-1	o-Terphenyl	0% ^a		51-123%

(a) Outside control limits due to dilution.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK	Date Sampled:	04/20/05
Lab Sample ID:	F31312-9	Date Received:	04/21/05
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD060052.D	1	04/29/05	JG	n/a	n/a	GCD2476
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	97%		71-130%
98-08-8	aaa-Trifluorotoluene	94%		71-124%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody



CHAIN OF CUSTODY

4405 VINELAND ROAD • SUITE C-15
ORLANDO, FL 32811
TEL: 407-425-6700 • FAX: 407-425-0707

ACCUTEST JOB #: **F31312**

ACCUTEST QUOTE #:

CLIENT INFORMATION		FACILITY INFORMATION		ANALYTICAL INFORMATION		MATRIX CODES							
Engineering + Environment Inc. NAME 814 Gumbock rd Suite 5 ADDRESS Jacksonville NC 29540 CITY, STATE ZIP SEND REPORT TO: PHONE # 910-989-3214		814 4158 PROJECT NAME LOCATION PROJECT NO. FAX # 910-989-3341				DW - DRINKING WATER GW - GROUND WATER WW - WASTE WATER SO - SOIL SL - SLUDGE OI - OIL LIQ - OTHER LIQUID SOL - OTHER SOLID							
ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION		PRESERVATION								LAB USE ONLY	
		DATE	TIME	SAMPLED BY:	MATRIX	# OF BOTTLES	NO	NO	NO	NO	NO		
1	AST 4158-MW07	4/19/05	9:45	BS	GW	5	X			X	3	2	
2	AST 4158-MW10	4/19/05	10:30	BS	GW	5	X			X	3	2	
3	AST 4158-MW14	4/19/05	11:45	BS	GW	6	X			X	3	2	
4	AST 4158-MW13	4/19/05	13:05	BS	GW	5	X			X	3	2	
5	AST 4158-MW15	4/19/05	13:35	BS	GW	4	X			X	3	1	only one 610
6	AST 4158-MW09	4/20/05	13:20	BS	GW	5	X			X	3	2	
7	AST 4158-MW11	4/20/05	13:40	BS	GW	5	X			X	3	2	
8	AST 4158-MW09	4/20/05	14:20	BS	GW	5	X			X	3	2	
9	Trip blank	4/20/05	15:15										
DATA TURNAROUND INFORMATION		DATA DELIVERABLE INFORMATION		COMMENTS/REMARKS									
☒ STANDARD ☐ 48 HOUR RUSH ☐ 24 HOUR EMERGENCY ☐ OTHER EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED		APPROVED BY: _____ ☐ STANDARD ☐ COMMERCIAL "B" ☐ DISK DELIVERABLE ☐ STATE FORMS ☒ OTHER (SPECIFY) <u>NC0594</u>											
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY													
RELINQUISHED BY: 1. <u>Dot J. Miller</u>	DATE/TIME: 4/20/05 15:15	RECEIVED BY: 1. <u>FX</u>	RELINQUISHED BY: 2. <u>FX</u>	DATE/TIME: 4-21-05	RECEIVED BY: 2. <u>Steven Gannon</u>								
RELINQUISHED BY: 3.	DATE/TIME:	RECEIVED BY: 3.	RELINQUISHED BY: 4.	DATE/TIME:	RECEIVED BY: 4.								
RELINQUISHED BY: 5.	DATE/TIME:	RECEIVED BY: 5.	SEAL #	PRESERVE WHERE APPLICABLE	ON ICE	TEMPERATURE							

F31312: Chain of Custody
Page 1 of 2

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: **F31312** CLIENT: **OSHA + EHLRD** PROJECT: **Bld 4156**
 DATE/TIME RECEIVED: **4-21-06/ 8:00** # OF COOLERS RECEIVED: **1** COOLER TEMPS: **3.5**
 METHOD OF DELIVERY: **FEDEX** UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER
 AIRBILL NUMBERS: **850861495688**

COOLER INFORMATION

- ☐ CUSTODY SEAL NOT PRESENT/INTACT
- ☐ NO COC RECEIVED
- ☐ ANALYSES NOT MARKED ON COC
- ☐ ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- ☐ SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- ☐ TEMPERATURE CRITERIA NOT MET

TRIP BLANK INFORMATION

- ☐ TRIP BLANK NOT PROVIDED
- ☐ TRIP BLANK NOT ON COC
- ☒ TRIP BLANK INTACT
- ☐ TRIP BLANK NOT INTACT
- ☒ RECEIVED WATER TRIP BLANK
- ☐ RECEIVED SOIL TRIP BLANK

SOIL INFORMATION

NUMBER OF ENCORES ? 00
 NUMBER OF 5035 FIELD KITS ? 00

SUMMARY OF COMMENTS: Received only one 1 Liter Amber for sample mw-16 Five

SAMPLE INFORMATION

- ☐ SAMPLE LABELS PRESENT ON ALL BOTTLES
- ☐ CORRECT NUMBER OF CONTAINERS USED
- ☐ SAMPLE RECEIVED IMPROPERLY PRESERVED
- ☐ INSUFFICIENT VOLUME FOR ANALYSIS
- ☐ SAMPLE RECEIVED PAST HOLD TIME
- ☐ TIMES ON COC DON'T MATCH LABEL
- ☐ ID'S ON COC DON'T MATCH LABEL
- ☐ VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- ☐ BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- ☐ NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- ☐ UNCLEAR FILTERING INSTRUCTIONS
- ☐ UNCLEAR COMPOSITING INSTRUCTIONS
- ☐ SAMPLE(S) RECEIVED BROKEN
- ☐ % SOLIDS JAR NOT RECEIVED

TECHNICIAN SIGNATURE/DATE [Signature] 4-21-06 TECHNICIAN SIGNATURE/DATE _____

ASBD02/mamk

GC Volatiles



QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Page 1 of 1

Job Number: F31312
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GCD2476-MB	CD060039.D1		04/29/05	JG	n/a	n/a	GCD2476

The QC reported here applies to the following samples:

Method: EPA 601/602

F31312-1, F31312-2, F31312-3, F31312-4, F31312-5, F31312-6, F31312-7, F31312-8, F31312-9

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	96%	71-130%
98-08-8	aaa-Trifluorotoluene	95%	71-124%

Blank Spike Summary

Page 1 of 1

Job Number: F31312
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GCD2476-BS	CD060038.D	1	04/29/05	JG	n/a	n/a	GCD2476

The QC reported here applies to the following samples:

Method: EPA 601/602

F31312-1, F31312-2, F31312-3, F31312-4, F31312-5, F31312-6, F31312-7, F31312-8, F31312-9

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	20.1	101	81-121
100-41-4	Ethylbenzene	20	20.2	101	79-124
1634-04-4	Methyl Tert Butyl Ether	20	20.2	101	73-118
108-88-3	Toluene	20	20.2	101	79-122
1330-20-7	Xylenes (total)	60	60.1	100	79-121

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	103%	71-130%
98-08-8	aaa-Trifluorotoluene	98%	71-124%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: F31312
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F31151-2MS	CD060041.D 5		04/29/05	JG	n/a	n/a	GCD2476
F31151-2MSD	CD060042.D 5		04/29/05	JG	n/a	n/a	GCD2476
F31151-2 ^a	CD060040.D 5		04/29/05	JG	n/a	n/a	GCD2476

The QC reported here applies to the following samples:

Method: EPA 601/602

F31312-1, F31312-2, F31312-3, F31312-4, F31312-5, F31312-6, F31312-7, F31312-8, F31312-9

CAS No.	Compound	F31151-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	4.7	J	100	105	100	103	98	2	74-126/11
100-41-4	Ethylbenzene	ND		100	102	102	99.7	100	2	71-131/8
1634-04-4	Methyl Tert Butyl Ether	185		100	285	100	287	102	1	63-130/11
108-88-3	Toluene	ND		100	103	103	100	100	3	69-132/7
1330-20-7	Xylenes (total)	ND		300	303	101	295	98	3	71-127/8

CAS No.	Surrogate Recoveries	MS	MSD	F31151-2	Limits
460-00-4	4-Bromofluorobenzene	102%	102%	98%	71-130%
98-08-8	aaa-Trifluorotoluene	99%	97%	98%	71-124%

(a) Sample re-analyzed beyond hold time; reported results are considered minimum values.

Volatile Surrogate Recovery Summary

Page 1 of 1

Job Number: F31312
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Method: EPA 601/602 Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a	S1 ^b	S2 ^a	S2 ^b
F31312-1	CD060043.D	92.0	96.0	93.0	95.0
F31312-2	CD060044.D	90.0	95.0	92.0	95.0
F31312-3	CD060045.D	90.0	94.0	92.0	95.0
F31312-4	CD060046.D		96.0		95.0
F31312-5	CD060047.D		95.0		95.0
F31312-6	CD060049.D		96.0		95.0
F31312-7	CD060050.D		95.0		96.0
F31312-8	CD060051.D		105.0		99.0
F31312-9	CD060052.D		97.0		94.0
F31151-2MS	CD060041.D		102.0		99.0
F31151-2MSD	CD060042.D		102.0		97.0
GCD2476-BS	CD060038.D		103.0		98.0
GCD2476-MB	CD060039.D		96.0		95.0

Surrogate Recovery
Compounds Limits

S1 = 4-Bromofluorobenzene 71-130%
S2 = aaa-Trifluorotoluene 71-124%

(a) Recovery from GC signal #1
(b) Recovery from GC signal #2

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F31312
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GCD2476-CC2463	Injection Date:	04/29/05
Lab File ID:	CD060037.D	Injection Time:	10:30
Instrument ID:	GCCD	Method:	EPA 601/602

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	11.02	11.05	6.02	5.59

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
GCD2476-BS	CD060038.D	04/29/05	10:54		11.05		5.59
GCD2476-MB	CD060039.D	04/29/05	11:19		11.05		5.59
F31151-2	CD060040.D	04/29/05	11:45		11.06		5.59
F31151-2MS	CD060041.D	04/29/05	12:21		11.05		5.59
F31151-2MSD	CD060042.D	04/29/05	12:44		11.06		5.60
F31312-1	CD060043.D	04/29/05	13:22	11.02	11.05	6.02	5.58
F31312-2	CD060044.D	04/29/05	13:46	11.02	11.05	6.02	5.59
F31312-3	CD060045.D	04/29/05	14:11	11.01	11.05	6.02	5.59
F31312-4	CD060046.D	04/29/05	14:35		11.06		5.60
F31312-5	CD060047.D	04/29/05	15:13		11.04		5.59

Surrogate Compounds

S1 = 4-Bromofluorobenzene
S2 = aaa-Trifluorotoluene

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F31312
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GCD2476-CC2463	Injection Date:	04/29/05
Lab File ID:	CD060048.D	Injection Time:	15:40
Instrument ID:	GCCD	Method:	EPA 601/602

S1^a S2^a
RT RT

Check Std	11.05	5.59

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
F31312-6	CD060049.D	04/29/05	16:05	11.05	5.59
F31312-7	CD060050.D	04/29/05	16:28	11.04	5.59
F31312-8	CD060051.D	04/29/05	16:53	11.04	5.59
F31312-9	CD060052.D	04/29/05	17:17	11.04	5.59
ZZZZZZ	CD060053.D	04/29/05	17:41	11.05	5.59
ZZZZZZ	CD060054.D	04/29/05	18:05	11.05	5.59
ZZZZZZ	CD060055.D	04/29/05	18:29	11.04	5.59
ZZZZZZ	CD060056.D	04/29/05	18:54	11.05	5.59
ZZZZZZ	CD060057.D	04/29/05	19:18	11.05	5.60
ZZZZZZ	CD060058.D	04/29/05	19:42	11.05	5.59

Surrogate
Compounds

S1 = 4-Bromofluorobenzene
S2 = aaa-Trifluorotoluene

(a) Retention time from GC signal #2

Initial Calibration Summary

Job Number: F31312
 Account: EEINCJX EEI
 Project: Bldg. 4158/Camp Lejeune, NC

Sample: GCD2463-ICC2463
 Lab FileID: CD059750.D

Page 1 of 1

Response Factor Report VOA2

Method : C:\HPCHEM\1\METHODS\GCD0421.M (Chemstation Integrator)
 Title : EPA 602/8021B
 Last Update : Thu Apr 21 15:48:07 2005
 Response via : Initial Calibration

Calibration Files

1 =CD059753.D 2 =CD059754.D 3 =CD059749.D 4 =CD059750.D
 5 =CD059751.D 6 =CD059752.D

	Compound	1	2	3	4	5	6	Avg	%RSD
1)	Methyl tert Butyl E	0.813	1.068	0.968	0.991	1.043	1.016	0.983	E3 9.19
2)	Di-Isopropyl ether	1.598	1.827	1.801	1.816	1.891	1.892	1.804	E3 5.98
3)	BENZENE	4.668	4.720	4.649	4.674	4.844	4.885	4.740	E3 2.11
4) S	a,a,a-TFT(S)	1.561		1.912	1.951	1.963	1.951	1.868	E3 9.23
5)	TOLUENE	4.724	4.763	4.723	4.699	4.858	4.913	4.780	E3 1.80
6)	CHLOROBENZENE	4.697	4.971	4.925	4.899	5.095	5.152	4.956	E3 3.25
7)	ETHYLBENZENE	4.225	4.319	4.250	4.260	4.377	4.419	4.309	E3 1.79
8)	m,p-XYLENE	4.785	4.688	4.686	4.653	4.773	4.771	4.726	E3 1.20
9)	o-XYLENE	4.195	4.385	4.358	4.326	4.459	4.435	4.360	E3 2.16
10) S	BFB(S)		4.555	5.078	5.240	5.412	5.405	5.138	E3 6.88
11)	1,3-DICHLOROBENZENE	4.366	4.053	4.043	4.123	4.344	4.361	4.215	E3 3.75
12)	1,4-DICHLOROBENZENE	4.817	4.488	4.440	4.528	4.807	4.858	4.656	E3 4.08
13)	1,2-DICHLOROBENZENE	3.670	3.202	3.222	3.260	3.468	3.491	3.386	E3 5.53

Signal #2

1)	Methyl tert Butyl E	8.019	9.502	8.113	7.882	8.214	8.208	8.323	E2 7.10
2)	Di-Isopropyl ether	1.395	1.561	1.421	1.373	1.394	1.400	1.424	E3 4.85
3)	BENZENE	4.085	4.207	3.735	3.575	3.685	3.791	3.846	E3 6.39
4) S	a,a,a-TFT(S)	1.355	1.433	1.434	1.437	1.462	1.463	1.431	E3 2.75
5)	TOLUENE	4.333	4.316	3.848	3.706	3.837	3.937	3.996	E3 6.63
6)	CHLOROBENZENE	4.545	4.536	4.084	3.964	4.131	4.217	4.246	E3 5.71
7)	ETHYLBENZENE	4.179	4.006	3.570	3.477	3.609	3.653	3.749	E3 7.41
8)	m,p-XYLENE	4.568	4.240	3.697	3.706	3.847	3.896	3.992	E3 8.62
9)	o-XYLENE	3.991	3.942	3.559	3.472	3.592	3.632	3.698	E3 5.82
10) S	BFB(S)	4.027	4.258	4.354	4.460	4.554	4.607	4.377	E3 4.88
11)	1,3-DICHLOROBENZENE	4.472	3.741	3.447	3.435	3.627	3.663	3.731	E3 10.26
---- Linear regr., Force(0,0) ---- Coefficient = 0.9993									
Response Ratio = 0.00000 + 3626.28701 *A									
12)	1,4-DICHLOROBENZENE	4.940	4.152	3.708	3.723	4.017	4.062	4.100	E3 10.97
---- Linear regr., Force(0,0) ---- Coefficient = 0.9987									
Response Ratio = 0.00000 + 4008.60198 *A									
13)	1,2-DICHLOROBENZENE	3.475	2.980	2.717	2.731	2.904	2.957	2.961	E3 9.32

(#) = Out of Range

GCD0421.M

Fri Apr 22 09:00:19 2005

Initial Calibration Verification

Page 1 of 1

Job Number: F31312
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GCD2463-ICV2463
Lab FileID: CD059755.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\042105\CD059755.D\FID1A.CH Vial: 1
Signal #2 : C:\HPCHEM\1\DATA\042105\CD059755.D\FID2B.CH
Acq On : 21 Apr 2005 4:05 pm Operator: albertj
Sample : icv2463-20 Inst : VOA2
Misc : gc4841,gcd2463,,,,, Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E

Method : C:\HPCHEM\1\METHODS\GCD0421.M (Chemstation Integrator)
Title : EPA 602/8021B
Last Update : Thu Apr 21 15:48:07 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Methyl tert Butyl EtHe	20.000	21.572	-7.9	110	0.00	2.95- 3.35
2	Di-Isopropyl ether	20.000	20.474	-2.4	103	0.00	3.49- 3.79
3	BENZENE	20.000	20.793	-4.0	106	0.00	4.81- 5.11
4 S	a,a,a-TFT(S)	20.000	19.706	1.5	96	0.00	5.85- 6.15
5	TOLUENE	20.000	21.121	-5.6	107	0.00	7.28- 7.58
6	CHLOROBENZENE	20.000	22.114	-10.6	111	0.01	9.11- 9.41
7	ETHYLBENZENE	20.000	21.471	-7.4	109	0.01	9.45- 9.75
8	m,p-XYLENE	40.000	43.502	-8.8	110	0.01	9.76-10.06
9	o-XYLENE	20.000	21.810	-9.0	109	0.01	10.30-10.60
10 S	BFB(S)	20.000	20.336	-1.7	103	0.01	10.86-11.16
11	1,3-DICHLOROBENZENE	20.000	22.523	-12.6	117	0.00	12.78-12.98
12	1,4-DICHLOROBENZENE	20.000	20.934	-4.7	110	0.00	12.90-13.10
13	1,2-DICHLOROBENZENE	20.000	22.161	-10.8	116	0.00	13.36-13.66

***** Signal #2 *****

1	Methyl tert Butyl EtHe	20.000	22.335	-11.7	115	0.00	2.84- 3.24
2	Di-Isopropyl ether	20.000	21.589	-7.9	108	0.00	3.43- 3.73
3	BENZENE	20.000	21.537	-7.7	111	0.00	4.69- 4.99
4 S	a,a,a-TFT(S)	20.000	20.422	-2.1	102	0.00	5.43- 5.73
5	TOLUENE	20.000	21.130	-5.6	110	0.00	7.28- 7.58
6	CHLOROBENZENE	20.000	21.923	-9.6	114	0.01	9.13- 9.43
7	ETHYLBENZENE	20.000	20.885	-4.4	110	0.01	9.58- 9.88
8	m,p-XYLENE	40.000	41.047	-2.6	111	0.01	9.88-10.18
9	o-XYLENE	20.000	20.889	-4.4	109	0.00	10.42-10.72
10 S	BFB(S)	20.000	20.316	-1.6	102	0.00	10.89-11.19

		Amount	Calc.	%Drift			
11	1,3-DICHLOROBENZENE	20.000	21.886	-9.4	115	0.00	13.04-13.24
12	1,4-DICHLOROBENZENE	20.000	20.161	-0.8	109	0.00	13.12-13.32

		Amount	Calc.	%Drift			
13	1,2-DICHLOROBENZENE	20.000	21.217	-6.1	116	0.00	13.57-13.81

(#) = Out of Range
CD059749.D GCD0421.M

SPCC's out = 0 CCC's out = 0
Fri Apr 22 08:59:41 2005

Continuing Calibration Summary

Page 1 of 1

Job Number: F31312
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GCD2476-CC2463
Lab FileID: CD060037.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\042905\CD060037.D\FID1A.CH Vial: 1
Signal #2 : C:\HPCHEM\1\DATA\042905\CD060037.D\FID2B.CH
Acq On : 29 Apr 2005 10:30 am Operator: JuanG
Sample : cc2463-40 Inst : VOA2
Misc : GC4879,gcd2476,,,,, Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E

Method : C:\HPCHEM\1\METHODS\GCD0421.M (Chemstation Integrator)
Title : EPA 602/8021B
Last Update : Thu Apr 21 15:48:07 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Methyl tert Butyl EtHe	40.000	37.496	6.3	93	0.02	2.95- 3.35
2	Di-Isopropyl ether	40.000	37.613	6.0	93	0.02	3.49- 3.79
3	BENZENE	40.000	37.293	6.8	95	0.02	4.81- 5.11
4 S	a,a,a-TFT(S)	20.000	19.034	4.8	91	0.01	5.85- 6.15
5	TOLUENE	40.000	37.940	5.2	96	0.01	7.28- 7.58
6	CHLOROBENZENE	40.000	39.438	1.4	100	0.01	9.11- 9.41
7	ETHYLBENZENE	40.000	40.078	-0.2	101	0.01	9.45- 9.75
8	m,p-XYLENE	80.000	80.809	-1.0	103	0.01	9.76-10.06
9	o-XYLENE	40.000	40.753	-1.9	103	0.01	10.30-10.60
10 S	BFB(S)	20.000	21.018	-5.1	103	0.01	10.86-11.16
11	1,3-DICHLOROBENZENE	40.000	41.469	-3.7	106	0.01	12.78-12.98
12	1,4-DICHLOROBENZENE	40.000	41.332	-3.3	106	0.00	12.90-13.10
13	1,2-DICHLOROBENZENE	40.000	41.523	-3.8	108	0.00	13.36-13.66

***** Signal #2 *****

1	Methyl tert Butyl EtHe	40.000	38.596	3.5	102	0.00	2.84- 3.24
2	Di-Isopropyl ether	40.000	39.679	0.8	103	0.00	3.43- 3.73
3	BENZENE	40.000	38.601	3.5	104	0.00	4.69- 4.99
4 S	a,a,a-TFT(S)	20.000	19.955	0.2	99	0.00	5.43- 5.73
5	TOLUENE	40.000	38.517	3.7	104	0.00	7.28- 7.58
6	CHLOROBENZENE	40.000	38.959	2.6	104	0.00	9.13- 9.43
7	ETHYLBENZENE	40.000	38.538	3.7	104	0.00	9.58- 9.88
8	m,p-XYLENE	80.000	77.469	3.2	104	0.00	9.88-10.18
9	o-XYLENE	40.000	38.834	2.9	103	0.00	10.42-10.72
10 S	BFB(S)	20.000	21.065	-5.3	103	0.00	10.89-11.19

		Amount	Calc.	%Drift			
11	1,3-DICHLOROBENZENE	40.000	40.241	-0.6	106	0.00	13.04-13.24
12	1,4-DICHLOROBENZENE	40.000	39.671	0.8	107	0.00	13.12-13.32
13	1,2-DICHLOROBENZENE	40.000	40.047	-0.1	109	0.00	13.57-13.81

(#) = Out of Range
CD059750.D GCD0421.M

SPCC's out = 0 CCC's out = 0
Mon May 02 14:32:34 2005

Continuing Calibration Summary

Page 1 of 1

Job Number: F31312
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GCD2476-CC2463
Lab FileID: CD060048.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\042905\CD060048.D\FID1A.CH Vial: 11
Signal #2 : C:\HPCHEM\1\DATA\042905\CD060048.D\FID2B.CH
Acq On : 29 Apr 2005 3:40 pm Operator: JuanG
Sample : cc2463-20 Inst : VOA2
Misc : GC4879,gcd2476,,,,, Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E

Method : C:\HPCHEM\1\METHODS\GCD0421.M (Chemstation Integrator)
Title : EPA 602/8021B
Last Update : Thu Apr 21 15:48:07 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Methyl tert Butyl EtHe	20.000	19.565	2.2	99	0.01	2.95- 3.35
2	Di-Isopropyl ether	20.000	20.046	-0.2	100	0.01	3.49- 3.79
3	BENZENE	20.000	19.623	1.9	100	0.01	4.81- 5.11
4 S	a,a,a-TFT(S)	20.000	20.295	-1.5	99	0.01	5.85- 6.15
5	TOLUENE	20.000	19.749	1.3	100	0.01	7.28- 7.58
6	CHLOROBENZENE	20.000	19.959	0.2	100	0.00	9.11- 9.41
7	ETHYLBENZENE	20.000	19.917	0.4	101	0.00	9.45- 9.75
8	m,p-XYLENE	40.000	39.618	1.0	100	0.00	9.76-10.06
9	o-XYLENE	20.000	20.038	-0.2	100	0.00	10.30-10.60
10 S	BFB(S)	20.000	20.662	-3.3	105	0.01	10.86-11.16
11	1,3-DICHLOROBENZENE	20.000	20.108	-0.5	105	0.01	12.78-12.98
12	1,4-DICHLOROBENZENE	20.000	20.065	-0.3	105	0.00	12.90-13.10
13	1,2-DICHLOROBENZENE	20.000	20.147	-0.7	106	0.00	13.36-13.66

***** Signal #2 *****

1	Methyl tert Butyl EtHe	20.000	19.052	4.7	98	0.00	2.84- 3.24
2	Di-Isopropyl ether	20.000	19.797	1.0	99	0.00	3.43- 3.73
3	BENZENE	20.000	19.081	4.6	98	0.00	4.69- 4.99
4 S	a,a,a-TFT(S)	20.000	19.666	1.7	98	0.00	5.43- 5.73
5	TOLUENE	20.000	19.125	4.4	99	0.00	7.28- 7.58
6	CHLOROBENZENE	20.000	19.227	3.9	100	0.00	9.13- 9.43
7	ETHYLBENZENE	20.000	18.952	5.2	100	0.00	9.58- 9.88
8	m,p-XYLENE	40.000	37.087	7.3	100	0.00	9.88-10.18
9	o-XYLENE	20.000	19.247	3.8	100	0.00	10.42-10.72
10 S	BFB(S)	20.000	20.621	-3.1	104	0.00	10.89-11.19

		Amount	Calc.	%Drift			
11	1,3-DICHLOROBENZENE	20.000	19.461	2.7	102	0.00	13.04-13.24
12	1,4-DICHLOROBENZENE	20.000	19.367	3.2	105	0.00	13.12-13.32
13	1,2-DICHLOROBENZENE	20.000	19.426	2.9	106	0.00	13.57-13.81

(#) = Out of Range
CD059749.D GCD0421.M

SPCC's out = 0 CCC's out = 0
Mon May 02 14:32:10 2005

Continuing Calibration Summary

Page 1 of 1

Job Number: F31312
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GCD2477-CC2463
Lab FileID: CD060059.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\042905\CD060059.D\FID1A.CH Vial: 22
Signal #2 : C:\HPCHEM\1\DATA\042905\CD060059.D\FID2B.CH
Acq On : 29 Apr 2005 8:06 pm Operator: JuanG
Sample : cc2463-20 Inst : VOA2
Misc : GC4879,gcd2477,,,, Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E

Method : C:\HPCHEM\1\METHODS\GCD0421.M (Chemstation Integrator)
Title : EPA 602/8021B
Last Update : Thu Apr 21 15:48:07 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Methyl tert Butyl EtHe	20.000	18.975	5.1	96	0.02	2.95- 3.35
2	Di-Isopropyl ether	20.000	19.020	4.9	95	0.02	3.49- 3.79
3	BENZENE	20.000	18.802	6.0	96	0.02	4.81- 5.11
4 S	a,a,a-TFT(S)	20.000	19.342	3.3	94	0.02	5.85- 6.15
5	TOLUENE	20.000	19.175	4.1	97	0.01	7.28- 7.58
6	CHLOROBENZENE	20.000	19.391	3.0	98	0.00	9.11- 9.41
7	ETHYLBENZENE	20.000	19.412	2.9	98	0.00	9.45- 9.75
8	m,p-XYLENE	40.000	38.790	3.0	98	0.00	9.76-10.06
9	o-XYLENE	20.000	19.717	1.4	99	0.00	10.30-10.60
10 S	BFB(S)	20.000	20.112	-0.6	102	0.00	10.86-11.16
11	1,3-DICHLOROBENZENE	20.000	19.646	1.8	102	0.00	12.78-12.98
12	1,4-DICHLOROBENZENE	20.000	19.477	2.6	102	0.00	12.90-13.10
13	1,2-DICHLOROBENZENE	20.000	19.687	1.6	103	0.00	13.36-13.66

***** Signal #2 *****

1	Methyl tert Butyl EtHe	20.000	19.095	4.5	98	0.02	2.84- 3.24
2	Di-Isopropyl ether	20.000	19.617	1.9	98	0.02	3.43- 3.73
3	BENZENE	20.000	18.887	5.6	97	0.01	4.69- 4.99
4 S	a,a,a-TFT(S)	20.000	19.286	3.6	96	0.01	5.43- 5.73
5	TOLUENE	20.000	18.869	5.7	98	0.00	7.28- 7.58
6	CHLOROBENZENE	20.000	18.901	5.5	98	0.00	9.13- 9.43
7	ETHYLBENZENE	20.000	18.706	6.5	98	0.00	9.58- 9.88
8	m,p-XYLENE	40.000	36.273	9.3	98	0.00	9.88-10.18
9	o-XYLENE	20.000	18.902	5.5	98	0.00	10.42-10.72
10 S	BFB(S)	20.000	20.101	-0.5	101	0.00	10.89-11.19

		Amount	Calc.	%Drift			
11	1,3-DICHLOROBENZENE	20.000	19.230	3.8	101	0.00	13.04-13.24
12	1,4-DICHLOROBENZENE	20.000	18.888	5.6	102	0.00	13.12-13.32

		Amount	Calc.	%Drift			
13	1,2-DICHLOROBENZENE	20.000	19.277	3.6	105	0.00	13.57-13.81

(#) = Out of Range
CD059749.D GCD0421.M

SPCC's out = 0 CCC's out = 0
Mon May 02 14:32:11 2005

GC Semi-volatiles



QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Page 1 of 1

Job Number: F31312
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP13089-MB	LL03669.D	1	04/26/05	AA	04/25/05	OP13089	GLL144

The QC reported here applies to the following samples:

Method: EPA 610

F31312-1, F31312-2, F31312-3, F31312-4, F31312-5, F31312-6, F31312-7, F31312-8

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.0	2.0	ug/l	
208-96-8	Acenaphthylene	ND	5.0	2.0	ug/l	
120-12-7	Anthracene	ND	5.0	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	2.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	2.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	2.0	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	2.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	2.0	ug/l	
218-01-9	Chrysene	ND	5.0	2.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	2.0	ug/l	
206-44-0	Fluoranthene	ND	5.0	2.0	ug/l	
86-73-7	Fluorene	ND	5.0	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	2.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	2.0	ug/l	
85-01-8	Phenanthrene	ND	5.0	2.0	ug/l	
129-00-0	Pyrene	ND	5.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Limits
321-60-8	2-Fluorobiphenyl	81% 42-123%
84-15-1	o-Terphenyl	84% 51-123%

Blank Spike Summary

Page 1 of 1

Job Number: F31312
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP13089-BS	LL03668.D	1	04/26/05	AA	04/25/05	OP13089	GLL144

The QC reported here applies to the following samples:

Method: EPA 610

F31312-1, F31312-2, F31312-3, F31312-4, F31312-5, F31312-6, F31312-7, F31312-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	25	20.3	81	71-113
208-96-8	Acenaphthylene	25	21.0	84	63-102
120-12-7	Anthracene	25	20.3	81	71-110
56-55-3	Benzo(a)anthracene	25	22.2	89	70-114
50-32-8	Benzo(a)pyrene	25	23.3	93	67-114
205-99-2	Benzo(b)fluoranthene	25	23.4	94	69-115
191-24-2	Benzo(g,h,i)perylene	25	21.9	88	61-117
207-08-9	Benzo(k)fluoranthene	25	23.3	93	69-111
218-01-9	Chrysene	25	22.2	89	70-114
53-70-3	Dibenzo(a,h)anthracene	25	22.4	90	64-114
206-44-0	Fluoranthene	25	21.0	84	71-114
86-73-7	Fluorene	25	21.0	84	69-111
193-39-5	Indeno(1,2,3-cd)pyrene	25	22.3	89	63-112
91-20-3	Naphthalene	25	19.6	78	66-105
90-12-0	1-Methylnaphthalene	25	20.2	81	71-112
91-57-6	2-Methylnaphthalene	25	20.3	81	65-106
85-01-8	Phenanthrene	25	20.6	82	69-112
129-00-0	Pyrene	25	21.2	85	70-114

CAS No.	Surrogate Recoveries	BSP	Limits
321-60-8	2-Fluorobiphenyl	83%	42-123%
84-15-1	o-Terphenyl	85%	51-123%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: F31312
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP13089-MS	LL03671.D	1	04/26/05	AA	04/25/05	OP13089	GLL144
OP13089-MSD	LL03672.D	1	04/26/05	AA	04/25/05	OP13089	GLL144
F31312-1	LL03670.D	1	04/26/05	AA	04/25/05	OP13089	GLL144

The QC reported here applies to the following samples:

Method: EPA 610

F31312-1, F31312-2, F31312-3, F31312-4, F31312-5, F31312-6, F31312-7, F31312-8

CAS No.	Compound	F31312-1 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND	49	41.6	85	40.5	83	3	59-123/20
208-96-8	Acenaphthylene	ND	49	42.6	87	41.7	85	2	51-114/20
120-12-7	Anthracene	ND	49	40.6	83	40.8	83	0	64-114/17
56-55-3	Benzo(a)anthracene	ND	49	45.8	93	43.6	89	5	66-115/17
50-32-8	Benzo(a)pyrene	ND	49	49.3	101	46.5	95	6	62-118/17
205-99-2	Benzo(b)fluoranthene	ND	49	49.0	100	46.3	94	6	66-117/17
191-24-2	Benzo(g,h,i)perylene	ND	49	47.7	97	44.7	91	6	59-120/17
207-08-9	Benzo(k)fluoranthene	ND	49	49.0	100	46.1	94	6	64-116/16
218-01-9	Chrysene	ND	49	45.4	93	43.2	88	5	66-117/16
53-70-3	Dibenzo(a,h)anthracene	ND	49	48.5	99	45.7	93	6	57-124/18
206-44-0	Fluoranthene	ND	49	43.1	88	42.1	86	2	67-116/17
86-73-7	Fluorene	ND	49	42.4	86	41.9	85	1	58-122/19
193-39-5	Indeno(1,2,3-cd)pyrene	ND	49	48.1	98	45.5	93	6	59-116/18
91-20-3	Naphthalene	ND	49	40.6	83	38.6	79	5	47-114/20
90-12-0	1-Methylnaphthalene	ND	49	42.1	86	40.5	83	4	55-128/21
91-57-6	2-Methylnaphthalene	ND	49	42.4	86	40.8	83	4	51-117/21
85-01-8	Phenanthrene	ND	49	41.5	85	41.4	84	0	63-116/18
129-00-0	Pyrene	ND	49	43.9	90	42.6	87	3	67-116/17

CAS No.	Surrogate Recoveries	MS	MSD	F31312-1	Limits
321-60-8	2-Fluorobiphenyl	85%	83%	78%	42-123%
84-15-1	o-Terphenyl	87%	85%	88%	51-123%

Semivolatile Surrogate Recovery Summary

Page 1 of 1

Job Number: F31312
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Method: EPA 610

Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a	S2 ^a
F31312-1	LL03670.D	78.0	88.0
F31312-2	LL03673.D	84.0	90.0
F31312-3	LL03674.D	80.0	87.0
F31312-4	LL03675.D	93.0	96.0
F31312-5	LL03676.D	61.0	71.0
F31312-6	LL03677.D	75.0	76.0
F31312-7	LL03679.D	81.0	91.0
F31312-8	LL03687.D	0.0* ^b	0.0* ^b
OP13089-BS	LL03668.D	83.0	85.0
OP13089-MB	LL03669.D	81.0	84.0
OP13089-MS	LL03671.D	85.0	87.0
OP13089-MSD	LL03672.D	83.0	85.0

Surrogate Compounds	Recovery Limits

S1 = 2-Fluorobiphenyl 42-123%

S2 = o-Terphenyl 51-123%

(a) Recovery from GC signal #1

(b) Outside control limits due to dilution.

6.4
6

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F31312
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GLL144-CC144	Injection Date:	04/26/05
Lab File ID:	LL03667.D	Injection Time:	03:46
Instrument ID:	GCLL	Method:	EPA 610

	S1 ^a RT	S2 ^a RT
Check Std	6.42	11.92

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
OP13089-BS	LL03668.D	04/26/05	04:17	6.42	11.91
OP13089-MB	LL03669.D	04/26/05	04:47	6.42	11.91
F31312-1	LL03670.D	04/26/05	05:17	6.42	11.91
OP13089-MS	LL03671.D	04/26/05	05:48	6.42	11.91
OP13089-MSD	LL03672.D	04/26/05	06:18	6.42	11.91
F31312-2	LL03673.D	04/26/05	06:48	6.42	11.91
F31312-3	LL03674.D	04/26/05	07:19	6.42	11.91
F31312-4	LL03675.D	04/26/05	07:49	6.42	11.92
F31312-5	LL03676.D	04/26/05	08:20	6.42	11.91
F31312-6	LL03677.D	04/26/05	08:50	6.42	11.91

Surrogate
Compounds

S1 = 2-Fluorobiphenyl
S2 = o-Terphenyl

(a) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F31312
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GLL144-CC144	Injection Date:	04/26/05
Lab File ID:	LL03678.D	Injection Time:	09:21
Instrument ID:	GCLL	Method:	EPA 610

S1 ^a	S2 ^a
RT	RT

Check Std	6.42	11.92

Lab	Lab	Date	Time	S1 ^a	S2 ^a
Sample ID	File ID	Analyzed	Analyzed	RT	RT
F31312-7	LL03679.D	04/26/05	09:51	6.42	11.91

Surrogate
Compounds

S1 = 2-Fluorobiphenyl

S2 = o-Terphenyl

(a) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F31312
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GLL144-CC144	Injection Date:	04/26/05
Lab File ID:	LL03682.D	Injection Time:	11:21
Instrument ID:	GCLL	Method:	EPA 610

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	6.42	5.47	11.91	10.30

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
ZZZZZZ	LL03685.D	04/26/05	14:32	6.42		11.91	
F31312-8	LL03687.D	04/26/05	15:33	0.00		0.00	
ZZZZZZ	LL03688.D	04/26/05	16:03	6.42		11.91	
GLL144-ECC144	LL03689.D	04/26/05	16:33	6.42	5.47	11.91	10.30

Surrogate
Compounds

S1 = 2-Fluorobiphenyl
S2 = o-Terphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

Initial Calibration Summary

Page 1 of 2

Job Number: F31312
 Account: EEINCJX EEI
 Project: Bldg. 4158/Camp Lejeune, NC

Sample: GLL144-ICC144
 Lab FileID: LL03638.D

Response Factor Report FLGSLI

Method : C:\MSDCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
 Title : PAH's BY EPA 610 OR 8100
 Last Update : Tue Apr 26 11:28:20 2005
 Response via : Initial Calibration

Calibration Files

5 =LL03636.D 10 =LL03637.D 20 =LL03638.D 30 =LL03639.D
 40 =LL03640.D 50 =LL03641.D

	Compound	5	10	20	30	40	50	Avg	%RSD
1)	Naphthalene	2.760	2.738	3.099	2.937	2.851	2.883	2.878	E4 4.57
2)	2-Methyl Naphthalen	2.545	2.513	2.869	2.735	2.648	2.672	2.663	E4 4.88
3)	1-Methyl Naphthalen	2.609	2.580	2.922	2.784	2.701	2.725	2.720	E4 4.57
4) S	2-Fluorobiphenyl	2.318	2.288	2.602	2.484	2.396	2.414	2.417	E4 4.75
5)	Acenaphthylene	2.454	2.425	2.781	2.690	2.592	2.602	2.591	E4 5.25
6)	Acenaphthene	2.683	2.648	2.987	2.873	2.770	2.783	2.791	E4 4.47
7)	Fluorene	2.374	2.344	2.709	2.636	2.526	2.538	2.521	E4 5.66
8)	Phenanthrene	2.418	2.339	2.675	2.598	2.479	2.473	2.497	E4 4.87
9)	Anthracene	2.273	2.231	2.544	2.507	2.356	2.353	2.377	E4 5.25
10) S	0-Terphenyl	2.646	2.549	2.851	2.771	2.636	2.640	2.682	E4 4.06
11)	Fluoranthene	2.350	2.240	2.551	2.508	2.393	2.409	2.409	E4 4.63
12)	Pyrene	2.363	2.198	2.507	2.479	2.392	2.410	2.391	E4 4.56
13)	Benzo(a)Anthracene	2.113	1.998	2.292	2.286	2.226	2.271	2.198	E4 5.37
14)	Chrysene	2.246	2.097	2.392	2.364	2.295	2.337	2.289	E4 4.67
15)	Benzo(b)Fluoranthene	2.277	2.205	2.492	2.530	2.519	2.609	2.439	E4 6.54
16)	Benzo(k)Fluoranthene	2.236	2.166	2.463	2.496	2.480	2.557	2.400	E4 6.62
17)	Benzo(a) Pyrene	2.108	2.070	2.388	2.444	2.447	2.540	2.333	E4 8.37
18)	Indeno(1,2,3-cd)pyr	2.061	2.337	2.671	2.688	2.683	2.774	2.536	E4 10.94
---- Quadratic regression ---- Coefficient = 0.9995									
Response Ratio = -35099.25200 + 27474.92990 *A + 16.23935 *A^2									
19)	Dibenzo(a,h)anthrac	2.405	2.350	2.636	2.631	2.594	2.650	2.544	E4 5.18
20)	Benzo(g,h,i) Peryle	2.440	2.424	2.702	2.717	2.697	2.771	2.625	E4 5.79

Signal #2

1)	Naphthalene	2.437	2.470	2.635	2.596	2.676	2.708	2.587	E4 4.27
2)	2-Methyl Naphthalen	2.282	2.315	2.478	2.430	2.521	2.543	2.428	E4 4.46
3)	1-Methyl Naphthalen	2.330	2.364	2.517	2.458	2.541	2.570	2.463	E4 3.98
4) S	2-Fluorobiphenyl	2.044	2.071	2.235	2.186	2.260	2.295	2.182	E4 4.72
5)	Acenaphthylene	2.301	2.320	2.496	2.435	2.513	2.547	2.435	E4 4.25
6)	Acenaphthene	2.417	2.439	2.610	2.544	2.629	2.663	2.550	E4 4.03
7)	Fluorene	2.310	2.303	2.488	2.415	2.491	2.526	2.422	E4 3.99
8)	Phenanthrene	2.275	2.254	2.452	2.370	2.445	2.478	2.379	E4 4.03
9)	Anthracene	2.247	2.229	2.426	2.336	2.406	2.438	2.347	E4 3.90
10) S	0-Terphenyl	2.312	2.305	2.501	2.412	2.501	2.538	2.428	E4 4.19
11)	Fluoranthene	2.258	2.233	2.435	2.341	2.416	2.438	2.353	E4 3.88
12)	Pyrene	2.379	2.250	2.444	2.349	2.422	2.441	2.381	E4 3.12
13)	Benzo(a)Anthracene	2.167	2.135	2.330	2.242	2.315	2.314	2.251	E4 3.72
14)	Chrysene	2.232	2.186	2.366	2.275	2.349	2.342	2.292	E4 3.16
15)	Benzo(b)Fluoranthene	2.153	2.114	2.241	2.213	2.336	2.343	2.233	E4 4.19
16)	Benzo(k)Fluoranthene	2.175	2.136	2.243	2.226	2.327	2.339	2.241	E4 3.61
17)	Benzo(a) Pyrene	2.119	2.072	2.168	2.164	2.285	2.306	2.186	E4 4.22
18)	Indeno(1,2,3-cd)pyr	2.136	2.079	2.137	2.246	2.449	2.532	2.263	E4 8.23
19)	Dibenzo(a,h)anthrac	2.158	2.091	2.141	2.240	2.429	2.503	2.260	E4 7.44
20)	Benzo(g,h,i) Peryle	2.220	2.155	2.216	2.339	2.565	2.649	2.357	E4 8.66

Initial Calibration Summary

Job Number: F31312
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GLL144-ICC144
Lab FileID: LL03638.D

Page 2 of 2

(#) = Out of Range

8100_H2.M

Tue Apr 26 17:02:59 2005



Initial Calibration Verification

Page 1 of 2

Job Number: F31312
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GLL144-ICV144
Lab FileID: LL03642.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\0425PAH\LL03642.D\FID1B.CH Vial: 8
Acq On : 4-25-05 03:13:50 PM Operator: aubreya
Sample : icv144-20 Inst : FLGSLI
Misc : OP13034, GLL144, 1000, , , 1, 1, water Multiplr: 1.00
IntFile : events.e

Data File : C:\MSDCHEM\1\DATA\0425PAH\LL03642.D\FID2A.CH Vial: 58
Acq On : 4-25-05 03:13:49 PM Operator: aubreya
Sample : icv144-20 Inst : FLGSLI
Misc : OP13034, GLL144, 1000, , , 1, 1, water Multiplr: 1.00
IntFile : events2.e

Method : C:\MSDCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
Title : PAH's BY EPA 610 OR 8100
Last Update : Tue Apr 26 11:28:20 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Naphthalene	20.000	19.021	4.9	88	0.00	4.60- 4.80
2	2-Methyl Naphthalene	20.000	19.954	0.2	93	0.00	5.52- 5.72
3	1-Methyl Naphthalene	20.000	19.713	1.4	92	0.00	5.79- 5.99
4 S	2-Fluorobiphenyl			NA			
5	Acenaphthylene	20.000	20.087	-0.4	94	0.00	7.48- 7.68
6	Acenaphthene	20.000	19.302	3.5	90	0.00	7.74- 7.94
7	Fluorene	20.000	19.871	0.6	92	0.00	8.67- 8.87
8	Phenanthrene	20.000	19.713	1.4	92	0.00	10.85-11.05
9	Anthracene	20.000	20.146	-0.7	94	0.00	10.89-11.09
10 S	0-Terphenyl			NA			
11	Fluoranthene	20.000	19.711	1.4	93	0.00	13.39-13.59
12	Pyrene	20.000	19.664	1.7	94	0.00	13.97-14.17
13	Benzo(a)Anthracene	20.000	19.526	2.4	94	0.00	16.52-16.72
14	Chrysene	20.000	19.217	3.9	92	0.00	16.70-16.90
15	Benzo(b)Fluoranthene	20.000	19.305	3.5	94	0.00	18.73-18.93
16	Benzo(k)Fluoranthene	20.000	19.482	2.6	95	0.00	18.79-18.99
17	Benzo(a) Pyrene	20.000	19.503	2.5	95	0.00	19.51-19.71
		Amount	Calc.	%Drift			
18	Indeno(1,2,3-cd)pyrene	20.000	19.466	2.7	95	0.00	21.36-21.56
		Amount	Calc.	%Drift			
19	Dibenzo(a,h)anthracene	20.000	19.683	1.6	95	0.00	21.43-21.63
20	Benzo(g,h,i) Perylene	20.000	19.138	4.3	93	0.00	21.93-22.13

***** Signal #2 *****

1	Naphthalene	20.000	20.187	-0.9	99	0.00	3.81- 4.01
2	2-Methyl Naphthalene	20.000	20.938	-4.7	103	0.00	4.71- 4.91
3	1-Methyl Naphthalene	20.000	20.822	-4.1	102	-0.01	4.87- 5.07
4 S	2-Fluorobiphenyl			NA			
5	Acenaphthylene	20.000	20.750	-3.8	101	0.00	6.10- 6.30
6	Acenaphthene	20.000	20.154	-0.8	98	0.00	6.43- 6.63
7	Fluorene	20.000	20.418	-2.1	99	0.00	7.35- 7.55
8	Phenanthrene	20.000	19.877	0.6	96	0.00	9.14- 9.34
9	Anthracene	20.000	20.194	-1.0	98	0.00	9.23- 9.43

Initial Calibration Verification

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Job Number: F31312
Account: EEINCJX EE1
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GLL144-ICV144
Lab FileID: LL03642.D

10 S	0-Terphenyl					-----NA-----	
11	Fluoranthene	20.000	19.482	2.6	94	0.00	11.51-11.71
12	Pyrene	20.000	19.373	3.1	94	0.00	11.91-12.11
13	Benzo(a)Anthracene	20.000	18.824	5.9	91	0.00	14.42-14.62
14	Chrysene	20.000	18.675	6.6	90	0.00	14.49-14.69
15	Benzo(b)Fluoranthene	20.000	19.424	2.9	97	0.00	16.49-16.69
16	Benzo(k)Fluoranthene	20.000	19.084	4.6	95	0.00	16.54-16.74
17	Benzo(a) Pyrene	20.000	19.342	3.3	97	0.00	17.02-17.22
18	Indeno(1,2,3-cd)pyrene	20.000	19.947	0.3	106	0.00	18.84-19.04
19	Dibenzo(a,h)anthracene	20.000	19.942	0.3	105	0.00	18.93-19.13
20	Benzo(g,h,i) Perylene	20.000	19.612	1.9	104	0.00	19.18-19.38

(#) = Out of Range
LL03638.D 8100_H2.M

SPCC's out = 0 CCC's out = 0
Tue Apr 26 17:03:30 2005

Continuing Calibration Summary

Page 1 of 2

Job Number: F31312
Account: EEINCJX EE1
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GLL144-CC144
Lab FileID: LL03667.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\0425PAH\LL03667.D\FID1B.CH Vial: 33
Signal #2 : C:\MSDCHEM\1\DATA\0425PAH\LL03667.D\FID2A.CH
Acq On : 4-26-05 03:46:55 AM Operator: aubreya
Sample : cc144-20 Inst : FLGSL
Misc : OP13051, GLL144, 510, , , 1, 5, water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
Title : PAH's BY EPA 610 OR 8100
Last Update : Tue Apr 26 11:28:20 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Naphthalene	20.000	19.941	0.3	93	0.00	4.60- 4.80
2	2-Methyl Naphthalene	20.000	19.868	0.7	92	0.00	5.52- 5.72
3	1-Methyl Naphthalene	20.000	19.832	0.8	92	0.00	5.79- 5.99
4 S	2-Fluorobiphenyl	20.000	19.837	0.8	92	0.00	6.32- 6.52
5	Acenaphthylene	20.000	20.092	-0.5	94	0.00	7.48- 7.68
6	Acenaphthene	20.000	19.766	1.2	92	0.00	7.74- 7.94
7	Fluorene	20.000	19.532	2.3	91	0.00	8.67- 8.87
8	Phenanthrene	20.000	18.958	5.2	88	0.00	10.85-11.05
9	Anthracene	20.000	19.481	2.6	91	0.00	10.89-11.09
10 S	0-Terphenyl	20.000	19.685	1.6	93	0.00	11.82-12.02
11	Fluoranthene	20.000	19.416	2.9	92	0.00	13.39-13.59
12	Pyrene	20.000	19.476	2.6	93	-0.01	13.97-14.17
13	Benzo(a)Anthracene	20.000	20.808	-4.0	100	-0.01	16.52-16.72
14	Chrysene	20.000	20.720	-3.6	99	-0.01	16.70-16.90
15	Benzo(b)Fluoranthene	20.000	21.706	-8.5	106	-0.01	18.73-18.93
16	Benzo(k)Fluoranthene	20.000	21.842	-9.2	106	-0.01	18.79-18.99
17	Benzo(a) Pyrene	20.000	22.064	-10.3	108	-0.02	19.51-19.71

18	Indeno(1,2,3-cd)pyrene	20.000	20.925	-4.6	102	-0.02	21.36-21.56

19	Dibenzo(a,h)anthracene	20.000	21.136	-5.7	102	-0.02	21.43-21.63
20	Benzo(g,h,i) Perylene	20.000	20.963	-4.8	102	-0.02	21.93-22.13

***** Signal #2 *****

1	Naphthalene	20.000	24.232	-21.2#	119	0.00	3.81- 4.01
2	2-Methyl Naphthalene	20.000	24.455	-22.3#	120	0.00	4.71- 4.91
3	1-Methyl Naphthalene	20.000	24.433	-22.2#	120	0.00	4.87- 5.07
4 S	2-Fluorobiphenyl	20.000	24.394	-22.0#	119	0.00	5.36- 5.56
5	Acenaphthylene	20.000	24.415	-22.1#	119	0.00	6.10- 6.30
6	Acenaphthene	20.000	24.376	-21.9#	119	0.01	6.43- 6.63
7	Fluorene	20.000	24.206	-21.0#	118	0.01	7.35- 7.55
8	Phenanthrene	20.000	24.054	-20.3#	117	0.01	9.14- 9.34
9	Anthracene	20.000	24.005	-20.0#	116	0.01	9.23- 9.43
10 S	0-Terphenyl	20.000	24.368	-21.8#	118	0.01	10.19-10.39
11	Fluoranthene	20.000	24.065	-20.3#	116	0.01	11.51-11.71
12	Pyrene	20.000	23.875	-19.4#	116	0.01	11.91-12.11
13	Benzo(a)Anthracene	20.000	24.443	-22.2#	118	0.01	14.42-14.62
14	Chrysene	20.000	24.490	-22.4#	119	0.01	14.49-14.69

Continuing Calibration Summary

Page 2 of 2

Job Number: F31312
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GLL144-CC144
Lab FileID: LL03667.D

15	Benzo(b)Fluoranthene	20.000	26.296	-31.5#	131	0.02	16.49-16.69
16	Benzo(k)Fluoranthene	20.000	26.249	-31.2#	131	0.02	16.54-16.74
17	Benzo(a) Pyrene	20.000	26.828	-34.1#	135	0.01	17.02-17.22
18	Indeno(1,2,3-cd)pyrene	20.000	27.136	-35.7#	144	0.02	18.84-19.04
19	Dibenzo(a,h)anthracene	20.000	27.231	-36.2#	144	0.01	18.93-19.13
20	Benzo(g,h,i) Perylene	20.000	26.905	-34.5#	143	0.02	19.18-19.38

(#) = Out of Range
LL03638.D 8100_H2.M

SPCC's out = 0 CCC's out = 0
Tue Apr 26 17:03:32 2005

Continuing Calibration Summary

Page 1 of 2

Job Number: F31312
 Account: EEINCJX EEI
 Project: Bldg. 4158/Camp Lejeune, NC

Sample: GLL144-CC144
 Lab FileID: LL03678.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\0425PAH\LL03678.D\FID1B.CH Vial: 44
 Acq On : 4-26-05 09:21:02 AM Operator: aubrey
 Sample : cc144-30 Inst : FLGSL
 Misc : OP13089, GLL144, 1040, , , 1, 1, water Multiplr: 1.00
 IntFile : events.e

Data File : C:\MSDCHEM\1\DATA\0425PAH\LL03678.D\FID2A.CH Vial: 94
 Acq On : 4-26-05 09:21:01 AM Operator: aubrey
 Sample : cc144-30 Inst : FLGSL
 Misc : OP13089, GLL144, 1040, , , 1, 1, water Multiplr: 1.00
 IntFile : events2.e

Method : C:\MSDCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
 Title : PAH's BY EPA 610 OR 8100
 Last Update : Tue Apr 26 11:28:20 2005
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
 Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Naphthalene	30.000	30.866	-2.9	101	0.00	4.60- 4.80
2	2-Methyl Naphthalene	30.000	30.803	-2.7	100	0.00	5.52- 5.72
3	1-Methyl Naphthalene	30.000	30.821	-2.7	100	0.00	5.79- 5.99
4 S	2-Fluorobiphenyl	30.000	30.772	-2.6	100	0.00	6.32- 6.52
5	Acenaphthylene	30.000	31.209	-4.0	100	0.00	7.48- 7.68
6	Acenaphthene	30.000	30.730	-2.4	99	0.00	7.74- 7.94
7	Fluorene	30.000	30.288	-1.0	97	0.00	8.67- 8.87
8	Phenanthrene	30.000	29.680	1.1	95	0.00	10.85-11.05
9	Anthracene	30.000	29.841	0.5	94	0.00	10.89-11.09
10 S	0-Terphenyl	30.000	30.609	-2.0	99	0.00	11.82-12.02
11	Fluoranthene	30.000	30.421	-1.4	97	0.00	13.39-13.59
12	Pyrene	30.000	30.606	-2.0	98	0.00	13.97-14.17
13	Benzo(a)Anthracene	30.000	32.296	-7.7	103	-0.01	16.52-16.72
14	Chrysene	30.000	32.125	-7.1	104	0.00	16.70-16.90
15	Benzo(b)Fluoranthene	30.000	34.386	-14.6	110	0.00	18.73-18.93
16	Benzo(k)Fluoranthene	30.000	34.412	-14.7	110	0.00	18.79-18.99
17	Benzo(a) Pyrene	30.000	35.080	-16.9#	112	-0.01	19.51-19.71

18	Indeno(1,2,3-cd)pyrene	30.000	32.646	-8.8	109	0.00	21.36-21.56

19	Dibenzo(a,h)anthracene	30.000	33.480	-11.6	108	-0.01	21.43-21.63
20	Benzo(g,h,i) Perylene	30.000	33.403	-11.3	108	0.00	21.93-22.13

***** Signal #2 *****

1	Naphthalene	30.000	34.274	-14.2	114	0.00	3.81- 4.01
2	2-Methyl Naphthalene	30.000	34.315	-14.4	114	0.01	4.71- 4.91
3	1-Methyl Naphthalene	30.000	34.167	-13.9	114	0.00	4.87- 5.07
4 S	2-Fluorobiphenyl	30.000	34.196	-14.0	114	0.00	5.36- 5.56
5	Acenaphthylene	30.000	34.131	-13.8	114	0.01	6.10- 6.30
6	Acenaphthene	30.000	34.040	-13.5	114	0.01	6.43- 6.63
7	Fluorene	30.000	33.822	-12.7	113	0.01	7.35- 7.55
8	Phenanthrene	30.000	33.560	-11.9	112	0.01	9.14- 9.34
9	Anthracene	30.000	33.436	-11.5	112	0.01	9.23- 9.43

Continuing Calibration Summary

Page 2 of 2

Job Number: F31312
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GLL144-CC144
Lab FileID: LL03678.D

10 S	0-Terphenyl	30.000	33.983	-13.3	114	0.01	10.19-10.39
11	Fluoranthene	30.000	33.510	-11.7	112	0.01	11.51-11.71
12	Pyrene	30.000	33.178	-10.6	112	0.02	11.91-12.11
13	Benzo(a)Anthracene	30.000	34.036	-13.5	114	0.02	14.42-14.62
14	Chrysene	30.000	34.046	-13.5	114	0.02	14.49-14.69
15	Benzo(b)Fluoranthene	30.000	36.951	-23.2#	124	0.02	16.49-16.69
16	Benzo(k)Fluoranthene	30.000	36.617	-22.1#	123	0.02	16.54-16.74
17	Benzo(a) Pyrene	30.000	37.577	-25.3#	127	0.02	17.02-17.22
18	Indeno(1,2,3-cd)pyrene	30.000	38.284	-27.6#	129	0.02	18.84-19.04
19	Dibenzo(a,h)anthracene	30.000	38.368	-27.9#	129	0.02	18.93-19.13
20	Benzo(g,h,i) Perylene	30.000	38.209	-27.4#	128	0.03	19.18-19.38

(#) = Out of Range
LL03639.D 8100_H2.M

SPCC's out = 0 CCC's out = 0
Tue Apr 26 17:03:59 2005

Continuing Calibration Summary

Page 1 of 2

Job Number: F31312
 Account: EEINCJX EEI
 Project: Bldg. 4158/Camp Lejeune, NC

Sample: GLL144-CC144
 Lab FileID: LL03682.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\0425PAH\LL03682.D\FID1B.CH Vial: 48
 Signal #2 : C:\MSDCHEM\1\DATA\0425PAH\LL03682.D\FID2A.CH
 Acq On : 26 Apr 2005 11:21 am Operator: aubreya
 Sample : cc144-20 Inst : FLGSLI
 Misc : OP13089,GLL144,1040,,,1,1,water Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\B100_H2.M (Chemstation Integrator)
 Title : PAH's BY EPA 610 OR B100
 Last Update : Tue Apr 26 11:28:20 2005
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
 Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Naphthalene	20.000	20.400	-2.0	95	0.00	4.60- 4.80
2	2-Methyl Naphthalene	20.000	20.231	-1.2	94	0.00	5.52- 5.72
3	1-Methyl Naphthalene	20.000	20.224	-1.1	94	0.00	5.79- 5.99
4 S	2-Fluorobiphenyl	20.000	20.195	-1.0	94	0.00	6.32- 6.52
5	Acenaphthylene	20.000	20.334	-1.7	95	0.00	7.48- 7.68
6	Acenaphthene	20.000	20.137	-0.7	94	0.00	7.74- 7.94
7	Fluorene	20.000	19.608	2.0	91	0.00	8.67- 8.87
8	Phenanthrene	20.000	19.099	4.5	89	0.00	10.85-11.05
9	Anthracene	20.000	19.311	3.4	90	0.00	10.89-11.09
10 S	0-Terphenyl	20.000	19.888	0.6	94	0.00	11.82-12.02
11	Fluoranthene	20.000	19.582	2.1	92	0.00	13.39-13.59
12	Pyrene	20.000	19.673	1.6	94	-0.01	13.97-14.17
13	Benzo(a)Anthracene	20.000	20.912	-4.6	100	-0.01	16.52-16.72
14	Chrysene	20.000	20.965	-4.8	100	-0.01	16.70-16.90
15	Benzo(b)Fluoranthene	20.000	22.489	-12.4	110	-0.01	18.73-18.93
16	Benzo(k)Fluoranthene	20.000	22.539	-12.7	110	-0.02	18.79-18.99
17	Benzo(a) Pyrene	20.000	22.846	-14.2	112	-0.02	19.51-19.71
----- Amount Calc. %Drift -----							
18	Indeno(1,2,3-cd)pyrene	20.000	22.004	-10.0	108	-0.02	21.36-21.56
----- Amount Calc. %Drift -----							
19	Dibenzo(a,h)anthracene	20.000	22.270	-11.3	107	-0.02	21.43-21.63
20	Benzo(g,h,i) Perylene	20.000	21.964	-9.8	107	-0.02	21.93-22.13

***** Signal #2 *****

1	Naphthalene	20.000	23.760	-18.8#	117	0.00	3.81- 4.01
2	2-Methyl Naphthalene	20.000	23.785	-18.9#	117	0.00	4.71- 4.91
3	1-Methyl Naphthalene	20.000	23.706	-18.5#	116	0.00	4.87- 5.07
4 S	2-Fluorobiphenyl	20.000	23.694	-18.5#	116	0.00	5.36- 5.56
5	Acenaphthylene	20.000	23.653	-18.3#	115	0.00	6.10- 6.30
6	Acenaphthene	20.000	23.583	-17.9#	115	0.00	6.43- 6.63
7	Fluorene	20.000	23.456	-17.3#	114	0.00	7.35- 7.55
8	Phenanthrene	20.000	23.246	-16.2#	113	0.01	9.14- 9.34
9	Anthracene	20.000	23.177	-15.9#	112	0.01	9.23- 9.43
10 S	0-Terphenyl	20.000	23.576	-17.9#	114	0.00	10.19-10.39
11	Fluoranthene	20.000	23.177	-15.9#	112	0.01	11.51-11.71
12	Pyrene	20.000	22.954	-14.8	112	0.01	11.91-12.11
13	Benzo(a)Anthracene	20.000	23.428	-17.1#	113	0.01	14.42-14.62
14	Chrysene	20.000	23.519	-17.6#	114	0.01	14.49-14.69

Continuing Calibration Summary

Page 2 of 2

Job Number: F31312
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GLL144-CC144
Lab FileID: LL03682.D

15	Benzo(b)Fluoranthene	20.000	24.969	-24.8# 124	0.01	16.49-16.69
16	Benzo(k)Fluoranthene	20.000	25.346	-26.7# 127	0.02	16.54-16.74
17	Benzo(a) Pyrene	20.000	25.635	-28.2# 129	0.01	17.02-17.22
18	Indeno(1,2,3-cd)pyrene	20.000	26.112	-30.6# 138	0.01	18.84-19.04
19	Dibenzo(a,h)anthracene	20.000	26.133	-30.7# 138	0.01	18.93-19.13
20	Benzo(g,h,i) Perylene	20.000	25.774	-28.9# 137	0.02	19.18-19.38

(#) = Out of Range
LL03638.D 8100_H2.M

SPCC's out = 0 CCC's out = 0
Tue Apr 26 17:03:33 2005

Continuing Calibration Summary

Page 1 of 2

Job Number: F31312
 Account: EEINCJX EEI
 Project: Bldg. 4158/Camp Lejeune, NC

Sample: GLL144-CC144
 Lab FileID: LL03683.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\0425PAH\LL03683.D\FID1B.CH Vial: 49
 Signal #2 : C:\MSDCHEM\1\DATA\0425PAH\LL03683.D\FID2A.CH
 Acq On : 26 Apr 2005 11:52 am Operator: aubreya
 Sample : cc144-20 Inst : FLGSL
 Misc : OP13089,GLL144,1040,,,1,1,water Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
 Title : PAH's BY EPA 610 OR 8100
 Last Update : Tue Apr 26 11:28:20 2005
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
 Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Naphthalene	20.000	21.156	-5.8	98	0.00	4.60- 4.80
2	2-Methyl Naphthalene	20.000	21.122	-5.6	98	0.00	5.52- 5.72
3	1-Methyl Naphthalene	20.000	21.079	-5.4	98	0.00	5.79- 5.99
4 S	2-Fluorobiphenyl	20.000	21.121	-5.6	98	0.00	6.32- 6.52
5	Acenaphthylene	20.000	21.393	-7.0	100	0.00	7.48- 7.68
6	Acenaphthene	20.000	21.137	-5.7	99	0.00	7.74- 7.94
7	Fluorene	20.000	20.878	-4.4	97	0.00	8.67- 8.87
8	Phenanthrene	20.000	20.466	-2.3	96	0.00	10.85-11.05
9	Anthracene	20.000	20.365	-1.8	95	0.00	10.89-11.09
10 S	0-Terphenyl	20.000	21.014	-5.1	99	-0.01	11.82-12.02
11	Fluoranthene	20.000	20.776	-3.9	98	-0.01	13.39-13.59
12	Pyrene	20.000	20.895	-4.5	100	-0.01	13.97-14.17
13	Benzo(a)Anthracene	20.000	22.161	-10.8	106	-0.01	16.52-16.72
14	Chrysene	20.000	22.395	-12.0	107	-0.01	16.70-16.90
15	Benzo(b)Fluoranthene	20.000	23.385	-16.9#	114	-0.02	18.73-18.93
16	Benzo(k)Fluoranthene	20.000	23.591	-18.0#	115	-0.02	18.79-18.99
17	Benzo(a) Pyrene	20.000	23.823	-19.1#	116	-0.02	19.51-19.71
----- Amount Calc. %Drift -----							
18	Indeno(1,2,3-cd)pyrene	20.000	22.616	-13.1	111	-0.02	21.36-21.56
----- Amount Calc. %Drift -----							
19	Dibenzo(a,h)anthracene	20.000	22.965	-14.8	111	-0.02	21.43-21.63
20	Benzo(g,h,i) Perylene	20.000	22.605	-13.0	110	-0.02	21.93-22.13

***** Signal #2 *****

1	Naphthalene	20.000	23.222	-16.1#	114	0.00	3.81- 4.01
2	2-Methyl Naphthalene	20.000	23.297	-16.5#	114	0.00	4.71- 4.91
3	1-Methyl Naphthalene	20.000	23.190	-16.0#	113	0.00	4.87- 5.07
4 S	2-Fluorobiphenyl	20.000	23.242	-16.2#	113	0.00	5.36- 5.56
5	Acenaphthylene	20.000	23.183	-15.9#	113	0.00	6.10- 6.30
6	Acenaphthene	20.000	23.026	-15.1#	113	0.00	6.43- 6.63
7	Fluorene	20.000	22.966	-14.8	112	0.00	7.35- 7.55
8	Phenanthrene	20.000	22.696	-13.5	110	0.00	9.14- 9.34
9	Anthracene	20.000	22.647	-13.2	110	0.00	9.23- 9.43
10 S	0-Terphenyl	20.000	23.001	-15.0#	112	0.00	10.19-10.39
11	Fluoranthene	20.000	22.547	-12.7	109	0.00	11.51-11.71
12	Pyrene	20.000	22.299	-11.5	109	0.01	11.91-12.11
13	Benzo(a)Anthracene	20.000	22.672	-13.4	109	0.01	14.42-14.62
14	Chrysene	20.000	22.701	-13.5	110	0.01	14.49-14.69

Continuing Calibration Summary

Page 2 of 2

Job Number: F31312
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GLL144-CC144
Lab FileID: LL03683.D

15	Benzo(b)Fluoranthene	20.000	24.459	-22.3#	122	0.01	16.49-16.69
16	Benzo(k)Fluoranthene	20.000	24.327	-21.6#	122	0.01	16.54-16.74
17	Benzo(a) Pyrene	20.000	24.957	-24.8#	126	0.01	17.02-17.22
18	Indeno(1,2,3-cd)pyrene	20.000	25.465	-27.3#	135	0.01	18.84-19.04
19	Dibenzo(a,h)anthracene	20.000	25.488	-27.4#	135	0.01	18.93-19.13
20	Benzo(g,h,i) Perylene	20.000	25.124	-25.6#	134	0.02	19.18-19.38

(#) = Out of Range
LL03638.D 8100_H2.M

SPCC's out = 0 CCC's out = 0
Tue Apr 26 17:03:34 2005

Continuing Calibration Summary

Page 1 of 2

Job Number: F31312
 Account: EEINCJX EEI
 Project: Bldg. 4158/Camp Lejeune, NC

Sample: GLL144-ECC144
 Lab FileID: LL03689.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\0425PAH\LL03689.D\FID1B.CH Vial: 5
 Signal #2 : C:\MSDCHEM\1\DATA\0425PAH\LL03689.D\FID2A.CH
 Acq On : 4-26-05 04:33:34 PM Operator: aubrey
 Sample : ecc144-20 Inst : FLGSL
 Misc : OP13034,GLL144,1020,,,1,10,water Multiplr: 1.00
 IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
 Title : PAH's BY EPA 610 OR 8100
 Last Update : Tue Apr 26 11:28:20 2005
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
 Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Naphthalene	20.000	19.655	1.7	91	0.00	4.60- 4.80
2	2-Methyl Naphthalene	20.000	19.559	2.2	91	0.00	5.52- 5.72
3	1-Methyl Naphthalene	20.000	19.590	2.1	91	0.00	5.79- 5.99
4 S	2-Fluorobiphenyl	20.000	19.605	2.0	91	0.00	6.32- 6.52
5	Acenaphthylene	20.000	19.805	1.0	92	0.00	7.48- 7.68
6	Acenaphthene	20.000	19.540	2.3	91	0.00	7.74- 7.94
7	Fluorene	20.000	19.335	3.3	90	0.00	8.67- 8.87
8	Phenanthrene	20.000	18.809	6.0	88	0.00	10.85-11.05
9	Anthracene	20.000	19.015	4.9	89	0.00	10.89-11.09
10 S	0-Terphenyl	20.000	19.528	2.4	92	0.00	11.82-12.02
11	Fluoranthene	20.000	19.218	3.9	91	-0.01	13.39-13.59
12	Pyrene	20.000	19.361	3.2	92	-0.01	13.97-14.17
13	Benzo(a)Anthracene	20.000	20.630	-3.1	99	-0.01	16.52-16.72
14	Chrysene	20.000	20.533	-2.7	98	-0.01	16.70-16.90
15	Benzo(b)Fluoranthene	20.000	21.707	-8.5	106	-0.01	18.73-18.93
16	Benzo(k)Fluoranthene	20.000	21.964	-9.8	107	-0.01	18.79-18.99
17	Benzo(a) Pyrene	20.000	22.161	-10.8	108	-0.02	19.51-19.71
----- Amount Calc. %Drift -----							
18	Indeno(1,2,3-cd)pyrene	20.000	21.066	-5.3	103	-0.02	21.36-21.56
----- Amount Calc. %Drift -----							
19	Dibenzo(a,h)anthracene	20.000	21.374	-6.9	103	-0.02	21.43-21.63
20	Benzo(g,h,i) Perylene	20.000	20.996	-5.0	102	-0.02	21.93-22.13

***** Signal #2 *****

1	Naphthalene	20.000	21.619	-8.1	106	0.00	3.81- 4.01
2	2-Methyl Naphthalene	20.000	21.691	-8.5	106	0.00	4.71- 4.91
3	1-Methyl Naphthalene	20.000	21.554	-7.8	105	0.00	4.87- 5.07
4 S	2-Fluorobiphenyl	20.000	21.701	-8.5	106	0.00	5.36- 5.56
5	Acenaphthylene	20.000	21.685	-8.4	106	0.00	6.10- 6.30
6	Acenaphthene	20.000	21.662	-8.3	106	0.00	6.43- 6.63
7	Fluorene	20.000	21.599	-8.0	105	0.00	7.35- 7.55
8	Phenanthrene	20.000	21.423	-7.1	104	0.00	9.14- 9.34
9	Anthracene	20.000	21.395	-7.0	104	0.00	9.23- 9.43
10 S	0-Terphenyl	20.000	21.719	-8.6	105	0.00	10.19-10.39
11	Fluoranthene	20.000	21.307	-6.5	103	0.01	11.51-11.71
12	Pyrene	20.000	21.094	-5.5	103	0.01	11.91-12.11
13	Benzo(a)Anthracene	20.000	21.251	-6.3	103	0.01	14.42-14.62
14	Chrysene	20.000	21.281	-6.4	103	0.01	14.49-14.69

Continuing Calibration Summary

Page 2 of 2

Job Number: F31312
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GLL144-ECC144
Lab FileID: LL03689.D

15	Benzo(b)Fluoranthene	20.000	22.831	-14.2	114	0.01	16.49-16.69
16	Benzo(k)Fluoranthene	20.000	22.861	-14.3	114	0.02	16.54-16.74
17	Benzo(a) Pyrene	20.000	23.380	-16.9#	118	0.00	17.02-17.22
18	Indeno(1,2,3-cd)pyrene	20.000	24.060	-20.3#	127	0.01	18.84-19.04
19	Dibenzo(a,h)anthracene	20.000	24.067	-20.3#	127	0.01	18.93-19.13
20	Benzo(g,h,i) Perylene	20.000	23.774	-18.9#	126	0.01	19.18-19.38

(#) = Out of Range
LL03638.D 8100_H2.M

SPCC's out = 0 CCC's out = 0
Tue Apr 26 17:03:35 2005

July 2005 Groundwater Laboratory Report





Southeast

08/11/05

Technical Report for

EEI

Bldg. 4158/Camp Lejeune, NC

CTO-010

Accutest Job Number: F33630

Sampling Dates: 07/27/05 - 07/28/05

Report to:

EEI

bmorris@eeimail.com

ATTN: Bill Morris

Total number of pages in report: 105



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.


Harry Behzadi, Ph.D.
Laboratory Director

Certifications: FL (DOH E83510), NC (573), NJ (FL002), MA (FL946), IA (366), LA (03051), KS (E-10327), SC, AK
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Sample Summary

EEI

Job No: F33630

Bldg. 4158/Camp Lejeune, NC
Project No: CTO-010

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
F33630-1	07/27/05	12:13 BS	07/29/05	AQ	Ground Water	UST4158-MW01
F33630-2	07/27/05	11:35 BS	07/29/05	AQ	Ground Water	UST4158-MW04
F33630-3	07/27/05	10:00 BS	07/29/05	AQ	Ground Water	UST4158-MW10
F33630-4	07/27/05	12:45 BS	07/29/05	AQ	Ground Water	UST4158-MW03
F33630-5	07/27/05	11:05 BS	07/29/05	AQ	Ground Water	UST4158-MW08
F33630-6	07/27/05	10:35 BS	07/29/05	AQ	Ground Water	UST4158-MW07
F33630-7	07/27/05	08:35 BS	07/29/05	AQ	Ground Water	UST4158-MW14
F33630-8	07/27/05	09:10 BS	07/29/05	AQ	Ground Water	UST4158-MW13
F33630-9	07/27/05	09:35 BS	07/29/05	AQ	Ground Water	UST4158-MW11
F33630-10	07/27/05	13:15 BS	07/29/05	AQ	Ground Water	UST4158-MW05
F33630-11	07/28/05	00:00 BS	07/29/05	AQ	Ground Water	UST4158-DUP
F33630-12	07/28/05	09:35 BS	07/29/05	AQ	Ground Water	UST4158-MW18
F33630-13	07/28/05	10:20 BS	07/29/05	AQ	Ground Water	UST4158-MW17

Sample Summary

(continued)

EEI

Job No: F33630

Bldg. 4158/Camp Lejeune, NC
Project No: CTO-010

Sample Number	Collected Date	Time By	Received	Matrix Code Type	Client Sample ID
F33630-14	07/28/05	09:00 BS	07/29/05	AQ Ground Water	UST4158-MW15
F33630-15	07/28/05	10:55 BS	07/29/05	AQ Ground Water	UST4158-MW09

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: EEI

Job No: F33630

Site: Bldg. 4158/Camp Lejeune, NC

Report Date: 8/10/2005 12:50:38

15 Samples were collected on between 07/27/2005 and 07/28/2005 and were received at Accutest on 07/29/2005 properly preserved, at 3.4 Deg. C and intact. These Samples received an Accutest job number of F33630. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GC by Method EPA 601/602

Matrix: AQ

Batch ID: GQQ242

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F33660-1MS, F33660-1MSD were used as the QC samples indicated.

Matrix: AQ

Batch ID: GQQ245

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F33630-4MS, F33630-4MSD were used as the QC samples indicated.

All hits confirmed by dual column analysis.

Matrix: AQ

Batch ID: GQQ246

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F33630-15MS, F33630-15MSD were used as the QC samples indicated.

RPD for MSD for Ethylbenzene is outside control limits for sample F33630-15MSD. Probable cause due to sample non-homogeneity.

All hits confirmed by dual column analysis.

Extractables by GC by Method EPA 610

Matrix: AQ

Batch ID: OP14007

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F33630-12MS, F33630-12MSD were used as the QC samples indicated.

Sample F33630-15 has surrogates outside control limits. Probable cause: due to matrix interference.

F33630-15: Dilution required due to matrix interference.

F33630-15 for 2-Fluorobiphenyl, o-Terphenyl: Outside control limits due to dilution.

Accutest Laboratories Southeast (ALSE) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALSE and as stated on the COC. ALSE certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALSE Quality Manual except as noted above. This report is to be used in its entirety. ALSE is not responsible for any assumptions of data quality if partial data packages are used.

Narrative prepared by:

Ellen Pampel, Inorganic QA (signature on file)

Date: August 10, 2005

Wednesday, August 10, 2005

Report of Analysis

Client Sample ID: UST4158-MW01
 Lab Sample ID: F33630-1
 Matrix: AQ - Ground Water
 Method: EPA 601/602
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 07/27/05
 Date Received: 07/29/05
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QQ005946.D	1	08/02/05	AL	n/a	n/a	GQQ242
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	86%		71-130%
98-08-8	aaa-Trifluorotoluene	93%		71-124%

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: UST4158-MW01
 Lab Sample ID: F33630-1
 Matrix: AQ - Ground Water
 Method: EPA 610 SW846 3510C
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 07/27/05
 Date Received: 07/29/05
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL04951.D	1	08/03/05	AA	08/01/05	OP14007	GLL198
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.8	1.9	ug/l	
120-12-7	Anthracene	ND	4.8	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	1.9	ug/l	
218-01-9	Chrysene	ND	4.8	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	1.9	ug/l	
86-73-7	Fluorene	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
91-20-3	Naphthalene	ND	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.8	1.9	ug/l	
129-00-0	Pyrene	ND	4.8	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	59%		42-123%
84-15-1	o-Terphenyl	90%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID: UST4158-MW04
 Lab Sample ID: F33630-2
 Matrix: AQ - Ground Water
 Method: EPA 601/602
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 07/27/05
 Date Received: 07/29/05
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QQ005947.D	1	08/02/05	AL	n/a	n/a	GQQ242
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	86%		71-130%
98-08-8	aaa-Trifluorotoluene	94%		71-124%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: UST4158-MW04
 Lab Sample ID: F33630-2
 Matrix: AQ - Ground Water
 Method: EPA 610 SW846 3510C
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 07/27/05
 Date Received: 07/29/05
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL04952.D	1	08/03/05	AA	08/01/05	OP14007	GLL198
Run #2							

Run #	Initial Volume	Final Volume
Run #1	990 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.1	2.0	ug/l	
208-96-8	Acenaphthylene	ND	5.1	2.0	ug/l	
120-12-7	Anthracene	ND	5.1	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.1	2.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.1	2.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.1	2.0	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.1	2.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.1	2.0	ug/l	
218-01-9	Chrysene	ND	5.1	2.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.1	2.0	ug/l	
206-44-0	Fluoranthene	ND	5.1	2.0	ug/l	
86-73-7	Fluorene	ND	5.1	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.1	2.0	ug/l	
91-20-3	Naphthalene	ND	5.1	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.1	2.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.1	2.0	ug/l	
85-01-8	Phenanthrene	ND	5.1	2.0	ug/l	
129-00-0	Pyrene	ND	5.1	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	78%		42-123%
84-15-1	o-Terphenyl	91%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: UST4158-MW10
 Lab Sample ID: F33630-3
 Matrix: AQ - Ground Water
 Method: EPA 601/602
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 07/27/05
 Date Received: 07/29/05
 Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QQ006019.D	1	08/04/05	AL	n/a	n/a	GQQ245
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	90%		71-130%
98-08-8	aaa-Trifluorotoluene	92%		71-124%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UST4158-MW10	Date Sampled:	07/27/05
Lab Sample ID:	F33630-3	Date Received:	07/29/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 SW846 3510C		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL04953.D	1	08/03/05	AA	08/01/05	OP14007	GLL198
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.8	1.9	ug/l	
120-12-7	Anthracene	ND	4.8	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	1.9	ug/l	
218-01-9	Chrysene	ND	4.8	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	1.9	ug/l	
86-73-7	Fluorene	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
91-20-3	Naphthalene	ND	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.8	1.9	ug/l	
129-00-0	Pyrene	ND	4.8	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	77%		42-123%
84-15-1	o-Terphenyl	87%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID: UST4158-MW03
 Lab Sample ID: F33630-4
 Matrix: AQ - Ground Water
 Method: EPA 601/602
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 07/27/05
 Date Received: 07/29/05
 Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QQ006013.D	1	08/04/05	AL	n/a	n/a	GQQ245
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	87%		71-130%
98-08-8	aaa-Trifluorotoluene	95%		71-124%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UST4158-MW03	Date Sampled:	07/27/05
Lab Sample ID:	F33630-4	Date Received:	07/29/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 SW846 3510C		
Project:	Bldg. 4158/Camp Lejeune, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL04954.D	1	08/03/05	AA	08/01/05	OP14007	GLL198
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.8	1.9	ug/l	
120-12-7	Anthracene	ND	4.8	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	1.9	ug/l	
218-01-9	Chrysene	ND	4.8	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	1.9	ug/l	
86-73-7	Fluorene	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
91-20-3	Naphthalene	ND	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.8	1.9	ug/l	
129-00-0	Pyrene	ND	4.8	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	54%		42-123%
84-15-1	o-Terphenyl	81%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID:	UST4158-MW08	Date Sampled:	07/27/05
Lab Sample ID:	F33630-5	Date Received:	07/29/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QQ006020.D	1	08/04/05	AL	n/a	n/a	GQQ245
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	88%		71-130%
98-08-8	aaa-Trifluorotoluene	91%		71-124%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UST4158-MW08	Date Sampled:	07/27/05
Lab Sample ID:	F33630-5	Date Received:	07/29/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 SW846 3510C		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL04955.D	1	08/03/05	AA	08/01/05	OP14007	GLL198
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1030 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.9	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.9	1.9	ug/l	
120-12-7	Anthracene	ND	4.9	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.9	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.9	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.9	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.9	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.9	1.9	ug/l	
218-01-9	Chrysene	ND	4.9	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.9	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.9	1.9	ug/l	
86-73-7	Fluorene	ND	4.9	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.9	1.9	ug/l	
91-20-3	Naphthalene	ND	4.9	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.9	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.9	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.9	1.9	ug/l	
129-00-0	Pyrene	ND	4.9	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	73%		42-123%
84-15-1	o-Terphenyl	88%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UST4158-MW07	Date Sampled:	07/27/05
Lab Sample ID:	F33630-6	Date Received:	07/29/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QQ006021.D	1	08/04/05	AL	n/a	n/a	GQQ245
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	88%		71-130%
98-08-8	aaa-Trifluorotoluene	90%		71-124%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UST4158-MW07	Date Sampled:	07/27/05
Lab Sample ID:	F33630-6	Date Received:	07/29/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 SW846 3510C		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL04956.D	1	08/03/05	AA	08/01/05	OP14007	GLL198
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.8	1.9	ug/l	
120-12-7	Anthracene	ND	4.8	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	1.9	ug/l	
218-01-9	Chrysene	ND	4.8	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	1.9	ug/l	
86-73-7	Fluorene	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
91-20-3	Naphthalene	ND	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.8	1.9	ug/l	
129-00-0	Pyrene	ND	4.8	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	69%		42-123%
84-15-1	o-Terphenyl	83%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID: UST4158-MW14
 Lab Sample ID: F33630-7
 Matrix: AQ - Ground Water
 Method: EPA 601/602
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 07/27/05
 Date Received: 07/29/05
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QQ006022.D	1	08/04/05	AL	n/a	n/a	GQQ245
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	90%		71-130%
98-08-8	aaa-Trifluorotoluene	92%		71-124%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UST4158-MW14	Date Sampled:	07/27/05
Lab Sample ID:	F33630-7	Date Received:	07/29/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 SW846 3510C		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL04957.D	1	08/03/05	AA	08/01/05	OP14007	GLL198
Run #2							

Run #	Initial Volume	Final Volume
Run #1	980 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.1	2.0	ug/l	
208-96-8	Acenaphthylene	ND	5.1	2.0	ug/l	
120-12-7	Anthracene	ND	5.1	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.1	2.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.1	2.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.1	2.0	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.1	2.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.1	2.0	ug/l	
218-01-9	Chrysene	ND	5.1	2.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.1	2.0	ug/l	
206-44-0	Fluoranthene	ND	5.1	2.0	ug/l	
86-73-7	Fluorene	ND	5.1	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.1	2.0	ug/l	
91-20-3	Naphthalene	ND	5.1	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.1	2.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.1	2.0	ug/l	
85-01-8	Phenanthrene	ND	5.1	2.0	ug/l	
129-00-0	Pyrene	ND	5.1	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	91%		42-123%
84-15-1	o-Terphenyl	100%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: UST4158-MW13
Lab Sample ID: F33630-8
Matrix: AQ - Ground Water
Method: EPA 601/602
Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 07/27/05
Date Received: 07/29/05
Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	QQ006023.D	1	08/04/05	AL	n/a	n/a	GQQ245
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	47.4	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	89%		71-130%
98-08-8	aaa-Trifluorotoluene	93%		71-124%

(a) All hits confirmed by dual column analysis.

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UST4158-MW13	Date Sampled:	07/27/05
Lab Sample ID:	F33630-8	Date Received:	07/29/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 SW846 3510C		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL04958.D	1	08/03/05	AA	08/01/05	OP14007	GLL198
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1020 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.9	2.0	ug/l	
208-96-8	Acenaphthylene	ND	4.9	2.0	ug/l	
120-12-7	Anthracene	ND	4.9	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.9	2.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.9	2.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.9	2.0	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.9	2.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.9	2.0	ug/l	
218-01-9	Chrysene	ND	4.9	2.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.9	2.0	ug/l	
206-44-0	Fluoranthene	ND	4.9	2.0	ug/l	
86-73-7	Fluorene	ND	4.9	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.9	2.0	ug/l	
91-20-3	Naphthalene	ND	4.9	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.9	2.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.9	2.0	ug/l	
85-01-8	Phenanthrene	ND	4.9	2.0	ug/l	
129-00-0	Pyrene	ND	4.9	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	90%		42-123%
84-15-1	o-Terphenyl	99%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: UST4158-MW11
 Lab Sample ID: F33630-9
 Matrix: AQ - Ground Water
 Method: EPA 601/602
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 07/27/05
 Date Received: 07/29/05
 Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	QQ006024.D	1	08/04/05	AL	n/a	n/a	GQQ245
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.97	1.0	0.50	ug/l	J
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	29.9	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	88%		71-130%
98-08-8	aaa-Trifluorotoluene	92%		71-124%

(a) All hits confirmed by dual column analysis.

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UST4158-MW11	Date Sampled:	07/27/05
Lab Sample ID:	F33630-9	Date Received:	07/29/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 SW846 3510C		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL04959.D	1	08/04/05	AA	08/01/05	OP14007	GLL198
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1020 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.9	2.0	ug/l	
208-96-8	Acenaphthylene	ND	4.9	2.0	ug/l	
120-12-7	Anthracene	ND	4.9	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.9	2.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.9	2.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.9	2.0	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.9	2.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.9	2.0	ug/l	
218-01-9	Chrysene	ND	4.9	2.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.9	2.0	ug/l	
206-44-0	Fluoranthene	ND	4.9	2.0	ug/l	
86-73-7	Fluorene	ND	4.9	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.9	2.0	ug/l	
91-20-3	Naphthalene	ND	4.9	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.9	2.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.9	2.0	ug/l	
85-01-8	Phenanthrene	ND	4.9	2.0	ug/l	
129-00-0	Pyrene	ND	4.9	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	91%		42-123%
84-15-1	o-Terphenyl	96%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UST4158-MW05	Date Sampled:	07/27/05
Lab Sample ID:	F33630-10	Date Received:	07/29/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Bldg. 4158/Camp Lejeune, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QQ006025.D	1	08/04/05	AL	n/a	n/a	GQQ245
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	89%		71-130%
98-08-8	aaa-Trifluorotoluene	94%		71-124%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: UST4158-MW05
 Lab Sample ID: F33630-10
 Matrix: AQ - Ground Water
 Method: EPA 610 SW846 3510C
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 07/27/05
 Date Received: 07/29/05
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL04960.D	1	08/04/05	AA	08/01/05	OP14007	GLL198
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1020 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.9	2.0	ug/l	
208-96-8	Acenaphthylene	ND	4.9	2.0	ug/l	
120-12-7	Anthracene	ND	4.9	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.9	2.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.9	2.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.9	2.0	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.9	2.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.9	2.0	ug/l	
218-01-9	Chrysene	ND	4.9	2.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.9	2.0	ug/l	
206-44-0	Fluoranthene	ND	4.9	2.0	ug/l	
86-73-7	Fluorene	ND	4.9	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.9	2.0	ug/l	
91-20-3	Naphthalene	ND	4.9	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.9	2.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.9	2.0	ug/l	
85-01-8	Phenanthrene	ND	4.9	2.0	ug/l	
129-00-0	Pyrene	ND	4.9	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	77%		42-123%
84-15-1	o-Terphenyl	89%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID: UST4158-DUP
 Lab Sample ID: F33630-11
 Matrix: AQ - Ground Water
 Method: EPA 601/602
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 07/28/05
 Date Received: 07/29/05
 Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	QQ006026.D	1	08/04/05	AL	n/a	n/a	GQQ245
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	0.52	1.0	0.50	ug/l	J
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	91%		71-130%
98-08-8	aaa-Trifluorotoluene	93%		71-124%

(a) All hits confirmed by dual column analysis.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UST4158-DUP	Date Sampled:	07/28/05
Lab Sample ID:	F33630-11	Date Received:	07/29/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 SW846 3510C		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL04962.D	1	08/04/05	AA	08/01/05	OP14007	GLL198
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1030 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.9	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.9	1.9	ug/l	
120-12-7	Anthracene	ND	4.9	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.9	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.9	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.9	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.9	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.9	1.9	ug/l	
218-01-9	Chrysene	ND	4.9	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.9	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.9	1.9	ug/l	
86-73-7	Fluorene	ND	4.9	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.9	1.9	ug/l	
91-20-3	Naphthalene	ND	4.9	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.9	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.9	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.9	1.9	ug/l	
129-00-0	Pyrene	ND	4.9	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	70%		42-123%
84-15-1	o-Terphenyl	75%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID: UST4158-MW18
 Lab Sample ID: F33630-12
 Matrix: AQ - Ground Water
 Method: EPA 601/602
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 07/28/05
 Date Received: 07/29/05
 Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	QQ006027.D	1	08/04/05	AL	n/a	n/a	GQQ245
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	0.52	1.0	0.50	ug/l	J
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	88%		71-130%
98-08-8	aaa-Trifluorotoluene	93%		71-124%

(a) All hits confirmed by dual column analysis.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UST4158-MW18	Date Sampled:	07/28/05
Lab Sample ID:	F33630-12	Date Received:	07/29/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 SW846 3510C		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL04963.D	1	08/04/05	AA	08/01/05	OP14007	GLL198
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.8	1.9	ug/l	
120-12-7	Anthracene	ND	4.8	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	1.9	ug/l	
218-01-9	Chrysene	ND	4.8	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	1.9	ug/l	
86-73-7	Fluorene	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
91-20-3	Naphthalene	ND	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.8	1.9	ug/l	
129-00-0	Pyrene	ND	4.8	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	75%		42-123%
84-15-1	o-Terphenyl	82%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: UST4158-MW17
 Lab Sample ID: F33630-13
 Matrix: AQ - Ground Water
 Method: EPA 601/602
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 07/28/05
 Date Received: 07/29/05
 Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	QQ006028.D	1	08/04/05	AL	n/a	n/a	GQQ245
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	29.4	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	89%		71-130%
98-08-8	aaa-Trifluorotoluene	92%		71-124%

(a) All hits confirmed by dual column analysis.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: UST4158-MW17
 Lab Sample ID: F33630-13
 Matrix: AQ - Ground Water
 Method: EPA 610 SW846 3510C
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 07/28/05
 Date Received: 07/29/05
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL04966.D	1	08/04/05	AA	08/01/05	OP14007	GLL198
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.8	1.9	ug/l	
120-12-7	Anthracene	ND	4.8	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	1.9	ug/l	
191-24-2	Benzo(g,b,i)perylene	ND	4.8	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	1.9	ug/l	
218-01-9	Chrysene	ND	4.8	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	1.9	ug/l	
86-73-7	Fluorene	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
91-20-3	Naphthalene	ND	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.8	1.9	ug/l	
129-00-0	Pyrene	ND	4.8	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	79%		42-123%
84-15-1	o-Terphenyl	86%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: UST4158-MW15
 Lab Sample ID: F33630-14
 Matrix: AQ - Ground Water
 Method: EPA 601/602
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 07/28/05
 Date Received: 07/29/05
 Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	QQ006030.D	1	08/04/05	AL	n/a	n/a	GQQ245
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	1.0	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	1.6	3.0	1.0	ug/l	J
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	89%		71-130%
98-08-8	aaa-Trifluorotoluene	93%		71-124%

(a) All hits confirmed by dual column analysis.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: UST4158-MW15
 Lab Sample ID: F33630-14
 Matrix: AQ - Ground Water
 Method: EPA 610 SW846 3510C
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 07/28/05
 Date Received: 07/29/05
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL04967.D	1	08/04/05	AA	08/01/05	OP14007	GLL198
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1030 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.9	1.9	ug/l	
208-96-8	Acenaphthylene	ND	4.9	1.9	ug/l	
120-12-7	Anthracene	ND	4.9	1.9	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.9	1.9	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.9	1.9	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.9	1.9	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.9	1.9	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.9	1.9	ug/l	
218-01-9	Chrysene	ND	4.9	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.9	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.9	1.9	ug/l	
86-73-7	Fluorene	ND	4.9	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.9	1.9	ug/l	
91-20-3	Naphthalene	ND	4.9	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.9	1.9	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.9	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.9	1.9	ug/l	
129-00-0	Pyrene	ND	4.9	1.9	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	54%		42-123%
84-15-1	o-Terphenyl	65%		51-123%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: UST4158-MW09
 Lab Sample ID: F33630-15
 Matrix: AQ - Ground Water
 Method: EPA 601/602
 Project: Bldg. 4158/Camp Lejeune, NC

Date Sampled: 07/28/05
 Date Received: 07/29/05
 Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	QQ006042.D	1	08/04/05	AL	n/a	n/a	GQQ246
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.67	1.0	0.50	ug/l	J
108-88-3	Toluene	2.5	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	11.0	3.0	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	100%		71-130%
98-08-8	aaa-Trifluorotoluene	97%		71-124%

(a) All hits confirmed by dual column analysis.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UST4158-MW09	Date Sampled:	07/28/05
Lab Sample ID:	F33630-15	Date Received:	07/29/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 SW846 3510C		
Project:	Bldg. 4158/Camp Lejeune, NC		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	LL04974.D	20	08/04/05	AA	08/01/05	OP14007	GLL199
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1020 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	98	39	ug/l	
208-96-8	Acenaphthylene	ND	98	39	ug/l	
120-12-7	Anthracene	ND	98	39	ug/l	
56-55-3	Benzo(a)anthracene	ND	98	39	ug/l	
50-32-8	Benzo(a)pyrene	ND	98	39	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	98	39	ug/l	
191-24-2	Benzo(g,b,i)perylene	ND	98	39	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	98	39	ug/l	
218-01-9	Chrysene	ND	98	39	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	98	39	ug/l	
206-44-0	Fluoranthene	ND	98	39	ug/l	
86-73-7	Fluorene	ND	98	39	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	98	39	ug/l	
91-20-3	Naphthalene	ND	98	39	ug/l	
90-12-0	1-Methylnaphthalene	ND	98	39	ug/l	
91-57-6	2-Methylnaphthalene	ND	98	39	ug/l	
85-01-8	Phenanthrene	ND	98	39	ug/l	
129-00-0	Pyrene	ND	98	39	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	0% ^b		42-123%
84-15-1	o-Terphenyl	0% ^b		51-123%

(a) Dilution required due to matrix interference.

(b) Outside control limits due to dilution.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody



CHAIN OF CUSTODY

4405 VINELAND ROAD • SUITE C-15
ORLANDO, FL 32811
TEL: 407-425-6700 • FAX: 407-425-0707

ACCUTEST JOB #:

ACCUTEST QUOTE #:

F33630

CLIENT INFORMATION			FACILITY INFORMATION			ANALYTICAL INFORMATION			MATRIX CODES					
Engineering + Environment NAME: 824 Cumberland Rd. Suite S ADDRESS: Jacksonville NC 28540 CITY: Bill Morris STATE: ZIP: SEND REPORT TO: PHONE # 910-989-3214			PROJECT NAME: 4158 LOCATION: PROJECT NO.: FAX # 910-989-3341			602/1/2015 619			DW - DRINKING WATER GW - GROUND WATER WW - WASTE WATER SO - SOIL SL - SLUDGE OI - OIL LIQ - OTHER LIQUID SOL - OTHER SOLID					
ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION			PRESERVATION								LAB USE ONLY	
		DATE	TIME	SAMPLED BY:	MATRIX	LOP	BOTTLE	IC	NOX	HEP	HEP	HEP		HEP
1	UST 4158-MW01	7/27/05	12:13	BS	GW	5	X				X		3	2
2	UST 4158-MW04	7/27/05	11:35	BS	GW	5	X				X		3	2
3	UST 4158-MW10	7/27/05	10:00	BS	GW	5	X				X		3	2
4	UST 4158-MW03	7/27/05	12:45	BS	GW	5	X				X		3	2
5	UST 4158-MW08	7/27/05	11:05	BS	GW	5	X				X		3	2
6	UST 4158-MW07	7/27/05	10:35	BS	GW	5	X				X		3	2
7	UST 4158-MW14	7/27/05	8:35	BS	GW	5	X				X		3	2
8	UST 4158-MW13	7/27/05	9:10	BS	GW	5	X				X		3	2
9	UST 4158-MW11	7/27/05	9:35	BS	GW	5	X				X		3	2
10	UST 4158-MW05	7/27/05	12:15	BS	GW	5	X				X		3	2
11	UST 4158-Dup	7/29/05	-	BS	GW	5	X				X		3	2
DATA TURNAROUND INFORMATION		APPROVED BY:		DATA DELIVERABLE INFORMATION			COMMENTS/REMARKS							
☒ STANDARD ☐ 48 HOUR RUSH ☐ 24 HOUR EMERGENCY ☐ OTHER				☐ STANDARD ☐ COMMERCIAL "B" ☐ DISK DELIVERABLE ☐ STATE FORMS ☒ OTHER (SPECIFY) <u>NECET 4</u>										
EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED														
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY														
RELINQUISHED BY: 1. <u>Bob Della</u>		DATE TIME: 7/28/05		RECEIVED BY: 1. <u>Bob Della</u>		DATE TIME: 7/28/05		RELINQUISHED BY: 2. <u>Bob Della</u>		DATE TIME: 7/28/05		RECEIVED BY: 2. <u>Bob Della</u>		
RELINQUISHED BY: 3.		DATE TIME:		RECEIVED BY: 3.		DATE TIME:		RELINQUISHED BY: 4.		DATE TIME:		RECEIVED BY: 4.		
RELINQUISHED BY: 5.		DATE TIME:		RECEIVED BY: 5.		DATE TIME:		RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		
SEAL #						PRESERVE WHERE APPLICABLE						ON ICE ☐ TEMPERATURE <u>23.4</u> °C		

F33630: Chain of Custody

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ACCUTEST.

CHAIN OF CUSTODY

4405 VINELAND ROAD • SUITE C-15
ORLANDO, FL 32811
TEL: 407-425-8700 • FAX: 407-425-0700

ACCUTEST JOB #:

ACCTEST QUOTE #:

F33630

CLIENT INFORMATION			FACILITY INFORMATION			ANALYTICAL INFORMATION			MATRIX CODES
Engineering & Environment NAME: <u>R. J. Gambrecht rd Suite 5</u> ADDRESS: <u>Jacksonville NC 28540</u> CITY: <u>Bell Morris</u> STATE: _____ ZIP: _____ SEND REPORT TO: PHONE #: <u>910-989-3214</u>			PROJECT NAME: <u>H158</u> LOCATION: _____ PROJECT NO.: _____ FAX #: <u>910-989-3341</u>						DW - DRINKING WATER GW - GROUND WATER WW - WASTE WATER SO - SOIL SL - SLUDGE OI - OIL LIQ - OTHER LIQUID SOL - OTHER SOLID
ACCUTEST SAMPLE # _____ FIELD ID / POINT OF COLLECTION _____			COLLECTION DATE TIME SAMPLED BY: _____ MATRIX _____ # OF BOTTLES _____ NO _____ PRESERVATION _____						
<u>12 HST4158-MW18</u> <u>13 HST4158-MW17</u> <u>14 HST4158-MW15</u> <u>15 HST4158-MW09</u> <u>No Trip blank supplied</u>			<u>7/28/05 9:35 BS GW 5 X</u> <u>7/28/05 10:20 BS GW 5 X</u> <u>7/28/05 9:00 BS GW 5 Y</u> <u>7/28/05 10:55 BS GW 4 K</u>			<u>3 2</u> <u>3 2</u> <u>3 2</u> <u>3 1 Note only one G10</u>			
DATA TURNAROUND INFORMATION			DATA DELIVERABLE INFORMATION			COMMENTS/REMARKS			
☒ STANDARD ☐ 48 HOUR RUSH ☐ 24 HOUR EMERGENCY ☐ OTHER _____ EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED			☐ STANDARD ☐ COMMERCIAL "B" ☐ DISK DELIVERABLE ☐ STATE FORMS ☒ OTHER (SPECIFY) <u>NCL594</u>			APPROVED BY: _____ DATE: _____			
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY									
RELINQUISHED BY: <u>[Signature]</u>		DATE TIME: <u>7/29/05</u>		RECEIVED BY: <u>[Signature]</u>		DATE TIME: <u>7/29/05</u>		RELINQUISHED BY: <u>[Signature]</u>	
RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		DATE TIME:		RELINQUISHED BY:	
RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		DATE TIME:		RELINQUISHED BY:	
RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		DATE TIME:		RELINQUISHED BY:	
SEAL #		PRESERVE WHERE APPLICABLE		ON ICE		TEMPERATURE			

F33630: Chain of Custody

Page 2 of 3

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: F33630 CLIENT: Eligwood Env PROJECT: 4158
 DATE/TIME RECEIVED: 07/24/05 - 0900 # OF COOLERS RECEIVED: 1 COOLER TEMPS: 2.8°, 3.4, 2.4, 2.8
 METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER
 AIRBILL NUMBERS: 8493 1427 3237

COOLER INFORMATION

- ☐ CUSTODY SEAL NOT PRESENT OR NOT INTACT
- ☐ NO COC RECEIVED
- ☐ ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- ☐ SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- ☐ TEMPERATURE CRITERIA NOT MET

TRIP BLANK INFORMATION

- ☐ TRIP BLANK NOT PROVIDED
- ☐ TRIP BLANK NOT ON COC
- ☐ TRIP BLANK INTACT
- ☐ TRIP BLANK NOT INTACT
- ☐ RECEIVED WATER TRIP BLANK
- ☐ RECEIVED SOIL TRIP BLANK

SAMPLE INFORMATION

- ☐ SAMPLE LABELS PRESENT ON ALL BOTTLES
- ☒ CORRECT NUMBER OF CONTAINERS USED
- ☐ SAMPLE RECEIVED IMPROPERLY PRESERVED
- ☐ INSUFFICIENT VOLUME FOR ANALYSIS
- ☐ TIMES ON COC DON'T MATCH LABEL
- ☐ ID'S ON COC DON'T MATCH LABEL
- ☐ VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- ☐ BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- ☐ NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- ☐ UNCLEAR FILTERING INSTRUCTIONS
- ☐ UNCLEAR COMPOSITING INSTRUCTIONS
- ☐ SAMPLE(S) RECEIVED BROKEN
- ☐ % SOLIDS JAR NOT RECEIVED

SOIL INFORMATION

NUMBER OF ENCORES ?

NUMBER OF 5035 FIELD KITS ?

SUMMARY OF COMMENTS: Marked on COC (only 1 610 Bottle) Received 7/29/05 @ 10:55

TECHNICIAN SIGNATURE/DATE [Signature] 07/24/05 TECHNICIAN SIGNATURE/DATE [Signature]

ASBD06/22/05

F33630: Chain of Custody
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GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Page 1 of 1

Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GQQ242-MB	QQ005925.D 1		08/02/05	AL	n/a	n/a	GQQ242

The QC reported here applies to the following samples:

Method: EPA 601/602

F33630-1, F33630-2

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	86%	71-130%
98-08-8	aaa-Trifluorotoluene	94%	71-124%

Method Blank Summary

Page 1 of 1

Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GQQ245-MB	QQ006009.D1		08/04/05	AL	n/a	n/a	GQQ245

The QC reported here applies to the following samples:

Method: EPA 601/602

F33630-3, F33630-4, F33630-5, F33630-6, F33630-7, F33630-8, F33630-9, F33630-10, F33630-11, F33630-12, F33630-13, F33630-14

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	85%	71-130%
98-08-8	aaa-Trifluorotoluene	94%	71-124%

Method Blank Summary

Page 1 of 1

Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GQQ246-MB	QQ006035.D 1		08/04/05	AL	n/a	n/a	GQQ246

The QC reported here applies to the following samples:

Method: EPA 601/602

F33630-15

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Limits
460-00-4	4-Bromofluorobenzene	90% 71-130%
98-08-8	aaa-Trifluorotoluene	96% 71-124%

Blank Spike Summary

Page 1 of 1

Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GQQ242-BS	QQ005924.D1		08/02/05	AL	n/a	n/a	GQQ242

The QC reported here applies to the following samples:

Method: EPA 601/602

F33630-1, F33630-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	19.0	95	81-121
100-41-4	Ethylbenzene	20	18.8	94	79-124
1634-04-4	Methyl Tert Butyl Ether	20	18.4	92	73-118
108-88-3	Toluene	20	19.2	96	79-122
1330-20-7	Xylenes (total)	60	56.1	94	79-121

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	89%	71-130%
98-08-8	aaa-Trifluorotoluene	96%	71-124%

Blank Spike Summary

Page 1 of 1

Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GQQ245-BS	QQ006031.D1		08/04/05	AL	n/a	n/a	GQQ245

The QC reported here applies to the following samples:

Method: EPA 601/602

F33630-3, F33630-4, F33630-5, F33630-6, F33630-7, F33630-8, F33630-9, F33630-10, F33630-11, F33630-12, F33630-13, F33630-14

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	18.0	90	81-121
100-41-4	Ethylbenzene	20	18.3	92	79-124
1634-04-4	Methyl Tert Butyl Ether	20	18.0	90	73-118
108-88-3	Toluene	20	18.4	92	79-122
1330-20-7	Xylenes (total)	60	54.9	92	79-121

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	92%	71-130%
98-08-8	aaa-Trifluorotoluene	94%	71-124%

Blank Spike Summary

Page 1 of 1

Job Number: F33630

Account: EEINCJX EEI

Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GQQ246-BS	QQ006034.D1		08/04/05	AL	n/a	n/a	GQQ246

The QC reported here applies to the following samples:

Method: EPA 601/602

F33630-15

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	19.3	97	81-121
100-41-4	Ethylbenzene	20	18.9	95	79-124
1634-04-4	Methyl Tert Butyl Ether	20	16.6	83	73-118
108-88-3	Toluene	20	19.1	96	79-122
1330-20-7	Xylenes (total)	60	56.3	94	79-121

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	94%	71-130%
98-08-8	aaa-Trifluorotoluene	98%	71-124%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: F33630
Account: EEINCJX EE1
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F33660-1MS	QQ005941.D 1		08/02/05	AL	n/a	n/a	GQQ242
F33660-1MSD	QQ005942.D 1		08/02/05	AL	n/a	n/a	GQQ242
F33660-1	QQ005940.D 1		08/02/05	AL	n/a	n/a	GQQ242

The QC reported here applies to the following samples:

Method: EPA 601/602

F33630-1, F33630-2

CAS No.	Compound	F33660-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	1.0 U		20	18.9	95	19.0	95	1	74-126/11
100-41-4	Ethylbenzene	1.0 U		20	19.3	97	19.2	96	1	71-131/8
1634-04-4	Methyl Tert Butyl Ether	1.0 U		20	19.7	99	19.7	99	0	63-130/11
108-88-3	Toluene	1.0 U		20	19.3	97	19.2	96	1	69-132/7
1330-20-7	Xylenes (total)	3.0 U		60	57.8	96	57.5	96	1	71-127/8

CAS No.	Surrogate Recoveries	MS	MSD	F33660-1	Limits
460-00-4	4-Bromofluorobenzene	90%	91%	85%	71-130%
98-08-8	aaa-Trifluorotoluene	93%	95%	92%	71-124%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F33630-4MS	QQ006014.D 1		08/04/05	AL	n/a	n/a	GQQ245
F33630-4MSD	QQ006015.D 1		08/04/05	AL	n/a	n/a	GQQ245
F33630-4	QQ006013.D 1		08/04/05	AL	n/a	n/a	GQQ245

The QC reported here applies to the following samples:

Method: EPA 601/602

F33630-3, F33630-4, F33630-5, F33630-6, F33630-7, F33630-8, F33630-9, F33630-10, F33630-11, F33630-12, F33630-13, F33630-14

CAS No.	Compound	F33630-4 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		20	18.4	92	18.4	92	0	74-126/11
100-41-4	Ethylbenzene	ND		20	18.4	92	18.4	92	0	71-131/8
1634-04-4	Methyl Tert Butyl Ether	ND		20	18.8	94	18.8	94	0	63-130/11
108-88-3	Toluene	ND		20	18.7	94	18.7	94	0	69-132/7
1330-20-7	Xylenes (total)	ND		60	55.0	92	54.9	92	0	71-127/8

CAS No.	Surrogate Recoveries	MS	MSD	F33630-4	Limits
460-00-4	4-Bromofluorobenzene	91%	91%	87%	71-130%
98-08-8	aaa-Trifluorotoluene	95%	96%	95%	71-124%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F33630-15MS	QQ006043.D 1		08/04/05	AL	n/a	n/a	GQQ246
F33630-15MSD	QQ006044.D 1		08/04/05	AL	n/a	n/a	GQQ246
F33630-15 ^a	QQ006042.D 1		08/04/05	AL	n/a	n/a	GQQ246

The QC reported here applies to the following samples:

Method: EPA 601/602

F33630-15

CAS No.	Compound	F33630-15 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	0.67	J	20	17.5	84	17.3	83	1	74-126/11
100-41-4	Ethylbenzene	ND		20	15.9	80	14.5	73	9*	71-131/8
1634-04-4	Methyl Tert Butyl Ether	ND		20	18.8	94	19.2	96	2	63-130/11
108-88-3	Toluene	2.5		20	19.5	85	18.9	82	3	69-132/7
1330-20-7	Xylenes (total)	11.0		60	58.9	80	54.3	72	8	71-127/8

CAS No.	Surrogate Recoveries	MS	MSD	F33630-15	Limits
460-00-4	4-Bromofluorobenzene	110%	105%	100%	71-130%
98-08-8	aaa-Trifluorotoluene	98%	97%	97%	71-124%

(a) All hits confirmed by dual column analysis.

Volatile Surrogate Recovery Summary

Page 1 of 1

Job Number: F33630

Account: EEINCJX EEI

Project: Bldg. 4158/Camp Lejeune, NC

Method: EPA 601/602

Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a	S2 ^a
F33630-1	QQ005946.D	86.0	93.0
F33630-2	QQ005947.D	86.0	94.0
F33630-3	QQ006019.D	90.0	92.0
F33630-4	QQ006013.D	87.0	95.0
F33630-5	QQ006020.D	88.0	91.0
F33630-6	QQ006021.D	88.0	90.0
F33630-7	QQ006022.D	90.0	92.0
F33630-8	QQ006023.D	89.0	93.0
F33630-9	QQ006024.D	88.0	92.0
F33630-10	QQ006025.D	89.0	94.0
F33630-11	QQ006026.D	91.0	93.0
F33630-12	QQ006027.D	88.0	93.0
F33630-13	QQ006028.D	89.0	92.0
F33630-14	QQ006030.D	89.0	93.0
F33630-15	QQ006042.D	100.0	97.0
F33630-15MS	QQ006043.D	110.0	98.0
F33630-15MSD	QQ006044.D	105.0	97.0
F33630-4MS	QQ006014.D	91.0	95.0
F33630-4MSD	QQ006015.D	91.0	96.0
F33660-1MS	QQ005941.D	90.0	93.0
F33660-1MSD	QQ005942.D	91.0	95.0
GQQ242-BS	QQ005924.D	89.0	96.0
GQQ242-MB	QQ005925.D	86.0	94.0
GQQ245-BS	QQ006031.D	92.0	94.0
GQQ245-MB	QQ006009.D	85.0	94.0
GQQ246-BS	QQ006034.D	94.0	98.0
GQQ246-MB	QQ006035.D	90.0	96.0

Surrogate Compounds	Recovery Limits

S1 = 4-Bromofluorobenzene	71-130%

S2 = aaa-Trifluorotoluene	71-124%

(a) Recovery from GC signal #2

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GQQ242-CC208	Injection Date:	08/02/05
Lab File ID:	QQ005923.D	Injection Time:	09:48
Instrument ID:	GCQQ	Method:	EPA 601/602

S1^a S2^a
RT RT

Check Std	11.22	5.06

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
GQQ242-BS	QQ005924.D	08/02/05	10:30	11.22	5.06
GQQ242-MB	QQ005925.D	08/02/05	10:54	11.22	5.07
ZZZZZZ	QQ005926.D	08/02/05	11:46	11.22	5.07
ZZZZZZ	QQ005927.D	08/02/05	12:10	11.22	5.07
ZZZZZZ	QQ005928.D	08/02/05	12:35	11.22	5.08
ZZZZZZ	QQ005929.D	08/02/05	12:59	11.22	5.07
ZZZZZZ	QQ005930.D	08/02/05	13:26	11.22	5.07
ZZZZZZ	QQ005931.D	08/02/05	13:53	11.22	5.07
ZZZZZZ	QQ005932.D	08/02/05	14:17	11.22	5.07
ZZZZZZ	QQ005933.D	08/02/05	14:42	11.22	5.07

Surrogate
Compounds

S1 = 4-Bromofluorobenzene
S2 = aaa-Trifluorotoluene

(a) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GQQ242-CC208	Injection Date:	08/02/05
Lab File ID:	QQ005934.D	Injection Time:	15:09
Instrument ID:	GCCQ	Method:	EPA 601/602

S1 ^a S2 ^a
RT RT

Check Std	11.22	5.07

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
ZZZZZZ	QQ005935.D	08/02/05	15:33	11.22	5.08
ZZZZZZ	QQ005937.D	08/02/05	16:43	11.22	5.06
ZZZZZZ	QQ005938.D	08/02/05	17:07	11.23	5.07
ZZZZZZ	QQ005939.D	08/02/05	17:32	11.23	5.07
F33660-1	QQ005940.D	08/02/05	17:56	11.22	5.07
F33660-1MS	QQ005941.D	08/02/05	18:21	11.22	5.07
F33660-1MSD	QQ005942.D	08/02/05	18:45	11.22	5.07
ZZZZZZ	QQ005943.D	08/02/05	19:10	11.23	5.07
ZZZZZZ	QQ005944.D	08/02/05	19:34	11.22	5.07

Surrogate
Compounds

S1 = 4-Bromofluorobenzene
S2 = aaa-Trifluorotoluene

(a) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F33630
Account: EEINCJX EE1
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GQQ242-CC208	Injection Date:	08/02/05
Lab File ID:	QQ005945.D	Injection Time:	19:58
Instrument ID:	GCCQ	Method:	EPA 601/602

	S1 ^a RT	S2 ^a RT
Check Std	11.22	5.07

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
F33630-1	QQ005946.D	08/02/05	20:22	11.23	5.07
F33630-2	QQ005947.D	08/02/05	20:47	11.23	5.07
ZZZZZZ	QQ005948.D	08/02/05	21:11	11.22	5.07
ZZZZZZ	QQ005949.D	08/02/05	21:38	11.22	5.07

Surrogate
Compounds

S1 = 4-Bromofluorobenzene

S2 = aaa-Trifluorotoluene

(a) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GQQ245-CC208	Injection Date:	08/04/05
Lab File ID:	QQ006018.D	Injection Time:	05:41
Instrument ID:	GCQQ	Method:	EPA 601/602

S1 ^a	S2 ^a
RT	RT

Check Std	11.22	5.07

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
F33630-3	QQ006019.D	08/04/05	06:06	11.22	5.07
F33630-5	QQ006020.D	08/04/05	06:30	11.22	5.06
F33630-6	QQ006021.D	08/04/05	06:54	11.22	5.07
F33630-7	QQ006022.D	08/04/05	07:18	11.22	5.07
F33630-8	QQ006023.D	08/04/05	07:42	11.22	5.07
F33630-9	QQ006024.D	08/04/05	08:07	11.22	5.06
F33630-10	QQ006025.D	08/04/05	08:31	11.22	5.07
F33630-11	QQ006026.D	08/04/05	08:55	11.22	5.07
F33630-12	QQ006027.D	08/04/05	09:20	11.22	5.07
F33630-13	QQ006028.D	08/04/05	09:43	11.22	5.07

Surrogate Compounds

S1 = 4-Bromofluorobenzene
S2 = aaa-Trifluorotoluene

(a) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GQQ245-CC208	Injection Date:	08/04/05
Lab File ID:	QQ006029.D	Injection Time:	10:07
Instrument ID:	GCQQ	Method:	EPA 601/602

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	11.18	11.22	5.08	5.08

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
F33630-14	QQ006030.D	08/04/05	10:31		11.22		5.07
GQQ245-BS	QQ006031.D	08/04/05	10:56		11.22		5.07
GQQ245-ECC208	QQ006032.D	08/04/05	11:21	11.18	11.22	5.07	5.06

Surrogate
Compounds

S1 = 4-Bromofluorobenzene
S2 = aaa-Trifluorotoluene

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GQQ246-CC208	Injection Date:	08/04/05
Lab File ID:	QQ006033.D	Injection Time:	12:03
Instrument ID:	GCQQ	Method:	EPA 601/602

S1 ^a S2 ^a
RT RT

Check Std	11.22	5.06

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
GQQ246-BS	QQ006034.D	08/04/05	12:39	11.22	5.06
GQQ246-MB	QQ006035.D	08/04/05	13:04	11.22	5.06
ZZZZZZ	QQ006036.D	08/04/05	13:29	11.22	5.07
ZZZZZZ	QQ006041.D	08/04/05	16:31	11.22	5.07
F33630-15	QQ006042.D	08/04/05	16:56	11.22	5.07
F33630-15MS	QQ006043.D	08/04/05	17:20	11.22	5.07
F33630-15MSD	QQ006044.D	08/04/05	17:45	11.22	5.07

Surrogate
Compounds

S1 = 4-Bromofluorobenzene
S2 = aaa-Trifluorotoluene

(a) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GQQ244-CC208	Injection Date:	08/04/05
Lab File ID:	QQ006007.D	Injection Time:	00:54
Instrument ID:	GCQQ	Method:	EPA 601/602

S1^a S2^a
RT RT

Check Std	11.22	5.07

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
GQQ245-MB	QQ006009.D	08/04/05	02:03	11.23	5.07
ZZZZZZ	QQ006010.D	08/04/05	02:27	11.22	5.07
ZZZZZZ	QQ006011.D	08/04/05	02:51	11.22	5.06
ZZZZZZ	QQ006012.D	08/04/05	03:15	11.23	5.07
F33630-4	QQ006013.D	08/04/05	03:40	11.23	5.07
F33630-4MS	QQ006014.D	08/04/05	04:04	11.22	5.07
F33630-4MSD	QQ006015.D	08/04/05	04:28	11.22	5.07
ZZZZZZ	QQ006016.D	08/04/05	04:53	11.23	5.07
ZZZZZZ	QQ006017.D	08/04/05	05:17	11.22	5.07

Surrogate Compounds

S1 = 4-Bromofluorobenzene
S2 = aaa-Trifluorotoluene

(a) Retention time from GC signal #2

Initial Calibration Summary

Page 1 of 1

Job Number: F33630
 Account: EEINCJX EEI
 Project: Bldg. 4I58/Camp Lejeune, NC

Sample: GQQ208-ICC208
 Lab FileID: QQ005074.D

Response Factor Report VOA7

Method : C:\MSDCHEM\2\METHODS\DUAL0711.M (Chemstation Integrator)
 Title : EPA 602 & 5030B/8021B
 Last Update : Thu Jul 14 08:19:58 2005
 Response via : Initial Calibration

Calibration Files

1 =QQ005072.D 5 =QQ005072.D 20 =QQ005073.D 40 =QQ005074.D
 70 =QQ005075.D 100 =QQ005076.D

	Compound	1	5	20	40	70	100	Avg	%RSD
1)	Methyl tert Butyl E	0.961	1.030	0.933	0.938	0.935	0.914	0.952	E3 4.29
2)	Di-Isopropyl ether	1.974	2.263	2.196	2.168	2.189	2.168	2.159	E3 4.52
3)	Benzene	4.269	4.260	4.214	4.092	4.179	4.228	4.207	E3 1.55
4) S	a,a,a-TFT(S)	8.969	9.061	8.863	8.690	8.762	9.088	8.906	E2 1.81
5)	Toluene	2.741	3.014	3.028	3.005	3.033	3.042	2.977	E3 3.91
6)	Chlorobenzene	2.108	2.718	2.797	2.829	2.829	2.835	2.686	E3 10.67
---- Linear regr., Force(0,0) ---- Coefficient = 1.0000									
Response Ratio = 0.00000 + 2831.62015 *A									
7)	Ethylbenzene	2.004	2.342	2.335	2.367	2.357	2.347	2.292	E3 6.17
8)	m,p-Xylene	2.329	2.576	2.522	2.531	2.527	2.507	2.499	E3 3.45
9)	o-Xylene	2.488	2.727	2.687	2.701	2.694	2.669	2.661	E3 3.25
10) S	BFB(S)	2.541	2.692	2.635	2.686	2.736	2.845	2.689	E3 3.77
11)	1,3-Dichlorobenzene	3.156	3.734	3.817	3.898	3.904	3.974	3.747	E3 8.04
12)	1,4-Dichlorobenzene	3.311	3.974	4.013	4.092	4.145	4.130	3.944	E3 8.04
13)	1,2-Dichlorobenzene	3.200	3.859	3.896	3.919	3.942	4.014	3.805	E3 7.91

Signal #2

1)	Methyl tert Butyl E	8.108	9.860	9.201	9.267	9.255	9.051	9.124	E2 6.25
2)	Di-Isopropyl ether	1.736	2.130	2.097	2.075	2.090	2.075	2.034	E3 7.24
3)	Benzene	4.021	4.084	4.055	3.936	4.022	4.076	4.032	E3 1.34
4) S	a,a,a-TFT(S)	8.460	8.552	8.361	8.206	8.327	8.618	8.420	E2 1.81
5)	Toluene	2.522	2.853	2.876	2.857	2.888	2.907	2.817	E3 5.18
6)	Chlorobenzene	1.926	2.602	2.657	2.691	2.715	2.727	2.553	E3 12.16
---- Linear regr., Force(0,0) ---- Coefficient = 1.0000									
Response Ratio = 0.00000 + 2718.51179 *A									
7)	Ethylbenzene	2.021	2.296	2.272	2.295	2.296	2.284	2.244	E3 4.88
8)	m,p-Xylene	2.259	2.514	2.495	2.526	2.515	2.509	2.470	E3 4.20
9)	o-Xylene	2.041	2.330	2.311	2.346	2.340	2.324	2.282	E3 5.20
10) S	BFB(S)	2.436	2.581	2.513	2.538	2.604	2.692	2.561	E3 3.41
11)	1,3-Dichlorobenzene	2.570	3.321	3.492	3.535	3.601	3.613	3.355	E3 11.89
---- Linear regr., Force(0,0) ---- Coefficient = 1.0000									
Response Ratio = 0.00000 + 3598.61227 *A									
12)	1,4-Dichlorobenzene	2.818	3.560	3.690	3.795	3.820	3.840	3.587	E3 10.90
---- Linear regr., Force(0,0) ---- Coefficient = 1.0000									
Response Ratio = 0.00000 + 3825.57520 *A									
13)	1,2-Dichlorobenzene	2.928	3.569	3.712	3.809	3.803	3.822	3.607	E3 9.60

(#) = Out of Range									

DUAL0711.M

Thu Jul 14 08:27:22 2005

GCHH

Initial Calibration Verification

Page 1 of 2

Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GQQ208-ICV208
Lab FileID: QQ005079.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\2\DATA\071105\QQ005079.D\ELC1A.CH Vial: 8
Signal #2 : C:\MSDCHEM\2\DATA\071105\QQ005079.D\ELC2B.CH
Acq On : 7-11-05 01:50:47 PM Operator: AliciaL
Sample : icv208-20 Inst : VOA7
Misc : gc5137,gqq208,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\2\METHODS\DUAL0711.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Thu Jul 14 08:19:58 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Methyl tert Butyl EtHe	20.000	18.368	8.2	94	0.02	2.47- 2.71
2	Di-Isopropyl ether	20.000	20.494	-2.5	101	0.01	2.81- 3.05
3	Benzene	20.000	20.102	-0.5	100	0.00	3.89- 4.13
4 S	a,a,a-TFT(S)	20.000	20.763	-3.8	104	0.00	4.95- 5.19
5	Toluene	20.000	20.159	-0.8	99	0.00	6.52- 6.76
----- Amount Calc. %Drift -----							
6	Chlorobenzene	20.000	18.900	5.5	96	0.00	8.83- 9.07
----- Amount Calc. %Drift -----							
7	Ethylbenzene	20.000	20.143	-0.7	99	0.00	9.35- 9.59
8	m,p-Xylene	40.000	39.922	0.2	99	0.00	9.79-10.03
9	o-Xylene	20.000	20.072	-0.4	99	0.00	10.48-10.72
10 S	BFB(S)	20.000	20.282	-1.4	103	0.00	11.06-11.30
11	1,3-Dichlorobenzene	20.000	19.226	3.9	94	0.00	12.68-12.92
12	1,4-Dichlorobenzene	20.000	20.705	-3.5	102	0.00	12.77-13.01
13	1,2-Dichlorobenzene	20.000	19.003	5.0	93	0.00	13.09-13.33
***** Signal #2 *****							
1	Methyl tert Butyl EtHe	20.000	18.699	6.5	93	0.01	2.37- 2.61
2	Di-Isopropyl ether	20.000	20.712	-3.6	100	0.01	2.67- 2.91
3	Benzene	20.000	19.950	0.3	99	0.00	3.80- 4.04
4 S	a,a,a-TFT(S)	20.000	20.578	-2.9	104	0.00	4.94- 5.18
5	Toluene	20.000	20.108	-0.5	98	0.00	6.30- 6.54
----- Amount Calc. %Drift -----							
6	Chlorobenzene	20.000	18.552	7.2	95	0.00	8.80- 9.04
----- Amount Calc. %Drift -----							
7	Ethylbenzene	20.000	19.904	0.5	98	0.00	9.11- 9.35
8	m,p-Xylene	40.000	39.835	0.4	99	0.00	9.37- 9.61
9	o-Xylene	20.000	19.828	0.9	98	0.00	10.18-10.42
10 S	BFB(S)	20.000	20.129	-0.6	103	0.00	11.10-11.34
----- Amount Calc. %Drift -----							
11	1,3-Dichlorobenzene	20.000	18.141	9.3	93	0.00	12.61-12.85
12	1,4-Dichlorobenzene	20.000	19.333	3.3	100	0.00	12.73-12.97
----- Amount Calc. %Drift -----							
13	1,2-Dichlorobenzene	20.000	19.001	5.0	92	0.00	13.10-13.34

Initial Calibration Verification

Page 2 of 2

Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GQQ208-ICV208
Lab FileID: QQ005079.D

(#) = Out of Range
QQ005073.D DUAL0711.M

SPCC's out = 0 CCC's out = 0
Thu Jul 14 08:25:07 2005 GCHH

Continuing Calibration Summary

Page 1 of 2

Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GQQ242-CC208
Lab FileID: QQ005923.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\2\DATA\080205\QQ005923.D\ELC1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\2\DATA\080205\QQ005923.D\ELC2B.CH
Acq On : 8-2-05 09:48:48 AM Operator: AliciaL
Sample : cc208-40 Inst : VOA7
Misc : gc5231,gqq242,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\2\METHODS\DUAL0711.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Thu Jul 14 08:19:58 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Methyl tert Butyl Ethe	40.000	37.938	5.2	96	0.00	2.47- 2.71
2	Di-Isopropyl ether	40.000	38.785	3.0	97	0.00	2.81- 3.05
3	Benzene	40.000	37.812	5.5	97	0.00	3.89- 4.13
4 S	a,a,a-TFT(S)	20.000	18.968	5.2	97	0.00	4.95- 5.19
5	Toluene	40.000	39.222	1.9	97	0.00	6.52- 6.76
----- Amount Calc. %Drift -----							
6	Chlorobenzene	40.000	38.275	4.3	96	0.00	8.83- 9.07
----- Amount Calc. %Drift -----							
7	Ethylbenzene	40.000	39.373	1.6	95	0.00	9.35- 9.59
8	m,p-Xylene	80.000	77.479	3.2	96	0.00	9.79-10.03
9	o-Xylene	40.000	38.569	3.6	95	0.00	10.48-10.72
10 S	BFB(S)	20.000	18.285	8.6	92	0.00	11.06-11.30
11	1,3-Dichlorobenzene	40.000	39.341	1.6	95	0.00	12.68-12.92
12	1,4-Dichlorobenzene	40.000	39.539	1.2	95	0.00	12.77-13.01
13	1,2-Dichlorobenzene	40.000	39.188	2.0	95	0.00	13.09-13.33
***** Signal #2 *****							
1	Methyl tert Butyl Ethe	40.000	38.677	3.3	95	0.00	2.37- 2.61
2	Di-Isopropyl ether	40.000	39.294	1.8	96	0.00	2.67- 2.91
3	Benzene	40.000	37.702	5.7	97	0.00	3.80- 4.04
4 S	a,a,a-TFT(S)	20.000	18.936	5.3	97	0.00	4.94- 5.18
5	Toluene	40.000	39.390	1.5	97	0.00	6.30- 6.54
----- Amount Calc. %Drift -----							
6	Chlorobenzene	40.000	37.808	5.5	95	0.00	8.80- 9.04
----- Amount Calc. %Drift -----							
7	Ethylbenzene	40.000	39.056	2.4	95	0.00	9.11- 9.35
8	m,p-Xylene	80.000	77.681	2.9	95	0.00	9.37- 9.61
9	o-Xylene	40.000	39.007	2.5	95	0.00	10.18-10.42
10 S	BFB(S)	20.000	18.113	9.4	91	0.00	11.10-11.34
----- Amount Calc. %Drift -----							
11	1,3-Dichlorobenzene	40.000	37.207	7.0	95	0.00	12.61-12.85
12	1,4-Dichlorobenzene	40.000	37.227	6.9	94	0.00	12.73-12.97
----- Amount Calc. %Drift -----							
13	1,2-Dichlorobenzene	40.000	39.248	1.9	93	0.00	13.10-13.34

Continuing Calibration Summary

Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GQQ242-CC208
Lab FileID: QQ005923.D

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(#) = Out of Range
QQ005074.D DUAL0711.M

SPCC's out = 0 CCC's out = 0
Wed Aug 03 10:17:25 2005 GCHH



Continuing Calibration Summary

Page 1 of 2

Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GQQ242-CC208
Lab FileID: QQ005934.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\2\DATA\080205\QQ005934.D\ELC1A.CH Vial: 12
Signal #2 : C:\MSDCHEM\2\DATA\080205\QQ005934.D\ELC2B.CH
Acq On : 8-2-05 03:09:06 PM Operator: AliciaL
Sample : cc208-20 Inst : VOA7
Misc : gc5222,gqq242,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\2\METHODS\DUAL0711.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Thu Jul 14 08:19:58 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Methyl tert Butyl EtHe	20.000	19.278	3.6	98	0.01	2.47- 2.71
2	Di-Isopropyl ether	20.000	20.034	-0.2	99	0.01	2.81- 3.05
3	Benzene	20.000	19.689	1.6	98	0.01	3.89- 4.13
4 S	a,a,a-TFT(S)	20.000	19.141	4.3	96	0.00	4.95- 5.19
5	Toluene	20.000	20.587	-2.9	101	0.00	6.52- 6.76
----- Amount Calc. %Drift -----							
6	Chlorobenzene	20.000	19.840	0.8	100	0.00	8.83- 9.07
----- Amount Calc. %Drift -----							
7	Ethylbenzene	20.000	20.812	-4.1	102	0.00	9.35- 9.59
8	m,p-Xylene	40.000	41.244	-3.1	102	0.00	9.79-10.03
9	o-Xylene	20.000	20.628	-3.1	102	0.00	10.48-10.72
10 S	BFB(S)	20.000	18.532	7.3	95	0.00	11.06-11.30
11	1,3-Dichlorobenzene	20.000	20.299	-1.5	100	0.00	12.68-12.92
12	1,4-Dichlorobenzene	20.000	20.598	-3.0	101	0.00	12.77-13.01
13	1,2-Dichlorobenzene	20.000	20.229	-1.1	99	0.00	13.09-13.33
***** Signal #2 *****							
1	Methyl tert Butyl EtHe	20.000	19.767	1.2	98	0.01	2.37- 2.61
2	Di-Isopropyl ether	20.000	20.335	-1.7	99	0.01	2.67- 2.91
3	Benzene	20.000	19.774	1.1	98	0.00	3.80- 4.04
4 S	a,a,a-TFT(S)	20.000	19.109	4.5	96	0.00	4.94- 5.18
5	Toluene	20.000	20.634	-3.2	101	0.00	6.30- 6.54
----- Amount Calc. %Drift -----							
6	Chlorobenzene	20.000	19.806	1.0	101	0.00	8.80- 9.04
----- Amount Calc. %Drift -----							
7	Ethylbenzene	20.000	20.759	-3.8	103	0.00	9.11- 9.35
8	m,p-Xylene	40.000	41.215	-3.0	102	0.00	9.37- 9.61
9	o-Xylene	20.000	20.578	-2.9	102	0.00	10.18-10.42
10 S	BFB(S)	20.000	18.433	7.8	94	0.00	11.10-11.34
----- Amount Calc. %Drift -----							
11	1,3-Dichlorobenzene	20.000	19.284	3.6	99	0.00	12.61-12.85
12	1,4-Dichlorobenzene	20.000	19.543	2.3	101	0.00	12.73-12.97
----- Amount Calc. %Drift -----							
13	1,2-Dichlorobenzene	20.000	20.626	-3.1	100	0.00	13.10-13.34

Continuing Calibration Summary

Page 2 of 2

Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GQQ242-CC208
Lab FileID: QQ005934.D

(#) = Out of Range
QQ005073.D DUAL0711.M

SPCC's out = 0 CCC's out = 0
Wed Aug 03 10:18:17 2005 GCHH

5.6
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Continuing Calibration Summary

Page 1 of 2

Job Number: F33630
Account: EEINCJX EE1
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GQQ242-CC208
Lab FileID: QQ005945.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\2\DATA\080205\QQ005945.D\ELC1A.CH Vial: 22
Acq On : 8-2-05 07:58:39 PM Operator: AliciaL
Sample : cc208-20 Inst : VOA7
Misc : gc5234,gqq242,,,,,1 Multiplr: 1.00
IntFile : AUTOINT1.E

Data File : C:\MSDCHEM\2\DATA\080205\QQ005945.D\ELC2B.CH Vial: 22
Acq On : 8-2-05 07:58:38 PM Operator: AliciaL
Sample : cc208-20 Inst : VOA7
Misc : gc5234,gqq242,,,,,1 Multiplr: 1.00
IntFile : autoint2.e

Method : C:\MSDCHEM\2\METHODS\DUAL0711.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Thu Jul 14 08:19:58 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Methyl tert Butyl EtHe	20.000	19.887	0.6	101	0.02	2.47- 2.71
2	Di-Isopropyl ether	20.000	20.192	-1.0	99	0.02	2.81- 3.05
3	Benzene	20.000	19.753	1.2	99	0.02	3.89- 4.13
4 S	a,a,a-TFT(S)	20.000	19.222	3.9	97	0.01	4.95- 5.19
5	Toluene	20.000	20.274	-1.4	100	0.01	6.52- 6.76
----- Amount Calc. %Drift -----							
6	Chlorobenzene	20.000	19.590	2.1	99	0.00	8.83- 9.07
----- Amount Calc. %Drift -----							
7	Ethylbenzene	20.000	20.414	-2.1	100	0.00	9.35- 9.59
8	m,p-Xylene	40.000	40.133	-0.3	99	0.00	9.79-10.03
9	o-Xylene	20.000	20.120	-0.6	100	0.00	10.48-10.72
10 S	BFB(S)	20.000	18.439	7.8	94	0.00	11.06-11.30
11	1,3-Dichlorobenzene	20.000	19.837	0.8	97	0.00	12.68-12.92
12	1,4-Dichlorobenzene	20.000	20.177	-0.9	99	0.00	12.77-13.01
13	1,2-Dichlorobenzene	20.000	20.420	-2.1	100	0.00	13.09-13.33

***** Signal #2 *****

1	Methyl tert Butyl EtHe	20.000	20.335	-1.7	101	0.02	2.37- 2.61
2	Di-Isopropyl ether	20.000	20.461	-2.3	99	0.02	2.67- 2.91
3	Benzene	20.000	19.777	1.1	98	0.02	3.80- 4.04
4 S	a,a,a-TFT(S)	20.000	19.184	4.1	97	0.01	4.94- 5.18
5	Toluene	20.000	20.358	-1.8	100	0.01	6.30- 6.54
----- Amount Calc. %Drift -----							
6	Chlorobenzene	20.000	19.446	2.8	99	0.00	8.80- 9.04
----- Amount Calc. %Drift -----							
7	Ethylbenzene	20.000	20.235	-1.2	100	0.00	9.11- 9.35
8	m,p-Xylene	40.000	40.279	-0.7	100	0.00	9.37- 9.61
9	o-Xylene	20.000	20.234	-1.2	100	0.00	10.18-10.42
10 S	BFB(S)	20.000	18.443	7.8	94	0.00	11.10-11.34
----- Amount Calc. %Drift -----							

Continuing Calibration Summary

Page 2 of 2

Job Number: F33630
 Account: EEINCJX EEI
 Project: Bldg. 4158/Camp Lejeune, NC

Sample: GQQ242-CC208
 Lab FileID: QQ005945.D

11	1,3-Dichlorobenzene	20.000	18.913	5.4	97	0.00	12.61-12.85
12	1,4-Dichlorobenzene	20.000	18.940	5.3	98	0.00	12.73-12.97
		Amount	Calc.	%Drift			
13	1,2-Dichlorobenzene	20.000	20.067	-0.3	98	0.00	13.10-13.34

(#) = Out of Range
 QQ005073.D DUAL0711.M

SPCC's out = 0 CCC's out = 0
 Wed Aug 03 10:18:18 2005 GCHH

Continuing Calibration Summary

Page 1 of 2

Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GQQ242-CC208
Lab FileID: QQ005950.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\2\DATA\080205\QQ005950.D\ELC1A.CH Vial: 27
Signal #2 : C:\MSDCHEM\2\DATA\080205\QQ005950.D\ELC2B.CH
Acq On : 02 Aug 2005 10:02 pm Operator: AliciaL
Sample : cc208-20 Inst : VOA7
Misc : gc5234,gqq242,,,, Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\2\METHODS\DUAL0711.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Thu Jul 14 08:19:58 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Methyl tert Butyl Ethe	20.000	19.720	1.4	101	0.00	2.47- 2.71
2	Di-Isopropyl ether	20.000	19.615	1.9	96	0.00	2.81- 3.05
3	Benzene	20.000	19.068	4.7	95	0.00	3.89- 4.13
4 S	a,a,a-TFT(S)	20.000	18.958	5.2	95	0.00	4.95- 5.19
5	Toluene	20.000	19.642	1.8	97	0.00	6.52- 6.76
----- Amount Calc. %Drift -----							
6	Chlorobenzene	20.000	19.024	4.9	96	0.00	8.83- 9.07
----- Amount Calc. %Drift -----							
7	Ethylbenzene	20.000	20.080	-0.4	99	0.00	9.35- 9.59
8	m,p-Xylene	40.000	39.495	1.3	98	0.00	9.79-10.03
9	o-Xylene	20.000	19.851	0.7	98	0.00	10.48-10.72
10 S	BFB(S)	20.000	18.296	8.5	93	0.00	11.06-11.30
11	1,3-Dichlorobenzene	20.000	19.468	2.7	96	0.00	12.68-12.92
12	1,4-Dichlorobenzene	20.000	19.688	1.6	97	0.00	12.77-13.01
13	1,2-Dichlorobenzene	20.000	19.404	3.0	95	0.00	13.09-13.33
***** Signal #2 *****							
1	Methyl tert Butyl Ethe	20.000	20.201	-1.0	100	0.00	2.37- 2.61
2	Di-Isopropyl ether	20.000	19.873	0.6	96	0.00	2.67- 2.91
3	Benzene	20.000	19.104	4.5	95	0.00	3.80- 4.04
4 S	a,a,a-TFT(S)	20.000	19.057	4.7	96	0.00	4.94- 5.18
5	Toluene	20.000	19.783	1.1	97	0.00	6.30- 6.54
----- Amount Calc. %Drift -----							
6	Chlorobenzene	20.000	18.931	5.3	97	0.00	8.80- 9.04
----- Amount Calc. %Drift -----							
7	Ethylbenzene	20.000	19.884	0.6	98	0.00	9.11- 9.35
8	m,p-Xylene	40.000	39.732	0.7	98	0.00	9.37- 9.61
9	o-Xylene	20.000	19.719	1.4	97	0.00	10.18-10.42
10 S	BFB(S)	20.000	18.332	8.3	93	0.00	11.10-11.34
----- Amount Calc. %Drift -----							
11	1,3-Dichlorobenzene	20.000	18.488	7.6	95	0.00	12.61-12.85
12	1,4-Dichlorobenzene	20.000	18.571	7.1	96	0.00	12.73-12.97
----- Amount Calc. %Drift -----							
13	1,2-Dichlorobenzene	20.000	19.648	1.8	95	0.00	13.10-13.34

Continuing Calibration Summary

Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GQQ242-CC208
Lab FileID: QQ005950.D

Page 2 of 2

(#) = Out of Range
QQ005073.D DUAL0711.M

SPCC's out = 0 CCC's out = 0
Wed Aug 03 10:18:19 2005 GCHH

5.6
5

Continuing Calibration Summary

Page 1 of 2

Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GQQ244-CC208
Lab FileID: QQ006007.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\2\DATA\080305\QQ006007.D\ELC1A.CH Vial: 29
Signal #2 : C:\MSDCHEM\2\DATA\080305\QQ006007.D\ELC2B.CH
Acq On : 04 Aug 2005 12:54 am Operator: AliciaL
Sample : cc208-20 Inst : VOA7
Misc : gc5235,gqq244,,,,, Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\2\METHODS\DUAL0711.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Thu Jul 14 08:19:58 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Methyl tert Butyl Ethe	20.000	20.767	-3.8	106	0.00	2.47- 2.71
2	Di-Isopropyl ether	20.000	20.071	-0.4	99	0.00	2.81- 3.05
3	Benzene	20.000	19.380	3.1	97	0.00	3.89- 4.13
4 S	a,a,a-TFT(S)	20.000	18.852	5.7	95	0.00	4.95- 5.19
5	Toluene	20.000	20.455	-2.3	101	0.00	6.52- 6.76
----- Amount Calc. %Drift -----							
6	Chlorobenzene	20.000	19.484	2.6	99	0.00	8.83- 9.07
----- Amount Calc. %Drift -----							
7	Ethylbenzene	20.000	20.477	-2.4	101	0.00	9.35- 9.59
8	m,p-Xylene	40.000	40.222	-0.6	100	0.00	9.79-10.03
9	o-Xylene	20.000	20.236	-1.2	100	0.00	10.48-10.72
10 S	BFB(S)	20.000	18.416	7.9	94	0.00	11.06-11.30
11	1,3-Dichlorobenzene	20.000	19.931	0.3	98	0.00	12.68-12.92
12	1,4-Dichlorobenzene	20.000	20.091	-0.5	99	0.00	12.77-13.01
13	1,2-Dichlorobenzene	20.000	20.068	-0.3	98	0.00	13.09-13.33
***** Signal #2 *****							
1	Methyl tert Butyl Ethe	20.000	21.202	-6.0	105	0.00	2.37- 2.61
2	Di-Isopropyl ether	20.000	20.337	-1.7	99	0.00	2.67- 2.91
3	Benzene	20.000	19.418	2.9	97	0.00	3.80- 4.04
4 S	a,a,a-TFT(S)	20.000	18.844	5.8	95	0.00	4.94- 5.18
5	Toluene	20.000	20.478	-2.4	100	0.00	6.30- 6.54
----- Amount Calc. %Drift -----							
6	Chlorobenzene	20.000	19.246	3.8	98	0.00	8.80- 9.04
----- Amount Calc. %Drift -----							
7	Ethylbenzene	20.000	20.269	-1.3	100	0.00	9.11- 9.35
8	m,p-Xylene	40.000	40.298	-0.7	100	0.00	9.37- 9.61
9	o-Xylene	20.000	20.142	-0.7	99	0.00	10.18-10.42
10 S	BFB(S)	20.000	18.238	8.8	93	0.00	11.10-11.34
----- Amount Calc. %Drift -----							
11	1,3-Dichlorobenzene	20.000	18.903	5.5	97	0.00	12.61-12.85
12	1,4-Dichlorobenzene	20.000	19.041	4.8	99	0.00	12.73-12.97
----- Amount Calc. %Drift -----							
13	1,2-Dichlorobenzene	20.000	19.866	0.7	97	0.00	13.10-13.34

Continuing Calibration Summary

Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GQQ244-CC208
Lab FileID: QQ006007.D

Page 2 of 2

(#) = Out of Range
QQ005073.D DUAL0711.M

SPCC's out = 0 CCC's out = 0
Thu Aug 04 12:06:31 2005 GCHH

5.0
5

Continuing Calibration Summary

Page 1 of 2

Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GQQ245-CC208
Lab FileID: QQ006018.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\2\DATA\080305\QQ006018.D\ELC1A.CH Vial: 39
Signal #2 : C:\MSDCHEM\2\DATA\080305\QQ006018.D\ELC2B.CH
Acq On : 8-4-05 05:41:47 AM Operator: AliciaL
Sample : cc208-20 Inst : VOA7
Misc : gc5242,gqq245,,,, Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\2\METHODS\DUAL0711.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Thu Jul 14 08:19:58 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Methyl tert Butyl Ethe	20.000	20.298	-1.5	104	0.00	2.47- 2.71
2	Di-Isopropyl ether	20.000	19.546	2.3	96	0.00	2.81- 3.05
3	Benzene	20.000	18.478	7.6	92	0.00	3.89- 4.13
4 S	a,a,a-TFT(S)	20.000	18.436	7.8	93	0.00	4.95- 5.19
5	Toluene	20.000	19.765	1.2	97	0.00	6.52- 6.76
----- Amount Calc. %Drift -----							
6	Chlorobenzene	20.000	19.412	2.9	98	0.00	8.83- 9.07
----- Amount Calc. %Drift -----							
7	Ethylbenzene	20.000	20.195	-1.0	99	0.00	9.35- 9.59
8	m,p-Xylene	40.000	39.644	0.9	98	0.00	9.79-10.03
9	o-Xylene	20.000	20.059	-0.3	99	0.00	10.48-10.72
10 S	BFB(S)	20.000	18.935	5.3	97	0.00	11.06-11.30
11	1,3-Dichlorobenzene	20.000	19.994	0.0	98	0.00	12.68-12.92
12	1,4-Dichlorobenzene	20.000	20.247	-1.2	100	0.00	12.77-13.01
13	1,2-Dichlorobenzene	20.000	20.557	-2.8	100	0.00	13.09-13.33
***** Signal #2 *****							
1	Methyl tert Butyl Ethe	20.000	20.673	-3.4	102	0.00	2.37- 2.61
2	Di-Isopropyl ether	20.000	19.767	1.2	96	0.00	2.67- 2.91
3	Benzene	20.000	18.431	7.8	92	0.00	3.80- 4.04
4 S	a,a,a-TFT(S)	20.000	18.470	7.7	93	0.00	4.94- 5.18
5	Toluene	20.000	19.834	0.8	97	0.00	6.30- 6.54
----- Amount Calc. %Drift -----							
6	Chlorobenzene	20.000	19.211	3.9	98	0.00	8.80- 9.04
----- Amount Calc. %Drift -----							
7	Ethylbenzene	20.000	20.001	-0.0	99	0.00	9.11- 9.35
8	m,p-Xylene	40.000	39.796	0.5	98	0.00	9.37- 9.61
9	o-Xylene	20.000	20.072	-0.4	99	0.00	10.18-10.42
10 S	BFB(S)	20.000	18.925	5.4	96	0.00	11.10-11.34
----- Amount Calc. %Drift -----							
11	1,3-Dichlorobenzene	20.000	19.216	3.9	99	0.00	12.61-12.85
12	1,4-Dichlorobenzene	20.000	19.807	1.0	103	0.00	12.73-12.97
----- Amount Calc. %Drift -----							
13	1,2-Dichlorobenzene	20.000	21.182	-5.9	103	0.00	13.10-13.34

Continuing Calibration Summary

Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GQQ245-CC208
Lab FileID: QQ006018.D

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(#) = Out of Range
QQ005073.D DUAL0711.M

SPCC's out = 0 CCC's out = 0
Thu Aug 04 12:06:32 2005 GCHH

5.6
9

Continuing Calibration Summary

Page 1 of 2

Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GQQ245-CC208
Lab FileID: QQ006029.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\2\DATA\080305\QQ006029.D\ELC1A.CH Vial: 50
Signal #2 : C:\MSDCHEM\2\DATA\080305\QQ006029.D\ELC2B.CH
Acq On : 04 Aug 2005 10:07 am Operator: AliciaL
Sample : cc208-20 Inst : VOA7
Misc : gc5242.gqq245,,,, Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\2\METHODS\DUAL0711.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Thu Jul 14 08:19:58 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Methyl tert Butyl EtHe	20.000	20.485	-2.4	104	0.02	2.47- 2.71
2	Di-Isopropyl ether	20.000	20.164	-0.8	99	0.02	2.81- 3.05
3	Benzene	20.000	19.115	4.4	95	0.02	3.89- 4.13
4 S	a,a,a-TFT(S)	20.000	18.895	5.5	95	0.02	4.95- 5.19
5	Toluene	20.000	20.161	-0.8	99	0.01	6.52- 6.76
----- Amount Calc. %Drift -----							
6	Chlorobenzene	20.000	19.823	0.9	100	0.00	8.83- 9.07
----- Amount Calc. %Drift -----							
7	Ethylbenzene	20.000	20.772	-3.9	102	0.00	9.35- 9.59
8	m,p-Xylene	40.000	40.690	-1.7	101	0.00	9.79-10.03
9	o-Xylene	20.000	20.626	-3.1	102	0.00	10.48-10.72
10 S	8FB(S)	20.000	18.850	5.7	96	0.00	11.06-11.30
11	1,3-Dichlorobenzene	20.000	20.374	-1.9	100	0.00	12.68-12.92
12	1,4-Dichlorobenzene	20.000	20.456	-2.3	101	0.00	12.77-13.01
13	1,2-Dichlorobenzene	20.000	20.306	-1.5	99	0.00	13.09-13.33
***** Signal #2 *****							
1	Methyl tert Butyl EtHe	20.000	20.958	-4.8	104	0.03	2.37- 2.61
2	Di-Isopropyl ether	20.000	20.445	-2.2	99	0.03	2.67- 2.91
3	Benzene	20.000	19.115	4.4	95	0.02	3.80- 4.04
4 S	a,a,a-TFT(S)	20.000	18.806	6.0	95	0.02	4.94- 5.18
5	Toluene	20.000	20.301	-1.5	99	0.01	6.30- 6.54
----- Amount Calc. %Drift -----							
6	Chlorobenzene	20.000	19.556	2.2	100	0.01	8.80- 9.04
----- Amount Calc. %Drift -----							
7	Ethylbenzene	20.000	20.390	-2.0	101	0.00	9.11- 9.35
8	m,p-Xylene	40.000	40.316	-0.8	100	0.00	9.37- 9.61
9	o-Xylene	20.000	20.443	-2.2	101	0.00	10.18-10.42
10 S	BFB(S)	20.000	18.568	7.2	95	0.00	11.10-11.34
----- Amount Calc. %Drift -----							
11	1,3-Dichlorobenzene	20.000	19.121	4.4	99	0.00	12.61-12.85
12	1,4-Dichlorobenzene	20.000	19.242	3.8	100	0.00	12.73-12.97
----- Amount Calc. %Drift -----							
13	1,2-Dichlorobenzene	20.000	20.411	-2.1	99	0.00	13.10-13.34

Continuing Calibration Summary

Page 2 of 2

Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GQQ245-CC208
Lab FileID: QQ006029.D

(#) = Out of Range
QQ005073.D DUAL0711.M

SPCC's out = 0 CCC's out = 0
Thu Aug 04 12:06:33 2005 GCHH

Continuing Calibration Summary

Page 1 of 2

Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GQQ245-ECC208
Lab FileID: QQ006032.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSOCHEM\2\DATA\080305\QQ006032.D\ELC1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\2\DATA\080305\QQ006032.D\ELC2B.CH
Acq On : 04 Aug 2005 11:21 am Operator: AliciaL
Sample : ecc208-20 Inst : VOA7
Misc : gc5242,gqq245,,,,, Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\2\METHODS\DUAL0711.M (Chemstation Integrator)
Title : EPA 602 & 50308/8021B
Last Update : Thu Jul 14 08:19:58 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Methyl tert Butyl EtHe	20.000	19.547	2.3	100	0.00	2.47- 2.71
2	Di-Isopropyl ether	20.000	19.762	1.2	97	0.00	2.81- 3.05
3	Benzene	20.000	18.982	5.1	95	0.00	3.89- 4.13
4 S	a,a,a-TFT(S)	20.000	18.796	6.0	94	0.00	4.95- 5.19
5	Toluene	20.000	19.927	0.4	98	0.00	6.52- 6.76
----- Amount Calc. %Drift -----							
6	Chlorobenzene	20.000	19.458	2.7	98	0.00	8.83- 9.07
----- Amount Calc. %Drift -----							
7	Ethylbenzene	20.000	20.296	-1.5	100	0.00	9.35- 9.59
8	m,p-Xylene	40.000	39.910	0.2	99	0.00	9.79-10.03
9	o-Xylene	20.000	20.140	-0.7	100	0.00	10.48-10.72
10 S	BFB(S)	20.000	18.459	7.7	94	0.00	11.06-11.30
11	1,3-Dichlorobenzene	20.000	20.053	-0.3	98	0.00	12.68-12.92
12	1,4-Dichlorobenzene	20.000	20.451	-2.3	101	0.00	12.77-13.01
13	1,2-Dichlorobenzene	20.000	20.162	-0.8	98	0.00	13.09-13.33
***** Signal #2 *****							
1	Methyl tert Butyl EtHe	20.000	20.023	-0.1	99	0.00	2.37- 2.61
2	Di-Isopropyl ether	20.000	19.982	0.1	97	0.00	2.67- 2.91
3	Benzene	20.000	18.959	5.2	94	0.00	3.80- 4.04
4 S	a,a,a-TFT(S)	20.000	18.764	6.2	94	0.00	4.94- 5.18
5	Toluene	20.000	19.866	0.7	97	0.00	6.30- 6.54
----- Amount Calc. %Drift -----							
6	Chlorobenzene	20.000	19.195	4.0	98	0.00	8.80- 9.04
----- Amount Calc. %Drift -----							
7	Ethylbenzene	20.000	19.992	0.0	99	0.00	9.11- 9.35
8	m,p-Xylene	40.000	39.899	0.3	99	0.00	9.37- 9.61
9	o-Xylene	20.000	19.893	0.5	98	0.00	10.18-10.42
10 S	BFB(S)	20.000	18.243	8.8	93	0.00	11.10-11.34
----- Amount Calc. %Drift -----							
11	1,3-Dichlorobenzene	20.000	18.967	5.2	98	0.00	12.61-12.85
12	1,4-Dichlorobenzene	20.000	19.058	4.7	99	0.00	12.73-12.97
----- Amount Calc. %Drift -----							
13	1,2-Dichlorobenzene	20.000	20.134	-0.7	98	0.00	13.10-13.34

Continuing Calibration Summary

Page 2 of 2

Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GQQ245-ECC208
Lab FileID: QQ006032.D

(#) = Out of Range
QQ005073.D QUAL0711.M

SPCC's out = 0 CCC's out = 0
Thu Aug 04 12:06:34 2005 GCHH

5.6
5

Continuing Calibration Summary

Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GQQ246-CC208
Lab FileID: QQ006033.D

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Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\2\DATA\080405\QQ006033.D\ELC1A.CH Vial: 1
Signal #2 : C:\MSDCHEM\2\DATA\080405\QQ006033.D\ELC2B.CH
Acq On : 04 Aug 2005 12:03 pm Operator: AliciaL
Sample : cc208-40 Inst : VOA7
Misc : gc5242,gqq246,,,,, Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\2\METHODS\DUAL0711.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Thu Jul 14 08:19:58 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Methyl tert Butyl EtHe	40.000	37.737	5.7	96	0.00	2.47- 2.71
2	Di-Isopropyl ether	40.000	39.832	0.4	99	0.00	2.81- 3.05
3	Benzene	40.000	38.765	3.1	100	0.00	3.89- 4.13
4 S	a,a,a-TFT(S)	20.000	19.406	3.0	99	0.00	4.95- 5.19
5	Toluene	40.000	40.159	-0.4	99	0.00	6.52- 6.76
----- Amount Calc. %Drift -----							
6	Chlorobenzene	40.000	39.223	1.9	98	0.00	8.83- 9.07
----- Amount Calc. %Drift -----							
7	Ethylbenzene	40.000	40.439	-1.1	98	0.00	9.35- 9.59
8	m,p-Xylene	80.000	78.749	1.6	97	0.00	9.79-10.03
9	o-Xylene	40.000	39.570	1.1	97	0.00	10.48-10.72
10 S	BFB(S)	20.000	19.069	4.7	95	0.00	11.06-11.30
11	1,3-Dichlorobenzene	40.000	40.397	-1.0	97	0.00	12.68-12.92
12	1,4-Dichlorobenzene	40.000	40.453	-1.1	97	0.00	12.77-13.01
13	1,2-Dichlorobenzene	40.000	39.935	0.2	97	0.00	13.09-13.33

***** Signal #2 *****

1	Methyl tert Butyl EtHe	40.000	38.203	4.5	94	0.00	2.37- 2.61
2	Di-Isopropyl ether	40.000	40.053	-0.1	98	0.00	2.67- 2.91
3	Benzene	40.000	38.675	3.3	99	0.00	3.80- 4.04
4 S	a,a,a-TFT(S)	20.000	19.170	4.1	98	0.00	4.94- 5.18
5	Toluene	40.000	40.210	-0.5	99	0.00	6.30- 6.54
----- Amount Calc. %Drift -----							
6	Chlorobenzene	40.000	38.605	3.5	97	0.00	8.80- 9.04
----- Amount Calc. %Drift -----							
7	Ethylbenzene	40.000	39.960	0.1	98	0.00	9.11- 9.35
8	m,p-Xylene	80.000	79.296	0.9	97	0.00	9.37- 9.61
9	o-Xylene	40.000	39.651	0.9	96	0.00	10.18-10.42
10 S	BFB(S)	20.000	18.997	5.0	96	0.00	11.10-11.34
----- Amount Calc. %Drift -----							
11	1,3-Dichlorobenzene	40.000	38.029	4.9	97	0.00	12.61-12.85
12	1,4-Dichlorobenzene	40.000	38.384	4.0	97	0.00	12.73-12.97
----- Amount Calc. %Drift -----							
13	1,2-Dichlorobenzene	40.000	40.591	-1.5	96	0.00	13.10-13.34

Continuing Calibration Summary

Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GQQ246-CC208
Lab FileID: QQ006033.D

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(#) = Out of Range
QQ005074.D DUAL0711.M

SPCC's out = 0 CCC's out = 0
Mon Aug 08 11:06:24 2005 GCHH

5.6
5

Continuing Calibration Summary

Page 1 of 2

Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GQQ247-CC208
Lab FileID: QQ006045.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\2\DATA\080405\QQ006045.D\ELC1A.CH Vial: 11
Signal #2 : C:\MSDCHEM\2\DATA\080405\QQ006045.D\ELC2B.CH
Acq On : 8-4-05 06:09:30 PM Operator: AliciaL
Sample : cc208-20 Inst : VOA7
Misc : gc5242,gqq247,,,, Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\2\METHODS\DUAL0711.M (Chemstation Integrator)
Title : EPA 602 & 5030B/80218
Last Update : Thu Jul 14 08:19:58 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Methyl tert Butyl EtHe	20.000	19.830	0.9	101	0.02	2.47- 2.71
2	Di-Isopropyl ether	20.000	20.053	-0.3	99	0.02	2.81- 3.05
3	Benzene	20.000	19.230	3.8	96	0.02	3.89- 4.13
4 S	a,a,a-TFT(S)	20.000	19.278	3.6	97	0.01	4.95- 5.19
5	Toluene	20.000	19.997	0.0	98	0.00	6.52- 6.76
----- Amount Calc. %Drift -----							
6	Chlorobenzene	20.000	19.747	1.3	100	0.00	8.83- 9.07
----- Amount Calc. %Drift -----							
7	Ethylbenzene	20.000	20.330	-1.6	100	0.00	9.35- 9.59
8	m,p-Xylene	40.000	39.894	0.3	99	0.00	9.79-10.03
9	o-Xylene	20.000	20.201	-1.0	100	0.00	10.48-10.72
10 S	BFB(S)	20.000	19.598	2.0	100	0.00	11.06-11.30
11	1,3-Dichlorobenzene	20.000	20.043	-0.2	98	0.00	12.68-12.92
12	1,4-Dichlorobenzene	20.000	20.278	-1.4	100	0.00	12.77-13.01
13	1,2-Dichlorobenzene	20.000	20.610	-3.0	101	0.00	13.09-13.33
***** Signal #2 *****							
1	Methyl tert Butyl EtHe	20.000	20.326	-1.6	101	0.02	2.37- 2.61
2	Di-Isopropyl ether	20.000	20.301	-1.5	98	0.02	2.67- 2.91
3	Benzene	20.000	19.159	4.2	95	0.02	3.80- 4.04
4 S	a,a,a-TFT(S)	20.000	19.207	4.0	97	0.01	4.94- 5.18
5	Toluene	20.000	20.115	-0.6	99	0.01	6.30- 6.54
----- Amount Calc. %Drift -----							
6	Chlorobenzene	20.000	19.567	2.2	100	0.00	8.80- 9.04
----- Amount Calc. %Drift -----							
7	Ethylbenzene	20.000	20.170	-0.9	100	0.00	9.11- 9.35
8	m,p-Xylene	40.000	39.813	0.5	99	0.00	9.37- 9.61
9	o-Xylene	20.000	20.134	-0.7	99	0.00	10.18-10.42
10 S	BFB(S)	20.000	19.392	3.0	99	0.00	11.10-11.34
----- Amount Calc. %Drift -----							
11	1,3-Dichlorobenzene	20.000	19.044	4.8	98	0.00	12.61-12.85
12	1,4-Dichlorobenzene	20.000	19.216	3.9	100	0.00	12.73-12.97
----- Amount Calc. %Drift -----							
13	1,2-Dichlorobenzene	20.000	21.274	-6.4	103	0.00	13.10-13.34

Continuing Calibration Summary

Page 2 of 2

Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GQQ247-CC208
Lab FileID: QQ006045.D

(#) = Out of Range
QQ005073.D DUAL0711.M

SPCC's out = 0 CCC's out = 0
Mon Aug 08 11:07:08 2005 GCHH

GC Semi-volatiles



QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Page 1 of 1

Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP14007-MB	LL04948.D	1	08/03/05	AA	08/01/05	OP14007	GLL198

The QC reported here applies to the following samples:

Method: EPA 610

F33630-1, F33630-2, F33630-3, F33630-4, F33630-5, F33630-6, F33630-7, F33630-8, F33630-9, F33630-10, F33630-11, F33630-12, F33630-13, F33630-14, F33630-15

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.0	2.0	ug/l	
208-96-8	Acenaphthylene	ND	5.0	2.0	ug/l	
120-12-7	Anthracene	ND	5.0	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	2.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	2.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	2.0	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	2.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	2.0	ug/l	
218-01-9	Chrysene	ND	5.0	2.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	2.0	ug/l	
206-44-0	Fluoranthene	ND	5.0	2.0	ug/l	
86-73-7	Fluorene	ND	5.0	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	2.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	2.0	ug/l	
85-01-8	Phenanthrene	ND	5.0	2.0	ug/l	
129-00-0	Pyrene	ND	5.0	2.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
321-60-8	2-Fluorobiphenyl	93%	42-123%
84-15-1	o-Terphenyl	98%	51-123%

Method Blank Summary

Page 1 of 1

Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP14007-MB	LL04972.D	1	08/04/05	AA	08/01/05	OP14007	GLL199

The QC reported here applies to the following samples:

Method: EPA 610

F33630-1, F33630-2, F33630-3, F33630-4, F33630-5, F33630-6, F33630-7, F33630-8, F33630-9, F33630-10, F33630-11, F33630-12, F33630-13, F33630-14, F33630-15

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.0	2.0	ug/l	
208-96-8	Acenaphthylene	ND	5.0	2.0	ug/l	
120-12-7	Anthracene	ND	5.0	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	2.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	2.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	2.0	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	2.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	2.0	ug/l	
218-01-9	Chrysene	ND	5.0	2.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	2.0	ug/l	
206-44-0	Fluoranthene	ND	5.0	2.0	ug/l	
86-73-7	Fluorene	ND	5.0	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	2.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	2.0	ug/l	
85-01-8	Phenanthrene	ND	5.0	2.0	ug/l	
129-00-0	Pyrene	ND	5.0	2.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
321-60-8	2-Fluorobiphenyl	91%	42-123%
84-15-1	o-Terphenyl	96%	51-123%

Blank Spike Summary

Page 1 of 1

Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP14007-BS	LL04947.D	1	08/03/05	AA	08/01/05	OP14007	GLL198

The QC reported here applies to the following samples:

Method: EPA 610

F33630-1, F33630-2, F33630-3, F33630-4, F33630-5, F33630-6, F33630-7, F33630-8, F33630-9, F33630-10, F33630-11, F33630-12, F33630-13, F33630-14, F33630-15

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	25	24.6	98	71-113
208-96-8	Acenaphthylene	25	25.0	100	63-102
120-12-7	Anthracene	25	26.1	104	71-110
56-55-3	Benzo(a)anthracene	25	26.9	108	70-114
50-32-8	Benzo(a)pyrene	25	26.2	105	67-114
205-99-2	Benzo(b)fluoranthene	25	26.9	108	69-115
191-24-2	Benzo(g,h,i)perylene	25	25.6	102	61-117
207-08-9	Benzo(k)fluoranthene	25	26.0	104	69-111
218-01-9	Chrysene	25	26.1	104	70-114
53-70-3	Dibenzo(a,h)anthracene	25	26.2	105	64-114
206-44-0	Fluoranthene	25	27.2	109	71-114
86-73-7	Fluorene	25	25.7	103	69-111
193-39-5	Indeno(1,2,3-cd)pyrene	25	26.4	106	63-112
91-20-3	Naphthalene	25	23.5	94	66-105
90-12-0	1-Methylnaphthalene	25	23.8	95	71-112
91-57-6	2-Methylnaphthalene	25	24.8	99	65-106
85-01-8	Phenanthrene	25	26.5	106	69-112
129-00-0	Pyrene	25	27.3	109	70-114

CAS No.	Surrogate Recoveries	BSP	Limits
321-60-8	2-Fluorobiphenyl	100%	42-123%
84-15-1	o-Terphenyl	105%	51-123%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP14007-MS	LL04964.D	1	08/04/05	AA	08/01/05	OP14007	GLL198
OP14007-MSD	LL04965.D	1	08/04/05	AA	08/01/05	OP14007	GLL198
F33630-12	LL04963.D	1	08/04/05	AA	08/01/05	OP14007	GLL198

The QC reported here applies to the following samples:

Method: EPA 610

F33630-1, F33630-2, F33630-3, F33630-4, F33630-5, F33630-6, F33630-7, F33630-8, F33630-9, F33630-10, F33630-11, F33630-12, F33630-13, F33630-14, F33630-15

CAS No.	Compound	F33630-12 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		48.1	42.4	88	42.7	89	1	59-123/20
208-96-8	Acenaphthylene	ND		48.1	43.4	90	43.6	91	0	51-114/20
120-12-7	Anthracene	ND		48.1	43.2	90	43.5	90	1	64-114/17
56-55-3	Benzo(a)anthracene	ND		48.1	44.9	93	45.4	94	1	66-115/17
50-32-8	Benzo(a)pyrene	ND		48.1	45.9	95	45.6	95	1	62-118/17
205-99-2	Benzo(b)fluoranthene	ND		48.1	46.8	97	46.8	97	0	66-117/17
191-24-2	Benzo(g,h,i)perylene	ND		48.1	45.9	95	44.3	92	4	59-120/17
207-08-9	Benzo(k)fluoranthene	ND		48.1	46.5	97	45.8	95	2	64-116/16
218-01-9	Chrysene	ND		48.1	44.3	92	44.6	93	1	66-117/16
53-70-3	Dibenzo(a,h)anthracene	ND		48.1	47.0	98	45.4	94	3	57-124/18
206-44-0	Fluoranthene	ND		48.1	45.5	95	45.8	95	1	67-116/17
86-73-7	Fluorene	ND		48.1	43.9	91	44.3	92	1	58-122/19
193-39-5	Indeno(1,2,3-cd)pyrene	ND		48.1	47.4	99	45.8	95	3	59-116/18
91-20-3	Naphthalene	ND		48.1	41.3	86	41.9	87	1	47-114/20
90-12-0	1-Methylnaphthalene	ND		48.1	41.0	85	41.4	86	1	55-128/21
91-57-6	2-Methylnaphthalene	ND		48.1	42.4	88	42.9	89	1	51-117/21
85-01-8	Phenanthrene	ND		48.1	44.6	93	44.9	93	1	63-116/18
129-00-0	Pyrene	ND		48.1	45.7	95	46.0	96	1	67-116/17

CAS No.	Surrogate Recoveries	MS	MSD	F33630-12	Limits
321-60-8	2-Fluorobiphenyl	83%	85%	75%	42-123%
84-15-1	o-Terphenyl	90%	89%	82%	51-123%

Semivolatile Surrogate Recovery Summary

Page 1 of 1

Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Method: EPA 610

Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a	S2 ^a
F33630-1	LL04951.D	59.0	90.0
F33630-2	LL04952.D	78.0	91.0
F33630-3	LL04953.D	77.0	87.0
F33630-4	LL04954.D	54.0	81.0
F33630-5	LL04955.D	73.0	88.0
F33630-6	LL04956.D	69.0	83.0
F33630-7	LL04957.D	91.0	100.0
F33630-8	LL04958.D	90.0	99.0
F33630-9	LL04959.D	91.0	96.0
F33630-10	LL04960.D	77.0	89.0
F33630-11	LL04962.D	70.0	75.0
F33630-12	LL04963.D	75.0	82.0
F33630-13	LL04966.D	79.0	86.0
F33630-14	LL04967.D	54.0	65.0
F33630-15	LL04974.D	0.0* ^b	0.0* ^b
OP14007-BS	LL04947.D	100.0	105.0
OP14007-MB	LL04948.D	93.0	98.0
OP14007-MB	LL04972.D	91.0	96.0
OP14007-MS	LL04964.D	83.0	90.0
OP14007-MSD	LL04965.D	85.0	89.0

Surrogate Compounds	Recovery Limits

S1 = 2-Fluorobiphenyl	42-123%

S2 = o-Terphenyl	51-123%

(a) Recovery from GC signal #1

(b) Outside control limits due to dilution.

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GLL198-CC189	Injection Date:	08/03/05
Lab File ID:	LL04946.D	Injection Time:	17:31
Instrument ID:	GCLL	Method:	EPA 610

S1 ^a	S2 ^a
RT	RT

Check Std	6.20	11.66

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
OP14007-BS	LL04947.D	08/03/05	18:02	6.20	11.66
OP14007-MB	LL04948.D	08/03/05	18:32	6.20	11.66
ZZZZZZ	LL04949.D	08/03/05	19:02	6.20	11.66

Surrogate
Compounds

S1 = 2-Fluorobiphenyl
S2 = o-Terphenyl

(a) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GLL198-CC189	Injection Date:	08/03/05
Lab File ID:	LL04950.D	Injection Time:	19:32
Instrument ID:	GCLL	Method:	EPA 610

	S1 ^a RT	S2 ^a RT
Check Std	6.20	11.66

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
F33630-1	LL04951.D	08/03/05	20:03	6.20	11.66
F33630-2	LL04952.D	08/03/05	20:33	6.20	11.65
F33630-3	LL04953.D	08/03/05	21:03	6.20	11.66
F33630-4	LL04954.D	08/03/05	21:33	6.20	11.65
F33630-5	LL04955.D	08/03/05	22:04	6.20	11.65
F33630-6	LL04956.D	08/03/05	22:34	6.20	11.65
F33630-7	LL04957.D	08/03/05	23:04	6.20	11.66
F33630-8	LL04958.D	08/03/05	23:34	6.20	11.66
F33630-9	LL04959.D	08/04/05	00:04	6.20	11.66
F33630-10	LL04960.D	08/04/05	00:34	6.20	11.65

Surrogate Compounds

S1 = 2-Fluorobiphenyl
S2 = o-Terphenyl

(a) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F33630
Account: EEINCJX EE1
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GLL198-CC189	Injection Date:	08/04/05
Lab File ID:	LL04961.D	Injection Time:	01:05
Instrument ID:	GCLL	Method:	EPA 610

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	6.20	5.01	11.66	9.71

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
F33630-11	LL04962.D	08/04/05	01:35	6.20		11.66	
F33630-12	LL04963.D	08/04/05	02:05	6.20		11.65	
OP14007-MS	LL04964.D	08/04/05	02:35	6.20		11.66	
OP14007-MSD	LL04965.D	08/04/05	03:05	6.20		11.66	
F33630-13	LL04966.D	08/04/05	03:35	6.20		11.66	
F33630-14	LL04967.D	08/04/05	04:06	6.20		11.66	
ZZZZZZ	LL04969.D	08/04/05	05:06	6.20		11.66	
GLL198-ECC189	LL04970.D	08/04/05	05:36	6.20	5.00	11.66	9.71

Surrogate
Compounds

S1 = 2-Fluorobiphenyl

S2 = o-Terphenyl

(a) Retention time from GC signal #1

(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Check Std:	GLL199-CC189	Injection Date:	08/04/05
Lab File ID:	LL04971.D	Injection Time:	12:10
Instrument ID:	GCLL	Method:	EPA 610

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	6.19	5.01	11.65	9.71

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
OP14007-MB	LL04972.D	08/04/05	12:57	6.19		11.65	
F33630-15	LL04974.D	08/04/05	14:12	0.00		0.00	
GLL199-ECC189	LL04975.D	08/04/05	14:46	6.20	5.01	11.66	9.71

Surrogate
Compounds

S1 = 2-Fluorobiphenyl
S2 = o-Terphenyl

(a) Retention time from GC signal #1
(b) Retention time from GC signal #2

Initial Calibration Summary

Page 1 of 1

Job Number: F33630
 Account: EEINCJX EE1
 Project: Bldg. 4158/Camp Lejeune, NC

Sample: GLL189-ICC189
 Lab FileID: LL04761.D

Response Factor Report FLGSLL

Method : C:\MSDCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
 Title : PAH's BY EPA 610 OR 8100
 Last Update : Mon Jul 25 08:50:37 2005
 Response via : Initial Calibration

Calibration Files

5 =LL04759.D 10 =LL04760.D 20 =LL04761.D 30 =LL04762.D
 40 =LL04763.D 50 =LL04764.D

	Compound	5	10	20	30	40	50	Avg	%RSD
1)	Naphthalene	3.480	2.936	3.624	3.093	3.196	3.200	3.255	E4 7.78
2)	2-Methyl Naphthalen	3.213	2.730	3.361	2.886	2.991	2.997	3.030	E4 7.48
3)	1-Methyl Naphthalen	3.448	2.924	3.567	3.047	3.148	3.154	3.215	E4 7.62
4) S	2-Fluorobiphenyl	3.047	2.571	3.185	2.729	2.828	2.828	2.865	E4 7.69
5)	Acenaphthylene	2.937	2.539	3.091	2.719	2.859	2.852	2.833	E4 6.65
6)	Acenaphthene	3.309	2.849	3.497	3.011	3.129	3.127	3.154	E4 7.17
7)	Fluorene	3.123	2.659	3.271	2.827	2.949	2.941	2.962	E4 7.27
8)	Phenanthrene	2.976	2.534	3.130	2.691	2.838	2.855	2.837	E4 7.37
9)	Anthracene	2.924	2.475	3.018	2.652	2.778	2.718	2.761	E4 7.03
10) S	0-Terphenyl	3.322	2.811	3.428	2.956	3.070	3.055	3.107	E4 7.39
11)	Fluoranthene	2.974	2.520	3.074	2.667	2.809	2.773	2.803	E4 7.18
12)	Pyrene	2.999	2.518	3.089	2.675	2.829	2.788	2.816	E4 7.41
13)	Benzo(a)Anthracene	2.795	2.376	2.900	2.531	2.702	2.665	2.662	E4 7.02
14)	Chrysene	2.858	2.417	2.948	2.573	2.772	2.709	2.713	E4 7.13
15)	Benzo(b)Fluoranthene	2.974	2.412	3.079	2.645	2.789	2.817	2.786	E4 8.52
16)	Benzo(k)Fluoranthene	3.044	2.515	3.078	2.632	2.769	2.816	2.809	E4 7.91
17)	Benzo(a) Pyrene	2.957	2.466	3.064	2.614	2.751	2.786	2.773	E4 7.88
18)	Indeno(1,2,3-cd)pyr	3.072	2.552	3.204	2.704	2.814	2.877	2.871	E4 8.31
19)	Dibenzo(a,h)anthrac	3.184	2.643	3.245	2.716	2.767	2.819	2.896	E4 8.78
20)	Benzo(g,h,i) Peryle	3.262	2.678	3.337	2.777	2.864	2.917	2.973	E4 8.98

Signal #2

1)	Naphthalene	2.517	2.438	2.793	2.581	2.651	2.926	2.651	E4 6.84
2)	2-Methyl Naphthalen	2.420	2.330	2.611	2.403	2.491	2.751	2.501	E4 6.19
3)	1-Methyl Naphthalen	2.639	2.521	2.791	2.559	2.646	2.911	2.678	E4 5.50
4) S	2-Fluorobiphenyl	2.241	2.183	2.428	2.231	2.314	2.557	2.326	E4 6.10
5)	Acenaphthylene	2.366	2.321	2.589	2.381	2.474	2.730	2.477	E4 6.32
6)	Acenaphthene	2.539	2.472	2.753	2.526	2.615	2.878	2.630	E4 5.91
7)	Fluorene	2.319	2.267	2.530	2.322	2.412	2.664	2.419	E4 6.27
8)	Phenanthrene	2.182	2.153	2.419	2.213	2.311	2.562	2.307	E4 6.87
9)	Anthracene	2.222	2.171	2.422	2.177	2.265	2.509	2.294	E4 6.08
10) S	0-Terphenyl	2.513	2.418	2.658	2.416	2.511	2.766	2.547	E4 5.46
11)	Fluoranthene	2.239	2.199	2.428	2.195	2.296	2.536	2.315	E4 5.97
12)	Pyrene	2.231	2.194	2.428	2.194	2.296	2.537	2.313	E4 6.07
13)	Benzo(a)Anthracene	2.089	2.073	2.326	2.098	2.227	2.476	2.215	E4 7.30
14)	Chrysene	2.302	2.258	2.465	2.207	2.326	2.569	2.355	E4 5.79
15)	Benzo(b)Fluoranthene	2.171	2.224	2.430	2.192	2.376	2.628	2.337	E4 7.57
16)	Benzo(k)Fluoranthene	2.401	2.284	2.550	2.276	2.413	2.668	2.432	E4 6.30
17)	Benzo(a) Pyrene	2.275	2.233	2.456	2.209	2.369	2.637	2.363	E4 6.87
18)	Indeno(1,2,3-cd)pyr	2.340	2.299	2.526	2.286	2.479	2.808	2.456	E4 8.06
19)	Dibenzo(a,h)anthrac	2.400	2.363	2.578	2.323	2.505	2.818	2.498	E4 7.32
20)	Benzo(g,h,i) Peryle	2.459	2.431	2.654	2.400	2.608	2.947	2.583	E4 7.93

(#) = Out of Range

8100_H2.M

Mon Jul 25 10:32:30 2005

Initial Calibration Verification

Page 1 of 2

Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GLL189-ICV189
Lab FileID: LL04765.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\0723PAH\LL04765.D\FID1B.CH Vial: 7
Signal #2 : C:\MSDCHEM\1\DATA\0723PAH\LL04765.D\FID2A.CH
Acq On : 7-23-05 06:14:24 PM Operator: sarahm
Sample : icv189-20 Inst : FLGSLL
Misc : OP13880,GLL189,1000,,,1,1,water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
Title : PAH's 8Y EPA 610 OR 8100
Last Update : Mon Jul 25 08:50:37 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Naphthalene	20.000	19.257	3.7	86	-0.01	4.48- 4.68
2	2-Methyl Naphthalene	20.000	20.126	-0.6	91	-0.01	5.38- 5.58
3	1-Methyl Naphthalene	20.000	19.129	4.4	86	-0.01	5.65- 5.85
4 S	2-Fluorobiphenyl			NA			
5	Acenaphthylene	20.000	20.269	-1.3	93	-0.01	7.32- 7.52
6	Acenaphthene	20.000	19.405	3.0	88	-0.01	7.58- 7.78
7	Fluorene	20.000	19.858	0.7	90	-0.01	8.51- 8.71
8	Phenanthrene	20.000	19.719	1.4	89	-0.01	10.67-10.87
9	Anthracene	20.000	19.987	0.1	91	-0.01	10.71-10.91
10 S	0-Terphenyl			NA			
11	Fluoranthene	20.000	19.689	1.6	90	0.00	13.21-13.41
12	Pyrene	20.000	19.924	0.4	91	0.00	13.79-13.99
13	Benzo(a)Anthracene	20.000	19.489	2.6	89	0.00	16.33-16.53
14	Chrysene	20.000	19.237	3.8	89	0.00	16.51-16.71
15	Benzo(b)Fluoranthene	20.000	19.395	3.0	88	0.00	18.54-18.74
16	Benzo(k)Fluoranthene	20.000	19.439	2.8	89	0.00	18.59-18.79
17	Benzo(a) Pyrene	20.000	19.348	3.3	88	0.00	19.31-19.51
18	Indeno(1,2,3-cd)pyrene	20.000	19.599	2.0	88	0.00	21.16-21.36
19	Dibenzo(a,h)anthracene	20.000	19.636	1.8	88	0.00	21.23-21.43
20	Benzo(g,h,i) Perylene	20.000	19.163	4.2	85	0.00	21.69-21.89

***** Signal #2 *****

1	Naphthalene	20.000	19.338	3.3	92	0.00	3.51- 3.71
2	2-Methyl Naphthalene	20.000	19.704	1.5	94	0.00	4.35- 4.55
3	1-Methyl Naphthalene	20.000	19.026	4.9	91	0.00	4.49- 4.69
4 S	2-Fluorobiphenyl			NA			
5	Acenaphthylene	20.000	19.727	1.4	94	0.00	5.66- 5.86
6	Acenaphthene	20.000	19.217	3.9	92	0.00	5.99- 6.19
7	Fluorene	20.000	19.671	1.6	94	0.00	6.88- 7.08
8	Phenanthrene	20.000	19.609	2.0	93	0.00	8.63- 8.83
9	Anthracene	20.000	19.941	0.3	94	0.00	8.72- 8.92
10 S	0-Terphenyl			NA			
11	Fluoranthene	20.000	19.796	1.0	94	0.00	10.98-11.18
12	Pyrene	20.000	19.896	0.5	95	0.00	11.37-11.57
13	Benzo(a)Anthracene	20.000	19.688	1.6	94	0.00	13.87-14.07
14	Chrysene	20.000	19.330	3.4	92	0.00	13.94-14.14
15	Benzo(b)Fluoranthene	20.000	19.711	1.4	95	0.00	15.92-16.12
16	Benzo(k)Fluoranthene	20.000	19.927	0.4	95	0.00	15.97-16.17
17	Benzo(a) Pyrene	20.000	19.473	2.6	94	0.00	16.44-16.64
18	Indeno(1,2,3-cd)pyrene	20.000	19.456	2.7	95	0.00	18.25-18.45

Initial Calibration Verification

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Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GLL189-ICV189
Lab FileID: LL04765.D

19	Dibenzo(a,h)anthracene	20.000	19.712	1.4	96	0.00	18.35-18.55
20	Benzo(g,h,i) Perylene	20.000	19.124	4.4	93	0.01	18.59-18.79

(#) = Out of Range
LL04761.D 8100_H2.M

SPCC's out = 0 CCC's out = 0
Mon Jul 25 10:32:46 2005



Continuing Calibration Summary

Page 1 of 2

Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GLL198-CC189
Lab FileID: LL04946.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\0803PAH\LL04946.D\FID1B.CH Vial: 12
Signal #2 : C:\MSDCHEM\1\DATA\0803PAH\LL04946.D\FID2A.CH
Acq On : 8-3-05 05:31:36 PM Operator: aubrey
Sample : cc189-30 Inst : FLGSL
Misc : OP13955, GLL198, 520, , , 1, 1, water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
Title : PAH's BY EPA 610 OR 8100
Last Update : Wed Aug 03 12:15:03 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Naphthalene	30.000	28.452	5.2	100	0.00	4.42- 4.62
2	2-Methyl Naphthalene	30.000	28.645	4.5	100	0.00	5.30- 5.50
3	1-Methyl Naphthalene	30.000	28.480	5.1	100	0.00	5.57- 5.77
4 S	2-Fluorobiphenyl	30.000	28.614	4.6	100	0.00	6.10- 6.30
5	Acenaphthylene	30.000	30.477	-1.6	106	0.00	7.23- 7.43
6	Acenaphthene	30.000	28.966	3.4	101	0.00	7.49- 7.69
7	Fluorene	30.000	29.014	3.3	101	0.00	8.41- 8.61
8	Phenanthrene	30.000	29.545	1.5	104	0.00	10.58-10.78
9	Anthracene	30.000	29.322	2.3	102	0.00	10.61-10.81
10 S	0-Terphenyl	30.000	29.238	2.5	102	0.00	11.56-11.76
11	Fluoranthene	30.000	29.760	0.8	104	0.00	13.10-13.30
12	Pyrene	30.000	29.857	0.5	105	0.00	13.68-13.88
13	Benzo(a)Anthracene	30.000	30.212	-0.7	106	0.00	16.22-16.42
14	Chrysene	30.000	30.132	-0.4	106	0.00	16.41-16.61
15	Benzo(b)Fluoranthene	30.000	30.451	-1.5	107	0.00	18.43-18.63
16	Benzo(k)Fluoranthene	30.000	30.303	-1.0	108	0.00	18.48-18.68
17	Benzo(a) Pyrene	30.000	29.938	0.2	106	0.00	19.19-19.39
18	Indeno(1,2,3-cd)pyrene	30.000	28.490	5.0	101	0.00	21.04-21.24
19	Dibenzo(a,h)anthracene	30.000	28.099	6.3	100	0.00	21.11-21.31
20	Benzo(g,h,i) Perylene	30.000	27.772	7.4	99	0.00	21.57-21.77

***** Signal #2 *****

1	Naphthalene	30.000	29.895	0.4	102	0.00	3.46- 3.66
2	2-Methyl Naphthalene	30.000	30.541	-1.8	106	0.00	4.29- 4.49
3	1-Methyl Naphthalene	30.000	30.104	-0.3	105	0.00	4.42- 4.62
4 S	2-Fluorobiphenyl	30.000	30.689	-2.3	107	0.00	4.91- 5.11
5	Acenaphthylene	30.000	31.119	-3.7	108	0.00	5.59- 5.79
6	Acenaphthene	30.000	30.749	-2.5	107	0.00	5.91- 6.11
7	Fluorene	30.000	31.184	-3.9	108	0.00	6.81- 7.01
8	Phenanthrene	30.000	31.917	-6.4	111	0.00	8.55- 8.75
9	Anthracene	30.000	31.574	-5.2	111	0.00	8.64- 8.84
10 S	0-Terphenyl	30.000	31.621	-5.4	111	0.00	9.61- 9.81
11	Fluoranthene	30.000	32.220	-7.4	113	0.00	10.89-11.09
12	Pyrene	30.000	32.292	-7.6	113	0.00	11.28-11.48
13	Benzo(a)Anthracene	30.000	32.200	-7.3	113	0.00	13.79-13.99
14	Chrysene	30.000	31.433	-4.8	112	0.00	13.86-14.06
15	Benzo(b)Fluoranthene	30.000	32.038	-6.8	114	0.00	15.85-16.05
16	Benzo(k)Fluoranthene	30.000	31.109	-3.7	111	0.00	15.90-16.10
17	Benzo(a) Pyrene	30.000	31.537	-5.1	112	0.00	16.36-16.56
18	Indeno(1,2,3-cd)pyrene	30.000	31.507	-5.0	113	0.00	18.18-18.38

Continuing Calibration Summary

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Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GLL198-CC189
Lab FileID: LL04946.D

19	Dibenzo(a,h)anthracene	30.000	31.265	-4.2	112	0.00	18.27-18.47
20	Benzo(g,h,i) Perylene	30.000	31.059	-3.5	111	0.00	18.52-18.72

(#) = Out of Range
LL04762.D 8100_H2.M

SPCC's out = 0 CCC's out = 0
Thu Aug 04 13:51:57 2005

6.6
6

Continuing Calibration Summary

Page 1 of 2

Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GLL198-CC189
Lab FileID: LL04950.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\0803PAH\LL04950.D\FID1B.CH Vial: 16
Signal #2 : C:\MSDCHEM\1\DATA\0803PAH\LL04950.D\FID2A.CH
Acq On : 8-3-05 07:32:53 PM Operator: aubreya
Sample : cc189-20 Inst : FLGSLI
Misc : OP14007, GLL198, 1030,,,1,1,water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
Title : PAH's BY EPA 610 OR 8100
Last Update : Wed Aug 03 12:15:03 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Naphthalene	20.000	23.570	-17.9#	106	0.00	4.42- 4.62
2	2-Methyl Naphthalene	20.000	23.841	-19.2#	107	0.00	5.30- 5.50
3	1-Methyl Naphthalene	20.000	23.839	-19.2#	107	0.00	5.57- 5.77
4 S	2-Fluorobiphenyl	20.000	23.750	-18.8#	107	0.00	6.10- 6.30
5	Acenaphthylene	20.000	25.360	-26.8#	116	0.00	7.23- 7.43
6	Acenaphthene	20.000	23.987	-19.9#	108	0.00	7.49- 7.69
7	Fluorene	20.000	24.020	-20.1#	109	0.00	8.41- 8.61
8	Phenanthrene	20.000	24.373	-21.9#	110	0.00	10.58-10.78
9	Anthracene	20.000	24.307	-21.5#	111	0.00	10.61-10.81
10 S	0-Terphenyl	20.000	24.192	-21.0#	110	0.00	11.56-11.76
11	Fluoranthene	20.000	24.502	-22.5#	112	0.00	13.10-13.30
12	Pyrene	20.000	24.584	-22.9#	112	0.00	13.68-13.88
13	Benzo(a)Anthracene	20.000	24.775	-23.9#	114	0.00	16.22-16.42
14	Chrysene	20.000	24.721	-23.6#	114	0.00	16.41-16.61
15	Benzo(b)Fluoranthene	20.000	25.067	-25.3#	113	0.00	18.43-18.63
16	Benzo(k)Fluoranthene	20.000	24.665	-23.3#	113	0.00	18.48-18.68
17	Benzo(a) Pyrene	20.000	24.714	-23.6#	112	0.00	19.19-19.39
18	Indeno(1,2,3-cd)pyrene	20.000	24.068	-20.3#	108	0.00	21.04-21.24
19	Dibenzo(a,h)anthracene	20.000	23.788	-18.9#	106	0.00	21.11-21.31
20	Benzo(g,h,i) Perylene	20.000	23.587	-17.9#	105	0.00	21.57-21.77

***** Signal #2 *****

1	Naphthalene	20.000	20.380	-1.9	97	0.00	3.46- 3.66
2	2-Methyl Naphthalene	20.000	20.691	-3.5	99	0.00	4.29- 4.49
3	1-Methyl Naphthalene	20.000	20.579	-2.9	99	0.00	4.42- 4.62
4 S	2-Fluorobiphenyl	20.000	21.127	-5.6	101	0.00	4.91- 5.11
5	Acenaphthylene	20.000	21.277	-6.4	102	0.00	5.59- 5.79
6	Acenaphthene	20.000	20.887	-4.4	100	0.00	5.91- 6.11
7	Fluorene	20.000	21.259	-6.3	102	0.00	6.81- 7.01
8	Phenanthrene	20.000	21.810	-9.0	104	0.00	8.55- 8.75
9	Anthracene	20.000	22.062	-10.3	105	0.00	8.64- 8.84
10 S	0-Terphenyl	20.000	21.650	-8.2	104	0.00	9.61- 9.81
11	Fluoranthene	20.000	22.081	-10.4	105	0.00	10.89-11.09
12	Pyrene	20.000	22.083	-10.4	105	0.00	11.28-11.48
13	Benzo(a)Anthracene	20.000	21.986	-9.9	105	0.00	13.79-13.99
14	Chrysene	20.000	21.621	-8.1	103	0.00	13.86-14.06
15	Benzo(b)Fluoranthene	20.000	21.757	-8.8	105	0.00	15.85-16.05
16	Benzo(k)Fluoranthene	20.000	21.570	-7.9	103	-0.01	15.90-16.10
17	Benzo(a) Pyrene	20.000	21.622	-8.1	104	0.00	16.36-16.56
18	Indeno(1,2,3-cd)pyrene	20.000	21.762	-8.8	106	-0.01	18.18-18.38

Continuing Calibration Summary

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Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GLL198-CC189
Lab FileID: LL04950.D

19	Dibenzo(a,h)anthracene	20.000	21.715	-8.6	105	0.00	18.27-18.47
20	Benzo(g,h,i) Perylene	20.000	21.603	-8.0	105	0.00	18.52-18.72

(#) = Out of Range
LL04761.D 8100_H2.M

SPCC's out = 0 CCC's out = 0
Thu Aug 04 13:51:37 2005



Continuing Calibration Summary

Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GLL198-CC189
Lab FileID: LL04961.D

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Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\0803PAH\LL04961.D\FID1B.CH Vial: 27
Acq On : 8-4-05 01:05:06 AM Operator: aubreya
Sample : cc189-30 Inst : FLGSLI
Misc : OP14007, GLL198, 1020, , , 1, 1, water Multiplr: 1.00
IntFile : events.e

Data File : C:\MSDCHEM\1\DATA\0803PAH\LL04961.D\FID2A.CH Vial: 77
Acq On : 8-4-05 01:05:05 AM Operator: aubreya
Sample : cc189-30 Inst : FLGSLI
Misc : OP14007, GLL198, 1020, , , 1, 1, water Multiplr: 1.00
IntFile : events2.e

Method : C:\MSDCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
Title : PAH's BY EPA 610 OR B100
Last Update : Wed Aug 03 12:15:03 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Naphthalene	30.000	29.254	2.5	103	0.00	4.42- 4.62
2	2-Methyl Naphthalene	30.000	29.436	1.9	103	0.00	5.30- 5.50
3	1-Methyl Naphthalene	30.000	29.266	2.4	103	0.00	5.57- 5.77
4 S	2-Fluorobiphenyl	30.000	29.345	2.2	103	0.00	6.10- 6.30
5	Acenaphthylene	30.000	31.562	-5.2	110	0.00	7.23- 7.43
6	Acenaphthene	30.000	29.651	1.2	104	0.00	7.49- 7.69
7	Fluorene	30.000	29.765	0.8	104	0.00	8.41- 8.61
8	Phenanthrene	30.000	30.030	-0.1	106	0.00	10.58-10.78
9	Anthracene	30.000	30.160	-0.5	105	0.00	10.61-10.81
10 S	0-Terphenyl	30.000	29.769	0.8	104	0.00	11.56-11.76
11	Fluoranthene	30.000	30.399	-1.3	106	0.00	13.10-13.30
12	Pyrene	30.000	30.672	-2.2	108	0.00	13.68-13.88
13	Benzo(a)Anthracene	30.000	31.339	-4.5	110	0.00	16.22-16.42
14	Chrysene	30.000	31.272	-4.2	110	0.00	16.41-16.61
15	Benzo(b)Fluoranthene	30.000	31.860	-6.2	112	0.00	18.43-18.63
16	Benzo(k)Fluoranthene	30.000	31.709	-5.7	113	0.00	18.48-18.68
17	Benzo(a) Pyrene	30.000	31.530	-5.1	111	0.00	19.19-19.39
18	Indeno(1,2,3-cd)pyrene	30.000	29.309	2.3	104	0.00	21.04-21.24
19	Dibenzo(a,h)anthracene	30.000	28.927	3.6	103	0.00	21.11-21.31
20	Benzo(g,h,i) Perylene	30.000	28.548	4.8	102	0.00	21.57-21.77

***** Signal #2 *****

1	Naphthalene	30.000	30.854	-2.8	106	0.00	3.46- 3.66
2	2-Methyl Naphthalene	30.000	30.805	-2.7	107	0.00	4.29- 4.49
3	1-Methyl Naphthalene	30.000	30.603	-2.0	107	0.00	4.42- 4.62
4 S	2-Fluorobiphenyl	30.000	30.936	-3.1	108	0.00	4.91- 5.11
5	Acenaphthylene	30.000	31.750	-5.8	110	0.00	5.59- 5.79
6	Acenaphthene	30.000	31.089	-3.6	108	0.00	5.91- 6.11
7	Fluorene	30.000	31.708	-5.7	110	0.00	6.81- 7.01
8	Phenanthrene	30.000	32.311	-7.7	112	0.00	8.55- 8.75
9	Anthracene	30.000	32.033	-6.8	113	0.00	8.64- 8.84
10 S	0-Terphenyl	30.000	32.178	-7.3	113	0.00	9.61- 9.81
11	Fluoranthene	30.000	32.401	-8.0	114	0.00	10.89-11.09
12	Pyrene	30.000	32.360	-7.9	114	0.00	11.28-11.48
13	Benzo(a)Anthracene	30.000	32.050	-6.8	113	0.00	13.79-13.99

Continuing Calibration Summary

Page 2 of 2

Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GLL198-CC189
Lab FileID: LL04961.D

14	Chrysene	30.000	31.383	-4.6	112	0.00	13.86-14.06
15	Benzo(b)Fluoranthene	30.000	32.712	-9.0	116	0.00	15.85-16.05
16	Benzo(k)Fluoranthene	30.000	32.143	-7.1	114	0.00	15.90-16.10
17	Benzo(a) Pyrene	30.000	32.752	-9.2	117	0.00	16.36-16.56
18	Indeno(1,2,3-cd)pyrene	30.000	32.727	-9.1	117	0.00	18.18-18.38
19	Dibenzo(a,h)anthracene	30.000	32.485	-8.3	116	0.00	18.27-18.47
20	Benzo(g,h,i) Perylene	30.000	32.002	-6.7	115	0.00	18.52-18.72

(#) = Out of Range
LL04762.D 8100_H2.M

SPCC's out = 0 CCC's out = 0
Thu Aug 04 13:51:59 2005



Continuing Calibration Summary

Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GLL198-ECC189
Lab FileID: LL04970.D

Page 1 of 2

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\0803PAH\LL04970.D\FID1B.CH Vial: 36
Signal #2 : C:\MSDCHEM\1\DATA\0803PAH\LL04970.D\FID2A.CH
Acq On : 8-4-05 05:36:40 AM Operator: aubrey
Sample : ecc189-20 Inst : FLGSL
Misc : OP14007, GLL198, 1040, , , 1, 1, water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
Title : PAH's BY EPA 610 OR 8100
Last Update : Wed Aug 03 12:15:03 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Naphthalene	20.000	20.050	-0.3	90	0.00	4.42- 4.62
2	2-Methyl Naphthalene	20.000	20.108	-0.5	91	0.00	5.30- 5.50
3	1-Methyl Naphthalene	20.000	19.975	0.1	90	0.00	5.57- 5.77
4 S	2-Fluorobiphenyl	20.000	20.073	-0.4	90	0.00	6.10- 6.30
5	Acenaphthylene	20.000	21.705	-8.5	99	0.00	7.23- 7.43
6	Acenaphthene	20.000	20.203	-1.0	91	0.00	7.49- 7.69
7	Fluorene	20.000	20.282	-1.4	92	0.00	8.41- 8.61
8	Phenanthrene	20.000	20.530	-2.7	93	0.00	10.58-10.78
9	Anthracene	20.000	20.952	-4.8	96	0.00	10.61-10.81
10 S	0-Terphenyl	20.000	20.338	-1.7	92	0.00	11.56-11.76
11	Fluoranthene	20.000	20.789	-3.9	95	0.00	13.10-13.30
12	Pyrene	20.000	20.923	-4.6	95	0.00	13.68-13.88
13	Benzo(a)Anthracene	20.000	21.232	-6.2	97	0.00	16.22-16.42
14	Chrysene	20.000	21.176	-5.9	97	0.00	16.41-16.61
15	Benzo(b)Fluoranthene	20.000	21.140	-5.7	96	0.00	18.43-18.63
16	Benzo(k)Fluoranthene	20.000	20.849	-4.2	95	0.00	18.48-18.68
17	Benzo(a) Pyrene	20.000	20.428	-2.1	92	0.00	19.19-19.39
18	Indeno(1,2,3-cd)pyrene	20.000	17.694	11.5	79	0.00	21.04-21.24
19	Dibenzo(a,h)anthracene	20.000	17.627	11.9	79	0.00	21.11-21.31
20	Benzo(g,h,i) Perylene	20.000	16.909	15.5#	75	-0.01	21.57-21.77

***** Signal #2 *****

1	Naphthalene	20.000	20.942	-4.7	99	0.00	3.46- 3.66
2	2-Methyl Naphthalene	20.000	20.727	-3.6	99	0.00	4.29- 4.49
3	1-Methyl Naphthalene	20.000	20.631	-3.2	99	0.00	4.42- 4.62
4 S	2-Fluorobiphenyl	20.000	21.010	-5.1	101	0.00	4.91- 5.11
5	Acenaphthylene	20.000	21.427	-7.1	102	0.00	5.59- 5.79
6	Acenaphthene	20.000	20.901	-4.5	100	0.00	5.91- 6.11
7	Fluorene	20.000	21.340	-6.7	102	0.00	6.81- 7.01
8	Phenanthrene	20.000	21.781	-8.9	104	0.00	8.55- 8.75
9	Anthracene	20.000	22.051	-10.3	104	0.00	8.64- 8.84
10 S	0-Terphenyl	20.000	21.576	-7.9	103	0.00	9.61- 9.81
11	Fluoranthene	20.000	21.936	-9.7	105	0.00	10.89-11.09
12	Pyrene	20.000	21.910	-9.6	104	0.00	11.28-11.48
13	Benzo(a)Anthracene	20.000	21.960	-9.8	105	0.00	13.79-13.99
14	Chrysene	20.000	21.704	-8.5	104	0.00	13.86-14.06
15	Benzo(b)Fluoranthene	20.000	22.258	-11.3	107	0.00	15.85-16.05
16	Benzo(k)Fluoranthene	20.000	22.188	-10.9	106	0.00	15.90-16.10
17	Benzo(a) Pyrene	20.000	22.266	-11.3	107	0.00	16.36-16.56
18	Indeno(1,2,3-cd)pyrene	20.000	21.865	-9.3	106	0.00	18.18-18.38

Continuing Calibration Summary

Page 2 of 2

Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GLL198-ECC189
Lab FileID: LL04970.D

19	Dibenzo(a,h)anthracene	20.000	21.842	-9.2	106	0.00	18.27-18.47
20	Benzo(g,h,i) Perylene	20.000	21.211	-6.1	103	0.00	18.52-18.72

(#) = Out of Range
LL04761.D 8100_H2.M

SPCC's out = 0 CCC's out = 0
Thu Aug 04 13:51:39 2005



Continuing Calibration Summary

Page 1 of 2

Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GLL199-CC189
Lab FileID: LL04971.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\0804PAH\LL04971.D\FID1B.CH Vial: 1
Signal #2 : C:\MSDCHEM\1\DATA\0804PAH\LL04971.D\FID2A.CH
Acq On : 04 Aug 2005 12:10 pm Operator: aubrey
Sample : cc189-20 Inst : FLGSL
Misc : OP14007, GLL199, 1000, , , 1, 1, water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
Title : PAH's BY EPA 610 OR 8100
Last Update : Wed Aug 03 12:15:03 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Naphthalene	20.000	21.699	-8.5	97	0.00	4.42- 4.62
2	2-Methyl Naphthalene	20.000	21.815	-9.1	98	0.00	5.30- 5.50
3	1-Methyl Naphthalene	20.000	21.650	-8.2	98	0.00	5.57- 5.77
4 S	2-Fluorobiphenyl	20.000	21.828	-9.1	98	0.00	6.10- 6.30
5	Acenaphthylene	20.000	23.426	-17.1#	107	0.00	7.23- 7.43
6	Acenaphthene	20.000	21.976	-9.9	99	0.00	7.49- 7.69
7	Fluorene	20.000	22.041	-10.2	100	0.00	8.41- 8.61
8	Phenanthrene	20.000	22.549	-12.7	102	0.00	10.58-10.78
9	Anthracene	20.000	22.703	-13.5	104	0.00	10.61-10.81
10 S	0-Terphenyl	20.000	22.273	-11.4	101	0.00	11.56-11.76
11	Fluoranthene	20.000	22.728	-13.6	104	0.00	13.10-13.30
12	Pyrene	20.000	23.157	-15.8#	106	0.00	13.68-13.88
13	Benzo(a)Anthracene	20.000	23.221	-16.1#	107	0.00	16.22-16.42
14	Chrysene	20.000	23.136	-15.7#	106	0.00	16.41-16.61
15	Benzo(b)Fluoranthene	20.000	23.298	-16.5#	105	0.00	18.43-18.63
16	Benzo(k)Fluoranthene	20.000	23.038	-15.2#	105	0.00	18.48-18.68
17	Benzo(a) Pyrene	20.000	22.835	-14.2	103	0.00	19.19-19.39
18	Indeno(1,2,3-cd)pyrene	20.000	20.461	-2.3	92	0.00	21.04-21.24
19	Dibenzo(a,h)anthracene	20.000	20.413	-2.1	91	-0.01	21.11-21.31
20	Benzo(g,h,i) Perylene	20.000	19.559	2.2	87	0.00	21.57-21.77

***** Signal #2 *****

1	Naphthalene	20.000	18.638	6.8	88	0.00	3.46- 3.66
2	2-Methyl Naphthalene	20.000	18.131	9.3	87	0.00	4.29- 4.49
3	1-Methyl Naphthalene	20.000	18.318	8.4	88	0.00	4.42- 4.62
4 S	2-Fluorobiphenyl	20.000	18.223	8.9	87	0.00	4.91- 5.11
5	Acenaphthylene	20.000	18.645	6.8	89	0.00	5.59- 5.79
6	Acenaphthene	20.000	18.239	8.8	87	0.00	5.91- 6.11
7	Fluorene	20.000	18.635	6.8	89	0.00	6.81- 7.01
8	Phenanthrene	20.000	19.253	3.7	92	0.00	8.55- 8.75
9	Anthracene	20.000	19.514	2.4	92	0.00	8.64- 8.84
10 S	0-Terphenyl	20.000	19.108	4.5	92	0.00	9.61- 9.81
11	Fluoranthene	20.000	19.489	2.6	93	0.00	10.89-11.09
12	Pyrene	20.000	19.858	0.7	95	0.00	11.28-11.48
13	Benzo(a)Anthracene	20.000	20.190	-1.0	96	0.00	13.79-13.99
14	Chrysene	20.000	19.942	0.3	95	0.00	13.86-14.06
15	Benzo(b)Fluoranthene	20.000	21.193	-6.0	102	0.00	15.85-16.05
16	Benzo(k)Fluoranthene	20.000	20.778	-3.9	99	0.00	15.90-16.10
17	Benzo(a) Pyrene	20.000	21.266	-6.3	102	0.00	16.36-16.56
18	Indeno(1,2,3-cd)pyrene	20.000	20.649	-3.2	100	0.00	18.18-18.38

Continuing Calibration Summary

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Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GLL199-CC189
Lab FileID: LL04971.D

19	Dibenzo(a,h)anthracene	20.000	20.615	-3.1	100	0.00	18.27-18.47
20	Benzo(g,h,i) Perylene	20.000	20.013	-0.1	97	0.00	18.52-18.72

(#) = Out of Range
LL04761.D 8100_H2.M

SPCC's out = 0 CCC's out = 0
Thu Aug 04 15:12:14 2005



Continuing Calibration Summary

Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GLL199-ECC189
Lab FileID: LL04975.D

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Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\1\DATA\0804PAH\LL04975.D\FID1B.CH Vial: 5
Signal #2 : C:\MSDCHEM\1\DATA\0804PAH\LL04975.D\FID2A.CH
Acq On : 8-4-05 02:46:41 PM Operator: aubreya
Sample : ecc189-30 Inst : FLGSL
Misc : OP14007, GLL199, 1020, , , 1, 20, water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e

Method : C:\MSDCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
Title : PAH's BY EPA 610 OR 8100
Last Update : Wed Aug 03 12:15:03 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.10min
Max. RRF Dev : 15% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Naphthalene	30.000	27.203	9.3	95	0.00	4.42- 4.62
2	2-Methyl Naphthalene	30.000	27.396	8.7	96	0.00	5.30- 5.50
3	1-Methyl Naphthalene	30.000	27.214	9.3	96	0.00	5.57- 5.77
4 S	2-Fluorobiphenyl	30.000	27.341	8.9	96	0.00	6.10- 6.30
5	Acenaphthylene	30.000	29.603	1.3	103	0.00	7.23- 7.43
6	Acenaphthene	30.000	27.686	7.7	97	0.00	7.49- 7.69
7	Fluorene	30.000	27.948	6.8	98	0.00	8.41- 8.61
8	Phenanthrene	30.000	28.243	5.9	99	0.00	10.58-10.78
9	Anthracene	30.000	28.653	4.5	99	0.00	10.61-10.81
10 S	0-Terphenyl	30.000	27.989	6.7	98	0.00	11.56-11.76
11	Fluoranthene	30.000	28.451	5.2	100	0.00	13.10-13.30
12	Pyrene	30.000	28.711	4.3	101	0.00	13.68-13.88
13	Benzo(a)Anthracene	30.000	29.156	2.8	102	0.00	16.22-16.42
14	Chrysene	30.000	29.050	3.2	102	0.00	16.41-16.61
15	Benzo(b)Fluoranthene	30.000	29.375	2.1	103	0.00	18.43-18.63
16	Benzo(k)Fluoranthene	30.000	29.153	2.8	104	0.00	18.48-18.68
17	Benzo(a) Pyrene	30.000	28.931	3.6	102	0.00	19.19-19.39
18	Indeno(1,2,3-cd)pyrene	30.000	25.716	14.3	91	0.00	21.04-21.24
19	Dibenzo(a,h)anthracene	30.000	25.469	15.1#	91	0.00	21.11-21.31
20	Benzo(g,h,i) Perylene	30.000	24.492	18.4#	87	0.00	21.57-21.77

***** Signal #2 *****

1	Naphthalene	30.000	28.909	3.6	99	0.00	3.46- 3.66
2	2-Methyl Naphthalene	30.000	28.567	4.8	99	0.00	4.29- 4.49
3	1-Methyl Naphthalene	30.000	28.707	4.3	100	0.00	4.42- 4.62
4 S	2-Fluorobiphenyl	30.000	29.063	3.1	101	0.00	4.91- 5.11
5	Acenaphthylene	30.000	29.197	2.7	101	0.00	5.59- 5.79
6	Acenaphthene	30.000	28.985	3.4	101	0.00	5.91- 6.11
7	Fluorene	30.000	29.219	2.6	101	0.00	6.81- 7.01
8	Phenanthrene	30.000	29.876	0.4	104	0.00	8.55- 8.75
9	Anthracene	30.000	29.678	1.1	104	0.00	8.64- 8.84
10 S	0-Terphenyl	30.000	29.320	2.3	103	0.00	9.61- 9.81
11	Fluoranthene	30.000	30.229	-0.8	106	0.00	10.89-11.09
12	Pyrene	30.000	30.180	-0.6	106	0.00	11.28-11.48
13	Benzo(a)Anthracene	30.000	30.502	-1.7	107	0.00	13.79-13.99
14	Chrysene	30.000	29.812	0.6	106	0.00	13.86-14.06
15	Benzo(b)Fluoranthene	30.000	31.318	-4.4	111	0.00	15.85-16.05
16	Benzo(k)Fluoranthene	30.000	30.530	-1.8	109	0.00	15.90-16.10
17	Benzo(a) Pyrene	30.000	31.141	-3.8	111	0.00	16.36-16.56
18	Indeno(1,2,3-cd)pyrene	30.000	30.121	-0.4	108	0.00	18.18-18.38

Continuing Calibration Summary

Page 2 of 2

Job Number: F33630
Account: EEINCJX EEI
Project: Bldg. 4158/Camp Lejeune, NC

Sample: GLL199-ECC189
Lab FileID: LL04975.D

19	Dibenzo(a,h)anthracene	30.000	29.964	0.1	107	0.00	18.27-18.47
20	Benzo(g,h,i) Perylene	30.000	29.110	3.0	104	0.00	18.52-18.72

(#) = Out of Range
LL04762.D 8100_H2.M

SPCC's out = 0 CCC's out = 0
Thu Aug 04 15:12:37 2005

