

ANNUAL GROUNDWATER MONITORING REPORT 2003-2005
BUILDING LCH-4015 SITE
MARINE CORPS BASE CAMP LEJEUNE
NORTH CAROLINA
VOLUME I
Revision 0

Prepared for:

DEPARTMENT OF THE NAVY
Contract No. N62470-03-D-4000
Task Order No 0018



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

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17 January 2006

EEI PROJECT NO. LDO3-020

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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.

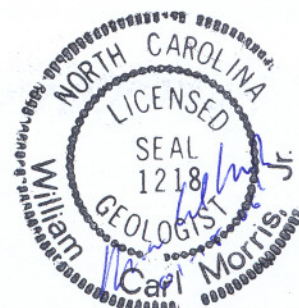


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17 January 2006



LIST OF ACRONYMS/ABBREVIATIONS

AFVR	Aggressive Fluid/Vapor Recovery
APS	Aquifer Protection Section
BS/SVE	Biosparge/Soil Vapor Extraction
AST	Aboveground Storage Tank
bgs	below ground surface
CAP	Corrective Action Plan
Catlin	Catlin Engineers and Scientists
DI	Deionized Water
DWM	Division of Waste Management
EEI	Engineering and Environment, Inc.
EPA	United States Environmental Protection Agency
Jones	J.A. Jones Environmental Services Company
L	Liter
Law	Law Engineering, Inc.
MCB	Marine Corps Base
MCAS	Marine Corps Air Station
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.
SVOC	Semi-volatile Organic Compound
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 LCH-4015 Site, Marine Corps Base Camp Lejeune, North Carolina. The report presents the findings of groundwater monitoring activities conducted from September 2003 through November 2005.

The site is located at the Marine Corps Base Camp Lejeune, North Carolina, adjacent to and east of North Carolina Highway 24, approximately one-half mile northeast of the guard gate to this area of Camp Lejeune. The nearest mapped body of water is an unnamed creek, located approximately 1,000 feet southeast of the site. One water supply well is present within 1,500 feet of the site; the well is located approximately 1,300 feet north of the site.

Previous investigations indicated gasoline and diesel fuel were released from former USTs and ASTs at the site. A Corrective Action Plan prepared in 1996 recommended a biosparge/soil vapor extraction to address subsurface petroleum constituents. The system was installed and first activated in November 1998, and the system has remained in operation since that time. A periodic groundwater monitoring program was initiated at the time the remediation system was activated.

An investigation conducted in 1994 indicated the portion of the site affected by releases from the former UST system met clean-up requirements identified by the North Carolina Department of Environmental Resources (NCDENR), Division of Waste Management, Underground Storage Tank Section. Clean-up requirements for portions of the site affected by releases from the AST system, which are subject to requirements identified by NCDENR, Division of Water Quality, Aquifer Protection Section, have not yet been attained.

The current program was initiated in September 2003 and was completed in November 2005. The program included: system inspections, monitoring, and maintenance conducted approximately three times per week; gauging of site wells conducted monthly; and groundwater sampling at six-to-16 monitoring wells, initially conducted quarterly, then later semi-annually.

No measurable free product was observed at any site well during the monitoring program. Some petroleum constituents are present above North Carolina Groundwater Quality Standards (NCGWQSs) in shallow groundwater at the site. Petroleum impacts to shallow groundwater primarily are limited to the vicinity of the former dispenser island. Impacts appear to be decreasing in magnitude and lateral extent over time.

A sandy clay unit identified in previous investigations appears to inhibit downward flow of groundwater from the shallow portion of the surficial aquifer to the deeper portions. Only limited impacts of petroleum constituents to deeper groundwater have been observed, with benzene and naphthalene reported at concentrations slightly above NCGWQSs. Impacts appear to be decreasing in magnitude and lateral extent over time. Lead, detected in one sample at a concentration above the NCGWQS, does not appear to be associated with past petroleum releases at the site.

The existing biosparge/soil vapor extraction system appears to be effective at addressing petroleum constituents in affected areas of the site. It is recommended to continue site remediation and monitoring activities in a manner consistent with those used during this monitoring program, with findings reported annually. Once target clean-up goals for groundwater have been attained over a one year period, then, with concurrence from NCDENR, discontinue active site remediation and conduct quarterly monitoring over a one year period. Report findings of the post-operational monitoring, and request site closure or resume remediation activities as indicated by the data.

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 the Building LCH-4015 Site, Marine Corps Base (MCB) Camp Lejeune, North Carolina. The report presents the findings of groundwater monitoring activities conducted from September 2003 through November 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 Water Quality (DWQ), Aquifer Protection Section (APS, formerly known as Groundwater Section) guidelines (NCDENR, 2000) and the site specific work plan prepared for this site by EEI (EEI, 2003). The site has not been assigned an incident number by NCDENR.

1.1 Site Description

The site is located on MCB Camp Lejeune in Onslow County, North Carolina (34°, 43', 34" N, 77°, 20', 24" W) (Figure 1). The project site consists of the Community Center Building (LCH-4014), former fueling and maintenance area (LCH-4015, removed), Marine Corps Exchange Convenience Store (LCH-4034), and the former fuel tank farm. The site is located at the intersection of North Carolina Highway 24 and the entrance to Midway Park (Butler Drive) (Figures 1-1 and 1-2).

The site is generally flat, with a gentle downward slope to the southeast along the southeastern side of the site where a shallow storm drainage ditch runs parallel to North Carolina Highway 24. The site is both paved and unpaved with grasses and a few trees present. No permanent surface water bodies are present. The nearest mapped body of water is an unnamed creek, located approximately 1,000 feet southeast of the site (Catlin, 2004b).

There is one water supply wells present within 1,500 feet of the site. The well is located approximately 1,300 feet north of the site (Catlin, 2004b).

1.2 Site History

A former aboveground storage tank (AST) system began operation in 1945 at the site. The AST system consisted of two 14,000-gallon gasoline tanks that supplied fuel to four gasoline dispensers located on a pump island to the north of former Building LCH-4015, one 14,000-gallon diesel tank that supplied fuel to a dispenser located on the north side of Building LCH-4015, and one 3,000-gallon Number 2 fuel oil tank that supplied fuel oil to a boiler contained within Building LCH-4014. A number of smaller storage tanks were also located at the site. Fuel was distributed through a number of underground product piping systems. In 1990, the ASTs at former Building LCH-4015 were emptied of product, and three 14,000-gallon ASTs were removed and relocated for use at other locations on the base.

In 1994, a site investigation involving in part installation of three shallow surficial aquifer monitoring wells (MW-1 through MW-3) indicated petroleum constituents were present in soil

and groundwater at the site. Subsequent site assessments conducted in the 1990's indicated that petroleum impacted soil and groundwater present at the site were suspected to be the result of releases of diesel fuel and gasoline from the former pipeline distribution network. As part of these investigations, 14 shallow surficial aquifer monitoring wells (MW-4 through MW-12, and MW-14 through MW-18) and three deep (approximately 50 feet) surficial aquifer monitoring wells (MW13, MW19, and MW-20) were installed at the site.

In 1996, a corrective action plan (CAP) was prepared for the site. The CAP identified target clean-up levels for soil of 40 milligrams per kilogram (mg/kg) for Total Petroleum Hydrocarbons as Gasoline (TPH-GRO) and 160 mg/kg for Total Petroleum Hydrocarbons as Diesel (TPH-DRO); groundwater target clean-up levels were set at the North Carolina Groundwater Quality Standards (NCGWQSs). The CAP recommended installation of a biosparge/soil vapor extraction (BS/SVE) system for the remediation of petroleum constituents in soil and groundwater (Law, 1996b). The system was installed in 1998 and was placed into operation in November of that year. The system has been in continuous operation since that time, expect when maintenance or repairs were required (Shaw, 2004).

At the request of NCDENR, three intermediate depth monitoring wells (MW-21 to MW-23, each approximately 30 feet deep) were installed in June 2001. The wells were installed adjacent to existing shallow wells and/or shallow/deep well pairs to better evaluate the vertical extent of petroleum constituents in groundwater.

In April/May 2002, three underground storage tanks (USTs) were removed from the site, replaced by existing ASTs located northwest of former Building LCH-4015. The fiberglass USTs, identified as LCH-4034-1, LCH 4034-2, and LCH 4034-3, consisted of two 10,000-gallon gasoline USTs and one 2,500-gallon premium gasoline UST. The USTs had been installed in 1992 to replace an inoperable offloading facility located south of LCH-4034.

Assessment activities conducted during the removal of the three gasoline USTs indicated that soil and groundwater had been impacted by petroleum constituents in the vicinity of the former USTs. Also, free phase product was observed within the excavation area around the product lines. It was recommended to further investigate the extent of free phase product and to expand the existing remediation system (Jones, 2002).

An optimization study was conducted in 2004. The study recommended investigation of the former UST area. Additionally, in order to clarify the regulatory status of the site, it was recommended to evaluate whether releases from the former UST and AST systems had commingled, as different divisions of NCDENR oversee UST and AST releases Catlin, 2004a). (NCDENR, DWQ, APS oversees AST releases, whereas NCDENR, Division of Waste Management [DWM], Underground Storage Tank [UST] Section oversees UST releases and commingled releases; guidance and clean-up requirements between the two sections are not identical).

In 2004, additional investigation of the area indicated soils in the vicinity of the former USTs were below Residential Maximum Soil Contaminant Concentrations considered applicable to this area, and no measurable free product was identified during the investigation of the area.

Available data from existing monitoring wells in the vicinity of the former USTs had not exhibited dissolved phase constituents at concentrations above NCGWQs. Soil sampling conducted in the vicinity of the former AST system indicated petroleum constituents remained in soils in this area at concentrations above applicable current standards (of 10 mg/kg for TPH-GRO and 40 mg/kg for TPH-DRO). The affected soils are within the influence of the BS/ASVE system. It was concluded that no additional soil remediation activities were needed in the vicinity of the former USTs; continued operation of the BS/SVE system was recommended to address petroleum constituents in soil associated with former AST system (Catlin, 2004b). It was concluded that past releases from the former UST and AST systems had not commingled, and therefore NCDENR, DWQ, APS was the regulating authority for the AST releases that had occurred at the site (Catlin, 2004b).

In February 2005, a shallow monitoring well (MW-24) was installed in the immediate vicinity of the former USTs LCH-4034-1, LCH 4034-2, and LCH 4034-3. The well was incorporated into the current monitoring program.

The current monitoring program was initiated in September 2003 and completed in November 2005. The program included inspection, maintenance, and monitoring of the BS/SVE system, typically three times per week, periodic gauging at 24 site monitoring wells (typically conducted monthly), and groundwater sampling at six to 16 monitoring wells (initially conducted quarterly, then later semi-annually).

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 product 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 (summary field measurements and laboratory analytical reports) are contained in Appendices A and B, respectively, with Appendix B (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, 2000) and as per the work plan (EEI, 2003), which details the field methods.

2.1 Well Gauging

The following 22 wells were gauged during the September and November 2003 sampling events, the monthly beginning with the November 2003 sampling event to 2005: MW-1 through MW-16 and MW-18 through MW23. Well MW-24, installed in February 2005, was incorporated into the program beginning in March 2005. A summary of the field gauging data is presented in Appendix A. (The field data sheet for September 2003 could not be located.)

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. No measurable free product was detected at any site well designated for gauging during the monitoring program. At one well, MW-11, a sorbent sock was present from September 2003 through June 2004, after which time the sock was removed; therefore, product thickness data at this well for this early time period is inconclusive.

2.2 Groundwater Sampling

Groundwater samples were collected periodically (initially quarterly, then semi-annually) as follows: September and November 2003; February, May, August, and November 2004; and May and November 2005. Additionally, a sample was collected from (then newly installed) well MW-24 in March 2005. Wells sampled varied during different events; Table 4-1, which presents laboratory results for each of the sampling events, specifies the wells sampled for a given event. One duplicate sample also was collected during each quarterly or semi-annual field event.

Prior to sampling, standing water in the wells was purged using a low-flow sampling pump discharging through polyethylene tubing. 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 a minimum of three well casing volumes of water had been removed and 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 the events were analyzed for the following parameters:

- Volatile Organic Compounds (VOCs), EPA Method 602 (3x40 milliliter [ml] vials)

- Polynuclear Aromatic Hydrocarbons/Semi-Volatile Organic Compounds (PAHs/SVOCs), EPA Method 610 (Method 625, November 2004 and later) (2 x 1 liter [L])
- Lead, SW 6010B (November 2004 and later) (1 x 500 milliliter [ml])

In addition, in November 2004 all the groundwater samples were analyzed for MADEP EPH and MADEP VPH, and in November 2005, an expanded SVOC analyte list, including the 10 largest non-target peaks (Tentatively Identified Compounds [TICs]), was conducted. In March 2005, a groundwater sample was collected from well MW-24 and analyzed for VOCs, SVOCs with TICs, Lead, MADEP EPH, and MADEP VPH. Samples were submitted under chain-of-custody to Accutest Laboratories Southeast, Inc. except for the March 2005 sample collected from well MW-24, which was analyzed by Paradigm Analytical Laboratories. Samples were delivered to the laboratory via overnight commercial courier.

2.3 Well Installation

On 25 February 2005, shallow surficial aquifer well MW-24 was installed at the site. This well was installed using hollow stem auger drilling methods; Parratt-Wolfe, Inc., a well drilling firm licensed in North Carolina, drilled and installed the wells under supervision by EEI. The borehole was advanced to approximately 15 feet below ground surface (bgs). Lithology was logged based on cuttings returned by the augers. The well casing and screen were constructed of two-inch diameter flush-threaded schedule-40 polyvinyl chloride (PVC). A screen length of 10 feet was used at the well, with 0.010-inch slots. A filter pack consisting of #1 sized sand was placed around the well screen, extending from the base of the borehole to approximately two above the top of the screen. A seal composed of 3/8-inch bentonite chips was placed from the top of the filter pack to approximately 1.5 feet above the top of the filter pack. A grout slurry composed of five-percent bentonite/cement was placed above the seal to ground surface. Well MW-24 was completed flush-to-grade. Appendix A presents the well construction log for the well.

Well development was conducted after placement of the bentonite seal and prior grout placement. Development included pumping the wells to remove settled and suspended particulates until the turbidity had been reduced to approximately 10 nephelometric units or until a maximum of 50 gallons of water had been removed from the well.

The top-of-casing and ground surface elevations were surveyed by John L. Pierce and Associates, P.A., a North Carolina licensed surveying firm. Elevations were referenced to known top-of-casing elevations for nearby monitoring wells. Appendix A presents the survey report.

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 Equipment Decontamination

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 was 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.

Drill augers were decontaminated before first use and between each use with potable water using a high-pressure, hot water sprayer. Small down-hole equipment was washed in a solution of Alconox/DI water, rinsed with potable water, and final rinsed with DI water.

2.6 System Operation and Maintenance

The biosparge wells reportedly were installed with a 1.5 to 3.5 feet screen interval ranging from 4.5 to 8.0 feet bgs. The soil vapor extraction wells consist of a two-inch diameter 0.02-inch slot width PVC horizontal well screen reportedly to be installed slightly above the shallow groundwater table. Compressed air is supplied to the biosparge wells via buried piping. The biosparge system consists of a rotary vane compressor, a compressed air receiver, in-line filter, regulator, and flow meters. The SVE system consists soil vapor headers, a moisture separator, a particulate filter, a positive displacement vapor extraction blower, 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 BS flow rates, BS/SVE pressures/vacuums, temperatures, tank liquid levels, electricity usage, and motor run times. Servicing (oil changes, belt re-tensioning or replacement, filter changes, etc.) were 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 without interruption except for routine maintenance and occasional repairs. The only extended period the system was down was in October of 2004 when a BS and a SVE header were damaged during a geoprobe investigation. The system was deactivated on 8 October 2004, while repairs were conducted. The system was restarted on 26 October 2004.

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 vacuums/pressures were recorded at the time the PID readings were recorded. Additionally, sorbent tube samples of the SVE vapor were collected from the SVE discharge stack in September and October 2003, and monthly from February 2005 through November 2005. The samples were collected by attaching a sampling pump set at a flow rate of one liter per minute to the downstream end of a pair of sorbent tubes (attached in series), with the upstream end of the tubes attached to the SVE discharge stack sample port. In 2003, the samples were collected over a 15-minute interval to draw 15 liters of air through the tubes; for samples collected in 2005, the samples were collected over a 120-minute interval to draw 120 liters of air through the tubes. The tubes were submitted for analysis for VOCs by EPA Method 18 (modified).

2.7 Waste Handling Procedures

Well purge water, development water, and equipment decontamination water generated during the field events were contained in a portable holding tank or 55-gallon steel drums. Water that accumulated in the SVE system polyethylene hold tanks was removed in a vacuum truck operated by Shaw Environmental, Inc. (Shaw). The water was processed through a groundwater treatment system located at Lot 203 on Marine Corps Base Camp Lejeune. Drill cuttings were containerized in 55-gallon steel drums and disposed of by Shaw as part of a base-wide investigation-derived waste disposal contract. 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.

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 topography of the site is generally flat, with a gentle downward slope to the southeast along the southeastern side of the site where a shallow storm drainage ditch runs parallel to North Carolina Highway 24. The area is both paved and unpaved with grasses and a few trees present. No permanent surface water bodies are present. The nearest mapped body of water is an unnamed creek, located approximately 1,000 feet southeast of the site.

Shallow soil at the site is described as silty fine-to-medium sands to approximately 10 feet bgs. This material is underlain by a fine-to-medium sandy clay layer approximate five-to-ten feet thick. Below the clay layer, silty fine-to-medium sands are encountered (Law, 1996a).

All of the monitoring wells at the site are shallow wells screened in the saturated sediments of the surficial aquifer. Most wells are screened in the upper portion of the surficial aquifer, with the base of the wells set near the top of the sandy clay layer. Three wells (MW-13, MW-19, and MW-20) were installed in the deeper portion of the surficial aquifer, substantially below the

sandy clay layer (total depths of approximately 50 feet bgs). Additionally, three intermediate depth wells (MW-21, MW-22, and MW-23) were installed to depths of approximately 30 feet bgs, with the top screens approximately set immediately below the base of the sandy clay layer.

Using the top-of-casing elevations (where available) and gauging data recorded at the site, groundwater elevations for the site monitoring wells were calculated. Table 3-1 presents groundwater elevation data for gauging events conducted during the current monitoring program. If a well exhibited 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.) However, no measurable free product was observed during the monitoring program. (Field measurements of depth to water and depth to product 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 groundwater sampling events conducted in November 2003 and later (the field data sheet for the September 2003 event could not be located). Flow maps for the intermediate depth wells were prepared for the three sampling events that included those wells (November 2004, May 2005, and November 2005). (Flow maps for wells screened in the deeper portion of the surficial aquifer could not be constructed as the top-of-casing data were available for only two wells; additionally, the deeper wells are arrayed nearly linearly.) From the groundwater elevation maps, groundwater flow directions can be estimated.

Figures 3-1 through 3-7 respectively present shallow well groundwater elevation maps for the November 2003, February, May, August, and November 2004, and the May and November 2005 events. From a review of the figures, groundwater typically flows into the site from the east, and flows away from the site to north and southwest. Several of the maps exhibit an area of relatively low groundwater elevation in the southeastern portion of the site. Additionally, an area of relatively elevated groundwater frequently is observed in the south-central portion of the site.

Figures 3-8 through 3-10 respectively present intermediate well groundwater elevation maps for the November 2004, May 2005, and November 2005 events. The maps indicate groundwater flow to the northeast under a very shallow gradient. As only three intermediate depth wells are present, there is only limited resolution of groundwater flow directions.

A review of the groundwater elevation data presented in Table 3-1 for wells clusters that include shallow/intermediate well pair MW-7/MW-23, and shallow/intermediate/deep well clusters MW-2/MW-22/MW-20 and MW-18/MW-21/MW-18 indicates shallow well groundwater elevations are consistently much higher than that observed in the associated intermediate and deep wells (typically approximately 20 feet higher). This indicates the potential for downward movement of shallow groundwater, but the large elevation differences suggest the sandy clay layer inhabits vertical flow. Only minor and variable elevations differences are observed in groundwater elevations between the intermediate and deep wells, suggesting the saturated sands underlying the clay unit are hydraulically connected with little or no net vertical gradient expressed.

SECTION 4 GROUNDWATER QUALITY MONITORING RESULTS

Eight groundwater sampling events were conducted from September 2003 through November 2005 at six to 16 site monitoring wells. Samples were analyzed for VOCs and PAHs/SVOCs. Lead analysis began in November 2004. Well gauging was also conducted monthly at several site monitoring wells.

4.1 Laboratory Analytical Results

Groundwater samples were collected quarterly or semi-annually from September 2003 through November 2005 (eight events total). Duplicate samples were collected for each event. Trip blanks were provided by the laboratory the events. Groundwater samples were analyzed by Accutest Laboratories for VOCs (EPA Method 602 with total xylene isomers and methyl tertiary butyl ether) and PAHs/SVOCs (EPA Method 610). EPA Method 625 was implemented starting with the November 2004 event and in November 2005, an expanded SVOC analyte list, including the 10 largest non-target peaks (Tentatively Identified Compounds [TICs]), was conducted. Lead was included in the analytic suite beginning in November 2004 (Method 6010B for analysis, Standard Method 3030C for preparation). Volatile and extractable petroleum hydrocarbons were added to the analyses during the November 2004 sampling event only, using the MADEP methods. In March 2005, a groundwater sample was collected from (then newly installed) well MW-24 and analyzed for VOCs (Method 602), SVOCs with TICs (Method 625), Lead (Method 6010B/3030C), MADEP EPH, and MADEP VPH. Samples were submitted under chain-of-custody to Accutest Laboratories Southeast, Inc. except for the March 2005 sample collected from well MW-24, which was analyzed by Paradigm Analytical Laboratories. Appendix B presents the laboratory analytical reports for each sampling event.

As indicated above, for the November 2005 sampling event, quantitation of TICs by the SVOC method was conducted. (TICs are substances not on the target compound list, and not all TICs are identified and quantitated using individual standards. Not all TICs can be identified as specific compounds, and may be reported as compound isomers or unknown. All TIC quantitations are estimated. Given the uncertainties associated with TIC quantitation, a reduced level of confidence in the reported concentrations is warranted, and the significance of the data is limited.) Table 4-1 presents total TIC concentrations; Appendix B presents laboratory reports with the TIC quantitations.

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 the laboratory analytical reports for each sampling event.

Shallow monitoring wells

Various constituents were detected in groundwater samples collected from the shallow monitoring wells. Of the detected constituents, the following were reported at concentrations

above established NCGWQSs: benzene, ethylbenzene, total xylenes, the C₉-C₂₂ Aromatics, naphthalene, and 2-methylnaphthalene. Additionally, 1-methylnaphthalene was detected in several samples, primarily at wells MW-1, MW-2, and MW-11. A NCGWQS has not been established for 1-methylnaphthalene; therefore, the NCGWQS is set at the reporting limit, and any detection of the constituent is, by definition, above the NCGWQS.

In general, wells MW-1, MW-2, and MW-3 exhibited the highest concentrations of petroleum constituents at the site. Of these three wells, well MW-1 typically exhibited the highest concentrations of petroleum constituents of wells included in the monitoring program. This well is located near the former dispenser island. Concentrations have varied over time at well MW-1, initially increasing from September 2003 to May and February 2004, then generally decreasing through November 2005.

Nearby well MW-2, located approximately 75 feet east of the former dispenser island, also exhibited relatively elevated petroleum constituent concentrations, although typically lower than those observed at well MW-1. Petroleum constituent concentrations exhibited by MW-2 have decreased over time. As of the November 2005 sampling event, benzene was the only constituent detected at this well above the NCGWQS (of 1 ug/L), reported at a concentration of 1.5 ug/L and 1.9 ug/L (primary and duplicate samples, respectively).

Well MW-3 is located approximately 50 feet east of the former ASTs. At this well, benzene was reported at concentrations slightly above the NCGWQS during the November 2003, February 2004, and May 2005 events only, at concentrations ranging from about 2-to-10 ug/L. The only other constituent reported above NCGWQSs was the C₉-C₂₂ Aromatics, reported in November 2004 in the primary sample at a concentration of 275 ug/L (slightly above the NCGWQS of 210 ug/L); the concentration in duplicate sample of 106 ug/L was below the NCGWQS.

Well MW-24, installed in February 2005 near the former UST basin, has exhibited low concentrations of benzene (about 2 to 5 ug/L) that are slightly above the NCGWQS. The C₉-C₂₂ Aromatics, included in the analytic suite for sample collected immediately after the well was installed, was reported at a concentration of 440 ug/L, above the NCGWQS of 210 ug/L. 1-Methylnaphthalene, was detected in the well at a low, estimated concentration of 2.6 ug/L. As discussed above, a NCGWQS has not been established for 1-methylnaphthalene; therefore, any detection is considered above the standard.

Well MW-11, located in the northwest portion of the site, exhibited detectable concentrations of 1-methylnaphthalene in sampling events conducted from November 2003 through August 2004. (The well was no longer included in the sampling program after August 2004). During these events, 1-methylphthalene ranged in concentrations from an estimated 4.6 ug/L to 38.2 ug/L. As a NCGWQS has not been established for 1-methylnaphthalene, any detection is considered above the standard.

The only other shallow well that exhibited petroleum constituent concentrations above NCGWQSs was well MW-8, where 1-methylnaphthalene was reported at an estimated concentration of 2.9 ug/L during the November 2003 event only. As a NCGWQS has not been established for 1-methylnaphthalene, any detection is considered above the standard.

Figures 4-1 through 4-7 presents the estimated extent of petroleum constituents present in groundwater above NCGWQSs for each of the multiple well sampling events. The figures include those constituents detected above established NCGWQSs in one or more wells during one or more sampling events. (1-Methylanphalene is not presented on the figures as the standard is set at the reporting limit, which varies from analysis to analysis.) The figures illustrate the limited extent of petroleum-impacted shallow groundwater (primarily in the vicinity of wells MW-1 and MW-2, and, to a lesser degree, wells MW-3 and MW-24). The figures also indicate the extent of impacted shallow groundwater is becoming smaller over time.

Lead analyses were performed beginning in November 2004. Lead was not detected in any shallow wells at the site.

Intermediate and Deep Monitoring Wells

Three intermediate depth wells (MW-21, MW-22, and MW-23) and three deep wells (MW-13, MW-19, and MW-20) were included for various sampling events conducted during the program. With the exception of naphthalene, reported during the May 2005 event at deep well MW-20 at a concentration slight above the NCGWQS (sample concentration of 24.8 ug/L, NCGWQS of 21 ug/L), no constituents were detected at concentrations above NCGWQSs in any deep well during the monitoring program.

The three intermediate depth wells were incorporated into the sampling program in November 2004. No petroleum constituents were detected above NCGWQSs at well MW-22 during the monitoring program. At wells MW-21 and MW-23, benzene consistently was detected above the NCGWQS. Benzene concentrations decreased over time at both wells, with benzene concentrations at wells MW-21 and MW-23 of 10.9 ug/L and 1.8 ug/L, respectively, reported during the last (November 2005) event. Naphthalene was the only other petroleum constituent detected above the NCGWQS (of 21 ug/L), detected at well MW-21 during the November 2005 event at a concentration of 32.3 ug/L.

Figures 4-1 through 4-7 presents the estimated extent of petroleum constituents present in groundwater above NCGWQSs for each of the multiple well sampling events. The figures include those constituents detected above established NCGWQSs in one or more wells during one or more sampling events. (1-Methylanphalene is not included as the standard is set at the reporting limit, which varies from analysis to analysis.) The figures illustrate the limited extent of petroleum-impacted groundwater monitored by the intermediate and deep wells. The figures also indicate the extent of impacted groundwater monitored by these wells is becoming smaller over time.

Lead analyses were performed beginning in November 2004. Lead was inconsistently detected in deep well MW-20 and intermediate wells MW-21 and MW-23. Only well MW-21 exhibited a lead concentration above the NCGWQS, reported during the November 2005 event at a concentration of 18.8 ug/L, slightly above the NCGWQS of 15 ug/L. Lead is naturally occurring constituent of soil and groundwater. As lead was not detected in shallow wells at the site, and as

lead was detected inconsistently in the intermediate and deep wells, the occurrence of lead, when detected, does not appear to be associated with past petroleum releases 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 one trip blank associated with the May 2004 sampling event, no VOCs were detected in the trip blank samples. Toluene was detected in the May 2004 trip blank at an estimated concentration of 0.64 ug/L.

Field duplicate samples were collected from various wells during the program, and results of the duplicate samples are listed in Table 4-1. The primary and duplicate samples were submitted to Accutest Laboratories for the same analyses. Results for each of the primary/duplicate sample sets generally 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, monthly gauging was conducted at 22 site wells. Well MW-24 was installed in February 2005 and then added to the monthly gauging program. During the current monitoring period, no measurable free product was detected at any well during any gauging event. At one well, MW-11, a sorbent sock installed in the well from September 2003 through June 2004, after which time the sock was removed. Consequently, product thickness data at this well for this early time period are inconclusive. Tables A-1 and A-2 of Appendix A summarize the monitoring program field gauging data.

4.3 Soil Vapor Extraction System Vapor Sampling

Beginning in January 2005 and continuing through November 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. However, readings of 38.1 parts per million (ppm, volume-volume basis) and 472 ppm were recorded on 8 and 15 April 2005, respectively. The calculated cumulative mass removed by the SVE system from 1 January 2005 through 26 November 2005 was 21.4 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).

Sorbent tube samples of the SVE vapor were collected from the SVE discharge stack in September and October 2003, and monthly from February 2005 through November 2005. The tubes were submitted for analysis for VOCs by EPA Method 18 (modified). Of these samples, only GRO was detected at a concentration of 121 milligrams per cubic meter for the sample collected 1 July 2005 only. In conjunction with measurements of the flow velocities, SVE vapor velocities, temperatures, and pressures/vacuums, mass removal rates were calculated, as was the estimate total mass removed. The estimate mass removed was 59 pounds. Table A-4 in Appendix A summarizes the field measurements and presents the mass removal calculations based on the field measurements. Calculations follow NCDENR guidance (NCDENR, 2002).

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 fuel and gasoline were released from both AST and UST operations at the site. Affects to soil from releases from the former UST system appear to have been addressed to applicable clean-up requirements identified by NCDENR, DWM, UST Section. Clean-up requirements for portions of the site affected by releases from the AST system, which are subject to requirements identified by NCDENR, DWQ, APS Section, have not yet been attained.
- An active water supply well is located within 1,500 feet of the site. The nearest mapped surface water body is an unnamed creek located approximately 1,000 feet southeast of the site.
- Shallow surficial aquifer groundwater flows into the site from the east, and flows away from the site to the north and southwest. Deeper groundwater of the surficial aquifer flows across the site to the northwest. A downward vertical gradient is present between the upper and lower portions of the surficial aquifer. A sandy clay unit appears to inhibit downward flow of groundwater from the shallow portion of the surficial aquifer to the deeper portions.
- No measurable free product was observed at any site well during the monitoring program.
- Some petroleum constituents are present above NCGWQSs in shallow groundwater at the site. Petroleum impacts to shallow groundwater primarily are limited to the vicinity of wells MW-1 and MW-2. Impacts appear to be decreasing in magnitude and lateral extent over time.
- Only limited impacts of petroleum constituents (benzene and naphthalene) to deeper groundwater have been observed, with benzene and naphthalene reported at concentrations slightly above NCGWQSs. Impacts appear to be decreasing in magnitude and lateral extent over time.
- Lead was detected above the NCGWQS only in one sample, collected from intermediate depth well MW-21; as lead was not detected in shallow wells at the site, and as lead was detected inconsistently in the intermediate and deep wells, lead does not appear to be associated with past petroleum releases at the site.
- Previous remedial responses included removal of ASTs and USTs. On-going remedial response includes operation of a BS/SVE system, which appears to be effective at addressing petroleum constituents in affected areas of the site.

5.2 Recommendations

Recommendations are made based on the findings of this monitoring program and are specific to the site's program data and requirements.

The following recommendations are made:

- Continue operation of the BS/SVE system. Petroleum constituents remaining at the site, while low in concentration, are still present above applicable standards identified in NCDENR-DWQ-APS guidance.
- Continue site monitoring activities in a manner consistent with those used during this monitoring program. Report findings annually.
- Once target clean-up goals for groundwater have been attained over a one year period, then, with concurrence from NCDENR, discontinue active site remediation and conduct quarterly monitoring over a one year period. Report findings of the post-operational monitoring, and request site closure or resume remediation activities as indicated by the data.

SECTION 6 REFERENCES

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FIGURES

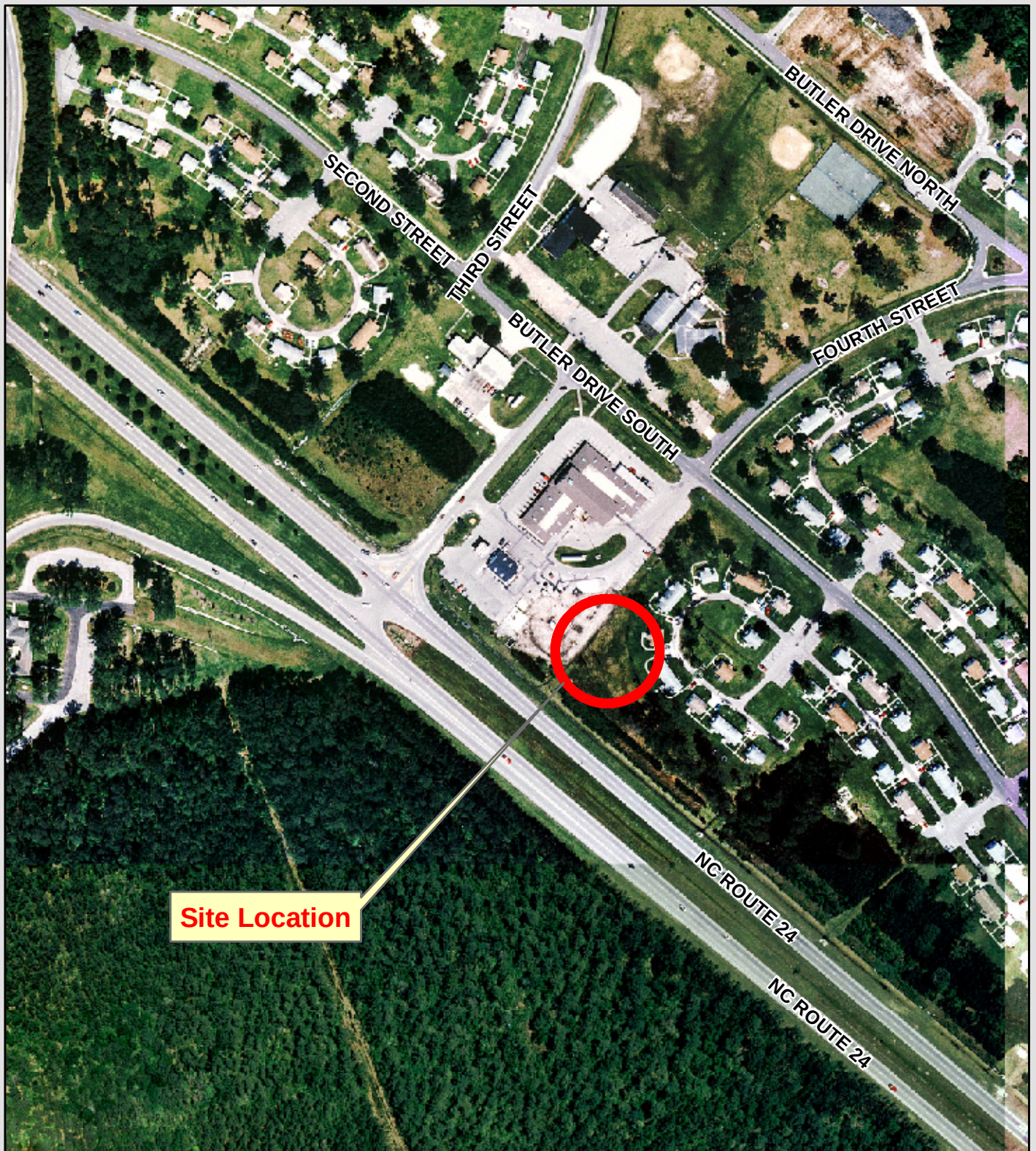
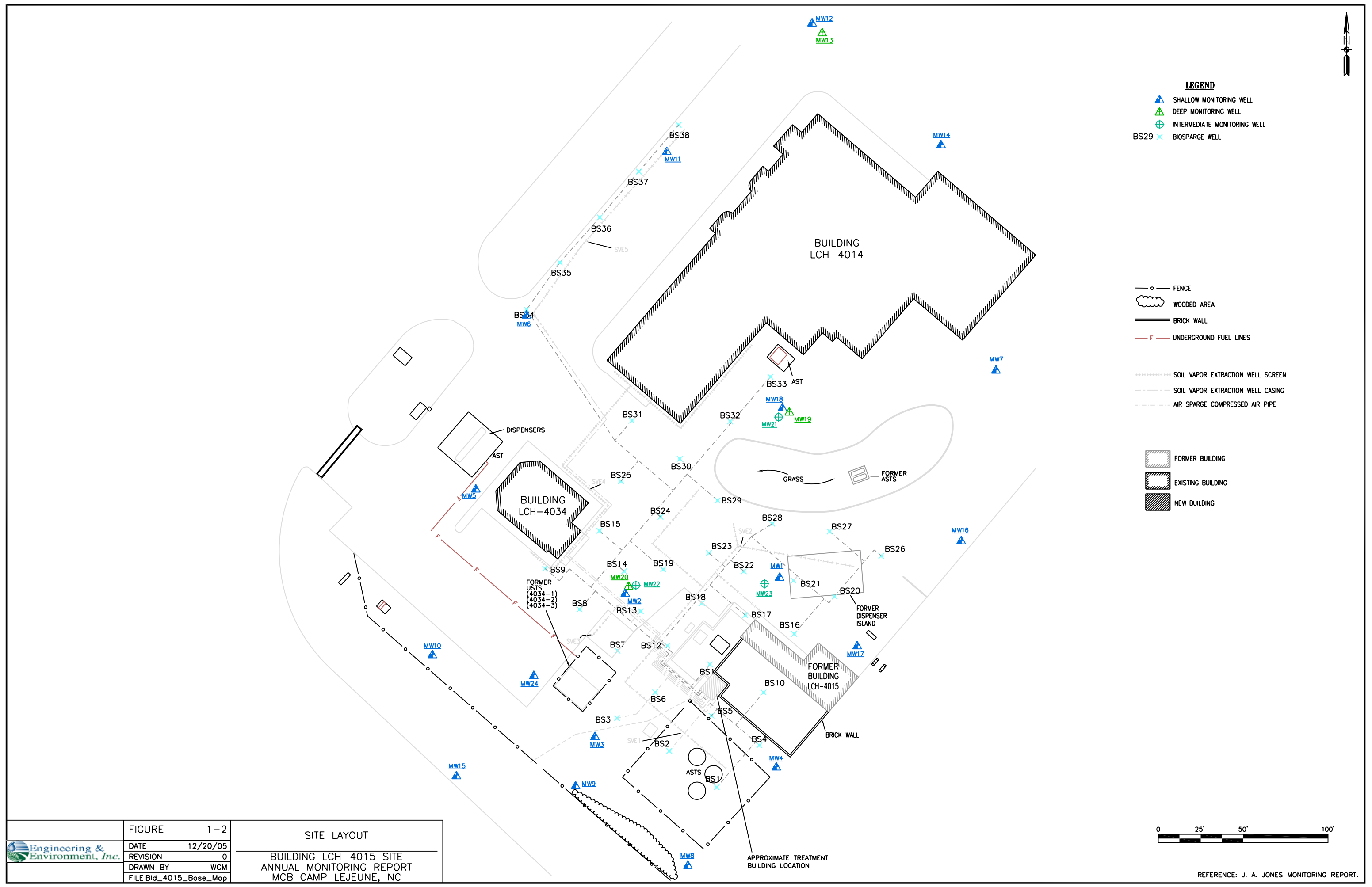


FIGURE 1-1 SITE LOCATION MAP

BUILDING 4015
MARINE CORPS BASE
CAMP LEJEUNE, N.C.





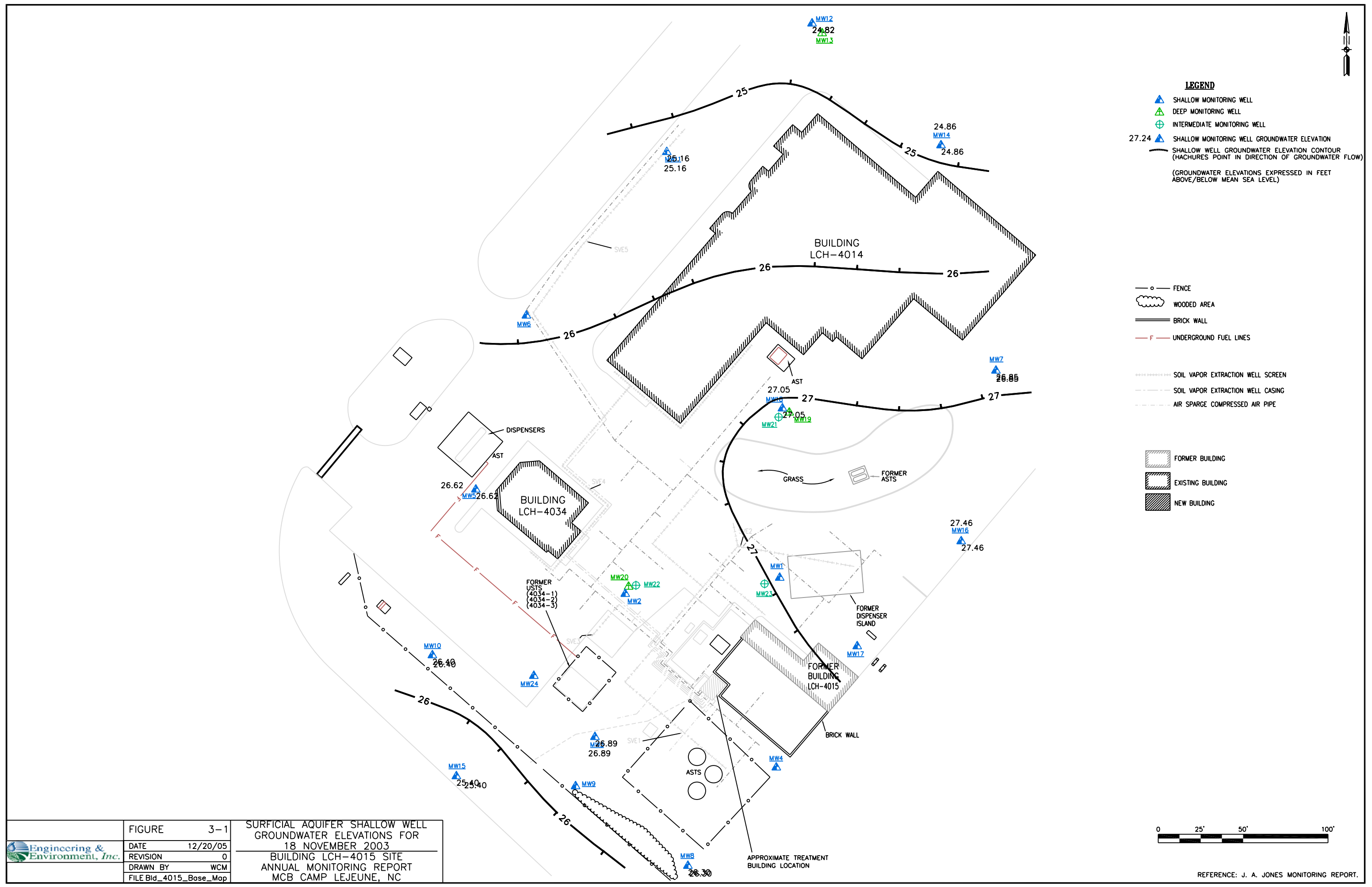
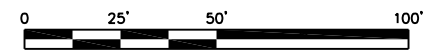


	FIGURE	3-1	SURFICIAL AQUIFER SHALLOW WELL GROUNDWATER ELEVATIONS FOR 18 NOVEMBER 2003 BUILDING LCH-4015 SITE ANNUAL MONITORING REPORT MCB CAMP LEJEUNE, NC
	DATE	12/20/05	
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REFERENCE: J. A. JONES MONITORING REPORT.

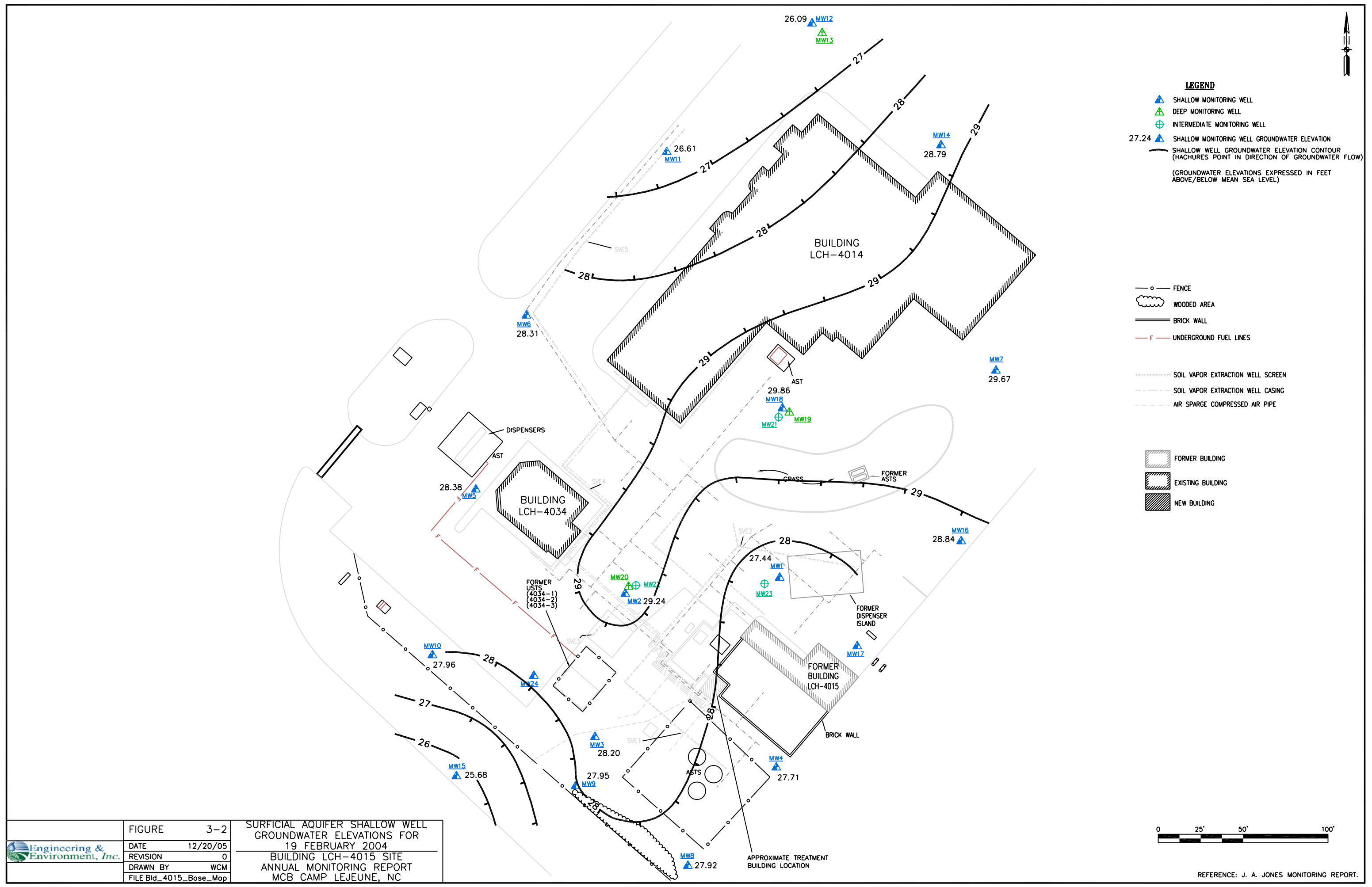
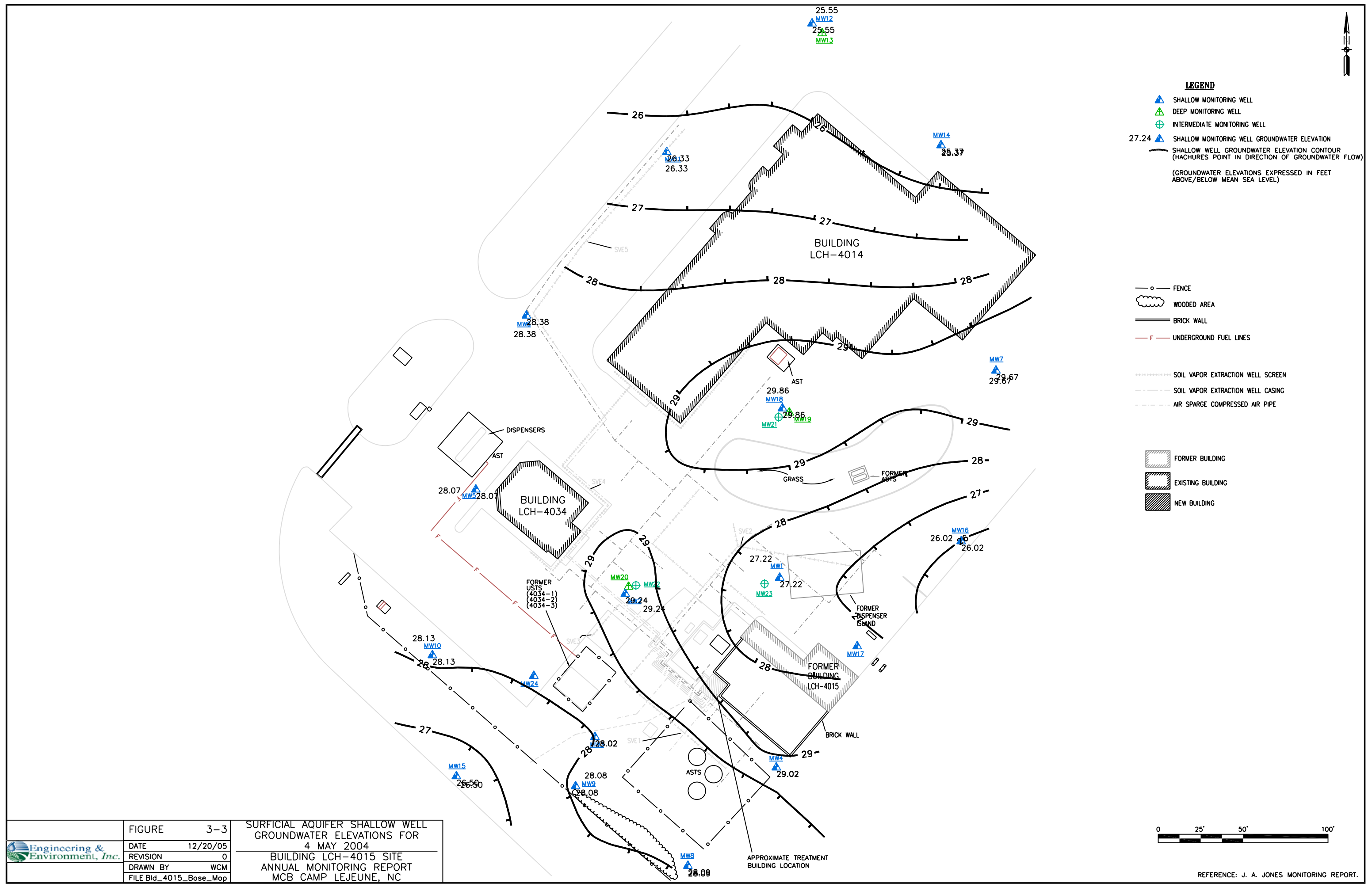


	FIGURE	3-2	SURFICIAL AQUIFER SHALLOW WELL GROUNDWATER ELEVATIONS FOR 19 FEBRUARY 2004 BUILDING LCH-4015 SITE ANNUAL MONITORING REPORT MCB CAMP LEJEUNE, NC
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	REVISION	0	
	DRAWN BY	WCM	
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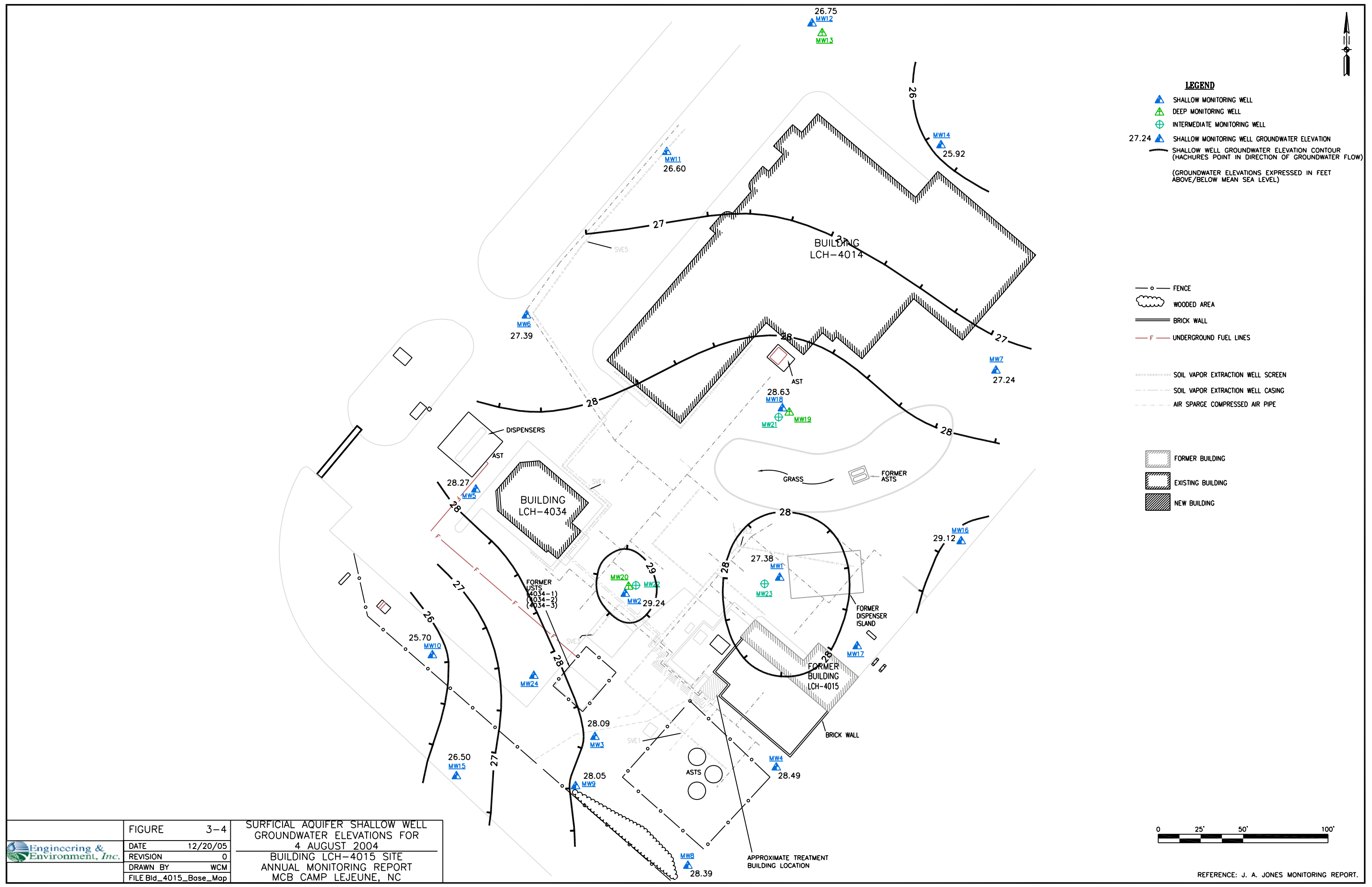
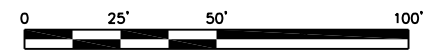


	FIGURE	3-4	SURFICIAL AQUIFER SHALLOW WELL GROUNDWATER ELEVATIONS FOR 4 AUGUST 2004 BUILDING LCH-4015 SITE ANNUAL MONITORING REPORT MCB CAMP LEJEUNE, NC
	DATE	12/20/05	
	REVISION	0	
	DRAWN BY	WCM	
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REFERENCE: J. A. JONES MONITORING REPORT.

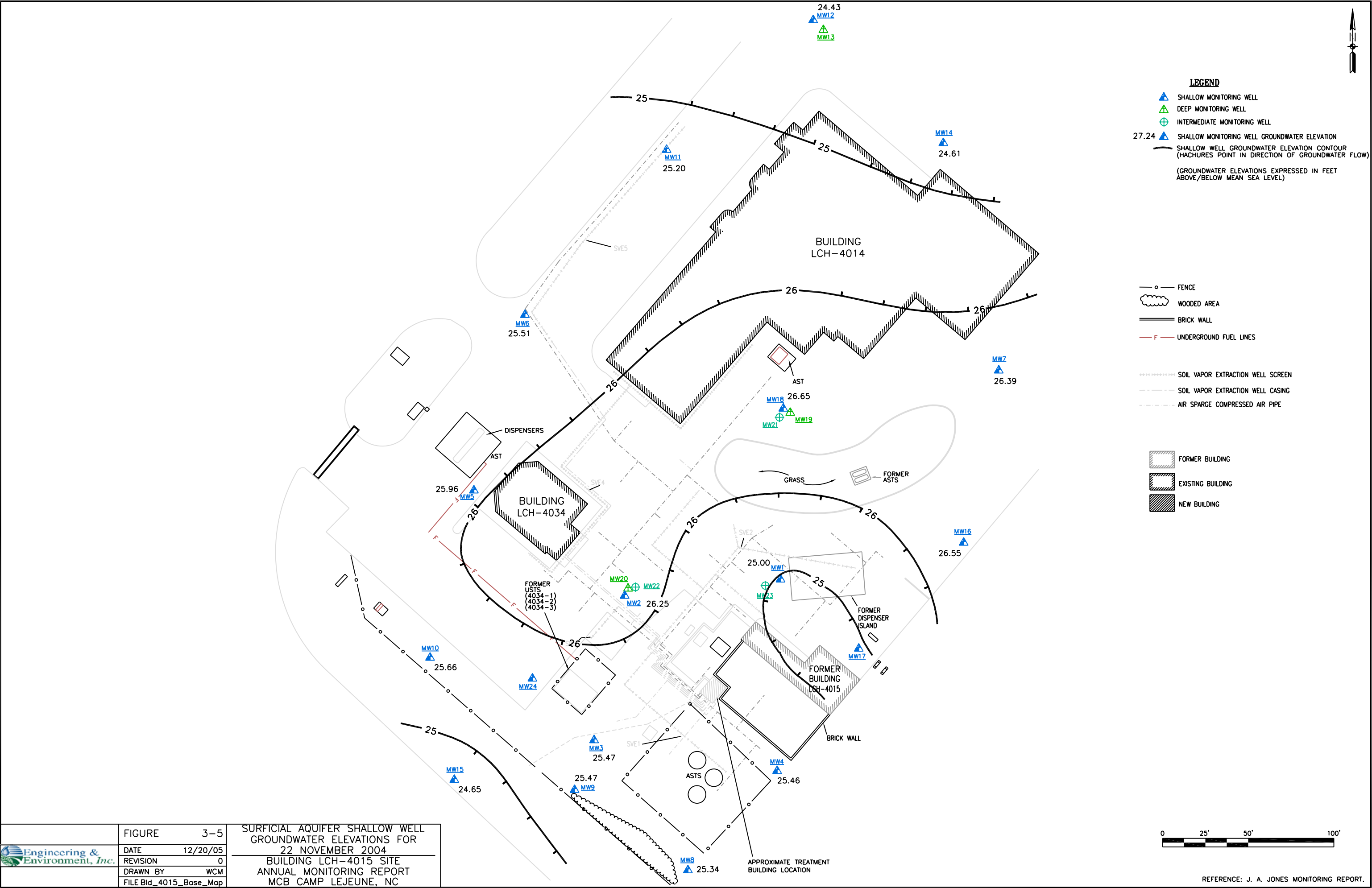
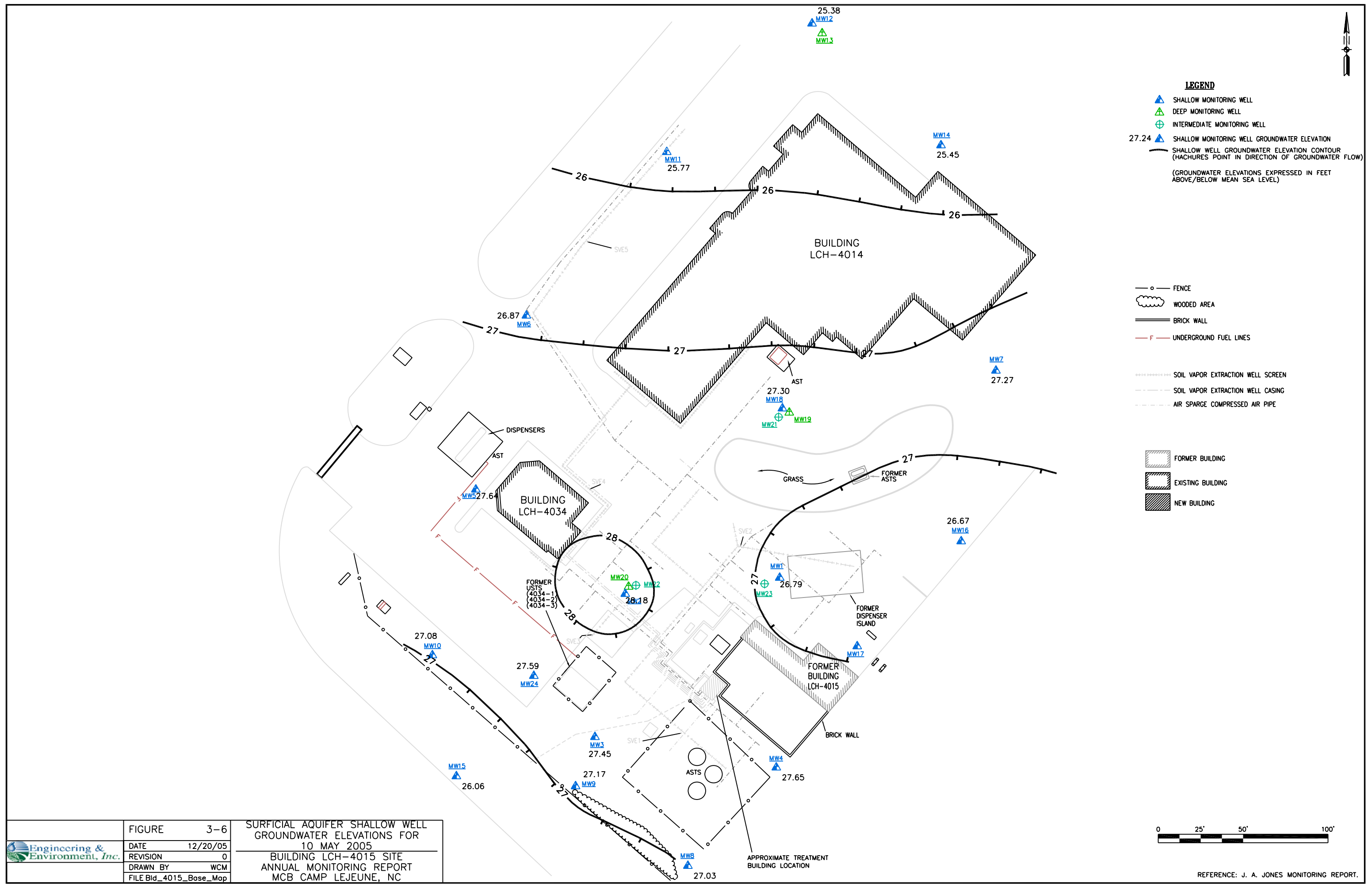


	FIGURE	3-5	SURFICIAL AQUIFER SHALLOW WELL GROUNDWATER ELEVATIONS FOR 22 NOVEMBER 2004 BUILDING LCH-4015 SITE ANNUAL MONITORING REPORT MCB CAMP LEJEUNE, NC
	DATE	12/20/05	
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	DRAWN BY	WCM	
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REFERENCE: J. A. JONES MONITORING REPORT.



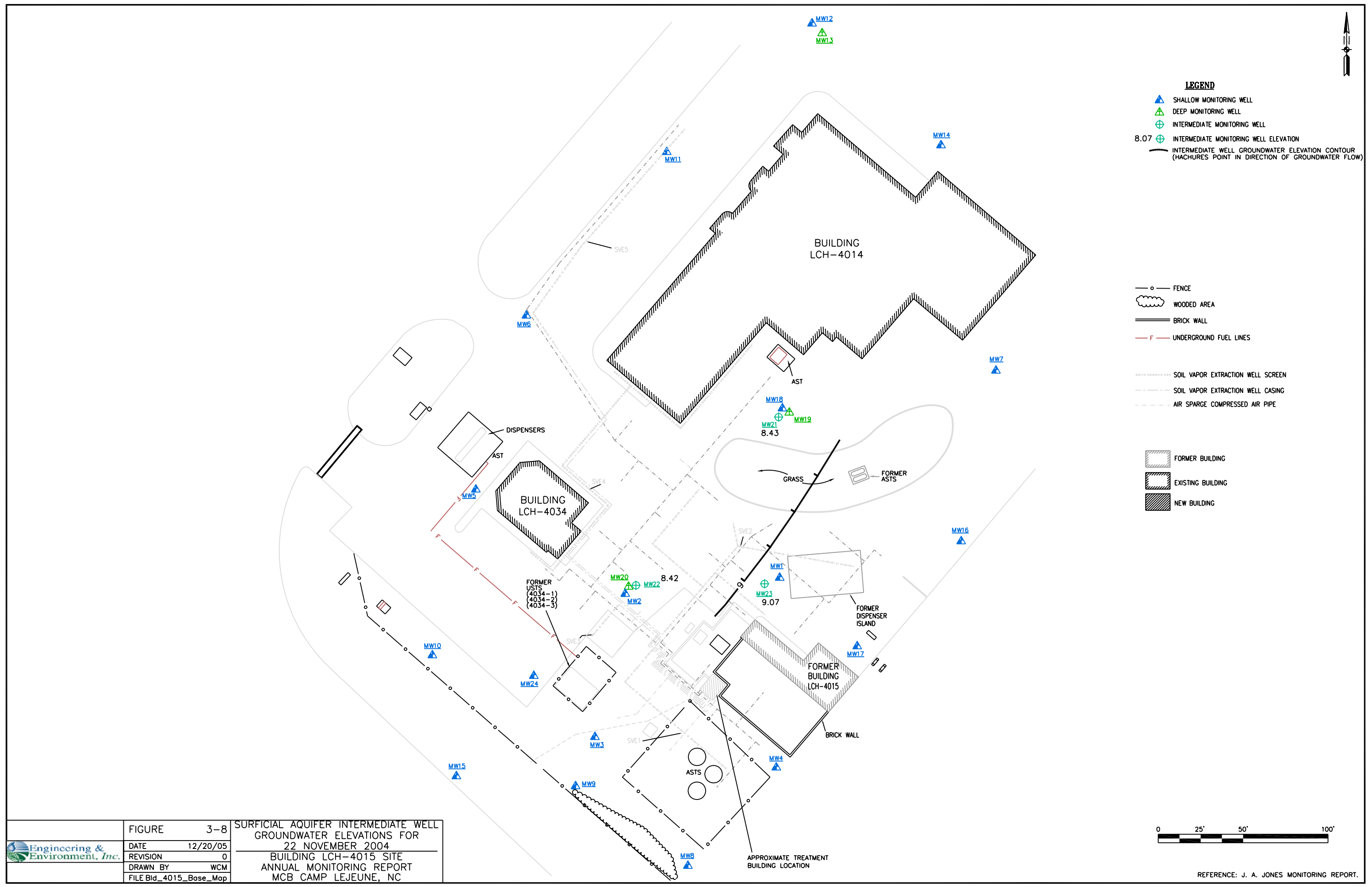


	FIGURE	3-8	SURFICIAL AQUIFER INTERMEDIATE WELL GROUNDWATER ELEVATIONS FOR 22 NOVEMBER 2004 BUILDING LCH-4015 SITE ANNUAL MONITORING REPORT MCB CAMP LEJEUNE, NC
	DATE	12/20/05	
	REVISION	0	
	DRAWN BY	WCM	
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REFERENCE: J. A. JONES MONITORING REPORT.

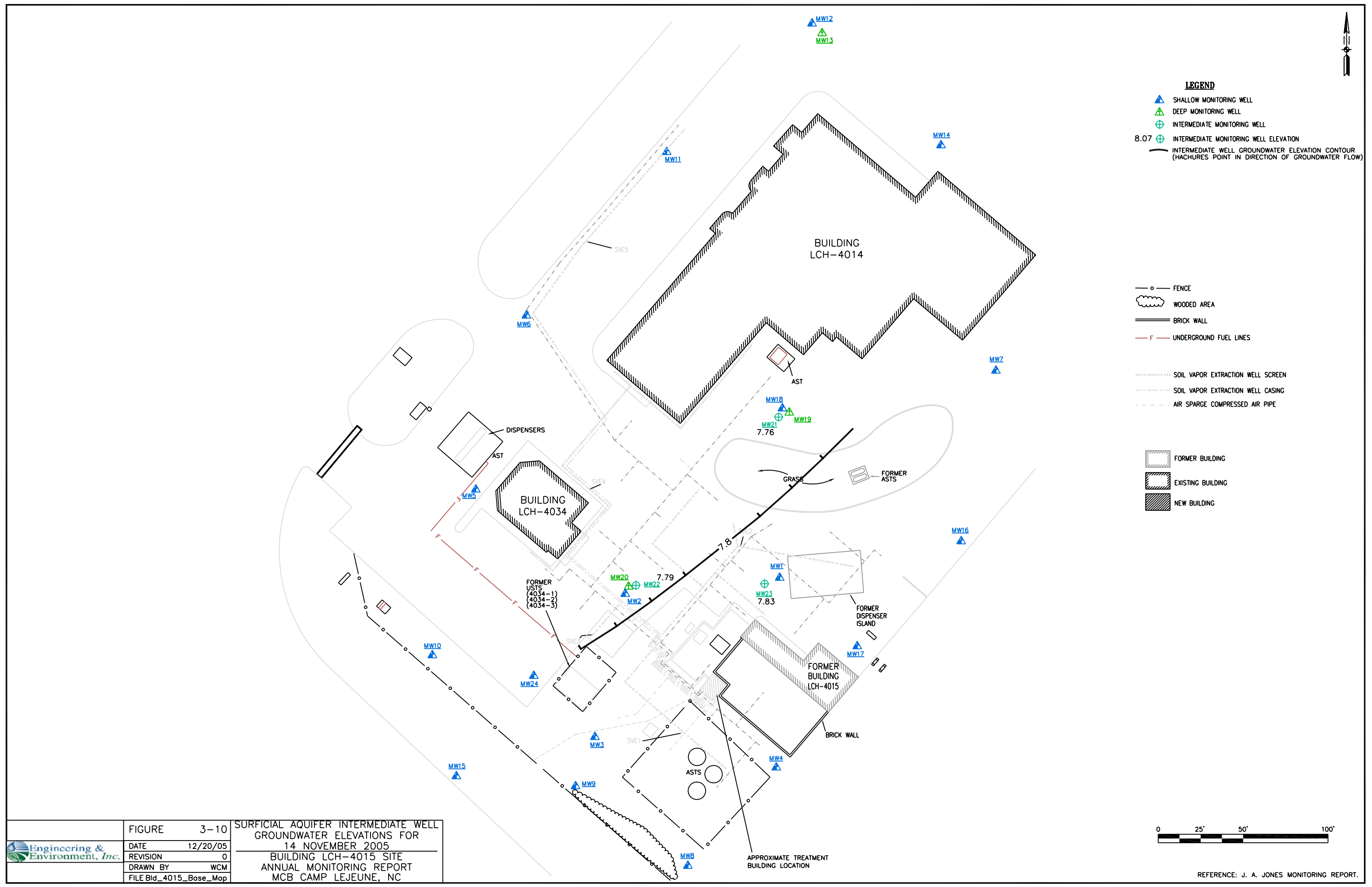
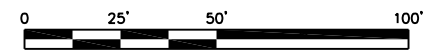


	FIGURE	3-10	SURFICIAL AQUIFER INTERMEDIATE WELL GROUNDWATER ELEVATIONS FOR 14 NOVEMBER 2005 BUILDING LCH-4015 SITE ANNUAL MONITORING REPORT MCB CAMP LEJEUNE, NC
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REFERENCE: J. A. JONES MONITORING REPORT.

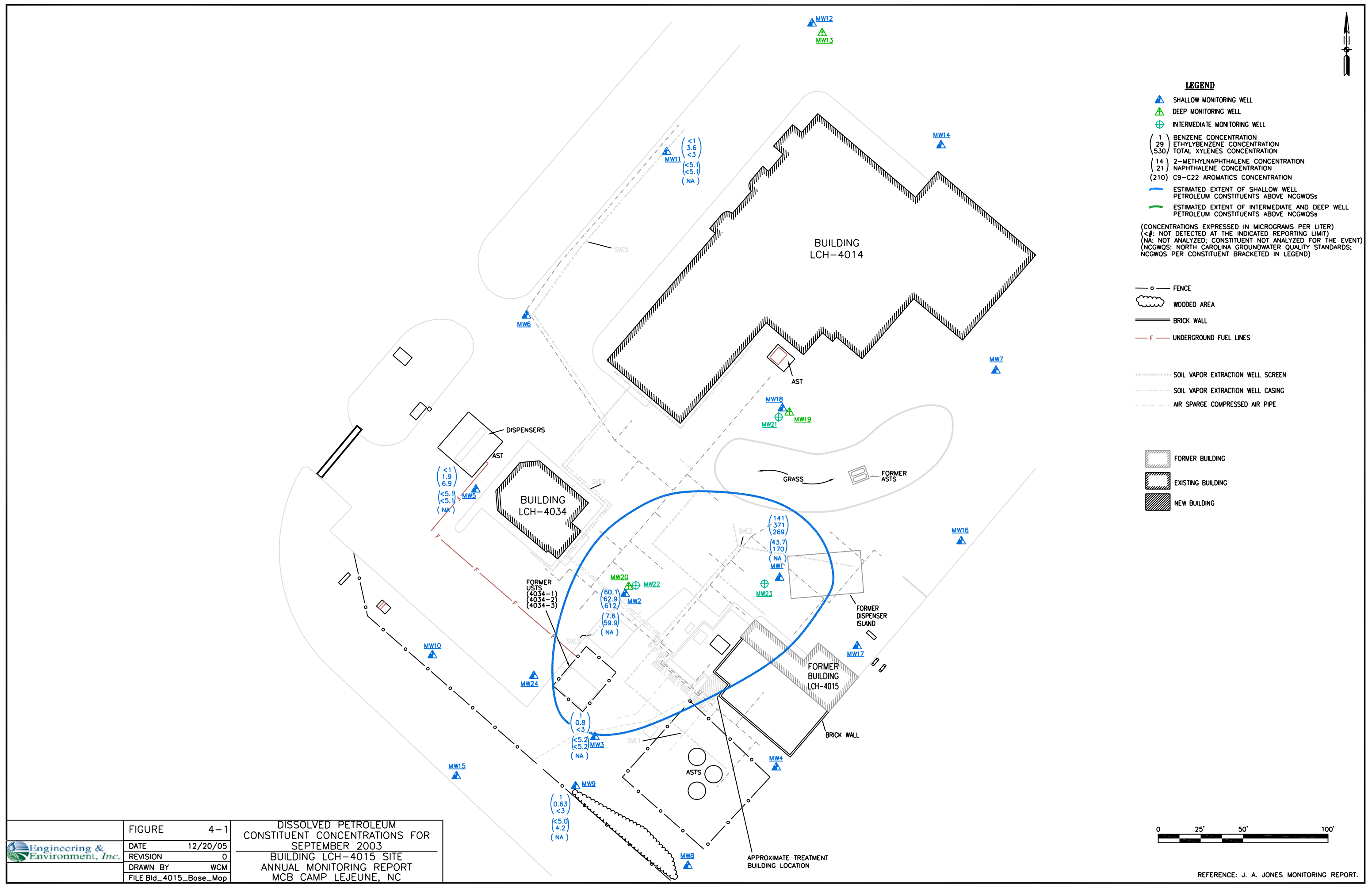
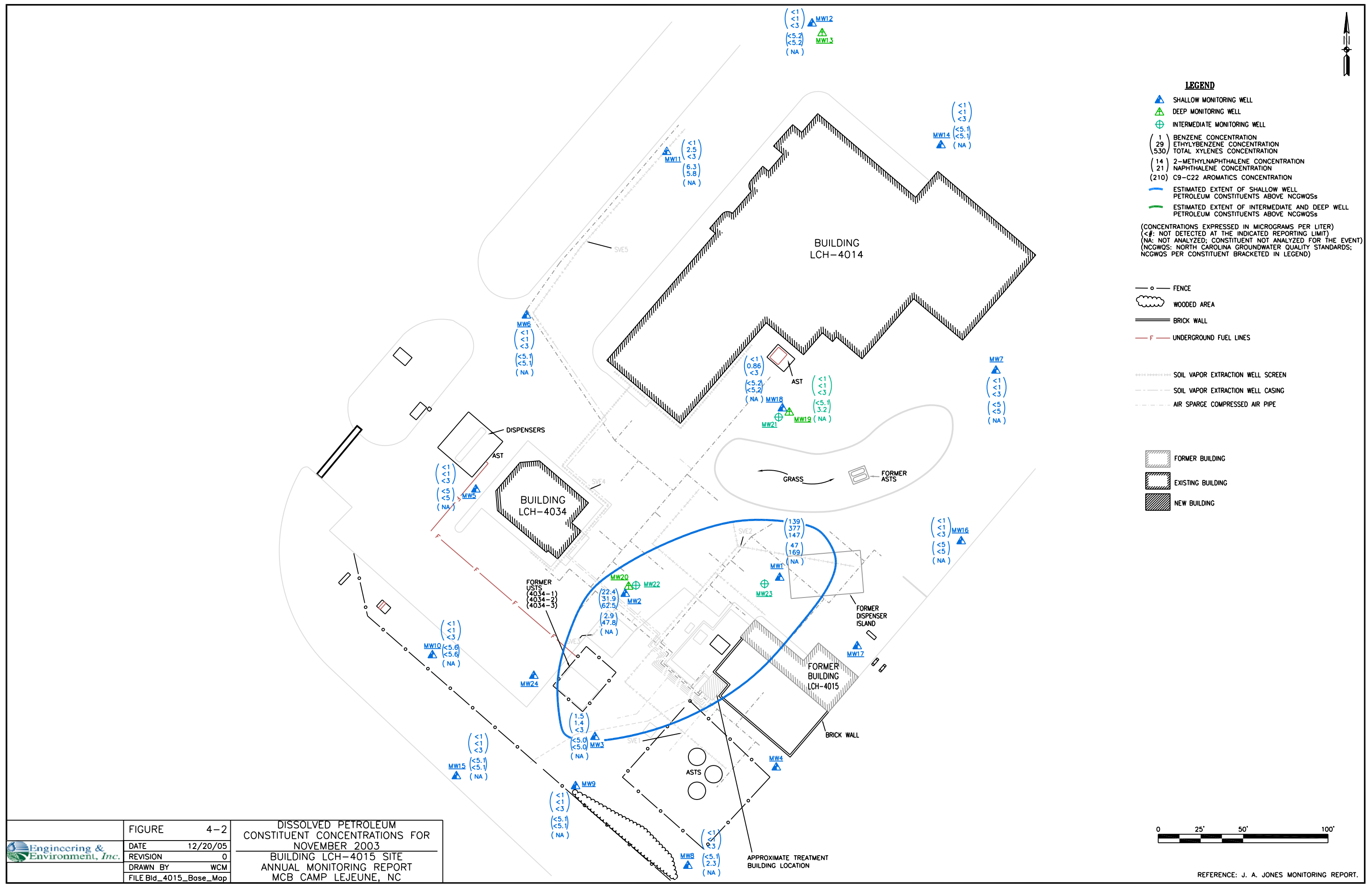


	FIGURE	4-1	DISSOLVED PETROLEUM CONSTITUENT CONCENTRATIONS FOR SEPTEMBER 2003 BUILDING LCH-4015 SITE ANNUAL MONITORING REPORT MCB CAMP LEJEUNE, NC
	DATE	12/20/05	
	REVISION	0	
	DRAWN BY	WCM	
	FILE Bld_4015_Base_Map		



LEGEND

▲ SHALLOW MONITORING WELL
▲ DEEP MONITORING WELL
⊕ INTERMEDIATE MONITORING WELL

(1) BENZENE CONCENTRATION
(29) ETHYLBENZENE CONCENTRATION
(530) TOTAL XYLENES CONCENTRATION
(14) 2-METHYLNAPHTHALENE CONCENTRATION
(21) NAPHTHALENE CONCENTRATION
(210) C9-C22 AROMATICS CONCENTRATION

— ESTIMATED EXTENT OF SHALLOW WELL
PETROLEUM CONSTITUENTS ABOVE NCGWQSs
— ESTIMATED EXTENT OF INTERMEDIATE AND DEEP WELL
PETROLEUM CONSTITUENTS ABOVE NCGWQSs

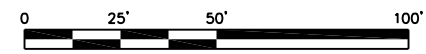
(CONCENTRATIONS EXPRESSED IN MICROGRAMS PER LITER)
(<#): NOT DETECTED AT THE INDICATED REPORTING LIMIT
(NA): NOT ANALYZED; CONSTITUENT NOT ANALYZED FOR THE EVENT
(NCGWQS: NORTH CAROLINA GROUNDWATER QUALITY STANDARDS;
NCGWQS PER CONSTITUENT BRACKETED IN LEGEND)

○ FENCE
☁ WOODED AREA
= BRICK WALL
— F — UNDERGROUND FUEL LINES

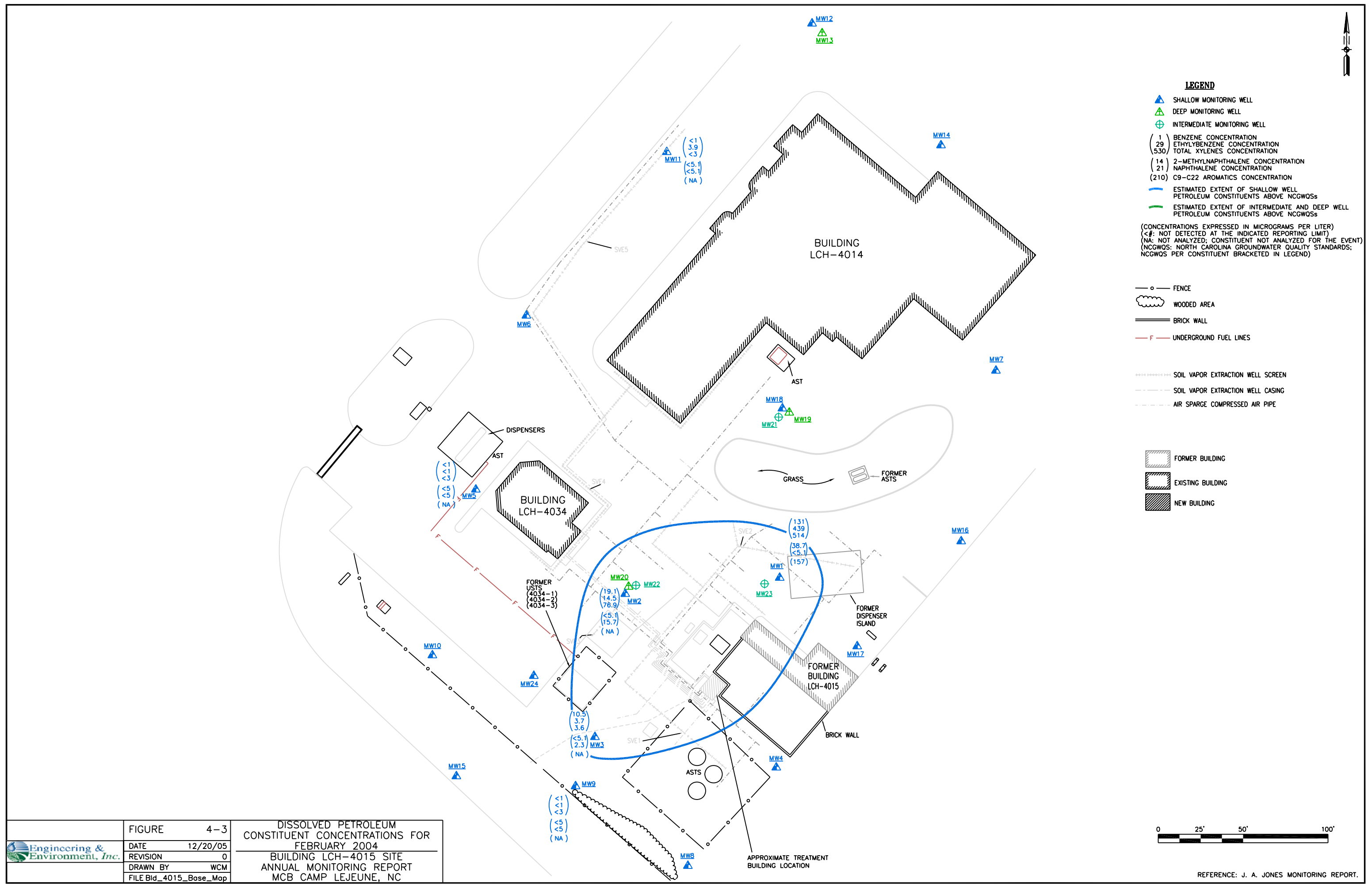
----- SOIL VAPOR EXTRACTION WELL SCREEN
----- SOIL VAPOR EXTRACTION WELL CASING
----- AIR SPARGE COMPRESSED AIR PIPE

FORMER BUILDING
EXISTING BUILDING
NEW BUILDING

	FIGURE	4-2	DISSOLVED PETROLEUM CONSTITUENT CONCENTRATIONS FOR NOVEMBER 2003 BUILDING LCH-4015 SITE ANNUAL MONITORING REPORT MCB CAMP LEJEUNE, NC
	DATE	12/20/05	
	REVISION	0	
	DRAWN BY	WCM	
	FILE Bld_4015_Base_Map		



REFERENCE: J. A. JONES MONITORING REPORT.



LEGEND

- SHALLOW MONITORING WELL
- DEEP MONITORING WELL
- INTERMEDIATE MONITORING WELL
- (1) BENZENE CONCENTRATION
- (29) ETHYLBENZENE CONCENTRATION
- (530) TOTAL XYLENES CONCENTRATION
- (14) 2-METHYLNAPHTHALENE CONCENTRATION
- (21) NAPHTHALENE CONCENTRATION
- (210) C9-C22 AROMATICS CONCENTRATION
- ESTIMATED EXTENT OF SHALLOW WELL PETROLEUM CONSTITUENTS ABOVE NCGWQSs
- ESTIMATED EXTENT OF INTERMEDIATE AND DEEP WELL PETROLEUM CONSTITUENTS ABOVE NCGWQSs

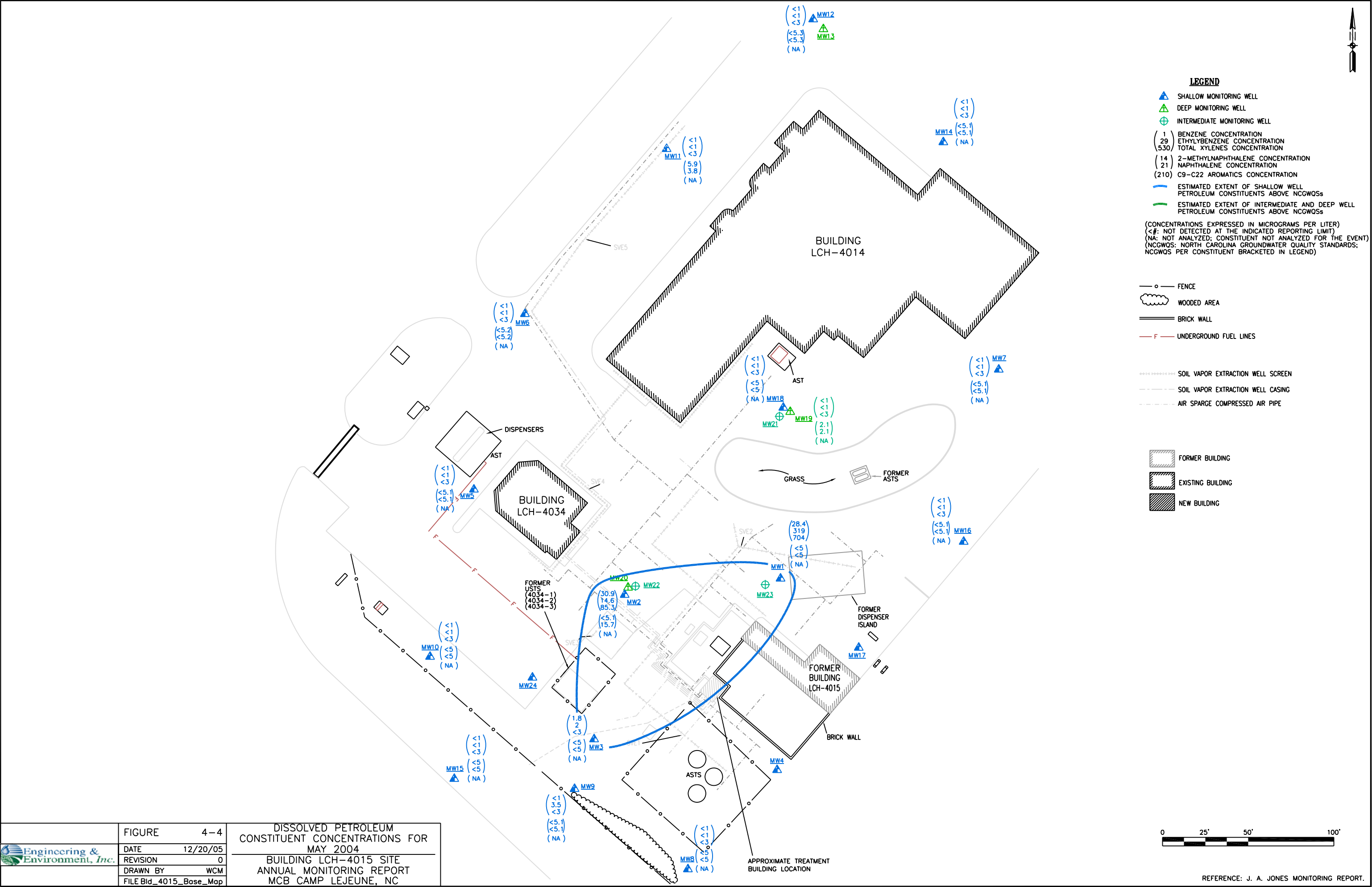
(CONCENTRATIONS EXPRESSED IN MICROGRAMS PER LITER)
(<#): NOT DETECTED AT THE INDICATED REPORTING LIMIT
(NA): NOT ANALYZED; CONSTITUENT NOT ANALYZED FOR THE EVENT
(NCGWQS: NORTH CAROLINA GROUNDWATER QUALITY STANDARDS;
NCGWQS PER CONSTITUENT BRACKETED IN LEGEND)

- FENCE
- WOODED AREA
- BRICK WALL
- UNDERGROUND FUEL LINES
- SOIL VAPOR EXTRACTION WELL SCREEN
- SOIL VAPOR EXTRACTION WELL CASING
- AIR SPARGE COMPRESSED AIR PIPE

- FORMER BUILDING
- EXISTING BUILDING
- NEW BUILDING

FIGURE	4-3	DISSOLVED PETROLEUM CONSTITUENT CONCENTRATIONS FOR FEBRUARY 2004
DATE	12/20/05	BUILDING LCH-4015 SITE
REVISION	0	ANNUAL MONITORING REPORT
DRAWN BY	WCM	MCB CAMP LEJEUNE, NC
FILE Bld_4015_Base_Map		

REFERENCE: J. A. JONES MONITORING REPORT.



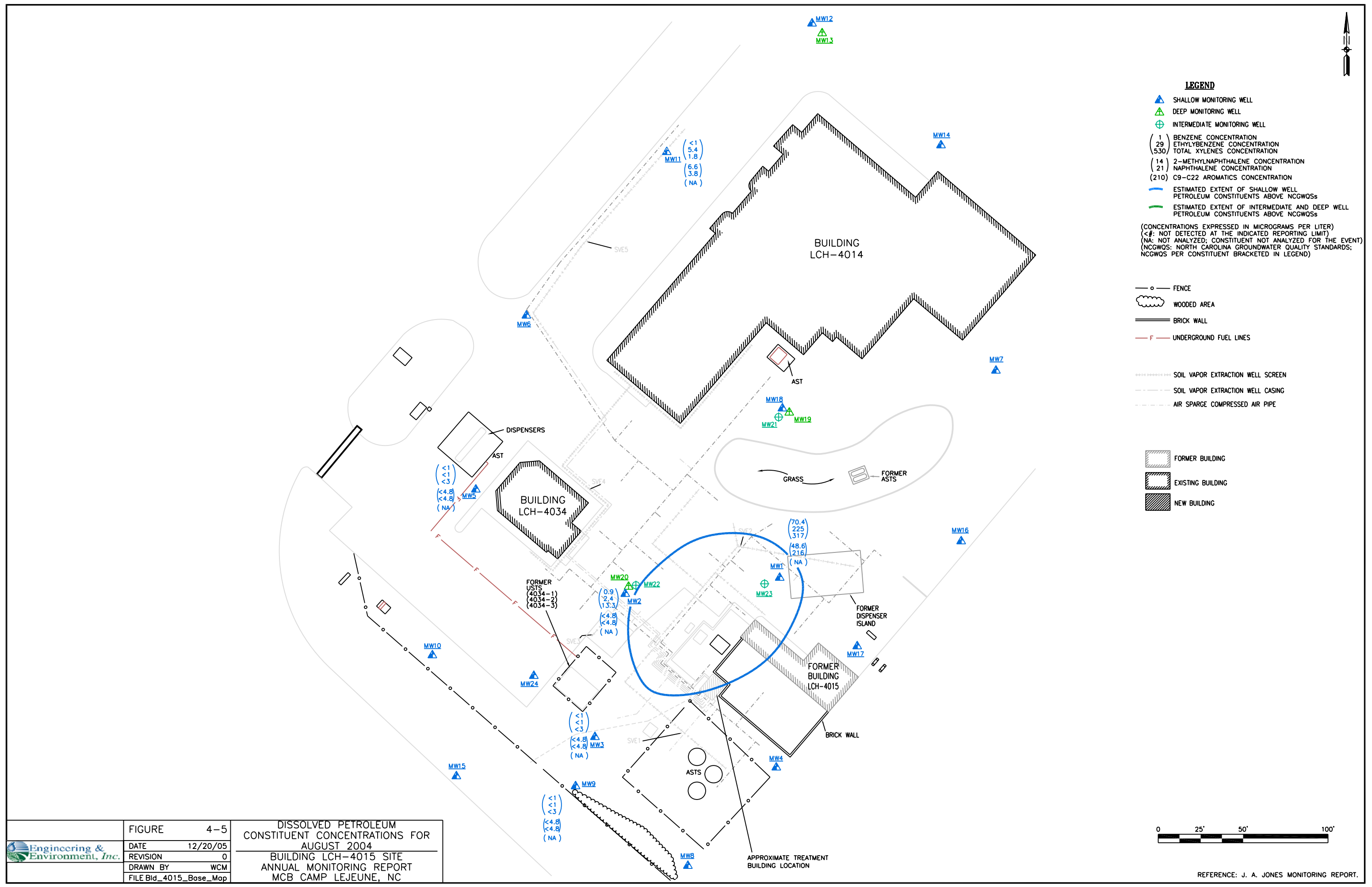
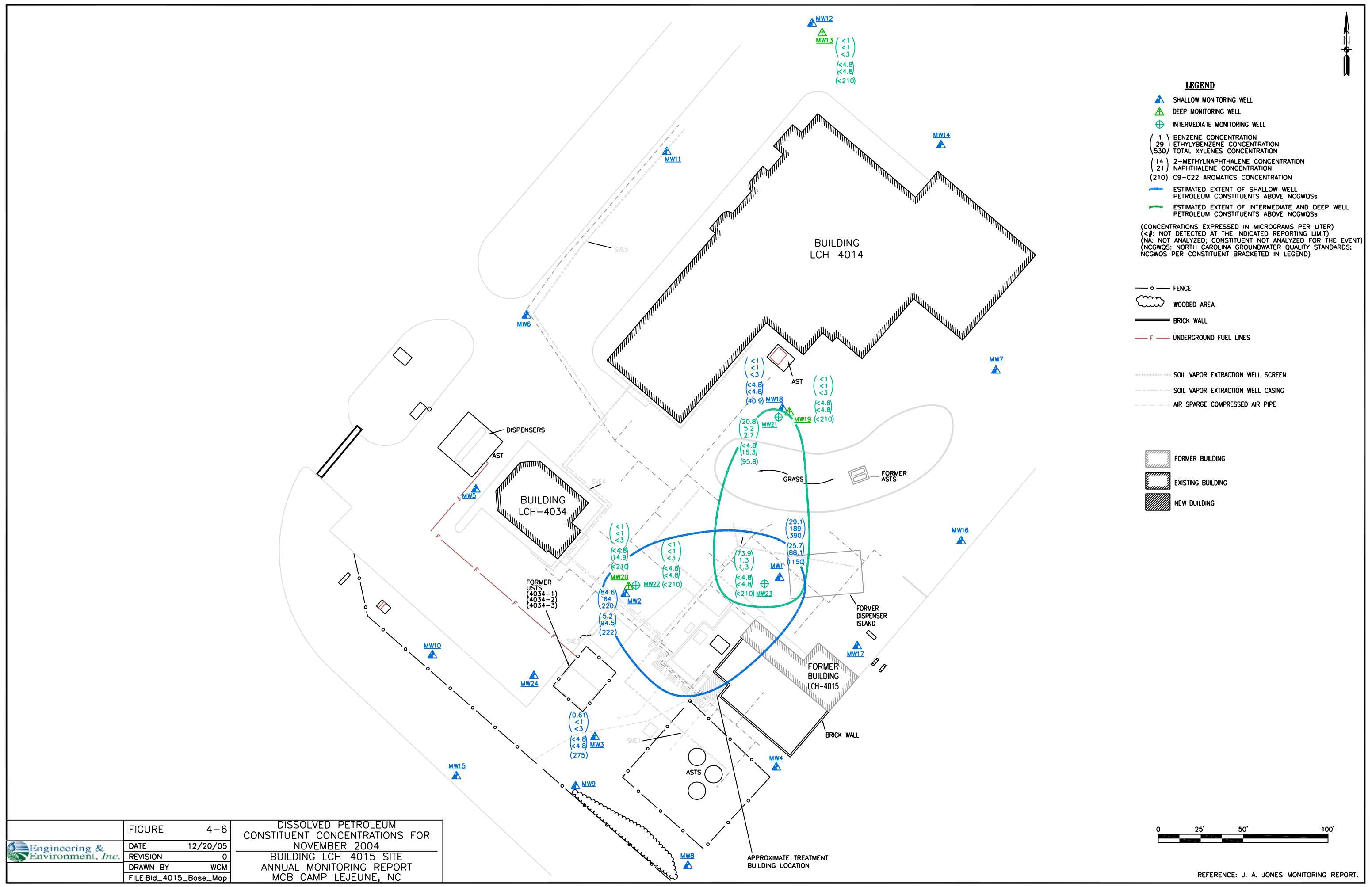


	FIGURE	4-5	DISSOLVED PETROLEUM CONSTITUENT CONCENTRATIONS FOR AUGUST 2004 BUILDING LCH-4015 SITE ANNUAL MONITORING REPORT MCB CAMP LEJEUNE, NC
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	REVISION	0	
	DRAWN BY	WCM	
	FILE Bld_4015_Base_Map		

REFERENCE: J. A. JONES MONITORING REPORT.



LEGEND

▲ SHALLOW MONITORING WELL
▲ DEEP MONITORING WELL
⊕ INTERMEDIATE MONITORING WELL

(1) BENZENE CONCENTRATION
(29) ETHYLBENZENE CONCENTRATION
(530) TOTAL XYLENES CONCENTRATION
(14) 2-METHYLNAPHTHALENE CONCENTRATION
(21) NAPHTHALENE CONCENTRATION
(210) C9-C22 AROMATICS CONCENTRATION

— ESTIMATED EXTENT OF SHALLOW WELL
PETROLEUM CONSTITUENTS ABOVE NCGWQSs
— ESTIMATED EXTENT OF INTERMEDIATE AND DEEP WELL
PETROLEUM CONSTITUENTS ABOVE NCGWQSs

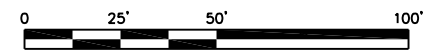
(CONCENTRATIONS EXPRESSED IN MICROGRAMS PER LITER)
(<#): NOT DETECTED AT THE INDICATED REPORTING LIMIT
(NA): NOT ANALYZED; CONSTITUENT NOT ANALYZED FOR THE EVENT
(NCGWQS: NORTH CAROLINA GROUNDWATER QUALITY STANDARDS;
NCGWQS PER CONSTITUENT BRACKETED IN LEGEND)

○ FENCE
☁ WOODED AREA
= BRICK WALL
— F — UNDERGROUND FUEL LINES

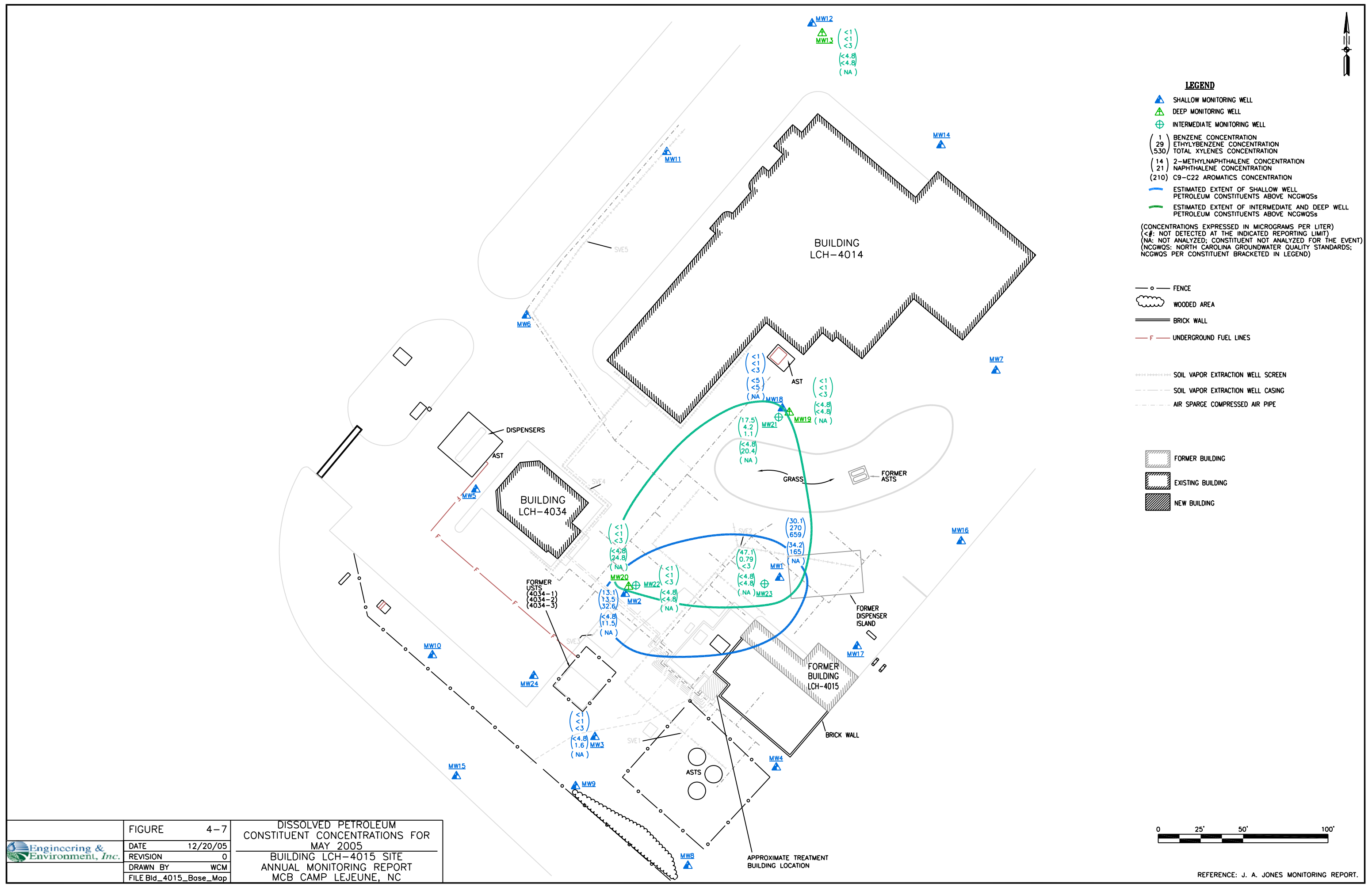
--- SOIL VAPOR EXTRACTION WELL SCREEN
--- SOIL VAPOR EXTRACTION WELL CASING
--- AIR SPARGE COMPRESSED AIR PIPE

FORMER BUILDING
EXISTING BUILDING
NEW BUILDING

	FIGURE	4-6	DISSOLVED PETROLEUM CONSTITUENT CONCENTRATIONS FOR NOVEMBER 2004 BUILDING LCH-4015 SITE ANNUAL MONITORING REPORT MCB CAMP LEJEUNE, NC
	DATE	12/20/05	
	REVISION	0	
	DRAWN BY	WCM	
	FILE Bld_4015_Base_Map		



REFERENCE: J. A. JONES MONITORING REPORT.



LEGEND

▲ SHALLOW MONITORING WELL
▲ DEEP MONITORING WELL
⊕ INTERMEDIATE MONITORING WELL

(1) BENZENE CONCENTRATION
(29) ETHYLBENZENE CONCENTRATION
(530) TOTAL XYLENES CONCENTRATION
(14) 2-METHYLNAPHTHALENE CONCENTRATION
(21) NAPHTHALENE CONCENTRATION
(210) C9-C22 AROMATICS CONCENTRATION

— ESTIMATED EXTENT OF SHALLOW WELL
PETROLEUM CONSTITUENTS ABOVE NCGWQSs
— ESTIMATED EXTENT OF INTERMEDIATE AND DEEP WELL
PETROLEUM CONSTITUENTS ABOVE NCGWQSs

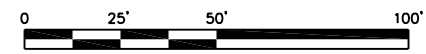
(CONCENTRATIONS EXPRESSED IN MICROGRAMS PER LITER)
(<#): NOT DETECTED AT THE INDICATED REPORTING LIMIT
(NA): NOT ANALYZED; CONSTITUENT NOT ANALYZED FOR THE EVENT
(NCGWQS: NORTH CAROLINA GROUNDWATER QUALITY STANDARDS;
NCGWQS PER CONSTITUENT BRACKETED IN LEGEND)

○ FENCE
☁ WOODED AREA
= BRICK WALL
— F — UNDERGROUND FUEL LINES

----- SOIL VAPOR EXTRACTION WELL SCREEN
----- SOIL VAPOR EXTRACTION WELL CASING
----- AIR SPARGE COMPRESSED AIR PIPE

FORMER BUILDING
EXISTING BUILDING
NEW BUILDING

	FIGURE	4-7	DISSOLVED PETROLEUM CONSTITUENT CONCENTRATIONS FOR MAY 2005 BUILDING LCH-4015 SITE ANNUAL MONITORING REPORT MCB CAMP LEJEUNE, NC
	DATE	12/20/05	
	REVISION	0	
	DRAWN BY	WCM	
	FILE Bld_4015_Base_Map		



REFERENCE: J. A. JONES MONITORING REPORT.

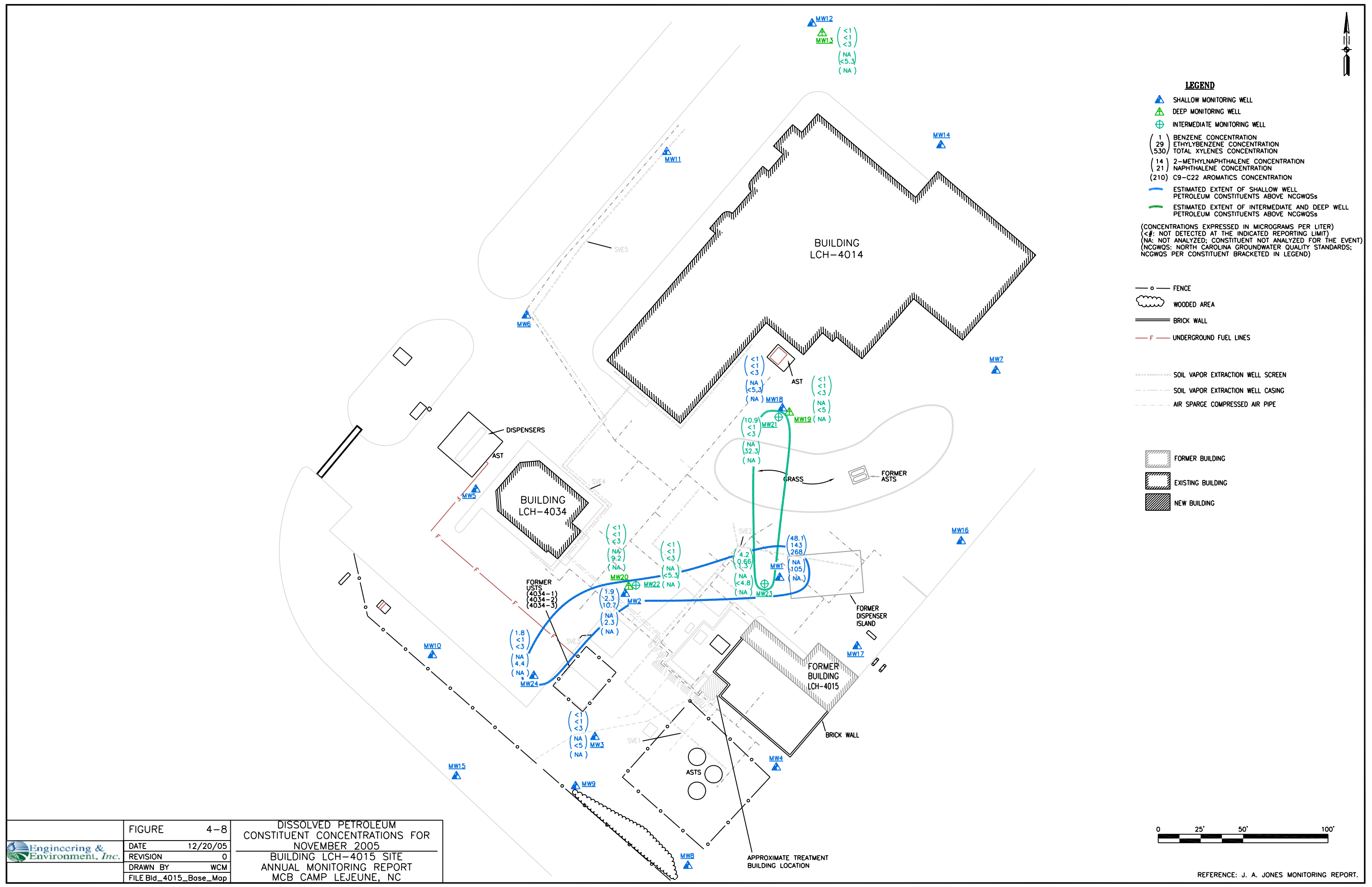


	FIGURE	4-8	DISSOLVED PETROLEUM CONSTITUENT CONCENTRATIONS FOR NOVEMBER 2005 BUILDING LCH-4015 SITE ANNUAL MONITORING REPORT MCB CAMP LEJEUNE, NC
	DATE	12/20/05	
	REVISION	0	
	DRAWN BY	WCM	
	FILE Bld_4015_Base_Map		

TABLES

TABLE 3-1
Groundwater Elevation Data Over Time
Buidling LCH-4015

Location	Top of Casing Elevation ⁽¹⁾	Screen Zone	Groundwater Elevation (feet MSL)																						
			11/18/03	2/19/04	3/3/04	4/16/04	5/4/04	6/10/04	7/8/04	8/4/04	9/1/04	10/14/04	11/22/04	12/9/04	1/10/05	2/4/05	3/4/05	4/18/05	5/10/05	6/9/05	7/14/05	8/11/05	9/8/05	10/17/05	11/14/05
MW-1	29.78	Shallow	NM	27.44	27.07	26.29	27.22	25.86	25.88	27.38	27.66	25.94	25.00	24.98	25.70	25.83	26.60	26.48	26.79	26.79	26.21	26.60	25.26	26.71	25.68
MW-2	29.24	Shallow	NM	29.24	29.24	23.69	29.24	27.71	27.89	29.24	29.14	27.68	26.25	26.66	26.86	26.93	27.92	27.98	28.18	28.12	27.71	28.92	26.55	28.14	27.27
MW-3	32.02	Shallow	26.89	28.20	31.13	27.22	28.02	26.62	26.51	28.09	28.19	26.77	25.47	25.94	26.53	26.43	27.28	27.30	27.45	27.40	26.82	27.21	25.69	27.41	26.42
MW-4	32.68	Shallow	NM	27.71	28.33	27.94	29.02	26.50	25.90	28.49	29.00	26.44	25.46	26.10	26.97	27.04	28.02	27.46	27.65	27.40	26.12	26.86	25.24	27.50	26.28
MW-5	29.35	Shallow	26.62	28.38	25.23	27.41	28.07	26.79	26.97	28.27	28.34	27.16	25.96	26.26	26.57	26.69	27.39	27.55	27.64	27.65	27.18	27.32	26.13	27.85	26.03
MW-6	29.11	Shallow	NM	28.31	27.92	26.61	28.38	26.22	26.23	27.39	28.93	26.23	25.51	22.80	26.05	26.20	26.64	26.52	26.87	26.67	27.11	26.62	25.29	26.80	25.99
MW-7	29.67	Shallow	26.85	29.67	27.79	27.80	29.67	26.70	26.64	27.24	29.35	26.28	26.39	26.62	26.72	26.68	27.59	27.35	27.27	27.02	26.83	27.39	26.28	27.22	26.53
MW-8	28.79	Shallow	26.30	27.92	27.74	27.64	28.09	26.81	25.42	28.39	28.58	25.90	25.34	25.94	26.57	26.97	27.28	27.56	27.03	27.24	25.77	27.59	24.82	27.00	25.84
MW-9	28.35	Shallow	NM	27.95	27.75	27.22	28.08	26.38	26.03	28.05	28.15	25.55	25.47	27.55	26.60	26.55	27.27	27.24	27.17	28.35	26.40	28.35	25.35	28.35	26.10
MW-10	28.28	Shallow	26.40	27.96	27.59	27.13	28.13	26.83	26.26	25.70	28.13	26.23	25.66	26.03	26.39	26.38	27.12	26.96	27.08	26.88	26.46	27.29	25.39	26.92	26.10
MW-11	29.18	Shallow	25.16	26.61	26.59	25.78	26.33	25.14	25.09	26.60	27.53	25.35	25.20	24.83	25.08	25.06	25.75	25.60	25.77	26.48	25.64	25.56	24.73	26.89	25.33
MW-12	29.23	Shallow	24.82	26.09	25.74	25.00	25.55	24.68	25.08	26.75	28.12	25.00	24.43	23.54	24.65	24.61	25.14	25.31	25.38	25.61	24.95	25.72	24.92	26.51	24.84
MW-13	InD	Deep	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-14	29.45	Shallow	24.86	28.79	25.75	24.95	25.37	24.78	24.80	25.92	26.65	25.22	24.61	24.91	24.68	24.81	25.07	25.35	25.45	25.52	25.13	25.37	24.62	25.75	24.99
MW-15	29.26	Shallow	25.40	25.68	26.22	25.74	26.50	25.01	25.09	26.50	26.62	25.47	24.65	24.63	24.92	27.16	25.72	25.74	26.06	25.77	24.54	26.37	24.88	26.33	25.54
MW-16	29.62	Shallow	27.46	28.84	29.04	28.27	26.02	27.21	26.97	29.12	29.17	27.03	26.55	26.94	27.44	28.32	28.50	27.91	26.67	27.87	27.06	27.92	26.37	27.90	27.04
MW-18	29.86	Shallow	27.05	29.86	29.86	27.74	29.86	28.55	27.59	28.63	29.76	27.13	26.65	28.14	28.46	NM	29.86	27.49	27.30	28.63	29.06	29.86	26.46	27.79	26.84
MW-19	29.98	Deep	NM	8.92	9.56	8.35	9.04	8.45	6.70	7.29	8.28	10.65	9.36	8.08	8.18	8.14	7.45	7.37	8.06	6.77	6.68	7.11	5.00	7.96	7.87
MW-20	29.16	Deep	NM	9.67	9.52	8.32	9.07	8.39	6.67	7.19	7.48	10.63	8.37	8.05	8.17	8.15	7.41	7.30	8.01	6.55	6.65	7.20	4.99	7.85	7.77
MW-21	29.85	Intermediate	NM	8.85	9.37	8.18	9.05	8.40	6.90	7.46	8.43	10.60	8.43	7.97	8.07	8.13	7.57	7.17	8.07	6.65	7.71	7.45	5.17	7.96	7.76
MW-22	29.14	Intermediate	NM	9.25	9.51	8.31	9.04	8.42	6.71	7.32	7.82	10.64	8.42	8.07	8.12	8.10	7.49	7.29	8.01	6.56	6.77	7.34	5.04	7.92	7.79
MW-23	29.86	Intermediate	NM	8.84	9.52	NM	9.01	8.51	6.69	7.04	7.77	10.61	9.07	8.09	9.15	9.11	7.54	7.24	8.14	6.68	6.96	7.06	5.61	7.86	7.83
MW-24	28.72	Shallow	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	27.36	27.53	27.59	27.60	27.30	27.25	25.87	27.83	26.83

⁽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

NM: Not measured (e.g., for the indicated date, the well was not accessible, the well was not installed, or the well was not included in gauging program)
NC: Insufficient data to calculate groundwater elevation (e.g., top of casing ellevation datum not available)
InD: Insufficient data or data unavailable

Table 4-1 (Page 1 of 9)
Summary of Laboratory Analyses for Groundwater - Building LCH-4015
September 2003

Sample Location Date Sampled	NCGWQS	MW-01 09/23/03	MW-01D 09/23/03	MW-02 09/23/03	MW-03 09/23/03	MW-05 10/03/03	MW-09 09/23/03	MW-11 09/23/03
EPA 602 (µg/L)								
Benzene	1	141	138	60.1	1	<1.0	<1.0	<1.0
Ethylbenzene	29	371	368	62.9	0.8 J	1.9	0.63 J	3.6
Toluene	1000	17.5	14.8	7.2	<1.0	<1.0	0.66 J	<1.0
Xylenes (total)	530	269	226	612	<3.0	6.9	<3.0	<3.0
Methyl Tert Butyl Ether	200	5.8	4.8	7.5	<1.0	3.8	10.7	<1.0
Total BTEX		798.5	746.8	742.2	1.8	8.8	1.29	3.6
EPA 610 (µg/L)								
Acenaphthene	80	<5.0	<5.4	<5.7	<5.2	<5.1	<5.0	<5.1
Acenaphthylene	210	<5.0	<5.4	<5.7	<5.2	<5.1	<5.0	<5.1
Anthracene	2100	<5.0	<5.4	<5.7	<5.2	<5.1	<5.0	<5.1
Benzo(a)anthracene	0.05	<5.0	<5.4	<5.7	<5.2	<5.1	<5.0	<5.1
Fluoranthene	280	<5.0	<5.4	<5.7	<5.2	<5.1	<5.0	<5.1
Fluorene	280	<5.0	<5.4	<5.7	<5.2	<5.1	<5.0	<5.1
1-Methylnaphthalene	RL	29	23.3	7.1	<5.2	<5.1	<5.0	<5.1
2-Methylnaphthalene	14	43.7	36.2	7.6	<5.2	<5.1	<5.0	<5.1
Naphthalene	21	170	138	59.9	<5.2	<5.1	4.2 J	<5.1
Phenanthrene	210	<5.0	<5.4	<5.7	<5.2	<5.1	<5.0	<5.1
Pyrene	210	<5.0	<5.4	<5.7	<5.2	<5.1	<5.0	<5.1

MW-01D is a duplicate sample collected at well MW-01

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

Total BTEX: Sum of detected concentrations of benzene, toluene, ethylbenzene, and xylene isomers

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

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 9)

Summary of Laboratory Analyses for Groundwater - Building LCH-4015

November 2003

Sample Location	NCGWQS	MW-01 11/19/03	MW-02 11/18/03	MW-03 11/18/03	MW-03D 11/18/03	MW-05 11/18/03	MW-06 11/19/03	MW-07 11/18/03	MW-08 11/18/03	MW-09 11/18/03
EPA 602 (µg/L)										
Benzene	1	139	22.4	1.3	1.5	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	29	377	31.9	1.3	1.4	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	1000	8.0	1.9	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	530	147	62.5	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Methyl Tert Butyl Ether	200	10.1	24.0	2.6	2.7	3.3	<1.0	<1.0	<1.0	7.5
Total BTEX		671	118.7	2.6	2.9	ND	ND	ND	ND	ND
EPA 610 (µg/L)										
Acenaphthene	80	<5.4	<5.4	<5.0	<5.0	<5.0	<5.1	<5.0	<5.1	<5.1
Acenaphthylene	210	<5.4	<5.4	<5.0	<5.0	<5.0	<5.1	<5.0	<5.1	<5.1
Anthracene	2100	<5.4	<5.4	<5.0	<5.0	<5.0	<5.1	<5.0	<5.1	<5.1
Benzo(a)anthracene	0.05	<5.4	<5.4	<5.0	<5.0	<5.0	<5.1	<5.0	<5.1	<5.1
Fluoranthene	280	<5.4	<5.4	<5.0	<5.0	<5.0	<5.1	<5.0	<5.1	<5.1
Fluorene	280	<5.4	<5.4	2.5 J	<5.0	<5.0	<5.1	<5.0	<5.1	<5.1
1-Methylnaphthalene	RL	28.1	5.1 J	<5.0	<5.0	<5.0	<5.1	<5.0	2.9 J	<5.1
2-Methylnaphthalene	14	47.0	2.9 J	<5.0	<5.0	<5.0	<5.1	<5.0	<5.1	<5.1
Naphthalene	21	169	47.8	<5.0	<5.0	<5.0	<5.1	<5.0	2.3 J	<5.1
Phenanthrene	210	<5.4	<5.4	<5.0	<5.0	<5.0	<5.1	<5.0	<5.1	<5.1
Pyrene	210	<5.4	<5.4	<5.0	<5.0	<5.0	<5.1	<5.0	<5.1	<5.1
Sample Location	NCGWQS	MW-10 11/18/03	MW-11 12/11/03	MW-12 11/19/03	MW-14 11/19/03	MW-15 11/18/03	MW-16 11/18/03	MW-18 11/19/03	MW-19 11/19/03	
EPA 602 (µg/L)										
Benzene	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Ethylbenzene	29	<1.0	2.5	<1.0	<1.0	<1.0	<1.0	0.86 J	<1.0	
Toluene	1000	<1.0	<1.0	<1.0	<1.0	<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	<3.0	
Methyl Tert Butyl Ether	200	5.6	<1.0	<1.0	<1.0	<1.0	2.6	<1.0	<1.0	
Total BTEX		ND	2.5	ND	ND	ND	ND	0.86	ND	
EPA 610 (µg/L)										
Acenaphthene	80	<5.6	3.1 J	<5.2	<5.1	<5.1	<5.0	<5.2	2.4 J	
Acenaphthylene	210	<5.6	<5.2	<5.2	<5.1	<5.1	<5.0	<5.2	<5.1	
Anthracene	2100	<5.6	<5.2	<5.2	<5.1	<5.1	<5.0	<5.2	<5.1	
Benzo(a)anthracene	0.05	<5.6	<5.2	<5.2	<5.1	<5.1	<5.0	<5.2	<5.1	
Fluoranthene	280	<5.6	<5.2	<5.2	<5.1	<5.1	<5.0	<5.2	<5.1	
Fluorene	280	<5.6	9.0	<5.2	<5.1	<5.1	<5.0	<5.2	<5.1	
1-Methylnaphthalene	RL	<5.6	36.8	<5.2	<5.1	<5.1	<5.0	<5.2	<5.1	
2-Methylnaphthalene	14	<5.6	6.3	<5.2	<5.1	<5.1	<5.0	<5.2	<5.1	
Naphthalene	21	<5.6	5.8	<5.2	<5.1	<5.1	<5.0	<5.2	3.2 J	
Phenanthrene	210	<5.6	5.7	<5.2	<5.1	<5.1	<5.0	<5.2	<5.1	
Pyrene	210	<5.6	<5.2	<5.2	<5.1	<5.1	<5.0	<5.2	<5.1	

MW-03D is a duplicate sample collected at well MW-03

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

Total BTEX: Sum of detected concentrations of benzene, toluene, ethylbenzene, and xylene isomers

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

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

Summary of Laboratory Analyses for Groundwater - Building LCH-4015

February 2004

Sample Location Date Sampled	NCGWQS	MW-01 02/20/04	MW-02 02/20/04	MW-03 02/19/04	MW-05 02/19/04	DUP (MW-05) 02/19/04	MW-09 02/20/04	MW-11 02/19/04
EPA 602 (µg/L)								
Benzene	1	131	19.1	10.5	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	29	439	14.5	3.7	<1.0	<1.0	<1.0	3.9
Toluene	1000	27.5	1.3	0.68 J	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	530	514	76.9	3.6	<3.0	<3.0	<3.0	<3.0
Methyl Tert Butyl Ether	200	8.1	94.4	7.0	5.5	5.5	8.0	<1.0
Total BTEX		1111.5	111.8	18.48	ND	ND	ND	3.9
EPA 610 (µg/L)								
Acenaphthene	80	<5.2	<5.0	<5.1	<5.0	<5.0	<5.0	<5.1
Acenaphthylene	210	<5.2	<5.0	<5.1	<5.0	<5.0	<5.0	<5.1
Anthracene	2100	<5.2	<5.0	<5.1	<5.0	<5.0	<5.0	<5.1
Benzo(a)anthracene	0.05	<5.2	<5.0	<5.1	<5.0	<5.0	<5.0	<5.1
Fluoranthene	280	<5.2	<5.0	<5.1	<5.0	<5.0	<5.0	<5.1
Fluorene	280	<5.2	<5.0	<5.1	<5.0	<5.0	<5.0	5.1
1-Methylnaphthalene	RL	26.9	3.5 J	<5.1	<5.0	<5.0	<5.0	4.6 J
2-Methylnaphthalene	14	38.7	<5.0	<5.1	<5.0	<5.0	<5.0	<5.1
Naphthalene	21	157	15.7	2.3 J	<5.0	<5.0	<5.0	<5.1
Phenanthrene	210	<5.2	<5.0	<5.1	<5.0	<5.0	<5.0	<5.1
Pyrene	210	<5.2	<5.0	<5.1	<5.0	<5.0	<5.0	<5.1

DUP is a duplicate sample collected at well MW-05

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

Total BTEX: Sum of detected concentrations of benzene, toluene, ethylbenzene, and xylene isomers

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

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 9)

Summary of Laboratory Analyses for Groundwater - Building LCH-4015

May 2004

Sample Location Date Sampled	NCGWQS	MW-01 05/12/04	MW-02 05/12/04	MW-03* 05/11/04	DUP (MW-03) 05/11/04	MW-05 05/11/04	MW-06 05/11/04	MW-07 05/11/04	MW-08 05/12/04	MW-09 05/11/04
EPA 602 (µg/L)										
Benzene	1	28.4	30.9	1.6	1.8	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	29	319	14.6	1.7	2.0	<1.0	<1.0	<1.0	<1.0	3.5
Toluene	1000	13.0	1.8	<1.0	<1.0	<1.0	<1.0	0.52 J	<1.0	<1.0
Xylenes (total)	530	704	85.3	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Methyl Tert Butyl Ether	200	4.0 J	25.9	<1.0	<1.0	2.7	6.2	<1.0	<1.0	<1.0
Total BTEX		1064.4	132.6	3.3	3.8	ND	ND	0.52	ND	3.5
EPA 610 (µg/L)										
Acenaphthene	80	<5.1	<5.1	<5.1	<5.0	<5.1	<5.2	<5.1	<5.0	<5.1
Acenaphthylene	210	<5.1	<5.1	<5.1	<5.0	<5.1	<5.2	<5.1	<5.0	<5.1
Anthracene	2100	<5.1	<5.1	<5.1	<5.0	<5.1	<5.2	<5.1	<5.0	<5.1
Benzo(a)anthracene	0.05	<5.1	<5.1	<5.1	<5.0	<5.1	<5.2	<5.1	<5.0	<5.1
Fluoranthene	280	<5.1	<5.1	<5.1	<5.0	<5.1	<5.2	<5.1	<5.0	<5.1
Fluorene	280	<5.1	<5.1	<5.1	<5.0	<5.1	<5.2	<5.1	<5.0	<5.1
1-Methylnaphthalene	RL	25.3	<5.1	<5.1	<5.0	<5.1	<5.2	<5.1	<5.0	<5.1
2-Methylnaphthalene	14	34.3	<5.1	<5.1	<5.0	<5.1	<5.2	<5.1	<5.0	<5.1
Naphthalene	21	102	15.7	<5.1	<5.0	<5.1	<5.2	<5.1	<5.0	<5.1
Phenanthrene	210	<5.1	<5.1	<5.1	<5.0	<5.1	<5.2	<5.1	<5.0	<5.1
Pyrene	210	<5.1	<5.1	<5.1	<5.0	<5.1	<5.2	<5.1	<5.0	<5.1
Sample Location Date Sampled	NCGWQS	MW-10 05/11/04	MW-11 05/11/04	MW-12 05/11/04	MW-14 05/11/04	MW-15 05/11/04	MW-16 05/12/04	MW-18 ⁽²⁾ 05/11/04	MW-19 05/11/04	
EPA 602 (µg/L)										
Benzene	1	<1.0	<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	<1.0	
Toluene	1000	<1.0	<1.0	<1.0	<1.0	<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	<3.0	
Methyl Tert Butyl Ether	200	9.8	<1.0	<1.0	<1.0	<1.0	3.7	<1.0	<1.0	
Total BTEX		ND	ND	ND	ND	ND	ND	ND	ND	
EPA 610 (µg/L)										
Acenaphthene	80	<5.0	4.3 J	<5.3	<5.1	<5.0	<5.1	<5.1	3.7 J	
Acenaphthylene	210	<5.0	<5.1	<5.3	<5.1	<5.0	<5.1	<5.1	<5.0	
Anthracene	2100	<5.0	<5.1	<5.3	<5.1	<5.0	<5.1	<5.1	<5.0	
Benzo(a)anthracene	0.05	<5.0	<5.1	<5.3	<5.1	<5.0	<5.1	<5.1	<5.0	
Fluoranthene	280	<5.0	<5.1	<5.3	<5.1	<5.0	<5.1	<5.1	<5.0	
Fluorene	280	<5.0	8.0	<5.3	<5.1	<5.0	<5.1	<5.1	<5.0	
1-Methylnaphthalene	RL	<5.0	29.5	<5.3	<5.1	<5.0	<5.1	<5.1	<5.0	
2-Methylnaphthalene	14	<5.0	5.9	<5.3	<5.1	<5.0	<5.1	<5.1	2.1 J	
Naphthalene	21	<5.0	3.8 J	<5.3	<5.1	<5.0	<5.1	<5.1	2.1 J	
Phenanthrene	210	<5.0	<5.1	<5.3	<5.1	<5.0	<5.1	<5.1	<5.0	
Pyrene	210	<5.0	<5.1	<5.3	<5.1	<5.0	<5.1	<5.1	<5.0	

* At well MW-03, 1,3-Dichlorobenzene was reported in the primary and duplicate samples at estimated concentrations of 0.69 µg/L and 0.78 µg/L, respectively; at well MW-18, 1,3-Dichlorobenzene was reported at a concentration of 1.6 µg/L; the NCGWQS for 1,3-Dichlorobenzene is 620 µg/L

DUP is a duplicate sample collected at well MW-03

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

Total BTEX: Sum of detected concentrations of benzene, toluene, ethylbenzene, and xylene isomers

NA: Not Analyzed; the indicated analysis was not requested

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

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

Summary of Laboratory Analyses for Groundwater - Building LCH-4015

August 2004

Sample Location Date Sampled	NCGWQS	MW-01 08/11/04	DUP (MW-01) 08/11/04	MW-02 08/11/04	MW-03 08/11/04	MW-05 08/11/04	MW-09 08/11/04	MW-11 08/11/04
EPA 602 (µg/L)								
Benzene	1	53.3	70.4	0.90 J	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	29	225	208	2.4	<1.0	<1.0	<1.0	5.4
Toluene	1000	8.6	13.3	<1.0	0.52 J	<1.0	0.50 J	0.63 J
Xylenes (total)	530	314	317	13.3	<3.0	<3.0	<3.0	1.8 J
Methyl Tert Butyl Ether	200	<5.0	4.5	20.0	1.9	0.76 J	6.9	<1.0
Total BTEX		600.9	608.7	16.6	0.52	ND	0.5	7.83
EPA 610 (µg/L)								
Acenaphthene	80	<48	<48	<4.8	<4.8	<4.8	<4.8	<9.5
Acenaphthylene	210	<48	<48	<4.8	<4.8	<4.8	<4.8	<9.5
Anthracene	2100	<48	<48	<4.8	<4.8	<4.8	<4.8	<9.5
Benzo(a)anthracene	0.05	<48	<48	<4.8	<4.8	<4.8	<4.8	<9.5
Fluoranthene	280	<48	<48	<4.8	<4.8	<4.8	<4.8	<9.5
Fluorene	280	<48	<48	<4.8	3.3 J	<4.8	<4.8	16.4
1-Methylnaphthalene	RL	34.4 J	34.5 J	2.9 J	<4.8	<4.8	<4.8	38.2
2-Methylnaphthalene	14	49.0	48.6	3.2 J	<4.8	<4.8	<4.8	6.6 J
Naphthalene	21	207	216	45.2	<4.8	<4.8	<4.8	3.8 J
Phenanthrene	210	<48	<48	<4.8	<4.8	<4.8	<4.8	6.5 J
Pyrene	210	<48	<48	<4.8	<4.8	<4.8	<4.8	<9.5

DUP is a duplicate sample collected at well MW-01

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

Total BTEX: Sum of detected concentrations of benzene, toluene, ethylbenzene, and xylene isomers

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

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

Summary of Laboratory Analyses for Groundwater - Building LCH-4015

November 2004

Sample Location Date Sampled	NCGWQS	MW-01 11/22/04	MW-02* 11/22/04	MW-03 11/22/04	DUP (MW-03) 11/23/04	MW-13 11/23/04	MW-18 11/23/04
EPA 602 (µg/L)							
Benzene	1	29.1	84.6	0.56 J	0.61 J	<1.0	<1.0
Ethylbenzene	29	189	64.0	<1.0	<1.0	<1.0	<1.0
Toluene	1000	4.6 J	6.7	<1.0	<1.0	<1.0	0.51 J
Xylenes (total)	530	390	220	<3.0	<3.0	<3.0	<3.0
Methyl Tert Butyl Ether	200	<5.0	8.3	<1.0	<1.0	<1.0	<1.0
Total BTEX		612.7	375.3	0.56	0.61	ND	0.51
EPA 610 (µg/L)							
Acenaphthene	80	<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
Anthracene	2100	<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
Fluoranthene	280	<4.8	<4.8	<4.8	<4.8	<4.8	<4.8
Fluorene	280	<4.8	<4.8	2.3 J	2.1 J	<4.8	5.8
1-Methylnaphthalene	RL	17.3	7.6	<4.8	<4.8	<4.8	<4.8
2-Methylnaphthalene	14	25.7	5.2	<4.8	<4.8	<4.8	<4.8
Naphthalene	21	88.1	94.5	<4.8	<4.8	<4.8	<4.8
Phenanthrene	210	<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
MADEP VPH / EPH (µg/L)							
C5-C8 Aliphatics	420	296	197	65.7 J	154 J	<190	312
C19-C36 Aliphatics	42000	2030	363	<190	131	<55	68.4
C9-C12 + C9-C18 Aliphatics	4200	1120	487	129 J	55 J	<265	<265
C9-C10 + C11-C22 Aromatics	210	1150	222	275	106	<210	40.9
SW 6010B* (µg/L)							
Lead	15	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Sample Location Date Sampled	NCGWQS	MW-19 11/23/04	MW-20 11/22/04	MW-21 11/23/04	MW-22 11/22/04	MW-23 11/23/04	
EPA 602 (µg/L)							
Benzene	1	<1.0	<1.0	20.8	<1.0	73.9	
Ethylbenzene	29	<1.0	<1.0	5.2	<1.0	1.3	
Toluene	1000	<1.0	<1.0	2.0	<1.0	<1.0	
Xylenes (total)	530	<3.0	<3.0	2.7 J	<3.0	1.3 J	
Methyl Tert Butyl Ether	200	<1.0	<1.0	21.3	<1.0	34.3	
Total BTEX		ND	ND	30.7	ND	76.5	
EPA 610 (µg/L)							
Acenaphthene	80	<4.8	<4.8	<4.8	<4.8	<4.8	
Acenaphthylene	210	<4.8	<4.8	<4.8	<4.8	<4.8	
Anthracene	2100	<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	
Fluoranthene	280	<4.8	<4.8	<4.8	<4.8	<4.8	
Fluorene	280	<4.8	<4.8	<4.8	<4.8	<4.8	
1-Methylnaphthalene	RL	<4.8	<4.8	<4.8	<4.8	<4.8	
2-Methylnaphthalene	14	<4.8	<4.8	<4.8	<4.8	<4.8	
Naphthalene	21	<4.8	14.9	15.3	<4.8	<4.8	
Phenanthrene	210	<4.8	<4.8	<4.8	<4.8	<4.8	
Pyrene	210	<4.8	<4.8	<4.8	<4.8	<4.8	
MADEP VPH / EPH (µg/L)							
C5-C8 Aliphatics	420	<190	143 J	<190	<190	149	
C19-C36 Aliphatics	42000	<55	<55	119	<55	<55	
C9-C12 + C9-C18 Aliphatics	4200	<265	<265	<265	<265	<265	
C9-C10 + C11-C22 Aromatics	210	<210	<210	95.8	<210	<210	
SW 6010B/3030C (µg/L)							
Lead	15	<5.0	7.7	<40	<5.0	<50	

* At well MW-02, Chlorobenzene was detected at a concentration of 3.0 ug/L (NCGWQS of 50 ug/L)

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

Total BTEX: Sum of detected concentrations of benzene, toluene, ethylbenzene, and xylene isomers

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

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

Summary of Laboratory Analyses for Groundwater - Building LCH-4015

March 2005

Sample Location	NCGWQS	MW-24
Date Sampled		03/07/05
EPA 602 (µg/L)		
Benzene	1	4.38
Ethylbenzene	29	0.785 J
Toluene	1000	0.418 J
Total Xylenes	530	2.088 J
1,2-Dichlorobenzene	620	15.8
1,3-Dichlorobenzene	620	<1.00
1,4-Dichlorobenzene	75	0.799 J
Naphthalene	21	19.3
Methyl-tert butyl ether	200	1.89 J
Diisopropyl ether	70	3.97
EPA 610 (µg/L)		
Acenaphthene	80	1.40 J
Bis(2-ethylhexyl)phthalate	3	1.40 J
Dimethylphthalate	RL	1.50 J
Fluorene	280	1.70 J
Naphthalene	21	11.1
TICs (total)		241.21 J
MADEP VPH / EPH (µg/L)		
C5-C8 Aliphatics	420	220
C19-C36 Aliphatics	42000	<100
C9-C12 + C9-C18 Aliphatics	4200	130
C9-C10 + C11-C22 Aromatics	210	440
SW 6010B* (µg/L)		
Lead	15	<5.0

TICs: Tentatively Identified Compound ("None" if no TICs reported)

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

Total BTEX: Sum of detected concentrations of benzene, toluene, ethylbenzene, and xylene isomers

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

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 8 of 9)
Summary of Laboratory Analyses for Groundwater - Building LCH-4015
May 2005

Sample Location	NCGWQS	MW-01	MW-02	MW-03	DUP (MW-03)	MW-13	MW-18
Date Sampled		05/10/05	05/10/05	05/10/05	05/10/05	05/11/05	05/11/05
EPA 602 (µg/L)							
Benzene	1	30.1	13.1	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	29	270	13.5	<1.0	<1.0	<1.0	<1.0
Toluene	1000	14.8	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes (total)	530	659	32.6	<3.0	<3.0	<3.0	<3.0
Chlorobenzene	50	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	620	50.7	10.0	7.7	7.0	<1.0	2.4
1,3-Dichlorobenzene	620	<5.0	<1.0	0.83 J	0.59 J	<1.0	1.3
1,4-Dichlorobenzene	75	<5.0	<1.0	0.59 J	<1.0	<1.0	<1.0
Methyl Tert Butyl Ether	200	7.8	52.5	<1.0	<1.0	<1.0	<1.0
Total BTEX		973.9	59.2	ND	ND	ND	ND
EPA 625 (µg/L)							
Acenaphthene	80	<4.9	<4.8	1.3 J	1.2 J	<4.8	2.3 J
Acenaphthylene	210	<4.9	<4.8	<4.8	<5.0	<4.8	<5.0
Anthracene	2100	<4.9	<4.8	<4.8	<5.0	<4.8	<5.0
Benzo(a)anthracene	0.05	<4.9	<4.8	<4.8	<5.0	<4.8	<5.0
Fluoranthene	280	<4.9	<4.8	<4.8	<5.0	<4.8	<5.0
Fluorene	280	<4.9	<4.8	1.4 J	1.2 J	<4.8	3.1 J
1-Methylnaphthalene	RL	23.1	<4.8	<4.8	<5.0	<4.8	<5.0
2-Methylnaphthalene	14	34.2	<4.8	<4.8	<5.0	<4.8	<5.0
Naphthalene	21	165	11.5	1.6 J	<5.0	<4.8	<5.0
Phenanthrene	210	<4.9	<4.8	<4.8	<5.0	<4.8	<5.0
Pyrene	210	<4.9	<4.8	<4.8	<5.0	<4.8	<5.0
SW 6010B* (µg/L)							
Lead	15	<5.0	<10	<5.0	<5.0	<5.0	<5.0
Sample Location							
Date Sampled							
	NCGWQS	MW-19	MW-20	MW-21	MW-22	MW-23	MW-24
		05/11/05	05/10/05	05/11/05	05/10/05	05/11/05	05/10/05
EPA 602 (µg/L)							
Benzene	1	<1.0	<1.0	17.5	<1.0	47.1	2.3
Ethylbenzene	29	<1.0	<1.0	4.2	<1.0	0.79 J	<1.0
Toluene	1000	<1.0	<1.0	1.1	0.96 J	<1.0	<1.0
Xylenes (total)	530	<3.0	<3.0	1.1 J	<3.0	<3.0	<3.0
Chlorobenzene	50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	620	<1.0	<1.0	<1.0	<1.0	<1.0	22.1
1,3-Dichlorobenzene	620	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dichlorobenzene	75	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl Tert Butyl Ether	200	<1.0	<1.0	28.8	1.2	31.9	3.0
Total BTEX		ND	ND	23.9	0.96	47.89	2.3
EPA 625 (µg/L)							
Acenaphthene	80	2.6 J	<4.8	<4.8	<4.8	<4.8	1.5 J
Acenaphthylene	210	<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
Benzo(a)anthracene	0.05	<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
Fluorene	280	1.1 J	<4.8	<4.8	<4.8	<4.8	1.8 J
1-Methylnaphthalene	RL	<4.8	<4.8	<4.8	<4.8	<4.8	2.6 J
2-Methylnaphthalene	14	<4.8	<4.8	<4.8	<4.8	<4.8	2.8 J
Naphthalene	21	<4.8	24.8	20.4	<4.8	<4.8	<4.8
Phenanthrene	210	<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
SW 6010B/3030C (µg/L)							
Lead	15	<5.0	<5.0	<50	<5.0	<50	<5.0

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

Total BTEX: Sum of detected concentrations of benzene, toluene, ethylbenzene, and xylene isomers

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

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

Summary of Laboratory Analyses for Groundwater - Building LCH-4015

November 2005

Sample Location	NCGWQS	MW-01	MW-02	DUP (MW-02)	MW-13	MW-18	MW-03
Date Sampled		11/14/05	11/14/05	11/14/05	11/14/05	11/14/05	11/14/05
EPA 602 (µg/L)							
Benzene	1	48.1	1.5	1.9	<1.0	<1.0	<1.0
Ethylbenzene	29	143	2.0	2.3	<1.0	<1.0	<1.0
Toluene	1000	4.9	<1.0	<1.0	0.54 J	0.59 J	<1.0
Xylenes (total)	530	268	5.6	10.7	<3.0	<3.0	<3.0
Chlorobenzene	50	2.1	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	620	<32	<120	<120	<3.0	<3.0	<10
1,3-Dichlorobenzene	620	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dichlorobenzene	75	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl Tert Butyl Ether	200	7.2	49.6	50.1	<1.0	<1.0	1.1
Total BTEX		464	9.1	14.9	0.54	0.59	ND
EPA 625 (µg/L)							
Acenaphthene	80	<4.9	<5.0	<5.0	<5.3	3 J	1.6 J
Acenaphthylene	210	<4.9	<5.0	<5.0	<5.3	<5.3	<5.0
Anthracene	2100	<4.9	<5.0	<5.0	<5.3	<5.3	<5.0
Benzo(a)anthracene	0.05	<4.9	<5.0	<5.0	<5.3	<5.3	<5.0
Fluoranthene	280	<4.9	<5.0	<5.0	<5.3	<5.3	<5.0
Fluorene	280	<4.9	<5.0	<5.0	<5.3	4.3 J	1.6 J
1-Methylnaphthalene	RL	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	14	NA	NA	NA	NA	NA	NA
Naphthalene	21	105	2.3 J	2.1 J	<5.3	<5.3	<5.0
Phenanthrene	210	<4.9	<5.0	<5.0	<5.3	<5.3	<5.0
Pyrene	210	<4.9	<5.0	<5.0	<5.3	<5.3	<5.0
TICs (Total)		1300 J	263.4 J	248.4 J	None	344.3 J	132 J
SW 6010B* (µg/L)							
Lead	15	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Sample Location							
Date Sampled							
	NCGWQS	MW-19	MW-20	MW-21	MW-22	MW-23	MW-24
		11/14/05	11/14/05	11/14/05	11/14/05	11/14/05	11/14/05
EPA 602 (µg/L)							
Benzene	1	<1.0	<1.0	10.9	<1.0	4.2	1.8
Ethylbenzene	29	<1.0	<1.0	1.9	<1.0	0.66 J	<1.0
Toluene	1000	0.63 J	<1.0	0.7 J	0.89 J	0.71 J	0.57 J
Xylenes (total)	530	<3.0	<3.0	1.3 J	<3.0	1.3 J	<3.0
Chlorobenzene	50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	620	<1.0	<1.0	<1.0	<1.0	<1.0	<15
1,3-Dichlorobenzene	620	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dichlorobenzene	75	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl Tert Butyl Ether	200	<1.0	<1.0	26.1	1.9	17.9	1.7
Total BTEX		0.63	ND	14.76	0.89	6.87	2.37
EPA 625 (µg/L)							
Acenaphthene	80	<5.0	<4.8	<5.3	<5.3	<4.8	1.9 J
Acenaphthylene	210	<5.0	<4.8	<5.3	<5.3	<4.8	<5.6
Anthracene	2100	<5.0	<4.8	<5.3	<5.3	<4.8	<5.6
Benzo(a)anthracene	0.05	<5.0	<4.8	<5.3	<5.3	<4.8	<5.6
Fluoranthene	280	<5.0	<4.8	<5.3	<5.3	<4.8	<5.6
Fluorene	280	<5.0	<4.8	<5.3	<5.3	<4.8	2.1 J
1-Methylnaphthalene	RL	NA	NA	NA	NA	NA	NA
2-Methylnaphthalene	14	NA	NA	NA	NA	NA	NA
Naphthalene	21	<5.0	9.2	32.3	<5.3	<4.8	4.4 J
Phenanthrene	210	<5.0	<4.8	<5.3	<5.3	<4.8	<5.6
Pyrene	210	<5.0	<4.8	<5.3	<5.3	<4.8	<5.6
TICs (Total)		None	None	146 J	None	64.9 J	264.2 J
SW 6010B/3030C (µg/L)							
Lead	15	<5.0	<5.0	18.8	<5.0	10.1	<5.0

TICs: Tentatively Identified Compound ("None" if no TICs reported)

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

Total BTEX: Sum of detected concentrations of benzene, toluene, ethylbenzene, and xylene isomers

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

NA: Not Analyzed; the indicated constituent was not analyzed

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

APPENDIX A

**FIELD DATA SUMMARIES,
WELL INSTALLATION DATA,
AND
EMMISIONS CALCULATIONS**

TABLE A-1
Depth to Groundwater Data Over Time
Buidling LCH-4015

Location	Top of Casing Elevation ⁽¹⁾	Screen Zone	Depth to Water (feet BTOC)																						
			11/18/03	2/19/04	3/3/04	4/16/04	5/4/04	6/10/04	7/8/04	8/4/04	9/1/04	10/14/04	11/22/04	12/9/04	1/10/05	2/4/05	3/4/05	4/18/05	5/10/05	6/9/05	7/14/05	8/11/05	9/8/05	10/17/05	11/14/05
MW-1	29.78	Shallow	NM	2.34	2.71	3.49	2.56	3.92	3.90	2.40	2.12	3.84	4.78	4.80	4.08	3.95	3.18	3.30	2.99	2.99	3.57	3.18	4.52	3.07	4.10
MW-2	29.24	Shallow	NM	0.00	0.00	5.55	0.00	1.53	1.35	0.00	0.10	1.56	2.99	2.58	2.38	2.31	1.32	1.26	1.06	1.12	1.53	0.32	2.69	1.10	1.97
MW-3	32.02	Shallow	5.13	3.82	0.89	4.80	4.00	5.40	5.51	3.93	3.83	5.25	6.55	6.08	5.49	5.59	4.74	4.72	4.57	4.62	5.20	4.81	6.33	4.61	5.60
MW-4	32.68	Shallow	NM	4.97	4.35	4.74	3.66	6.18	6.78	4.19	3.68	6.24	7.22	6.58	5.71	5.64	4.66	5.22	5.03	5.28	6.56	5.82	7.44	5.18	6.40
MW-5	29.35	Shallow	2.73	0.97	4.12	1.94	1.28	2.56	2.38	1.08	1.01	2.19	3.39	3.09	2.78	2.66	1.96	1.80	1.71	1.70	2.17	2.03	3.22	1.50	3.32
MW-6	29.11	Shallow	NM	0.80	1.19	2.50	0.73	2.89	2.88	1.72	0.18	2.88	3.60	6.31	3.06	2.91	2.47	2.59	2.24	2.44	2.00	2.49	3.82	2.31	3.12
MW-7	29.67	Shallow	2.82	0.00	1.88	1.87	0.00	2.97	3.03	2.43	0.32	3.39	3.28	3.05	2.95	2.99	2.08	2.32	2.40	2.65	2.84	2.28	3.39	2.45	3.14
MW-8	28.79	Shallow	2.49	0.87	1.05	1.15	0.70	1.98	3.37	0.40	0.21	2.89	3.45	2.85	2.22	1.82	1.51	1.23	1.76	1.55	3.02	1.20	3.97	1.79	2.95
MW-9	28.35	Shallow	NM	0.40	0.60	1.13	0.27	1.97	2.32	0.30	0.20	2.80	2.88	0.80	1.75	1.80	1.08	1.11	1.18	0.00	1.95	0.00	3.00	0.00	2.25
MW-10	28.28	Shallow	1.88	0.32	0.69	1.15	0.15	1.45	2.02	2.58	0.15	2.05	2.62	2.25	1.89	1.90	1.16	1.32	1.20	1.40	1.82	0.99	2.89	1.36	2.18
MW-11	29.18	Shallow	4.02	2.57	2.59	3.40	2.85	4.04	4.09	2.58	1.65	3.83	3.98	4.35	4.10	4.12	3.43	3.58	3.41	2.70	3.54	3.62	4.45	2.29	3.85
MW-12	29.23	Shallow	4.41	3.14	3.49	4.23	3.68	4.55	4.15	2.48	1.11	4.23	4.80	5.69	4.58	4.62	4.09	3.92	3.85	3.62	4.28	3.51	4.31	2.72	4.39
MW-13	InD	Deep	NM	NM	NM	21.00	20.32	20.93	22.58	NM	21.50	18.79	21.01	21.29	21.20	21.22	21.90	21.95	21.29	22.72	22.61	22.20	24.24	21.32	21.44
MW-14	29.45	Shallow	4.59	0.66	3.70	4.50	4.08	4.67	4.65	3.53	2.80	4.23	4.84	4.54	4.77	4.64	4.38	4.10	4.00	3.93	4.32	4.08	4.83	3.70	4.46
MW-15	29.26	Shallow	3.86	3.58	3.04	3.52	2.76	4.25	4.17	2.76	2.64	3.79	4.61	4.63	4.34	2.10	3.54	3.52	3.20	3.49	4.72	2.89	4.38	2.93	3.72
MW-16	29.62	Shallow	2.16	0.78	0.58	1.35	3.60	2.41	2.65	0.50	0.45	2.59	3.07	2.68	2.18	1.30	1.12	1.71	2.95	1.75	2.56	1.70	3.25	1.72	2.58
MW-18	29.86	Shallow	2.81	0.00	0.00	2.12	0.00	1.31	2.27	1.23	0.10	2.73	3.21	1.72	1.40	NM	0.00	2.37	2.56	1.23	0.80	0.00	3.40	2.07	3.02
MW-19	29.98	Deep	NM	21.06	20.42	21.63	20.94	21.53	23.28	22.69	21.70	19.33	20.62	21.90	21.80	21.84	22.53	22.61	21.92	23.21	23.30	22.87	24.98	22.02	22.11
MW-20	29.16	Deep	NM	19.49	19.64	20.84	20.09	20.77	22.49	21.97	21.68	18.53	20.79	21.11	20.99	21.01	21.75	21.86	21.15	22.61	22.51	21.96	24.17	21.31	21.39
MW-21	29.85	Intermediate	NM	21.00	20.48	21.67	20.80	21.45	22.95	22.39	21.42	19.25	21.42	21.88	21.78	21.72	22.28	22.68	21.78	23.20	22.14	22.40	24.68	21.89	22.09
MW-22	29.14	Intermediate	NM	19.89	19.63	20.83	20.10	20.72	22.43	21.82	21.32	18.50	20.72	21.07	21.02	21.04	21.65	21.85	21.13	22.58	22.37	21.80	24.10	21.22	21.35
MW-23	29.86	Intermediate	NM	21.02	20.34	NM	20.85	21.35	23.17	22.82	22.09	19.25	20.79	21.77	20.71	20.75	22.32	22.62	21.72	23.18	22.90	22.80	24.25	22.00	22.03
MW-24	28.72	Shallow	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	1.36	1.19	1.13	1.12	1.42	1.47	2.85	0.89	1.89

⁽¹⁾ Top of casing elevation expressed in feet above/below MSL
BTOC - below top of casing
MSL - mean sea level

NM - Not measured (e.g., for the indicated date, the well was not accessible, the well was not installed, or the well was not included in gauging program)
InD: Insufficient data or data unavailable

TABLE A-2
Depth to Product Data Over Time
Buidling LCH-4015

Location	Top of Casing Elevation ⁽¹⁾	Screen Zone	Depth to Product (feet BTOC)																						
			11/18/03	2/19/04	3/3/04	4/16/04	5/4/04	6/10/04	7/8/04	8/4/04	9/1/04	10/14/04	11/22/04	12/9/04	1/10/05	2/4/05	3/4/05	4/18/05	5/10/05	6/9/05	7/14/05	8/11/05	9/8/05	10/17/05	11/14/05
MW-1	29.78	Shallow	NM	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	29.24	Shallow	NM	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	32.02	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	32.68	Shallow	NM	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-5	29.35	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	29.11	Shallow	NM	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	29.67	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-8	28.79	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	28.35	Shallow	NM	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-10	28.28	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-11	29.18	Shallow	S	S	S	S	S	S	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-12	29.23	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-13	InD	Deep	NM	NM	NM	--	--	--	--	NM	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-14	29.45	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-15	29.26	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-16	29.62	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-18	29.86	Shallow	--	--	--	--	--	--	--	--	--	--	--	--	--	NM	--	--	--	--	--	--	--	--	--
MW-19	29.98	Deep	NM	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-20	29.16	Deep	NM	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-21	29.85	Intermediate	NM	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-22	29.14	Intermediate	NM	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-23	29.86	Intermediate	NM	--	--	NM	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-24	28.72	Shallow	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	--	--	--	--	--	--	--	--	--

⁽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
NM - Not measured (e.g., for the indicated date, the well was not accessible, the well was not installed, or the well was not included in gauging program)
InD: Insufficient data or data unavailable
S - Sorbent sock present in well at time of gauging

Table A-3 Soil Vapor Eextraction System Mass Removal Calculations from PID Data - Building LCH-4015 Site

Measurement Date	Operational Status			Operational Days in Interval	Stack Temperature (F°)	Stack Gas Velocity (ft/min)	Stack Diameter (in)	Pressue (in H ₂ O)	Measured PPM ("wet")	Calibration Gas	Volume of Mass Removed (gal)	Mass Removed (lbs)	Cummulative	Cummulative
													Volume of Mass Removed (gal)	
	Status	Interval				T _s	V	D	P	PPM _W	C _G	VOL	Mass	VOL
1/6/2005	running	1/1/2005	1/6/2005	6	85	3230	4	-55.00	0.2	Isobutylene	0.01	0.06	0.01	0.06
1/13/2005	running	1/7/2005	1/13/2005	7	80.8	2200	4	-28.0	1.2	Isobutylene	0.05	0.31	0.06	0.37
1/21/2005	running	1/14/2005	1/21/2005	8	67.2	2200	4	-58.0	0.5	Isobutylene	0.02	0.14	0.08	0.51
1/28/2005	running	1/22/2005	1/28/2005	7	58.1	1880	4	-54.0	0.3	Isobutylene	0.01	0.06	0.09	0.57
2/4/2005	running	1/29/2005	2/4/2005	7	58.1	1880	4	-54.0	1.4	Isobutylene	0.05	0.30	0.13	0.87
2/11/2005	running	2/5/2005	2/11/2005	7	73.2	358	4	-30.0	0.3	Isobutylene	0.00	0.01	0.13	0.88
2/18/2005	running	2/12/2005	2/18/2005	7	70.2	373	4	-36.0	0.1	Isobutylene	0.00	0.00	0.13	0.89
2/25/2005	running	2/19/2005	2/25/2005	7	49.7	57	4	-38.0	0.0	Isobutylene	0.00	0.00	0.13	0.89
2/28/2005	running	2/26/2005	2/28/2005	3	58.1	126	4	-34.0	0.0	Isobutylene	0.00	0.00	0.13	0.89
3/11/2005	running	3/1/2005	3/11/2005	11	92.0	1720	4	-46.0	0.0	Isobutylene	0.00	0.00	0.13	0.89
3/30/2005	running	3/12/2005	3/30/2005	19	71.4	860	4	-85.0	0.0	Isobutylene	0.00	0.00	0.13	0.89
4/8/2005	running	3/31/2005	4/8/2005	4	95	78.5	4	-46.0	38.1	Isobutylene	0.03	0.19	0.16	1.07
4/15/2005	running	4/9/2005	4/15/2005	7	62.2	338	4	-28.0	472.0	Isobutylene	2.91	19.29	3.07	20.36
4/22/2005	running	4/16/2005	4/22/2005	6	100.1	990	4	-32.0	5.0	Isobutylene	0.07	0.47	3.14	20.84
5/13/2005	running	4/23/2005	5/13/2005	21	91.6	1370	4	-42.0	0.0	Isobutylene	0.00	0.00	3.14	20.84
5/19/2005	running	5/14/2005	5/19/2005	6	105.8	6040	4	-36.0	1.0	Isobutylene	0.09	0.57	3.23	21.40
6/2/2005	running	5/20/2005	6/2/2005	14	113.2	1965	4	-60.0	0.0	Isobutylene	0.00	0.00	3.23	21.40
6/10/2005	running	6/3/2005	6/10/2005	8	120.4	2470	4	-58.0	0.0	Isobutylene	0.00	0.00	3.23	21.40
6/17/2005	running	6/11/2005	6/17/2005	7	121.7	2573	4	-62.0	0.0	Isobutylene	0.00	0.00	3.23	21.40
6/24/2005	running	6/18/2005	6/24/2005	7	119.0	2310	4	-66.0	0.0	Isobutylene	0.00	0.00	3.23	21.40
7/1/2005	running	6/25/2005	7/1/2005	7	118.9	300	4	-26.0	0.0	Isobutylene	0.00	0.00	3.23	21.40
7/8/2005	running	7/2/2005	7/8/2005	7	118.3	163	4	-38.0	0.0	Isobutylene	0.00	0.00	3.23	21.40
7/15/2005	running	7/9/2005	7/15/2005	7	118.6	198	4	-40.0	0.0	Isobutylene	0.00	0.00	3.23	21.40
7/22/2005	running	7/16/2005	7/22/2005	7	134.1	600	4	-49.0	0.0	Isobutylene			3.23	21.40
7/29/2005	running	7/23/2005	7/29/2005	7	122.5	185	4	-42.0	0.0	Isobutylene	0.00	0.00	3.23	21.40
8/5/2005	running	7/30/2005	8/5/2005	7	117.8	550	4	-42.0	0.0	Isobutylene	0.00	0.00	3.23	21.40
8/11/2005	running	8/6/2005	8/11/2005	6	125.4	347	4	-42.0	0.0	Isobutylene			3.23	21.40
8/26/2005	running	8/12/2005	8/26/2005	15	120.1	146	4	-42.0	0.0	Isobutylene	0.00	0.00	3.23	21.40
9/2/2005	running	8/27/2005	9/2/2005	7	110.4	2010	4	-42.0	0.0	Isobutylene	0.00	0.00	3.23	21.40
9/9/2005	running	9/3/2005	9/9/2005	7	123.4	2925	4	-58.0	0.0	Isobutylene	0.00	0.00	3.23	21.40
9/16/2005	running	9/10/2005	9/16/2005	7	122.0	106	4	-28.0	0.0	Isobutylene	0.00	0.00	3.23	21.40
9/23/2005	running	9/17/2005	9/23/2005	7	87.5	157	4	-33.0	0.0	Isobutylene	0.00	0.00	3.23	21.40
9/30/2005	running	9/24/2005	9/30/2005	7	103.9	1530	4	-30.0	0.0	Isobutylene	0.00	0.00	3.23	21.40
10/7/2005	running	10/1/2005	10/7/2005	7	94.9	1117	4	-32.0	0.0	Isobutylene	0.00	0.00	3.23	21.40
10/14/2005	running	10/8/2005	10/14/2005	7	95.8	950	4	-33.0	0.0	Isobutylene	0.00	0.00	3.23	21.40
10/21/2005	running	10/15/2005	10/21/2005	7	117.2	2270	4	-60.0	0.0	Isobutylene	0.00	0.00	3.23	21.40
10/29/2005	running	10/22/2005	10/29/2005	8	89.3	1730	4	-28.0	0.0	Isobutylene	0.00	0.00	3.23	21.40
11/5/2005	running	10/30/2005	11/5/2005	7	89.5	1559	4	-28.0	0.0	Isobutylene	0.00	0.00	3.23	21.40
11/12/2005	running	11/6/2005	11/12/2005	7	104.1	1710	4	-35.0	0.0	Isobutylene	0.00	0.00	3.23	21.40
11/19/2005	running	11/13/2005	11/19/2005	7	65.4	1123	4	-36.0	0.0	Isobutylene	0.00	0.00	3.23	21.40
11/26/2005	running	11/20/2005	11/26/2005	7	61.9	1273	4	-35.0	0.0	Isobutylene	0.00	0.00	3.23	21.40

**Table A-4 Soil Vapor Eextraction System Mass Removal Calculations from Laboratory Analytical Date - Building LCH-4015 Site
June 2005**

Sample Collection Data

Field Measurements				Derived Quantities	
Sampling Date	Sample Flow Rate (L/min)	Start Time	End Time	Elapsed Time (min)	Sample Volume (L)
07/01/05	1	12:15	14:15	120.00	120.00

Sample Constituent Mass

Laboratory Results		Derived Quantities	
Analyte	Constituent Mass per Collection Tube (ng)	Sample Volume (L)	Constituent Concentration (ng/L)
Benzene		120.00	<50
Ethylbenzene		120.00	<50
Toluene		120.00	<50
m,p-Xylene		120.00	<50
o-Xylene		120.00	<50
GRO		120.00	121,000

System Flow

Field Measurements					Derived Quantities							
Measurement Date	SVE Header Temperature, T _F (F°)	SVE Header Gas Velocity, V (ft/min)	SVE Header Diameter, D (in)	SVE Header Pressue, P (in-H ₂ O)	Standard Pressure, P/P _{STD} (in-Hg)	SVE Header Area, A (ft ²)	SVE Header Temperature, T _R (R°)	Lbs water / Lbs dry air *	Water Vapor (% by Volume)	SVE Header Flow Rate, Q _{DSCFM} (DSCFM)	SVE Header Flow Rate, Q _{DSLML} (DSLML)	Total Flow Rate, Q _{DSLML} (DSLML)
07/01/05	119.9	300	2.50	-26.0	0.94	0.034	579.9	0.0815	0.1155	8	218	
	Bypass Temperature **, T _F (F°)	Bypass Gas Velocity**, V (ft/min)	Bypass Diameter, D (in)	Bypass Pressue**, P (in-H ₂ O)	Standard Pressure, P/P _{STD} (in-Hg)	Bypass Area, A (ft ²)	Bypass Temperature, T _R (R°)	Lbs water / Lbs dry air *	Water Vapor (% by Volume)	Bypass Flow Rate, Q _{DSCFM} (DSCFM)	Bypass Flow Rate, Q _{DSLML} (DSLML)	
07/01/05	115.0	10000	2.00	0.0	1.00	0.022	575	0.0697	0.1005	180	5,104	5,322

Discharge Rate and Interval Removal Mass

Analyte	Concentration (ng/L)	Flow Rate, Q _{DSLML} (DSLML)	Discharge Rate (ng/min)	Discharge Rate (lbs/yr)	Days in Operation since last Sampled	Mass Removed Over Period (lbs)
Benzene	<50	5,322	<266093	<0.31	29	<0.025
Ethylbenzene	<50	5,322	<266093	<0.31	29	<0.025
Toluene	<50	5,322	<266093	<0.31	29	<0.025
m,p-Xylene	<50	5,322	<266093	<0.31	29	<0.025
o-Xylene	<50	5,322	<266093	<0.31	29	<0.025
GRO	121,000	5,322	643944596	746.16	29	59

in: inches lbs: pounds min: minutes F°: degrees Farenheit DSCFM: Dry Standard Cubic Feet per Minute
ft: feet ng: nanograms yr: year R°: degrees Rankin DSLM: Dry Standard Liters per Minute
L: Liters

in-H₂O: inches of water
in-Hg: inches of Mercury

* Data from Heatcraft Psychrometric Chart, High Temperature, Sea Level; saturation assumed

** Bypass temperature, velocity, and pressure assumed as no sample port available to record data

Calculations and constants:

P: Stack Pressure (+, in H₂O) or SVE Header Vacuum (-, in H₂O)

P_{IN HG} = P_{IN H₂O} / 13.61

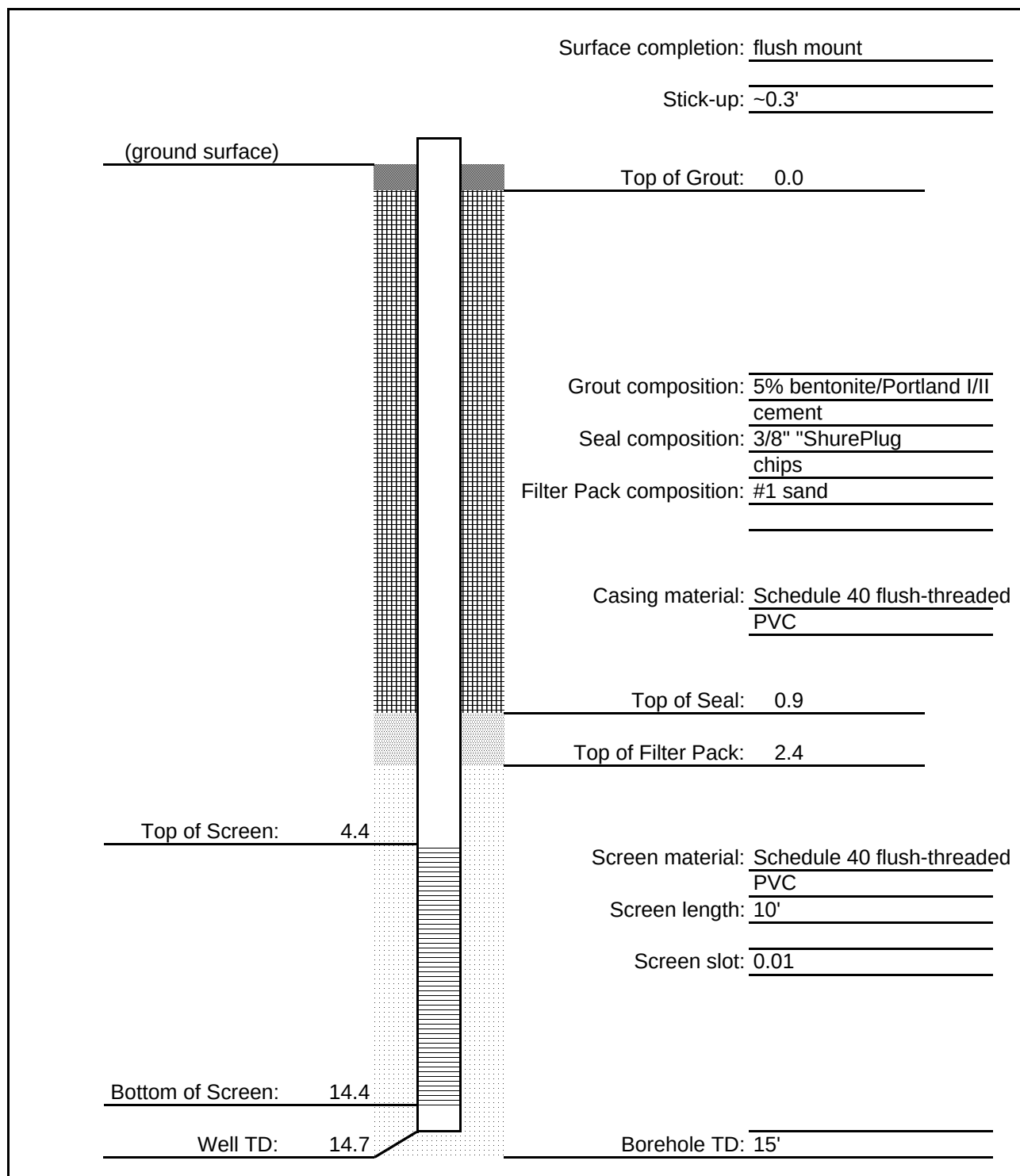
P/P_{STD}: Correction to standard pressure; (P + 29.92) / 29.92

T_R = T_F + 460

Type II Well Construction Log - Field Data Recording Form

EEI Project #: LD04-002
 Client: NAVFAC Atlantic
 Site: Building LCH4015
MCB Camp Lejeune, Onslow Co., NC
 Location ID: USTLCH4015-MW24
 Northing: _____
 Elevation (GS): 29.1'
 TD (borehole): 15'
 Diam. (borehole): 10"
 Logged by: B. Sellers

Drilling Company: Parratt Wolff, Inc.
 Driller: Chip Lefever
 Drilling Method: hollow stem auger
 Drilling Rig: IR8300
 Easting: _____
 Elevation (TOC): 28.72'
 TD (well): 15'
 Diam. (well): 2"
 Start Date: 02/25/05 End Date: 02/25/05



JOHN L. PIERCE & ASSOCIATES, P.A.
LAND SURVEYING • LAND PLANNING • MAPPING



P.O. Box 1685
Jacksonville, NC 28541

OFFICE: 910-346-9800
FAX: 910-346-1210
E-MAIL: bettybjlp@bizec.rr.com
or bjarman@bizec.rr.com



409 Johnson Blvd.
Jacksonville, NC 28540

April 26, 2005

Mr. J.C. Harty
Engineering & Environment Inc.
824 Gum Branch Road Suite S
Jacksonville, NC 28546

Re: monitoring wells – Camp Lejeune

Dear Mr. Harty:

As requesting, below I have listed the elevations verifications for the monitoring wells at Camp Lejeune, NC:

<u>Well I.D.</u>	<u>Top of Casing</u>	<u>Ground Surface</u>
UST 45-PW-2	12.14	9.42
UST 45-MW-23	11.07	11.48
UST 45-MW-24	12.17	9.32
USTLCH4015-MW24	28.72	29.01

Should you have any questions or need any additional information, please let us know.

Sincerely,

A handwritten signature in dark ink, appearing to read "John L. Pierce".

John L. Pierce
JOHN L. PIERCE & ASSOCIATES P.A.

Jp/bb

ANNUAL GROUNDWATER MONITORING REPORT 2003-2005
BUILDING LCH-4015 SITE
MARINE CORPS BASE CAMP LEJEUNE
NORTH CAROLINA
VOLUME II
Revision 0

Prepared for:

DEPARTMENT OF THE NAVY
Contract No. N62470-03-D-4000
Task Order No 0018



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 28540

17 January 2006

EEI PROJECT NO. LDO3-020

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6506 Hampton Boulevard
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Jacksonville, North Carolina, Virginia 28540

17 January 2006
2006

APPENDIX B

LABORATORY ANALYTICAL REPORTS

September 2003 Groundwater Laboratory Report



01/16/06

Technical Report for

EEI

Camp Lejeune-LCH 4015

844271

Accutest Job Number: F19728

Sampling Date: 09/23/03

Report to:

EEI

bmorris@eeimail.com

ATTN: Bill Morris

Total number of pages in report: **74**



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: F19728

Camp Lejeune-LCH 4015
Project No: 844271

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
F19728-1	09/23/03	16:10 WM	09/25/03	AQ	Ground Water	USTLCH4015-MW01
F19728-2	09/23/03	16:20 WM	09/25/03	AQ	Ground Water	USTLCH4015-MW01D
F19728-3	09/23/03	14:50 WM	09/25/03	AQ	Ground Water	USTLCH4015-MW02
F19728-4	09/23/03	12:40 WM	09/25/03	AQ	Ground Water	USTLCH4015-MW03
F19728-5	09/23/03	11:00 WM	09/25/03	AQ	Ground Water	USTLCH4015-MW05
F19728-6	09/23/03	14:00 WM	09/25/03	AQ	Ground Water	USTLCH4015-MW09
F19728-7	09/23/03	17:10 WM	09/25/03	AQ	Ground Water	USTLCH4015-MW011
F19728-8	09/23/03	00:00 WM	09/25/03	AQ	Trip Blank Water	USTLCH4015-TB-092303

Report of Analysis

Page 1 of 1

Client Sample ID:	USTLCH4015-MW01	Date Sampled:	09/23/03
Lab Sample ID:	F19728-1	Date Received:	09/25/03
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EF030649.D	5	10/03/03	CV	n/a	n/a	GEF1117
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	141	5.0	2.5	ug/l	
108-90-7	Chlorobenzene	ND	5.0	2.5	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	5.0	2.5	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.0	2.5	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	5.0	2.5	ug/l	
100-41-4	Ethylbenzene	371	5.0	2.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	5.8	5.0	2.5	ug/l	
108-88-3	Toluene	17.5	5.0	2.5	ug/l	
1330-20-7	Xylenes (total)	269	15	5.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	100%		74-127%
98-08-8	aaa-Trifluorotoluene	103%		73-135%

(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:	USTLCH4015-MW01	Date Sampled:	09/23/03
Lab Sample ID:	F19728-1	Date Received:	09/25/03
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ18464.D	1	10/01/03	SD	09/30/03	OP8665	GIJ886
Run #2 ^a	IJ18494.D	4	10/02/03	SD	09/30/03	OP8665	GIJ887

	Initial Volume	Final Volume
Run #1	910 ml	1.0 ml
Run #2	910 ml	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.5	2.2	ug/l	
208-96-8	Acenaphthylene	ND	5.5	2.2	ug/l	
120-12-7	Anthracene	ND	5.5	2.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.5	2.2	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.5	2.2	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.5	2.2	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.5	2.2	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.5	2.2	ug/l	
218-01-9	Chrysene	ND	5.5	2.2	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.5	2.2	ug/l	
206-44-0	Fluoranthene	ND	5.5	2.2	ug/l	
86-73-7	Fluorene	ND	5.5	2.2	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.5	2.2	ug/l	
91-20-3	Naphthalene	170 ^b	22	8.8	ug/l	
90-12-0	1-Methylnaphthalene	29.0 ^b	22	8.8	ug/l	
91-57-6	2-Methylnaphthalene	43.7 ^b	22	8.8	ug/l	
85-01-8	Phenanthrene	ND	5.5	2.2	ug/l	
129-00-0	Pyrene	ND	5.5	2.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	100%	100%	41-139%
84-15-1	o-Terphenyl	95%	94%	46-135%

(a) All hits confirmed by dual column analysis.

(b) Result is from Run# 2

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:	USTLCH4015-MW01D	Date Sampled:	09/23/03
Lab Sample ID:	F19728-2	Date Received:	09/25/03
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF030630.D	1	10/03/03	CV	n/a	n/a	GEF1116
Run #2 ^a	EF030650.D	5	10/03/03	CV	n/a	n/a	GEF1117

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

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	138 ^b	5.0	2.5	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	368 ^b	5.0	2.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	4.8	1.0	0.50	ug/l	
108-88-3	Toluene	14.8	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	226	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	111%	103%	74-127%
98-08-8	aaa-Trifluorotoluene	107%	103%	73-135%

(a) All hits confirmed by dual column analysis.

(b) Result is from Run# 2

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:	USTLCH4015-MW01D	Date Sampled:	09/23/03
Lab Sample ID:	F19728-2	Date Received:	09/25/03
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ18465.D	1	10/01/03	SD	09/30/03	OP8665	GIJ886
Run #2 ^a	IJ18495.D	4	10/02/03	SD	09/30/03	OP8665	GIJ887

	Initial Volume	Final Volume
Run #1	920 ml	1.0 ml
Run #2	920 ml	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.4	2.2	ug/l	
208-96-8	Acenaphthylene	ND	5.4	2.2	ug/l	
120-12-7	Anthracene	ND	5.4	2.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.4	2.2	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.4	2.2	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.4	2.2	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.4	2.2	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.4	2.2	ug/l	
218-01-9	Chrysene	ND	5.4	2.2	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.4	2.2	ug/l	
206-44-0	Fluoranthene	ND	5.4	2.2	ug/l	
86-73-7	Fluorene	ND	5.4	2.2	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.4	2.2	ug/l	
91-20-3	Naphthalene	138 ^b	22	8.7	ug/l	
90-12-0	1-Methylnaphthalene	23.3 ^b	22	8.7	ug/l	
91-57-6	2-Methylnaphthalene	36.2 ^b	22	8.7	ug/l	
85-01-8	Phenanthrene	ND	5.4	2.2	ug/l	
129-00-0	Pyrene	ND	5.4	2.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	94%	91%	41-139%
84-15-1	o-Terphenyl	87%	80%	46-135%

(a) All hits confirmed by dual column analysis.

(b) Result is from Run# 2

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:	USTLCH4015-MW02	Date Sampled:	09/23/03
Lab Sample ID:	F19728-3	Date Received:	09/25/03
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF030631.D	1	10/03/03	CV	n/a	n/a	GEF1116
Run #2 ^a	EF030651.D	5	10/03/03	CV	n/a	n/a	GEF1117

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

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	60.1	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	62.9	1.0	0.50	ug/l	
1634-04-4	Methyl Tert Butyl Ether	7.5	1.0	0.50	ug/l	
108-88-3	Toluene	7.2	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	612 ^b	15	5.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	104%	100%	74-127%
98-08-8	aaa-Trifluorotoluene	101%	101%	73-135%

(a) All hits confirmed by dual column analysis.

(b) Result is from Run# 2

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:	USTLCH4015-MW02	Date Sampled:	09/23/03
Lab Sample ID:	F19728-3	Date Received:	09/25/03
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	IJ18466.D	1	10/01/03	SD	09/30/03	OP8665	GIJ886
Run #2 ^a	IJ18496.D	2	10/02/03	SD	09/30/03	OP8665	GIJ887

	Initial Volume	Final Volume
Run #1	870 ml	1.0 ml
Run #2	870 ml	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.7	2.3	ug/l	
208-96-8	Acenaphthylene	ND	5.7	2.3	ug/l	
120-12-7	Anthracene	ND	5.7	2.3	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.7	2.3	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.7	2.3	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.7	2.3	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.7	2.3	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.7	2.3	ug/l	
218-01-9	Chrysene	ND	5.7	2.3	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.7	2.3	ug/l	
206-44-0	Fluoranthene	ND	5.7	2.3	ug/l	
86-73-7	Fluorene	ND	5.7	2.3	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.7	2.3	ug/l	
91-20-3	Naphthalene	59.9 ^b	11	4.6	ug/l	
90-12-0	1-Methylnaphthalene	7.1	5.7	2.3	ug/l	
91-57-6	2-Methylnaphthalene	7.6	5.7	2.3	ug/l	
85-01-8	Phenanthrene	ND	5.7	2.3	ug/l	
129-00-0	Pyrene	ND	5.7	2.3	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	63%	60%	41-139%
84-15-1	o-Terphenyl	70%	70%	46-135%

(a) All hits confirmed by dual column analysis.

(b) Result is from Run# 2

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:	USTLCH4015-MW03	Date Sampled:	09/23/03
Lab Sample ID:	F19728-4	Date Received:	09/25/03
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EF030646.D	1	10/03/03	CV	n/a	n/a	GEF1117
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	1.0	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	0.80	1.0	0.50	ug/l	J
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	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	96%		74-127%
98-08-8	aaa-Trifluorotoluene	99%		73-135%

(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:	USTLCH4015-MW03	Date Sampled:	09/23/03
Lab Sample ID:	F19728-4	Date Received:	09/25/03
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ18467.D	1	10/01/03	SD	09/30/03	OP8665	GIJ886
Run #2							

	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	82%		41-139%
84-15-1	o-Terphenyl	93%		46-135%

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:	USTLCH4015-MW09	Date Sampled:	09/23/03
Lab Sample ID:	F19728-6	Date Received:	09/25/03
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EF030633.D	1	10/03/03	CV	n/a	n/a	GEF1116
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	0.63	1.0	0.50	ug/l	J
1634-04-4	Methyl Tert Butyl Ether	10.7	1.0	0.50	ug/l	
108-88-3	Toluene	0.66	1.0	0.50	ug/l	J
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	90%		74-127%
98-08-8	aaa-Trifluorotoluene	93%		73-135%

(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:	USTLCH4015-MW09	Date Sampled:	09/23/03
Lab Sample ID:	F19728-6	Date Received:	09/25/03
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	IJ18468.D	1	10/01/03	SD	09/30/03	OP8665	GIJ886
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	4.2	5.0	2.0	ug/l	J
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	79%		41-139%
84-15-1	o-Terphenyl	89%		46-135%

(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:	USTLCH4015-MW011	Date Sampled:	09/23/03
Lab Sample ID:	F19728-7	Date Received:	09/25/03
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EF030704.D	1	10/06/03	CV	n/a	n/a	GEF1119
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	3.6	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	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	98%		74-127%
98-08-8	aaa-Trifluorotoluene	98%		73-135%

(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:	USTLCH4015-MW011	Date Sampled:	09/23/03
Lab Sample ID:	F19728-7	Date Received:	09/25/03
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ18490.D	1	10/02/03	SD	09/30/03	OP8665	GIJ886
Run #2							

	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	42%		41-139%
84-15-1	o-Terphenyl	53%		46-135%

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:	USTLCH4015-TB-092303	Date Sampled:	09/23/03
Lab Sample ID:	F19728-8	Date Received:	09/25/03
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF030634.D	1	10/03/03	CV	n/a	n/a	GEF1116
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	83%		74-127%
98-08-8	aaa-Trifluorotoluene	88%		73-135%

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

COC Number:
844271-4015-092303



Shaw Environmental & Infrastructure, Inc.

F19728

CHAIN-OF-CUSTODY RECORD

Shaw E & I - Piney Green Rd. Lot 203 Bld 626 - 910-451-2390										Receiving LAB: ACCUTEST										
Project Name CAMP LEJEUNE - LCH 4015				Project Location CAMP LEJEUNE, NC						Analysis Desired										
Project Number 844271		Contact Mark Martin		P.O. Number E+E		Reviewed by														
Client Rep US NAVY - LANTDIV				Project Manager Ron Kenyon																
Item No.	Sample Number	Date	Time	Comp	Grab	Sample Description		Number of Containers	VOC 602	PAH 610										
1	USTLCH4015-MW01	9/23/03	1610		X	USTLCH4015-MW01		5	X	X										
2	USTLCH4015-MW01D	9/23/03	1620		X	USTLCH4015-MW01D		5	X	X										
3	USTLCH4015-MW02	9/23/03	1450		X	USTLCH4015-MW02		5	X	X										
4	USTLCH4015-MW03	9/23/03	1240		X	USTLCH4015-MW03		5	X	X										
5	USTLCH4015-MW05	9/23/03	1100		X	USTLCH4015-MW05		5	X	X										
6	USTLCH4015-MW09	9/23/03	1400		X	USTLCH4015-MW09		5	X	X										
7	USTLCH4015-MW011	9/23/03	1710		X	USTLCH4015-MW011		5	X	X										
8	USTLCH4015-TB-092303	9/23/03	—		X	Trip Blank		2	X											
9																				
10																				

Transfer Number	Item Number	Transfers Relinquished By	Transfers Accepted By	Date	Time	Remarks
1	1 -- 10		FedEx 8369 1400 3014	9/24/03	16:00	Please E-Mail Results To Mark.Martin@shawgrp.com
2		Fed Ex	Muna Mohammed	9/25/03	0900	or Fax to 910-451-1809
3						21 Day TAT

3.2, 3.0°C

F19728: Chain of Custody

Page 1 of 2

ACCUTEST LABORATORIES SOUTHEAST SAMPLE RECEIPT CONFIRMATION

F19728

Accutest's Job Number:

Client:

Shaw

Project:

Camp Lejeune - LCH 4015

Date Received:

9/25/03

Time Received:

0900

of Coolers Received:

2

Cooler Temperatures:

3.2, 3.0

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

N/A

Trip Blank Matrix ?

☒ Soil

☒ Water

N/A

Number of Encores ?

0

Number of Soil Field Kits ?

0

Summary of Comments:

Signature: Muna m.

Date: 9/25/03

ASBD/HW 05/11/03

F19728: 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: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GEF1116-MB	EF030617.D	1	10/02/03	CV	n/a	n/a	GEF1116

The QC reported here applies to the following samples:

Method: EPA 601/602

F19728-2, F19728-3, F19728-6, F19728-8

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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% 74-127%
98-08-8	aaa-Trifluorotoluene	95% 73-135%

Method Blank Summary

Page 1 of 1

Job Number: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GEF1117-MB	EF030644.D	1	10/03/03	CV	n/a	n/a	GEF1117

The QC reported here applies to the following samples:

Method: EPA 601/602

F19728-1, F19728-2, F19728-3, F19728-4

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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% 74-127%
98-08-8	aaa-Trifluorotoluene	95% 73-135%

Method Blank Summary

Page 1 of 1

Job Number: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GEF1119-MB	EF030703.D	1	10/06/03	CV	n/a	n/a	GEF1119

The QC reported here applies to the following samples:

Method: EPA 601/602

F19728-7

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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% 74-127%
98-08-8	aaa-Trifluorotoluene	93% 73-135%

Blank Spike Summary

Job Number: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GEF1116-BS	EF030616.D	1	10/02/03	CV	n/a	n/a	GEF1116

The QC reported here applies to the following samples:

Method: EPA 601/602

F19728-2, F19728-3, F19728-6, F19728-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	20.4	102	88-121
108-90-7	Chlorobenzene	20	18.7	94	87-120
95-50-1	1,2-Dichlorobenzene	20	18.0	90	81-119
541-73-1	1,3-Dichlorobenzene	20	18.7	94	82-120
106-46-7	1,4-Dichlorobenzene	20	18.1	91	81-120
100-41-4	Ethylbenzene	20	19.1	96	86-125
1634-04-4	Methyl Tert Butyl Ether	20	18.6	93	80-117
108-88-3	Toluene	20	19.8	99	89-123
1330-20-7	Xylenes (total)	60	58.2	97	89-124

CAS No.	Surrogate Recoveries	BSP	Limits
352-33-0	1-Chloro-4-fluorobenzene	97%	74-127%
98-08-8	aaa-Trifluorotoluene	96%	73-135%

Blank Spike Summary

Job Number: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GEF1117-BS	EF030643.D	1	10/03/03	CV	n/a	n/a	GEF1117

The QC reported here applies to the following samples: Method: EPA 601/602

F19728-1, F19728-2, F19728-3, F19728-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	21.2	106	88-121
108-90-7	Chlorobenzene	20	19.7	99	87-120
95-50-1	1,2-Dichlorobenzene	20	18.9	95	81-119
541-73-1	1,3-Dichlorobenzene	20	19.8	99	82-120
106-46-7	1,4-Dichlorobenzene	20	19.5	98	81-120
100-41-4	Ethylbenzene	20	20.2	101	86-125
1634-04-4	Methyl Tert Butyl Ether	20	19.6	98	80-117
108-88-3	Toluene	20	20.6	103	89-123
1330-20-7	Xylenes (total)	60	61.2	102	89-124

CAS No.	Surrogate Recoveries	BSP	Limits
352-33-0	1-Chloro-4-fluorobenzene	101%	74-127%
98-08-8	aaa-Trifluorotoluene	100%	73-135%

Blank Spike Summary

Job Number: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GEF1119-BS	EF030702.D	1	10/06/03	CV	n/a	n/a	GEF1119

The QC reported here applies to the following samples:

Method: EPA 601/602

F19728-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	20.9	105	88-121
108-90-7	Chlorobenzene	20	19.5	98	87-120
95-50-1	1,2-Dichlorobenzene	20	18.7	94	81-119
541-73-1	1,3-Dichlorobenzene	20	19.6	98	82-120
106-46-7	1,4-Dichlorobenzene	20	19.2	96	81-120
100-41-4	Ethylbenzene	20	19.8	99	86-125
1634-04-4	Methyl Tert Butyl Ether	20	18.4	92	80-117
108-88-3	Toluene	20	20.3	102	89-123
1330-20-7	Xylenes (total)	60	60.2	100	89-124

CAS No.	Surrogate Recoveries	BSP	Limits
352-33-0	1-Chloro-4-fluorobenzene	100%	74-127%
98-08-8	aaa-Trifluorotoluene	100%	73-135%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F19804-1MS	EF030619.D	1	10/03/03	CV	n/a	n/a	GEF1116
F19804-1MSD	EF030620.D	1	10/03/03	CV	n/a	n/a	GEF1116
F19804-1	EF030618.D	1	10/02/03	CV	n/a	n/a	GEF1116

The QC reported here applies to the following samples: Method: EPA 601/602

F19728-2, F19728-3, F19728-6, F19728-8

CAS No.	Compound	F19804-1 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	20	20.7	104	20.4	102	1	77-127/9
108-90-7	Chlorobenzene	ND	20	19.0	95	18.8	94	1	82-122/10
95-50-1	1,2-Dichlorobenzene	ND	20	18.0	90	17.5	88	3	69-133/13
541-73-1	1,3-Dichlorobenzene	ND	20	19.0	95	18.6	93	2	77-123/13
106-46-7	1,4-Dichlorobenzene	ND	20	18.4	92	18.2	91	1	73-127/13
100-41-4	Ethylbenzene	ND	20	19.6	98	19.4	97	1	68-136/11
1634-04-4	Methyl Tert Butyl Ether	ND	20	18.4	92	18.7	94	2	71-124/14
108-88-3	Toluene	ND	20	20.0	100	19.8	99	1	78-128/9
1330-20-7	Xylenes (total)	ND	60	59.1	99	58.1	97	2	71-136/11

CAS No.	Surrogate Recoveries	MS	MSD	F19804-1	Limits
352-33-0	1-Chloro-4-fluorobenzene	99%	98%	90%	74-127%
98-08-8	aaa-Trifluorotoluene	99%	98%	96%	73-135%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F19849-1MS	EF030657.D	1	10/03/03	CV	n/a	n/a	GEF1117
F19849-1MSD	EF030658.D	1	10/03/03	CV	n/a	n/a	GEF1117
F19849-1 ^a	EF030656.D	1	10/03/03	CV	n/a	n/a	GEF1117

The QC reported here applies to the following samples:

Method: EPA 601/602

F19728-1, F19728-2, F19728-3, F19728-4

CAS No.	Compound	F19849-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		20	20.7	104	20.7	104	0	77-127/9
108-90-7	Chlorobenzene	ND		20	19.2	96	19.2	96	0	82-122/10
95-50-1	1,2-Dichlorobenzene	ND		20	21.1	106	21.2	106	0	69-133/13
541-73-1	1,3-Dichlorobenzene	ND		20	20.2	101	20.1	101	0	77-123/13
106-46-7	1,4-Dichlorobenzene	ND		20	20.0	100	20.0	100	0	73-127/13
100-41-4	Ethylbenzene	ND		20	19.9	100	19.9	100	0	68-136/11
1634-04-4	Methyl Tert Butyl Ether	ND		20	19.5	98	19.2	96	2	71-124/14
108-88-3	Toluene	ND		20	20.4	102	20.2	101	1	78-128/9
1330-20-7	Xylenes (total)	2.8	J	60	63.8	102	63.1	101	1	71-136/11

CAS No.	Surrogate Recoveries	MS	MSD	F19849-1	Limits
352-33-0	1-Chloro-4-fluorobenzene	97%	102%	91%	74-127%
98-08-8	aaa-Trifluorotoluene	96%	101%	95%	73-135%

(a) All hits confirmed by dual column analysis.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F19788-17MS	EF030715.D	1	10/06/03	CV	n/a	n/a	GEF1119
F19788-17MSD	EF030716.D	1	10/06/03	CV	n/a	n/a	GEF1119
F19788-17	EF030714.D	1	10/06/03	CV	n/a	n/a	GEF1119

The QC reported here applies to the following samples:

Method: EPA 601/602

F19728-7

CAS No.	Compound	F19788-17 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	20	20.7	104	20.8	104	0	77-127/9
108-90-7	Chlorobenzene	ND	20	19.2	96	19.0	95	1	82-122/10
95-50-1	1,2-Dichlorobenzene	ND	20	18.2	91	18.1	91	1	69-133/13
541-73-1	1,3-Dichlorobenzene	ND	20	19.0	95	19.1	96	1	77-123/13
106-46-7	1,4-Dichlorobenzene	ND	20	18.9	95	18.7	94	1	73-127/13
100-41-4	Ethylbenzene	ND	20	19.8	99	19.5	98	2	68-136/11
1634-04-4	Methyl Tert Butyl Ether	ND	20	18.8	94	18.3	92	3	71-124/14
108-88-3	Toluene	ND	20	20.1	101	20.1	101	0	78-128/9
1330-20-7	Xylenes (total)	ND	60	59.9	100	59.6	99	1	71-136/11

CAS No.	Surrogate Recoveries	MS	MSD	F19788-17	Limits
352-33-0	1-Chloro-4-fluorobenzene	98%	97%	87%	74-127%
98-08-8	aaa-Trifluorotoluene	98%	99%	94%	73-135%

Volatile Surrogate Recovery Summary

Page 1 of 1

Job Number: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

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
F19728-1	EF030649.D	100.0	103.0
F19728-2	EF030650.D	103.0	103.0
F19728-2	EF030630.D	111.0	107.0
F19728-3	EF030651.D	100.0	101.0
F19728-3	EF030631.D	104.0	101.0
F19728-4	EF030646.D	96.0	99.0
F19728-6	EF030633.D	90.0	93.0
F19728-7	EF030704.D	98.0	98.0
F19728-8	EF030634.D	83.0	88.0
F19788-17MS	EF030715.D	98.0	98.0
F19788-17MSD	EF030716.D	97.0	99.0
F19804-1MS	EF030619.D	99.0	99.0
F19804-1MSD	EF030620.D	98.0	98.0
F19849-1MS	EF030657.D	97.0	96.0
F19849-1MSD	EF030658.D	102.0	101.0
GEF1116-BS	EF030616.D	97.0	96.0
GEF1116-MB	EF030617.D	88.0	95.0
GEF1117-BS	EF030643.D	101.0	100.0
GEF1117-MB	EF030644.D	89.0	95.0
GEF1119-BS	EF030702.D	100.0	100.0
GEF1119-MB	EF030703.D	89.0	93.0

Surrogate Compounds

Recovery Limits

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

74-127%
73-135%

(a) Recovery from GC signal #2

GC Surrogate Retention Time Summary

Job Number: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GEF1116-CC1115	Injection Date:	10/03/03
Lab File ID:	EF030624.D	Injection Time:	02:03
Instrument ID:	GCEF	Method:	EPA 601/602

	S1 ^a RT	S2 ^a RT
Check Std	8.49	5.44

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
ZZZZZZ	EF030625.D	10/03/03	02:27	8.50	5.44
ZZZZZZ	EF030626.D	10/03/03	02:51	8.49	5.44
ZZZZZZ	EF030627.D	10/03/03	03:15	8.50	5.44
F19728-2	EF030630.D	10/03/03	04:28	8.49	5.44
F19728-3	EF030631.D	10/03/03	04:52	8.49	5.44
F19728-6	EF030633.D	10/03/03	05:40	8.49	5.44
F19728-8	EF030634.D	10/03/03	06:04	8.50	5.44

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: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GEF1117-CC1115	Injection Date:	10/03/03
Lab File ID:	EF030642.D	Injection Time:	09:27
Instrument ID:	GCEF	Method:	EPA 601/602

S1^a	S2^a
RT	RT

Check Std	8.50	5.44

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
GEF1117-BS	EF030643.D	10/03/03	09:51	8.50	5.45
GEF1117-MB	EF030644.D	10/03/03	10:16	8.50	5.45
ZZZZZZ	EF030645.D	10/03/03	10:40	8.50	5.45
F19728-4	EF030646.D	10/03/03	11:04	8.50	5.45
ZZZZZZ	EF030647.D	10/03/03	11:28	8.50	5.45
ZZZZZZ	EF030648.D	10/03/03	11:56	8.50	5.45
F19728-1	EF030649.D	10/03/03	12:22	8.51	5.44
F19728-2	EF030650.D	10/03/03	12:50	8.51	5.44
F19728-3	EF030651.D	10/03/03	13:19	8.50	5.44
ZZZZZZ	EF030652.D	10/03/03	13:47	8.50	5.44

Surrogate Compounds

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

(a) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GEF1117-CC1115	Injection Date:	10/03/03
Lab File ID:	EF030653.D	Injection Time:	14:11
Instrument ID:	GCEF	Method:	EPA 601/602

	S1 ^a RT	S2 ^a RT
Check Std	8.50	5.45

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
F19849-1	EF030656.D	10/03/03	15:27	8.50	5.44
F19849-1MS	EF030657.D	10/03/03	15:53	8.50	5.44
F19849-1MSD	EF030658.D	10/03/03	16:18	8.50	5.44
ZZZZZZ	EF030659.D	10/03/03	16:42	8.50	5.44
ZZZZZZ	EF030660.D	10/03/03	17:06	8.50	5.45
ZZZZZZ	EF030661.D	10/03/03	17:30	8.50	5.44
ZZZZZZ	EF030662.D	10/03/03	17:54	8.51	5.45
ZZZZZZ	EF030663.D	10/03/03	18:19	8.51	5.45

Surrogate
Compounds

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

(a) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GEF1119-CC1115	Injection Date:	10/06/03
Lab File ID:	EF030701.D	Injection Time:	08:26
Instrument ID:	GCEF	Method:	EPA 601/602

S1^a S2^a
RT RT

Check Std	8.51	5.45

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
GEF1119-BS	EF030702.D	10/06/03	09:10	8.51	5.45
GEF1119-MB	EF030703.D	10/06/03	09:35	8.51	5.45
F19728-7	EF030704.D	10/06/03	09:59	8.51	5.45
ZZZZZZ	EF030705.D	10/06/03	10:23	8.51	5.45
ZZZZZZ	EF030706.D	10/06/03	10:47	8.51	5.45
ZZZZZZ	EF030707.D	10/06/03	11:15	8.51	5.45
ZZZZZZ	EF030708.D	10/06/03	11:42	8.51	5.45
ZZZZZZ	EF030709.D	10/06/03	12:10	8.51	5.45
ZZZZZZ	EF030710.D	10/06/03	12:39	8.51	5.45
ZZZZZZ	EF030711.D	10/06/03	13:06	8.51	5.45

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: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GEF1119-CC1115	Injection Date:	10/06/03
Lab File ID:	EF030712.D	Injection Time:	13:31
Instrument ID:	GCEF	Method:	EPA 601/602

S1^a	S2^a
RT	RT

Check Std	8.51	5.45

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
ZZZZZZ	EF030713.D	10/06/03	13:59	8.50	5.45
F19788-17	EF030714.D	10/06/03	14:23	8.51	5.45
F19788-17MS	EF030715.D	10/06/03	14:47	8.51	5.45
F19788-17MSD	EF030716.D	10/06/03	15:12	8.50	5.45
ZZZZZZ	EF030717.D	10/06/03	15:36	8.50	5.45
ZZZZZZ	EF030718.D	10/06/03	16:00	8.51	5.45
ZZZZZZ	EF030719.D	10/06/03	16:25	8.51	5.45
ZZZZZZ	EF030720.D	10/06/03	16:49	8.51	5.45
ZZZZZZ	EF030721.D	10/06/03	17:13	8.50	5.45
ZZZZZZ	EF030722.D	10/06/03	17:37	8.50	5.45

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: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GEF1115-CC1115	Injection Date:	10/02/03
Lab File ID:	EF030613.D	Injection Time:	21:28
Instrument ID:	GCEF	Method:	EPA 601/602

S1^a	S2^a
RT	RT

Check Std	8.50	5.44

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
ZZZZZZ	EF030614.D	10/02/03	21:54	8.50	5.44
ZZZZZZ	EF030615.D	10/02/03	22:19	8.50	5.44
GEF1116-BS	EF030616.D	10/02/03	22:45	8.50	5.44
GEF1116-MB	EF030617.D	10/02/03	23:10	8.50	5.44
F19804-1	EF030618.D	10/02/03	23:35	8.50	5.44
F19804-1MS	EF030619.D	10/03/03	00:01	8.50	5.44
F19804-1MSD	EF030620.D	10/03/03	00:26	8.49	5.44
ZZZZZZ	EF030621.D	10/03/03	00:50	8.50	5.44
ZZZZZZ	EF030623.D	10/03/03	01:39	8.50	5.44

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: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF1115-ICC1115
Lab FileID: EF030588.D

Response Factor Report VOA1

Method : C:\HPCHEM\1\METHODS\DUAL1002.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Thu Sep 04 08:01:10 2003
Response via : Initial Calibration

Calibration Files

1	=EF030586.D	2	=EF030587.D	3	=EF030588.D
4	=EF030589.D	5	=EF030590.D	6	=EF030591.D

	Compound	1	2	3	4	5	6	Avg	%RSD
1)	Methyl tert Butyl E		7.314	6.491	6.487	6.505	6.372	6.634	E2 5.79
2)	Di-Isopropyl ether	0.845	1.155	1.058	1.044	1.037	1.026	1.027	E3 9.83
3)	Benzene	1.975	2.546	2.389	2.328	2.342	2.343	2.321	E3 8.07
4) S	a,a,a-TFT(S)	6.790	6.891	6.979	7.090	7.440	7.269	7.076	E2 3.44
5)	Toluene	1.895	2.194	2.074	2.040	2.048	2.054	2.051	E3 4.65
6) S	1-Chloro-4-Fluorobe	0.988	1.013	1.046	1.076	1.133	1.094	1.058	E3 5.07
7)	Chlorobenzene		2.370	2.073	2.016	2.031	2.031	2.104	E3 7.12
8)	Ethylbenzene		2.023	1.804	1.751	1.750	1.747	1.815	E3 6.53
9)	m,p-Xylene	1.785	2.072	1.927	1.890	1.881	1.884	1.907	E3 4.92
10)	o-Xylene	1.549	1.859	1.721	1.689	1.704	1.683	1.701	E3 5.81
11)	1,3-Dichlorobenzene	1.471	1.583	1.475	1.491	1.532	1.517	1.511	E3 2.79
12)	1,4-Dichlorobenzene	1.573	1.670	1.541	1.568	1.601	1.581	1.589	E3 2.78
13)	1,2-Dichlorobenzene	1.308	1.236	1.134	1.157	1.173	1.149	1.193	E3 5.60

Signal #2

1)	Methyl tert Butyl E		1.837	1.638	1.652	1.614	1.555	1.659	E3 6.39
2)	Di-Isopropyl ether		2.857	2.630	2.598	2.554	2.498	2.627	E3 5.22
3)	Benzene	4.846	6.401	6.040	5.867	5.806	5.820	5.797	E3 8.91
4) S	a,a,a-TFT(S)	1.654	1.685	1.721	1.774	1.815	1.745	1.732	E3 3.41
5)	Toluene	4.558	5.490	5.225	5.119	5.102	5.117	5.102	E3 5.96
6) S	1-Chloro-4-Fluorobe	2.409	2.494	2.671	2.769	2.812	2.700	2.642	E3 5.99
7)	Chlorobenzene		6.373	5.359	5.159	5.237	5.120	5.450	E3 9.62
8)	Ethylbenzene	4.472	5.030	4.632	4.523	4.463	4.452	4.595	E3 4.85
9)	m,p-Xylene	4.607	5.368	4.976	4.895	4.889	4.850	4.931	E3 5.03
10)	o-Xylene	3.698	4.576	4.267	4.201	4.156	4.129	4.171	E3 6.78
11)	1,3-Dichlorobenzene	3.598	3.930	3.711	3.736	3.794	3.713	3.747	E3 2.94
12)	1,4-Dichlorobenzene	3.737	4.034	3.756	3.773	3.858	3.838	3.833	E3 2.85
13)	1,2-Dichlorobenzene	3.105	3.138	2.871	2.931	2.962	2.896	2.984	E3 3.74

(#) = Out of Range

DUAL1002.M

Fri Oct 03 09:26:35 2003

EF

Continuing Calibration Summary

Page 1 of 1

Job Number: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF1115-CC1115
Lab FileID: EF030613.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\100203\EF030613.D\FID1A.CH Vial: 29
Signal #2 : C:\HPCHEM\1\DATA\100203\EF030613.D\FID2B.CH
Acq On : 2 Oct 2003 9:28 pm Operator: ClaireV
Sample : cc1115-20 Inst : VOA1
Misc : gc2833,gef1115,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL1002.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Thu Sep 04 08:01:10 2003
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	20.241	-1.2	103	0.00
2	Di-Isopropyl ether	20.000	20.779	-3.9	101	0.00
3	Benzene	20.000	20.480	-2.4	99	0.00
4 S	a,a,a-TFT(S)	20.000	19.871	0.6	101	0.01
5	Toluene	20.000	20.130	-0.6	100	0.01
6 S	1-Chloro-4-Fluorobenzene	20.000	19.936	0.3	101	0.02
7	Chlorobenzene	20.000	19.528	2.4	99	0.02
8	Ethylbenzene	20.000	19.739	1.3	99	0.02
9	m,p-Xylene	40.000	40.090	-0.2	99	0.02
10	o-Xylene	20.000	20.361	-1.8	101	0.02
11	1,3-Dichlorobenzene	20.000	19.307	3.5	99	0.01
12	1,4-Dichlorobenzene	20.000	19.347	3.3	100	0.01
13	1,2-Dichlorobenzene	20.000	18.997	5.0	100	0.00

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	20.335	-1.7	103	0.00
2	Di-Isopropyl ether	20.000	19.893	0.5	99	0.00
3	Benzene	20.000	20.403	-2.0	98	0.00
4 S	a,a,a-TFT(S)	20.000	19.752	1.2	99	0.00
5	Toluene	20.000	20.036	-0.2	98	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	19.775	1.1	98	0.01
7	Chlorobenzene	20.000	19.123	4.4	97	0.01
8	Ethylbenzene	20.000	19.678	1.6	98	0.02
9	m,p-Xylene	40.000	39.688	0.8	98	0.02
10	o-Xylene	20.000	20.322	-1.6	99	0.02
11	1,3-Dichlorobenzene	20.000	19.220	3.9	97	0.00
12	1,4-Dichlorobenzene	20.000	18.917	5.4	97	0.00
13	1,2-Dichlorobenzene	20.000	18.916	5.4	98	0.00

Average % D = 2.2

(#) = Out of Range
EF030588.D DUAL1002.M

SPCC's out = 0 CCC's out = 0
Fri Oct 03 09:25:44 2003 EF

Continuing Calibration Summary

Page 1 of 1

Job Number: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF1116-CC1115
Lab FileID: EF030624.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\100203\EF030624.D\FID1A.CH Vial: 39
Signal #2 : C:\HPCHEM\1\DATA\100203\EF030624.D\FID2B.CH
Acq On : 3 Oct 2003 2:03 am Operator: ClaireV
Sample : cc1115-20 Inst : VOA1
Misc : gc2836,gef1116,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL1002.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Thu Sep 04 08:01:10 2003
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	19.556	2.2	100	0.00
2	Di-Isopropyl ether	20.000	20.674	-3.4	100	0.00
3	Benzene	20.000	20.675	-3.4	100	0.00
4 S	a,a,a-TFT(S)	20.000	20.010	-0.1	101	0.00
5	Toluene	20.000	20.096	-0.5	99	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	19.844	0.8	100	0.00
7	Chlorobenzene	20.000	19.297	3.5	98	0.00
8	Ethylbenzene	20.000	19.650	1.8	99	0.00
9	m,p-Xylene	40.000	39.463	1.3	98	0.00
10	o-Xylene	20.000	20.067	-0.3	99	0.01
11	1,3-Dichlorobenzene	20.000	18.805	6.0	96	0.01
12	1,4-Dichlorobenzene	20.000	18.882	5.6	97	0.01
13	1,2-Dichlorobenzene	20.000	18.525	7.4	97	0.01

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	19.243	3.8	97	0.00
2	Di-Isopropyl ether	20.000	19.650	1.8	98	0.00
3	Benzene	20.000	20.424	-2.1	98	0.00
4 S	a,a,a-TFT(S)	20.000	19.704	1.5	99	0.00
5	Toluene	20.000	19.915	0.4	97	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	19.665	1.7	97	0.00
7	Chlorobenzene	20.000	18.965	5.2	96	0.00
8	Ethylbenzene	20.000	19.569	2.2	97	0.00
9	m,p-Xylene	40.000	38.878	2.8	96	0.00
10	o-Xylene	20.000	19.821	0.9	97	0.00
11	1,3-Dichlorobenzene	20.000	18.832	5.8	95	0.01
12	1,4-Dichlorobenzene	20.000	18.597	7.0	95	0.01
13	1,2-Dichlorobenzene	20.000	18.295	8.5	95	0.00

Average % D = 3.1

(#) = Out of Range
EF030588.D DUAL1002.M

SPCC's out = 0 CCC's out = 0
Fri Oct 03 09:25:45 2003 EF

Continuing Calibration Summary

Page 1 of 1

Job Number: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF1116-CC1115
Lab FileID: EF030635.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\100203\EF030635.D\FID1A.CH Vial: 50
Signal #2 : C:\HPCHEM\1\DATA\100203\EF030635.D\FID2B.CH
Acq On : 3 Oct 2003 6:29 am Operator: ClaireV
Sample : cc1115-20 Inst : VOA1
Misc : gc2836,gef1116,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL1002.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Thu Sep 04 08:01:10 2003
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	18.979	5.1	97	0.00
2	Di-Isopropyl ether	20.000	19.804	1.0	96	0.00
3	Benzene	20.000	19.624	1.9	95	0.01
4 S	a,a,a-TFT(S)	20.000	19.234	3.8	98	0.01
5	Toluene	20.000	19.440	2.8	96	0.01
6 S	1-Chloro-4-Fluorobenzene	20.000	19.160	4.2	97	0.01
7	Chlorobenzene	20.000	18.576	7.1	94	0.01
8	Ethylbenzene	20.000	18.898	5.5	95	0.01
9	m,p-Xylene	40.000	38.486	3.8	95	0.01
10	o-Xylene	20.000	19.364	3.2	96	0.02
11	1,3-Dichlorobenzene	20.000	18.240	8.8	93	0.02
12	1,4-Dichlorobenzene	20.000	18.033	9.8	93	0.02
13	1,2-Dichlorobenzene	20.000	18.029	9.9	95	0.02

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	18.925	5.4	96	0.00
2	Di-Isopropyl ether	20.000	18.997	5.0	95	0.00
3	Benzene	20.000	19.689	1.6	94	0.00
4 S	a,a,a-TFT(S)	20.000	19.444	2.8	98	0.00
5	Toluene	20.000	19.542	2.3	95	0.01
6 S	1-Chloro-4-Fluorobenzene	20.000	19.353	3.2	96	0.01
7	Chlorobenzene	20.000	18.594	7.0	95	0.01
8	Ethylbenzene	20.000	19.500	2.5	97	0.01
9	m,p-Xylene	40.000	39.008	2.5	97	0.01
10	o-Xylene	20.000	19.696	1.5	96	0.01
11	1,3-Dichlorobenzene	20.000	18.474	7.6	93	0.01
12	1,4-Dichlorobenzene	20.000	18.305	8.5	93	0.02
13	1,2-Dichlorobenzene	20.000	18.114	9.4	94	0.01

Average % D = 4.9

(#) = Out of Range
EF030588.D DUAL1002.M

SPCC's out = 0 CCC's out = 0
Fri Oct 03 09:25:47 2003 EF

Continuing Calibration Summary

Page 1 of 1

Job Number: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF1117-CC1115
Lab FileID: EF030642.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\100303\EF030642.D\FID1A.CH Vial: 1
Signal #2 : C:\HPCHEM\1\DATA\100303\EF030642.D\FID2B.CH
Acq On : 3 Oct 2003 9:27 am Operator: ClaireV
Sample : cc1115-40 Inst : VOA1
Misc : gc2836,gef1117,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL1002.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Thu Sep 04 08:01:10 2003
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	39.303	1.7	100	0.00
2	Di-Isopropyl ether	40.000	40.961	-2.4	101	0.01
3	Benzene	40.000	40.883	-2.2	102	0.01
4 S	a,a,a-TFT(S)	20.000	19.894	0.5	99	0.02
5	Toluene	40.000	40.596	-1.5	102	0.02
6 S	1-Chloro-4-Fluorobenzene	20.000	20.175	-0.9	99	0.02
7	Chlorobenzene	40.000	39.305	1.7	103	0.02
8	Ethylbenzene	40.000	39.558	1.1	102	0.02
9	m,p-Xylene	80.000	81.415	-1.8	103	0.02
10	o-Xylene	40.000	40.676	-1.7	102	0.02
11	1,3-Dichlorobenzene	40.000	40.716	-1.8	103	0.02
12	1,4-Dichlorobenzene	40.000	39.888	0.3	101	0.01
13	1,2-Dichlorobenzene	40.000	38.913	2.7	100	0.01

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	40.000	40.146	-0.4	101	0.00
2	Di-Isopropyl ether	40.000	40.130	-0.3	101	0.00
3	Benzene	40.000	41.698	-4.2	103	0.01
4 S	a,a,a-TFT(S)	20.000	20.432	-2.2	100	0.01
5	Toluene	40.000	41.291	-3.2	103	0.01
6 S	1-Chloro-4-Fluorobenzene	20.000	20.828	-4.1	99	0.02
7	Chlorobenzene	40.000	39.246	1.9	104	0.02
8	Ethylbenzene	40.000	41.011	-2.5	104	0.02
9	m,p-Xylene	80.000	83.158	-3.9	105	0.02
10	o-Xylene	40.000	41.342	-3.4	103	0.01
11	1,3-Dichlorobenzene	40.000	40.745	-1.9	102	0.01
12	1,4-Dichlorobenzene	40.000	40.559	-1.4	103	0.01
13	1,2-Dichlorobenzene	40.000	39.628	0.9	101	0.01

Average % D = 2.0

(#) = Out of Range
EF030589.D DUAL1002.M

SPCC's out = 0 CCC's out = 0
Mon Oct 06 08:54:41 2003 EF

Continuing Calibration Summary

Page 1 of 1

Job Number: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF1117-CC1115
Lab FileID: EF030653.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\100303\EF030653.D\FID1A.CH Vial: 12
Signal #2 : C:\HPCHEM\1\DATA\100303\EF030653.D\FID2B.CH
Acq On : 3 Oct 2003 2:11 pm Operator: ClaireV
Sample : cc1115-20 Inst : VOA1
Misc : gc2836,gef1117,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL1002.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Thu Sep 04 08:01:10 2003
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	19.837	0.8	101	0.01
2	Di-Isopropyl ether	20.000	20.846	-4.2	101	0.01
3	Benzene	20.000	20.744	-3.7	101	0.01
4 S	a,a,a-TFT(S)	20.000	20.294	-1.5	103	0.02
5	Toluene	20.000	20.501	-2.5	101	0.02
6 S	1-Chloro-4-Fluorobenzene	20.000	20.324	-1.6	103	0.02
7	Chlorobenzene	20.000	19.701	1.5	100	0.02
8	Ethylbenzene	20.000	20.082	-0.4	101	0.02
9	m,p-Xylene	40.000	41.018	-2.5	101	0.03
10	o-Xylene	20.000	20.850	-4.3	103	0.02
11	1,3-Dichlorobenzene	20.000	19.587	2.1	100	0.02
12	1,4-Dichlorobenzene	20.000	19.607	2.0	101	0.02
13	1,2-Dichlorobenzene	20.000	19.252	3.7	101	0.02

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	19.442	2.8	98	0.00
2	Di-Isopropyl ether	20.000	19.678	1.6	98	0.01
3	Benzene	20.000	20.453	-2.3	98	0.01
4 S	a,a,a-TFT(S)	20.000	19.753	1.2	99	0.01
5	Toluene	20.000	20.351	-1.8	99	0.01
6 S	1-Chloro-4-Fluorobenzene	20.000	19.895	0.5	98	0.02
7	Chlorobenzene	20.000	19.195	4.0	98	0.02
8	Ethylbenzene	20.000	19.979	0.1	99	0.02
9	m,p-Xylene	40.000	40.586	-1.5	101	0.02
10	o-Xylene	20.000	20.624	-3.1	101	0.02
11	1,3-Dichlorobenzene	20.000	19.309	3.5	97	0.02
12	1,4-Dichlorobenzene	20.000	19.319	3.4	99	0.02
13	1,2-Dichlorobenzene	20.000	19.170	4.1	100	0.01

Average % D = 2.3

(#) = Out of Range
EF030588.D DUAL1002.M

SPCC's out = 0 CCC's out = 0
Mon Oct 06 08:55:35 2003 EF

Continuing Calibration Summary

Page 1 of 1

Job Number: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF1117-CC1115
Lab FileID: EF030664.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\100303\EF030664.D\FID1A.CH Vial: 22
Signal #2 : C:\HPCHEM\1\DATA\100303\EF030664.D\FID2B.CH
Acq On : 3 Oct 2003 6:43 pm Operator: ClaireV
Sample : cc1115-20 Inst : VOA1
Misc : gc2839,gef1117,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL1002.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Thu Sep 04 08:01:10 2003
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	20.491	-2.5	105	0.01
2	Di-Isopropyl ether	20.000	21.126	-5.6	103	0.01
3	Benzene	20.000	20.787	-3.9	101	0.02
4 S	a,a,a-TFT(S)	20.000	20.249	-1.2	103	0.02
5	Toluene	20.000	20.521	-2.6	101	0.02
6 S	1-Chloro-4-Fluorobenzene	20.000	20.269	-1.3	103	0.02
7	Chlorobenzene	20.000	19.889	0.6	101	0.02
8	Ethylbenzene	20.000	19.953	0.2	100	0.02
9	m,p-Xylene	40.000	40.058	-0.1	99	0.02
10	o-Xylene	20.000	20.436	-2.2	101	0.02
11	1,3-Dichlorobenzene	20.000	19.540	2.3	100	0.02
12	1,4-Dichlorobenzene	20.000	19.529	2.4	101	0.02
13	1,2-Dichlorobenzene	20.000	18.918	5.4	99	0.02

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	19.859	0.7	101	0.01
2	Di-Isopropyl ether	20.000	19.806	1.0	99	0.01
3	Benzene	20.000	20.421	-2.1	98	0.01
4 S	a,a,a-TFT(S)	20.000	19.677	1.6	99	0.02
5	Toluene	20.000	20.068	-0.3	98	0.02
6 S	1-Chloro-4-Fluorobenzene	20.000	20.054	-0.3	99	0.02
7	Chlorobenzene	20.000	19.517	2.4	99	0.02
8	Ethylbenzene	20.000	19.836	0.8	98	0.02
9	m,p-Xylene	40.000	39.886	0.3	99	0.02
10	o-Xylene	20.000	20.316	-1.6	99	0.02
11	1,3-Dichlorobenzene	20.000	19.422	2.9	98	0.02
12	1,4-Dichlorobenzene	20.000	19.227	3.9	98	0.02
13	1,2-Dichlorobenzene	20.000	18.798	6.0	98	0.02

Average % D = 2.1

(#) = Out of Range
EF030588.D DUAL1002.M

SPCC's out = 0 CCC's out = 0
Mon Oct 06 08:55:37 2003 EF

Continuing Calibration Summary

Page 1 of 1

Job Number: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF1119-CC1115
Lab FileID: EF030701.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\100603\EF030701.D\FID1A.CH Vial: 1
Signal #2 : C:\HPCHEM\1\DATA\100603\EF030701.D\FID2B.CH
Acq On : 6 Oct 2003 8:26 am Operator: ClaireV
Sample : CC1115-40 Inst : VOA1
Misc : gc2840,gef1119,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL1002.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Thu Sep 04 08:01:10 2003
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	36.621	8.4	94	0.01
2	Di-Isopropyl ether	40.000	39.778	0.6	98	0.01
3	Benzene	40.000	39.996	0.0	100	0.02
4 S	a,a,a-TFT(S)	20.000	21.363	-6.8	107	0.02
5	Toluene	40.000	40.238	-0.6	101	0.02
6 S	1-Chloro-4-Fluorobenzene	20.000	21.966	-9.8	108	0.03
7	Chlorobenzene	40.000	38.628	3.4	101	0.03
8	Ethylbenzene	40.000	39.218	2.0	102	0.03
9	m,p-Xylene	80.000	80.285	-0.4	101	0.03
10	o-Xylene	40.000	40.129	-0.3	101	0.03
11	1,3-Dichlorobenzene	40.000	39.149	2.1	99	0.03
12	1,4-Dichlorobenzene	40.000	38.732	3.2	98	0.03
13	1,2-Dichlorobenzene	40.000	37.315	6.7	96	0.03

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	40.000	37.273	6.8	94	0.00
2	Di-Isopropyl ether	40.000	38.546	3.6	97	0.01
3	Benzene	40.000	40.344	-0.9	100	0.01
4 S	a,a,a-TFT(S)	20.000	21.723	-8.6	106	0.02
5	Toluene	40.000	40.201	-0.5	100	0.02
6 S	1-Chloro-4-Fluorobenzene	20.000	22.191	-11.0	106	0.02
7	Chlorobenzene	40.000	38.023	4.9	100	0.02
8	Ethylbenzene	40.000	39.519	1.2	100	0.02
9	m,p-Xylene	80.000	80.669	-0.8	102	0.03
10	o-Xylene	40.000	40.592	-1.5	101	0.03
11	1,3-Dichlorobenzene	40.000	39.687	0.8	100	0.02
12	1,4-Dichlorobenzene	40.000	39.098	2.3	99	0.03
13	1,2-Dichlorobenzene	40.000	38.019	5.0	97	0.02

Average % D = 3.5

(#) = Out of Range
EF030589.D DUAL1002.M

SPCC's out = 0 CCC's out = 0
Tue Oct 07 08:33:32 2003 EF

Continuing Calibration Summary

Page 1 of 1

Job Number: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF1119-CC1115
Lab FileID: EF030712.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\100603\EF030712.D\FID1A.CH Vial: 12
Signal #2 : C:\HPCHEM\1\DATA\100603\EF030712.D\FID2B.CH
Acq On : 6 Oct 2003 1:31 pm Operator: ClaireV
Sample : cc1115-20 Inst : VOA1
Misc : gc2840,gef1119,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL1002.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Thu Sep 04 08:01:10 2003
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	20.580	-2.9	105	0.02
2	Di-Isopropyl ether	20.000	21.049	-5.2	102	0.02
3	Benzene	20.000	20.763	-3.8	101	0.02
4 S	a,a,a-TFT(S)	20.000	19.973	0.1	101	0.02
5	Toluene	20.000	20.427	-2.1	101	0.02
6 S	1-Chloro-4-Fluorobenzene	20.000	20.357	-1.8	103	0.03
7	Chlorobenzene	20.000	19.831	0.8	101	0.03
8	Ethylbenzene	20.000	19.937	0.3	100	0.03
9	m,p-Xylene	40.000	40.409	-1.0	100	0.03
10	o-Xylene	20.000	20.489	-2.4	101	0.02
11	1,3-Dichlorobenzene	20.000	19.890	0.5	102	0.02
12	1,4-Dichlorobenzene	20.000	19.569	2.2	101	0.02
13	1,2-Dichlorobenzene	20.000	19.250	3.8	101	0.02

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	20.197	-1.0	102	0.01
2	Di-Isopropyl ether	20.000	20.102	-0.5	100	0.01
3	Benzene	20.000	20.475	-2.4	98	0.02
4 S	a,a,a-TFT(S)	20.000	19.706	1.5	99	0.02
5	Toluene	20.000	20.312	-1.6	99	0.02
6 S	1-Chloro-4-Fluorobenzene	20.000	20.119	-0.6	100	0.02
7	Chlorobenzene	20.000	19.452	2.7	99	0.02
8	Ethylbenzene	20.000	20.019	-0.1	99	0.03
9	m,p-Xylene	40.000	40.371	-0.9	100	0.03
10	o-Xylene	20.000	20.710	-3.6	101	0.03
11	1,3-Dichlorobenzene	20.000	19.831	0.8	100	0.02
12	1,4-Dichlorobenzene	20.000	19.654	1.7	100	0.02
13	1,2-Dichlorobenzene	20.000	19.327	3.4	100	0.02

Average % D = 1.8

(#) = Out of Range
EF030588.D DUAL1002.M

SPCC's out = 0 CCC's out = 0
Tue Oct 07 08:34:01 2003 EF

Continuing Calibration Summary

Page 1 of 1

Job Number: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF1119-CC1115
Lab FileID: EF030723.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\100603\EF030723.D\FID1A.CH Vial: 22
Signal #2 : C:\HPCHEM\1\DATA\100603\EF030723.D\FID2B.CH
Acq On : 6 Oct 2003 6:01 pm Operator: ClaireV
Sample : cc1115-20 Inst : VOA1
Misc : gc2840,gef1119,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL1002.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Thu Sep 04 08:01:10 2003
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	19.649	1.8	100	0.01
2	Di-Isopropyl ether	20.000	20.279	-1.4	98	0.01
3	Benzene	20.000	19.894	0.5	97	0.02
4 S	a,a,a-TFT(S)	20.000	19.250	3.8	98	0.02
5	Toluene	20.000	19.594	2.0	97	0.02
6 S	1-Chloro-4-Fluorobenzene	20.000	18.979	5.1	96	0.02
7	Chlorobenzene	20.000	19.080	4.6	97	0.02
8	Ethylbenzene	20.000	19.185	4.1	96	0.02
9	m,p-Xylene	40.000	38.676	3.3	96	0.02
10	o-Xylene	20.000	19.602	2.0	97	0.02
11	1,3-Dichlorobenzene	20.000	18.951	5.2	97	0.02
12	1,4-Dichlorobenzene	20.000	19.031	4.8	98	0.02
13	1,2-Dichlorobenzene	20.000	18.417	7.9	97	0.02

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	19.666	1.7	100	0.00
2	Di-Isopropyl ether	20.000	19.495	2.5	97	0.01
3	Benzene	20.000	19.840	0.8	95	0.01
4 S	a,a,a-TFT(S)	20.000	19.474	2.6	98	0.02
5	Toluene	20.000	19.675	1.6	96	0.02
6 S	1-Chloro-4-Fluorobenzene	20.000	19.223	3.9	95	0.02
7	Chlorobenzene	20.000	19.036	4.8	97	0.02
8	Ethylbenzene	20.000	19.285	3.6	96	0.02
9	m,p-Xylene	40.000	38.799	3.0	96	0.02
10	o-Xylene	20.000	20.000	0.0	98	0.02
11	1,3-Dichlorobenzene	20.000	19.172	4.1	97	0.02
12	1,4-Dichlorobenzene	20.000	19.100	4.5	97	0.02
13	1,2-Dichlorobenzene	20.000	18.907	5.5	98	0.02

Average % D = 3.3

(#) = Out of Range
EF030588.D DUAL1002.M

SPCC's out = 0 CCC's out = 0
Tue Oct 07 08:34:02 2003 EF

GC Semi-volatiles

5

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: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP8665-MB	IJ18459.D	1	10/01/03	SD	09/30/03	OP8665	GJ886

The QC reported here applies to the following samples:

Method: EPA 610

F19728-1, F19728-2, F19728-3, F19728-4, F19728-6, F19728-7

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	87%	41-139%
84-15-1	o-Terphenyl	87%	46-135%

Method Blank Summary

Page 1 of 1

Job Number: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP8665-MB	IJ18493.D	1	10/02/03	SD	09/30/03	OP8665	GJ887

The QC reported here applies to the following samples:

Method: EPA 610

F19728-1, F19728-2, F19728-3, F19728-4, F19728-6, F19728-7

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	66% 41-139%
84-15-1	o-Terphenyl	93% 46-135%

Blank Spike Summary

Page 1 of 1

Job Number: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP8665-BS	IJ18458.D	1	10/01/03	SD	09/30/03	OP8665	GIJ886

The QC reported here applies to the following samples:

Method: EPA 610

F19728-1, F19728-2, F19728-3, F19728-4, F19728-6, F19728-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	25	22.2	89	59-114
208-96-8	Acenaphthylene	25	19.4	78	58-109
120-12-7	Anthracene	25	22.4	90	63-110
56-55-3	Benzo(a)anthracene	25	21.9	88	74-111
50-32-8	Benzo(a)pyrene	25	21.3	85	71-110
205-99-2	Benzo(b)fluoranthene	25	21.8	87	75-112
191-24-2	Benzo(g,h,i)perylene	25	21.3	85	66-114
207-08-9	Benzo(k)fluoranthene	25	21.7	87	73-111
218-01-9	Chrysene	25	22.1	88	73-112
53-70-3	Dibenzo(a,h)anthracene	25	20.9	84	67-111
206-44-0	Fluoranthene	25	22.7	91	74-113
86-73-7	Fluorene	25	21.0	84	67-113
193-39-5	Indeno(1,2,3-cd)pyrene	25	22.6	90	68-115
91-20-3	Naphthalene	25	20.1	80	52-113
90-12-0	1-Methylnaphthalene	25	22.3	89	55-117
91-57-6	2-Methylnaphthalene	25	20.2	81	50-115
85-01-8	Phenanthrene	25	22.0	88	70-111
129-00-0	Pyrene	25	22.7	91	73-115

CAS No.	Surrogate Recoveries	BSP	Limits
321-60-8	2-Fluorobiphenyl	82%	41-139%
84-15-1	o-Terphenyl	86%	46-135%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP8665-MS	IJ18480.D	1	10/01/03	SD	09/30/03	OP8665	GIJ886
OP8665-MSD	IJ18481.D	1	10/01/03	SD	09/30/03	OP8665	GIJ886
F19794-6	IJ18479.D	1	10/01/03	SD	09/30/03	OP8665	GIJ886

The QC reported here applies to the following samples:

Method: EPA 610

F19728-1, F19728-2, F19728-3, F19728-4, F19728-6, F19728-7

CAS No.	Compound	F19794-6 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND	52.1	50.4	97	48.5	93	4	36-143/21
208-96-8	Acenaphthylene	ND	52.1	44.5	85	42.7	82	4	59-108/22
120-12-7	Anthracene	ND	52.1	49.2	94	47.9	92	3	61-113/22
56-55-3	Benzo(a)anthracene	ND	52.1	49.2	94	46.7	90	5	69-111/17
50-32-8	Benzo(a)pyrene	ND	52.1	47.7	92	45.2	87	5	71-109/22
205-99-2	Benzo(b)fluoranthene	ND	52.1	49.1	94	46.9	90	5	63-116/19
191-24-2	Benzo(g,h,i)perylene	ND	52.1	48.2	93	45.7	88	5	54-123/19
207-08-9	Benzo(k)fluoranthene	ND	52.1	48.8	94	46.2	89	5	66-114/16
218-01-9	Chrysene	ND	52.1	49.2	94	46.8	90	5	65-116/15
53-70-3	Dibenzo(a,h)anthracene	ND	52.1	48.9	94	46.3	89	5	52-130/24
206-44-0	Fluoranthene	ND	52.1	50.5	97	48.1	92	5	73-113/16
86-73-7	Fluorene	ND	52.1	48.9	94	47.0	90	4	63-114/20
193-39-5	Indeno(1,2,3-cd)pyrene	ND	52.1	47.6	91	45.0	86	6	43-133/24
91-20-3	Naphthalene	ND	52.1	46.3	89	45.0	86	3	40-130/27
90-12-0	1-Methylnaphthalene	ND	52.1	51.0	98	49.3	95	3	50-128/25
91-57-6	2-Methylnaphthalene	ND	52.1	46.2	89	44.5	85	4	32-148/26
85-01-8	Phenanthrene	ND	52.1	49.5	95	47.4	91	4	44-136/19
129-00-0	Pyrene	ND	52.1	51.0	98	48.2	93	6	71-116/16

CAS No.	Surrogate Recoveries	MS	MSD	F19794-6	Limits
321-60-8	2-Fluorobiphenyl	89%	86%	95%	41-139%
84-15-1	o-Terphenyl	91%	87%	98%	46-135%

Duplicate Summary

Page 1 of 1

Job Number: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP8665-DUP	IJ18469.D	1	10/01/03	SD	09/30/03	OP8665	GIJ886
F19728-6 ^a	IJ18468.D	1	10/01/03	SD	09/30/03	OP8665	GIJ886

The QC reported here applies to the following samples:

Method: EPA 610

F19728-1, F19728-2, F19728-3, F19728-4, F19728-6, F19728-7

CAS No.	Compound	F19728-6 ug/l	DUP Q	ug/l	Q	RPD	Limits
83-32-9	Acenaphthene	ND		ND		nc	
208-96-8	Acenaphthylene	ND		ND		nc	
120-12-7	Anthracene	ND		ND		nc	
56-55-3	Benzo(a)anthracene	ND		ND		nc	
50-32-8	Benzo(a)pyrene	ND		ND		nc	
205-99-2	Benzo(b)fluoranthene	ND		ND		nc	
191-24-2	Benzo(g,h,i)perylene	ND		ND		nc	
207-08-9	Benzo(k)fluoranthene	ND		ND		nc	
218-01-9	Chrysene	ND		ND		nc	
53-70-3	Dibenzo(a,h)anthracene	ND		ND		nc	
206-44-0	Fluoranthene	ND		ND		nc	
86-73-7	Fluorene	ND		ND		nc	
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ND		nc	
91-20-3	Naphthalene	4.2	J	4.0	J	5	
90-12-0	1-Methylnaphthalene	ND		ND		nc	
91-57-6	2-Methylnaphthalene	ND		ND		nc	
85-01-8	Phenanthrene	ND		ND		nc	
129-00-0	Pyrene	ND		ND		nc	

CAS No.	Surrogate Recoveries	DUP	F19728-6	Limits
321-60-8	2-Fluorobiphenyl	74%	79%	41-139%
84-15-1	o-Terphenyl	79%	89%	46-135%

(a) All hits confirmed by dual column analysis.

Semivolatile Surrogate Recovery Summary

Page 1 of 1

Job Number: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

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
F19728-1	IJ18494.D		100.0		94.0
F19728-1	IJ18464.D		100.0		95.0
F19728-2	IJ18495.D		91.0		80.0
F19728-2	IJ18465.D		94.0		87.0
F19728-3	IJ18496.D	60.0		70.0	
F19728-3	IJ18466.D	63.0		70.0	
F19728-4	IJ18467.D	82.0		93.0	
F19728-6	IJ18468.D	79.0		89.0	
F19728-7	IJ18490.D		42.0		53.0
OP8665-BS	IJ18458.D	82.0		86.0	
OP8665-DUP	IJ18469.D	74.0		79.0	
OP8665-MB	IJ18459.D	87.0		87.0	
OP8665-MB	IJ18493.D	66.0		93.0	
OP8665-MS	IJ18480.D	89.0		91.0	
OP8665-MSD	IJ18481.D	86.0		87.0	

Surrogate Compounds

Recovery Limits

S1 = 2-Fluorobiphenyl	41-139%
S2 = o-Terphenyl	46-135%

(a) Recovery from GC signal #1

(b) Recovery from GC signal #2

GC Surrogate Retention Time Summary

Job Number: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GUJ886-CC869	Injection Date:	10/01/03
Lab File ID:	IJ18457.D	Injection Time:	08:00
Instrument ID:	GCIJ	Method:	EPA 610

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	5.81	6.50	10.36	11.62

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
OP8665-BS	IJ18458.D	10/01/03	08:34	5.82		10.36	
OP8665-MB	IJ18459.D	10/01/03	09:02	5.82		10.37	
ZZZZZZ	IJ18460.D	10/01/03	09:31	5.82		10.36	
ZZZZZZ	IJ18461.D	10/01/03	09:59	5.82		10.36	
ZZZZZZ	IJ18462.D	10/01/03	10:28		6.51		11.62

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: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GUJ886-CC869	Injection Date:	10/01/03
Lab File ID:	IJ18463.D	Injection Time:	10:57
Instrument ID:	GCIJ	Method:	EPA 610

	S1^a RT	S1^b RT	S2^a RT	S2^b RT
Check Std	5.82	6.51	10.36	11.62

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1^a RT	S1^b RT	S2^a RT	S2^b RT
F19728-1	IJ18464.D	10/01/03	11:25		6.51		11.62
F19728-2	IJ18465.D	10/01/03	11:54		6.51		11.62
F19728-3	IJ18466.D	10/01/03	12:22	5.82		10.36	
F19728-4	IJ18467.D	10/01/03	12:51	5.82		10.36	
F19728-6	IJ18468.D	10/01/03	13:20	5.82		10.36	
OP8665-DUP	IJ18469.D	10/01/03	13:48	5.82		10.36	
ZZZZZZ	IJ18471.D	10/01/03	14:46	5.82		10.36	
ZZZZZZ	IJ18472.D	10/01/03	15:14	5.83		10.37	

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: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GUJ886-CC869	Injection Date:	10/01/03
Lab File ID:	IJ18473.D	Injection Time:	16:13
Instrument ID:	GCIJ	Method:	EPA 610

S1^a	S2^a
RT	RT

Check Std	5.81	10.36

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
ZZZZZZ	IJ18474.D	10/01/03	16:42	5.82	10.36
ZZZZZZ	IJ18475.D	10/01/03	17:10	5.82	10.36
ZZZZZZ	IJ18476.D	10/01/03	17:39	5.82	10.37
ZZZZZZ	IJ18477.D	10/01/03	18:08	5.82	10.37
ZZZZZZ	IJ18478.D	10/01/03	18:36	5.82	10.37
F19794-6	IJ18479.D	10/01/03	19:05	5.83	10.37
OP8665-MS	IJ18480.D	10/01/03	19:33	5.82	10.37
OP8665-MSD	IJ18481.D	10/01/03	20:02	5.82	10.37
ZZZZZZ	IJ18482.D	10/01/03	20:31	5.82	10.37

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: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GIJ886-CC869	Injection Date:	10/01/03
Lab File ID:	IJ18483.D	Injection Time:	20:59
Instrument ID:	GCIJ	Method:	EPA 610

	S1^a RT	S1^b RT	S2^a RT	S2^b RT
Check Std	5.82	6.50	10.37	11.61

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1^a RT	S1^b RT	S2^a RT	S2^b RT
OP8667-BS	IJ18484.D	10/01/03	21:28	5.82		10.37	
OP8667-MB	IJ18485.D	10/01/03	21:56	5.83		10.37	
ZZZZZZ	IJ18486.D	10/01/03	22:25	5.82		10.36	
F19687-2	IJ18487.D	10/01/03	22:54	5.83		10.37	
F19728-7	IJ18490.D	10/02/03	00:19		6.50		11.61
GIJ886-ECC869	IJ18491.D	10/02/03	00:48	5.83	6.50	10.37	11.61

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: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GUJ887-CC869	Injection Date:	10/02/03
Lab File ID:	IJ18492.D	Injection Time:	11:01
Instrument ID:	GCIJ	Method:	EPA 610

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	5.83	6.50	10.37	11.62

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
OP8665-MB	IJ18493.D	10/02/03	11:29	5.82		10.37	
F19728-1	IJ18494.D	10/02/03	11:58		6.50		11.62
F19728-2	IJ18495.D	10/02/03	12:27		6.50		11.61
F19728-3	IJ18496.D	10/02/03	12:56	5.82		10.36	
ZZZZZZ	IJ18497.D	10/02/03	13:24	5.82		10.36	
ZZZZZZ	IJ18498.D	10/02/03	13:53	5.82		10.36	
ZZZZZZ	IJ18499.D	10/02/03	14:22	5.82		10.36	

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: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ869-ICC869
Lab FileID: IJ18163.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 : Thu Jul 31 12:50:14 2003
Response via : Initial Calibration

Calibration Files

5 =IJ18161.D 10 =IJ18162.D 20 =IJ18163.D
30 =IJ18164.D 40 =IJ18165.D 50 =IJ18166.D

	Compound	5	10	20	30	40	50	Avg	%RSD
1)	Naphthalene	1.766	1.641	1.534	1.709	1.540	1.605	1.633	E4 5.67
2)	2-Methyl Naphthalen	1.668	1.587	1.495	1.674	1.504	1.578	1.584	E4 4.84
3)	1-Methyl Naphthalen	1.573	1.492	1.409	1.575	1.419	1.487	1.493	E4 4.81
4) S	2-Fluorobiphenyl	1.422	1.317	1.297	1.469	1.330	1.398	1.372	E4 4.96
5)	Acenaphthylene	1.668	1.621	1.525	1.696	1.532	1.603	1.607	E4 4.31
6)	Acenaphthene	1.707	1.642	1.548	1.721	1.559	1.630	1.635	E4 4.42
7)	Fluorene	1.636	1.625	1.526	1.692	1.530	1.601	1.602	E4 4.02
8)	Phenanthrene	1.500	1.556	1.479	1.656	1.486	1.557	1.539	E4 4.32
9)	Anthracene	1.752	1.706	1.552	1.701	1.526	1.565	1.634	E4 5.92
10) S	0-Terphenyl	1.756	1.715	1.594	1.768	1.577	1.649	1.677	E4 4.89
11)	Fluoranthene	1.661	1.646	1.528	1.703	1.525	1.598	1.610	E4 4.53
12)	Pyrene	1.736	1.641	1.529	1.712	1.529	1.601	1.625	E4 5.44
13)	Benzo(a)Anthracene	1.580	1.576	1.500	1.698	1.520	1.589	1.577	E4 4.39
14)	Chrysene	1.822	1.714	1.568	1.746	1.553	1.616	1.670	E4 6.43
15)	Benzo(b)Fluoranthene	1.592	1.586	1.533	1.731	1.557	1.629	1.605	E4 4.36
16)	Benzo(k)Fluoranthene	1.956	1.785	1.611	1.785	1.584	1.642	1.727	E4 8.19
17)	Benzo(a) Pyrene	1.717	1.631	1.528	1.706	1.526	1.590	1.616	E4 5.17
18)	Indeno(1,2,3-cd)pyr	1.513	1.514	1.440	1.634	1.469	1.543	1.519	E4 4.43
19)	Dibenzo(a,h)anthrac	1.834	1.734	1.588	1.749	1.563	1.624	1.682	E4 6.33
20)	Benzo(g,h,i) Peryle	1.774	1.699	1.550	1.736	1.528	1.594	1.647	E4 6.25

Signal #2 Calibration Files

5 =IJ18161.D 10 =IJ18162.D 20 =IJ18163.D
30 =IJ18164.D 40 =IJ18165.D 50 =IJ18166.D

	Compound	5	10	20	30	40	50	Avg	%RSD
1)	Naphthalene	2.323	2.172	2.040	2.282	2.046	2.137	2.167	E4 5.44
2)	2-Methyl Naphthalen	2.083	2.012	1.918	2.187	1.973	2.067	2.040	E4 4.62
3)	1-Methyl Naphthalen	1.997	1.913	1.834	2.055	1.858	1.943	1.933	E4 4.32
4) S	2-Fluorobiphenyl	1.853	1.802	1.701	1.936	1.753	1.840	1.814	E4 4.52
5)	Acenaphthylene	2.185	2.140	2.013	2.242	2.034	2.128	2.124	E4 4.12
6)	Acenaphthene	2.226	2.180	2.038	2.272	2.055	2.150	2.153	E4 4.31
7)	Fluorene	2.058	2.058	1.987	2.216	2.007	2.104	2.072	E4 3.96
8)	Phenanthrene	1.769	1.895	1.852	2.125	1.903	2.012	1.926	E4 6.52
9)	Anthracene	2.387	2.301	1.996	2.196	1.973	2.055	2.152	E4 7.91
10) S	0-Terphenyl	2.300	2.262	2.109	2.344	2.091	2.191	2.216	E4 4.65
11)	Fluoranthene	2.124	2.126	1.983	2.227	1.993	2.105	2.093	E4 4.39
12)	Pyrene	2.269	2.238	2.081	2.300	2.051	2.150	2.181	E4 4.72
13)	Benzo(a)Anthracene	2.193	2.145	2.021	2.274	2.032	2.121	2.131	E4 4.53
14)	Chrysene	2.261	2.189	2.046	2.278	2.028	2.115	2.153	E4 4.96
15)	Benzo(b)Fluoranthene	2.162	2.098	2.012	2.271	2.055	2.153	2.125	E4 4.31
16)	Benzo(k)Fluoranthene	2.337	2.221	2.063	2.298	2.049	2.131	2.183	E4 5.56
17)	Benzo(a) Pyrene	2.228	2.120	2.001	2.255	2.016	2.098	2.120	E4 4.96
18)	Indeno(1,2,3-cd)pyr	2.018	2.015	1.944	2.230	2.015	2.130	2.059	E4 5.00
19)	Dibenzo(a,h)anthrac	2.350	2.214	2.028	2.220	1.978	2.045	2.139	E4 6.72
20)	Benzo(g,h,i) Peryle	2.190	2.119	1.986	2.225	1.996	2.085	2.100	E4 4.67

Initial Calibration Summary

Job Number: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ869-ICC869
Lab FileID: IJ18163.D

Average % RSD = 5.1

(#) = Out of Range

8100_H2.M

Mon Aug 04 09:38:20 2003

5.7
5

Continuing Calibration Summary

Page 1 of 2

Job Number: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ886-CC869
Lab FileID: IJ18457.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\1001PAH\IJ18457.D\FID1B.CH Vial: 1
Signal #2 : C:\HPCHEM\1\DATA\1001PAH\IJ18457.D\FID2A.CH
Acq On : 1 Oct 2003 8:00 am Operator: SARAHM
Sample : CC869-10 Inst : FID 1
Misc : op8665,gij886,1000,,,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 Sep 17 08:24:36 2003
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	Naphthalene	10.000	10.544	-5.4	105	0.00
2	2-Methyl Naphthalene	10.000	10.374	-3.7	104	0.00
3	1-Methyl Naphthalene	10.000	10.313	-3.1	103	0.00
4 S	2-Fluorobiphenyl	10.000	10.328	-3.3	108	0.00
5	Acenaphthylene	10.000	10.117	-1.2	100	0.00
6	Acenaphthene	10.000	10.335	-3.4	103	0.00
7	Fluorene	10.000	10.094	-0.9	99	0.00
8	Phenanthrene	10.000	10.161	-1.6	100	0.00
9	Anthracene	10.000	11.023	-10.2	106	0.00
10 S	0-Terphenyl	10.000	10.834	-8.3	106	0.00
11	Fluoranthene	10.000	10.517	-5.2	103	0.00
12	Pyrene	10.000	10.809	-8.1	107	0.00
13	Benzo(a)Anthracene	10.000	10.054	-0.5	101	0.00
14	Chrysene	10.000	10.764	-7.6	105	0.00
15	Benzo(b)Fluoranthene	10.000	9.729	2.7	98	0.00
16	Benzo(k)Fluoranthene	10.000	10.706	-7.1	104	-0.01
17	Benzo(a) Pyrene	10.000	10.288	-2.9	102	0.00
18	Indeno(1,2,3-cd)pyrene	10.000	10.137	-1.4	102	-0.01
19	Dibenzo(a,h)anthracene	10.000	10.481	-4.8	102	0.00
20	Benzo(g,h,i) Perylene	10.000	10.761	-7.6	104	-0.01

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Naphthalene	10.000	10.606	-6.1	106	0.00
2	2-Methyl Naphthalene	10.000	10.394	-3.9	105	0.00
3	1-Methyl Naphthalene	10.000	10.303	-3.0	104	0.00
4 S	2-Fluorobiphenyl	10.000	10.618	-6.2	107	0.00
5	Acenaphthylene	10.000	10.525	-5.3	104	0.00
6	Acenaphthene	10.000	10.719	-7.2	106	0.00
7	Fluorene	10.000	10.774	-7.7	108	0.00
8	Phenanthrene	10.000	10.319	-3.2	105	0.00
9	Anthracene	10.000	11.776	-17.8#	110	0.00
10 S	0-Terphenyl	10.000	10.904	-9.0	107	0.00
11	Fluoranthene	10.000	10.749	-7.5	106	0.00
12	Pyrene	10.000	10.962	-9.6	107	0.00
13	Benzo(a)Anthracene	10.000	10.603	-6.0	105	-0.01
14	Chrysene	10.000	10.669	-6.7	105	-0.01
15	Benzo(b)Fluoranthene	10.000	9.959	0.4	101	-0.02

Continuing Calibration Summary

Job Number: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ886-CC869
Lab FileID: IJ18457.D

16	Benzo(k)Fluoranthene	10.000	10.502	-5.0	103	-0.02
17	Benzo(a) Pyrene	10.000	10.468	-4.7	105	-0.01
18	Indeno(1,2,3-cd)pyrene	10.000	10.102	-1.0	103	-0.01
19	Dibenzo(a,h)anthracene	10.000	10.832	-8.3	105	0.00
20	Benzo(g,h,i) Perylene	10.000	10.544	-5.4	105	-0.02

Average % D = 5.3

(#) = Out of Range SPCC's out = 0 CCC's out = 0
IJ18162.D 8100_H2.M Wed Oct 01 15:18:54 2003

5.7
5

Continuing Calibration Summary

Page 1 of 2

Job Number: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ886-CC869
Lab FileID: IJ18463.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\1001PAH\IJ18463.D\FID1B.CH Vial: 7
Signal #2 : C:\HPCHEM\1\DATA\1001PAH\IJ18463.D\FID2A.CH
Acq On : 1 Oct 2003 10:57 am Operator: SARAHM
Sample : CC869-30 Inst : FID 1
Misc : op8665,gij886,1000,,,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 Sep 17 08:24:36 2003
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	Naphthalene	30.000	29.076	3.1	93	0.00
2	2-Methyl Naphthalene	30.000	29.070	3.1	92	0.00
3	1-Methyl Naphthalene	30.000	28.934	3.6	91	0.00
4 S	2-Fluorobiphenyl	30.000	29.019	3.3	90	0.00
5	Acenaphthylene	30.000	28.979	3.4	92	0.00
6	Acenaphthene	30.000	29.073	3.1	92	0.00
7	Fluorene	30.000	29.174	2.8	92	0.00
8	Phenanthrene	30.000	29.535	1.5	92	0.00
9	Anthracene	30.000	29.590	1.4	95	0.00
10 S	0-Terphenyl	30.000	29.347	2.2	93	0.00
11	Fluoranthene	30.000	29.500	1.7	93	0.00
12	Pyrene	30.000	30.118	-0.4	95	0.00
13	Benzo(a)Anthracene	30.000	28.865	3.8	89	0.00
14	Chrysene	30.000	28.763	4.1	92	0.00
15	Benzo(b)Fluoranthene	30.000	28.886	3.7	89	0.00
16	Benzo(k)Fluoranthene	30.000	27.979	6.7	90	0.00
17	Benzo(a) Pyrene	30.000	28.587	4.7	90	0.00
18	Indeno(1,2,3-cd)pyrene	30.000	28.735	4.2	89	0.00
19	Dibenzo(a,h)anthracene	30.000	28.032	6.6	90	0.00
20	Benzo(g,h,i) Perylene	30.000	28.515	4.9	90	0.00

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Naphthalene	30.000	29.026	3.2	92	0.00
2	2-Methyl Naphthalene	30.000	29.441	1.9	92	0.00
3	1-Methyl Naphthalene	30.000	29.148	2.8	91	0.00
4 S	2-Fluorobiphenyl	30.000	29.246	2.5	91	0.00
5	Acenaphthylene	30.000	29.364	2.1	93	0.00
6	Acenaphthene	30.000	29.505	1.7	93	0.00
7	Fluorene	30.000	30.056	-0.2	94	0.00
8	Phenanthrene	30.000	30.430	-1.4	92	0.00
9	Anthracene	30.000	29.233	2.6	95	0.00
10 S	0-Terphenyl	30.000	29.932	0.2	94	0.00
11	Fluoranthene	30.000	30.007	-0.0	94	0.00
12	Pyrene	30.000	30.102	-0.3	95	0.00
13	Benzo(a)Anthracene	30.000	29.411	2.0	92	0.00
14	Chrysene	30.000	29.110	3.0	92	0.00
15	Benzo(b)Fluoranthene	30.000	29.427	1.9	92	0.00

Continuing Calibration Summary

Job Number: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ886-CC869
Lab FileID: IJ18463.D

16	Benzo(k)Fluoranthene	30.000	29.102	3.0	92	0.00
17	Benzo(a) Pyrene	30.000	29.120	2.9	91	0.00
18	Indeno(1,2,3-cd)pyrene	30.000	29.396	2.0	90	0.00
19	Dibenzo(a,h)anthracene	30.000	29.056	3.1	93	0.00
20	Benzo(g,h,i) Perylene	30.000	29.207	2.6	92	-0.01

Average % D = 2.7

(#) = Out of Range SPCC's out = 0 CCC's out = 0
IJ18164.D 8100_H2.M Wed Oct 01 15:18:26 2003

5.7
5

Continuing Calibration Summary

Page 1 of 2

Job Number: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ886-CC869
Lab FileID: IJ18473.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\1001PAH\IJ18473.D\FID1B.CH Vial: 17
Signal #2 : C:\HPCHEM\1\DATA\1001PAH\IJ18473.D\FID2A.CH
Acq On : 1 Oct 2003 4:13 pm Operator: SARAHM
Sample : CC869-30 Inst : FID 1
Misc : op8665,gij886,1000,,,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 Sep 17 08:24:36 2003
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	Naphthalene	30.000	29.441	1.9	94	0.00
2	2-Methyl Naphthalene	30.000	29.490	1.7	93	0.00
3	1-Methyl Naphthalene	30.000	29.294	2.4	93	0.00
4 S	2-Fluorobiphenyl	30.000	29.518	1.6	92	0.00
5	Acenaphthylene	30.000	29.347	2.2	93	0.00
6	Acenaphthene	30.000	29.369	2.1	93	0.00
7	Fluorene	30.000	29.465	1.8	93	0.00
8	Phenanthrene	30.000	29.923	0.3	93	0.00
9	Anthracene	30.000	29.746	0.8	95	0.00
10 S	0-Terphenyl	30.000	29.646	1.2	94	0.00
11	Fluoranthene	30.000	29.865	0.5	94	0.00
12	Pyrene	30.000	29.568	1.4	94	0.00
13	Benzo(a)Anthracene	30.000	29.418	1.9	91	0.00
14	Chrysene	30.000	29.009	3.3	93	0.00
15	Benzo(b)Fluoranthene	30.000	29.474	1.8	91	0.00
16	Benzo(k)Fluoranthene	30.000	28.281	5.7	91	0.00
17	Benzo(a) Pyrene	30.000	28.841	3.9	91	0.00
18	Indeno(1,2,3-cd)pyrene	30.000	29.230	2.6	91	0.00
19	Dibenzo(a,h)anthracene	30.000	28.505	5.0	91	0.00
20	Benzo(g,h,i) Perylene	30.000	28.765	4.1	91	0.00

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Naphthalene	30.000	29.440	1.9	93	0.01
2	2-Methyl Naphthalene	30.000	29.879	0.4	93	0.00
3	1-Methyl Naphthalene	30.000	29.599	1.3	93	0.00
4 S	2-Fluorobiphenyl	30.000	29.695	1.0	93	0.00
5	Acenaphthylene	30.000	29.747	0.8	94	0.00
6	Acenaphthene	30.000	29.767	0.8	94	0.00
7	Fluorene	30.000	30.425	-1.4	95	0.00
8	Phenanthrene	30.000	30.953	-3.2	94	0.00
9	Anthracene	30.000	29.532	1.6	96	0.00
10 S	0-Terphenyl	30.000	30.253	-0.8	95	0.00
11	Fluoranthene	30.000	30.412	-1.4	95	0.00
12	Pyrene	30.000	30.472	-1.6	96	0.00
13	Benzo(a)Anthracene	30.000	29.856	0.5	93	-0.01
14	Chrysene	30.000	29.550	1.5	93	-0.01
15	Benzo(b)Fluoranthene	30.000	29.618	1.3	92	-0.01

Continuing Calibration Summary

Job Number: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ886-CC869
Lab FileID: IJ18473.D

16	Benzo(k)Fluoranthene	30.000	29.483	1.7	93	-0.01
17	Benzo(a) Pyrene	30.000	29.705	1.0	93	-0.01
18	Indeno(1,2,3-cd)pyrene	30.000	29.983	0.1	92	-0.01
19	Dibenzo(a,h)anthracene	30.000	29.478	1.7	95	-0.01
20	Benzo(g,h,i) Perylene	30.000	29.554	1.5	93	-0.01

Average % D = 1.8

(#) = Out of Range SPCC's out = 0 CCC's out = 0
IJ18164.D 8100_H2.M Thu Oct 02 08:36:00 2003

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Continuing Calibration Summary

Page 1 of 2

Job Number: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ886-CC869
Lab FileID: IJ18483.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\1001PAH\IJ18483.D\FID1B.CH Vial: 17
Signal #2 : C:\HPCHEM\1\DATA\1001PAH\IJ18483.D\FID2A.CH
Acq On : 1 Oct 2003 8:59 pm Operator: SARAHM
Sample : CC869-30 Inst : FID 1
Misc : op8665,gij886,1000,,,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 Sep 17 08:24:33 2003
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	Naphthalene	30.000	29.869	0.4	95	0.00
2	2-Methyl Naphthalene	30.000	29.905	0.3	94	0.00
3	1-Methyl Naphthalene	30.000	29.735	0.9	94	0.00
4 S	2-Fluorobiphenyl	30.000	29.996	0.0	93	0.00
5	Acenaphthylene	30.000	29.824	0.6	94	0.00
6	Acenaphthene	30.000	29.862	0.5	95	0.00
7	Fluorene	30.000	29.989	0.0	95	0.00
8	Phenanthrene	30.000	30.306	-1.0	94	0.00
9	Anthracene	30.000	30.251	-0.8	97	0.00
10 S	0-Terphenyl	30.000	30.080	-0.3	95	0.00
11	Fluoranthene	30.000	30.294	-1.0	95	0.00
12	Pyrene	30.000	30.936	-3.1	98	0.00
13	Benzo(a)Anthracene	30.000	29.767	0.8	92	0.01
14	Chrysene	30.000	29.487	1.7	94	0.01
15	Benzo(b)Fluoranthene	30.000	29.815	0.6	92	0.01
16	Benzo(k)Fluoranthene	30.000	29.017	3.3	94	0.01
17	Benzo(a) Pyrene	30.000	29.255	2.5	92	0.01
18	Indeno(1,2,3-cd)pyrene	30.000	29.676	1.1	92	0.00
19	Dibenzo(a,h)anthracene	30.000	28.680	4.4	92	0.00
20	Benzo(g,h,i) Perylene	30.000	29.357	2.1	93	0.00

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Naphthalene	30.000	29.705	1.0	94	0.00
2	2-Methyl Naphthalene	30.000	30.190	-0.6	94	0.00
3	1-Methyl Naphthalene	30.000	29.953	0.2	94	0.00
4 S	2-Fluorobiphenyl	30.000	30.087	-0.3	94	0.00
5	Acenaphthylene	30.000	30.067	-0.2	95	0.00
6	Acenaphthene	30.000	30.147	-0.5	95	0.00
7	Fluorene	30.000	30.779	-2.6	96	0.00
8	Phenanthrene	30.000	31.382	-4.6	95	0.00
9	Anthracene	30.000	29.637	1.2	97	0.00
10 S	0-Terphenyl	30.000	30.595	-2.0	96	0.00
11	Fluoranthene	30.000	30.694	-2.3	96	-0.01
12	Pyrene	30.000	30.749	-2.5	97	-0.02
13	Benzo(a)Anthracene	30.000	30.163	-0.5	94	-0.03
14	Chrysene	30.000	29.898	0.3	94	-0.03
15	Benzo(b)Fluoranthene	30.000	30.423	-1.4	95	-0.03

Continuing Calibration Summary

Job Number: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ886-CC869
Lab FileID: IJ18483.D

16	Benzo(k)Fluoranthene	30.000	30.198	-0.7	96	-0.03
17	Benzo(a) Pyrene	30.000	29.948	0.2	94	-0.03
18	Indeno(1,2,3-cd)pyrene	30.000	30.812	-2.7	95	-0.04
19	Dibenzo(a,h)anthracene	30.000	29.712	1.0	95	-0.04
20	Benzo(g,h,i) Perylene	30.000	29.377	2.1	92	-0.04

Average % D = 1.3

(#) = Out of Range SPCC's out = 0 CCC's out = 0
IJ18164.D 8100_H2.M Thu Oct 02 14:51:56 2003

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Continuing Calibration Summary

Page 1 of 2

Job Number: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ886-ECC869
Lab FileID: IJ18491.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\1001PAH\IJ18491.D\FID1B.CH Vial: 17
Signal #2 : C:\HPCHEM\1\DATA\1001PAH\IJ18491.D\FID2A.CH
Acq On : 2 Oct 2003 12:48 am Operator: SARAHM
Sample : ecc869-30 Inst : FID 1
Misc : op8665,gij886,990,,,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 Sep 17 08:24:33 2003
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	Naphthalene	30.000	30.027	-0.1	96	0.00
2	2-Methyl Naphthalene	30.000	29.998	0.0	95	0.00
3	1-Methyl Naphthalene	30.000	29.795	0.7	94	0.00
4 S	2-Fluorobiphenyl	30.000	30.014	-0.0	93	0.00
5	Acenaphthylene	30.000	29.977	0.1	95	0.00
6	Acenaphthene	30.000	29.952	0.2	95	0.00
7	Fluorene	30.000	30.124	-0.4	95	0.00
8	Phenanthrene	30.000	30.478	-1.6	94	0.01
9	Anthracene	30.000	30.426	-1.4	97	0.00
10 S	0-Terphenyl	30.000	30.254	-0.8	96	0.00
11	Fluoranthene	30.000	30.449	-1.5	96	0.00
12	Pyrene	30.000	31.120	-3.7	98	0.01
13	Benzo(a)Anthracene	30.000	29.841	0.5	92	0.01
14	Chrysene	30.000	29.567	1.4	94	0.01
15	Benzo(b)Fluoranthene	30.000	30.072	-0.2	93	0.01
16	Benzo(k)Fluoranthene	30.000	29.006	3.3	94	0.01
17	Benzo(a) Pyrene	30.000	29.405	2.0	93	0.01
18	Indeno(1,2,3-cd)pyrene	30.000	29.478	1.7	91	0.00
19	Dibenzo(a,h)anthracene	30.000	28.813	4.0	92	0.00
20	Benzo(g,h,i) Perylene	30.000	29.256	2.5	93	0.00

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Naphthalene	30.000	29.843	0.5	94	0.00
2	2-Methyl Naphthalene	30.000	30.308	-1.0	94	0.00
3	1-Methyl Naphthalene	30.000	30.064	-0.2	94	0.00
4 S	2-Fluorobiphenyl	30.000	30.241	-0.8	94	0.00
5	Acenaphthylene	30.000	30.301	-1.0	96	0.00
6	Acenaphthene	30.000	30.331	-1.1	96	0.00
7	Fluorene	30.000	30.999	-3.3	97	0.00
8	Phenanthrene	30.000	31.527	-5.1	95	0.00
9	Anthracene	30.000	30.039	-0.1	98	0.00
10 S	0-Terphenyl	30.000	30.794	-2.6	97	-0.01
11	Fluoranthene	30.000	30.879	-2.9	97	-0.02
12	Pyrene	30.000	30.990	-3.3	98	-0.02
13	Benzo(a)Anthracene	30.000	30.360	-1.2	95	-0.03
14	Chrysene	30.000	30.133	-0.4	95	-0.03
15	Benzo(b)Fluoranthene	30.000	31.757	-5.9	99	-0.03

Continuing Calibration Summary

Job Number: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ886-ECC869
Lab FileID: IJ18491.D

16	Benzo(k)Fluoranthene	30.000	29.951	0.2	95	-0.03
17	Benzo(a) Pyrene	30.000	30.041	-0.1	94	-0.03
18	Indeno(1,2,3-cd)pyrene	30.000	30.216	-0.7	93	-0.04
19	Dibenzo(a,h)anthracene	30.000	29.683	1.1	95	-0.04
20	Benzo(g,h,i) Perylene	30.000	29.580	1.4	93	-0.04

Average % D = 1.5

(#) = Out of Range SPCC's out = 0 CCC's out = 0
IJ18164.D 8100_H2.M Thu Oct 02 15:00:00 2003

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Continuing Calibration Summary

Page 1 of 2

Job Number: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ887-CC869
Lab FileID: IJ18492.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\1002PAH\IJ18492.D\FID1B.CH Vial: 1
Signal #2 : C:\HPCHEM\1\DATA\1002PAH\IJ18492.D\FID2A.CH
Acq On : 2 Oct 2003 11:01 am Operator: SARAHM
Sample : cc869-30 Inst : FID 1
Misc : op8665,gij887,1000,,,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 Sep 17 08:24:36 2003
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	Naphthalene	30.000	30.765	-2.6	98	0.00
2	2-Methyl Naphthalene	30.000	30.743	-2.5	97	0.00
3	1-Methyl Naphthalene	30.000	30.578	-1.9	97	0.00
4 S	2-Fluorobiphenyl	30.000	30.666	-2.2	95	0.00
5	Acenaphthylene	30.000	30.289	-1.0	96	0.00
6	Acenaphthene	30.000	31.033	-3.4	98	0.00
7	Fluorene	30.000	30.838	-2.8	97	0.00
8	Phenanthrene	30.000	31.154	-3.8	97	0.00
9	Anthracene	30.000	31.301	-4.3	100	0.00
10 S	0-Terphenyl	30.000	31.117	-3.7	98	0.00
11	Fluoranthene	30.000	31.194	-4.0	98	0.00
12	Pyrene	30.000	31.862	-6.2	101	0.00
13	Benzo(a)Anthracene	30.000	30.430	-1.4	94	0.00
14	Chrysene	30.000	30.542	-1.8	97	0.00
15	Benzo(b)Fluoranthene	30.000	30.616	-2.1	95	0.00
16	Benzo(k)Fluoranthene	30.000	29.743	0.9	96	0.00
17	Benzo(a) Pyrene	30.000	30.107	-0.4	95	0.00
18	Indeno(1,2,3-cd)pyrene	30.000	29.183	2.7	90	0.00
19	Dibenzo(a,h)anthracene	30.000	28.464	5.1	91	0.00
20	Benzo(g,h,i) Perylene	30.000	29.224	2.6	92	0.00

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Naphthalene	30.000	30.726	-2.4	97	0.00
2	2-Methyl Naphthalene	30.000	31.238	-4.1	97	0.00
3	1-Methyl Naphthalene	30.000	30.950	-3.2	97	0.00
4 S	2-Fluorobiphenyl	30.000	31.028	-3.4	97	0.00
5	Acenaphthylene	30.000	30.712	-2.4	97	0.00
6	Acenaphthene	30.000	31.497	-5.0	100	0.00
7	Fluorene	30.000	31.771	-5.9	99	0.00
8	Phenanthrene	30.000	32.321	-7.7	98	0.00
9	Anthracene	30.000	30.660	-2.2	100	0.00
10 S	0-Terphenyl	30.000	31.690	-5.6	100	0.00
11	Fluoranthene	30.000	31.815	-6.1	100	0.00
12	Pyrene	30.000	31.807	-6.0	101	0.00
13	Benzo(a)Anthracene	30.000	31.030	-3.4	97	0.00
14	Chrysene	30.000	30.987	-3.3	98	0.00
15	Benzo(b)Fluoranthene	30.000	30.880	-2.9	96	0.00

Continuing Calibration Summary

Job Number: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ887-CC869
Lab FileID: IJ18492.D

16	Benzo(k)Fluoranthene	30.000	30.545	-1.8	97	0.00
17	Benzo(a) Pyrene	30.000	30.588	-2.0	96	0.00
18	Indeno(1,2,3-cd)pyrene	30.000	29.932	0.2	92	0.00
19	Dibenzo(a,h)anthracene	30.000	29.730	0.9	96	0.00
20	Benzo(g,h,i) Perylene	30.000	29.233	2.6	92	0.00

Average % D = 3.2

(#) = Out of Range SPCC's out = 0 CCC's out = 0
IJ18164.D 8100_H2.M Fri Oct 03 08:24:13 2003

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Continuing Calibration Summary

Page 1 of 2

Job Number: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ887-CC869
Lab FileID: IJ18500.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\1002PAH\IJ18500.D\FID1B.CH Vial: 9
Signal #2 : C:\HPCHEM\1\DATA\1002PAH\IJ18500.D\FID2A.CH
Acq On : 2 Oct 2003 2:50 pm Operator: SARAHM
Sample : cc869-20 Inst : FID 1
Misc : op8665,gij887,1000,,,1,2,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 Sep 17 08:24:36 2003
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	Naphthalene	20.000	19.215	3.9	102	0.00
2	2-Methyl Naphthalene	20.000	18.969	5.2	100	0.00
3	1-Methyl Naphthalene	20.000	18.932	5.3	100	0.00
4 S	2-Fluorobiphenyl	20.000	18.687	6.6	99	0.00
5	Acenaphthylene	20.000	19.044	4.8	100	0.00
6	Acenaphthene	20.000	19.117	4.4	101	0.00
7	Fluorene	20.000	19.135	4.3	100	0.00
8	Phenanthrene	20.000	18.972	5.1	99	0.00
9	Anthracene	20.000	19.833	0.8	104	0.00
10 S	0-Terphenyl	20.000	19.445	2.8	102	0.00
11	Fluoranthene	20.000	19.405	3.0	102	0.00
12	Pyrene	20.000	19.632	1.8	104	0.00
13	Benzo(a)Anthracene	20.000	18.650	6.8	98	0.00
14	Chrysene	20.000	19.215	3.9	102	0.00
15	Benzo(b)Fluoranthene	20.000	18.388	8.1	96	0.00
16	Benzo(k)Fluoranthene	20.000	18.979	5.1	102	0.00
17	Benzo(a) Pyrene	20.000	18.648	6.8	99	0.00
18	Indeno(1,2,3-cd)pyrene	20.000	17.841	10.8	94	0.00
19	Dibenzo(a,h)anthracene	20.000	18.453	7.7	98	0.00
20	Benzo(g,h,i) Perylene	20.000	18.466	7.7	98	0.00

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Naphthalene	20.000	18.872	5.6	100	0.00
2	2-Methyl Naphthalene	20.000	18.789	6.1	100	0.00
3	1-Methyl Naphthalene	20.000	19.212	3.9	101	0.00
4 S	2-Fluorobiphenyl	20.000	19.407	3.0	103	0.00
5	Acenaphthylene	20.000	19.058	4.7	101	0.00
6	Acenaphthene	20.000	19.130	4.4	101	0.00
7	Fluorene	20.000	19.448	2.8	101	0.00
8	Phenanthrene	20.000	19.137	4.3	100	0.00
9	Anthracene	20.000	20.534	-2.7	111	0.00
10 S	0-Terphenyl	20.000	19.573	2.1	103	0.00
11	Fluoranthene	20.000	19.636	1.8	104	0.00
12	Pyrene	20.000	19.619	1.9	103	0.00
13	Benzo(a)Anthracene	20.000	19.096	4.5	101	0.00
14	Chrysene	20.000	18.981	5.1	100	0.00
15	Benzo(b)Fluoranthene	20.000	18.928	5.4	100	-0.01

Continuing Calibration Summary

Job Number: F19728
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ887-CC869
Lab FileID: IJ18500.D

16	Benzo(k)Fluoranthene	20.000	19.070	4.6	101	-0.02
17	Benzo(a) Pyrene	20.000	19.047	4.8	101	-0.01
18	Indeno(1,2,3-cd)pyrene	20.000	18.219	8.9	96	-0.02
19	Dibenzo(a,h)anthracene	20.000	19.051	4.7	100	-0.02
20	Benzo(g,h,i) Perylene	20.000	18.323	8.4	97	-0.03

Average % D = 4.9

(#) = Out of Range SPCC's out = 0 CCC's out = 0
IJ18163.D 8100_H2.M Fri Oct 03 08:24:38 2003

5.7
5



01/16/06

Technical Report for

EEI

Camp Lejeune-LCH 4015

844271

Accutest Job Number: F19911

Sampling Date: 10/03/03

Report to:

EEI

bmorris@eeimail.com

ATTN: Bill Morris

Total number of pages in report: **23**



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: F19911

Camp Lejeune-LCH 4015
Project No: 844271

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
F19911-1	10/03/03	09:00 MS	10/04/03	AQ	Ground Water	USTLCH4015-MW05

Report of Analysis

Page 1 of 1

Client Sample ID:	USTLCH4015-MW05	Date Sampled:	10/03/03
Lab Sample ID:	F19911-1	Date Received:	10/04/03
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ18582.D	1	10/13/03	SD	10/08/03	OP8745	GIJ894
Run #2							

	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	77%		41-139%
84-15-1	o-Terphenyl	84%		46-135%

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

COC Number:
844271-4015-100303

CHAIN-OF-CUSTODY RECORD

F19911

Engineering & Environment Inc.- Piney Green Rd. Lot 203 - 910-451-2390										Receiving LAB: ACCUTEST									
Project Name				Project Location						Analysis Desired									
CAMP LEJEUNE - LCH 4015				CAMP LEJEUNE, NC															
Project Number		Contact		P.O. Number		Reviewed by													
844271		Bill Morris																	
Client Rep				Project Manager															
US NAVY - LANTDIV				Mike Slade															
Item No.	Sample Number	Date	Time	Comp	Grab	Sample Description		Number of Containers	VOC 602	PAH 810									
1	USTLCH4015-MW05	10/3/03	9:00		X	USTLCH4015-MW05		2	X										
2						RESAMPLE													
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			

Transfer Number	Item Number	Transfers Relinquished By	Transfers Accepted By	Date	Time	Remarks
1	1		FedEx 8369 1400 3117	10/3/03	16:00	21 Day TAT
2		FedEx	Muna Mohammed	10/4/03	0930	
3						

3.4

ACCUTEST LABORATORIES SOUTHEAST SAMPLE RECEIPT CONFIRMATION

Accutest's Job Number:

F19911

Client: Shaw

Project: Camp Lejeune - LCH 4015

Date Received: 10/4/03

Time Received: 0930

of Coolers Received: 1

Cooler Temperatures: 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

☒ N/A

Trip Blank Matrix ?

Soil Water

☒ N/A

Number of Encores ?

0

Number of Soil Field Kits ?

0

Summary of Comments:

Signature: Munam Mohammed

Date: 10/4/03

ASBD/HW 05/11/03

F19911: Chain of Custody

Page 2 of 2

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: F19911
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP8745-MB	IJ18575.D	1	10/13/03	SD	10/08/03	OP8745	GIJ894

The QC reported here applies to the following samples:

Method: EPA 610

F19911-1

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% 41-139%
84-15-1	o-Terphenyl	89% 46-135%

Method Blank Summary

Page 1 of 1

Job Number: F19911
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP8745-MB	IJ18594.D	1	10/14/03	NJ	10/08/03	OP8745	GIJ895

The QC reported here applies to the following samples:

Method: EPA 610

F19911-1

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	82% 41-139%
84-15-1	o-Terphenyl	89% 46-135%

Blank Spike Summary

Page 1 of 1

Job Number: F19911
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP8745-BS	IJ18574.D	1	10/13/03	SD	10/08/03	OP8745	GIJ894

The QC reported here applies to the following samples:

Method: EPA 610

F19911-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	25	22.9	92	59-114
208-96-8	Acenaphthylene	25	20.8	83	58-109
120-12-7	Anthracene	25	21.6	86	63-110
56-55-3	Benzo(a)anthracene	25	22.6	90	74-111
50-32-8	Benzo(a)pyrene	25	22.1	88	71-110
205-99-2	Benzo(b)fluoranthene	25	23.0	92	75-112
191-24-2	Benzo(g,h,i)perylene	25	21.6	86	66-114
207-08-9	Benzo(k)fluoranthene	25	21.5	86	73-111
218-01-9	Chrysene	25	22.2	89	73-112
53-70-3	Dibenzo(a,h)anthracene	25	21.7	87	67-111
206-44-0	Fluoranthene	25	22.5	90	74-113
86-73-7	Fluorene	25	22.3	89	67-113
193-39-5	Indeno(1,2,3-cd)pyrene	25	21.6	86	68-115
91-20-3	Naphthalene	25	21.4	86	52-113
90-12-0	1-Methylnaphthalene	25	23.9	96	55-117
91-57-6	2-Methylnaphthalene	25	21.6	86	50-115
85-01-8	Phenanthrene	25	22.5	90	70-111
129-00-0	Pyrene	25	22.6	90	73-115

CAS No.	Surrogate Recoveries	BSP	Limits
321-60-8	2-Fluorobiphenyl	87%	41-139%
84-15-1	o-Terphenyl	86%	46-135%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: F19911
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP8745-MS	IJ18580.D	1	10/13/03	SD	10/08/03	OP8745	GIJ894
OP8745-MSD	IJ18581.D	1	10/13/03	SD	10/08/03	OP8745	GIJ894
F19930-4	IJ18579.D	1	10/13/03	SD	10/08/03	OP8745	GIJ894

The QC reported here applies to the following samples:

Method: EPA 610

F19911-1

CAS No.	Compound	F19930-4 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		51	47.5	93	48.8	96	3	36-143/21
208-96-8	Acenaphthylene	ND		51	43.2	85	44.4	87	3	59-108/22
120-12-7	Anthracene	ND		51	44.3	87	46.0	90	4	61-113/22
56-55-3	Benzo(a)anthracene	ND		51	45.9	90	47.5	93	3	69-111/17
50-32-8	Benzo(a)pyrene	ND		51	45.5	89	47.1	92	3	71-109/22
205-99-2	Benzo(b)fluoranthene	ND		51	46.8	92	48.1	94	3	63-116/19
191-24-2	Benzo(g,h,i)perylene	ND		51	45.4	89	46.6	91	3	54-123/19
207-08-9	Benzo(k)fluoranthene	ND		51	44.8	88	46.6	91	4	66-114/16
218-01-9	Chrysene	ND		51	45.7	90	47.4	93	4	65-116/15
53-70-3	Dibenzo(a,h)anthracene	ND		51	46.7	92	47.9	94	3	52-130/24
206-44-0	Fluoranthene	ND		51	46.3	91	47.8	94	3	73-113/16
86-73-7	Fluorene	ND		51	46.1	90	47.6	93	3	63-114/20
193-39-5	Indeno(1,2,3-cd)pyrene	ND		51	45.8	90	47.3	93	3	43-133/24
91-20-3	Naphthalene	ND		51	43.9	86	44.9	88	2	40-130/27
90-12-0	1-Methylnaphthalene	ND		51	49.7	97	51.4	101	3	50-128/25
91-57-6	2-Methylnaphthalene	ND		51	44.9	88	46.2	91	3	32-148/26
85-01-8	Phenanthrene	ND		51	46.1	90	47.8	94	4	44-136/19
129-00-0	Pyrene	ND		51	46.4	91	47.9	94	3	71-116/16

CAS No.	Surrogate Recoveries	MS	MSD	F19930-4	Limits
321-60-8	2-Fluorobiphenyl	87%	90%	76%	41-139%
84-15-1	o-Terphenyl	84%	88%	83%	46-135%

Semivolatile Surrogate Recovery Summary

Job Number: F19911
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

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
F19911-1	IJ18582.D	77.0	84.0
OP8745-BS	IJ18574.D	87.0	86.0
OP8745-MB	IJ18575.D	91.0	89.0
OP8745-MB	IJ18594.D	82.0	89.0
OP8745-MS	IJ18580.D	87.0	84.0
OP8745-MSD	IJ18581.D	90.0	88.0

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorobiphenyl	41-139%
S2 = o-Terphenyl	46-135%

(a) Recovery from GC signal #1

GC Surrogate Retention Time Summary

Job Number: F19911
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GUJ894-ICC894	Injection Date:	10/13/03
Lab File ID:	IJ18569.D	Injection Time:	13:37
Instrument ID:	GCIJ	Method:	EPA 610

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	5.82	6.49	10.35	11.61

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
OP8745-BS	IJ18574.D	10/13/03	16:03	5.82		10.36	
OP8745-MB	IJ18575.D	10/13/03	16:32	5.82		10.36	
ZZZZZZ	IJ18578.D	10/13/03	17:59		6.50		11.60
F19930-4	IJ18579.D	10/13/03	18:28	5.82		10.36	
OP8745-MS	IJ18580.D	10/13/03	18:56	5.82		10.36	
OP8745-MSD	IJ18581.D	10/13/03	19:25	5.82		10.36	
F19911-1	IJ18582.D	10/13/03	19:54	5.82		10.36	

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

Job Number: F19911
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GIJ895-CC894	Injection Date:	10/14/03
Lab File ID:	IJ18593.D	Injection Time:	08:21
Instrument ID:	GCIJ	Method:	EPA 610

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	5.81	6.49	10.35	11.60

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
OP8745-MB	IJ18594.D	10/14/03	08:52	5.81		10.35	
ZZZZZZ	IJ18595.D	10/14/03	09:37	0.00		0.00	
ZZZZZZ	IJ18596.D	10/14/03	10:05	0.00		0.00	
ZZZZZZ	IJ18597.D	10/14/03	10:34		6.49		11.60
ZZZZZZ	IJ18599.D	10/14/03	11:31	5.81		10.35	
ZZZZZZ	IJ18600.D	10/14/03	12:20	5.81		10.35	
GIJ895-ECC894	IJ18601.D	10/14/03	12:49	5.82	6.49	10.36	11.60

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: F19911
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ894-ICC894
Lab FileID: IJ18569.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 : Mon Oct 13 16:34:59 2003
Response via : Initial Calibration

Calibration Files

5 =IJ18567.D 10 =IJ18568.D 20 =IJ18569.D
30 =IJ18570.D 40 =IJ18571.D 50 =IJ18572.D

	Compound	5	10	20	30	40	50	Avg	%RSD
1)	Naphthalene	3.279	3.063	2.977	2.878	2.852	2.858	2.985	E4 5.57
2)	2-Methyl Naphthalen	3.092	2.924	2.881	2.791	2.780	2.797	2.878	E4 4.15
3)	1-Methyl Naphthalen	2.917	2.750	2.718	2.632	2.618	2.633	2.711	E4 4.21
4) S	2-Fluorobiphenyl	2.701	2.491	2.535	2.470	2.467	2.483	2.524	E4 3.56
5)	Acenaphthylene	3.191	3.016	2.975	2.878	2.845	2.846	2.959	E4 4.53
6)	Acenaphthene	3.277	3.085	3.039	2.943	2.908	2.913	3.027	E4 4.68
7)	Fluorene	3.065	3.017	2.987	2.889	2.864	2.870	2.949	E4 2.91
8)	Phenanthrene	2.941	2.910	2.927	2.845	2.818	2.831	2.879	E4 1.86
9)	Anthracene	3.547	3.206	3.086	2.943	2.845	2.851	3.080	E4 8.72
10) S	0-Terphenyl	3.463	3.228	3.138	3.021	2.970	2.975	3.133	E4 6.08
11)	Fluoranthene	3.286	3.092	3.043	2.928	2.900	2.905	3.026	E4 4.95
12)	Pyrene	3.379	3.154	3.132	2.918	2.892	2.901	3.063	E4 6.35
13)	Benzo(a)Anthracene	2.978	2.926	2.957	2.911	2.916	2.923	2.935	E4 0.90
14)	Chrysene	3.588	3.223	3.070	2.882	2.824	2.812	3.066	E4 9.83
15)	Benzo(b)Fluoranthen	2.925	2.944	3.019	3.012	2.986	3.057	2.991	E4 1.66
16)	Benzo(k)Fluoranthen	3.720	3.259	3.095	2.900	2.864	3.057	3.149	E4 9.97
17)	Benzo(a) Pyrene	3.245	3.016	2.961	2.854	2.810	2.838	2.954	E4 5.52
18)	Indeno(1,2,3-cd)pyr	2.835	2.805	2.879	2.832	2.832	2.852	2.839	E4 0.86
19)	Dibenzo(a,h)anthrac	3.455	3.175	3.051	2.907	2.881	2.882	3.059	E4 7.41
20)	Benzo(g,h,i) Peryle	3.671	3.311	3.203	2.996	2.945	3.000	3.188	E4 8.65

Signal #2 Calibration Files

5 =IJ18567.D 10 =IJ18568.D 20 =IJ18569.D
30 =IJ18570.D 40 =IJ18571.D 50 =IJ18572.D

	Compound	5	10	20	30	40	50	Avg	%RSD
1)	Naphthalene	4.380	4.077	4.006	3.858	3.826	3.836	3.997	E4 5.34
2)	2-Methyl Naphthalen	3.956	3.822	3.849	3.749	3.728	3.742	3.808	E4 2.29
3)	1-Methyl Naphthalen	3.853	3.623	3.625	3.526	3.501	3.526	3.609	E4 3.62
4) S	2-Fluorobiphenyl	3.615	3.492	3.420	3.347	3.358	3.374	3.434	E4 3.00
5)	Acenaphthylene	4.299	4.066	4.019	3.884	3.856	3.861	3.998	E4 4.30
6)	Acenaphthene	4.469	4.157	4.110	3.971	3.946	3.950	4.100	E4 4.91
7)	Fluorene	4.156	4.066	4.032	3.908	3.879	3.886	3.988	E4 2.86
8)	Phenanthrene	3.618	3.740	3.838	3.756	3.812	3.865	3.772	E4 2.36
9)	Anthracene		4.448	4.049	3.879	3.887	3.856	4.024	E4 6.20
10) S	0-Terphenyl	4.681	4.374	4.275	4.124	4.072	4.068	4.266	E4 5.56
11)	Fluoranthene	4.379	4.145	4.090	3.954	3.928	3.934	4.072	E4 4.30
12)	Pyrene	4.618	4.319	4.248	4.102	4.058	4.060	4.234	E4 5.11
13)	Benzo(a)Anthracene	4.387	4.136	4.070	3.951	3.935	3.941	4.070	E4 4.31
14)	Chrysene	4.544	4.213	4.076	3.874	3.837	3.845	4.065	E4 6.86
15)	Benzo(b)Fluoranthen	4.282	4.039	4.052	3.997	3.982	4.076	4.072	E4 2.67
16)	Benzo(k)Fluoranthen	4.753	4.192	4.110	3.934	3.884	3.838	4.119	E4 8.23
17)	Benzo(a) Pyrene	4.418	4.101	4.037	3.873	3.840	3.838	4.018	E4 5.59
18)	Indeno(1,2,3-cd)pyr	3.984	3.929	4.068	4.054	4.099	4.250	4.064	E4 2.70
19)	Dibenzo(a,h)anthrac	4.754	4.298	4.105	3.862	3.746		4.153	E4 9.60
20)	Benzo(g,h,i) Peryle	4.446	4.136	4.100	3.973	3.935	3.953	4.091	E4 4.70

Initial Calibration Summary

Job Number: F19911
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ894-ICC894
Lab FileID: IJ18569.D

Average % RSD = 4.9

(#) = Out of Range

8100_H2.M

Wed Oct 15 08:45:30 2003

4.6
4

Continuing Calibration Summary

Page 1 of 2

Job Number: F19911
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ894-CC894
Lab FileID: IJ18583.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\1013APAH\IJ18583.D\FID1B.CH Vial: 19
Signal #2 : C:\HPCHEM\1\DATA\1013APAH\IJ18583.D\FID2A.CH
Acq On : 13 Oct 2003 8:22 pm Operator: SARAHM
Sample : cc894-20 Inst : FID 1
Misc : op8745,gij894,980,,,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 Oct 13 16:34:59 2003
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	Naphthalene	20.000	20.293	-1.5	102	0.00
2	2-Methyl Naphthalene	20.000	20.288	-1.4	101	0.00
3	1-Methyl Naphthalene	20.000	20.331	-1.7	101	0.00
4 S	2-Fluorobiphenyl	20.000	20.386	-1.9	102	0.00
5	Acenaphthylene	20.000	20.508	-2.5	102	0.00
6	Acenaphthene	20.000	20.380	-1.9	102	0.00
7	Fluorene	20.000	20.724	-3.6	102	0.00
8	Phenanthrene	20.000	20.655	-3.3	102	0.00
9	Anthracene	20.000	20.333	-1.7	101	0.00
10 S	0-Terphenyl	20.000	20.350	-1.8	102	0.00
11	Fluoranthene	20.000	20.440	-2.2	102	0.00
12	Pyrene	20.000	20.763	-3.8	102	0.00
13	Benzo(a)Anthracene	20.000	20.504	-2.5	102	0.00
14	Chrysene	20.000	20.283	-1.4	101	0.00
15	Benzo(b)Fluoranthene	20.000	20.639	-3.2	102	0.00
16	Benzo(k)Fluoranthene	20.000	19.781	1.1	101	0.01
17	Benzo(a) Pyrene	20.000	20.370	-1.9	102	0.00
18	Indeno(1,2,3-cd)pyrene	20.000	20.610	-3.0	102	0.00
19	Dibenzo(a,h)anthracene	20.000	20.470	-2.3	103	0.00
20	Benzo(g,h,i) Perylene	20.000	20.200	-1.0	101	0.00

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Naphthalene	20.000	20.525	-2.6	102	0.00
2	2-Methyl Naphthalene	20.000	20.777	-3.9	103	0.00
3	1-Methyl Naphthalene	20.000	20.596	-3.0	103	0.00
4 S	2-Fluorobiphenyl	20.000	20.348	-1.7	102	0.00
5	Acenaphthylene	20.000	20.562	-2.8	102	0.00
6	Acenaphthene	20.000	20.378	-1.9	102	-0.01
7	Fluorene	20.000	20.620	-3.1	102	-0.01
8	Phenanthrene	20.000	21.012	-5.1	103	-0.01
9	Anthracene	20.000	20.214	-1.1	100	-0.02
10 S	0-Terphenyl	20.000	20.382	-1.9	102	-0.01
11	Fluoranthene	20.000	20.426	-2.1	102	-0.02
12	Pyrene	20.000	20.403	-2.0	102	-0.02
13	Benzo(a)Anthracene	20.000	20.322	-1.6	102	-0.02
14	Chrysene	20.000	20.439	-2.2	102	-0.02
15	Benzo(b)Fluoranthene	20.000	20.593	-3.0	103	0.02

Continuing Calibration Summary

Job Number: F19911
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ894-CC894
Lab FileID: IJ18583.D

16	Benzo(k)Fluoranthene	20.000	20.357	-1.8	102	-0.03
17	Benzo(a) Pyrene	20.000	20.457	-2.3	102	-0.03
18	Indeno(1,2,3-cd)pyrene	20.000	20.395	-2.0	102	0.02
19	Dibenzo(a,h)anthracene	20.000	19.957	0.2	101	-0.04
20	Benzo(g,h,i) Perylene	20.000	20.276	-1.4	101	-0.05

Average % D = 2.2

(#) = Out of Range SPCC's out = 0 CCC's out = 0
IJ18569.D 8100_H2.M Wed Oct 15 08:46:03 2003

4.6
4

Continuing Calibration Summary

Page 1 of 2

Job Number: F19911
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ895-CC894
Lab FileID: IJ18593.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\1014PAH\IJ18593.D\FID1B.CH Vial: 1
Signal #2 : C:\HPCHEM\1\DATA\1014PAH\IJ18593.D\FID2A.CH
Acq On : 14 Oct 2003 8:21 am Operator: nareshj
Sample : cc894-20 Inst : FID 1
Misc : op8745,gij895,1000,,,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 Oct 13 15:28:48 2003
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	Naphthalene	20.000	20.252	-1.3	102	0.00
2	2-Methyl Naphthalene	20.000	20.253	-1.3	101	0.00
3	1-Methyl Naphthalene	20.000	20.254	-1.3	101	0.00
4 S	2-Fluorobiphenyl	20.000	20.223	-1.1	101	0.00
5	Acenaphthylene	20.000	20.371	-1.9	101	0.00
6	Acenaphthene	20.000	20.223	-1.1	101	0.00
7	Fluorene	20.000	20.591	-3.0	102	0.00
8	Phenanthrene	20.000	20.605	-3.0	101	0.00
9	Anthracene	20.000	20.265	-1.3	101	0.00
10 S	0-Terphenyl	20.000	20.261	-1.3	101	0.00
11	Fluoranthene	20.000	20.362	-1.8	101	0.00
12	Pyrene	20.000	19.982	0.1	98	-0.01
13	Benzo(a)Anthracene	20.000	20.356	-1.8	101	0.00
14	Chrysene	20.000	20.215	-1.1	101	0.00
15	Benzo(b)Fluoranthene	20.000	20.467	-2.3	101	0.00
16	Benzo(k)Fluoranthene	20.000	19.807	1.0	101	0.00
17	Benzo(a) Pyrene	20.000	20.315	-1.6	101	-0.01
18	Indeno(1,2,3-cd)pyrene	20.000	20.610	-3.0	102	0.00
19	Dibenzo(a,h)anthracene	20.000	20.393	-2.0	102	0.00
20	Benzo(g,h,i) Perylene	20.000	20.026	-0.1	100	-0.01

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Naphthalene	20.000	20.788	-3.9	104	0.00
2	2-Methyl Naphthalene	20.000	20.927	-4.6	104	0.00
3	1-Methyl Naphthalene	20.000	20.762	-3.8	103	0.00
4 S	2-Fluorobiphenyl	20.000	20.530	-2.7	103	0.00
5	Acenaphthylene	20.000	20.790	-3.9	103	0.00
6	Acenaphthene	20.000	20.565	-2.8	103	0.00
7	Fluorene	20.000	20.887	-4.4	103	0.00
8	Phenanthrene	20.000	21.080	-5.4	104	0.00
9	Anthracene	20.000	20.759	-3.8	103	0.00
10 S	0-Terphenyl	20.000	20.637	-3.2	103	0.00
11	Fluoranthene	20.000	20.733	-3.7	103	0.00
12	Pyrene	20.000	20.717	-3.6	103	0.00
13	Benzo(a)Anthracene	20.000	20.630	-3.1	103	-0.01
14	Chrysene	20.000	20.825	-4.1	104	-0.01
15	Benzo(b)Fluoranthene	20.000	20.729	-3.6	104	-0.01

Continuing Calibration Summary

Job Number: F19911
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ895-CC894
Lab FileID: IJ18593.D

16	Benzo(k)Fluoranthene	20.000	20.600	-3.0	103	-0.02
17	Benzo(a) Pyrene	20.000	20.728	-3.6	103	-0.02
18	Indeno(1,2,3-cd)pyrene	20.000	20.731	-3.7	104	-0.02
19	Dibenzo(a,h)anthracene	20.000	20.215	-1.1	102	-0.02
20	Benzo(g,h,i) Perylene	20.000	20.604	-3.0	103	-0.02

Average % D = 2.6

(#) = Out of Range SPCC's out = 0 CCC's out = 0
IJ18569.D 8100_H2.M Tue Oct 14 13:30:53 2003

4.6
4

Continuing Calibration Summary

Page 1 of 2

Job Number: F19911
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ895-ECC894
Lab FileID: IJ18601.D

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\1014PAH\IJ18601.D\FID1B.CH Vial: 9
Acq On : 14 Oct 2003 12:49 pm Operator: nareshj
Sample : ecc894-30 Inst : FID 1
Misc : op8745,gij895,1000,,,1,4,water Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\1014PAH\IJ18601.D\FID2A.CH Vial: 9
Acq On : 14 Oct 2003 12:49 pm Operator: nareshj
Sample : cc894-30 Inst : FID 1
Misc : op8745,gij895,1000,,,1,4,water Multiplr: 1.00
IntFile : events2.e

Method : C:\HPCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
Title : PAH's BY EPA 610 OR 8100
Last Update : Mon Oct 13 15:28:48 2003
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	Naphthalene	30.000	29.801	0.7	103	0.00
2	2-Methyl Naphthalene	30.000	29.973	0.1	103	0.00
3	1-Methyl Naphthalene	30.000	30.001	-0.0	103	0.00
4 S	2-Fluorobiphenyl	30.000	30.374	-1.2	103	0.00
5	Acenaphthylene	30.000	30.235	-0.8	104	0.00
6	Acenaphthene	30.000	30.045	-0.2	103	0.00
7	Fluorene	30.000	30.442	-1.5	104	0.00
8	Phenanthrene	30.000	30.453	-1.5	103	0.00
9	Anthracene	30.000	28.841	3.9	101	0.00
10 S	0-Terphenyl	30.000	29.840	0.5	103	0.00
11	Fluoranthene	30.000	30.026	-0.1	103	0.00
12	Pyrene	30.000	29.500	1.7	103	0.00
13	Benzo(a)Anthracene	30.000	30.338	-1.1	102	0.00
14	Chrysene	30.000	29.536	1.5	105	0.00
15	Benzo(b)Fluoranthene	30.000	30.683	-2.3	102	0.00
16	Benzo(k)Fluoranthene	30.000	28.677	4.4	104	0.02
17	Benzo(a) Pyrene	30.000	29.818	0.6	103	0.00
18	Indeno(1,2,3-cd)pyrene	30.000	30.750	-2.5	103	0.00
19	Dibenzo(a,h)anthracene	30.000	29.771	0.8	104	0.00
20	Benzo(g,h,i) Perylene	30.000	29.352	2.2	104	0.00

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Naphthalene	30.000	30.308	-1.0	105	0.00
2	2-Methyl Naphthalene	30.000	30.971	-3.2	105	0.00
3	1-Methyl Naphthalene	30.000	30.723	-2.4	105	0.00
4 S	2-Fluorobiphenyl	30.000	30.646	-2.2	105	0.00
5	Acenaphthylene	30.000	30.588	-2.0	105	0.00
6	Acenaphthene	30.000	30.254	-0.8	104	0.00
7	Fluorene	30.000	30.672	-2.2	104	0.00
8	Phenanthrene	30.000	31.599	-5.3	106	0.00
9	Anthracene	30.000	30.038	-0.1	104	0.00
10 S	0-Terphenyl	30.000	30.156	-0.5	104	0.00

Continuing Calibration Summary

Job Number: F19911
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ895-ECC894
Lab FileID: IJ18601.D

11	Fluoranthene	30.000	30.468	-1.6	105	-0.01
12	Pyrene	30.000	29.890	0.4	103	-0.01
13	Benzo(a)Anthracene	30.000	30.299	-1.0	104	-0.01
14	Chrysene	30.000	30.412	-1.4	106	-0.02
15	Benzo(b)Fluoranthene	30.000	30.771	-2.6	104	-0.02
16	Benzo(k)Fluoranthene	30.000	29.939	0.2	104	-0.02
17	Benzo(a) Pyrene	30.000	30.284	-0.9	105	-0.02
18	Indeno(1,2,3-cd)pyrene	30.000	31.246	-4.2	104	-0.02
19	Dibenzo(a,h)anthracene	30.000	28.312	5.6	101	-0.02
20	Benzo(g,h,i) Perylene	30.000	30.138	-0.5	103	-0.03

Average % D = 1.6

(#) = Out of Range SPCC's out = 0 CCC's out = 0
IJ18570.D 8100_H2.M Tue Oct 14 14:15:05 2003

4.6
4

November 2003 Groundwater Laboratory Report



01/16/06

Technical Report for

EEI

Camp Lejeune-LCH 4015

844271 LD03-004

Accutest Job Number: F20747

Sampling Dates: 11/18/03 - 11/19/03

Report to:

EEI

bmorris@eeimail.com

ATTN: Bill Morris

Total number of pages in report: **89**



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: F20747

Camp Lejeune-LCH 4015
Project No: 844271 LD03-004

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
F20747-1	11/19/03	12:00 MM	11/20/03	AQ	Ground Water	USTLCH4015-MW18
F20747-2	11/19/03	10:45 MM	11/20/03	AQ	Ground Water	USTLCH4015-MW11
F20747-3	11/19/03	09:30 MM	11/20/03	AQ	Ground Water	USTLCH4015-MW12
F20747-4	11/19/03	10:05 MM	11/20/03	AQ	Ground Water	USTLCH4015-MW06
F20747-5	11/18/03	16:00 MM	11/20/03	AQ	Ground Water	USTLCH4015-MW07
F20747-6	11/19/03	09:00 MM	11/20/03	AQ	Ground Water	USTLCH4015-MW14
F20747-7	11/18/03	16:55 MM	11/20/03	AQ	Ground Water	USTLCH4015-MW15
F20747-8	11/18/03	14:40 MM	11/20/03	AQ	Ground Water	USTLCH4015-MW16
F20747-9	11/18/03	13:30 MM	11/20/03	AQ	Ground Water	USTLCH4015-MW10
F20747-10	11/18/03	11:50 MM	11/20/03	AQ	Ground Water	USTLCH4015-MW08
F20747-11	11/18/03	11:15 MM	11/20/03	AQ	Ground Water	USTLCH4015-MW09
F20747-12	11/18/03	10:00 MM	11/20/03	AQ	Ground Water	USTLCH4015-MW03
F20747-13	11/18/03	14:25 MM	11/20/03	AQ	Ground Water	USTLCH4015-MW05



Sample Summary
(continued)

EEI

Job No: F20747

Camp Lejeune-LCH 4015
Project No: 844271 LD03-004

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
F20747-14	11/18/03	16:45 MM	11/20/03	AQ	Ground Water	USTLCH4015-MW02
F20747-15	11/19/03	10:15 MM	11/20/03	AQ	Ground Water	USTLCH4015-MW01
F20747-16	11/19/03	10:50 MM	11/20/03	AQ	Ground Water	USTLCH4015-MW19
F20747-17	11/19/03	00:00 MM	11/20/03	AQ	Trip Blank Water	TRIP BLANK
F20747-18	11/19/03	10:00 MM	11/20/03	AQ	Ground Water	USTLCH4015-MW03D18

Report of Analysis

Page 1 of 1

Client Sample ID:	USTLCH4015-MW18	Date Sampled:	11/19/03
Lab Sample ID:	F20747-1	Date Received:	11/20/03
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EF032615.D	1	11/25/03	CV	n/a	n/a	GEF1193
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	0.86	1.0	0.50	ug/l	J
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	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	88%		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

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Client Sample ID:	USTLCH4015-MW18	Date Sampled:	11/19/03
Lab Sample ID:	F20747-1	Date Received:	11/20/03
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ18863.D	1	11/26/03	SD	11/25/03	OP9170	GIJ913
Run #2							

	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	75%		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

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Client Sample ID:	USTLCH4015-MW11	Date Sampled:	11/19/03
Lab Sample ID:	F20747-2	Date Received:	11/20/03
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EF032616.D	1	11/25/03	CV	n/a	n/a	GEF1193
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	1.7	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	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	93%		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

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Client Sample ID:	USTLCH4015-MW12	Date Sampled:	11/19/03
Lab Sample ID:	F20747-3	Date Received:	11/20/03
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF032593.D	1	11/24/03	CV	n/a	n/a	GEF1192
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	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

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Client Sample ID:	USTLCH4015-MW12	Date Sampled:	11/19/03
Lab Sample ID:	F20747-3	Date Received:	11/20/03
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ18864.D	1	11/26/03	SD	11/25/03	OP9170	GIJ913
Run #2							

	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	87%		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

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Client Sample ID:	USTLCH4015-MW06	Date Sampled:	11/19/03
Lab Sample ID:	F20747-4	Date Received:	11/20/03
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF032594.D	1	11/24/03	CV	n/a	n/a	GEF1192
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	86%		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

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Client Sample ID:	USTLCH4015-MW06	Date Sampled:	11/19/03
Lab Sample ID:	F20747-4	Date Received:	11/20/03
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ18865.D	1	11/26/03	SD	11/25/03	OP9170	GIJ913
Run #2							

	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	52%		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

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Client Sample ID:	USTLCH4015-MW07	Date Sampled:	11/18/03
Lab Sample ID:	F20747-5	Date Received:	11/20/03
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF032595.D	1	11/25/03	CV	n/a	n/a	GEF1192
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	86%		70-123%
98-08-8	aaa-Trifluorotoluene	89%		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:	USTLCH4015-MW07	Date Sampled:	11/18/03
Lab Sample ID:	F20747-5	Date Received:	11/20/03
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ18866.D	1	11/26/03	SD	11/25/03	OP9170	GIJ913
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	68%		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

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Client Sample ID:	USTLCH4015-MW14	Date Sampled:	11/19/03
Lab Sample ID:	F20747-6	Date Received:	11/20/03
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF032596.D	1	11/25/03	CV	n/a	n/a	GEF1192
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	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

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Client Sample ID:	USTLCH4015-MW14	Date Sampled:	11/19/03
Lab Sample ID:	F20747-6	Date Received:	11/20/03
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ18867.D	1	11/26/03	SD	11/25/03	OP9170	GIJ913
Run #2							

	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	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

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Client Sample ID:	USTLCH4015-MW15	Date Sampled:	11/18/03
Lab Sample ID:	F20747-7	Date Received:	11/20/03
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF032597.D	1	11/25/03	CV	n/a	n/a	GEF1192
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	85%		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

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Client Sample ID:	USTLCH4015-MW15	Date Sampled:	11/18/03
Lab Sample ID:	F20747-7	Date Received:	11/20/03
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ18868.D	1	11/26/03	SD	11/25/03	OP9170	GIJ913
Run #2							

	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	60%		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

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Client Sample ID:	USTLCH4015-MW16	Date Sampled:	11/18/03
Lab Sample ID:	F20747-8	Date Received:	11/20/03
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EF032598.D	1	11/25/03	CV	n/a	n/a	GEF1192
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	2.6	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	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	85%		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

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Client Sample ID:	USTLCH4015-MW16	Date Sampled:	11/18/03
Lab Sample ID:	F20747-8	Date Received:	11/20/03
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ18869.D	1	11/26/03	SD	11/25/03	OP9170	GIJ913
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	70%		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

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Client Sample ID:	USTLCH4015-MW10	Date Sampled:	11/18/03
Lab Sample ID:	F20747-9	Date Received:	11/20/03
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EF032599.D	1	11/25/03	CV	n/a	n/a	GEF1192
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	5.6	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	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	87%		70-123%
98-08-8	aaa-Trifluorotoluene	91%		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:	USTLCH4015-MW10	Date Sampled:	11/18/03
Lab Sample ID:	F20747-9	Date Received:	11/20/03
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ18870.D	1	11/26/03	SD	11/25/03	OP9170	GIJ913
Run #2							

	Initial Volume	Final Volume
Run #1	890 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.6	2.2	ug/l	
208-96-8	Acenaphthylene	ND	5.6	2.2	ug/l	
120-12-7	Anthracene	ND	5.6	2.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.6	2.2	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.6	2.2	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.6	2.2	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.6	2.2	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.6	2.2	ug/l	
218-01-9	Chrysene	ND	5.6	2.2	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.6	2.2	ug/l	
206-44-0	Fluoranthene	ND	5.6	2.2	ug/l	
86-73-7	Fluorene	ND	5.6	2.2	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.6	2.2	ug/l	
91-20-3	Naphthalene	ND	5.6	2.2	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.6	2.2	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.6	2.2	ug/l	
85-01-8	Phenanthrene	ND	5.6	2.2	ug/l	
129-00-0	Pyrene	ND	5.6	2.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	80%		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

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Client Sample ID:	USTLCH4015-MW08	Date Sampled:	11/18/03
Lab Sample ID:	F20747-10	Date Received:	11/20/03
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF032600.D	1	11/25/03	CV	n/a	n/a	GEF1192
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	88%		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

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Client Sample ID:	USTLCH4015-MW08	Date Sampled:	11/18/03
Lab Sample ID:	F20747-10	Date Received:	11/20/03
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	IJ18872.D	1	11/26/03	SD	11/25/03	OP9170	GIJ913
Run #2							

	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	2.3	5.1	2.0	ug/l	J
90-12-0	1-Methylnaphthalene	2.9	5.1	2.0	ug/l	J
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	88%		42-123%
84-15-1	o-Terphenyl	93%		51-123%

(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:	USTLCH4015-MW09	Date Sampled:	11/18/03
Lab Sample ID:	F20747-11	Date Received:	11/20/03
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EF032601.D	1	11/25/03	CV	n/a	n/a	GEF1192
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	7.5	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	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	88%		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

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Client Sample ID:	USTLCH4015-MW09	Date Sampled:	11/18/03
Lab Sample ID:	F20747-11	Date Received:	11/20/03
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ18875.D	1	11/26/03	SD	11/25/03	OP9170	GIJ913
Run #2							

	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	93%		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

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Client Sample ID:	USTLCH4015-MW03	Date Sampled:	11/18/03
Lab Sample ID:	F20747-12	Date Received:	11/20/03
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EF032602.D	1	11/25/03	CV	n/a	n/a	GEF1192
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	1.3	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	1.3	1.0	0.50	ug/l	
1634-04-4	Methyl Tert Butyl Ether	2.6	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	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	91%		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

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Client Sample ID:	USTLCH4015-MW03	Date Sampled:	11/18/03
Lab Sample ID:	F20747-12	Date Received:	11/20/03
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	IJ18876.D	1	11/26/03	SD	11/25/03	OP9170	GIJ913
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	2.5	5.0	2.0	ug/l	J
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	90%		51-123%

(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:	USTLCH4015-MW05	Date Sampled:	11/18/03
Lab Sample ID:	F20747-13	Date Received:	11/20/03
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EF032604.D	1	11/25/03	CV	n/a	n/a	GEF1192
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	3.3	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	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	87%		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

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Client Sample ID:	USTLCH4015-MW05	Date Sampled:	11/18/03
Lab Sample ID:	F20747-13	Date Received:	11/20/03
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ18877.D	1	11/26/03	SD	11/25/03	OP9170	GIJ913
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	87%		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:	USTLCH4015-MW02	Date Sampled:	11/18/03
Lab Sample ID:	F20747-14	Date Received:	11/20/03
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EF032617.D	1	11/25/03	CV	n/a	n/a	GEF1193
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	22.4	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	31.9	1.0	0.50	ug/l	
1634-04-4	Methyl Tert Butyl Ether	24.0	1.0	0.50	ug/l	
108-88-3	Toluene	1.9	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	62.5	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	100%		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

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Client Sample ID:	USTLCH4015-MW02	Date Sampled:	11/18/03
Lab Sample ID:	F20747-14	Date Received:	11/20/03
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	IJ18878.D	1	11/26/03	SD	11/25/03	OP9170	GIJ913
Run #2 ^a	IJ18887.D	2	11/29/03	SD	11/25/03	OP9170	GIJ914

	Initial Volume	Final Volume
Run #1	930 ml	1.0 ml
Run #2	930 ml	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.4	2.2	ug/l	
208-96-8	Acenaphthylene	ND	5.4	2.2	ug/l	
120-12-7	Anthracene	ND	5.4	2.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.4	2.2	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.4	2.2	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.4	2.2	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.4	2.2	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.4	2.2	ug/l	
218-01-9	Chrysene	ND	5.4	2.2	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.4	2.2	ug/l	
206-44-0	Fluoranthene	ND	5.4	2.2	ug/l	
86-73-7	Fluorene	ND	5.4	2.2	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.4	2.2	ug/l	
91-20-3	Naphthalene	47.8 ^b	11	4.3	ug/l	
90-12-0	1-Methylnaphthalene	5.1	5.4	2.2	ug/l	J
91-57-6	2-Methylnaphthalene	2.9	5.4	2.2	ug/l	J
85-01-8	Phenanthrene	ND	5.4	2.2	ug/l	
129-00-0	Pyrene	ND	5.4	2.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	93%	86%	42-123%
84-15-1	o-Terphenyl	97%	85%	51-123%

(a) All hits confirmed by dual column analysis.

(b) Result is from Run# 2

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:	USTLCH4015-MW01	Date Sampled:	11/19/03
Lab Sample ID:	F20747-15	Date Received:	11/20/03
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EF032608.D	5	11/25/03	CV	n/a	n/a	GEF1192
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	139	5.0	2.5	ug/l	
108-90-7	Chlorobenzene	ND	5.0	2.5	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	5.0	2.5	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.0	2.5	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	5.0	2.5	ug/l	
100-41-4	Ethylbenzene	377	5.0	2.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	10.1	5.0	2.5	ug/l	
108-88-3	Toluene	8.0	5.0	2.5	ug/l	
1330-20-7	Xylenes (total)	147	15	5.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	98%		70-123%
98-08-8	aaa-Trifluorotoluene	101%		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:	USTLCH4015-MW01	Date Sampled:	11/19/03
Lab Sample ID:	F20747-15	Date Received:	11/20/03
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ18880.D	1	11/26/03	SD	11/25/03	OP9170	GIJ913
Run #2 ^a	IJ18888.D	5	11/29/03	SD	11/25/03	OP9170	GIJ914

	Initial Volume	Final Volume
Run #1	930 ml	1.0 ml
Run #2	950 ml	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.4	2.2	ug/l	
208-96-8	Acenaphthylene	ND	5.4	2.2	ug/l	
120-12-7	Anthracene	ND	5.4	2.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.4	2.2	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.4	2.2	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.4	2.2	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.4	2.2	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.4	2.2	ug/l	
218-01-9	Chrysene	ND	5.4	2.2	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.4	2.2	ug/l	
206-44-0	Fluoranthene	ND	5.4	2.2	ug/l	
86-73-7	Fluorene	ND	5.4	2.2	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.4	2.2	ug/l	
91-20-3	Naphthalene	169 ^b	26	11	ug/l	
90-12-0	1-Methylnaphthalene	28.1 ^b	26	11	ug/l	
91-57-6	2-Methylnaphthalene	47.0 ^b	26	11	ug/l	
85-01-8	Phenanthrene	ND	5.4	2.2	ug/l	
129-00-0	Pyrene	ND	5.4	2.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	86%	80%	42-123%
84-15-1	o-Terphenyl	89%	78%	51-123%

(a) All hits confirmed by dual column analysis.

(b) Result is from Run# 2

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:	USTLCH4015-MW19	Date Sampled:	11/19/03
Lab Sample ID:	F20747-16	Date Received:	11/20/03
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF032586.D	1	11/24/03	CV	n/a	n/a	GEF1192
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	86%		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

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Client Sample ID:	USTLCH4015-MW19	Date Sampled:	11/19/03
Lab Sample ID:	F20747-16	Date Received:	11/20/03
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	IJ18889.D	1	11/29/03	SD	11/25/03	OP9170	GIJ914
Run #2							

	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	2.4	5.1	2.0	ug/l	J
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	3.2	5.1	2.0	ug/l	J
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	87%		42-123%
84-15-1	o-Terphenyl	90%		51-123%

(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:	TRIP BLANK		
Lab Sample ID:	F20747-17	Date Sampled:	11/19/03
Matrix:	AQ - Trip Blank Water	Date Received:	11/20/03
Method:	EPA 601/602	Percent Solids:	n/a
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF032618.D	1	11/25/03	CV	n/a	n/a	GEF1193
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	88%		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

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Client Sample ID:	USTLCH4015-MW03D18	Date Sampled:	11/19/03
Lab Sample ID:	F20747-18	Date Received:	11/20/03
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EF032619.D	1	11/25/03	CV	n/a	n/a	GEF1193
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	1.5	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	1.4	1.0	0.50	ug/l	
1634-04-4	Methyl Tert Butyl Ether	2.7	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	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	95%		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

Page 1 of 1

Client Sample ID:	USTLCH4015-MW03D18	Date Sampled:	11/19/03
Lab Sample ID:	F20747-18	Date Received:	11/20/03
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ18882.D	1	11/26/03	SD	11/25/03	OP9170	GIJ913
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	100%		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

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: 407-425-0700

ACCUTEAST-JOB 1:

ACCUTEST QUOTE #:

F20747

CLIENT INFORMATION				FACILITY INFORMATION				ANALYTICAL INFORMATION				MATRIX CODES	
Engineering & Environment Inc. NAME: 824 Eum Branch Suite C ADDRESS: Jacksonville NC 28540 CITY: STATE: ZIP:				LCH 4015 PROJECT NAME: Midway park Camp Lejeune LOCATION: PROJECT NO. LD03-004 FAX # 910-949-3341				EPA 602 EPA 610 (PAHs)				DW - DRINKING WATER GW - GROUND WATER WW - WASTE WATER SO - SOIL SL - SLUDGE OI - OIL LIQ - LIQUID SOL - OTHER SOLID	
SEND REPORT TO: PHONE # 910-949-3214				COLLECTION				PRESERVATION				LAB USE ONLY	
ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	DATE	TIME	SAMPLED BY:	MATRIX	# OF BOTTLES	NO.	NO.	NO.	NO.	NO.	NO.	NO.
1	4ST LCH 4015 - MW 19	11-19-03	12:00	BS	GW	5	X				X	3	2
2	4ST LCH 4015 - MW 11	11-19-03	10:14	MM	GW	5	X				X	3	2
3	4ST LCH 4015 - MW 12	11-19-03	09:30	MM	GW	5	X				X	3	2
4	4ST LCH 4015 - MW 06	11-19-03	10:05	MM	GW	5	X				X	3	2
5	4ST LCH 4015 - MW 07	11-18-03	16:00	MM	GW	5	X				Y	3	2
6	4ST LCH 4015 - MW 14	11-19-03	09:00	MM	GW	5	X				Y	3	2
7	4ST LCH 4015 - MW 15	11-18-03	16:55	MM	GW	5	X				Y	3	2
8	4ST LCH 4015 - MW 16	11-19-03	14:40	MM	GW	5	X				X	3	2
9	4ST LCH 4015 - MW 10	11-18-03	13:30	BS	GW	5	X				X	3	2
10	4ST LCH 4015 - MW 08	11-18-03	11:50	BS	GW	5	X				Y	3	2
11	4ST LCH 4015 - MW 09	11-18-03	11:15	BS	GW	5	X				Y	3	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) NEED 4									
EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED				APPROVED BY: _____									
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY													
RELINQUISHED BY SAMPLER: 1. Bob Sellers		DATE TIME: 11-19-03 14:07		RECEIVED BY: B 839397144 174		RELINQUISHED BY: 2.		DATE TIME: 11-20-03 0850		RECEIVED BY: 2. [Signature]			
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		ONCE		TEMPERATURE	

3.1

F20747: Chain of Custody

Page 1 of 3

CHAIN OF CUSTODY

4405 VINELAND ROAD • SUITE C-15
ORLANDO, FL 32811
TEL: 407-425-6700 • FAX: 407-425-0707

ACCUTEST JOB #:

ACCUTEST QUOTE #:

F20747

CLIENT INFORMATION			FACILITY INFORMATION			ANALYTICAL INFORMATION										MATRIX CODES		
Engineering & Environment Inc NAME 824 Gum Branch Suite 5 ADDRESS Jacksonville NC 28540 CITY, STATE ZIP SEND REPORT TO: PHONE # 910-989-3214			LCH 4015 PROJECT NAME Midway Park Camp Lejeune LOCATION LD03-004 PROJECT NO. FAX # 910-989-3341			EPA 602 EPA 610 (Part 6)										DW - DRINKING WATER GW - GROUND WATER WW - WASTE WATER SO - SOIL SL - SLUDGE OL - OIL LQ - 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	HC	MSD	MSD	MSD	MSD	MSD	MSD	MSD				
12	UST LCH 4015 - MW P3	11-18-03	10:00	BS	GW	5	X											
13	UST LCH 4015 - MW 05	11-18-03	14:25	BS	GW	5	X											
14	UST LCH 4015 - MW 02	11-18-03	16:45	BS	GW	5	X											
15	UST LCH 4015 - MW 01	11-19-03	10:15	BS	GW	5	X											
16	UST LCH 4015 - MW 14	11-19-03	10:50	BS	GW	5	X											
17	UST LCH 4015 - TRIP BLANK	11-19-03	14:07	---	LIA	2	X											
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>Nece 4</u>		_____ _____ _____														
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY																		
RELINQUISHED BY SAMPLER:		DATE TIME:		RECEIVED BY:		DATE TIME:		RELINQUISHED BY:		DATE TIME:		RECEIVED BY:						
1. <u>Bob Sellers</u>		11-19-03 14:07		1. <u>FEDEX</u>		11-20-03 08:00		2. <u>[Signature]</u>										
RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		DATE TIME:		RELINQUISHED BY:		DATE TIME:		RECEIVED BY:						
3.				3.				4.				4.						
RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		DATE TIME:		RELINQUISHED BY:		DATE TIME:		RECEIVED BY:						
5.				5.				5.				5.						
SEAL # _____ PRESERVE WHERE APPLICABLE ☐ ON ICE ☐ TEMPERATURE _____ C																		

F20747: Chain of Custody

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ACCUTEST LABORATORIES SOUTHEAST SAMPLE RECEIPT CONFIRMATION

Accutest's Job Number: **F20747**
 Client: **Evergreen EW** Project: **LA 4615**
 Date Received: **11/20/23** Time Received: **0850**
 # of Coolers Received: **4** Cooler Temperatures: **16°, 42°, 18°, 24°**
 Delivery Method: **FedEx** UPS Accutest Courier Greyhound Delivery Other
 Air Bill Number: **89397144174**

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 ?	Soil	☒ Water
Number of Encores ?		N/A
Number of Soil Field Kits ?		N/A

Summary of Comments: **Received Both 610 Bottles for MW-11 Broken**
There is no sample left for This Analysis.

We received Sample MW03D @ 10:00 But on COC (sand # 14)
 Signature: **[Signature]** Date: **11/20/23**

ASBD/HW 05/11/03

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

Job Number: F20747
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GEF1192-MB	EF032585.D	1	11/24/03	CV	n/a	n/a	GEF1192

The QC reported here applies to the following samples: Method: EPA 601/602

F20747-3, F20747-4, F20747-5, F20747-6, F20747-7, F20747-8, F20747-9, F20747-10, F20747-11, F20747-12, F20747-13, F20747-15, F20747-16

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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

Job Number: F20747
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GEF1193-MB	EF032614.D	1	11/25/03	CV	n/a	n/a	GEF1193

The QC reported here applies to the following samples: Method: SW846 8021B

F20747-1, F20747-2, F20747-14, F20747-17, F20747-18

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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

Job Number: F20747
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GEF1192-BS	EF032584.D	1	11/24/03	CV	n/a	n/a	GEF1192

The QC reported here applies to the following samples: Method: EPA 601/602

F20747-3, F20747-4, F20747-5, F20747-6, F20747-7, F20747-8, F20747-9, F20747-10, F20747-11, F20747-12, F20747-13, F20747-15, F20747-16

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	20.4	102	86-121
108-90-7	Chlorobenzene	20	19.5	98	81-119
95-50-1	1,2-Dichlorobenzene	20	18.5	93	75-120
541-73-1	1,3-Dichlorobenzene	20	19.8	99	77-121
106-46-7	1,4-Dichlorobenzene	20	19.3	97	75-122
100-41-4	Ethylbenzene	20	20.1	101	81-126
1634-04-4	Methyl Tert Butyl Ether	20	19.2	96	76-117
108-88-3	Toluene	20	20.0	100	82-123
1330-20-7	Xylenes (total)	60	60.8	101	82-125

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

Blank Spike Summary

Job Number: F20747
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GEF1193-BS	EF032613.D	1	11/25/03	CV	n/a	n/a	GEF1193

The QC reported here applies to the following samples: Method: SW846 8021B

F20747-1, F20747-2, F20747-14, F20747-17, F20747-18

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	20.8	104	86-121
108-90-7	Chlorobenzene	20	20.1	101	81-119
95-50-1	1,2-Dichlorobenzene	20	18.6	93	75-120
541-73-1	1,3-Dichlorobenzene	20	19.6	98	77-121
106-46-7	1,4-Dichlorobenzene	20	19.3	97	75-122
100-41-4	Ethylbenzene	20	20.6	103	81-126
1634-04-4	Methyl Tert Butyl Ether	20	18.6	93	76-117
108-88-3	Toluene	20	20.7	104	82-123
1330-20-7	Xylenes (total)	60	62.2	104	82-125

CAS No.	Surrogate Recoveries	BSP	Limits
352-33-0	1-Chloro-4-fluorobenzene	99%	70-123%
98-08-8	aaa-Trifluorotoluene	99%	73-122%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F20747
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F20747-16MS	EF032587.D	1	11/24/03	CV	n/a	n/a	GEF1192
F20747-16MSD	EF032588.D	1	11/24/03	CV	n/a	n/a	GEF1192
F20747-16	EF032586.D	1	11/24/03	CV	n/a	n/a	GEF1192

The QC reported here applies to the following samples: Method: EPA 601/602

F20747-3, F20747-4, F20747-5, F20747-6, F20747-7, F20747-8, F20747-9, F20747-10, F20747-11, F20747-12, F20747-13, F20747-15, F20747-16

CAS No.	Compound	F20747-16 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	20	20.0	100	20.0	100	0	77-125/6
108-90-7	Chlorobenzene	ND	20	19.2	96	19.4	97	1	78-120/8
95-50-1	1,2-Dichlorobenzene	ND	20	18.5	93	18.9	95	2	69-125/7
541-73-1	1,3-Dichlorobenzene	ND	20	19.2	96	19.4	97	1	71-126/7
106-46-7	1,4-Dichlorobenzene	ND	20	18.8	94	18.9	95	1	67-129/7
100-41-4	Ethylbenzene	ND	20	20.1	101	20.4	102	1	74-127/6
1634-04-4	Methyl Tert Butyl Ether	ND	20	18.4	92	18.9	95	3	66-127/9
108-88-3	Toluene	ND	20	19.9	100	20.0	100	1	77-124/5
1330-20-7	Xylenes (total)	ND	60	60.4	101	60.5	101	0	76-125/5

CAS No.	Surrogate Recoveries	MS	MSD	F20747-16	Limits
352-33-0	1-Chloro-4-fluorobenzene	92%	96%	86%	70-123%
98-08-8	aaa-Trifluorotoluene	92%	96%	91%	73-122%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F20747
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F20795-1MS	EF032621.D	1	11/25/03	CV	n/a	n/a	GEF1193
F20795-1MSD	EF032622.D	1	11/25/03	CV	n/a	n/a	GEF1193
F20795-1	EF032620.D	1	11/25/03	CV	n/a	n/a	GEF1193

The QC reported here applies to the following samples:

Method: EPA 601/602

F20747-1, F20747-2, F20747-14, F20747-17, F20747-18

CAS No.	Compound	F20795-1 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	20	20.3	102	20.5	103	1	77-125/6
108-90-7	Chlorobenzene	ND	20	19.4	97	19.6	98	1	78-120/8
95-50-1	1,2-Dichlorobenzene	ND	20	18.0	90	18.2	91	1	69-125/7
541-73-1	1,3-Dichlorobenzene	ND	20	18.9	95	19.1	96	1	71-126/7
106-46-7	1,4-Dichlorobenzene	ND	20	18.6	93	19.0	95	2	67-129/7
100-41-4	Ethylbenzene	ND	20	20.0	100	19.9	100	1	74-127/6
1634-04-4	Methyl Tert Butyl Ether	ND	20	18.9	95	19.2	96	2	66-127/9
108-88-3	Toluene	ND	20	20.2	101	20.2	101	0	77-124/5
1330-20-7	Xylenes (total)	ND	60	60.8	101	60.8	101	0	76-125/5

CAS No.	Surrogate Recoveries	MS	MSD	F20795-1	Limits
352-33-0	1-Chloro-4-fluorobenzene	94%	96%	89%	70-123%
98-08-8	aaa-Trifluorotoluene	94%	97%	95%	73-122%

Volatile Surrogate Recovery Summary

Page 1 of 1

Job Number: F20747
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

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
F20747-1	EF032615.D	88.0	93.0
F20747-2	EF032616.D	93.0	95.0
F20747-3	EF032593.D	87.0	93.0
F20747-4	EF032594.D	86.0	91.0
F20747-5	EF032595.D	86.0	89.0
F20747-6	EF032596.D	84.0	87.0
F20747-7	EF032597.D	85.0	90.0
F20747-8	EF032598.D	85.0	90.0
F20747-9	EF032599.D	87.0	91.0
F20747-10	EF032600.D	88.0	93.0
F20747-11	EF032601.D	88.0	92.0
F20747-12	EF032602.D	91.0	95.0
F20747-13	EF032604.D	87.0	92.0
F20747-14	EF032617.D	100.0	99.0
F20747-15	EF032608.D	98.0	101.0
F20747-16	EF032586.D	86.0	91.0
F20747-17	EF032618.D	88.0	93.0
F20747-18	EF032619.D	95.0	99.0
F20747-16MS	EF032587.D	92.0	92.0
F20747-16MSD	EF032588.D	96.0	96.0
F20795-1MS	EF032621.D	94.0	94.0
F20795-1MSD	EF032622.D	96.0	97.0
GEF1192-BS	EF032584.D	95.0	95.0
GEF1192-MB	EF032585.D	87.0	93.0

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: F20747
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GEF1192-CC1165	Injection Date:	11/24/03
Lab File ID:	EF032592.D	Injection Time:	23:02
Instrument ID:	GCEF	Method:	EPA 601/602

S1^a	S2^a
RT	RT

Check Std	8.81	5.73

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
F20747-3	EF032593.D	11/24/03	23:26	8.81	5.72
F20747-4	EF032594.D	11/24/03	23:51	8.81	5.73
F20747-5	EF032595.D	11/25/03	00:15	8.81	5.72
F20747-6	EF032596.D	11/25/03	00:40	8.81	5.72
F20747-7	EF032597.D	11/25/03	01:04	8.81	5.72
F20747-8	EF032598.D	11/25/03	01:28	8.81	5.73
F20747-9	EF032599.D	11/25/03	01:52	8.81	5.72
F20747-10	EF032600.D	11/25/03	02:17	8.81	5.73
F20747-11	EF032601.D	11/25/03	02:41	8.81	5.73
F20747-12	EF032602.D	11/25/03	03:06	8.81	5.72

Surrogate Compounds

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

(a) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: F20747
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GEF1192-CC1165	Injection Date:	11/25/03
Lab File ID:	EF032603.D	Injection Time:	03:30
Instrument ID:	GCEF	Method:	EPA 601/602

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	9.01	8.81	5.93	5.73

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
F20747-13	EF032604.D	11/25/03	03:54		8.81		5.72
F20747-15	EF032608.D	11/25/03	05:43		8.81		5.73
ZZZZZZ	EF032609.D	11/25/03	06:10		8.81		5.73
GEF1192-ECC1165	EF032611.D	11/25/03	06:58	9.01	8.82	5.93	5.73

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: F20747
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GEF1191-CC1165	Injection Date:	11/24/03
Lab File ID:	EF032581.D	Injection Time:	18:30
Instrument ID:	GCEF	Method:	EPA 601/602

S1^a	S2^a
RT	RT

Check Std	8.81	5.73

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
ZZZZZZ	EF032582.D	11/24/03	18:57	8.81	5.72
ZZZZZZ	EF032583.D	11/24/03	19:23	8.81	5.72
GEF1192-BS	EF032584.D	11/24/03	19:48	8.81	5.73
GEF1192-MB	EF032585.D	11/24/03	20:12	8.81	5.73
F20747-16	EF032586.D	11/24/03	20:36	8.81	5.73
F20747-16MS	EF032587.D	11/24/03	21:00	8.81	5.72
F20747-16MSD	EF032588.D	11/24/03	21:25	8.81	5.72
ZZZZZZ	EF032589.D	11/24/03	21:49	8.81	5.72
ZZZZZZ	EF032590.D	11/24/03	22:14	8.81	5.73
ZZZZZZ	EF032591.D	11/24/03	22:38	8.81	5.73

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: F20747
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GEF1193-CC1165	Injection Date:	11/25/03
Lab File ID:	EF032612.D	Injection Time:	10:18
Instrument ID:	GCEF	Method:	EPA 601/602

S1^a	S2^a
RT	RT

Check Std	8.82	5.73

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
GEF1193-BS	EF032613.D	11/25/03	11:07	8.82	5.73
GEF1194-BS	EF032613.D	11/25/03	11:07	8.82	5.73
GEF1193-MB	EF032614.D	11/25/03	11:31	8.82	5.73
GEF1194-MB	EF032614.D	11/25/03	11:31	8.82	5.73
F20747-1	EF032615.D	11/25/03	11:56	8.82	5.73
F20747-2	EF032616.D	11/25/03	12:20	8.82	5.73
F20747-14	EF032617.D	11/25/03	12:44	8.81	5.73
F20747-17	EF032618.D	11/25/03	13:08	8.81	5.73
F20747-18	EF032619.D	11/25/03	13:33	8.81	5.73
F20795-1	EF032620.D	11/25/03	13:57	8.81	5.73
F20795-1MS	EF032621.D	11/25/03	14:21	8.82	5.73
F20795-1MSD	EF032622.D	11/25/03	14:45	8.81	5.73

Surrogate Compounds

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

(a) Retention time from GC signal #2

Initial Calibration Summary

Page 1 of 2

Job Number: F20747
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF1165-ICC1165
Lab FileID: EF031859.D

Response Factor Report VOA1

Method : C:\HPCHEM\1\METHODS\DUAL1105.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Wed Nov 05 12:51:43 2003
Response via : Initial Calibration

Calibration Files

1 =EF031857.D 2 =EF031858.D 3 =EF031859.D
4 =EF031860.D 5 =EF031861.D 6 =EF031862.D

Compound	1	2	3	4	5	6	Avg	%RSD
1) Methyl tert Butyl E	3.478	4.287	4.165	4.201	4.231	4.072	E2	8.23
2) Di-Isopropyl ether	5.244	6.576	6.367	6.304	6.324	6.163	E2	8.52
3) Benzene	1.232	1.568	1.506	1.479	1.491	1.455	E3	8.90
4) S a,a,a-TFT(S)	4.725	4.571	4.710	4.763	4.833	4.839	E2	2.08
5) Toluene	1.073	1.381	1.341	1.311	1.330	1.287	E3	9.53
6) S 1-Chloro-4-Fluorobe	6.950	6.722	7.026	7.204	7.297	7.265	E2	3.12
7) Chlorobenzene	1.564	1.154	1.393	1.335	1.311	1.311	E3	9.93
8) Ethylbenzene	1.007	1.211	1.161	1.126	1.140	1.129	E3	6.67
9) m,p-Xylene	0.988	1.275	1.227	1.199	1.222	1.182	E3	9.47
10) o-Xylene	0.892	1.155	1.108	1.076	1.088	1.064	E3	9.45
11) 1,3-Dichlorobenzene	0.924	0.733	1.008	0.978	0.981	0.984	E3	11.00
----- Linear regression ----- Coefficient = 0.9998								
Response Ratio = -363.90216 + 987.81811 *A								
12) 1,4-Dichlorobenzene	0.970	0.771	1.050	1.024	1.011	1.024	E3	10.59
----- Linear regression ----- Coefficient = 0.9997								
Response Ratio = -326.07256 + 1025.36397 *A								
13) 1,2-Dichlorobenzene	7.656	5.671	7.647	7.516	7.481	7.416	E2	10.65
----- Linear regression ----- Coefficient = 0.9997								
Response Ratio = -98.24646 + 746.06618 *A								

Signal #2

1) Methyl tert Butyl E	1.267	1.581	1.538	1.530	1.514	1.486	E3	8.40
2) Di-Isopropyl ether	1.882	2.393	2.300	2.261	2.257	2.219	E3	8.83
3) Benzene	4.517	5.787	5.490	5.439	5.552	5.357	E3	9.11
4) S a,a,a-TFT(S)	1.687	1.657	1.713	1.736	1.751	1.746	E3	2.16
5) Toluene	3.873	5.036	4.851	4.778	4.900	4.687	E3	9.92
6) S 1-Chloro-4-Fluorobe	2.535	2.477	2.642	2.693	2.750	2.729	E3	4.16
7) Chlorobenzene	4.631	5.263	4.934	4.871	4.974	4.934	E3	4.60
8) Ethylbenzene	3.996	3.590	4.477	4.297	4.233	4.299	E3	7.59
9) m,p-Xylene	4.003	3.804	4.871	4.683	4.631	4.708	E3	9.78
10) o-Xylene	3.221	4.169	4.008	3.956	3.982	3.867	E3	9.59
11) 1,3-Dichlorobenzene	3.233	2.730	3.726	3.609	3.635	3.631	E3	11.15
----- Linear regression ----- Coefficient = 0.9998								
Response Ratio = -1331.47043 + 3649.82128 *A								
12) 1,4-Dichlorobenzene	3.367	2.759	3.785	3.625	3.672	3.732	E3	11.07
----- Linear regression ----- Coefficient = 0.9997								
Response Ratio = -2253.30734 + 3735.58756 *A								
13) 1,2-Dichlorobenzene	2.792	2.096	2.892	2.799	2.801	2.819	E3	11.03
----- Linear regression ----- Coefficient = 0.9998								
Response Ratio = -1002.53582 + 2826.27322 *A								

Initial Calibration Summary

Job Number: F20747
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF1165-ICC1165
Lab FileID: EF031859.D

(#) = Out of Range

DUAL1105.M Thu Nov 06 10:41:47 2003 EF

4.6
4

Continuing Calibration Summary

Page 1 of 1

Job Number: F20747
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF1191-CC1165
Lab FileID: EF032581.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\112403\EF032581.D\FID1A.CH Vial: 22
Signal #2 : C:\HPCHEM\1\DATA\112403\EF032581.D\FID2B.CH
Acq On : 24 Nov 2003 6:30 pm Operator: ClaireV
Sample : cc1165-20 Inst : VOA1
Misc : gc2979,gef1191,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL1105.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Wed Nov 05 12:51:43 2003
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	18.711	6.4	89	0.03
2	Di-Isopropyl ether	20.000	19.018	4.9	89	0.03
3	Benzene	20.000	18.998	5.0	88	0.03
4 S	a,a,a-TFT(S)	20.000	18.614	6.9	94	0.03
5	Toluene	20.000	18.964	5.2	88	0.03
6 S	1-Chloro-4-Fluorobenzene	20.000	18.459	7.7	93	0.04
7	Chlorobenzene	20.000	18.142	9.3	88	0.04
8	Ethylbenzene	20.000	18.978	5.1	88	0.04
9	m,p-Xylene	40.000	38.486	3.8	89	0.04
10	o-Xylene	20.000	19.189	4.1	88	0.04
11	1,3-Dichlorobenzene	20.000	18.556	7.2	89	0.04
12	1,4-Dichlorobenzene	20.000	18.525	7.4	89	0.04
13	1,2-Dichlorobenzene	20.000	18.439	7.8	89	0.04

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	18.404	8.0	86	0.02
2	Di-Isopropyl ether	20.000	18.718	6.4	87	0.02
3	Benzene	20.000	18.903	5.5	87	0.03
4 S	a,a,a-TFT(S)	20.000	18.325	8.4	92	0.03
5	Toluene	20.000	18.775	6.1	87	0.03
6 S	1-Chloro-4-Fluorobenzene	20.000	18.506	7.5	92	0.03
7	Chlorobenzene	20.000	18.482	7.6	87	0.03
8	Ethylbenzene	20.000	19.264	3.7	89	0.03
9	m,p-Xylene	40.000	38.693	3.3	88	0.03
10	o-Xylene	20.000	19.228	3.9	89	0.03
11	1,3-Dichlorobenzene	20.000	18.612	6.9	89	0.04
12	1,4-Dichlorobenzene	20.000	18.723	6.4	89	0.03
13	1,2-Dichlorobenzene	20.000	18.638	6.8	89	0.03

Average % D = 6.2

(#) = Out of Range
EF031859.D DUAL1105.M

SPCC's out = 0 CCC's out = 0
Tue Nov 25 10:58:23 2003 EF

Continuing Calibration Summary

Page 1 of 1

Job Number: F20747
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF1192-CC1165
Lab FileID: EF032592.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\112403\EF032592.D\FID1A.CH Vial: 32
Signal #2 : C:\HPCHEM\1\DATA\112403\EF032592.D\FID2B.CH
Acq On : 24 Nov 2003 11:02 pm Operator: ClaireV
Sample : cc1165-20 Inst : VOA1
Misc : gc2980,gef1192,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL1105.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Wed Nov 05 12:51:43 2003
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	19.780	1.1	94	0.03
2	Di-Isopropyl ether	20.000	20.101	-0.5	94	0.03
3	Benzene	20.000	19.051	4.7	88	0.03
4 S	a,a,a-TFT(S)	20.000	18.813	5.9	95	0.03
5	Toluene	20.000	18.507	7.5	86	0.03
6 S	1-Chloro-4-Fluorobenzene	20.000	18.734	6.3	94	0.04
7	Chlorobenzene	20.000	17.966	10.2	87	0.04
8	Ethylbenzene	20.000	18.554	7.2	87	0.04
9	m,p-Xylene	40.000	37.274	6.8	86	0.04
10	o-Xylene	20.000	18.814	5.9	87	0.04
11	1,3-Dichlorobenzene	20.000	17.922	10.4	86	0.04
12	1,4-Dichlorobenzene	20.000	17.953	10.2	86	0.04
13	1,2-Dichlorobenzene	20.000	17.613	11.9	85	0.04

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	20.102	-0.5	94	0.02
2	Di-Isopropyl ether	20.000	20.487	-2.4	95	0.02
3	Benzene	20.000	19.406	3.0	90	0.03
4 S	a,a,a-TFT(S)	20.000	19.085	4.6	96	0.03
5	Toluene	20.000	18.808	6.0	88	0.03
6 S	1-Chloro-4-Fluorobenzene	20.000	19.099	4.5	95	0.03
7	Chlorobenzene	20.000	18.637	6.8	87	0.03
8	Ethylbenzene	20.000	18.945	5.3	88	0.03
9	m,p-Xylene	40.000	37.807	5.5	86	0.03
10	o-Xylene	20.000	18.951	5.2	88	0.03
11	1,3-Dichlorobenzene	20.000	18.236	8.8	88	0.04
12	1,4-Dichlorobenzene	20.000	18.294	8.5	87	0.04
13	1,2-Dichlorobenzene	20.000	17.986	10.1	86	0.04

Average % D = 6.2

(#) = Out of Range
EF031859.D DUAL1105.M

SPCC's out = 0 CCC's out = 0
Tue Nov 25 10:58:25 2003 EF

Continuing Calibration Summary

Page 1 of 1

Job Number: F20747
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF1192-CC1165
Lab FileID: EF032603.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\112403\EF032603.D\FID1A.CH Vial: 43
Signal #2 : C:\HPCHEM\1\DATA\112403\EF032603.D\FID2B.CH
Acq On : 25 Nov 2003 3:30 am Operator: ClaireV
Sample : cc1165-20 Inst : VOA1
Misc : gc2983,gef1192,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL1105.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Wed Nov 05 12:51:43 2003
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	19.720	1.4	94	0.03
2	Di-Isopropyl ether	20.000	19.691	1.5	92	0.03
3	Benzene	20.000	18.302	8.5	85	0.03
4 S	a,a,a-TFT(S)	20.000	18.675	6.6	94	0.03
5	Toluene	20.000	18.005	10.0	84	0.04
6 S	1-Chloro-4-Fluorobenzene	20.000	18.532	7.3	93	0.04
7	Chlorobenzene	20.000	18.139	9.3	88	0.04
8	Ethylbenzene	20.000	18.922	5.4	88	0.04
9	m,p-Xylene	40.000	38.373	4.1	89	0.04
10	o-Xylene	20.000	19.141	4.3	88	0.04
11	1,3-Dichlorobenzene	20.000	18.419	7.9	88	0.04
12	1,4-Dichlorobenzene	20.000	18.640	6.8	89	0.04
13	1,2-Dichlorobenzene	20.000	18.400	8.0	89	0.04

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	20.081	-0.4	94	0.02
2	Di-Isopropyl ether	20.000	20.247	-1.2	94	0.03
3	Benzene	20.000	18.669	6.7	86	0.03
4 S	a,a,a-TFT(S)	20.000	18.939	5.3	95	0.03
5	Toluene	20.000	18.372	8.1	86	0.03
6 S	1-Chloro-4-Fluorobenzene	20.000	18.994	5.0	95	0.04
7	Chlorobenzene	20.000	18.716	6.4	88	0.04
8	Ethylbenzene	20.000	19.367	3.2	90	0.04
9	m,p-Xylene	40.000	38.951	2.6	89	0.04
10	o-Xylene	20.000	19.431	2.8	90	0.04
11	1,3-Dichlorobenzene	20.000	18.858	5.7	91	0.04
12	1,4-Dichlorobenzene	20.000	18.936	5.3	90	0.04
13	1,2-Dichlorobenzene	20.000	18.416	7.9	88	0.04

Average % D = 5.5

(#) = Out of Range
EF031859.D DUAL1105.M

SPCC's out = 0 CCC's out = 0
Tue Nov 25 10:58:26 2003 EF

Continuing Calibration Summary

Page 1 of 1

Job Number: F20747
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF1192-ECC1165
Lab FileID: EF032611.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\112403\EF032611.D\FID1A.CH Vial: 51
Signal #2 : C:\HPCHEM\1\DATA\112403\EF032611.D\FID2B.CH
Acq On : 25 Nov 2003 6:58 am Operator: ClaireV
Sample : ecc1165-20 Inst : VOA1
Misc : gc2980,gef1192,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL1105.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Wed Nov 05 12:51:43 2003
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	19.463	2.7	92	0.03
2	Di-Isopropyl ether	20.000	19.776	1.1	93	0.03
3	Benzene	20.000	19.710	1.4	91	0.03
4 S	a,a,a-TFT(S)	20.000	18.876	5.6	95	0.03
5	Toluene	20.000	19.474	2.6	91	0.04
6 S	1-Chloro-4-Fluorobenzene	20.000	18.409	8.0	93	0.05
7	Chlorobenzene	20.000	18.448	7.8	89	0.05
8	Ethylbenzene	20.000	19.289	3.6	90	0.05
9	m,p-Xylene	40.000	38.818	3.0	90	0.05
10	o-Xylene	20.000	19.431	2.8	89	0.05
11	1,3-Dichlorobenzene	20.000	18.197	9.0	87	0.05
12	1,4-Dichlorobenzene	20.000	18.334	8.3	88	0.05
13	1,2-Dichlorobenzene	20.000	17.879	10.6	87	0.05

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	19.829	0.9	93	0.03
2	Di-Isopropyl ether	20.000	20.253	-1.3	94	0.03
3	Benzene	20.000	20.120	-0.6	93	0.03
4 S	a,a,a-TFT(S)	20.000	19.258	3.7	96	0.03
5	Toluene	20.000	19.812	0.9	92	0.03
6 S	1-Chloro-4-Fluorobenzene	20.000	19.115	4.4	95	0.04
7	Chlorobenzene	20.000	19.295	3.5	90	0.04
8	Ethylbenzene	20.000	19.771	1.1	92	0.04
9	m,p-Xylene	40.000	39.770	0.6	91	0.04
10	o-Xylene	20.000	19.650	1.8	91	0.04
11	1,3-Dichlorobenzene	20.000	18.703	6.5	90	0.04
12	1,4-Dichlorobenzene	20.000	18.634	6.8	89	0.04
13	1,2-Dichlorobenzene	20.000	18.217	8.9	87	0.04

Average % D = 4.1

(#) = Out of Range
EF031859.D DUAL1105.M

SPCC's out = 0 CCC's out = 0
Tue Nov 25 10:58:27 2003 EF

Continuing Calibration Summary

Page 1 of 1

Job Number: F20747
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF1193-CC1165
Lab FileID: EF032612.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\112503\EF032612.D\FID1A.CH Vial: 1
Signal #2 : C:\HPCHEM\1\DATA\112503\EF032612.D\FID2B.CH
Acq On : 25 Nov 2003 10:18 am Operator: ClaireV
Sample : CC1165-40 Inst : VOA1
Misc : gc2982,gef1193,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL1105.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Wed Nov 26 09:39:21 2003
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	38.043	4.9	93	0.00
2	Di-Isopropyl ether	40.000	40.575	-1.4	98	0.00
3	Benzene	40.000	40.058	-0.1	97	0.00
4 S	a,a,a-TFT(S)	20.000	19.792	1.0	98	0.00
5	Toluene	40.000	40.010	-0.0	96	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	19.950	0.3	98	0.00
7	Chlorobenzene	40.000	38.320	4.2	96	0.00
8	Ethylbenzene	40.000	39.677	0.8	96	0.00
9	m,p-Xylene	80.000	80.747	-0.9	97	0.00
10	o-Xylene	40.000	40.643	-1.6	98	0.00
11	1,3-Dichlorobenzene	40.000	38.091	4.8	95	0.00
12	1,4-Dichlorobenzene	40.000	37.336	6.7	93	0.00
13	1,2-Dichlorobenzene	40.000	35.659	10.9	88	0.00

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	40.000	40.007	-0.0	97	0.00
2	Di-Isopropyl ether	40.000	40.650	-1.6	98	0.00
3	Benzene	40.000	39.978	0.1	98	0.00
4 S	a,a,a-TFT(S)	20.000	20.046	-0.2	99	0.00
5	Toluene	40.000	40.257	-0.6	97	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	20.308	-1.5	99	0.00
7	Chlorobenzene	40.000	39.211	2.0	98	0.00
8	Ethylbenzene	40.000	40.846	-2.1	99	0.00
9	m,p-Xylene	80.000	82.664	-3.3	98	0.00
10	o-Xylene	40.000	40.467	-1.2	98	0.00
11	1,3-Dichlorobenzene	40.000	38.109	4.7	95	0.00
12	1,4-Dichlorobenzene	40.000	37.702	5.7	96	0.00
13	1,2-Dichlorobenzene	40.000	35.818	10.5	90	0.00

Average % D = 2.7

(#) = Out of Range
EF031860.D DUAL1105.M

SPCC's out = 0 CCC's out = 0
Wed Nov 26 09:42:09 2003 EF

Continuing Calibration Summary

Page 1 of 1

Job Number: F20747
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF1193-CC1165
Lab FileID: EF032623.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\112503\EF032623.D\FID1A.CH Vial: 11
Signal #2 : C:\HPCHEM\1\DATA\112503\EF032623.D\FID2B.CH
Acq On : 25 Nov 2003 3:10 pm Operator: ClaireV
Sample : cc1165-20 Inst : VOA1
Misc : gc2983,gef1193,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\Dual1105.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Wed Nov 26 09:39:21 2003
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	19.157	4.2	91	0.00
2	Di-Isopropyl ether	20.000	19.563	2.2	92	0.00
3	Benzene	20.000	19.397	3.0	90	0.00
4 S	a,a,a-TFT(S)	20.000	18.610	7.0	94	0.00
5	Toluene	20.000	19.289	3.6	90	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	18.468	7.7	93	-0.01
7	Chlorobenzene	20.000	18.528	7.4	89	-0.01
8	Ethylbenzene	20.000	19.296	3.5	90	-0.02
9	m,p-Xylene	40.000	38.632	3.4	90	-0.02
10	o-Xylene	20.000	19.464	2.7	90	-0.01
11	1,3-Dichlorobenzene	20.000	18.732	6.3	90	-0.01
12	1,4-Dichlorobenzene	20.000	18.791	6.0	90	-0.01
13	1,2-Dichlorobenzene	20.000	18.563	7.2	90	-0.01

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	19.559	2.2	92	0.00
2	Di-Isopropyl ether	20.000	19.853	0.7	92	0.00
3	Benzene	20.000	19.533	2.3	90	0.00
4 S	a,a,a-TFT(S)	20.000	19.057	4.7	95	0.00
5	Toluene	20.000	19.567	2.2	91	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	18.955	5.2	95	-0.01
7	Chlorobenzene	20.000	19.189	4.1	90	-0.01
8	Ethylbenzene	20.000	19.807	1.0	92	-0.01
9	m,p-Xylene	40.000	39.949	0.1	91	-0.01
10	o-Xylene	20.000	19.812	0.9	92	-0.01
11	1,3-Dichlorobenzene	20.000	19.015	4.9	91	-0.01
12	1,4-Dichlorobenzene	20.000	19.117	4.4	91	-0.01
13	1,2-Dichlorobenzene	20.000	18.867	5.7	90	-0.01

Average % D = 3.9

(#) = Out of Range
EF031859.D DUAL1105.M

SPCC's out = 0 CCC's out = 0
Wed Nov 26 09:42:42 2003 EF

GC Semi-volatiles

5

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: F20747
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP9170-MB	IJ18860.D	1	11/26/03	SD	11/25/03	OP9170	GIJ913

The QC reported here applies to the following samples:

Method: EPA 610

F20747-1, F20747-3, F20747-4, F20747-5, F20747-6, F20747-7, F20747-8, F20747-9, F20747-10, F20747-11, F20747-12, F20747-13, F20747-14, F20747-15, F20747-16, F20747-18

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	84% 42-123%
84-15-1	o-Terphenyl	89% 51-123%

Method Blank Summary

Page 1 of 1

Job Number: F20747
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP9170-MB	IJ18886.D	1	11/29/03	SD	11/25/03	OP9170	GIJ914

The QC reported here applies to the following samples:

Method: EPA 610

F20747-1, F20747-3, F20747-4, F20747-5, F20747-6, F20747-7, F20747-8, F20747-9, F20747-10, F20747-11, F20747-12, F20747-13, F20747-14, F20747-15, F20747-16, F20747-18

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	87%	51-123%

Blank Spike Summary

Page 1 of 1

Job Number: F20747
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP9170-BS	IJ18859.D	1	11/26/03	SD	11/25/03	OP9170	GIJ913

The QC reported here applies to the following samples:

Method: EPA 610

F20747-1, F20747-3, F20747-4, F20747-5, F20747-6, F20747-7, F20747-8, F20747-9, F20747-10, F20747-11, F20747-12, F20747-13, F20747-14, F20747-15, F20747-16, F20747-18

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	25	24.9	100	71-113
208-96-8	Acenaphthylene	25	22.3	89	63-102
120-12-7	Anthracene	25	24.3	97	71-110
56-55-3	Benzo(a)anthracene	25	24.3	97	70-114
50-32-8	Benzo(a)pyrene	25	24.1	96	67-114
205-99-2	Benzo(b)fluoranthene	25	24.6	98	69-115
191-24-2	Benzo(g,h,i)perylene	25	23.8	95	61-117
207-08-9	Benzo(k)fluoranthene	25	23.5	94	69-111
218-01-9	Chrysene	25	24.6	98	70-114
53-70-3	Dibenzo(a,h)anthracene	25	23.3	93	64-114
206-44-0	Fluoranthene	25	24.8	99	71-114
86-73-7	Fluorene	25	24.2	97	69-111
193-39-5	Indeno(1,2,3-cd)pyrene	25	23.3	93	63-112
91-20-3	Naphthalene	25	22.8	91	66-105
90-12-0	1-Methylnaphthalene	25	23.6	94	71-112
91-57-6	2-Methylnaphthalene	25	23.1	92	65-106
85-01-8	Phenanthrene	25	24.2	97	69-112
129-00-0	Pyrene	25	25.5	102	70-114

CAS No.	Surrogate Recoveries	BSP	Limits
321-60-8	2-Fluorobiphenyl	91%	42-123%
84-15-1	o-Terphenyl	93%	51-123%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: F20747
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP9170-MS	IJ18873.D	1	11/26/03	SD	11/25/03	OP9170	GIJ913
OP9170-MSD	IJ18874.D	1	11/26/03	SD	11/25/03	OP9170	GIJ913
F20747-10 ^a	IJ18872.D	1	11/26/03	SD	11/25/03	OP9170	GIJ913

The QC reported here applies to the following samples:

Method: EPA 610

F20747-1, F20747-3, F20747-4, F20747-5, F20747-6, F20747-7, F20747-8, F20747-9, F20747-10, F20747-11, F20747-12, F20747-13, F20747-14, F20747-15, F20747-16, F20747-18

CAS No.	Compound	F20747-10 ug/l	Spike Q	ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		50	54.0	108	48.4	97	11	59-123/20
208-96-8	Acenaphthylene	ND		50	47.2	94	42.0	84	12	51-114/20
120-12-7	Anthracene	ND		50	51.3	103	47.6	95	7	64-114/17
56-55-3	Benzo(a)anthracene	ND		50	54.2	108	52.4	105	3	66-115/17
50-32-8	Benzo(a)pyrene	ND		50	52.4	105	50.9	102	3	62-118/17
205-99-2	Benzo(b)fluoranthene	ND		50	55.3	111	53.5	107	3	66-117/17
191-24-2	Benzo(g,h,i)perylene	ND		50	51.2	102	50.2	100	2	59-120/17
207-08-9	Benzo(k)fluoranthene	ND		50	49.1	98	48.0	96	2	64-116/16
218-01-9	Chrysene	ND		50	51.1	102	50.3	101	2	66-117/16
53-70-3	Dibenzo(a,h)anthracene	ND		50	50.8	102	49.6	99	2	57-124/18
206-44-0	Fluoranthene	ND		50	53.6	107	51.2	102	5	67-116/17
86-73-7	Fluorene	ND		50	53.1	106	48.5	97	9	58-122/19
193-39-5	Indeno(1,2,3-cd)pyrene	ND		50	51.6	103	50.9	102	1	59-116/18
91-20-3	Naphthalene	2.3	J	50	50.7	97	44.2	84	14	47-114/20
90-12-0	1-Methylnaphthalene	2.9	J	50	54.1	102	47.6	89	13	55-128/21
91-57-6	2-Methylnaphthalene	ND		50	57.9	116	50.3	101	14	51-117/21
85-01-8	Phenanthrene	ND		50	55.5	111	52.1	104	6	63-116/18
129-00-0	Pyrene	ND		50	53.7	107	51.5	103	4	67-116/17

CAS No.	Surrogate Recoveries	MS	MSD	F20747-10	Limits
321-60-8	2-Fluorobiphenyl	97%	84%	88%	42-123%
84-15-1	o-Terphenyl	98%	93%	93%	51-123%

(a) All hits confirmed by dual column analysis.

Semivolatile Surrogate Recovery Summary

Page 1 of 1

Job Number: F20747

Account: EEINCJX EEI

Project: Camp Lejeune-LCH 4015

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
F20747-1	IJ18863.D	75.0	101.0
F20747-3	IJ18864.D	87.0	90.0
F20747-4	IJ18865.D	52.0	81.0
F20747-5	IJ18866.D	68.0	77.0
F20747-6	IJ18867.D	78.0	83.0
F20747-7	IJ18868.D	60.0	83.0
F20747-8	IJ18869.D	70.0	82.0
F20747-9	IJ18870.D	80.0	89.0
F20747-10	IJ18872.D	88.0	93.0
F20747-11	IJ18875.D	93.0	92.0
F20747-12	IJ18876.D	91.0	90.0
F20747-13	IJ18877.D	87.0	90.0
F20747-14	IJ18887.D	86.0	85.0
F20747-14	IJ18878.D	93.0	97.0
F20747-15	IJ18888.D	80.0	78.0
F20747-15	IJ18880.D	86.0	89.0
F20747-16	IJ18889.D	87.0	90.0
F20747-18	IJ18882.D	100.0	96.0
OP9170-BS	IJ18859.D	91.0	93.0
OP9170-MB	IJ18860.D	84.0	89.0
OP9170-MB	IJ18886.D	80.0	87.0
OP9170-MS	IJ18873.D	97.0	98.0
OP9170-MSD	IJ18874.D	84.0	93.0

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

Job Number: F20747
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GUJ913-CC912	Injection Date:	11/26/03
Lab File ID:	IJ18858.D	Injection Time:	08:02
Instrument ID:	GCIJ	Method:	EPA 610

S1^a S2^a
RT RT

Check Std	5.74	10.25

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
OP9170-BS	IJ18859.D	11/26/03	08:37	5.73	10.25
OP9170-MB	IJ18860.D	11/26/03	09:05	5.73	10.25
ZZZZZZ	IJ18861.D	11/26/03	09:34	5.73	10.25

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: F20747
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GUJ913-CC912	Injection Date:	11/26/03
Lab File ID:	IJ18862.D	Injection Time:	10:07
Instrument ID:	GCIJ	Method:	EPA 610

S1^a	S2^a
RT	RT

Check Std	5.73	10.25

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
F20747-1	IJ18863.D	11/26/03	10:40	5.73	10.25
F20747-3	IJ18864.D	11/26/03	11:08	5.74	10.26
F20747-4	IJ18865.D	11/26/03	11:37	5.73	10.25
F20747-5	IJ18866.D	11/26/03	12:05	5.73	10.25
F20747-6	IJ18867.D	11/26/03	12:34	5.73	10.26
F20747-7	IJ18868.D	11/26/03	13:03	5.73	10.25
F20747-8	IJ18869.D	11/26/03	13:31	5.74	10.25
F20747-9	IJ18870.D	11/26/03	14:00	5.74	10.26

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: F20747
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GUJ913-CC912	Injection Date:	11/26/03
Lab File ID:	IJ18871.D	Injection Time:	14:29
Instrument ID:	GCIJ	Method:	EPA 610

S1^a	S2^a
RT	RT

Check Std	5.73	10.25

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
F20747-10	IJ18872.D	11/26/03	14:57	5.73	10.26
OP9170-MS	IJ18873.D	11/26/03	15:26	5.74	10.26
OP9170-MSD	IJ18874.D	11/26/03	15:55	5.74	10.26
F20747-11	IJ18875.D	11/26/03	16:23	5.74	10.26
F20747-12	IJ18876.D	11/26/03	16:52	5.74	10.26
F20747-13	IJ18877.D	11/26/03	17:20	5.74	10.26
F20747-14	IJ18878.D	11/26/03	17:49	5.74	10.26

Surrogate Compounds

S1 = 2-Fluorobiphenyl

S2 = o-Terphenyl

(a) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Job Number: F20747
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GIJ913-CC912	Injection Date:	11/26/03
Lab File ID:	IJ18879.D	Injection Time:	18:18
Instrument ID:	GCIJ	Method:	EPA 610

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	5.74	6.48	10.26	11.58

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
F20747-15	IJ18880.D	11/26/03	18:46	5.74		10.26	
F20747-18	IJ18882.D	11/26/03	19:44	5.74		10.26	
ZZZZZZ	IJ18883.D	11/26/03	20:12	5.74		10.26	
GIJ913-ECC912	IJ18884.D	11/26/03	20:41	5.74	6.47	10.26	11.59

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: F20747
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GIJ914-CC912	Injection Date:	11/29/03
Lab File ID:	IJ18885.D	Injection Time:	09:40
Instrument ID:	GCIJ	Method:	EPA 610

	S1^a RT	S1^b RT	S2^a RT	S2^b RT
Check Std	5.74	6.47	10.26	11.58

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1^a RT	S1^b RT	S2^a RT	S2^b RT
OP9170-MB	IJ18886.D	11/29/03	10:09	5.74		10.26	
F20747-14	IJ18887.D	11/29/03	10:38	5.73		10.25	
F20747-15	IJ18888.D	11/29/03	11:06	5.73		10.25	
F20747-16	IJ18889.D	11/29/03	11:35	5.74		10.26	
GIJ914-ECC912	IJ18890.D	11/29/03	12:03	5.74	6.48	10.26	11.59

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: F20747
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ912-ICC912
Lab FileID: IJ18838.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 : Fri Nov 21 15:44:37 2003
Response via : Initial Calibration

Calibration Files

5	=IJ18838.D	10	=IJ18839.D	20	=IJ18840.D
30	=IJ18841.D	40	=IJ18842.D	50	=IJ18843.D

	Compound	5	10	20	30	40	50	Avg	%RSD
1)	Naphthalene	1.209	1.166	1.191	1.217	1.201	1.256	1.207	E4 2.49
2)	2-Methyl Naphthalen	1.158	1.127	1.158	1.171	1.165	1.212	1.165	E4 2.35
3)	1-Methyl Naphthalen	1.196	1.161	1.180	1.192	1.190	1.228	1.191	E4 1.83
4) S	2-Fluorobiphenyl	1.019	1.014	1.033	1.072	1.067	1.111	1.053	E4 3.56
5)	Acenaphthylene	1.149	1.136	1.185	1.202	1.192	1.234	1.183	E4 3.02
6)	Acenaphthene	1.170	1.149	1.198	1.214	1.204	1.251	1.198	E4 2.98
7)	Fluorene	1.051	1.100	1.165	1.183	1.173	1.220	1.149	E4 5.38
8)	Phenanthrene	1.018	1.045	1.115	1.141	1.137	1.189	1.107	E4 5.79
9)	Anthracene	1.237	1.227	1.241	1.244	1.227	1.271	1.241	E4 1.33
10) S	0-Terphenyl	1.270	1.233	1.257	1.271	1.257	1.309	1.266	E4 1.98
11)	Fluoranthene	1.152	1.149	1.200	1.214	1.202	1.255	1.196	E4 3.34
12)	Pyrene	1.176	1.106	1.153	1.171	1.166	1.220	1.165	E4 3.18
13)	Benzo(a)Anthracene	0.991	1.055	1.131	1.156	1.153	1.214	1.117	E4 7.16
14)	Chrysene	1.323	1.276	1.279	1.278	1.262	1.319	1.290	E4 1.95
15)	Benzo(b)Fluoranthen	0.977	1.031	1.101	1.140	1.137	1.199	1.097	E4 7.36
16)	Benzo(k)Fluoranthen	1.417	1.357	1.354	1.343	1.329	1.386	1.364	E4 2.34
17)	Benzo(a) Pyrene	1.109	1.130	1.162	1.175	1.168	1.227	1.162	E4 3.47
18)	Indeno(1,2,3-cd)pyr	1.016	1.050	1.099	1.117	1.118	1.182	1.097	E4 5.29
19)	Dibenzo(a,h)anthrac	1.281	1.236	1.258	1.266	1.256	1.319	1.269	E4 2.22
20)	Benzo(g,h,i) Peryle	1.193	1.184	1.188	1.214	1.205	1.270	1.209	E4 2.64

Signal #2 Calibration Files

5	=IJ18838.D	10	=IJ18839.D	20	=IJ18840.D
30	=IJ18841.D	40	=IJ18842.D	50	=IJ18843.D

	Compound	5	10	20	30	40	50	Avg	%RSD
1)	Naphthalene	1.835	1.762	1.787	1.801	1.782	1.858	1.804	E4 1.99
2)	2-Methyl Naphthalen	1.712	1.637	1.673	1.696	1.686	1.763	1.695	E4 2.48
3)	1-Methyl Naphthalen	1.714	1.663	1.705	1.727	1.719	1.789	1.720	E4 2.38
4) S	2-Fluorobiphenyl	1.515	1.487	1.529	1.567	1.552	1.631	1.547	E4 3.22
5)	Acenaphthylene	1.757	1.688	1.729	1.752	1.743	1.810	1.747	E4 2.28
6)	Acenaphthene	1.765	1.704	1.739	1.765	1.757	1.828	1.760	E4 2.32
7)	Fluorene	1.644	1.610	1.651	1.685	1.680	1.751	1.670	E4 2.88
8)	Phenanthrene	1.563	1.554	1.581	1.612	1.625	1.711	1.608	E4 3.58
9)	Anthracene	1.777	1.642	1.689	1.653	1.643	1.723	1.688	E4 3.19
10) S	0-Terphenyl	1.895	1.821	1.851	1.873	1.857	1.934	1.872	E4 2.10
11)	Fluoranthene	1.717	1.673	1.706	1.715	1.707	1.794	1.719	E4 2.34
12)	Pyrene	1.781	1.692	1.722	1.758	1.750	1.835	1.756	E4 2.82
13)	Benzo(a)Anthracene	1.737	1.694	1.720	1.753	1.690	1.782	1.729	E4 2.06
14)	Chrysene	1.712	1.682	1.793	1.812	1.797	1.799	1.766	E4 3.08
15)	Benzo(b)Fluoranthen	1.699	1.667	1.684	1.729	1.722	1.820	1.720	E4 3.15
16)	Benzo(k)Fluoranthen	1.781	1.732	1.859	1.890	1.879	1.975	1.853	E4 4.62
17)	Benzo(a) Pyrene	1.679	1.626	1.667	1.705	1.699	1.798	1.696	E4 3.39
18)	Indeno(1,2,3-cd)pyr	1.662	1.646	1.664	1.705	1.721	1.833	1.705	E4 4.03
19)	Dibenzo(a,h)anthrac	1.742	1.681	1.759	1.776	1.771	1.848	1.763	E4 3.07
20)	Benzo(g,h,i) Peryle	1.718	1.687	1.702	1.732	1.730	1.825	1.732	E4 2.81

Initial Calibration Summary

Job Number: F20747
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ912-ICC912
Lab FileID: IJ18838.D

Average % RSD = 3.2

(#) = Out of Range

8100_H2.M

Tue Nov 25 07:55:10 2003

5.6
5

Continuing Calibration Summary

Page 1 of 2

Job Number: F20747
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ913-CC912
Lab FileID: IJ18858.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\1126PAH\IJ18858.D\FID1B.CH Vial: 1
Signal #2 : C:\HPCHEM\1\DATA\1126PAH\IJ18858.D\FID2A.CH
Acq On : 26 Nov 2003 8:02 am Operator: sarahm
Sample : cc912-30 Inst : FID 1
Misc : op9170,gij913,1000,,,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 : Fri Nov 21 15:44:37 2003
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	Naphthalene	30.000	29.130	2.9	96	0.00
2	2-Methyl Naphthalene	30.000	29.279	2.4	97	0.00
3	1-Methyl Naphthalene	30.000	29.171	2.8	97	0.00
4 S	2-Fluorobiphenyl	30.000	29.187	2.7	96	0.00
5	Acenaphthylene	30.000	29.464	1.8	97	0.00
6	Acenaphthene	30.000	29.493	1.7	97	0.00
7	Fluorene	30.000	29.830	0.6	97	0.00
8	Phenanthrene	30.000	29.685	1.1	96	-0.01
9	Anthracene	30.000	29.057	3.1	97	-0.01
10 S	0-Terphenyl	30.000	29.270	2.4	97	-0.01
11	Fluoranthene	30.000	29.355	2.1	96	-0.01
12	Pyrene	30.000	29.071	3.1	96	-0.01
13	Benzo(a)Anthracene	30.000	29.412	2.0	95	-0.01
14	Chrysene	30.000	28.785	4.1	97	-0.02
15	Benzo(b)Fluoranthene	30.000	29.620	1.3	95	-0.02
16	Benzo(k)Fluoranthene	30.000	28.643	4.5	97	-0.02
17	Benzo(a) Pyrene	30.000	29.120	2.9	96	-0.02
18	Indeno(1,2,3-cd)pyrene	30.000	29.254	2.5	96	-0.02
19	Dibenzo(a,h)anthracene	30.000	28.451	5.2	95	-0.02
20	Benzo(g,h,i) Perylene	30.000	28.960	3.5	96	-0.03

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Naphthalene	30.000	29.493	1.7	98	0.00
2	2-Methyl Naphthalene	30.000	29.553	1.5	98	0.00
3	1-Methyl Naphthalene	30.000	29.769	0.8	99	0.00
4 S	2-Fluorobiphenyl	30.000	30.049	-0.2	99	0.00
5	Acenaphthylene	30.000	29.708	1.0	99	0.00
6	Acenaphthene	30.000	29.869	0.4	99	0.00
7	Fluorene	30.000	30.248	-0.8	100	0.00
8	Phenanthrene	30.000	30.906	-3.0	103	0.00
9	Anthracene	30.000	29.507	1.6	100	0.00
10 S	0-Terphenyl	30.000	29.628	1.2	99	0.00
11	Fluoranthene	30.000	30.309	-1.0	101	0.00
12	Pyrene	30.000	29.955	0.2	100	0.00
13	Benzo(a)Anthracene	30.000	30.132	-0.4	99	0.00
14	Chrysene	30.000	29.033	3.2	94	0.00
15	Benzo(b)Fluoranthene	30.000	30.697	-2.3	102	0.00

Continuing Calibration Summary

Job Number: F20747
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ913-CC912
Lab FileID: IJ18858.D

16	Benzo(k)Fluoranthene	30.000	28.422	5.3	93	0.00
17	Benzo(a) Pyrene	30.000	29.436	1.9	98	0.00
18	Indeno(1,2,3-cd)pyrene	30.000	30.218	-0.7	101	0.01
19	Dibenzo(a,h)anthracene	30.000	28.528	4.9	94	0.01
20	Benzo(g,h,i) Perylene	30.000	29.760	0.8	99	0.01

Average % D = 2.1

(#) = Out of Range SPCC's out = 0 CCC's out = 0
IJ18841.D 8100_H2.M Sat Nov 29 08:55:30 2003

5.6
5

Continuing Calibration Summary

Page 1 of 2

Job Number: F20747
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ913-CC912
Lab FileID: IJ18862.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\1126PAH\IJ18862.D\FID1B.CH Vial: 5
Signal #2 : C:\HPCHEM\1\DATA\1126PAH\IJ18862.D\FID2A.CH
Acq On : 26 Nov 2003 10:07 am Operator: sarahm
Sample : cc912-20 Inst : FID 1
Misc : op9170,gij913,990,,,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 : Fri Nov 21 15:44:37 2003
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	Naphthalene	20.000	19.557	2.2	99	0.00
2	2-Methyl Naphthalene	20.000	19.721	1.4	99	0.00
3	1-Methyl Naphthalene	20.000	19.589	2.1	99	0.00
4 S	2-Fluorobiphenyl	20.000	19.515	2.4	99	0.00
5	Acenaphthylene	20.000	19.840	0.8	99	-0.01
6	Acenaphthene	20.000	19.690	1.5	98	-0.01
7	Fluorene	20.000	20.045	-0.2	99	-0.01
8	Phenanthrene	20.000	19.770	1.2	98	-0.01
9	Anthracene	20.000	19.744	1.3	99	-0.02
10 S	0-Terphenyl	20.000	19.670	1.6	99	-0.01
11	Fluoranthene	20.000	19.819	0.9	99	-0.02
12	Pyrene	20.000	19.594	2.0	99	-0.02
13	Benzo(a)Anthracene	20.000	19.985	0.1	99	-0.02
14	Chrysene	20.000	19.649	1.8	99	-0.02
15	Benzo(b)Fluoranthene	20.000	19.976	0.1	100	-0.03
16	Benzo(k)Fluoranthene	20.000	19.516	2.4	98	-0.03
17	Benzo(a) Pyrene	20.000	19.748	1.3	99	-0.03
18	Indeno(1,2,3-cd)pyrene	20.000	19.823	0.9	99	-0.03
19	Dibenzo(a,h)anthracene	20.000	19.457	2.7	98	-0.03
20	Benzo(g,h,i) Perylene	20.000	19.519	2.4	99	-0.04

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Naphthalene	20.000	19.667	1.7	99	0.00
2	2-Methyl Naphthalene	20.000	19.554	2.2	99	0.00
3	1-Methyl Naphthalene	20.000	19.728	1.4	99	0.00
4 S	2-Fluorobiphenyl	20.000	19.898	0.5	101	0.00
5	Acenaphthylene	20.000	19.732	1.3	100	0.00
6	Acenaphthene	20.000	19.735	1.3	100	0.00
7	Fluorene	20.000	19.841	0.8	100	0.00
8	Phenanthrene	20.000	20.195	-1.0	103	0.00
9	Anthracene	20.000	19.127	4.4	96	0.00
10 S	0-Terphenyl	20.000	19.679	1.6	100	0.00
11	Fluoranthene	20.000	19.874	0.6	100	0.00
12	Pyrene	20.000	19.682	1.6	100	0.00
13	Benzo(a)Anthracene	20.000	19.729	1.4	99	0.00
14	Chrysene	20.000	19.429	2.9	96	0.00
15	Benzo(b)Fluoranthene	20.000	19.938	0.3	102	0.00

Continuing Calibration Summary

Job Number: F20747
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ913-CC912
Lab FileID: IJ18862.D

16	Benzo(k)Fluoranthene	20.000	18.725	6.4	93	0.00
17	Benzo(a) Pyrene	20.000	19.342	3.3	98	0.00
18	Indeno(1,2,3-cd)pyrene	20.000	19.673	1.6	101	0.01
19	Dibenzo(a,h)anthracene	20.000	18.972	5.1	95	0.02
20	Benzo(g,h,i) Perylene	20.000	19.660	1.7	100	0.01

Average % D = 1.8

(#) = Out of Range SPCC's out = 0 CCC's out = 0
IJ18840.D 8100_H2.M Sat Nov 29 08:54:48 2003

5.6
5

Continuing Calibration Summary

Page 1 of 2

Job Number: F20747
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ913-CC912
Lab FileID: IJ18871.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\1126PAH\IJ18871.D\FID1B.CH Vial: 14
Signal #2 : C:\HPCHEM\1\DATA\1126PAH\IJ18871.D\FID2A.CH
Acq On : 26 Nov 2003 2:29 pm Operator: sarahm
Sample : cc912-30 Inst : FID 1
Misc : op9170,gij913,890,,,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 : Fri Nov 21 15:44:37 2003
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	Naphthalene	30.000	30.099	-0.3	99	0.00
2	2-Methyl Naphthalene	30.000	30.579	-1.9	101	0.00
3	1-Methyl Naphthalene	30.000	30.303	-1.0	101	0.00
4 S	2-Fluorobiphenyl	30.000	30.588	-2.0	100	0.00
5	Acenaphthylene	30.000	30.702	-2.3	101	0.00
6	Acenaphthene	30.000	30.597	-2.0	101	0.00
7	Fluorene	30.000	31.167	-3.9	101	-0.01
8	Phenanthrene	30.000	31.422	-4.7	102	-0.01
9	Anthracene	30.000	30.175	-0.6	100	-0.01
10 S	0-Terphenyl	30.000	30.634	-2.1	102	-0.01
11	Fluoranthene	30.000	30.948	-3.2	102	-0.01
12	Pyrene	30.000	30.868	-2.9	102	-0.01
13	Benzo(a)Anthracene	30.000	31.753	-5.8	102	-0.02
14	Chrysene	30.000	30.239	-0.8	102	-0.02
15	Benzo(b)Fluoranthene	30.000	32.071	-6.9	103	-0.02
16	Benzo(k)Fluoranthene	30.000	29.711	1.0	101	-0.02
17	Benzo(a) Pyrene	30.000	30.805	-2.7	102	-0.02
18	Indeno(1,2,3-cd)pyrene	30.000	31.025	-3.4	102	-0.02
19	Dibenzo(a,h)anthracene	30.000	29.615	1.3	99	-0.02
20	Benzo(g,h,i) Perylene	30.000	29.998	0.0	100	-0.03

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Naphthalene	30.000	30.200	-0.7	101	0.00
2	2-Methyl Naphthalene	30.000	30.454	-1.5	101	0.00
3	1-Methyl Naphthalene	30.000	30.633	-2.1	102	0.00
4 S	2-Fluorobiphenyl	30.000	31.053	-3.5	102	0.00
5	Acenaphthylene	30.000	30.588	-2.0	102	0.00
6	Acenaphthene	30.000	30.729	-2.4	102	0.00
7	Fluorene	30.000	31.250	-4.2	103	0.00
8	Phenanthrene	30.000	32.101	-7.0	107	0.00
9	Anthracene	30.000	30.677	-2.3	104	0.00
10 S	0-Terphenyl	30.000	30.605	-2.0	102	0.01
11	Fluoranthene	30.000	31.378	-4.6	105	0.01
12	Pyrene	30.000	30.987	-3.3	103	0.01
13	Benzo(a)Anthracene	30.000	31.051	-3.5	102	0.01
14	Chrysene	30.000	29.965	0.1	97	0.00
15	Benzo(b)Fluoranthene	30.000	31.700	-5.7	105	0.00

Continuing Calibration Summary

Job Number: F20747
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ913-CC912
Lab FileID: IJ18871.D

16	Benzo(k)Fluoranthene	30.000	29.501	1.7	96	0.00
17	Benzo(a) Pyrene	30.000	30.389	-1.3	101	0.01
18	Indeno(1,2,3-cd)pyrene	30.000	31.034	-3.4	103	0.02
19	Dibenzo(a,h)anthracene	30.000	29.046	3.2	96	0.02
20	Benzo(g,h,i) Perylene	30.000	30.418	-1.4	101	0.02

Average % D = 2.6

(#) = Out of Range SPCC's out = 0 CCC's out = 0
IJ18841.D 8100_H2.M Sat Nov 29 08:55:32 2003

5.6
5

Continuing Calibration Summary

Page 1 of 2

Job Number: F20747
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ913-CC912
Lab FileID: IJ18879.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\1126PAH\IJ18879.D\FID1B.CH Vial: 22
Signal #2 : C:\HPCHEM\1\DATA\1126PAH\IJ18879.D\FID2A.CH
Acq On : 26 Nov 2003 6:18 pm Operator: sarahm
Sample : cc912-20 Inst : FID 1
Misc : op9170,gij913,930,,,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 : Fri Nov 21 15:44:37 2003
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	Naphthalene	20.000	20.137	-0.7	102	0.00
2	2-Methyl Naphthalene	20.000	20.140	-0.7	101	0.00
3	1-Methyl Naphthalene	20.000	19.981	0.1	101	0.00
4 S	2-Fluorobiphenyl	20.000	20.107	-0.5	102	0.00
5	Acenaphthylene	20.000	20.125	-0.6	100	0.00
6	Acenaphthene	20.000	20.127	-0.6	101	0.00
7	Fluorene	20.000	20.452	-2.3	101	0.00
8	Phenanthrene	20.000	20.533	-2.7	102	0.00
9	Anthracene	20.000	19.792	1.0	99	0.00
10 S	0-Terphenyl	20.000	20.234	-1.2	102	0.00
11	Fluoranthene	20.000	20.080	-0.4	100	0.00
12	Pyrene	20.000	20.309	-1.5	103	0.00
13	Benzo(a)Anthracene	20.000	20.714	-3.6	102	-0.01
14	Chrysene	20.000	19.803	1.0	100	-0.01
15	Benzo(b)Fluoranthene	20.000	20.899	-4.5	104	-0.01
16	Benzo(k)Fluoranthene	20.000	19.325	3.4	97	-0.02
17	Benzo(a) Pyrene	20.000	20.030	-0.2	100	-0.02
18	Indeno(1,2,3-cd)pyrene	20.000	19.964	0.2	100	-0.02
19	Dibenzo(a,h)anthracene	20.000	19.151	4.2	97	-0.02
20	Benzo(g,h,i) Perylene	20.000	19.184	4.1	98	-0.03

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Naphthalene	20.000	20.082	-0.4	101	0.00
2	2-Methyl Naphthalene	20.000	20.041	-0.2	101	0.00
3	1-Methyl Naphthalene	20.000	20.158	-0.8	102	0.00
4 S	2-Fluorobiphenyl	20.000	20.413	-2.1	103	0.00
5	Acenaphthylene	20.000	20.103	-0.5	102	0.00
6	Acenaphthene	20.000	20.152	-0.8	102	0.00
7	Fluorene	20.000	20.452	-2.3	103	0.00
8	Phenanthrene	20.000	20.839	-4.2	106	0.00
9	Anthracene	20.000	20.278	-1.4	101	-0.01
10 S	0-Terphenyl	20.000	20.168	-0.8	102	0.00
11	Fluoranthene	20.000	20.568	-2.8	104	0.00
12	Pyrene	20.000	20.273	-1.4	103	0.00
13	Benzo(a)Anthracene	20.000	20.277	-1.4	102	-0.01
14	Chrysene	20.000	19.445	2.8	96	-0.01
15	Benzo(b)Fluoranthene	20.000	20.785	-3.9	106	-0.02

Continuing Calibration Summary

Job Number: F20747
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ913-CC912
Lab FileID: IJ18879.D

16	Benzo(k)Fluoranthene	20.000	19.200	4.0	96	-0.02
17	Benzo(a) Pyrene	20.000	19.729	1.4	100	-0.02
18	Indeno(1,2,3-cd)pyrene	20.000	19.815	0.9	102	-0.02
19	Dibenzo(a,h)anthracene	20.000	18.750	6.3	94	-0.01
20	Benzo(g,h,i) Perylene	20.000	19.509	2.5	99	-0.02

Average % D = 1.9

(#) = Out of Range SPCC's out = 0 CCC's out = 0
IJ18840.D 8100_H2.M Sat Nov 29 08:54:50 2003

5.6
5

Continuing Calibration Summary

Page 1 of 2

Job Number: F20747
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ913-ECC912
Lab FileID: IJ18884.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\1126PAH\IJ18884.D\FID1B.CH Vial: 22
Signal #2 : C:\HPCHEM\1\DATA\1126PAH\IJ18884.D\FID2A.CH
Acq On : 26 Nov 2003 8:41 pm Operator: sarahm
Sample : ecc912-20 Inst : FID 1
Misc : op9170,gij913,990,,,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 : Fri Nov 21 15:44:37 2003
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	Naphthalene	20.000	19.614	1.9	99	0.00
2	2-Methyl Naphthalene	20.000	20.172	-0.9	101	0.00
3	1-Methyl Naphthalene	20.000	20.003	-0.0	101	0.00
4 S	2-Fluorobiphenyl	20.000	20.140	-0.7	103	0.00
5	Acenaphthylene	20.000	20.156	-0.8	101	0.00
6	Acenaphthene	20.000	20.198	-1.0	101	0.00
7	Fluorene	20.000	20.538	-2.7	101	0.00
8	Phenanthrene	20.000	20.659	-3.3	103	0.00
9	Anthracene	20.000	19.797	1.0	99	0.00
10 S	0-Terphenyl	20.000	20.308	-1.5	102	0.00
11	Fluoranthene	20.000	20.210	-1.1	101	-0.01
12	Pyrene	20.000	20.451	-2.3	103	-0.01
13	Benzo(a)Anthracene	20.000	20.897	-4.5	103	-0.01
14	Chrysene	20.000	19.967	0.2	101	-0.02
15	Benzo(b)Fluoranthene	20.000	21.135	-5.7	105	-0.02
16	Benzo(k)Fluoranthene	20.000	19.484	2.6	98	-0.02
17	Benzo(a) Pyrene	20.000	20.285	-1.4	101	-0.02
18	Indeno(1,2,3-cd)pyrene	20.000	20.140	-0.7	101	-0.02
19	Dibenzo(a,h)anthracene	20.000	19.343	3.3	98	-0.02
20	Benzo(g,h,i) Perylene	20.000	19.393	3.0	99	-0.03

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Naphthalene	20.000	20.043	-0.2	101	0.00
2	2-Methyl Naphthalene	20.000	19.995	0.0	101	0.00
3	1-Methyl Naphthalene	20.000	20.151	-0.8	102	0.00
4 S	2-Fluorobiphenyl	20.000	20.461	-2.3	104	0.00
5	Acenaphthylene	20.000	20.168	-0.8	102	0.00
6	Acenaphthene	20.000	20.238	-1.2	102	0.00
7	Fluorene	20.000	20.527	-2.6	104	0.00
8	Phenanthrene	20.000	21.099	-5.5	107	0.00
9	Anthracene	20.000	20.244	-1.2	101	0.00
10 S	0-Terphenyl	20.000	20.272	-1.4	103	0.00
11	Fluoranthene	20.000	20.705	-3.5	104	0.00
12	Pyrene	20.000	20.438	-2.2	104	0.00
13	Benzo(a)Anthracene	20.000	20.477	-2.4	103	0.00
14	Chrysene	20.000	19.699	1.5	97	-0.01
15	Benzo(b)Fluoranthene	20.000	20.921	-4.6	107	-0.02

Continuing Calibration Summary

Job Number: F20747
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ913-ECC912
Lab FileID: IJ18884.D

16	Benzo(k)Fluoranthene	20.000	19.448	2.8	97	-0.02
17	Benzo(a) Pyrene	20.000	19.967	0.2	102	-0.02
18	Indeno(1,2,3-cd)pyrene	20.000	20.014	-0.1	103	-0.02
19	Dibenzo(a,h)anthracene	20.000	18.967	5.2	95	-0.02
20	Benzo(g,h,i) Perylene	20.000	19.707	1.5	100	-0.03

Average % D = 2.0

(#) = Out of Range SPCC's out = 0 CCC's out = 0
IJ18840.D 8100_H2.M Sat Nov 29 08:54:52 2003

5.6
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Continuing Calibration Summary

Page 1 of 2

Job Number: F20747
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ914-CC912
Lab FileID: IJ18885.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\1129PAH\IJ18885.D\FID1B.CH Vial: 1
Signal #2 : C:\HPCHEM\1\DATA\1129PAH\IJ18885.D\FID2A.CH
Acq On : 29 Nov 2003 9:40 am Operator: sarahm
Sample : cc912-30 Inst : FID 1
Misc : op9170,gij914,1000,,,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 : Fri Nov 21 15:44:37 2003
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	Naphthalene	30.000	28.420	5.3	94	0.00
2	2-Methyl Naphthalene	30.000	28.474	5.1	94	0.00
3	1-Methyl Naphthalene	30.000	28.309	5.6	94	0.00
4 S	2-Fluorobiphenyl	30.000	28.587	4.7	94	0.00
5	Acenaphthylene	30.000	28.692	4.4	94	0.00
6	Acenaphthene	30.000	28.664	4.5	94	0.00
7	Fluorene	30.000	29.071	3.1	94	0.00
8	Phenanthrene	30.000	29.364	2.1	95	0.00
9	Anthracene	30.000	28.005	6.7	93	0.00
10 S	0-Terphenyl	30.000	28.683	4.4	95	0.00
11	Fluoranthene	30.000	28.766	4.1	94	0.00
12	Pyrene	30.000	28.894	3.7	96	0.00
13	Benzo(a)Anthracene	30.000	29.714	1.0	96	0.00
14	Chrysene	30.000	28.094	6.4	94	-0.01
15	Benzo(b)Fluoranthene	30.000	30.039	-0.1	96	-0.01
16	Benzo(k)Fluoranthene	30.000	27.584	8.1	93	-0.02
17	Benzo(a) Pyrene	30.000	28.570	4.8	94	-0.01
18	Indeno(1,2,3-cd)pyrene	30.000	28.453	5.2	93	-0.02
19	Dibenzo(a,h)anthracene	30.000	27.122	9.6	91	-0.01
20	Benzo(g,h,i) Perylene	30.000	27.201	9.3	90	-0.02

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Naphthalene	30.000	28.744	4.2	96	0.00
2	2-Methyl Naphthalene	30.000	28.791	4.0	96	0.00
3	1-Methyl Naphthalene	30.000	29.039	3.2	96	0.00
4 S	2-Fluorobiphenyl	30.000	29.427	1.9	97	0.00
5	Acenaphthylene	30.000	28.989	3.4	96	0.00
6	Acenaphthene	30.000	29.174	2.8	97	0.00
7	Fluorene	30.000	29.621	1.3	98	-0.01
8	Phenanthrene	30.000	30.746	-2.5	102	-0.01
9	Anthracene	30.000	28.769	4.1	98	-0.01
10 S	0-Terphenyl	30.000	29.064	3.1	97	0.00
11	Fluoranthene	30.000	29.716	0.9	99	0.00
12	Pyrene	30.000	29.340	2.2	98	0.00
13	Benzo(a)Anthracene	30.000	29.505	1.7	97	0.00
14	Chrysene	30.000	28.346	5.5	92	-0.01
15	Benzo(b)Fluoranthene	30.000	30.239	-0.8	100	-0.01

Continuing Calibration Summary

Job Number: F20747
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ914-CC912
Lab FileID: IJ18885.D

16	Benzo(k)Fluoranthene	30.000	27.845	7.2	91	-0.02
17	Benzo(a) Pyrene	30.000	28.686	4.4	95	-0.01
18	Indeno(1,2,3-cd)pyrene	30.000	28.581	4.7	95	-0.01
19	Dibenzo(a,h)anthracene	30.000	27.051	9.8	89	-0.01
20	Benzo(g,h,i) Perylene	30.000	27.988	6.7	93	-0.02

Average % D = 4.3

(#) = Out of Range SPCC's out = 0 CCC's out = 0
IJ18841.D 8100_H2.M Sun Nov 30 09:13:24 2003

5.6
5

Continuing Calibration Summary

Page 1 of 2

Job Number: F20747
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ914-ECC912
Lab FileID: IJ18890.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\1129PAH\IJ18890.D\FID1B.CH Vial: 6
Signal #2 : C:\HPCHEM\1\DATA\1129PAH\IJ18890.D\FID2A.CH
Acq On : 29 Nov 2003 12:03 pm Operator: sarahm
Sample : ecc912-20 Inst : FID 1
Misc : op9170,gij914,980,,,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 : Fri Nov 21 15:44:37 2003
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	Naphthalene	20.000	19.237	3.8	97	0.00
2	2-Methyl Naphthalene	20.000	19.258	3.7	97	0.00
3	1-Methyl Naphthalene	20.000	19.134	4.3	97	0.00
4 S	2-Fluorobiphenyl	20.000	19.238	3.8	98	0.00
5	Acenaphthylene	20.000	19.337	3.3	97	0.00
6	Acenaphthene	20.000	19.308	3.5	97	0.00
7	Fluorene	20.000	19.525	2.4	96	0.00
8	Phenanthrene	20.000	19.587	2.1	97	0.00
9	Anthracene	20.000	19.068	4.7	95	-0.01
10 S	0-Terphenyl	20.000	19.404	3.0	98	0.00
11	Fluoranthene	20.000	19.254	3.7	96	-0.01
12	Pyrene	20.000	19.419	2.9	98	-0.01
13	Benzo(a)Anthracene	20.000	19.735	1.3	97	-0.02
14	Chrysene	20.000	19.038	4.8	96	-0.02
15	Benzo(b)Fluoranthene	20.000	19.744	1.3	98	-0.02
16	Benzo(k)Fluoranthene	20.000	18.695	6.5	94	-0.03
17	Benzo(a) Pyrene	20.000	19.136	4.3	96	-0.02
18	Indeno(1,2,3-cd)pyrene	20.000	18.774	6.1	94	-0.03
19	Dibenzo(a,h)anthracene	20.000	18.116	9.4	91	-0.03
20	Benzo(g,h,i) Perylene	20.000	18.090	9.6	92	-0.04

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Naphthalene	20.000	19.354	3.2	98	0.00
2	2-Methyl Naphthalene	20.000	19.256	3.7	98	0.00
3	1-Methyl Naphthalene	20.000	19.477	2.6	98	0.00
4 S	2-Fluorobiphenyl	20.000	19.627	1.9	99	0.00
5	Acenaphthylene	20.000	19.380	3.1	98	0.00
6	Acenaphthene	20.000	19.505	2.5	99	0.00
7	Fluorene	20.000	19.655	1.7	99	0.00
8	Phenanthrene	20.000	20.187	-0.9	103	0.00
9	Anthracene	20.000	19.284	3.6	96	0.00
10 S	0-Terphenyl	20.000	19.501	2.5	99	0.00
11	Fluoranthene	20.000	19.812	0.9	100	0.00
12	Pyrene	20.000	19.575	2.1	100	0.00
13	Benzo(a)Anthracene	20.000	19.493	2.5	98	0.00
14	Chrysene	20.000	18.813	5.9	93	0.00
15	Benzo(b)Fluoranthene	20.000	19.958	0.2	102	0.00

Continuing Calibration Summary

Job Number: F20747
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ914-ECC912
Lab FileID: IJ18890.D

16	Benzo(k)Fluoranthene	20.000	18.334	8.3	91	0.00
17	Benzo(a) Pyrene	20.000	18.923	5.4	96	0.00
18	Indeno(1,2,3-cd)pyrene	20.000	18.704	6.5	96	0.00
19	Dibenzo(a,h)anthracene	20.000	17.889	10.6	90	0.00
20	Benzo(g,h,i) Perylene	20.000	18.472	7.6	94	-0.02

Average % D = 4.0

(#) = Out of Range SPCC's out = 0 CCC's out = 0
IJ18840.D 8100_H2.M Sun Nov 30 09:12:52 2003

5.6
5



01/16/06

Technical Report for

EEI

Camp Lejeune-LCH 4015

844271

Accutest Job Number: F21143

Sampling Date: 12/11/03

Report to:

EEI

bmorris@eeimail.com

ATTN: Bill Morris

Total number of pages in report: **29**



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: F21143

Camp Lejeune-LCH 4015
Project No: 844271

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
F21143-1	12/11/03	13:25 BS	12/15/03	AQ	Ground Water	USTLCH 4015-MW11

Report of Analysis

Page 1 of 1

Client Sample ID:	USTLCH 4015-MW11	Date Sampled:	12/11/03
Lab Sample ID:	F21143-1	Date Received:	12/15/03
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	CD044133.D	1	12/23/03	BM	n/a	n/a	GCD1819
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	2.5	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	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	94%		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

Page 1 of 1

Client Sample ID:	USTLCH 4015-MW11	Date Sampled:	12/11/03
Lab Sample ID:	F21143-1	Date Received:	12/15/03
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	IJ19055.D	1	12/23/03	SD	12/18/03	OP9365	GIJ922
Run #2							

	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	3.1	5.2	2.1	ug/l	J
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	9.0	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	5.8	5.2	2.1	ug/l	
90-12-0	1-Methylnaphthalene	36.8	5.2	2.1	ug/l	
91-57-6	2-Methylnaphthalene	6.3	5.2	2.1	ug/l	
85-01-8	Phenanthrene	5.7	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	78%		42-123%
84-15-1	o-Terphenyl	106%		51-123%

(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



ACCUTEST LABORATORIES SOUTHEAST SAMPLE RECEIPT CONFIRMATION

F21143

Accutest's Job Number: ENGINEERING + ENVIRONMENT
Client: LCH 4015

Date Received: 12-15-03 Time Received: 8:30 AM

of Coolers Received: 1 Cooler Temperatures: 1.8

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 ?	☒ Soil	☐ Water
Number of Encores ?	<u>0</u>	<u>N/A</u>
Number of Soil Field Kits ?	<u>0</u>	<u>N/A</u>

Summary of Comments: _____

Signature: C. L. Pugh Date: 12-15-03

ASBD/MW 05/11/03

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: F21143
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GCD1819-MB	CD044128.D	1	12/23/03	BM	n/a	n/a	GCD1819

The QC reported here applies to the following samples:

Method: EPA 601/602

F21143-1

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	94% 70-123%
98-08-8	aaa-Trifluorotoluene	93% 73-122%

Blank Spike Summary

Job Number: F21143
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GCD1819-BS	CD044127.D	1	12/23/03	BM	n/a	n/a	GCD1819

The QC reported here applies to the following samples:

Method: EPA 601/602

F21143-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	19.0	95	86-121
108-90-7	Chlorobenzene	20	18.9	95	81-119
95-50-1	1,2-Dichlorobenzene	20	18.0	90	75-120
541-73-1	1,3-Dichlorobenzene	20	18.7	94	77-121
106-46-7	1,4-Dichlorobenzene	20	18.3	92	75-122
100-41-4	Ethylbenzene	20	18.7	94	81-126
1634-04-4	Methyl Tert Butyl Ether	20	20.1	101	76-117
108-88-3	Toluene	20	19.3	97	82-123
1330-20-7	Xylenes (total)	60	54.9	92	82-125

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

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F21143
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F21199-2MS	CD044142.D	1	12/23/03	BM	n/a	n/a	GCD1819
F21199-2MSD	CD044143.D	1	12/23/03	BM	n/a	n/a	GCD1819
F21199-2 ^a	CD044139.D	1	12/23/03	BM	n/a	n/a	GCD1819

The QC reported here applies to the following samples:

Method: EPA 601/602

F21143-1

CAS No.	Compound	F21199-2 ug/l	Spike Q 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	77-125/6
108-90-7	Chlorobenzene	ND	20	18.0	90	17.9	90	1	78-120/8
95-50-1	1,2-Dichlorobenzene	ND	20	17.3	87	17.0	85	2	69-125/7
541-73-1	1,3-Dichlorobenzene	ND	20	17.6	88	17.3	87	2	71-126/7
106-46-7	1,4-Dichlorobenzene	ND	20	17.3	87	17.0	85	2	67-129/7
100-41-4	Ethylbenzene	ND	20	18.0	90	17.9	90	1	74-127/6
1634-04-4	Methyl Tert Butyl Ether	5.3	20	24.8	98	24.4	96	2	66-127/9
108-88-3	Toluene	ND	20	18.4	92	18.5	93	1	77-124/5
1330-20-7	Xylenes (total)	ND	60	52.5	88	52.4	87	0	76-125/5

CAS No.	Surrogate Recoveries	MS	MSD	F21199-2	Limits
352-33-0	1-Chloro-4-fluorobenzene	96%	96%	94%	70-123%
98-08-8	aaa-Trifluorotoluene	98%	98%	96%	73-122%

(a) All hits confirmed by dual column analysis.

Volatile Surrogate Recovery Summary

Job Number: F21143
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

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
F21143-1	CD044133.D	94.0	95.0
F21199-2MS	CD044142.D	96.0	98.0
F21199-2MSD	CD044143.D	96.0	98.0
GCD1819-BS	CD044127.D	97.0	98.0
GCD1819-MB	CD044128.D	94.0	93.0

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

Job Number: F21143
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GCD1819-CC1806	Injection Date:	12/23/03
Lab File ID:	CD044126.D	Injection Time:	08:21
Instrument ID:	GCCD	Method:	EPA 601/602

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	9.08	8.79	5.98	5.38

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
GCD1819-BS	CD044127.D	12/23/03	10:50		8.79		5.38
GCD1819-MB	CD044128.D	12/23/03	11:25		8.79		5.38
ZZZZZZ	CD044129.D	12/23/03	12:02	9.06		5.97	
ZZZZZZ	CD044130.D	12/23/03	12:27		8.78		5.37
ZZZZZZ	CD044131.D	12/23/03	12:51		8.78		5.38
ZZZZZZ	CD044132.D	12/23/03	13:15		8.78		5.37
F21143-1	CD044133.D	12/23/03	13:40		8.77		5.37
ZZZZZZ	CD044134.D	12/23/03	14:04		8.77		5.37
ZZZZZZ	CD044135.D	12/23/03	14:29		8.77		5.37

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: F21143
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GCD1819-CC1806	Injection Date:	12/23/03
Lab File ID:	CD044137.D	Injection Time:	15:18
Instrument ID:	GCCD	Method:	EPA 601/602

S1^a	S2^a
RT	RT

Check Std	8.77	5.37

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
ZZZZZZ	CD044138.D	12/23/03	15:42	8.77	5.37
F21199-2	CD044139.D	12/23/03	16:07	8.78	5.38
ZZZZZZ	CD044140.D	12/23/03	16:31	8.77	5.38
ZZZZZZ	CD044141.D	12/23/03	16:56	8.77	5.38
F21199-2MS	CD044142.D	12/23/03	17:21	8.77	5.38
F21199-2MSD	CD044143.D	12/23/03	17:45	8.77	5.37
ZZZZZZ	CD044144.D	12/23/03	18:10	8.78	5.38
ZZZZZZ	CD044145.D	12/23/03	18:34	8.78	5.38
ZZZZZZ	CD044146.D	12/23/03	18:59	8.77	5.37
ZZZZZZ	CD044147.D	12/23/03	19:23	8.78	5.38

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: F21143
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GCD1806-ICC1806
Lab FileID: CD043805.D

Response Factor Report VOA2

Method : C:\HPCHEM\2\METHODS\GCCD1215.M (Chemstation Integrator)
Title : EPA 602/8021B
Last Update : Mon Dec 15 08:11:11 2003
Response via : Initial Calibration

Calibration Files

1 =CD043803.D 2 =CD043804.D 3 =CD043805.D
4 =CD043806.D 5 =CD043807.D 6 =CD043808.D

Compound	1	2	3	4	5	6	Avg	%RSD
1) Methyl tert Butyl E	1.355	1.406	1.273	1.439	1.405	1.394	1.379	E3 4.23
2) Di-Isopropyl ether	2.009	2.278	2.306	2.327	2.308	2.286	2.252	E3 5.35
3) BENZENE	6.626	6.015	5.958	5.989	5.960	5.965	6.085	E3 4.36
4) S a,a,a-TFT(S)	1.575	1.629	1.714	1.728	1.748	1.704	1.683	E3 3.95
5) TOLUENE		6.064	6.017	6.021	6.005	5.994	6.020	E3 0.44
6) S 1-Chloro-4-Fluorobe	2.943	2.997	3.156	3.217	3.247	3.168	3.121	E3 3.94
7) CHLOROBENZENE	7.400	6.851	6.533	6.488	6.538	6.595	6.734	E3 5.21
8) ETHYLBENZENE		5.989	5.557	5.490	5.482	5.518	5.607	E3 3.84
9) m,p-XYLENE	6.968	6.196	6.009	5.930	5.972	5.939	6.169	E3 6.54
10) o-XYLENE	6.247	5.702	5.575	5.484	5.491	5.533	5.672	E3 5.16
11) 1,3-DICHLOROBENZENE	6.344	5.629	5.713	5.617	5.673	5.320	5.716	E3 5.91
12) 1,4-DICHLOROBENZENE	6.932	5.982	5.969	5.934	6.012	5.947	6.129	E3 6.43
13) 1,2-DICHLOROBENZENE	5.530	4.625	4.682	4.571	4.604	4.515	4.755	E3 8.08

Signal #2 Calibration Files

1 =CD043803.D 2 =CD043804.D 3 =CD043805.D
4 =CD043806.D 5 =CD043807.D 6 =CD043808.D

Compound	1	2	3	4	5	6	Avg	%RSD
1) Methyl tert Butyl E	0.993	0.973	0.773	0.986	0.975	1.020	0.954	E3 9.42
2) Di-Isopropyl ether	1.372	1.591	1.616	1.552	1.535	1.533	1.533	E3 5.57
3) BENZENE	4.826	4.357	4.289	4.230	4.202	4.239	4.357	E3 5.42
4) S a,a,a-TFT(S)	1.118	1.137	1.126	1.131	1.157	1.187	1.143	E3 2.22
5) TOLUENE		4.545	4.386	4.362	4.392	4.387	4.414	E3 1.68
6) S 1-Chloro-4-Fluorobe	2.159	2.175	2.216	2.185	2.243	2.250	2.205	E3 1.69
7) CHLOROBENZENE	5.157	5.103	4.937	4.818	4.875	4.824	4.952	E3 2.93
8) ETHYLBENZENE	4.484	4.236	4.178	4.087	4.128	4.151	4.211	E3 3.39
9) m,p-XYLENE	5.387	4.563	4.488	4.394	4.391	4.446	4.611	E3 8.35
10) o-XYLENE	4.890	4.208	4.140	4.095	4.063	4.092	4.248	E3 7.50
11) 1,3-DICHLOROBENZENE	5.146	4.508	4.373	4.305	4.382	4.389	4.517	E3 6.97
12) 1,4-DICHLOROBENZENE	5.623	4.596	4.595	4.568	4.679	4.694	4.792	E3 8.55
13) 1,2-DICHLOROBENZENE	4.351	3.569	3.567	3.523	3.623	3.604	3.706	E3 8.58

Average % RSD = 5.2

(#) = Out of Range

GCCD1215.M

Tue Dec 16 08:30:28 2003

QRXY

Continuing Calibration Summary

Page 1 of 1

Job Number: F21143
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GCD1819-CC1806
Lab FileID: CD044126.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\2\DATA\122303\CD044126.D\FID1A.CH Vial: 1
Signal #2 : C:\HPCHEM\2\DATA\122303\CD044126.D\FID2B.CH
Acq On : 23 Dec 2003 8:21 am Operator: BarbaraM
Sample : CC1806-40 Inst : VOA2
Misc : gc3058,gcd1819,,,,,1 Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E

Method : C:\HPCHEM\2\METHODS\GCCD1215.M (Chemstation Integrator)
Title : EPA 602/8021B
Last Update : Mon Dec 15 12:40:54 2003
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	38.516	3.7	92	0.00
2	Di-Isopropyl ether	40.000	42.036	-5.1	102	0.01
3	BENZENE	40.000	40.166	-0.4	102	0.02
4 S	a,a,a-TFT(S)	20.000	21.185	-5.9	103	0.02
5	TOLUENE	40.000	41.096	-2.7	103	0.02
6 S	1-Chloro-4-Fluorobenzene	20.000	21.278	-6.4	103	0.03
7	CHLOROBENZENE	40.000	40.273	-0.7	105	0.03
8	ETHYLBENZENE	40.000	40.545	-1.4	104	0.03
9	m,p-XYLENE	80.000	79.431	0.7	103	0.02
10	o-XYLENE	40.000	40.470	-1.2	105	0.02
11	1,3-DICHLOROBENZENE	40.000	41.528	-3.8	106	0.01
12	1,4-DICHLOROBENZENE	40.000	40.741	-1.9	105	0.01
13	1,2-DICHLOROBENZENE	40.000	40.203	-0.5	105	0.02

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	40.000	39.998	0.0	97	0.02
2	Di-Isopropyl ether	40.000	40.930	-2.3	101	0.02
3	BENZENE	40.000	38.736	3.2	100	0.03
4 S	a,a,a-TFT(S)	20.000	20.156	-0.8	102	0.03
5	TOLUENE	40.000	40.127	-0.3	102	0.03
6 S	1-Chloro-4-Fluorobenzene	20.000	20.487	-2.4	103	0.04
7	CHLOROBENZENE	40.000	40.079	-0.2	103	0.04
8	ETHYLBENZENE	40.000	39.290	1.8	101	0.04
9	m,p-XYLENE	80.000	77.014	3.7	101	0.03
10	o-XYLENE	40.000	39.457	1.4	102	0.03
11	1,3-DICHLOROBENZENE	40.000	39.529	1.2	104	0.02
12	1,4-DICHLOROBENZENE	40.000	39.391	1.5	103	0.02
13	1,2-DICHLOROBENZENE	40.000	39.551	1.1	104	0.02

Average % D = 2.1

(#) = Out of Range
CD043806.D GCCD1215.M

SPCC's out = 0 CCC's out = 0
Wed Dec 24 08:14:06 2003 QRLX

Continuing Calibration Summary

Page 1 of 1

Job Number: F21143
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GCD1819-CC1806
Lab FileID: CD044137.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\2\DATA\122303\CD044137.D\FID1A.CH Vial: 12
Signal #2 : C:\HPCHEM\2\DATA\122303\CD044137.D\FID2B.CH
Acq On : 23 Dec 2003 3:18 pm Operator: BarbaraM
Sample : CC1806-20 Inst : VOA2
Misc : gc3065,gcd1819,,,,,1 Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E

Method : C:\HPCHEM\2\METHODS\GCCD1215.M (Chemstation Integrator)
Title : EPA 602/8021B
Last Update : Mon Dec 15 12:40:54 2003
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	19.844	0.8	107	0.00
2	Di-Isopropyl ether	20.000	21.038	-5.2	103	0.00
3	BENZENE	20.000	20.042	-0.2	102	0.00
4 S	a,a,a-TFT(S)	20.000	20.747	-3.7	102	0.00
5	TOLUENE	20.000	20.339	-1.7	102	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	20.271	-1.4	100	0.00
7	CHLOROBENZENE	20.000	19.767	1.2	102	0.00
8	ETHYLBENZENE	20.000	20.340	-1.7	103	0.00
9	m,p-XYLENE	40.000	39.273	1.8	101	0.00
10	o-XYLENE	20.000	19.830	0.9	101	0.00
11	1,3-DICHLOROBENZENE	20.000	20.245	-1.2	101	0.00
12	1,4-DICHLOROBENZENE	20.000	19.650	1.8	101	0.00
13	1,2-DICHLOROBENZENE	20.000	19.742	1.3	100	0.00

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	17.977	10.1	111	0.02
2	Di-Isopropyl ether	20.000	20.349	-1.7	97	0.02
3	BENZENE	20.000	19.531	2.3	99	0.02
4 S	a,a,a-TFT(S)	20.000	19.685	1.6	100	0.02
5	TOLUENE	20.000	19.960	0.2	100	0.02
6 S	1-Chloro-4-Fluorobenzene	20.000	19.462	2.7	97	0.02
7	CHLOROBENZENE	20.000	19.454	2.7	98	0.02
8	ETHYLBENZENE	20.000	19.616	1.9	99	0.02
9	m,p-XYLENE	40.000	38.038	4.9	98	0.02
10	o-XYLENE	20.000	19.352	3.2	99	0.02
11	1,3-DICHLOROBENZENE	20.000	19.220	3.9	99	0.02
12	1,4-DICHLOROBENZENE	20.000	18.960	5.2	99	0.02
13	1,2-DICHLOROBENZENE	20.000	19.167	4.2	100	0.02

Average % D = 2.6

(#) = Out of Range
CD043805.D GCCD1215.M

SPCC's out = 0 CCC's out = 0
Wed Dec 24 08:13:32 2003 QRLX

Continuing Calibration Summary

Page 1 of 1

Job Number: F21143
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GCD1819-CC1806
Lab FileID: CD044148.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\2\DATA\122303\CD044148.D\FID1A.CH Vial: 22
Signal #2 : C:\HPCHEM\2\DATA\122303\CD044148.D\FID2B.CH
Acq On : 23 Dec 2003 7:48 pm Operator: BarbaraM
Sample : CC1806-20 Inst : VOA2
Misc : gc3065,gcd1819,,,,,1 Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E

Method : C:\HPCHEM\2\METHODS\GCCD1215.M (Chemstation Integrator)
Title : EPA 602/8021B
Last Update : Mon Dec 15 12:40:54 2003
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	21.706	-8.5	118	0.00
2	Di-Isopropyl ether	20.000	21.335	-6.7	104	0.00
3	BENZENE	20.000	19.868	0.7	101	0.00
4 S	a,a,a-TFT(S)	20.000	20.509	-2.5	101	0.01
5	TOLUENE	20.000	20.149	-0.7	101	0.02
6 S	1-Chloro-4-Fluorobenzene	20.000	20.179	-0.9	100	0.02
7	CHLOROBENZENE	20.000	19.551	2.2	101	0.02
8	ETHYLBENZENE	20.000	19.998	0.0	101	0.02
9	m,p-XYLENE	40.000	38.809	3.0	100	0.02
10	o-XYLENE	20.000	19.661	1.7	100	0.02
11	1,3-DICHLOROBENZENE	20.000	19.850	0.7	99	0.02
12	1,4-DICHLOROBENZENE	20.000	19.368	3.2	99	0.02
13	1,2-DICHLOROBENZENE	20.000	19.632	1.8	100	0.02

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	21.366	-6.8	132	0.02
2	Di-Isopropyl ether	20.000	20.603	-3.0	98	0.02
3	BENZENE	20.000	19.346	3.3	98	0.02
4 S	a,a,a-TFT(S)	20.000	19.370	3.1	98	0.03
5	TOLUENE	20.000	19.718	1.4	99	0.03
6 S	1-Chloro-4-Fluorobenzene	20.000	19.337	3.3	96	0.04
7	CHLOROBENZENE	20.000	19.374	3.1	97	0.03
8	ETHYLBENZENE	20.000	19.458	2.7	98	0.03
9	m,p-XYLENE	40.000	37.643	5.9	97	0.03
10	o-XYLENE	20.000	19.186	4.1	98	0.03
11	1,3-DICHLOROBENZENE	20.000	19.017	4.9	98	0.03
12	1,4-DICHLOROBENZENE	20.000	19.035	4.8	99	0.03
13	1,2-DICHLOROBENZENE	20.000	19.201	4.0	100	0.03

Average % D = 3.2

(#) = Out of Range
CD043805.D GCCD1215.M

SPCC's out = 0 CCC's out = 0
Wed Dec 24 08:13:33 2003 QRLX

GC Semi-volatiles

5

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: F21143
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP9365-MB	IJ19047.D	1	12/23/03	SD	12/18/03	OP9365	GIJ922

The QC reported here applies to the following samples:

Method: EPA 610

F21143-1

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	97%	51-123%

Blank Spike Summary

Page 1 of 1

Job Number: F21143
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP9365-BS	IJ19046.D	1	12/23/03	SD	12/18/03	OP9365	GIJ922

The QC reported here applies to the following samples:

Method: EPA 610

F21143-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	25	26.4	106	71-113
208-96-8	Acenaphthylene	25	23.8	95	63-102
120-12-7	Anthracene	25	25.8	103	71-110
56-55-3	Benzo(a)anthracene	25	26.0	104	70-114
50-32-8	Benzo(a)pyrene	25	26.1	104	67-114
205-99-2	Benzo(b)fluoranthene	25	25.7	103	69-115
191-24-2	Benzo(g,h,i)perylene	25	25.9	104	61-117
207-08-9	Benzo(k)fluoranthene	25	26.1	104	69-111
218-01-9	Chrysene	25	26.4	106	70-114
53-70-3	Dibenzo(a,h)anthracene	25	26.1	104	64-114
206-44-0	Fluoranthene	25	26.3	105	71-114
86-73-7	Fluorene	25	26.1	104	69-111
193-39-5	Indeno(1,2,3-cd)pyrene	25	25.3	101	63-112
91-20-3	Naphthalene	25	24.1	96	66-105
90-12-0	1-Methylnaphthalene	25	25.9	104	71-112
91-57-6	2-Methylnaphthalene	25	24.6	98	65-106
85-01-8	Phenanthrene	25	26.0	104	69-112
129-00-0	Pyrene	25	26.4	106	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: F21143
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP9365-MS	IJ19049.D	1	12/23/03	SD	12/18/03	OP9365	GIJ922
OP9365-MSD	IJ19050.D	1	12/23/03	SD	12/18/03	OP9365	GIJ922
F21142-1	IJ19048.D	1	12/23/03	SD	12/18/03	OP9365	GIJ922

The QC reported here applies to the following samples:

Method: EPA 610

F21143-1

CAS No.	Compound	F21142-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		51	51.9	102	53.8	105	4	59-123/20
208-96-8	Acenaphthylene	ND		51	46.6	91	49.0	96	5	51-114/20
120-12-7	Anthracene	ND		51	51.1	100	52.0	102	2	64-114/17
56-55-3	Benzo(a)anthracene	ND		51	51.9	102	52.7	103	2	66-115/17
50-32-8	Benzo(a)pyrene	ND		51	52.6	103	53.3	104	1	62-118/17
205-99-2	Benzo(b)fluoranthene	ND		51	53.1	104	52.9	104	0	66-117/17
191-24-2	Benzo(g,h,i)perylene	ND		51	51.9	102	52.6	103	1	59-120/17
207-08-9	Benzo(k)fluoranthene	ND		51	51.2	100	52.4	103	2	64-116/16
218-01-9	Chrysene	ND		51	52.8	103	53.6	105	2	66-117/16
53-70-3	Dibenzo(a,h)anthracene	ND		51	52.2	102	52.9	104	1	57-124/18
206-44-0	Fluoranthene	ND		51	52.5	103	53.3	104	2	67-116/17
86-73-7	Fluorene	ND		51	51.2	100	52.8	103	3	58-122/19
193-39-5	Indeno(1,2,3-cd)pyrene	ND		51	50.9	100	51.5	101	1	59-116/18
91-20-3	Naphthalene	ND		51	46.6	91	49.4	97	6	47-114/20
90-12-0	1-Methylnaphthalene	ND		51	50.6	99	52.9	104	4	55-128/21
91-57-6	2-Methylnaphthalene	ND		51	47.9	94	50.1	98	4	51-117/21
85-01-8	Phenanthrene	ND		51	51.7	101	52.6	103	2	63-116/18
129-00-0	Pyrene	ND		51	52.8	103	53.6	105	2	67-116/17

CAS No.	Surrogate Recoveries	MS	MSD	F21142-1	Limits
321-60-8	2-Fluorobiphenyl	93%	97%	89%	42-123%
84-15-1	o-Terphenyl	100%	102%	97%	51-123%

Semivolatile Surrogate Recovery Summary

Job Number: F21143
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

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
F21143-1	IJ19055.D	78.0	106.0
OP9365-BS	IJ19046.D	100.0	105.0
OP9365-MB	IJ19047.D	91.0	97.0
OP9365-MS	IJ19049.D	93.0	100.0
OP9365-MSD	IJ19050.D	97.0	102.0

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorobiphenyl	42-123%
S2 = o-Terphenyl	51-123%

(a) Recovery from GC signal #1

5.4
5

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F21143
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GUJ922-ICC922	Injection Date:	12/23/03
Lab File ID:	IJ19041.D	Injection Time:	13:17
Instrument ID:	GCIJ	Method:	EPA 610

S1^a	S2^a
RT	RT

Check Std	5.68	10.19

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
OP9365-BS	IJ19046.D	12/23/03	15:41	5.68	10.20
OP9365-MB	IJ19047.D	12/23/03	16:10	5.68	10.20
F21142-1	IJ19048.D	12/23/03	16:39	5.69	10.20
OP9365-MS	IJ19049.D	12/23/03	17:07	5.69	10.20
OP9365-MSD	IJ19050.D	12/23/03	17:36	5.69	10.20
ZZZZZZ	IJ19051.D	12/23/03	18:05	5.69	10.20
ZZZZZZ	IJ19052.D	12/23/03	18:34	5.69	10.20
ZZZZZZ	IJ19053.D	12/23/03	19:02	5.69	10.20
ZZZZZZ	IJ19054.D	12/23/03	19:31	5.69	10.20
F21143-1	IJ19055.D	12/23/03	20:00	5.69	10.20

Surrogate Compounds

S1 = 2-Fluorobiphenyl
S2 = o-Terphenyl

(a) Retention time from GC signal #1

Initial Calibration Summary

Page 1 of 2

Job Number: F21143
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ922-ICC922
Lab FileID: IJ19041.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 Dec 23 14:17:24 2003
Response via : Initial Calibration

Calibration Files

5	=IJ19039.D	10	=IJ19040.D	20	=IJ19041.D
30	=IJ19042.D	40	=IJ19043.D	50	=IJ19044.D

	Compound	5	10	20	30	40	50	Avg	%RSD
1)	Naphthalene	1.197	1.287	1.247	1.212	1.231	1.256	1.238	E4 2.60
2)	2-Methyl Naphthalen	1.164	1.245	1.208	1.198	1.205	1.228	1.208	E4 2.28
3)	1-Methyl Naphthalen	1.140	1.215	1.181	1.170	1.175	1.197	1.180	E4 2.15
4) S	2-Fluorobiphenyl	1.025	1.111	1.073	1.067	1.073	1.096	1.074	E4 2.75
5)	Acenaphthylene	1.156	1.245	1.224	1.218	1.226	1.254	1.220	E4 2.82
6)	Acenaphthene	1.174	1.272	1.245	1.243	1.248	1.275	1.243	E4 2.95
7)	Fluorene	1.155	1.251	1.224	1.221	1.226	1.252	1.221	E4 2.88
8)	Phenanthrene	1.141	1.253	1.226	1.218	1.221	1.248	1.218	E4 3.30
9)	Anthracene	1.212	1.285	1.242	1.229	1.218	1.242	1.238	E4 2.11
10) S	0-Terphenyl	1.224	1.305	1.260	1.245	1.248	1.272	1.259	E4 2.21
11)	Fluoranthene	1.195	1.286	1.242	1.230	1.235	1.261	1.241	E4 2.49
12)	Pyrene	1.146	1.281	1.240	1.229	1.231	1.257	1.231	E4 3.72
13)	Benzo(a)Anthracene	1.188	1.281	1.246	1.236	1.243	1.268	1.244	E4 2.59
14)	Chrysene	1.220	1.293	1.243	1.227	1.229	1.252	1.244	E4 2.15
15)	Benzo(b)Fluoranthen	1.194	1.298	1.255	1.257	1.265	1.300	1.262	E4 3.07
16)	Benzo(k)Fluoranthen	1.277	1.329	1.285	1.255	1.258	1.270	1.279	E4 2.12
17)	Benzo(a) Pyrene	1.170	1.242	1.206	1.192	1.198	1.220	1.205	E4 2.04
18)	Indeno(1,2,3-cd)pyr	1.185	1.263	1.231	1.222	1.229	1.253	1.230	E4 2.22
19)	Dibenzo(a,h)anthrac	1.230	1.284	1.241	1.233	1.236	1.256	1.247	E4 1.64
20)	Benzo(g,h,i) Peryle	1.233	1.285	1.248	1.239	1.246	1.267	1.253	E4 1.56

Signal #2 Calibration Files

5	=IJ19039.D	10	=IJ19040.D	20	=IJ19041.D
30	=IJ19042.D	40	=IJ19043.D	50	=IJ19044.D

	Compound	5	10	20	30	40	50	Avg	%RSD
1)	Naphthalene	1.782	1.900	1.840	1.819	1.828	1.865	1.839	E4 2.19
2)	2-Methyl Naphthalen	1.700	1.821	1.768	1.752	1.760	1.798	1.767	E4 2.34
3)	1-Methyl Naphthalen	1.661	1.778	1.729	1.716	1.722	1.761	1.728	E4 2.36
4) S	2-Fluorobiphenyl	1.525	1.636	1.594	1.585	1.594	1.628	1.594	E4 2.47
5)	Acenaphthylene	1.738	1.867	1.827	1.812	1.820	1.859	1.821	E4 2.52
6)	Acenaphthene	1.757	1.895	1.844	1.831	1.839	1.878	1.841	E4 2.59
7)	Fluorene	1.704	1.844	1.797	1.786	1.797	1.835	1.794	E4 2.77
8)	Phenanthrene	1.623	1.796	1.768	1.764	1.794	1.828	1.762	E4 4.08
9)	Anthracene	1.813	1.908	1.830	1.803	1.787	1.838	1.830	E4 2.32
10) S	0-Terphenyl	1.799	1.920	1.854	1.834	1.840	1.875	1.854	E4 2.21
11)	Fluoranthene	1.771	1.890	1.828	1.810	1.813	1.851	1.827	E4 2.21
12)	Pyrene	1.783	1.903	1.840	1.821	1.828	1.864	1.840	E4 2.22
13)	Benzo(a)Anthracene	1.808	1.919	1.853	1.835	1.842	1.875	1.855	E4 2.06
14)	Chrysene	1.776	1.873	1.812	1.793	1.803	1.838	1.816	E4 1.91
15)	Benzo(b)Fluoranthen	1.793	1.916	1.852	1.851	1.862	1.888	1.860	E4 2.22
16)	Benzo(k)Fluoranthen	1.824	1.941	1.877	1.839	1.840	1.883	1.867	E4 2.31
17)	Benzo(a) Pyrene	1.720	1.828	1.771	1.754	1.761	1.792	1.771	E4 2.06
18)	Indeno(1,2,3-cd)pyr	1.757	1.884	1.838	1.827	1.862	1.898	1.844	E4 2.73
19)	Dibenzo(a,h)anthrac	1.791	1.880	1.815	1.782	1.766	1.794	1.805	E4 2.23
20)	Benzo(g,h,i) Peryle	1.787	1.905	1.844	1.823	1.826	1.859	1.841	E4 2.16

Initial Calibration Summary

Job Number: F21143
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ922-ICC922
Lab FileID: IJ19041.D

Average % RSD = 2.4

(#) = Out of Range

8100_H2.M

Sun Dec 28 10:54:43 2003

5.6
5

Continuing Calibration Summary

Page 1 of 2

Job Number: F21143
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ922-CC922
Lab FileID: IJ19056.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\1223PAH\IJ19056.D\FID1B.CH Vial: 20
Signal #2 : C:\HPCHEM\1\DATA\1223PAH\IJ19056.D\FID2A.CH
Acq On : 23 Dec 2003 8:28 pm Operator: sarahm
Sample : cc922-20 Inst : FID 1
Misc : op9365,gij922,960,,,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 : Tue Dec 23 14:17:24 2003
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	Naphthalene	20.000	20.403	-2.0	101	0.00
2	2-Methyl Naphthalene	20.000	20.299	-1.5	101	0.00
3	1-Methyl Naphthalene	20.000	20.296	-1.5	101	0.00
4 S	2-Fluorobiphenyl	20.000	20.263	-1.3	101	0.00
5	Acenaphthylene	20.000	20.356	-1.8	102	0.00
6	Acenaphthene	20.000	20.372	-1.9	102	0.00
7	Fluorene	20.000	20.319	-1.6	101	0.00
8	Phenanthrene	20.000	20.421	-2.1	101	0.00
9	Anthracene	20.000	20.409	-2.0	102	0.00
10 S	0-Terphenyl	20.000	20.327	-1.6	102	0.00
11	Fluoranthene	20.000	20.353	-1.8	102	0.00
12	Pyrene	20.000	20.476	-2.4	102	0.00
13	Benzo(a)Anthracene	20.000	20.373	-1.9	102	0.00
14	Chrysene	20.000	20.342	-1.7	102	-0.01
15	Benzo(b)Fluoranthene	20.000	20.316	-1.6	102	-0.01
16	Benzo(k)Fluoranthene	20.000	20.392	-2.0	101	-0.02
17	Benzo(a) Pyrene	20.000	20.365	-1.8	102	-0.01
18	Indeno(1,2,3-cd)pyrene	20.000	20.362	-1.8	102	-0.02
19	Dibenzo(a,h)anthracene	20.000	20.473	-2.4	103	-0.02
20	Benzo(g,h,i) Perylene	20.000	20.394	-2.0	102	-0.02

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Naphthalene	20.000	20.253	-1.3	101	0.00
2	2-Methyl Naphthalene	20.000	20.202	-1.0	101	0.00
3	1-Methyl Naphthalene	20.000	20.203	-1.0	101	0.00
4 S	2-Fluorobiphenyl	20.000	20.230	-1.2	101	0.00
5	Acenaphthylene	20.000	20.249	-1.2	101	0.00
6	Acenaphthene	20.000	20.250	-1.3	101	0.00
7	Fluorene	20.000	20.284	-1.4	101	0.00
8	Phenanthrene	20.000	20.340	-1.7	101	0.00
9	Anthracene	20.000	20.134	-0.7	101	0.00
10 S	0-Terphenyl	20.000	20.278	-1.4	101	0.00
11	Fluoranthene	20.000	20.226	-1.1	101	0.00
12	Pyrene	20.000	20.249	-1.2	101	0.00
13	Benzo(a)Anthracene	20.000	20.212	-1.1	101	0.00
14	Chrysene	20.000	20.249	-1.2	101	0.00
15	Benzo(b)Fluoranthene	20.000	20.100	-0.5	101	0.00

Continuing Calibration Summary

Job Number: F21143
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ922-CC922
Lab FileID: IJ19056.D

16	Benzo(k)Fluoranthene	20.000	20.365	-1.8	101	-0.01
17	Benzo(a) Pyrene	20.000	20.272	-1.4	101	-0.01
18	Indeno(1,2,3-cd)pyrene	20.000	20.158	-0.8	101	-0.02
19	Dibenzo(a,h)anthracene	20.000	20.392	-2.0	101	-0.02
20	Benzo(g,h,i) Perylene	20.000	20.290	-1.4	101	-0.03

Average % D = 1.5

(#) = Out of Range SPCC's out = 0 CCC's out = 0
IJ19041.D 8100_H2.M Sun Dec 28 11:36:18 2003

5.6
5

February 2004 Groundwater Laboratory Report



01/16/06

Technical Report for

EEI

Camp Lejeune-LCH 4015

CTO 0001

Accutest Job Number: F22323

Sampling Dates: 02/19/04 - 02/20/04

Report to:

EEI

bmorris@eeimail.com

ATTN: Bill Morris

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, 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: F22323

Camp Lejeune-LCH 4015
Project No: CTO 0001

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
F22323-1	02/20/04	12:00 TE	02/21/04	AQ	Ground Water	USTLCH4015-MW01
F22323-2	02/20/04	10:50 TE	02/21/04	AQ	Ground Water	USTLCH4015-MW02
F22323-3	02/19/04	15:00 TE	02/21/04	AQ	Ground Water	USTLCH4015-MW03
F22323-4	02/19/04	14:07 TE	02/21/04	AQ	Ground Water	USTLCH4015-MW05
F22323-5	02/20/04	09:20 TE	02/21/04	AQ	Ground Water	USTLCH4015-MW09
F22323-6	02/19/04	11:40 TE	02/21/04	AQ	Ground Water	USTLCH4015-MW011
F22323-7	02/19/04	00:00 TE	02/21/04	AQ	Ground Water	USTLCH4015-DUP

Report of Analysis

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Client Sample ID:	USTLCH4015-MW01	Date Sampled:	02/20/04
Lab Sample ID:	F22323-1	Date Received:	02/21/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EF035545.D	5	02/26/04	CV	n/a	n/a	GEF3018
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	131	5.0	2.5	ug/l	
108-90-7	Chlorobenzene	ND	5.0	2.5	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	5.0	2.5	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.0	2.5	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	5.0	2.5	ug/l	
100-41-4	Ethylbenzene	439	5.0	2.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	8.1	5.0	2.5	ug/l	
108-88-3	Toluene	27.5	5.0	2.5	ug/l	
1330-20-7	Xylenes (total)	514	15	5.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	104%		70-123%
98-08-8	aaa-Trifluorotoluene	104%		73-122%

(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

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Client Sample ID:	USTLCH4015-MW01	Date Sampled:	02/20/04
Lab Sample ID:	F22323-1	Date Received:	02/21/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	IJ19427.D	1	02/26/04	SD	02/24/04	OP9830	GIJ941
Run #2 ^a	IJ19451.D	4	02/27/04	SD	02/24/04	OP9830	GIJ942

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

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	157 ^b	21	8.2	ug/l	
90-12-0	1-Methylnaphthalene	26.9	5.2	2.1	ug/l	
91-57-6	2-Methylnaphthalene	38.7	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	103%	97%	42-123%
84-15-1	o-Terphenyl	97%	91%	51-123%

(a) All hits confirmed by dual column analysis.

(b) Result is from Run# 2

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:	USTLCH4015-MW02	Date Sampled:	02/20/04
Lab Sample ID:	F22323-2	Date Received:	02/21/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EF035519.D	1	02/25/04	CV	n/a	n/a	GEF3017
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	19.1	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	14.5	1.0	0.50	ug/l	
1634-04-4	Methyl Tert Butyl Ether	94.4	1.0	0.50	ug/l	
108-88-3	Toluene	1.3	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	76.9	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	105%		70-123%
98-08-8	aaa-Trifluorotoluene	105%		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:	USTLCH4015-MW02	Date Sampled:	02/20/04
Lab Sample ID:	F22323-2	Date Received:	02/21/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	IJ19428.D	1	02/26/04	SD	02/24/04	OP9830	GIJ941
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	15.7	5.0	2.0	ug/l	
90-12-0	1-Methylnaphthalene	3.5	5.0	2.0	ug/l	J
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	98%		42-123%
84-15-1	o-Terphenyl	96%		51-123%

(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:	USTLCH4015-MW03	Date Sampled:	02/19/04
Lab Sample ID:	F22323-3	Date Received:	02/21/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

Run	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EF035520.D	1	02/25/04	CV	n/a	n/a	GEF3017
Run #2							

Run	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	10.5	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	3.7	1.0	0.50	ug/l	
1634-04-4	Methyl Tert Butyl Ether	7.0	1.0	0.50	ug/l	
108-88-3	Toluene	0.68	1.0	0.50	ug/l	J
1330-20-7	Xylenes (total)	3.6	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	101%		70-123%
98-08-8	aaa-Trifluorotoluene	104%		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:	USTLCH4015-MW03	Date Sampled:	02/19/04
Lab Sample ID:	F22323-3	Date Received:	02/21/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	IJ19429.D	1	02/26/04	SD	02/24/04	OP9830	GIJ941
Run #2							

	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	2.3	5.1	2.0	ug/l	J
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	90%		42-123%
84-15-1	o-Terphenyl	96%		51-123%

(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:	USTLCH4015-MW05	Date Sampled:	02/19/04
Lab Sample ID:	F22323-4	Date Received:	02/21/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EF035521.D	1	02/25/04	CV	n/a	n/a	GEF3017
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	5.5	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	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	95%		70-123%
98-08-8	aaa-Trifluorotoluene	101%		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:	USTLCH4015-MW05	Date Sampled:	02/19/04
Lab Sample ID:	F22323-4	Date Received:	02/21/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ19430.D	1	02/26/04	SD	02/24/04	OP9830	GIJ941
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	77%		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:	USTLCH4015-MW09	Date Sampled:	02/20/04
Lab Sample ID:	F22323-5	Date Received:	02/21/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EF035529.D	1	02/26/04	CV	n/a	n/a	GEF3018
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	8.0	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	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	95%		70-123%
98-08-8	aaa-Trifluorotoluene	101%		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:	USTLCH4015-MW09	Date Sampled:	02/20/04
Lab Sample ID:	F22323-5	Date Received:	02/21/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ19431.D	1	02/26/04	SD	02/24/04	OP9830	GIJ941
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	66%		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:	USTLCH4015-MW011	Date Sampled:	02/19/04
Lab Sample ID:	F22323-6	Date Received:	02/21/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EF035530.D	1	02/26/04	CV	n/a	n/a	GEF3018
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	3.9	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	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	99%		70-123%
98-08-8	aaa-Trifluorotoluene	101%		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:	USTLCH4015-MW011	Date Sampled:	02/19/04
Lab Sample ID:	F22323-6	Date Received:	02/21/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	IJ19432.D	1	02/26/04	SD	02/24/04	OP9830	GIJ941
Run #2							

	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	5.1	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	4.6	5.1	2.0	ug/l	J
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	82%		42-123%
84-15-1	o-Terphenyl	85%		51-123%

(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:	USTLCH4015-DUP	Date Sampled:	02/19/04
Lab Sample ID:	F22323-7	Date Received:	02/21/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EF035531.D	1	02/26/04	CV	n/a	n/a	GEF3018
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	5.5	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	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	94%		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

Page 1 of 1

Client Sample ID:	USTLCH4015-DUP	Date Sampled:	02/19/04
Lab Sample ID:	F22323-7	Date Received:	02/21/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ19435.D	1	02/26/04	SD	02/24/04	OP9830	GIJ941
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	96%		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

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

ACCUSET JOE

ACCOUNT JOB #
P22323
QUOTE #:

CLIENT INFORMATION			FACILITY INFORMATION			ANALYTICAL INFORMATION			MATRIX CODES							
ENGINEERING & ENVIRONMENTAL INC NAME: 324 Gum Branch Rd Suite 200 ADDRESS: Jackson, NJ 08540 CITY: STATE: ZIP: 08540 SEND REPORT TO: 3341 (474) PHONE #: (910) 989-3214			PROJECT NAME: LCH 4015 LOCATION: MIDWAY PARK PROJECT NO.: CTO 0001 FAX #: (910) 989-3341			USEPA 602 USEPA 610			DW - DRINKING WATER GW - GROUND WATER WW - WASTE WATER SO - SOIL SL - SLUDGE OI - OIL LQ - OTHER LIQUID SOL - OTHER SOLID							
ACCUTEST SAMPLE #		FIELD ID / POINT OF COLLECTION	COLLECTION		PRESERVATION								LAB USE ONLY			
			DATE	TIME	SAMPLED BY:	MATRIX	# OF BOTTLES	HC	NI	NI/CH	NI/CH	NI/CH		NI/CH	NI/CH	NI/CH
1	USTLCH4015 - MW01	2/24/04	1200	TE/BS	GN	1	X						X	X		
2	USTLCH4015 - MW02	2/20/04	1050	TE/BS		4	X						X	X		
3	USTLCH4015 - MW03	2/19/04	1500	TE/BS		4	X						X	X		
4	USTLCH4015 - MW05	2/19/04	1407	TE/BS		4	X						X	X		
5	USTLCH4015 - MW09	2/24/04	0920	TE/BS		4	X						X	X		
6	USTLCH4015 - MW11	2/19/04	1140	TE/BS		4	Y						X	X		
7	USTLCH4015 - DUP	2/19/04	-	TE/BS	GN	4	X						X	X		
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>NEESEE 4</u>													
APPROVED BY: _____			APPROVED BY: _____													
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY.																
RELINQUISHED BY: 1. <u>[Signature]</u>		DATE TIME: <u>2-20-04</u>		RECEIVED BY: 1. <u>FED-EX</u>		RELINQUISHED BY: 2. <u>FED-EX</u>		DATE TIME: <u>2/21/04 9:10</u>		RECEIVED BY: 2. <u>[Signature]</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 <u>48.34</u> °C						

F22323: Chain of Custody

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ACCUTEST LABORATORIES SOUTHEAST SAMPLE RECEIPT CONFIRMATION

Accutest's Job Number: **F22323**
 Client: ENGINEERING + ENVIR Project: LCH 4015
 Date Received: 2/21/04 Time Received: 9:30 AM
 # of Coolers Received: 2 Cooler Temperatures: 4.8 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	N/A
Trip Blank Matrix ?	Soil	☒ Water	N/A
Number of Encores ?	<u>0</u>		
Number of Soil Field Kits ?	<u>0</u>		

Summary of Comments: _____

Signature: Carlos P. [Signature] Date: 2/21/04
 Review Signature: [Signature]

ASBD 12/30/03

F22323: 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

Job Number: F22323
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GEF3017-MB	EF035497.D	1	02/25/04	CV	n/a	n/a	GEF3017

The QC reported here applies to the following samples:

Method: EPA 601/602

F22323-2, F22323-3, F22323-4

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	92% 73-122%

Method Blank Summary

Job Number: F22323
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GEF3018-MB	EF035523.D	1	02/25/04	CV	n/a	n/a	GEF3018

The QC reported here applies to the following samples:

Method: EPA 601/602

F22323-1, F22323-5, F22323-6, F22323-7

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	96% 70-123%
98-08-8	aaa-Trifluorotoluene	100% 73-122%

Blank Spike Summary

Job Number: F22323
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GEF3017-BS	EF035496.D	1	02/25/04	CV	n/a	n/a	GEF3017

The QC reported here applies to the following samples:

Method: EPA 601/602

F22323-2, F22323-3, F22323-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	19.2	96	86-121
108-90-7	Chlorobenzene	20	18.4	92	81-119
95-50-1	1,2-Dichlorobenzene	20	17.8	89	75-120
541-73-1	1,3-Dichlorobenzene	20	18.9	95	77-121
106-46-7	1,4-Dichlorobenzene	20	18.2	91	75-122
100-41-4	Ethylbenzene	20	18.2	91	81-126
1634-04-4	Methyl Tert Butyl Ether	20	18.1	91	76-117
108-88-3	Toluene	20	18.7	94	82-123
1330-20-7	Xylenes (total)	60	54.5	91	82-125

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

Blank Spike Summary

Job Number: F22323
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GEF3018-BS	EF035522.D	1	02/25/04	CV	n/a	n/a	GEF3018

The QC reported here applies to the following samples: Method: EPA 601/602

F22323-1, F22323-5, F22323-6, F22323-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	20.8	104	86-121
108-90-7	Chlorobenzene	20	19.8	99	81-119
95-50-1	1,2-Dichlorobenzene	20	19.5	98	75-120
541-73-1	1,3-Dichlorobenzene	20	20.2	101	77-121
106-46-7	1,4-Dichlorobenzene	20	19.5	98	75-122
100-41-4	Ethylbenzene	20	19.5	98	81-126
1634-04-4	Methyl Tert Butyl Ether	20	20.1	101	76-117
108-88-3	Toluene	20	20.2	101	82-123
1330-20-7	Xylenes (total)	60	58.4	97	82-125

CAS No.	Surrogate Recoveries	BSP	Limits
352-33-0	1-Chloro-4-fluorobenzene	102%	70-123%
98-08-8	aaa-Trifluorotoluene	103%	73-122%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F22323
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F22286-4MS	EF035499.D	1	02/25/04	CV	n/a	n/a	GEF3017
F22286-4MSD	EF035500.D	1	02/25/04	CV	n/a	n/a	GEF3017
F22286-4	EF035498.D	1	02/25/04	CV	n/a	n/a	GEF3017

The QC reported here applies to the following samples:

Method: EPA 601/602

F22323-2, F22323-3, F22323-4

CAS No.	Compound	F22286-4 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	20	18.8	94	18.7	94	1	77-125/6
108-90-7	Chlorobenzene	ND	20	17.7	89	17.9	90	1	78-120/8
95-50-1	1,2-Dichlorobenzene	ND	20	17.5	88	17.1	86	2	69-125/7
541-73-1	1,3-Dichlorobenzene	ND	20	17.8	89	17.8	89	0	71-126/7
106-46-7	1,4-Dichlorobenzene	ND	20	17.4	87	17.5	88	1	67-129/7
100-41-4	Ethylbenzene	ND	20	17.6	88	17.5	88	1	74-127/6
1634-04-4	Methyl Tert Butyl Ether	ND	20	18.6	93	18.6	93	0	66-127/9
108-88-3	Toluene	ND	20	18.2	91	18.0	90	1	77-124/5
1330-20-7	Xylenes (total)	ND	60	52.7	88	52.3	87	1	76-125/5

CAS No.	Surrogate Recoveries	MS	MSD	F22286-4	Limits
352-33-0	1-Chloro-4-fluorobenzene	95%	93%	84%	70-123%
98-08-8	aaa-Trifluorotoluene	94%	94%	91%	73-122%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F22323
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F22315-3MS	EF035525.D	1	02/25/04	CV	n/a	n/a	GEF3018
F22315-3MSD	EF035526.D	1	02/26/04	CV	n/a	n/a	GEF3018
F22315-3 ^a	EF035524.D	1	02/25/04	CV	n/a	n/a	GEF3018

The QC reported here applies to the following samples:

Method: EPA 601/602

F22323-1, F22323-5, F22323-6, F22323-7

CAS No.	Compound	F22315-3 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
108-90-7	Chlorobenzene	ND	20	19.8	99	20.0	100	1	78-120/8
95-50-1	1,2-Dichlorobenzene	ND	20	20.8	104	22.2	111	7	69-125/7
541-73-1	1,3-Dichlorobenzene	ND	20	19.7	99	20.1	101	2	71-126/7
106-46-7	1,4-Dichlorobenzene	ND	20	19.5	98	20.1	101	3	67-129/7
100-41-4	Ethylbenzene	3.2	20	23.1	100	23.0	99	0	74-127/6
1634-04-4	Methyl Tert Butyl Ether	0.58	J 20	21.1	103	20.8	101	1	66-127/9
108-88-3	Toluene	ND	20	20.2	101	20.2	101	0	77-124/5
1330-20-7	Xylenes (total)	ND	60	58.6	98	58.8	98	0	76-125/5

CAS No.	Surrogate Recoveries	MS	MSD	F22315-3	Limits
352-33-0	1-Chloro-4-fluorobenzene	104%	103%	98%	70-123%
98-08-8	aaa-Trifluorotoluene	106%	106%	103%	73-122%

(a) All hits confirmed by dual column analysis.

Volatile Surrogate Recovery Summary

Page 1 of 1

Job Number: F22323
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

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
F22323-1	EF035545.D	104.0	104.0
F22323-2	EF035519.D	105.0	105.0
F22323-3	EF035520.D	101.0	104.0
F22323-4	EF035521.D	95.0	101.0
F22323-5	EF035529.D	95.0	101.0
F22323-6	EF035530.D	99.0	101.0
F22323-7	EF035531.D	94.0	99.0
F22286-4MS	EF035499.D	95.0	94.0
F22286-4MSD	EF035500.D	93.0	94.0
F22315-3MS	EF035525.D	104.0	106.0
F22315-3MSD	EF035526.D	103.0	106.0
GEF3017-BS	EF035496.D	97.0	97.0
GEF3017-MB	EF035497.D	87.0	92.0
GEF3018-BS	EF035522.D	102.0	103.0
GEF3018-MB	EF035523.D	96.0	100.0

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: F22323
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GEF3017-CC3016	Injection Date:	02/25/04
Lab File ID:	EF035495.D	Injection Time:	09:50
Instrument ID:	GCEF	Method:	EPA 601/602

S1^a	S2^a
RT	RT

Check Std	8.85	5.76

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
GEF3017-BS	EF035496.D	02/25/04	10:27	8.84	5.76
GEF3017-MB	EF035497.D	02/25/04	10:51	8.84	5.76
F22286-4	EF035498.D	02/25/04	11:16	8.84	5.76
F22286-4MS	EF035499.D	02/25/04	11:41	8.83	5.76
F22286-4MSD	EF035500.D	02/25/04	12:05	8.84	5.76
ZZZZZZ	EF035501.D	02/25/04	12:30	8.84	5.76
ZZZZZZ	EF035502.D	02/25/04	12:54	8.84	5.76
ZZZZZZ	EF035503.D	02/25/04	13:18	8.84	5.76
ZZZZZZ	EF035504.D	02/25/04	13:43	8.84	5.76
ZZZZZZ	EF035505.D	02/25/04	14:08	8.84	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: F22323
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GEF3017-CC3016	Injection Date:	02/25/04
Lab File ID:	EF035517.D	Injection Time:	20:36
Instrument ID:	GCEF	Method:	EPA 601/602

S1^a	S2^a
RT	RT

Check Std	8.84	5.76

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
ZZZZZZ	EF035518.D	02/25/04	21:00	8.84	5.76
F22323-2	EF035519.D	02/25/04	21:25	8.84	5.76
F22323-3	EF035520.D	02/25/04	21:49	8.84	5.76
F22323-4	EF035521.D	02/25/04	22:13	8.84	5.76
GEF3018-BS	EF035522.D	02/25/04	22:38	8.84	5.76
GEF3018-MB	EF035523.D	02/25/04	23:03	8.84	5.76
F22315-3	EF035524.D	02/25/04	23:27	8.84	5.76
F22315-3MS	EF035525.D	02/25/04	23:51	8.84	5.76
F22315-3MSD	EF035526.D	02/26/04	00:15	8.84	5.76
ZZZZZZ	EF035527.D	02/26/04	00:40	8.84	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: F22323
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GEF3018-CC3016	Injection Date:	02/26/04
Lab File ID:	EF035528.D	Injection Time:	01:04
Instrument ID:	GCEF	Method:	EPA 601/602

S1^a	S2^a
RT	RT

Check Std	8.84	5.76

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
F22323-5	EF035529.D	02/26/04	01:28	8.84	5.76
F22323-6	EF035530.D	02/26/04	01:53	8.84	5.76
F22323-7	EF035531.D	02/26/04	02:17	8.84	5.76
ZZZZZZ	EF035532.D	02/26/04	02:41	8.84	5.76
ZZZZZZ	EF035533.D	02/26/04	03:06	8.84	5.75
ZZZZZZ	EF035534.D	02/26/04	03:30	8.84	5.76
ZZZZZZ	EF035535.D	02/26/04	03:54	8.84	5.76

Surrogate Compounds

S1 = 1-Chloro-4-fluorobenzene

S2 = aaa-Trifluorotoluene

(a) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: F22323
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GEF3018-CC3016	Injection Date:	02/26/04
Lab File ID:	EF035539.D	Injection Time:	05:39
Instrument ID:	GCEF	Method:	EPA 601/602

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	9.03	8.84	5.97	5.76

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
ZZZZZZ	EF035540.D	02/26/04	06:06		8.84		5.75
ZZZZZZ	EF035541.D	02/26/04	06:33		8.84		5.76
ZZZZZZ	EF035542.D	02/26/04	07:00		8.84		5.76
F22323-1	EF035545.D	02/26/04	08:20		8.84		5.76
GEF3018-ECC3018	EF035547.D	02/26/04	09:10	9.04	8.84	5.97	5.76

Surrogate
Compounds

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

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

Initial Calibration Summary

Job Number: F22323
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3016-ICC3016
Lab FileID: EF035469.D

Page 1 of 1

Response Factor Report VOA1

Method : C:\HPCHEM\1\METHODS\DUAL0224.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Wed Feb 18 11:36:12 2004
Response via : Initial Calibration

Calibration Files

1	=EF035467.D	2	=EF035468.D	3	=EF035469.D
4	=EF035470.D	5	=EF035471.D	6	=EF035472.D

	Compound	1	2	3	4	5	6	Avg	%RSD
1)	Methyl tert Butyl E	1.572	1.797	1.858	1.923	1.923	1.922	1.833	E3 7.48
2)	Di-Isopropyl ether	2.501	2.791	2.840	2.875	2.865	2.882	2.792	E3 5.25
3)	Benzene	6.159	6.340	6.475	6.564	6.528	6.599	6.444	E3 2.59
4) S	a,a,a-TFT(S)	1.914	1.947	1.996	2.010	2.030	2.083	1.997	E3 3.01
5)	Toluene	5.746	5.458	5.617	5.727	5.698	5.765	5.668	E3 2.04
6) S	1-Chloro-4-Fluorobe	2.929	2.871	3.004	3.028	3.113	3.183	3.021	E3 3.80
7)	Chlorobenzene		5.648	5.442	5.498	5.494	5.559	5.528	E3 1.43
8)	Ethylbenzene		5.113	4.853	4.810	4.795	4.842	4.883	E3 2.68
9)	m,p-Xylene		5.330	5.230	5.230	5.215	5.255	5.252	E3 0.87
10)	o-Xylene	5.351	4.640	4.682	4.701	4.663	4.685	4.787	E3 5.79
11)	1,3-Dichlorobenzene	4.656	3.584	3.896	3.937	4.074	4.208	4.059	E3 8.86
12)	1,4-Dichlorobenzene	4.701	3.782	4.161	4.252	4.389	4.544	4.305	E3 7.48
13)	1,2-Dichlorobenzene		2.369	2.618	2.702	2.771	2.886	2.669	E3 7.29

Signal #2

1)	Methyl tert Butyl E	1.305	1.478	1.522	1.568	1.555	1.541	1.495	E3 6.55
2)	Di-Isopropyl ether	2.053	2.222	2.270	2.295	2.273	2.265	2.230	E3 4.03
3)	Benzene	4.955	5.227	5.401	5.418	5.385	5.427	5.302	E3 3.49
4) S	a,a,a-TFT(S)	1.504	1.541	1.583	1.581	1.604	1.633	1.574	E3 2.92
5)	Toluene	4.546	4.367	4.624	4.662	4.645	4.721	4.594	E3 2.72
6) S	1-Chloro-4-Fluorobe	2.183	2.183	2.313	2.321	2.399	2.444	2.307	E3 4.67
7)	Chlorobenzene		5.029	4.607	4.572	4.576	4.612	4.679	E3 4.20
8)	Ethylbenzene		4.207	4.126	4.108	4.097	4.112	4.130	E3 1.07
9)	m,p-Xylene		4.498	4.432	4.432	4.461	4.475	4.460	E3 0.64
10)	o-Xylene	4.144	3.657	3.743	3.720	3.739	3.781	3.797	E3 4.60
11)	1,3-Dichlorobenzene	3.198	2.811	3.127	3.203	3.234	3.325	3.150	E3 5.64
12)	1,4-Dichlorobenzene	3.424	2.840	3.200	3.259	3.315	3.439	3.246	E3 6.76
13)	1,2-Dichlorobenzene		1.949	2.196	2.293	2.323	2.385	2.229	E3 7.67

(#) = Out of Range

DUAL0224.M

Wed Feb 25 08:52:39 2004

EF

Continuing Calibration Summary

Page 1 of 1

Job Number: F22323
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3017-CC3016
Lab FileID: EF035495.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\022504\EF035495.D\FID1A.CH Vial: 1
Signal #2 : C:\HPCHEM\1\DATA\022504\EF035495.D\FID2B.CH
Acq On : 25 Feb 2004 9:50 am Operator: ClaireV
Sample : CC3016-40 Inst : VOA1
Misc : gc3226,gef3017,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL0224.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Wed Feb 18 11:36:12 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	39.242	1.9	94	0.00
2	Di-Isopropyl ether	40.000	41.327	-3.3	100	0.00
3	Benzene	40.000	41.813	-4.5	103	0.00
4 S	a,a,a-TFT(S)	20.000	20.861	-4.3	104	0.00
5	Toluene	40.000	41.877	-4.7	104	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	21.175	-5.9	106	0.00
7	Chlorobenzene	40.000	41.733	-4.3	105	0.00
8	Ethylbenzene	40.000	41.033	-2.6	104	0.00
9	m,p-Xylene	80.000	84.027	-5.0	105	0.00
10	o-Xylene	40.000	41.155	-2.9	105	0.00
11	1,3-Dichlorobenzene	40.000	42.236	-5.6	109	0.00
12	1,4-Dichlorobenzene	40.000	42.594	-6.5	108	0.00
13	1,2-Dichlorobenzene	40.000	44.131	-10.3	109	0.00

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	40.000	38.199	4.5	91	0.00
2	Di-Isopropyl ether	40.000	39.511	1.2	96	0.00
3	Benzene	40.000	40.060	-0.2	98	0.00
4 S	a,a,a-TFT(S)	20.000	20.108	-0.5	100	0.00
5	Toluene	40.000	40.301	-0.8	99	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	20.169	-0.8	100	0.00
7	Chlorobenzene	40.000	39.099	2.3	100	0.00
8	Ethylbenzene	40.000	39.576	1.1	99	0.00
9	m,p-Xylene	80.000	79.901	0.1	100	0.00
10	o-Xylene	40.000	39.737	0.7	101	0.00
11	1,3-Dichlorobenzene	40.000	41.778	-4.4	103	0.00
12	1,4-Dichlorobenzene	40.000	41.374	-3.4	103	0.00
13	1,2-Dichlorobenzene	40.000	41.874	-4.7	102	0.00

Average % D = 3.3

(#) = Out of Range
EF035470.D DUAL0224.M

SPCC's out = 0 CCC's out = 0
Thu Feb 26 09:39:55 2004 EF

Continuing Calibration Summary

Page 1 of 1

Job Number: F22323
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3017-CC3016
Lab FileID: EF035506.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\022504\EF035506.D\FID1A.CH Vial: 11
Signal #2 : C:\HPCHEM\1\DATA\022504\EF035506.D\FID2B.CH
Acq On : 25 Feb 2004 4:07 pm Operator: ClaireV
Sample : cc3016-20 Inst : VOA1
Misc : gc3226,gef3017,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL0224.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Wed Feb 18 11:36:12 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	20.607	-3.0	102	0.00
2	Di-Isopropyl ether	20.000	20.959	-4.8	103	0.00
3	Benzene	20.000	20.682	-3.4	103	0.00
4 S	a,a,a-TFT(S)	20.000	19.265	3.7	96	0.00
5	Toluene	20.000	20.830	-4.1	105	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	19.523	2.4	98	0.00
7	Chlorobenzene	20.000	20.822	-4.1	106	0.00
8	Ethylbenzene	20.000	20.713	-3.6	104	0.00
9	m,p-Xylene	40.000	41.616	-4.0	104	0.00
10	o-Xylene	20.000	20.509	-2.5	105	0.00
11	1,3-Dichlorobenzene	20.000	19.721	1.4	103	0.00
12	1,4-Dichlorobenzene	20.000	19.775	1.1	102	0.00
13	1,2-Dichlorobenzene	20.000	19.859	0.7	101	0.00

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	20.165	-0.8	99	0.00
2	Di-Isopropyl ether	20.000	20.061	-0.3	99	0.00
3	Benzene	20.000	20.206	-1.0	99	0.00
4 S	a,a,a-TFT(S)	20.000	18.689	6.6	93	0.00
5	Toluene	20.000	20.260	-1.3	101	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	18.978	5.1	95	0.00
7	Chlorobenzene	20.000	19.967	0.2	101	0.00
8	Ethylbenzene	20.000	20.066	-0.3	100	0.00
9	m,p-Xylene	40.000	39.893	0.3	100	0.00
10	o-Xylene	20.000	20.034	-0.2	102	0.00
11	1,3-Dichlorobenzene	20.000	19.794	1.0	100	0.00
12	1,4-Dichlorobenzene	20.000	19.425	2.9	99	0.00
13	1,2-Dichlorobenzene	20.000	18.868	5.7	96	0.00

Average % D = 2.5

(#) = Out of Range
EF035469.D DUAL0224.M

SPCC's out = 0 CCC's out = 0
Thu Feb 26 09:43:25 2004 EF

Continuing Calibration Summary

Page 1 of 1

Job Number: F22323
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3017-CC3016
Lab FileID: EF035517.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\022504\EF035517.D\FID1A.CH Vial: 22
Signal #2 : C:\HPCHEM\1\DATA\022504\EF035517.D\FID2B.CH
Acq On : 25 Feb 2004 8:36 pm Operator: ClaireV
Sample : cc3016-20 Inst : VOA1
Misc : gc3226,gef3017,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL0224.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Wed Feb 18 11:36:12 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	20.630	-3.1	102	0.00
2	Di-Isopropyl ether	20.000	20.818	-4.1	102	0.00
3	Benzene	20.000	20.470	-2.3	102	0.00
4 S	a,a,a-TFT(S)	20.000	19.367	3.2	97	0.00
5	Toluene	20.000	20.296	-1.5	102	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	19.339	3.3	97	0.00
7	Chlorobenzene	20.000	20.073	-0.4	102	0.00
8	Ethylbenzene	20.000	20.129	-0.6	101	0.00
9	m,p-Xylene	40.000	40.339	-0.8	101	0.00
10	o-Xylene	20.000	19.682	1.6	101	0.00
11	1,3-Dichlorobenzene	20.000	19.413	2.9	101	0.00
12	1,4-Dichlorobenzene	20.000	19.517	2.4	101	0.00
13	1,2-Dichlorobenzene	20.000	19.738	1.3	101	0.00

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	22.568	-12.8	111	0.00
2	Di-Isopropyl ether	20.000	22.046	-10.2	108	0.00
3	Benzene	20.000	21.905	-9.5	108	0.00
4 S	a,a,a-TFT(S)	20.000	20.537	-2.7	102	0.00
5	Toluene	20.000	21.693	-8.5	108	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	20.427	-2.1	102	0.00
7	Chlorobenzene	20.000	21.273	-6.4	108	0.00
8	Ethylbenzene	20.000	21.258	-6.3	106	0.00
9	m,p-Xylene	40.000	42.261	-5.7	106	0.00
10	o-Xylene	20.000	21.282	-6.4	108	0.00
11	1,3-Dichlorobenzene	20.000	21.462	-7.3	108	0.00
12	1,4-Dichlorobenzene	20.000	21.136	-5.7	107	0.00
13	1,2-Dichlorobenzene	20.000	20.708	-3.5	105	0.00

Average % D = 4.4

(#) = Out of Range
EF035469.D DUAL0224.M

SPCC's out = 0 CCC's out = 0
Thu Feb 26 09:43:26 2004 EF

Continuing Calibration Summary

Page 1 of 1

Job Number: F22323
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3018-CC3016
Lab FileID: EF035528.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\022504\EF035528.D\FID1A.CH Vial: 32
Signal #2 : C:\HPCHEM\1\DATA\022504\EF035528.D\FID2B.CH
Acq On : 26 Feb 2004 1:04 am Operator: ClaireV
Sample : cc3016-20 Inst : VOA1
Misc : gc3230,gef3018,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL0224.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Wed Feb 18 11:36:12 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	21.311	-6.6	105	0.00
2	Di-Isopropyl ether	20.000	20.710	-3.6	102	0.00
3	Benzene	20.000	19.530	2.3	97	0.00
4 S	a,a,a-TFT(S)	20.000	19.426	2.9	97	0.00
5	Toluene	20.000	19.472	2.6	98	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	19.348	3.3	97	0.00
7	Chlorobenzene	20.000	19.663	1.7	100	0.00
8	Ethylbenzene	20.000	19.658	1.7	99	0.00
9	m,p-Xylene	40.000	39.284	1.8	99	0.00
10	o-Xylene	20.000	19.539	2.3	100	0.00
11	1,3-Dichlorobenzene	20.000	18.937	5.3	99	0.00
12	1,4-Dichlorobenzene	20.000	19.346	3.3	100	0.00
13	1,2-Dichlorobenzene	20.000	19.236	3.8	98	0.00

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	22.490	-12.4	110	0.00
2	Di-Isopropyl ether	20.000	21.713	-8.6	107	0.00
3	Benzene	20.000	20.859	-4.3	102	0.00
4 S	a,a,a-TFT(S)	20.000	20.612	-3.1	103	0.00
5	Toluene	20.000	20.709	-3.5	103	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	20.524	-2.6	102	0.00
7	Chlorobenzene	20.000	20.675	-3.4	105	0.00
8	Ethylbenzene	20.000	20.736	-3.7	104	0.00
9	m,p-Xylene	40.000	41.334	-3.3	104	0.00
10	o-Xylene	20.000	20.841	-4.2	106	0.00
11	1,3-Dichlorobenzene	20.000	20.934	-4.7	105	0.00
12	1,4-Dichlorobenzene	20.000	20.396	-2.0	103	0.00
13	1,2-Dichlorobenzene	20.000	20.242	-1.2	103	0.00

Average % D = 3.8

(#) = Out of Range
EF035469.D DUAL0224.M

SPCC's out = 0 CCC's out = 0
Thu Feb 26 09:43:28 2004 EF

Continuing Calibration Summary

Page 1 of 1

Job Number: F22323
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3018-CC3016
Lab FileID: EF035539.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\022504\EF035539.D\FID1A.CH Vial: 43
Signal #2 : C:\HPCHEM\1\DATA\022504\EF035539.D\FID2B.CH
Acq On : 26 Feb 2004 5:39 am Operator: ClaireV
Sample : cc3016-20 Inst : VOA1
Misc : gc3226,gef3018,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL0224.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Wed Feb 18 11:36:12 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	20.872	-4.4	103	0.00
2	Di-Isopropyl ether	20.000	20.538	-2.7	101	0.00
3	Benzene	20.000	17.397	13.0	87	0.00
4 S	a,a,a-TFT(S)	20.000	19.526	2.4	98	0.00
5	Toluene	20.000	17.164	14.2	87	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	19.530	2.3	98	0.00
7	Chlorobenzene	20.000	18.659	6.7	95	0.00
8	Ethylbenzene	20.000	19.094	4.5	96	0.00
9	m,p-Xylene	40.000	38.682	3.3	97	0.00
10	o-Xylene	20.000	18.930	5.4	97	0.00
11	1,3-Dichlorobenzene	20.000	18.587	7.1	97	0.00
12	1,4-Dichlorobenzene	20.000	18.729	6.4	97	0.00
13	1,2-Dichlorobenzene	20.000	19.500	2.5	99	0.00

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	22.220	-11.1	109	0.00
2	Di-Isopropyl ether	20.000	21.574	-7.9	106	0.00
3	Benzene	20.000	18.414	7.9	90	0.00
4 S	a,a,a-TFT(S)	20.000	20.618	-3.1	103	0.00
5	Toluene	20.000	18.247	8.8	91	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	20.488	-2.4	102	0.00
7	Chlorobenzene	20.000	19.807	1.0	101	0.00
8	Ethylbenzene	20.000	20.141	-0.7	101	0.00
9	m,p-Xylene	40.000	40.194	-0.5	101	0.00
10	o-Xylene	20.000	20.091	-0.5	102	0.00
11	1,3-Dichlorobenzene	20.000	20.148	-0.7	101	0.00
12	1,4-Dichlorobenzene	20.000	19.799	1.0	100	0.00
13	1,2-Dichlorobenzene	20.000	20.036	-0.2	102	0.00

Average % D = 4.6

(#) = Out of Range
EF035469.D DUAL0224.M

SPCC's out = 0 CCC's out = 0
Thu Feb 26 09:43:29 2004 EF

Continuing Calibration Summary

Page 1 of 1

Job Number: F22323
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3018-ECC3016
Lab FileID: EF035547.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\022504\EF035547.D\FID1A.CH Vial: 51
Signal #2 : C:\HPCHEM\1\DATA\022504\EF035547.D\FID2B.CH
Acq On : 26 Feb 2004 9:10 am Operator: ClaireV
Sample : ecc3016-20 Inst : VOA1
Misc : gc3227,gef3018,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL0224.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Wed Feb 18 11:36:12 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	20.420	-2.1	101	0.00
2	Di-Isopropyl ether	20.000	20.248	-1.2	100	0.00
3	Benzene	20.000	19.837	0.8	99	0.00
4 S	a,a,a-TFT(S)	20.000	20.108	-0.5	101	0.00
5	Toluene	20.000	19.702	1.5	99	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	20.278	-1.4	102	0.00
7	Chlorobenzene	20.000	19.583	2.1	99	0.00
8	Ethylbenzene	20.000	19.700	1.5	99	0.00
9	m,p-Xylene	40.000	39.406	1.5	99	0.00
10	o-Xylene	20.000	19.535	2.3	100	0.00
11	1,3-Dichlorobenzene	20.000	19.064	4.7	99	0.00
12	1,4-Dichlorobenzene	20.000	19.234	3.8	99	0.00
13	1,2-Dichlorobenzene	20.000	20.810	-4.0	106	0.00

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	21.781	-8.9	107	0.00
2	Di-Isopropyl ether	20.000	21.293	-6.5	105	0.00
3	Benzene	20.000	21.134	-5.7	104	0.00
4 S	a,a,a-TFT(S)	20.000	21.391	-7.0	106	0.00
5	Toluene	20.000	21.003	-5.0	104	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	21.699	-8.5	108	0.00
7	Chlorobenzene	20.000	20.894	-4.5	106	0.00
8	Ethylbenzene	20.000	20.957	-4.8	105	0.00
9	m,p-Xylene	40.000	41.248	-3.1	104	0.00
10	o-Xylene	20.000	20.998	-5.0	107	0.00
11	1,3-Dichlorobenzene	20.000	21.056	-5.3	106	0.00
12	1,4-Dichlorobenzene	20.000	20.602	-3.0	105	0.00
13	1,2-Dichlorobenzene	20.000	21.656	-8.3	110	0.00

Average % D = 4.0

(#) = Out of Range
EF035469.D DUAL0224.M

SPCC's out = 0 CCC's out = 0
Thu Feb 26 09:43:30 2004 EF

GC Semi-volatiles

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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: F22323
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP9830-MB	IJ19419.D	1	02/26/04	SD	02/24/04	OP9830	GIJ941

The QC reported here applies to the following samples:

Method: EPA 610

F22323-1, F22323-2, F22323-3, F22323-4, F22323-5, F22323-6, F22323-7

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	97% 42-123%
84-15-1	o-Terphenyl	96% 51-123%

Method Blank Summary

Page 1 of 1

Job Number: F22323
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP9830-MB	IJ19445.D	1	02/27/04	SD	02/24/04	OP9830	GIJ942

The QC reported here applies to the following samples:

Method: EPA 610

F22323-1, F22323-2, F22323-3, F22323-4, F22323-5, F22323-6, F22323-7

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	98% 42-123%
84-15-1	o-Terphenyl	99% 51-123%

Blank Spike Summary

Page 1 of 1

Job Number: F22323
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP9830-BS	IJ19418.D	1	02/26/04	SD	02/24/04	OP9830	GIJ941

The QC reported here applies to the following samples:

Method: EPA 610

F22323-1, F22323-2, F22323-3, F22323-4, F22323-5, F22323-6, F22323-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	25	21.0	84	71-113
208-96-8	Acenaphthylene	25	20.5	82	63-102
120-12-7	Anthracene	25	22.0	88	71-110
56-55-3	Benzo(a)anthracene	25	22.6	90	70-114
50-32-8	Benzo(a)pyrene	25	23.4	94	67-114
205-99-2	Benzo(b)fluoranthene	25	23.0	92	69-115
191-24-2	Benzo(g,h,i)perylene	25	23.1	92	61-117
207-08-9	Benzo(k)fluoranthene	25	22.5	90	69-111
218-01-9	Chrysene	25	22.8	91	70-114
53-70-3	Dibenzo(a,h)anthracene	25	23.0	92	64-114
206-44-0	Fluoranthene	25	23.1	92	71-114
86-73-7	Fluorene	25	21.5	86	69-111
193-39-5	Indeno(1,2,3-cd)pyrene	25	22.3	89	63-112
91-20-3	Naphthalene	25	19.3	77	66-105
90-12-0	1-Methylnaphthalene	25	21.2	85	71-112
91-57-6	2-Methylnaphthalene	25	19.9	80	65-106
85-01-8	Phenanthrene	25	21.8	87	69-112
129-00-0	Pyrene	25	23.3	93	70-114

CAS No.	Surrogate Recoveries	BSP	Limits
321-60-8	2-Fluorobiphenyl	83%	42-123%
84-15-1	o-Terphenyl	90%	51-123%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: F22323
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP9830-MS	IJ19433.D	1	02/26/04	SD	02/24/04	OP9830	GIJ941
OP9830-MSD	IJ19434.D	1	02/26/04	SD	02/24/04	OP9830	GIJ941
F22323-6 ^a	IJ19432.D	1	02/26/04	SD	02/24/04	OP9830	GIJ941

The QC reported here applies to the following samples:

Method: EPA 610

F22323-1, F22323-2, F22323-3, F22323-4, F22323-5, F22323-6, F22323-7

CAS No.	Compound	F22323-6 ug/l	Spike Q	ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		50	54.1	108	48.5	97	11	59-123/20
208-96-8	Acenaphthylene	ND		50	48.8	98	42.5	85	14	51-114/20
120-12-7	Anthracene	ND		50	49.2	98	48.0	96	2	64-114/17
56-55-3	Benzo(a)anthracene	ND		50	50.2	100	49.6	99	1	66-115/17
50-32-8	Benzo(a)pyrene	ND		50	51.2	102	50.6	101	1	62-118/17
205-99-2	Benzo(b)fluoranthene	ND		50	51.1	102	50.6	101	1	66-117/17
191-24-2	Benzo(g,h,i)perylene	ND		50	51.0	102	50.6	101	1	59-120/17
207-08-9	Benzo(k)fluoranthene	ND		50	48.7	97	47.5	95	2	64-116/16
218-01-9	Chrysene	ND		50	49.6	99	49.1	98	1	66-117/16
53-70-3	Dibenzo(a,h)anthracene	ND		50	51.6	103	51.2	102	1	57-124/18
206-44-0	Fluoranthene	ND		50	50.3	101	50.1	100	0	67-116/17
86-73-7	Fluorene	5.1		50	58.9	108	54.1	98	8	58-122/19
193-39-5	Indeno(1,2,3-cd)pyrene	ND		50	49.6	99	49.1	98	1	59-116/18
91-20-3	Naphthalene	ND		50	48.9	98	39.2	78	22*	47-114/20
90-12-0	1-Methylnaphthalene	4.6	J	50	57.3	105	46.9	85	20	55-128/21
91-57-6	2-Methylnaphthalene	ND		50	58.3	117	45.9	92	24*	51-117/21
85-01-8	Phenanthrene	ND		50	52.8	106	51.3	103	3	63-116/18
129-00-0	Pyrene	ND		50	53.8	108	52.9	106	2	67-116/17

CAS No.	Surrogate Recoveries	MS	MSD	F22323-6	Limits
321-60-8	2-Fluorobiphenyl	105%	88%	82%	42-123%
84-15-1	o-Terphenyl	104%	101%	85%	51-123%

(a) All hits confirmed by dual column analysis.

Semivolatile Surrogate Recovery Summary

Job Number: F22323
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

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
F22323-1	IJ19451.D		97.0		91.0
F22323-1	IJ19427.D		103.0		97.0
F22323-2	IJ19428.D	98.0		96.0	
F22323-3	IJ19429.D	90.0		96.0	
F22323-4	IJ19430.D	77.0		90.0	
F22323-5	IJ19431.D	66.0		83.0	
F22323-6	IJ19432.D	82.0		85.0	
F22323-7	IJ19435.D	96.0		105.0	
OP9830-BS	IJ19418.D	83.0		90.0	
OP9830-MB	IJ19419.D	97.0		96.0	
OP9830-MB	IJ19445.D	98.0		99.0	
OP9830-MS	IJ19433.D	105.0		104.0	
OP9830-MSD	IJ19434.D	88.0		101.0	

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

5.4
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GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F22323
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GUJ941-CC928	Injection Date:	02/26/04
Lab File ID:	IJ19417.D	Injection Time:	10:22
Instrument ID:	GCIJ	Method:	EPA 610

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	5.70	6.51	10.23	11.64

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
OP9830-BS	IJ19418.D	02/26/04	10:58	5.70		10.23	
OP9830-MB	IJ19419.D	02/26/04	11:27	5.71		10.24	
ZZZZZZ	IJ19420.D	02/26/04	11:56		6.53		11.65
ZZZZZZ	IJ19421.D	02/26/04	12:24		6.52		11.65
ZZZZZZ	IJ19422.D	02/26/04	12:53	5.71		10.24	
ZZZZZZ	IJ19423.D	02/26/04	13:22	5.72		10.24	
ZZZZZZ	IJ19424.D	02/26/04	13:51		6.53		11.66
ZZZZZZ	IJ19425.D	02/26/04	14:20		6.52		11.65

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: F22323
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GUJ941-CC928	Injection Date:	02/26/04
Lab File ID:	IJ19426.D	Injection Time:	14:49
Instrument ID:	GCIJ	Method:	EPA 610

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	5.71	6.52	10.24	11.65

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
F22323-1	IJ19427.D	02/26/04	15:18		6.52		11.65
F22323-2	IJ19428.D	02/26/04	15:47	5.71		10.24	
F22323-3	IJ19429.D	02/26/04	16:16	5.71		10.24	
F22323-4	IJ19430.D	02/26/04	16:45	5.71		10.24	
F22323-5	IJ19431.D	02/26/04	17:13	5.71		10.24	
F22323-6	IJ19432.D	02/26/04	17:42	5.71		10.24	
OP9830-MS	IJ19433.D	02/26/04	18:11	5.71		10.24	
OP9830-MSD	IJ19434.D	02/26/04	18:40	5.71		10.24	
F22323-7	IJ19435.D	02/26/04	19:09	5.71		10.24	

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: F22323
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GIJ942-CC928	Injection Date:	02/27/04
Lab File ID:	IJ19444.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	5.70	6.51	10.23	11.64

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
OP9830-MB	IJ19445.D	02/27/04	10:08	5.71		10.24	
ZZZZZZ	IJ19446.D	02/27/04	10:37		6.52		11.65
ZZZZZZ	IJ19447.D	02/27/04	11:06		6.52		11.65
ZZZZZZ	IJ19448.D	02/27/04	11:35	5.71		10.24	
ZZZZZZ	IJ19449.D	02/27/04	12:03		6.51		11.65
ZZZZZZ	IJ19450.D	02/27/04	12:32		6.51		11.65
F22323-1	IJ19451.D	02/27/04	13:01		6.52		11.65
GIJ942-ECC928	IJ19452.D	02/27/04	13:29	5.71	6.52	10.24	11.65

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: F22323
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

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)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: F22323
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ928-ICC928
Lab FileID: IJ19184.D

Average % RSD = 2.2

(#) = Out of Range

8100_H2.M

Wed Jan 14 08:50:40 2004

5.6
5

Continuing Calibration Summary

Page 1 of 2

Job Number: F22323
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ941-CC928
Lab FileID: IJ19417.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\0226PAH\IJ19417.D\FID1B.CH Vial: 1
Signal #2 : C:\HPCHEM\1\DATA\0226PAH\IJ19417.D\FID2A.CH
Acq On : 26 Feb 2004 10:22 am Operator: sarahm
Sample : cc928-30 Inst : FID 1
Misc : op9830,gij941,1000,,,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 : Fri Feb 27 08:33:10 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	Naphthalene	30.000	30.469	-1.6	102	0.00
2	2-Methyl Naphthalene	30.000	30.614	-2.0	103	0.00
3	1-Methyl Naphthalene	30.000	30.631	-2.1	104	0.00
4 S	2-Fluorobiphenyl	30.000	30.838	-2.8	103	0.00
5	Acenaphthylene	30.000	30.171	-0.6	102	0.00
6	Acenaphthene	30.000	31.145	-3.8	105	0.00
7	Fluorene	30.000	30.489	-1.6	102	-0.01
8	Phenanthrene	30.000	30.576	-1.9	101	0.00
9	Anthracene	30.000	30.049	-0.2	103	0.00
10 S	0-Terphenyl	30.000	30.293	-1.0	103	0.00
11	Fluoranthene	30.000	30.047	-0.2	101	0.00
12	Pyrene	30.000	29.683	1.1	101	0.00
13	Benzo(a)Anthracene	30.000	30.282	-0.9	100	0.00
14	Chrysene	30.000	30.285	-1.0	104	0.00
15	Benzo(b)Fluoranthene	30.000	30.726	-2.4	102	0.00
16	Benzo(k)Fluoranthene	30.000	29.930	0.2	103	0.00
17	Benzo(a) Pyrene	30.000	30.554	-1.8	103	0.00
18	Indeno(1,2,3-cd)pyrene	30.000	30.930	-3.1	104	0.00
19	Dibenzo(a,h)anthracene	30.000	30.798	-2.7	106	0.00
20	Benzo(g,h,i) Perylene	30.000	31.109	-3.7	106	0.00

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Naphthalene	30.000	30.490	-1.6	103	0.00
2	2-Methyl Naphthalene	30.000	30.450	-1.5	102	0.00
3	1-Methyl Naphthalene	30.000	31.324	-4.4	106	0.00
4 S	2-Fluorobiphenyl	30.000	30.687	-2.3	103	0.00
5	Acenaphthylene	30.000	30.187	-0.6	101	0.00
6	Acenaphthene	30.000	31.393	-4.6	106	0.00
7	Fluorene	30.000	30.374	-1.2	102	0.00
8	Phenanthrene	30.000	29.156	2.8	97	0.00
9	Anthracene	30.000	32.583	-8.6	112	0.00
10 S	0-Terphenyl	30.000	30.957	-3.2	104	0.00
11	Fluoranthene	30.000	30.713	-2.4	104	0.00
12	Pyrene	30.000	30.600	-2.0	104	0.00
13	Benzo(a)Anthracene	30.000	30.456	-1.5	103	0.00
14	Chrysene	30.000	30.619	-2.1	103	0.00
15	Benzo(b)Fluoranthene	30.000	29.768	0.8	100	0.00

Continuing Calibration Summary

Job Number: F22323
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ941-CC928
Lab FileID: IJ19417.D

16	Benzo(k)Fluoranthene	30.000	32.396	-8.0	109	0.00
17	Benzo(a) Pyrene	30.000	30.796	-2.7	104	0.00
18	Indeno(1,2,3-cd)pyrene	30.000	30.838	-2.8	104	0.00
19	Dibenzo(a,h)anthracene	30.000	33.063	-10.2	113	0.00
20	Benzo(g,h,i) Perylene	30.000	32.503	-8.3	111	0.00

Average % D = 2.7

(#) = Out of Range SPCC's out = 0 CCC's out = 0
IJ19185.D 8100_H2.M Fri Feb 27 09:13:07 2004

5.6
5

Continuing Calibration Summary

Page 1 of 2

Job Number: F22323
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ941-CC928
Lab FileID: IJ19426.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\0226PAH\IJ19426.D\FID1B.CH Vial: 10
Signal #2 : C:\HPCHEM\1\DATA\0226PAH\IJ19426.D\FID2A.CH
Acq On : 26 Feb 2004 2:49 pm Operator: sarahm
Sample : cc928-20 Inst : FID 1
Misc : op9830,gij941,860,,,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 : Fri Feb 27 08:33:10 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	Naphthalene	20.000	21.189	-5.9	107	0.00
2	2-Methyl Naphthalene	20.000	21.067	-5.3	106	0.00
3	1-Methyl Naphthalene	20.000	21.374	-6.9	108	0.00
4 S	2-Fluorobiphenyl	20.000	21.523	-7.6	111	0.00
5	Acenaphthylene	20.000	21.024	-5.1	107	0.00
6	Acenaphthene	20.000	21.178	-5.9	107	0.00
7	Fluorene	20.000	20.965	-4.8	106	0.00
8	Phenanthrene	20.000	20.791	-4.0	104	0.00
9	Anthracene	20.000	21.093	-5.5	107	0.00
10 S	0-Terphenyl	20.000	21.017	-5.1	107	0.00
11	Fluoranthene	20.000	20.947	-4.7	106	0.00
12	Pyrene	20.000	20.515	-2.6	105	0.00
13	Benzo(a)Anthracene	20.000	20.705	-3.5	104	0.00
14	Chrysene	20.000	21.143	-5.7	108	0.00
15	Benzo(b)Fluoranthene	20.000	20.743	-3.7	104	0.00
16	Benzo(k)Fluoranthene	20.000	21.134	-5.7	108	0.00
17	Benzo(a) Pyrene	20.000	21.129	-5.6	107	0.00
18	Indeno(1,2,3-cd)pyrene	20.000	21.133	-5.7	107	0.00
19	Dibenzo(a,h)anthracene	20.000	21.437	-7.2	110	0.00
20	Benzo(g,h,i) Perylene	20.000	21.441	-7.2	108	0.00

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Naphthalene	20.000	20.719	-3.6	105	0.00
2	2-Methyl Naphthalene	20.000	20.599	-3.0	104	0.00
3	1-Methyl Naphthalene	20.000	21.334	-6.7	108	0.00
4 S	2-Fluorobiphenyl	20.000	20.744	-3.7	105	0.00
5	Acenaphthylene	20.000	20.778	-3.9	105	0.00
6	Acenaphthene	20.000	21.109	-5.5	106	0.00
7	Fluorene	20.000	20.671	-3.4	104	0.00
8	Phenanthrene	20.000	19.671	1.6	99	0.00
9	Anthracene	20.000	22.295	-11.5	114	0.00
10 S	0-Terphenyl	20.000	21.063	-5.3	107	0.00
11	Fluoranthene	20.000	20.916	-4.6	106	0.00
12	Pyrene	20.000	20.839	-4.2	106	0.00
13	Benzo(a)Anthracene	20.000	20.781	-3.9	106	0.00
14	Chrysene	20.000	21.089	-5.4	106	0.00
15	Benzo(b)Fluoranthene	20.000	19.913	0.4	101	0.00

Continuing Calibration Summary

Job Number: F22323
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ941-CC928
Lab FileID: IJ19426.D

16	Benzo(k)Fluoranthene	20.000	22.261	-11.3	114	0.00
17	Benzo(a) Pyrene	20.000	21.008	-5.0	107	0.00
18	Indeno(1,2,3-cd)pyrene	20.000	20.381	-1.9	104	0.00
19	Dibenzo(a,h)anthracene	20.000	22.625	-13.1	115	0.00
20	Benzo(g,h,i) Perylene	20.000	21.767	-8.8	111	0.00

Average % D = 5.4

(#) = Out of Range SPCC's out = 0 CCC's out = 0
IJ19184.D 8100_H2.M Fri Feb 27 09:12:39 2004

5.6
5

Continuing Calibration Summary

Page 1 of 2

Job Number: F22323
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ941-CC928
Lab FileID: IJ19436.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\0226PAH\IJ19436.D\FID1B.CH Vial: 20
Signal #2 : C:\HPCHEM\1\DATA\0226PAH\IJ19436.D\FID2A.CH
Acq On : 26 Feb 2004 7:38 pm Operator: sarahm
Sample : cc928-30 Inst : FID 1
Misc : op9830,gij941,1000,,,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 : Fri Feb 27 08:33:10 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	Naphthalene	30.000	31.832	-6.1	107	0.00
2	2-Methyl Naphthalene	30.000	31.757	-5.9	107	0.00
3	1-Methyl Naphthalene	30.000	32.065	-6.9	109	0.00
4 S	2-Fluorobiphenyl	30.000	32.463	-8.2	108	0.00
5	Acenaphthylene	30.000	31.465	-4.9	106	0.00
6	Acenaphthene	30.000	31.726	-5.8	107	0.00
7	Fluorene	30.000	31.513	-5.0	106	0.00
8	Phenanthrene	30.000	31.561	-5.2	105	0.00
9	Anthracene	30.000	31.333	-4.4	107	0.00
10 S	0-Terphenyl	30.000	31.396	-4.7	107	0.00
11	Fluoranthene	30.000	31.305	-4.3	105	0.00
12	Pyrene	30.000	30.758	-2.5	105	0.00
13	Benzo(a)Anthracene	30.000	31.198	-4.0	103	0.01
14	Chrysene	30.000	31.244	-4.1	107	0.01
15	Benzo(b)Fluoranthene	30.000	31.805	-6.0	105	0.02
16	Benzo(k)Fluoranthene	30.000	30.789	-2.6	106	0.01
17	Benzo(a) Pyrene	30.000	31.574	-5.2	107	0.01
18	Indeno(1,2,3-cd)pyrene	30.000	31.865	-6.2	107	0.01
19	Dibenzo(a,h)anthracene	30.000	31.888	-6.3	109	0.01
20	Benzo(g,h,i) Perylene	30.000	32.560	-8.5	111	0.00

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Naphthalene	30.000	31.175	-3.9	105	0.00
2	2-Methyl Naphthalene	30.000	31.122	-3.7	105	0.00
3	1-Methyl Naphthalene	30.000	32.086	-7.0	108	0.00
4 S	2-Fluorobiphenyl	30.000	31.421	-4.7	105	0.00
5	Acenaphthylene	30.000	31.343	-4.5	105	0.00
6	Acenaphthene	30.000	31.889	-6.3	107	0.00
7	Fluorene	30.000	31.225	-4.1	105	0.00
8	Phenanthrene	30.000	29.900	0.3	100	0.00
9	Anthracene	30.000	30.645	-2.1	105	0.00
10 S	0-Terphenyl	30.000	31.659	-5.5	107	0.00
11	Fluoranthene	30.000	31.366	-4.6	106	0.00
12	Pyrene	30.000	31.250	-4.2	106	0.00
13	Benzo(a)Anthracene	30.000	31.161	-3.9	105	0.01
14	Chrysene	30.000	31.352	-4.5	106	0.01
15	Benzo(b)Fluoranthene	30.000	30.474	-1.6	103	0.01

Continuing Calibration Summary

Job Number: F22323
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ941-CC928
Lab FileID: IJ19436.D

16	Benzo(k)Fluoranthene	30.000	33.161	-10.5	112	0.00
17	Benzo(a) Pyrene	30.000	31.568	-5.2	107	0.00
18	Indeno(1,2,3-cd)pyrene	30.000	31.658	-5.5	107	0.00
19	Dibenzo(a,h)anthracene	30.000	34.190	-14.0	116	0.00
20	Benzo(g,h,i) Perylene	30.000	33.245	-10.8	113	0.01

Average % D = 5.3

(#) = Out of Range SPCC's out = 0 CCC's out = 0
IJ19185.D 8100_H2.M Fri Feb 27 09:13:08 2004

5.6
5

Continuing Calibration Summary

Page 1 of 2

Job Number: F22323
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ942-CC928
Lab FileID: IJ19444.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\0227PAH\IJ19444.D\FID1B.CH Vial: 1
Signal #2 : C:\HPCHEM\1\DATA\0227PAH\IJ19444.D\FID2A.CH
Acq On : 27 Feb 2004 9:32 am Operator: sarahm
Sample : cc928-20 Inst : FID 1
Misc : op9830,gij942,1000,,,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 : Fri Feb 27 08:33:10 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	Naphthalene	20.000	21.211	-6.1	107	0.00
2	2-Methyl Naphthalene	20.000	21.051	-5.3	106	0.00
3	1-Methyl Naphthalene	20.000	21.348	-6.7	108	0.00
4 S	2-Fluorobiphenyl	20.000	21.560	-7.8	111	0.00
5	Acenaphthylene	20.000	20.922	-4.6	106	0.00
6	Acenaphthene	20.000	21.374	-6.9	108	0.00
7	Fluorene	20.000	21.028	-5.1	106	0.00
8	Phenanthrene	20.000	20.769	-3.8	104	0.00
9	Anthracene	20.000	21.551	-7.8	110	0.00
10 S	0-Terphenyl	20.000	21.157	-5.8	107	0.00
11	Fluoranthene	20.000	21.081	-5.4	107	0.00
12	Pyrene	20.000	20.597	-3.0	106	0.00
13	Benzo(a)Anthracene	20.000	20.682	-3.4	104	0.00
14	Chrysene	20.000	21.420	-7.1	110	0.00
15	Benzo(b)Fluoranthene	20.000	20.882	-4.4	105	0.00
16	Benzo(k)Fluoranthene	20.000	21.396	-7.0	110	0.00
17	Benzo(a) Pyrene	20.000	21.372	-6.9	108	0.00
18	Indeno(1,2,3-cd)pyrene	20.000	21.113	-5.6	107	0.00
19	Dibenzo(a,h)anthracene	20.000	21.759	-8.8	111	0.00
20	Benzo(g,h,i) Perylene	20.000	22.293	-11.5	112	0.00

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Naphthalene	20.000	20.819	-4.1	106	0.00
2	2-Methyl Naphthalene	20.000	20.701	-3.5	105	0.00
3	1-Methyl Naphthalene	20.000	21.576	-7.9	109	-0.01
4 S	2-Fluorobiphenyl	20.000	20.922	-4.6	105	0.00
5	Acenaphthylene	20.000	20.894	-4.5	105	-0.01
6	Acenaphthene	20.000	21.484	-7.4	108	-0.01
7	Fluorene	20.000	20.836	-4.2	105	-0.01
8	Phenanthrene	20.000	19.844	0.8	100	0.00
9	Anthracene	20.000	22.528	-12.6	115	0.00
10 S	0-Terphenyl	20.000	21.339	-6.7	108	0.00
11	Fluoranthene	20.000	21.192	-6.0	108	-0.01
12	Pyrene	20.000	20.997	-5.0	107	-0.01
13	Benzo(a)Anthracene	20.000	20.996	-5.0	107	0.00
14	Chrysene	20.000	21.570	-7.9	109	0.00
15	Benzo(b)Fluoranthene	20.000	20.365	-1.8	103	0.00

Continuing Calibration Summary

Job Number: F22323
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ942-CC928
Lab FileID: IJ19444.D

16	Benzo(k)Fluoranthene	20.000	22.788	-13.9	116	0.00
17	Benzo(a) Pyrene	20.000	21.417	-7.1	109	0.00
18	Indeno(1,2,3-cd)pyrene	20.000	20.774	-3.9	106	0.00
19	Dibenzo(a,h)anthracene	20.000	22.484	-12.4	114	0.00
20	Benzo(g,h,i) Perylene	20.000	21.991	-10.0	112	0.00

Average % D = 6.3

(#) = Out of Range SPCC's out = 0 CCC's out = 0
IJ19184.D 8100_H2.M Fri Feb 27 15:24:56 2004

5.6
5

Continuing Calibration Summary

Page 1 of 2

Job Number: F22323
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ942-ECC928
Lab FileID: IJ19452.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\0227PAH\IJ19452.D\FID1B.CH Vial: 9
Signal #2 : C:\HPCHEM\1\DATA\0227PAH\IJ19452.D\FID2A.CH
Acq On : 27 Feb 2004 1:29 pm Operator: sarahm
Sample : ecc928-30 Inst : FID 1
Misc : op9830,gij942,970,,,1,4,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 : Fri Feb 27 08:33:10 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	Naphthalene	30.000	32.107	-7.0	108	0.00
2	2-Methyl Naphthalene	30.000	32.008	-6.7	108	0.00
3	1-Methyl Naphthalene	30.000	32.435	-8.1	110	0.00
4 S	2-Fluorobiphenyl	30.000	32.062	-6.9	107	0.00
5	Acenaphthylene	30.000	31.729	-5.8	107	0.00
6	Acenaphthene	30.000	32.173	-7.2	109	0.00
7	Fluorene	30.000	31.795	-6.0	107	0.00
8	Phenanthrene	30.000	31.669	-5.6	105	0.00
9	Anthracene	30.000	31.636	-5.5	108	0.00
10 S	0-Terphenyl	30.000	31.581	-5.3	107	0.00
11	Fluoranthene	30.000	31.591	-5.3	106	0.00
12	Pyrene	30.000	32.050	-6.8	109	0.00
13	Benzo(a)Anthracene	30.000	31.412	-4.7	104	0.01
14	Chrysene	30.000	31.717	-5.7	109	0.01
15	Benzo(b)Fluoranthene	30.000	31.789	-6.0	105	0.01
16	Benzo(k)Fluoranthene	30.000	31.338	-4.5	108	0.01
17	Benzo(a) Pyrene	30.000	31.845	-6.1	108	0.01
18	Indeno(1,2,3-cd)pyrene	30.000	31.984	-6.6	108	0.01
19	Dibenzo(a,h)anthracene	30.000	32.247	-7.5	111	0.01
20	Benzo(g,h,i) Perylene	30.000	32.574	-8.6	112	0.01

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Naphthalene	30.000	31.345	-4.5	106	0.00
2	2-Methyl Naphthalene	30.000	31.306	-4.4	105	0.00
3	1-Methyl Naphthalene	30.000	32.324	-7.7	109	0.00
4 S	2-Fluorobiphenyl	30.000	31.611	-5.4	106	0.00
5	Acenaphthylene	30.000	31.533	-5.1	106	0.00
6	Acenaphthene	30.000	32.208	-7.4	108	0.00
7	Fluorene	30.000	31.468	-4.9	106	0.00
8	Phenanthrene	30.000	30.044	-0.1	100	0.00
9	Anthracene	30.000	31.000	-3.3	106	0.00
10 S	0-Terphenyl	30.000	31.897	-6.3	108	0.00
11	Fluoranthene	30.000	31.665	-5.5	107	0.00
12	Pyrene	30.000	31.530	-5.1	107	0.00
13	Benzo(a)Anthracene	30.000	31.449	-4.8	106	0.00
14	Chrysene	30.000	31.720	-5.7	107	0.00
15	Benzo(b)Fluoranthene	30.000	30.830	-2.8	104	0.00

Continuing Calibration Summary

Job Number: F22323
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ942-ECC928
Lab FileID: IJ19452.D

16	Benzo(k)Fluoranthene	30.000	33.509	-11.7	113	0.00
17	Benzo(a) Pyrene	30.000	31.905	-6.4	108	0.00
18	Indeno(1,2,3-cd)pyrene	30.000	31.612	-5.4	107	0.00
19	Dibenzo(a,h)anthracene	30.000	33.926	-13.1	115	0.00
20	Benzo(g,h,i) Perylene	30.000	33.006	-10.0	112	0.01

Average % D = 6.1

(#) = Out of Range SPCC's out = 0 CCC's out = 0
IJ19185.D 8100_H2.M Fri Feb 27 15:24:38 2004

5.6
5

May 2004 Groundwater Laboratory Report



01/16/06

Technical Report for

EEI

Camp Lejeune-LCH 4015

844271

Accutest Job Number: F24116

Sampling Dates: 05/11/04 - 05/12/04

Report to:

EEI

bmorris@eeimail.com

ATTN: Bill Morris

Total number of pages in report: **99**



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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6.6: Initial and Continuing Calibration Summaries	85



Sample Summary

EEI

Job No: F24116

Camp Lejeune-LCH 4015
Project No: 844271

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
F24116-1	05/11/04	12:35 BS	05/13/04	AQ	Ground Water	UST LCH 4015-MW 11
F24116-2	05/11/04	14:10 BS	05/13/04	AQ	Ground Water	UST LCH 4015-MW 14
F24116-3	05/11/04	13:30 BS	05/13/04	AQ	Ground Water	UST LCH 4015-MW 12
F24116-4	05/11/04	11:40 BS	05/13/04	AQ	Ground Water	UST LCH 4015-MW 06
F24116-5	05/11/04	10:40 BS	05/13/04	AQ	Ground Water	UST LCH 4015-MW 10
F24116-6	05/11/04	09:35 BS	05/13/04	AQ	Ground Water	UST LCH 4015-MW 09
F24116-7	05/11/04	09:10 BS	05/13/04	AQ	Ground Water	UST LCH 4015-MW 03
F24116-8	05/11/04	10:45 BS	05/13/04	AQ	Ground Water	UST LCH 4015-MW 05
F24116-9	05/11/04	11:55 BS	05/13/04	AQ	Ground Water	UST LCH 4015-MW 19
F24116-10	05/11/04	12:35 BS	05/13/04	AQ	Ground Water	UST LCH 4015-MW 18
F24116-11	05/11/04	13:50 BS	05/13/04	AQ	Ground Water	UST LCH 4015-MW 07
F24116-12	05/11/04	14:45 BS	05/13/04	AQ	Ground Water	UST LCH 4015-MW 15
F24116-13	05/12/04	11:00 BS	05/13/04	AQ	Ground Water	UST LCH 4015-MW 08



Sample Summary
(continued)

EEI

Job No: F24116

Camp Lejeune-LCH 4015
Project No: 844271

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
F24116-14	05/12/04	11:32 BS	05/13/04	AQ	Ground Water	UST LCH 4015-MW 16
F24116-15	05/12/04	09:15 BS	05/13/04	AQ	Ground Water	UST LCH 4015-MW 01
F24116-16	05/12/04	10:15 BS	05/13/04	AQ	Ground Water	UST LCH 4015-MW 02
F24116-17	05/11/04	00:00 BS	05/13/04	AQ	Ground Water	UST LCH 4015-DUP
F24116-18	05/12/04	00:00 BS	05/13/04	AQ	Trip Blank Water	TRIP BLANK

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: EEI

Job No: F24116

Site: Camp Lejeune-LCH 4015

Report Date 6/3/04 2:20:11 PM

17 Samples and 1 Trip Blank were collected on between 05/11/2004 and 05/12/2004 and were received at Accutest on 05/13/2004 properly preserved, at 2.8 Deg. C and intact. These Samples received an Accutest job number of F24116. 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: GCD2023

All samples were analyzed within the recommended method holding time.

Samples F24018-1MS, F24018-1MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

F24116-10: All hits confirmed by dual column analysis.

F24116-8: All hits confirmed by dual column analysis.

F24116-6: All hits confirmed by dual column analysis.

F24116-5: All hits confirmed by dual column analysis.

F24116-4: All hits confirmed by dual column analysis.

F24116-9: All hits confirmed by dual column analysis.

Matrix: AQ

Batch ID: GCD2024

All samples were analyzed within the recommended method holding time.

Samples F24182-4MS, F24182-4MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

F24116-16: All hits confirmed by dual column analysis.

F24116-11: All hits confirmed by dual column analysis.

F24116-14: All hits confirmed by dual column analysis.

F24116-18: All hits confirmed by dual column analysis.

Matrix: AQ

Batch ID: GCD2027

All samples were analyzed within the recommended method holding time.

Samples F24116-7MS, F24116-7MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

F24116-7: All hits confirmed by dual column analysis.

F24116-17: All hits confirmed by dual column analysis.

F24116-15: All hits confirmed by GC/MS.

Thursday, June 03, 2004

Extractables by GC By Method EPA 610

Matrix: AQ

Batch ID: OP10458

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 F24118-8MS, F24118-8MSD were used as the QC samples indicated.

F24116-1: All hits confirmed by dual column analysis.

F24116-9: All hits confirmed by dual column analysis.

Matrix: AQ

Batch ID: OP10477

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 F24116-14MS, F24116-14MSD were used as the QC samples indicated.

F24116-15: All hits confirmed by dual column analysis.

F24116-16: All hits confirmed by dual column analysis.

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: June 3, 2004

Thursday, June 03, 2004

Report of Analysis

3.1
3

Client Sample ID:	UST LCH 4015-MW 11	Date Sampled:	05/11/04
Lab Sample ID:	F24116-1	Date Received:	05/13/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD049230.D	1	05/21/04	RM	n/a	n/a	GCD2023
Run #2							

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

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	73%		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

Page 1 of 1

Client Sample ID:	UST LCH 4015-MW 11	Date Sampled:	05/11/04
Lab Sample ID:	F24116-1	Date Received:	05/13/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	IJ19869.D	1	05/18/04	SD	05/18/04	OP10458	GIJ969
Run #2							

	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	4.3	5.1	2.0	ug/l	J
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	8.0	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	3.8	5.1	2.0	ug/l	J
90-12-0	1-Methylnaphthalene	29.5	5.1	2.0	ug/l	
91-57-6	2-Methylnaphthalene	5.9	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	85%		42-123%
84-15-1	o-Terphenyl	109%		51-123%

(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:	UST LCH 4015-MW 14	Date Sampled:	05/11/04
Lab Sample ID:	F24116-2	Date Received:	05/13/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD049231.D	1	05/21/04	RM	n/a	n/a	GCD2023
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	74%		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

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Client Sample ID:	UST LCH 4015-MW 14	Date Sampled:	05/11/04
Lab Sample ID:	F24116-2	Date Received:	05/13/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ19870.D	1	05/18/04	SD	05/18/04	OP10458	GIJ969
Run #2							

	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	76%		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

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Client Sample ID:	UST LCH 4015-MW 12	Date Sampled:	05/11/04
Lab Sample ID:	F24116-3	Date Received:	05/13/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD049232.D	1	05/21/04	RM	n/a	n/a	GCD2023
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	75%		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

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Client Sample ID:	UST LCH 4015-MW 12	Date Sampled:	05/11/04
Lab Sample ID:	F24116-3	Date Received:	05/13/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ19871.D	1	05/18/04	SD	05/18/04	OP10458	GIJ969
Run #2							

	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	5.3	2.1	ug/l	
208-96-8	Acenaphthylene	ND	5.3	2.1	ug/l	
120-12-7	Anthracene	ND	5.3	2.1	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.3	2.1	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.3	2.1	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.3	2.1	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.3	2.1	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.3	2.1	ug/l	
218-01-9	Chrysene	ND	5.3	2.1	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.3	2.1	ug/l	
206-44-0	Fluoranthene	ND	5.3	2.1	ug/l	
86-73-7	Fluorene	ND	5.3	2.1	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.3	2.1	ug/l	
91-20-3	Naphthalene	ND	5.3	2.1	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.3	2.1	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.3	2.1	ug/l	
85-01-8	Phenanthrene	ND	5.3	2.1	ug/l	
129-00-0	Pyrene	ND	5.3	2.1	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	58%		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:	UST LCH 4015-MW 06		
Lab Sample ID:	F24116-4	Date Sampled:	05/11/04
Matrix:	AQ - Ground Water	Date Received:	05/13/04
Method:	EPA 601/602	Percent Solids:	n/a
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	CD049233.D	1	05/21/04	RM	n/a	n/a	GCD2023
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	6.2	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	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	75%		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:	UST LCH 4015-MW 06	Date Sampled:	05/11/04
Lab Sample ID:	F24116-4	Date Received:	05/13/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ19872.D	1	05/18/04	SD	05/18/04	OP10458	GIJ969
Run #2							

	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	64%		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:	UST LCH 4015-MW 10	Date Sampled:	05/11/04
Lab Sample ID:	F24116-5	Date Received:	05/13/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	CD049234.D	1	05/21/04	RM	n/a	n/a	GCD2023
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	9.8	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	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	79%		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

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Client Sample ID:	UST LCH 4015-MW 10	Date Sampled:	05/11/04
Lab Sample ID:	F24116-5	Date Received:	05/13/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ19873.D	1	05/18/04	SD	05/18/04	OP10458	GIJ969
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	61%		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:	UST LCH 4015-MW 09	Date Sampled:	05/11/04
Lab Sample ID:	F24116-6	Date Received:	05/13/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	CD049235.D	1	05/21/04	RM	n/a	n/a	GCD2023
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	3.5	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	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	83%		70-123%
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

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Client Sample ID:	UST LCH 4015-MW 09	Date Sampled:	05/11/04
Lab Sample ID:	F24116-6	Date Received:	05/13/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ19874.D	1	05/18/04	SD	05/18/04	OP10458	GIJ969
Run #2							

	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	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

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Client Sample ID:	UST LCH 4015-MW 03	Date Sampled:	05/11/04
Lab Sample ID:	F24116-7	Date Received:	05/13/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	CD049285.D	1	05/24/04	RM	n/a	n/a	GCD2027
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	1.6	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.69	1.0	0.50	ug/l	J
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	1.7	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	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	92%		70-123%
98-08-8	aaa-Trifluorotoluene	110%		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:	UST LCH 4015-MW 03	Date Sampled:	05/11/04
Lab Sample ID:	F24116-7	Date Received:	05/13/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ19875.D	1	05/18/04	SD	05/18/04	OP10458	GIJ969
Run #2							

	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	96%		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:	UST LCH 4015-MW 05	Date Sampled:	05/11/04
Lab Sample ID:	F24116-8	Date Received:	05/13/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	CD049236.D	1	05/21/04	RM	n/a	n/a	GCD2023
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	2.7	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	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	80%		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

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Client Sample ID:	UST LCH 4015-MW 05	Date Sampled:	05/11/04
Lab Sample ID:	F24116-8	Date Received:	05/13/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ19876.D	1	05/18/04	SD	05/18/04	OP10458	GIJ969
Run #2							

	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	89%		42-123%
84-15-1	o-Terphenyl	95%		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:	UST LCH 4015-MW 19	Date Sampled:	05/11/04
Lab Sample ID:	F24116-9	Date Received:	05/13/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	CD049237.D	1	05/21/04	RM	n/a	n/a	GCD2023
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	78%		70-123%
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

Report of Analysis

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Client Sample ID:	UST LCH 4015-MW 19	Date Sampled:	05/11/04
Lab Sample ID:	F24116-9	Date Received:	05/13/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	IJ19878.D	1	05/18/04	SD	05/18/04	OP10458	GIJ969
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	3.7	5.0	2.0	ug/l	J
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	2.1	5.0	2.0	ug/l	J
90-12-0	1-Methylnaphthalene	ND	5.0	2.0	ug/l	
91-57-6	2-Methylnaphthalene	2.1	5.0	2.0	ug/l	J
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	88%		42-123%
84-15-1	o-Terphenyl	93%		51-123%

(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:	UST LCH 4015-MW 18	Date Sampled:	05/11/04
Lab Sample ID:	F24116-10	Date Received:	05/13/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	CD049238.D	1	05/21/04	RM	n/a	n/a	GCD2023
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	1.6	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	80%		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

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Client Sample ID:	UST LCH 4015-MW 18	Date Sampled:	05/11/04
Lab Sample ID:	F24116-10	Date Received:	05/13/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ19879.D	1	05/18/04	SD	05/18/04	OP10458	GIJ969
Run #2							

	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	92%		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:	UST LCH 4015-MW 07		
Lab Sample ID:	F24116-11	Date Sampled:	05/11/04
Matrix:	AQ - Ground Water	Date Received:	05/13/04
Method:	EPA 601/602	Percent Solids:	n/a
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	CD049242.D	1	05/21/04	RM	n/a	n/a	GCD2024
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	0.52	1.0	0.50	ug/l	J
1330-20-7	Xylenes (total)	ND	3.0	1.0	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	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

Report of Analysis

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Client Sample ID:	UST LCH 4015-MW 07	Date Sampled:	05/11/04
Lab Sample ID:	F24116-11	Date Received:	05/13/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ19880.D	1	05/18/04	SD	05/18/04	OP10458	GIJ969
Run #2							

	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	77%		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:	UST LCH 4015-MW 15	Date Sampled:	05/11/04
Lab Sample ID:	F24116-12	Date Received:	05/13/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD049243.D	1	05/21/04	RM	n/a	n/a	GCD2024
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	77%		70-123%
98-08-8	aaa-Trifluorotoluene	95%		73-122%

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID:	UST LCH 4015-MW 15	Date Sampled:	05/11/04
Lab Sample ID:	F24116-12	Date Received:	05/13/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ19881.D	1	05/18/04	SD	05/18/04	OP10458	GIJ969
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	55%		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:	UST LCH 4015-MW 08			Date Sampled:	05/12/04					
Lab Sample ID:	F24116-13			Date Received:	05/13/04					
Matrix:	AQ - Ground Water			Percent Solids:	n/a					
Method:	EPA 601/602									
Project:	Camp Lejeune-LCH 4015									

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CD049244.D	1	05/21/04	RM	n/a	n/a	GCD2024
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	79%		70-123%
98-08-8	aaa-Trifluorotoluene	97%		73-122%

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID:	UST LCH 4015-MW 08	Date Sampled:	05/12/04
Lab Sample ID:	F24116-13	Date Received:	05/13/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ19895.D	1	05/21/04	SD	05/19/04	OP10477	GIJ970
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	78%		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:	UST LCH 4015-MW 16			Date Sampled:	05/12/04					
Lab Sample ID:	F24116-14			Date Received:	05/13/04					
Matrix:	AQ - Ground Water			Percent Solids:	n/a					
Method:	EPA 601/602									
Project:	Camp Lejeune-LCH 4015									

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	CD049245.D	1	05/21/04	RM	n/a	n/a	GCD2024
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	3.7	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	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	79%		70-123%
98-08-8	aaa-Trifluorotoluene	96%		73-122%

(a) All hits confirmed by dual column analysis.

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID:	UST LCH 4015-MW 16	Date Sampled:	05/12/04
Lab Sample ID:	F24116-14	Date Received:	05/13/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ19896.D	1	05/21/04	SD	05/19/04	OP10477	GIJ970
Run #2							

	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	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

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Client Sample ID:	UST LCH 4015-MW 01	Date Sampled:	05/12/04
Lab Sample ID:	F24116-15	Date Received:	05/13/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	CD049287.D	5	05/24/04	RM	n/a	n/a	GCD2027
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	28.4	5.0	2.5	ug/l	
108-90-7	Chlorobenzene	ND	5.0	2.5	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	5.0	2.5	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.0	2.5	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	5.0	2.5	ug/l	
100-41-4	Ethylbenzene	319	5.0	2.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	4.0	5.0	2.5	ug/l	J
108-88-3	Toluene	13.0	5.0	2.5	ug/l	
1330-20-7	Xylenes (total)	704	15	5.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	100%		70-123%
98-08-8	aaa-Trifluorotoluene	117%		73-122%

(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

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Client Sample ID:	UST LCH 4015-MW 01	Date Sampled:	05/12/04
Lab Sample ID:	F24116-15	Date Received:	05/13/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ19899.D	1	05/21/04	SD	05/19/04	OP10477	GIJ970
Run #2 ^a	IJ19909.D	4	05/22/04	SD	05/19/04	OP10477	GIJ971

	Initial Volume	Final Volume
Run #1	980 ml	1.0 ml
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	102 ^b	20	8.2	ug/l	
90-12-0	1-Methylnaphthalene	25.3 ^b	20	8.2	ug/l	
91-57-6	2-Methylnaphthalene	34.3 ^b	20	8.2	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	112%	97%	42-123%
84-15-1	o-Terphenyl	105%	88%	51-123%

(a) All hits confirmed by dual column analysis.

(b) Result is from Run# 2

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:	UST LCH 4015-MW 02			Date Sampled:	05/12/04					
Lab Sample ID:	F24116-16			Date Received:	05/13/04					
Matrix:	AQ - Ground Water			Percent Solids:	n/a					
Method:	EPA 601/602									
Project:	Camp Lejeune-LCH 4015									

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	CD049246.D	1	05/21/04	RM	n/a	n/a	GCD2024
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	30.9	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	14.6	1.0	0.50	ug/l	
1634-04-4	Methyl Tert Butyl Ether	25.9	1.0	0.50	ug/l	
108-88-3	Toluene	1.8	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	85.3	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	99%		70-123%
98-08-8	aaa-Trifluorotoluene	119%		73-122%

(a) All hits confirmed by dual column analysis.

ND = Not detected MDL - Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID:	UST LCH 4015-MW 02	Date Sampled:	05/12/04
Lab Sample ID:	F24116-16	Date Received:	05/13/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	IJ19900.D	1	05/21/04	SD	05/19/04	OP10477	GIJ970
Run #2							

	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	15.7	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	81%		42-123%
84-15-1	o-Terphenyl	90%		51-123%

(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:	UST LCH 4015-DUP	Date Sampled:	05/11/04
Lab Sample ID:	F24116-17	Date Received:	05/13/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	CD049286.D	1	05/24/04	RM	n/a	n/a	GCD2027
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	1.8	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.78	1.0	0.50	ug/l	J
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	2.0	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	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	94%		70-123%
98-08-8	aaa-Trifluorotoluene	112%		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:	UST LCH 4015-DUP	Date Sampled:	05/11/04
Lab Sample ID:	F24116-17	Date Received:	05/13/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ19882.D	1	05/18/04	SD	05/18/04	OP10458	GIJ969
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	92%		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:	TRIP BLANK						
Lab Sample ID:	F24116-18				Date Sampled:	05/12/04	
Matrix:	AQ - Trip Blank Water				Date Received:	05/13/04	
Method:	EPA 601/602				Percent Solids:	n/a	
Project:	Camp Lejeune-LCH 4015						

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	CD049247.D	1	05/21/04	RM	n/a	n/a	GCD2024
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	0.64	1.0	0.50	ug/l	J
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	81%		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

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

ACCU-TEST JOB #:

ACCUTEST QUOTE #:

F24116

CLIENT INFORMATION				FACILITY INFORMATION										ANALYTICAL INFORMATION										MATRIX CODES
Engineering + Environment Inc. NAME: 824 Gunbranch rd Suite 5 ADDRESS: Jacksonville NC 28540 CITY: STATE: ZIP:				LCH 4015 PROJECT NAME: LOCATION: PROJECT NO.: FAX #: 910-989-3341										PAH 602 610 DW - DRINKING WATER GW - GROUND WATER WW - WASTE WATER SO - SOIL SL - SLUDGE OI - OIL LQ - OTHER LIQUID SOL - OTHER SOLID LAB USE ONLY										
SEND REPORT TO: PHONE #: 910-989-3214				COLLECTION DATE: TIME: SAMPLED BY: PRESERVATION MCI MICI THOS H2SO4 NONE																				
ACCUTEST SAMPLE # FIELD ID / POINT OF COLLECTION																								
1 UST LCH 4015 - MW 11				5/11/04 12:35 TE GW 4 X										3 1										
2 UST LCH 4015 - MW 14				5/11/04 14:10 TE GW 4 X										3 1										
3 UST LCH 4015 - MW 12				5/11/04 13:30 TE GW 4 X										3 1										
4 UST LCH 4015 - MW 06				5/11/04 11:40 TE GW 4 X										3 1										
5 UST LCH 4015 - MW 10				5/11/04 10:40 TE GW 4 X										3 1										
6 UST LCH 4015 - MW 09				5/11/04 09:35 TE GW 4 X										3 1										
7 UST LCH 4015 - MW 03				5/11/04 09:10 BS GW 5 X										3 2										
8 UST LCH 4015 - MW 05				5/11/04 10:45 BS GW 5 X										3 2										
9 UST LCH 4015 - MW 19				5/11/04 11:55 BS GW 5 X										3 2										
10 UST LCH 4015 - MW 18				5/11/04 12:35 BS GW 5 X										3 2										
11 UST LCH 4015 - MW 07				5/11/04 13:50 BS GW 5 X										3 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) NCC 94																				
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 SAMPLER: 1. Butt				DATE TIME: 5/12/04 15:00 RECEIVED BY: 1. FED Ex				RELINQUISHED BY: 2. FED Ex				DATE TIME: 5/13/04 09:30 RECEIVED BY: 2. Jeff Nitzky												
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								

F24116: Chain of Custody

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F24116

CLIENT INFORMATION						FACILITY INFORMATION								ANALYTICAL INFORMATION										MATRIX CODES			
Engineering + Environment Inc. NAME 824 Gumbrecht rd Suite 5 ADDRESS Jacksonville NC 28540 CITY STATE ZIP SEND REPORT TO: PHONE # 910-989-3214						LCH 4015 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	HCl	NH ₄ OH	KNO ₃	HNO ₃	MOORE														
12	4ST LCH 4015-MW 15	5/11/04	14:45	BS	GW	5	X					X		3	2												
13	4ST LCH 4015-MW 08	5/12/04	11:00	BS	GW	5	X					X		3	2												
14	4ST LCH 4015-MW 16	5/12/04	11:32	BS	GW	5	X					X		3	2												
15	4ST LCH 4015-MW 01	5/12/04	9:15	BS	GW	5	X					X		3	2												
16	4ST LCH 4015-MW 02	5/12/04	10:15	BS	GW	5	X					X		3	2												
17	4ST LCH 4015-Dwp	5/11/04		BS	GW	5	X					X		3	2												
18	Trip blank	5/12/04	14:45																								
DATA TURNAROUND INFORMATION						DATA DELIVERABLE INFORMATION						COMMENTS/REMARKS															
☒ STANDARD APPROVED BY: _____ ☐ 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) NCSA 4 _____																					
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY																											
RELINQUISHED BY SAMPLER:		DATE TIME:		RECEIVED BY:		RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		RELINQUISHED BY:		DATE TIME:		RECEIVED BY:											
1. [Signature]				1. FEDEX		2. PED Ex		5/13/04 09:30		2. [Signature]		3. [Signature]				4. [Signature]											
RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		RELINQUISHED BY:		DATE TIME:		RECEIVED BY:											
3.				3.		4.						5.															
RELINQUISHED BY:		DATE TIME:		RECEIVED BY:		SEAL #		PRESERVE WHERE APPLICABLE										ON ICE		TEMPERATURE							
5.				5.																							

F24116: Chain of Custody

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ACCUTEST LABORATORIES SOUTHEAST SAMPLE RECEIPT CONFIRMATION

Accutest's Job Number:

F24116

Client: Engineering + Environment Inc Project: LCH 4015

Date Received: 5/13/04 Time Received: 09:30

of Coolers Received: 4 Cooler Temperatures: 18, 2.8, 1.6, 2.2°C

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

N/A

Trip Blank Matrix ?

Soil

Water

N/A

Number of Encores ?

0

Number of Soil Field Kits ?

0

Summary of Comments: Samples 1-6 were received having 1
610 bottle each.

Signature: Jeff Tristoff

Date: 5/13/04

Review Signature: _____

ASBD 12/30/03

F24116: Chain of Custody

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GC Volatiles

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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

Job Number: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GCD2023-MB	CD049214.D	1	05/21/04	RM	n/a	n/a	GCD2023

The QC reported here applies to the following samples: Method: EPA 601/602

F24116-1, F24116-2, F24116-3, F24116-4, F24116-5, F24116-6, F24116-8, F24116-9, F24116-10

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	70% 70-123%
98-08-8	aaa-Trifluorotoluene	88% 73-122%

Method Blank Summary

Job Number: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GCD2024-MB	CD049241.D	1	05/21/04	RM	n/a	n/a	GCD2024

The QC reported here applies to the following samples: Method: EPA 601/602

F24116-11, F24116-12, F24116-13, F24116-14, F24116-16, F24116-18

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	79% 70-123%
98-08-8	aaa-Trifluorotoluene	97% 73-122%

Method Blank Summary

Page 1 of 1

Job Number: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GCD2027-MB	CD049284.D	1	05/24/04	RM	n/a	n/a	GCD2027

The QC reported here applies to the following samples:

Method: EPA 601/602

F24116-7, F24116-15, F24116-17

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	83% 70-123%
98-08-8	aaa-Trifluorotoluene	103% 73-122%

Blank Spike Summary

Job Number: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GCD2023-BS	CD049213.D	1	05/21/04	RM	n/a	n/a	GCD2023

The QC reported here applies to the following samples: Method: EPA 601/602

F24116-1, F24116-2, F24116-3, F24116-4, F24116-5, F24116-6, F24116-8, F24116-9, F24116-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	18.0	90	86-121
108-90-7	Chlorobenzene	20	18.0	90	81-119
95-50-1	1,2-Dichlorobenzene	20	16.5	83	75-120
541-73-1	1,3-Dichlorobenzene	20	16.9	85	77-121
106-46-7	1,4-Dichlorobenzene	20	16.3	82	75-122
100-41-4	Ethylbenzene	20	18.9	95	81-126
1634-04-4	Methyl Tert Butyl Ether	20	17.7	89	76-117
108-88-3	Toluene	20	18.5	93	82-123
1330-20-7	Xylenes (total)	60	56.4	94	82-125

CAS No.	Surrogate Recoveries	BSP	Limits
352-33-0	1-Chloro-4-fluorobenzene	86%	70-123%
98-08-8	aaa-Trifluorotoluene	97%	73-122%

Blank Spike Summary

Job Number: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GCD2024-BS	CD049240.D 1		05/21/04	RM	n/a	n/a	GCD2024

The QC reported here applies to the following samples: Method: EPA 601/602

F24116-11, F24116-12, F24116-13, F24116-14, F24116-16, F24116-18

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	19.4	97	86-121
108-90-7	Chlorobenzene	20	18.4	92	81-119
95-50-1	1,2-Dichlorobenzene	20	18.3	92	75-120
541-73-1	1,3-Dichlorobenzene	20	18.1	91	77-121
106-46-7	1,4-Dichlorobenzene	20	17.9	90	75-122
100-41-4	Ethylbenzene	20	19.0	95	81-126
1634-04-4	Methyl Tert Butyl Ether	20	19.8	99	76-117
108-88-3	Toluene	20	19.1	96	82-123
1330-20-7	Xylenes (total)	60	56.4	94	82-125

CAS No.	Surrogate Recoveries	BSP	Limits
352-33-0	1-Chloro-4-fluorobenzene	93%	70-123%
98-08-8	aaa-Trifluorotoluene	107%	73-122%

Blank Spike Summary

Job Number: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GCD2027-BS	CD049283.D	1	05/24/04	RM	n/a	n/a	GCD2027

The QC reported here applies to the following samples: Method: EPA 601/602

F24116-7, F24116-15, F24116-17

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	19.6	98	86-121
108-90-7	Chlorobenzene	20	18.4	92	81-119
95-50-1	1,2-Dichlorobenzene	20	17.3	87	75-120
541-73-1	1,3-Dichlorobenzene	20	17.7	89	77-121
106-46-7	1,4-Dichlorobenzene	20	17.1	86	75-122
100-41-4	Ethylbenzene	20	19.0	95	81-126
1634-04-4	Methyl Tert Butyl Ether	20	19.9	100	76-117
108-88-3	Toluene	20	19.2	96	82-123
1330-20-7	Xylenes (total)	60	56.7	95	82-125

CAS No.	Surrogate Recoveries	BSP	Limits
352-33-0	1-Chloro-4-fluorobenzene	95%	70-123%
98-08-8	aaa-Trifluorotoluene	109%	73-122%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F24018-1MS	CD049225.D 1		05/21/04	RM	n/a	n/a	GCD2023
F24018-1MSD	CD049226.D 1		05/21/04	RM	n/a	n/a	GCD2023
F24018-1 ^a	CD049216.D 1		05/21/04	RM	n/a	n/a	GCD2023

The QC reported here applies to the following samples: Method: EPA 601/602

F24116-1, F24116-2, F24116-3, F24116-4, F24116-5, F24116-6, F24116-8, F24116-9, F24116-10

CAS No.	Compound	F24018-1 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	9.2	20	29.0	99	27.7	93	5	77-125/6
108-90-7	Chlorobenzene	ND	20	18.9	95	18.3	92	3	78-120/8
95-50-1	1,2-Dichlorobenzene	ND	20	21.2	106	21.1	106	0	69-125/7
541-73-1	1,3-Dichlorobenzene	0.68	J 20	19.3	93	18.9	91	2	71-126/7
106-46-7	1,4-Dichlorobenzene	ND	20	18.2	91	18.3	92	1	67-129/7
100-41-4	Ethylbenzene	ND	20	19.5	98	18.9	95	3	74-127/6
1634-04-4	Methyl Tert Butyl Ether	ND	20	21.2	106	20.6	103	3	66-127/9
108-88-3	Toluene	0.50	20	19.7	96	19.0	93	4	77-124/5
1330-20-7	Xylenes (total)	1.7	J 60	58.8	95	58.1	94	1	76-125/5

CAS No.	Surrogate Recoveries	MS	MSD	F24018-1	Limits
352-33-0	1-Chloro-4-fluorobenzene	101%	99%	92%	70-123%
98-08-8	aaa-Trifluorotoluene	119%	117%	111%	73-122%

(a) All hits confirmed by GC/MS.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F24182-4MS	CD049257.D 1		05/22/04	RM	n/a	n/a	GCD2024
F24182-4MSD	CD049258.D 1		05/22/04	RM	n/a	n/a	GCD2024
F24182-4	CD049256.D 1		05/22/04	RM	n/a	n/a	GCD2024

The QC reported here applies to the following samples: Method: EPA 601/602

F24116-11, F24116-12, F24116-13, F24116-14, F24116-16, F24116-18

CAS No.	Compound	F24182-4 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	1.0 U	20	19.0	95	19.1	96	1	77-125/6
108-90-7	Chlorobenzene	1.0 U	20	18.0	90	18.1	91	1	78-120/8
95-50-1	1,2-Dichlorobenzene	1.0 U	20	18.3	92	18.2	91	1	69-125/7
541-73-1	1,3-Dichlorobenzene	1.0 U	20	18.2	91	17.7	89	3	71-126/7
106-46-7	1,4-Dichlorobenzene	1.0 U	20	17.6	88	17.4	87	1	67-129/7
100-41-4	Ethylbenzene	1.0 U	20	18.8	94	18.8	94	0	74-127/6
1634-04-4	Methyl Tert Butyl Ether	1.0 U	20	19.4	97	20.4	102	5	66-127/9
108-88-3	Toluene	1.0 U	20	18.7	94	18.9	95	1	77-124/5
1330-20-7	Xylenes (total)	3.0 U	60	55.5	93	55.4	92	0	76-125/5

CAS No.	Surrogate Recoveries	MS	MSD	F24182-4	Limits
352-33-0	1-Chloro-4-fluorobenzene	93%	94%	80%	70-123%
98-08-8	aaa-Trifluorotoluene	107%	109%	97%	73-122%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F24116-7MS	CD049288.D 1		05/24/04	RM	n/a	n/a	GCD2027
F24116-7MSD	CD049289.D 1		05/24/04	RM	n/a	n/a	GCD2027
F24116-7 ^a	CD049285.D 1		05/24/04	RM	n/a	n/a	GCD2027

The QC reported here applies to the following samples:

Method: EPA 601/602

F24116-7, F24116-15, F24116-17

CAS No.	Compound	F24116-7 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	1.6	20	21.6	100	20.7	96	4	77-125/6
108-90-7	Chlorobenzene	ND	20	19.5	98	18.8	94	4	78-120/8
95-50-1	1,2-Dichlorobenzene	ND	20	21.3	107	20.1	101	6	69-125/7
541-73-1	1,3-Dichlorobenzene	0.69	J 20	21.8	106	21.2	103	3	71-126/7
106-46-7	1,4-Dichlorobenzene	ND	20	20.5	103	19.8	99	3	67-129/7
100-41-4	Ethylbenzene	1.7	20	21.8	101	20.9	96	4	74-127/6
1634-04-4	Methyl Tert Butyl Ether	ND	20	23.2	116	22.2	111	4	66-127/9
108-88-3	Toluene	ND	20	20.2	101	19.5	98	4	77-124/5
1330-20-7	Xylenes (total)	ND	60	62.1	104	59.6	99	4	76-125/5

CAS No.	Surrogate Recoveries	MS	MSD	F24116-7	Limits
352-33-0	1-Chloro-4-fluorobenzene	99%	98%	92%	70-123%
98-08-8	aaa-Trifluorotoluene	113%	111%	110%	73-122%

(a) All hits confirmed by dual column analysis.

Volatile Surrogate Recovery Summary

Page 1 of 1

Job Number: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

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
F24116-1	CD049230.D	73.0	90.0
F24116-2	CD049231.D	74.0	91.0
F24116-3	CD049232.D	75.0	92.0
F24116-4	CD049233.D	75.0	92.0
F24116-5	CD049234.D	79.0	95.0
F24116-6	CD049235.D	83.0	98.0
F24116-7	CD049285.D	92.0	110.0
F24116-8	CD049236.D	80.0	99.0
F24116-9	CD049237.D	78.0	96.0
F24116-10	CD049238.D	80.0	97.0
F24116-11	CD049242.D	78.0	96.0
F24116-12	CD049243.D	77.0	95.0
F24116-13	CD049244.D	79.0	97.0
F24116-14	CD049245.D	79.0	96.0
F24116-15	CD049287.D	100.0	117.0
F24116-16	CD049246.D	99.0	119.0
F24116-17	CD049286.D	94.0	112.0
F24116-18	CD049247.D	81.0	97.0
F24018-1MS	CD049225.D	101.0	119.0
F24018-1MSD	CD049226.D	99.0	117.0
F24116-7MS	CD049288.D	99.0	113.0
F24116-7MSD	CD049289.D	98.0	111.0
F24182-4MS	CD049257.D	93.0	107.0
F24182-4MSD	CD049258.D	94.0	109.0
GCD2023-BS	CD049213.D	86.0	97.0
GCD2023-MB	CD049214.D	70.0	88.0
GCD2024-BS	CD049240.D	93.0	107.0
GCD2024-MB	CD049241.D	79.0	97.0
GCD2027-BS	CD049283.D	95.0	109.0
GCD2027-MB	CD049284.D	83.0	103.0

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

Job Number: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GCD2023-CC2013	Injection Date:	05/21/04
Lab File ID:	CD049212.D	Injection Time:	06:24
Instrument ID:	GCCD	Method:	EPA 601/602

	S1 ^a	S2 ^a
	RT	RT
Check Std	9.11	6.02

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
GCD2023-BS	CD049213.D	05/21/04	08:09	9.12	6.03
GCD2023-MB	CD049214.D	05/21/04	08:45	9.11	6.03
F24018-1	CD049216.D	05/21/04	09:34	9.10	6.02
ZZZZZZ	CD049217.D	05/21/04	09:58	9.12	6.03
ZZZZZZ	CD049218.D	05/21/04	10:27	9.12	6.03
ZZZZZZ	CD049219.D	05/21/04	10:54	9.11	6.03
ZZZZZZ	CD049220.D	05/21/04	11:20	9.11	6.03
ZZZZZZ	CD049221.D	05/21/04	11:47	9.11	6.03
ZZZZZZ	CD049222.D	05/21/04	12:14	9.11	6.03

Surrogate Compounds

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

(a) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GCD2023-CC2013	Injection Date:	05/21/04
Lab File ID:	CD049223.D	Injection Time:	12:38
Instrument ID:	GCCD	Method:	EPA 601/602

	S1 ^a	S2 ^a
	RT	RT
Check Std	9.12	6.02

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
ZZZZZZ	CD049224.D	05/21/04	13:15	9.12	6.04
F24018-1MS	CD049225.D	05/21/04	13:39	9.11	6.02
F24018-1MSD	CD049226.D	05/21/04	14:03	9.10	6.02
ZZZZZZ	CD049227.D	05/21/04	14:28	9.10	6.02

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: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GCD2023-CC2013	Injection Date:	05/21/04
Lab File ID:	CD049228.D	Injection Time:	14:52
Instrument ID:	GCCD	Method:	EPA 601/602

S1^a	S2^a
RT	RT

Check Std	9.11	6.03

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
F24116-1	CD049230.D	05/21/04	15:44	9.11	6.03
F24116-2	CD049231.D	05/21/04	16:08	9.10	6.03
F24116-3	CD049232.D	05/21/04	16:33	9.11	6.02
F24116-4	CD049233.D	05/21/04	16:57	9.10	6.01
F24116-5	CD049234.D	05/21/04	17:22	9.10	6.02
F24116-6	CD049235.D	05/21/04	17:46	9.09	6.02
F24116-8	CD049236.D	05/21/04	18:10	9.09	6.01
F24116-9	CD049237.D	05/21/04	18:35	9.10	6.01
F24116-10	CD049238.D	05/21/04	18:59	9.09	6.02

Surrogate Compounds

S1 = 1-Chloro-4-fluorobenzene

S2 = aaa-Trifluorotoluene

(a) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GCD2023-CC2013	Injection Date:	05/21/04
Lab File ID:	CD049239.D	Injection Time:	19:23
Instrument ID:	GCCD	Method:	EPA 601/602

	S1 ^a RT	S2 ^a RT
Check Std	9.09	6.01

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
GCD2024-BS	CD049240.D	05/21/04	19:48	9.09	6.01
GCD2024-MB	CD049241.D	05/21/04	20:12	9.10	6.02
F24116-11	CD049242.D	05/21/04	20:36	9.10	6.02
F24116-12	CD049243.D	05/21/04	21:01	9.10	6.02
F24116-13	CD049244.D	05/21/04	21:25	9.09	6.01
F24116-14	CD049245.D	05/21/04	21:50	9.10	6.02
F24116-16	CD049246.D	05/21/04	22:14	9.10	6.03
F24116-18	CD049247.D	05/21/04	22:39	9.11	6.03

Surrogate
Compounds

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

(a) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GCD2024-CC2013	Injection Date:	05/21/04
Lab File ID:	CD049250.D	Injection Time:	23:56
Instrument ID:	GCCD	Method:	EPA 601/602

	S1 ^a	S2 ^a
	RT	RT
Check Std	9.11	6.02

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
ZZZZZZ	CD049251.D	05/22/04	00:21	9.10	6.02
ZZZZZZ	CD049252.D	05/22/04	00:45	9.09	6.01
ZZZZZZ	CD049253.D	05/22/04	01:09	9.10	6.03
ZZZZZZ	CD049254.D	05/22/04	01:34	9.11	6.03
ZZZZZZ	CD049255.D	05/22/04	01:58	9.11	6.03
F24182-4	CD049256.D	05/22/04	02:23	9.10	6.02
F24182-4MS	CD049257.D	05/22/04	02:47	9.10	6.02
F24182-4MSD	CD049258.D	05/22/04	03:11	9.09	6.01
ZZZZZZ	CD049259.D	05/22/04	03:36	9.10	6.01
ZZZZZZ	CD049260.D	05/22/04	04:01	9.11	6.02

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: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GCD2027-CC2013	Injection Date:	05/24/04
Lab File ID:	CD049282.D	Injection Time:	08:43
Instrument ID:	GCCD	Method:	EPA 601/602

S1^a	S2^a
RT	RT

Check Std	9.10	6.01

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
GCD2027-BS	CD049283.D	05/24/04	09:19	9.08	6.00
GCD2028-BS	CD049283.D	05/24/04	09:19	9.08	6.00
GCD2027-MB	CD049284.D	05/24/04	09:43	9.08	6.00
GCD2028-MB	CD049284.D	05/24/04	09:43	9.08	6.00
F24116-7	CD049285.D	05/24/04	10:18	9.08	6.01
F24116-17	CD049286.D	05/24/04	10:42	9.08	6.00
F24116-15	CD049287.D	05/24/04	11:06	9.07	6.00
F24116-7MS	CD049288.D	05/24/04	11:31	9.08	6.00
F24116-7MSD	CD049289.D	05/24/04	11:56	9.09	6.02
ZZZZZZ	CD049290.D	05/24/04	12:20	9.09	6.01
ZZZZZZ	CD049291.D	05/24/04	12:47	9.09	6.01
ZZZZZZ	CD049292.D	05/24/04	13:17	9.09	6.01

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: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GCD2013-ICC2013
Lab FileID: CD048938.D

Response Factor Report VOA2

Method : C:\HPCHEM\2\METHODS\GCCD0514.M (Chemstation Integrator)
Title : EPA 602/8021B
Last Update : Thu May 27 08:10:07 2004
Response via : Initial Calibration

Calibration Files

1 =CD048936.D 2 =CD048937.D 3 =CD048938.D
4 =CD048939.D 5 =CD048940.D 6 =CD048941.D

Compound	1	2	3	4	5	6	Avg	%RSD
1) Methyl tert Butyl E	1.380	1.604	1.475	1.441	1.428	1.425	1.459	E3 5.31
2) Di-Isopropyl ether	2.058	2.248	2.077	2.017	2.025	2.007	2.072	E3 4.36
3) BENZENE	5.917	5.963	5.255	5.161	5.165	5.168	5.438	E3 7.18
4) S a,a,a-TFT(S)	1.178	1.208	1.271	1.296	1.325	1.341	1.270	E3 5.11
5) TOLUENE	6.397	6.102	5.387	5.335	5.382	5.411	5.669	E3 8.11
6) S 1-Chloro-4-Fluorobe	2.272	2.433	2.549	2.647	2.696	2.762	2.560	E3 7.12
7) CHLOROBENZENE	6.210	6.184	5.657	5.663	5.759	5.790	5.877	E3 4.31
8) ETHYLBENZENE	5.336	5.322	4.752	4.777	4.826	4.840	4.975	E3 5.54
9) m,p-XYLENE	5.973	5.842	5.157	5.233	5.305	5.287	5.466	E3 6.37
10) o-XYLENE	5.287	5.491	4.855	4.865	4.942	4.897	5.056	E3 5.29
11) 1,3-DICHLOROBENZENE		4.225	4.228	4.408	4.629	4.798	4.458	E3 5.67
12) 1,4-DICHLOROBENZENE		4.506	4.476	4.718	4.967	5.159	4.765	E3 6.20
13) 1,2-DICHLOROBENZENE		3.244	3.315	3.465	3.657	3.789	3.494	E3 6.54

Signal #2 Calibration Files

1 =CD048936.D 2 =CD048937.D 3 =CD048938.D
4 =CD048939.D 5 =CD048940.D 6 =CD048941.D

Compound	1	2	3	4	5	6	Avg	%RSD
1) Methyl tert Butyl E	1.228	1.408	1.345	1.375	1.369	1.313	1.340	E3 4.72
2) Di-Isopropyl ether	1.928	2.063	1.989	2.054	2.081	2.040	2.026	E3 2.82
3) BENZENE	5.206	5.340	4.998	5.119	5.149	5.103	5.153	E3 2.22
4) S a,a,a-TFT(S)	1.123	1.173	1.300	1.370	1.385	1.359	1.285	E3 8.64
5) TOLUENE	5.591	5.408	5.152	5.210	5.295	5.248	5.317	E3 3.00
6) S 1-Chloro-4-Fluorobe		2.243	2.534	2.674	2.732	2.725	2.581	E3 7.96
7) CHLOROBENZENE	6.098	5.436	5.298	5.393	5.492	5.496	5.536	E3 5.15
8) ETHYLBENZENE		4.911	4.673	4.553	4.607	4.551	4.659	E3 3.20
9) m,p-XYLENE	5.151	5.200	4.944	5.033	5.074	5.069	5.078	E3 1.77
10) o-XYLENE	4.536	4.851	4.634	4.674	4.750	4.669	4.686	E3 2.28
11) 1,3-DICHLOROBENZENE		3.622	3.895	4.087	4.248	4.304	4.031	E3 6.91
12) 1,4-DICHLOROBENZENE		3.754	4.008	4.242	4.447	4.606	4.211	E3 8.08
13) 1,2-DICHLOROBENZENE		2.864	3.063	3.196	3.366	3.419	3.182	E3 7.12

Average % RSD = 5.4

(#) = Out of Range

GCCD0514.M

Wed Jun 02 13:16:02 2004

QRXY

Continuing Calibration Summary

Page 1 of 1

Job Number: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GCD2023-CC2013
Lab FileID: CD049212.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\2\DATA\052104\CD049212.D\FID1B.CH Vial: 2
Signal #2 : C:\HPCHEM\2\DATA\052104\CD049212.D\FID2A.CH
Acq On : 21 May 2004 6:24 am Operator: Rondam
Sample : CC2013-40 Inst : VOA2
Misc : gc3525,gcd2023,,,,, Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E

Method : C:\HPCHEM\2\METHODS\GCCD0514.M (Chemstation Integrator)
Title : EPA 602/8021B
Last Update : Fri May 14 12:51:19 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	38.863	2.8	98	-0.01
2	Di-Isopropyl ether	40.000	38.707	3.2	99	-0.01
3	BENZENE	40.000	35.683	10.8	94	-0.01
4 S	a,a,a-TFT(S)	20.000	21.023	-5.1	103	0.00
5	TOLUENE	40.000	35.974	10.1	96	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	19.216	3.9	93	0.00
7	CHLOROBENZENE	40.000	36.690	8.3	95	0.00
8	ETHYLBENZENE	40.000	36.606	8.5	95	0.00
9	m,p-XYLENE	80.000	72.712	9.1	95	0.00
10	o-XYLENE	40.000	37.105	7.2	96	0.00
11	1,3-DICHLOROBENZENE	40.000	37.533	6.2	95	-0.01
12	1,4-DICHLOROBENZENE	40.000	37.817	5.5	95	-0.01
13	1,2-DICHLOROBENZENE	40.000	39.019	2.5	98	-0.01

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	40.000	36.419	9.0	89	-0.01
2	Di-Isopropyl ether	40.000	36.025	9.9	89	0.00
3	BENZENE	40.000	34.260	14.4	86	0.00
4 S	a,a,a-TFT(S)	20.000	19.681	1.6	92	0.00
5	TOLUENE	40.000	35.091	12.3	90	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	17.745	11.3	86	0.02
7	CHLOROBENZENE	40.000	35.913	10.2	92	0.02
8	ETHYLBENZENE	40.000	36.199	9.5	93	0.02
9	m,p-XYLENE	80.000	74.458	6.9	94	0.02
10	o-XYLENE	40.000	37.779	5.6	95	0.02
11	1,3-DICHLOROBENZENE	40.000	37.996	5.0	94	0.00
12	1,4-DICHLOROBENZENE	40.000	37.911	5.2	94	0.00
13	1,2-DICHLOROBENZENE	40.000	39.314	1.7	98	0.00

Average % D = 7.1

(#) = Out of Range
CD048939.D GCCD0514.M

SPCC's out = 0 CCC's out = 0
Mon May 24 08:19:44 2004 QRLX

Continuing Calibration Summary

Page 1 of 1

Job Number: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GCD2023-CC2013
Lab FileID: CD049223.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\2\DATA\052104\CD049223.D\FID1B.CH Vial: 12
Signal #2 : C:\HPCHEM\2\DATA\052104\CD049223.D\FID2A.CH
Acq On : 21 May 2004 12:38 pm Operator: Rondam
Sample : cc2013-20 Inst : VOA2
Misc : gc3525,gcd2023,,,,, Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E

Method : C:\HPCHEM\2\METHODS\GCCD0514.M (Chemstation Integrator)
Title : EPA 602/8021B
Last Update : Fri May 14 12:51:19 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	20.418	-2.1	101	0.00
2	Di-Isopropyl ether	20.000	20.015	-0.1	100	0.00
3	BENZENE	20.000	18.863	5.7	98	0.00
4 S	a,a,a-TFT(S)	20.000	20.773	-3.9	104	0.00
5	TOLUENE	20.000	19.051	4.7	100	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	18.694	6.5	94	0.01
7	CHLOROBENZENE	20.000	18.778	6.1	98	0.01
8	ETHYLBENZENE	20.000	19.193	4.0	100	0.02
9	m,p-XYLENE	40.000	37.942	5.1	101	0.02
10	o-XYLENE	20.000	19.320	3.4	101	0.02
11	1,3-DICHLOROBENZENE	20.000	18.720	6.4	99	0.00
12	1,4-DICHLOROBENZENE	20.000	18.509	7.5	99	0.00
13	1,2-DICHLOROBENZENE	20.000	19.170	4.1	101	0.00

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	20.216	-1.1	101	0.00
2	Di-Isopropyl ether	20.000	19.602	2.0	100	0.00
3	BENZENE	20.000	18.958	5.2	98	0.00
4 S	a,a,a-TFT(S)	20.000	20.731	-3.7	102	0.00
5	TOLUENE	20.000	19.174	4.1	99	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	18.212	8.9	93	0.02
7	CHLOROBENZENE	20.000	18.707	6.5	98	0.02
8	ETHYLBENZENE	20.000	19.281	3.6	96	0.02
9	m,p-XYLENE	40.000	39.670	0.8	102	0.02
10	o-XYLENE	20.000	19.844	0.8	100	0.02
11	1,3-DICHLOROBENZENE	20.000	18.980	5.1	98	0.00
12	1,4-DICHLOROBENZENE	20.000	18.758	6.2	99	0.00
13	1,2-DICHLOROBENZENE	20.000	19.567	2.2	102	0.01

Average % D = 4.2

(#) = Out of Range
CD048938.D GCCD0514.M

SPCC's out = 0 CCC's out = 0
Mon May 24 08:20:31 2004 QRLX

Continuing Calibration Summary

Page 1 of 1

Job Number: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GCD2023-CC2013
Lab FileID: CD049228.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\2\DATA\052104\CD049228.D\FID1B.CH Vial: 16
Signal #2 : C:\HPCHEM\2\DATA\052104\CD049228.D\FID2A.CH
Acq On : 21 May 2004 2:52 pm Operator: Rondam
Sample : CC2013-20 Inst : VOA2
Misc : gc3525,gcd2023,,,,, Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E

Method : C:\HPCHEM\2\METHODS\GCCD0514.M (Chemstation Integrator)
Title : EPA 602/8021B
Last Update : Fri May 14 12:51:19 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	19.890	0.5	98	0.00
2	Di-Isopropyl ether	20.000	19.762	1.2	99	0.00
3	BENZENE	20.000	18.762	6.2	97	0.00
4 S	a,a,a-TFT(S)	20.000	20.481	-2.4	102	0.00
5	TOLUENE	20.000	18.710	6.4	98	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	18.552	7.2	93	0.00
7	CHLOROBENZENE	20.000	18.782	6.1	98	0.00
8	ETHYLBENZENE	20.000	18.969	5.2	99	0.00
9	m,p-XYLENE	40.000	37.292	6.8	99	0.00
10	o-XYLENE	20.000	18.911	5.4	98	0.00
11	1,3-DICHLOROBENZENE	20.000	18.790	6.1	99	0.00
12	1,4-DICHLOROBENZENE	20.000	18.329	8.4	98	0.00
13	1,2-DICHLOROBENZENE	20.000	19.161	4.2	101	0.00

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	19.218	3.9	96	0.00
2	Di-Isopropyl ether	20.000	18.796	6.0	96	0.00
3	BENZENE	20.000	18.028	9.9	93	0.00
4 S	a,a,a-TFT(S)	20.000	19.889	0.6	98	0.00
5	TOLUENE	20.000	18.246	8.8	94	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	17.595	12.0	90	0.00
7	CHLOROBENZENE	20.000	18.625	6.9	97	0.00
8	ETHYLBENZENE	20.000	18.793	6.0	94	0.01
9	m,p-XYLENE	40.000	38.753	3.1	100	0.00
10	o-XYLENE	20.000	19.277	3.6	97	0.01
11	1,3-DICHLOROBENZENE	20.000	18.703	6.5	97	0.00
12	1,4-DICHLOROBENZENE	20.000	18.466	7.7	97	0.00
13	1,2-DICHLOROBENZENE	20.000	19.298	3.5	100	0.00

Average % D = 5.6

(#) = Out of Range
CD048938.D GCCD0514.M

SPCC's out = 0 CCC's out = 0
Mon May 24 08:20:32 2004 QRLX

Continuing Calibration Summary

Page 1 of 1

Job Number: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GCD2023-CC2013
Lab FileID: CD049239.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\2\DATA\052104\CD049239.D\FID1B.CH Vial: 27
Signal #2 : C:\HPCHEM\2\DATA\052104\CD049239.D\FID2A.CH
Acq On : 21 May 2004 7:23 pm Operator: Rondam
Sample : CC2013-20 Inst : VOA2
Misc : gc3529,gcd2023,,,,, Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E

Method : C:\HPCHEM\2\METHODS\GCCD0514.M (Chemstation Integrator)
Title : EPA 602/8021B
Last Update : Fri May 14 12:51:19 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	19.968	0.2	99	-0.02
2	Di-Isopropyl ether	20.000	19.972	0.1	100	-0.02
3	BENZENE	20.000	19.056	4.7	99	-0.01
4 S	a,a,a-TFT(S)	20.000	20.638	-3.2	103	-0.01
5	TOLUENE	20.000	19.189	4.1	101	-0.01
6 S	1-Chloro-4-Fluorobenzene	20.000	18.716	6.4	94	0.00
7	CHLOROBENZENE	20.000	19.050	4.7	99	0.00
8	ETHYLBENZENE	20.000	19.233	3.8	101	0.00
9	m,p-XYLENE	40.000	37.769	5.6	100	0.00
10	o-XYLENE	20.000	19.260	3.7	100	0.00
11	1,3-DICHLOROBENZENE	20.000	19.162	4.2	101	-0.02
12	1,4-DICHLOROBENZENE	20.000	19.036	4.8	101	-0.02
13	1,2-DICHLOROBENZENE	20.000	19.754	1.2	104	-0.02

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	20.753	-3.8	103	-0.02
2	Di-Isopropyl ether	20.000	20.720	-3.6	106	-0.02
3	BENZENE	20.000	19.926	0.4	103	-0.01
4 S	a,a,a-TFT(S)	20.000	21.714	-8.6	107	-0.01
5	TOLUENE	20.000	19.840	0.8	102	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	18.951	5.2	97	0.00
7	CHLOROBENZENE	20.000	19.524	2.4	102	0.00
8	ETHYLBENZENE	20.000	19.641	1.8	98	0.00
9	m,p-XYLENE	40.000	39.438	1.4	101	0.00
10	o-XYLENE	20.000	19.977	0.1	101	0.00
11	1,3-DICHLOROBENZENE	20.000	19.824	0.9	103	-0.01
12	1,4-DICHLOROBENZENE	20.000	19.623	1.9	103	-0.01
13	1,2-DICHLOROBENZENE	20.000	20.104	-0.5	104	-0.01

Average % D = 3.0

(#) = Out of Range
CD048938.D GCCD0514.M

SPCC's out = 0 CCC's out = 0
Mon May 24 08:20:34 2004 QRLX

Continuing Calibration Summary

Page 1 of 1

Job Number: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GCD2024-CC2013
Lab FileID: CD049250.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\2\DATA\052104\CD049250.D\FID1B.CH Vial: 38
Signal #2 : C:\HPCHEM\2\DATA\052104\CD049250.D\FID2A.CH
Acq On : 21 May 2004 11:56 pm Operator: Rondam
Sample : CC2013-20 Inst : VOA2
Misc : gc3529,gcd2024,,,,, Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E

Method : C:\HPCHEM\2\METHODS\GCCD0514.M (Chemstation Integrator)
Title : EPA 602/8021B
Last Update : Fri May 14 12:51:19 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	20.411	-2.1	101	0.00
2	Di-Isopropyl ether	20.000	19.912	0.4	99	0.00
3	BENZENE	20.000	18.841	5.8	97	0.00
4 S	a,a,a-TFT(S)	20.000	20.640	-3.2	103	0.00
5	TOLUENE	20.000	18.578	7.1	98	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	18.593	7.0	93	0.00
7	CHLOROBENZENE	20.000	18.721	6.4	97	0.00
8	ETHYLBENZENE	20.000	18.824	5.9	99	0.00
9	m,p-XYLENE	40.000	37.069	7.3	98	0.00
10	o-XYLENE	20.000	19.033	4.8	99	0.00
11	1,3-DICHLOROBENZENE	20.000	19.057	4.7	100	0.00
12	1,4-DICHLOROBENZENE	20.000	18.616	6.9	99	0.00
13	1,2-DICHLOROBENZENE	20.000	19.367	3.2	102	0.00

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	20.775	-3.9	103	0.00
2	Di-Isopropyl ether	20.000	20.459	-2.3	104	0.00
3	BENZENE	20.000	19.556	2.2	101	0.00
4 S	a,a,a-TFT(S)	20.000	21.605	-8.0	107	0.00
5	TOLUENE	20.000	19.421	2.9	100	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	18.940	5.3	96	0.00
7	CHLOROBENZENE	20.000	19.174	4.1	100	0.00
8	ETHYLBENZENE	20.000	19.312	3.4	96	0.00
9	m,p-XYLENE	40.000	38.789	3.0	100	0.00
10	o-XYLENE	20.000	19.580	2.1	99	0.01
11	1,3-DICHLOROBENZENE	20.000	19.343	3.3	100	0.00
12	1,4-DICHLOROBENZENE	20.000	18.946	5.3	100	0.00
13	1,2-DICHLOROBENZENE	20.000	19.841	0.8	103	0.00

Average % D = 4.3

(#) = Out of Range
CD048938.D GCCD0514.M

SPCC's out = 0 CCC's out = 0
Mon May 24 08:20:35 2004 QRLX

Continuing Calibration Summary

Page 1 of 1

Job Number: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GCD2024-CC2013
Lab FileID: CD049261.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\2\DATA\052104\CD049261.D\FID1B.CH Vial: 48
Signal #2 : C:\HPCHEM\2\DATA\052104\CD049261.D\FID2A.CH
Acq On : 22 May 2004 4:25 am Operator: Rondam
Sample : CC2013-20 Inst : VOA2
Misc : gc3529,gcd2024,,,,, Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E

Method : C:\HPCHEM\2\METHODS\GCCD0514.M (Chemstation Integrator)
Title : EPA 602/8021B
Last Update : Fri May 14 12:51:19 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	20.222	-1.1	100	-0.01
2	Di-Isopropyl ether	20.000	20.008	-0.0	100	-0.01
3	BENZENE	20.000	18.872	5.6	98	-0.01
4 S	a,a,a-TFT(S)	20.000	20.567	-2.8	103	-0.01
5	TOLUENE	20.000	18.739	6.3	99	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	18.781	6.1	94	0.00
7	CHLOROBENZENE	20.000	18.866	5.7	98	0.00
8	ETHYLBENZENE	20.000	18.794	6.0	98	0.00
9	m,p-XYLENE	40.000	37.036	7.4	98	0.00
10	o-XYLENE	20.000	18.979	5.1	99	0.00
11	1,3-DICHLOROBENZENE	20.000	18.492	7.5	97	0.00
12	1,4-DICHLOROBENZENE	20.000	18.460	7.7	98	0.00
13	1,2-DICHLOROBENZENE	20.000	19.066	4.7	100	0.00

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	20.510	-2.6	102	-0.01
2	Di-Isopropyl ether	20.000	20.590	-2.9	105	-0.01
3	BENZENE	20.000	19.780	1.1	102	-0.01
4 S	a,a,a-TFT(S)	20.000	21.911	-9.6	108	0.00
5	TOLUENE	20.000	19.454	2.7	100	0.00
6 S	1-Chloro-4-Fluorobenzene	20.000	18.933	5.3	96	0.00
7	CHLOROBENZENE	20.000	19.241	3.8	101	0.00
8	ETHYLBENZENE	20.000	19.384	3.1	97	0.00
9	m,p-XYLENE	40.000	38.868	2.8	100	0.00
10	o-XYLENE	20.000	19.739	1.3	100	0.00
11	1,3-DICHLOROBENZENE	20.000	19.238	3.8	100	0.00
12	1,4-DICHLOROBENZENE	20.000	19.088	4.6	100	0.00
13	1,2-DICHLOROBENZENE	20.000	19.504	2.5	101	0.00

Average % D = 4.3

(#) = Out of Range
CD048938.D GCCD0514.M

SPCC's out = 0 CCC's out = 0
Mon May 24 08:20:36 2004 QRLX

Continuing Calibration Summary

Page 1 of 1

Job Number: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GCD2027-CC2013
Lab FileID: CD049282.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\2\DATA\052404\CD049282.D\FID1B.CH Vial: 2
Signal #2 : C:\HPCHEM\2\DATA\052404\CD049282.D\FID2A.CH
Acq On : 24 May 2004 8:43 am Operator: Rondam
Sample : CC2013-20 Inst : VOA2
Misc : gc3529,gcd2027,,,,, Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E

Method : C:\HPCHEM\2\METHODS\GCCD0514.M (Chemstation Integrator)
Title : EPA 602/8021B
Last Update : Fri May 14 12:53:11 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	19.294	3.5	95	-0.02
2	Di-Isopropyl ether	20.000	19.934	0.3	99	-0.02
3	BENZENE	20.000	18.672	6.6	97	-0.02
4 S	a,a,a-TFT(S)	20.000	20.232	-1.2	101	-0.02
5	TOLUENE	20.000	18.397	8.0	97	-0.02
6 S	1-Chloro-4-Fluorobenzene	20.000	18.105	9.5	91	0.00
7	CHLOROBENZENE	20.000	18.638	6.8	97	0.00
8	ETHYLBENZENE	20.000	18.555	7.2	97	0.00
9	m,p-XYLENE	40.000	36.520	8.7	97	0.00
10	o-XYLENE	20.000	18.561	7.2	97	0.00
11	1,3-DICHLOROBENZENE	20.000	17.123	14.4	90	-0.03
12	1,4-DICHLOROBENZENE	20.000	17.078	14.6	91	-0.03
13	1,2-DICHLOROBENZENE	20.000	17.226	13.9	91	-0.03

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	21.401	-7.0	107	-0.02
2	Di-Isopropyl ether	20.000	21.721	-8.6	111	-0.01
3	BENZENE	20.000	20.069	-0.3	103	-0.01
4 S	a,a,a-TFT(S)	20.000	22.058	-10.3	109	-0.01
5	TOLUENE	20.000	19.736	1.3	102	-0.01
6 S	1-Chloro-4-Fluorobenzene	20.000	19.132	4.3	97	0.00
7	CHLOROBENZENE	20.000	18.975	5.1	99	0.00
8	ETHYLBENZENE	20.000	19.273	3.6	96	0.00
9	m,p-XYLENE	40.000	38.556	3.6	99	0.00
10	o-XYLENE	20.000	19.642	1.8	99	0.00
11	1,3-DICHLOROBENZENE	20.000	18.155	9.2	94	-0.02
12	1,4-DICHLOROBENZENE	20.000	17.560	12.2	92	-0.02
13	1,2-DICHLOROBENZENE	20.000	17.828	10.9	93	-0.02

Average % D = 6.9

(#) = Out of Range
CD048938.D GCCD0514.M

SPCC's out = 0 CCC's out = 0
Tue May 25 08:09:44 2004 QRXY

Continuing Calibration Summary

Page 1 of 1

Job Number: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GCD2028-CC2013
Lab FileID: CD049293.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\2\DATA\052404\CD049293.D\FID1B.CH Vial: 11
Signal #2 : C:\HPCHEM\2\DATA\052404\CD049293.D\FID2A.CH
Acq On : 24 May 2004 1:41 pm Operator: Rondam
Sample : CC2013-20 Inst : VOA2
Misc : gc3534,gcd2028,,,,, Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E

Method : C:\HPCHEM\2\METHODS\GCCD0514.M (Chemstation Integrator)
Title : EPA 602/8021B
Last Update : Fri May 14 12:53:11 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	19.466	2.7	96	-0.01
2	Di-Isopropyl ether	20.000	19.712	1.4	98	-0.01
3	BENZENE	20.000	18.604	7.0	96	-0.02
4 S	a,a,a-TFT(S)	20.000	20.538	-2.7	103	-0.02
5	TOLUENE	20.000	18.520	7.4	97	-0.01
6 S	1-Chloro-4-Fluorobenzene	20.000	18.576	7.1	93	0.00
7	CHLOROBENZENE	20.000	18.622	6.9	97	0.00
8	ETHYLBENZENE	20.000	18.790	6.1	98	0.00
9	m,p-XYLENE	40.000	37.000	7.5	98	0.00
10	o-XYLENE	20.000	18.882	5.6	98	0.00
11	1,3-DICHLOROBENZENE	20.000	18.414	7.9	97	-0.02
12	1,4-DICHLOROBENZENE	20.000	18.291	8.5	97	-0.02
13	1,2-DICHLOROBENZENE	20.000	18.816	5.9	99	-0.02

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	18.280	8.6	91	-0.02
2	Di-Isopropyl ether	20.000	18.094	9.5	92	-0.02
3	BENZENE	20.000	17.216	13.9	89	-0.02
4 S	a,a,a-TFT(S)	20.000	19.161	4.2	95	-0.02
5	TOLUENE	20.000	17.280	13.6	89	-0.01
6 S	1-Chloro-4-Fluorobenzene	20.000	16.955	15.2#	86	0.00
7	CHLOROBENZENE	20.000	17.094	14.5	89	0.00
8	ETHYLBENZENE	20.000	17.564	12.2	88	0.00
9	m,p-XYLENE	40.000	36.888	7.8	95	0.00
10	o-XYLENE	20.000	19.095	4.5	97	0.00
11	1,3-DICHLOROBENZENE	20.000	18.181	9.1	94	-0.02
12	1,4-DICHLOROBENZENE	20.000	18.234	8.8	96	-0.02
13	1,2-DICHLOROBENZENE	20.000	18.754	6.2	97	-0.02

Average % D = 7.9

(#) = Out of Range
CD048938.D GCCD0514.M

SPCC's out = 0 CCC's out = 0
Tue May 25 08:09:46 2004 QRXY

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: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10458-MB	IJ19868.D	1	05/18/04	SD	05/18/04	OP10458	GIJ969

The QC reported here applies to the following samples:

Method: EPA 610

F24116-1, F24116-2, F24116-3, F24116-4, F24116-5, F24116-6, F24116-7, F24116-8, F24116-9, F24116-10, F24116-11, F24116-12, F24116-17

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	88% 42-123%
84-15-1	o-Terphenyl	91% 51-123%

Method Blank Summary

Page 1 of 1

Job Number: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10477-MB	IJ19894.D	1	05/21/04	SD	05/19/04	OP10477	GIJ970

The QC reported here applies to the following samples:

Method: EPA 610

F24116-13, F24116-14, F24116-15, F24116-16

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	86% 42-123%
84-15-1	o-Terphenyl	92% 51-123%

Method Blank Summary

Page 1 of 1

Job Number: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10477-MB	IJ19908.D	1	05/22/04	SD	05/19/04	OP10477	GIJ971

The QC reported here applies to the following samples:

Method: EPA 610

F24116-13, F24116-14, F24116-15, F24116-16

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	87% 42-123%
84-15-1	o-Terphenyl	94% 51-123%

Blank Spike Summary

Page 1 of 1

Job Number: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10458-BS	IJ19867.D	1	05/18/04	SD	05/18/04	OP10458	GIJ969

The QC reported here applies to the following samples:

Method: EPA 610

F24116-1, F24116-2, F24116-3, F24116-4, F24116-5, F24116-6, F24116-7, F24116-8, F24116-9, F24116-10, F24116-11, F24116-12, F24116-17

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	25	23.6	94	71-113
208-96-8	Acenaphthylene	25	23.8	95	63-102
120-12-7	Anthracene	25	25.2	101	71-110
56-55-3	Benzo(a)anthracene	25	23.6	94	70-114
50-32-8	Benzo(a)pyrene	25	21.3	85	67-114
205-99-2	Benzo(b)fluoranthene	25	22.6	90	69-115
191-24-2	Benzo(g,h,i)perylene	25	17.6	70	61-117
207-08-9	Benzo(k)fluoranthene	25	20.1	80	69-111
218-01-9	Chrysene	25	24.1	96	70-114
53-70-3	Dibenzo(a,h)anthracene	25	17.5	70	64-114
206-44-0	Fluoranthene	25	24.7	99	71-114
86-73-7	Fluorene	25	24.7	99	69-111
193-39-5	Indeno(1,2,3-cd)pyrene	25	17.5	70	63-112
91-20-3	Naphthalene	25	23.2	93	66-105
90-12-0	1-Methylnaphthalene	25	24.1	96	71-112
91-57-6	2-Methylnaphthalene	25	23.5	94	65-106
85-01-8	Phenanthrene	25	24.5	98	69-112
129-00-0	Pyrene	25	24.8	99	70-114

CAS No.	Surrogate Recoveries	BSP	Limits
321-60-8	2-Fluorobiphenyl	94%	42-123%
84-15-1	o-Terphenyl	96%	51-123%

Blank Spike Summary

Page 1 of 1

Job Number: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10477-BS	IJ19893.D	1	05/21/04	SD	05/19/04	OP10477	GIJ970

The QC reported here applies to the following samples:

Method: EPA 610

F24116-13, F24116-14, F24116-15, F24116-16

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	25	21.1	84	71-113
208-96-8	Acenaphthylene	25	21.1	84	63-102
120-12-7	Anthracene	25	22.4	90	71-110
56-55-3	Benzo(a)anthracene	25	22.1	88	70-114
50-32-8	Benzo(a)pyrene	25	22.6	90	67-114
205-99-2	Benzo(b)fluoranthene	25	22.2	89	69-115
191-24-2	Benzo(g,h,i)perylene	25	21.8	87	61-117
207-08-9	Benzo(k)fluoranthene	25	21.9	88	69-111
218-01-9	Chrysene	25	22.6	90	70-114
53-70-3	Dibenzo(a,h)anthracene	25	22.0	88	64-114
206-44-0	Fluoranthene	25	22.3	89	71-114
86-73-7	Fluorene	25	22.1	88	69-111
193-39-5	Indeno(1,2,3-cd)pyrene	25	21.4	86	63-112
91-20-3	Naphthalene	25	20.6	82	66-105
90-12-0	1-Methylnaphthalene	25	21.6	86	71-112
91-57-6	2-Methylnaphthalene	25	21.0	84	65-106
85-01-8	Phenanthrene	25	22.0	88	69-112
129-00-0	Pyrene	25	22.4	90	70-114

CAS No.	Surrogate Recoveries	BSP	Limits
321-60-8	2-Fluorobiphenyl	83%	42-123%
84-15-1	o-Terphenyl	88%	51-123%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10458-MS	IJ19886.D	1	05/19/04	SD	05/18/04	OP10458	GIJ969
OP10458-MSD	IJ19887.D	1	05/19/04	SD	05/18/04	OP10458	GIJ969
F24118-8	IJ19885.D	1	05/19/04	SD	05/18/04	OP10458	GIJ969

The QC reported here applies to the following samples:

Method: EPA 610

F24116-1, F24116-2, F24116-3, F24116-4, F24116-5, F24116-6, F24116-7, F24116-8, F24116-9, F24116-10, F24116-11, F24116-12, F24116-17

CAS No.	Compound	F24118-8 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		51	42.7	84	48.2	94	12	59-123/20
208-96-8	Acenaphthylene	ND		51	43.5	85	48.8	96	11	51-114/20
120-12-7	Anthracene	ND		51	46.3	91	49.7	97	7	64-114/17
56-55-3	Benzo(a)anthracene	ND		51	44.2	87	46.8	92	6	66-115/17
50-32-8	Benzo(a)pyrene	ND		51	44.8	88	47.5	93	6	62-118/17
205-99-2	Benzo(b)fluoranthene	ND		51	44.2	87	47.3	93	7	66-117/17
191-24-2	Benzo(g,h,i)perylene	ND		51	43.5	85	46.5	91	7	59-120/17
207-08-9	Benzo(k)fluoranthene	ND		51	42.8	84	45.3	89	6	64-116/16
218-01-9	Chrysene	ND		51	45.0	88	47.8	94	6	66-117/16
53-70-3	Dibenzo(a,h)anthracene	ND		51	43.5	85	46.5	91	7	57-124/18
206-44-0	Fluoranthene	ND		51	45.6	89	48.5	95	6	67-116/17
86-73-7	Fluorene	ND		51	44.9	88	49.7	97	10	58-122/19
193-39-5	Indeno(1,2,3-cd)pyrene	ND		51	42.5	83	45.3	89	6	59-116/18
91-20-3	Naphthalene	ND		51	40.7	80	45.9	90	12	47-114/20
90-12-0	1-Methylnaphthalene	ND		51	43.1	84	48.7	95	12	55-128/21
91-57-6	2-Methylnaphthalene	ND		51	43.1	84	48.5	95	12	51-117/21
85-01-8	Phenanthrene	ND		51	45.7	90	49.0	96	7	63-116/18
129-00-0	Pyrene	ND		51	46.1	90	48.7	95	5	67-116/17

CAS No.	Surrogate Recoveries	MS	MSD	F24118-8	Limits
321-60-8	2-Fluorobiphenyl	80%	91%	77%	42-123%
84-15-1	o-Terphenyl	86%	92%	91%	51-123%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10477-MS	IJ19897.D	1	05/21/04	SD	05/19/04	OP10477	GIJ970
OP10477-MSD	IJ19898.D	1	05/21/04	SD	05/19/04	OP10477	GIJ970
F24116-14	IJ19896.D	1	05/21/04	SD	05/19/04	OP10477	GIJ970

The QC reported here applies to the following samples:

Method: EPA 610

F24116-13, F24116-14, F24116-15, F24116-16

CAS No.	Compound	F24116-14 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND	52.1	40.9	79	44.5	85	8	59-123/20
208-96-8	Acenaphthylene	ND	52.1	41.1	79	44.7	86	8	51-114/20
120-12-7	Anthracene	ND	52.1	45.0	86	46.9	90	4	64-114/17
56-55-3	Benzo(a)anthracene	ND	52.1	45.0	86	46.0	88	2	66-115/17
50-32-8	Benzo(a)pyrene	ND	52.1	46.2	89	47.3	91	2	62-118/17
205-99-2	Benzo(b)fluoranthene	ND	52.1	45.3	87	46.5	89	3	66-117/17
191-24-2	Benzo(g,h,i)perylene	ND	52.1	44.9	86	45.8	88	2	59-120/17
207-08-9	Benzo(k)fluoranthene	ND	52.1	44.9	86	45.9	88	2	64-116/16
218-01-9	Chrysene	ND	52.1	46.1	89	47.1	90	2	66-117/16
53-70-3	Dibenzo(a,h)anthracene	ND	52.1	45.4	87	46.4	89	2	57-124/18
206-44-0	Fluoranthene	ND	52.1	45.3	87	46.6	89	3	67-116/17
86-73-7	Fluorene	ND	52.1	42.9	82	46.3	89	8	58-122/19
193-39-5	Indeno(1,2,3-cd)pyrene	ND	52.1	44.0	84	44.9	86	2	59-116/18
91-20-3	Naphthalene	ND	52.1	40.3	77	43.8	84	8	47-114/20
90-12-0	1-Methylnaphthalene	ND	52.1	42.2	81	45.8	88	8	55-128/21
91-57-6	2-Methylnaphthalene	ND	52.1	41.1	79	44.7	86	8	51-117/21
85-01-8	Phenanthrene	ND	52.1	43.6	84	45.9	88	5	63-116/18
129-00-0	Pyrene	ND	52.1	45.7	88	46.9	90	3	67-116/17

CAS No.	Surrogate Recoveries	MS	MSD	F24116-14	Limits
321-60-8	2-Fluorobiphenyl	76%	83%	80%	42-123%
84-15-1	o-Terphenyl	84%	87%	87%	51-123%

Semivolatile Surrogate Recovery Summary

Page 1 of 1

Job Number: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

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
F24116-1	IJ19869.D	85.0		109.0	
F24116-2	IJ19870.D	76.0		87.0	
F24116-3	IJ19871.D	58.0		75.0	
F24116-4	IJ19872.D	64.0		87.0	
F24116-5	IJ19873.D	61.0		83.0	
F24116-6	IJ19874.D	78.0		88.0	
F24116-7	IJ19875.D	96.0		100.0	
F24116-8	IJ19876.D	89.0		95.0	
F24116-9	IJ19878.D	88.0		93.0	
F24116-10	IJ19879.D	92.0		94.0	
F24116-11	IJ19880.D	77.0		86.0	
F24116-12	IJ19881.D	55.0		73.0	
F24116-13	IJ19895.D	78.0		82.0	
F24116-14	IJ19896.D	80.0		87.0	
F24116-15	IJ19909.D		97.0		88.0
F24116-15	IJ19899.D		112.0		105.0
F24116-16	IJ19900.D	81.0		90.0	
F24116-17	IJ19882.D	92.0		94.0	
OP10458-BS	IJ19867.D	94.0		96.0	
OP10458-MB	IJ19868.D	88.0		91.0	
OP10458-MS	IJ19886.D	80.0		86.0	
OP10458-MSD	IJ19887.D	91.0		92.0	
OP10477-BS	IJ19893.D	83.0		88.0	
OP10477-MB	IJ19894.D	86.0		92.0	
OP10477-MB	IJ19908.D	87.0		94.0	
OP10477-MS	IJ19897.D	76.0		84.0	
OP10477-MSD	IJ19898.D	83.0		87.0	

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

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GUJ969-ICC969	Injection Date:	05/18/04
Lab File ID:	IJ19861.D	Injection Time:	13:01
Instrument ID:	GCIJ	Method:	EPA 610

S1^a	S2^a
RT	RT

Check Std	5.86	10.41

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
OP10458-BS	IJ19867.D	05/18/04	15:55	5.86	10.42
OP10458-MB	IJ19868.D	05/18/04	16:24	5.86	10.42
F24116-1	IJ19869.D	05/18/04	16:53	5.87	10.42
F24116-2	IJ19870.D	05/18/04	17:22	5.87	10.42
F24116-3	IJ19871.D	05/18/04	17:50	5.86	10.42
F24116-4	IJ19872.D	05/18/04	18:19	5.86	10.42
F24116-5	IJ19873.D	05/18/04	18:48	5.86	10.42
F24116-6	IJ19874.D	05/18/04	19:17	5.86	10.42
F24116-7	IJ19875.D	05/18/04	19:46	5.86	10.42
F24116-8	IJ19876.D	05/18/04	20:15	5.86	10.41

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: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GUJ969-CC969	Injection Date:	05/18/04
Lab File ID:	IJ19877.D	Injection Time:	20:43
Instrument ID:	GCIJ	Method:	EPA 610

S1^a	S2^a
RT	RT

Check Std	5.86	10.41

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
F24116-9	IJ19878.D	05/18/04	21:12	5.86	10.41
F24116-10	IJ19879.D	05/18/04	21:41	5.85	10.41
F24116-11	IJ19880.D	05/18/04	22:09	5.85	10.41
F24116-12	IJ19881.D	05/18/04	22:38	5.85	10.41
F24116-17	IJ19882.D	05/18/04	23:07	5.85	10.41
ZZZZZZ	IJ19883.D	05/18/04	23:35	5.85	10.41
ZZZZZZ	IJ19884.D	05/19/04	00:04	5.85	10.41
F24118-8	IJ19885.D	05/19/04	00:32	5.85	10.41
OP10458-MS	IJ19886.D	05/19/04	01:01	5.85	10.41
OP10458-MSD	IJ19887.D	05/19/04	01:30	5.85	10.41

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: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GUJ970-CC969	Injection Date:	05/21/04
Lab File ID:	IJ19892.D	Injection Time:	13:36
Instrument ID:	GCIJ	Method:	EPA 610

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	5.85	6.64	10.41	11.79

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
OP10477-BS	IJ19893.D	05/21/04	14:10	5.86		10.41	
OP10477-MB	IJ19894.D	05/21/04	14:39	5.86		10.42	
F24116-13	IJ19895.D	05/21/04	15:08	5.86		10.42	
F24116-14	IJ19896.D	05/21/04	15:37	5.86		10.42	
OP10477-MS	IJ19897.D	05/21/04	16:06	5.87		10.42	
OP10477-MSD	IJ19898.D	05/21/04	16:35	5.87		10.42	
F24116-15	IJ19899.D	05/21/04	17:04		6.66		11.81
F24116-16	IJ19900.D	05/21/04	17:33	5.87		10.43	
ZZZZZZ	IJ19901.D	05/21/04	18:02	5.87		10.43	
ZZZZZZ	IJ19902.D	05/21/04	18:31	5.87		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

Job Number: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GIJ971-CC969	Injection Date:	05/22/04
Lab File ID:	IJ19907.D	Injection Time:	08:41
Instrument ID:	GCIJ	Method:	EPA 610

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	5.84	6.63	10.40	11.79

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
OP10477-MB	IJ19908.D	05/22/04	09:10	5.85		10.40	
F24116-15	IJ19909.D	05/22/04	09:39		6.64		11.79
GIJ971-ECC969	IJ19910.D	05/22/04	10:07	5.85	6.64	10.41	11.80

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: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ969-ICC969
Lab FileID: IJ19861.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 May 18 15:29:32 2004
Response via : Initial Calibration

Calibration Files

5 =IJ19859.D 10 =IJ19860.D 20 =IJ19861.D 30 =IJ19862.D
40 =IJ19863.D 50 =IJ19864.D

	Compound	5	10	20	30	40	50	Avg	%RSD
1)	Naphthalene	1.440	1.404	1.475	1.375	1.364	1.362	1.403	E4 3.27
2)	2-Methyl Naphthalen	1.408	1.373	1.440	1.343	1.333	1.330	1.371	E4 3.26
3)	1-Methyl Naphthalen	1.404	1.369	1.435	1.340	1.328	1.327	1.367	E4 3.24
4) S	2-Fluorobiphenyl	1.284	1.256	1.319	1.230	1.221	1.219	1.255	E4 3.20
5)	Acenaphthylene	1.452	1.418	1.485	1.383	1.372	1.369	1.413	E4 3.34
6)	Acenaphthene	1.464	1.429	1.501	1.398	1.388	1.383	1.427	E4 3.31
7)	Fluorene	1.419	1.399	1.468	1.368	1.359	1.353	1.394	E4 3.15
8)	Phenanthrene	1.433	1.404	1.472	1.374	1.363	1.358	1.401	E4 3.21
9)	Anthracene	1.410	1.379	1.446	1.350	1.339	1.335	1.376	E4 3.22
10) S	0-Terphenyl	1.480	1.442	1.509	1.405	1.392	1.386	1.436	E4 3.49
11)	Fluoranthene	1.438	1.413	1.484	1.382	1.368	1.363	1.408	E4 3.34
12)	Pyrene	1.439	1.408	1.479	1.378	1.368	1.362	1.406	E4 3.25
13)	Benzo(a)Anthracene	1.441	1.416	1.488	1.389	1.378	1.373	1.414	E4 3.15
14)	Chrysene	1.427	1.399	1.466	1.365	1.353	1.348	1.393	E4 3.36
15)	Benzo(b)Fluoranthene	1.469	1.429	1.511	1.409	1.412	1.411	1.440	E4 2.87
16)	Benzo(k)Fluoranthene	1.477	1.447	1.508	1.406	1.380	1.360	1.430	E4 4.02
17)	Benzo(a) Pyrene	1.390	1.362	1.430	1.334	1.323	1.317	1.359	E4 3.23
18)	Indeno(1,2,3-cd)pyr	1.431	1.404	1.478	1.378	1.369	1.362	1.404	E4 3.16
19)	Dibenzo(a,h)anthrac	1.440	1.410	1.478	1.377	1.367	1.358	1.405	E4 3.35
20)	Benzo(g,h,i) Peryle	1.454	1.417	1.492	1.390	1.382	1.373	1.418	E4 3.27

Signal #2

1)	Naphthalene	2.159	2.101	2.207	2.049	2.032	2.023	2.095	E4 3.57
2)	2-Methyl Naphthalen	2.085	2.035	2.138	1.984	1.968	1.961	2.028	E4 3.51
3)	1-Methyl Naphthalen	2.084	2.031	2.135	1.982	1.965	1.957	2.026	E4 3.53
4) S	2-Fluorobiphenyl	1.920	1.870	1.965	1.825	1.808	1.800	1.865	E4 3.57
5)	Acenaphthylene	2.152	2.097	2.201	2.044	2.026	2.018	2.090	E4 3.55
6)	Acenaphthene	2.172	2.122	2.225	2.067	2.048	2.039	2.112	E4 3.54
7)	Fluorene	2.123	2.074	2.176	2.023	2.004	1.995	2.066	E4 3.50
8)	Phenanthrene	2.107	2.087	2.178	2.016	2.016	2.005	2.068	E4 3.30
9)	Anthracene	2.114	2.037	2.151	2.009	1.975	1.967	2.042	E4 3.68
10) S	0-Terphenyl	2.199	2.148	2.248	2.090	2.069	2.056	2.135	E4 3.61
11)	Fluoranthene	2.150	2.100	2.202	2.048	2.028	2.016	2.090	E4 3.54
12)	Pyrene	2.168	2.118	2.222	2.067	2.045	2.089	2.118	E4 3.14
13)	Benzo(a)Anthracene	2.173	2.123	2.259	2.072	2.050	2.038	2.119	E4 4.01
14)	Chrysene	2.142	2.089	2.179	2.027	2.004	1.995	2.073	E4 3.68
15)	Benzo(b)Fluoranthene	2.214	2.154	2.331	2.125	2.087	2.081	2.165	E4 4.38
16)	Benzo(k)Fluoranthene	2.223	2.151	2.243	2.081	2.061	2.036	2.133	E4 4.08
17)	Benzo(a) Pyrene	2.107	2.032	2.134	1.981	1.962	1.951	2.028	E4 3.81
18)	Indeno(1,2,3-cd)pyr	2.160	2.124	2.270	2.112	2.095	2.113	2.146	E4 3.01
19)	Dibenzo(a,h)anthrac	2.096	2.087	2.199	2.027	1.970	1.956	2.056	E4 4.40
20)	Benzo(g,h,i) Peryle	2.285	2.121	2.234	2.080	2.050	2.045	2.136	E4 4.72

(#) = Out of Range

8100_H2.M

Wed May 19 11:14:33 2004

Initial Calibration Verification

Page 1 of 2

Job Number: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ969-ICV969
Lab FileID: IJ19865.D

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\0518PAH\IJ19865.D\FID1B.CH Vial: 7
Acq On : 18 May 2004 2:57 pm Operator: sarahm
Sample : icv969-30 Inst : FID 1
Misc : op10419,gij969,1000,,,1,1,water Multiplr: 1.00
IntFile : events.e

Data File : C:\HPCHEM\1\DATA\0518PAH\IJ19865.D\FID2A.CH Vial: 7
Acq On : 18 May 2004 2:57 pm Operator: sarahm
Sample : icv969-20 Inst : FID 1
Misc : op10419,gij969,1000,,,1,1,water Multiplr: 1.00
IntFile : events2.e

Method : C:\HPCHEM\1\METHODS\8100_H2.M (Chemstation Integrator)
Title : PAH's BY EPA 610 OR 8100
Last Update : Tue May 18 15:29:32 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	28.909	3.6	98	0.00	4.21-	4.41
2	2-Methyl Naphthalene	30.000	29.471	1.8	100	0.00	5.13-	5.33
3	1-Methyl Naphthalene	30.000	30.161	-0.5	103	0.00	5.27-	5.47
4 S	2-Fluorobiphenyl			-----NA-----				
5	Acenaphthylene	30.000	29.013	3.3	99	0.00	6.49-	6.69
6	Acenaphthene	30.000	28.770	4.1	98	0.00	6.81-	7.01
7	Fluorene	30.000	29.687	1.0	101	0.00	7.68-	7.88
8	Phenanthrene	30.000	28.975	3.4	98	0.00	9.36-	9.56
9	Anthracene	30.000	30.063	-0.2	102	0.00	9.44-	9.64
10 S	0-Terphenyl			-----NA-----				
11	Fluoranthene	30.000	29.160	2.8	99	0.00	11.56-	11.76
12	Pyrene	30.000	29.289	2.4	100	0.00	11.94-	12.14
13	Benzo(a)Anthracene	30.000	28.840	3.9	98	0.00	14.26-	14.46
14	Chrysene	30.000	29.459	1.8	100	0.00	14.33-	14.53
15	Benzo(b)Fluoranthene	30.000	28.897	3.7	98	0.00	16.17-	16.37
16	Benzo(k)Fluoranthene	30.000	28.569	4.8	97	0.00	16.22-	16.42
17	Benzo(a) Pyrene	30.000	29.830	0.6	101	0.00	16.66-	16.86
18	Indeno(1,2,3-cd)pyrene	30.000	28.253	5.8	96	0.00	18.34-	18.54
19	Dibenzo(a,h)anthracene	30.000	29.152	2.8	99	0.00	18.42-	18.62
20	Benzo(g,h,i) Perylene	30.000	28.897	3.7	98	-0.01	18.67-	18.87

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

1	Naphthalene	30.000	29.041	3.2	99	0.00	4.87-	5.07
2	2-Methyl Naphthalene	30.000	29.433	1.9	100	0.00	5.77-	5.97
3	1-Methyl Naphthalene	30.000	29.860	0.5	102	0.00	6.04-	6.24
4 S	2-Fluorobiphenyl			-----NA-----				
5	Acenaphthylene	30.000	28.925	3.6	99	0.00	7.66-	7.86
6	Acenaphthene	30.000	28.639	4.5	98	0.00	7.90-	8.10
7	Fluorene	30.000	29.543	1.5	101	0.00	8.78-	8.98
8	Phenanthrene	30.000	28.795	4.0	98	0.00	10.81-	11.01
9	Anthracene	30.000	30.013	-0.0	102	0.00	10.85-	11.05
10 S	0-Terphenyl			-----NA-----				
11	Fluoranthene	30.000	29.074	3.1	99	0.00	13.18-	13.38
12	Pyrene	30.000	28.905	3.6	99	0.00	13.73-	13.93
13	Benzo(a)Anthracene	30.000	28.538	4.9	97	0.00	16.10-	16.30

Initial Calibration Verification

Job Number: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ969-ICV969
Lab FileID: IJ19865.D

14	Chrysene	30.000	29.247	2.5	100	0.00	16.27-16.47
15	Benzo(b)Fluoranthene	30.000	28.269	5.8	96	0.00	18.16-18.36
16	Benzo(k)Fluoranthene	30.000	28.557	4.8	98	0.00	18.21-18.41
17	Benzo(a) Pyrene	30.000	29.695	1.0	101	0.00	18.89-19.09
18	Indeno(1,2,3-cd)pyrene	30.000	28.132	6.2	95	0.00	20.68-20.88
19	Dibenzo(a,h)anthracene	30.000	29.147	2.8	99	0.00	20.75-20.95
20	Benzo(g,h,i) Perylene	30.000	28.509	5.0	98	0.00	21.33-21.53

(#) = Out of Range
IJ19862.D 8100_H2.M

SPCC's out = 0 CCC's out = 0
Wed May 19 11:15:05 2004

6.6
6

Continuing Calibration Summary

Page 1 of 2

Job Number: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ969-CC969
Lab FileID: IJ19877.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\0518PAH\IJ19877.D\FID1B.CH Vial: 19
Signal #2 : C:\HPCHEM\1\DATA\0518PAH\IJ19877.D\FID2A.CH
Acq On : 18 May 2004 8:43 pm Operator: sarahm
Sample : cc969-20 Inst : FID 1
Misc : op10458,gij969,990,,,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 : Tue May 18 15:29:32 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	20.300	-1.5	97	0.00	4.21-	4.41
2	2-Methyl Naphthalene	20.000	20.314	-1.6	97	0.00	5.13-	5.33
3	1-Methyl Naphthalene	20.000	20.308	-1.5	97	0.00	5.27-	5.47
4 S	2-Fluorobiphenyl	20.000	20.315	-1.6	97	0.00	5.76-	5.96
5	Acenaphthylene	20.000	20.262	-1.3	96	-0.01	6.49-	6.69
6	Acenaphthene	20.000	20.278	-1.4	96	0.00	6.81-	7.01
7	Fluorene	20.000	20.287	-1.4	96	-0.01	7.68-	7.88
8	Phenanthrene	20.000	20.266	-1.3	96	-0.01	9.36-	9.56
9	Anthracene	20.000	20.269	-1.3	96	-0.01	9.44-	9.64
10 S	0-Terphenyl	20.000	20.246	-1.2	96	0.00	10.32-	10.52
11	Fluoranthene	20.000	20.329	-1.6	96	-0.01	11.56-	11.76
12	Pyrene	20.000	20.267	-1.3	96	-0.01	11.94-	12.14
13	Benzo(a)Anthracene	20.000	20.258	-1.3	96	-0.01	14.26-	14.46
14	Chrysene	20.000	20.200	-1.0	96	-0.02	14.33-	14.53
15	Benzo(b)Fluoranthene	20.000	20.269	-1.3	97	-0.02	16.17-	16.37
16	Benzo(k)Fluoranthene	20.000	20.154	-0.8	96	-0.02	16.22-	16.42
17	Benzo(a) Pyrene	20.000	20.199	-1.0	96	-0.02	16.66-	16.86
18	Indeno(1,2,3-cd)pyrene	20.000	20.129	-0.6	96	-0.03	18.34-	18.54
19	Dibenzo(a,h)anthracene	20.000	20.094	-0.5	95	-0.03	18.42-	18.62
20	Benzo(g,h,i) Perylene	20.000	20.107	-0.5	96	-0.03	18.67-	18.87

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

1	Naphthalene	20.000	20.267	-1.3	96	0.00	4.87-	5.07
2	2-Methyl Naphthalene	20.000	20.264	-1.3	96	0.00	5.77-	5.97
3	1-Methyl Naphthalene	20.000	20.255	-1.3	96	0.00	6.04-	6.24
4 S	2-Fluorobiphenyl	20.000	20.273	-1.4	96	0.00	6.55-	6.75
5	Acenaphthylene	20.000	20.301	-1.5	96	0.00	7.66-	7.86
6	Acenaphthene	20.000	20.313	-1.6	96	0.00	7.90-	8.10
7	Fluorene	20.000	20.289	-1.4	96	0.00	8.78-	8.98
8	Phenanthrene	20.000	20.253	-1.3	96	0.00	10.81-	11.01
9	Anthracene	20.000	20.351	-1.8	97	-0.01	10.85-	11.05
10 S	0-Terphenyl	20.000	20.289	-1.4	96	0.00	11.71-	11.91
11	Fluoranthene	20.000	20.274	-1.4	96	-0.01	13.18-	13.38
12	Pyrene	20.000	20.232	-1.2	96	-0.01	13.73-	13.93
13	Benzo(a)Anthracene	20.000	20.199	-1.0	95	-0.01	16.10-	16.30
14	Chrysene	20.000	20.208	-1.0	96	-0.01	16.27-	16.47
15	Benzo(b)Fluoranthene	20.000	20.009	-0.0	93	-0.02	18.16-	18.36
16	Benzo(k)Fluoranthene	20.000	20.299	-1.5	96	-0.02	18.21-	18.41
17	Benzo(a) Pyrene	20.000	20.234	-1.2	96	-0.02	18.89-	19.09
18	Indeno(1,2,3-cd)pyrene	20.000	19.960	0.2	94	-0.03	20.68-	20.88

Continuing Calibration Summary

Job Number: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ969-CC969
Lab FileID: IJ19877.D

19	Dibenzo(a,h)anthracene	20.000	20.331	-1.7	95	-0.03	20.75-20.95
20	Benzo(g,h,i) Perylene	20.000	19.952	0.2	95	-0.03	21.33-21.53

(#) = Out of Range SPCC's out = 0 CCC's out = 0
IJ19861.D 8100_H2.M Wed May 19 09:50:30 2004

Continuing Calibration Summary

Page 1 of 2

Job Number: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ969-CC969
Lab FileID: IJ19888.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\0518PAH\IJ19888.D\FID1B.CH Vial: 30
Signal #2 : C:\HPCHEM\1\DATA\0518PAH\IJ19888.D\FID2A.CH
Acq On : 19 May 2004 1:58 am Operator: sarahm
Sample : cc969-30 Inst : FID 1
Misc : op10458,gij969,490,,,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 May 18 15:29:32 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	31.238	-4.1	106	0.00	4.21-	4.41
2	2-Methyl Naphthalene	30.000	31.254	-4.2	106	-0.01	5.13-	5.33
3	1-Methyl Naphthalene	30.000	31.233	-4.1	106	-0.01	5.27-	5.47
4 S	2-Fluorobiphenyl	30.000	31.241	-4.1	106	-0.01	5.76-	5.96
5	Acenaphthylene	30.000	31.200	-4.0	106	-0.01	6.49-	6.69
6	Acenaphthene	30.000	31.192	-4.0	106	-0.01	6.81-	7.01
7	Fluorene	30.000	31.222	-4.1	106	-0.01	7.68-	7.88
8	Phenanthrene	30.000	31.199	-4.0	106	-0.01	9.36-	9.56
9	Anthracene	30.000	31.212	-4.0	106	-0.01	9.44-	9.64
10 S	0-Terphenyl	30.000	31.129	-3.8	106	-0.01	10.32-	10.52
11	Fluoranthene	30.000	31.270	-4.2	106	-0.01	11.56-	11.76
12	Pyrene	30.000	31.208	-4.0	106	-0.01	11.94-	12.14
13	Benzo(a)Anthracene	30.000	31.255	-4.2	106	-0.01	14.26-	14.46
14	Chrysene	30.000	31.144	-3.8	106	-0.02	14.33-	14.53
15	Benzo(b)Fluoranthene	30.000	31.322	-4.4	107	-0.01	16.17-	16.37
16	Benzo(k)Fluoranthene	30.000	31.022	-3.4	105	-0.02	16.22-	16.42
17	Benzo(a) Pyrene	30.000	31.198	-4.0	106	-0.02	16.66-	16.86
18	Indeno(1,2,3-cd)pyrene	30.000	31.189	-4.0	106	-0.02	18.34-	18.54
19	Dibenzo(a,h)anthracene	30.000	31.129	-3.8	106	-0.02	18.42-	18.62
20	Benzo(g,h,i) Perylene	30.000	31.111	-3.7	106	-0.02	18.67-	18.87

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

1	Naphthalene	30.000	31.382	-4.6	107	0.00	4.87-	5.07
2	2-Methyl Naphthalene	30.000	31.407	-4.7	107	-0.01	5.77-	5.97
3	1-Methyl Naphthalene	30.000	31.421	-4.7	107	-0.01	6.04-	6.24
4 S	2-Fluorobiphenyl	30.000	31.415	-4.7	107	-0.01	6.55-	6.75
5	Acenaphthylene	30.000	31.457	-4.9	107	-0.01	7.66-	7.86
6	Acenaphthene	30.000	31.431	-4.8	107	-0.01	7.90-	8.10
7	Fluorene	30.000	31.448	-4.8	107	-0.01	8.78-	8.98
8	Phenanthrene	30.000	31.501	-5.0	108	-0.01	10.81-	11.01
9	Anthracene	30.000	31.495	-5.0	107	-0.01	10.85-	11.05
10 S	0-Terphenyl	30.000	31.432	-4.8	107	-0.01	11.71-	11.91
11	Fluoranthene	30.000	31.473	-4.9	107	-0.01	13.18-	13.38
12	Pyrene	30.000	31.438	-4.8	107	-0.01	13.73-	13.93
13	Benzo(a)Anthracene	30.000	31.356	-4.5	107	-0.01	16.10-	16.30
14	Chrysene	30.000	31.418	-4.7	107	-0.01	16.27-	16.47
15	Benzo(b)Fluoranthene	30.000	31.271	-4.2	106	-0.02	18.16-	18.36
16	Benzo(k)Fluoranthene	30.000	31.303	-4.3	107	-0.02	18.21-	18.41
17	Benzo(a) Pyrene	30.000	31.382	-4.6	107	-0.01	18.89-	19.09
18	Indeno(1,2,3-cd)pyrene	30.000	31.491	-5.0	107	-0.02	20.68-	20.88

Continuing Calibration Summary

Job Number: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ969-CC969
Lab FileID: IJ19888.D

19	Dibenzo(a,h)anthracene	30.000	31.508	-5.0	106	-0.02	20.75-20.95
20	Benzo(g,h,i) Perylene	30.000	31.030	-3.4	106	-0.02	21.33-21.53

(#) = Out of Range SPCC's out = 0 CCC's out = 0
IJ19862.D 8100_H2.M Wed May 19 09:49:51 2004

Continuing Calibration Summary

Page 1 of 2

Job Number: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ970-CC969
Lab FileID: IJ19892.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\0521PAH\IJ19892.D\FID1B.CH Vial: 1
Signal #2 : C:\HPCHEM\1\DATA\0521PAH\IJ19892.D\FID2A.CH
Acq On : 21 May 2004 1:36 pm Operator: sarahm
Sample : cc969-20 Inst : FID 1
Misc : op10477,gij970,1000,,,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 May 18 15:29:32 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	18.702	6.5	89	-0.01	4.21-	4.41
2	2-Methyl Naphthalene	20.000	18.794	6.0	89	-0.01	5.13-	5.33
3	1-Methyl Naphthalene	20.000	18.835	5.8	90	-0.02	5.27-	5.47
4 S	2-Fluorobiphenyl	20.000	18.797	6.0	89	-0.02	5.76-	5.96
5	Acenaphthylene	20.000	18.752	6.2	89	-0.02	6.49-	6.69
6	Acenaphthene	20.000	18.796	6.0	89	-0.02	6.81-	7.01
7	Fluorene	20.000	18.755	6.2	89	-0.02	7.68-	7.88
8	Phenanthrene	20.000	18.765	6.2	89	-0.02	9.36-	9.56
9	Anthracene	20.000	18.804	6.0	89	-0.02	9.44-	9.64
10 S	0-Terphenyl	20.000	18.832	5.8	90	-0.02	10.32-	10.52
11	Fluoranthene	20.000	18.833	5.8	89	-0.02	11.56-	11.76
12	Pyrene	20.000	18.843	5.8	90	-0.02	11.94-	12.14
13	Benzo(a)Anthracene	20.000	18.813	5.9	89	-0.02	14.26-	14.46
14	Chrysene	20.000	18.783	6.1	89	-0.03	14.33-	14.53
15	Benzo(b)Fluoranthene	20.000	18.953	5.2	90	-0.03	16.17-	16.37
16	Benzo(k)Fluoranthene	20.000	18.781	6.1	89	-0.03	16.22-	16.42
17	Benzo(a) Pyrene	20.000	18.769	6.2	89	-0.03	16.66-	16.86
18	Indeno(1,2,3-cd)pyrene	20.000	18.806	6.0	89	-0.03	18.34-	18.54
19	Dibenzo(a,h)anthracene	20.000	18.772	6.1	89	-0.03	18.42-	18.62
20	Benzo(g,h,i) Perylene	20.000	18.805	6.0	89	-0.03	18.67-	18.87

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

1	Naphthalene	20.000	18.955	5.2	90	-0.01	4.87-	5.07
2	2-Methyl Naphthalene	20.000	18.928	5.4	90	-0.01	5.77-	5.97
3	1-Methyl Naphthalene	20.000	18.942	5.3	90	-0.02	6.04-	6.24
4 S	2-Fluorobiphenyl	20.000	18.949	5.3	90	-0.01	6.55-	6.75
5	Acenaphthylene	20.000	18.957	5.2	90	-0.02	7.66-	7.86
6	Acenaphthene	20.000	18.982	5.1	90	-0.02	7.90-	8.10
7	Fluorene	20.000	18.945	5.3	90	-0.01	8.78-	8.98
8	Phenanthrene	20.000	18.836	5.8	89	-0.02	10.81-	11.01
9	Anthracene	20.000	19.130	4.4	91	-0.02	10.85-	11.05
10 S	0-Terphenyl	20.000	19.001	5.0	90	-0.02	11.71-	11.91
11	Fluoranthene	20.000	19.002	5.0	90	-0.02	13.18-	13.38
12	Pyrene	20.000	18.911	5.4	90	-0.02	13.73-	13.93
13	Benzo(a)Anthracene	20.000	19.009	5.0	89	-0.02	16.10-	16.30
14	Chrysene	20.000	18.920	5.4	90	-0.02	16.27-	16.47
15	Benzo(b)Fluoranthene	20.000	19.142	4.3	89	-0.02	18.16-	18.36
16	Benzo(k)Fluoranthene	20.000	18.984	5.1	90	-0.03	18.21-	18.41
17	Benzo(a) Pyrene	20.000	18.901	5.5	90	-0.02	18.89-	19.09
18	Indeno(1,2,3-cd)pyrene	20.000	18.722	6.4	88	-0.03	20.68-	20.88

Continuing Calibration Summary

Job Number: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ970-CC969
Lab FileID: IJ19892.D

19	Dibenzo(a,h)anthracene	20.000	19.028	4.9	89	-0.03	20.75-20.95
20	Benzo(g,h,i) Perylene	20.000	18.776	6.1	90	-0.03	21.33-21.53

(#) = Out of Range SPCC's out = 0 CCC's out = 0
IJ19861.D 8100_H2.M Sat May 22 07:59:53 2004

Continuing Calibration Summary

Page 1 of 2

Job Number: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ970-CC969
Lab FileID: IJ19903.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\0521PAH\IJ19903.D\FID1B.CH Vial: 12
Signal #2 : C:\HPCHEM\1\DATA\0521PAH\IJ19903.D\FID2A.CH
Acq On : 21 May 2004 7:00 pm Operator: sarahm
Sample : cc969-30 Inst : FID 1
Misc : op10477,gij970,970,,,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 May 18 15:29:32 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	29.551	1.5	101	0.00	4.21-	4.41
2	2-Methyl Naphthalene	30.000	29.544	1.5	101	0.00	5.13-	5.33
3	1-Methyl Naphthalene	30.000	29.539	1.5	100	0.00	5.27-	5.47
4 S	2-Fluorobiphenyl	30.000	29.527	1.6	100	0.00	5.76-	5.96
5	Acenaphthylene	30.000	29.506	1.6	101	0.00	6.49-	6.69
6	Acenaphthene	30.000	29.500	1.7	100	0.00	6.81-	7.01
7	Fluorene	30.000	29.492	1.7	100	0.00	7.68-	7.88
8	Phenanthrene	30.000	29.485	1.7	100	0.00	9.36-	9.56
9	Anthracene	30.000	29.533	1.6	100	0.00	9.44-	9.64
10 S	0-Terphenyl	30.000	29.468	1.8	100	0.00	10.32-	10.52
11	Fluoranthene	30.000	29.596	1.3	101	0.00	11.56-	11.76
12	Pyrene	30.000	29.531	1.6	100	0.00	11.94-	12.14
13	Benzo(a)Anthracene	30.000	29.548	1.5	100	0.00	14.26-	14.46
14	Chrysene	30.000	29.471	1.8	100	0.00	14.33-	14.53
15	Benzo(b)Fluoranthene	30.000	29.317	2.3	100	0.00	16.17-	16.37
16	Benzo(k)Fluoranthene	30.000	29.586	1.4	100	0.00	16.22-	16.42
17	Benzo(a) Pyrene	30.000	29.462	1.8	100	0.00	16.66-	16.86
18	Indeno(1,2,3-cd)pyrene	30.000	29.396	2.0	100	0.00	18.34-	18.54
19	Dibenzo(a,h)anthracene	30.000	29.380	2.1	100	0.00	18.42-	18.62
20	Benzo(g,h,i) Perylene	30.000	29.262	2.5	99	0.00	18.67-	18.87

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

1	Naphthalene	30.000	29.231	2.6	100	0.00	4.87-	5.07
2	2-Methyl Naphthalene	30.000	29.234	2.6	100	0.00	5.77-	5.97
3	1-Methyl Naphthalene	30.000	29.246	2.5	100	0.00	6.04-	6.24
4 S	2-Fluorobiphenyl	30.000	29.190	2.7	99	0.00	6.55-	6.75
5	Acenaphthylene	30.000	29.224	2.6	100	0.00	7.66-	7.86
6	Acenaphthene	30.000	29.204	2.7	99	0.00	7.90-	8.10
7	Fluorene	30.000	29.197	2.7	99	0.00	8.78-	8.98
8	Phenanthrene	30.000	29.115	3.0	100	0.00	10.81-	11.01
9	Anthracene	30.000	29.432	1.9	100	0.00	10.85-	11.05
10 S	0-Terphenyl	30.000	29.231	2.6	100	0.00	11.71-	11.91
11	Fluoranthene	30.000	29.224	2.6	99	0.00	13.18-	13.38
12	Pyrene	30.000	29.186	2.7	100	0.00	13.73-	13.93
13	Benzo(a)Anthracene	30.000	29.142	2.9	99	0.00	16.10-	16.30
14	Chrysene	30.000	29.172	2.8	99	0.00	16.27-	16.47
15	Benzo(b)Fluoranthene	30.000	29.232	2.6	99	0.00	18.16-	18.36
16	Benzo(k)Fluoranthene	30.000	28.922	3.6	99	0.00	18.21-	18.41
17	Benzo(a) Pyrene	30.000	29.259	2.5	100	0.00	18.89-	19.09
18	Indeno(1,2,3-cd)pyrene	30.000	29.597	1.3	100	0.00	20.68-	20.88

Continuing Calibration Summary

Job Number: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ970-CC969
Lab FileID: IJ19903.D

19	Dibenzo(a,h)anthracene	30.000	29.662	1.1	100	0.00	20.75-20.95
20	Benzo(g,h,i) Perylene	30.000	28.795	4.0	99	0.00	21.33-21.53

(#) = Out of Range SPCC's out = 0 CCC's out = 0
IJ19862.D 8100_H2.M Sat May 22 08:00:31 2004

Continuing Calibration Summary

Page 1 of 2

Job Number: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ971-CC969
Lab FileID: IJ19907.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\0522PAH\IJ19907.D\FID1B.CH Vial: 1
Signal #2 : C:\HPCHEM\1\DATA\0522PAH\IJ19907.D\FID2A.CH
Acq On : 22 May 2004 8:41 am Operator: sarahm
Sample : cc969-20 Inst : FID 1
Misc : op10477,gij971,1000,,,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 May 18 15:29:32 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	20.088	-0.4	96	-0.02	4.21-	4.41
2	2-Methyl Naphthalene	20.000	20.081	-0.4	96	-0.02	5.13-	5.33
3	1-Methyl Naphthalene	20.000	20.071	-0.4	96	-0.02	5.27-	5.47
4 S	2-Fluorobiphenyl	20.000	20.083	-0.4	96	-0.02	5.76-	5.96
5	Acenaphthylene	20.000	20.052	-0.3	95	-0.02	6.49-	6.69
6	Acenaphthene	20.000	20.042	-0.2	95	-0.02	6.81-	7.01
7	Fluorene	20.000	20.012	-0.1	95	-0.02	7.68-	7.88
8	Phenanthrene	20.000	20.011	-0.1	95	-0.03	9.36-	9.56
9	Anthracene	20.000	20.087	-0.4	96	-0.03	9.44-	9.64
10 S	0-Terphenyl	20.000	20.067	-0.3	95	-0.02	10.32-	10.52
11	Fluoranthene	20.000	20.052	-0.3	95	-0.03	11.56-	11.76
12	Pyrene	20.000	20.087	-0.4	95	-0.03	11.94-	12.14
13	Benzo(a)Anthracene	20.000	20.073	-0.4	95	-0.03	14.26-	14.46
14	Chrysene	20.000	20.061	-0.3	95	-0.03	14.33-	14.53
15	Benzo(b)Fluoranthene	20.000	19.915	0.4	95	0.02	16.17-	16.37
16	Benzo(k)Fluoranthene	20.000	20.056	-0.3	95	-0.03	16.22-	16.42
17	Benzo(a) Pyrene	20.000	20.025	-0.1	95	-0.03	16.66-	16.86
18	Indeno(1,2,3-cd)pyrene	20.000	19.952	0.2	95	-0.04	18.34-	18.54
19	Dibenzo(a,h)anthracene	20.000	19.970	0.2	95	-0.03	18.42-	18.62
20	Benzo(g,h,i) Perylene	20.000	19.952	0.2	95	-0.04	18.67-	18.87

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

1	Naphthalene	20.000	20.299	-1.5	96	-0.02	4.87-	5.07
2	2-Methyl Naphthalene	20.000	20.280	-1.4	96	-0.02	5.77-	5.97
3	1-Methyl Naphthalene	20.000	20.287	-1.4	96	-0.02	6.04-	6.24
4 S	2-Fluorobiphenyl	20.000	20.270	-1.3	96	-0.02	6.55-	6.75
5	Acenaphthylene	20.000	20.292	-1.5	96	-0.02	7.66-	7.86
6	Acenaphthene	20.000	20.287	-1.4	96	-0.02	7.90-	8.10
7	Fluorene	20.000	20.259	-1.3	96	-0.02	8.78-	8.98
8	Phenanthrene	20.000	20.239	-1.2	96	0.01	10.81-	11.01
9	Anthracene	20.000	20.500	-2.5	97	-0.03	10.85-	11.05
10 S	0-Terphenyl	20.000	20.325	-1.6	97	-0.02	11.71-	11.91
11	Fluoranthene	20.000	20.307	-1.5	96	-0.02	13.18-	13.38
12	Pyrene	20.000	20.194	-1.0	96	-0.02	13.73-	13.93
13	Benzo(a)Anthracene	20.000	20.352	-1.8	95	-0.03	16.10-	16.30
14	Chrysene	20.000	20.327	-1.6	97	-0.03	16.27-	16.47
15	Benzo(b)Fluoranthene	20.000	20.060	-0.3	93	0.02	18.16-	18.36
16	Benzo(k)Fluoranthene	20.000	20.366	-1.8	97	-0.03	18.21-	18.41
17	Benzo(a) Pyrene	20.000	20.214	-1.1	96	-0.03	18.89-	19.09
18	Indeno(1,2,3-cd)pyrene	20.000	19.426	2.9	92	0.03	20.68-	20.88

Continuing Calibration Summary

Job Number: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ971-CC969
Lab FileID: IJ19907.D

19	Dibenzo(a,h)anthracene	20.000	20.275	-1.4	95	-0.04	20.75-20.95
20	Benzo(g,h,i) Perylene	20.000	19.892	0.5	95	-0.05	21.33-21.53

(#) = Out of Range SPCC's out = 0 CCC's out = 0
IJ19861.D 8100_H2.M Sat May 22 10:46:31 2004

6.9
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Continuing Calibration Summary

Page 1 of 2

Job Number: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ971-ECC969
Lab FileID: IJ19910.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\0522PAH\IJ19910.D\FID1B.CH Vial: 4
Signal #2 : C:\HPCHEM\1\DATA\0522PAH\IJ19910.D\FID2A.CH
Acq On : 22 May 2004 10:07 am Operator: sarahm
Sample : ecc969-30 Inst : FID 1
Misc : op10477,gij971,980,,,1,4,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 May 18 15:29:32 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	29.680	1.1	101	0.00	4.21-	4.41
2	2-Methyl Naphthalene	30.000	29.675	1.1	101	0.00	5.13-	5.33
3	1-Methyl Naphthalene	30.000	29.667	1.1	101	0.00	5.27-	5.47
4 S	2-Fluorobiphenyl	30.000	29.687	1.0	101	-0.01	5.76-	5.96
5	Acenaphthylene	30.000	29.623	1.3	101	-0.01	6.49-	6.69
6	Acenaphthene	30.000	29.617	1.3	101	-0.01	6.81-	7.01
7	Fluorene	30.000	29.597	1.3	101	-0.01	7.68-	7.88
8	Phenanthrene	30.000	29.615	1.3	101	-0.01	9.36-	9.56
9	Anthracene	30.000	29.668	1.1	101	-0.01	9.44-	9.64
10 S	0-Terphenyl	30.000	29.601	1.3	101	-0.01	10.32-	10.52
11	Fluoranthene	30.000	29.650	1.2	101	-0.01	11.56-	11.76
12	Pyrene	30.000	29.638	1.2	101	-0.01	11.94-	12.14
13	Benzo(a)Anthracene	30.000	29.630	1.2	101	-0.01	14.26-	14.46
14	Chrysene	30.000	29.552	1.5	101	-0.01	14.33-	14.53
15	Benzo(b)Fluoranthene	30.000	29.562	1.5	101	-0.02	16.17-	16.37
16	Benzo(k)Fluoranthene	30.000	29.573	1.4	100	-0.02	16.22-	16.42
17	Benzo(a) Pyrene	30.000	29.570	1.4	100	-0.02	16.66-	16.86
18	Indeno(1,2,3-cd)pyrene	30.000	29.490	1.7	100	-0.02	18.34-	18.54
19	Dibenzo(a,h)anthracene	30.000	29.534	1.6	100	-0.02	18.42-	18.62
20	Benzo(g,h,i) Perylene	30.000	29.392	2.0	100	-0.02	18.67-	18.87

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

1	Naphthalene	30.000	29.731	0.9	101	0.00	4.87-	5.07
2	2-Methyl Naphthalene	30.000	29.728	0.9	101	0.00	5.77-	5.97
3	1-Methyl Naphthalene	30.000	29.754	0.8	101	0.00	6.04-	6.24
4 S	2-Fluorobiphenyl	30.000	29.712	1.0	101	0.00	6.55-	6.75
5	Acenaphthylene	30.000	29.740	0.9	101	0.00	7.66-	7.86
6	Acenaphthene	30.000	29.747	0.8	101	-0.01	7.90-	8.10
7	Fluorene	30.000	29.706	1.0	101	-0.01	8.78-	8.98
8	Phenanthrene	30.000	29.768	0.8	102	0.00	10.81-	11.01
9	Anthracene	30.000	29.790	0.7	101	-0.01	10.85-	11.05
10 S	0-Terphenyl	30.000	29.736	0.9	101	-0.01	11.71-	11.91
11	Fluoranthene	30.000	29.731	0.9	101	-0.01	13.18-	13.38
12	Pyrene	30.000	29.640	1.2	101	-0.01	13.73-	13.93
13	Benzo(a)Anthracene	30.000	29.632	1.2	101	-0.01	16.10-	16.30
14	Chrysene	30.000	29.718	0.9	101	-0.01	16.27-	16.47
15	Benzo(b)Fluoranthene	30.000	29.601	1.3	101	-0.02	18.16-	18.36
16	Benzo(k)Fluoranthene	30.000	29.547	1.5	101	-0.02	18.21-	18.41
17	Benzo(a) Pyrene	30.000	29.605	1.3	101	-0.02	18.89-	19.09
18	Indeno(1,2,3-cd)pyrene	30.000	29.652	1.2	100	-0.02	20.68-	20.88

Continuing Calibration Summary

Job Number: F24116
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ971-ECC969
Lab FileID: IJ19910.D

19	Dibenzo(a,h)anthracene	30.000	29.486	1.7	100	-0.02	20.75-20.95
20	Benzo(g,h,i) Perylene	30.000	29.092	3.0	100	-0.02	21.33-21.53

(#) = Out of Range SPCC's out = 0 CCC's out = 0
IJ19862.D 8100_H2.M Sat May 22 10:46:12 2004

August 2004 Groundwater Laboratory Report



01/16/06

Technical Report for

EEI

Camp Lejeune-LCH 4015

844271

Accutest Job Number: F26049

Sampling Date: 08/11/04

Report to:

EEI

bmorris@eeimail.com

ATTN: Bill Morris

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: F26049

Camp Lejeune-LCH 4015
Project No: 844271

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
F26049-1	08/11/04	00:00 TE	08/12/04	AQ	Ground Water	USTLCH4015-MW01
F26049-2	08/11/04	00:00 TE	08/12/04	AQ	Ground Water	USTLCH4015-MW02
F26049-3	08/11/04	00:00 TE	08/12/04	AQ	Ground Water	USTLCH4015-MW03
F26049-4	08/11/04	00:00 TE	08/12/04	AQ	Ground Water	USTLCH4015-MW05
F26049-5	08/11/04	00:00 TE	08/12/04	AQ	Ground Water	USTLCH4015-MW09
F26049-6	08/11/04	00:00 TE	08/12/04	AQ	Ground Water	USTLCH4015-MW11
F26049-7	08/11/04	00:00 TE	08/12/04	AQ	Ground Water	USTLCH4015-DUP
F26049-8	08/11/04	15:00 TE	08/12/04	AQ	Trip Blank Water	TRIP BLANK

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: EEI

Job No: F26049

Site: Camp Lejeune-LCH 4015

Report Date: 8/25/2004 8:32:52 AM

7 Samples and 1 Trip Blank were collected on 08/11/2004 and were received at Accutest on 08/12/2004 properly preserved, at 3.6 Deg. C and intact. These Samples received an Accutest job number of F26049. 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

Mat AQ **Batch** GEF3315

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F26104-4MS, F26104-4MSD were used as the QC samples indicated.

F26049-1: All hits confirmed by dual column analysis.

F26049-7: All hits confirmed by dual column analysis.

F26049-4: All hits confirmed by dual column analysis.

F26049-5: All hits confirmed by dual column analysis.

F26049-6: All hits confirmed by dual column analysis.

F26049-2: All hits confirmed by dual column analysis.

F26049-6 for 1,2-Dichlorobenzene: Elevated reporting limits due to matrix interference.

F26049-2 for 1,2-Dichlorobenzene: Elevated reporting limits due to matrix interference.

Extractables by GC By Method EPA 610

Mat AQ **Batch** OP11116

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

Samples F26049-1MS, F26049-1MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

Blank Spike Recovery for Anthracene is outside control limits. Method may be biased high, but samples are ND.

Matrix Spike Recoverys for Anthracene, Fluorene are outside control limits. Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.

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: Aug 25, 2004

Wednesday, August 25, 2004



Dear Valued Clients;

As you know, Hurricane Charley made its way through Orlando with a force of 110mph winds. As a result power was lost at Accutest Labs SE as well as at numerous neighboring businesses and residential areas. Accutest Labs SE made every effort to keep coolers and refrigerators within control limits through the use of dry and wet ice along with generators. Notwithstanding our extensive efforts it is possible that the refrigerators may have exceeded the upper control limits for periods of time. This only would have affected samples received before noon on 8/13/04 and analyzed after 8/14/04. Our entire staff is working round the clock diligently attempting to ensure and maintain the integrity of your samples. We would like to assure you that we are doing everything possible to meet hold times and deliver the quality data you are accustomed to within the required turn around times. For samples that may have missed holding time, they are identified on the case narrative as " Out of Hold Due to Hurricane Charley."

We apologize for any inconvenience this may cause you. Hurricane Charley was an act of God and as such totally out of our control. The status of your project can be accessed through Lablink. If you cannot find your project through Lablink please contact me directly at the lab. You may also contact your designated project manager.

On behalf of the staff at Accutest, we would like to express our deepest appreciation for your patience during this difficult time. We also hope you and your families have recovered from any damage sustained as a result of the hurricane. Please let us know if we can be of any assistance.

*Harry Behzadi, Ph.D.
Laboratory Director
Accutest Laboratories Southeast*

Report of Analysis

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Client Sample ID:	USTLCH4015-MW01	Date Sampled:	08/11/04
Lab Sample ID:	F26049-1	Date Received:	08/12/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EF042928.D	5	08/23/04	CV	n/a	n/a	GEF3315
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	53.3	5.0	2.5	ug/l	
108-90-7	Chlorobenzene	ND	5.0	2.5	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	5.0	2.5	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.0	2.5	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	5.0	2.5	ug/l	
100-41-4	Ethylbenzene	225	5.0	2.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	5.0	2.5	ug/l	
108-88-3	Toluene	8.6	5.0	2.5	ug/l	
1330-20-7	Xylenes (total)	314	15	5.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	98%		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

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Client Sample ID:	USTLCH4015-MW01	Date Sampled:	08/11/04
Lab Sample ID:	F26049-1	Date Received:	08/12/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ20590.D	10	08/20/04	AA	08/18/04	OP11116	GIJ1012
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	48	19	ug/l	
208-96-8	Acenaphthylene	ND	48	19	ug/l	
120-12-7	Anthracene	ND	48	19	ug/l	
56-55-3	Benzo(a)anthracene	ND	48	19	ug/l	
50-32-8	Benzo(a)pyrene	ND	48	19	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	48	19	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	48	19	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	48	19	ug/l	
218-01-9	Chrysene	ND	48	19	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	48	19	ug/l	
206-44-0	Fluoranthene	ND	48	19	ug/l	
86-73-7	Fluorene	ND	48	19	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	48	19	ug/l	
91-20-3	Naphthalene	207	48	19	ug/l	
90-12-0	1-Methylnaphthalene	34.4	48	19	ug/l	J
91-57-6	2-Methylnaphthalene	49.0	48	19	ug/l	
85-01-8	Phenanthrene	ND	48	19	ug/l	
129-00-0	Pyrene	ND	48	19	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	92%		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:	USTLCH4015-MW02	Date Sampled:	08/11/04
Lab Sample ID:	F26049-2	Date Received:	08/12/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EF042924.D	1	08/23/04	CV	n/a	n/a	GEF3315
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.90	1.0	0.50	ug/l	J
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene ^b	ND	5.0	5.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	2.4	1.0	0.50	ug/l	
1634-04-4	Methyl Tert Butyl Ether	20.0	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	13.3	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	96%		70-123%
98-08-8	aaa-Trifluorotoluene	96%		73-122%

(a) All hits confirmed by dual column analysis.

(b) Elevated reporting 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

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Client Sample ID:	USTLCH4015-MW02	Date Sampled:	08/11/04
Lab Sample ID:	F26049-2	Date Received:	08/12/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ20580.D	1	08/19/04	AA	08/18/04	OP11116	GIJ1011
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	45.2	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	2.9	4.8	1.9	ug/l	J
91-57-6	2-Methylnaphthalene	3.2	4.8	1.9	ug/l	J
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	98%		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:	USTLCH4015-MW03	Date Sampled:	08/11/04
Lab Sample ID:	F26049-3	Date Received:	08/12/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF042923.D	1	08/23/04	CV	n/a	n/a	GEF3315
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	1.9	1.0	0.50	ug/l	
108-88-3	Toluene	0.52	1.0	0.50	ug/l	J
1330-20-7	Xylenes (total)	ND	3.0	1.0	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	94%		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:	USTLCH4015-MW03	Date Sampled:	08/11/04
Lab Sample ID:	F26049-3	Date Received:	08/12/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ20570.D	1	08/19/04	AA	08/18/04	OP11116	GIJ1011
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	3.3	4.8	1.9	ug/l	J
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	100%		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:	USTLCH4015-MW05	Date Sampled:	08/11/04
Lab Sample ID:	F26049-4	Date Received:	08/12/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EF042922.D	1	08/23/04	CV	n/a	n/a	GEF3315
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	0.76	1.0	0.50	ug/l	J
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	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	85%		70-123%
98-08-8	aaa-Trifluorotoluene	91%		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:	USTLCH4015-MW05	Date Sampled:	08/11/04
Lab Sample ID:	F26049-4	Date Received:	08/12/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ20571.D	1	08/19/04	AA	08/18/04	OP11116	GIJ1011
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	85%		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:	USTLCH4015-MW09	Date Sampled:	08/11/04
Lab Sample ID:	F26049-5	Date Received:	08/12/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EF042921.D	1	08/23/04	CV	n/a	n/a	GEF3315
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	6.9	1.0	0.50	ug/l	
108-88-3	Toluene	0.50	1.0	0.50	ug/l	J
1330-20-7	Xylenes (total)	ND	3.0	1.0	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

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Client Sample ID:	USTLCH4015-MW09	Date Sampled:	08/11/04
Lab Sample ID:	F26049-5	Date Received:	08/12/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ20572.D	1	08/19/04	AA	08/18/04	OP11116	GIJ1011
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	102%		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:	USTLCH4015-MW11	Date Sampled:	08/11/04
Lab Sample ID:	F26049-6	Date Received:	08/12/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EF042931.D	1	08/23/04	CV	n/a	n/a	GEF3315
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene ^b	ND	10	10	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	5.4	1.0	0.50	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	
108-88-3	Toluene	0.63	1.0	0.50	ug/l	J
1330-20-7	Xylenes (total)	1.8	3.0	1.0	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	93%		70-123%
98-08-8	aaa-Trifluorotoluene	96%		73-122%

(a) All hits confirmed by dual column analysis.

(b) Elevated reporting 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

Page 1 of 1

Client Sample ID:	USTLCH4015-MW11	Date Sampled:	08/11/04
Lab Sample ID:	F26049-6	Date Received:	08/12/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ20584.D	2	08/20/04	AA	08/18/04	OP11116	GIJ1012
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	9.5	3.8	ug/l	
208-96-8	Acenaphthylene	ND	9.5	3.8	ug/l	
120-12-7	Anthracene	ND	9.5	3.8	ug/l	
56-55-3	Benzo(a)anthracene	ND	9.5	3.8	ug/l	
50-32-8	Benzo(a)pyrene	ND	9.5	3.8	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	9.5	3.8	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	9.5	3.8	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	9.5	3.8	ug/l	
218-01-9	Chrysene	ND	9.5	3.8	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	9.5	3.8	ug/l	
206-44-0	Fluoranthene	ND	9.5	3.8	ug/l	
86-73-7	Fluorene	16.4	9.5	3.8	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	9.5	3.8	ug/l	
91-20-3	Naphthalene	3.8	9.5	3.8	ug/l	J
90-12-0	1-Methylnaphthalene	38.2	9.5	3.8	ug/l	
91-57-6	2-Methylnaphthalene	6.6	9.5	3.8	ug/l	J
85-01-8	Phenanthrene	6.5	9.5	3.8	ug/l	J
129-00-0	Pyrene	ND	9.5	3.8	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	86%		42-123%
84-15-1	o-Terphenyl	117%		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:	USTLCH4015-DUP	Date Sampled:	08/11/04
Lab Sample ID:	F26049-7	Date Received:	08/12/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF042919.D	1	08/23/04	CV	n/a	n/a	GEF3315
Run #2 ^a	EF042930.D	5	08/23/04	CV	n/a	n/a	GEF3315

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

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	70.4	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	208 ^b	5.0	2.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	4.5	1.0	0.50	ug/l	
108-88-3	Toluene	13.3	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	317 ^b	15	5.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	102%	95%	70-123%
98-08-8	aaa-Trifluorotoluene	105%	97%	73-122%

(a) All hits confirmed by dual column analysis.

(b) Result is from Run# 2

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:	USTLCH4015-DUP	Date Sampled:	08/11/04
Lab Sample ID:	F26049-7	Date Received:	08/12/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ20585.D	10	08/20/04	AA	08/18/04	OP11116	GIJ1012
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	48	19	ug/l	
208-96-8	Acenaphthylene	ND	48	19	ug/l	
120-12-7	Anthracene	ND	48	19	ug/l	
56-55-3	Benzo(a)anthracene	ND	48	19	ug/l	
50-32-8	Benzo(a)pyrene	ND	48	19	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	48	19	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	48	19	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	48	19	ug/l	
218-01-9	Chrysene	ND	48	19	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	48	19	ug/l	
206-44-0	Fluoranthene	ND	48	19	ug/l	
86-73-7	Fluorene	ND	48	19	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	48	19	ug/l	
91-20-3	Naphthalene	216	48	19	ug/l	
90-12-0	1-Methylnaphthalene	34.5	48	19	ug/l	J
91-57-6	2-Methylnaphthalene	48.6	48	19	ug/l	
85-01-8	Phenanthrene	ND	48	19	ug/l	
129-00-0	Pyrene	ND	48	19	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	98%		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:	TRIP BLANK		
Lab Sample ID:	F26049-8	Date Sampled:	08/11/04
Matrix:	AQ - Trip Blank Water	Date Received:	08/12/04
Method:	EPA 601/602	Percent Solids:	n/a
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF042918.D	1	08/23/04	CV	n/a	n/a	GEF3315
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	83%		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

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

F26049

CLIENT INFORMATION		FACILITY INFORMATION		ANALYTICAL INFORMATION		MATRIX CODES								
Engineering + Environment P. Inc. NAME 824 Gumbo Branch rd Suite 5 ADDRESS Jacksonville NC 28540 CITY STATE ZIP		LC-H-4015 PROJECT NAME LOCATION PROJECT NO.				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 # 910-949-2244 910-5065740 FAX # 910-949-3541														
ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	COLLECTION		PRESERVATION								LAB USE ONLY		
		DATE	TIME	SAMPLED BY:	MATRIX	# OF BOTTLES	IC	NOX	NO3	NO2	NO		NO	
1	UST LC-H 4015-MW01	8/11/04		TE	GW	5	X					X	3 2	
2	UST LC-H 4015-MW02	8/11/04		TE	GW	5	X					X	3 2	
3	UST LC-H 4015-MW03	8/11/04		TE	GW	5	X					X	3 2	
4	UST LC-H 4015-MW05	8/11/04		TE	GW	5	X					X	3 2	
5	UST LC-H 4015-MW09	8/11/04		TE	GW	5	X					X	3 2	
6	UST LC-H 4015-MW11	8/11/04		TE	GW	5	X					X	3 2	
7	UST LC-H 4015-DUP	8/11/04		TE	GW	5	X					X	3 2	
8	Trip Blank	8/11/04	15:00											
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>NC CS-4</u>		COMMENTS/REMARKS 										
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING CARRIER DELIVERY														
RELINQUISHED BY: <u>[Signature]</u> DATE TIME: <u>8/11/04</u>		RECEIVED BY: <u>FX</u> DATE TIME: <u>8/12/04</u>		RELINQUISHED BY: <u>FX</u> DATE TIME: <u>8/12/04</u>		RECEIVED BY: <u>[Signature]</u> DATE TIME: <u>8/12/04</u>								
RELINQUISHED BY: _____ DATE TIME: _____		RECEIVED BY: _____ DATE TIME: _____		RELINQUISHED BY: _____ DATE TIME: _____		RECEIVED BY: _____ DATE TIME: _____								
RELINQUISHED BY: _____ DATE TIME: _____		RECEIVED BY: _____ DATE TIME: _____		SEAL # <u>3-6 3-2</u>		PRESERVE WHERE APPLICABLE ☐ ON ICE ☐ TEMPERATURE _____ C								

F26049: Chain of Custody

Page 1 of 2

ACCUTEST LABORATORIES SOUTHEAST SAMPLE RECEIPT CONFIRMATION

Accutest's Job Number: F26049Client: ET9/10/2009 + EARTHQUAKE Project: LC# 4015Date Received: 8-12-09 Time Received: 09:00# of Coolers Received: 2 Cooler Temperatures: 3.6 3.2Delivery 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 ?

☒ Yes ☐ No

Number of Soil Field Kits ?

☒ Yes ☐ NoSummary of Comments: Received 1 Broken AmbicaseLiter CHU 11)Signature: [Signature]Date: 8-12-09

Review Signature: _____

GC Volatiles

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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: F26049
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GEF3315-MB	EF042916.D	1	08/23/04	CV	n/a	n/a	GEF3315

The QC reported here applies to the following samples:

Method: EPA 601/602

F26049-1, F26049-2, F26049-3, F26049-4, F26049-5, F26049-6, F26049-7, F26049-8

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	83% 70-123%
98-08-8	aaa-Trifluorotoluene	87% 73-122%

Blank Spike Summary

Job Number: F26049
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GEF3315-BS	EF042915.D	1	08/23/04	CV	n/a	n/a	GEF3315

The QC reported here applies to the following samples: Method: EPA 601/602

F26049-1, F26049-2, F26049-3, F26049-4, F26049-5, F26049-6, F26049-7, F26049-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	20.6	103	86-121
108-90-7	Chlorobenzene	20	19.9	100	81-119
95-50-1	1,2-Dichlorobenzene	20	19.0	95	75-120
541-73-1	1,3-Dichlorobenzene	20	20.1	101	77-121
106-46-7	1,4-Dichlorobenzene	20	19.4	97	75-122
100-41-4	Ethylbenzene	20	20.5	103	81-126
1634-04-4	Methyl Tert Butyl Ether	20	18.2	91	76-117
108-88-3	Toluene	20	20.8	104	82-123
1330-20-7	Xylenes (total)	60	61.6	103	82-125

CAS No.	Surrogate Recoveries	BSP	Limits
352-33-0	1-Chloro-4-fluorobenzene	99%	70-123%
98-08-8	aaa-Trifluorotoluene	98%	73-122%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: F26049
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F26104-4MS	EF042926.D	1	08/23/04	CV	n/a	n/a	GEF3315
F26104-4MSD	EF042927.D	1	08/23/04	CV	n/a	n/a	GEF3315
F26104-4	EF042917.D	1	08/23/04	CV	n/a	n/a	GEF3315

The QC reported here applies to the following samples:

Method: EPA 601/602

F26049-1, F26049-2, F26049-3, F26049-4, F26049-5, F26049-6, F26049-7, F26049-8

CAS No.	Compound	F26104-4 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	1.0 U	20	20.0	100	20.0	100	0	77-125/6
108-90-7	Chlorobenzene	1.0 U	20	19.1	96	19.0	95	1	78-120/8
95-50-1	1,2-Dichlorobenzene	1.0 U	20	19.5	98	19.1	96	2	69-125/7
541-73-1	1,3-Dichlorobenzene	1.0 U	20	19.7	99	19.1	96	3	71-126/7
106-46-7	1,4-Dichlorobenzene	1.0 U	20	19.1	96	19.1	96	0	67-129/7
100-41-4	Ethylbenzene	1.0 U	20	20.1	101	20.0	100	0	74-127/6
1634-04-4	Methyl Tert Butyl Ether	2.0	20	20.2	91	20.4	92	1	66-127/9
108-88-3	Toluene	1.0 U	20	19.8	99	19.5	98	2	77-124/5
1330-20-7	Xylenes (total)	3.0 U	60	59.4	99	58.3	97	2	76-125/5

CAS No.	Surrogate Recoveries	MS	MSD	F26104-4	Limits
352-33-0	1-Chloro-4-fluorobenzene	97%	97%	82%	70-123%
98-08-8	aaa-Trifluorotoluene	98%	96%	88%	73-122%

Volatile Surrogate Recovery Summary

Page 1 of 1

Job Number: F26049
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

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
F26049-1	EF042928.D	98.0	99.0
F26049-2	EF042924.D	96.0	96.0
F26049-3	EF042923.D	90.0	94.0
F26049-4	EF042922.D	85.0	91.0
F26049-5	EF042921.D	88.0	94.0
F26049-6	EF042931.D	93.0	96.0
F26049-7	EF042919.D	102.0	105.0
F26049-7	EF042930.D	95.0	97.0
F26049-8	EF042918.D	83.0	90.0
F26104-4MS	EF042926.D	97.0	98.0
F26104-4MSD	EF042927.D	97.0	96.0
GEF3315-BS	EF042915.D	99.0	98.0
GEF3315-MB	EF042916.D	83.0	87.0

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: F26049
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GEF3315-CC3303	Injection Date:	08/23/04
Lab File ID:	EF042914.D	Injection Time:	09:11
Instrument ID:	GCEF	Method:	EPA 601/602

S1^a	S2^a
RT	RT

Check Std	8.79	5.71

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
GEF3315-BS	EF042915.D	08/23/04	09:47	8.78	5.71
GEF3316-BS	EF042915.D	08/23/04	09:47	8.78	5.71
GEF3315-MB	EF042916.D	08/23/04	10:11	8.78	5.71
GEF3316-MB	EF042916.D	08/23/04	10:11	8.78	5.71
F26104-4	EF042917.D	08/23/04	10:35	8.78	5.71
F26049-8	EF042918.D	08/23/04	10:59	8.78	5.71
F26049-7	EF042919.D	08/23/04	11:24	8.78	5.71
F26049-5	EF042921.D	08/23/04	12:12	8.78	5.71
F26049-4	EF042922.D	08/23/04	12:37	8.78	5.71
F26049-3	EF042923.D	08/23/04	13:01	8.77	5.71
F26049-2	EF042924.D	08/23/04	13:25	8.77	5.71

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: F26049
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GEF3315-CC3303	Injection Date:	08/23/04
Lab File ID:	EF042925.D	Injection Time:	13:49
Instrument ID:	GCEF	Method:	EPA 601/602

S1^a	S2^a
RT	RT

Check Std	8.77	5.70

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
F26104-4MS	EF042926.D	08/23/04	14:14	8.77	5.71
F26104-4MSD	EF042927.D	08/23/04	14:38	8.77	5.70
F26049-1	EF042928.D	08/23/04	15:05	8.77	5.70
ZZZZZZ	EF042929.D	08/23/04	15:32	8.77	5.70
F26049-7	EF042930.D	08/23/04	15:56	8.78	5.70
F26049-6	EF042931.D	08/23/04	16:25	8.77	5.70
ZZZZZZ	EF042932.D	08/23/04	16:50	8.78	5.71
ZZZZZZ	EF042933.D	08/23/04	17:14	8.77	5.71
ZZZZZZ	EF042934.D	08/23/04	17:38	8.78	5.71
ZZZZZZ	EF042935.D	08/23/04	18:02	8.77	5.71

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: F26049
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3303-ICC3303
Lab FileID: EF042676.D

Response Factor Report VOA1

Method : C:\HPCHEM\1\METHODS\DUAL0818.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Fri Aug 13 09:39:09 2004
Response via : Initial Calibration

Calibration Files

1 =EF042674.D 2 =EF042675.D 3 =EF042676.D
4 =EF042677.D 5 =EF042678.D 6 =EF042679.D

	Compound	1	2	3	4	5	6	Avg	%RSD
1)	Methyl tert Butyl E		2.022	1.930	1.935	1.907	1.941	1.947 E3	2.25
2)	Di-Isopropyl ether		3.290	2.931	2.913	2.907	2.909	2.990 E3	5.62
3)	Benzene		6.328	5.825	5.894	5.922	5.943	5.982 E3	3.32
4) S	a,a,a-TFT(S)	1.638	1.682	1.714	1.736	1.757	1.780	1.718 E3	3.01
5)	Toluene		5.395	5.002	5.089	5.083	5.134	5.141 E3	2.92
6) S	1-Chloro-4-Fluorobe	2.430	2.434	2.548	2.574	2.622	2.663	2.545 E3	3.78
7)	Chlorobenzene		5.610	4.920	4.912	4.949	4.948	5.068 E3	5.99
8)	Ethylbenzene		4.763	4.162	4.179	4.164	4.160	4.286 E3	6.23
9)	m,p-Xylene		5.026	4.567	4.637	4.658	4.642	4.706 E3	3.87
10)	o-Xylene		4.512	4.116	4.140	4.131	4.167	4.213 E3	3.99
11)	1,3-Dichlorobenzene		3.291	3.312	3.456	3.558	3.558	3.435 E3	3.76
12)	1,4-Dichlorobenzene		3.528	3.540	3.702	3.835	3.894	3.700 E3	4.50
13)	1,2-Dichlorobenzene		2.118	2.165	2.265	2.285	2.359	2.238 E3	4.32

Signal #2

1)	Methyl tert Butyl E		1.588	1.530	1.557	1.529	1.530	1.547 E3	1.70
2)	Di-Isopropyl ether		2.487	2.267	2.278	2.234	2.226	2.298 E3	4.69
3)	Benzene		4.970	4.693	4.705	4.712	4.729	4.762 E3	2.46
4) S	a,a,a-TFT(S)	1.239	1.284	1.318	1.332	1.336	1.345	1.309 E3	3.10
5)	Toluene		4.167	3.986	3.995	3.994	3.997	4.028 E3	1.94
6) S	1-Chloro-4-Fluorobe	1.726	1.776	1.881	1.928	1.950	1.962	1.871 E3	5.23
7)	Chlorobenzene		4.776	4.033	3.974	3.973	3.953	4.142 E3	8.59
8)	Ethylbenzene		3.791	3.463	3.476	3.455	3.432	3.524 E3	4.27
9)	m,p-Xylene		4.083	3.728	3.801	3.784	3.782	3.836 E3	3.67
10)	o-Xylene		3.437	3.238	3.243	3.227	3.203	3.270 E3	2.90
11)	1,3-Dichlorobenzene		2.522	2.590	2.704	2.742	2.728	2.657 E3	3.63
12)	1,4-Dichlorobenzene		2.527	2.616	2.709	2.782	2.818	2.690 E3	4.45
13)	1,2-Dichlorobenzene		1.656	1.739	1.828	1.848	1.886	1.791 E3	5.20

(#) = Out of Range

DUAL0818.M

Thu Aug 19 10:17:59 2004

EF

Continuing Calibration Summary

Page 1 of 1

Job Number: F26049
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3315-CC3303
Lab FileID: EF042914.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\082304\EF042914.D\FID1A.CH Vial: 1
Signal #2 : C:\HPCHEM\1\DATA\082304\EF042914.D\FID2B.CH
Acq On : 23 Aug 2004 9:11 am Operator: ClaireV
Sample : cc3303-40 Inst : VOA1
Misc : gc3851,gef3315,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL0818.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Wed Aug 18 14:30:42 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	35.292	11.8	89	0.04
2	Di-Isopropyl ether	40.000	40.218	-0.5	103	0.04
3	Benzene	40.000	41.472	-3.7	105	0.04
4 S	a,a,a-TFT(S)	20.000	19.767	1.2	98	0.05
5	Toluene	40.000	42.002	-5.0	106	0.04
6 S	1-Chloro-4-Fluorobenzene	20.000	20.351	-1.8	101	0.05
7	Chlorobenzene	40.000	41.444	-3.6	107	0.05
8	Ethylbenzene	40.000	41.577	-3.9	107	0.05
9	m,p-Xylene	80.000	84.430	-5.5	107	0.05
10	o-Xylene	40.000	42.588	-6.5	108	0.05
11	1,3-Dichlorobenzene	40.000	43.160	-7.9	107	0.05
12	1,4-Dichlorobenzene	40.000	42.011	-5.0	105	0.05
13	1,2-Dichlorobenzene	40.000	41.619	-4.0	103	0.05

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	40.000	36.040	9.9	89	0.03
2	Di-Isopropyl ether	40.000	39.490	1.3	100	0.03
3	Benzene	40.000	39.961	0.1	101	0.03
4 S	a,a,a-TFT(S)	20.000	19.387	3.1	95	0.04
5	Toluene	40.000	41.574	-3.9	105	0.04
6 S	1-Chloro-4-Fluorobenzene	20.000	20.214	-1.1	98	0.04
7	Chlorobenzene	40.000	39.891	0.3	104	0.04
8	Ethylbenzene	40.000	40.664	-1.7	103	0.04
9	m,p-Xylene	80.000	82.790	-3.5	104	0.04
10	o-Xylene	40.000	41.633	-4.1	105	0.04
11	1,3-Dichlorobenzene	40.000	42.212	-5.5	104	0.04
12	1,4-Dichlorobenzene	40.000	41.039	-2.6	102	0.04
13	1,2-Dichlorobenzene	40.000	40.254	-0.6	99	0.04

Average % D = 3.8

(#) = Out of Range
EF042677.D DUAL0818.M

SPCC's out = 0 CCC's out = 0
Tue Aug 24 09:17:54 2004 EF

Continuing Calibration Summary

Page 1 of 1

Job Number: F26049
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3315-CC3303
Lab FileID: EF042925.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\082304\EF042925.D\FID1A.CH Vial: 12
Signal #2 : C:\HPCHEM\1\DATA\082304\EF042925.D\FID2B.CH
Acq On : 23 Aug 2004 1:49 pm Operator: ClaireV
Sample : cc3303-20 Inst : VOA1
Misc : gc3851,gef3315,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL0818.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Wed Aug 18 14:30:42 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	19.857	0.7	100	0.02
2	Di-Isopropyl ether	20.000	20.113	-0.6	103	0.02
3	Benzene	20.000	20.156	-0.8	104	0.03
4 S	a,a,a-TFT(S)	20.000	18.661	6.7	93	0.03
5	Toluene	20.000	19.977	0.1	103	0.03
6 S	1-Chloro-4-Fluorobenzene	20.000	18.809	6.0	94	0.03
7	Chlorobenzene	20.000	19.692	1.5	101	0.03
8	Ethylbenzene	20.000	20.002	-0.0	103	0.03
9	m,p-Xylene	40.000	40.482	-1.2	104	0.03
10	o-Xylene	20.000	20.125	-0.6	103	0.03
11	1,3-Dichlorobenzene	20.000	20.172	-0.9	105	0.04
12	1,4-Dichlorobenzene	20.000	19.881	0.6	104	0.03
13	1,2-Dichlorobenzene	20.000	21.008	-5.0	109	0.04

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	19.661	1.7	99	0.02
2	Di-Isopropyl ether	20.000	19.913	0.4	101	0.02
3	Benzene	20.000	20.132	-0.7	102	0.03
4 S	a,a,a-TFT(S)	20.000	18.379	8.1	91	0.03
5	Toluene	20.000	20.009	-0.0	101	0.03
6 S	1-Chloro-4-Fluorobenzene	20.000	18.782	6.1	93	0.03
7	Chlorobenzene	20.000	19.361	3.2	99	0.03
8	Ethylbenzene	20.000	20.042	-0.2	102	0.03
9	m,p-Xylene	40.000	39.800	0.5	102	0.03
10	o-Xylene	20.000	20.121	-0.6	102	0.03
11	1,3-Dichlorobenzene	20.000	19.930	0.4	102	0.03
12	1,4-Dichlorobenzene	20.000	19.837	0.8	102	0.03
13	1,2-Dichlorobenzene	20.000	20.010	-0.1	103	0.03

Average % D = 1.8

(#) = Out of Range
EF042676.D DUAL0818.M

SPCC's out = 0 CCC's out = 0
Tue Aug 24 09:18:24 2004 EF

Continuing Calibration Summary

Page 1 of 1

Job Number: F26049
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3316-CC3303
Lab FileID: EF042936.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\082304\EF042936.D\FID1A.CH Vial: 22
Signal #2 : C:\HPCHEM\1\DATA\082304\EF042936.D\FID2B.CH
Acq On : 23 Aug 2004 6:26 pm Operator: ClaireV
Sample : cc3303-20 Inst : VOA1
Misc : gc3848,gef3316,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL0818.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Wed Aug 18 14:30:42 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	19.178	4.1	97	0.03
2	Di-Isopropyl ether	20.000	19.429	2.9	99	0.03
3	Benzene	20.000	19.580	2.1	101	0.03
4 S	a,a,a-TFT(S)	20.000	19.465	2.7	98	0.03
5	Toluene	20.000	19.610	2.0	101	0.04
6 S	1-Chloro-4-Fluorobenzene	20.000	19.438	2.8	97	0.04
7	Chlorobenzene	20.000	19.059	4.7	98	0.04
8	Ethylbenzene	20.000	19.489	2.6	100	0.04
9	m,p-Xylene	40.000	39.145	2.1	101	0.04
10	o-Xylene	20.000	19.442	2.8	100	0.04
11	1,3-Dichlorobenzene	20.000	19.957	0.2	103	0.04
12	1,4-Dichlorobenzene	20.000	19.336	3.3	101	0.04
13	1,2-Dichlorobenzene	20.000	19.854	0.7	103	0.04

Signal #2

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	Methyl tert Butyl Ether	20.000	18.994	5.0	96	0.02
2	Di-Isopropyl ether	20.000	18.684	6.6	95	0.03
3	Benzene	20.000	19.203	4.0	97	0.03
4 S	a,a,a-TFT(S)	20.000	19.263	3.7	96	0.03
5	Toluene	20.000	19.034	4.8	96	0.03
6 S	1-Chloro-4-Fluorobenzene	20.000	19.161	4.2	95	0.03
7	Chlorobenzene	20.000	18.644	6.8	96	0.03
8	Ethylbenzene	20.000	19.241	3.8	98	0.03
9	m,p-Xylene	40.000	37.391	6.5	96	0.03
10	o-Xylene	20.000	19.496	2.5	98	0.03
11	1,3-Dichlorobenzene	20.000	19.303	3.5	99	0.03
12	1,4-Dichlorobenzene	20.000	18.892	5.5	97	0.03
13	1,2-Dichlorobenzene	20.000	19.403	3.0	100	0.03

Average % D = 3.6

(#) = Out of Range
EF042676.D DUAL0818.M

SPCC's out = 0 CCC's out = 0
Tue Aug 24 09:18:26 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: F26049
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11116-MB	IJ20563.D	1	08/19/04	AA	08/18/04	OP11116	GIJ1011

The QC reported here applies to the following samples:

Method: EPA 610

F26049-1, F26049-2, F26049-3, F26049-4, F26049-5, F26049-6, F26049-7

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	75% 42-123%
84-15-1	o-Terphenyl	92% 51-123%

Method Blank Summary

Page 1 of 1

Job Number: F26049

Account: EEINCJX EEI

Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11116-MB	IJ20583.D	1	08/20/04	AA	08/18/04	OP11116	GIJ1012

The QC reported here applies to the following samples:

Method: EPA 610

F26049-1, F26049-2, F26049-3, F26049-4, F26049-5, F26049-6, F26049-7

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	74% 42-123%
84-15-1	o-Terphenyl	93% 51-123%

Blank Spike Summary

Page 1 of 1

Job Number: F26049
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11116-BS	IJ20562.D	1	08/19/04	AA	08/18/04	OP11116	GIJ1011

The QC reported here applies to the following samples:

Method: EPA 610

F26049-1, F26049-2, F26049-3, F26049-4, F26049-5, F26049-6, F26049-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	25	25.2	101	71-113
208-96-8	Acenaphthylene	25	25.4	102	63-102
120-12-7	Anthracene	25	28.2	113*	71-110
56-55-3	Benzo(a)anthracene	25	27.2	109	70-114
50-32-8	Benzo(a)pyrene	25	27.7	111	67-114
205-99-2	Benzo(b)fluoranthene	25	27.6	110	69-115
191-24-2	Benzo(g,h,i)perylene	25	26.3	105	61-117
207-08-9	Benzo(k)fluoranthene	25	26.1	104	69-111
218-01-9	Chrysene	25	27.2	109	70-114
53-70-3	Dibenzo(a,h)anthracene	25	25.8	103	64-114
206-44-0	Fluoranthene	25	27.2	109	71-114
86-73-7	Fluorene	25	26.7	107	69-111
193-39-5	Indeno(1,2,3-cd)pyrene	25	25.9	104	63-112
91-20-3	Naphthalene	25	24.7	99	66-105
90-12-0	1-Methylnaphthalene	25	25.3	101	71-112
91-57-6	2-Methylnaphthalene	25	25.1	100	65-106
85-01-8	Phenanthrene	25	27.0	108	69-112
129-00-0	Pyrene	25	27.2	109	70-114

CAS No.	Surrogate Recoveries	BSP	Limits
321-60-8	2-Fluorobiphenyl	95%	42-123%
84-15-1	o-Terphenyl	100%	51-123%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: F26049
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11116-MS	IJ20578.D	5	08/19/04	AA	08/18/04	OP11116	GIJ1011
OP11116-MSD	IJ20579.D	5	08/19/04	AA	08/18/04	OP11116	GIJ1011
F26049-1	IJ20590.D	10	08/20/04	AA	08/18/04	OP11116	GIJ1012

The QC reported here applies to the following samples:

Method: EPA 610

F26049-1, F26049-2, F26049-3, F26049-4, F26049-5, F26049-6, F26049-7

CAS No.	Compound	F26049-1 ug/l	Spike Q	ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		50	60.1	120	57.1	114	5	59-123/20
208-96-8	Acenaphthylene	ND		50	55.1	110	52.4	105	5	51-114/20
120-12-7	Anthracene	ND		50	60.2	120*	57.2	114	5	64-114/17
56-55-3	Benzo(a)anthracene	ND		50	52.2	104	48.1	96	8	66-115/17
50-32-8	Benzo(a)pyrene	ND		50	59.2	118	51.9	104	13	62-118/17
205-99-2	Benzo(b)fluoranthene	ND		50	50.8	102	45.8	92	10	66-117/17
191-24-2	Benzo(g,h,i)perylene	ND		50	55.7	111	51.8	104	7	59-120/17
207-08-9	Benzo(k)fluoranthene	ND		50	56.2	112	53.3	107	5	64-116/16
218-01-9	Chrysene	ND		50	56.3	113	54.2	108	4	66-117/16
53-70-3	Dibenzo(a,h)anthracene	ND		50	56.0	112	51.8	104	8	57-124/18
206-44-0	Fluoranthene	ND		50	55.5	111	51.5	103	7	67-116/17
86-73-7	Fluorene	ND		50	64.6	129*	60.8	122	6	58-122/19
193-39-5	Indeno(1,2,3-cd)pyrene	ND		50	49.6	99	45.1	90	10	59-116/18
91-20-3	Naphthalene	207		50	255	96	253	92	1	47-114/20
90-12-0	1-Methylnaphthalene	34.4	J	50	91.3	114	89.0	109	3	55-128/21
91-57-6	2-Methylnaphthalene	49.0		50	106	114	104	110	2	51-117/21
85-01-8	Phenanthrene	ND		50	54.6	109	50.9	102	7	63-116/18
129-00-0	Pyrene	ND		50	57.1	114	53.1	106	7	67-116/17

CAS No.	Surrogate Recoveries	MS	MSD	F26049-1	Limits
321-60-8	2-Fluorobiphenyl	113%	110%	92%	42-123%
84-15-1	o-Terphenyl	101%	96%	98%	51-123%

Semivolatile Surrogate Recovery Summary

Job Number: F26049
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

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
F26049-1	IJ20590.D	92.0	98.0
F26049-2	IJ20580.D	98.0	104.0
F26049-3	IJ20570.D	100.0	104.0
F26049-4	IJ20571.D	85.0	100.0
F26049-5	IJ20572.D	102.0	106.0
F26049-6	IJ20584.D	86.0	117.0
F26049-7	IJ20585.D	98.0	101.0
OP11116-BS	IJ20562.D	95.0	100.0
OP11116-MB	IJ20563.D	75.0	92.0
OP11116-MB	IJ20583.D	74.0	93.0
OP11116-MS	IJ20578.D	113.0	101.0
OP11116-MSD	IJ20579.D	110.0	96.0

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

Job Number: F26049
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GIJ1011-CC1001	Injection Date:	08/19/04
Lab File ID:	IJ20561.D	Injection Time:	11:57
Instrument ID:	GCIJ	Method:	EPA 610

	S1 ^a	S2 ^a
	RT	RT
Check Std	5.84	10.39

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
OP11116-BS	IJ20562.D	08/19/04	12:26	5.84	10.39
OP11116-MB	IJ20563.D	08/19/04	12:55	5.85	10.40
ZZZZZZ	IJ20564.D	08/19/04	13:24	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: F26049
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GIJ1011-CC1001	Injection Date:	08/19/04
Lab File ID:	IJ20565.D	Injection Time:	13:54
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
F26049-3	IJ20570.D	08/19/04	16:20	5.85	10.40
F26049-4	IJ20571.D	08/19/04	16:50	5.86	10.41
F26049-5	IJ20572.D	08/19/04	17:19	5.86	10.41

Surrogate Compounds

S1 = 2-Fluorobiphenyl

S2 = o-Terphenyl

(a) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Job Number: F26049
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GIJ1011-CC1001	Injection Date:	08/19/04
Lab File ID:	IJ20576.D	Injection Time:	19:16
Instrument ID:	GCIJ	Method:	EPA 610

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	5.86	6.63	10.41	11.77

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
OP11116-MS	IJ20578.D	08/19/04	20:14	5.85		10.40	
OP11116-MSD	IJ20579.D	08/19/04	20:43	5.85		10.40	
F26049-2	IJ20580.D	08/19/04	21:12	5.85		10.40	
GIJ1011-ECC1001IJ20581.D		08/19/04	21:41	5.85	6.63	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

GC Surrogate Retention Time Summary

Job Number: F26049
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GIJ1012-CC1001	Injection Date:	08/20/04
Lab File ID:	IJ20582.D	Injection Time:	09:35
Instrument ID:	GCIJ	Method:	EPA 610

	S1 ^a RT	S2 ^a RT
Check Std	5.83	10.38

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
OP11116-MB	IJ20583.D	08/20/04	10:04	5.84	10.39
F26049-6	IJ20584.D	08/20/04	10:33	5.84	10.39
F26049-7	IJ20585.D	08/20/04	11:02	5.84	10.39

Surrogate
Compounds

S1 = 2-Fluorobiphenyl
S2 = o-Terphenyl

(a) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Job Number: F26049
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GIJ1012-CC1001	Injection Date:	08/20/04
Lab File ID:	IJ20589.D	Injection Time:	13:02
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
F26049-1	IJ20590.D	08/20/04	13:31	5.85	10.40

Surrogate Compounds

S1 = 2-Fluorobiphenyl
S2 = o-Terphenyl

(a) Retention time from GC signal #1

Initial Calibration Summary

Page 1 of 1

Job Number: F26049
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ1001-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)Fluoranthen	1.279	1.342	1.393	1.389	1.451	1.453	1.384	E4 4.81
16)	Benzo(k)Fluoranthen	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)Fluoranthen	2.237	2.173	2.113	2.090	2.163	2.139	2.153	E4 2.40
16)	Benzo(k)Fluoranthen	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: F26049
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ1001-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

Job Number: F26049
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

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 SPCC's out = 0 CCC's out = 0
IJ20407.D 8100_H2.M Wed Jul 28 08:09:29 2004

Continuing Calibration Summary

Page 1 of 2

Job Number: F26049
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ1011-CC1001
Lab FileID: IJ20561.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\0819PAH\IJ20561.D\FID1B.CH Vial: 1
Signal #2 : C:\HPCHEM\1\DATA\0819PAH\IJ20561.D\FID2A.CH
Acq On : 19 Aug 2004 11:57 am Operator: aubreya
Sample : cc1001-20 Inst : FID 1
Misc : op11116,gij1011,1000,,,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 Aug 18 17:18:44 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	20.267	-1.3	101	0.00	4.19-	4.39
2	2-Methyl Naphthalene	20.000	20.441	-2.2	102	0.00	5.11-	5.31
3	1-Methyl Naphthalene	20.000	20.401	-2.0	102	0.00	5.25-	5.45
4 S	2-Fluorobiphenyl	20.000	20.162	-0.8	101	0.00	5.74-	5.94
5	Acenaphthylene	20.000	20.477	-2.4	103	0.00	6.46-	6.66
6	Acenaphthene	20.000	20.454	-2.3	102	0.00	6.78-	6.98
7	Fluorene	20.000	20.529	-2.6	103	0.00	7.66-	7.86
8	Phenanthrene	20.000	20.488	-2.4	102	0.00	9.34-	9.54
9	Anthracene	20.000	20.648	-3.2	103	0.00	9.42-	9.62
10 S	0-Terphenyl	20.000	20.418	-2.1	103	0.00	10.29-	10.49
11	Fluoranthene	20.000	20.427	-2.1	102	0.00	11.53-	11.73
12	Pyrene	20.000	20.315	-1.6	102	0.00	11.91-	12.11
13	Benzo(a)Anthracene	20.000	20.533	-2.7	102	0.00	14.22-	14.42
14	Chrysene	20.000	20.426	-2.1	104	0.00	14.29-	14.49
15	Benzo(b)Fluoranthene	20.000	20.617	-3.1	102	0.00	16.13-	16.33
16	Benzo(k)Fluoranthene	20.000	20.203	-1.0	102	0.00	16.18-	16.38
17	Benzo(a) Pyrene	20.000	20.472	-2.4	103	0.00	16.62-	16.82
18	Indeno(1,2,3-cd)pyrene	20.000	20.332	-1.7	102	0.00	18.30-	18.50
19	Dibenzo(a,h)anthracene	20.000	20.161	-0.8	102	0.00	18.37-	18.57
20	Benzo(g,h,i) Perylene	20.000	20.187	-0.9	102	0.00	18.62-	18.82

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

1	Naphthalene	20.000	20.397	-2.0	103	0.00	4.85-	5.05
2	2-Methyl Naphthalene	20.000	20.365	-1.8	102	0.00	5.74-	5.94
3	1-Methyl Naphthalene	20.000	20.362	-1.8	102	0.00	6.00-	6.20
4 S	2-Fluorobiphenyl	20.000	20.291	-1.5	102	0.00	6.52-	6.72
5	Acenaphthylene	20.000	20.476	-2.4	103	0.00	7.62-	7.82
6	Acenaphthene	20.000	20.465	-2.3	103	0.00	7.87-	8.07
7	Fluorene	20.000	20.428	-2.1	103	0.00	8.74-	8.94
8	Phenanthrene	20.000	20.314	-1.6	102	0.00	10.77-	10.97
9	Anthracene	20.000	20.449	-2.2	103	0.00	10.81-	11.01
10 S	0-Terphenyl	20.000	20.345	-1.7	103	0.00	11.66-	11.86
11	Fluoranthene	20.000	20.415	-2.1	102	0.00	13.14-	13.34
12	Pyrene	20.000	20.236	-1.2	99	0.00	13.68-	13.88
13	Benzo(a)Anthracene	20.000	20.388	-1.9	102	0.00	16.04-	16.24
14	Chrysene	20.000	20.360	-1.8	102	0.00	16.21-	16.41
15	Benzo(b)Fluoranthene	20.000	20.134	-0.7	103	0.00	18.10-	18.30
16	Benzo(k)Fluoranthene	20.000	20.442	-2.2	103	0.00	18.15-	18.35
17	Benzo(a) Pyrene	20.000	20.338	-1.7	103	0.00	18.82-	19.02
18	Indeno(1,2,3-cd)pyrene	20.000	20.328	-1.6	102	0.00	20.59-	20.79

Continuing Calibration Summary

Job Number: F26049
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ1011-CC1001
Lab FileID: IJ20561.D

19	Dibenzo(a,h)anthracene	20.000	20.589	-2.9	103	0.00	20.66-20.86
20	Benzo(g,h,i) Perylene	20.000	20.311	-1.6	102	0.00	21.23-21.43

(#) = Out of Range SPCC's out = 0 CCC's out = 0
IJ20407.D 8100_H2.M Fri Aug 20 09:37:10 2004

Continuing Calibration Summary

Page 1 of 2

Job Number: F26049
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ1011-CC1001
Lab FileID: IJ20565.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\0819PAH\IJ20565.D\FID1B.CH Vial: 5
Signal #2 : C:\HPCHEM\1\DATA\0819PAH\IJ20565.D\FID2A.CH
Acq On : 19 Aug 2004 1:54 pm Operator: aubreya
Sample : cc1001-30 Inst : FID 1
Misc : op11116,gij1011,1010,,,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 Aug 18 17:18:44 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	31.019	-3.4	105	0.00	4.19-	4.39
2	2-Methyl Naphthalene	30.000	31.250	-4.2	106	0.00	5.11-	5.31
3	1-Methyl Naphthalene	30.000	31.253	-4.2	106	0.00	5.25-	5.45
4 S	2-Fluorobiphenyl	30.000	31.133	-3.8	105	0.00	5.74-	5.94
5	Acenaphthylene	30.000	31.298	-4.3	106	0.00	6.46-	6.66
6	Acenaphthene	30.000	31.247	-4.2	106	0.00	6.78-	6.98
7	Fluorene	30.000	31.489	-5.0	106	0.01	7.66-	7.86
8	Phenanthrene	30.000	31.664	-5.5	106	0.00	9.34-	9.54
9	Anthracene	30.000	31.440	-4.8	106	0.00	9.42-	9.62
10 S	0-Terphenyl	30.000	31.062	-3.5	106	0.00	10.29-	10.49
11	Fluoranthene	30.000	31.292	-4.3	106	0.01	11.53-	11.73
12	Pyrene	30.000	31.136	-3.8	106	0.01	11.91-	12.11
13	Benzo(a)Anthracene	30.000	31.830	-6.1	106	0.01	14.22-	14.42
14	Chrysene	30.000	30.911	-3.0	106	0.01	14.29-	14.49
15	Benzo(b)Fluoranthene	30.000	32.169	-7.2	107	0.02	16.13-	16.33
16	Benzo(k)Fluoranthene	30.000	30.595	-2.0	105	0.02	16.18-	16.38
17	Benzo(a) Pyrene	30.000	31.277	-4.3	106	0.01	16.62-	16.82
18	Indeno(1,2,3-cd)pyrene	30.000	31.660	-5.5	106	0.02	18.30-	18.50
19	Dibenzo(a,h)anthracene	30.000	31.049	-3.5	106	0.02	18.37-	18.57
20	Benzo(g,h,i) Perylene	30.000	31.143	-3.8	106	0.02	18.62-	18.82

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

1	Naphthalene	30.000	31.004	-3.3	106	0.00	4.85-	5.05
2	2-Methyl Naphthalene	30.000	30.977	-3.3	105	0.00	5.74-	5.94
3	1-Methyl Naphthalene	30.000	30.959	-3.2	105	0.00	6.00-	6.20
4 S	2-Fluorobiphenyl	30.000	30.844	-2.8	105	0.00	6.52-	6.72
5	Acenaphthylene	30.000	31.079	-3.6	105	0.00	7.62-	7.82
6	Acenaphthene	30.000	31.032	-3.4	105	0.00	7.87-	8.07
7	Fluorene	30.000	31.068	-3.6	105	0.00	8.74-	8.94
8	Phenanthrene	30.000	31.110	-3.7	106	0.00	10.77-	10.97
9	Anthracene	30.000	30.885	-3.0	105	0.00	10.81-	11.01
10 S	0-Terphenyl	30.000	30.770	-2.6	105	0.00	11.66-	11.86
11	Fluoranthene	30.000	31.001	-3.3	105	0.00	13.14-	13.34
12	Pyrene	30.000	30.756	-2.5	105	0.00	13.68-	13.88
13	Benzo(a)Anthracene	30.000	30.995	-3.3	105	0.01	16.04-	16.24
14	Chrysene	30.000	31.036	-3.5	106	0.01	16.21-	16.41
15	Benzo(b)Fluoranthene	30.000	30.711	-2.4	105	0.01	18.10-	18.30
16	Benzo(k)Fluoranthene	30.000	30.933	-3.1	106	0.01	18.15-	18.35
17	Benzo(a) Pyrene	30.000	30.957	-3.2	106	0.01	18.82-	19.02
18	Indeno(1,2,3-cd)pyrene	30.000	31.215	-4.0	106	0.02	20.59-	20.79

Continuing Calibration Summary

Job Number: F26049
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ1011-CC1001
Lab FileID: IJ20565.D

19	Dibenzo(a,h)anthracene	30.000	30.915	-3.0	105	0.02	20.66-20.86
20	Benzo(g,h,i) Perylene	30.000	30.932	-3.1	105	0.02	21.23-21.43

(#) = Out of Range SPCC's out = 0 CCC's out = 0
IJ20408.D 8100_H2.M Fri Aug 20 09:37:29 2004

Continuing Calibration Summary

Page 1 of 2

Job Number: F26049
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ1011-CC1001
Lab FileID: IJ20576.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\0819PAH\IJ20576.D\FID1B.CH Vial: 1
Signal #2 : C:\HPCHEM\1\DATA\0819PAH\IJ20576.D\FID2A.CH
Acq On : 19 Aug 2004 7:16 pm Operator: aubreya
Sample : cc1001-20 Inst : FID 1
Misc : op11116,gij1011,1040,,,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 : Wed Aug 18 17:18:44 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	21.089	-5.4	105	0.00	4.19-	4.39
2	2-Methyl Naphthalene	20.000	21.319	-6.6	106	0.01	5.11-	5.31
3	1-Methyl Naphthalene	20.000	21.254	-6.3	106	0.01	5.25-	5.45
4 S	2-Fluorobiphenyl	20.000	20.950	-4.7	105	0.01	5.74-	5.94
5	Acenaphthylene	20.000	21.262	-6.3	107	0.01	6.46-	6.66
6	Acenaphthene	20.000	21.229	-6.1	106	0.01	6.78-	6.98
7	Fluorene	20.000	21.387	-6.9	107	0.02	7.66-	7.86
8	Phenanthrene	20.000	21.394	-7.0	107	0.01	9.34-	9.54
9	Anthracene	20.000	21.526	-7.6	107	0.01	9.42-	9.62
10 S	0-Terphenyl	20.000	21.172	-5.9	107	0.01	10.29-	10.49
11	Fluoranthene	20.000	21.296	-6.5	107	0.02	11.53-	11.73
12	Pyrene	20.000	21.184	-5.9	107	0.02	11.91-	12.11
13	Benzo(a)Anthracene	20.000	21.528	-7.6	107	0.02	14.22-	14.42
14	Chrysene	20.000	21.229	-6.1	108	0.02	14.29-	14.49
15	Benzo(b)Fluoranthene	20.000	21.504	-7.5	107	0.01	16.13-	16.33
16	Benzo(k)Fluoranthene	20.000	20.957	-4.8	106	0.01	16.18-	16.38
17	Benzo(a) Pyrene	20.000	21.229	-6.1	107	0.02	16.62-	16.82
18	Indeno(1,2,3-cd)pyrene	20.000	21.214	-6.1	106	0.02	18.30-	18.50
19	Dibenzo(a,h)anthracene	20.000	21.055	-5.3	106	0.01	18.37-	18.57
20	Benzo(g,h,i) Perylene	20.000	20.929	-4.6	105	0.02	18.62-	18.82

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

1	Naphthalene	20.000	20.995	-5.0	106	0.01	4.85-	5.05
2	2-Methyl Naphthalene	20.000	20.982	-4.9	105	0.01	5.74-	5.94
3	1-Methyl Naphthalene	20.000	20.976	-4.9	105	0.01	6.00-	6.20
4 S	2-Fluorobiphenyl	20.000	20.918	-4.6	106	0.01	6.52-	6.72
5	Acenaphthylene	20.000	21.067	-5.3	106	0.01	7.62-	7.82
6	Acenaphthene	20.000	21.063	-5.3	106	0.01	7.87-	8.07
7	Fluorene	20.000	21.043	-5.2	106	0.01	8.74-	8.94
8	Phenanthrene	20.000	20.836	-4.2	105	0.01	10.77-	10.97
9	Anthracene	20.000	21.201	-6.0	107	0.01	10.81-	11.01
10 S	0-Terphenyl	20.000	20.915	-4.6	106	0.01	11.66-	11.86
11	Fluoranthene	20.000	21.015	-5.1	105	0.01	13.14-	13.34
12	Pyrene	20.000	20.857	-4.3	102	0.01	13.68-	13.88
13	Benzo(a)Anthracene	20.000	20.977	-4.9	105	0.01	16.04-	16.24
14	Chrysene	20.000	20.957	-4.8	105	0.01	16.21-	16.41
15	Benzo(b)Fluoranthene	20.000	20.736	-3.7	106	0.01	18.10-	18.30
16	Benzo(k)Fluoranthene	20.000	21.003	-5.0	106	0.01	18.15-	18.35
17	Benzo(a) Pyrene	20.000	20.935	-4.7	106	0.01	18.82-	19.02
18	Indeno(1,2,3-cd)pyrene	20.000	22.091	-10.5	111	0.02	20.59-	20.79

Continuing Calibration Summary

Job Number: F26049
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ1011-CC1001
Lab FileID: IJ20576.D

19	Dibenzo(a,h)anthracene	20.000	21.935	-9.7	110	0.02	20.66-20.86
20	Benzo(g,h,i) Perylene	20.000	20.916	-4.6	105	0.02	21.23-21.43

(#) = Out of Range SPCC's out = 0 CCC's out = 0
IJ20407.D 8100_H2.M Fri Aug 20 09:37:11 2004

Continuing Calibration Summary

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Job Number: F26049
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ1011-ECC1001
Lab FileID: IJ20581.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\0819PAH\IJ20581.D\FID1B.CH Vial: 5
Signal #2 : C:\HPCHEM\1\DATA\0819PAH\IJ20581.D\FID2A.CH
Acq On : 19 Aug 2004 9:41 pm Operator: aubreya
Sample : ecc1001-30 Inst : FID 1
Misc : op11116,gij1011,1050,,,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 : Wed Aug 18 17:18:44 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	31.340	-4.5	106	0.00	4.19-	4.39
2	2-Methyl Naphthalene	30.000	31.598	-5.3	107	0.00	5.11-	5.31
3	1-Methyl Naphthalene	30.000	31.503	-5.0	107	0.00	5.25-	5.45
4 S	2-Fluorobiphenyl	30.000	31.451	-4.8	106	0.00	5.74-	5.94
5	Acenaphthylene	30.000	31.676	-5.6	107	0.00	6.46-	6.66
6	Acenaphthene	30.000	31.606	-5.4	107	0.00	6.78-	6.98
7	Fluorene	30.000	31.857	-6.2	107	0.01	7.66-	7.86
8	Phenanthrene	30.000	32.079	-6.9	107	0.00	9.34-	9.54
9	Anthracene	30.000	31.798	-6.0	107	0.00	9.42-	9.62
10 S	0-Terphenyl	30.000	31.175	-3.9	106	0.00	10.29-	10.49
11	Fluoranthene	30.000	31.634	-5.4	107	0.01	11.53-	11.73
12	Pyrene	30.000	31.466	-4.9	107	0.01	11.91-	12.11
13	Benzo(a)Anthracene	30.000	32.305	-7.7	108	0.01	14.22-	14.42
14	Chrysene	30.000	31.229	-4.1	107	0.01	14.29-	14.49
15	Benzo(b)Fluoranthene	30.000	32.306	-7.7	107	0.01	16.13-	16.33
16	Benzo(k)Fluoranthene	30.000	30.724	-2.4	105	0.02	16.18-	16.38
17	Benzo(a) Pyrene	30.000	31.708	-5.7	107	0.02	16.62-	16.82
18	Indeno(1,2,3-cd)pyrene	30.000	31.750	-5.8	107	0.02	18.30-	18.50
19	Dibenzo(a,h)anthracene	30.000	31.178	-3.9	107	0.02	18.37-	18.57
20	Benzo(g,h,i) Perylene	30.000	31.224	-4.1	106	0.02	18.62-	18.82

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

1	Naphthalene	30.000	31.391	-4.6	107	0.00	4.85-	5.05
2	2-Methyl Naphthalene	30.000	31.504	-5.0	107	0.00	5.74-	5.94
3	1-Methyl Naphthalene	30.000	31.482	-4.9	107	0.00	6.00-	6.20
4 S	2-Fluorobiphenyl	30.000	31.414	-4.7	107	0.00	6.52-	6.72
5	Acenaphthylene	30.000	31.588	-5.3	107	0.00	7.62-	7.82
6	Acenaphthene	30.000	31.564	-5.2	107	0.00	7.87-	8.07
7	Fluorene	30.000	31.585	-5.3	107	0.00	8.74-	8.94
8	Phenanthrene	30.000	31.494	-5.0	107	0.01	10.77-	10.97
9	Anthracene	30.000	31.615	-5.4	107	0.01	10.81-	11.01
10 S	0-Terphenyl	30.000	31.263	-4.2	107	0.00	11.66-	11.86
11	Fluoranthene	30.000	31.454	-4.8	107	0.00	13.14-	13.34
12	Pyrene	30.000	31.233	-4.1	107	0.00	13.68-	13.88
13	Benzo(a)Anthracene	30.000	31.469	-4.9	107	0.01	16.04-	16.24
14	Chrysene	30.000	31.626	-5.4	108	0.01	16.21-	16.41
15	Benzo(b)Fluoranthene	30.000	31.207	-4.0	107	0.01	18.10-	18.30
16	Benzo(k)Fluoranthene	30.000	31.287	-4.3	107	0.02	18.15-	18.35
17	Benzo(a) Pyrene	30.000	31.351	-4.5	107	0.01	18.82-	19.02
18	Indeno(1,2,3-cd)pyrene	30.000	31.485	-4.9	106	0.02	20.59-	20.79

Continuing Calibration Summary

Job Number: F26049
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ1011-ECC1001
Lab FileID: IJ20581.D

19	Dibenzo(a,h)anthracene	30.000	31.313	-4.4	107	0.02	20.66-20.86
20	Benzo(g,h,i) Perylene	30.000	31.080	-3.6	106	0.02	21.23-21.43

(#) = Out of Range SPCC's out = 0 CCC's out = 0
IJ20408.D 8100_H2.M Fri Aug 20 09:37:30 2004

Continuing Calibration Summary

Page 1 of 2

Job Number: F26049
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ1012-CC1001
Lab FileID: IJ20582.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\0820PAH\IJ20582.D\FID1B.CH Vial: 1
Signal #2 : C:\HPCHEM\1\DATA\0820PAH\IJ20582.D\FID2A.CH
Acq On : 20 Aug 2004 9:35 am Operator: aubreya
Sample : cc1001-20 Inst : FID 1
Misc : op11116,gij1012,1000,,,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 Aug 18 17:18:44 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	19.873	0.6	99	-0.01	4.19-	4.39
2	2-Methyl Naphthalene	20.000	19.974	0.1	100	-0.01	5.11-	5.31
3	1-Methyl Naphthalene	20.000	19.959	0.2	100	-0.01	5.25-	5.45
4 S	2-Fluorobiphenyl	20.000	19.748	1.3	99	-0.01	5.74-	5.94
5	Acenaphthylene	20.000	19.985	0.1	100	-0.01	6.46-	6.66
6	Acenaphthene	20.000	19.972	0.1	100	-0.01	6.78-	6.98
7	Fluorene	20.000	20.106	-0.5	101	0.00	7.66-	7.86
8	Phenanthrene	20.000	20.109	-0.5	100	-0.01	9.34-	9.54
9	Anthracene	20.000	20.323	-1.6	101	-0.01	9.42-	9.62
10 S	0-Terphenyl	20.000	19.991	0.0	101	-0.01	10.29-	10.49
11	Fluoranthene	20.000	20.084	-0.4	101	-0.01	11.53-	11.73
12	Pyrene	20.000	20.020	-0.1	101	-0.01	11.91-	12.11
13	Benzo(a)Anthracene	20.000	20.219	-1.1	101	-0.01	14.22-	14.42
14	Chrysene	20.000	20.034	-0.2	102	-0.01	14.29-	14.49
15	Benzo(b)Fluoranthene	20.000	20.253	-1.3	101	-0.01	16.13-	16.33
16	Benzo(k)Fluoranthene	20.000	19.990	0.1	101	-0.01	16.18-	16.38
17	Benzo(a) Pyrene	20.000	20.174	-0.9	101	0.00	16.62-	16.82
18	Indeno(1,2,3-cd)pyrene	20.000	20.023	-0.1	100	0.00	18.30-	18.50
19	Dibenzo(a,h)anthracene	20.000	19.908	0.5	101	0.00	18.37-	18.57
20	Benzo(g,h,i) Perylene	20.000	19.935	0.3	100	0.00	18.62-	18.82

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

1	Naphthalene	20.000	20.122	-0.6	101	-0.01	4.85-	5.05
2	2-Methyl Naphthalene	20.000	20.132	-0.7	101	-0.01	5.74-	5.94
3	1-Methyl Naphthalene	20.000	20.129	-0.6	101	-0.01	6.00-	6.20
4 S	2-Fluorobiphenyl	20.000	19.967	0.2	101	-0.01	6.52-	6.72
5	Acenaphthylene	20.000	20.222	-1.1	102	-0.01	7.62-	7.82
6	Acenaphthene	20.000	20.228	-1.1	102	-0.01	7.87-	8.07
7	Fluorene	20.000	20.240	-1.2	102	-0.01	8.74-	8.94
8	Phenanthrene	20.000	19.975	0.1	100	-0.01	10.77-	10.97
9	Anthracene	20.000	20.515	-2.6	103	-0.01	10.81-	11.01
10 S	0-Terphenyl	20.000	20.135	-0.7	102	-0.01	11.66-	11.86
11	Fluoranthene	20.000	20.277	-1.4	102	-0.01	13.14-	13.34
12	Pyrene	20.000	20.241	-1.2	99	-0.01	13.68-	13.88
13	Benzo(a)Anthracene	20.000	20.264	-1.3	102	0.00	16.04-	16.24
14	Chrysene	20.000	20.304	-1.5	102	0.00	16.21-	16.41
15	Benzo(b)Fluoranthene	20.000	19.944	0.3	102	0.00	18.10-	18.30
16	Benzo(k)Fluoranthene	20.000	20.388	-1.9	103	0.00	18.15-	18.35
17	Benzo(a) Pyrene	20.000	20.257	-1.3	102	0.00	18.82-	19.02
18	Indeno(1,2,3-cd)pyrene	20.000	20.245	-1.2	101	0.00	20.59-	20.79

Continuing Calibration Summary

Job Number: F26049
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ1012-CC1001
Lab FileID: IJ20582.D

19	Dibenzo(a,h)anthracene	20.000	20.448	-2.2	103	0.00	20.66-20.86
20	Benzo(g,h,i) Perylene	20.000	20.041	-0.2	101	0.00	21.23-21.43

(#) = Out of Range SPCC's out = 0 CCC's out = 0
IJ20407.D 8100_H2.M Sat Aug 21 08:39:40 2004

Continuing Calibration Summary

Page 1 of 2

Job Number: F26049
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ1012-CC1001
Lab FileID: IJ20589.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\0820PAH\IJ20589.D\FID1B.CH Vial: 8
Signal #2 : C:\HPCHEM\1\DATA\0820PAH\IJ20589.D\FID2A.CH
Acq On : 20 Aug 2004 1:02 pm Operator: aubreya
Sample : cc1001-30 Inst : FID 1
Misc : op11116,gij1012,1000,,,1,5,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 Aug 18 17:18:44 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	30.368	-1.2	103	0.00	4.19-	4.39
2	2-Methyl Naphthalene	30.000	30.457	-1.5	103	0.00	5.11-	5.31
3	1-Methyl Naphthalene	30.000	30.441	-1.5	103	0.00	5.25-	5.45
4 S	2-Fluorobiphenyl	30.000	30.302	-1.0	102	0.00	5.74-	5.94
5	Acenaphthylene	30.000	30.548	-1.8	103	0.00	6.46-	6.66
6	Acenaphthene	30.000	30.518	-1.7	103	0.00	6.78-	6.98
7	Fluorene	30.000	30.688	-2.3	103	0.00	7.66-	7.86
8	Phenanthrene	30.000	30.862	-2.9	103	0.00	9.34-	9.54
9	Anthracene	30.000	30.751	-2.5	103	0.00	9.42-	9.62
10 S	0-Terphenyl	30.000	30.084	-0.3	103	0.00	10.29-	10.49
11	Fluoranthene	30.000	30.459	-1.5	103	0.01	11.53-	11.73
12	Pyrene	30.000	30.337	-1.1	103	0.01	11.91-	12.11
13	Benzo(a)Anthracene	30.000	31.047	-3.5	104	0.01	14.22-	14.42
14	Chrysene	30.000	30.340	-1.1	104	0.01	14.29-	14.49
15	Benzo(b)Fluoranthene	30.000	30.932	-3.1	103	0.01	16.13-	16.33
16	Benzo(k)Fluoranthene	30.000	30.034	-0.1	103	0.01	16.18-	16.38
17	Benzo(a) Pyrene	30.000	30.428	-1.4	103	0.01	16.62-	16.82
18	Indeno(1,2,3-cd)pyrene	30.000	30.617	-2.1	103	0.02	18.30-	18.50
19	Dibenzo(a,h)anthracene	30.000	30.078	-0.3	103	0.01	18.37-	18.57
20	Benzo(g,h,i) Perylene	30.000	30.340	-1.1	103	0.02	18.62-	18.82

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

1	Naphthalene	30.000	30.246	-0.8	103	0.00	4.85-	5.05
2	2-Methyl Naphthalene	30.000	30.268	-0.9	103	0.00	5.74-	5.94
3	1-Methyl Naphthalene	30.000	30.247	-0.8	103	0.00	6.00-	6.20
4 S	2-Fluorobiphenyl	30.000	30.146	-0.5	103	0.00	6.52-	6.72
5	Acenaphthylene	30.000	30.264	-0.9	103	0.00	7.62-	7.82
6	Acenaphthene	30.000	30.248	-0.8	103	0.00	7.87-	8.07
7	Fluorene	30.000	30.263	-0.9	103	0.00	8.74-	8.94
8	Phenanthrene	30.000	30.212	-0.7	103	0.01	10.77-	10.97
9	Anthracene	30.000	30.214	-0.7	103	0.01	10.81-	11.01
10 S	0-Terphenyl	30.000	29.964	0.1	103	0.00	11.66-	11.86
11	Fluoranthene	30.000	30.203	-0.7	103	0.01	13.14-	13.34
12	Pyrene	30.000	30.119	-0.4	103	0.01	13.68-	13.88
13	Benzo(a)Anthracene	30.000	30.179	-0.6	103	0.01	16.04-	16.24
14	Chrysene	30.000	30.207	-0.7	103	0.01	16.21-	16.41
15	Benzo(b)Fluoranthene	30.000	29.910	0.3	103	0.01	18.10-	18.30
16	Benzo(k)Fluoranthene	30.000	30.106	-0.4	103	0.02	18.15-	18.35
17	Benzo(a) Pyrene	30.000	30.112	-0.4	103	0.01	18.82-	19.02
18	Indeno(1,2,3-cd)pyrene	30.000	30.431	-1.4	103	0.02	20.59-	20.79

Continuing Calibration Summary

Job Number: F26049
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ1012-CC1001
Lab FileID: IJ20589.D

19	Dibenzo(a,h)anthracene	30.000	30.012	-0.0	102	0.02	20.66-20.86
20	Benzo(g,h,i) Perylene	30.000	29.920	0.3	102	0.02	21.23-21.43

(#) = Out of Range SPCC's out = 0 CCC's out = 0
IJ20408.D 8100_H2.M Sat Aug 21 08:40:35 2004

Continuing Calibration Summary

Page 1 of 2

Job Number: F26049
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ1012-CC1001
Lab FileID: IJ20595.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\0820PAH\IJ20595.D\FID1B.CH Vial: 1
Signal #2 : C:\HPCHEM\1\DATA\0820PAH\IJ20595.D\FID2A.CH
Acq On : 20 Aug 2004 3:58 pm Operator: aubreya
Sample : cc1001-20 Inst : FID 1
Misc : op11116,gij1012,1000,,,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 Aug 18 17:18:44 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	20.905	-4.5	105	0.01	4.19-	4.39
2	2-Methyl Naphthalene	20.000	21.046	-5.2	105	0.01	5.11-	5.31
3	1-Methyl Naphthalene	20.000	21.015	-5.1	105	0.01	5.25-	5.45
4 S	2-Fluorobiphenyl	20.000	20.772	-3.9	105	0.02	5.74-	5.94
5	Acenaphthylene	20.000	21.016	-5.1	106	0.02	6.46-	6.66
6	Acenaphthene	20.000	20.998	-5.0	105	0.02	6.78-	6.98
7	Fluorene	20.000	21.157	-5.8	106	0.02	7.66-	7.86
8	Phenanthrene	20.000	21.080	-5.4	105	0.02	9.34-	9.54
9	Anthracene	20.000	21.426	-7.1	107	0.02	9.42-	9.62
10 S	0-Terphenyl	20.000	20.989	-4.9	106	0.02	10.29-	10.49
11	Fluoranthene	20.000	21.013	-5.1	105	0.02	11.53-	11.73
12	Pyrene	20.000	20.922	-4.6	105	0.02	11.91-	12.11
13	Benzo(a)Anthracene	20.000	21.208	-6.0	106	0.02	14.22-	14.42
14	Chrysene	20.000	21.188	-5.9	108	0.02	14.29-	14.49
15	Benzo(b)Fluoranthene	20.000	21.082	-5.4	105	0.02	16.13-	16.33
16	Benzo(k)Fluoranthene	20.000	21.076	-5.4	106	0.02	16.18-	16.38
17	Benzo(a) Pyrene	20.000	21.037	-5.2	106	0.02	16.62-	16.82
18	Indeno(1,2,3-cd)pyrene	20.000	20.949	-4.7	105	0.02	18.30-	18.50
19	Dibenzo(a,h)anthracene	20.000	20.938	-4.7	106	0.01	18.37-	18.57
20	Benzo(g,h,i) Perylene	20.000	21.076	-5.4	106	0.01	18.62-	18.82

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

1	Naphthalene	20.000	20.631	-3.2	104	0.01	4.85-	5.05
2	2-Methyl Naphthalene	20.000	20.622	-3.1	104	0.02	5.74-	5.94
3	1-Methyl Naphthalene	20.000	20.618	-3.1	104	0.02	6.00-	6.20
4 S	2-Fluorobiphenyl	20.000	20.556	-2.8	104	0.02	6.52-	6.72
5	Acenaphthylene	20.000	20.688	-3.4	104	0.02	7.62-	7.82
6	Acenaphthene	20.000	20.689	-3.4	104	0.02	7.87-	8.07
7	Fluorene	20.000	20.687	-3.4	104	0.02	8.74-	8.94
8	Phenanthrene	20.000	20.528	-2.6	103	0.02	10.77-	10.97
9	Anthracene	20.000	20.813	-4.1	105	0.02	10.81-	11.01
10 S	0-Terphenyl	20.000	20.575	-2.9	104	0.02	11.66-	11.86
11	Fluoranthene	20.000	20.687	-3.4	104	0.02	13.14-	13.34
12	Pyrene	20.000	20.632	-3.2	101	0.02	13.68-	13.88
13	Benzo(a)Anthracene	20.000	20.651	-3.3	104	0.02	16.04-	16.24
14	Chrysene	20.000	20.726	-3.6	104	0.02	16.21-	16.41
15	Benzo(b)Fluoranthene	20.000	20.466	-2.3	104	0.02	18.10-	18.30
16	Benzo(k)Fluoranthene	20.000	20.709	-3.5	104	0.02	18.15-	18.35
17	Benzo(a) Pyrene	20.000	20.589	-2.9	104	0.02	18.82-	19.02
18	Indeno(1,2,3-cd)pyrene	20.000	20.742	-3.7	104	0.02	20.59-	20.79

Continuing Calibration Summary

Job Number: F26049
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ1012-CC1001
Lab FileID: IJ20595.D

19	Dibenzo(a,h)anthracene	20.000	21.788	-8.9	109	0.02	20.66-20.86
20	Benzo(g,h,i) Perylene	20.000	20.626	-3.1	104	0.02	21.23-21.43

(#) = Out of Range SPCC's out = 0 CCC's out = 0
IJ20407.D 8100_H2.M Sat Aug 21 08:39:41 2004

November 2004 Groundwater Laboratory Report



01/16/06

Technical Report for

EEI

Camp Lejeune-LCH 4015

844271

Accutest Job Number: F28405

Sampling Dates: 11/22/04 - 11/23/04

Report to:

EEI

bmorris@eeimail.com

ATTN: Bill Morris

Total number of pages in report: **160**



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: F28405

Camp Lejeune-LCH 4015
Project No: 844271

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
F28405-1	11/22/04	14:15 BS	11/24/04	AQ	Ground Water	USTLCH4015-MW03
F28405-2	11/22/04	14:50 BS	11/24/04	AQ	Ground Water	USTLCH4015-MW01
F28405-3	11/22/04	16:05 BS	11/24/04	AQ	Ground Water	USTLCH4015-MW02
F28405-4	11/22/04	00:00 BS	11/24/04	AQ	Ground Water	USTLCH4015-DUP
F28405-5	11/22/04	16:45 BS	11/24/04	AQ	Ground Water	USTLCH4015-MW20
F28405-6	11/22/04	17:05 BS	11/24/04	AQ	Ground Water	USTLCH4015-MW22
F28405-7	11/23/04	08:20 BS	11/24/04	AQ	Ground Water	USTLCH4015-MW13
F28405-8	11/23/04	09:15 BS	11/24/04	AQ	Ground Water	USTLCH4015-MW23
F28405-9	11/23/04	10:10 BS	11/24/04	AQ	Ground Water	USTLCH4015-MW21
F28405-10	11/23/04	10:55 BS	11/24/04	AQ	Ground Water	USTLCH4015-MW19
F28405-11	11/23/04	11:35 BS	11/24/04	AQ	Ground Water	USTLCH4015-MW18
F28405-12	11/23/04	14:00 BS	11/24/04	AQ	Trip Blank Water	TRIP BLANK

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: EEI

Job No: F28405

Site: Camp Lejeune-LCH 4015

Report Date: 12/15/2004 8:48:13

11 Samples and 1 Trip Blank were collected on between 11/22/2004 and 11/23/2004 and were received at Accutest on 11/24/2004 properly preserved, at 1.8 Deg. C and intact. These Samples received an Accutest job number of F28405. 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: GQQ13

All samples were analyzed within the recommended method holding time.

Samples F28405-10MS, F28405-10MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

F28405-1: Confirmed by GC/MS

F28405-1 for 1,2-Dichlorobenzene: Elevated reporting limits due to matrix interference.

F28405-2: Confirmed by GC/MS

F28405-2 for 1,2-Dichlorobenzene: Elevated reporting limits due to matrix interference.

F28405-3: All hits confirmed by dual column analysis.

F28405-3 for 1,2-Dichlorobenzene: Elevated reporting limits due to matrix interference.

F28405-8: All hits confirmed by dual column analysis.

F28405-9: All hits confirmed by dual column analysis.

F28405-11: All hits confirmed by dual column analysis.

F28405-11 for 1,2-Dichlorobenzene: Elevated reporting limits due to matrix interference.

Matrix: AQ

Batch ID: GQQ14

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F28405-4MS, F28405-4MSD were used as the QC samples indicated.

Matrix Spike Recovery for 1,2-Dichlorobenzene are outside control limits. Probable cause: due to matrix interference.

F28405-4: All hits confirmed by dual column analysis.

F28405-4 for 1,2-Dichlorobenzene: Elevated reporting limits due to matrix interference.

Volatiles by GC by Method MADEP VPH

Matrix: AQ

Batch ID: GUV909

All samples were analyzed within the recommended method holding time.

Samples F28405-1DUP, F28405-1MS, F28405-1MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

Matrix Spike Recovery for C5- C8 Aliphatics (Unadj.) are outside control limits. Probable cause: due to matrix interference.

Matrix Spike Duplicate Recovery for C5- C8 Aliphatics (Unadj.) are outside control limits. Probable cause: due to matrix interference.

Wednesday, December 15, 2004

Extractables by GC by Method EPA 610

Matrix: AQ

Batch ID: OP11942

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 F28405-3MS, F28405-3MSD were used as the QC samples indicated.

Matrix Spike Duplicate Recovery for Naphthalene is outside control limits. Probable cause: due to matrix interference.

F28405-1: All hits confirmed by dual column analysis.

F28405-2: All hits confirmed by dual column analysis.

F28405-3: All hits confirmed by dual column analysis.

F28405-4: All hits confirmed by dual column analysis.

F28405-5: All hits confirmed by dual column analysis.

F28405-9: All hits confirmed by dual column analysis.

F28405-11: All hits confirmed by dual column analysis.

Extractables by GC by Method MADEP-EPH-98-1

Matrix: AQ

Batch ID: OP11968

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 F28405-10DUP, F28405-5MS, F28405-5MSD were used as the QC samples indicated.

Sample F28405-8 has surrogates outside control limits. Probable cause: due to matrix interference.

F28405-8: Confirmation run.

F28405-8 for 1-Chlorooctadecane: Confirmed by refractionation and reanalysis.

Metals by Method SW846 6010B

Matrix: AQ

Batch ID: MP7451

All samples were digested 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 F28405-1DUP, F28405-1MS, F28405-1MSD, F28405-1SDL were used as the QC samples for metals.

F28405-8 for Lead: Elevated reporting limits due to matrix interference.

F28405-9 for Lead: Elevated reporting 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.

Narrative prepared by:

Ellen Pampel, Inorganic QA (signature on file)

Date: December 15, 2004

Wednesday, December 15, 2004

Report of Analysis

Page 1 of 1

Client Sample ID:	USTLCH4015-MW03	Date Sampled:	11/22/04
Lab Sample ID:	F28405-1	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	QQ000300.D	1	12/03/04	CV	n/a	n/a	GQQ13
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.56	1.0	0.50	ug/l	J
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene ^b	ND	10	10	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	95%		70-123%
98-08-8	aaa-Trifluorotoluene	108%		73-122%

(a) Confirmed by GC/MS

(b) Elevated reporting 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:	USTLCH4015-MW03	Date Sampled:	11/22/04
Lab Sample ID:	F28405-1	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	MADEP VPH		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	UV015478.D	1	12/03/04	AJ	n/a	n/a	GUV909
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

MADEP VPH List

CAS No.	Compound	Result	RL	MDL	Units	Q
	C5- C8 Aliphatics (Unadj.)	65.7	75	50	ug/l	J
	C9- C12 Aliphatics (Unadj.)	129	55	30	ug/l	
	C9- C10 Aromatics (Unadj.)	106	20	10	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	BFB	89%		70-130%
460-00-4	BFB	92%		70-130%

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:	USTLCH4015-MW03	Date Sampled:	11/22/04
Lab Sample ID:	F28405-1	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	MADEP-EPH-98-1 SW846 3510C		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF15657.D	1	12/09/04	AA	12/01/04	OP11968	GZF721
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	2.0 ml
Run #2		

MAEPH List

CAS No.	Compound	Result	RL	MDL	Units	Q
	C11-C22 Aromatics (Unadj.)	169	190	140	ug/l	J
	C9-C18 Aliphatics	ND	190	190	ug/l	
	C19-C36 Aliphatics	ND	190	190	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
3386-33-2	1-Chlorooctadecane	49%		40-140%
580-13-2	2-Bromonaphthalene	69%		40-140%
84-15-1	o-Terphenyl	85%		40-140%
321-60-8	2-Fluorobiphenyl	75%		40-140%

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:	USTLCH4015-MW03	Date Sampled:	11/22/04
Lab Sample ID:	F28405-1	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	IJ21388.D	1	11/30/04	AA	11/29/04	OP11942	GIJ1053
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	2.3	4.8	1.9	ug/l	J
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	84%		51-123%

(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:	USTLCH4015-MW03	Date Sampled:	11/22/04
Lab Sample ID:	F28405-1	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-LCH 4015		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	< 5.0	5.0	ug/l	1	11/24/04	11/30/04 SM	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA4109
(2) Prep QC Batch: MP7451

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	USTLCH4015-MW01	Date Sampled:	11/22/04
Lab Sample ID:	F28405-2	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	QQ000311.D	5	12/03/04	CV	n/a	n/a	GQQ13
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	29.1	5.0	2.5	ug/l	
108-90-7	Chlorobenzene	ND	5.0	2.5	ug/l	
95-50-1	1,2-Dichlorobenzene ^b	ND	50	50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.0	2.5	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	5.0	2.5	ug/l	
100-41-4	Ethylbenzene	189	5.0	2.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	5.0	2.5	ug/l	
108-88-3	Toluene	4.6	5.0	2.5	ug/l	J
1330-20-7	Xylenes (total)	390	15	5.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	97%		70-123%
98-08-8	aaa-Trifluorotoluene	106%		73-122%

(a) Confirmed by GC/MS

(b) Elevated reporting 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

Page 1 of 1

Client Sample ID:	USTLCH4015-MW01	Date Sampled:	11/22/04
Lab Sample ID:	F28405-2	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	MADEP VPH		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	UV015493.D	5	12/03/04	AJ	n/a	n/a	GUV909
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

MADEP VPH List

CAS No.	Compound	Result	RL	MDL	Units	Q
	C5- C8 Aliphatics (Unadj.)	925	380	250	ug/l	
	C9- C12 Aliphatics (Unadj.)	2030	280	150	ug/l	
	C9- C10 Aromatics (Unadj.)	1150	100	50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	BFB	117%		70-130%
460-00-4	BFB	126%		70-130%

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:	USTLCH4015-MW01	Date Sampled:	11/22/04
Lab Sample ID:	F28405-2	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	MADEP-EPH-98-1 SW846 3510C		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF15658.D	1	12/09/04	AA	12/01/04	OP11968	GZF721
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	2.0 ml
Run #2		

MAEPH List

CAS No.	Compound	Result	RL	MDL	Units	Q
	C11-C22 Aromatics (Unadj.)	296	190	140	ug/l	
	C9-C18 Aliphatics	195	190	190	ug/l	
	C19-C36 Aliphatics	ND	190	190	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
3386-33-2	1-Chlorooctadecane	43%		40-140%
580-13-2	2-Bromonaphthalene	75%		40-140%
84-15-1	o-Terphenyl	78%		40-140%
321-60-8	2-Fluorobiphenyl	78%		40-140%

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:	USTLCH4015-MW01	Date Sampled:	11/22/04
Lab Sample ID:	F28405-2	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	IJ21389.D	1	11/30/04	AA	11/29/04	OP11942	GIJ1053
Run #2 ^a	IJ21403.D	4	11/30/04	AA	11/29/04	OP11942	GIJ1053

	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
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	88.1 ^b	19	7.7	ug/l	
90-12-0	1-Methylnaphthalene	17.3	4.8	1.9	ug/l	
91-57-6	2-Methylnaphthalene	25.7	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%	87%	42-123%
84-15-1	o-Terphenyl	77%	79%	51-123%

(a) All hits confirmed by dual column analysis.

(b) Result is from Run# 2

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:	USTLCH4015-MW01	Date Sampled:	11/22/04
Lab Sample ID:	F28405-2	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-LCH 4015		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	< 5.0	5.0	ug/l	1	11/24/04	11/30/04 SM	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA4109
(2) Prep QC Batch: MP7451

RL = Reporting Limit

Report of Analysis

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Client Sample ID:	USTLCH4015-MW02	Date Sampled:	11/22/04
Lab Sample ID:	F28405-3	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	QQ000301.D	1	12/03/04	CV	n/a	n/a	GQQ13
Run #2	QQ000323.D	2	12/03/04	CV	n/a	n/a	GQQ14

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

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	84.6	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	3.0	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene ^b	ND	20	20	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	64.0	1.0	0.50	ug/l	
1634-04-4	Methyl Tert Butyl Ether	8.3	1.0	0.50	ug/l	
108-88-3	Toluene	6.7	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	220 ^c	6.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	106%	100%	70-123%
98-08-8	aaa-Trifluorotoluene	106%	105%	73-122%

(a) All hits confirmed by dual column analysis.

(b) Elevated reporting limits due to matrix interference.

(c) Result is from Run# 2

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:	USTLCH4015-MW02	Date Sampled:	11/22/04
Lab Sample ID:	F28405-3	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	MADEP VPH		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	UV015480.D	1	12/03/04	AJ	n/a	n/a	GUV909
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

MADEP VPH List

CAS No.	Compound	Result	RL	MDL	Units	Q
	C5- C8 Aliphatics (Unadj.)	487	75	50	ug/l	
	C9- C12 Aliphatics (Unadj.)	363	55	30	ug/l	
	C9- C10 Aromatics (Unadj.)	222	20	10	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	BFB	92%		70-130%
460-00-4	BFB	97%		70-130%

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:	USTLCH4015-MW02	Date Sampled:	11/22/04
Lab Sample ID:	F28405-3	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	MADEP-EPH-98-1 SW846 3510C		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF15659.D	1	12/09/04	AA	12/01/04	OP11968	GZF721
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	2.0 ml
Run #2		

MAEPH List

CAS No.	Compound	Result	RL	MDL	Units	Q
	C11-C22 Aromatics (Unadj.)	197	190	140	ug/l	
	C9-C18 Aliphatics	ND	190	190	ug/l	
	C19-C36 Aliphatics	ND	190	190	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
3386-33-2	1-Chlorooctadecane	52%		40-140%
580-13-2	2-Bromonaphthalene	76%		40-140%
84-15-1	o-Terphenyl	83%		40-140%
321-60-8	2-Fluorobiphenyl	79%		40-140%

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:	USTLCH4015-MW02	Date Sampled:	11/22/04
Lab Sample ID:	F28405-3	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	IJ21390.D	1	11/30/04	AA	11/29/04	OP11942	GIJ1053
Run #2	IJ21404.D	4	11/30/04	AA	11/29/04	OP11942	GIJ1053

	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
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	94.5 ^b	19	7.7	ug/l	
90-12-0	1-Methylnaphthalene	7.6	4.8	1.9	ug/l	
91-57-6	2-Methylnaphthalene	5.2	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	90%	76%	42-123%
84-15-1	o-Terphenyl	87%	87%	51-123%

(a) All hits confirmed by dual column analysis.

(b) Result is from Run# 2

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:	USTLCH4015-MW02	Date Sampled:	11/22/04
Lab Sample ID:	F28405-3	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-LCH 4015		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	< 5.0	5.0	ug/l	1	11/24/04	11/30/04 SM	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA4109
(2) Prep QC Batch: MP7451

RL = Reporting Limit

Report of Analysis

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Client Sample ID:	USTLCH4015-DUP	Date Sampled:	11/22/04
Lab Sample ID:	F28405-4	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	QQ000322.D	1	12/03/04	CV	n/a	n/a	GQQ14
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.61	1.0	0.50	ug/l	J
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene ^b	ND	10	10	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	97%		70-123%
98-08-8	aaa-Trifluorotoluene	108%		73-122%

(a) All hits confirmed by dual column analysis.

(b) Elevated reporting 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

Page 1 of 1

Client Sample ID:	USTLCH4015-DUP	Date Sampled:	11/22/04
Lab Sample ID:	F28405-4	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	MADEP VPH		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	UV015481.D	1	12/03/04	AJ	n/a	n/a	GUV909
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

MADEP VPH List

CAS No.	Compound	Result	RL	MDL	Units	Q
	C5- C8 Aliphatics (Unadj.)	55.0	75	50	ug/l	J
	C9- C12 Aliphatics (Unadj.)	131	55	30	ug/l	
	C9- C10 Aromatics (Unadj.)	106	20	10	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	BFB	88%		70-130%
460-00-4	BFB	94%		70-130%

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:	USTLCH4015-DUP	Date Sampled:	11/22/04
Lab Sample ID:	F28405-4	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	MADEP-EPH-98-1 SW846 3510C		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF15660.D	1	12/09/04	AA	12/01/04	OP11968	GZF721
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	2.0 ml
Run #2		

MAEPH List

CAS No.	Compound	Result	RL	MDL	Units	Q
	C11-C22 Aromatics (Unadj.)	154	190	140	ug/l	J
	C9-C18 Aliphatics	ND	190	190	ug/l	
	C19-C36 Aliphatics	ND	190	190	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
3386-33-2	1-Chlorooctadecane	48%		40-140%
580-13-2	2-Bromonaphthalene	64%		40-140%
84-15-1	o-Terphenyl	88%		40-140%
321-60-8	2-Fluorobiphenyl	82%		40-140%

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:	USTLCH4015-DUP	Date Sampled:	11/22/04
Lab Sample ID:	F28405-4	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	IJ21394.D	1	11/30/04	AA	11/29/04	OP11942	GIJ1053
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	2.1	4.8	1.9	ug/l	J
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	76%		42-123%
84-15-1	o-Terphenyl	83%		51-123%

(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:	USTLCH4015-DUP	Date Sampled:	11/22/04
Lab Sample ID:	F28405-4	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-LCH 4015		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	< 5.0	5.0	ug/l	1	11/24/04	11/30/04 SM	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA4109
(2) Prep QC Batch: MP7451

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	USTLCH4015-MW20	Date Sampled:	11/22/04
Lab Sample ID:	F28405-5	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QQ000302.D	1	12/03/04	CV	n/a	n/a	GQQ13
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	95%		70-123%
98-08-8	aaa-Trifluorotoluene	108%		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:	USTLCH4015-MW20	Date Sampled:	11/22/04
Lab Sample ID:	F28405-5	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	MADEP VPH		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	UV015482.D	1	12/03/04	AJ	n/a	n/a	GUV909
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

MADEP VPH List

CAS No.	Compound	Result	RL	MDL	Units	Q
	C5- C8 Aliphatics (Unadj.)	ND	75	50	ug/l	
	C9- C12 Aliphatics (Unadj.)	ND	55	30	ug/l	
	C9- C10 Aromatics (Unadj.)	ND	20	10	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	BFB	87%		70-130%
460-00-4	BFB	91%		70-130%

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:	USTLCH4015-MW20	Date Sampled:	11/22/04
Lab Sample ID:	F28405-5	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	MADEP-EPH-98-1 SW846 3510C		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF15661.D	1	12/09/04	AA	12/01/04	OP11968	GZF721
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	2.0 ml
Run #2		

MAEPH List

CAS No.	Compound	Result	RL	MDL	Units	Q
	C11-C22 Aromatics (Unadj.)	143	190	140	ug/l	J
	C9-C18 Aliphatics	ND	190	190	ug/l	
	C19-C36 Aliphatics	ND	190	190	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
3386-33-2	1-Chlorooctadecane	53%		40-140%
580-13-2	2-Bromonaphthalene	64%		40-140%
84-15-1	o-Terphenyl	81%		40-140%
321-60-8	2-Fluorobiphenyl	69%		40-140%

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:	USTLCH4015-MW20	Date Sampled:	11/22/04
Lab Sample ID:	F28405-5	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	IJ21395.D	1	11/30/04	AA	11/29/04	OP11942	GIJ1053
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	14.9	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	75%		51-123%

(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:	USTLCH4015-MW20	Date Sampled:	11/22/04
Lab Sample ID:	F28405-5	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-LCH 4015		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	7.7	5.0	ug/l	1	11/24/04	11/30/04 SM	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA4109
(2) Prep QC Batch: MP7451

RL = Reporting Limit

Report of Analysis

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Client Sample ID:	USTLCH4015-MW22	Date Sampled:	11/22/04
Lab Sample ID:	F28405-6	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QQ000303.D	1	12/03/04	CV	n/a	n/a	GQQ13
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	95%		70-123%
98-08-8	aaa-Trifluorotoluene	106%		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:	USTLCH4015-MW22	Date Sampled:	11/22/04
Lab Sample ID:	F28405-6	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	MADEP VPH		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	UV015483.D	1	12/03/04	AJ	n/a	n/a	GUV909
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

MADEP VPH List

CAS No.	Compound	Result	RL	MDL	Units	Q
	C5- C8 Aliphatics (Unadj.)	ND	75	50	ug/l	
	C9- C12 Aliphatics (Unadj.)	ND	55	30	ug/l	
	C9- C10 Aromatics (Unadj.)	ND	20	10	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	BFB	88%		70-130%
460-00-4	BFB	91%		70-130%

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:	USTLCH4015-MW22	Date Sampled:	11/22/04
Lab Sample ID:	F28405-6	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	MADEP-EPH-98-1 SW846 3510C		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF15664.D	1	12/10/04	AA	12/01/04	OP11968	GZF721
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	2.0 ml
Run #2		

MAEPH List

CAS No.	Compound	Result	RL	MDL	Units	Q
	C11-C22 Aromatics (Unadj.)	ND	190	140	ug/l	
	C9-C18 Aliphatics	ND	190	190	ug/l	
	C19-C36 Aliphatics	ND	190	190	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
3386-33-2	1-Chlorooctadecane	53%		40-140%
580-13-2	2-Bromonaphthalene	75%		40-140%
84-15-1	o-Terphenyl	90%		40-140%
321-60-8	2-Fluorobiphenyl	81%		40-140%

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:	USTLCH4015-MW22	Date Sampled:	11/22/04
Lab Sample ID:	F28405-6	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ21396.D	1	11/30/04	AA	11/29/04	OP11942	GIJ1053
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	62%		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

Client Sample ID:	USTLCH4015-MW22	Date Sampled:	11/22/04
Lab Sample ID:	F28405-6	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-LCH 4015		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	< 5.0	5.0	ug/l	1	11/24/04	11/30/04 SM	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA4109
(2) Prep QC Batch: MP7451

RL = Reporting Limit

Report of Analysis

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Client Sample ID:	USTLCH4015-MW13	Date Sampled:	11/23/04
Lab Sample ID:	F28405-7	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QQ000304.D	1	12/03/04	CV	n/a	n/a	GQQ13
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	96%		70-123%
98-08-8	aaa-Trifluorotoluene	106%		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:	USTLCH4015-MW13	Date Sampled:	11/23/04
Lab Sample ID:	F28405-7	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	MADEP VPH		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	UV015484.D	1	12/03/04	AJ	n/a	n/a	GUV909
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

MADEP VPH List

CAS No.	Compound	Result	RL	MDL	Units	Q
	C5- C8 Aliphatics (Unadj.)	ND	75	50	ug/l	
	C9- C12 Aliphatics (Unadj.)	ND	55	30	ug/l	
	C9- C10 Aromatics (Unadj.)	ND	20	10	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	BFB	79%		70-130%
460-00-4	BFB	82%		70-130%

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:	USTLCH4015-MW13	Date Sampled:	11/23/04
Lab Sample ID:	F28405-7	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	MADEP-EPH-98-1 SW846 3510C		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF15666.D	1	12/10/04	AA	12/01/04	OP11968	GZF721
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	2.0 ml
Run #2		

MAEPH List

CAS No.	Compound	Result	RL	MDL	Units	Q
	C11-C22 Aromatics (Unadj.)	ND	190	140	ug/l	
	C9-C18 Aliphatics	ND	190	190	ug/l	
	C19-C36 Aliphatics	ND	190	190	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
3386-33-2	1-Chlorooctadecane	54%		40-140%
580-13-2	2-Bromonaphthalene	85%		40-140%
84-15-1	o-Terphenyl	88%		40-140%
321-60-8	2-Fluorobiphenyl	97%		40-140%

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:	USTLCH4015-MW13	Date Sampled:	11/23/04
Lab Sample ID:	F28405-7	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ21397.D	1	11/30/04	AA	11/29/04	OP11942	GIJ1053
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	67%		42-123%
84-15-1	o-Terphenyl	78%		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:	USTLCH4015-MW13	Date Sampled:	11/23/04
Lab Sample ID:	F28405-7	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-LCH 4015		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	< 5.0	5.0	ug/l	1	11/24/04	11/30/04 SM	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA4109
(2) Prep QC Batch: MP7451

RL = Reporting Limit

Report of Analysis

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Client Sample ID:	USTLCH4015-MW23	Date Sampled:	11/23/04
Lab Sample ID:	F28405-8	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	QQ000305.D	1	12/03/04	CV	n/a	n/a	GQQ13
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	73.9	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	1.3	1.0	0.50	ug/l	
1634-04-4	Methyl Tert Butyl Ether	34.3	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	1.3	3.0	1.0	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	96%		70-123%
98-08-8	aaa-Trifluorotoluene	107%		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:	USTLCH4015-MW23	Date Sampled:	11/23/04
Lab Sample ID:	F28405-8	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	MADEP VPH		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	UV015485.D	1	12/03/04	AJ	n/a	n/a	GUV909
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

MADEP VPH List

CAS No.	Compound	Result	RL	MDL	Units	Q
	C5- C8 Aliphatics (Unadj.)	149	75	50	ug/l	
	C9- C12 Aliphatics (Unadj.)	ND	55	30	ug/l	
	C9- C10 Aromatics (Unadj.)	ND	20	10	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	BFB	81%		70-130%
460-00-4	BFB	85%		70-130%

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:	USTLCH4015-MW23	Date Sampled:	11/23/04
Lab Sample ID:	F28405-8	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	MADEP-EPH-98-1 SW846 3510C		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF15667.D	1	12/10/04	AA	12/01/04	OP11968	GZF721
Run #2 ^a	ZF15681.D	1	12/11/04	ME	12/01/04	OP11968	GZF723

	Initial Volume	Final Volume
Run #1	1050 ml	2.0 ml
Run #2	1050 ml	2.0 ml

MAEPH List

CAS No.	Compound	Result	RL	MDL	Units	Q
	C11-C22 Aromatics (Unadj.)	ND	190	140	ug/l	
	C9-C18 Aliphatics	ND	190	190	ug/l	
	C19-C36 Aliphatics	ND	190	190	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
3386-33-2	1-Chlorooctadecane	34% ^b	35%	40-140%
580-13-2	2-Bromonaphthalene	81%	80%	40-140%
84-15-1	o-Terphenyl	68%	57%	40-140%
321-60-8	2-Fluorobiphenyl	82%	72%	40-140%

(a) Confirmation run.

(b) Confirmed by refractionation and reanalysis.

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:	USTLCH4015-MW23	Date Sampled:	11/23/04
Lab Sample ID:	F28405-8	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ21398.D	1	11/30/04	AA	11/29/04	OP11942	GIJ1053
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	63%		42-123%
84-15-1	o-Terphenyl	70%		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:	USTLCH4015-MW23	Date Sampled:	11/23/04
Lab Sample ID:	F28405-8	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-LCH 4015		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead ^a	< 50	50	ug/l	1	11/24/04	11/30/04 SM	SW846 6010B ¹	SM 3030C ²

- (1) Instrument QC Batch: MA4109
- (2) Prep QC Batch: MP7451

(a) Elevated reporting limits due to matrix interference.

RL = Reporting Limit

Report of Analysis

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Client Sample ID:	USTLCH4015-MW21	Date Sampled:	11/23/04
Lab Sample ID:	F28405-9	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	QQ000306.D	1	12/03/04	CV	n/a	n/a	GQQ13
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	20.8	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	5.2	1.0	0.50	ug/l	
1634-04-4	Methyl Tert Butyl Ether	21.3	1.0	0.50	ug/l	
108-88-3	Toluene	2.0	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	2.7	3.0	1.0	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	95%		70-123%
98-08-8	aaa-Trifluorotoluene	106%		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:	USTLCH4015-MW21	Date Sampled:	11/23/04
Lab Sample ID:	F28405-9	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	MADEP VPH		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	UV015487.D	1	12/03/04	AJ	n/a	n/a	GUV909
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

MADEP VPH List

CAS No.	Compound	Result	RL	MDL	Units	Q
	C5- C8 Aliphatics (Unadj.)	ND	75	50	ug/l	
	C9- C12 Aliphatics (Unadj.)	119	55	30	ug/l	
	C9- C10 Aromatics (Unadj.)	95.8	20	10	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	BFB	87%		70-130%
460-00-4	BFB	95%		70-130%

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:	USTLCH4015-MW21	Date Sampled:	11/23/04
Lab Sample ID:	F28405-9	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	MADEP-EPH-98-1 SW846 3510C		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF15668.D	1	12/10/04	AA	12/01/04	OP11968	GZF721
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	2.0 ml
Run #2		

MAEPH List

CAS No.	Compound	Result	RL	MDL	Units	Q
	C11-C22 Aromatics (Unadj.)	ND	190	140	ug/l	
	C9-C18 Aliphatics	ND	190	190	ug/l	
	C19-C36 Aliphatics	ND	190	190	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
3386-33-2	1-Chlorooctadecane	51%		40-140%
580-13-2	2-Bromonaphthalene	70%		40-140%
84-15-1	o-Terphenyl	80%		40-140%
321-60-8	2-Fluorobiphenyl	77%		40-140%

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:	USTLCH4015-MW21	Date Sampled:	11/23/04
Lab Sample ID:	F28405-9	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	IJ21399.D	1	11/30/04	AA	11/29/04	OP11942	GIJ1053
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	15.3	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	80%		51-123%

(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:	USTLCH4015-MW21	Date Sampled:	11/23/04
Lab Sample ID:	F28405-9	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-LCH 4015		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead ^a	< 40	40	ug/l	1	11/24/04	11/30/04 SM	SW846 6010B ¹	SM 3030C ²

- (1) Instrument QC Batch: MA4109
(2) Prep QC Batch: MP7451

(a) Elevated reporting limits due to matrix interference.

RL = Reporting Limit

Report of Analysis

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Client Sample ID:	USTLCH4015-MW19	Date Sampled:	11/23/04
Lab Sample ID:	F28405-10	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QQ000297.D	1	12/02/04	CV	n/a	n/a	GQQ13
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	94%		70-123%
98-08-8	aaa-Trifluorotoluene	108%		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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3.10

3

Client Sample ID:	USTLCH4015-MW19	Date Sampled:	11/23/04
Lab Sample ID:	F28405-10	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	MADEP VPH		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	UV015488.D	1	12/03/04	AJ	n/a	n/a	GUV909
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

MADEP VPH List

CAS No.	Compound	Result	RL	MDL	Units	Q
	C5- C8 Aliphatics (Unadj.)	ND	75	50	ug/l	
	C9- C12 Aliphatics (Unadj.)	ND	55	30	ug/l	
	C9- C10 Aromatics (Unadj.)	ND	20	10	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	BFB	80%		70-130%
460-00-4	BFB	84%		70-130%

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:	USTLCH4015-MW19	Date Sampled:	11/23/04
Lab Sample ID:	F28405-10	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	MADEP-EPH-98-1 SW846 3510C		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF15669.D	1	12/10/04	AA	12/01/04	OP11968	GZF721
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	2.0 ml
Run #2		

MAEPH List

CAS No.	Compound	Result	RL	MDL	Units	Q
	C11-C22 Aromatics (Unadj.)	ND	190	140	ug/l	
	C9-C18 Aliphatics	ND	190	190	ug/l	
	C19-C36 Aliphatics	ND	190	190	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
3386-33-2	1-Chlorooctadecane	56%		40-140%
580-13-2	2-Bromonaphthalene	45%		40-140%
84-15-1	o-Terphenyl	64%		40-140%
321-60-8	2-Fluorobiphenyl	67%		40-140%

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:	USTLCH4015-MW19	Date Sampled:	11/23/04
Lab Sample ID:	F28405-10	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IJ21400.D	1	11/30/04	AA	11/29/04	OP11942	GIJ1053
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	74%		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

Client Sample ID:	USTLCH4015-MW19	Date Sampled:	11/23/04
Lab Sample ID:	F28405-10	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-LCH 4015		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	< 5.0	5.0	ug/l	1	11/24/04	11/30/04 SM	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA4109
(2) Prep QC Batch: MP7451

RL = Reporting Limit

Report of Analysis

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Client Sample ID:	USTLCH4015-MW18	Date Sampled:	11/23/04
Lab Sample ID:	F28405-11	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	QQ000309.D	1	12/03/04	CV	n/a	n/a	GQQ13
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene ^b	ND	5.0	5.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	0.51	1.0	0.50	ug/l	J
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	94%		70-123%
98-08-8	aaa-Trifluorotoluene	107%		73-122%

(a) All hits confirmed by dual column analysis.

(b) Elevated reporting 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

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3.11
3

Client Sample ID:	USTLCH4015-MW18	Date Sampled:	11/23/04
Lab Sample ID:	F28405-11	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	MADEP VPH		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	UV015489.D	1	12/03/04	AJ	n/a	n/a	GUV909
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

MADEP VPH List

CAS No.	Compound	Result	RL	MDL	Units	Q
	C5- C8 Aliphatics (Unadj.)	ND	75	50	ug/l	
	C9- C12 Aliphatics (Unadj.)	68.4	55	30	ug/l	
	C9- C10 Aromatics (Unadj.)	40.9	20	10	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	BFB	85%		70-130%
460-00-4	BFB	88%		70-130%

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:	USTLCH4015-MW18	Date Sampled:	11/23/04
Lab Sample ID:	F28405-11	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	MADEP-EPH-98-1 SW846 3510C		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	ZF15671.D	1	12/10/04	AA	12/01/04	OP11968	GZF721
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	2.0 ml
Run #2		

MAEPH List

CAS No.	Compound	Result	RL	MDL	Units	Q
	C11-C22 Aromatics (Unadj.)	312	190	140	ug/l	
	C9-C18 Aliphatics	ND	190	190	ug/l	
	C19-C36 Aliphatics	ND	190	190	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
3386-33-2	1-Chlorooctadecane	42%		40-140%
580-13-2	2-Bromonaphthalene	65%		40-140%
84-15-1	o-Terphenyl	86%		40-140%
321-60-8	2-Fluorobiphenyl	82%		40-140%

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:	USTLCH4015-MW18	Date Sampled:	11/23/04
Lab Sample ID:	F28405-11	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 610 EPA 610		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	IJ21401.D	1	11/30/04	AA	11/29/04	OP11942	GIJ1053
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	5.8	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	78%		51-123%

(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:	USTLCH4015-MW18	Date Sampled:	11/23/04
Lab Sample ID:	F28405-11	Date Received:	11/24/04
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-LCH 4015		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	< 5.0	5.0	ug/l	1	11/24/04	11/30/04 SM	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA4109
(2) Prep QC Batch: MP7451

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	TRIP BLANK	Date Sampled:	11/23/04
Lab Sample ID:	F28405-12	Date Received:	11/24/04
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QQ000295.D	1	12/02/04	CV	n/a	n/a	GQQ13
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	Run# 1	Run# 2	Limits
352-33-0	1-Chloro-4-fluorobenzene	95%		70-123%
98-08-8	aaa-Trifluorotoluene	107%		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 Inc. NAME 824 Gunbarrel rd Suite 5 ADDRESS Jacksonville NC 29540 CITY, STATE ZIP SEND REPORT TO: PHONE # 910-989-3214		LLH 4015 PROJECT NAME Camp Lejeune LOCATION PROJECT NO. FAX # 910-989-3341		626 626 EPH VPH PB 30300		DW - DRINKING WATER GW - GROUND WATER WW - WASTE WATER SO - SOIL SL - SLUDGE OI - OIL LKI - OTHER LIQUID SGL - OTHER SOLID	
ACCUTEST SAMPLE #	FIELD ID / POINT OF COLLECTION	DATE	TIME	SAMPLED BY:	MATRIX	# OF BOTTLES	PRESERVATION
1	USTLCH 4015 - MW03	11-22-04	14:15	BS	GW	11	X X X X
2	USTLCH 4015 - MW01	11-22-04	14:50	BS	GW	11	X X X X
3	USTLCH 4015 - MW02	11-22-04	16:05	BS	GW	11	X X X X
4	USTLCH 4015 - Dup	11-22-04	-	BS	GW	11	X X X X
5	USTLCH 4015 - MW20	11-22-04	16:45	BS	GW	11	X X X X
6	USTLCH 4015 - MW22	11-22-04	17:05	BS	GW	11	X X X X
7	USTLCH 4015 - MW13	11-23-04	8:20	BS	GW	11	X X X X
8	USTLCH 4015 - MW23	11-23-04	9:15	BS	GW	11	X X X X
9	USTLCH 4015 - MW21	11-23-04	10:10	BS	GW	11	X X X X
10	USTLCH 4015 - MW19	11-23-04	10:55	BS	GW	11	X X X X
11	USTLCH 4015 - MW18	11-23-04	11:35	BS	GW	11	X X X X
12	Trip Blank	11-23-04	14:00				
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) NOCS 4					
Bob Sellers SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING CARRIER DELIVERY							
RELINQUISHED BY: 1. Bob Sellers	DATE TIME: 11-23-04 14:00	RECEIVED BY: 1. FX	DATE TIME: 11-23-04 09:30	RELINQUISHED BY: 2. FX	DATE TIME: 11-23-04 09:30	RECEIVED BY: 2. FX	
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			
				1.8 7.8 6.8 1.8 1.0 C			

F28405: Chain of Custody

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ACCUTEST LABORATORIES SOUTHEAST SAMPLE RECEIPT CONFIRMATION

Acctest's Job Number:

F28405Client: Engineering + EnvironmentLEH 4015Date Received: 11/24/04 Time Received: 09:30# of Coolers Received: 5 Cooler Temperatures: 1.8 1.8 1.8 1.8 1.0Delivery Method: FedEx UPS Acctest Courier Greyhound Delivery Other

Air Bill Number:

Cooler Custody Seals Intact?

Chain of Custody Provided?

COC Match Bottle Label IDs?

Sample Labels Present on all bottles?

All Analyses Marked On COC?

Are All Bottles Intact?

Samples Preserved Correctly?

Correct Number of Containers Used?

Sufficient Sample Volume?

Trip Blank Provided?

Trip Blank on COC?

Trip Blank Intact?

Trip Blank Matrix?

Number of Encores?

Number of Soil Field Kits?

Summary of Comments:

FOR sample #8 received 1 Broken Vph via
457 664 4015 - m.w.13 11/24/04 915

Signature:

Review Signature:

Date: 11/24/04

ASBD/HW 05/11/03

F28405: Chain of Custody

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GC Volatiles

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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: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GQQ13-MB	QQ000294.D	1	12/02/04	CV	n/a	n/a	GQQ13

The QC reported here applies to the following samples:

Method: EPA 601/602

F28405-1, F28405-2, F28405-3, F28405-5, F28405-6, F28405-7, F28405-8, F28405-9, F28405-10, F28405-11, F28405-12

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	94% 70-123%
98-08-8	aaa-Trifluorotoluene	107% 73-122%

Method Blank Summary

Page 1 of 1

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GQQ14-MB	QQ000319.D	1	12/03/04	CV	n/a	n/a	GQQ14

The QC reported here applies to the following samples:

Method: EPA 601/602

F28405-3, F28405-4

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	95% 70-123%
98-08-8	aaa-Trifluorotoluene	107% 73-122%

Method Blank Summary

Page 1 of 1

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GUV909-MB	UV015477.D1		12/03/04	AJ	n/a	n/a	GUV909

The QC reported here applies to the following samples:

Method: MADEP VPH

F28405-1, F28405-2, F28405-3, F28405-4, F28405-5, F28405-6, F28405-7, F28405-8, F28405-9, F28405-10, F28405-11

CAS No.	Compound	Result	RL	MDL	Units	Q
	C5- C8 Aliphatics (Unadj.)	ND	75	50	ug/l	
	C9- C12 Aliphatics (Unadj.)	ND	55	30	ug/l	
	C9- C10 Aromatics (Unadj.)	ND	20	10	ug/l	

CAS No.	Surrogate Recoveries	Limits
460-00-4	BFB	86% 70-130%
460-00-4	BFB	90% 70-130%

Blank Spike Summary

Page 1 of 1

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GQQ13-BS	QQ000293.D	1	12/02/04	CV	n/a	n/a	GQQ13

The QC reported here applies to the following samples:

Method: EPA 601/602

F28405-1, F28405-2, F28405-3, F28405-5, F28405-6, F28405-7, F28405-8, F28405-9, F28405-10, F28405-11, F28405-12

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	19.6	98	86-121
108-90-7	Chlorobenzene	20	18.8	94	81-119
95-50-1	1,2-Dichlorobenzene	20	17.9	90	75-120
541-73-1	1,3-Dichlorobenzene	20	18.0	90	77-121
106-46-7	1,4-Dichlorobenzene	20	18.1	91	75-122
100-41-4	Ethylbenzene	20	19.5	98	81-126
1634-04-4	Methyl Tert Butyl Ether	20	18.3	92	76-117
108-88-3	Toluene	20	19.1	96	82-123
1330-20-7	Xylenes (total)	60	57.3	96	82-125

CAS No.	Surrogate Recoveries	BSP	Limits
352-33-0	1-Chloro-4-fluorobenzene	99%	70-123%
98-08-8	aaa-Trifluorotoluene	107%	73-122%

Blank Spike Summary

Page 1 of 1

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GQQ14-BS	QQ000318.D	1	12/03/04	CV	n/a	n/a	GQQ14

The QC reported here applies to the following samples:

Method: EPA 601/602

F28405-3, F28405-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	20.7	104	86-121
108-90-7	Chlorobenzene	20	20.2	101	81-119
95-50-1	1,2-Dichlorobenzene	20	19.4	97	75-120
541-73-1	1,3-Dichlorobenzene	20	19.5	98	77-121
106-46-7	1,4-Dichlorobenzene	20	19.6	98	75-122
100-41-4	Ethylbenzene	20	20.9	105	81-126
1634-04-4	Methyl Tert Butyl Ether	20	22.3	112	76-117
108-88-3	Toluene	20	20.4	102	82-123
1330-20-7	Xylenes (total)	60	61.3	102	82-125

CAS No.	Surrogate Recoveries	BSP	Limits
352-33-0	1-Chloro-4-fluorobenzene	101%	70-123%
98-08-8	aaa-Trifluorotoluene	108%	73-122%

Blank Spike Summary

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GUV909-BS	UV015476.D1		12/03/04	AJ	n/a	n/a	GUV909

The QC reported here applies to the following samples: Method: MADEP VPH

F28405-1, F28405-2, F28405-3, F28405-4, F28405-5, F28405-6, F28405-7, F28405-8, F28405-9, F28405-10, F28405-11

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
	C5- C8 Aliphatics (Unadj.)	480	551	115	70-130
	C9- C12 Aliphatics (Unadj.)	480	505	105	70-130
	C9- C10 Aromatics (Unadj.)	80	83.3	104	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	BFB	100%	70-130%
460-00-4	BFB	103%	70-130%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F28405-10MS	QQ000298.D 1		12/03/04	CV	n/a	n/a	GQQ13
F28405-10MSD	QQ000299.D 1		12/03/04	CV	n/a	n/a	GQQ13
F28405-10	QQ000297.D 1		12/02/04	CV	n/a	n/a	GQQ13

The QC reported here applies to the following samples: Method: EPA 601/602

F28405-1, F28405-2, F28405-3, F28405-5, F28405-6, F28405-7, F28405-8, F28405-9, F28405-10, F28405-11, F28405-12

CAS No.	Compound	F28405-10 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	20	20.0	100	20.0	100	0	77-125/6
108-90-7	Chlorobenzene	ND	20	19.5	98	19.4	97	1	78-120/8
95-50-1	1,2-Dichlorobenzene	ND	20	18.5	93	18.6	93	1	69-125/7
541-73-1	1,3-Dichlorobenzene	ND	20	18.8	94	18.7	94	1	71-126/7
106-46-7	1,4-Dichlorobenzene	ND	20	18.7	94	18.8	94	1	67-129/7
100-41-4	Ethylbenzene	ND	20	20.4	102	20.4	102	0	74-127/6
1634-04-4	Methyl Tert Butyl Ether	ND	20	18.0	90	18.1	91	1	66-127/9
108-88-3	Toluene	ND	20	19.9	100	20.0	100	1	77-124/5
1330-20-7	Xylenes (total)	ND	60	59.6	99	59.4	99	0	76-125/5

CAS No.	Surrogate Recoveries	MS	MSD	F28405-10	Limits
352-33-0	1-Chloro-4-fluorobenzene	104%	99%	94%	70-123%
98-08-8	aaa-Trifluorotoluene	113%	107%	108%	73-122%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F28405-4MS	QQ000324.D 1		12/03/04	CV	n/a	n/a	GQQ14
F28405-4MSD	QQ000325.D 1		12/03/04	CV	n/a	n/a	GQQ14
F28405-4 ^a	QQ000322.D 1		12/03/04	CV	n/a	n/a	GQQ14

The QC reported here applies to the following samples:

Method: EPA 601/602

F28405-3, F28405-4

CAS No.	Compound	F28405-4 ug/l	Spike Q	ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	0.61	J	20	21.1	102	20.4	99	3	77-125/6
108-90-7	Chlorobenzene	ND		20	20.1	101	19.6	98	3	78-120/8
95-50-1	1,2-Dichlorobenzene	ND		20	25.4	127*	24.9	125	2	69-125/7
541-73-1	1,3-Dichlorobenzene	ND		20	19.7	99	19.2	96	3	71-126/7
106-46-7	1,4-Dichlorobenzene	ND		20	19.8	99	19.3	97	3	67-129/7
100-41-4	Ethylbenzene	ND		20	21.6	108	20.9	105	3	74-127/6
1634-04-4	Methyl Tert Butyl Ether	ND		20	19.9	100	21.3	107	7	66-127/9
108-88-3	Toluene	ND		20	20.6	103	20.0	100	3	77-124/5
1330-20-7	Xylenes (total)	ND		60	62.0	103	60.2	100	3	76-125/5

CAS No.	Surrogate Recoveries	MS	MSD	F28405-4	Limits
352-33-0	1-Chloro-4-fluorobenzene	102%	101%	97%	70-123%
98-08-8	aaa-Trifluorotoluene	110%	109%	108%	73-122%

(a) All hits confirmed by dual column analysis.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F28405-1MS	UV015491.D 1		12/03/04	AJ	n/a	n/a	GUV909
F28405-1MSD	UV015492.D 1		12/03/04	AJ	n/a	n/a	GUV909
F28405-1	UV015478.D 1		12/03/04	AJ	n/a	n/a	GUV909

The QC reported here applies to the following samples: Method: MADEP VPH

F28405-1, F28405-2, F28405-3, F28405-4, F28405-5, F28405-6, F28405-7, F28405-8, F28405-9, F28405-10, F28405-11

CAS No.	Compound	F28405-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
	C5- C8 Aliphatics (Unadj.)	65.7	J	480	730	138*	757	144*	4	70-130/50
	C9- C12 Aliphatics (Unadj.)	129		480	626	104	633	105	1	70-130/50
	C9- C10 Aromatics (Unadj.)	106		80	186	100	189	104	2	70-130/50

CAS No.	Surrogate Recoveries	MS	MSD	F28405-1	Limits
460-00-4	BFB	94%	93%	89%	70-130%
460-00-4	BFB	99%	98%	92%	70-130%

Duplicate Summary

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F28405-1DUP	UV015490.D1		12/03/04	AJ	n/a	n/a	GUV909
F28405-1	UV015478.D1		12/03/04	AJ	n/a	n/a	GUV909

The QC reported here applies to the following samples: Method: MADEP VPH

F28405-1, F28405-2, F28405-3, F28405-4, F28405-5, F28405-6, F28405-7, F28405-8, F28405-9, F28405-10, F28405-11

CAS No.	Compound	F28405-1 ug/l	DUP Q	ug/l	Q	RPD	Limits
	C5- C8 Aliphatics (Unadj.)	65.7	J	ND		200*	
	C9- C12 Aliphatics (Unadj.)	129		119		8	
	C9- C10 Aromatics (Unadj.)	106		93.5		13	

CAS No.	Surrogate Recoveries	DUP	F28405-1	Limits
460-00-4	BFB	80%	89%	70-130%
460-00-4	BFB	85%	92%	70-130%

Volatile Surrogate Recovery Summary

Page 1 of 1

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

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
F28405-1	QQ000300.D	95.0	108.0
F28405-2	QQ000311.D	97.0	106.0
F28405-3	QQ000323.D	100.0	105.0
F28405-3	QQ000301.D	106.0	106.0
F28405-4	QQ000322.D	97.0	108.0
F28405-5	QQ000302.D	95.0	108.0
F28405-6	QQ000303.D	95.0	106.0
F28405-7	QQ000304.D	96.0	106.0
F28405-8	QQ000305.D	96.0	107.0
F28405-9	QQ000306.D	95.0	106.0
F28405-10	QQ000297.D	94.0	108.0
F28405-11	QQ000309.D	94.0	107.0
F28405-12	QQ000295.D	95.0	107.0
F28405-10MS	QQ000298.D	104.0	113.0
F28405-10MSD	QQ000299.D	99.0	107.0
F28405-4MS	QQ000324.D	102.0	110.0
F28405-4MSD	QQ000325.D	101.0	109.0
GQQ13-BS	QQ000293.D	99.0	107.0
GQQ13-MB	QQ000294.D	94.0	107.0
GQQ14-BS	QQ000318.D	101.0	108.0
GQQ14-MB	QQ000319.D	95.0	107.0

Surrogate Compounds **Recovery Limits**

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

(a) Recovery from GC signal #2

Volatile Surrogate Recovery Summary

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Method: MADEP VPH	Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a	S1 ^b
F28405-1	UV015478.D	89.0	92.0
F28405-2	UV015493.D	117.0	126.0
F28405-3	UV015480.D	92.0	97.0
F28405-4	UV015481.D	88.0	94.0
F28405-5	UV015482.D	87.0	91.0
F28405-6	UV015483.D	88.0	91.0
F28405-7	UV015484.D	79.0	82.0
F28405-8	UV015485.D	81.0	85.0
F28405-9	UV015487.D	87.0	95.0
F28405-10	UV015488.D	80.0	84.0
F28405-11	UV015489.D	85.0	88.0
F28405-1DUP	UV015490.D	80.0	85.0
F28405-1MS	UV015491.D	94.0	99.0
F28405-1MSD	UV015492.D	93.0	98.0
GUV909-BS	UV015476.D	100.0	103.0
GUV909-MB	UV015477.D	86.0	90.0

Surrogate Compounds	Recovery Limits
S1 = BFB	70-130%

- (a) Recovery from GC signal #1
- (b) Recovery from GC signal #2

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GQQ13-CC2	Injection Date:	12/02/04
Lab File ID:	QQ000296.D	Injection Time:	23:15
Instrument ID:	GCQQ	Method:	EPA 601/602

S1^a	S2^a
RT	RT

Check Std	8.84	5.04

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
F28405-10	QQ000297.D	12/02/04	23:44	8.84	5.04
F28405-10MS	QQ000298.D	12/03/04	00:12	8.84	5.03
F28405-10MSD	QQ000299.D	12/03/04	00:40	8.84	5.04
F28405-1	QQ000300.D	12/03/04	01:09	8.84	5.04
F28405-3	QQ000301.D	12/03/04	01:37	8.83	5.03
F28405-5	QQ000302.D	12/03/04	02:06	8.84	5.04
F28405-6	QQ000303.D	12/03/04	02:34	8.84	5.03
F28405-7	QQ000304.D	12/03/04	03:02	8.84	5.03
F28405-8	QQ000305.D	12/03/04	03:30	8.83	5.03
F28405-9	QQ000306.D	12/03/04	03:58	8.84	5.04

Surrogate Compounds

S1 = 1-Chloro-4-fluorobenzene

S2 = aaa-Trifluorotoluene

(a) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GQQ13-CC2	Injection Date:	12/03/04
Lab File ID:	QQ000307.D	Injection Time:	04:27
Instrument ID:	GCQQ	Method:	EPA 601/602

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	8.80	8.84	5.05	5.04

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
ZZZZZZ	QQ000308.D	12/03/04	04:55		8.84		5.04
F28405-11	QQ000309.D	12/03/04	05:24		8.84		5.04
F28405-2	QQ000311.D	12/03/04	06:20		8.83		5.03
GQQ13-ECC2	QQ000315.D	12/03/04	08:13	8.80	8.84	5.04	5.03

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: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GQQ14-CC2	Injection Date:	12/03/04
Lab File ID:	QQ000317.D	Injection Time:	11:22
Instrument ID:	GCQQ	Method:	EPA 601/602

S1^a	S2^a
RT	RT

Check Std	8.84	5.04

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
GQQ14-BS	QQ000318.D	12/03/04	11:50	8.84	5.04
GQQ15-BS	QQ000318.D	12/03/04	11:50	8.84	5.04
GQQ14-MB	QQ000319.D	12/03/04	12:18	8.84	5.04
GQQ15-MB	QQ000319.D	12/03/04	12:18	8.84	5.04
ZZZZZZ	QQ000320.D	12/03/04	12:47	8.84	5.04
ZZZZZZ	QQ000321.D	12/03/04	13:15	8.84	5.03
F28405-4	QQ000322.D	12/03/04	13:43	8.83	5.03
F28405-3	QQ000323.D	12/03/04	14:11	8.84	5.03
F28405-4MS	QQ000324.D	12/03/04	14:39	8.84	5.04
F28405-4MSD	QQ000325.D	12/03/04	15:09	8.84	5.04

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: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GUV909-CC908	Injection Date:	12/03/04
Lab File ID:	UV015474.D	Injection Time:	09:37
Instrument ID:	GCUV	Method:	MADEP VPH

S1^a	S1^b
RT	RT

Check Std	19.32	19.33

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT
GUV909-BS	UV015476.D	12/03/04	12:03	19.32	19.32
GUV909-MB	UV015477.D	12/03/04	12:35	19.33	19.33
F28405-1	UV015478.D	12/03/04	14:04	19.32	19.32
F28405-3	UV015480.D	12/03/04	15:08	19.33	19.33
F28405-4	UV015481.D	12/03/04	15:40	19.33	19.33
F28405-5	UV015482.D	12/03/04	16:12	19.33	19.33
F28405-6	UV015483.D	12/03/04	16:44	19.33	19.33
F28405-7	UV015484.D	12/03/04	17:16	19.33	19.33
F28405-8	UV015485.D	12/03/04	17:49	19.33	19.33

Surrogate Compounds

S1 = BFB

(a) Retention time from GC signal #1

(b) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GUV909-CC908	Injection Date:	12/03/04
Lab File ID:	UV015486.D	Injection Time:	18:20
Instrument ID:	GCUV	Method:	MADEP VPH

	S1 ^a RT	S1 ^b RT
Check Std	19.33	19.33

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT
F28405-9	UV015487.D	12/03/04	18:52	19.33	19.33
F28405-10	UV015488.D	12/03/04	19:25	19.33	19.33
F28405-11	UV015489.D	12/03/04	19:57	19.33	19.33
F28405-1DUP	UV015490.D	12/03/04	20:28	19.33	19.33
F28405-1MS	UV015491.D	12/03/04	21:00	19.33	19.33
F28405-1MSD	UV015492.D	12/03/04	21:32	19.33	19.33
F28405-2	UV015493.D	12/03/04	22:04	19.33	19.33
GUV909-ECC2908	UV015494.D	12/03/04	22:36	19.33	19.34

Surrogate
Compounds

S1 = BFB

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

5.6
5

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GQQ12-CC2	Injection Date:	12/02/04
Lab File ID:	QQ000285.D	Injection Time:	18:03
Instrument ID:	GCQQ	Method:	EPA 601/602

S1^a	S2^a
RT	RT

Check Std	8.84	5.04

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
ZZZZZZ	QQ000286.D	12/02/04	18:31	8.84	5.04
ZZZZZZ	QQ000287.D	12/02/04	18:59	8.84	5.04
ZZZZZZ	QQ000288.D	12/02/04	19:28	8.84	5.03
ZZZZZZ	QQ000291.D	12/02/04	20:53	8.84	5.04
ZZZZZZ	QQ000292.D	12/02/04	21:21	8.84	5.04
GQQ13-BS	QQ000293.D	12/02/04	21:50	8.84	5.03
GQQ13-MB	QQ000294.D	12/02/04	22:19	8.84	5.04
F28405-12	QQ000295.D	12/02/04	22:47	8.84	5.04

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: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GQQ2-ICC2
Lab FileID: QQ000012.D

Response Factor Report VOA7

Method : C:\MSDCHEM\2\METHODS\DUAL1123.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Tue Nov 23 15:02:42 2004
Response via : Initial Calibration

Calibration Files

1 =QQ000010.D 5 =QQ000016.D 20 =QQ000012.D 40 =QQ000013.D
70 =QQ000014.D 100 =QQ000015.D

	Compound	1	5	20	40	70	100	Avg	%RSD
1)	Methyl tert Butyl E	2.177	1.775	1.664	1.605	1.583	1.609	1.735	E3 13.09
	---- Linear regr., Force(0,0) ----	Coefficient = 0.9998							
	Response Ratio = 0.00000 + 1602.46207 *A								
2)	Di-Isopropyl ether	2.251	1.979	1.845	1.778	1.769	1.776	1.900	E3 10.00
	---- Linear regr., Force(0,0) ----	Coefficient = 0.9999							
	Response Ratio = 0.00000 + 1775.95163 *A								
3)	Benzene	7.021	7.387	6.492	6.558	6.517	6.419	6.732	E3 5.73
4) S	a,a,a-TFT(S)	1.209	1.182	1.164	1.182	1.165	1.183	1.181	E3 1.38
5)	Toluene	4.808	4.965	4.459	4.485	4.517	4.405	4.606	E3 4.90
6) S	1-Chloro-4-Fluorobe	1.558	1.587	1.600	1.585	1.610	1.590	1.588	E3 1.10
7)	Chlorobenzene	5.516	4.812	4.208	4.251	4.253	4.195	4.539	E3 11.75
	---- Linear regr., Force(0,0) ----	Coefficient = 0.9999							
	Response Ratio = 0.00000 + 4218.09365 *A								
8)	Ethylbenzene	4.034	3.855	3.368	3.394	3.402	3.326	3.563	E3 8.47
9)	m,p-Xylene	3.661	4.125	3.676	3.701	3.710	3.615	3.748	E3 5.00
10)	o-Xylene	3.703	3.986	3.568	3.619	3.635	3.572	3.681	E3 4.28
11)	1,3-Dichlorobenzene	4.752	4.960	4.285	4.389	4.415	4.326	4.521	E3 6.01
12)	1,4-Dichlorobenzene	4.892	4.919	4.397	4.527	4.527	4.491	4.625	E3 4.80
13)	1,2-Dichlorobenzene	4.308	4.156	3.608	3.751	3.807	3.756	3.898	E3 6.97

Signal #2

1)	Methyl tert Butyl E	2.003	1.702	1.597	1.560	1.528	1.557	1.658	E3 10.83
	---- Linear regr., Force(0,0) ----	Coefficient = 0.9998							
	Response Ratio = 0.00000 + 1550.28884 *A								
2)	Di-Isopropyl ether	1.675	1.694	1.617	1.555	1.527	1.574	1.607	E3 4.16
3)	Benzene	6.533	6.888	6.027	6.091	6.079	5.964	6.264	E3 5.85
4) S	a,a,a-TFT(S)	1.107	1.093	1.081	1.090	1.083	1.098	1.092	E3 0.87
5)	Toluene	4.419	4.643	4.150	4.174	4.186	4.112	4.281	E3 4.86
6) S	1-Chloro-4-Fluorobe	1.453	1.509	1.538	1.540	1.682		1.544	E3 5.48
7)	Chlorobenzene		4.800	3.992	3.966	3.986	3.920	4.133	E3 9.05
8)	Ethylbenzene	3.270	3.598	3.165	3.188	3.198	3.132	3.259	E3 5.29
9)	m,p-Xylene	3.586	4.038	3.580	3.585	3.599	3.517	3.651	E3 5.25
10)	o-Xylene	3.234	3.535	3.147	3.185	3.204	3.168	3.245	E3 4.47
11)	1,3-Dichlorobenzene	4.277	4.855	3.976	4.054	4.140	4.077	4.230	E3 7.63
12)	1,4-Dichlorobenzene	4.470	4.799	4.020	4.114	4.191	4.112	4.285	E3 6.89
13)	1,2-Dichlorobenzene	3.968	4.025	3.408	3.482	3.570	3.496	3.658	E3 7.32

(#) = Out of Range

DUAL1123.M

Wed Nov 24 10:26:09 2004

GCHH

Initial Calibration Verification

Page 1 of 2

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GQQ2-ICV2
Lab FileID: QQ000017.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\2\DATA\112304\QQ000017.D\ELC1A.CH Vial: 9
Signal #2 : C:\MSDCHEM\2\DATA\112304\QQ000017.D\ELC2B.CH
Acq On : 11-23-04 03:00:56 PM Operator: ClaireV
Sample : ICV2-20 Inst : VOA7
Misc : gc4255,gqq2,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\2\METHODS\DUAL1123.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Tue Nov 23 15:02:42 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

		Amount	Calc.	%Drift				
1	Methyl tert Butyl EtHe	20.000	19.810	1.0	95	0.00	2.41-	2.61
2	Di-Isopropyl ether	20.000	19.991	0.0	96	0.00	2.77-	2.98

		Amount	Calc.	%Drift				
3	Benzene	20.000	18.511	7.4	96	0.00	3.87-	4.07
4 S	a,a,a-TFT(S)	20.000	19.979	0.1	101	0.00	4.95-	5.15
5	Toluene	20.000	18.285	8.6	94	0.00	6.55-	6.75
6 S	1-Chloro-4-Fluorobenze	20.000	20.033	-0.2	99	0.00	8.65-	8.95

		Amount	Calc.	%Drift				
7	Chlorobenzene	20.000	18.838	5.8	94	0.00	8.88-	9.08

		Amount	Calc.	%Drift				
8	Ethylbenzene	20.000	17.978	10.1	95	0.00	9.41-	9.61
9	m,p-Xylene	40.000	37.057	7.4	94	0.00	9.85-	10.05
10	o-Xylene	20.000	17.850	10.7	92	0.00	10.56-	10.76
11	1,3-Dichlorobenzene	20.000	17.701	11.5	93	0.00	13.23-	13.43
12	1,4-Dichlorobenzene	20.000	17.668	11.7	93	0.00	13.35-	13.55
13	1,2-Dichlorobenzene	20.000	17.575	12.1	95	0.00	13.84-	14.04

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

		Amount	Calc.	%Drift				
1	Methyl tert Butyl EtHe	20.000	19.477	2.6	95	0.00	2.31-	2.50

		Amount	Calc.	%Drift				
2	Di-Isopropyl ether	20.000	19.384	3.1	96	0.00	2.63-	2.83
3	Benzene	20.000	18.285	8.6	95	0.00	3.78-	3.98
4 S	a,a,a-TFT(S)	20.000	19.937	0.3	101	0.00	4.94-	5.14
5	Toluene	20.000	18.209	9.0	94	0.00	6.32-	6.52
6 S	1-Chloro-4-Fluorobenze	20.000	19.727	1.4	99	0.00	8.74-	8.94
7	Chlorobenzene	20.000	18.153	9.2	94	0.00	8.85-	9.05
8	Ethylbenzene	20.000	18.404	8.0	95	0.00	9.16-	9.36
9	m,p-Xylene	40.000	36.716	8.2	94	0.00	9.43-	9.63
10	o-Xylene	20.000	17.963	10.2	93	0.00	10.24-	10.44
11	1,3-Dichlorobenzene	20.000	17.780	11.1	95	0.00	13.14-	13.34
12	1,4-Dichlorobenzene	20.000	17.723	11.4	94	0.00	13.30-	13.50
13	1,2-Dichlorobenzene	20.000	17.385	13.1	93	0.00	13.87-	14.07

Initial Calibration Verification

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GQQ2-ICV2
Lab FileID: QQ000017.D

(#) = Out of Range SPCC's out = 0 CCC's out = 0
QQ000012.D DUAL1123.M Wed Nov 24 10:25:35 2004 GCHH

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Continuing Calibration Summary

Page 1 of 2

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GQQ12-CC2
Lab FileID: QQ000285.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\2\DATA\120204\QQ000285.D\ELC1A.CH Vial: 19
Signal #2 : C:\MSDCHEM\2\DATA\120204\QQ000285.D\ELC2B.CH
Acq On : 12-2-04 06:03:14 PM Operator: ClaireV
Sample : CC2-20 Inst : VOA7
Misc : gc4291,gqq12,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\2\METHODS\DUAL1123.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Tue Nov 23 15:02:42 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

		Amount	Calc.	%Drift				
1	Methyl tert Butyl EtHe	20.000	19.505	2.5	94	0.00	2.41-	2.61
2	Di-Isopropyl ether	20.000	18.828	5.9	91	0.00	2.77-	2.98

		Amount	Calc.	%Drift				
3	Benzene	20.000	18.260	8.7	95	0.00	3.87-	4.07
4 S	a,a,a-TFT(S)	20.000	19.975	0.1	101	0.00	4.95-	5.15
5	Toluene	20.000	18.098	9.5	93	0.00	6.55-	6.75
6 S	1-Chloro-4-Fluorobenze	20.000	19.236	3.8	95	0.00	8.65-	8.95

		Amount	Calc.	%Drift				
7	Chlorobenzene	20.000	18.681	6.6	94	0.00	8.88-	9.08

		Amount	Calc.	%Drift				
8	Ethylbenzene	20.000	17.839	10.8	94	0.00	9.41-	9.61
9	m,p-Xylene	40.000	37.064	7.3	94	0.00	9.85-	10.05
10	o-Xylene	20.000	18.208	9.0	94	0.00	10.56-	10.76
11	1,3-Dichlorobenzene	20.000	17.680	11.6	93	0.00	13.23-	13.43
12	1,4-Dichlorobenzene	20.000	17.951	10.2	94	0.00	13.35-	13.55
13	1,2-Dichlorobenzene	20.000	17.700	11.5	96	0.00	13.84-	14.04

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

		Amount	Calc.	%Drift				
1	Methyl tert Butyl EtHe	20.000	20.241	-1.2	98	0.00	2.31-	2.50

		Amount	Calc.	%Drift				
2	Di-Isopropyl ether	20.000	19.820	0.9	98	0.00	2.63-	2.83
3	Benzene	20.000	19.289	3.6	100	0.00	3.78-	3.98
4 S	a,a,a-TFT(S)	20.000	21.382	-6.9	108	0.00	4.94-	5.14
5	Toluene	20.000	19.164	4.2	99	0.00	6.32-	6.52
6 S	1-Chloro-4-Fluorobenze	20.000	20.219	-1.1	101	0.00	8.74-	8.94
7	Chlorobenzene	20.000	19.091	4.5	99	0.00	8.85-	9.05
8	Ethylbenzene	20.000	19.422	2.9	100	0.00	9.16-	9.36
9	m,p-Xylene	40.000	38.693	3.3	99	0.00	9.43-	9.63
10	o-Xylene	20.000	19.229	3.9	99	0.00	10.24-	10.44
11	1,3-Dichlorobenzene	20.000	18.438	7.8	98	0.00	13.14-	13.34
12	1,4-Dichlorobenzene	20.000	18.663	6.7	99	0.00	13.30-	13.50
13	1,2-Dichlorobenzene	20.000	18.600	7.0	100	0.00	13.87-	14.07

Continuing Calibration Summary

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GQQ12-CC2
Lab FileID: QQ000285.D

(#) = Out of Range SPCC's out = 0 CCC's out = 0
QQ000012.D DUAL1123.M Fri Dec 03 08:46:50 2004 GCHH

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Continuing Calibration Summary

Page 1 of 2

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GQQ13-CC2
Lab FileID: QQ000296.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\2\DATA\120204\QQ000296.D\ELC1A.CH Vial: 30
Signal #2 : C:\MSDCHEM\2\DATA\120204\QQ000296.D\ELC2B.CH
Acq On : 02 Dec 2004 11:15 pm Operator: ClaireV
Sample : CC2-20 Inst : VOA7
Misc : gc4294,gqq13,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\2\METHODS\DUAL1123.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Tue Nov 23 15:02:42 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

		Amount	Calc.	%Drift				
1	Methyl tert Butyl EtHe	20.000	21.130	-5.6	102	-0.01	2.41-	2.61
2	Di-Isopropyl ether	20.000	19.413	2.9	93	-0.01	2.77-	2.98

		Amount	Calc.	%Drift				
3	Benzene	20.000	18.167	9.2	94	0.00	3.87-	4.07
4 S	a,a,a-TFT(S)	20.000	20.017	-0.1	102	0.00	4.95-	5.15
5	Toluene	20.000	18.085	9.6	93	0.00	6.55-	6.75
6 S	1-Chloro-4-Fluorobenze	20.000	19.065	4.7	95	0.00	8.65-	8.95

		Amount	Calc.	%Drift				
7	Chlorobenzene	20.000	18.759	6.2	94	0.00	8.88-	9.08

		Amount	Calc.	%Drift				
8	Ethylbenzene	20.000	17.805	11.0	94	0.00	9.41-	9.61
9	m,p-Xylene	40.000	36.766	8.1	94	0.00	9.85-	10.05
10	o-Xylene	20.000	18.192	9.0	94	0.00	10.56-	10.76
11	1,3-Dichlorobenzene	20.000	17.667	11.7	93	0.00	13.23-	13.43
12	1,4-Dichlorobenzene	20.000	17.860	10.7	94	0.00	13.35-	13.55
13	1,2-Dichlorobenzene	20.000	17.522	12.4	95	0.00	13.84-	14.04

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

		Amount	Calc.	%Drift				
1	Methyl tert Butyl EtHe	20.000	22.487	-12.4	109	-0.01	2.31-	2.50

		Amount	Calc.	%Drift				
2	Di-Isopropyl ether	20.000	20.857	-4.3	104	-0.01	2.63-	2.83
3	Benzene	20.000	18.969	5.2	99	0.00	3.78-	3.98
4 S	a,a,a-TFT(S)	20.000	21.418	-7.1	108	0.00	4.94-	5.14
5	Toluene	20.000	19.201	4.0	99	0.00	6.32-	6.52
6 S	1-Chloro-4-Fluorobenze	20.000	19.983	0.1	100	0.00	8.74-	8.94
7	Chlorobenzene	20.000	19.146	4.3	99	0.00	8.85-	9.05
8	Ethylbenzene	20.000	19.412	2.9	100	0.00	9.16-	9.36
9	m,p-Xylene	40.000	38.498	3.8	98	0.00	9.43-	9.63
10	o-Xylene	20.000	19.321	3.4	100	0.00	10.24-	10.44
11	1,3-Dichlorobenzene	20.000	18.578	7.1	99	0.00	13.14-	13.34
12	1,4-Dichlorobenzene	20.000	18.801	6.0	100	0.00	13.30-	13.50
13	1,2-Dichlorobenzene	20.000	18.458	7.7	99	0.00	13.87-	14.07

Continuing Calibration Summary

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GQQ13-CC2
Lab FileID: QQ000296.D

(#) = Out of Range SPCC's out = 0 CCC's out = 0
QQ000012.D DUAL1123.M Fri Dec 03 08:46:52 2004 GCHH

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Continuing Calibration Summary

Page 1 of 2

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GQQ13-CC2
Lab FileID: QQ000307.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\2\DATA\120204\QQ000307.D\ELC1A.CH Vial: 40
Signal #2 : C:\MSDCHEM\2\DATA\120204\QQ000307.D\ELC2B.CH
Acq On : 12-3-04 04:27:22 AM Operator: ClaireV
Sample : CC2-20 Inst : VOA7
Misc : gc4294,gqq13,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\2\METHODS\DUAL1123.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Tue Nov 23 15:02:42 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

		Amount	Calc.	%Drift				
1	Methyl tert Butyl EtHe	20.000	19.404	3.0	93	0.00	2.41-	2.61
2	Di-Isopropyl ether	20.000	18.280	8.6	88	0.00	2.77-	2.98

		Amount	Calc.	%Drift				
3	Benzene	20.000	18.966	5.2	98	0.00	3.87-	4.07
4 S	a,a,a-TFT(S)	20.000	20.384	-1.9	103	0.00	4.95-	5.15
5	Toluene	20.000	18.746	6.3	97	0.00	6.55-	6.75
6 S	1-Chloro-4-Fluorobenze	20.000	19.367	3.2	96	0.00	8.65-	8.95

		Amount	Calc.	%Drift				
7	Chlorobenzene	20.000	19.342	3.3	97	0.00	8.88-	9.08

		Amount	Calc.	%Drift				
8	Ethylbenzene	20.000	18.448	7.8	98	0.00	9.41-	9.61
9	m,p-Xylene	40.000	38.042	4.9	97	0.00	9.85-	10.05
10	o-Xylene	20.000	18.849	5.8	97	0.00	10.56-	10.76
11	1,3-Dichlorobenzene	20.000	18.312	8.4	97	0.00	13.23-	13.43
12	1,4-Dichlorobenzene	20.000	18.593	7.0	98	0.00	13.35-	13.55
13	1,2-Dichlorobenzene	20.000	18.491	7.5	100	0.00	13.84-	14.04

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

		Amount	Calc.	%Drift				
1	Methyl tert Butyl EtHe	20.000	20.766	-3.8	101	0.00	2.31-	2.50

		Amount	Calc.	%Drift				
2	Di-Isopropyl ether	20.000	19.658	1.7	98	0.00	2.63-	2.83
3	Benzene	20.000	19.940	0.3	104	0.00	3.78-	3.98
4 S	a,a,a-TFT(S)	20.000	21.716	-8.6	110	0.00	4.94-	5.14
5	Toluene	20.000	19.788	1.1	102	0.00	6.32-	6.52
6 S	1-Chloro-4-Fluorobenze	20.000	20.249	-1.2	102	0.00	8.74-	8.94
7	Chlorobenzene	20.000	19.656	1.7	102	0.00	8.85-	9.05
8	Ethylbenzene	20.000	20.071	-0.4	103	0.00	9.16-	9.36
9	m,p-Xylene	40.000	40.006	-0.0	102	0.00	9.43-	9.63
10	o-Xylene	20.000	19.900	0.5	103	0.00	10.24-	10.44
11	1,3-Dichlorobenzene	20.000	19.109	4.5	102	0.00	13.14-	13.34
12	1,4-Dichlorobenzene	20.000	19.388	3.1	103	0.00	13.30-	13.50
13	1,2-Dichlorobenzene	20.000	19.235	3.8	103	0.00	13.87-	14.07

Continuing Calibration Summary

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GQQ13-CC2
Lab FileID: QQ000307.D

(#) = Out of Range SPCC's out = 0 CCC's out = 0
QQ000012.D DUAL1123.M Fri Dec 03 08:46:54 2004 GCHH

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Continuing Calibration Summary

Page 1 of 2

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GQQ13-ECC2
Lab FileID: QQ000315.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\2\DATA\120204\QQ000315.D\ELC1A.CH Vial: 48
Signal #2 : C:\MSDCHEM\2\DATA\120204\QQ000315.D\ELC2B.CH
Acq On : 12-3-04 08:13:25 AM Operator: ClaireV
Sample : ecc2-20 Inst : VOA7
Misc : gc4294,gqq13,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\2\METHODS\DUAL1123.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Tue Nov 23 15:02:42 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

		Amount	Calc.	%Drift				
1	Methyl tert Butyl EtHe	20.000	18.622	6.9	90	-0.02	2.41-	2.61
2	Di-Isopropyl ether	20.000	16.935	15.3#	82	-0.02	2.77-	2.98

		Amount	Calc.	%Drift				
3	Benzene	20.000	18.161	9.2	94	-0.01	3.87-	4.07
4 S	a,a,a-TFT(S)	20.000	20.271	-1.4	103	-0.01	4.95-	5.15
5	Toluene	20.000	17.600	12.0	91	0.00	6.55-	6.75
6 S	1-Chloro-4-Fluorobenze	20.000	19.224	3.9	95	0.00	8.65-	8.95

		Amount	Calc.	%Drift				
7	Chlorobenzene	20.000	18.206	9.0	91	0.00	8.88-	9.08

		Amount	Calc.	%Drift				
8	Ethylbenzene	20.000	16.718	16.4#	88	0.00	9.41-	9.61
9	m,p-Xylene	40.000	34.687	13.3	88	0.00	9.85-	10.05
10	o-Xylene	20.000	17.389	13.1	90	0.00	10.56-	10.76
11	1,3-Dichlorobenzene	20.000	16.737	16.3#	88	0.00	13.23-	13.43
12	1,4-Dichlorobenzene	20.000	17.173	14.1	90	0.00	13.35-	13.55
13	1,2-Dichlorobenzene	20.000	17.187	14.1	93	0.00	13.84-	14.04

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

		Amount	Calc.	%Drift				
1	Methyl tert Butyl EtHe	20.000	20.403	-2.0	99	-0.02	2.31-	2.50

		Amount	Calc.	%Drift				
2	Di-Isopropyl ether	20.000	18.081	9.6	90	-0.02	2.63-	2.83
3	Benzene	20.000	19.226	3.9	100	-0.01	3.78-	3.98
4 S	a,a,a-TFT(S)	20.000	21.651	-8.3	109	0.00	4.94-	5.14
5	Toluene	20.000	18.464	7.7	95	0.00	6.32-	6.52
6 S	1-Chloro-4-Fluorobenze	20.000	20.147	-0.7	101	0.00	8.74-	8.94
7	Chlorobenzene	20.000	18.482	7.6	96	0.00	8.85-	9.05
8	Ethylbenzene	20.000	18.247	8.8	94	0.00	9.16-	9.36
9	m,p-Xylene	40.000	36.167	9.6	92	0.00	9.43-	9.63
10	o-Xylene	20.000	18.375	8.1	95	0.00	10.24-	10.44
11	1,3-Dichlorobenzene	20.000	17.527	12.4	93	0.00	13.14-	13.34
12	1,4-Dichlorobenzene	20.000	17.864	10.7	95	0.00	13.30-	13.50
13	1,2-Dichlorobenzene	20.000	18.171	9.1	98	0.00	13.87-	14.07

Continuing Calibration Summary

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GQQ13-ECC2
Lab FileID: QQ000315.D

(#) = Out of Range SPCC's out = 0 CCC's out = 0
QQ000012.D DUAL1123.M Fri Dec 03 08:46:56 2004 GCHH

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Continuing Calibration Summary

Page 1 of 2

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GQQ14-CC2
Lab FileID: QQ000317.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\2\DATA\120304\QQ000317.D\ELC1A.CH Vial: 2
Signal #2 : C:\MSDCHEM\2\DATA\120304\QQ000317.D\ELC2B.CH
Acq On : 03 Dec 2004 11:22 am Operator: ClaireV
Sample : CC2-40 Inst : VOA7
Misc : gc4294,gqq14,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\2\METHODS\DUAL1123.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Tue Nov 23 15:02:42 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

		Amount	Calc.	%Drift				
1	Methyl tert Butyl EtHe	40.000	38.098	4.8	95	0.00	2.41-	2.61
2	Di-Isopropyl ether	40.000	38.021	4.9	95	0.00	2.77-	2.98

		Amount	Calc.	%Drift				
3	Benzene	40.000	36.862	7.8	95	0.00	3.87-	4.07
4 S	a,a,a-TFT(S)	20.000	20.440	-2.2	102	0.00	4.95-	5.15
5	Toluene	40.000	36.976	7.6	95	0.00	6.55-	6.75
6 S	1-Chloro-4-Fluorobenze	20.000	19.238	3.8	96	0.00	8.65-	8.95

		Amount	Calc.	%Drift				
7	Chlorobenzene	40.000	38.200	4.5	95	0.00	8.88-	9.08

		Amount	Calc.	%Drift				
8	Ethylbenzene	40.000	36.241	9.4	95	0.00	9.41-	9.61
9	m,p-Xylene	80.000	75.053	6.2	95	0.00	9.85-	10.05
10	o-Xylene	40.000	37.353	6.6	95	0.00	10.56-	10.76
11	1,3-Dichlorobenzene	40.000	37.235	6.9	96	0.00	13.23-	13.43
12	1,4-Dichlorobenzene	40.000	37.483	6.3	96	0.00	13.35-	13.55
13	1,2-Dichlorobenzene	40.000	36.908	7.7	96	0.00	13.84-	14.04

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

		Amount	Calc.	%Drift				
1	Methyl tert Butyl EtHe	40.000	40.532	-1.3	101	0.00	2.31-	2.50

		Amount	Calc.	%Drift				
2	Di-Isopropyl ether	40.000	40.106	-0.3	104	0.00	2.63-	2.83
3	Benzene	40.000	38.773	3.1	100	0.00	3.78-	3.98
4 S	a,a,a-TFT(S)	20.000	21.665	-8.3	109	0.00	4.94-	5.14
5	Toluene	40.000	38.845	2.9	100	0.00	6.32-	6.52
6 S	1-Chloro-4-Fluorobenze	20.000	20.501	-2.5	103	0.00	8.74-	8.94
7	Chlorobenzene	40.000	38.263	4.3	100	0.00	8.85-	9.05
8	Ethylbenzene	40.000	39.147	2.1	100	0.00	9.16-	9.36
9	m,p-Xylene	80.000	78.054	2.4	99	0.00	9.43-	9.63
10	o-Xylene	40.000	39.198	2.0	100	0.00	10.24-	10.44
11	1,3-Dichlorobenzene	40.000	38.715	3.2	101	0.00	13.14-	13.34
12	1,4-Dichlorobenzene	40.000	38.858	2.9	101	0.00	13.30-	13.50
13	1,2-Dichlorobenzene	40.000	38.550	3.6	101	0.00	13.87-	14.07

Continuing Calibration Summary

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GQQ14-CC2
Lab FileID: QQ000317.D

(#) = Out of Range SPCC's out = 0 CCC's out = 0
QQ000013.D DUAL1123.M Mon Dec 06 09:34:42 2004 GCHH

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Continuing Calibration Summary

Page 1 of 2

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GQQ14-CC2
Lab FileID: QQ000326.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\2\DATA\120304\QQ000326.D\ELC1A.CH Vial: 10
Signal #2 : C:\MSDCHEM\2\DATA\120304\QQ000326.D\ELC2B.CH
Acq On : 12-3-04 03:37:27 PM Operator: ClaireV
Sample : CC2-20 Inst : VOA7
Misc : gc4294,gqq14,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\2\METHODS\DUAL1123.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Tue Nov 23 15:02:42 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

		Amount	Calc.	%Drift				
1	Methyl tert Butyl EtHe	20.000	19.185	4.1	92	-0.02	2.41-	2.61
2	Di-Isopropyl ether	20.000	18.733	6.3	90	-0.01	2.77-	2.98

		Amount	Calc.	%Drift				
3	Benzene	20.000	18.448	7.8	96	-0.01	3.87-	4.07
4 S	a,a,a-TFT(S)	20.000	20.211	-1.1	103	0.00	4.95-	5.15
5	Toluene	20.000	18.323	8.4	95	0.00	6.55-	6.75
6 S	1-Chloro-4-Fluorobenze	20.000	19.079	4.6	95	0.00	8.65-	8.95

		Amount	Calc.	%Drift				
7	Chlorobenzene	20.000	18.994	5.0	95	0.00	8.88-	9.08

		Amount	Calc.	%Drift				
8	Ethylbenzene	20.000	18.023	9.9	95	0.00	9.41-	9.61
9	m,p-Xylene	40.000	37.392	6.5	95	0.00	9.85-	10.05
10	o-Xylene	20.000	18.440	7.8	95	0.00	10.56-	10.76
11	1,3-Dichlorobenzene	20.000	18.204	9.0	96	0.00	13.23-	13.43
12	1,4-Dichlorobenzene	20.000	18.354	8.2	97	0.00	13.35-	13.55
13	1,2-Dichlorobenzene	20.000	18.388	8.1	99	0.00	13.84-	14.04

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

		Amount	Calc.	%Drift				
1	Methyl tert Butyl EtHe	20.000	20.132	-0.7	98	-0.02	2.31-	2.50

		Amount	Calc.	%Drift				
2	Di-Isopropyl ether	20.000	19.687	1.6	98	-0.02	2.63-	2.83
3	Benzene	20.000	19.513	2.4	101	-0.01	3.78-	3.98
4 S	a,a,a-TFT(S)	20.000	21.597	-8.0	109	0.00	4.94-	5.14
5	Toluene	20.000	19.416	2.9	100	0.00	6.32-	6.52
6 S	1-Chloro-4-Fluorobenze	20.000	20.120	-0.6	101	0.00	8.74-	8.94
7	Chlorobenzene	20.000	19.403	3.0	100	0.00	8.85-	9.05
8	Ethylbenzene	20.000	19.678	1.6	101	0.00	9.16-	9.36
9	m,p-Xylene	40.000	39.157	2.1	100	0.00	9.43-	9.63
10	o-Xylene	20.000	19.600	2.0	101	0.00	10.24-	10.44
11	1,3-Dichlorobenzene	20.000	18.925	5.4	101	0.00	13.14-	13.34
12	1,4-Dichlorobenzene	20.000	19.215	3.9	102	0.00	13.30-	13.50
13	1,2-Dichlorobenzene	20.000	19.074	4.6	102	0.00	13.87-	14.07

Continuing Calibration Summary

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GQQ14-CC2
Lab FileID: QQ000326.D

(#) = Out of Range SPCC's out = 0 CCC's out = 0
QQ000012.D DUAL1123.M Mon Dec 06 09:36:31 2004 GCHH

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Initial Calibration Summary

Page 1 of 2

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GUV908-ICC908
Lab FileID: UV015470.D

Response Factor Report VOA4

Method : C:\HPCHEM\2\METHODS\VP1202.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Tue Dec 07 10:07:09 2004
Response via : Initial Calibration

Calibration Files

1 =UV015466.D 2 =UV015467.D 3 =UV015468.D 4 =UV015469.D
5 =UV015470.D 6 =UV015471.D

Compound	1	2	3	4	5	6	Avg	%RSD
1) Methyl tert butyl e	5.038	4.699	4.710	4.498	4.044	4.171	4.527	E2 8.18
2) Benzene	2.267	2.272	2.293	2.081	1.851	1.952	2.119	E3 8.87
3) Toluene	2.405	2.394	2.392	2.249	2.016	1.882	2.223	E3 10.08
---- Quadratic regression ---- Coefficient = 0.9997								
Response Ratio = 3733.94702 + 2423.93444 *A + -0.92608 *A^2								
4) Ethylbenzene	2.284	2.301	2.349	2.195	2.010	2.126	2.211	E3 5.74
5) m,p-Xylene	2.565	2.528	2.622	2.531	2.012	1.739	2.333	E3 15.70
---- Quadratic regression ---- Coefficient = 0.9980								
Response Ratio = -8163.40898 + 2915.77042 *A + -1.47642 *A^2								
6) o-Xylene	2.354	2.299	2.356	2.275	2.103	2.225	2.268	E3 4.19
7) S BFB	7.551	7.093	7.376	7.196	6.243	5.745	6.867	E4 10.37
---- Quadratic regression ---- Coefficient = 0.9993								
Response Ratio = -69284.64555 + 78903.82975 *A + -53.85849 *A^2								
8) 1,2,4-Trimethylbenz	2.744	2.623	2.749	2.680	2.452	2.599	2.641	E3 4.20
9) Naphthalene	1.686	1.546	1.637	1.635	1.528	1.642	1.612	E3 3.82
10) H C9- C10 Aromatics (	2.050	1.017	0.808	0.788	0.698	0.721	1.014	E5 51.29
---- Linear regression ---- Coefficient = 0.9981								
Response Ratio = 1277932.49198 + 67965.16771 *A								

Signal #2

12) Pentane	3.171	3.242	3.260	2.743	2.592	2.539	2.925	E2 11.50
---- Quadratic regression ---- Coefficient = 0.9985								
Response Ratio = 1864.33944 + 277.72604 *A + -0.07466 *A^2								
13) 2-Methylpentane	4.227	4.518	4.582	3.918	3.657	3.630	4.089	E2 10.22
---- Quadratic regression ---- Coefficient = 0.9984								
Response Ratio = 3730.27963 + 391.28414 *A + -0.06174 *A^2								
14) Methyl tert butyl e	2.622	2.141	2.148	2.098	1.916	1.994	2.153	E2 11.46
---- Linear regression ---- Coefficient = 0.9985								
Response Ratio = 1596.54654 + 194.80845 *A								
15) 2,2,4-Trimethylpent	3.506	3.711	3.743	3.372	3.040	3.107	3.413	E2 8.70
16) Benzene #2	8.214	8.612	8.920	8.296	7.398	7.772	8.202	E2 6.73
17) Toluene #2	0.975	1.020	1.047	0.972	0.864	0.898	0.963	E3 7.26
18) Nonane	6.982	7.779	8.360	7.372	7.152	7.400	7.508	E2 6.61
19) Ethylbenzene #2	1.022	1.073	1.109	1.055	0.974	1.031	1.044	E3 4.42
20) m,p-Xylene #2	1.012	1.051	1.097	1.051	0.975	1.038	1.037	E3 3.97
21) o-Xylene #2	1.090	1.097	1.148	1.119	1.031	1.102	1.098	E3 3.51
22) S BFB #2	1.543	1.506	1.587	1.561	1.430	1.532	1.527	E4 3.58
23) 1,2,4-Trimethylbenz	1.183	1.168	1.246	1.218	1.119	1.205	1.190	E3 3.68
24) Naphthalene #2	5.444	5.117	5.491	5.605	5.234	5.593	5.414	E2 3.66

Initial Calibration Summary

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GUV908-ICC908
Lab FileID: UV015470.D

25)	H	C5- C8 Aliphatics (	3.855	3.355	3.314	2.971	2.690	2.741	3.154	E4	14.01
		---- Linear regression ----									Coefficient = 0.9979
											Response Ratio = 2371649.21766 + 26528.07307 *A
26)	H	C9- C12 Aliphatics	3.996	3.571	3.634	3.437	3.180	3.355	3.529	E4	7.93
		(#) = Out of Range									

VPH1202.M Tue Dec 07 10:09:08 2004

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Continuing Calibration Summary

Page 1 of 2

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GUV909-CC908
Lab FileID: UV015474.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\2\DATA\120304\UV015474.D\FID1B.CH Vial: 1
Signal #2 : C:\HPCHEM\2\DATA\120304\UV015474.D\FID2A.CH
Acq On : 3 Dec 2004 9:37 am Operator: ALBERTJ
Sample : CC908-6 Inst : VOA4
Misc : gc4285,guv909,,,,, Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E

Method : C:\HPCHEM\2\METHODS\VPH1202.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Dec 03 16:54:46 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Methyl tert butyl ethe	600.000	443.280	26.1#	80	-0.02	8.44- 8.84
2	Benzene	200.000	210.220	-5.1	114	-0.02	12.08-12.48
----- Amount Calc. %Drift -----							
3	Toluene	600.000	576.265	4.0	97	-0.01	15.20-15.60
----- Amount Calc. %Drift -----							
4	Ethylbenzene	200.000	223.202	-11.6	116	0.00	17.64-18.04
----- Amount Calc. %Drift -----							
5	m,p-Xylene	800.000	817.547	-2.2	100	0.00	17.74-18.14
----- Amount Calc. %Drift -----							
6	o-Xylene	400.000	376.419	5.9	96	0.00	18.36-18.76
----- Amount Calc. %Drift -----							
7 S	BFB	400.000	361.884	9.5	93	0.00	19.13-19.53
----- Amount Calc. %Drift -----							
8	1,2,4-Trimethylbenzene	400.000	388.240	2.9	99	0.00	19.92-20.32
9	Naphthalene	400.000	365.465	8.6	90	0.00	22.98-23.38
10 H	C9- C10 Aromatics (una	400.000	399.350	0.2	99	0.00	18.74-23.07

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

----- Amount Calc. %Drift -----							
12	Pentane	400.000	463.645	-15.9	113	-0.02	6.66- 7.06
13	2-Methylpentane	600.000	594.487	0.9	98	-0.02	7.99- 8.39
14	Methyl tert butyl ethe	600.000	484.610	19.2	80	-0.02	8.44- 8.84
----- Amount Calc. %Drift -----							
15	2,2,4-Trimethylpentane	600.000	543.227	9.5	99	-0.02	11.38-11.78
16	Benzene #2	200.000	212.168	-6.1	112	-0.02	12.08-12.48
17	Toluene #2	600.000	497.551	17.1	89	-0.01	15.20-15.60
18	Nonane	400.000	404.123	-1.0	102	0.00	17.23-17.63
19	Ethylbenzene #2	200.000	227.156	-13.6	115	0.00	17.64-18.04
20	m,p-Xylene #2	800.000	771.676	3.5	96	0.00	17.75-18.15
21	o-Xylene #2	400.000	383.702	4.1	96	0.00	18.36-18.76
22 S	BFB #2	400.000	349.971	12.5	87	0.00	19.14-19.54
23	1,2,4-Trimethylbenzene	400.000	393.441	1.6	97	0.00	19.92-20.32

Continuing Calibration Summary

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GUV909-CC908
Lab FileID: UV015474.D

24	Naphthalene #2	400.000	367.152	8.2	89	0.00	22.98-23.38
25 H	C5- C8 Aliphatics (una	3000.000	2896.289	3.5	96	0.00	6.72-17.27
26 H	C9- C12 Aliphatics (un	2200.000	2080.623	5.4	99	0.00	17.31-23.08

(#) = Out of Range
UV015471.D VPH1202.M

SPCC's out = 0 CCC's out = 0
Mon Dec 06 11:31:47 2004

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Continuing Calibration Summary

Page 1 of 2

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GUV909-CC908
Lab FileID: UV015486.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\2\DATA\120304\UV015486.D\FID1B.CH Vial: 12
Signal #2 : C:\HPCHEM\2\DATA\120304\UV015486.D\FID2A.CH
Acq On : 3 Dec 2004 6:20 pm Operator: ALBERTJ
Sample : CC908-5 Inst : VOA4
Misc : gc4285,guv909,,,,, Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E

Method : C:\HPCHEM\2\METHODS\VPH1202.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Fri Dec 03 16:54:46 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Methyl tert butyl ethe	420.000	343.271	18.3	91	-0.01	8.44- 8.84
2	Benzene	140.000	116.664	16.7	95	-0.01	12.08-12.48
----- Amount Calc. %Drift -----							
3	Toluene	420.000	389.201	7.3	95	0.00	15.20-15.60
----- Amount Calc. %Drift -----							
4	Ethylbenzene	140.000	121.611	13.1	96	0.00	17.64-18.04
----- Amount Calc. %Drift -----							
5	m,p-Xylene	560.000	510.616	8.8	97	0.00	17.74-18.14
----- Amount Calc. %Drift -----							
6	o-Xylene	280.000	249.536	10.9	96	0.00	18.36-18.76
----- Amount Calc. %Drift -----							
7 S	BFB	280.000	266.590	4.8	98	0.00	19.13-19.53
----- Amount Calc. %Drift -----							
8	1,2,4-Trimethylbenzene	280.000	250.414	10.6	96	0.00	19.92-20.32
9	Naphthalene	280.000	227.063	18.9	86	0.00	22.98-23.38
10 H	C9- C10 Aromatics (una	280.000	261.087	6.8	97	0.00	18.74-23.07

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

----- Amount Calc. %Drift -----							
12	Pentane	280.000	274.027	2.1	100	-0.01	6.66- 7.06
13	2-Methylpentane	420.000	418.117	0.4	102	-0.01	7.99- 8.39
14	Methyl tert butyl ethe	420.000	375.912	10.5	93	-0.01	8.44- 8.84
----- Amount Calc. %Drift -----							
15	2,2,4-Trimethylpentane	420.000	395.783	5.8	106	-0.01	11.38-11.78
16	Benzene #2	140.000	122.503	12.5	97	-0.01	12.08-12.48
17	Toluene #2	420.000	364.195	13.3	97	0.00	15.20-15.60
18	Nonane	280.000	282.602	-0.9	106	0.00	17.23-17.63
19	Ethylbenzene #2	140.000	126.871	9.4	97	0.00	17.64-18.04
20	m,p-Xylene #2	560.000	511.775	8.6	97	0.00	17.75-18.15
21	o-Xylene #2	280.000	256.368	8.4	97	0.00	18.36-18.76
22 S	BFB #2	280.000	257.253	8.1	98	0.00	19.14-19.54
23	1,2,4-Trimethylbenzene	280.000	256.424	8.4	97	0.00	19.92-20.32

Continuing Calibration Summary

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GUV909-CC908
Lab FileID: UV015486.D

24	Naphthalene #2	280.000	236.394	15.6	87	0.00	22.98-23.38
25 H	C5- C8 Aliphatics (una	2100.000	2020.510	3.8	99	0.00	6.72-17.27
26 H	C9- C12 Aliphatics (un	1540.000	1371.867	10.9	99	0.00	17.31-23.08

(#) = Out of Range SPCC's out = 0 CCC's out = 0
UV015470.D VPH1202.M Mon Dec 06 11:27:38 2004

5.7
5

Continuing Calibration Summary

Page 1 of 2

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GUV910-CC908
Lab FileID: UV015495.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\2\DATA\120604\UV015495.D\FID1B.CH Vial: 9
Signal #2 : C:\HPCHEM\2\DATA\120604\UV015495.D\FID2A.CH
Acq On : 6 Dec 2004 1:54 pm Operator: ALBERTJ
Sample : CC2908-5 Inst : VOA4
Misc : gc4306,guv910,,,, Multiplr: 1.00
IntFile Signal #1: PID.E IntFile Signal #2: FID.E

Method : C:\HPCHEM\2\METHODS\VPH1202.M (Chemstation Integrator)
Title : Mass. DEP VPH
Last Update : Tue Dec 07 10:07:09 2004
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT Window
1	Methyl tert butyl ethe	420.000	438.542	-4.4	117	-0.06	8.44- 8.84
2	Benzene	140.000	154.220	-10.2	126	-0.06	12.08-12.48
----- Amount Calc. %Drift -----							
3	Toluene	420.000	442.818	-5.4	106	-0.04	15.20-15.60
----- Amount Calc. %Drift -----							
4	Ethylbenzene	140.000	140.594	-0.4	110	-0.03	17.64-18.04
----- Amount Calc. %Drift -----							
5	m,p-Xylene	560.000	470.764	15.9	92	-0.03	17.74-18.14
----- Amount Calc. %Drift -----							
6	o-Xylene	280.000	286.074	-2.2	110	-0.02	18.36-18.76
----- Amount Calc. %Drift -----							
7 S	BFB	280.000	274.983	1.8	100	-0.02	19.13-19.53
----- Amount Calc. %Drift -----							
8	1,2,4-Trimethylbenzene	280.000	287.352	-2.6	111	-0.02	19.92-20.32
9	Naphthalene	280.000	241.554	13.7	91	-0.02	22.98-23.38
10 H	C9- C10 Aromatics (una	280.000	288.419	-3.0	107	0.00	18.74-23.07

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

----- Amount Calc. %Drift -----							
12	Pentane	280.000	401.846	-43.5#	140	-0.06	6.66- 7.06
13	2-Methylpentane	420.000	517.462	-23.2	123	-0.06	7.99- 8.39
14	Methyl tert butyl ethe	420.000	442.477	-5.4	109	-0.06	8.44- 8.84
----- Amount Calc. %Drift -----							
15	2,2,4-Trimethylpentane	420.000	440.249	-4.8	118	-0.06	11.38-11.78
16	Benzene #2	140.000	144.159	-3.0	114	-0.05	12.08-12.48
17	Toluene #2	420.000	404.649	3.7	107	-0.04	15.20-15.60
18	Nonane	280.000	286.541	-2.3	107	-0.03	17.23-17.63
19	Ethylbenzene #2	140.000	133.392	4.7	102	-0.03	17.64-18.04
20	m,p-Xylene #2	560.000	541.227	3.4	103	-0.03	17.75-18.15
21	o-Xylene #2	280.000	267.009	4.6	102	-0.02	18.36-18.76
22 S	BFB #2	280.000	262.103	6.4	100	-0.02	19.14-19.54
23	1,2,4-Trimethylbenzene	280.000	267.044	4.6	101	-0.02	19.92-20.32

Continuing Calibration Summary

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GUV910-CC908
Lab FileID: UV015495.D

24	Naphthalene #2	280.000	225.689	19.4	83	-0.02	22.98-23.38
25 H	C5- C8 Aliphatics (una	2100.000	2387.167	-13.7	116	0.00	6.72-17.27
26 H	C9- C12 Aliphatics (un	1540.000	1442.788	6.3	104	0.00	17.31-23.08

(#) = Out of Range SPCC's out = 0 CCC's out = 0
UV015470.D VPH1202.M Tue Dec 07 15:10:11 2004

5.7
5

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: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11968-MB	ZF15656.D	1	12/09/04	AA	12/01/04	OP11968	GZF721

The QC reported here applies to the following samples:

Method: MADEP-EPH-98-1

F28405-1, F28405-2, F28405-3, F28405-4, F28405-5, F28405-6, F28405-7, F28405-8, F28405-9, F28405-10, F28405-11

CAS No.	Compound	Result	RL	MDL	Units	Q
	C11-C22 Aromatics (Unadj.)	ND	200	150	ug/l	
	C9-C18 Aliphatics	ND	200	200	ug/l	
	C19-C36 Aliphatics	ND	200	200	ug/l	

CAS No.	Surrogate Recoveries	Limits
3386-33-2	1-Chlorooctadecane	50% 40-140%
580-13-2	2-Bromonaphthalene	66% 40-140%
84-15-1	o-Terphenyl	73% 40-140%
321-60-8	2-Fluorobiphenyl	82% 40-140%

Method Blank Summary

Page 1 of 1

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11968-MB	ZF15680.D	1	12/11/04	ME	12/01/04	OP11968	GZF723

The QC reported here applies to the following samples:

Method: MADEP-EPH-98-1

F28405-1, F28405-2, F28405-3, F28405-4, F28405-5, F28405-6, F28405-7, F28405-8, F28405-9, F28405-10, F28405-11

CAS No.	Compound	Result	RL	MDL	Units	Q
	C11-C22 Aromatics (Unadj.)	ND	200	150	ug/l	
	C9-C18 Aliphatics	ND	200	200	ug/l	
	C19-C36 Aliphatics	ND	200	200	ug/l	

CAS No.	Surrogate Recoveries	Limits
3386-33-2	1-Chlorooctadecane	49% 40-140%
580-13-2	2-Bromonaphthalene	63% 40-140%
84-15-1	o-Terphenyl	70% 40-140%
321-60-8	2-Fluorobiphenyl	79% 40-140%

Method Blank Summary

Page 1 of 1

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11942-MB	IJ21385.D	1	11/30/04	AA	11/29/04	OP11942	GIJ1053

The QC reported here applies to the following samples:

Method: EPA 610

F28405-1, F28405-2, F28405-3, F28405-4, F28405-5, F28405-6, F28405-7, F28405-8, F28405-9, F28405-10, F28405-11

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	58%	42-123%
84-15-1	o-Terphenyl	77%	51-123%

Blank Spike Summary

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11968-BS	ZF15655.D	1	12/09/04	AA	12/01/04	OP11968	GZF721

The QC reported here applies to the following samples: Method: MADEP-EPH-98-1

F28405-1, F28405-2, F28405-3, F28405-4, F28405-5, F28405-6, F28405-7, F28405-8, F28405-9, F28405-10, F28405-11

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
	C11-C22 Aromatics (Unadj.)	850	719	85	40-140
	C9-C18 Aliphatics	300	275	92	40-140
	C19-C36 Aliphatics	400	414	104	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
3386-33-2	1-Chlorooctadecane	67%	40-140%
580-13-2	2-Bromonaphthalene	54%	40-140%
84-15-1	o-Terphenyl	73%	40-140%
321-60-8	2-Fluorobiphenyl	53%	40-140%

Blank Spike Summary

Page 1 of 1

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11942-BS	IJ21384.D	1	11/30/04	AA	11/29/04	OP11942	GIJ1053

The QC reported here applies to the following samples:

Method: EPA 610

F28405-1, F28405-2, F28405-3, F28405-4, F28405-5, F28405-6, F28405-7, F28405-8, F28405-9, F28405-10, F28405-11

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	20.3	81	63-102
120-12-7	Anthracene	25	23.3	93	71-110
56-55-3	Benzo(a)anthracene	25	23.6	94	70-114
50-32-8	Benzo(a)pyrene	25	23.7	95	67-114
205-99-2	Benzo(b)fluoranthene	25	23.3	93	69-115
191-24-2	Benzo(g,h,i)perylene	25	22.4	90	61-117
207-08-9	Benzo(k)fluoranthene	25	22.9	92	69-111
218-01-9	Chrysene	25	24.2	97	70-114
53-70-3	Dibenzo(a,h)anthracene	25	22.1	88	64-114
206-44-0	Fluoranthene	25	24.0	96	71-114
86-73-7	Fluorene	25	22.0	88	69-111
193-39-5	Indeno(1,2,3-cd)pyrene	25	22.0	88	63-112
91-20-3	Naphthalene	25	18.4	74	66-105
90-12-0	1-Methylnaphthalene	25	19.8	79	71-112
91-57-6	2-Methylnaphthalene	25	19.4	78	65-106
85-01-8	Phenanthrene	25	23.0	92	69-112
129-00-0	Pyrene	25	24.1	96	70-114

CAS No.	Surrogate Recoveries	BSP	Limits
321-60-8	2-Fluorobiphenyl	75%	42-123%
84-15-1	o-Terphenyl	85%	51-123%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: F28405

Account: EEINCJX EEI

Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11968-MS	ZF15662.D	1	12/10/04	AA	12/01/04	OP11968	GZF721
OP11968-MSD	ZF15663.D	1	12/10/04	AA	12/01/04	OP11968	GZF721
F28405-5	ZF15661.D	1	12/09/04	AA	12/01/04	OP11968	GZF721

The QC reported here applies to the following samples:

Method: MADEP-EPH-98-1

F28405-1, F28405-2, F28405-3, F28405-4, F28405-5, F28405-6, F28405-7, F28405-8, F28405-9, F28405-10, F28405-11

CAS No.	Compound	F28405-5 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
	C11-C22 Aromatics (Unadj.)	143	J	1630	1460	81	1650	92	12	40-140/50
	C9-C18 Aliphatics	ND		577	461	80	527	91	13	40-140/50
	C19-C36 Aliphatics	ND		769	701	91	788	102	12	40-140/50

CAS No.	Surrogate Recoveries	MS	MSD	F28405-5	Limits
3386-33-2	1-Chlorooctadecane	59%	64%	53%	40-140%
580-13-2	2-Bromonaphthalene	72%	81%	64%	40-140%
84-15-1	o-Terphenyl	79%	89%	81%	40-140%
321-60-8	2-Fluorobiphenyl	76%	91%	69%	40-140%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11942-MS	IJ21405.D	2	11/30/04	AA	11/29/04	OP11942	GIJ1053
OP11942-MSD	IJ21406.D	2	11/30/04	AA	11/29/04	OP11942	GIJ1053
F28405-3 ^a	IJ21390.D	1	11/30/04	AA	11/29/04	OP11942	GIJ1053
F28405-3	IJ21404.D	4	11/30/04	AA	11/29/04	OP11942	GIJ1053

The QC reported here applies to the following samples:

Method: EPA 610

F28405-1, F28405-2, F28405-3, F28405-4, F28405-5, F28405-6, F28405-7, F28405-8, F28405-9, F28405-10, F28405-11

CAS No.	Compound	F28405-3 ug/l	Spike Q	ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	ND		48.1	37.1	77	36.5	76	2	59-123/20
208-96-8	Acenaphthylene	ND		48.1	35.5	74	33.2	69	7	51-114/20
120-12-7	Anthracene	ND		48.1	41.5	86	38.4	80	8	64-114/17
56-55-3	Benzo(a)anthracene	ND		48.1	40.5	84	38.7	80	5	66-115/17
50-32-8	Benzo(a)pyrene	ND		48.1	40.4	84	38.6	80	5	62-118/17
205-99-2	Benzo(b)fluoranthene	ND		48.1	39.8	83	37.8	79	5	66-117/17
191-24-2	Benzo(g,h,i)perylene	ND		48.1	40.3	84	38.4	80	5	59-120/17
207-08-9	Benzo(k)fluoranthene	ND		48.1	41.1	85	39.4	82	4	64-116/16
218-01-9	Chrysene	ND		48.1	41.7	87	40.4	84	3	66-117/16
53-70-3	Dibenzo(a,h)anthracene	ND		48.1	40.6	84	38.4	80	6	57-124/18
206-44-0	Fluoranthene	ND		48.1	43.8	91	41.1	85	6	67-116/17
86-73-7	Fluorene	ND		48.1	41.0	85	39.6	82	3	58-122/19
193-39-5	Indeno(1,2,3-cd)pyrene	ND		48.1	39.0	81	37.0	77	5	59-116/18
91-20-3	Naphthalene	94.5 ^b		48.1	117	47	114	41*	3	47-114/20
90-12-0	1-Methylnaphthalene	7.6		48.1	40.0	67	40.5	68	1	55-128/21
91-57-6	2-Methylnaphthalene	5.2		48.1	40.8	74	40.4	73	1	51-117/21
85-01-8	Phenanthrene	ND		48.1	42.9	89	40.5	84	6	63-116/18
129-00-0	Pyrene	ND		48.1	43.6	91	41.3	86	5	67-116/17

CAS No.	Surrogate Recoveries	MS	MSD	F28405-3	F28405-3	Limits
321-60-8	2-Fluorobiphenyl	66%	66%	90%	76%	42-123%
84-15-1	o-Terphenyl	82%	79%	87%	87%	51-123%

(a) All hits confirmed by dual column analysis.

(b) Result is from Run #2.

Duplicate Summary

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11968-DUP	ZF15670.D	1	12/10/04	AA	12/01/04	OP11968	GZF721
F28405-10	ZF15669.D	1	12/10/04	AA	12/01/04	OP11968	GZF721

The QC reported here applies to the following samples: Method: MADEP-EPH-98-1

F28405-1, F28405-2, F28405-3, F28405-4, F28405-5, F28405-6, F28405-7, F28405-8, F28405-9, F28405-10, F28405-11

CAS No.	Compound	F28405-10 ug/l	DUP Q ug/l	Q RPD	Limits
	C11-C22 Aromatics (Unadj.)	ND	ND	nc	
	C9-C18 Aliphatics	ND	ND	nc	
	C19-C36 Aliphatics	ND	ND	nc	

CAS No.	Surrogate Recoveries	DUP	F28405-10	Limits
3386-33-2	1-Chlorooctadecane	48%	56%	40-140%
580-13-2	2-Bromonaphthalene	55%	45%	40-140%
84-15-1	o-Terphenyl	79%	64%	40-140%
321-60-8	2-Fluorobiphenyl	72%	67%	40-140%

Semivolatile Surrogate Recovery Summary

Page 1 of 1

Job Number: F28405

Account: EEINCJX EEI

Project: Camp Lejeune-LCH 4015

Method: MADEP-EPH-98-1

Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a	S2 ^b	S3 ^b	S4 ^b
F28405-1	ZF15657.D	49.0	69.0	85.0	75.0
F28405-2	ZF15658.D	43.0	75.0	78.0	78.0
F28405-3	ZF15659.D	52.0	76.0	83.0	79.0
F28405-4	ZF15660.D	48.0	64.0	88.0	82.0
F28405-5	ZF15661.D	53.0	64.0	81.0	69.0
F28405-6	ZF15664.D	53.0	75.0	90.0	81.0
F28405-7	ZF15666.D	54.0	85.0	88.0	97.0
F28405-8	ZF15681.D	35.0*	80.0	57.0	72.0
F28405-8	ZF15667.D	34.0* ^c	81.0	68.0	82.0
F28405-9	ZF15668.D	51.0	70.0	80.0	77.0
F28405-10	ZF15669.D	56.0	45.0	64.0	67.0
F28405-11	ZF15671.D	42.0	65.0	86.0	82.0
OP11968-BS	ZF15655.D	67.0	54.0	73.0	53.0
OP11968-DUP	ZF15670.D	48.0	55.0	79.0	72.0
OP11968-MB	ZF15656.D	50.0	66.0	73.0	82.0
OP11968-MB	ZF15680.D	49.0	63.0	70.0	79.0
OP11968-MS	ZF15662.D	59.0	72.0	79.0	76.0
OP11968-MSD	ZF15663.D	64.0	81.0	89.0	91.0

Surrogate Compounds

Recovery Limits

S1 = 1-Chlorooctadecane	40-140%
S2 = 2-Bromonaphthalene	40-140%
S3 = o-Terphenyl	40-140%
S4 = 2-Fluorobiphenyl	40-140%

(a) Recovery from GC signal #2

(b) Recovery from GC signal #1

(c) Confirmed by refractionation and reanalysis.

Semivolatile Surrogate Recovery Summary

Page 1 of 1

Job Number: F28405

Account: EEINCJX EEI

Project: Camp Lejeune-LCH 4015

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
F28405-1	IJ21388.D	79.0		84.0	
F28405-2	IJ21389.D		88.0		77.0
F28405-2	IJ21403.D		87.0		79.0
F28405-3	IJ21404.D	76.0		87.0	
F28405-3	IJ21390.D	90.0		87.0	
F28405-4	IJ21394.D	76.0		83.0	
F28405-5	IJ21395.D	59.0		75.0	
F28405-6	IJ21396.D	62.0		72.0	
F28405-7	IJ21397.D	67.0		78.0	
F28405-8	IJ21398.D	63.0		70.0	
F28405-9	IJ21399.D	71.0		80.0	
F28405-10	IJ21400.D	74.0		83.0	
F28405-11	IJ21401.D	64.0		78.0	
OP11942-BS	IJ21384.D	75.0		85.0	
OP11942-MB	IJ21385.D	58.0		77.0	
OP11942-MS	IJ21405.D	66.0		82.0	
OP11942-MSD	IJ21406.D	66.0		79.0	

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

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std: GZF721-ICC721	Injection Date: 12/09/04
Lab File ID: ZF15649.D	Injection Time: 16:45
Instrument ID: GCZF	Method: MADEP-EPH-98-1

	S1 ^a RT	S2 ^b RT	S3 ^b RT	S4 ^b RT
Check Std	11.98	7.21	11.08	6.22

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^b RT	S3 ^b RT	S4 ^b RT
OP11968-BS	ZF15655.D	12/09/04	20:12	11.98	7.20	11.07	6.21
OP11968-MB	ZF15656.D	12/09/04	20:47	11.98	7.19	11.07	6.21
F28405-1	ZF15657.D	12/09/04	21:21	11.98	7.20	11.07	6.21
F28405-2	ZF15658.D	12/09/04	21:56	11.98	7.20	11.07	6.21
F28405-3	ZF15659.D	12/09/04	22:30	11.98	7.19	11.06	6.21
F28405-4	ZF15660.D	12/09/04	23:05	11.98	7.19	11.07	6.21
F28405-5	ZF15661.D	12/09/04	23:39	11.98	7.20	11.07	6.21
OP11968-MS	ZF15662.D	12/10/04	00:14	11.98	7.20	11.07	6.21
OP11968-MSD	ZF15663.D	12/10/04	00:49	11.98	7.21	11.08	6.22
F28405-6	ZF15664.D	12/10/04	01:23	11.98	7.20	11.07	6.21

Surrogate Compounds

S1 = 1-Chlorooctadecane
S2 = 2-Bromonaphthalene
S3 = o-Terphenyl
S4 = 2-Fluorobiphenyl

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

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GZF721-CC721	Injection Date:	12/10/04
Lab File ID:	ZF15665.D	Injection Time:	01:58
Instrument ID:	GCZF	Method:	MADEP-EPH-98-1

	S1 ^a RT	S2 ^b RT	S3 ^b RT	S4 ^b RT
Check Std	11.98	7.21	11.08	6.22

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^b RT	S3 ^b RT	S4 ^b RT
F28405-7	ZF15666.D	12/10/04	02:32	11.98	7.20	11.07	6.21
F28405-8	ZF15667.D	12/10/04	03:07	11.98	7.20	11.07	6.21
F28405-9	ZF15668.D	12/10/04	03:42	11.98	7.20	11.07	6.21
F28405-10	ZF15669.D	12/10/04	04:16	11.98	7.20	11.07	6.21
OP11968-DUP	ZF15670.D	12/10/04	04:51	11.98	7.20	11.07	6.21
F28405-11	ZF15671.D	12/10/04	05:25	11.98	7.20	11.07	6.21
GZF721-ECC721	ZF15672.D	12/10/04	06:00	11.98	7.21	11.08	6.22

Surrogate Compounds

S1 = 1-Chlorooctadecane
S2 = 2-Bromonaphthalene
S3 = o-Terphenyl
S4 = 2-Fluorobiphenyl

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

GC Surrogate Retention Time Summary

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GZF723-CC721	Injection Date:	12/11/04
Lab File ID:	ZF15677.D	Injection Time:	11:48
Instrument ID:	GCZF	Method:	MADEP-EPH-98-1

	S1 ^a RT	S2 ^b RT	S3 ^b RT	S4 ^b RT
Check Std	11.98	7.18	11.06	6.19

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^b RT	S3 ^b RT	S4 ^b RT
OP11968-MB	ZF15680.D	12/11/04	13:36	11.98	7.20	11.07	6.21
F28405-8	ZF15681.D	12/11/04	14:10	11.98	7.20	11.07	6.21

Surrogate
Compounds

- S1 = 1-Chlorooctadecane
S2 = 2-Bromonaphthalene
S3 = o-Terphenyl
S4 = 2-Fluorobiphenyl

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

GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GIJ1053-CC1048	Injection Date:	11/30/04
Lab File ID:	IJ21383.D	Injection Time:	08:57
Instrument ID:	GCIJ	Method:	EPA 610

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	5.76	6.50	10.29	11.62

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
OP11942-BS	IJ21384.D	11/30/04	09:26	5.76		10.29	
OP11942-MB	IJ21385.D	11/30/04	09:55	5.77		10.30	
ZZZZZZ	IJ21386.D	11/30/04	10:24	5.77		10.31	
ZZZZZZ	IJ21387.D	11/30/04	10:54	5.77		10.31	
F28405-1	IJ21388.D	11/30/04	11:23	5.77		10.30	
F28405-2	IJ21389.D	11/30/04	11:52		6.51		11.63
F28405-3	IJ21390.D	11/30/04	12:21	5.77		10.30	

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: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GIJ1053-CC1048	Injection Date:	11/30/04
Lab File ID:	IJ21393.D	Injection Time:	13:48
Instrument ID:	GCIJ	Method:	EPA 610

S1^a	S2^a
RT	RT

Check Std	5.77	10.31

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
F28405-4	IJ21394.D	11/30/04	14:18	5.77	10.31
F28405-5	IJ21395.D	11/30/04	14:47	5.77	10.31
F28405-6	IJ21396.D	11/30/04	15:16	5.77	10.31
F28405-7	IJ21397.D	11/30/04	15:45	5.77	10.31
F28405-8	IJ21398.D	11/30/04	16:15	5.77	10.31
F28405-9	IJ21399.D	11/30/04	16:44	5.77	10.31
F28405-10	IJ21400.D	11/30/04	17:13	5.77	10.31
F28405-11	IJ21401.D	11/30/04	17:42	5.77	10.30

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: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GIJ1053-CC1048	Injection Date:	11/30/04
Lab File ID:	IJ21402.D	Injection Time:	18:11
Instrument ID:	GCIJ	Method:	EPA 610

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	5.77	6.51	10.30	11.63

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
F28405-2	IJ21403.D	11/30/04	18:40		6.50		11.63
F28405-3	IJ21404.D	11/30/04	19:09	5.77		10.30	
OP11942-MS	IJ21405.D	11/30/04	19:38	5.77		10.30	
OP11942-MSD	IJ21406.D	11/30/04	20:07	5.77		10.30	
GIJ1053-ECC1048IJ21407.D		11/30/04	20:36	5.77	6.51	10.31	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 1

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ1048-ICC1048
Lab FileID: IJ21331.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 : Mon Nov 22 15:09:55 2004
Response via : Initial Calibration

Calibration Files

5 =IJ21332.D 10 =IJ21333.D 20 =IJ21331.D 30 =IJ21334.D
40 =IJ21335.D 50 =IJ21336.D

	Compound	5	10	20	30	40	50	Avg	%RSD
1)	Naphthalene	1.366	1.376	1.391	1.386	1.537	1.414	1.412 E4	4.49
2)	2-Methyl Naphthalen	1.321	1.305	1.323	1.321	1.468	1.362	1.350 E4	4.49
3)	1-Methyl Naphthalen	1.381	1.346	1.360	1.353	1.499	1.391	1.388 E4	4.09
4) S	2-Fluorobiphenyl	1.146	1.163	1.198	1.196	1.329	1.233	1.211 E4	5.37
5)	Acenaphthylene	1.309	1.311	1.325	1.332	1.471	1.375	1.354 E4	4.60
6)	Acenaphthene	1.349	1.327	1.344	1.355	1.500	1.395	1.378 E4	4.63
7)	Fluorene	1.269	1.293	1.307	1.312	1.456	1.353	1.332 E4	5.02
8)	Phenanthrene	1.256	1.270	1.307	1.312	1.459	1.357	1.327 E4	5.56
9)	Anthracene	1.348	1.311	1.303	1.300	1.435	1.331	1.338 E4	3.80
10) S	0-Terphenyl	1.474	1.422	1.420	1.411	1.559	1.446	1.456 E4	3.83
11)	Fluoranthene	1.366	1.358	1.363	1.362	1.508	1.401	1.393 E4	4.20
12)	Pyrene	1.369	1.342	1.355	1.352	1.498	1.391	1.384 E4	4.19
13)	Benzo(a)Anthracene	1.284	1.303	1.354	1.356	1.513	1.407	1.370 E4	6.03
14)	Chrysene	1.489	1.424	1.407	1.394	1.540	1.427	1.447 E4	3.88
15)	Benzo(b)Fluoranthen	1.348	1.339	1.376	1.386	1.556	1.434	1.406 E4	5.72
16)	Benzo(k)Fluoranthen	1.549	1.479	1.466	1.445	1.584	1.434	1.493 E4	4.04
17)	Benzo(a) Pyrene	1.355	1.316	1.335	1.325	1.470	1.365	1.361 E4	4.14
18)	Indeno(1,2,3-cd)pyr	1.285	1.294	1.349	1.340	1.491	1.384	1.357 E4	5.53
19)	Dibenzo(a,h)anthrac	1.480	1.425	1.427	1.403	1.545	1.431	1.452 E4	3.59
20)	Benzo(g,h,i) Peryle	1.481	1.421	1.431	1.400	1.557	1.440	1.455 E4	3.89

Signal #2

1)	Naphthalene	2.070	2.013	2.064	2.033	2.257	2.093	2.088 E4	4.18
2)	2-Methyl Naphthalen	1.901	1.905	1.957	1.933	2.146	1.991	1.972 E4	4.64
3)	1-Methyl Naphthalen	2.006	1.961	1.989	1.964	2.187	2.041	2.025 E4	4.19
4) S	2-Fluorobiphenyl	1.745	1.711	1.766	1.757	1.952	1.808	1.790 E4	4.77
5)	Acenaphthylene	1.969	1.921	1.980	1.952	2.162	2.005	1.998 E4	4.25
6)	Acenaphthene	2.008	1.955	1.997	1.982	2.194	2.035	2.028 E4	4.21
7)	Fluorene	1.930	1.887	1.935	1.916	2.125	1.974	1.961 E4	4.34
8)	Phenanthrene	1.827	1.841	1.934	1.909	2.142	1.993	1.941 E4	5.98
9)	Anthracene	2.043	1.854	1.905	1.888	2.069	1.917	1.946 E4	4.54
10) S	0-Terphenyl	2.162	2.077	2.095	2.064	2.282	2.115	2.132 E4	3.79
11)	Fluoranthene	2.026	1.969	2.012	1.987	2.202	2.043	2.040 E4	4.10
12)	Pyrene	2.112	2.013	2.034	2.007	2.222	2.067	2.076 E4	3.92
13)	Benzo(a)Anthracene	2.063	2.011	2.060	2.033	2.252	2.089	2.085 E4	4.14
14)	Chrysene	2.074	2.014	2.044	2.011	2.224	2.069	2.073 E4	3.79
15)	Benzo(b)Fluoranthen	2.054	2.017	2.087	2.053	2.292	2.128	2.105 E4	4.70
16)	Benzo(k)Fluoranthen	2.157	2.095	2.124	2.087	2.295	2.128	2.148 E4	3.56
17)	Benzo(a) Pyrene	2.000	1.947	1.989	1.951	2.161	2.001	2.008 E4	3.90
18)	Indeno(1,2,3-cd)pyr	1.923	1.949	2.058	2.033	2.293	2.112	2.061 E4	6.47
19)	Dibenzo(a,h)anthrac	2.159	2.017	2.069	1.995	2.158	2.009	2.068 E4	3.60
20)	Benzo(g,h,i) Peryle	2.113	2.061	2.077	2.027	2.238	2.071	2.098 E4	3.53

(#) = Out of Range

8100_H2.M

Tue Nov 23 08:05:23 2004

Initial Calibration Verification

Page 1 of 2

Job Number: F28405
 Account: EEINCJX EEI
 Project: Camp Lejeune-LCH 4015

Sample: GIJ1048-ICV1048
 Lab FileID: IJ21337.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\1122PAH\IJ21337.D\FID1B.CH Vial: 7
 Signal #2 : C:\HPCHEM\1\DATA\1122PAH\IJ21337.D\FID2A.CH
 Acq On : 22 Nov 2004 3:11 pm Operator: sarahm
 Sample : icv1048-20 Inst : FID 1
 Misc : op11882,gij1048,1000,,,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 Nov 22 15:09:55 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	19.079	4.6	97	0.00	4.12-	4.32
2	2-Methyl Naphthalene	20.000	19.829	0.9	101	0.00	5.03-	5.23
3	1-Methyl Naphthalene	20.000	20.117	-0.6	103	0.00	5.17-	5.37
4 S	2-Fluorobiphenyl			-----NA-----				
5	Acenaphthylene	20.000	19.800	1.0	101	0.00	6.37-	6.57
6	Acenaphthene	20.000	19.639	1.8	101	0.00	6.69-	6.89
7	Fluorene	20.000	20.461	-2.3	104	0.00	7.56-	7.76
8	Phenanthrene	20.000	20.022	-0.1	102	0.00	9.23-	9.43
9	Anthracene	20.000	20.458	-2.3	105	0.00	9.31-	9.51
10 S	0-Terphenyl			-----NA-----				
11	Fluoranthene	20.000	20.074	-0.4	103	0.00	11.42-	11.62
12	Pyrene	20.000	20.151	-0.8	103	0.00	11.79-	11.99
13	Benzo(a)Anthracene	20.000	19.834	0.8	100	0.00	14.10-	14.30
14	Chrysene	20.000	20.106	-0.5	103	0.00	14.16-	14.36
15	Benzo(b)Fluoranthene	20.000	19.805	1.0	101	0.00	16.00-	16.20
16	Benzo(k)Fluoranthene	20.000	19.552	2.2	100	0.00	16.04-	16.24
17	Benzo(a) Pyrene	20.000	20.398	-2.0	104	0.00	16.49-	16.69
18	Indeno(1,2,3-cd)pyrene	20.000	19.389	3.1	98	0.00	18.16-	18.36
19	Dibenzo(a,h)anthracene	20.000	19.707	1.5	100	0.00	18.24-	18.44
20	Benzo(g,h,i) Perylene	20.000	19.658	1.7	100	0.01	18.48-	18.68

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

1	Naphthalene	20.000	19.198	4.0	97	0.00	4.75-	4.95
2	2-Methyl Naphthalene	20.000	19.979	0.1	101	0.00	5.63-	5.83
3	1-Methyl Naphthalene	20.000	19.926	0.4	101	0.00	5.89-	6.09
4 S	2-Fluorobiphenyl			-----NA-----				
5	Acenaphthylene	20.000	19.650	1.8	99	0.00	7.50-	7.70
6	Acenaphthene	20.000	19.456	2.7	99	0.00	7.74-	7.94
7	Fluorene	20.000	20.215	-1.1	102	0.00	8.61-	8.81
8	Phenanthrene	20.000	19.767	1.2	99	0.00	10.64-	10.84
9	Anthracene	20.000	20.120	-0.6	103	0.00	10.67-	10.87
10 S	0-Terphenyl			-----NA-----				
11	Fluoranthene	20.000	19.985	0.1	101	0.00	12.99-	13.19
12	Pyrene	20.000	19.912	0.4	102	0.00	13.54-	13.74
13	Benzo(a)Anthracene	20.000	19.570	2.1	99	0.00	15.89-	16.09
14	Chrysene	20.000	19.915	0.4	101	0.00	16.06-	16.26
15	Benzo(b)Fluoranthene	20.000	19.564	2.2	99	0.00	17.94-	18.14
16	Benzo(k)Fluoranthene	20.000	19.454	2.7	98	0.00	17.98-	18.18
17	Benzo(a) Pyrene	20.000	20.350	-1.8	103	0.00	18.66-	18.86
18	Indeno(1,2,3-cd)pyrene	20.000	19.086	4.6	96	0.00	20.40-	20.60

Initial Calibration Verification

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ1048-ICV1048
Lab FileID: IJ21337.D

19	Dibenzo(a,h)anthracene	20.000	19.895	0.5	99	0.00	20.46-20.66
20	Benzo(g,h,i) Perylene	20.000	19.397	3.0	98	0.01	21.00-21.20

(#) = Out of Range SPCC's out = 0 CCC's out = 0
IJ21331.D 8100_H2.M Tue Nov 23 08:05:37 2004

6.7
6

Continuing Calibration Summary

Page 1 of 2

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ1053-CC1048
Lab FileID: IJ21383.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\1130PAH\IJ21383.D\FID1B.CH Vial: 1
Signal #2 : C:\HPCHEM\1\DATA\1130PAH\IJ21383.D\FID2A.CH
Acq On : 30 Nov 2004 8:57 am Operator: aubreya
Sample : cc1048-20 Inst : FID 1
Misc : op11942,gij1053,1000,,,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 : Sun Nov 28 12:49:52 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	19.389	3.1	98	0.00	4.12-	4.32
2	2-Methyl Naphthalene	20.000	19.367	3.2	99	0.00	5.03-	5.23
3	1-Methyl Naphthalene	20.000	19.366	3.2	99	0.00	5.17-	5.37
4 S	2-Fluorobiphenyl	20.000	19.742	1.3	100	0.00	5.66-	5.86
5	Acenaphthylene	20.000	19.587	2.1	100	0.00	6.37-	6.57
6	Acenaphthene	20.000	19.525	2.4	100	0.00	6.69-	6.89
7	Fluorene	20.000	19.540	2.3	100	0.00	7.56-	7.76
8	Phenanthrene	20.000	19.492	2.5	99	0.00	9.23-	9.43
9	Anthracene	20.000	19.391	3.0	100	0.00	9.31-	9.51
10 S	0-Terphenyl	20.000	19.524	2.4	100	0.00	10.18-	10.38
11	Fluoranthene	20.000	19.497	2.5	100	0.00	11.42-	11.62
12	Pyrene	20.000	19.466	2.7	99	0.00	11.79-	11.99
13	Benzo(a)Anthracene	20.000	19.338	3.3	98	0.00	14.12-	14.32
14	Chrysene	20.000	19.438	2.8	100	0.00	14.19-	14.39
15	Benzo(b)Fluoranthene	20.000	19.254	3.7	98	0.00	16.03-	16.23
16	Benzo(k)Fluoranthene	20.000	19.529	2.4	99	-0.01	16.07-	16.27
17	Benzo(a) Pyrene	20.000	19.803	1.0	101	-0.01	16.52-	16.72
18	Indeno(1,2,3-cd)pyrene	20.000	19.414	2.9	98	-0.01	18.20-	18.40
19	Dibenzo(a,h)anthracene	20.000	19.516	2.4	99	-0.01	18.28-	18.48
20	Benzo(g,h,i) Perylene	20.000	19.380	3.1	99	-0.01	18.52-	18.72

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

1	Naphthalene	20.000	19.555	2.2	99	0.00	4.75-	4.95
2	2-Methyl Naphthalene	20.000	19.681	1.6	99	0.00	5.63-	5.83
3	1-Methyl Naphthalene	20.000	19.764	1.2	101	0.00	5.89-	6.09
4 S	2-Fluorobiphenyl	20.000	19.562	2.2	99	0.00	6.40-	6.60
5	Acenaphthylene	20.000	19.699	1.5	99	0.00	7.50-	7.70
6	Acenaphthene	20.000	19.684	1.6	100	0.00	7.74-	7.94
7	Fluorene	20.000	19.695	1.5	100	0.00	8.61-	8.81
8	Phenanthrene	20.000	19.690	1.5	99	0.00	10.64-	10.84
9	Anthracene	20.000	19.270	3.7	98	0.00	10.67-	10.87
10 S	0-Terphenyl	20.000	19.709	1.5	100	0.00	11.52-	11.72
11	Fluoranthene	20.000	19.719	1.4	100	0.00	12.99-	13.19
12	Pyrene	20.000	19.637	1.8	100	0.00	13.54-	13.74
13	Benzo(a)Anthracene	20.000	19.624	1.9	99	0.00	15.90-	16.10
14	Chrysene	20.000	19.616	1.9	99	0.00	16.07-	16.27
15	Benzo(b)Fluoranthene	20.000	19.540	2.3	99	0.00	17.96-	18.16
16	Benzo(k)Fluoranthene	20.000	19.476	2.6	98	0.00	18.00-	18.20
17	Benzo(a) Pyrene	20.000	19.805	1.0	100	-0.01	18.67-	18.87
18	Indeno(1,2,3-cd)pyrene	20.000	19.614	1.9	98	-0.01	20.42-	20.62

Continuing Calibration Summary

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ1053-CC1048
Lab FileID: IJ21383.D

19	Dibenzo(a,h)anthracene	20.000	20.110	-0.5	100	0.00	20.49-20.69
20	Benzo(g,h,i) Perylene	20.000	19.631	1.8	99	-0.01	21.03-21.23

(#) = Out of Range SPCC's out = 0 CCC's out = 0
IJ21331.D 8100_H2.M Wed Dec 01 08:06:29 2004

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Continuing Calibration Summary

Page 1 of 2

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ1053-CC1048
Lab FileID: IJ21393.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\1130PAH\IJ21393.D\FID1B.CH Vial: 11
Signal #2 : C:\HPCHEM\1\DATA\1130PAH\IJ21393.D\FID2A.CH
Acq On : 30 Nov 2004 1:48 pm Operator: aubreya
Sample : cc1048-30 Inst : FID 1
Misc : op11942,gij1053,520,,,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 : Sun Nov 28 12:49:52 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	30.353	-1.2	103	0.01	4.12- 4.32
2	2-Methyl Naphthalene	30.000	30.220	-0.7	103	0.02	5.03- 5.23
3	1-Methyl Naphthalene	30.000	30.262	-0.9	103	0.02	5.17- 5.37
4 S	2-Fluorobiphenyl	30.000	30.800	-2.7	104	0.02	5.66- 5.86
5	Acenaphthylene	30.000	30.631	-2.1	104	0.02	6.37- 6.57
6	Acenaphthene	30.000	30.618	-2.1	104	0.02	6.69- 6.89
7	Fluorene	30.000	30.658	-2.2	104	0.02	7.56- 7.76
8	Phenanthrene	30.000	30.732	-2.4	104	0.02	9.23- 9.43
9	Anthracene	30.000	30.273	-0.9	104	0.02	9.31- 9.51
10 S	O-Terphenyl	30.000	30.323	-1.1	104	0.02	10.18-10.38
11	Fluoranthene	30.000	30.600	-2.0	104	0.03	11.42-11.62
12	Pyrene	30.000	30.439	-1.5	104	0.03	11.79-11.99
13	Benzo(a)Anthracene	30.000	30.596	-2.0	103	0.01	14.12-14.32
14	Chrysene	30.000	30.057	-0.2	104	0.01	14.19-14.39
15	Benzo(b)Fluoranthene	30.000	30.437	-1.5	103	0.01	16.03-16.23
16	Benzo(k)Fluoranthene	30.000	30.205	-0.7	104	0.02	16.07-16.27
17	Benzo(a) Pyrene	30.000	30.329	-1.1	104	0.01	16.52-16.72
18	Indeno(1,2,3-cd)pyrene	30.000	30.700	-2.3	104	0.01	18.20-18.40
19	Dibenzo(a,h)anthracene	30.000	30.227	-0.8	104	0.01	18.28-18.48
20	Benzo(g,h,i) Perylene	30.000	30.297	-1.0	105	0.02	18.52-18.72

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

1	Naphthalene	30.000	30.205	-0.7	103	0.00	4.75- 4.95
2	2-Methyl Naphthalene	30.000	30.370	-1.2	103	0.00	5.63- 5.83
3	1-Methyl Naphthalene	30.000	30.117	-0.4	104	0.00	5.89- 6.09
4 S	2-Fluorobiphenyl	30.000	30.510	-1.7	104	0.00	6.40- 6.60
5	Acenaphthylene	30.000	30.376	-1.3	104	0.00	7.50- 7.70
6	Acenaphthene	30.000	30.370	-1.2	104	0.00	7.74- 7.94
7	Fluorene	30.000	30.429	-1.4	104	0.00	8.61- 8.81
8	Phenanthrene	30.000	30.455	-1.5	103	0.01	10.64-10.84
9	Anthracene	30.000	30.238	-0.8	104	0.01	10.67-10.87
10 S	O-Terphenyl	30.000	30.252	-0.8	104	0.01	11.52-11.72
11	Fluoranthene	30.000	30.337	-1.1	104	0.02	12.99-13.19
12	Pyrene	30.000	30.100	-0.3	104	0.02	13.54-13.74
13	Benzo(a)Anthracene	30.000	30.165	-0.5	103	0.00	15.90-16.10
14	Chrysene	30.000	30.002	-0.0	103	0.00	16.07-16.27
15	Benzo(b)Fluoranthene	30.000	29.711	1.0	102	0.00	17.96-18.16
16	Benzo(k)Fluoranthene	30.000	29.774	0.8	102	0.01	18.00-18.20
17	Benzo(a) Pyrene	30.000	30.051	-0.2	103	0.00	18.67-18.87
18	Indeno(1,2,3-cd)pyrene	30.000	30.569	-1.9	103	0.01	20.42-20.62

Continuing Calibration Summary

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ1053-CC1048
Lab FileID: IJ21393.D

19	Dibenzo(a,h)anthracene	30.000	30.415	-1.4	105	0.01	20.49-20.69
20	Benzo(g,h,i) Perylene	30.000	30.218	-0.7	104	0.01	21.03-21.23

(#) = Out of Range SPCC's out = 0 CCC's out = 0
IJ21334.D 8100_H2.M Wed Dec 01 08:06:13 2004

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Continuing Calibration Summary

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Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ1053-CC1048
Lab FileID: IJ21402.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\1130PAH\IJ21402.D\FID1B.CH Vial: 1
Signal #2 : C:\HPCHEM\1\DATA\1130PAH\IJ21402.D\FID2A.CH
Acq On : 30 Nov 2004 6:11 pm Operator: aubreya
Sample : cc1048-20 Inst : FID 1
Misc : op11942,gij1053,1040,,,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 : Sun Nov 28 12:49:52 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	20.637	-3.2	105	0.00	4.12-	4.32
2	2-Methyl Naphthalene	20.000	20.614	-3.1	105	0.01	5.03-	5.23
3	1-Methyl Naphthalene	20.000	20.734	-3.7	106	0.01	5.17-	5.37
4 S	2-Fluorobiphenyl	20.000	20.792	-4.0	105	0.01	5.66-	5.86
5	Acenaphthylene	20.000	20.760	-3.8	106	0.01	6.37-	6.57
6	Acenaphthene	20.000	20.756	-3.8	106	0.01	6.69-	6.89
7	Fluorene	20.000	20.776	-3.9	106	0.01	7.56-	7.76
8	Phenanthrene	20.000	20.749	-3.7	105	0.02	9.23-	9.43
9	Anthracene	20.000	20.609	-3.0	106	0.02	9.31-	9.51
10 S	0-Terphenyl	20.000	20.727	-3.6	106	0.02	10.18-	10.38
11	Fluoranthene	20.000	20.804	-4.0	106	0.02	11.42-	11.62
12	Pyrene	20.000	20.641	-3.2	105	0.02	11.79-	11.99
13	Benzo(a)Anthracene	20.000	20.570	-2.9	104	0.00	14.12-	14.32
14	Chrysene	20.000	20.560	-2.8	106	0.00	14.19-	14.39
15	Benzo(b)Fluoranthene	20.000	20.570	-2.9	105	0.00	16.03-	16.23
16	Benzo(k)Fluoranthene	20.000	20.544	-2.7	105	0.00	16.07-	16.27
17	Benzo(a) Pyrene	20.000	20.623	-3.1	105	0.00	16.52-	16.72
18	Indeno(1,2,3-cd)pyrene	20.000	20.668	-3.3	104	0.00	18.20-	18.40
19	Dibenzo(a,h)anthracene	20.000	20.612	-3.1	105	0.00	18.28-	18.48
20	Benzo(g,h,i) Perylene	20.000	20.656	-3.3	105	0.00	18.52-	18.72

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

1	Naphthalene	20.000	20.703	-3.5	105	0.00	4.75-	4.95
2	2-Methyl Naphthalene	20.000	20.779	-3.9	105	0.00	5.63-	5.83
3	1-Methyl Naphthalene	20.000	20.808	-4.0	106	0.00	5.89-	6.09
4 S	2-Fluorobiphenyl	20.000	20.703	-3.5	105	0.00	6.40-	6.60
5	Acenaphthylene	20.000	20.754	-3.8	105	0.00	7.50-	7.70
6	Acenaphthene	20.000	20.781	-3.9	106	0.00	7.74-	7.94
7	Fluorene	20.000	20.792	-4.0	105	0.00	8.61-	8.81
8	Phenanthrene	20.000	20.691	-3.5	104	0.00	10.64-	10.84
9	Anthracene	20.000	20.410	-2.1	104	0.00	10.67-	10.87
10 S	0-Terphenyl	20.000	20.791	-4.0	106	0.00	11.52-	11.72
11	Fluoranthene	20.000	20.776	-3.9	105	0.01	12.99-	13.19
12	Pyrene	20.000	20.636	-3.2	105	0.01	13.54-	13.74
13	Benzo(a)Anthracene	20.000	20.606	-3.0	104	0.00	15.90-	16.10
14	Chrysene	20.000	20.442	-2.2	104	0.00	16.07-	16.27
15	Benzo(b)Fluoranthene	20.000	20.500	-2.5	103	0.00	17.96-	18.16
16	Benzo(k)Fluoranthene	20.000	20.587	-2.9	104	0.00	18.00-	18.20
17	Benzo(a) Pyrene	20.000	20.580	-2.9	104	0.00	18.67-	18.87
18	Indeno(1,2,3-cd)pyrene	20.000	20.519	-2.6	103	0.00	20.42-	20.62

Continuing Calibration Summary

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ1053-CC1048
Lab FileID: IJ21402.D

19	Dibenzo(a,h)anthracene	20.000	21.023	-5.1	105	0.00	20.49-20.69
20	Benzo(g,h,i) Perylene	20.000	20.640	-3.2	104	0.00	21.03-21.23

(#) = Out of Range SPCC's out = 0 CCC's out = 0
IJ21331.D 8100_H2.M Wed Dec 01 08:06:29 2004

Continuing Calibration Summary

Page 1 of 2

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ1053-ECC1048
Lab FileID: IJ21407.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\1130PAH\IJ21407.D\FID1B.CH Vial: 11
Signal #2 : C:\HPCHEM\1\DATA\1130PAH\IJ21407.D\FID2A.CH
Acq On : 30 Nov 2004 8:36 pm Operator: aubreya
Sample : ecc1048-30 Inst : FID 1
Misc : op11942,gij1053,520,,,1,2,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 : Sun Nov 28 12:49:52 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	30.911	-3.0	105	0.01	4.12-	4.32
2	2-Methyl Naphthalene	30.000	30.918	-3.1	105	0.01	5.03-	5.23
3	1-Methyl Naphthalene	30.000	30.978	-3.3	106	0.02	5.17-	5.37
4 S	2-Fluorobiphenyl	30.000	31.322	-4.4	106	0.01	5.66-	5.86
5	Acenaphthylene	30.000	31.190	-4.0	106	0.02	6.37-	6.57
6	Acenaphthene	30.000	31.077	-3.6	105	0.02	6.69-	6.89
7	Fluorene	30.000	31.163	-3.9	105	0.02	7.56-	7.76
8	Phenanthrene	30.000	31.198	-4.0	105	0.02	9.23-	9.43
9	Anthracene	30.000	30.779	-2.6	106	0.02	9.31-	9.51
10 S	0-Terphenyl	30.000	30.742	-2.5	106	0.02	10.18-	10.38
11	Fluoranthene	30.000	30.984	-3.3	106	0.03	11.42-	11.62
12	Pyrene	30.000	30.836	-2.8	105	0.03	11.79-	11.99
13	Benzo(a)Anthracene	30.000	30.980	-3.3	104	0.01	14.12-	14.32
14	Chrysene	30.000	30.407	-1.4	105	0.01	14.19-	14.39
15	Benzo(b)Fluoranthene	30.000	31.026	-3.4	105	0.01	16.03-	16.23
16	Benzo(k)Fluoranthene	30.000	30.347	-1.2	105	0.02	16.07-	16.27
17	Benzo(a) Pyrene	30.000	30.707	-2.4	105	0.01	16.52-	16.72
18	Indeno(1,2,3-cd)pyrene	30.000	30.981	-3.3	105	0.01	18.20-	18.40
19	Dibenzo(a,h)anthracene	30.000	30.464	-1.5	105	0.01	18.28-	18.48
20	Benzo(g,h,i) Perylene	30.000	30.657	-2.2	106	0.02	18.52-	18.72

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

1	Naphthalene	30.000	30.876	-2.9	106	0.00	4.75-	4.95
2	2-Methyl Naphthalene	30.000	31.047	-3.5	106	0.00	5.63-	5.83
3	1-Methyl Naphthalene	30.000	31.023	-3.4	107	0.00	5.89-	6.09
4 S	2-Fluorobiphenyl	30.000	31.147	-3.8	106	0.00	6.40-	6.60
5	Acenaphthylene	30.000	31.025	-3.4	106	0.00	7.50-	7.70
6	Acenaphthene	30.000	31.015	-3.4	106	0.00	7.74-	7.94
7	Fluorene	30.000	31.081	-3.6	106	0.00	8.61-	8.81
8	Phenanthrene	30.000	31.321	-4.4	106	0.01	10.64-	10.84
9	Anthracene	30.000	30.631	-2.1	105	0.01	10.67-	10.87
10 S	0-Terphenyl	30.000	30.856	-2.9	106	0.01	11.52-	11.72
11	Fluoranthene	30.000	30.906	-3.0	106	0.01	12.99-	13.19
12	Pyrene	30.000	30.670	-2.2	106	0.01	13.54-	13.74
13	Benzo(a)Anthracene	30.000	30.721	-2.4	105	0.00	15.90-	16.10
14	Chrysene	30.000	30.593	-2.0	105	0.00	16.07-	16.27
15	Benzo(b)Fluoranthene	30.000	30.728	-2.4	105	0.00	17.96-	18.16
16	Benzo(k)Fluoranthene	30.000	30.653	-2.2	105	0.00	18.00-	18.20
17	Benzo(a) Pyrene	30.000	30.607	-2.0	105	0.00	18.67-	18.87
18	Indeno(1,2,3-cd)pyrene	30.000	31.160	-3.9	105	0.00	20.42-	20.62

Continuing Calibration Summary

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GIJ1053-ECC1048
Lab FileID: IJ21407.D

19	Dibenzo(a,h)anthracene	30.000	30.699	-2.3	106	0.00	20.49-20.69
20	Benzo(g,h,i) Perylene	30.000	30.611	-2.0	106	0.00	21.03-21.23

(#) = Out of Range SPCC's out = 0 CCC's out = 0
IJ21334.D 8100_H2.M Wed Dec 01 08:06:14 2004

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Initial Calibration Summary

Page 1 of 1

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GZF721-ICC721
Lab FileID: ZF15649.D

Response Factor Report FID 3

Method : C:\HPCHEM\1\METHODS\MAEPH.M (Chemstation Integrator)
Title : MADEP Extractable Petroleum Hydrocarbons
Last Update : Sat Dec 11 12:18:45 2004
Response via : Initial Calibration

Calibration Files

5.0 =ZF15647.D 10 =ZF15648.D 25 =ZF15649.D 50 =ZF15650.D
100 =ZF15651.D 200 =ZF15652.D

	Compound	5.0	10	25	50	100	200	Avg	%RSD
1)	Naphthalene	2.028	2.152	2.056	2.020	1.897	2.041	2.032 E4	4.02
2)	2-Methylnaphthalene	1.916	2.039	1.953	1.923	1.809	1.953	1.932 E4	3.86
3) S	2-Fluorobiphenyl	1.763	1.877	1.798	1.769	1.664		1.774 E4	4.30
4)	Acenaphthylene	1.949	2.069	1.981	1.949	1.833		1.956 E4	4.33
5) S	2-Bromonaphthalene	1.177	1.257	1.208	1.190	1.120		1.190 E4	4.19
6)	Acenaphthene	2.033	2.159	2.063	2.025	1.901		2.036 E4	4.54
7)	Fluorene	1.937	2.063	1.980	1.950	1.836		1.953 E4	4.18
8)	Phenanthrene	1.954	2.078	1.994	1.962	1.845		1.967 E4	4.26
9)	Anthracene	1.886	2.009	1.928	1.898	1.786		1.901 E4	4.21
10) S	o-Terphenyl	2.050	2.174	2.081	2.042	1.919		2.053 E4	4.45
11)	Fluoranthene	1.949	2.077	2.002	1.971	1.861		1.972 E4	4.00
12)	Pyrene	1.941	2.063	1.993	1.959	1.844		1.960 E4	4.07
13)	Benzo(a)Anthracene	1.887	2.028	1.956	1.930	1.821		1.924 E4	4.01
14)	Chrysene	1.888	2.025	1.959	1.935	1.833		1.928 E4	3.76
15)	Benzo(b)Fluoranthene	1.803	1.943	1.882	1.867	1.773		1.853 E4	3.63
16)	Benzo(k)Fluoranthene	1.876	2.018	1.954	1.927	1.804		1.916 E4	4.22
17)	Benzo(a)Pyrene	1.698	1.815	1.764	1.740	1.646		1.733 E4	3.70
18)	Indeno(1,2,3-cd)Pyr	1.256	1.351	1.312	1.294	1.217		1.286 E4	3.99
19)	Dibenzo(ah)Anthracene	1.273	1.416	1.395	1.411	1.289		1.357 E4	5.15
20)	Benzo(ghi)Perylene	1.097	1.200	1.174	1.174	1.070		1.143 E4	4.91
21) H	C11-C22 Aromatics (	2.080	2.095	1.949	1.891	1.768	1.878	1.943 E4	6.49
22) S	1-Chlorooctadecane(							0.000#	-1.00
23) S	Unknown B Cartridge							0.000#	-1.00

Signal #2

25) H	C9-C18 Aliphatics #	1.476	1.279	1.058	0.991	0.909	0.947	1.110 E4	20.01
26) S	1-Chlorooctadecane	8.258	8.647	8.324	8.151	7.698		8.216 E3	4.18
27)	C20 #2	9.192	9.676	9.325	9.125	8.621		9.188 E3	4.16
28)	C28 #2	9.049	9.503	9.021	8.798	8.322		8.938 E3	4.80
29) H	C19-C36 Aliphatics		1.370	1.065	0.965	0.879	0.907	1.037 E4	19.21
30) S	2-Fluorobiphenyl(A)							0.000#	-1.00
31) S	2-Bromonaphthalene(							0.000#	-1.00
32) S	o-Terphenyl(A) #2							0.000#	-1.00
33) S	Unknown A Cartridge							0.000#	-1.00

(#) = Out of Range

MAEPH.M

Sat Dec 11 14:33:16 2004

Continuing Calibration Summary

Page 1 of 1

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GZF721-CC721
Lab FileID: ZF15665.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\1209MPH\ZF15665.D\FID1B.CH Vial: 1
Signal #2 : C:\HPCHEM\1\DATA\1209MPH\ZF15665.D\FID2A.CH
Acq On : 10 Dec 2004 1:58 am Operator: aubreya
Sample : cc721-25 Inst : FID 3
Misc : op11968,gzf721,1050,,,2,1,water Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\HPCHEM\1\METHODS\MAEPH.M (Chemstation Integrator)
Title : MADEP Extractable Petroleum Hydrocarbons
Last Update : Sat Dec 11 12:18:45 2004
Response via : Multiple Level Calibration

Min. RRF : 0.500 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT	Window
1	Naphthalene	25.000	26.024	-4.1	103	0.02	4.38-	4.78
2	2-Methylnaphthalene	25.000	26.051	-4.2	103	0.02	5.33-	5.73
3 S	2-Fluorobiphenyl	25.000	26.101	-4.4	103	0.02	5.99-	6.39
4	Acenaphthylene	25.000	26.073	-4.3	103	0.02	6.76-	7.16
5 S	2-Bromonaphthalene	25.000	26.135	-4.5	103	0.03	6.98-	7.38
6	Acenaphthene	25.000	26.194	-4.8	103	0.02	7.10-	7.50
7	Fluorene	25.000	26.168	-4.7	103	0.02	8.03-	8.43
8	Phenanthrene	25.000	26.073	-4.3	103	0.02	9.82-	10.22
9	Anthracene	25.000	26.074	-4.3	103	0.02	9.91-	10.31
10 S	o-Terphenyl	25.000	26.067	-4.3	103	0.02	10.86-	11.26
11	Fluoranthene	25.000	26.117	-4.5	103	0.02	12.19-	12.59
12	Pyrene	25.000	26.116	-4.5	103	0.02	12.59-	12.99
13	Benzo(a)Anthracene	25.000	26.101	-4.4	103	0.01	15.22-	15.62
14	Chrysene	25.000	26.080	-4.3	103	0.01	15.32-	15.72
15	Benzo(b)Fluoranthene	25.000	26.081	-4.3	103	0.01	18.52-	18.92
16	Benzo(k)Fluoranthene	25.000	26.144	-4.6	103	0.00	18.61-	19.01
17	Benzo(a)Pyrene	25.000	26.101	-4.4	103	0.00	19.33-	19.73
18	Indeno(1,2,3-cd)Pyrene	25.000	26.089	-4.4	102	0.00	22.04-	22.44
19	Dibenzo(ah)Anthracene	25.000	26.267	-5.1	102	0.00	22.20-	22.60
20	Benzo(ghi)Perylene	25.000	26.215	-4.9	102	0.00	22.54-	22.94
21 H	C11-C22 Aromatics (una	425.000	440.556	-3.7	103	0.00	4.51-	22.95
22 S	1-Chlorooctadecane(A)						-----NA-----	
23 S	Unknown B Cartridge Conta						-----NA-----	

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

25 H	C9-C18 Aliphatics #2	150.000	144.451	3.7	101	0.00	1.61-	10.44
26 S	1-Chlorooctadecane #2	25.000	25.611	-2.4	101	-0.02	11.90-	12.10
27	C20 #2	25.000	25.644	-2.6	101	-0.02	11.24-	11.44
28	C28 #2	25.000	26.415	-5.7	105	-0.03	18.02-	18.22
29 H	C19-C36 Aliphatics #2	200.000	214.097	-7.0	104	0.00	10.41-	24.66
30 S	2-Fluorobiphenyl(A) #2						-----NA-----	
31 S	2-Bromonaphthalene(A) #2						-----NA-----	
32 S	o-Terphenyl(A) #2						-----NA-----	
33 S	Unknown A Cartridge Conta						-----NA-----	

(#) = Out of Range
ZF15649.D MAEPH.M

SPCC's out = 0 CCC's out = 0
Mon Dec 13 08:22:24 2004

Continuing Calibration Summary

Page 1 of 1

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GZF721-ECC721
Lab FileID: ZF15672.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\1209MPH\ZF15672.D\FID1B.CH Vial: 4
Signal #2 : C:\HPCHEM\1\DATA\1209MPH\ZF15672.D\FID2A.CH
Acq On : 10 Dec 2004 6:00 am Operator: aubreya
Sample : ecc721-50 Inst : FID 3
Misc : op11968,gzf721,1040,,,2,1,water Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\HPCHEM\1\METHODS\MAEPH.M (Chemstation Integrator)
Title : MADEP Extractable Petroleum Hydrocarbons
Last Update : Sat Dec 11 12:18:45 2004
Response via : Multiple Level Calibration

Min. RRF : 0.500 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT	Window
1	Naphthalene	50.000	51.689	-3.4	104	0.02	4.38	4.78
2	2-Methylnaphthalene	50.000	51.848	-3.7	104	0.02	5.33	5.73
3 S	2-Fluorobiphenyl	50.000	51.944	-3.9	104	0.02	5.99	6.39
4	Acenaphthylene	50.000	51.892	-3.8	104	0.02	6.76	7.16
5 S	2-Bromonaphthalene	50.000	52.061	-4.1	104	0.02	6.98	7.38
6	Acenaphthene	50.000	52.036	-4.1	105	0.02	7.10	7.50
7	Fluorene	50.000	52.124	-4.2	104	0.02	8.03	8.43
8	Phenanthrene	50.000	51.975	-4.0	104	0.02	9.82	10.22
9	Anthracene	50.000	52.024	-4.0	104	0.02	9.91	10.31
10 S	o-Terphenyl	50.000	51.851	-3.7	104	0.02	10.86	11.26
11	Fluoranthene	50.000	52.131	-4.3	104	0.02	12.19	12.59
12	Pyrene	50.000	52.082	-4.2	104	0.02	12.59	12.99
13	Benzo(a)Anthracene	50.000	52.290	-4.6	104	0.02	15.22	15.62
14	Chrysene	50.000	52.291	-4.6	104	0.02	15.32	15.72
15	Benzo(b)Fluoranthene	50.000	52.542	-5.1	104	0.02	18.52	18.92
16	Benzo(k)Fluoranthene	50.000	52.510	-5.0	104	0.02	18.61	19.01
17	Benzo(a)Pyrene	50.000	52.647	-5.3	105	0.02	19.33	19.73
18	Indeno(1,2,3-cd)Pyrene	50.000	52.732	-5.5	105	0.02	22.04	22.44
19	Dibenzo(ah)Anthracene	50.000	54.496	-9.0	105	0.01	22.20	22.60
20	Benzo(ghi)Perylene	50.000	53.667	-7.3	105	0.01	22.54	22.94
21 H	C11-C22 Aromatics (una	850.000	860.579	-1.2	104	0.00	4.51	22.95
22 S	1-Chlorooctadecane(A)							
23 S	Unknown B Cartridge Conta							

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

25 H	C9-C18 Aliphatics #2	300.000	272.092	9.3	102	0.00	1.61	10.44
26 S	1-Chlorooctadecane #2	50.000	50.387	-0.8	102	-0.02	11.90	12.10
27	C20 #2	50.000	50.454	-0.9	102	-0.02	11.24	11.44
28	C28 #2	50.000	50.139	-0.3	102	-0.02	18.02	18.22
29 H	C19-C36 Aliphatics #2	400.000	377.139	5.7	101	0.00	10.41	24.66
30 S	2-Fluorobiphenyl(A) #2							
31 S	2-Bromonaphthalene(A) #2							
32 S	o-Terphenyl(A) #2							
33 S	Unknown A Cartridge Conta							

(#) = Out of Range
ZF15650.D MAEPH.M

SPCC's out = 0 CCC's out = 0
Mon Dec 13 08:22:42 2004

Continuing Calibration Summary

Page 1 of 1

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GZF723-CC721
Lab FileID: ZF15677.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\1211MPH\ZF15677.D\FID1B.CH Vial: 1
Signal #2 : C:\HPCHEM\1\DATA\1211MPH\ZF15677.D\FID2A.CH
Acq On : 11 Dec 2004 11:48 am Operator: marke
Sample : cc721-50 Inst : FID 3
Misc : op11968,gzf723,1000,,,2,1,water Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\HPCHEM\1\METHODS\MAEPH.M (Chemstation Integrator)
Title : MADEP Extractable Petroleum Hydrocarbons
Last Update : Sat Dec 11 12:18:45 2004
Response via : Multiple Level Calibration

Min. RRF : 0.500 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT	Window
1	Naphthalene	50.000	47.681	4.6	96	0.00	4.38-	4.78
2	2-Methylnaphthalene	50.000	47.636	4.7	96	0.00	5.33-	5.73
3 S	2-Fluorobiphenyl	50.000	47.718	4.6	96	0.00	5.99-	6.39
4	Acenaphthylene	50.000	47.595	4.8	96	0.00	6.76-	7.16
5 S	2-Bromonaphthalene	50.000	47.859	4.3	96	0.00	6.98-	7.38
6	Acenaphthene	50.000	47.820	4.4	96	0.00	7.10-	7.50
7	Fluorene	50.000	47.806	4.4	96	0.00	8.03-	8.43
8	Phenanthrene	50.000	47.712	4.6	96	0.00	9.82-	10.22
9	Anthracene	50.000	47.732	4.5	96	0.00	9.91-	10.31
10 S	o-Terphenyl	50.000	47.595	4.8	96	0.00	10.86-	11.26
11	Fluoranthene	50.000	47.856	4.3	96	0.00	12.19-	12.59
12	Pyrene	50.000	47.853	4.3	96	0.00	12.59-	12.99
13	Benzo(a)Anthracene	50.000	48.031	3.9	96	0.00	15.22-	15.62
14	Chrysene	50.000	48.152	3.7	96	0.00	15.32-	15.72
15	Benzo(b)Fluoranthene	50.000	48.330	3.3	96	0.00	18.52-	18.92
16	Benzo(k)Fluoranthene	50.000	48.577	2.8	97	0.00	18.61-	19.01
17	Benzo(a)Pyrene	50.000	48.509	3.0	97	0.00	19.33-	19.73
18	Indeno(1,2,3-cd)Pyrene	50.000	49.697	0.6	99	0.00	22.04-	22.44
19	Dibenzo(ah)Anthracene	50.000	51.387	-2.8	99	0.00	22.20-	22.60
20	Benzo(ghi)Perylene	50.000	51.288	-2.6	100	0.00	22.54-	22.94
21 H	C11-C22 Aromatics (una	850.000	791.876	6.8	96	0.00	4.51-	22.95
22 S	1-Chlorooctadecane(A)						-----NA-----	
23 S	Unknown B Cartridge Conta						-----NA-----	

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

25 H	C9-C18 Aliphatics #2	300.000	260.220	13.3	97	0.00	1.61-	10.44
26 S	1-Chlorooctadecane #2	50.000	46.088	7.8	93	-0.02	11.90-	12.10
27	C20 #2	50.000	46.105	7.8	93	-0.02	11.24-	11.44
28	C28 #2	50.000	45.604	8.8	93	-0.03	18.02-	18.22
29 H	C19-C36 Aliphatics #2	400.000	357.142	10.7	96	0.00	10.41-	24.66
30 S	2-Fluorobiphenyl(A) #2						-----NA-----	
31 S	2-Bromonaphthalene(A) #2						-----NA-----	
32 S	0-Terphenyl(A) #2						-----NA-----	
33 S	Unknown A Cartridge Conta						-----NA-----	

(#) = Out of Range
ZF15650.D MAEPH.M

SPCC's out = 0 CCC's out = 0
Mon Dec 13 08:39:22 2004

Initial Calibration Verification

Page 1 of 1

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GZF721-ICV721
Lab FileID: ZF15678.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\1211MPH\ZF15678.D\FID1B.CH Vial: 2
Signal #2 : C:\HPCHEM\1\DATA\1211MPH\ZF15678.D\FID2A.CH
Acq On : 11 Dec 2004 12:27 pm Operator: marke
Sample : icv721-25 Inst : FID 3
Misc : op11968,gzf721,1000,,,2,1,water Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\HPCHEM\1\METHODS\MAEPH.M (Chemstation Integrator)
Title : MADEP Extractable Petroleum Hydrocarbons
Last Update : Sat Dec 11 12:18:45 2004
Response via : Multiple Level Calibration

Min. RRF : 0.500 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT	Window
1	Naphthalene	25.000	25.353	-1.4	100	0.00	4.38	4.78
2	2-Methylnaphthalene	25.000	26.498	-6.0	105	0.00	5.33	5.73
3 S	2-Fluorobiphenyl			-----NA-----				
4	Acenaphthylene	25.000	25.471	-1.9	101	0.00	6.76	7.16
5 S	2-Bromonaphthalene			-----NA-----				
6	Acenaphthene	25.000	25.801	-3.2	102	0.00	7.10	7.50
7	Fluorene	25.000	25.921	-3.7	102	0.00	8.03	8.43
8	Phenanthrene	25.000	25.619	-2.5	101	0.00	9.82	10.22
9	Anthracene	25.000	26.416	-5.7	104	0.00	9.91	10.31
10 S	o-Terphenyl			-----NA-----				
11	Fluoranthene	25.000	25.761	-3.0	102	0.00	12.19	12.59
12	Pyrene	25.000	26.104	-4.4	103	0.00	12.59	12.99
13	Benzo(a)Anthracene	25.000	25.799	-3.2	102	0.00	15.22	15.62
14	Chrysene	25.000	26.029	-4.1	102	-0.01	15.32	15.72
15	Benzo(b)Fluoranthene	25.000	25.763	-3.1	102	-0.01	18.52	18.92
16	Benzo(k)Fluoranthene	25.000	25.878	-3.5	101	-0.02	18.61	19.01
17	Benzo(a)Pyrene	25.000	26.382	-5.5	104	-0.02	19.33	19.73
18	Indeno(1,2,3-cd)Pyrene	25.000	26.220	-4.9	103	-0.02	22.04	22.44
19	Dibenzo(ah)Anthracene	25.000	26.335	-5.3	102	-0.02	22.20	22.60
20	Benzo(ghi)Perylene	25.000	26.442	-5.8	103	-0.02	22.54	22.94
21 H	C11-C22 Aromatics (una	425.000	430.559	-1.3	101	0.00	4.51	22.95
22 S	1-Chlorooctadecane(A)			-----NA-----				
23 S	Unknown B Cartridge Conta			-----NA-----				

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

25 H	C9-C18 Aliphatics #2	150.000	143.572	4.3	100	0.00	1.61	10.44
26 S	1-Chlorooctadecane #2			-----NA-----				
27	C20 #2	25.000	24.424	2.3	96	-0.02	11.24	11.44
28	C28 #2	25.000	24.301	2.8	96	-0.03	18.02	18.22
29 H	C19-C36 Aliphatics #2	200.000	211.400	-5.7	103	0.00	10.41	24.66
30 S	2-Fluorobiphenyl(A) #2			-----NA-----				
31 S	2-Bromonaphthalene(A) #2			-----NA-----				
32 S	o-Terphenyl(A) #2			-----NA-----				
33 S	Unknown A Cartridge Conta			-----NA-----				

(#) = Out of Range
ZF15649.D MAEPH.M

SPCC's out = 0 CCC's out = 0
Mon Dec 13 08:37:56 2004

Continuing Calibration Summary

Page 1 of 1

Job Number: F28405
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GZF723-CC721
Lab FileID: ZF15682.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\1211MPH\ZF15682.D\FID1B.CH Vial: 6
Signal #2 : C:\HPCHEM\1\DATA\1211MPH\ZF15682.D\FID2A.CH
Acq On : 11 Dec 2004 2:45 pm Operator: marke
Sample : cc721-25 Inst : FID 3
Misc : op11968,gzf723,1000,,,2,1,water Multiplr: 1.00
IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\HPCHEM\1\METHODS\MAEPH.M (Chemstation Integrator)
Title : MADEP Extractable Petroleum Hydrocarbons
Last Update : Sat Dec 11 12:18:45 2004
Response via : Multiple Level Calibration

Min. RRF : 0.500 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	RT	Window
1	Naphthalene	25.000	24.187	3.3	96	0.02	4.38-	4.78
2	2-Methylnaphthalene	25.000	24.146	3.4	96	0.02	5.33-	5.73
3 S	2-Fluorobiphenyl	25.000	24.151	3.4	95	0.02	5.99-	6.39
4	Acenaphthylene	25.000	24.140	3.4	95	0.02	6.76-	7.16
5 S	2-Bromonaphthalene	25.000	24.202	3.2	95	0.02	6.98-	7.38
6	Acenaphthene	25.000	24.280	2.9	96	0.02	7.10-	7.50
7	Fluorene	25.000	24.199	3.2	95	0.02	8.03-	8.43
8	Phenanthrene	25.000	24.127	3.5	95	0.02	9.82-	10.22
9	Anthracene	25.000	24.097	3.6	95	0.02	9.91-	10.31
10 S	o-Terphenyl	25.000	24.115	3.5	95	0.02	10.86-	11.26
11	Fluoranthene	25.000	24.110	3.6	95	0.02	12.19-	12.59
12	Pyrene	25.000	24.162	3.4	95	0.01	12.59-	12.99
13	Benzo(a)Anthracene	25.000	24.129	3.5	95	0.02	15.22-	15.62
14	Chrysene	25.000	24.135	3.5	95	0.01	15.32-	15.72
15	Benzo(b)Fluoranthene	25.000	23.996	4.0	95	0.01	18.52-	18.92
16	Benzo(k)Fluoranthene	25.000	24.274	2.9	95	0.00	18.61-	19.01
17	Benzo(a)Pyrene	25.000	24.127	3.5	95	0.00	19.33-	19.73
18	Indeno(1,2,3-cd)Pyrene	25.000	24.158	3.4	95	0.00	22.04-	22.44
19	Dibenzo(ah)Anthracene	25.000	24.516	1.9	95	0.00	22.20-	22.60
20	Benzo(ghi)Perylene	25.000	24.596	1.6	96	0.00	22.54-	22.94
21 H	C11-C22 Aromatics (una	425.000	406.748	4.3	95	0.00	4.51-	22.95
22 S	1-Chlorooctadecane(A)						-----NA-----	
23 S	Unknown B Cartridge Conta						-----NA-----	

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

25 H	C9-C18 Aliphatics #2	150.000	139.059	7.3	97	0.00	1.61-	10.44
26 S	1-Chlorooctadecane #2	25.000	23.960	4.2	95	-0.02	11.90-	12.10
27	C20 #2	25.000	23.967	4.1	94	-0.02	11.24-	11.44
28	C28 #2	25.000	23.616	5.5	94	-0.03	18.02-	18.22
29 H	C19-C36 Aliphatics #2	200.000	205.155	-2.6	100	0.00	10.41-	24.66
30 S	2-Fluorobiphenyl(A) #2						-----NA-----	
31 S	2-Bromonaphthalene(A) #2						-----NA-----	
32 S	o-Terphenyl(A) #2						-----NA-----	
33 S	Unknown A Cartridge Conta						-----NA-----	

(#) = Out of Range
ZF15649.D MAEPH.M

SPCC's out = 0 CCC's out = 0
Mon Dec 13 08:38:53 2004

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F28405
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IR113004.ASC
Analyst: SM
Parameters: Pb

Date Analyzed: 11/30/04 Methods: SW846 6010B
Run ID: MA4109

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:47	MA4109-ICV1	1		
09:51	MA4109-ICB1	1		
09:54	MA4109-CRI1	1		
10:01	MA4109-ICSA1	1		
10:05	MA4109-ICSAB1	1		
10:12	MA4109-CCV1	1		
10:17	MA4109-CCB1	1		
10:26	MP7449-MB1	1		
10:30	MP7449-B1	1		
10:37	F28379-1	1		(sample used for QC only; not part of login F28405)
10:41	MP7449-D1	1		
10:45	MP7449-SD1	5		
10:48	MP7449-S1	1		
10:52	MP7449-S2	1		
11:00	ZZZZZZ	1		
11:03	ZZZZZZ	1		
11:07	ZZZZZZ	1		
11:11	MA4109-CCV2	1		
11:16	MA4109-CCB2	1		
11:20	ZZZZZZ	1		
11:24	ZZZZZZ	1		
11:27	ZZZZZZ	1		
11:31	ZZZZZZ	1		
11:35	ZZZZZZ	1		
11:39	ZZZZZZ	1		
11:43	ZZZZZZ	1		
11:47	ZZZZZZ	1		
11:50	ZZZZZZ	1		
11:54	ZZZZZZ	1		
11:58	MA4109-CCV3	1		
12:03	MA4109-CCB3	1		
12:07	ZZZZZZ	1		
12:11	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F28405
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IR113004.ASC
Analyst: SM
Parameters: Pb

Date Analyzed: 11/30/04 Methods: SW846 6010B
Run ID: MA4109

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:14	ZZZZZZ	1		
12:22	MP7451-MB1	1		
12:26	MP7451-B1	1		
12:33	F28405-1	1		
12:37	MP7451-D1	1		
12:40	MP7451-SD1	5		
12:44	MP7451-S1	1		
12:48	MP7451-S2	1		
12:52	MA4109-CCV4	1		
12:57	MA4109-CCB4	1		
13:01	F28405-2	1		
13:04	F28405-3	1		
13:08	F28405-4	1		
13:12	F28405-5	1		
13:16	F28405-6	1		
13:20	F28405-7	1		
13:23	F28405-8	1		
13:27	F28405-9	1		
13:31	F28405-10	1		
13:35	F28405-11	1		
----->	Last reportable sample/prep for job F28405			
13:39	MA4109-CCV5	1		
13:44	MA4109-CCB5	1		
----->	Last reportable CCB for job F28405			
13:47	MP7456-MB1	1		
13:51	MP7456-B1	1		
13:58	F28427-1	1		(sample used for QC only; not part of login F28405)
14:02	MP7456-D1	1		
14:06	MP7456-SD1	5		
14:10	MP7456-S1	1		
14:14	MP7456-S2	1		
14:21	ZZZZZZ	1		
14:25	ZZZZZZ	1		
14:29	ZZZZZZ	1		
14:55	MA4109-CCV6	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F28405
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IR113004.ASC
Analyst: SM
Parameters: Pb

Date Analyzed: 11/30/04 Methods: SW846 6010B
Run ID: MA4109

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:00	MA4109-CCB6	1		
15:04	ZZZZZZ	1		
15:07	ZZZZZZ	1		
15:11	ZZZZZZ	1		
15:15	ZZZZZZ	1		
15:19	ZZZZZZ	1		
15:23	MA4109-CRI2	1		
15:27	MA4109-CCV7	1		
15:31	MA4109-CCB7	1		
15:37	MP7462-MB1	1		
15:40	MP7462-B1	1		
15:48	F28445-1	1		(sample used for QC only; not part of login F28405)
15:52	MP7462-D1	1		
15:55	MP7462-SD1	5		
15:59	MP7462-S1	1		
16:03	MP7462-S2	1		
16:10	ZZZZZZ	1		
16:14	ZZZZZZ	1		
16:18	ZZZZZZ	1		
16:22	MA4109-CCV8	1		
16:27	MA4109-CCB8	1		
16:30	ZZZZZZ	1		
16:34	ZZZZZZ	1		
16:38	ZZZZZZ	1		
16:42	ZZZZZZ	1		
16:46	ZZZZZZ	1		
16:49	ZZZZZZ	1		
16:53	ZZZZZZ	1		
16:57	ZZZZZZ	1		
17:01	ZZZZZZ	1		
17:08	MP7461-MB1	1		
17:12	MA4109-CCV9	1		
17:17	MA4109-CCB9	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F28405
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IR113004.ASC
Analyst: SM
Parameters: Pb

Date Analyzed: 11/30/04 Methods: SW846 6010B
Run ID: MA4109

Time	Sample Description	Dilution Factor	PS Recov	Comments
17:21	MP7461-B1	1		
17:24	F28199-2	1		(sample used for QC only; not part of login F28405)
17:28	MP7461-D1	1		
17:32	MP7461-SD1	5		
17:36	MP7461-S1	1		
17:40	MP7461-S2	1		
17:47	ZZZZZZ	1		
17:51	ZZZZZZ	1		
17:55	ZZZZZZ	1		
17:58	ZZZZZZ	1		
18:02	MA4109-CCV10	1		
18:07	MA4109-CCB10	1		
18:11	ZZZZZZ	1		
18:15	ZZZZZZ	10		
18:19	MA4109-CRI3	1		
18:22	MA4109-CCV11	1		
18:27	MA4109-CCB11	1		

Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: F28405
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IR113004.ASC
Analyst: SM
Parameters: Pb

Date Analyzed: 11/30/04 Methods: SW846 6010B
Run ID: MA4109

Time	Sample Description	Istd#1
09:47	MA4109-ICV1	7334
09:51	MA4109-ICB1	7406 R
09:54	MA4109-CRI1	7483
10:01	MA4109-ICSA1	6622
10:05	MA4109-ICSAB1	6606
10:12	MA4109-CCV1	7359
10:17	MA4109-CCB1	7409
10:26	MP7449-MB1	7271
10:30	MP7449-B1	7227
10:37	F28379-1	7206
10:41	MP7449-D1	7275
10:45	MP7449-SD1	7375
10:48	MP7449-S1	7206
10:52	MP7449-S2	7200
11:00	ZZZZZZ	7275
11:03	ZZZZZZ	8564
11:07	ZZZZZZ	7293
11:11	MA4109-CCV2	7133
11:16	MA4109-CCB2	7397
11:20	ZZZZZZ	57000 !
11:24	ZZZZZZ	7359
11:27	ZZZZZZ	7344
11:31	ZZZZZZ	7335
11:35	ZZZZZZ	7511
11:39	ZZZZZZ	7638
11:43	ZZZZZZ	7308
11:47	ZZZZZZ	7345
11:50	ZZZZZZ	7324
11:54	ZZZZZZ	7421
11:58	MA4109-CCV3	7147
12:03	MA4109-CCB3	7291
12:07	ZZZZZZ	6906
12:11	ZZZZZZ	6639

INTERNAL STANDARD SUMMARY

Login Number: F28405
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IR113004.ASC
Analyst: SM
Parameters: Pb

Date Analyzed: 11/30/04 Methods: SW846 6010B
Run ID: MA4109

Time	Sample Description	Istd#1
12:14	ZZZZZZ	7333
12:22	MP7451-MB1	7384
12:26	MP7451-B1	7244
12:33	F28405-1	7133
12:37	MP7451-D1	7294
12:40	MP7451-SD1	7401
12:44	MP7451-S1	7182
12:48	MP7451-S2	7130
12:52	MA4109-CCV4	7188
12:57	MA4109-CCB4	7327
13:01	F28405-2	7390
13:04	F28405-3	7283
13:08	F28405-4	7255
13:12	F28405-5	7205
13:16	F28405-6	7213
13:20	F28405-7	7310
13:23	F28405-8	11605 !
13:27	F28405-9	19214 !
13:31	F28405-10	7238
13:35	F28405-11	7135
13:39	MA4109-CCV5	7165
13:44	MA4109-CCB5	7347
13:47	MP7456-MB1	7405
13:51	MP7456-B1	7205
13:58	F28427-1	7295
14:02	MP7456-D1	7317
14:06	MP7456-SD1	7363
14:10	MP7456-S1	7211
14:14	MP7456-S2	7356
14:21	ZZZZZZ	7339
14:25	ZZZZZZ	7438
14:29	ZZZZZZ	7518
14:55	MA4109-CCV6	7293

INTERNAL STANDARD SUMMARY

Login Number: F28405
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IR113004.ASC
Analyst: SM
Parameters: Pb

Date Analyzed: 11/30/04 Methods: SW846 6010B
Run ID: MA4109

Time	Sample Description	Istd#1
15:00	MA4109-CCB6	7257
15:04	ZZZZZZ	7361
15:07	ZZZZZZ	7282
15:11	ZZZZZZ	7415
15:15	ZZZZZZ	7052
15:19	ZZZZZZ	7172
15:23	MA4109-CRI2	7340
15:27	MA4109-CCV7	7179
15:31	MA4109-CCB7	7369
15:37	MP7462-MB1	7402
15:40	MP7462-B1	7228
15:48	F28445-1	7646
15:52	MP7462-D1	7498
15:55	MP7462-SD1	7453
15:59	MP7462-S1	7424
16:03	MP7462-S2	7454
16:10	ZZZZZZ	7590
16:14	ZZZZZZ	7464
16:18	ZZZZZZ	7435
16:22	MA4109-CCV8	7205
16:27	MA4109-CCB8	7351
16:30	ZZZZZZ	7416
16:34	ZZZZZZ	7453
16:38	ZZZZZZ	7362
16:42	ZZZZZZ	7383
16:46	ZZZZZZ	7443
16:49	ZZZZZZ	7326
16:53	ZZZZZZ	7321
16:57	ZZZZZZ	7440
17:01	ZZZZZZ	7462
17:08	MP7461-MB1	7347
17:12	MA4109-CCV9	7278
17:17	MA4109-CCB9	7433

INTERNAL STANDARD SUMMARY

Login Number: F28405
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IR113004.ASC
Analyst: SM
Parameters: Pb

Date Analyzed: 11/30/04 Methods: SW846 6010B
Run ID: MA4109

Time	Sample Description	Istd#1
17:21	MP7461-B1	7304
17:24	F28199-2	7428
17:28	MP7461-D1	7387
17:32	MP7461-SD1	7368
17:36	MP7461-S1	7314
17:40	MP7461-S2	7315
17:47	ZZZZZZ	7338
17:51	ZZZZZZ	7415
17:55	ZZZZZZ	7145
17:58	ZZZZZZ	7039
18:02	MA4109-CCV10	7272
18:07	MA4109-CCB10	7369
18:11	ZZZZZZ	7313
18:15	ZZZZZZ	7290
18:19	MA4109-CRI3	7416
18:22	MA4109-CCV11	7284
18:27	MA4109-CCB11	7303

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium	60-125 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F28405
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IR113004.ASC
QC Limits: result < RL

Date Analyzed: 11/30/04
Run ID: MA4109

Methods: SW846 6010B
Units: ug/l

Time: Sample ID:			09:51 ICB1		10:17 CCB1		11:16 CCB2		12:03 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	6.6	anr							
Antimony	5.0	1.5	anr							
Arsenic	10	2.8	anr							
Barium	200	.5	anr							
Beryllium	4.0	.3	anr							
Cadmium	5.0	.3	anr							
Calcium	1000	3.8	anr							
Chromium	10	.4	anr							
Cobalt	50	.5	anr							
Copper	25	.44	anr							
Iron	300	7.1	anr							
Lead	5.0	1.2	0.77	<5.0	1.3	<5.0	0.66	<5.0	1.5	<5.0
Magnesium	5000	9.9	anr							
Manganese	15	.16	anr							
Molybdenum	50	.75								
Nickel	40	1.1	anr							
Potassium	5000	14	anr							
Selenium	10	2	anr							
Silver	10	.6	anr							
Sodium	5000	150	anr							
Thallium	10	1.5	anr							
Tin	50	1.5								
Vanadium	50	.47	anr							
Zinc	20	.59	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F28405
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IR113004.ASC
QC Limits: result < RL

Date Analyzed: 11/30/04
Run ID: MA4109
Methods: SW846 6010B
Units: ug/l

Time: Sample ID:				12:57 CCB4	13:44 CCB5		
Metal	RL	IDL	raw	final	raw	final	
Aluminum	200	6.6	anr				
Antimony	5.0	1.5	anr				
Arsenic	10	2.8	anr				
Barium	200	.5	anr				
Beryllium	4.0	.3	anr				
Cadmium	5.0	.3	anr				
Calcium	1000	3.8	anr				
Chromium	10	.4	anr				
Cobalt	50	.5	anr				
Copper	25	.44	anr				
Iron	300	7.1	anr				
Lead	5.0	1.2	1.6		<5.0	1.2	<5.0
Magnesium	5000	9.9	anr				
Manganese	15	.16	anr				
Molybdenum	50	.75					
Nickel	40	1.1	anr				
Potassium	5000	14	anr				
Selenium	10	2	anr				
Silver	10	.6	anr				
Sodium	5000	150	anr				
Thallium	10	1.5	anr				
Tin	50	1.5					
Vanadium	50	.47	anr				
Zinc	20	.59	anr				

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F28405
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IR113004.ASC
QC Limits: 90 to 110 % Recovery

Date Analyzed: 11/30/04
Run ID: MA4109

Methods: SW846 6010B
Units: ug/l

Time: Sample ID:		09:47 ICV1		10:12 CCV1		11:11 CCV2			
Metal	ICV	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	1990	99.5	2000	2000	100.0	2000	2010	100.5
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Thallium	anr								
Tin									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

7.1.3
7

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F28405
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IR113004.ASC
QC Limits: 90 to 110 % Recovery

Date Analyzed: 11/30/04
Run ID: MA4109

Methods: SW846 6010B
Units: ug/l

Time: Sample ID:		11:58 CCV3		12:52 CCV4		13:39 CCV5			
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2000	100.0	2000	2020	101.0	2000	2040	102.0
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Thallium	anr								
Tin									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: F28405
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IR113004.ASC
QC Limits: 70 to 130 % Recovery

Date Analyzed: 11/30/04
Run ID: MA4109

Methods: SW846 6010B
Units: ug/l

Time: Sample ID:	CRI	CRIA	09:54 CRI1	
Metal	True	True	Results	% Rec
Aluminum	400		anr	
Antimony	10		anr	
Arsenic	20		anr	
Barium	400		anr	
Beryllium	10		anr	
Cadmium	10		anr	
Calcium	2000		anr	
Chromium	20		anr	
Cobalt	100		anr	
Copper	50		anr	
Iron	600		anr	
Lead	10		11.6	116.0
Magnesium	10000		anr	
Manganese	30		anr	
Molybdenum	100			
Nickel	80		anr	
Potassium	10000		anr	
Selenium	10		anr	
Silver	20		anr	
Sodium	10000		anr	
Thallium	20		anr	
Tin	100			
Vanadium	100		anr	
Zinc	40		anr	

(*) Outside of QC limits
(anr) Analyte not requested

7.1.4
7

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: F28405
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IR113004.ASC Date Analyzed: 11/30/04 Methods: SW846 6010B
QC Limits: 80 to 120 % Recovery Run ID: MA4109 Units: ug/l

Time: Sample ID:	ICSA True	ICSAB True	10:01 ICSA1 Results	% Rec	10:05 ICSAB1 Results	% Rec
Metal						
Aluminum	500000	500000	479000	95.8	475000	95.0
Antimony		1000	1.0		961	96.1
Arsenic		1000	-2.4		942	94.2
Barium		500	1.4		534	106.8
Beryllium		500	-1.6		506	101.2
Cadmium		1000	2.1		948	94.8
Calcium	500000	500000	455000	91.0	450000	90.0
Chromium		500	4.1		485	97.0
Cobalt		500	0.72		472	94.4
Copper		500	-0.21		559	111.8
Iron	200000	200000	186000	93.0	182000	91.0
Lead		1000	4.1		939	93.9
Magnesium	500000	500000	485000	97.0	480000	96.0
Manganese		500	0.40		518	103.6
Molybdenum		1000	-2.5		938	93.8
Nickel		1000	0.97		938	93.8
Potassium			24.2		32.0	
Selenium		1000	-2.0		920	92.0
Silver		1000	0.22		1090	109.0
Sodium			225		744	
Thallium		1000	-5.2		876	87.6
Tin		1000	-1.4		1120	112.0
Vanadium		500	-2.6		493	98.6
Zinc		1000	-5.2		1100	110.0

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F28405
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

QC Batch ID: MP7451
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 11/24/04

Metal	RL	IDL	MB raw	final
Aluminum	200	6.6		
Antimony	5.0	1.5		
Arsenic	10	2.8		
Barium	200	.5		
Beryllium	4.0	.3		
Cadmium	5.0	.3		
Calcium	1000	3.8		
Chromium	10	.4		
Cobalt	50	.5		
Copper	25	.44		
Iron	300	7.1		
Lead	5.0	1.2	0.46	<5.0
Magnesium	5000	9.9		
Manganese	15	.16		
Molybdenum	50	.75		
Nickel	40	1.1		
Potassium	5000	14		
Selenium	10	2		
Silver	10	.6		
Sodium	5000	150		
Thallium	10	1.5		
Tin	50	1.5		
Vanadium	50	.47		
Zinc	20	.59		

Associated samples MP7451: F28405-1, F28405-2, F28405-3, F28405-4, F28405-5, F28405-6, F28405-7, F28405-8, F28405-9, F28405-10, F28405-11

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F28405
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

QC Batch ID: MP7451
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 11/24/04 11/24/04

Metal	F28405-1			QC	F28405-1		Spikelot		QC
	Original	DUP	RPD	Limits	Original	MS	MPFLICP	% Rec	Limits
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead	0.0	0.0	NC	0-10	0.0	1020	1000	102.0	84-118
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Tin									
Vanadium									
Zinc									

Associated samples MP7451: F28405-1, F28405-2, F28405-3, F28405-4, F28405-5, F28405-6, F28405-7, F28405-8, F28405-9, F28405-10, F28405-11

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F28405
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

QC Batch ID: MP7451
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 11/24/04

Metal	F28405-1 Original	MSD	Spike lot MPFLICP	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic						
Barium						
Beryllium						
Cadmium						
Calcium						
Chromium						
Cobalt						
Copper						
Iron						
Lead	0.0	999	1000	99.9	2.1	20
Magnesium						
Manganese						
Molybdenum						
Nickel						
Potassium						
Selenium						
Silver						
Sodium						
Thallium						
Tin						
Vanadium						
Zinc						

Associated samples MP7451: F28405-1, F28405-2, F28405-3, F28405-4, F28405-5, F28405-6, F28405-7, F28405-8, F28405-9, F28405-10, F28405-11

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

7.2.2
7

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F28405
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

QC Batch ID: MP7451
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 11/24/04

Metal	BSP Result	SpikeLot MPFLICP	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead	994	1000	99.4	80-120
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Thallium				
Tin				
Vanadium				
Zinc				

Associated samples MP7451: F28405-1, F28405-2, F28405-3, F28405-4, F28405-5, F28405-6, F28405-7, F28405-8, F28405-9, F28405-10, F28405-11

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

7.2.3
7

SERIAL DILUTION RESULTS SUMMARY

Login Number: F28405
 Account: EEINCJX - EEI
 Project: Camp Lejeune-LCH 4015

QC Batch ID: MP7451
 Matrix Type: AQUEOUS

Methods: SW846 6010B
 Units: ug/l

Prep Date: 11/24/04

Metal	F28405-1 Original	SDL 1:5	RPD	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead	0.00	0.00	NC	0-10
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Thallium				
Tin				
Vanadium				
Zinc				

Associated samples MP7451: F28405-1, F28405-2, F28405-3, F28405-4, F28405-5, F28405-6, F28405-7, F28405-8, F28405-9, F28405-10, F28405-11

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

7.2.4
7

March 2005 Groundwater Laboratory Report

Mr. Bill Morris
Engineering & Environment, Inc.
824 Gum Branch Road
Jacksonville NC 28546

Report Number: G546-26

Client Project: LCH 4015

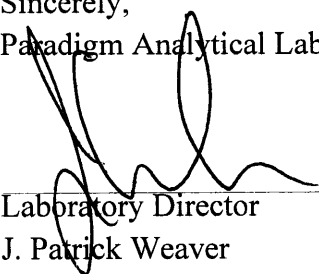
Dear Mr. Morris:

Enclosed are the results of the analytical services performed under the referenced project. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of five years in the event they are required for future reference. Any samples submitted to our laboratory will be retained for a maximum of thirty (30) days from the date of this report unless other arrangements are requested.

If there are any questions about the report or the services performed during this project, please call Paradigm at (910) 350-1903. We will be happy to answer any questions or concerns which you may have.

Thank you for using Paradigm Analytical Labs for your analytical services. We look forward to working with you again on any additional analytical needs which you may have.

Sincerely,
Paradigm Analytical Laboratories, Inc.



Laboratory Director
J. Patrick Weaver

3/23/05
Date

Results for Volatiles

by GC 602

Client Sample ID: USTLCH4015-MW24

Analyzed By: DCS

Client Project ID: LCH 4015

Date Collected: 3/7/2005 10:35

Lab Sample ID: G546-26-1A

Date Received: 3/8/2005

Lab Project ID: G546-26

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	4.38	1.00	0.316	1	3/14/2005	
1,2-Dichlorobenzene	15.8	2.00	0.608	1	3/14/2005	
1,3-Dichlorobenzene	BQL	1.00	0.281	1	3/14/2005	
1,4-Dichlorobenzene	0.799	2.00	0.56	1	3/14/2005	J
Diisopropyl ether (DIPE)	3.97	1.00	0.294	1	3/14/2005	
Ethylbenzene	0.785	1.00	0.299	1	3/14/2005	J
Methyl-tert butyl ether (MTBE)	1.89	2.00	0.588	1	3/14/2005	J
Naphthalene	19.3	1.00	0.235	1	3/14/2005	
Toluene	0.418	1.00	0.302	1	3/14/2005	J
m/p-Xylene	1.11	2.00	0.608	1	3/14/2005	J
o-Xylene	0.978	2.00	0.596	1	3/14/2005	J

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	42.8	107

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

Results for Volatiles

by GC 602

Client Sample ID: Method Blank

Analyzed By: DCS

Client Project ID:

Date Collected:

Lab Sample ID: VBLK1031405B

Date Received:

Lab Project ID:

Matrix: Water

Analyte	Result ug/L	RL ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flags
Benzene	BQL	1.00	0.316	1	3/14/2005	
1,2-Dichlorobenzene	BQL	2.00	0.608	1	3/14/2005	
1,3-Dichlorobenzene	BQL	1.00	0.281	1	3/14/2005	
1,4-Dichlorobenzene	BQL	2.00	0.56	1	3/14/2005	
Diisopropyl ether (DIPE)	BQL	1.00	0.294	1	3/14/2005	
Ethylbenzene	BQL	1.00	0.299	1	3/14/2005	
Methyl-tert butyl ether (MTBE)	BQL	2.00	0.588	1	3/14/2005	
Naphthalene	BQL	1.00	0.235	1	3/14/2005	
Toluene	BQL	1.00	0.302	1	3/14/2005	
m/p-Xylene	BQL	2.00	0.608	1	3/14/2005	
o-Xylene	BQL	2.00	0.596	1	3/14/2005	

Surrogate Spike Recoveries

	Spike Added	Spike Result	Percent Recovery
Trifluorotoluene	40	39.5	98.7

Comments:

All values corrected for dilution.

BQL = Below quantitation limit.

VPH (Aliphatics/Aromatics) Laboratory Reporting FormClient Name: Engineering & Environment, Inc.Project Name: LCH 4015

Sample Information and Analytical Results	
Sample Identification	USTLCH4015-MW24
Sample Matrix	Water
Collection Option (for Soil)*	
Date Collected	03/07/05
Date Received	03/08/05
Date Extracted	03/14/05
Date Analyzed	03/14/05
Dry Weight	
Dilution Factor	1
C ₅ -C ₈ Aliphatics**	220 (µg/L)
C ₉ -C ₁₂ Aliphatics**	130 (µg/L)
C ₉ -C ₁₀ Aromatics**	300 (µg/L)
Surrogate % Recovery - PID	95
Surrogate % Recovery - FID	98

* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

** = Excludes any surrogates or internal standards.

Lab Info: g546-26-1e

Reviewed By: 

Attachment 2

VPH Laboratory Reporting Form

Calibration and QA/QC Information

FID Initial Calibration Date: 12/17/04PID Initial Calibration Date: 12/17/04

Calibration Ranges and Limits

Range	MDL (07/15/2004) (µg/L)	ML (µg/L)	RL (µg/L) (mg/Kg)
C ₅ -C ₈ Aliphatics	4.4	14	100 10
C ₉ -C ₁₂ Aliphatics	3.4	11	100 10
C ₉ -C ₁₀ Aromatics	0.13	0.41	100 10

Calibration Concentration Levels

Range	Levels (µg/L)	%RSD or CCC	Method of Quantitation
C ₅ -C ₈ Aliphatics	40	4.8	Calibration Factor
	1000		
	2000		
	3000		
	4000		
C ₉ -C ₁₂ Aliphatics	10	0.993	Linear Regression
	250		
	500		
	750		
	1000		
C ₉ -C ₁₀ Aromatics	10	6.8	Calibration Factor
	250		
	500		
	750		
	1000		

Calibration Check Date: 03/14/05

Calibration Check

Range	Levels (µg/L) (mg/Kg)		RPD
C ₅ -C ₈ Aliphatics	2000	200	3.0
C ₉ -C ₁₂ Aliphatics	500	50	-0.1
C ₉ -C ₁₀ Aromatics	500	50	-3.5

MDL = Method Detection Limit

ML = Minimum Limit

RL = Reportable Limit

RPD = Relative Percent Difference

%RSD = Percent Relative Standard Deviation

CCC = Correlation Coefficient of Curve

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Engineering & Environment, Inc.Project Name: LCH 4015

Sample Information and Analytical Results	
Sample Identification	USTLCH4015-MW24
Sample Matrix	Water
Date Collected	03/07/05
Date Received	03/08/05
Date Extracted	03/11/05
Date Analyzed	03/21/05
Dry Weight	
Dilution Factor	1:1
C ₉ -C ₁₈ Aliphatics*	< 100 (ug/L)
C ₁₉ -C ₃₆ Aliphatics*	< 100 (ug/L)
C ₁₁ -C ₂₂ Aromatics*	140 (ug/L)
Aliphatic Surrogate % Recovery	75
Aromatic Surrogate % Recovery	72
Fractionation Surrogate 1 % Recovery	62

Comments:

* = Excludes any surrogates or internal standards.

Lab info: G546-26-1L

Reviewed By: RN

Attachment 3

EPH Laboratory Reporting Form

Calibration and QA/QC Information

Initial Calibration Date: 03/14/05

Calibration Ranges and Limits

Range	MDL (2/2004) ($\mu\text{g/L}$)	ML ($\mu\text{g/L}$)	RL ($\mu\text{g/L}$) (mg/Kg)	
C ₉ -C ₁₈ Aliphatics	3.84	12.2	100	10
C ₁₉ -C ₃₈ Aliphatics	0.57	1.8	100	10
C ₁₁ -C ₂₂ Aromatics	4.54	14.4	100	10

Calibration Concentration Levels

Range	Levels ($\mu\text{g/mL}$)	%RSD or CCC	Method of Quantitation
C ₉ -C ₁₈ Aliphatics	6	8.10	Calibration Factor
	30		
	60		
	120		
	240		
C ₁₉ -C ₃₈ Aliphatics	8	5.1	Calibration Factor
	40		
	80		
	160		
	320		
C ₁₁ -C ₂₂ Aromatics	17	9.5	Calibration Factor
	85		
	170		
	340		
	680		

Calibration Check Date: 03/21/05

Calibration Check

Range	Levels ($\mu\text{g/mL}$)	RPD
C ₉ -C ₁₈ Aliphatics	120	13.4
C ₁₉ -C ₃₈ Aliphatics	160	4.1
C ₁₁ -C ₂₂ Aromatics	340	4.6

MDL = Method Detection Limit

ML = Minimum Limit

RL = Reportable Limit

RPD = Relative Percent Difference

%RSD = Percent Relative Standard Deviation

CCC = Correlation Coefficient of Curve

Results for Semivolatiles by GCMS 625

Client Sample ID: USTLCH4015-MW24

Client Project ID: LCH 4015

Lab Sample ID: G546-26-1K

Lab Project ID: G546-26

Analyzed By: MRC

Date Collected: 3/7/2005 10:35

Date Received: 3/8/2005

Date Extracted: 3/11/2005

Matrix: Water

Compound	Result ug/L	Quantitation Limit ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	1.40	10.0	1.22	1	3/15/2005	J
Acenaphthylene	BQL	10.0	1.12	1	3/15/2005	
Anthracene	BQL	10.0	1.75	1	3/15/2005	
Benzo[a]anthracene	BQL	10.0	1.36	1	3/15/2005	
Benzo[a]pyrene	BQL	10.0	1.27	1	3/15/2005	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	3/15/2005	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	3/15/2005	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	3/15/2005	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	3/15/2005	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	3/15/2005	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	3/15/2005	
Bis(2-ethylhexyl)phthalate	1.40	10.0	1.33	1	3/15/2005	J
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	3/15/2005	
Butylbenzylphthalate	BQL	10.0	1.53	1	3/15/2005	
2-Chloronaphthalene	BQL	10.0	1.25	1	3/15/2005	
2-Chlorophenol	BQL	10.0	4.22	1	3/15/2005	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	3/15/2005	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	3/15/2005	
Chrysene	BQL	10.0	1.11	1	3/15/2005	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	3/15/2005	
Di-n-Butylphthalate	BQL	10.0	1.65	1	3/15/2005	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	3/15/2005	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	3/15/2005	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	3/15/2005	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	3/15/2005	
2,4-Dichlorophenol	BQL	10.0	3.75	1	3/15/2005	
Diethylphthalate	BQL	10.0	1.48	1	3/15/2005	
Dimethylphthalate	1.50	10.0	1.04	1	3/15/2005	J
2,4-Dimethylphenol	BQL	10.0	9.25	1	3/15/2005	
Di-n-octylphthalate	BQL	10.0	1.16	1	3/15/2005	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	3/15/2005	
2,4-Dinitrophenol	BQL	50.0	4.20	1	3/15/2005	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	3/15/2005	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	3/15/2005	
Fluoranthene	BQL	10.0	1.41	1	3/15/2005	
Fluorene	1.70	10.0	1.22	1	3/15/2005	J
Hexachlorobenzene	BQL	10.0	1.22	1	3/15/2005	
Hexachlorobutadiene	BQL	10.0	1.58	1	3/15/2005	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	3/15/2005	
Hexachloroethane	BQL	10.0	1.58	1	3/15/2005	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	3/15/2005	
Isophorone	BQL	10.0	1.27	1	3/15/2005	

**Results for Semivolatiles
by GCMS 625**

Client Sample ID: USTLCH4015-MW24

Client Project ID: LCH 4015

Lab Sample ID: G546-26-1K

Lab Project ID: G546-26

Analyzed By: MRC

Date Collected: 3/7/2005 10:35

Date Received: 3/8/2005

Date Extracted: 3/11/2005

Matrix: Water

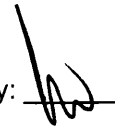
Compound	Result ug/L	Quantitation Limit ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Naphthalene	11.1	10.0	1.08	1	3/15/2005	
Nitrobenzene	BQL	10.0	1.32	1	3/15/2005	
2-Nitrophenol	BQL	10.0	3.52	1	3/15/2005	
4-Nitrophenol	BQL	50.0	3.17	1	3/15/2005	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	3/15/2005	
N-Nitrosodiphenylamine	BQL	10.0	1.53	1	3/15/2005	
Pentachlorophenol	BQL	50.0	2.83	1	3/15/2005	
Phenanthrene	BQL	10.0	1.38	1	3/15/2005	
Phenol	BQL	10.0	3.38	1	3/15/2005	
Pyrene	BQL	10.0	2.08	1	3/15/2005	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	3/15/2005	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	3/15/2005	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	8.1	81
2-Fluorophenol	10	8.4	84
Nitrobenzene-d5	10	8.9	89
Phenol-d6	10	8.7	87
2,4,6-Tribromophenol	5	4.9	99
4-Terphenyl-d14	10	9	90

Comments:**Flags:**

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: 

Results of Library Search for Semivolatile Compounds

by GCMS

Client Sample ID: USTLCH4015-MW24
 Client Project ID: LCH 4015
 Lab Sample ID: G546-26-1K
 Lab Project ID: G546-26
 Sample Wt/Vol: 500 ML
 Dilution: 1

Analyzed By: MRC
 Date Collected: 3/7/2005 10:35
 Date Received: 3/8/2005
 Date Analyzed: 3/15/2005
 Date Extracted: 3/11/2005
 Matrix: Water

No.	Compound	Retention Time	CAS#	Match Probability	Result (ug/L)
1	Know solvent peak (added by lab)	3.42			1200
2	Aromatic, Unknown	6.76			127
3	Dihydromethylindene, Isomer of	8.03			41.5
4	Know Compound peak (added by lab)	11.33			21.5
5	Diethylbenzene, Isomer of	6.89			20.9
6	Tetramethylbenzene, Isomer of	7.66			14
7	Diethylbenzene, Isomer of	7.02			10.8
8	Diethylbenzene, Isomer of	6.99			10.5
9	Tetrahydromethylnaphthalene, Isomer of	9.47			8.3
10	Trimethylbenzene, Isomer of	5.77			8.21

Comment:

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak area of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak area is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: 

**Results for Semivolatiles
by GCMS 625**

Client Sample ID: Method Blank

Client Project ID:

Lab Sample ID: PB2509

Lab Project ID:

Analyzed By: MRC

Date Collected:

Date Received:

Date Extracted: 3/11/2005

Matrix: WATER

Compound	Result ug/L	Quantitation Limit ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Acenaphthene	BQL	10.0	1.22	1	3/15/2005	
Acenaphthylene	BQL	10.0	1.12	1	3/15/2005	
Anthracene	BQL	10.0	1.75	1	3/15/2005	
Benzo[a]anthracene	BQL	10.0	1.36	1	3/15/2005	
Benzo[a]pyrene	BQL	10.0	1.27	1	3/15/2005	
Benzo[b]fluoranthene	BQL	10.0	1.43	1	3/15/2005	
Benzo[g,h,i]perylene	BQL	10.0	4.57	1	3/15/2005	
Benzo[k]fluoranthene	BQL	10.0	1.09	1	3/15/2005	
Bis(2-chloroethoxy)methane	BQL	10.0	1.11	1	3/15/2005	
Bis(2-chloroethyl)ether	BQL	10.0	1.09	1	3/15/2005	
Bis(2-chloroisopropyl)ether	BQL	10.0	1.57	1	3/15/2005	
Bis(2-ethylhexyl)phthalate	BQL	10.0	1.33	1	3/15/2005	
4-bromophenyl phenyl ether	BQL	10.0	1.99	1	3/15/2005	
Butylbenzylphthalate	BQL	10.0	1.53	1	3/15/2005	
2-Chloronaphthalene	BQL	10.0	1.25	1	3/15/2005	
2-Chlorophenol	BQL	10.0	4.22	1	3/15/2005	
4-Chloro-3-methylphenol	BQL	10.0	3.26	1	3/15/2005	
4-Chlorophenyl phenyl ether	BQL	10.0	1.42	1	3/15/2005	
Chrysene	BQL	10.0	1.11	1	3/15/2005	
Dibenzo[a,h]anthracene	BQL	10.0	4.87	1	3/15/2005	
Di-n-Butylphthalate	BQL	10.0	1.65	1	3/15/2005	
1,2-Dichlorobenzene	BQL	10.0	1.25	1	3/15/2005	
1,3-Dichlorobenzene	BQL	10.0	1.24	1	3/15/2005	
1,4-Dichlorobenzene	BQL	10.0	1.20	1	3/15/2005	
3,3'-Dichlorobenzidine	BQL	20.0	4.10	1	3/15/2005	
2,4-Dichlorophenol	BQL	10.0	3.75	1	3/15/2005	
Diethylphthalate	BQL	10.0	1.48	1	3/15/2005	
Dimethylphthalate	BQL	10.0	1.04	1	3/15/2005	
2,4-Dimethylphenol	BQL	10.0	9.25	1	3/15/2005	
Di-n-octylphthalate	BQL	10.0	1.16	1	3/15/2005	
4,6-Dinitro-2-methylphenol	BQL	50.0	3.71	1	3/15/2005	
2,4-Dinitrophenol	BQL	50.0	4.20	1	3/15/2005	
2,4-Dinitrotoluene	BQL	10.0	1.52	1	3/15/2005	
2,6-Dinitrotoluene	BQL	10.0	1.41	1	3/15/2005	
Fluoranthene	BQL	10.0	1.41	1	3/15/2005	
Fluorene	BQL	10.0	1.22	1	3/15/2005	
Hexachlorobenzene	BQL	10.0	1.22	1	3/15/2005	
Hexachlorobutadiene	BQL	10.0	1.58	1	3/15/2005	
Hexachlorocyclopentadiene	BQL	20.0	20.0	1	3/15/2005	
Hexachloroethane	BQL	10.0	1.58	1	3/15/2005	
Indeno(1,2,3-c,d)pyrene	BQL	10.0	4.57	1	3/15/2005	
Isophorone	BQL	10.0	1.27	1	3/15/2005	

Results for Semivolatiles by GCMS 625

Client Sample ID: Method Blank

Client Project ID:

Lab Sample ID: PB2509

Lab Project ID:

Analyzed By: MRC

Date Collected:

Date Received:

Date Extracted: 3/11/2005

Matrix: WATER

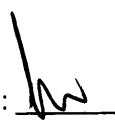
Compound	Result ug/L	Quantitation Limit ug/L	MDL ug/L	Dilution Factor	Date Analyzed	Flag
Naphthalene	BQL	10.0	1.08	1	3/15/2005	
Nitrobenzene	BQL	10.0	1.32	1	3/15/2005	
2-Nitrophenol	BQL	10.0	3.52	1	3/15/2005	
4-Nitrophenol	BQL	50.0	3.17	1	3/15/2005	
N-Nitrosodi-n-propylamine	BQL	10.0	1.87	1	3/15/2005	
N-Nitrosodiphenylamine	BQL	10.0	1.53	1	3/15/2005	
Pentachlorophenol	BQL	50.0	2.83	1	3/15/2005	
Phenanthrene	BQL	10.0	1.38	1	3/15/2005	
Phenol	BQL	10.0	3.38	1	3/15/2005	
Pyrene	BQL	10.0	2.08	1	3/15/2005	
1,2,4-Trichlorobenzene	BQL	10.0	1.33	1	3/15/2005	
2,4,6-Trichlorophenol	BQL	10.0	2.92	1	3/15/2005	

	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	6.4	64
2-Fluorophenol	10	6.6	66
Nitrobenzene-d5	10	6.6	66
Phenol-d6	10	6.9	69
2,4,6-Tribromophenol	5	3.4	69
4-Terphenyl-d14	10	7.4	74

Comments:**Flags:**

BQL = Below Quantitation Limits.

J = Detected below the quantitation limit.

Reviewed By: 

Results For Water Laboratory Control Standard (LCS)
by GCMS

Client Sample ID: Batch QC
 Client Project ID:
 Lab Sample ID: W-LCS-2520
 Lab Project ID:
 Matrix: Water

Date Collected:
 Date Received:
 Date Analyzed: 03/15/05
 Analyzed By: MRC

	Spiked ng	LCS ng	LCS % Rec.	LIMITS	
				LOWER	UPPER
Acenaphthylene	10	12.28	123	55	126
4-Chloro-3-methylphenol	10	11.33	113	43	124
2-Chlorophenol	10	7.69	77	53	100
1,4-Dichlorobenzene	10	4.40	44	23	94
2,4-Dinitrotoluene	10	12.08	121	46	130
N-Nitrosodi-n-propylamine	10	10.07	101	51	117
4-Nitrophenol	10	12.22	122	21	162
Pentachlorophenol	10	9.46	95	35	108
Phenol	10	8.52	85	51	108
Pyrene	10	11.68	117	57	140
1,2,4-Trichlorobenzene	10	7.73	77	44	106

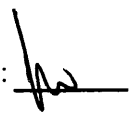
Comments:

Concentrations are on column amounts.

Flags:

* = Out of limits.

NA = Not applicable.

Reviewed By: 

Results For Water Matrix Spike / Matrix Spike Duplicate (MS/MSD)
by GCMS

Client Sample ID: Batch QC
 Client Project ID:
 Lab Sample ID: W-MS-2509
 Lab Project ID:
 Matrix: Water

Date Collected:
 Date Received:
 Date Analyzed: 03/15/05
 Analyzed By: MRC
 Dilution: 1

	Sample ng	Spiked ng	MS %	MSD %	Limits		RPD %	Limit
					Lower %	Upper %		Max. %
Acenaphthylene	BQL	10	133 *	104	56	121	24.6	30
4-Chloro-3-methylphenol	BQL	10	123 *	97	53	112	23.8	30
2-Chlorophenol	BQL	10	109 *	86	52	101	23.6	30
1,4-Dichlorobenzene	BQL	10	68	58	40	86	15.9	30
2,4-Dinitrotoluene	BQL	10	125 *	99	55	116	22.6	30
N-Nitrosodi-n-propylamine	BQL	10	124 *	96	53	115	25.4	30
4-Nitrophenol	BQL	10	130	101	40	149	25.4	30
Pentachlorophenol	BQL	10	101	82	40	117	21.2	30
Phenol	BQL	10	109	86	47	112	23.4	30
Pyrene	BQL	10	119	97	61	130	20.6	30
1,2,4-Trichlorobenzene	BQL	10	106 *	86	50	99	20.9	30

Comments:

Concentrations are on column amounts.

Flags:

* = Out of limits.

NA = Not applicable.

Reviewed By: 

Results for Metals

Client Sample ID: USTLCH4015-MW24
Client Project ID: LCH 4015
Lab Sample ID: G546-26-1
Lab Project ID: G546-26
Batch ID: 2495

Analyzed By: RML
Date Collected: 3/7/2005 10:35
Date Received: 3/8/2005
Matrix: WATER

Metals	Result	RL	MDL	DF	Units	Method	Date Analyzed	Flags
Lead	BQL	5.00	0.470	25	UG/L	6020	3/15/2005	

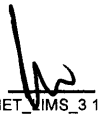
Comments

BQL = Below Quantitation Limits

DF = Dilution Factor

J = Between MDL and RL

Sample prepared by SM 3030C.

Reviewed By: 

MET_LIMS_3 1

Results for Metals

Client Sample ID: Lab Blank
Client Project ID:
Lab Sample ID: pb2495
Lab Project ID:
Batch ID: 2495

Analyzed By: RML
Date Collected:
Date Received:
Matrix: WATER

Metals	Result	RL	MDL	DF	Units	Method	Date Analyzed	Flags
Lead	BQL	5.00	0.470	25	UG/L	6020	3/15/2005	

Comments

BQL = Below Quantitation Limits
DF = Dilution Factor
J = Between MDL and RL
Sample prepared by SM 3030C.

METALS Results for LCS/LCD

ICP Batch: 2495

HG Batch:

Other:

Matrix: WATER

Units: MG/L

Analyte	TRUE Value	LCS	LCS %REC	LCD	LCD %REC	Limit		RPD	RPD Limit
						Lower	Upper		
Lead	0.4	0.353	88.25	0.355	88.75	80	120	0.565	20

Reviewed By: 

MS/MSD Results for METALS

Lab ID: G546-25-1
 MS Lab ID: G546-25-1
 MSD Lab ID: G546-25-1
 ICP Batch: 2495
 HG Batch:
 Other:

Analyzed By: RML
 Matrix: Water
 Units: MG/L

									Limit					
Analyte	Sample Result	SA MS	MS Result	MS %REC		SA MSD	MSD Result	MSD %REC		Lower	Upper	RPD		RPD Limit
Lead	BQL	0.400	0.368	92.0		0.400	0.474	119		75	125	25.2	*	20

Comments

*=Out of Limits

NA = Not applicable, due to sample concentration greater than three times spike concentration

Reviewed By: 

19 of 19

Page ____ of ____

Report To: Bill Morris

Invoice To: _____

N.C. CERTIFICATION #481

ORIGINAL

May 2005 Groundwater Laboratory Report



01/16/06

Technical Report for

EEI

Camp Lejeune-LCH 4015

844271

Accutest Job Number: F31773

Sampling Dates: 05/10/05 - 05/13/05

Report to:

EEI

bmorris@eeimail.com

ATTN: Bill Morris

Total number of pages in report: **94**



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: F31773

Camp Lejeune-LCH 4015
Project No: 844271

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
F31773-1	05/10/05	10:27 BS	05/11/05	AQ	Ground Water	USTLCH4015-MW02
F31773-2	05/10/05	11:18 BS	05/11/05	AQ	Ground Water	USTLCH4015-MW20
F31773-2A	05/13/05	12:15 BS	05/14/05	AQ	Ground Water	USTLCH4015-MW20
F31773-3	05/10/05	11:50 BS	05/11/05	AQ	Ground Water	USTLCH4015-MW22
F31773-3A	05/13/05	12:35 BS	05/14/05	AQ	Ground Water	USTLCH4015-MW22
F31773-4	05/10/05	12:32 BS	05/11/05	AQ	Ground Water	USTLCH4015-MW24
F31773-5	05/10/05	13:35 BS	05/11/05	AQ	Ground Water	USTLCH4015-MW03
F31773-5A	05/12/05	11:50 BS	05/13/05	AQ	Ground Water	USTLCH4015-MW03
F31773-6	05/10/05	14:30 BS	05/11/05	AQ	Ground Water	USTLCH4015-MW01
F31773-7	05/10/05	00:00 BS	05/11/05	AQ	Ground Water	USTLCH4015-DUP
F31773-7A	05/13/05	11:20 BS	05/14/05	AQ	Ground Water	USTLCH4015-DUP

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: EEI

Job No: F31773

Site: Camp Lejeune-LCH 4015

Report Date: 5/26/2005 4:17:57 PM

7 Samples were collected on between 05/10/2005 and 05/13/2005 and were received at Accutest between 05/11/2005 and 05/14/2005 properly preserved, at 2.6 Deg. C and intact. These Samples received an Accutest job number of F31773. 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.

Extractables by GCMS by Method EPA 625

Matrix: AQ

Batch ID: OP13340

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

Samples F31814-1MS, F31814-1MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

Volatiles by GC by Method EPA 601/602

Matrix: AQ

Batch ID: GQQ142

All samples were analyzed within the recommended method holding time.

Samples F31773-6MS, F31773-6MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

F31773-1, F31773-4, F31773-5, F31773-6, F31773-7: All hits confirmed by dual column analysis.

Matrix: AQ

Batch ID: GQQ143

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F31956-8MS, F31956-8MSD were used as the QC samples indicated.

F31773-3: Confirmation run. All hits confirmed by dual column analysis.

Metals by Method SW846 6010B

Matrix: AQ

Batch ID: MP8012

All samples were digested 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 F31773-1DUP, F31773-1MS, F31773-1SDL were used as the QC samples for metals.

F31773-1 for Lead: Elevated reporting 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.

Narrative prepared by:

Ellen Pampel, Inorganic QA (signature on file)

Date: May 26, 2005

Thursday, May 26, 2005

Report of Analysis

Page 1 of 1

Client Sample ID:	USTLCH4015-MW02	Date Sampled:	05/10/05
Lab Sample ID:	F31773-1	Date Received:	05/11/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 625 EPA 625		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F009783.D	1	05/19/05	NJ	05/17/05	OP13340	SF556
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	0.95	ug/l	
208-96-8	Acenaphthylene	ND	4.8	0.95	ug/l	
120-12-7	Anthracene	ND	4.8	0.95	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	0.95	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	0.95	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.95	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	0.95	ug/l	
218-01-9	Chrysene	ND	4.8	0.95	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	0.95	ug/l	
86-73-7	Fluorene	ND	4.8	0.95	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	0.95	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	0.95	ug/l	
91-20-3	Naphthalene	11.5	4.8	0.95	ug/l	
85-01-8	Phenanthrene	ND	4.8	0.95	ug/l	
129-00-0	Pyrene	ND	4.8	0.95	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	83%		49-119%
321-60-8	2-Fluorobiphenyl	89%		45-118%
1718-51-0	Terphenyl-d14	78%		46-135%

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:	USTLCH4015-MW02	Date Sampled:	05/10/05
Lab Sample ID:	F31773-1	Date Received:	05/11/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	QQ003400.D	1	05/19/05	AB	n/a	n/a	GQQ142
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	13.1	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	10.0	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	13.5	1.0	0.50	ug/l	
1634-04-4	Methyl Tert Butyl Ether	52.5	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	32.6	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	100%		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

Client Sample ID:	USTLCH4015-MW02	Date Sampled:	05/10/05
Lab Sample ID:	F31773-1	Date Received:	05/11/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-LCH 4015		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead ^a	< 10	10	ug/l	1	05/12/05	05/12/05 RS	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA4337
(2) Prep QC Batch: MP8012

(a) Elevated reporting limits due to matrix interference.

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	USTLCH4015-MW20	Date Sampled:	05/10/05
Lab Sample ID:	F31773-2	Date Received:	05/11/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QQ003401.D	1	05/19/05	AB	n/a	n/a	GQQ142
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	98%		71-130%
98-08-8	aaa-Trifluorotoluene	100%		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

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Client Sample ID:	USTLCH4015-MW20	Date Sampled:	05/10/05
Lab Sample ID:	F31773-2	Date Received:	05/11/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-LCH 4015		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	< 5.0	5.0	ug/l	1	05/12/05	05/12/05 RS	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA4337
(2) Prep QC Batch: MP8012

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	USTLCH4015-MW20	Date Sampled:	05/13/05
Lab Sample ID:	F31773-2A	Date Received:	05/14/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 625 EPA 625		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F009786.D	1	05/19/05	NJ	05/17/05	OP13340	SF556
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	0.96	ug/l	
208-96-8	Acenaphthylene	ND	4.8	0.96	ug/l	
120-12-7	Anthracene	ND	4.8	0.96	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	0.96	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	0.96	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.96	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	0.96	ug/l	
218-01-9	Chrysene	ND	4.8	0.96	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	0.96	ug/l	
86-73-7	Fluorene	ND	4.8	0.96	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	0.96	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	0.96	ug/l	
91-20-3	Naphthalene	24.8	4.8	0.96	ug/l	
85-01-8	Phenanthrene	ND	4.8	0.96	ug/l	
129-00-0	Pyrene	ND	4.8	0.96	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	77%		49-119%
321-60-8	2-Fluorobiphenyl	81%		45-118%
1718-51-0	Terphenyl-d14	82%		46-135%

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:	USTLCH4015-MW22	Date Sampled:	05/10/05
Lab Sample ID:	F31773-3	Date Received:	05/11/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	QQ003433.D	1	05/20/05	AB	n/a	n/a	GQQ143
Run #2 ^b	QQ003435.D	1	05/20/05	AB	n/a	n/a	GQQ143

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

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	1.2	1.0	0.50	ug/l	
108-88-3	Toluene	0.96	1.0	0.50	ug/l	J
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	95%	95%	71-130%
98-08-8	aaa-Trifluorotoluene	99%	101%	71-124%

(a) All hits confirmed by dual column analysis.

(b) Confirmation run.

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:	USTLCH4015-MW22	Date Sampled:	05/10/05
Lab Sample ID:	F31773-3	Date Received:	05/11/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-LCH 4015		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	< 5.0	5.0	ug/l	1	05/12/05	05/12/05 RS	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA4337
(2) Prep QC Batch: MP8012

RL = Reporting Limit

Report of Analysis

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Client Sample ID:	USTLCH4015-MW22	Date Sampled:	05/13/05
Lab Sample ID:	F31773-3A	Date Received:	05/14/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 625 EPA 625		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F009787.D	1	05/19/05	NJ	05/17/05	OP13340	SF556
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	0.96	ug/l	
208-96-8	Acenaphthylene	ND	4.8	0.96	ug/l	
120-12-7	Anthracene	ND	4.8	0.96	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	0.96	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	0.96	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.96	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	0.96	ug/l	
218-01-9	Chrysene	ND	4.8	0.96	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	0.96	ug/l	
86-73-7	Fluorene	ND	4.8	0.96	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	0.96	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	0.96	ug/l	
91-20-3	Naphthalene	ND	4.8	0.96	ug/l	
85-01-8	Phenanthrene	ND	4.8	0.96	ug/l	
129-00-0	Pyrene	ND	4.8	0.96	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	82%		49-119%
321-60-8	2-Fluorobiphenyl	87%		45-118%
1718-51-0	Terphenyl-d14	86%		46-135%

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:	USTLCH4015-MW24	Date Sampled:	05/10/05
Lab Sample ID:	F31773-4	Date Received:	05/11/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 625 EPA 625		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F009784.D	1	05/19/05	NJ	05/17/05	OP13340	SF556
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	1.5	4.8	0.95	ug/l	J
208-96-8	Acenaphthylene	ND	4.8	0.95	ug/l	
120-12-7	Anthracene	ND	4.8	0.95	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	0.95	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	0.95	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.95	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	0.95	ug/l	
218-01-9	Chrysene	ND	4.8	0.95	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	0.95	ug/l	
86-73-7	Fluorene	1.8	4.8	0.95	ug/l	J
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	2.6	4.8	0.95	ug/l	J
91-57-6	2-Methylnaphthalene	ND	4.8	0.95	ug/l	
91-20-3	Naphthalene	2.8	4.8	0.95	ug/l	J
85-01-8	Phenanthrene	ND	4.8	0.95	ug/l	
129-00-0	Pyrene	ND	4.8	0.95	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	82%		49-119%
321-60-8	2-Fluorobiphenyl	87%		45-118%
1718-51-0	Terphenyl-d14	80%		46-135%

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:	USTLCH4015-MW24	Date Sampled:	05/10/05
Lab Sample ID:	F31773-4	Date Received:	05/11/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	QQ003402.D	1	05/19/05	AB	n/a	n/a	GQQ142
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	2.3	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	22.1	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	3.0	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	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	99%		71-130%
98-08-8	aaa-Trifluorotoluene	102%		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:	USTLCH4015-MW24	Date Sampled:	05/10/05
Lab Sample ID:	F31773-4	Date Received:	05/11/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-LCH 4015		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	< 5.0	5.0	ug/l	1	05/12/05	05/12/05 RS	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA4337
(2) Prep QC Batch: MP8012

RL = Reporting Limit

Report of Analysis

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Client Sample ID:	USTLCH4015-MW03	Date Sampled:	05/10/05
Lab Sample ID:	F31773-5	Date Received:	05/11/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	QQ003406.D	1	05/19/05	AB	n/a	n/a	GQQ142
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	7.7	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.83	1.0	0.50	ug/l	J
106-46-7	1,4-Dichlorobenzene	0.59	1.0	0.50	ug/l	J
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1634-04-4	Methyl Tert Butyl Ether	3.0	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	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	99%		71-130%
98-08-8	aaa-Trifluorotoluene	98%		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:	USTLCH4015-MW03	Date Sampled:	05/10/05
Lab Sample ID:	F31773-5	Date Received:	05/11/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-LCH 4015		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	< 5.0	5.0	ug/l	1	05/12/05	05/12/05 RS	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA4337
(2) Prep QC Batch: MP8012

RL = Reporting Limit

Report of Analysis

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Client Sample ID:	USTLCH4015-MW03	Date Sampled:	05/12/05
Lab Sample ID:	F31773-5A	Date Received:	05/13/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 625 EPA 625		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F009788.D	1	05/19/05	NJ	05/17/05	OP13340	SF556
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	1.3	4.8	0.95	ug/l	J
208-96-8	Acenaphthylene	ND	4.8	0.95	ug/l	
120-12-7	Anthracene	ND	4.8	0.95	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	0.95	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	0.95	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.95	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	0.95	ug/l	
218-01-9	Chrysene	ND	4.8	0.95	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	0.95	ug/l	
86-73-7	Fluorene	1.4	4.8	0.95	ug/l	J
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	0.95	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	0.95	ug/l	
91-20-3	Naphthalene	1.6	4.8	0.95	ug/l	J
85-01-8	Phenanthrene	ND	4.8	0.95	ug/l	
129-00-0	Pyrene	ND	4.8	0.95	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	92%		49-119%
321-60-8	2-Fluorobiphenyl	98%		45-118%
1718-51-0	Terphenyl-d14	92%		46-135%

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:	USTLCH4015-MW01	Date Sampled:	05/10/05
Lab Sample ID:	F31773-6	Date Received:	05/11/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 625 EPA 625		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F009785.D	1	05/19/05	NJ	05/17/05	OP13340	SF556
Run #2	F009802.D	2	05/20/05	NJ	05/17/05	OP13340	SF557

	Initial Volume	Final Volume
Run #1	1030 ml	1.0 ml
Run #2	1030 ml	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.9	0.97	ug/l	
208-96-8	Acenaphthylene	ND	4.9	0.97	ug/l	
120-12-7	Anthracene	ND	4.9	0.97	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.9	0.97	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.9	0.97	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.9	0.97	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	0.97	ug/l	
218-01-9	Chrysene	ND	4.9	0.97	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.9	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.9	0.97	ug/l	
86-73-7	Fluorene	ND	4.9	0.97	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.9	1.9	ug/l	
90-12-0	1-Methylnaphthalene	23.1	4.9	0.97	ug/l	
91-57-6	2-Methylnaphthalene	34.2	4.9	0.97	ug/l	
91-20-3	Naphthalene	165 ^a	9.7	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.9	0.97	ug/l	
129-00-0	Pyrene	ND	4.9	0.97	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	85%	91%	49-119%
321-60-8	2-Fluorobiphenyl	89%	97%	45-118%
1718-51-0	Terphenyl-d14	84%	92%	46-135%

(a) Result is from Run# 2

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:	USTLCH4015-MW01	Date Sampled:	05/10/05
Lab Sample ID:	F31773-6	Date Received:	05/11/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	QQ003403.D	5	05/19/05	AB	n/a	n/a	GQQ142
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	30.1	5.0	2.5	ug/l	
108-90-7	Chlorobenzene	ND	5.0	2.5	ug/l	
95-50-1	1,2-Dichlorobenzene	50.7	5.0	2.5	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.0	2.5	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	5.0	2.5	ug/l	
100-41-4	Ethylbenzene	270	5.0	2.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	7.8	5.0	2.5	ug/l	
108-88-3	Toluene	14.8	5.0	2.5	ug/l	
1330-20-7	Xylenes (total)	659	15	5.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	103%		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

Client Sample ID:	USTLCH4015-MW01	Date Sampled:	05/10/05
Lab Sample ID:	F31773-6	Date Received:	05/11/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-LCH 4015		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	< 5.0	5.0	ug/l	1	05/12/05	05/12/05 RS	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA4337
(2) Prep QC Batch: MP8012

RL = Reporting Limit

Report of Analysis

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Client Sample ID:	USTLCH4015-DUP	Date Sampled:	05/10/05
Lab Sample ID:	F31773-7	Date Received:	05/11/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	QQ003408.D	1	05/19/05	AB	n/a	n/a	GQQ142
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	7.0	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.59	1.0	0.50	ug/l	J
106-46-7	1,4-Dichlorobenzene	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	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	97%		71-130%
98-08-8	aaa-Trifluorotoluene	98%		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:	USTLCH4015-DUP	Date Sampled:	05/10/05
Lab Sample ID:	F31773-7	Date Received:	05/11/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-LCH 4015		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	< 5.0	5.0	ug/l	1	05/12/05	05/12/05 RS	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA4337
(2) Prep QC Batch: MP8012

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	USTLCH4015-DUP	Date Sampled:	05/13/05
Lab Sample ID:	F31773-7A	Date Received:	05/14/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 625 EPA 625		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F009789.D	1	05/19/05	NJ	05/17/05	OP13340	SF556
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	1.2	5.0	1.0	ug/l	J
208-96-8	Acenaphthylene	ND	5.0	1.0	ug/l	
120-12-7	Anthracene	ND	5.0	1.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	1.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	1.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	1.0	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	1.0	ug/l	
218-01-9	Chrysene	ND	5.0	1.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	2.0	ug/l	
206-44-0	Fluoranthene	ND	5.0	1.0	ug/l	
86-73-7	Fluorene	1.2	5.0	1.0	ug/l	J
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	1.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
85-01-8	Phenanthrene	ND	5.0	1.0	ug/l	
129-00-0	Pyrene	ND	5.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	85%		49-119%
321-60-8	2-Fluorobiphenyl	90%		45-118%
1718-51-0	Terphenyl-d14	79%		46-135%

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 #: **F31773**
ACCUTEST QUOTE #:

CLIENT INFORMATION			FACILITY INFORMATION			ANALYTICAL INFORMATION			MATRIX CODES			
Engineering + Environment Inc NAME 424 Gumboach rd Suite 5 ADDRESS Rill Morris CITY, STATE ZIP Jacksonville NC 29340 SEND REPORT TO: PHONE # 910-989-3214			PROJECT NAME LCH 4015 LOCATION PROJECT NO. FAX # 910-989-3341			602 625 (CASH) 60108/30300 (lead)			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	HCI		NICH	PH03	MS04	NONE
1	45TLCH4015-MW02	5/10/05	10:27	BS	GW	6	X	X	X	3	2	1
2	45TLCH4015-MW02	5/10/05	11:18	BS	GW	6	X	X	X	3	2	1
3	45TLCH4015-MW02	5/10/05	11:50	BS	GW	6	X	X	X	3	2	1
4	45TLCH4015-MW02	5/10/05	12:32	BS	GW	6	X	X	X	3	2	1
5	45TLCH4015-MW03	5/10/05	13:25	BS	GW	6	X	X	X	3	2	1
6	45TLCH4015-MW01	5/10/05	14:30	BS	GW	6	X	X	X	3	2	1
7	45TLCH4015-Dup	5/10/05	-	BS	GW	6	X	X	X	3	2	1
DATA TURNAROUND INFORMATION			DATA DELIVERABLE INFORMATION			COMMENTS/REMARKS						
☒ STANDARD ☐ 48 HOUR RUSH ☐ 24 HOUR EMERGENCY ☐ OTHER APPROVED BY: _____ EMERGENCY OR RUSH IS FAX DATA UNLESS PREVIOUSLY APPROVED			☐ STANDARD ☐ COMMERCIAL "B" ☐ DISK DELIVERABLE ☐ STATE FORMS ☒ OTHER (SPECIFY) <u>News 4</u>									
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY												
RELINQUISHED BY SAMPLER: 1. <u>Bob Sellers</u>		DATE TIME: <u>5/10/05</u>		RECEIVED BY: 1. <u>FX</u>		RELINQUISHED BY: 2. <u>FX</u>		DATE TIME: <u>5-11-05</u>		RECEIVED BY: 2. <u>Steven Carson</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 WHEN A PART OF THE CHAIN				

F31773: Chain of Custody

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ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: **F31773** CLIENT: Eng. + Env. PROJECT: LCH 4015
 DATE/TIME RECEIVED: 5-11-05 / 8:45 # OF COOLERS RECEIVED: 2 COOLER TEMPS: 2.4, 2.6
 METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER
 AIRBILL NUMBERS: 850861445674

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 ? 0
 NUMBER OF 5035 FIELD KITS ? 0

SUMMARY OF COMMENTS: Received one Broken White Amber for samples three and seven.
Received both White Ambers Broken for sample five. Received two Broken vials
for sample three.

TECHNICIAN SIGNATURE/DATE Steven Brown / 5-11-05 TECHNICIAN SIGNATURE/DATE CH

ASBD02/04/05

F31773: 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 JOB #:**ACCUTEST QUOTE #:**[illegible]

F31773: Chain of Custody

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ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: **F31773** CLIENT: Origin. + enviro. PROJECT: LCH 4013
 DATE/TIME RECEIVED: 5-13-05 / 9:00 # OF COOLERS RECEIVED: 1 COOLER TEMPS: 3.0
 METHOD OF DELIVERY: FEDER UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER
 AIRBILL NUMBERS: 9481 5068 1677

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 ? 0
 NUMBER OF 5035 FIELD KITS ? 0

SUMMARY OF COMMENTS: sample ID's times are 11:55, 11:50 is what's on the chain

SAMPLE INFORMATION

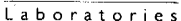
- ☐ SAMPLE LABELS PRESENT ON ALL BOTTLES
- ☐ CORRECT NUMBER OF CONTAINERS USED
- ☐ SAMPLE RECEIVED IMPROPERLY PRESERVED
- ☐ INSUFFICIENT VOLUME FOR ANALYSIS
- ☐ SAMPLE RECEIVED PAST HOLD TIME
- ☒ TIMES ON COC DON'T MATCH LABEL
- ☐ ID'S ON COC DON'T MATCH LABEL
- ☐ VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- ☐ 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: Atan Enam / 5-17-05 TECHNICIAN SIGNATURE/DATE: ABD 05/13/05

ASBD02/04/05

F31773: Chain of Custody

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ORLANDO, FL 32811

TEL: 407-425-6700 • FAX: 407-425-0707

ACCUTEST QUOTE #:

4.1

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ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: F31773 CLIENT: Origin. + Enviro. PROJECT: LEH 4015
 DATE/TIME RECEIVED: 5-14-05 / 9:00 # OF COOLERS RECEIVED: 1 COOLER TEMPS: 1.4
 METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER
 AIRBILL NUMBERS: 8481 6068 1703

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 ? 0
 NUMBER OF 5035 FIELD KITS ? 0

SUMMARY OF COMMENTS:

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 Steven Grant / 5-14-05 TECHNICIAN SIGNATURE/DATE _____

ASBD02/04/05

F31773: Chain of Custody

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GC/MS Semi-volatiles

5

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (DFTPP)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Page 1 of 1

Job Number: F31773
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP13340-MB	F009782.D	1	05/19/05	NJ	05/17/05	OP13340	SF556

The QC reported here applies to the following samples:

Method: EPA 625

F31773-1, F31773-4, F31773-6, F31773-2A, F31773-3A, F31773-5A, F31773-7A

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.0	1.0	ug/l	
208-96-8	Acenaphthylene	ND	5.0	1.0	ug/l	
120-12-7	Anthracene	ND	5.0	1.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	1.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	1.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	1.0	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	1.0	ug/l	
218-01-9	Chrysene	ND	5.0	1.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	2.0	ug/l	
206-44-0	Fluoranthene	ND	5.0	1.0	ug/l	
86-73-7	Fluorene	ND	5.0	1.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	1.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
85-01-8	Phenanthrene	ND	5.0	1.0	ug/l	
129-00-0	Pyrene	ND	5.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Limits
4165-60-0	Nitrobenzene-d5	81% 49-119%
321-60-8	2-Fluorobiphenyl	87% 45-118%
1718-51-0	Terphenyl-d14	88% 46-135%

Method Blank Summary

Page 1 of 1

Job Number: F31773
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP13340-MB	F009801.D	1	05/20/05	NJ	05/17/05	OP13340	SF557

The QC reported here applies to the following samples:

Method: EPA 625

F31773-1, F31773-4, F31773-6, F31773-2A, F31773-3A, F31773-5A, F31773-7A

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.0	1.0	ug/l	
208-96-8	Acenaphthylene	ND	5.0	1.0	ug/l	
120-12-7	Anthracene	ND	5.0	1.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	1.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	1.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	1.0	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	1.0	ug/l	
218-01-9	Chrysene	ND	5.0	1.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	2.0	ug/l	
206-44-0	Fluoranthene	ND	5.0	1.0	ug/l	
86-73-7	Fluorene	ND	5.0	1.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	1.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
85-01-8	Phenanthrene	ND	5.0	1.0	ug/l	
129-00-0	Pyrene	ND	5.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Limits
4165-60-0	Nitrobenzene-d5	82% 49-119%
321-60-8	2-Fluorobiphenyl	85% 45-118%
1718-51-0	Terphenyl-d14	86% 46-135%

Blank Spike Summary

Page 1 of 1

Job Number: F31773
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP13340-BS	F009781.D	1	05/19/05	NJ	05/17/05	OP13340	SF556

The QC reported here applies to the following samples:

Method: EPA 625

F31773-1, F31773-4, F31773-6, F31773-2A, F31773-3A, F31773-5A, F31773-7A

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	46.0	92	62-101
208-96-8	Acenaphthylene	50	45.7	91	65-113
120-12-7	Anthracene	50	45.4	91	69-107
56-55-3	Benzo(a)anthracene	50	46.5	93	68-106
50-32-8	Benzo(a)pyrene	50	44.6	89	70-114
205-99-2	Benzo(b)fluoranthene	50	45.9	92	68-110
191-24-2	Benzo(g,h,i)perylene	50	46.8	94	63-115
207-08-9	Benzo(k)fluoranthene	50	47.4	95	68-112
218-01-9	Chrysene	50	47.3	95	68-103
53-70-3	Dibenzo(a,h)anthracene	50	46.2	92	62-115
206-44-0	Fluoranthene	50	47.5	95	68-111
86-73-7	Fluorene	50	45.4	91	66-105
193-39-5	Indeno(1,2,3-cd)pyrene	50	46.8	94	63-118
90-12-0	1-Methylnaphthalene	50	43.3	87	63-99
91-57-6	2-Methylnaphthalene	50	45.3	91	66-100
91-20-3	Naphthalene	50	42.6	85	62-101
85-01-8	Phenanthrene	50	47.0	94	68-104
129-00-0	Pyrene	50	46.9	94	64-105

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	87%	49-119%
321-60-8	2-Fluorobiphenyl	94%	45-118%
1718-51-0	Terphenyl-d14	89%	46-135%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: F31773
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP13340-MS	F009791.D	1	05/19/05	NJ	05/17/05	OP13340	SF556
OP13340-MSD	F009792.D	1	05/19/05	NJ	05/17/05	OP13340	SF556
F31814-1	F009790.D	1	05/19/05	NJ	05/17/05	OP13340	SF556

The QC reported here applies to the following samples:

Method: EPA 625

F31773-1, F31773-4, F31773-6, F31773-2A, F31773-3A, F31773-5A, F31773-7A

CAS No.	Compound	F31814-1 ug/l	Spike Q	ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	2.6	J	94.3	88.6	91	86.9	89	2	55-103/20
208-96-8	Acenaphthylene	ND		94.3	85.1	90	83.8	89	2	55-113/20
120-12-7	Anthracene	ND		94.3	85.1	90	84.3	89	1	66-105/14
56-55-3	Benzo(a)anthracene	ND		94.3	86.6	92	85.8	91	1	65-103/16
50-32-8	Benzo(a)pyrene	ND		94.3	84.7	90	83.0	88	2	65-113/16
205-99-2	Benzo(b)fluoranthene	ND		94.3	86.8	92	85.2	90	2	62-110/17
191-24-2	Benzo(g,h,i)perylene	ND		94.3	87.1	92	87.4	93	0	58-111/17
207-08-9	Benzo(k)fluoranthene	ND		94.3	89.9	95	87.6	93	3	63-110/17
218-01-9	Chrysene	ND		94.3	88.1	93	87.8	93	0	65-100/18
53-70-3	Dibenzo(a,h)anthracene	ND		94.3	85.2	90	86.3	91	1	57-111/20
206-44-0	Fluoranthene	ND		94.3	88.5	94	87.0	92	2	62-108/17
86-73-7	Fluorene	1.1	J	94.3	84.9	89	84.4	88	1	60-105/17
193-39-5	Indeno(1,2,3-cd)pyrene	ND		94.3	87.9	93	87.5	93	0	61-111/19
90-12-0	1-Methylnaphthalene	ND		94.3	83.6	89	80.8	86	3	55-97/23
91-57-6	2-Methylnaphthalene	ND		94.3	86.0	91	83.3	88	3	56-100/23
91-20-3	Naphthalene	ND		94.3	83.5	89	80.5	85	4	52-102/23
85-01-8	Phenanthrene	ND		94.3	87.2	92	87.4	93	0	64-103/15
129-00-0	Pyrene	ND		94.3	86.9	92	87.7	93	1	59-107/21

CAS No.	Surrogate Recoveries	MS	MSD	F31814-1	Limits
4165-60-0	Nitrobenzene-d5	88%	84%	81%	49-119%
321-60-8	2-Fluorobiphenyl	91%	90%	83%	45-118%
1718-51-0	Terphenyl-d14	87%	88%	84%	46-135%

Instrument Performance Check (DFTPP)

Page 1 of 2

Job Number: F31773
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: SF556-DFTPP
Lab File ID: F009768.D
Instrument ID: GCMSF
Injection Date: 05/19/05
Injection Time: 09:48

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	134023	41.9	Pass
68	Less than 2.0% of mass 69	0	0.0 (0.0) ^a	Pass
69	Mass 69 relative abundance	130836	40.9	Pass
70	Less than 2.0% of mass 69	616	0.19 (0.47) ^a	Pass
127	40.0 - 60.0% of mass 198	169954	53.1	Pass
197	Less than 1.0% of mass 198	0	0.0	Pass
198	Base peak, 100% relative abundance	319962	100.0	Pass
199	5.0 - 9.0% of mass 198	21812	6.8	Pass
275	10.0 - 30.0% of mass 198	63949	20.0	Pass
365	1.0 - 100.0% of mass 198	6292	2.0	Pass
441	Present, but less than mass 443	17530	5.5 (48.1) ^b	Pass
442	40.0 - 100.0% of mass 198	182890	57.2	Pass
443	17.0 - 23.0% of mass 442	36412	11.4 (19.9) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
SF556-IC556	F009769.D	05/19/05	10:08	00:20	Initial cal 50
SF556-IC556	F009770.D	05/19/05	10:38	00:50	Initial cal 5
SF556-IC556	F009771.D	05/19/05	11:08	01:20	Initial cal 25
SF556-ICC556	F009772.D	05/19/05	11:38	01:50	Initial cal 75
SF556-IC556	F009773.D	05/19/05	12:08	02:20	Initial cal 100
SF556-IC556	F009774.D	05/19/05	12:39	02:51	Initial cal 125
SF556-ICV556	F009776.D	05/19/05	13:40	03:52	Initial cal verification 50
OP13353-BS	F009777.D	05/19/05	14:10	04:22	Blank Spike
OP13353-MB	F009778.D	05/19/05	14:41	04:53	Method Blank
ZZZZZZ	F009779.D	05/19/05	15:12	05:24	(unrelated sample)
OP13340-BS	F009781.D	05/19/05	16:14	06:26	Blank Spike
OP13340-MB	F009782.D	05/19/05	16:44	06:56	Method Blank
F31773-1	F009783.D	05/19/05	17:15	07:27	USTLCH4015-MW02
F31773-4	F009784.D	05/19/05	17:46	07:58	USTLCH4015-MW24
F31773-6	F009785.D	05/19/05	18:16	08:28	USTLCH4015-MW01
F31773-2A	F009786.D	05/19/05	18:47	08:59	USTLCH4015-MW20
F31773-3A	F009787.D	05/19/05	19:17	09:29	USTLCH4015-MW22
F31773-5A	F009788.D	05/19/05	19:47	09:59	USTLCH4015-MW03
F31773-7A	F009789.D	05/19/05	20:17	10:29	USTLCH4015-DUP

Instrument Performance Check (DFTPP)

Job Number: F31773
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample:	SF556-DFTPP	Injection Date:	05/19/05
Lab File ID:	F009768.D	Injection Time:	09:48
Instrument ID:	GCMSF		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
F31814-1	F009790.D	05/19/05	20:48	11:00	(used for QC only; not part of job F31773)
OP13340-MS	F009791.D	05/19/05	21:17	11:29	Matrix Spike
OP13340-MSD	F009792.D	05/19/05	21:48	12:00	Matrix Spike Duplicate
ZZZZZZ	F009793.D	05/19/05	22:18	12:30	(unrelated sample)
ZZZZZZ	F009794.D	05/19/05	22:48	13:00	(unrelated sample)
ZZZZZZ	F009795.D	05/19/05	23:18	13:30	(unrelated sample)
ZZZZZZ	F009796.D	05/19/05	23:48	14:00	(unrelated sample)
ZZZZZZ	F009797.D	05/20/05	00:18	14:30	(unrelated sample)

5.4
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Instrument Performance Check (DFTPP)

Page 1 of 2

Job Number: F31773
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: SF557-DFTPP
Lab File ID: F009799.D
Instrument ID: GCMSF
Injection Date: 05/20/05
Injection Time: 08:47

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	139148	40.6	Pass
68	Less than 2.0% of mass 69	0	0.0 (0.0) ^a	Pass
69	Mass 69 relative abundance	138376	40.3	Pass
70	Less than 2.0% of mass 69	787	0.23 (0.57) ^a	Pass
127	40.0 - 60.0% of mass 198	177464	51.7	Pass
197	Less than 1.0% of mass 198	510	0.15	Pass
198	Base peak, 100% relative abundance	342997	100.0	Pass
199	5.0 - 9.0% of mass 198	22954	6.7	Pass
275	10.0 - 30.0% of mass 198	71890	21.0	Pass
365	1.0 - 100.0% of mass 198	7879	2.3	Pass
441	Present, but less than mass 443	32771	9.6 (73.5) ^b	Pass
442	40.0 - 100.0% of mass 198	226720	66.1	Pass
443	17.0 - 23.0% of mass 442	44577	13.0 (19.7) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
SF557-CC556	F009800.D	05/20/05	09:06	00:19	Continuing cal 50
OP13340-MB	F009801.D	05/20/05	09:36	00:49	Method Blank
F31773-6	F009802.D	05/20/05	10:06	01:19	USTLCH4015-MW01
ZZZZZZ	F009803.D	05/20/05	10:37	01:50	(unrelated sample)
OP13354-BS	F009804.D	05/20/05	11:07	02:20	Blank Spike
OP13354-MB	F009805.D	05/20/05	11:37	02:50	Method Blank
ZZZZZZ	F009806.D	05/20/05	12:08	03:21	(unrelated sample)
ZZZZZZ	F009807.D	05/20/05	12:38	03:51	(unrelated sample)
ZZZZZZ	F009808.D	05/20/05	13:08	04:21	(unrelated sample)
ZZZZZZ	F009809.D	05/20/05	13:39	04:52	(unrelated sample)
ZZZZZZ	F009810.D	05/20/05	14:10	05:23	(unrelated sample)
ZZZZZZ	F009811.D	05/20/05	14:40	05:53	(unrelated sample)
ZZZZZZ	F009812.D	05/20/05	15:11	06:24	(unrelated sample)
F31898-9	F009813.D	05/20/05	15:42	06:55	(used for QC only; not part of job F31773)
OP13354-MS	F009814.D	05/20/05	16:13	07:26	Matrix Spike
OP13354-MSD	F009815.D	05/20/05	16:44	07:57	Matrix Spike Duplicate
ZZZZZZ	F009816.D	05/20/05	17:15	08:28	(unrelated sample)
ZZZZZZ	F009817.D	05/20/05	17:46	08:59	(unrelated sample)
ZZZZZZ	F009818.D	05/20/05	18:17	09:30	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: F31773
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample:	SF557-DFTPP	Injection Date:	05/20/05
Lab File ID:	F009799.D	Injection Time:	08:47
Instrument ID:	GCMSF		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	F009819.D	05/20/05	18:47	10:00	(unrelated sample)
ZZZZZZ	F009820.D	05/20/05	19:17	10:30	(unrelated sample)

5.4
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Semivolatile Internal Standard Area Summary

Page 1 of 1

Job Number: F31773
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std: SF556-ICC556
Lab File ID: F009772.D
Instrument ID: GCMSF
Injection Date: 05/19/05
Injection Time: 11:38
Method: EPA 625

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	152687	4.72	589298	5.82	338306	8.04	573197	10.52	533187	15.46	513673	17.96
Upper Limit ^a	305374	5.22	1178596	6.32	676612	8.54	1146394	11.02	1066374	15.96	1027346	18.46
Lower Limit ^b	76344	4.22	294649	5.32	169153	7.54	286599	10.02	266594	14.96	256837	17.46

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
OP13353-BS ^c	189734	4.72	720895	5.82	396110	8.04	643385	10.52	549465	15.45	509406	17.95
OP13353-MB	192563	4.72	721829	5.82	395348	8.03	640662	10.52	547419	15.44	509114	17.95
ZZZZZZ	184659	4.72	689526	5.82	372053	8.03	601319	10.52	519096	15.44	496271	17.95
OP13340-BS	159979	4.72	611576	5.82	335932	8.03	560297	10.52	503624	15.45	474843	17.95
OP13340-MB	167678	4.71	637127	5.82	348253	8.03	558536	10.52	490111	15.44	454305	17.95
F31773-1	173666	4.71	673393	5.82	364323	8.03	602696	10.52	559295	15.44	547707	17.95
F31773-4	180533	4.72	680582	5.82	375643	8.03	618144	10.52	557504	15.45	541868	17.95
F31773-6	164637	4.72	634209	5.82	339742	8.04	554181	10.52	514480	15.44	504829	17.95
F31773-2A	190384	4.71	737612	5.82	408318	8.03	683994	10.52	621569	15.45	606796	17.95
F31773-3A	175572	4.71	670442	5.82	363549	8.03	599840	10.52	517839	15.44	496594	17.95
F31773-5A	163314	4.71	614624	5.82	335451	8.03	542048	10.52	471199	15.44	452488	17.95
F31773-7A	157159	4.72	600179	5.82	329808	8.03	546050	10.52	503706	15.44	488115	17.95
F31814-1	191092	4.72	735543	5.82	405973	8.03	652105	10.52	587665	15.44	568686	17.95
OP13340-MS	180492	4.72	683111	5.82	380004	8.04	629353	10.52	569429	15.45	537175	17.95
OP13340-MSD	184004	4.72	700414	5.82	381811	8.04	623422	10.52	544448	15.45	520278	17.95
ZZZZZZ	184515	4.72	709829	5.82	399175	8.03	672846	10.52	619863	15.45	598962	17.95
ZZZZZZ	166784	4.72	649566	5.82	361510	8.03	598646	10.52	538050	15.44	522863	17.95
ZZZZZZ	173601	4.72	674148	5.82	376549	8.03	625473	10.52	564318	15.44	543998	17.95
ZZZZZZ	177682	4.72	675376	5.82	377937	8.03	620908	10.52	545887	15.44	522186	17.95
ZZZZZZ	162111	4.72	634502	5.82	347402	8.03	569612	10.52	516372	15.44	499004	17.95

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(c) Insufficient sample for MS/MSD.

Semivolatile Internal Standard Area Summary

Page 1 of 1

Job Number: F31773
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std: SF557-CC556
Lab File ID: F009800.D
Instrument ID: GCMSF
Injection Date: 05/20/05
Injection Time: 09:06
Method: EPA 625

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	182589	4.71	702615	5.82	396293	8.04	656481	10.52	592578	15.45	579558	17.95
Upper Limit ^a	365178	5.21	1405230	6.32	792586	8.54	1312962	11.02	1185156	15.95	1159116	18.45
Lower Limit ^b	91295	4.21	351308	5.32	198147	7.54	328241	10.02	296289	14.95	289779	17.45

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
OP13340-MB	176485	4.71	673496	5.82	372944	8.03	610651	10.52	546419	15.44	527821	17.95
F31773-6	167084	4.71	636772	5.82	353262	8.03	582589	10.52	523606	15.44	501431	17.95
ZZZZZZ	167543	4.72	651219	5.82	358700	8.03	589984	10.52	532108	15.44	508204	17.95
OP13354-BS	165498	4.71	636614	5.82	354118	8.03	578516	10.52	534194	15.45	511385	17.95
OP13354-MB	169380	4.71	656809	5.82	368312	8.03	601551	10.52	540037	15.44	511658	17.95
ZZZZZZ	188638	4.71	724598	5.82	405136	8.03	672730	10.52	607660	15.44	586583	17.95
ZZZZZZ	169205	4.71	641136	5.82	357430	8.03	579265	10.52	523519	15.44	503904	17.95
ZZZZZZ	189141	4.72	726163	5.82	397775	8.03	655457	10.52	593646	15.44	586310	17.95
ZZZZZZ	187994	4.71	722303	5.82	405872	8.03	669446	10.52	616984	15.44	600853	17.95
ZZZZZZ	168189	4.71	648802	5.82	354950	8.03	591668	10.52	533316	15.44	508211	17.95
ZZZZZZ	171745	4.72	646740	5.82	355752	8.04	581166	10.52	530112	15.44	507776	17.95
ZZZZZZ	169406	4.72	641500	5.82	358864	8.03	594406	10.52	528116	15.44	503384	17.95
F31898-9	169009	4.71	653276	5.82	359853	8.03	596810	10.52	546080	15.44	534458	17.95
OP13354-MS	177233	4.71	671069	5.82	371230	8.03	605379	10.52	536874	15.45	516927	17.95
OP13354-MSD	181702	4.72	694811	5.82	386723	8.03	626824	10.52	557976	15.45	531842	17.95
ZZZZZZ	173051	4.72	664869	5.82	364695	8.03	613225	10.52	557705	15.44	526556	17.95
ZZZZZZ	187355	4.71	711364	5.82	393630	8.03	639826	10.52	567375	15.44	540976	17.95
ZZZZZZ	178708	4.72	681213	5.82	380504	8.03	624077	10.52	547577	15.44	532197	17.95
ZZZZZZ	177706	4.71	683538	5.82	375298	8.03	616452	10.52	552651	15.44	531862	17.95
ZZZZZZ	180057	4.71	687874	5.82	377249	8.03	613663	10.52	546775	15.44	534777	17.95

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Surrogate Recovery Summary

Job Number: F31773
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Method: EPA 625	Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
F31773-1	F009783.D	83.0	89.0	78.0
F31773-4	F009784.D	82.0	87.0	80.0
F31773-6	F009802.D	91.0	97.0	92.0
F31773-6	F009785.D	85.0	89.0	84.0
F31773-2A	F009786.D	77.0	81.0	82.0
F31773-3A	F009787.D	82.0	87.0	86.0
F31773-5A	F009788.D	92.0	98.0	92.0
F31773-7A	F009789.D	85.0	90.0	79.0
OP13340-BS	F009781.D	87.0	94.0	89.0
OP13340-MB	F009782.D	81.0	87.0	88.0
OP13340-MB	F009801.D	82.0	85.0	86.0
OP13340-MS	F009791.D	88.0	91.0	87.0
OP13340-MSD	F009792.D	84.0	90.0	88.0

Surrogate Compounds	Recovery Limits
S1 = Nitrobenzene-d5	49-119%
S2 = 2-Fluorobiphenyl	45-118%
S3 = Terphenyl-d14	46-135%

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Initial Calibration Summary

Job Number: F31773
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: SF556-ICC556
Lab FileID: F009772.D

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Response Factor Report MS-F

Method : C:\MSDCHEM\1\METHODS\8270C.M (RTE Integrator)
Title : SW846 8270C OR EPA 625
Last Update : Thu May 19 14:14:37 2005
Response via : Initial Calibration

Calibration Files

5 =F009770.D 25 =F009771.D 50 =F009769.D 75 =F009772.D
100 =F009773.D 125 =F009774.D icv =F009553.D

Compound	5	25	50	75	100	125	icv	Avg	%RSD
1) I 1,4-Dichlorobenzene-d	-----ISTD-----								
2) 1,4-Dioxane	0.297	0.398	0.379	0.395	0.401	0.394	0.377	10.64	
3) N-nitrosodimethyl	0.545	0.497	0.572	0.564	0.591	0.631	0.567	7.91	
4) Pyridine	1.085	0.908	1.094	1.070	1.102	1.110	1.061	7.21	
5) Benzaldehyde	0.915	0.974	0.983	0.940	0.881	0.713	0.901	11.04	
6) Aniline	1.767	1.913	1.932	1.988	1.960	1.962	1.920	4.13	
7)S 2-Fluorophenol	1.091	1.195	1.189	1.208	1.204	1.210	1.183	3.84	
8) bis(2-Chloroethyl	1.067	1.108	1.100	1.132	1.101	1.127	1.106	2.11	
9)S Phenol-d5	1.449	1.564	1.563	1.607	1.592	1.588	1.561	3.67	
10)C Phenol	1.599	1.703	1.670	1.728	1.717	1.724	1.690	2.92	
11) 2-Chlorophenol	1.309	1.401	1.399	1.427	1.430	1.433	1.400	3.36	
12) 1,3-Dichlorobenze	1.428	1.533	1.497	1.541	1.510	1.525	1.506	2.74	
13)C 1,4-Dichlorobenze	1.506	1.553	1.545	1.570	1.557	1.570	1.550	1.52	
14) 1,2-Dichlorobenze	1.392	1.449	1.443	1.470	1.440	1.449	1.440	1.79	
15) Benzyl alcohol	0.759	0.866	0.863	0.882	0.875	0.904	0.858	5.90	
16) bis(2-chloroisopr	1.815	1.896	1.839	1.867	1.805	1.798	1.837	2.10	
17) 2-Methylphenol	1.107	1.175	1.193	1.232	1.221	1.229	1.193	3.98	
18) Acetophenone	1.681	1.773	1.864	1.904	1.904	1.945	1.845	5.39	
19) Hexachloroethane	0.535	0.588	0.582	0.588	0.585	0.581	0.576	3.53	
20)P N-Nitroso-di-n-pr	0.857	0.920	0.910	0.932	0.927	0.941	0.915	3.27	
21) 3&4-Methylphenol	1.209	1.259	1.280	1.336	1.323	1.337	1.291	3.96	
22) I Naphthalene-d8	-----ISTD-----								
23)S Nitrobenzene-d5	0.345	0.361	0.362	0.364	0.359	0.360	0.358	1.93	
24) Nitrobenzene	0.323	0.339	0.341	0.350	0.343	0.342	0.339	2.63	
25) Isophorone	0.557	0.590	0.599	0.610	0.599	0.600	0.592	3.11	
26)C 2-Nitrophenol	0.178	0.201	0.204	0.207	0.205	0.204	0.200	5.47	
27) 2,4-Dimethylpheno	0.326	0.347	0.355	0.361	0.354	0.353	0.349	3.44	
28) bis(2-Chloroethox	0.359	0.375	0.374	0.375	0.369	0.371	0.371	1.63	
29) Benzoic Acid		0.252	0.267	0.281	0.271	0.288	0.272	5.02	
30)C 2,4-Dichloropheno	0.281	0.302	0.303	0.309	0.305	0.305	0.301	3.34	
31) 1,2,4-Trichlorobe	0.300	0.316	0.314	0.317	0.309	0.304	0.310	2.26	
32) Naphthalene	1.010	1.069	1.072	1.079	1.051	1.045	1.054	2.42	
33) 4-Chloroaniline	0.424	0.464	0.467	0.467	0.453	0.455	0.455	3.63	
34) 2,6-Dichloropheno	0.284	0.302	0.305	0.304	0.297	0.298	0.298	2.59	
35)C Hexachlorobutadie	0.157	0.167	0.162	0.164	0.157	0.157	0.161	2.67	
36) Caprolactam	0.150	0.165	0.176	0.185	0.186	0.185	0.174	8.33	
37)C 4-Chloro-3-methyl	0.287	0.308	0.314	0.319	0.321	0.316	0.311	4.03	
38) 2-Methylnaphthale	0.648	0.708	0.698	0.713	0.699	0.699	0.694	3.35	
39) 1-Methylnaphthale	0.649	0.670	0.677	0.686	0.677	0.675	0.672	1.85	
40) 1,2,4,5-Tetrachlo	0.291	0.312	0.310	0.312	0.305	0.301	0.305	2.65	
41) I Acenaphthene-d10	-----ISTD-----								
42)P Hexachlorocyclope	0.097	0.209	0.238	0.250	0.260	0.275	0.222	29.21	
---- Linear regr., Force(0,0) ---- Coefficient = 0.9972									
Response Ratio = 0.00000 + 0.26233 *A									

Initial Calibration Summary

Job Number: F31773
 Account: EEINCJX EEI
 Project: Camp Lejeune-LCH 4015

Sample: SF556-ICC556
 Lab FileID: F009772.D

43)C	2,4,6-Trichloroph	0.337	0.367	0.365	0.367	0.371	0.366	0.362	3.39
44)	2,4,5-Trichloroph	0.350	0.383	0.390	0.392	0.390	0.394	0.383	4.30
45)S	2-Fluorobiphenyl	1.306	1.339	1.302	1.328	1.304	1.314	1.315	1.12
46)	1,1'-Biphenyl	1.448	1.470	1.498	1.509	1.512	1.532	1.495	2.06
47)	2-Chloronaphthale	1.129	1.194	1.161	1.181	1.149	1.157	1.162	2.00
48)	2-Nitroaniline	0.329	0.365	0.363	0.377	0.374	0.370	0.363	4.82
49)	Acenaphthylene	1.861	1.973	1.957	1.980	1.962	1.977	1.952	2.31
50)	Dimethylphthalate	1.319	1.375	1.386	1.392	1.395	1.405	1.379	2.24
51)	2,6-Dinitrotoluen	0.316	0.324	0.333	0.334	0.340	0.335	0.330	2.63
52)C	Acenaphthene	1.124	1.187	1.181	1.205	1.199	1.191	1.181	2.46
53)	3-Nitroaniline	0.342	0.374	0.376	0.382	0.382	0.383	0.373	4.28
54)P	2,4-Dinitrophenol	0.059	0.135	0.152	0.171	0.189	0.192	0.150	33.13
---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9984									
Response Ratio = 0.00000 + 0.13262 *A + 0.02005 *A^2									
55)	Dibenzofuran	1.609	1.660	1.632	1.670	1.649	1.650	1.645	1.32
56)	2,4-Dinitrotoluen	0.380	0.445	0.450	0.464	0.463	0.457	0.443	7.18
57)P	4-Nitrophenol	0.141	0.180	0.192	0.194	0.203	0.198	0.185	12.21
58)	2,3,4,6-Tetrachlo	0.233	0.272	0.282	0.289	0.301	0.298	0.279	8.95
59)	Fluorene	1.313	1.385	1.378	1.422	1.410	1.410	1.386	2.86
60)	4-Chlorophenyl-ph	0.576	0.601	0.585	0.605	0.598	0.596	0.594	1.86
61)	Diethylphthalate	1.303	1.372	1.372	1.391	1.392	1.398	1.371	2.57
62)	4-Nitroaniline	0.323	0.377	0.383	0.399	0.407	0.398	0.381	7.99
63) I	Phenanthrene-d10	-----ISTD-----							
64)	4,6-Dinitro-2-met	0.140	0.153	0.156	0.160	0.163	0.155	0.155	5.80
65)C	n-Nitrosodiphenyl	0.572	0.583	0.582	0.590	0.572	0.581	0.580	1.23
66)	1,2-Diphenylhydra	0.695	0.748	0.729	0.732	0.714	0.724	0.724	2.46
67)S	2,4,6-Tribromophe	0.082	0.089	0.088	0.089	0.086	0.087	0.087	3.02
68)	4-Bromophenyl-phe	0.184	0.198	0.194	0.197	0.192	0.193	0.193	2.47
69)	Hexachlorobenzene	0.196	0.197	0.193	0.196	0.191	0.195	0.195	1.17
70)	Atrazine	0.204	0.224	0.227	0.231	0.228	0.235	0.225	4.79
71)C	Pentachlorophenol	0.066	0.080	0.088	0.089	0.095	0.084	0.084	13.31
---- Linear regression ---- Coefficient = 0.9985									
Response Ratio = -0.02509 + 0.10157 *A									
72)	Phenanthrene	1.150	1.213	1.198	1.203	1.179	1.185	1.188	1.88
73)	Anthracene	1.147	1.235	1.232	1.247	1.216	1.224	1.217	2.94
74)	Carbazole	1.044	1.132	1.141	1.169	1.135	1.136	1.126	3.76
75)	Di-n-butylphthala	1.259	1.364	1.375	1.387	1.356	1.397	1.356	3.68
76)C	Fluoranthene	1.096	1.183	1.188	1.220	1.197	1.205	1.181	3.72
77) I	Chrysene-d12	-----ISTD-----							
78)	Benzidine	0.914	1.025	1.051	1.023	1.003	0.958	0.996	5.09
79)	Pyrene	1.374	1.442	1.425	1.423	1.403	1.399	1.411	1.70
80)S	Terphenyl-d14	0.817	0.890	0.860	0.865	0.855	0.871	0.860	2.81
81)	Butylbenzylphthal	0.624	0.698	0.704	0.692	0.688	0.706	0.685	4.47
82)	3,3'-Dichlorobenz	0.464	0.515	0.516	0.512	0.501	0.502	0.502	3.91
83)	Benzo[a]anthracen	1.203	1.281	1.285	1.284	1.280	1.281	1.269	2.55
84)	Chrysene	1.150	1.223	1.218	1.214	1.194	1.200	1.200	2.22
85)	bis(2-Ethylhexyl)	0.834	0.932	0.943	0.929	0.930	0.961	0.921	4.83
86) I	Perylene-d12	-----ISTD-----							
87)C	Di-n-octylphthala	1.441	1.659	1.709	1.656	1.640	1.667	1.629	5.82
88)	Benzo[b]fluoranth	1.246	1.350	1.358	1.333	1.340	1.341	1.328	3.08
89)	Benzo[k]fluoranth	1.203	1.320	1.322	1.340	1.274	1.268	1.288	3.92
90)C	Benzo[a]pyrene	1.160	1.262	1.285	1.285	1.271	1.276	1.256	3.82
91)	Indeno[1,2,3-cd]p	1.017	1.098	1.141	1.170	1.139	1.167	1.122	5.15
92)	Dibenz[a,h]anthra	0.995	1.132	1.140	1.150	1.170	1.191	1.130	6.13

Initial Calibration Summary

Job Number: F31773
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: SF556-ICC556
Lab FileID: F009772.D

93)	Benzo[g,h,i]peryl	1.133	1.221	1.235	1.251	1.209	1.229	1.213	3.43

(#) = Out of Range

8270C.M Thu May 19 14:50:26 2005

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Initial Calibration Verification

Page 1 of 3

Job Number: F31773
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: SF556-ICV556
Lab FileID: F009776.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\051905\F009776.D Vial: 9
Acq On : 19 May 2005 1:40 pm Operator: nareshj
Sample : icv556-50 Inst : MS-F
Misc : op13309,sf556,1000,,,1,1,water Multiplr: 1.00
MS Integration Params: Rteint.p

Method : C:\MSDCHEM\1\METHODS\8270C.M (RTE Integrator)
Title : SW846 8270C OR EPA 625
Last Update : Thu May 19 14:14:37 2005
Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	0	0.00	4.72
2	1,4-Dioxane	50.000	52.013	-4.0	0	0.04	2.28
3	N-nitrosodimethylamine	50.000	50.292	-0.6	0	0.03	2.60
4	Pyridine	50.000	48.331	3.3	0	0.02	2.63
5	Benzaldehyde	50.000	50.209	-0.4	0	0.00	4.40
6	Aniline	50.000	44.029	11.9	0	0.00	4.48
7 S	2-Fluorophenol		-----NA-----				
8	bis(2-Chloroethyl)ether	50.000	53.423	-6.8	0	0.00	4.53
9 S	Phenol-d5		-----NA-----				
10 C	Phenol	50.000	52.243	-4.5	0	0.00	4.49
11	2-Chlorophenol	50.000	52.764	-5.5	0	0.00	4.58
12	1,3-Dichlorobenzene	50.000	50.614	-1.2	0	0.00	4.68
13 C	1,4-Dichlorobenzene	50.000	50.768	-1.5	0	0.00	4.74
14	1,2-Dichlorobenzene	50.000	51.481	-3.0	0	0.00	4.85
15	Benzyl alcohol	50.000	52.962	-5.9	0	0.00	4.84
16	bis(2-chloroisopropyl)eth	50.000	49.971	0.1	0	0.00	4.94
17	2-Methylphenol	50.000	51.533	-3.1	0	0.00	4.94
18	Acetophenone	50.000	49.110	1.8	0	0.00	5.04
19	Hexachloroethane	50.000	51.648	-3.3	0	0.00	5.12
20 P	N-Nitroso-di-n-propylamin	50.000	50.741	-1.5	0	0.00	5.05
21	3&4-Methylphenol	100.000	101.702	-1.7	0	0.00	5.06
22 I	Naphthalene-d8	40.000	40.000	0.0	0	0.00	5.82
23 S	Nitrobenzene-d5		-----NA-----				
24	Nitrobenzene	50.000	51.570	-3.1	0	0.00	5.19
25	Isophorone	50.000	53.336	-6.7	0	0.00	5.39
26 C	2-Nitrophenol	50.000	52.438	-4.9	0	0.00	5.46
27	2,4-Dimethylphenol	50.000	52.991	-6.0	0	0.00	5.51
28	bis(2-Chloroethoxy)methan	50.000	47.537	4.9	0	0.00	5.59
29	Benzoic Acid	100.000	109.933	-9.9	0	0.04	5.67
30 C	2,4-Dichlorophenol	50.000	54.347	-8.7	0	0.00	5.70
31	1,2,4-Trichlorobenzene	50.000	52.174	-4.3	0	0.00	5.76
32	Naphthalene	50.000	51.261	-2.5	0	0.00	5.84
33	4-Chloroaniline	50.000	17.649	64.7#	0	0.00	5.91
34	2,6-Dichlorophenol	50.000	49.991	0.0	0	0.00	5.91
35 C	Hexachlorobutadiene	50.000	50.675	-1.3	0	0.00	5.96
36	Caprolactam	50.000	50.055	-0.1	0	0.02	6.30
37 C	4-Chloro-3-methylphenol	50.000	53.337	-6.7	0	0.00	6.47
38	2-Methylnaphthalene	50.000	52.203	-4.4	0	0.00	6.61
39	1-Methylnaphthalene	50.000	51.451	-2.9	0	0.00	6.73
40	1,2,4,5-Tetrachlorobenzen	50.000	49.443	1.1	0	0.00	6.81

Initial Calibration Verification

Job Number: F31773
 Account: EEINCJX EEI
 Project: Camp Lejeune-LCH 4015

Sample: SF556-ICV556
 Lab FileID: F009776.D

41	I	Acenaphthene-d10	40.000	40.000	0.0	0	0.00	8.04
42	P	Hexachlorocyclopentadiene	50.000	46.724	6.6	0	0.00	6.80
43	C	2,4,6-Trichlorophenol	50.000	53.171	-6.3	0	0.00	6.98
44		2,4,5-Trichlorophenol	50.000	52.642	-5.3	0	0.00	7.04
45	S	2-Fluorobiphenyl			NA			
46		1,1'-Biphenyl	50.000	49.279	1.4	0	0.00	7.22
47		2-Chloronaphthalene	50.000	51.401	-2.8	0	0.00	7.24
48		2-Nitroaniline	50.000	50.150	-0.3	0	0.00	7.40
49		Acenaphthylene	50.000	51.608	-3.2	0	0.00	7.82
50		Dimethylphthalate	50.000	51.437	-2.9	0	0.00	7.69
51		2,6-Dinitrotoluene	50.000	49.817	0.4	0	0.00	7.77
52	C	Acenaphthene	50.000	51.016	-2.0	0	0.00	8.09
53		3-Nitroaniline	50.000	27.668	44.7#	0	0.00	8.01
54	P	2,4-Dinitrophenol	100.000	107.456	-7.5	0	0.00	8.20
55		Dibenzofuran	50.000	50.649	-1.3	0	0.00	8.36
56		2,4-Dinitrotoluene	50.000	50.810	-1.6	0	0.00	8.40
57	P	4-Nitrophenol	100.000	105.989	-6.0	0	0.00	8.38
58		2,3,4,6-Tetrachlorophenol	50.000	49.953	0.1	0	0.00	8.59
59		Fluorene	50.000	50.399	-0.8	0	0.00	8.91
60		4-Chlorophenyl-phenylethe	50.000	51.639	-3.3	0	0.00	8.95
61		Diethylphthalate	50.000	51.988	-4.0	0	0.00	8.82
62		4-Nitroaniline	50.000	47.043	5.9	0	0.00	9.01
63	I	Phenanthrene-d10	40.000	40.000	0.0	0	0.00	10.52
64		4,6-Dinitro-2-methylpheno	100.000	113.310	-13.3	0	0.00	9.07
65	C	n-Nitrosodiphenylamine	50.000	54.470	-8.9	0	0.00	9.17
66		1,2-Diphenylhydrazine	50.000	51.853	-3.7	0	0.00	9.22
67	S	2,4,6-Tribromophenol			NA			
68		4-Bromophenyl-phenylether	50.000	53.193	-6.4	0	0.00	9.78
69		Hexachlorobenzene	50.000	51.470	-2.9	0	0.00	9.84
70		Atrazine	50.000	52.585	-5.2	0	0.00	10.18
71	C	Pentachlorophenol	100.000	117.253	-17.3	0	0.00	10.23
72		Phenanthrene	50.000	52.091	-4.2	0	0.00	10.56
73		Anthracene	50.000	50.759	-1.5	0	0.00	10.66
74		Carbazole	50.000	51.282	-2.6	0	0.00	11.00
75		Di-n-butylphthalate	50.000	51.273	-2.5	0	0.00	11.79
76	C	Fluoranthene	50.000	51.792	-3.6	0	0.00	12.74
77	I	Chrysene-d12	40.000	40.000	0.0	0	0.00	15.45
78		Benzidine			NA			
79		Pyrene	50.000	52.358	-4.7	0	0.00	13.15
80	S	Terphenyl-d14			NA			
81		Butylbenzylphthalate	50.000	51.198	-2.4	0	0.00	14.60
82		3,3'-Dichlorobenzidine	50.000	4.127	91.7#	0	0.00	15.48
83		Benzo[a]anthracene	50.000	51.776	-3.6	0	0.00	15.44
84		Chrysene	50.000	50.868	-1.7	0	0.00	15.50
85		bis(2-Ethylhexyl)phthalat	50.000	51.916	-3.8	0	0.00	15.79
86	I	Perylene-d12	40.000	40.000	0.0	0	0.00	17.95
87	C	Di-n-octylphthalate	50.000	55.818	-11.6	0	0.00	16.99
88		Benzo[b]fluoranthene	50.000	51.179	-2.4	0	0.00	17.35
89		Benzo[k]fluoranthene	50.000	52.926	-5.9	0	0.00	17.39

Initial Calibration Verification

Job Number: F31773
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: SF556-ICV556
Lab FileID: F009776.D

90	C	Benzo[a]pyrene	50.000	49.690	0.6	0	0.00	17.86
91		Indeno[1,2,3-cd]pyrene	50.000	49.945	0.1	0	0.00	19.55
92		Dibenz[a,h]anthracene	50.000	51.424	-2.8	0	0.00	19.59
93		Benzo[g,h,i]perylene	50.000	49.389	1.2	0	0.00	19.90

(#) = Out of Range SPCC's out = 0 CCC's out = 0
F009553.D 8270C.M Thu May 19 14:50:11 2005

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Continuing Calibration Summary

Job Number: F31773
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: SF557-CC556
Lab FileID: F009800.D

Page 1 of 3

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\052005\F009800.D Vial: 2
Acq On : 20 May 2005 9:06 am Operator: nareshj
Sample : cc556-50 Inst : MS-F
Misc : op13309,sf557,1000,,,1,1,water Multiplr: 1.00
MS Integration Params: Rteint.p

Method : C:\MSDCHEM\1\METHODS\8270C.M (RTE Integrator)
Title : SW846 8270C OR EPA 625
Last Update : Fri May 20 09:22:08 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	99	0.00	4.71
2	1,4-Dioxane	0.377	0.372	1.3	97	-0.01	2.24
3	N-nitrosodimethylamine	0.567	0.590	-4.1	102	-0.03	2.56
4	Pyridine	1.061	0.998	5.9	91	-0.03	2.59
5	Benzaldehyde	0.901	0.948	-5.2	96	0.00	4.39
6	Aniline	1.920	1.936	-0.8	99	0.00	4.48
7 S	2-Fluorophenol	1.183	1.173	0.8	98	0.00	3.75
8	bis(2-Chloroethyl)ether	1.106	1.123	-1.5	101	0.00	4.53
9 S	Phenol-d5	1.561	1.567	-0.4	100	0.00	4.48
10 C	Phenol	1.690	1.700	-0.6	101	0.00	4.49
11	2-Chlorophenol	1.400	1.395	0.4	99	0.00	4.57
12	1,3-Dichlorobenzene	1.506	1.503	0.2	100	0.00	4.67
13 C	1,4-Dichlorobenzene	1.550	1.558	-0.5	100	0.00	4.73
14	1,2-Dichlorobenzene	1.440	1.434	0.4	99	0.00	4.85
15	Benzyl alcohol	0.858	0.890	-3.7	102	0.00	4.84
16	bis(2-chloroisopropyl)eth	1.837	1.875	-2.1	101	0.00	4.93
17	2-Methylphenol	1.193	1.202	-0.8	100	0.00	4.93
18	Acetophenone	1.845	1.865	-1.1	99	0.00	5.04
19	Hexachloroethane	0.576	0.587	-1.9	100	0.00	5.12
20 P	N-Nitroso-di-n-propylamin	0.915	0.903	1.3	99	0.00	5.05
21	3&4-Methylphenol	1.291	1.298	-0.5	101	0.00	5.06
22 I	Naphthalene-d8	1.000	1.000	0.0	101	0.00	5.82
23 S	Nitrobenzene-d5	0.358	0.359	-0.3	100	0.00	5.16
24	Nitrobenzene	0.339	0.342	-0.9	101	0.00	5.18
25	Isophorone	0.592	0.594	-0.3	100	0.00	5.39
26 C	2-Nitrophenol	0.200	0.202	-1.0	100	0.00	5.46
27	2,4-Dimethylphenol	0.349	0.353	-1.1	100	0.00	5.51
28	bis(2-Chloroethoxy)methan	0.371	0.372	-0.3	100	0.00	5.59
29	Benzoic Acid	0.272	0.253	7.0	95	0.00	5.63
30 C	2,4-Dichlorophenol	0.301	0.301	0.0	100	0.00	5.70
31	1,2,4-Trichlorobenzene	0.310	0.316	-1.9	101	0.00	5.76
32	Naphthalene	1.054	1.070	-1.5	101	0.00	5.84
33	4-Chloroaniline	0.455	0.465	-2.2	100	0.00	5.91
34	2,6-Dichlorophenol	0.298	0.305	-2.3	101	0.00	5.91
35 C	Hexachlorobutadiene	0.161	0.164	-1.9	102	0.00	5.96
36	Caprolactam	0.174	0.170	2.3	97	0.00	6.29
37 C	4-Chloro-3-methylphenol	0.311	0.312	-0.3	100	0.00	6.46
38	2-Methylnaphthalene	0.694	0.700	-0.9	101	0.00	6.61
39	1-Methylnaphthalene	0.672	0.673	-0.1	100	0.00	6.73
40	1,2,4,5-Tetrachlorobenzen	0.305	0.312	-2.3	101	0.00	6.81

Continuing Calibration Summary

Job Number: F31773
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: SF557-CC556
Lab FileID: F009800.D

41	I	Acenaphthene-d10	1.000	1.000	0.0	100	0.00	8.04
42	P	Hexachlorocyclopentadiene	50.000	43.602	12.8	96	0.00	6.80
43	C	2,4,6-Trichlorophenol	0.362	0.367	-1.4	100	0.00	6.98
44		2,4,5-Trichlorophenol	0.383	0.387	-1.0	99	0.00	7.03
45	S	2-Fluorobiphenyl	1.315	1.329	-1.1	102	0.00	7.08
46		1,1'-Biphenyl	1.495	1.504	-0.6	100	0.00	7.22
47		2-Chloronaphthalene	1.162	1.164	-0.2	100	0.00	7.24
48		2-Nitroaniline	0.363	0.355	2.2	97	0.00	7.40
49		Acenaphthylene	1.952	1.956	-0.2	99	0.00	7.82
50		Dimethylphthalate	1.379	1.353	1.9	97	0.00	7.69
51		2,6-Dinitrotoluene	0.330	0.323	2.1	97	0.00	7.77
52	C	Acenaphthene	1.181	1.184	-0.3	100	0.00	8.09
53		3-Nitroaniline	0.373	0.368	1.3	97	0.00	8.02
54	P	2,4-Dinitrophenol	50.000	49.791	0.4	103	0.00	8.19
55		Dibenzofuran	1.645	1.638	0.4	100	0.00	8.36
56		2,4-Dinitrotoluene	0.443	0.436	1.6	96	0.00	8.40
57	P	4-Nitrophenol	0.185	0.183	1.1	95	0.00	8.37
58		2,3,4,6-Tetrachlorophenol	0.279	0.282	-1.1	100	0.00	8.58
59		Fluorene	1.386	1.357	2.1	98	0.00	8.91
60		4-Chlorophenyl-phenylethe	0.594	0.591	0.5	101	0.00	8.95
61		Diethylphthalate	1.371	1.353	1.3	98	0.00	8.82
62		4-Nitroaniline	0.381	0.377	1.0	98	0.00	9.01
63	I	Phenanthrene-d10	1.000	1.000	0.0	98	0.00	10.52
64		4,6-Dinitro-2-methylpheno	0.155	0.153	1.3	98	0.00	9.07
65	C	n-Nitrosodiphenylamine	0.580	0.581	-0.2	98	0.00	9.17
66		1,2-Diphenylhydrazine	0.724	0.736	-1.7	99	0.00	9.22
67	S	2,4,6-Tribromophenol	0.087	0.090	-3.4	102	0.00	9.33
68		4-Bromophenyl-phenylether	0.193	0.200	-3.6	101	0.00	9.78
69		Hexachlorobenzene	0.195	0.198	-1.5	101	0.00	9.84
70		Atrazine	0.225	0.229	-1.8	99	0.00	10.17
71	C	Pentachlorophenol	50.000	49.154	1.7	98	0.00	10.23
72		Phenanthrene	1.188	1.192	-0.3	98	0.00	10.56
73		Anthracene	1.217	1.217	0.0	97	0.00	10.66
74		Carbazole	1.126	1.121	0.4	97	0.00	11.00
75		Di-n-butylphthalate	1.356	1.344	0.9	96	0.00	11.79
76	C	Fluoranthene	1.181	1.191	-0.8	99	0.00	12.74
77	I	Chrysene-d12	1.000	1.000	0.0	99	0.00	15.45
78		Benzydine	0.996	0.980	1.6	93	0.00	13.10
79		Pyrene	1.411	1.416	-0.4	99	0.00	13.14
80	S	Terphenyl-d14	0.860	0.872	-1.4	101	0.00	13.57
81		Butylbenzylphthalate	0.685	0.694	-1.3	98	0.00	14.60
82		3,3'-Dichlorobenzidine	0.502	0.514	-2.4	99	0.00	15.48
83		Benzo[a]anthracene	1.269	1.284	-1.2	99	0.00	15.44
84		Chrysene	1.200	1.226	-2.2	100	0.00	15.50
85		bis(2-Ethylhexyl)phthalat	0.921	0.930	-1.0	98	0.00	15.79

Continuing Calibration Summary

Job Number: F31773
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: SF557-CC556
Lab FileID: F009800.D

86	I	Perylene-d12	1.000	1.000	0.0	103	0.00	17.95
87	C	Di-n-octylphthalate	1.629	1.612	1.0	97	0.00	16.99
88		Benzo[b]fluoranthene	1.328	1.297	2.3	98	0.00	17.34
89		Benzo[k]fluoranthene	1.288	1.305	-1.3	101	0.00	17.39
90	C	Benzo[a]pyrene	1.256	1.259	-0.2	101	0.00	17.86
91		Indeno[1,2,3-cd]pyrene	1.122	1.133	-1.0	102	0.00	19.54
92		Dibenz[a,h]anthracene	1.130	1.151	-1.9	104	0.00	19.59
93		Benzo[g,h,i]perylene	1.213	1.233	-1.6	103	0.00	19.90

(#) = Out of Range SPCC's out = 0 CCC's out = 0
F009769.D 8270C.M Mon May 23 09:28:52 2005

5.7
5

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: F31773
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GQQ142-MB	QQ003398.D 1		05/19/05	AB	n/a	n/a	GQQ142

The QC reported here applies to the following samples:

Method: EPA 601/602

F31773-1, F31773-2, F31773-4, F31773-5, F31773-6, F31773-7

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	98% 71-130%
98-08-8	aaa-Trifluorotoluene	100% 71-124%

Method Blank Summary

Page 1 of 1

Job Number: F31773
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GQQ143-MB	QQ003420.D	1	05/20/05	AB	n/a	n/a	GQQ143

The QC reported here applies to the following samples:

Method: EPA 601/602

F31773-3

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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% 71-130%
98-08-8	aaa-Trifluorotoluene	99% 71-124%

Blank Spike Summary

Page 1 of 1

Job Number: F31773
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GQQ142-BS	QQ003397.D1		05/19/05	AB	n/a	n/a	GQQ142

The QC reported here applies to the following samples:

Method: EPA 601/602

F31773-1, F31773-2, F31773-4, F31773-5, F31773-6, F31773-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	21.4	107	81-121
108-90-7	Chlorobenzene	20	22.5	113	76-120
95-50-1	1,2-Dichlorobenzene	20	22.6	113	63-127
541-73-1	1,3-Dichlorobenzene	20	22.5	113	70-124
106-46-7	1,4-Dichlorobenzene	20	21.2	106	68-121
100-41-4	Ethylbenzene	20	22.0	110	79-124
1634-04-4	Methyl Tert Butyl Ether	20	22.4	112	73-118
108-88-3	Toluene	20	21.5	108	79-122
1330-20-7	Xylenes (total)	60	64.9	108	79-121

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	100%	71-130%
98-08-8	aaa-Trifluorotoluene	101%	71-124%

Blank Spike Summary

Page 1 of 1

Job Number: F31773
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GQQ143-BS	QQ003419.D	1	05/20/05	AB	n/a	n/a	GQQ143

The QC reported here applies to the following samples:

Method: EPA 601/602

F31773-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	22.2	111	81-121
108-90-7	Chlorobenzene	20	22.7	114	76-120
95-50-1	1,2-Dichlorobenzene	20	22.4	112	63-127
541-73-1	1,3-Dichlorobenzene	20	22.1	111	70-124
106-46-7	1,4-Dichlorobenzene	20	21.1	106	68-121
100-41-4	Ethylbenzene	20	22.1	111	79-124
1634-04-4	Methyl Tert Butyl Ether	20	21.3	107	73-118
108-88-3	Toluene	20	21.9	110	79-122
1330-20-7	Xylenes (total)	60	65.4	109	79-121

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	98%	71-130%
98-08-8	aaa-Trifluorotoluene	100%	71-124%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: F31773
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F31773-6MS	QQ003404.D	5	05/19/05	AB	n/a	n/a	GQQ142
F31773-6MSD	QQ003405.D	5	05/19/05	AB	n/a	n/a	GQQ142
F31773-6 ^a	QQ003403.D	5	05/19/05	AB	n/a	n/a	GQQ142

The QC reported here applies to the following samples:

Method: EPA 601/602

F31773-1, F31773-2, F31773-4, F31773-5, F31773-6, F31773-7

CAS No.	Compound	F31773-6 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	30.1	100	133	103	138	108	4	74-126/11
108-90-7	Chlorobenzene	ND	100	113	113	113	113	0	72-124/8
95-50-1	1,2-Dichlorobenzene	50.7	100	160	109	162	111	1	55-136/13
541-73-1	1,3-Dichlorobenzene	ND	100	120	120	120	120	0	65-132/16
106-46-7	1,4-Dichlorobenzene	ND	100	117	117	117	117	0	61-133/11
100-41-4	Ethylbenzene	270	100	380	110	380	110	0	71-131/8
1634-04-4	Methyl Tert Butyl Ether	7.8	100	120	112	118	110	2	63-130/11
108-88-3	Toluene	14.8	100	120	105	122	107	2	69-132/7
1330-20-7	Xylenes (total)	659	300	985	109	981	107	0	71-127/8

CAS No.	Surrogate Recoveries	MS	MSD	F31773-6	Limits
460-00-4	4-Bromofluorobenzene	103%	104%	103%	71-130%
98-08-8	aaa-Trifluorotoluene	99%	101%	99%	71-124%

(a) All hits confirmed by dual column analysis.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: F31773
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F31956-8MS	QQ003426.D	20	05/20/05	AB	n/a	n/a	GQQ143
F31956-8MSD	QQ003427.D	20	05/20/05	AB	n/a	n/a	GQQ143
F31956-8 ^a	QQ003425.D	20	05/20/05	AB	n/a	n/a	GQQ143

The QC reported here applies to the following samples:

Method: EPA 601/602

F31773-3

CAS No.	Compound	F31956-8 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	73.8	400	520	112	514	110	1	74-126/11
108-90-7	Chlorobenzene	ND	400	450	113	449	112	0	72-124/8
95-50-1	1,2-Dichlorobenzene	ND	400	437	109	447	112	2	55-136/13
541-73-1	1,3-Dichlorobenzene	ND	400	438	110	437	109	0	65-132/16
106-46-7	1,4-Dichlorobenzene	ND	400	413	103	413	103	0	61-133/11
100-41-4	Ethylbenzene	ND	400	441	110	438	110	1	71-131/8
1634-04-4	Methyl Tert Butyl Ether	1680	400	2140	115	2060	95	4	63-130/11
108-88-3	Toluene	ND	400	434	109	430	108	1	69-132/7
1330-20-7	Xylenes (total)	ND	1200	1310	109	1300	108	1	71-127/8

CAS No.	Surrogate Recoveries	MS	MSD	F31956-8	Limits
460-00-4	4-Bromofluorobenzene	98%	99%	94%	71-130%
98-08-8	aaa-Trifluorotoluene	101%	103%	99%	71-124%

(a) All hits confirmed by dual column analysis.

Volatile Surrogate Recovery Summary

Page 1 of 1

Job Number: F31773
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

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
F31773-1	QQ003400.D	100.0	99.0
F31773-2	QQ003401.D	98.0	100.0
F31773-3	QQ003435.D	95.0	101.0
F31773-3	QQ003433.D	95.0	99.0
F31773-4	QQ003402.D	99.0	102.0
F31773-5	QQ003406.D	99.0	98.0
F31773-6	QQ003403.D	103.0	99.0
F31773-7	QQ003408.D	97.0	98.0
F31773-6MS	QQ003404.D	103.0	99.0
F31773-6MSD	QQ003405.D	104.0	101.0
F31956-8MS	QQ003426.D	98.0	101.0
F31956-8MSD	QQ003427.D	99.0	103.0
GQQ142-BS	QQ003397.D	100.0	101.0
GQQ142-MB	QQ003398.D	98.0	100.0
GQQ143-BS	QQ003419.D	98.0	100.0
GQQ143-MB	QQ003420.D	94.0	99.0

Surrogate Compounds	Recovery Limits

S1 = 4-Bromofluorobenzene	71-130%
S2 = aaa-Trifluorotoluene	71-124%

(a) Recovery from GC signal #2

6.4

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GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F31773
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GQQ142-CC142	Injection Date:	05/19/05
Lab File ID:	QQ003407.D	Injection Time:	23:13
Instrument ID:	GCQQ	Method:	EPA 601/602

S1^a	S2^a
RT	RT

Check Std	11.19	4.87

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
F31773-7	QQ003408.D	05/19/05	23:38	11.19	4.87
ZZZZZZ	QQ003409.D	05/20/05	00:02	11.19	4.87
ZZZZZZ	QQ003410.D	05/20/05	00:26	11.19	4.86
ZZZZZZ	QQ003411.D	05/20/05	00:51	11.19	4.87
ZZZZZZ	QQ003412.D	05/20/05	01:15	11.19	4.87
ZZZZZZ	QQ003413.D	05/20/05	01:39	11.19	4.87
ZZZZZZ	QQ003414.D	05/20/05	02:04	11.19	4.87
ZZZZZZ	QQ003415.D	05/20/05	02:28	11.19	4.86
ZZZZZZ	QQ003416.D	05/20/05	02:52	11.19	4.87
ZZZZZZ	QQ003417.D	05/20/05	03:16	11.19	4.87

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: F31773
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GQQ143-CC142	Injection Date:	05/20/05
Lab File ID:	QQ003418.D	Injection Time:	03:41
Instrument ID:	GCQQ	Method:	EPA 601/602

S1^a	S2^a
RT	RT

Check Std	11.19	4.88

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
GQQ143-BS	QQ003419.D	05/20/05	04:05	11.19	4.87
GQQ143-MB	QQ003420.D	05/20/05	04:29	11.19	4.87
ZZZZZZ	QQ003421.D	05/20/05	04:54	11.19	4.87
ZZZZZZ	QQ003422.D	05/20/05	05:18	11.19	4.87
ZZZZZZ	QQ003423.D	05/20/05	05:42	11.19	4.87
F31956-8	QQ003425.D	05/20/05	06:34	11.19	4.88
F31956-8MS	QQ003426.D	05/20/05	06:58	11.19	4.87
F31956-8MSD	QQ003427.D	05/20/05	07:22	11.19	4.87
ZZZZZZ	QQ003428.D	05/20/05	07:47	11.19	4.88

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: F31773
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GQQ143-CC142	Injection Date:	05/20/05
Lab File ID:	QQ003429.D	Injection Time:	08:11
Instrument ID:	GCQQ	Method:	EPA 601/602

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	11.15	11.19	4.88	4.88

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
ZZZZZZ	QQ003431.D	05/20/05	09:05		11.19		4.88
F31773-3	QQ003433.D	05/20/05	09:56		11.19		4.88
F31773-3	QQ003435.D	05/20/05	10:44		11.19		4.88
GQQ143-ECC142	QQ003437.D	05/20/05	11:33	11.15	11.19	4.88	4.88

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: F31773
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GQQ142-ICC142	Injection Date:	05/19/05
Lab File ID:	QQ003392.D	Injection Time:	17:10
Instrument ID:	GCQQ	Method:	EPA 601/602

S1^a	S2^a
RT	RT

Check Std	11.19	4.87

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
GQQ142-BS	QQ003397.D	05/19/05	19:10	11.19	4.87
GQQ142-MB	QQ003398.D	05/19/05	19:35	11.19	4.87
F31773-1	QQ003400.D	05/19/05	20:24	11.19	4.86
F31773-2	QQ003401.D	05/19/05	20:48	11.19	4.87
F31773-4	QQ003402.D	05/19/05	21:12	11.19	4.87
F31773-6	QQ003403.D	05/19/05	21:37	11.19	4.87
F31773-6MS	QQ003404.D	05/19/05	22:00	11.19	4.87
F31773-6MSD	QQ003405.D	05/19/05	22:25	11.19	4.86
F31773-5	QQ003406.D	05/19/05	22:49	11.19	4.87

Surrogate Compounds

S1 = 4-Bromofluorobenzene

S2 = aaa-Trifluorotoluene

(a) Retention time from GC signal #2

Initial Calibration Summary

Page 1 of 1

Job Number: F31773
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GQQ142-ICC142
Lab FileID: QQ003392.D

Response Factor Report VOA7

Method : C:\MSDCHEM\2\METHODS\DUAL0519.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Fri May 20 08:06:01 2005
Response via : Initial Calibration

Calibration Files

1 =QQ003390.D 5 =QQ003391.D 20 =QQ003392.D 40 =QQ003393.D
70 =QQ003394.D 100 =QQ003395.D

	Compound	1	5	20	40	70	100	Avg		%RSD
1)	Methyl tert Butyl E	9.300	9.744	9.332	9.550	9.638	9.567	9.522	E2	1.82
2)	Di-Isopropyl ether	1.186	1.257	1.186	1.185	1.194	1.192	1.200	E3	2.33
3)	Benzene	3.905	4.307	4.233	4.291	4.288	4.184	4.201	E3	3.62
4) S	a,a,a-TFT(S)	9.294	9.169	9.272	9.065	9.100	9.062	9.160	E2	1.12
5)	Toluene	3.351	3.338	3.278	3.334	3.325	3.252	3.313	E3	1.18
6)	Chlorobenzene	2.523	3.005	3.068	3.127	3.144	3.088	2.992	E3	7.86
7)	Ethylbenzene	2.275	2.616	2.647	2.686	2.694	2.655	2.596	E3	6.14
8)	m,p-Xylene	2.556	2.874	2.851	2.903	2.905	2.855	2.824	E3	4.71
9)	o-Xylene	2.742	3.036	2.984	3.052	3.038	3.007	2.976	E3	3.94
10) S	BFB(S)	3.085	3.133	3.206	3.178	3.227	3.263	3.182	E3	2.04
11)	1,3-Dichlorobenzene	3.642	4.184	4.267	4.392	4.443	4.402	4.222	E3	7.10
12)	1,4-Dichlorobenzene	4.108	4.746	4.832	4.960	5.025	4.940	4.769	E3	7.10
13)	1,2-Dichlorobenzene	3.626	4.231	4.255	4.416	4.357	4.406	4.215	E3	7.09

Signal #2

1)	Methyl tert Butyl E	8.554	9.478	9.044	9.319	9.383	9.321	9.183	E2	3.71
2)	Di-Isopropyl ether	1.025	1.161	1.137	1.154	1.159	1.161	1.133	E3	4.73
3)	Benzene	3.625	4.104	4.058	4.124	4.119	4.026	4.009	E3	4.79
4) S	a,a,a-TFT(S)	8.754	8.697	8.790	8.556	8.600	8.578	8.662	E2	1.13
5)	Toluene	3.006	3.127	3.109	3.166	3.162	3.106	3.113	E3	1.87
6)	Chlorobenzene	2.279	2.820	2.906	2.979	3.005	2.972	2.827	E3	9.77
7)	Ethylbenzene	2.107	2.530	2.544	2.601	2.591	2.577	2.492	E3	7.64
8)	m,p-Xylene	2.396	2.795	2.827	2.890	2.881	2.862	2.775	E3	6.82
9)	o-Xylene	2.236	2.561	2.580	2.636	2.640	2.610	2.544	E3	6.05
10) S	BFB(S)	2.927	2.965	3.030	3.003	3.060	3.087	3.012	E3	1.98
11)	1,3-Dichlorobenzene	3.292	3.801	3.882	4.027	4.067	4.089	3.860	E3	7.77
12)	1,4-Dichlorobenzene	3.539	4.312	4.401	4.560	4.614	4.653	4.347	E3	9.58
13)	1,2-Dichlorobenzene	3.308	3.971	4.107	4.196	4.286	4.212	4.013	E3	9.02

(#) = Out of Range

DUAL0519.M

Fri May 20 12:15:23 2005

GCHH

Initial Calibration Verification

Page 1 of 1

Job Number: F31773
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GQQ142-ICV142
Lab FileID: QQ003396.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\2\DATA\051905\QQ003396.D\ELC1A.CH Vial: 7
Signal #2 : C:\MSDCHEM\2\DATA\051905\QQ003396.D\ELC2B.CH
Acq On : 5-19-05 06:46:37 PM Operator: AliciaL
Sample : icv142-20 Inst : VOA7
Misc : gc4937,gqq142,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\2\METHODS\DUAL0519.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Fri May 20 08:06:01 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	Methyl tert Butyl EtHe	20.000	18.500	7.5	94	0.00	2.15- 2.35
2	Di-Isopropyl ether	20.000	16.466	17.7#	83	0.00	2.52- 2.72
3	Benzene	20.000	17.466	12.7	87	0.00	3.66- 3.86
4 S	a,a,a-TFT(S)	20.000	19.461	2.7	96	0.00	4.77- 4.97
5	Toluene	20.000	17.729	11.4	90	0.00	6.40- 6.60
6	Chlorobenzene	20.000	18.893	5.5	92	0.00	8.77- 8.97
7	Ethylbenzene	20.000	18.502	7.5	91	0.00	9.30- 9.50
8	m,p-Xylene	40.000	36.710	8.2	91	0.00	9.75- 9.95
9	o-Xylene	20.000	18.277	8.6	91	0.00	10.45-10.65
10 S	BFB(S)	20.000	19.807	1.0	98	0.00	11.05-11.25
11	1,3-Dichlorobenzene	20.000	19.408	3.0	96	0.00	12.69-12.89
12	1,4-Dichlorobenzene	20.000	18.157	9.2	90	0.00	12.78-12.98
13	1,2-Dichlorobenzene	20.000	19.463	2.7	96	0.00	13.10-13.30

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

1	Methyl tert Butyl EtHe	20.000	18.621	6.9	95	0.00	2.04- 2.24
2	Di-Isopropyl ether	20.000	16.626	16.9#	83	0.01	2.37- 2.57
3	Benzene	20.000	17.596	12.0	87	0.00	3.56- 3.76
4 S	a,a,a-TFT(S)	20.000	19.493	2.5	96	0.00	4.76- 4.96
5	Toluene	20.000	17.873	10.6	89	0.00	6.17- 6.37
6	Chlorobenzene	20.000	19.023	4.9	93	0.00	8.75- 8.95
7	Ethylbenzene	20.000	18.551	7.2	91	0.00	9.06- 9.26
8	m,p-Xylene	40.000	36.889	7.8	91	0.00	9.33- 9.53
9	o-Xylene	20.000	18.387	8.1	91	0.00	10.15-10.35
10 S	BFB(S)	20.000	19.708	1.5	98	0.00	11.09-11.29
11	1,3-Dichlorobenzene	20.000	19.506	2.5	97	0.00	12.62-12.82
12	1,4-Dichlorobenzene	20.000	18.337	8.3	91	0.00	12.74-12.94
13	1,2-Dichlorobenzene	20.000	19.690	1.5	96	0.00	13.12-13.32

(#) = Out of Range
QQ003392.D DUAL0519.M

SPCC's out = 0 CCC's out = 0
Fri May 20 12:13:51 2005 GCHH

Continuing Calibration Summary

Page 1 of 1

Job Number: F31773
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GQQ142-CC142
Lab FileID: QQ003407.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\2\DATA\051905\QQ003407.D\ELC1A.CH Vial: 17
Signal #2 : C:\MSDCHEM\2\DATA\051905\QQ003407.D\ELC2B.CH
Acq On : 19 May 2005 11:13 pm Operator: AliciaL
Sample : cc142-20 Inst : VOA7
Misc : gc4965,gqq142,,,,, Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\2\METHODS\DUAL0519.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Fri May 20 08:06:01 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	Methyl tert Butyl EtHe	20.000	20.870	-4.4	106	0.00	2.15-	2.35
2	Di-Isopropyl ether	20.000	20.466	-2.3	104	0.00	2.52-	2.72
3	Benzene	20.000	20.603	-3.0	102	0.00	3.66-	3.86
4 S	a,a,a-TFT(S)	20.000	19.760	1.2	98	0.00	4.77-	4.97
5	Toluene	20.000	20.443	-2.2	103	0.00	6.40-	6.60
6	Chlorobenzene	20.000	20.937	-4.7	102	0.00	8.77-	8.97
7	Ethylbenzene	20.000	20.907	-4.5	102	0.00	9.30-	9.50
8	m,p-Xylene	40.000	41.294	-3.2	102	0.00	9.75-	9.95
9	o-Xylene	20.000	20.599	-3.0	103	0.00	10.45-	10.65
10 S	BFB(S)	20.000	19.529	2.4	97	0.00	11.05-	11.25
11	1,3-Dichlorobenzene	20.000	20.459	-2.3	101	0.00	12.69-	12.89
12	1,4-Dichlorobenzene	20.000	20.362	-1.8	100	0.00	12.78-	12.98
13	1,2-Dichlorobenzene	20.000	21.141	-5.7	105	0.00	13.10-	13.30

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

1	Methyl tert Butyl EtHe	20.000	21.116	-5.6	107	0.00	2.04-	2.24
2	Di-Isopropyl ether	20.000	21.006	-5.0	105	0.00	2.37-	2.57
3	Benzene	20.000	20.672	-3.4	102	0.00	3.56-	3.76
4 S	a,a,a-TFT(S)	20.000	19.710	1.4	97	0.00	4.76-	4.96
5	Toluene	20.000	20.601	-3.0	103	0.00	6.17-	6.37
6	Chlorobenzene	20.000	21.096	-5.5	103	0.00	8.75-	8.95
7	Ethylbenzene	20.000	20.983	-4.9	103	0.00	9.06-	9.26
8	m,p-Xylene	40.000	41.569	-3.9	102	0.00	9.33-	9.53
9	o-Xylene	20.000	20.661	-3.3	102	0.00	10.15-	10.35
10 S	BFB(S)	20.000	19.665	1.7	98	0.00	11.09-	11.29
11	1,3-Dichlorobenzene	20.000	20.404	-2.0	101	0.00	12.62-	12.82
12	1,4-Dichlorobenzene	20.000	20.696	-3.5	102	0.00	12.74-	12.94
13	1,2-Dichlorobenzene	20.000	20.763	-3.8	101	0.00	13.12-	13.32

(#) = Out of Range
QQ003392.D DUAL0519.M

SPCC's out = 0 CCC's out = 0
Fri May 20 12:13:54 2005 GCHH

Continuing Calibration Summary

Page 1 of 1

Job Number: F31773
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GQQ143-CC142
Lab FileID: QQ003418.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\2\DATA\051905\QQ003418.D\ELC1A.CH Vial: 28
Signal #2 : C:\MSDCHEM\2\DATA\051905\QQ003418.D\ELC2B.CH
Acq On : 5-20-05 03:41:18 AM Operator: AliciaL
Sample : cc142-20 Inst : VOA7
Misc : gc4965,gqq143,,,,, Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\2\METHODS\DUAL0519.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Fri May 20 08:06:01 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	Methyl tert Butyl EtHe	20.000	20.634	-3.2	105	0.02	2.15- 2.35
2	Di-Isopropyl ether	20.000	20.801	-4.0	105	0.02	2.52- 2.72
3	Benzene	20.000	20.709	-3.5	103	0.01	3.66- 3.86
4 S	a,a,a-TFT(S)	20.000	20.029	-0.1	99	0.01	4.77- 4.97
5	Toluene	20.000	20.440	-2.2	103	0.00	6.40- 6.60
6	Chlorobenzene	20.000	20.625	-3.1	101	0.00	8.77- 8.97
7	Ethylbenzene	20.000	20.569	-2.8	101	0.00	9.30- 9.50
8	m,p-Xylene	40.000	40.887	-2.2	101	0.00	9.75- 9.95
9	o-Xylene	20.000	20.291	-1.5	101	0.00	10.45-10.65
10 S	BFB(S)	20.000	19.692	1.5	98	0.00	11.05-11.25
11	1,3-Dichlorobenzene	20.000	19.854	0.7	98	0.00	12.69-12.89
12	1,4-Dichlorobenzene	20.000	19.963	0.2	99	0.00	12.78-12.98
13	1,2-Dichlorobenzene	20.000	20.244	-1.2	100	0.00	13.10-13.30

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

1	Methyl tert Butyl EtHe	20.000	20.860	-4.3	106	0.02	2.04- 2.24
2	Di-Isopropyl ether	20.000	21.335	-6.7	106	0.02	2.37- 2.57
3	Benzene	20.000	20.764	-3.8	103	0.01	3.56- 3.76
4 S	a,a,a-TFT(S)	20.000	20.056	-0.3	99	0.01	4.76- 4.96
5	Toluene	20.000	20.654	-3.3	103	0.00	6.17- 6.37
6	Chlorobenzene	20.000	20.711	-3.6	101	0.00	8.75- 8.95
7	Ethylbenzene	20.000	20.662	-3.3	101	0.00	9.06- 9.26
8	m,p-Xylene	40.000	41.133	-2.8	101	0.00	9.33- 9.53
9	o-Xylene	20.000	20.368	-1.8	100	0.00	10.15-10.35
10 S	BFB(S)	20.000	19.742	1.3	98	0.00	11.09-11.29
11	1,3-Dichlorobenzene	20.000	19.991	0.0	99	0.00	12.62-12.82
12	1,4-Dichlorobenzene	20.000	20.351	-1.8	101	0.00	12.74-12.94
13	1,2-Dichlorobenzene	20.000	20.275	-1.4	99	0.00	13.12-13.32

(#) = Out of Range
QQ003392.D DUAL0519.M

SPCC's out = 0 CCC's out = 0
Fri May 20 12:13:55 2005 GCHH

Continuing Calibration Summary

Page 1 of 1

Job Number: F31773
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GQQ143-CC142
Lab FileID: QQ003429.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\2\DATA\051905\QQ003429.D\ELC1A.CH Vial: 38
Signal #2 : C:\MSDCHEM\2\DATA\051905\QQ003429.D\ELC2B.CH
Acq On : 5-20-05 08:11:19 AM Operator: AliciaL
Sample : cc142-20 Inst : VOA7
Misc : gc4966,gqq143,,,,, Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\2\METHODS\DUAL0519.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Fri May 20 08:06:01 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	Methyl tert Butyl EtHe	20.000	20.149	-0.7	103	0.02	2.15-	2.35
2	Di-Isopropyl ether	20.000	20.895	-4.5	106	0.02	2.52-	2.72
3	Benzene	20.000	21.321	-6.6	106	0.01	3.66-	3.86
4 S	a,a,a-TFT(S)	20.000	20.164	-0.8	100	0.01	4.77-	4.97
5	Toluene	20.000	20.425	-2.1	103	0.00	6.40-	6.60
6	Chlorobenzene	20.000	20.689	-3.4	101	0.00	8.77-	8.97
7	Ethylbenzene	20.000	20.477	-2.4	100	0.00	9.30-	9.50
8	m,p-Xylene	40.000	40.675	-1.7	101	0.00	9.75-	9.95
9	o-Xylene	20.000	20.374	-1.9	102	0.00	10.45-	10.65
10 S	BFB(S)	20.000	19.455	2.7	97	0.00	11.05-	11.25
11	1,3-Dichlorobenzene	20.000	20.083	-0.4	99	0.00	12.69-	12.89
12	1,4-Dichlorobenzene	20.000	20.114	-0.6	99	0.00	12.78-	12.98
13	1,2-Dichlorobenzene	20.000	20.307	-1.5	101	0.00	13.10-	13.30

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

1	Methyl tert Butyl EtHe	20.000	20.453	-2.3	104	0.03	2.04-	2.24
2	Di-Isopropyl ether	20.000	21.475	-7.4	107	0.02	2.37-	2.57
3	Benzene	20.000	21.420	-7.1	106	0.01	3.56-	3.76
4 S	a,a,a-TFT(S)	20.000	20.057	-0.3	99	0.01	4.76-	4.96
5	Toluene	20.000	20.612	-3.1	103	0.00	6.17-	6.37
6	Chlorobenzene	20.000	20.860	-4.3	101	0.00	8.75-	8.95
7	Ethylbenzene	20.000	20.688	-3.4	101	0.00	9.06-	9.26
8	m,p-Xylene	40.000	41.125	-2.8	101	0.00	9.33-	9.53
9	o-Xylene	20.000	20.432	-2.2	101	0.00	10.15-	10.35
10 S	BFB(S)	20.000	19.379	3.1	96	0.00	11.09-	11.29
11	1,3-Dichlorobenzene	20.000	19.928	0.4	99	0.00	12.62-	12.82
12	1,4-Dichlorobenzene	20.000	20.289	-1.4	100	0.00	12.74-	12.94
13	1,2-Dichlorobenzene	20.000	20.402	-2.0	100	0.00	13.12-	13.32

(#) = Out of Range
QQ003392.D DUAL0519.M

SPCC's out = 0 CCC's out = 0
Fri May 20 12:13:56 2005 GCHH

Continuing Calibration Summary

Page 1 of 1

Job Number: F31773
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GQQ143-ECC142
Lab FileID: QQ003437.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\2\DATA\051905\QQ003437.D\ELC1A.CH Vial: 46
Signal #2 : C:\MSDCHEM\2\DATA\051905\QQ003437.D\ELC2B.CH
Acq On : 20 May 2005 11:33 am Operator: AliciaL
Sample : ECC142-40 Inst : VOA7
Misc : gc4965,gqq143,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\2\METHODS\DUAL0519.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Fri May 20 08:06:01 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	Methyl tert Butyl EtHe	40.000	39.435	1.4	98	0.03	2.15- 2.35
2	Di-Isopropyl ether	40.000	40.813	-2.0	103	0.03	2.52- 2.72
3	Benzene	40.000	42.434	-6.1	104	0.02	3.66- 3.86
4 S	a,a,a-TFT(S)	20.000	20.591	-3.0	104	0.02	4.77- 4.97
5	Toluene	40.000	40.998	-2.5	102	0.00	6.40- 6.60
6	Chlorobenzene	40.000	42.138	-5.3	101	0.00	8.77- 8.97
7	Ethylbenzene	40.000	41.498	-3.7	100	0.00	9.30- 9.50
8	m,p-Xylene	80.000	81.956	-2.4	100	0.00	9.75- 9.95
9	o-Xylene	40.000	40.937	-2.3	100	0.00	10.45-10.65
10 S	BFB(S)	20.000	20.246	-1.2	101	0.00	11.05-11.25
11	1,3-Dichlorobenzene	40.000	41.253	-3.1	99	0.00	12.69-12.89
12	1,4-Dichlorobenzene	40.000	41.240	-3.1	99	0.00	12.78-12.98
13	1,2-Dichlorobenzene	40.000	41.474	-3.7	99	0.00	13.10-13.30

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

1	Methyl tert Butyl EtHe	40.000	40.133	-0.3	99	0.03	2.04- 2.24
2	Di-Isopropyl ether	40.000	42.057	-5.1	103	0.03	2.37- 2.57
3	Benzene	40.000	42.636	-6.6	104	0.02	3.56- 3.76
4 S	a,a,a-TFT(S)	20.000	20.515	-2.6	104	0.02	4.76- 4.96
5	Toluene	40.000	41.445	-3.6	102	0.00	6.17- 6.37
6	Chlorobenzene	40.000	42.572	-6.4	101	0.00	8.75- 8.95
7	Ethylbenzene	40.000	41.786	-4.5	100	0.00	9.06- 9.26
8	m,p-Xylene	80.000	82.549	-3.2	99	0.00	9.33- 9.53
9	o-Xylene	40.000	41.192	-3.0	99	0.00	10.15-10.35
10 S	BFB(S)	20.000	20.133	-0.7	101	0.00	11.09-11.29
11	1,3-Dichlorobenzene	40.000	41.336	-3.3	99	0.00	12.62-12.82
12	1,4-Dichlorobenzene	40.000	41.429	-3.6	99	0.00	12.74-12.94
13	1,2-Dichlorobenzene	40.000	41.805	-4.5	100	0.00	13.12-13.32

(#) = Out of Range
QQ003393.D DUAL0519.M

SPCC's out = 0 CCC's out = 0
Fri May 20 12:14:31 2005 GCHH

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F31773
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IR051205.ASC
Analyst: RS
Parameters: Pb

Date Analyzed: 05/12/05 Methods: SW846 6010B
Run ID: MA4337

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:13	MA4337-HSTD1	1		
09:17	MA4337-ICV1	1		
09:27	MA4337-ICB1	1		
09:31	MA4337-CRIA1	1		
09:35	MA4337-CRI1	1		
09:43	MA4337-ICSA1	1		
09:44	MA4337-ICSAB1	1		
09:47	MA4337-CCV1	1		
09:53	MA4337-CCB1	1		
09:57	MP8007-MB1	1		
10:01	MP8007-B1	1		
10:07	F31735-1	1		(sample used for QC only; not part of login F31773)
10:10	MP8007-D1	1		
10:14	MP8007-SD1	5		
10:18	MP8007-S1	1		
10:24	ZZZZZZ	1		
10:28	ZZZZZZ	1		
10:32	ZZZZZZ	1		
10:36	ZZZZZZ	1		
10:39	MA4337-CCV2	1		
10:46	MA4337-CCB2	1		
10:49	ZZZZZZ	1		
10:54	MP8006-MB1	1		
10:58	MP8006-B1	1		
11:04	F31439-1	1		(sample used for QC only; not part of login F31773)
11:08	MP8006-D1	1		
11:12	MP8006-SD1	5		
11:16	MP8006-S1	1		
11:22	ZZZZZZ	1		
11:27	MP8006-MB2	1		
11:31	MP8006-B2	1		
11:37	MA4337-CCV3	1		
11:43	MA4337-CCB3	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F31773
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IR051205.ASC
Analyst: RS
Parameters: Pb

Date Analyzed: 05/12/05 Methods: SW846 6010B
Run ID: MA4337

Time	Sample Description	Dilution Factor	PS Recov	Comments
11:47	MP8008-MB1	1		
11:50	MP8008-B1	1		
11:56	F31740-1	1		(sample used for QC only; not part of login F31773)
12:00	MP8008-D1	1		
12:04	MP8008-SD1	5		
12:08	MP8008-S1	1		
12:12	MP8008-S2	1		
12:18	ZZZZZZ	1		
12:22	ZZZZZZ	1		
12:25	ZZZZZZ	1		
12:29	MA4337-CCV4	1		
12:35	MA4337-CCB4	1		
12:39	ZZZZZZ	1		
12:43	ZZZZZZ	1		
12:47	ZZZZZZ	1		
12:51	ZZZZZZ	1		
12:54	ZZZZZZ	1		
12:58	ZZZZZZ	1		
13:02	ZZZZZZ	1		
13:06	ZZZZZZ	1		
13:10	ZZZZZZ	1		
13:13	ZZZZZZ	1		
13:17	MA4337-CCV5	1		
13:23	MA4337-CCB5	1		
13:27	ZZZZZZ	1		
13:31	ZZZZZZ	1		
13:35	ZZZZZZ	1		
13:39	ZZZZZZ	1		
13:42	ZZZZZZ	1		
13:46	ZZZZZZ	1		
13:52	MA4337-CRI2	1		
13:56	MA4337-CCV6	1		
14:04	MA4337-CCB6	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F31773
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IR051205.ASC
Analyst: RS
Parameters: Pb

Date Analyzed: 05/12/05 Methods: SW846 6010B
Run ID: MA4337

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:12	MP8011-MB1	1		
14:16	MP8011-B1	1		
14:22	F31761-1	1		(sample used for QC only; not part of login F31773)
14:26	MP8011-D1	1		
14:29	MP8011-SD1	5		
14:33	MP8011-S1	1		
14:37	MP8011-S2	1		
14:43	ZZZZZZ	1		
14:47	ZZZZZZ	1		
14:51	ZZZZZZ	1		
14:54	MA4337-CCV7	1		
15:02	MA4337-CCB7	1		
15:06	ZZZZZZ	1		
15:09	ZZZZZZ	1		
15:13	ZZZZZZ	1		
15:17	ZZZZZZ	1		
15:21	ZZZZZZ	1		
15:25	ZZZZZZ	1		
15:28	ZZZZZZ	1		
15:32	ZZZZZZ	1		
15:36	ZZZZZZ	1		
15:40	ZZZZZZ	1		
15:44	MA4337-CCV8	1		
15:51	MA4337-CCB8	1		
15:55	MP8012-MB1	1		
15:58	MP8012-B1	1		
16:05	F31773-1	1		
16:08	MP8012-D1	1		
16:12	MP8012-SD1	5		
16:16	MP8012-S1	1		
16:22	F31773-2	1		
16:26	F31773-3	1		
16:30	F31773-4	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F31773
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IR051205.ASC
Analyst: RS
Parameters: Pb

Date Analyzed: 05/12/05 Methods: SW846 6010B
Run ID: MA4337

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:34	F31773-5	1		
16:37	MA4337-CCV9	1		
16:45	MA4337-CCB9	1		
16:48	F31773-6	1		
16:52	F31773-7	1		
----->	Last reportable sample/prep for job F31773			
16:56	MP8013-MB1	1		
17:00	MP8013-B1	1		
17:06	F31762-13	1		(sample used for QC only; not part of login F31773)
17:10	MP8013-D1	1		
17:14	MP8013-SD1	5		
17:17	MP8013-S1	1		
17:23	ZZZZZZ	1		
17:27	F31641-1	1		(sample used for QC only; not part of login F31773)
17:31	MA4337-CCV10	1		
17:38	MA4337-CCB10	1		
----->	Last reportable CCB for job F31773			
17:42	MP8013-D2	1		
17:46	MP8013-MB2	1		
17:50	MP8013-B2	1		
17:56	MA4337-CCV11	1		
18:03	MA4337-CCB11	1		
Refer to raw data for calibration curve and standards.				

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INTERNAL STANDARD SUMMARY

Login Number: F31773
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IR051205.ASC
Analyst: RS
Parameters: Pb

Date Analyzed: 05/12/05 Methods: SW846 6010B
Run ID: MA4337

Time	Sample Description	Istd#1
09:13	MA4337-HSTD1	7682
09:17	MA4337-ICV1	7957
09:27	MA4337-ICB1	8029 R
09:31	MA4337-CRIA1	7985
09:35	MA4337-CRI1	8096
09:43	MA4337-ICSA1	7212
09:44	MA4337-ICSAB1	7177
09:47	MA4337-CCV1	7978
09:53	MA4337-CCB1	8148
09:57	MP8007-MB1	8122
10:01	MP8007-B1	8096
10:07	F31735-1	7859
10:10	MP8007-D1	7957
10:14	MP8007-SD1	8124
10:18	MP8007-S1	7656
10:24	ZZZZZZ	7822
10:28	ZZZZZZ	7748
10:32	ZZZZZZ	7802
10:36	ZZZZZZ	7872
10:39	MA4337-CCV2	8094
10:46	MA4337-CCB2	8233
10:49	ZZZZZZ	8182
10:54	MP8006-MB1	8151
10:58	MP8006-B1	8032
11:04	F31439-1	7147
11:08	MP8006-D1	7182
11:12	MP8006-SD1	7795
11:16	MP8006-S1	7181
11:22	ZZZZZZ	7315
11:27	MP8006-MB2	7301
11:31	MP8006-B2	7519
11:37	MA4337-CCV3	7995
11:43	MA4337-CCB3	8216

INTERNAL STANDARD SUMMARY

Login Number: F31773
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IR051205.ASC
Analyst: RS
Parameters: Pb

Date Analyzed: 05/12/05 Methods: SW846 6010B
Run ID: MA4337

Time	Sample Description	Istd#1
11:47	MP8008-MB1	7995
11:50	MP8008-B1	7848
11:56	F31740-1	9137
12:00	MP8008-D1	9288
12:04	MP8008-SD1	8405
12:08	MP8008-S1	9392
12:12	MP8008-S2	9032
12:18	ZZZZZZ	8232
12:22	ZZZZZZ	8300
12:25	ZZZZZZ	8576
12:29	MA4337-CCV4	8007
12:35	MA4337-CCB4	8238
12:39	ZZZZZZ	8411
12:43	ZZZZZZ	8290
12:47	ZZZZZZ	8234
12:51	ZZZZZZ	8558
12:54	ZZZZZZ	8798
12:58	ZZZZZZ	9066
13:02	ZZZZZZ	7808
13:06	ZZZZZZ	8873
13:10	ZZZZZZ	7968
13:13	ZZZZZZ	8135
13:17	MA4337-CCV5	7826
13:23	MA4337-CCB5	8150
13:27	ZZZZZZ	8061
13:31	ZZZZZZ	8285
13:35	ZZZZZZ	8722
13:39	ZZZZZZ	8498
13:42	ZZZZZZ	8739
13:46	ZZZZZZ	8604
13:52	MA4337-CRI2	8247
13:56	MA4337-CCV6	7856
14:04	MA4337-CCB6	8167

INTERNAL STANDARD SUMMARY

Login Number: F31773
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IR051205.ASC
Analyst: RS
Parameters: Pb

Date Analyzed: 05/12/05 Methods: SW846 6010B
Run ID: MA4337

Time	Sample Description	Istd#1
14:12	MP8011-MB1	8038
14:16	MP8011-B1	8055
14:22	F31761-1	8923
14:26	MP8011-D1	8682
14:29	MP8011-SD1	8440
14:33	MP8011-S1	8581
14:37	MP8011-S2	8514
14:43	ZZZZZZ	10355 !
14:47	ZZZZZZ	9761
14:51	ZZZZZZ	8186
14:54	MA4337-CCV7	8098
15:02	MA4337-CCB7	8114
15:06	ZZZZZZ	8010
15:09	ZZZZZZ	8359
15:13	ZZZZZZ	8281
15:17	ZZZZZZ	8007
15:21	ZZZZZZ	7963
15:25	ZZZZZZ	8331
15:28	ZZZZZZ	8644
15:32	ZZZZZZ	8723
15:36	ZZZZZZ	8747
15:40	ZZZZZZ	8765
15:44	MA4337-CCV8	8155
15:51	MA4337-CCB8	8228
15:55	MP8012-MB1	8160
15:58	MP8012-B1	7824
16:05	F31773-1	8110
16:08	MP8012-D1	8094
16:12	MP8012-SD1	8122
16:16	MP8012-S1	8142
16:22	F31773-2	7991
16:26	F31773-3	8049
16:30	F31773-4	7859

INTERNAL STANDARD SUMMARY

Login Number: F31773
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IR051205.ASC
Analyst: RS
Parameters: Pb

Date Analyzed: 05/12/05 Methods: SW846 6010B
Run ID: MA4337

Time	Sample Description	Istd#1
16:34	F31773-5	7984
16:37	MA4337-CCV9	8280
16:45	MA4337-CCB9	8457
16:48	F31773-6	7994
16:52	F31773-7	7901
16:56	MP8013-MB1	8144
17:00	MP8013-B1	7946
17:06	F31762-13	7247
17:10	MP8013-D1	7256
17:14	MP8013-SD1	7846
17:17	MP8013-S1	7450
17:23	ZZZZZZ	7432
17:27	F31641-1	7651
17:31	MA4337-CCV10	7973
17:38	MA4337-CCB10	8143
17:42	MP8013-D2	7607
17:46	MP8013-MB2	7298
17:50	MP8013-B2	7529
17:56	MA4337-CCV11	8070
18:03	MA4337-CCB11	8174

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium	60-125 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F31773
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IR051205.ASC
QC Limits: result < RL

Date Analyzed: 05/12/05
Run ID: MA4337

Methods: SW846 6010B
Units: ug/l

Time: Sample ID:			09:27 ICB1		09:53 CCB1		10:46 CCB2		11:43 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	6.6	anr							
Antimony	5.0	1.5	anr							
Arsenic	10	2.8	anr							
Barium	200	.5	anr							
Beryllium	4.0	.3	anr							
Cadmium	5.0	.3	anr							
Calcium	1000	3.8	anr							
Chromium	10	.4	anr							
Cobalt	50	.5	anr							
Copper	25	.4	anr							
Iron	300	7.1	anr							
Lead	5.0	1.2	0.95	<5.0	1.8	<5.0	0.97	<5.0	0.13	<5.0
Magnesium	5000	9.9	anr							
Manganese	15	.2	anr							
Molybdenum	50	.8								
Nickel	40	1.1	anr							
Potassium	5000	14	anr							
Selenium	10	2	anr							
Silver	10	.6	anr							
Sodium	5000	150	anr							
Thallium	10	1.5	anr							
Tin	50	1.5								
Vanadium	50	.5	anr							
Zinc	20	.6	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F31773
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IR051205.ASC
QC Limits: result < RL

Date Analyzed: 05/12/05
Run ID: MA4337

Methods: SW846 6010B
Units: ug/l

Time: Sample ID:			12:35 CCB4		13:23 CCB5		14:04 CCB6		15:02 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	6.6	anr							
Antimony	5.0	1.5	anr							
Arsenic	10	2.8	anr							
Barium	200	.5	anr							
Beryllium	4.0	.3	anr							
Cadmium	5.0	.3	anr							
Calcium	1000	3.8	anr							
Chromium	10	.4	anr							
Cobalt	50	.5	anr							
Copper	25	.4	anr							
Iron	300	7.1	anr							
Lead	5.0	1.2	0.76	<5.0	0.44	<5.0	1.3	<5.0	0.14	<5.0
Magnesium	5000	9.9	anr							
Manganese	15	.2	anr							
Molybdenum	50	.8								
Nickel	40	1.1	anr							
Potassium	5000	14	anr							
Selenium	10	2	anr							
Silver	10	.6	anr							
Sodium	5000	150	anr							
Thallium	10	1.5	anr							
Tin	50	1.5								
Vanadium	50	.5	anr							
Zinc	20	.6	anr							

(*) Outside of QC limits
(anr) Analyte not requested

7.1.2
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BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F31773
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IR051205.ASC Date Analyzed: 05/12/05 Methods: SW846 6010B
QC Limits: result < RL Run ID: MA4337 Units: ug/l

Time: Sample ID:			15:51 CCB8		16:45 CCB9		17:38 CCB10	
Metal	RL	IDL	raw	final	raw	final	raw	final
Aluminum	200	6.6	anr					
Antimony	5.0	1.5	anr					
Arsenic	10	2.8	anr					
Barium	200	.5	anr					
Beryllium	4.0	.3	anr					
Cadmium	5.0	.3	anr					
Calcium	1000	3.8	anr					
Chromium	10	.4	anr					
Cobalt	50	.5	anr					
Copper	25	.4	anr					
Iron	300	7.1	anr					
Lead	5.0	1.2	0.26	<5.0	-0.24	<5.0	0.43	<5.0
Magnesium	5000	9.9	anr					
Manganese	15	.2	anr					
Molybdenum	50	.8						
Nickel	40	1.1	anr					
Potassium	5000	14	anr					
Selenium	10	2	anr					
Silver	10	.6	anr					
Sodium	5000	150	anr					
Thallium	10	1.5	anr					
Tin	50	1.5						
Vanadium	50	.5	anr					
Zinc	20	.6	anr					

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F31773
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IR051205.ASC
QC Limits: 90 to 110 % Recovery

Date Analyzed: 05/12/05
Run ID: MA4337

Methods: SW846 6010B
Units: ug/l

Time: Sample ID:		09:17 ICV1		09:47 CCV1		10:39 CCV2			
Metal	ICV True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2000	100.0	2000	2010	100.5	2000	1980	99.0
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Thallium	anr								
Tin									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F31773
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IR051205.ASC
QC Limits: 90 to 110 % Recovery

Date Analyzed: 05/12/05
Run ID: MA4337

Methods: SW846 6010B
Units: ug/l

Time: Sample ID:	CCV	11:37 CCV3		CCV	12:29 CCV4		CCV	13:17 CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	1990	99.5	2000	1990	99.5	2000	1970	98.5
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Thallium	anr								
Tin									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F31773
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IR051205.ASC
QC Limits: 90 to 110 % Recovery

Date Analyzed: 05/12/05
Run ID: MA4337

Methods: SW846 6010B
Units: ug/l

Time: Sample ID:		13:56 CCV6		14:54 CCV7		15:44 CCV8			
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	1990	99.5	2000	1970	98.5	2000	2000	100.0
Magnesium	anr								
Manganese	anr								
Molybdenum									
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Thallium	anr								
Tin									
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F31773
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IR051205.ASC Date Analyzed: 05/12/05 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA4337 Units: ug/l

Time: Sample ID:		16:37 CCV9		17:31 CCV10			
Metal	CCV	Results	% Rec	CCV	Results	% Rec	
Aluminum	anr						
Antimony	anr						
Arsenic	anr						
Barium	anr						
Beryllium	anr						
Cadmium	anr						
Calcium	anr						
Chromium	anr						
Cobalt	anr						
Copper	anr						
Iron	anr						
Lead	2000	1940	97.0	2000	1980	99.0	
Magnesium	anr						
Manganese	anr						
Molybdenum							
Nickel	anr						
Potassium	anr						
Selenium	anr						
Silver	anr						
Sodium	anr						
Thallium	anr						
Tin							
Vanadium	anr						
Zinc	anr						

(*) Outside of QC limits
(anr) Analyte not requested

7.1.3
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HIGH STANDARD CHECK SUMMARY

Login Number: F31773
 Account: EEINCJX - EEI
 Project: Camp Lejeune-LCH 4015

File ID: IR051205.ASC
 QC Limits: 95 to 105 % Recovery

Date Analyzed: 05/12/05
 Run ID: MA4337

Methods: SW846 6010B
 Units: ug/l

Time:		09:13	
Sample ID:		HSTD1	
Metal	HSTD	Results	% Rec
Aluminum	anr		
Antimony	anr		
Arsenic	anr		
Barium	anr		
Beryllium	anr		
Cadmium	anr		
Calcium	anr		
Chromium	anr		
Cobalt	anr		
Copper	anr		
Iron	anr		
Lead	4000	3930	98.3
Magnesium	anr		
Manganese	anr		
Molybdenum			
Nickel	anr		
Potassium	anr		
Selenium	anr		
Silver	anr		
Sodium	anr		
Thallium	anr		
Tin			
Vanadium	anr		
Zinc	anr		

(*) Outside of QC limits
 (anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: F31773
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IR051205.ASC
QC Limits: 70 to 130 % Recovery

Date Analyzed: 05/12/05
Run ID: MA4337

Methods: SW846 6010B
Units: ug/l

Time: Sample ID:	CRI	CRIA	09:31 CRIA1	% Rec	09:35 CRI1	% Rec	13:52 CRI2	% Rec
Metal	True	True	Results		Results		Results	
Aluminum	400	200						
Antimony	10	5.0						
Arsenic	20	10						
Barium	400	200						
Beryllium	10	5.0						
Cadmium	10	5.0						
Calcium	2000	1000						
Chromium	20	10						
Cobalt	100	50						
Copper	50	25						
Iron	600	300						
Lead	10	5.0			11.7	117.0	11.0	110.0
Magnesium	10000	5000						
Manganese	30	15						
Molybdenum	100	50						
Nickel	80	40						
Potassium	10000	5000						
Selenium	10	5.0						
Silver	20	10						
Sodium	10000	5000						
Thallium	20	10						
Tin	100	50						
Vanadium	100	50						
Zinc	40	20						

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: F31773
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IR051205.ASC Date Analyzed: 05/12/05 Methods: SW846 6010B
QC Limits: 80 to 120 % Recovery Run ID: MA4337 Units: ug/l

Time: Sample ID:	ICSA True	ICSAB True	09:43 ICSA1 Results	% Rec	09:44 ICSAB1 Results	% Rec
Metal						
Aluminum	500000	500000	481000	96.2	474000	94.8
Antimony		1000	4.1		1050	105.0
Arsenic		1000	3.8		998	99.8
Barium		500	1.1		525	105.0
Beryllium		500	-1.7		501	100.2
Cadmium		1000	3.1		940	94.0
Calcium	500000	500000	439000	87.8	430000	86.0
Chromium		500	4.2		483	96.6
Cobalt		500	1.4		474	94.8
Copper		500	1.1		564	112.8
Iron	200000	200000	188000	94.0	190000	95.0
Lead		1000	-0.21		945	94.5
Magnesium	500000	500000	496000	99.2	484000	96.8
Manganese		500	0.39		498	99.6
Molybdenum		1000	7.1		968	96.8
Nickel		1000	2.1		934	93.4
Potassium			59.4		-330	
Selenium		1000	-3.1		1000	100.0
Silver		1000	-0.010		1030	103.0
Sodium			159		205	
Thallium		1000	-0.18		926	92.6
Tin		1000	-2.2		965	96.5
Vanadium		500	-2.9		484	96.8
Zinc		1000	0.91		927	92.7

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F31773
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

QC Batch ID: MP8012
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 05/12/05

Metal	RL	IDL	MB raw	final
Aluminum	200	6.6		
Antimony	5.0	1.5		
Arsenic	10	2.8		
Barium	200	.5		
Beryllium	4.0	.3		
Cadmium	5.0	.3		
Calcium	1000	3.8		
Chromium	10	.4		
Cobalt	50	.5		
Copper	25	.4		
Iron	300	7.1		
Lead	5.0	1.2	-0.42	<5.0
Magnesium	5000	9.9		
Manganese	15	.2		
Molybdenum	50	.8		
Nickel	40	1.1		
Potassium	5000	14		
Selenium	10	2		
Silver	10	.6		
Sodium	5000	150		
Thallium	10	1.5		
Tin	50	1.5		
Vanadium	50	.5		
Zinc	20	.6		

Associated samples MP8012: F31773-1, F31773-2, F31773-3, F31773-4, F31773-5, F31773-6, F31773-7

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F31773
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

QC Batch ID: MP8012
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 05/12/05 05/12/05

Metal	F31773-1 Original DUP		RPD	QC Limits	F31773-1 Original MS		Spikelot MPFLICP	% Rec	QC Limits
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead	0.0	0.0 (a)	NC	0-10	0.0	891	1000	89.1	84-118
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Tin									
Vanadium									
Zinc									

Associated samples MP8012: F31773-1, F31773-2, F31773-3, F31773-4, F31773-5, F31773-6, F31773-7

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Elevated reporting limit due to matrix interference.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F31773
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

QC Batch ID: MP8012
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 05/12/05

Metal	BSP Result	Spike lot MPFLICP	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead	975	1000	97.5	80-120
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Thallium				
Tin				
Vanadium				
Zinc				

Associated samples MP8012: F31773-1, F31773-2, F31773-3, F31773-4, F31773-5, F31773-6, F31773-7

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: F31773
 Account: EEINCJX - EEI
 Project: Camp Lejeune-LCH 4015

QC Batch ID: MP8012
 Matrix Type: AQUEOUS

Methods: SW846 6010B
 Units: ug/l

Prep Date: 05/12/05

Metal	F31773-1 Original	SDL 1:5	RPD	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead	0.00	0.00	NC	0-10
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Thallium				
Tin				
Vanadium				
Zinc				

Associated samples MP8012: F31773-1, F31773-2, F31773-3, F31773-4, F31773-5, F31773-6, F31773-7

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

7.2.4
7



01/16/06

Technical Report for

EEI

Camp Lejeune-LCH 4015

844271

Accutest Job Number: F31814

Sampling Date: 05/11/05

Report to:

EEI

bmorris@eeimail.com

ATTN: Bill Morris

Total number of pages in report: **70**



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: F31814

Camp Lejeune-LCH 4015
Project No: 844271

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
F31814-1	05/11/05	09:35 BS	05/12/05	AQ	Ground Water	USTLCH4015-MW19
F31814-2	05/11/05	10:00 BS	05/12/05	AQ	Ground Water	USTLCH4015-MW18
F31814-3	05/11/05	10:40 BS	05/12/05	AQ	Ground Water	USTLCH4015-MW21
F31814-4	05/11/05	11:01 BS	05/12/05	AQ	Ground Water	USTLCH4015-MW23
F31814-5	05/11/05	11:50 BS	05/12/05	AQ	Ground Water	USTLCH4015-MW13

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: EEI

Job No: F31814

Site: Camp Lejeune-LCH 4015

Report Date: 5/26/2005 4:19:49 PM

5 Samples were collected on 05/11/2005 and were received at Accutest on 05/12/2005 properly preserved, at 3.8 Deg. C and intact. These Samples received an Accutest job number of F31814. 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.

Extractables by GCMS by Method EPA 625

Matrix: AQ

Batch ID: OP13340

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

Samples F31814-1MS, F31814-1MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

Volatiles by GC by Method EPA 601/602

Matrix: AQ

Batch ID: GQQ142

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F31773-6MS, F31773-6MSD were used as the QC samples indicated.

F31814-2, F31814-3, F31814-4: All hits confirmed by dual column analysis.

Metals by Method SW846 6010B

Matrix: AQ

Batch ID: MP8020

All samples were digested 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 F31814-1MS, F31814-1SDL, F31814-1DUP were used as the QC samples for metals.

RPD for Duplicate for Lead is outside control limits for sample MP8020-D1. RPD acceptable due to low duplicate and sample concentrations.

F31814-3 , F31814-4 for Lead: Elevated reporting 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.

Narrative prepared by:

Ellen Pampel, Inorganic QA (signature on file)

Date: May 26, 2005

Thursday, May 26, 2005

Report of Analysis

Page 1 of 1

Client Sample ID:	USTLCH4015-MW19	Date Sampled:	05/11/05
Lab Sample ID:	F31814-1	Date Received:	05/12/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 625 EPA 625		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F009790.D	1	05/19/05	NJ	05/17/05	OP13340	SF556
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	2.6	4.8	0.96	ug/l	J
208-96-8	Acenaphthylene	ND	4.8	0.96	ug/l	
120-12-7	Anthracene	ND	4.8	0.96	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	0.96	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	0.96	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.96	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	0.96	ug/l	
218-01-9	Chrysene	ND	4.8	0.96	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	0.96	ug/l	
86-73-7	Fluorene	1.1	4.8	0.96	ug/l	J
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	0.96	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	0.96	ug/l	
91-20-3	Naphthalene	ND	4.8	0.96	ug/l	
85-01-8	Phenanthrene	ND	4.8	0.96	ug/l	
129-00-0	Pyrene	ND	4.8	0.96	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	81%		49-119%
321-60-8	2-Fluorobiphenyl	83%		45-118%
1718-51-0	Terphenyl-d14	84%		46-135%

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:	USTLCH4015-MW19	Date Sampled:	05/11/05
Lab Sample ID:	F31814-1	Date Received:	05/12/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QQ003410.D	1	05/20/05	AB	n/a	n/a	GQQ142
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	96%		71-130%
98-08-8	aaa-Trifluorotoluene	98%		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:	USTLCH4015-MW19	Date Sampled:	05/11/05
Lab Sample ID:	F31814-1	Date Received:	05/12/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-LCH 4015		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	< 5.0	5.0	ug/l	1	05/13/05	05/18/05 DM	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA4345
(2) Prep QC Batch: MP8020

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	USTLCH4015-MW18	Date Sampled:	05/11/05
Lab Sample ID:	F31814-2	Date Received:	05/12/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 625 EPA 625		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F009793.D	1	05/19/05	NJ	05/17/05	OP13340	SF556
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	2.3	5.0	1.0	ug/l	J
208-96-8	Acenaphthylene	ND	5.0	1.0	ug/l	
120-12-7	Anthracene	ND	5.0	1.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	1.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	1.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	1.0	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	1.0	ug/l	
218-01-9	Chrysene	ND	5.0	1.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	2.0	ug/l	
206-44-0	Fluoranthene	ND	5.0	1.0	ug/l	
86-73-7	Fluorene	3.1	5.0	1.0	ug/l	J
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	1.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
85-01-8	Phenanthrene	ND	5.0	1.0	ug/l	
129-00-0	Pyrene	ND	5.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	78%		49-119%
321-60-8	2-Fluorobiphenyl	83%		45-118%
1718-51-0	Terphenyl-d14	81%		46-135%

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:	USTLCH4015-MW18	Date Sampled:	05/11/05
Lab Sample ID:	F31814-2	Date Received:	05/12/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	QQ003409.D	1	05/20/05	AB	n/a	n/a	GQQ142
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	2.4	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	1.3	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	98%		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

Client Sample ID:	USTLCH4015-MW18	Date Sampled:	05/11/05
Lab Sample ID:	F31814-2	Date Received:	05/12/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-LCH 4015		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	< 5.0	5.0	ug/l	1	05/13/05	05/18/05 DM	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA4345
(2) Prep QC Batch: MP8020

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	USTLCH4015-MW21	Date Sampled:	05/11/05
Lab Sample ID:	F31814-3	Date Received:	05/12/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 625 EPA 625		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F009794.D	1	05/19/05	NJ	05/17/05	OP13340	SF556
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	0.95	ug/l	
208-96-8	Acenaphthylene	ND	4.8	0.95	ug/l	
120-12-7	Anthracene	ND	4.8	0.95	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	0.95	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	0.95	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.95	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	0.95	ug/l	
218-01-9	Chrysene	ND	4.8	0.95	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	0.95	ug/l	
86-73-7	Fluorene	ND	4.8	0.95	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	0.95	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	0.95	ug/l	
91-20-3	Naphthalene	20.4	4.8	0.95	ug/l	
85-01-8	Phenanthrene	ND	4.8	0.95	ug/l	
129-00-0	Pyrene	ND	4.8	0.95	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	80%		49-119%
321-60-8	2-Fluorobiphenyl	84%		45-118%
1718-51-0	Terphenyl-d14	79%		46-135%

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:	USTLCH4015-MW21	Date Sampled:	05/11/05
Lab Sample ID:	F31814-3	Date Received:	05/12/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	QQ003411.D	1	05/20/05	AB	n/a	n/a	GQQ142
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	17.5	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	4.2	1.0	0.50	ug/l	
1634-04-4	Methyl Tert Butyl Ether	28.8	1.0	0.50	ug/l	
108-88-3	Toluene	1.1	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	1.1	3.0	1.0	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	99%		71-130%
98-08-8	aaa-Trifluorotoluene	101%		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:	USTLCH4015-MW21	Date Sampled:	05/11/05
Lab Sample ID:	F31814-3	Date Received:	05/12/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-LCH 4015		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead ^a	< 50	50	ug/l	1	05/13/05	05/18/05 DM	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA4345
(2) Prep QC Batch: MP8020

(a) Elevated reporting limits due to matrix interference.

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	USTLCH4015-MW23	Date Sampled:	05/11/05
Lab Sample ID:	F31814-4	Date Received:	05/12/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 625 EPA 625		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F009795.D	1	05/19/05	NJ	05/17/05	OP13340	SF556
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	0.95	ug/l	
208-96-8	Acenaphthylene	ND	4.8	0.95	ug/l	
120-12-7	Anthracene	ND	4.8	0.95	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	0.95	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	0.95	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.95	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	0.95	ug/l	
218-01-9	Chrysene	ND	4.8	0.95	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	0.95	ug/l	
86-73-7	Fluorene	ND	4.8	0.95	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	0.95	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	0.95	ug/l	
91-20-3	Naphthalene	ND	4.8	0.95	ug/l	
85-01-8	Phenanthrene	ND	4.8	0.95	ug/l	
129-00-0	Pyrene	ND	4.8	0.95	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	76%		49-119%
321-60-8	2-Fluorobiphenyl	79%		45-118%
1718-51-0	Terphenyl-d14	68%		46-135%

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:	USTLCH4015-MW23	Date Sampled:	05/11/05
Lab Sample ID:	F31814-4	Date Received:	05/12/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	QQ003412.D	1	05/20/05	AB	n/a	n/a	GQQ142
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	47.1	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	0.79	1.0	0.50	ug/l	J
1634-04-4	Methyl Tert Butyl Ether	31.9	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	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	96%		71-130%
98-08-8	aaa-Trifluorotoluene	102%		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

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Client Sample ID:	USTLCH4015-MW23	Date Sampled:	05/11/05
Lab Sample ID:	F31814-4	Date Received:	05/12/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-LCH 4015		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead ^a	< 50	50	ug/l	1	05/13/05	05/18/05 DM	SW846 6010B ¹	SM 3030C ²

- (1) Instrument QC Batch: MA4345
- (2) Prep QC Batch: MP8020

(a) Elevated reporting limits due to matrix interference.

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID:	USTLCH4015-MW13	Date Sampled:	05/11/05
Lab Sample ID:	F31814-5	Date Received:	05/12/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 625 EPA 625		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F009796.D	1	05/19/05	NJ	05/17/05	OP13340	SF556
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	0.95	ug/l	
208-96-8	Acenaphthylene	ND	4.8	0.95	ug/l	
120-12-7	Anthracene	ND	4.8	0.95	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	0.95	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	0.95	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.95	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	0.95	ug/l	
218-01-9	Chrysene	ND	4.8	0.95	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
206-44-0	Fluoranthene	ND	4.8	0.95	ug/l	
86-73-7	Fluorene	ND	4.8	0.95	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	0.95	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	0.95	ug/l	
91-20-3	Naphthalene	ND	4.8	0.95	ug/l	
85-01-8	Phenanthrene	ND	4.8	0.95	ug/l	
129-00-0	Pyrene	ND	4.8	0.95	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	85%		49-119%
321-60-8	2-Fluorobiphenyl	88%		45-118%
1718-51-0	Terphenyl-d14	88%		46-135%

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:	USTLCH4015-MW13	Date Sampled:	05/11/05
Lab Sample ID:	F31814-5	Date Received:	05/12/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QQ003413.D	1	05/20/05	AB	n/a	n/a	GQQ142
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	98%		71-130%
98-08-8	aaa-Trifluorotoluene	102%		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:	USTLCH4015-MW13	Date Sampled:	05/11/05
Lab Sample ID:	F31814-5	Date Received:	05/12/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-LCH 4015		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	< 5.0	5.0	ug/l	1	05/13/05	05/18/05 DM	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA4345
(2) Prep QC Batch: MP8020

RL = Reporting Limit

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: **F31814** CLIENT: em + env. PROJECT: LCH 4015
 DATE/TIME RECEIVED: 5-12-05 / 9:00 # OF COOLERS RECEIVED: 2 COOLER TEMPS: 3.0, 3.8
 METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER
 AIRBILL NUMBERS: 8508 6149 5663

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 ? 0
 NUMBER OF 5035 FIELD KITS ? 0

SUMMARY OF COMMENTS:

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] 5-12-05 TECHNICIAN SIGNATURE/DATE [Signature]

ASBD02/04/05

F31814: Chain of Custody

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GC/MS Semi-volatiles

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QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (DFTPP)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Page 1 of 1

Job Number: F31814
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP13340-MB	F009782.D	1	05/19/05	NJ	05/17/05	OP13340	SF556

The QC reported here applies to the following samples:

Method: EPA 625

F31814-1, F31814-2, F31814-3, F31814-4, F31814-5

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.0	1.0	ug/l	
208-96-8	Acenaphthylene	ND	5.0	1.0	ug/l	
120-12-7	Anthracene	ND	5.0	1.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	1.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	1.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	1.0	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	1.0	ug/l	
218-01-9	Chrysene	ND	5.0	1.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	2.0	ug/l	
206-44-0	Fluoranthene	ND	5.0	1.0	ug/l	
86-73-7	Fluorene	ND	5.0	1.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	1.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
85-01-8	Phenanthrene	ND	5.0	1.0	ug/l	
129-00-0	Pyrene	ND	5.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Limits
4165-60-0	Nitrobenzene-d5	81% 49-119%
321-60-8	2-Fluorobiphenyl	87% 45-118%
1718-51-0	Terphenyl-d14	88% 46-135%

Method Blank Summary

Page 1 of 1

Job Number: F31814
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP13340-MB	F009801.D	1	05/20/05	NJ	05/17/05	OP13340	SF557

The QC reported here applies to the following samples:

Method: EPA 625

F31814-1, F31814-2, F31814-3, F31814-4, F31814-5

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.0	1.0	ug/l	
208-96-8	Acenaphthylene	ND	5.0	1.0	ug/l	
120-12-7	Anthracene	ND	5.0	1.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	1.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	1.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	1.0	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	1.0	ug/l	
218-01-9	Chrysene	ND	5.0	1.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	2.0	ug/l	
206-44-0	Fluoranthene	ND	5.0	1.0	ug/l	
86-73-7	Fluorene	ND	5.0	1.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	2.0	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	1.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
85-01-8	Phenanthrene	ND	5.0	1.0	ug/l	
129-00-0	Pyrene	ND	5.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Limits
4165-60-0	Nitrobenzene-d5	82% 49-119%
321-60-8	2-Fluorobiphenyl	85% 45-118%
1718-51-0	Terphenyl-d14	86% 46-135%

Blank Spike Summary

Page 1 of 1

Job Number: F31814
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP13340-BS	F009781.D	1	05/19/05	NJ	05/17/05	OP13340	SF556

The QC reported here applies to the following samples:

Method: EPA 625

F31814-1, F31814-2, F31814-3, F31814-4, F31814-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
83-32-9	Acenaphthene	50	46.0	92	62-101
208-96-8	Acenaphthylene	50	45.7	91	65-113
120-12-7	Anthracene	50	45.4	91	69-107
56-55-3	Benzo(a)anthracene	50	46.5	93	68-106
50-32-8	Benzo(a)pyrene	50	44.6	89	70-114
205-99-2	Benzo(b)fluoranthene	50	45.9	92	68-110
191-24-2	Benzo(g,h,i)perylene	50	46.8	94	63-115
207-08-9	Benzo(k)fluoranthene	50	47.4	95	68-112
218-01-9	Chrysene	50	47.3	95	68-103
53-70-3	Dibenzo(a,h)anthracene	50	46.2	92	62-115
206-44-0	Fluoranthene	50	47.5	95	68-111
86-73-7	Fluorene	50	45.4	91	66-105
193-39-5	Indeno(1,2,3-cd)pyrene	50	46.8	94	63-118
90-12-0	1-Methylnaphthalene	50	43.3	87	63-99
91-57-6	2-Methylnaphthalene	50	45.3	91	66-100
91-20-3	Naphthalene	50	42.6	85	62-101
85-01-8	Phenanthrene	50	47.0	94	68-104
129-00-0	Pyrene	50	46.9	94	64-105

CAS No.	Surrogate Recoveries	BSP	Limits
4165-60-0	Nitrobenzene-d5	87%	49-119%
321-60-8	2-Fluorobiphenyl	94%	45-118%
1718-51-0	Terphenyl-d14	89%	46-135%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: F31814
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP13340-MS	F009791.D	1	05/19/05	NJ	05/17/05	OP13340	SF556
OP13340-MSD	F009792.D	1	05/19/05	NJ	05/17/05	OP13340	SF556
F31814-1	F009790.D	1	05/19/05	NJ	05/17/05	OP13340	SF556

The QC reported here applies to the following samples:

Method: EPA 625

F31814-1, F31814-2, F31814-3, F31814-4, F31814-5

CAS No.	Compound	F31814-1 ug/l	Spike Q	ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	2.6	J	94.3	88.6	91	86.9	89	2	55-103/20
208-96-8	Acenaphthylene	ND		94.3	85.1	90	83.8	89	2	55-113/20
120-12-7	Anthracene	ND		94.3	85.1	90	84.3	89	1	66-105/14
56-55-3	Benzo(a)anthracene	ND		94.3	86.6	92	85.8	91	1	65-103/16
50-32-8	Benzo(a)pyrene	ND		94.3	84.7	90	83.0	88	2	65-113/16
205-99-2	Benzo(b)fluoranthene	ND		94.3	86.8	92	85.2	90	2	62-110/17
191-24-2	Benzo(g,h,i)perylene	ND		94.3	87.1	92	87.4	93	0	58-111/17
207-08-9	Benzo(k)fluoranthene	ND		94.3	89.9	95	87.6	93	3	63-110/17
218-01-9	Chrysene	ND		94.3	88.1	93	87.8	93	0	65-100/18
53-70-3	Dibenzo(a,h)anthracene	ND		94.3	85.2	90	86.3	91	1	57-111/20
206-44-0	Fluoranthene	ND		94.3	88.5	94	87.0	92	2	62-108/17
86-73-7	Fluorene	1.1	J	94.3	84.9	89	84.4	88	1	60-105/17
193-39-5	Indeno(1,2,3-cd)pyrene	ND		94.3	87.9	93	87.5	93	0	61-111/19
90-12-0	1-Methylnaphthalene	ND		94.3	83.6	89	80.8	86	3	55-97/23
91-57-6	2-Methylnaphthalene	ND		94.3	86.0	91	83.3	88	3	56-100/23
91-20-3	Naphthalene	ND		94.3	83.5	89	80.5	85	4	52-102/23
85-01-8	Phenanthrene	ND		94.3	87.2	92	87.4	93	0	64-103/15
129-00-0	Pyrene	ND		94.3	86.9	92	87.7	93	1	59-107/21

CAS No.	Surrogate Recoveries	MS	MSD	F31814-1	Limits
4165-60-0	Nitrobenzene-d5	88%	84%	81%	49-119%
321-60-8	2-Fluorobiphenyl	91%	90%	83%	45-118%
1718-51-0	Terphenyl-d14	87%	88%	84%	46-135%

Instrument Performance Check (DFTPP)

Page 1 of 2

Job Number: F31814
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: SF556-DFTPP
Lab File ID: F009768.D
Instrument ID: GCMSF
Injection Date: 05/19/05
Injection Time: 09:48

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	134023	41.9	Pass
68	Less than 2.0% of mass 69	0	0.0 (0.0) ^a	Pass
69	Mass 69 relative abundance	130836	40.9	Pass
70	Less than 2.0% of mass 69	616	0.19 (0.47) ^a	Pass
127	40.0 - 60.0% of mass 198	169954	53.1	Pass
197	Less than 1.0% of mass 198	0	0.0	Pass
198	Base peak, 100% relative abundance	319962	100.0	Pass
199	5.0 - 9.0% of mass 198	21812	6.8	Pass
275	10.0 - 30.0% of mass 198	63949	20.0	Pass
365	1.0 - 100.0% of mass 198	6292	2.0	Pass
441	Present, but less than mass 443	17530	5.5 (48.1) ^b	Pass
442	40.0 - 100.0% of mass 198	182890	57.2	Pass
443	17.0 - 23.0% of mass 442	36412	11.4 (19.9) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
SF556-IC556	F009769.D	05/19/05	10:08	00:20	Initial cal 50
SF556-IC556	F009770.D	05/19/05	10:38	00:50	Initial cal 5
SF556-IC556	F009771.D	05/19/05	11:08	01:20	Initial cal 25
SF556-ICC556	F009772.D	05/19/05	11:38	01:50	Initial cal 75
SF556-IC556	F009773.D	05/19/05	12:08	02:20	Initial cal 100
SF556-IC556	F009774.D	05/19/05	12:39	02:51	Initial cal 125
SF556-ICV556	F009776.D	05/19/05	13:40	03:52	Initial cal verification 50
OP13353-BS	F009777.D	05/19/05	14:10	04:22	Blank Spike
OP13353-MB	F009778.D	05/19/05	14:41	04:53	Method Blank
ZZZZZZ	F009779.D	05/19/05	15:12	05:24	(unrelated sample)
OP13340-BS	F009781.D	05/19/05	16:14	06:26	Blank Spike
OP13340-MB	F009782.D	05/19/05	16:44	06:56	Method Blank
ZZZZZZ	F009783.D	05/19/05	17:15	07:27	(unrelated sample)
ZZZZZZ	F009784.D	05/19/05	17:46	07:58	(unrelated sample)
ZZZZZZ	F009785.D	05/19/05	18:16	08:28	(unrelated sample)
ZZZZZZ	F009786.D	05/19/05	18:47	08:59	(unrelated sample)
ZZZZZZ	F009787.D	05/19/05	19:17	09:29	(unrelated sample)
ZZZZZZ	F009788.D	05/19/05	19:47	09:59	(unrelated sample)
ZZZZZZ	F009789.D	05/19/05	20:17	10:29	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: F31814
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample:	SF556-DFTPP	Injection Date:	05/19/05
Lab File ID:	F009768.D	Injection Time:	09:48
Instrument ID:	GCMSF		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
F31814-1	F009790.D	05/19/05	20:48	11:00	USTLCH4015-MW19
OP13340-MS	F009791.D	05/19/05	21:17	11:29	Matrix Spike
OP13340-MSD	F009792.D	05/19/05	21:48	12:00	Matrix Spike Duplicate
F31814-2	F009793.D	05/19/05	22:18	12:30	USTLCH4015-MW18
F31814-3	F009794.D	05/19/05	22:48	13:00	USTLCH4015-MW21
F31814-4	F009795.D	05/19/05	23:18	13:30	USTLCH4015-MW23
F31814-5	F009796.D	05/19/05	23:48	14:00	USTLCH4015-MW13
ZZZZZZ	F009797.D	05/20/05	00:18	14:30	(unrelated sample)

5.4
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Instrument Performance Check (DFTPP)

Page 1 of 2

Job Number: F31814
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: SF557-DFTPP
Lab File ID: F009799.D
Instrument ID: GCMSF
Injection Date: 05/20/05
Injection Time: 08:47

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	139148	40.6	Pass
68	Less than 2.0% of mass 69	0	0.0 (0.0) ^a	Pass
69	Mass 69 relative abundance	138376	40.3	Pass
70	Less than 2.0% of mass 69	787	0.23 (0.57) ^a	Pass
127	40.0 - 60.0% of mass 198	177464	51.7	Pass
197	Less than 1.0% of mass 198	510	0.15	Pass
198	Base peak, 100% relative abundance	342997	100.0	Pass
199	5.0 - 9.0% of mass 198	22954	6.7	Pass
275	10.0 - 30.0% of mass 198	71890	21.0	Pass
365	1.0 - 100.0% of mass 198	7879	2.3	Pass
441	Present, but less than mass 443	32771	9.6 (73.5) ^b	Pass
442	40.0 - 100.0% of mass 198	226720	66.1	Pass
443	17.0 - 23.0% of mass 442	44577	13.0 (19.7) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
SF557-CC556	F009800.D	05/20/05	09:06	00:19	Continuing cal 50
OP13340-MB	F009801.D	05/20/05	09:36	00:49	Method Blank
ZZZZZZ	F009802.D	05/20/05	10:06	01:19	(unrelated sample)
ZZZZZZ	F009803.D	05/20/05	10:37	01:50	(unrelated sample)
OP13354-BS	F009804.D	05/20/05	11:07	02:20	Blank Spike
OP13354-MB	F009805.D	05/20/05	11:37	02:50	Method Blank
ZZZZZZ	F009806.D	05/20/05	12:08	03:21	(unrelated sample)
ZZZZZZ	F009807.D	05/20/05	12:38	03:51	(unrelated sample)
ZZZZZZ	F009808.D	05/20/05	13:08	04:21	(unrelated sample)
ZZZZZZ	F009809.D	05/20/05	13:39	04:52	(unrelated sample)
ZZZZZZ	F009810.D	05/20/05	14:10	05:23	(unrelated sample)
ZZZZZZ	F009811.D	05/20/05	14:40	05:53	(unrelated sample)
ZZZZZZ	F009812.D	05/20/05	15:11	06:24	(unrelated sample)
F31898-9	F009813.D	05/20/05	15:42	06:55	(used for QC only; not part of job F31814)
OP13354-MS	F009814.D	05/20/05	16:13	07:26	Matrix Spike
OP13354-MSD	F009815.D	05/20/05	16:44	07:57	Matrix Spike Duplicate
ZZZZZZ	F009816.D	05/20/05	17:15	08:28	(unrelated sample)
ZZZZZZ	F009817.D	05/20/05	17:46	08:59	(unrelated sample)
ZZZZZZ	F009818.D	05/20/05	18:17	09:30	(unrelated sample)

Instrument Performance Check (DFTPP)

Job Number: F31814
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample:	SF557-DFTPP	Injection Date:	05/20/05
Lab File ID:	F009799.D	Injection Time:	08:47
Instrument ID:	GCMSF		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	F009819.D	05/20/05	18:47	10:00	(unrelated sample)
ZZZZZZ	F009820.D	05/20/05	19:17	10:30	(unrelated sample)

5.4
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Semivolatile Internal Standard Area Summary

Page 1 of 1

Job Number: F31814
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std: SF556-ICC556
Lab File ID: F009772.D
Instrument ID: GCMSF
Injection Date: 05/19/05
Injection Time: 11:38
Method: EPA 625

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	152687	4.72	589298	5.82	338306	8.04	573197	10.52	533187	15.46	513673	17.96
Upper Limit ^a	305374	5.22	1178596	6.32	676612	8.54	1146394	11.02	1066374	15.96	1027346	18.46
Lower Limit ^b	76344	4.22	294649	5.32	169153	7.54	286599	10.02	266594	14.96	256837	17.46

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
OP13353-BS ^c	189734	4.72	720895	5.82	396110	8.04	643385	10.52	549465	15.45	509406	17.95
OP13353-MB	192563	4.72	721829	5.82	395348	8.03	640662	10.52	547419	15.44	509114	17.95
ZZZZZZ	184659	4.72	689526	5.82	372053	8.03	601319	10.52	519096	15.44	496271	17.95
OP13340-BS	159979	4.72	611576	5.82	335932	8.03	560297	10.52	503624	15.45	474843	17.95
OP13340-MB	167678	4.71	637127	5.82	348253	8.03	558536	10.52	490111	15.44	454305	17.95
ZZZZZZ	173666	4.71	673393	5.82	364323	8.03	602696	10.52	559295	15.44	547707	17.95
ZZZZZZ	180533	4.72	680582	5.82	375643	8.03	618144	10.52	557504	15.45	541868	17.95
ZZZZZZ	164637	4.72	634209	5.82	339742	8.04	554181	10.52	514480	15.44	504829	17.95
ZZZZZZ	190384	4.71	737612	5.82	408318	8.03	683994	10.52	621569	15.45	606796	17.95
ZZZZZZ	175572	4.71	670442	5.82	363549	8.03	599840	10.52	517839	15.44	496594	17.95
ZZZZZZ	163314	4.71	614624	5.82	335451	8.03	542048	10.52	471199	15.44	452488	17.95
ZZZZZZ	157159	4.72	600179	5.82	329808	8.03	546050	10.52	503706	15.44	488115	17.95
F31814-1	191092	4.72	735543	5.82	405973	8.03	652105	10.52	587665	15.44	568686	17.95
OP13340-MS	180492	4.72	683111	5.82	380004	8.04	629353	10.52	569429	15.45	537175	17.95
OP13340-MSD	184004	4.72	700414	5.82	381811	8.04	623422	10.52	544448	15.45	520278	17.95
F31814-2	184515	4.72	709829	5.82	399175	8.03	672846	10.52	619863	15.45	598962	17.95
F31814-3	166784	4.72	649566	5.82	361510	8.03	598646	10.52	538050	15.44	522863	17.95
F31814-4	173601	4.72	674148	5.82	376549	8.03	625473	10.52	564318	15.44	543998	17.95
F31814-5	177682	4.72	675376	5.82	377937	8.03	620908	10.52	545887	15.44	522186	17.95
ZZZZZZ	162111	4.72	634502	5.82	347402	8.03	569612	10.52	516372	15.44	499004	17.95

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

(c) Insufficient sample for MS/MSD.

Semivolatile Internal Standard Area Summary

Page 1 of 1

Job Number: F31814
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std: SF557-CC556
Lab File ID: F009800.D
Instrument ID: GCMSF
Injection Date: 05/20/05
Injection Time: 09:06
Method: EPA 625

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	182589	4.71	702615	5.82	396293	8.04	656481	10.52	592578	15.45	579558	17.95
Upper Limit ^a	365178	5.21	1405230	6.32	792586	8.54	1312962	11.02	1185156	15.95	1159116	18.45
Lower Limit ^b	91295	4.21	351308	5.32	198147	7.54	328241	10.02	296289	14.95	289779	17.45

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
OP13340-MB	176485	4.71	673496	5.82	372944	8.03	610651	10.52	546419	15.44	527821	17.95
ZZZZZZ	167084	4.71	636772	5.82	353262	8.03	582589	10.52	523606	15.44	501431	17.95
ZZZZZZ	167543	4.72	651219	5.82	358700	8.03	589984	10.52	532108	15.44	508204	17.95
OP13354-BS	165498	4.71	636614	5.82	354118	8.03	578516	10.52	534194	15.45	511385	17.95
OP13354-MB	169380	4.71	656809	5.82	368312	8.03	601551	10.52	540037	15.44	511658	17.95
ZZZZZZ	188638	4.71	724598	5.82	405136	8.03	672730	10.52	607660	15.44	586583	17.95
ZZZZZZ	169205	4.71	641136	5.82	357430	8.03	579265	10.52	523519	15.44	503904	17.95
ZZZZZZ	189141	4.72	726163	5.82	397775	8.03	655457	10.52	593646	15.44	586310	17.95
ZZZZZZ	187994	4.71	722303	5.82	405872	8.03	669446	10.52	616984	15.44	600853	17.95
ZZZZZZ	168189	4.71	648802	5.82	354950	8.03	591668	10.52	533316	15.44	508211	17.95
ZZZZZZ	171745	4.72	646740	5.82	355752	8.04	581166	10.52	530112	15.44	507776	17.95
ZZZZZZ	169406	4.72	641500	5.82	358864	8.03	594406	10.52	528116	15.44	503384	17.95
F31898-9	169009	4.71	653276	5.82	359853	8.03	596810	10.52	546080	15.44	534458	17.95
OP13354-MS	177233	4.71	671069	5.82	371230	8.03	605379	10.52	536874	15.45	516927	17.95
OP13354-MSD	181702	4.72	694811	5.82	386723	8.03	626824	10.52	557976	15.45	531842	17.95
ZZZZZZ	173051	4.72	664869	5.82	364695	8.03	613225	10.52	557705	15.44	526556	17.95
ZZZZZZ	187355	4.71	711364	5.82	393630	8.03	639826	10.52	567375	15.44	540976	17.95
ZZZZZZ	178708	4.72	681213	5.82	380504	8.03	624077	10.52	547577	15.44	532197	17.95
ZZZZZZ	177706	4.71	683538	5.82	375298	8.03	616452	10.52	552651	15.44	531862	17.95
ZZZZZZ	180057	4.71	687874	5.82	377249	8.03	613663	10.52	546775	15.44	534777	17.95

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Surrogate Recovery Summary

Job Number: F31814
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Method: EPA 625	Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
F31814-1	F009790.D	81.0	83.0	84.0
F31814-2	F009793.D	78.0	83.0	81.0
F31814-3	F009794.D	80.0	84.0	79.0
F31814-4	F009795.D	76.0	79.0	68.0
F31814-5	F009796.D	85.0	88.0	88.0
OP13340-BS	F009781.D	87.0	94.0	89.0
OP13340-MB	F009782.D	81.0	87.0	88.0
OP13340-MB	F009801.D	82.0	85.0	86.0
OP13340-MS	F009791.D	88.0	91.0	87.0
OP13340-MSD	F009792.D	84.0	90.0	88.0

Surrogate Compounds	Recovery Limits
S1 = Nitrobenzene-d5	49-119%
S2 = 2-Fluorobiphenyl	45-118%
S3 = Terphenyl-d14	46-135%

5.6
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Initial Calibration Summary

Job Number: F31814
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: SF556-ICC556
Lab FileID: F009772.D

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Response Factor Report MS-F

Method : C:\MSDCHEM\1\METHODS\8270C.M (RTE Integrator)
Title : SW846 8270C OR EPA 625
Last Update : Thu May 19 14:14:37 2005
Response via : Initial Calibration

Calibration Files

5 =F009770.D 25 =F009771.D 50 =F009769.D 75 =F009772.D
100 =F009773.D 125 =F009774.D icv =F009553.D

Compound	5	25	50	75	100	125	icv	Avg	%RSD
1) I 1,4-Dichlorobenzene-d	-----ISTD-----								
2) 1,4-Dioxane	0.297	0.398	0.379	0.395	0.401	0.394		0.377	10.64
3) N-nitrosodimethyl	0.545	0.497	0.572	0.564	0.591	0.631		0.567	7.91
4) Pyridine	1.085	0.908	1.094	1.070	1.102	1.110		1.061	7.21
5) Benzaldehyde	0.915	0.974	0.983	0.940	0.881	0.713		0.901	11.04
6) Aniline	1.767	1.913	1.932	1.988	1.960	1.962		1.920	4.13
7)S 2-Fluorophenol	1.091	1.195	1.189	1.208	1.204	1.210		1.183	3.84
8) bis(2-Chloroethyl	1.067	1.108	1.100	1.132	1.101	1.127		1.106	2.11
9)S Phenol-d5	1.449	1.564	1.563	1.607	1.592	1.588		1.561	3.67
10)C Phenol	1.599	1.703	1.670	1.728	1.717	1.724		1.690	2.92
11) 2-Chlorophenol	1.309	1.401	1.399	1.427	1.430	1.433		1.400	3.36
12) 1,3-Dichlorobenze	1.428	1.533	1.497	1.541	1.510	1.525		1.506	2.74
13)C 1,4-Dichlorobenze	1.506	1.553	1.545	1.570	1.557	1.570		1.550	1.52
14) 1,2-Dichlorobenze	1.392	1.449	1.443	1.470	1.440	1.449		1.440	1.79
15) Benzyl alcohol	0.759	0.866	0.863	0.882	0.875	0.904		0.858	5.90
16) bis(2-chloroisopr	1.815	1.896	1.839	1.867	1.805	1.798		1.837	2.10
17) 2-Methylphenol	1.107	1.175	1.193	1.232	1.221	1.229		1.193	3.98
18) Acetophenone	1.681	1.773	1.864	1.904	1.904	1.945		1.845	5.39
19) Hexachloroethane	0.535	0.588	0.582	0.588	0.585	0.581		0.576	3.53
20)P N-Nitroso-di-n-pr	0.857	0.920	0.910	0.932	0.927	0.941		0.915	3.27
21) 3&4-Methylphenol	1.209	1.259	1.280	1.336	1.323	1.337		1.291	3.96
22) I Naphthalene-d8	-----ISTD-----								
23)S Nitrobenzene-d5	0.345	0.361	0.362	0.364	0.359	0.360		0.358	1.93
24) Nitrobenzene	0.323	0.339	0.341	0.350	0.343	0.342		0.339	2.63
25) Isophorone	0.557	0.590	0.599	0.610	0.599	0.600		0.592	3.11
26)C 2-Nitrophenol	0.178	0.201	0.204	0.207	0.205	0.204		0.200	5.47
27) 2,4-Dimethylpheno	0.326	0.347	0.355	0.361	0.354	0.353		0.349	3.44
28) bis(2-Chloroethox	0.359	0.375	0.374	0.375	0.369	0.371		0.371	1.63
29) Benzoic Acid		0.252	0.267	0.281	0.271	0.288		0.272	5.02
30)C 2,4-Dichloropheno	0.281	0.302	0.303	0.309	0.305	0.305		0.301	3.34
31) 1,2,4-Trichlorobe	0.300	0.316	0.314	0.317	0.309	0.304		0.310	2.26
32) Naphthalene	1.010	1.069	1.072	1.079	1.051	1.045		1.054	2.42
33) 4-Chloroaniline	0.424	0.464	0.467	0.467	0.453	0.455		0.455	3.63
34) 2,6-Dichloropheno	0.284	0.302	0.305	0.304	0.297	0.298		0.298	2.59
35)C Hexachlorobutadie	0.157	0.167	0.162	0.164	0.157	0.157		0.161	2.67
36) Caprolactam	0.150	0.165	0.176	0.185	0.186	0.185		0.174	8.33
37)C 4-Chloro-3-methyl	0.287	0.308	0.314	0.319	0.321	0.316		0.311	4.03
38) 2-Methylnaphthale	0.648	0.708	0.698	0.713	0.699	0.699		0.694	3.35
39) 1-Methylnaphthale	0.649	0.670	0.677	0.686	0.677	0.675		0.672	1.85
40) 1,2,4,5-Tetrachlo	0.291	0.312	0.310	0.312	0.305	0.301		0.305	2.65
41) I Acenaphthene-d10	-----ISTD-----								
42)P Hexachlorocyclope	0.097	0.209	0.238	0.250	0.260	0.275		0.222	29.21
---- Linear regr., Force(0,0) ---- Coefficient = 0.9972									
Response Ratio = 0.00000 + 0.26233 *A									

Initial Calibration Summary

Job Number: F31814
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: SF556-ICC556
Lab FileID: F009772.D

Page 2 of 3

43)C	2,4,6-Trichloroph	0.337	0.367	0.365	0.367	0.371	0.366	0.362	3.39
44)	2,4,5-Trichloroph	0.350	0.383	0.390	0.392	0.390	0.394	0.383	4.30
45)S	2-Fluorobiphenyl	1.306	1.339	1.302	1.328	1.304	1.314	1.315	1.12
46)	1,1'-Biphenyl	1.448	1.470	1.498	1.509	1.512	1.532	1.495	2.06
47)	2-Chloronaphthale	1.129	1.194	1.161	1.181	1.149	1.157	1.162	2.00
48)	2-Nitroaniline	0.329	0.365	0.363	0.377	0.374	0.370	0.363	4.82
49)	Acenaphthylene	1.861	1.973	1.957	1.980	1.962	1.977	1.952	2.31
50)	Dimethylphthalate	1.319	1.375	1.386	1.392	1.395	1.405	1.379	2.24
51)	2,6-Dinitrotoluen	0.316	0.324	0.333	0.334	0.340	0.335	0.330	2.63
52)C	Acenaphthene	1.124	1.187	1.181	1.205	1.199	1.191	1.181	2.46
53)	3-Nitroaniline	0.342	0.374	0.376	0.382	0.382	0.383	0.373	4.28
54)P	2,4-Dinitrophenol	0.059	0.135	0.152	0.171	0.189	0.192	0.150	33.13
---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9984									
Response Ratio = 0.00000 + 0.13262 *A + 0.02005 *A^2									
55)	Dibenzofuran	1.609	1.660	1.632	1.670	1.649	1.650	1.645	1.32
56)	2,4-Dinitrotoluen	0.380	0.445	0.450	0.464	0.463	0.457	0.443	7.18
57)P	4-Nitrophenol	0.141	0.180	0.192	0.194	0.203	0.198	0.185	12.21
58)	2,3,4,6-Tetrachlo	0.233	0.272	0.282	0.289	0.301	0.298	0.279	8.95
59)	Fluorene	1.313	1.385	1.378	1.422	1.410	1.410	1.386	2.86
60)	4-Chlorophenyl-ph	0.576	0.601	0.585	0.605	0.598	0.596	0.594	1.86
61)	Diethylphthalate	1.303	1.372	1.372	1.391	1.392	1.398	1.371	2.57
62)	4-Nitroaniline	0.323	0.377	0.383	0.399	0.407	0.398	0.381	7.99
63) I	Phenanthrene-d10	-----ISTD-----							
64)	4,6-Dinitro-2-met	0.140	0.153	0.156	0.160	0.163	0.155	5.80	
65)C	n-Nitrosodiphenyl	0.572	0.583	0.582	0.590	0.572	0.581	0.580	1.23
66)	1,2-Diphenylhydra	0.695	0.748	0.729	0.732	0.714	0.724	0.724	2.46
67)S	2,4,6-Tribromophe	0.082	0.089	0.088	0.089	0.086	0.087	0.087	3.02
68)	4-Bromophenyl-phe	0.184	0.198	0.194	0.197	0.192	0.193	0.193	2.47
69)	Hexachlorobenzene	0.196	0.197	0.193	0.196	0.191	0.195	0.195	1.17
70)	Atrazine	0.204	0.224	0.227	0.231	0.228	0.235	0.225	4.79
71)C	Pentachlorophenol	0.066	0.080	0.088	0.089	0.095	0.084	13.31	
---- Linear regression ---- Coefficient = 0.9985									
Response Ratio = -0.02509 + 0.10157 *A									
72)	Phenanthrene	1.150	1.213	1.198	1.203	1.179	1.185	1.188	1.88
73)	Anthracene	1.147	1.235	1.232	1.247	1.216	1.224	1.217	2.94
74)	Carbazole	1.044	1.132	1.141	1.169	1.135	1.136	1.126	3.76
75)	Di-n-butylphthala	1.259	1.364	1.375	1.387	1.356	1.397	1.356	3.68
76)C	Fluoranthene	1.096	1.183	1.188	1.220	1.197	1.205	1.181	3.72
77) I	Chrysene-d12	-----ISTD-----							
78)	Benzidine	0.914	1.025	1.051	1.023	1.003	0.958	0.996	5.09
79)	Pyrene	1.374	1.442	1.425	1.423	1.403	1.399	1.411	1.70
80)S	Terphenyl-d14	0.817	0.890	0.860	0.865	0.855	0.871	0.860	2.81
81)	Butylbenzylphthal	0.624	0.698	0.704	0.692	0.688	0.706	0.685	4.47
82)	3,3'-Dichlorobenz	0.464	0.515	0.516	0.512	0.501	0.502	0.502	3.91
83)	Benzo[a]anthracen	1.203	1.281	1.285	1.284	1.280	1.281	1.269	2.55
84)	Chrysene	1.150	1.223	1.218	1.214	1.194	1.200	1.200	2.22
85)	bis(2-Ethylhexyl)	0.834	0.932	0.943	0.929	0.930	0.961	0.921	4.83
86) I	Perylene-d12	-----ISTD-----							
87)C	Di-n-octylphthala	1.441	1.659	1.709	1.656	1.640	1.667	1.629	5.82
88)	Benzo[b]fluoranth	1.246	1.350	1.358	1.333	1.340	1.341	1.328	3.08
89)	Benzo[k]fluoranth	1.203	1.320	1.322	1.340	1.274	1.268	1.288	3.92
90)C	Benzo[a]pyrene	1.160	1.262	1.285	1.285	1.271	1.276	1.256	3.82
91)	Indeno[1,2,3-cd]p	1.017	1.098	1.141	1.170	1.139	1.167	1.122	5.15
92)	Dibenz[a,h]anthra	0.995	1.132	1.140	1.150	1.170	1.191	1.130	6.13

Initial Calibration Summary

Job Number: F31814
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: SF556-ICC556
Lab FileID: F009772.D

93)	Benzo[g,h,i]peryl	1.133	1.221	1.235	1.251	1.209	1.229	1.213	3.43

(#) = Out of Range

8270C.M Thu May 19 14:50:26 2005

5.7
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Initial Calibration Verification

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Job Number: F31814
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: SF556-ICV556
Lab FileID: F009776.D

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\051905\F009776.D Vial: 9
Acq On : 19 May 2005 1:40 pm Operator: nareshj
Sample : icv556-50 Inst : MS-F
Misc : op13309,sf556,1000,,,1,1,water Multiplr: 1.00
MS Integration Params: Rteint.p

Method : C:\MSDCHEM\1\METHODS\8270C.M (RTE Integrator)
Title : SW846 8270C OR EPA 625
Last Update : Thu May 19 14:14:37 2005
Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	0	0.00	4.72
2	1,4-Dioxane	50.000	52.013	-4.0	0	0.04	2.28
3	N-nitrosodimethylamine	50.000	50.292	-0.6	0	0.03	2.60
4	Pyridine	50.000	48.331	3.3	0	0.02	2.63
5	Benzaldehyde	50.000	50.209	-0.4	0	0.00	4.40
6	Aniline	50.000	44.029	11.9	0	0.00	4.48
7 S	2-Fluorophenol			-----NA-----			
8	bis(2-Chloroethyl)ether	50.000	53.423	-6.8	0	0.00	4.53
9 S	Phenol-d5			-----NA-----			
10 C	Phenol	50.000	52.243	-4.5	0	0.00	4.49
11	2-Chlorophenol	50.000	52.764	-5.5	0	0.00	4.58
12	1,3-Dichlorobenzene	50.000	50.614	-1.2	0	0.00	4.68
13 C	1,4-Dichlorobenzene	50.000	50.768	-1.5	0	0.00	4.74
14	1,2-Dichlorobenzene	50.000	51.481	-3.0	0	0.00	4.85
15	Benzyl alcohol	50.000	52.962	-5.9	0	0.00	4.84
16	bis(2-chloroisopropyl)eth	50.000	49.971	0.1	0	0.00	4.94
17	2-Methylphenol	50.000	51.533	-3.1	0	0.00	4.94
18	Acetophenone	50.000	49.110	1.8	0	0.00	5.04
19	Hexachloroethane	50.000	51.648	-3.3	0	0.00	5.12
20 P	N-Nitroso-di-n-propylamin	50.000	50.741	-1.5	0	0.00	5.05
21	3&4-Methylphenol	100.000	101.702	-1.7	0	0.00	5.06
22 I	Naphthalene-d8	40.000	40.000	0.0	0	0.00	5.82
23 S	Nitrobenzene-d5			-----NA-----			
24	Nitrobenzene	50.000	51.570	-3.1	0	0.00	5.19
25	Isophorone	50.000	53.336	-6.7	0	0.00	5.39
26 C	2-Nitrophenol	50.000	52.438	-4.9	0	0.00	5.46
27	2,4-Dimethylphenol	50.000	52.991	-6.0	0	0.00	5.51
28	bis(2-Chloroethoxy)methan	50.000	47.537	4.9	0	0.00	5.59
29	Benzoic Acid	100.000	109.933	-9.9	0	0.04	5.67
30 C	2,4-Dichlorophenol	50.000	54.347	-8.7	0	0.00	5.70
31	1,2,4-Trichlorobenzene	50.000	52.174	-4.3	0	0.00	5.76
32	Naphthalene	50.000	51.261	-2.5	0	0.00	5.84
33	4-Chloroaniline	50.000	17.649	64.7#	0	0.00	5.91
34	2,6-Dichlorophenol	50.000	49.991	0.0	0	0.00	5.91
35 C	Hexachlorobutadiene	50.000	50.675	-1.3	0	0.00	5.96
36	Caprolactam	50.000	50.055	-0.1	0	0.02	6.30
37 C	4-Chloro-3-methylphenol	50.000	53.337	-6.7	0	0.00	6.47
38	2-Methylnaphthalene	50.000	52.203	-4.4	0	0.00	6.61
39	1-Methylnaphthalene	50.000	51.451	-2.9	0	0.00	6.73
40	1,2,4,5-Tetrachlorobenzen	50.000	49.443	1.1	0	0.00	6.81

Initial Calibration Verification

Job Number: F31814
 Account: EEINCJX EEI
 Project: Camp Lejeune-LCH 4015

Sample: SF556-ICV556
 Lab FileID: F009776.D

41	I	Acenaphthene-d10	40.000	40.000	0.0	0	0.00	8.04
42	P	Hexachlorocyclopentadiene	50.000	46.724	6.6	0	0.00	6.80
43	C	2,4,6-Trichlorophenol	50.000	53.171	-6.3	0	0.00	6.98
44		2,4,5-Trichlorophenol	50.000	52.642	-5.3	0	0.00	7.04
45	S	2-Fluorobiphenyl			NA			
46		1,1'-Biphenyl	50.000	49.279	1.4	0	0.00	7.22
47		2-Chloronaphthalene	50.000	51.401	-2.8	0	0.00	7.24
48		2-Nitroaniline	50.000	50.150	-0.3	0	0.00	7.40
49		Acenaphthylene	50.000	51.608	-3.2	0	0.00	7.82
50		Dimethylphthalate	50.000	51.437	-2.9	0	0.00	7.69
51		2,6-Dinitrotoluene	50.000	49.817	0.4	0	0.00	7.77
52	C	Acenaphthene	50.000	51.016	-2.0	0	0.00	8.09
53		3-Nitroaniline	50.000	27.668	44.7#	0	0.00	8.01
54	P	2,4-Dinitrophenol	100.000	107.456	-7.5	0	0.00	8.20
55		Dibenzofuran	50.000	50.649	-1.3	0	0.00	8.36
56		2,4-Dinitrotoluene	50.000	50.810	-1.6	0	0.00	8.40
57	P	4-Nitrophenol	100.000	105.989	-6.0	0	0.00	8.38
58		2,3,4,6-Tetrachlorophenol	50.000	49.953	0.1	0	0.00	8.59
59		Fluorene	50.000	50.399	-0.8	0	0.00	8.91
60		4-Chlorophenyl-phenylethe	50.000	51.639	-3.3	0	0.00	8.95
61		Diethylphthalate	50.000	51.988	-4.0	0	0.00	8.82
62		4-Nitroaniline	50.000	47.043	5.9	0	0.00	9.01
63	I	Phenanthrene-d10	40.000	40.000	0.0	0	0.00	10.52
64		4,6-Dinitro-2-methylpheno	100.000	113.310	-13.3	0	0.00	9.07
65	C	n-Nitrosodiphenylamine	50.000	54.470	-8.9	0	0.00	9.17
66		1,2-Diphenylhydrazine	50.000	51.853	-3.7	0	0.00	9.22
67	S	2,4,6-Tribromophenol			NA			
68		4-Bromophenyl-phenylether	50.000	53.193	-6.4	0	0.00	9.78
69		Hexachlorobenzene	50.000	51.470	-2.9	0	0.00	9.84
70		Atrazine	50.000	52.585	-5.2	0	0.00	10.18
71	C	Pentachlorophenol	100.000	117.253	-17.3	0	0.00	10.23
72		Phenanthrene	50.000	52.091	-4.2	0	0.00	10.56
73		Anthracene	50.000	50.759	-1.5	0	0.00	10.66
74		Carbazole	50.000	51.282	-2.6	0	0.00	11.00
75		Di-n-butylphthalate	50.000	51.273	-2.5	0	0.00	11.79
76	C	Fluoranthene	50.000	51.792	-3.6	0	0.00	12.74
77	I	Chrysene-d12	40.000	40.000	0.0	0	0.00	15.45
78		Benzidine			NA			
79		Pyrene	50.000	52.358	-4.7	0	0.00	13.15
80	S	Terphenyl-d14			NA			
81		Butylbenzylphthalate	50.000	51.198	-2.4	0	0.00	14.60
82		3,3'-Dichlorobenzidine	50.000	4.127	91.7#	0	0.00	15.48
83		Benzo[a]anthracene	50.000	51.776	-3.6	0	0.00	15.44
84		Chrysene	50.000	50.868	-1.7	0	0.00	15.50
85		bis(2-Ethylhexyl)phthalat	50.000	51.916	-3.8	0	0.00	15.79
86	I	Perylene-d12	40.000	40.000	0.0	0	0.00	17.95
87	C	Di-n-octylphthalate	50.000	55.818	-11.6	0	0.00	16.99
88		Benzo[b]fluoranthene	50.000	51.179	-2.4	0	0.00	17.35
89		Benzo[k]fluoranthene	50.000	52.926	-5.9	0	0.00	17.39

Initial Calibration Verification

Job Number: F31814
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: SF556-ICV556
Lab FileID: F009776.D

90	C	Benzo[a]pyrene	50.000	49.690	0.6	0	0.00	17.86
91		Indeno[1,2,3-cd]pyrene	50.000	49.945	0.1	0	0.00	19.55
92		Dibenz[a,h]anthracene	50.000	51.424	-2.8	0	0.00	19.59
93		Benzo[g,h,i]perylene	50.000	49.389	1.2	0	0.00	19.90

(#) = Out of Range
F009553.D 8270C.M

SPCC's out = 0 CCC's out = 0
Thu May 19 14:50:11 2005

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Continuing Calibration Summary

Job Number: F31814
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: SF557-CC556
Lab FileID: F009800.D

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Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\052005\F009800.D Vial: 2
Acq On : 20 May 2005 9:06 am Operator: nareshj
Sample : cc556-50 Inst : MS-F
Misc : op13309,sf557,1000,,,1,1,water Multiplr: 1.00
MS Integration Params: Rteint.p

Method : C:\MSDCHEM\1\METHODS\8270C.M (RTE Integrator)
Title : SW846 8270C OR EPA 625
Last Update : Fri May 20 09:22:08 2005
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	99	0.00	4.71
2	1,4-Dioxane	0.377	0.372	1.3	97	-0.01	2.24
3	N-nitrosodimethylamine	0.567	0.590	-4.1	102	-0.03	2.56
4	Pyridine	1.061	0.998	5.9	91	-0.03	2.59
5	Benzaldehyde	0.901	0.948	-5.2	96	0.00	4.39
6	Aniline	1.920	1.936	-0.8	99	0.00	4.48
7 S	2-Fluorophenol	1.183	1.173	0.8	98	0.00	3.75
8	bis(2-Chloroethyl)ether	1.106	1.123	-1.5	101	0.00	4.53
9 S	Phenol-d5	1.561	1.567	-0.4	100	0.00	4.48
10 C	Phenol	1.690	1.700	-0.6	101	0.00	4.49
11	2-Chlorophenol	1.400	1.395	0.4	99	0.00	4.57
12	1,3-Dichlorobenzene	1.506	1.503	0.2	100	0.00	4.67
13 C	1,4-Dichlorobenzene	1.550	1.558	-0.5	100	0.00	4.73
14	1,2-Dichlorobenzene	1.440	1.434	0.4	99	0.00	4.85
15	Benzyl alcohol	0.858	0.890	-3.7	102	0.00	4.84
16	bis(2-chloroisopropyl)eth	1.837	1.875	-2.1	101	0.00	4.93
17	2-Methylphenol	1.193	1.202	-0.8	100	0.00	4.93
18	Acetophenone	1.845	1.865	-1.1	99	0.00	5.04
19	Hexachloroethane	0.576	0.587	-1.9	100	0.00	5.12
20 P	N-Nitroso-di-n-propylamin	0.915	0.903	1.3	99	0.00	5.05
21	3&4-Methylphenol	1.291	1.298	-0.5	101	0.00	5.06
22 I	Naphthalene-d8	1.000	1.000	0.0	101	0.00	5.82
23 S	Nitrobenzene-d5	0.358	0.359	-0.3	100	0.00	5.16
24	Nitrobenzene	0.339	0.342	-0.9	101	0.00	5.18
25	Isophorone	0.592	0.594	-0.3	100	0.00	5.39
26 C	2-Nitrophenol	0.200	0.202	-1.0	100	0.00	5.46
27	2,4-Dimethylphenol	0.349	0.353	-1.1	100	0.00	5.51
28	bis(2-Chloroethoxy)methan	0.371	0.372	-0.3	100	0.00	5.59
29	Benzoic Acid	0.272	0.253	7.0	95	0.00	5.63
30 C	2,4-Dichlorophenol	0.301	0.301	0.0	100	0.00	5.70
31	1,2,4-Trichlorobenzene	0.310	0.316	-1.9	101	0.00	5.76
32	Naphthalene	1.054	1.070	-1.5	101	0.00	5.84
33	4-Chloroaniline	0.455	0.465	-2.2	100	0.00	5.91
34	2,6-Dichlorophenol	0.298	0.305	-2.3	101	0.00	5.91
35 C	Hexachlorobutadiene	0.161	0.164	-1.9	102	0.00	5.96
36	Caprolactam	0.174	0.170	2.3	97	0.00	6.29
37 C	4-Chloro-3-methylphenol	0.311	0.312	-0.3	100	0.00	6.46
38	2-Methylnaphthalene	0.694	0.700	-0.9	101	0.00	6.61
39	1-Methylnaphthalene	0.672	0.673	-0.1	100	0.00	6.73
40	1,2,4,5-Tetrachlorobenzen	0.305	0.312	-2.3	101	0.00	6.81

Continuing Calibration Summary

Job Number: F31814
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: SF557-CC556
Lab FileID: F009800.D

Page 2 of 3

41	I	Acenaphthene-d10	1.000	1.000	0.0	100	0.00	8.04
42	P	Hexachlorocyclopentadiene	50.000	43.602	12.8	96	0.00	6.80
43	C	2,4,6-Trichlorophenol	0.362	0.367	-1.4	100	0.00	6.98
44		2,4,5-Trichlorophenol	0.383	0.387	-1.0	99	0.00	7.03
45	S	2-Fluorobiphenyl	1.315	1.329	-1.1	102	0.00	7.08
46		1,1'-Biphenyl	1.495	1.504	-0.6	100	0.00	7.22
47		2-Chloronaphthalene	1.162	1.164	-0.2	100	0.00	7.24
48		2-Nitroaniline	0.363	0.355	2.2	97	0.00	7.40
49		Acenaphthylene	1.952	1.956	-0.2	99	0.00	7.82
50		Dimethylphthalate	1.379	1.353	1.9	97	0.00	7.69
51		2,6-Dinitrotoluene	0.330	0.323	2.1	97	0.00	7.77
52	C	Acenaphthene	1.181	1.184	-0.3	100	0.00	8.09
53		3-Nitroaniline	0.373	0.368	1.3	97	0.00	8.02
54	P	2,4-Dinitrophenol	50.000	49.791	0.4	103	0.00	8.19
55		Dibenzofuran	1.645	1.638	0.4	100	0.00	8.36
56		2,4-Dinitrotoluene	0.443	0.436	1.6	96	0.00	8.40
57	P	4-Nitrophenol	0.185	0.183	1.1	95	0.00	8.37
58		2,3,4,6-Tetrachlorophenol	0.279	0.282	-1.1	100	0.00	8.58
59		Fluorene	1.386	1.357	2.1	98	0.00	8.91
60		4-Chlorophenyl-phenylethe	0.594	0.591	0.5	101	0.00	8.95
61		Diethylphthalate	1.371	1.353	1.3	98	0.00	8.82
62		4-Nitroaniline	0.381	0.377	1.0	98	0.00	9.01
63	I	Phenanthrene-d10	1.000	1.000	0.0	98	0.00	10.52
64		4,6-Dinitro-2-methylpheno	0.155	0.153	1.3	98	0.00	9.07
65	C	n-Nitrosodiphenylamine	0.580	0.581	-0.2	98	0.00	9.17
66		1,2-Diphenylhydrazine	0.724	0.736	-1.7	99	0.00	9.22
67	S	2,4,6-Tribromophenol	0.087	0.090	-3.4	102	0.00	9.33
68		4-Bromophenyl-phenylether	0.193	0.200	-3.6	101	0.00	9.78
69		Hexachlorobenzene	0.195	0.198	-1.5	101	0.00	9.84
70		Atrazine	0.225	0.229	-1.8	99	0.00	10.17
71	C	Pentachlorophenol	50.000	49.154	1.7	98	0.00	10.23
72		Phenanthrene	1.188	1.192	-0.3	98	0.00	10.56
73		Anthracene	1.217	1.217	0.0	97	0.00	10.66
74		Carbazole	1.126	1.121	0.4	97	0.00	11.00
75		Di-n-butylphthalate	1.356	1.344	0.9	96	0.00	11.79
76	C	Fluoranthene	1.181	1.191	-0.8	99	0.00	12.74
77	I	Chrysene-d12	1.000	1.000	0.0	99	0.00	15.45
78		Benzydine	0.996	0.980	1.6	93	0.00	13.10
79		Pyrene	1.411	1.416	-0.4	99	0.00	13.14
80	S	Terphenyl-d14	0.860	0.872	-1.4	101	0.00	13.57
81		Butylbenzylphthalate	0.685	0.694	-1.3	98	0.00	14.60
82		3,3'-Dichlorobenzidine	0.502	0.514	-2.4	99	0.00	15.48
83		Benzo[a]anthracene	1.269	1.284	-1.2	99	0.00	15.44
84		Chrysene	1.200	1.226	-2.2	100	0.00	15.50
85		bis(2-Ethylhexyl)phthalat	0.921	0.930	-1.0	98	0.00	15.79

Continuing Calibration Summary

Job Number: F31814
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: SF557-CC556
Lab FileID: F009800.D

86	I	Perylene-d12	1.000	1.000	0.0	103	0.00	17.95
87	C	Di-n-octylphthalate	1.629	1.612	1.0	97	0.00	16.99
88		Benzo[b]fluoranthene	1.328	1.297	2.3	98	0.00	17.34
89		Benzo[k]fluoranthene	1.288	1.305	-1.3	101	0.00	17.39
90	C	Benzo[a]pyrene	1.256	1.259	-0.2	101	0.00	17.86
91		Indeno[1,2,3-cd]pyrene	1.122	1.133	-1.0	102	0.00	19.54
92		Dibenz[a,h]anthracene	1.130	1.151	-1.9	104	0.00	19.59
93		Benzo[g,h,i]perylene	1.213	1.233	-1.6	103	0.00	19.90

(#) = Out of Range SPCC's out = 0 CCC's out = 0
F009769.D 8270C.M Mon May 23 09:28:52 2005

5.7
5

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: F31814
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GQQ142-MB	QQ003398.D 1		05/19/05	AB	n/a	n/a	GQQ142

The QC reported here applies to the following samples:

Method: EPA 601/602

F31814-1, F31814-2, F31814-3, F31814-4, F31814-5

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	98% 71-130%
98-08-8	aaa-Trifluorotoluene	100% 71-124%

Blank Spike Summary

Page 1 of 1

Job Number: F31814
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GQQ142-BS	QQ003397.D 1		05/19/05	AB	n/a	n/a	GQQ142

The QC reported here applies to the following samples:

Method: EPA 601/602

F31814-1, F31814-2, F31814-3, F31814-4, F31814-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	21.4	107	81-121
108-90-7	Chlorobenzene	20	22.5	113	76-120
95-50-1	1,2-Dichlorobenzene	20	22.6	113	63-127
541-73-1	1,3-Dichlorobenzene	20	22.5	113	70-124
106-46-7	1,4-Dichlorobenzene	20	21.2	106	68-121
100-41-4	Ethylbenzene	20	22.0	110	79-124
1634-04-4	Methyl Tert Butyl Ether	20	22.4	112	73-118
108-88-3	Toluene	20	21.5	108	79-122
1330-20-7	Xylenes (total)	60	64.9	108	79-121

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	100%	71-130%
98-08-8	aaa-Trifluorotoluene	101%	71-124%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: F31814
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F31773-6MS	QQ003404.D	5	05/19/05	AB	n/a	n/a	GQQ142
F31773-6MSD	QQ003405.D	5	05/19/05	AB	n/a	n/a	GQQ142
F31773-6 ^a	QQ003403.D	5	05/19/05	AB	n/a	n/a	GQQ142

The QC reported here applies to the following samples:

Method: EPA 601/602

F31814-1, F31814-2, F31814-3, F31814-4, F31814-5

CAS No.	Compound	F31773-6 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	30.1	100	133	103	138	108	4	74-126/11
108-90-7	Chlorobenzene	ND	100	113	113	113	113	0	72-124/8
95-50-1	1,2-Dichlorobenzene	50.7	100	160	109	162	111	1	55-136/13
541-73-1	1,3-Dichlorobenzene	ND	100	120	120	120	120	0	65-132/16
106-46-7	1,4-Dichlorobenzene	ND	100	117	117	117	117	0	61-133/11
100-41-4	Ethylbenzene	270	100	380	110	380	110	0	71-131/8
1634-04-4	Methyl Tert Butyl Ether	7.8	100	120	112	118	110	2	63-130/11
108-88-3	Toluene	14.8	100	120	105	122	107	2	69-132/7
1330-20-7	Xylenes (total)	659	300	985	109	981	107	0	71-127/8

CAS No.	Surrogate Recoveries	MS	MSD	F31773-6	Limits
460-00-4	4-Bromofluorobenzene	103%	104%	103%	71-130%
98-08-8	aaa-Trifluorotoluene	99%	101%	99%	71-124%

(a) All hits confirmed by dual column analysis.

Volatile Surrogate Recovery Summary

Page 1 of 1

Job Number: F31814
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

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
F31814-1	QQ003410.D	96.0	98.0
F31814-2	QQ003409.D	98.0	99.0
F31814-3	QQ003411.D	99.0	101.0
F31814-4	QQ003412.D	96.0	102.0
F31814-5	QQ003413.D	98.0	102.0
F31773-6MS	QQ003404.D	103.0	99.0
F31773-6MSD	QQ003405.D	104.0	101.0
GQQ142-BS	QQ003397.D	100.0	101.0
GQQ142-MB	QQ003398.D	98.0	100.0

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: F31814
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GQQ142-CC142	Injection Date:	05/19/05
Lab File ID:	QQ003407.D	Injection Time:	23:13
Instrument ID:	GCQQ	Method:	EPA 601/602

S1^a	S2^a
RT	RT

Check Std	11.19	4.87

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
ZZZZZZ	QQ003408.D	05/19/05	23:38	11.19	4.87
F31814-2	QQ003409.D	05/20/05	00:02	11.19	4.87
F31814-1	QQ003410.D	05/20/05	00:26	11.19	4.86
F31814-3	QQ003411.D	05/20/05	00:51	11.19	4.87
F31814-4	QQ003412.D	05/20/05	01:15	11.19	4.87
F31814-5	QQ003413.D	05/20/05	01:39	11.19	4.87
ZZZZZZ	QQ003414.D	05/20/05	02:04	11.19	4.87
ZZZZZZ	QQ003415.D	05/20/05	02:28	11.19	4.86
ZZZZZZ	QQ003416.D	05/20/05	02:52	11.19	4.87
ZZZZZZ	QQ003417.D	05/20/05	03:16	11.19	4.87

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: F31814
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GQQ142-ICC142	Injection Date:	05/19/05
Lab File ID:	QQ003392.D	Injection Time:	17:10
Instrument ID:	GCQQ	Method:	EPA 601/602

S1^a	S2^a
RT	RT

Check Std	11.19	4.87

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
GQQ142-BS	QQ003397.D	05/19/05	19:10	11.19	4.87
GQQ142-MB	QQ003398.D	05/19/05	19:35	11.19	4.87
ZZZZZZ	QQ003400.D	05/19/05	20:24	11.19	4.86
ZZZZZZ	QQ003401.D	05/19/05	20:48	11.19	4.87
ZZZZZZ	QQ003402.D	05/19/05	21:12	11.19	4.87
F31773-6	QQ003403.D	05/19/05	21:37	11.19	4.87
F31773-6MS	QQ003404.D	05/19/05	22:00	11.19	4.87
F31773-6MSD	QQ003405.D	05/19/05	22:25	11.19	4.86
ZZZZZZ	QQ003406.D	05/19/05	22:49	11.19	4.87

Surrogate Compounds

S1 = 4-Bromofluorobenzene

S2 = aaa-Trifluorotoluene

(a) Retention time from GC signal #2

Initial Calibration Summary

Job Number: F31814
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GQQ142-ICC142
Lab FileID: QQ003392.D

Page 1 of 1

Response Factor Report VOA7

Method : C:\MSDCHEM\2\METHODS\DUAL0519.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Fri May 20 08:06:01 2005
Response via : Initial Calibration

Calibration Files

1 =QQ003390.D 5 =QQ003391.D 20 =QQ003392.D 40 =QQ003393.D
70 =QQ003394.D 100 =QQ003395.D

	Compound	1	5	20	40	70	100	Avg	%RSD
1)	Methyl tert Butyl E	9.300	9.744	9.332	9.550	9.638	9.567	9.522	E2 1.82
2)	Di-Isopropyl ether	1.186	1.257	1.186	1.185	1.194	1.192	1.200	E3 2.33
3)	Benzene	3.905	4.307	4.233	4.291	4.288	4.184	4.201	E3 3.62
4) S	a,a,a-TFT(S)	9.294	9.169	9.272	9.065	9.100	9.062	9.160	E2 1.12
5)	Toluene	3.351	3.338	3.278	3.334	3.325	3.252	3.313	E3 1.18
6)	Chlorobenzene	2.523	3.005	3.068	3.127	3.144	3.088	2.992	E3 7.86
7)	Ethylbenzene	2.275	2.616	2.647	2.686	2.694	2.655	2.596	E3 6.14
8)	m,p-Xylene	2.556	2.874	2.851	2.903	2.905	2.855	2.824	E3 4.71
9)	o-Xylene	2.742	3.036	2.984	3.052	3.038	3.007	2.976	E3 3.94
10) S	BFB(S)	3.085	3.133	3.206	3.178	3.227	3.263	3.182	E3 2.04
11)	1,3-Dichlorobenzene	3.642	4.184	4.267	4.392	4.443	4.402	4.222	E3 7.10
12)	1,4-Dichlorobenzene	4.108	4.746	4.832	4.960	5.025	4.940	4.769	E3 7.10
13)	1,2-Dichlorobenzene	3.626	4.231	4.255	4.416	4.357	4.406	4.215	E3 7.09

Signal #2

1)	Methyl tert Butyl E	8.554	9.478	9.044	9.319	9.383	9.321	9.183	E2 3.71
2)	Di-Isopropyl ether	1.025	1.161	1.137	1.154	1.159	1.161	1.133	E3 4.73
3)	Benzene	3.625	4.104	4.058	4.124	4.119	4.026	4.009	E3 4.79
4) S	a,a,a-TFT(S)	8.754	8.697	8.790	8.556	8.600	8.578	8.662	E2 1.13
5)	Toluene	3.006	3.127	3.109	3.166	3.162	3.106	3.113	E3 1.87
6)	Chlorobenzene	2.279	2.820	2.906	2.979	3.005	2.972	2.827	E3 9.77
7)	Ethylbenzene	2.107	2.530	2.544	2.601	2.591	2.577	2.492	E3 7.64
8)	m,p-Xylene	2.396	2.795	2.827	2.890	2.881	2.862	2.775	E3 6.82
9)	o-Xylene	2.236	2.561	2.580	2.636	2.640	2.610	2.544	E3 6.05
10) S	BFB(S)	2.927	2.965	3.030	3.003	3.060	3.087	3.012	E3 1.98
11)	1,3-Dichlorobenzene	3.292	3.801	3.882	4.027	4.067	4.089	3.860	E3 7.77
12)	1,4-Dichlorobenzene	3.539	4.312	4.401	4.560	4.614	4.653	4.347	E3 9.58
13)	1,2-Dichlorobenzene	3.308	3.971	4.107	4.196	4.286	4.212	4.013	E3 9.02

(#) = Out of Range

DUAL0519.M

Fri May 20 12:15:23 2005

GCHH

Initial Calibration Verification

Page 1 of 1

Job Number: F31814
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GQQ142-ICV142
Lab FileID: QQ003396.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\2\DATA\051905\QQ003396.D\ELC1A.CH Vial: 7
Signal #2 : C:\MSDCHEM\2\DATA\051905\QQ003396.D\ELC2B.CH
Acq On : 5-19-05 06:46:37 PM Operator: AliciaL
Sample : icv142-20 Inst : VOA7
Misc : gc4937,gqq142,,,,,1 Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\2\METHODS\DUAL0519.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Fri May 20 08:06:01 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	Methyl tert Butyl EtHe	20.000	18.500	7.5	94	0.00	2.15- 2.35
2	Di-Isopropyl ether	20.000	16.466	17.7#	83	0.00	2.52- 2.72
3	Benzene	20.000	17.466	12.7	87	0.00	3.66- 3.86
4 S	a,a,a-TFT(S)	20.000	19.461	2.7	96	0.00	4.77- 4.97
5	Toluene	20.000	17.729	11.4	90	0.00	6.40- 6.60
6	Chlorobenzene	20.000	18.893	5.5	92	0.00	8.77- 8.97
7	Ethylbenzene	20.000	18.502	7.5	91	0.00	9.30- 9.50
8	m,p-Xylene	40.000	36.710	8.2	91	0.00	9.75- 9.95
9	o-Xylene	20.000	18.277	8.6	91	0.00	10.45-10.65
10 S	BFB(S)	20.000	19.807	1.0	98	0.00	11.05-11.25
11	1,3-Dichlorobenzene	20.000	19.408	3.0	96	0.00	12.69-12.89
12	1,4-Dichlorobenzene	20.000	18.157	9.2	90	0.00	12.78-12.98
13	1,2-Dichlorobenzene	20.000	19.463	2.7	96	0.00	13.10-13.30

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

1	Methyl tert Butyl EtHe	20.000	18.621	6.9	95	0.00	2.04- 2.24
2	Di-Isopropyl ether	20.000	16.626	16.9#	83	0.01	2.37- 2.57
3	Benzene	20.000	17.596	12.0	87	0.00	3.56- 3.76
4 S	a,a,a-TFT(S)	20.000	19.493	2.5	96	0.00	4.76- 4.96
5	Toluene	20.000	17.873	10.6	89	0.00	6.17- 6.37
6	Chlorobenzene	20.000	19.023	4.9	93	0.00	8.75- 8.95
7	Ethylbenzene	20.000	18.551	7.2	91	0.00	9.06- 9.26
8	m,p-Xylene	40.000	36.889	7.8	91	0.00	9.33- 9.53
9	o-Xylene	20.000	18.387	8.1	91	0.00	10.15-10.35
10 S	BFB(S)	20.000	19.708	1.5	98	0.00	11.09-11.29
11	1,3-Dichlorobenzene	20.000	19.506	2.5	97	0.00	12.62-12.82
12	1,4-Dichlorobenzene	20.000	18.337	8.3	91	0.00	12.74-12.94
13	1,2-Dichlorobenzene	20.000	19.690	1.5	96	0.00	13.12-13.32

(#) = Out of Range
QQ003392.D DUAL0519.M

SPCC's out = 0 CCC's out = 0
Fri May 20 12:13:51 2005 GCHH

Continuing Calibration Summary

Page 1 of 1

Job Number: F31814
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GQQ142-CC142
Lab FileID: QQ003407.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\2\DATA\051905\QQ003407.D\ELC1A.CH Vial: 17
Signal #2 : C:\MSDCHEM\2\DATA\051905\QQ003407.D\ELC2B.CH
Acq On : 19 May 2005 11:13 pm Operator: AliciaL
Sample : cc142-20 Inst : VOA7
Misc : gc4965,gqq142,,,,, Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\2\METHODS\DUAL0519.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Fri May 20 08:06:01 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	Methyl tert Butyl EtHe	20.000	20.870	-4.4	106	0.00	2.15- 2.35
2	Di-Isopropyl ether	20.000	20.466	-2.3	104	0.00	2.52- 2.72
3	Benzene	20.000	20.603	-3.0	102	0.00	3.66- 3.86
4 S	a,a,a-TFT(S)	20.000	19.760	1.2	98	0.00	4.77- 4.97
5	Toluene	20.000	20.443	-2.2	103	0.00	6.40- 6.60
6	Chlorobenzene	20.000	20.937	-4.7	102	0.00	8.77- 8.97
7	Ethylbenzene	20.000	20.907	-4.5	102	0.00	9.30- 9.50
8	m,p-Xylene	40.000	41.294	-3.2	102	0.00	9.75- 9.95
9	o-Xylene	20.000	20.599	-3.0	103	0.00	10.45-10.65
10 S	BFB(S)	20.000	19.529	2.4	97	0.00	11.05-11.25
11	1,3-Dichlorobenzene	20.000	20.459	-2.3	101	0.00	12.69-12.89
12	1,4-Dichlorobenzene	20.000	20.362	-1.8	100	0.00	12.78-12.98
13	1,2-Dichlorobenzene	20.000	21.141	-5.7	105	0.00	13.10-13.30

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

1	Methyl tert Butyl EtHe	20.000	21.116	-5.6	107	0.00	2.04- 2.24
2	Di-Isopropyl ether	20.000	21.006	-5.0	105	0.00	2.37- 2.57
3	Benzene	20.000	20.672	-3.4	102	0.00	3.56- 3.76
4 S	a,a,a-TFT(S)	20.000	19.710	1.4	97	0.00	4.76- 4.96
5	Toluene	20.000	20.601	-3.0	103	0.00	6.17- 6.37
6	Chlorobenzene	20.000	21.096	-5.5	103	0.00	8.75- 8.95
7	Ethylbenzene	20.000	20.983	-4.9	103	0.00	9.06- 9.26
8	m,p-Xylene	40.000	41.569	-3.9	102	0.00	9.33- 9.53
9	o-Xylene	20.000	20.661	-3.3	102	0.00	10.15-10.35
10 S	BFB(S)	20.000	19.665	1.7	98	0.00	11.09-11.29
11	1,3-Dichlorobenzene	20.000	20.404	-2.0	101	0.00	12.62-12.82
12	1,4-Dichlorobenzene	20.000	20.696	-3.5	102	0.00	12.74-12.94
13	1,2-Dichlorobenzene	20.000	20.763	-3.8	101	0.00	13.12-13.32

(#) = Out of Range
QQ003392.D DUAL0519.M

SPCC's out = 0 CCC's out = 0
Fri May 20 12:13:54 2005 GCHH

Continuing Calibration Summary

Page 1 of 1

Job Number: F31814
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GQQ143-CC142
Lab FileID: QQ003418.D

Evaluate Continuing Calibration Report

Signal #1 : C:\MSDCHEM\2\DATA\051905\QQ003418.D\ELC1A.CH Vial: 28
Signal #2 : C:\MSDCHEM\2\DATA\051905\QQ003418.D\ELC2B.CH
Acq On : 5-20-05 03:41:18 AM Operator: AliciaL
Sample : cc142-20 Inst : VOA7
Misc : gc4965,gqq143,,,,, Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\MSDCHEM\2\METHODS\DUAL0519.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Fri May 20 08:06:01 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	Methyl tert Butyl EtHe	20.000	20.634	-3.2	105	0.02	2.15- 2.35
2	Di-Isopropyl ether	20.000	20.801	-4.0	105	0.02	2.52- 2.72
3	Benzene	20.000	20.709	-3.5	103	0.01	3.66- 3.86
4 S	a,a,a-TFT(S)	20.000	20.029	-0.1	99	0.01	4.77- 4.97
5	Toluene	20.000	20.440	-2.2	103	0.00	6.40- 6.60
6	Chlorobenzene	20.000	20.625	-3.1	101	0.00	8.77- 8.97
7	Ethylbenzene	20.000	20.569	-2.8	101	0.00	9.30- 9.50
8	m,p-Xylene	40.000	40.887	-2.2	101	0.00	9.75- 9.95
9	o-Xylene	20.000	20.291	-1.5	101	0.00	10.45-10.65
10 S	BFB(S)	20.000	19.692	1.5	98	0.00	11.05-11.25
11	1,3-Dichlorobenzene	20.000	19.854	0.7	98	0.00	12.69-12.89
12	1,4-Dichlorobenzene	20.000	19.963	0.2	99	0.00	12.78-12.98
13	1,2-Dichlorobenzene	20.000	20.244	-1.2	100	0.00	13.10-13.30

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

1	Methyl tert Butyl EtHe	20.000	20.860	-4.3	106	0.02	2.04- 2.24
2	Di-Isopropyl ether	20.000	21.335	-6.7	106	0.02	2.37- 2.57
3	Benzene	20.000	20.764	-3.8	103	0.01	3.56- 3.76
4 S	a,a,a-TFT(S)	20.000	20.056	-0.3	99	0.01	4.76- 4.96
5	Toluene	20.000	20.654	-3.3	103	0.00	6.17- 6.37
6	Chlorobenzene	20.000	20.711	-3.6	101	0.00	8.75- 8.95
7	Ethylbenzene	20.000	20.662	-3.3	101	0.00	9.06- 9.26
8	m,p-Xylene	40.000	41.133	-2.8	101	0.00	9.33- 9.53
9	o-Xylene	20.000	20.368	-1.8	100	0.00	10.15-10.35
10 S	BFB(S)	20.000	19.742	1.3	98	0.00	11.09-11.29
11	1,3-Dichlorobenzene	20.000	19.991	0.0	99	0.00	12.62-12.82
12	1,4-Dichlorobenzene	20.000	20.351	-1.8	101	0.00	12.74-12.94
13	1,2-Dichlorobenzene	20.000	20.275	-1.4	99	0.00	13.12-13.32

(#) = Out of Range
QQ003392.D DUAL0519.M

SPCC's out = 0 CCC's out = 0
Fri May 20 12:13:55 2005 GCHH

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F31814
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IR051805.ASC
Analyst: DM
Parameters: Pb

Date Analyzed: 05/18/05 Methods: SW846 6010B
Run ID: MA4345

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:25	MA4345-HSTD1	1		
09:28	MA4345-ICV1	1		
09:33	MA4345-ICB1	1		
09:36	MA4345-CRIA1	1		
09:41	MA4345-CRI1	1		
09:44	MA4345-ICSA1	1		
09:48	MA4345-ICSAB1	1		
09:52	MA4345-CCV1	1		
09:57	MA4345-CCB1	1		
10:01	MP8020-MB1	1		
10:05	MP8020-B1	1		
10:11	F31814-1	1		
10:15	MP8020-D1	1		
10:19	MP8020-SD1	5		
10:22	MP8020-S1	1		
10:28	F31814-2	1		
10:32	F31814-3	1		
10:36	F31814-4	1		
10:40	F31814-5	1		
----->	Last reportable sample/prep for job F31814			
10:44	MA4345-CCV2	1		
10:49	MA4345-CCB2	1		
----->	Last reportable CCB for job F31814			
10:52	MP8025-MB1	1		
10:56	MP8025-B1	1		
11:02	F31827-1	1		(sample used for QC only; not part of login F31814)
11:06	MP8025-D1	1		
11:10	MP8025-SD1	5		
11:14	MP8025-S1	1		
11:33	MA4345-CCV3	1		
11:38	MA4345-CCB3	1		
12:34	MP8034-MB1	1		
12:38	MP8034-B1	1		
12:44	F31785-1A	1		(sample used for QC only; not part of login F31814)
12:48	MP8034-D1	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F31814
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IR051805.ASC
Analyst: DM
Parameters: Pb

Date Analyzed: 05/18/05 Methods: SW846 6010B
Run ID: MA4345

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:52	MP8034-SD1	5		
12:56	MP8034-S1	1		
13:02	MP8034-MB2	1		
13:06	MP8034-B2	1		
13:12	MP8031-MB1	1		
13:16	MP8031-B1	1		
13:21	MA4345-CCV4	1		
13:26	MA4345-CCB4	1		
13:29	F31919-11	1		(sample used for QC only; not part of login F31814)
13:33	MP8031-D1	1		
13:37	MP8031-SD1	5		
13:41	MP8031-S1	1		
13:45	MP8031-S2	1		
13:51	ZZZZZZ	1		
13:55	ZZZZZZ	1		
13:58	ZZZZZZ	1		
14:02	ZZZZZZ	1		
14:06	ZZZZZZ	1		
14:12	MA4345-CCV5	1		
14:17	MA4345-CCB5	1		
14:21	ZZZZZZ	1		
14:25	ZZZZZZ	1		
14:29	ZZZZZZ	1		
14:32	ZZZZZZ	1		
14:36	ZZZZZZ	1		
14:40	ZZZZZZ	1		
14:44	ZZZZZZ	1		
14:48	ZZZZZZ	1		
14:51	ZZZZZZ	1		
14:55	ZZZZZZ	1		
14:59	MA4345-CCV6	1		
15:04	MA4345-CCB6	1		
15:08	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F31814
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IR051805.ASC
Analyst: DM
Parameters: Pb

Date Analyzed: 05/18/05 Methods: SW846 6010B
Run ID: MA4345

Time	Sample Description	Dilution Factor	PS Recov	Comments
15:12	ZZZZZZ	1		
15:15	ZZZZZZ	1		
15:19	ZZZZZZ	1		
15:24	MA4345-CRI2	1		
15:28	MA4345-CCV7	1		
15:33	MA4345-CCB7	1		

Refer to raw data for calibration curve and standards.

INTERNAL STANDARD SUMMARY

Login Number: F31814
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IR051805.ASC
Analyst: DM
Parameters: Pb

Date Analyzed: 05/18/05 Methods: SW846 6010B
Run ID: MA4345

Time	Sample Description	Istd#1
09:25	MA4345-HSTD1	8000
09:28	MA4345-ICV1	8125
09:33	MA4345-ICB1	8455 R
09:36	MA4345-CRIA1	8372
09:41	MA4345-CRI1	8277
09:44	MA4345-ICSA1	7367
09:48	MA4345-ICSAB1	7357
09:52	MA4345-CCV1	8104
09:57	MA4345-CCB1	8345
10:01	MP8020-MB1	8397
10:05	MP8020-B1	8206
10:11	F31814-1	8058
10:15	MP8020-D1	8067
10:19	MP8020-SD1	8223
10:22	MP8020-S1	8057
10:28	F31814-2	8434
10:32	F31814-3	16178 !
10:36	F31814-4	9388
10:40	F31814-5	8252
10:44	MA4345-CCV2	8108
10:49	MA4345-CCB2	8417
10:52	MP8025-MB1	8438
10:56	MP8025-B1	8062
11:02	F31827-1	7897
11:06	MP8025-D1	7991
11:10	MP8025-SD1	8404
11:14	MP8025-S1	7770
11:33	MA4345-CCV3	8092
11:38	MA4345-CCB3	8327
12:34	MP8034-MB1	8387
12:38	MP8034-B1	8173
12:44	F31785-1A	8248
12:48	MP8034-D1	8339

INTERNAL STANDARD SUMMARY

Login Number: F31814
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IR051805.ASC
Analyst: DM
Parameters: Pb

Date Analyzed: 05/18/05 Methods: SW846 6010B
Run ID: MA4345

Time	Sample Description	Istd#1
12:52	MP8034-SD1	8457
12:56	MP8034-S1	7966
13:02	MP8034-MB2	8193
13:06	MP8034-B2	8033
13:12	MP8031-MB1	8245
13:16	MP8031-B1	8069
13:21	MA4345-CCV4	8098
13:26	MA4345-CCB4	8280
13:29	F31919-11	8370
13:33	MP8031-D1	8481
13:37	MP8031-SD1	8488
13:41	MP8031-S1	8322
13:45	MP8031-S2	8337
13:51	ZZZZZZ	8465
13:55	ZZZZZZ	8141
13:58	ZZZZZZ	8214
14:02	ZZZZZZ	9141
14:06	ZZZZZZ	8594
14:12	MA4345-CCV5	8195
14:17	MA4345-CCB5	8487
14:21	ZZZZZZ	9016
14:25	ZZZZZZ	8968
14:29	ZZZZZZ	9184
14:32	ZZZZZZ	9278
14:36	ZZZZZZ	8915
14:40	ZZZZZZ	8262
14:44	ZZZZZZ	9148
14:48	ZZZZZZ	9405
14:51	ZZZZZZ	7822
14:55	ZZZZZZ	7418
14:59	MA4345-CCV6	8233
15:04	MA4345-CCB6	8255
15:08	ZZZZZZ	8330

INTERNAL STANDARD SUMMARY

Login Number: F31814
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IR051805.ASC
Analyst: DM
Parameters: Pb

Date Analyzed: 05/18/05 Methods: SW846 6010B
Run ID: MA4345

Time	Sample Description	Istd#1
15:12	ZZZZZZ	8241
15:15	ZZZZZZ	8195
15:19	ZZZZZZ	8621
15:24	MA4345-CRI2	8213
15:28	MA4345-CCV7	8022
15:33	MA4345-CCB7	8235

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium	60-125 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F31814
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IR051805.ASC Date Analyzed: 05/18/05 Methods: SW846 6010B
QC Limits: result < RL Run ID: MA4345 Units: ug/l

Time: Sample ID:		09:33 ICB1		09:57 CCB1		10:49 CCB2		
Metal	RL	IDL	raw	final	raw	final	raw	final
Aluminum	200	6.6						
Antimony	5.0	1.5	anr					
Arsenic	10	2.8	anr					
Barium	200	.5	anr					
Beryllium	4.0	.3	anr					
Cadmium	5.0	.3	anr					
Calcium	1000	3.8						
Chromium	10	.4	anr					
Cobalt	50	.5						
Copper	25	.4	anr					
Iron	300	7.1						
Lead	5.0	1.2	2.0	<5.0	0.76	<5.0	1.7	<5.0
Magnesium	5000	9.9						
Manganese	15	.2						
Molybdenum	50	.8						
Nickel	40	1.1	anr					
Potassium	5000	14						
Selenium	10	2	anr					
Silver	10	.6	anr					
Sodium	5000	150						
Thallium	10	1.5	anr					
Tin	50	1.5						
Vanadium	50	.5						
Zinc	20	.6	anr					

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F31814
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IR051805.ASC
QC Limits: 90 to 110 % Recovery

Date Analyzed: 05/18/05
Run ID: MA4345

Methods: SW846 6010B
Units: ug/l

Time: Sample ID:		09:28 ICV1		09:52 CCV1		10:44 CCV2			
Metal	ICV	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum									
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt									
Copper	anr								
Iron									
Lead	2000	2010	100.5	2000	1980	99.0	2000	1980	99.0
Magnesium									
Manganese									
Molybdenum									
Nickel	anr								
Potassium									
Selenium	anr								
Silver	anr								
Sodium									
Thallium	anr								
Tin									
Vanadium									
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: F31814
 Account: EEINCJX - EEI
 Project: Camp Lejeune-LCH 4015

File ID: IR051805.ASC
 QC Limits: 95 to 105 % Recovery

Date Analyzed: 05/18/05
 Run ID: MA4345

Methods: SW846 6010B
 Units: ug/l

Time:		09:25	
Sample ID:		HSTD1	
Metal	HSTD	Results	% Rec
Aluminum			
Antimony	anr		
Arsenic	anr		
Barium	anr		
Beryllium	anr		
Cadmium	anr		
Calcium			
Chromium	anr		
Cobalt			
Copper	anr		
Iron			
Lead	4000	4000	100.0
Magnesium			
Manganese			
Molybdenum			
Nickel	anr		
Potassium			
Selenium	anr		
Silver	anr		
Sodium			
Thallium	anr		
Tin			
Vanadium			
Zinc	anr		

(*) Outside of QC limits
 (anr) Analyte not requested

7.1.4
7

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: F31814
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IR051805.ASC
QC Limits: 70 to 130 % Recovery

Date Analyzed: 05/18/05
Run ID: MA4345

Methods: SW846 6010B
Units: ug/l

Time: Sample ID:	CRI	CRIA	09:36 CRIA1	% Rec	09:41 CRIA1	% Rec
Metal	True	True	Results		Results	
Aluminum	400	200				
Antimony	10	5.0				
Arsenic	20	10				
Barium	400	200				
Beryllium	10	5.0				
Cadmium	10	5.0				
Calcium	2000	1000				
Chromium	20	10				
Cobalt	100	50				
Copper	50	25				
Iron	600	300				
Lead	10	5.0			11.7	117.0
Magnesium	10000	5000				
Manganese	30	15				
Molybdenum	100	50				
Nickel	80	40				
Potassium	10000	5000				
Selenium	10	5.0				
Silver	20	10				
Sodium	10000	5000				
Thallium	20	10				
Tin	100	50				
Vanadium	100	50				
Zinc	40	20				

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: F31814
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IR051805.ASC Date Analyzed: 05/18/05 Methods: SW846 6010B
QC Limits: 80 to 120 % Recovery Run ID: MA4345 Units: ug/l

Time: Sample ID:	ICSA True	ICSAB True	09:44 ICSA1 Results	% Rec	09:48 ICSAB1 Results	% Rec
Metal						
Aluminum	500000	500000	479000	95.8	476000	95.2
Antimony		1000	-2.5		1050	105.0
Arsenic		1000	2.7		1040	104.0
Barium		500	1.1		543	108.6
Beryllium		500	-0.61		520	104.0
Cadmium		1000	1.0		973	97.3
Calcium	500000	500000	445000	89.0	448000	89.6
Chromium		500	0.69		496	99.2
Cobalt		500	1.2		487	97.4
Copper		500	-0.44		558	111.6
Iron	200000	200000	189000	94.5	196000	98.0
Lead		1000	-1.2		960	96.0
Magnesium	500000	500000	496000	99.2	491000	98.2
Manganese		500	-0.11		515	103.0
Molybdenum		1000	3.2		999	99.9
Nickel		1000	0.65		969	96.9
Potassium			61.5		-340	
Selenium		1000	-6.7		1020	102.0
Silver		1000	-0.17		1040	104.0
Sodium			101		193	
Thallium		1000	3.1		947	94.7
Tin		1000	-0.87		990	99.0
Vanadium		500	-1.6		501	100.2
Zinc		1000	0.60		986	98.6

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F31814
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

QC Batch ID: MP8020
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 05/13/05

Metal	RL	IDL	MB raw	final
Aluminum	200	6.6		
Antimony	5.0	1.5		
Arsenic	10	2.8		
Barium	200	.5		
Beryllium	4.0	.3		
Cadmium	5.0	.3		
Calcium	1000	3.8		
Chromium	10	.4		
Cobalt	50	.5		
Copper	25	.4		
Iron	300	7.1		
Lead	5.0	1.2	0.54	<5.0
Magnesium	5000	9.9		
Manganese	15	.2		
Molybdenum	50	.8		
Nickel	40	1.1		
Potassium	5000	14		
Selenium	10	2		
Silver	10	.6		
Sodium	5000	150		
Thallium	10	1.5		
Tin	50	1.5		
Vanadium	50	.5		
Zinc	20	.6		

Associated samples MP8020: F31814-1, F31814-2, F31814-3, F31814-4, F31814-5

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F31814
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

QC Batch ID: MP8020
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 05/13/05 05/13/05

Metal	F31814-1 Original	DUP	RPD	QC Limits	F31814-1 Original	MS	Spikelot MPFLICP	% Rec	QC Limits
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead	0.0	2.0	200.0(a)	0-10	0.0	907	1000	90.7	84-118
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Tin									
Vanadium									
Zinc									

Associated samples MP8020: F31814-1, F31814-2, F31814-3, F31814-4, F31814-5

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) RPD acceptable due to low duplicate and sample concentrations.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F31814
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

QC Batch ID: MP8020
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 05/13/05

Metal	BSP Result	Spike lot MPFLICP	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead	917	1000	91.7	80-120
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Thallium				
Tin				
Vanadium				
Zinc				

Associated samples MP8020: F31814-1, F31814-2, F31814-3, F31814-4, F31814-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

7.2.3
7

SERIAL DILUTION RESULTS SUMMARY

Login Number: F31814
 Account: EEINCJX - EEI
 Project: Camp Lejeune-LCH 4015

QC Batch ID: MP8020
 Matrix Type: AQUEOUS

Methods: SW846 6010B
 Units: ug/l

Prep Date: 05/13/05

Metal	F31814-1 Original	SDL 1:5	RPD	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead	0.00	9.64		0-10
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Thallium				
Tin				
Vanadium				
Zinc				

Associated samples MP8020: F31814-1, F31814-2, F31814-3, F31814-4, F31814-5

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

November 2005 Groundwater Laboratory Report



01/16/06

Technical Report for

EEI

Camp Lejeune-LCH 4015

844271

Accutest Job Number: F36623

Sampling Date: 11/14/05

Report to:

EEI

bmorris@eeimail.com

ATTN: Bill Morris

Total number of pages in report: **123**



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: F36623

Camp Lejeune-LCH 4015
Project No: 844271

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
F36623-1	11/14/05	12:45 BS	11/15/05	AQ	Ground Water	UST4015-MW01
F36623-2	11/14/05	13:20 BS	11/15/05	AQ	Ground Water	USTLCH4015-MW23
F36623-3	11/14/05	13:55 BS	11/15/05	AQ	Ground Water	USTLCH4015-MW02
F36623-4	11/14/05	14:55 BS	11/15/05	AQ	Ground Water	USTLCH4015-MW20
F36623-5	11/14/05	00:00 BS	11/15/05	AQ	Ground Water	USTLCH4015-DUP

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: EEI

Job No: F36623

Site: Camp Lejeune-LCH 4015

Report Date: 12/2/2005 3:27:39 PM

5 Samples were collected on 11/14/2005 and were received at Accutest on 11/15/2005 properly preserved, at 1.4 Deg. C and intact. These Samples received an Accutest job number of F36623. 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.

Extractables by GCMS by Method EPA 625

Matrix: AQ

Batch ID: OP15045

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

Samples F36623-3MS, F36623-3MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

Matrix Spike and Matrix Spike Duplicate Recoverys for Benzidine are outside control limits. Probable cause due to matrix interference.

Volatiles by GC by Method EPA 601/602

Matrix: AQ

Batch ID: GEF3847

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Matrix: AQ

Batch ID: GEF3852

All samples were analyzed within the recommended method holding time.

Samples F36740-1MS, F36740-1MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

F36623-3: All hits confirmed by dual column analysis.

F36623-5: All hits confirmed by GC/MS.

F36623-3 for 1,2-Dichlorobenzene: Elevated reporting limits due to matrix interference.

F36623-5 for 1,2-Dichlorobenzene: Elevated reporting limits due to matrix interference.

Matrix: AQ

Batch ID: GEF3857

All samples were analyzed within the recommended method holding time.

Samples F36896-2MS, F36896-2MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

F36623-1: All hits confirmed by dual column analysis.

F36623-1 for 1,2-Dichlorobenzene: Elevated reporting limits due to matrix interference.

Metals by Method SW846 6010B

Matrix: AQ

Batch ID: MP8914

All samples were digested 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 F36623-1MS, F36623-1SDL, F36623-1DUP were used as the QC samples for metals.

RPD for Duplicate for Lead is outside control limits for sample MP8914-D1. RPD acceptable due to low duplicate and sample concentrations.

Friday, December 02, 2005

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: December 2, 2005

Friday, December 02, 2005

Report of Analysis

Page 1 of 3

Client Sample ID:	UST4015-MW01	Date Sampled:	11/14/05
Lab Sample ID:	F36623-1	Date Received:	11/15/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 625 EPA 625		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L028855.D	1	11/19/05	NJ	11/17/05	OP15045	SL1506
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

ABN PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	4.8	1.9	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	4.8	1.9	ug/l	
120-83-2	2,4-Dichlorophenol	ND	4.8	1.9	ug/l	
105-67-9	2,4-Dimethylphenol	ND	4.8	1.9	ug/l	
51-28-5	2,4-Dinitrophenol	ND	24	9.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	9.6	4.8	ug/l	
88-75-5	2-Nitrophenol	ND	4.8	1.9	ug/l	
100-02-7	4-Nitrophenol	ND	24	9.6	ug/l	
87-86-5	Pentachlorophenol	ND	24	9.6	ug/l	
108-95-2	Phenol	ND	4.8	1.9	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	4.8	1.9	ug/l	
83-32-9	Acenaphthene	ND	4.8	0.96	ug/l	
208-96-8	Acenaphthylene	ND	4.8	0.96	ug/l	
120-12-7	Anthracene	ND	4.8	0.96	ug/l	
92-87-5	Benzidine	ND	24	14	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	0.96	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	0.96	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.96	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	0.96	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	4.8	0.96	ug/l	
85-68-7	Butyl benzyl phthalate	ND	4.8	1.9	ug/l	
91-58-7	2-Chloronaphthalene	ND	4.8	0.96	ug/l	
106-47-8	4-Chloroaniline	ND	9.6	3.8	ug/l	
218-01-9	Chrysene	ND	4.8	0.96	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	4.8	0.96	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	4.8	1.9	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	4.8	0.96	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	4.8	0.96	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	4.8	0.96	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	4.8	0.96	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	4.8	0.96	ug/l	

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:	UST4015-MW01	Date Sampled:	11/14/05
Lab Sample ID:	F36623-1	Date Received:	11/15/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 625 EPA 625		
Project:	Camp Lejeune-LCH 4015		

ABN PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	4.8	0.96	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	4.8	1.9	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	4.8	1.9	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	9.6	4.8	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
84-74-2	Di-n-butyl phthalate	ND	4.8	1.9	ug/l	
117-84-0	Di-n-octyl phthalate	ND	4.8	2.4	ug/l	
84-66-2	Diethyl phthalate	ND	4.8	1.9	ug/l	
131-11-3	Dimethyl phthalate	ND	4.8	1.9	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	4.6	4.8	2.4	ug/l	J
206-44-0	Fluoranthene	ND	4.8	0.96	ug/l	
86-73-7	Fluorene	ND	4.8	0.96	ug/l	
118-74-1	Hexachlorobenzene	ND	4.8	0.96	ug/l	
87-68-3	Hexachlorobutadiene	ND	4.8	1.9	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	4.8	1.9	ug/l	
67-72-1	Hexachloroethane	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
78-59-1	Isophorone	ND	4.8	0.96	ug/l	
91-20-3	Naphthalene	105	4.8	0.96	ug/l	
98-95-3	Nitrobenzene	ND	4.8	0.96	ug/l	
62-75-9	N-Nitrosodimethylamine	ND	4.8	1.9	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	4.8	1.9	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	4.8	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.8	0.96	ug/l	
129-00-0	Pyrene	ND	4.8	0.96	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	4.8	0.96	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	40%		19-90%
4165-62-2	Phenol-d5	29%		10-68%
118-79-6	2,4,6-Tribromophenol	90%		36-137%
4165-60-0	Nitrobenzene-d5	76%		49-119%
321-60-8	2-Fluorobiphenyl	76%		45-118%
1718-51-0	Terphenyl-d14	72%		46-135%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
590-36-3	2-Pentanol, 2-methyl-	2.90	47	ug/l	JN
77-74-7	3-Pentanol, 3-methyl-	3.10	37	ug/l	JN

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: UST4015-MW01
Lab Sample ID: F36623-1
Matrix: AQ - Ground Water
Method: EPA 625 EPA 625
Project: Camp Lejeune-LCH 4015

Date Sampled: 11/14/05

Date Received: 11/15/05

Percent Solids: n/a

ABN PPL List

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
597-96-6	3-Hexanol, 3-methyl-	3.88	42	ug/l	JN
100-41-4	Ethylbenzene	4.03	98	ug/l	JN
611-14-3	Benzene, 1-ethyl-2-methyl-	4.76	39	ug/l	JN
108-67-8	Benzene, 1,3,5-trimethyl-	5.00	140	ug/l	JN
496-11-7	Indane	5.29	130	ug/l	JN
141-93-5	Benzene, 1,3-diethyl-	5.34	30	ug/l	JN
105-05-5	Benzene, 1,4-diethyl-	5.40	100	ug/l	JN
1074-17-5	Benzene, 1-methyl-2-propyl-	5.46	49	ug/l	JN
67398-38-3	Hydrazine, 1,1-diethyl-2-propyl-	5.71	50	ug/l	JN
824-22-6	1H-Indene, 2,3-dihydro-4-methyl-	6.04	68	ug/l	JN
1000201-99-67	Methylindan-1-one	8.00	170	ug/l	JN
97-54-1	Phenol, 2-methoxy-4-(1-propenyl)-	8.10	33	ug/l	JN
528-90-5	Benzoic acid, 2,4,5-trimethyl-	8.21	74	ug/l	JN
2049-95-8	Benzene, (1,1-dimethylpropyl)-	8.46	36	ug/l	JN
	unknown	8.53	68	ug/l	J
2243-53-0	3-Butenoic acid, 4-phenyl-	8.56	30	ug/l	JN
53155-90-1	Benzeneacetaldehyde, 2-methoxy-.alpha.,5	8.89	30	ug/l	JN
6682-69-5	1H-Inden-1-one, 2,3-dihydro-5,7-dimethyl	9.29	29	ug/l	JN
	Total TIC, Semi-Volatile		1300	ug/l	J

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

3.1
3

Client Sample ID:	UST4015-MW01		
Lab Sample ID:	F36623-1	Date Sampled:	11/14/05
Matrix:	AQ - Ground Water	Date Received:	11/15/05
Method:	EPA 601/602	Percent Solids:	n/a
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF056450.D	1	11/17/05	TD	n/a	n/a	GEF3847
Run #2 ^a	EF056700.D	5	11/28/05	TD	n/a	n/a	GEF3857

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

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	48.1	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	2.1	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene ^b	ND ^c	32	32	ug/l	
541-73-1	1,3-Dichlorobenzene	ND ^c	5.0	2.5	ug/l	
106-46-7	1,4-Dichlorobenzene	ND ^c	5.0	2.5	ug/l	
100-41-4	Ethylbenzene	143 ^c	5.0	2.5	ug/l	
1634-04-4	Methyl Tert Butyl Ether	7.2	1.0	0.50	ug/l	
108-88-3	Toluene	4.9	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	268 ^c	15	5.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	103%	103%	71-130%
98-08-8	aaa-Trifluorotoluene	103%	100%	71-124%

(a) All hits confirmed by dual column analysis.

(b) Elevated reporting limits due to matrix interference.

(c) Result is from Run# 2

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:	UST4015-MW01	Date Sampled:	11/14/05
Lab Sample ID:	F36623-1	Date Received:	11/15/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-LCH 4015		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	< 5.0	5.0	ug/l	1	11/15/05	11/16/05 RS	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA4672
(2) Prep QC Batch: MP8914

RL = Reporting Limit

Report of Analysis

Page 1 of 3

Client Sample ID:	USTLCH4015-MW23	Date Sampled:	11/14/05
Lab Sample ID:	F36623-2	Date Received:	11/15/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 625 EPA 625		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L028856.D	1	11/19/05	NJ	11/17/05	OP15045	SL1506
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

ABN PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	4.8	1.9	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	4.8	1.9	ug/l	
120-83-2	2,4-Dichlorophenol	ND	4.8	1.9	ug/l	
105-67-9	2,4-Dimethylphenol	ND	4.8	1.9	ug/l	
51-28-5	2,4-Dinitrophenol	ND	24	9.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	9.6	4.8	ug/l	
88-75-5	2-Nitrophenol	ND	4.8	1.9	ug/l	
100-02-7	4-Nitrophenol	ND	24	9.6	ug/l	
87-86-5	Pentachlorophenol	ND	24	9.6	ug/l	
108-95-2	Phenol	ND	4.8	1.9	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	4.8	1.9	ug/l	
83-32-9	Acenaphthene	ND	4.8	0.96	ug/l	
208-96-8	Acenaphthylene	ND	4.8	0.96	ug/l	
120-12-7	Anthracene	ND	4.8	0.96	ug/l	
92-87-5	Benzidine	ND	24	14	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	0.96	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	0.96	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.96	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	0.96	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	4.8	0.96	ug/l	
85-68-7	Butyl benzyl phthalate	ND	4.8	1.9	ug/l	
91-58-7	2-Chloronaphthalene	ND	4.8	0.96	ug/l	
106-47-8	4-Chloroaniline	ND	9.6	3.8	ug/l	
218-01-9	Chrysene	ND	4.8	0.96	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	4.8	0.96	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	4.8	1.9	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	4.8	0.96	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	4.8	0.96	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	4.8	0.96	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	4.8	0.96	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	4.8	0.96	ug/l	

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: USTLCH4015-MW23
Lab Sample ID: F36623-2
Matrix: AQ - Ground Water
Method: EPA 625 EPA 625
Project: Camp Lejeune-LCH 4015

Date Sampled: 11/14/05**Date Received:** 11/15/05**Percent Solids:** n/a

ABN PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	4.8	0.96	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	4.8	1.9	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	4.8	1.9	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	9.6	4.8	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
84-74-2	Di-n-butyl phthalate	ND	4.8	1.9	ug/l	
117-84-0	Di-n-octyl phthalate	ND	4.8	2.4	ug/l	
84-66-2	Diethyl phthalate	ND	4.8	1.9	ug/l	
131-11-3	Dimethyl phthalate	ND	4.8	1.9	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	4.8	2.4	ug/l	
206-44-0	Fluoranthene	ND	4.8	0.96	ug/l	
86-73-7	Fluorene	ND	4.8	0.96	ug/l	
118-74-1	Hexachlorobenzene	ND	4.8	0.96	ug/l	
87-68-3	Hexachlorobutadiene	ND	4.8	1.9	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	4.8	1.9	ug/l	
67-72-1	Hexachloroethane	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
78-59-1	Isophorone	ND	4.8	0.96	ug/l	
91-20-3	Naphthalene	ND	4.8	0.96	ug/l	
98-95-3	Nitrobenzene	ND	4.8	0.96	ug/l	
62-75-9	N-Nitrosodimethylamine	ND	4.8	1.9	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	4.8	1.9	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	4.8	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.8	0.96	ug/l	
129-00-0	Pyrene	ND	4.8	0.96	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	4.8	0.96	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	45%		19-90%
4165-62-2	Phenol-d5	28%		10-68%
118-79-6	2,4,6-Tribromophenol	90%		36-137%
4165-60-0	Nitrobenzene-d5	82%		49-119%
321-60-8	2-Fluorobiphenyl	83%		45-118%
1718-51-0	Terphenyl-d14	76%		46-135%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
994-05-8	Butane, 2-methoxy-2-methyl-	2.42	8.1	ug/l	JNB
590-36-3	2-Pentanol, 2-methyl-	2.90	15	ug/l	JN

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 3 of 3

Client Sample ID: USTLCH4015-MW23
Lab Sample ID: F36623-2
Matrix: AQ - Ground Water
Method: EPA 625 EPA 625
Project: Camp Lejeune-LCH 4015

Date Sampled: 11/14/05
Date Received: 11/15/05
Percent Solids: n/a

ABN PPL List

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
77-74-7	3-Pentanol, 3-methyl-	3.10	10	ug/l	JN
1462-03-9	Cyclopentanol, 1-methyl-	3.44	8.5	ug/l	JN
71105-17-4	1,2-Phenylene diisothiocyanate	9.04	6.4	ug/l	JN
10544-50-0	Cyclic octaatomic sulfur	13.37	25	ug/l	JN
	Total TIC, Semi-Volatile		64.9	ug/l	J

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:	USTLCH4015-MW23	Date Sampled:	11/14/05
Lab Sample ID:	F36623-2	Date Received:	11/15/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF056451.D	1	11/17/05	TD	n/a	n/a	GEF3847
Run #2	EF056566.D	1	11/21/05	TD	n/a	n/a	GEF3852

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

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	4.2	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND ^a	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND ^a	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND ^a	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	0.66	1.0	0.50	ug/l	J
1634-04-4	Methyl Tert Butyl Ether	17.9	1.0	0.50	ug/l	
108-88-3	Toluene	0.71	1.0	0.50	ug/l	J
1330-20-7	Xylenes (total)	1.3	3.0	1.0	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	93%	93%	71-130%
98-08-8	aaa-Trifluorotoluene	92%	97%	71-124%

(a) Result is from Run# 2

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:	USTLCH4015-MW23	Date Sampled:	11/14/05
Lab Sample ID:	F36623-2	Date Received:	11/15/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-LCH 4015		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	10.1	5.0	ug/l	1	11/15/05	11/16/05 RS	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA4672
(2) Prep QC Batch: MP8914

RL = Reporting Limit

Report of Analysis

Page 1 of 3

Client Sample ID:	USTLCH4015-MW02	Date Sampled:	11/14/05
Lab Sample ID:	F36623-3	Date Received:	11/15/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 625 EPA 625		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L028857.D	1	11/19/05	NJ	11/17/05	OP15045	SL1506
Run #2							

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

ABN PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.0	2.0	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	2.0	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.0	2.0	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	2.0	ug/l	
51-28-5	2,4-Dinitrophenol	ND	25	10	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	5.0	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	2.0	ug/l	
100-02-7	4-Nitrophenol	ND	25	10	ug/l	
87-86-5	Pentachlorophenol	ND	25	10	ug/l	
108-95-2	Phenol	ND	5.0	2.0	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	2.0	ug/l	
83-32-9	Acenaphthene	ND	5.0	1.0	ug/l	
208-96-8	Acenaphthylene	ND	5.0	1.0	ug/l	
120-12-7	Anthracene	ND	5.0	1.0	ug/l	
92-87-5	Benzidine	ND	25	15	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	1.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	1.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	1.0	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	1.0	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	1.0	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	2.0	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	10	4.0	ug/l	
218-01-9	Chrysene	ND	5.0	1.0	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	1.0	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	2.0	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	1.0	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	5.0	1.0	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.0	1.0	ug/l	

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: USTLCH4015-MW02
Lab Sample ID: F36623-3
Matrix: AQ - Ground Water
Method: EPA 625 EPA 625
Project: Camp Lejeune-LCH 4015

Date Sampled: 11/14/05**Date Received:** 11/15/05**Percent Solids:** n/a

ABN PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	5.0	1.0	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	5.0	2.0	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	5.0	2.0	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	10	5.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	2.0	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	2.0	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	2.5	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	2.0	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	2.0	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	5.0	2.5	ug/l	
206-44-0	Fluoranthene	ND	5.0	1.0	ug/l	
86-73-7	Fluorene	ND	5.0	1.0	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	1.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.0	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	5.0	2.0	ug/l	
67-72-1	Hexachloroethane	ND	5.0	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	2.0	ug/l	
78-59-1	Isophorone	ND	5.0	1.0	ug/l	
91-20-3	Naphthalene	2.3	5.0	1.0	ug/l	J
98-95-3	Nitrobenzene	ND	5.0	1.0	ug/l	
62-75-9	N-Nitrosodimethylamine	ND	5.0	2.0	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	2.0	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	2.0	ug/l	
85-01-8	Phenanthrene	ND	5.0	1.0	ug/l	
129-00-0	Pyrene	ND	5.0	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	47%		19-90%
4165-62-2	Phenol-d5	30%		10-68%
118-79-6	2,4,6-Tribromophenol	93%		36-137%
4165-60-0	Nitrobenzene-d5	79%		49-119%
321-60-8	2-Fluorobiphenyl	82%		45-118%
1718-51-0	Terphenyl-d14	70%		46-135%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
994-05-8	Butane, 2-methoxy-2-methyl-	2.42	9.3	ug/l	JNB
590-36-3	2-Pentanol, 2-methyl-	2.90	16	ug/l	JN

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: USTLCH4015-MW02
Lab Sample ID: F36623-3
Matrix: AQ - Ground Water
Method: EPA 625 EPA 625
Project: Camp Lejeune-LCH 4015

Date Sampled: 11/14/05
Date Received: 11/15/05
Percent Solids: n/a

ABN PPL List

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
77-74-7	3-Pentanol, 3-methyl-	3.10	13	ug/l	JN
1462-03-9	Cyclopentanol, 1-methyl-	3.44	15	ug/l	JN
625-23-0	2-Hexanol, 2-methyl-	3.78	5.5	ug/l	JN
589-63-9	4-Octanone	3.89	19	ug/l	JN
1462-03-9	Cyclopentanol, 1-methyl-	4.03	6.1	ug/l	JN
496-11-7	Indane	5.28	66	ug/l	JN
135-01-3	Benzene, 1,2-diethyl-	5.33	20	ug/l	JN
824-22-6	1H-Indene, 2,3-dihydro-4-methyl-	6.04	9.4	ug/l	JN
270-82-6	Benzo[c]thiophene	6.39	6.4	ug/l	JN
37570-14-2	Benzenecetic acid, ar-ethenyl-	8.42	7	ug/l	JN
480-72-8	Acenaphthylene, 1,2,2a,3,4,5-hexahydro-	10.06	9	ug/l	JN
28624-23-9	.delta.-Selinene	10.34	7.1	ug/l	JN
1719-06-8	Anthracene-d10-	11.21	5.8	ug/l	JN
1000129-24-12	Naphthylpropionic acid	11.94	7.3	ug/l	JN
1000110-74-67,8	Dimethylfurazano[f]quinoxaline	12.13	7.1	ug/l	JN
57-10-3	n-Hexadecanoic acid	12.37	11	ug/l	JN
10544-50-0	Cyclic octatomic sulfur	13.36	6.7	ug/l	JN
1000151-22-5	Cyclooctadecane, ethyl-	16.14	26	ug/l	JN
	Total TIC, Semi-Volatile		263.4	ug/l	J

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:	USTLCH4015-MW02	Date Sampled:	11/14/05
Lab Sample ID:	F36623-3	Date Received:	11/15/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF056452.D	1	11/17/05	TD	n/a	n/a	GEF3847
Run #2 ^a	EF056567.D	1	11/21/05	TD	n/a	n/a	GEF3852

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

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	1.5	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene ^b	ND ^c	120	120	ug/l	
541-73-1	1,3-Dichlorobenzene	ND ^c	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND ^c	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	2.0	1.0	0.50	ug/l	
1634-04-4	Methyl Tert Butyl Ether	49.6	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	5.6	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	89%	94%	71-130%
98-08-8	aaa-Trifluorotoluene	86%	97%	71-124%

(a) All hits confirmed by dual column analysis.

(b) Elevated reporting limits due to matrix interference.

(c) Result is from Run# 2

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:	USTLCH4015-MW02	Date Sampled:	11/14/05
Lab Sample ID:	F36623-3	Date Received:	11/15/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-LCH 4015		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	< 5.0	5.0	ug/l	1	11/15/05	11/16/05 RS	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA4672
(2) Prep QC Batch: MP8914

RL = Reporting Limit

Report of Analysis

Page 1 of 2

Client Sample ID:	USTLCH4015-MW20	Date Sampled:	11/14/05
Lab Sample ID:	F36623-4	Date Received:	11/15/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 625 EPA 625		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L028860.D	1	11/19/05	NJ	11/17/05	OP15045	SL1506
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

ABN PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	4.8	1.9	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	4.8	1.9	ug/l	
120-83-2	2,4-Dichlorophenol	ND	4.8	1.9	ug/l	
105-67-9	2,4-Dimethylphenol	ND	4.8	1.9	ug/l	
51-28-5	2,4-Dinitrophenol	ND	24	9.6	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	9.6	4.8	ug/l	
88-75-5	2-Nitrophenol	ND	4.8	1.9	ug/l	
100-02-7	4-Nitrophenol	ND	24	9.6	ug/l	
87-86-5	Pentachlorophenol	ND	24	9.6	ug/l	
108-95-2	Phenol	ND	4.8	1.9	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	4.8	1.9	ug/l	
83-32-9	Acenaphthene	ND	4.8	0.96	ug/l	
208-96-8	Acenaphthylene	ND	4.8	0.96	ug/l	
120-12-7	Anthracene	ND	4.8	0.96	ug/l	
92-87-5	Benzidine	ND	24	14	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	0.96	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	0.96	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	0.96	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	0.96	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	4.8	0.96	ug/l	
85-68-7	Butyl benzyl phthalate	ND	4.8	1.9	ug/l	
91-58-7	2-Chloronaphthalene	ND	4.8	0.96	ug/l	
106-47-8	4-Chloroaniline	ND	9.6	3.8	ug/l	
218-01-9	Chrysene	ND	4.8	0.96	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	4.8	0.96	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	4.8	1.9	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	4.8	0.96	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	4.8	0.96	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	4.8	0.96	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	4.8	0.96	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	4.8	0.96	ug/l	

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: USTLCH4015-MW20
Lab Sample ID: F36623-4
Matrix: AQ - Ground Water
Method: EPA 625 EPA 625
Project: Camp Lejeune-LCH 4015

Date Sampled: 11/14/05
Date Received: 11/15/05
Percent Solids: n/a

ABN PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	4.8	0.96	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	4.8	1.9	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	4.8	1.9	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	9.6	4.8	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.9	ug/l	
84-74-2	Di-n-butyl phthalate	ND	4.8	1.9	ug/l	
117-84-0	Di-n-octyl phthalate	ND	4.8	2.4	ug/l	
84-66-2	Diethyl phthalate	ND	4.8	1.9	ug/l	
131-11-3	Dimethyl phthalate	ND	4.8	1.9	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	4.8	2.4	ug/l	
206-44-0	Fluoranthene	ND	4.8	0.96	ug/l	
86-73-7	Fluorene	ND	4.8	0.96	ug/l	
118-74-1	Hexachlorobenzene	ND	4.8	0.96	ug/l	
87-68-3	Hexachlorobutadiene	ND	4.8	1.9	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	4.8	1.9	ug/l	
67-72-1	Hexachloroethane	ND	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.9	ug/l	
78-59-1	Isophorone	ND	4.8	0.96	ug/l	
91-20-3	Naphthalene	9.2	4.8	0.96	ug/l	
98-95-3	Nitrobenzene	ND	4.8	0.96	ug/l	
62-75-9	N-Nitrosodimethylamine	ND	4.8	1.9	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	4.8	1.9	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	4.8	1.9	ug/l	
85-01-8	Phenanthrene	ND	4.8	0.96	ug/l	
129-00-0	Pyrene	ND	4.8	0.96	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	4.8	0.96	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	41%		19-90%
4165-62-2	Phenol-d5	24%		10-68%
118-79-6	2,4,6-Tribromophenol	92%		36-137%
4165-60-0	Nitrobenzene-d5	81%		49-119%
321-60-8	2-Fluorobiphenyl	85%		45-118%
1718-51-0	Terphenyl-d14	81%		46-135%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
994-05-8	Butane, 2-methoxy-2-methyl-	2.42	8.2	ug/l	JNB
	Total TIC, Semi-Volatile		0	ug/l	

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:	USTLCH4015-MW20	Date Sampled:	11/14/05
Lab Sample ID:	F36623-4	Date Received:	11/15/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF056453.D	1	11/17/05	TD	n/a	n/a	GEF3847
Run #2	EF056568.D	1	11/21/05	TD	n/a	n/a	GEF3852

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

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND ^a	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND ^a	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND ^a	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	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	90%	88%	71-130%
98-08-8	aaa-Trifluorotoluene	90%	89%	71-124%

(a) Result is from Run# 2

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:	USTLCH4015-MW20	Date Sampled:	11/14/05
Lab Sample ID:	F36623-4	Date Received:	11/15/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-LCH 4015		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	< 5.0	5.0	ug/l	1	11/15/05	11/16/05 RS	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA4672
(2) Prep QC Batch: MP8914

RL = Reporting Limit

Report of Analysis

Page 1 of 3

Client Sample ID:	USTLCH4015-DUP	Date Sampled:	11/14/05
Lab Sample ID:	F36623-5	Date Received:	11/15/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 625 EPA 625		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L028861.D	1	11/19/05	NJ	11/17/05	OP15045	SL1506
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

ABN PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.3	2.1	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.3	2.1	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.3	2.1	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.3	2.1	ug/l	
51-28-5	2,4-Dinitrophenol	ND	26	11	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	5.3	ug/l	
88-75-5	2-Nitrophenol	ND	5.3	2.1	ug/l	
100-02-7	4-Nitrophenol	ND	26	11	ug/l	
87-86-5	Pentachlorophenol	ND	26	11	ug/l	
108-95-2	Phenol	ND	5.3	2.1	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.3	2.1	ug/l	
83-32-9	Acenaphthene	ND	5.3	1.1	ug/l	
208-96-8	Acenaphthylene	ND	5.3	1.1	ug/l	
120-12-7	Anthracene	ND	5.3	1.1	ug/l	
92-87-5	Benzidine	ND	26	16	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.3	1.1	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.3	1.1	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.3	1.1	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.3	2.1	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.3	1.1	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.3	1.1	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.3	2.1	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.3	1.1	ug/l	
106-47-8	4-Chloroaniline	ND	11	4.2	ug/l	
218-01-9	Chrysene	ND	5.3	1.1	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.3	1.1	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.3	2.1	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.3	1.1	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.3	1.1	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	5.3	1.1	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.3	1.1	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.3	1.1	ug/l	

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: USTLCH4015-DUP
Lab Sample ID: F36623-5
Matrix: AQ - Ground Water
Method: EPA 625 EPA 625
Project: Camp Lejeune-LCH 4015

Date Sampled: 11/14/05**Date Received:** 11/15/05**Percent Solids:** n/a

ABN PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	5.3	1.1	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	5.3	2.1	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	5.3	2.1	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	11	5.3	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.3	2.1	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.3	2.1	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.3	2.6	ug/l	
84-66-2	Diethyl phthalate	ND	5.3	2.1	ug/l	
131-11-3	Dimethyl phthalate	ND	5.3	2.1	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	5.3	2.6	ug/l	
206-44-0	Fluoranthene	ND	5.3	1.1	ug/l	
86-73-7	Fluorene	ND	5.3	1.1	ug/l	
118-74-1	Hexachlorobenzene	ND	5.3	1.1	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.3	2.1	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	5.3	2.1	ug/l	
67-72-1	Hexachloroethane	ND	5.3	2.1	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.3	2.1	ug/l	
78-59-1	Isophorone	ND	5.3	1.1	ug/l	
91-20-3	Naphthalene	2.1	5.3	1.1	ug/l	J
98-95-3	Nitrobenzene	ND	5.3	1.1	ug/l	
62-75-9	N-Nitrosodimethylamine	ND	5.3	2.1	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.3	2.1	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	2.1	ug/l	
85-01-8	Phenanthrene	ND	5.3	1.1	ug/l	
129-00-0	Pyrene	ND	5.3	1.1	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.3	1.1	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	43%		19-90%
4165-62-2	Phenol-d5	27%		10-68%
118-79-6	2,4,6-Tribromophenol	89%		36-137%
4165-60-0	Nitrobenzene-d5	78%		49-119%
321-60-8	2-Fluorobiphenyl	81%		45-118%
1718-51-0	Terphenyl-d14	76%		46-135%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
994-05-8	Butane, 2-methoxy-2-methyl-	2.42	10	ug/l	JNB
590-36-3	2-Pentanol, 2-methyl-	2.90	16	ug/l	JN

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: USTLCH4015-DUP
Lab Sample ID: F36623-5
Matrix: AQ - Ground Water
Method: EPA 625 EPA 625
Project: Camp Lejeune-LCH 4015

Date Sampled: 11/14/05
Date Received: 11/15/05
Percent Solids: n/a

ABN PPL List

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
77-74-7	3-Pentanol, 3-methyl-	3.10	13	ug/l	JN
1462-03-9	Cyclopentanol, 1-methyl-	3.44	15	ug/l	JN
625-23-0	2-Hexanol, 2-methyl-	3.78	5.4	ug/l	JN
19550-46-0	1,3-Dimethyl cyclopentanol	3.89	19	ug/l	JN
100-41-4	Ethylbenzene	4.03	6	ug/l	JN
496-11-7	Indane	5.28	70	ug/l	JN
141-93-5	Benzene, 1,3-diethyl-	5.33	18	ug/l	JN
824-22-6	1H-Indene, 2,3-dihydro-4-methyl-	6.04	9.3	ug/l	JN
270-82-6	Benzo[c]thiophene	6.39	6.6	ug/l	JN
4565-32-6	Benzo[b]thiophene, 2,3-dihydro-	6.84	5.7	ug/l	JN
37570-14-2	Benzeneacetic acid, ar-ethenyl-	8.42	6.1	ug/l	JN
13153-78-1	1,4-Ethanonaphthalen-2-ol, 1,2,3,4-tetra	10.06	8.1	ug/l	JN
1000129-24-12	Naphthylpropionic acid	11.94	7	ug/l	JN
10544-50-0	Cyclic octaatomic sulfur	13.36	8.2	ug/l	JN
53690-89-4	2-Cyclopenten-1-one, 5-butyl-3-methoxy-	14.34	14	ug/l	JN
294-62-2	Cyclododecane	16.14	21	ug/l	JN
	Total TIC, Semi-Volatile		248.4	ug/l	J

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:	USTLCH4015-DUP	Date Sampled:	11/14/05
Lab Sample ID:	F36623-5	Date Received:	11/15/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF056454.D	1	11/17/05	TD	n/a	n/a	GEF3847
Run #2 ^a	EF056569.D	1	11/21/05	TD	n/a	n/a	GEF3852

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

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	1.9	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene ^b	ND ^c	130	130	ug/l	
541-73-1	1,3-Dichlorobenzene	ND ^c	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND ^c	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	2.3	1.0	0.50	ug/l	
1634-04-4	Methyl Tert Butyl Ether	50.1	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
1330-20-7	Xylenes (total)	10.7	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	94%	95%	71-130%
98-08-8	aaa-Trifluorotoluene	93%	99%	71-124%

(a) All hits confirmed by GC/MS.

(b) Elevated reporting limits due to matrix interference.

(c) Result is from Run# 2

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:	USTLCH4015-DUP	Date Sampled:	11/14/05
Lab Sample ID:	F36623-5	Date Received:	11/15/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-LCH 4015		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	< 5.0	5.0	ug/l	1	11/15/05	11/16/05 RS	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA4672
(2) Prep QC Batch: MP8914

RL = Reporting Limit

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 #: **F36623**
ACCUTEST QUOTE #:

CLIENT INFORMATION			FACILITY INFORMATION			ANALYTICAL INFORMATION										MATRIX CODES	
Engineering + Environment NAME: 924 Sun Branch Rd Suite 5 ADDRESS: Jacksonville, NC 28590 CITY: Bill Morris STATE: ZIP: SEND REPORT TO: PHONE #: 910-989-3214			PROJECT NAME: LCH 4015 LOCATION: PROJECT NO.: FAX #: 910-989-3214			602 625 v/d Tics 630.300-7 PB 60108										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		SAMPLED BY:	MATRIX	PRESERVATION										LAB USE ONLY	
		DATE	TIME			NO	YES	NO	YES	NO	YES	NO	YES	NO			
1	U5T4015-MW01	11/14/05	12:46		GW	6	X	X	X	3	2	1					
2	U5T4015-MW23	11/14/05	13:20		GW	6	Y	Y	Y	3	2	1					
3	U5T4015-MW02	11/14/05	13:55		GW	6	Y	Y	X	3	2	1					
4	U5T4015-MW20	11/14/05	14:55		GW	6	X	X	Y	3	2	1					
5	U5T4015-D41	11/14/05			GW	6	X	Y	Y	3	2	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			☐ STANDARD ☐ COMMERCIAL "B" ☐ DISK DELIVERABLE ☐ STATE FORMS ☒ OTHER (SPECIFY) <u>Neos 4</u>														
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY																	
RELINQUISHED BY: 1. <u>Bob Jellison</u>		DATE TIME: <u>11/14/05</u>		RECEIVED BY: 1. <u>FX</u>		RELINQUISHED BY: 2. <u>FX</u>		DATE TIME: <u>11-15-05</u>		RECEIVED BY: 2. <u>Stuart Brown</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 <u>1.4</u> C					

F36623: Chain of Custody

Page 1 of 2

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: **F36623** CLIENT: Eng. + Env. PROJECT: LCH 4015
 DATE/TIME RECEIVED: 11-15-05/ 4:00 # OF COOLERS RECEIVED: 1 COOLER TEMPS: 1.4
 METHOD OF DELIVERY: FEDEx UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER
 AIRBILL NUMBERS: 8530-2647-5720

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 ? 2
 NUMBER OF 5035 FIELD KITS ? 2

SUMMARY OF COMMENTS:

TECHNICIAN SIGNATURE/DATE: [Signature] 11-15-05 TECHNICIAN SIGNATURE/DATE

ASR006/22/05

F36623: Chain of Custody

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GC/MS Semi-volatiles

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QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (DFTPP)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

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Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP15045-MB	L028853.D	1	11/19/05	NJ	11/17/05	OP15045	SL1506

The QC reported here applies to the following samples:

Method: EPA 625

F36623-1, F36623-2, F36623-3, F36623-4, F36623-5

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.0	2.0	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	2.0	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.0	2.0	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	2.0	ug/l	
51-28-5	2,4-Dinitrophenol	ND	25	10	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	5.0	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	2.0	ug/l	
100-02-7	4-Nitrophenol	ND	25	10	ug/l	
87-86-5	Pentachlorophenol	ND	25	10	ug/l	
108-95-2	Phenol	ND	5.0	2.0	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	2.0	ug/l	
83-32-9	Acenaphthene	ND	5.0	1.0	ug/l	
208-96-8	Acenaphthylene	ND	5.0	1.0	ug/l	
120-12-7	Anthracene	ND	5.0	1.0	ug/l	
92-87-5	Benzidine	ND	25	15	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	1.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	1.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	1.0	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	1.0	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	1.0	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	2.0	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	10	4.0	ug/l	
218-01-9	Chrysene	ND	5.0	1.0	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	1.0	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	2.0	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	1.0	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	5.0	1.0	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.0	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	5.0	1.0	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	5.0	2.0	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	5.0	2.0	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	10	5.0	ug/l	

Method Blank Summary

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Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP15045-MB	L028853.D	1	11/19/05	NJ	11/17/05	OP15045	SL1506

The QC reported here applies to the following samples:

Method: EPA 625

F36623-1, F36623-2, F36623-3, F36623-4, F36623-5

CAS No.	Compound	Result	RL	MDL	Units	Q
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	2.0	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	2.0	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	2.5	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	2.0	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	2.0	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	5.0	2.5	ug/l	
206-44-0	Fluoranthene	ND	5.0	1.0	ug/l	
86-73-7	Fluorene	ND	5.0	1.0	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	1.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.0	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	5.0	2.0	ug/l	
67-72-1	Hexachloroethane	ND	5.0	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	2.0	ug/l	
78-59-1	Isophorone	ND	5.0	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
98-95-3	Nitrobenzene	ND	5.0	1.0	ug/l	
62-75-9	N-Nitrosodimethylamine	ND	5.0	2.0	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	2.0	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	2.0	ug/l	
85-01-8	Phenanthrene	ND	5.0	1.0	ug/l	
129-00-0	Pyrene	ND	5.0	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Limits
367-12-4	2-Fluorophenol	56% 19-90%
4165-62-2	Phenol-d5	37% 10-68%
118-79-6	2,4,6-Tribromophenol	95% 36-137%
4165-60-0	Nitrobenzene-d5	85% 49-119%
321-60-8	2-Fluorobiphenyl	87% 45-118%
1718-51-0	Terphenyl-d14	87% 46-135%

Method Blank Summary

Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP15045-MB	L028853.D	1	11/19/05	NJ	11/17/05	OP15045	SL1506

The QC reported here applies to the following samples:

Method:

F36623-1, F36623-2, F36623-3, F36623-4, F36623-5

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
994-05-8	Butane, 2-methoxy-2-methyl-	2.41	9.1	ug/l	JN
	Total TIC, Semi-Volatile		9.1	ug/l	J

Blank Spike Summary

Page 1 of 2

Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP15045-BS	L028852.D	1	11/19/05	NJ	11/17/05	OP15045	SL1506

The QC reported here applies to the following samples:

Method: EPA 625

F36623-1, F36623-2, F36623-3, F36623-4, F36623-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
95-57-8	2-Chlorophenol	50	41.1	82	62-103
59-50-7	4-Chloro-3-methyl phenol	50	44.3	89	64-103
120-83-2	2,4-Dichlorophenol	50	45.9	92	59-103
105-67-9	2,4-Dimethylphenol	50	34.2	68	43-94
51-28-5	2,4-Dinitrophenol	100	82.1	82	12-125
534-52-1	4,6-Dinitro-o-cresol	100	86.8	87	47-119
88-75-5	2-Nitrophenol	50	50.7	101	64-104
100-02-7	4-Nitrophenol	100	39.4	39	22-50
87-86-5	Pentachlorophenol	100	92.9	93	50-111
108-95-2	Phenol	50	20.1	40	25-53
88-06-2	2,4,6-Trichlorophenol	50	47.0	94	60-103
83-32-9	Acenaphthene	50	42.8	86	62-101
208-96-8	Acenaphthylene	50	41.8	84	65-113
120-12-7	Anthracene	50	43.4	87	69-107
92-87-5	Benzidine	50	30.8	62	10-125
56-55-3	Benzo(a)anthracene	50	44.5	89	68-106
50-32-8	Benzo(a)pyrene	50	45.4	91	70-114
205-99-2	Benzo(b)fluoranthene	50	46.2	92	68-110
191-24-2	Benzo(g,h,i)perylene	50	44.3	89	63-115
207-08-9	Benzo(k)fluoranthene	50	46.1	92	68-112
101-55-3	4-Bromophenyl phenyl ether	50	48.0	96	73-103
85-68-7	Butyl benzyl phthalate	50	49.1	98	69-108
91-58-7	2-Chloronaphthalene	50	41.4	83	64-102
106-47-8	4-Chloroaniline	50	40.6	81	57-104
218-01-9	Chrysene	50	43.7	87	68-103
111-91-1	bis(2-Chloroethoxy)methane	50	43.2	86	57-103
111-44-4	bis(2-Chloroethyl)ether	50	45.5	91	64-106
108-60-1	bis(2-Chloroisopropyl)ether	50	40.3	81	52-120
7005-72-3	4-Chlorophenyl phenyl ether	50	45.8	92	71-104
95-50-1	1,2-Dichlorobenzene	50	38.8	78	62-100
122-66-7	1,2-Diphenylhydrazine	50	43.6	87	65-105
541-73-1	1,3-Dichlorobenzene	50	37.6	75	59-99
106-46-7	1,4-Dichlorobenzene	50	37.4	75	60-101
121-14-2	2,4-Dinitrotoluene	50	42.6	85	65-111
606-20-2	2,6-Dinitrotoluene	50	44.5	89	77-111
91-94-1	3,3'-Dichlorobenzidine	50	42.5	85	42-110

Blank Spike Summary

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Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP15045-BS	L028852.D	1	11/19/05	NJ	11/17/05	OP15045	SL1506

The QC reported here applies to the following samples:

Method: EPA 625

F36623-1, F36623-2, F36623-3, F36623-4, F36623-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
53-70-3	Dibenzo(a,h)anthracene	50	43.3	87	62-115
84-74-2	Di-n-butyl phthalate	50	46.1	92	68-109
117-84-0	Di-n-octyl phthalate	50	56.7	113	63-120
84-66-2	Diethyl phthalate	50	46.2	92	64-110
131-11-3	Dimethyl phthalate	50	46.8	94	44-120
117-81-7	bis(2-Ethylhexyl)phthalate	50	50.2	100	64-115
206-44-0	Fluoranthene	50	42.6	85	68-111
86-73-7	Fluorene	50	42.7	85	66-105
118-74-1	Hexachlorobenzene	50	43.3	87	69-103
87-68-3	Hexachlorobutadiene	50	41.2	82	55-90
77-47-4	Hexachlorocyclopentadiene	50	20.5	41	26-95
67-72-1	Hexachloroethane	50	36.3	73	59-104
193-39-5	Indeno(1,2,3-cd)pyrene	50	46.1	92	63-118
78-59-1	Isophorone	50	42.8	86	64-107
91-20-3	Naphthalene	50	40.4	81	62-101
98-95-3	Nitrobenzene	50	42.9	86	61-106
62-75-9	N-Nitrosodimethylamine	50	22.9	46	12-78
621-64-7	N-Nitroso-di-n-propylamine	50	37.1	74	64-109
86-30-6	N-Nitrosodiphenylamine	50	45.2	90	69-114
85-01-8	Phenanthrene	50	43.3	87	68-104
129-00-0	Pyrene	50	46.7	93	64-105
120-82-1	1,2,4-Trichlorobenzene	50	40.8	82	64-101

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	57%	19-90%
4165-62-2	Phenol-d5	36%	10-68%
118-79-6	2,4,6-Tribromophenol	89%	36-137%
4165-60-0	Nitrobenzene-d5	83%	49-119%
321-60-8	2-Fluorobiphenyl	86%	45-118%
1718-51-0	Terphenyl-d14	88%	46-135%

Matrix Spike/Matrix Spike Duplicate Summary

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Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP15045-MS	L028858.D	1	11/19/05	NJ	11/17/05	OP15045	SL1506
OP15045-MSD	L028859.D	1	11/19/05	NJ	11/17/05	OP15045	SL1506
F36623-3	L028857.D	1	11/19/05	NJ	11/17/05	OP15045	SL1506

The QC reported here applies to the following samples:

Method: EPA 625

F36623-1, F36623-2, F36623-3, F36623-4, F36623-5

CAS No.	Compound	F36623-3 ug/l	Spike Q	ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
95-57-8	2-Chlorophenol	ND		100	81.0	81	81.0	81	0	53-102/24
59-50-7	4-Chloro-3-methyl phenol	ND		100	87.5	88	86.4	86	1	60-101/18
120-83-2	2,4-Dichlorophenol	ND		100	90.2	90	88.7	89	2	55-100/24
105-67-9	2,4-Dimethylphenol	ND		100	78.5	79	77.8	78	1	36-98/26
51-28-5	2,4-Dinitrophenol	ND		200	176	88	180	90	2	14-135/39
534-52-1	4,6-Dinitro-o-cresol	ND		200	184	92	186	93	1	40-127/24
88-75-5	2-Nitrophenol	ND		100	100	100	101	101	1	53-104/25
100-02-7	4-Nitrophenol	ND		200	111	56	112	56	1	32-81/28
87-86-5	Pentachlorophenol	ND		200	193	97	199	100	3	44-118/16
108-95-2	Phenol	ND		100	53.8	54	53.2	53	1	31-77/26
88-06-2	2,4,6-Trichlorophenol	ND		100	92.2	92	92.8	93	1	55-103/21
83-32-9	Acenaphthene	ND		100	84.3	84	85.1	85	1	55-103/20
208-96-8	Acenaphthylene	ND		100	82.2	82	82.1	82	0	55-113/20
120-12-7	Anthracene	ND		100	86.9	87	86.5	87	0	66-105/14
92-87-5	Benzidine	ND		100	ND	0*	ND	0*	nc	10-125/50
56-55-3	Benzo(a)anthracene	ND		100	85.7	86	86.7	87	1	65-103/16
50-32-8	Benzo(a)pyrene	ND		100	89.4	89	88.2	88	1	65-113/16
205-99-2	Benzo(b)fluoranthene	ND		100	89.8	90	87.5	88	3	62-110/17
191-24-2	Benzo(g,h,i)perylene	ND		100	92.7	93	90.0	90	3	58-111/17
207-08-9	Benzo(k)fluoranthene	ND		100	89.3	89	87.6	88	2	63-110/17
101-55-3	4-Bromophenyl phenyl ether	ND		100	94.4	94	93.9	94	1	68-102/16
85-68-7	Butyl benzyl phthalate	ND		100	92.1	92	92.6	93	1	65-108/17
91-58-7	2-Chloronaphthalene	ND		100	83.3	83	82.9	83	0	58-101/22
106-47-8	4-Chloroaniline	ND		100	75.6	76	72.7	73	4	39-101/21
218-01-9	Chrysene	ND		100	86.0	86	86.7	87	1	65-100/18
111-91-1	bis(2-Chloroethoxy)methane	ND		100	83.9	84	83.7	84	0	49-100/24
111-44-4	bis(2-Chloroethyl)ether	ND		100	88.2	88	86.5	87	2	54-103/24
108-60-1	bis(2-Chloroisopropyl)ether	ND		100	77.7	78	76.6	77	1	49-109/22
7005-72-3	4-Chlorophenyl phenyl ether	ND		100	88.4	88	90.0	90	2	65-103/18
95-50-1	1,2-Dichlorobenzene	ND		100	80.5	81	79.3	79	2	50-101/22
122-66-7	1,2-Diphenylhydrazine	ND		100	88.0	88	87.1	87	1	61-101/17
541-73-1	1,3-Dichlorobenzene	ND		100	79.0	79	78.8	79	0	50-100/23
106-46-7	1,4-Dichlorobenzene	ND		100	78.8	79	79.1	79	0	51-101/23
121-14-2	2,4-Dinitrotoluene	ND		100	80.1	80	82.7	83	3	60-110/16
606-20-2	2,6-Dinitrotoluene	ND		100	85.8	86	86.2	86	0	60-111/19
91-94-1	3,3' -Dichlorobenzidine	ND		100	52.8	53	53.2	53	1	18-112/22

Matrix Spike/Matrix Spike Duplicate Summary

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Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP15045-MS	L028858.D	1	11/19/05	NJ	11/17/05	OP15045	SL1506
OP15045-MSD	L028859.D	1	11/19/05	NJ	11/17/05	OP15045	SL1506
F36623-3	L028857.D	1	11/19/05	NJ	11/17/05	OP15045	SL1506

The QC reported here applies to the following samples:

Method: EPA 625

F36623-1, F36623-2, F36623-3, F36623-4, F36623-5

CAS No.	Compound	F36623-3 ug/l	Spike Q	ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
53-70-3	Dibenzo(a,h)anthracene	ND		100	91.2	91	87.9	88	4	57-111/20
84-74-2	Di-n-butyl phthalate	ND		100	87.4	87	88.9	89	2	63-107/17
117-84-0	Di-n-octyl phthalate	ND		100	102	102	101	101	1	58-126/23
84-66-2	Diethyl phthalate	ND		100	87.3	87	87.2	87	0	59-110/18
131-11-3	Dimethyl phthalate	ND		100	89.8	90	89.4	89	0	40-116/25
117-81-7	bis(2-Ethylhexyl)phthalate	ND		100	94.4	94	94.9	95	1	55-120/22
206-44-0	Fluoranthene	ND		100	83.6	84	82.8	83	1	62-108/17
86-73-7	Fluorene	ND		100	84.2	84	83.0	83	1	60-105/17
118-74-1	Hexachlorobenzene	ND		100	87.5	88	85.9	86	2	64-102/16
87-68-3	Hexachlorobutadiene	ND		100	84.9	85	85.8	86	1	45-93/26
77-47-4	Hexachlorocyclopentadiene	ND		100	49.7	50	47.2	47	5	20-92/34
67-72-1	Hexachloroethane	ND		100	87.3	87	89.4	89	2	51-105/26
193-39-5	Indeno(1,2,3-cd)pyrene	ND		100	95.4	95	92.4	92	3	61-111/19
78-59-1	Isophorone	ND		100	83.6	84	84.3	84	1	59-103/23
91-20-3	Naphthalene	2.3	J	100	84.1	82	85.0	83	1	52-102/23
98-95-3	Nitrobenzene	ND		100	84.1	84	85.4	85	2	51-103/25
62-75-9	N-Nitrosodimethylamine	ND		100	60.1	60	59.1	59	2	20-91/29
621-64-7	N-Nitroso-di-n-propylamine	ND		100	70.9	71	72.2	72	2	57-103/24
86-30-6	N-Nitrosodiphenylamine	ND		100	88.8	89	89.6	90	1	62-112/16
85-01-8	Phenanthrene	ND		100	85.1	85	87.2	87	2	64-103/15
129-00-0	Pyrene	ND		100	90.3	90	90.6	91	0	59-107/21
120-82-1	1,2,4-Trichlorobenzene	ND		100	84.4	84	83.9	84	1	54-102/24

CAS No.	Surrogate Recoveries	MS	MSD	F36623-3	Limits
367-12-4	2-Fluorophenol	68%	66%	47%	19-90%
4165-62-2	Phenol-d5	49%	48%	30%	10-68%
118-79-6	2,4,6-Tribromophenol	91%	92%	93%	36-137%
4165-60-0	Nitrobenzene-d5	82%	83%	79%	49-119%
321-60-8	2-Fluorobiphenyl	84%	85%	82%	45-118%
1718-51-0	Terphenyl-d14	90%	80%	70%	46-135%

Instrument Performance Check (DFTPP)

Page 1 of 1

Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: SL1505-DFTPP
Lab File ID: L028816.D
Instrument ID: GCMSL
Injection Date: 11/18/05
Injection Time: 11:27

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	89884	44.9	Pass
68	Less than 2.0% of mass 69	0	0.0 (0.0) ^a	Pass
69	Mass 69 relative abundance	76038	38.0	Pass
70	Less than 2.0% of mass 69	491	0.25 (0.65) ^a	Pass
127	40.0 - 60.0% of mass 198	101296	50.6	Pass
197	Less than 1.0% of mass 198	238	0.12	Pass
198	Base peak, 100% relative abundance	200112	100.0	Pass
199	5.0 - 9.0% of mass 198	13899	6.9	Pass
275	10.0 - 30.0% of mass 198	41677	20.8	Pass
365	1.0 - 100.0% of mass 198	3611	1.8	Pass
441	Present, but less than mass 443	19855	9.9 (75.8) ^b	Pass
442	40.0 - 100.0% of mass 198	137339	68.6	Pass
443	17.0 - 23.0% of mass 442	26178	13.1 (19.1) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
SL1505-IC1505	L028818.D	11/18/05	12:16	00:49	Initial cal 5
SL1505-IC1505	L028819.D	11/18/05	12:46	01:19	Initial cal 25
SL1505-IC1505	L028820.D	11/18/05	13:16	01:49	Initial cal 50
SL1505-ICC1505	L028821.D	11/18/05	13:46	02:19	Initial cal 75
SL1505-IC1505	L028822.D	11/18/05	14:17	02:50	Initial cal 100
SL1505-IC1505	L028823.D	11/18/05	14:48	03:21	Initial cal 125
SL1505-ICV1505	L028824.D	11/18/05	15:23	03:56	Initial cal verification 50
SL1505-ICV1505	L028825.D	11/18/05	15:53	04:26	Initial cal verification 50

Instrument Performance Check (DFTPP)

Page 1 of 2

Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: SL1506-DFTPP
Lab File ID: L028826.D
Instrument ID: GCMSL
Injection Date: 11/18/05
Injection Time: 16:23

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	82509	41.4	Pass
68	Less than 2.0% of mass 69	0	0.0 (0.0) ^a	Pass
69	Mass 69 relative abundance	70818	35.6	Pass
70	Less than 2.0% of mass 69	395	0.2 (0.56) ^a	Pass
127	40.0 - 60.0% of mass 198	96360	48.4	Pass
197	Less than 1.0% of mass 198	0	0.0	Pass
198	Base peak, 100% relative abundance	199155	100.0	Pass
199	5.0 - 9.0% of mass 198	13931	7.0	Pass
275	10.0 - 30.0% of mass 198	42581	21.4	Pass
365	1.0 - 100.0% of mass 198	3869	1.9	Pass
441	Present, but less than mass 443	20464	10.3 (71.5) ^b	Pass
442	40.0 - 100.0% of mass 198	144787	72.7	Pass
443	17.0 - 23.0% of mass 442	28637	14.4 (19.8) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
SL1506-CC1505	L028827.D	11/18/05	16:43	00:20	Continuing cal 50
OP15037-BS	L028828.D	11/18/05	17:13	00:50	Blank Spike
OP15037-MB	L028829.D	11/18/05	17:44	01:21	Method Blank
ZZZZZZ	L028830.D	11/18/05	18:13	01:50	(unrelated sample)
T11857-1	L028831.D	11/18/05	18:43	02:20	(used for QC only; not part of job F36623)
OP15037-MS	L028832.D	11/18/05	19:13	02:50	Matrix Spike
OP15037-MSD	L028833.D	11/18/05	19:43	03:20	Matrix Spike Duplicate
ZZZZZZ	L028834.D	11/18/05	20:13	03:50	(unrelated sample)
ZZZZZZ	L028835.D	11/18/05	20:43	04:20	(unrelated sample)
ZZZZZZ	L028836.D	11/18/05	21:13	04:50	(unrelated sample)
ZZZZZZ	L028837.D	11/18/05	21:43	05:20	(unrelated sample)
ZZZZZZ	L028838.D	11/18/05	22:13	05:50	(unrelated sample)
OP14996-MB	L028839.D	11/18/05	22:43	06:20	Method Blank
ZZZZZZ	L028840.D	11/18/05	23:13	06:50	(unrelated sample)
ZZZZZZ	L028841.D	11/18/05	23:43	07:20	(unrelated sample)
ZZZZZZ	L028842.D	11/19/05	00:13	07:50	(unrelated sample)
ZZZZZZ	L028843.D	11/19/05	00:43	08:20	(unrelated sample)
ZZZZZZ	L028844.D	11/19/05	01:13	08:50	(unrelated sample)
ZZZZZZ	L028845.D	11/19/05	01:43	09:20	(unrelated sample)

Instrument Performance Check (DFTPP)

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Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: SL1506-DFTPP
Lab File ID: L028826.D
Instrument ID: GCMSL
Injection Date: 11/18/05
Injection Time: 16:23

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	L028846.D	11/19/05	02:13	09:50	(unrelated sample)
ZZZZZZ	L028847.D	11/19/05	02:43	10:20	(unrelated sample)
OP15045-BS	L028852.D	11/19/05	05:13	12:50	Blank Spike
OP15045-MB	L028853.D	11/19/05	05:43	13:20	Method Blank
ZZZZZZ	L028854.D	11/19/05	06:13	13:50	(unrelated sample)
F36623-1	L028855.D	11/19/05	06:43	14:20	UST4015-MW01
F36623-2	L028856.D	11/19/05	07:13	14:50	USTLCH4015-MW23
F36623-3	L028857.D	11/19/05	07:43	15:20	USTLCH4015-MW02
OP15045-MS	L028858.D	11/19/05	08:14	15:51	Matrix Spike
OP15045-MSD	L028859.D	11/19/05	08:45	16:22	Matrix Spike Duplicate
F36623-4	L028860.D	11/19/05	09:15	16:52	USTLCH4015-MW20
F36623-5	L028861.D	11/19/05	09:45	17:22	USTLCH4015-DUP
ZZZZZZ	L028862.D	11/19/05	10:15	17:52	(unrelated sample)
ZZZZZZ	L028863.D	11/19/05	10:45	18:22	(unrelated sample)
ZZZZZZ	L028864.D	11/19/05	11:16	18:53	(unrelated sample)
ZZZZZZ	L028865.D	11/19/05	11:46	19:23	(unrelated sample)
ZZZZZZ	L028866.D	11/19/05	12:16	19:53	(unrelated sample)
ZZZZZZ	L028867.D	11/19/05	12:45	20:22	(unrelated sample)
ZZZZZZ	L028868.D	11/19/05	13:15	20:52	(unrelated sample)
ZZZZZZ	L028869.D	11/19/05	13:45	21:22	(unrelated sample)

Semivolatile Internal Standard Area Summary

Page 1 of 2

Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std: SL1506-CC1505	Injection Date: 11/18/05
Lab File ID: L028827.D	Injection Time: 16:43
Instrument ID: GCMSL	Method: EPA 625

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	195270	5.13	730513	6.31	384682	8.61	576343	11.11	460129	16.05	475064	18.55
Upper Limit ^a	390540	5.63	1461026	6.81	769364	9.11	1152686	11.61	920258	16.55	950128	19.05
Lower Limit ^b	97635	4.63	365257	5.81	192341	8.11	288172	10.61	230065	15.55	237532	18.05

Lab Sample ID	IS 1 AREA	IS 1 RT	IS 2 AREA	IS 2 RT	IS 3 AREA	IS 3 RT	IS 4 AREA	IS 4 RT	IS 5 AREA	IS 5 RT	IS 6 AREA	IS 6 RT
OP15037-BS	182874	5.13	669991	6.31	353189	8.61	515101	11.11	380331	16.05	350109	18.55
OP15037-MB	184843	5.14	669512	6.31	334230	8.60	474955	11.11	365666	16.04	320782	18.55
ZZZZZZ	195250	5.14	707728	6.31	356553	8.60	501067	11.11	379644	16.04	346861	18.54
T11857-1	186884	5.14	684333	6.31	347002	8.60	503304	11.11	388811	16.04	356789	18.55
OP15037-MS	191425	5.13	695373	6.31	352489	8.61	520463	11.11	381167	16.05	366328	18.55
OP15037-MSD	190331	5.13	706332	6.31	360712	8.61	519203	11.11	376407	16.05	363777	18.55
ZZZZZZ	200362	5.14	725418	6.31	371687	8.60	528859	11.11	399168	16.04	358340	18.55
ZZZZZZ	199103	5.13	730472	6.31	369012	8.60	524471	11.11	396423	16.04	371588	18.55
ZZZZZZ	205437	5.14	745841	6.31	377723	8.60	550815	11.11	409353	16.05	375783	18.55
ZZZZZZ	206281	5.13	742343	6.31	373443	8.61	542480	11.11	414329	16.04	384801	18.55
ZZZZZZ	210725	5.13	752614	6.31	382510	8.61	547630	11.11	419072	16.04	383853	18.55
OP14996-MB	219440	5.13	782244	6.31	409817	8.61	602375	11.11	472605	16.05	434896	18.55
ZZZZZZ	193831	5.14	705923	6.31	363171	8.60	534983	11.11	428562	16.05	400607	18.55
ZZZZZZ	205785	5.13	730914	6.31	376363	8.61	539014	11.12	405691	16.05	383392	18.55
ZZZZZZ	187331	5.13	672701	6.31	345348	8.61	495188	11.11	397358	16.05	381154	18.55
ZZZZZZ	186505	5.14	665413	6.32	344586	8.61	515792	11.11	410604	16.05	387277	18.55
ZZZZZZ	195651	5.14	693133	6.32	367068	8.61	539337	11.11	436852	16.05	410744	18.55
ZZZZZZ	208380	5.14	762780	6.32	410024	8.61	618493	11.11	513908	16.05	458258	18.56
ZZZZZZ	171333	5.14	627195	6.31	325392	8.60	472228	11.11	386841	16.04	370751	18.55
ZZZZZZ	212606	5.13	761308	6.31	399953	8.61	598963	11.11	472803	16.05	425379	18.55
OP15045-BS	206822	5.13	754165	6.31	394513	8.61	589399	11.12	435061	16.06	405883	18.55
OP15045-MB	201314	5.13	737406	6.31	388187	8.61	563397	11.11	444974	16.05	401795	18.55
ZZZZZZ	195183	5.13	697047	6.31	356660	8.61	522073	11.11	431543	16.04	409953	18.55
F36623-1	224430	5.14	823338	6.32	422660	8.61	657730	11.12	562200	16.05	520426	18.56
F36623-2	188635	5.13	657622	6.31	348102	8.60	515552	11.12	413171	16.05	400448	18.55
F36623-3	219699	5.14	801691	6.31	408126	8.61	597597	11.11	474042	16.05	444412	18.56
OP15045-MS	185923	5.13	657404	6.31	340404	8.61	492837	11.12	370598	16.05	362425	18.55
OP15045-MSD	185429	5.13	653923	6.31	334359	8.61	485566	11.12	367227	16.05	362255	18.55
F36623-4	189114	5.13	664991	6.31	345739	8.61	511737	11.11	409065	16.05	389419	18.55
F36623-5	224143	5.14	800952	6.31	411366	8.61	588549	11.11	470535	16.05	417227	18.56
ZZZZZZ	186822	5.13	668179	6.31	348525	8.61	507496	11.11	396412	16.04	373773	18.55
ZZZZZZ	191234	5.14	685742	6.31	353556	8.60	516681	11.11	408187	16.04	393094	18.55
ZZZZZZ	187831	5.13	678624	6.31	361275	8.61	535345	11.12	478204	16.05	481279	18.56
ZZZZZZ	199264	5.13	706030	6.31	363916	8.61	535129	11.11	438306	16.05	422274	18.55
ZZZZZZ	202817	5.13	730137	6.31	373296	8.61	546509	11.11	431235	16.05	411629	18.55

Semivolatile Internal Standard Area Summary

Page 2 of 2

Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std: SL1506-CC1505	Injection Date: 11/18/05
Lab File ID: L028827.D	Injection Time: 16:43
Instrument ID: GCMSL	Method: EPA 625

Lab Sample ID	IS 1 AREA	IS 1 RT	IS 2 AREA	IS 2 RT	IS 3 AREA	IS 3 RT	IS 4 AREA	IS 4 RT	IS 5 AREA	IS 5 RT	IS 6 AREA	IS 6 RT
ZZZZZZ	198177	5.14	700532	6.31	367371	8.60	532970	11.11	433124	16.04	410179	18.55
ZZZZZZ	222287	5.13	805219	6.31	425359	8.60	631039	11.11	492172	16.05	439740	18.55
ZZZZZZ	202861	5.13	718438	6.31	369286	8.61	527600	11.12	436582	16.05	408547	18.55

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Surrogate Recovery Summary

Page 1 of 1

Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Method: EPA 625 **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
F36623-1	L028855.D	40.0	29.0	90.0	76.0	76.0	72.0
F36623-2	L028856.D	45.0	28.0	90.0	82.0	83.0	76.0
F36623-3	L028857.D	47.0	30.0	93.0	79.0	82.0	70.0
F36623-4	L028860.D	41.0	24.0	92.0	81.0	85.0	81.0
F36623-5	L028861.D	43.0	27.0	89.0	78.0	81.0	76.0
OP15045-BS	L028852.D	57.0	36.0	89.0	83.0	86.0	88.0
OP15045-MB	L028853.D	56.0	37.0	95.0	85.0	87.0	87.0
OP15045-MS	L028858.D	68.0	49.0	91.0	82.0	84.0	90.0
OP15045-MSD	L028859.D	66.0	48.0	92.0	83.0	85.0	80.0

Surrogate Compounds

Recovery Limits

S1 = 2-Fluorophenol	19-90%
S2 = Phenol-d5	10-68%
S3 = 2,4,6-Tribromophenol	36-137%
S4 = Nitrobenzene-d5	49-119%
S5 = 2-Fluorobiphenyl	45-118%
S6 = Terphenyl-d14	46-135%

Initial Calibration Summary

Page 1 of 3

Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: SL1505-ICC1505
Lab FileID: L028821.D

Response Factor Report MSBNA02

Method : C:\HPCHEM\1\METHODS\8270C.M (RTE Integrator)
Title : SW846 8270C OR EPA 625
Last Update : Fri Nov 18 16:03:08 2005
Response via : Initial Calibration

Calibration Files

5 =L028818.D 25 =L028819.D 50 =L028820.D 75 =L028821.D
100 =L028822.D 125 =L028823.D icv =L028824.D

Compound	5	25	50	75	100	125	icv	Avg	%RSD
1) I 1,4-Dichlorobenzene-d	-----ISTD-----								
2) 1,4-Dioxane	0.389	0.451	0.442	0.455	0.451	0.448		0.439	5.71
3) N-nitrosodimethyl	0.457	0.675	0.723	0.747	0.733	0.712		0.675	16.22
---- Linear regr., Force(0,0) ---- Coefficient = 0.9986									
Response Ratio = 0.00000 + 0.72397 *A									
4) Pyridine	1.014	1.275	1.285	1.323	1.306	1.306		1.251	9.41
5) Benzaldehyde	0.989	1.122	1.029	0.852	0.636	0.466		0.849	29.73
6) Aniline	1.942	2.012	2.001	2.000	1.986	1.952		1.982	1.44
7)S 2-Fluorophenol	1.154	1.278	1.182	1.213	1.199	1.173		1.200	3.63
8) bis(2-Chloroethyl	1.116	1.190	1.153	1.150	1.108	1.112		1.138	2.80
9)S Phenol-d5	1.558	1.667	1.577	1.571	1.531	1.507		1.568	3.50
10)C Phenol	1.595	1.677	1.591	1.596	1.554	1.553		1.594	2.84
11) 2-Chlorophenol	1.408	1.517	1.473	1.464	1.437	1.421		1.453	2.74
12) 1,3-Dichlorobenze	1.557	1.631	1.568	1.533	1.492	1.478		1.543	3.61
13)C 1,4-Dichlorobenze	1.553	1.617	1.553	1.526	1.494	1.460		1.534	3.55
14) 1,2-Dichlorobenze	1.447	1.533	1.428	1.429	1.405	1.359		1.434	4.00
15) Benzyl alcohol	0.828	0.917	0.891	0.937	0.909	0.891		0.895	4.14
16) bis(2-chloroisopr	2.245	2.340	2.230	2.227	2.184	2.113		2.223	3.36
17) 2-Methylphenol	1.175	1.250	1.227	1.241	1.240	1.203		1.223	2.31
18) Acetophenone	1.667	1.755	1.626	1.590	1.549	1.543		1.621	4.95
19) Hexachloroethane	0.509	0.547	0.548	0.541	0.538	0.522		0.534	2.87
20)P N-Nitroso-di-n-pr	0.867	0.883	0.832	0.836	0.815	0.794		0.838	3.89
21) 3&4-Methylphenol	1.264	1.321	1.310	1.321	1.277	1.248		1.290	2.44
22) I Naphthalene-d8	-----ISTD-----								
23)S Nitrobenzene-d5	0.289	0.310	0.327	0.327	0.330	0.323		0.317	4.91
24) Nitrobenzene	0.291	0.313	0.320	0.321	0.317	0.313		0.312	3.50
25) Isophorone	0.560	0.574	0.580	0.585	0.582	0.571		0.575	1.60
26)C 2-Nitrophenol	0.142	0.171	0.190	0.198	0.200	0.198		0.183	12.51
27) 2,4-Dimethylpheno	0.327	0.339	0.341	0.332	0.326	0.323		0.331	2.20
28) bis(2-Chloroethox	0.372	0.374	0.369	0.362	0.359	0.345		0.363	2.96
29) Benzoic Acid	0.116	0.182	0.216	0.235	0.260	0.251		0.210	25.66
---- Linear regr., Force(0,0) ---- Coefficient = 0.9955									
Response Ratio = 0.00000 + 0.24731 *A									
30)C 2,4-Dichloropheno	0.300	0.312	0.319	0.317	0.318	0.307		0.312	2.41
31) 1,2,4-Trichlorobe	0.321	0.322	0.313	0.307	0.298	0.294		0.309	3.73
32) Naphthalene	1.073	1.087	1.051	1.029	1.011	0.975		1.038	3.98
33) 4-Chloroaniline	0.466	0.466	0.458	0.444	0.431	0.412		0.446	4.76
34) 2,6-Dichloropheno	0.293	0.298	0.294	0.291	0.285	0.274		0.289	2.96
35)C Hexachlorobutadie	0.151	0.152	0.151	0.149	0.147	0.141		0.148	2.78
36) Caprolactam	0.098	0.113	0.117	0.122	0.126	0.125		0.117	8.78
37)C 4-Chloro-3-methyl	0.278	0.281	0.298	0.296	0.299	0.292		0.291	3.15
38) 2-Methylnaphthale	0.702	0.713	0.721	0.699	0.687	0.657		0.696	3.26
39) 1-Methylnaphthale	0.683	0.686	0.687	0.669	0.670	0.638		0.672	2.72

Initial Calibration Summary

Job Number: F36623
 Account: EEINCJX EEI
 Project: Camp Lejeune-LCH 4015

Sample: SL1505-ICC1505
 Lab FileID: L028821.D

40)	1,2,4,5-Tetrachlo	0.300	0.298	0.290	0.276	0.278	0.262	0.284	5.13
41)	I Acenaphthene-d10	-----ISTD-----							
42)	P Hexachlorocyclope	0.241	0.291	0.313	0.316	0.306	0.309	0.296	9.55
43)	C 2,4,6-Trichloroph	0.350	0.387	0.388	0.393	0.388	0.387	0.382	4.18
44)	2,4,5-Trichloroph	0.368	0.404	0.416	0.427	0.408	0.413	0.406	4.97
45)	S 2-Fluorobiphenyl	1.472	1.486	1.457	1.437	1.369	1.339	1.427	4.15
46)	1,1'-Biphenyl	1.534	1.609	1.595	1.582	1.548	1.568	1.573	1.80
47)	2-Chloronaphthale	1.256	1.272	1.226	1.196	1.165	1.145	1.210	4.16
48)	2-Nitroaniline	0.249	0.298	0.330	0.344	0.347	0.347	0.319	12.23
49)	Acenaphthylene	2.054	2.142	2.049	2.009	1.952	1.914	2.020	4.02
50)	Dimethylphthalate	1.375	1.443	1.391	1.402	1.369	1.357	1.390	2.22
51)	2,6-Dinitrotoluen	0.238	0.311	0.330	0.338	0.343	0.346	0.318	12.93
52)	C Acenaphthene	1.238	1.265	1.198	1.199	1.166	1.164	1.205	3.31
53)	3-Nitroaniline	0.284	0.359	0.375	0.402	0.402	0.409	0.372	12.63
54)	P 2,4-Dinitrophenol	0.041	0.074	0.104	0.132	0.143	0.156	0.108	40.69
---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9976									
Response Ratio = 0.00000 + 0.07711 *A + 0.02563 *A^2									
55)	Dibenzofuran	1.741	1.796	1.721	1.722	1.664	1.641	1.714	3.24
56)	2,4-Dinitrotoluen	0.238	0.370	0.391	0.405	0.401	0.416	0.370	17.95
---- Linear regr., Force(0,0) ---- Coefficient = 0.9994									
Response Ratio = 0.00000 + 0.40719 *A									
57)	P 4-Nitrophenol	0.158	0.161	0.174	0.178	0.181	0.171	5.98	
58)	2,3,4,6-Tetrachlo	0.247	0.302	0.309	0.325	0.321	0.320	0.304	9.55
59)	Fluorene	1.418	1.506	1.430	1.445	1.393	1.385	1.429	3.05
60)	4-Chlorophenyl-ph	0.630	0.635	0.589	0.605	0.582	0.576	0.603	4.14
61)	Diethylphthalate	1.302	1.425	1.349	1.361	1.367	1.348	1.359	2.91
62)	4-Nitroaniline	0.283	0.370	0.377	0.407	0.403	0.417	0.376	12.99
63)	I Phenanthrene-d10	-----ISTD-----							
64)	4,6-Dinitro-2-met	0.083	0.113	0.131	0.138	0.145	0.122	20.22	
---- Linear regr., Force(0,0) ---- Coefficient = 0.9989									
Response Ratio = 0.00000 + 0.13721 *A									
65)	C n-Nitrosodiphenyl	0.650	0.697	0.683	0.661	0.639	0.635	0.661	3.76
66)	1,2-Diphenylhydra	0.754	0.777	0.780	0.765	0.734	0.725	0.756	3.02
67)	S 2,4,6-Tribromophe	0.077	0.089	0.090	0.088	0.085	0.085	0.085	5.74
68)	4-Bromophenyl-phe	0.211	0.222	0.224	0.216	0.210	0.205	0.215	3.39
69)	Hexachlorobenzene	0.216	0.219	0.214	0.205	0.199	0.196	0.208	4.66
70)	Atrazine	0.205	0.239	0.239	0.245	0.236	0.237	0.234	6.14
71)	C Pentachlorophenol	0.120	0.139	0.141	0.141	0.143	0.137	6.91	
72)	Phenanthrene	1.306	1.334	1.287	1.242	1.220	1.192	1.264	4.30
73)	Anthracene	1.298	1.355	1.322	1.292	1.234	1.215	1.286	4.12
74)	Carbazole	1.232	1.380	1.316	1.299	1.249	1.251	1.288	4.32
75)	Di-n-butylphthala	1.395	1.548	1.491	1.493	1.419	1.398	1.457	4.30
76)	C Fluoranthene	1.217	1.337	1.310	1.289	1.225	1.216	1.266	4.19
77)	I Chrysene-d12	-----ISTD-----							
78)	Benzidine	0.937	1.133	1.205	1.118	1.066	1.003	1.077	8.95
79)	Pyrene	1.631	1.750	1.722	1.652	1.646	1.614	1.669	3.24
80)	S Terphenyl-d14	0.945	1.032	1.026	0.982	0.988	0.956	0.988	3.58
81)	Butylbenzylphthal	0.666	0.811	0.843	0.822	0.849	0.835	0.804	8.59
82)	3,3'-Dichlorobenz	0.462	0.528	0.538	0.522	0.518	0.501	0.512	5.30
83)	Benzo[a]anthracen	1.348	1.461	1.475	1.474	1.467	1.466	1.448	3.41
84)	Chrysene	1.290	1.411	1.367	1.349	1.327	1.325	1.345	3.08
85)	bis(2-Ethylhexyl)	0.862	1.070	1.128	1.111	1.121	1.092	1.064	9.53
86)	I Perylene-d12	-----ISTD-----							

Initial Calibration Summary

Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: SL1505-ICC1505
Lab FileID: L028821.D

87)C	Di-n-octylphthala	1.384	1.746	1.812	1.797	1.789	1.733	1.710	9.51
	---- Linear regr., Force(0,0) ----	Coefficient = 0.9989							
	Response Ratio = 0.00000 + 1.76574 *A								
88)	Benzo[b]fluoranth	1.187	1.408	1.371	1.329	1.362	1.345	1.334	5.74
89)	Benzo[k]fluoranth	1.303	1.474	1.344	1.321	1.272	1.272	1.331	5.67
90)C	Benzo[a]pyrene	1.155	1.359	1.324	1.289	1.302	1.292	1.287	5.42
91)	Indeno[1,2,3-cd]p	0.931	1.127	1.157	1.181	1.187	1.243	1.138	9.52
92)	Dibenz[a,h]anthra	0.989	1.174	1.182	1.153	1.181	1.169	1.142	6.62
93)	Benzo[g,h,i]peryl	1.141	1.323	1.311	1.315	1.292	1.333	1.286	5.62

(#) = Out of Range

8270C.M Fri Nov 18 16:35:21 2005

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Initial Calibration Verification

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Job Number: F36623
 Account: EEINCJX EEI
 Project: Camp Lejeune-LCH 4015

Sample: SL1505-ICV1505
 Lab FileID: L028824.D

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\111805\L028824.D Vial: 11
 Acq On : 18 Nov 2005 3:23 pm Operator: nareshj
 Sample : icv1505-50 Inst : MSBNA02
 Misc : op15016,sl1505,30.0,,,1,1,soil Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\8270C.M (RTE Integrator)
 Title : SW846 8270C OR EPA 625
 Last Update : Fri Nov 18 16:03:08 2005
 Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	109	0.00	5.13
2	1,4-Dioxane	50.000	49.705	0.6	0	0.02	2.69
----- Amount Calc. %Drift -----							
3	N-nitrosodimethylamine	50.000	45.008	10.0	0	0.00	2.96
----- Amount Calc. %Drift -----							
4	Pyridine	50.000	47.841	4.3	0	0.01	2.99
5	Benzaldehyde	50.000	58.052	-16.1	0	0.00	4.79
6	Aniline	50.000	46.150	7.7	0	0.00	4.87
7 S	2-Fluorophenol			-----NA-----			
8	bis(2-Chloroethyl)ether	50.000	51.942	-3.9	0	0.00	4.92
9 S	Phenol-d5			-----NA-----			
10 C	Phenol	50.000	50.887	-1.8	0	0.00	4.84
11	2-Chlorophenol	50.000	49.357	1.3	0	0.00	4.96
12	1,3-Dichlorobenzene	50.000	47.531	4.9	0	0.00	5.09
13 C	1,4-Dichlorobenzene	50.000	47.899	4.2	0	0.00	5.15
14	1,2-Dichlorobenzene	50.000	48.993	2.0	0	0.00	5.27
15	Benzyl alcohol	50.000	49.290	1.4	0	0.00	5.25
16	bis(2-chloroisopropyl)eth	50.000	48.378	3.2	0	0.00	5.36
17	2-Methylphenol	50.000	46.466	7.1	0	0.00	5.34
18	Acetophenone	50.000	46.461	7.1	0	0.00	5.48
19	Hexachloroethane	50.000	49.781	0.4	0	0.00	5.57
20 P	N-Nitroso-di-n-propylamin	50.000	45.053	9.9	0	0.00	5.48
21	3&4-Methylphenol	100.000	89.658	10.3	0	0.00	5.47
22 I	Naphthalene-d8	40.000	40.000	0.0	106	0.00	6.31
23 S	Nitrobenzene-d5			-----NA-----			
24	Nitrobenzene	50.000	49.285	1.4	0	0.00	5.63
25	Isophorone	50.000	50.338	-0.7	0	0.00	5.85
26 C	2-Nitrophenol	50.000	54.205	-8.4	0	0.00	5.92
27	2,4-Dimethylphenol	50.000	43.572	12.9	0	0.00	5.96
28	bis(2-Chloroethoxy)methan	50.000	49.634	0.7	0	0.00	6.06
----- Amount Calc. %Drift -----							
29	Benzoic Acid	100.000	104.829	-4.8	0	0.01	6.09
----- Amount Calc. %Drift -----							
30 C	2,4-Dichlorophenol	50.000	51.010	-2.0	0	0.00	6.16
31	1,2,4-Trichlorobenzene	50.000	48.500	3.0	0	0.00	6.25
32	Naphthalene	50.000	47.678	4.6	0	0.00	6.34
33	4-Chloroaniline	50.000	32.340	35.3#	0	0.00	6.39

Initial Calibration Verification

Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: SL1505-ICV1505
Lab FileID: L028824.D

34	2,6-Dichlorophenol	50.000	49.047	1.9	0	0.00	6.39
35 C	Hexachlorobutadiene	50.000	48.816	2.4	0	0.00	6.46
36	Caprolactam	50.000	49.850	0.3	0	0.00	6.80
37 C	4-Chloro-3-methylphenol	50.000	49.879	0.2	0	0.00	6.93
38	2-Methylnaphthalene	50.000	50.278	-0.6	0	0.00	7.14
39	1-Methylnaphthalene	50.000	47.466	5.1	0	0.00	7.26
40	1,2,4,5-Tetrachlorobenzen	50.000	48.036	3.9	0	0.00	7.34
41 I	Acenaphthene-d10	40.000	40.000	0.0	106	0.00	8.61
42 P	Hexachlorocyclopentadiene	50.000	49.851	0.3	0	0.00	7.33
43 C	2,4,6-Trichlorophenol	50.000	51.465	-2.9	0	0.00	7.50
44	2,4,5-Trichlorophenol	50.000	49.768	0.5	0	0.00	7.54
45 S	2-Fluorobiphenyl			-----NA-----			
46	1,1'-Biphenyl	50.000	48.920	2.2	0	0.00	7.77
47	2-Chloronaphthalene	50.000	47.793	4.4	0	0.00	7.78
48	2-Nitroaniline	50.000	50.669	-1.3	0	0.00	7.93
49	Acenaphthylene	50.000	47.574	4.9	0	0.00	8.39
50	Dimethylphthalate	50.000	52.431	-4.9	0	0.00	8.24
51	2,6-Dinitrotoluene	50.000	47.561	4.9	0	0.00	8.31
52 C	Acenaphthene	50.000	48.306	3.4	0	0.00	8.66
53	3-Nitroaniline	50.000	32.394	35.2#	0	0.00	8.56
	----- Amount Calc. %Drift -----						
54 P	2,4-Dinitrophenol	100.000	97.850	2.2	0	0.00	8.73
	----- Amount Calc. %Drift -----						
55	Dibenzofuran	50.000	48.580	2.8	0	0.00	8.94
	----- Amount Calc. %Drift -----						
56	2,4-Dinitrotoluene	50.000	45.350	9.3	0	0.00	8.94
	----- Amount Calc. %Drift -----						
57 P	4-Nitrophenol	100.000	91.755	8.2	0	0.00	8.84
58	2,3,4,6-Tetrachlorophenol	50.000	48.157	3.7	0	0.00	9.13
59	Fluorene	50.000	47.392	5.2	0	0.00	9.50
60	4-Chlorophenyl-phenylethe	50.000	51.612	-3.2	0	0.00	9.54
61	Diethylphthalate	50.000	51.294	-2.6	0	0.00	9.39
62	4-Nitroaniline	50.000	43.163	13.7	0	0.00	9.56
63 I	Phenanthrene-d10	40.000	40.000	0.0	101	0.00	11.12
	----- Amount Calc. %Drift -----						
64	4,6-Dinitro-2-methylpheno	100.000	104.526	-4.5	0	0.00	9.61
	----- Amount Calc. %Drift -----						
65 C	n-Nitrosodiphenylamine	50.000	49.950	0.1	0	0.00	9.74
66	1,2-Diphenylhydrazine	50.000	51.176	-2.4	0	0.00	9.80
67 S	2,4,6-Tribromophenol			-----NA-----			
68	4-Bromophenyl-phenylether	50.000	52.976	-6.0	0	0.00	10.37
69	Hexachlorobenzene	50.000	48.405	3.2	0	0.00	10.42
70	Atrazine	50.000	51.574	-3.1	0	0.00	10.74
71 C	Pentachlorophenol	100.000	104.404	-4.4	0	0.00	10.79
72	Phenanthrene	50.000	48.623	2.8	0	0.00	11.16
73	Anthracene	50.000	49.078	1.8	0	0.00	11.25
74	Carbazole	50.000	47.985	4.0	0	0.00	11.58
75	Di-n-butylphthalate	50.000	50.938	-1.9	0	0.00	12.37
76 C	Fluoranthene	50.000	47.248	5.5	0	0.00	13.34
77 I	Chrysene-d12	40.000	40.000	0.0	89	0.00	16.05
78	Benzidine			-----NA-----			

Initial Calibration Verification

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Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: SL1505-ICV1505
Lab FileID: L028824.D

79	Pyrene	50.000	52.091	-4.2	0	0.00	13.74
80 S	Terphenyl-d14		-----NA-----				
81	Butylbenzylphthalate	50.000	52.971	-5.9	0	0.00	15.20
82	3,3'-Dichlorobenzidine		-----NA-----				
83	Benzo[a]anthracene	50.000	49.280	1.4	0	0.00	16.04
84	Chrysene	50.000	50.105	-0.2	0	0.00	16.10
85	bis(2-Ethylhexyl)phthalat	50.000	54.876	-9.8	0	0.00	16.38
86 I	Perylene-d12	40.000	40.000	0.0	78	0.00	18.55
	----- Amount Calc. %Drift -----						
87 C	Di-n-octylphthalate	50.000	58.750	-17.5	0	0.00	17.58
	----- Amount Calc. %Drift -----						
88	Benzo[b]fluoranthene	50.000	51.127	-2.3	0	0.00	17.94
89	Benzo[k]fluoranthene	50.000	51.667	-3.3	0	0.00	17.99
90 C	Benzo[a]pyrene	50.000	50.535	-1.1	0	0.00	18.46
91	Indeno[1,2,3-cd]pyrene	50.000	48.121	3.8	0	0.00	20.15
92	Dibenz[a,h]anthracene	50.000	46.658	6.7	0	-0.01	20.20
93	Benzo[g,h,i]perylene	50.000	46.905	6.2	0	-0.02	20.51

(#) = Out of Range
L028824.D 8270C.M

SPCC's out = 0 CCC's out = 0
Fri Nov 18 16:35:40 2005

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Continuing Calibration Summary

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Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: SL1506-CC1505
Lab FileID: L028827.D

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\111805\L028827.D Vial: 14
Acq On : 18 Nov 2005 4:43 pm Operator: nareshj
Sample : cc1505-50 Inst : MSBNA02
Misc : op15016,sl1506,30.0,,,1,1,soil Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\8270C.M (RTE Integrator)
Title : SW846 8270C OR EPA 625
Last Update : Fri Nov 18 15:22:17 2005
Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	108	0.00	5.13
2	1,4-Dioxane	0.439	0.468	-6.6	115	0.00	2.67
----- Amount Calc. %Drift -----							
3	N-nitrosodimethylamine	50.000	49.683	0.6	108	0.00	2.95
----- AvgRF CCRF %Dev -----							
4	Pyridine	1.251	1.334	-6.6	113	0.00	2.98
5	Benzaldehyde	0.849	1.048	-23.4#	110	0.00	4.79
6	Aniline	1.982	2.037	-2.8	110	0.00	4.87
7 S	2-Fluorophenol	1.200	1.251	-4.2	115	0.00	4.10
8	bis(2-Chloroethyl)ether	1.138	1.172	-3.0	110	0.00	4.93
9 S	Phenol-d5	1.568	1.582	-0.9	109	0.00	4.83
10 C	Phenol	1.594	1.612	-1.1	110	0.00	4.84
11	2-Chlorophenol	1.453	1.501	-3.3	110	0.00	4.96
12	1,3-Dichlorobenzene	1.543	1.611	-4.4	111	0.00	5.09
13 C	1,4-Dichlorobenzene	1.534	1.555	-1.4	109	0.00	5.15
14	1,2-Dichlorobenzene	1.434	1.487	-3.7	113	0.00	5.27
15	Benzyl alcohol	0.895	0.935	-4.5	114	0.00	5.25
16	bis(2-chloroisopropyl)eth	2.223	2.285	-2.8	111	0.00	5.36
17	2-Methylphenol	1.223	1.246	-1.9	110	0.00	5.33
18	Acetophenone	1.621	1.630	-0.6	109	0.00	5.48
19	Hexachloroethane	0.534	0.562	-5.2	111	0.00	5.57
20 P	N-Nitroso-di-n-propylamin	0.838	0.834	0.5	109	0.00	5.48
21	3&4-Methylphenol	1.290	1.325	-2.7	110	0.00	5.47
----- Amount Calc. %Drift -----							
29	Benzoic Acid	50.000	50.002	-0.0	126	-0.02	6.06
----- AvgRF CCRF %Dev -----							
30 C	2,4-Dichlorophenol	0.312	0.322	-3.2	111	0.00	6.15
31	1,2,4-Trichlorobenzene	0.309	0.322	-4.2	113	0.00	6.25
32	Naphthalene	1.038	1.046	-0.8	109	0.00	6.34
33	4-Chloroaniline	0.446	0.451	-1.1	108	0.00	6.39

Continuing Calibration Summary

Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: SL1506-CC1505
Lab FileID: L028827.D

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34	2,6-Dichlorophenol	0.289	0.295	-2.1	111	0.00	6.39
35 C	Hexachlorobutadiene	0.148	0.152	-2.7	111	0.00	6.46
36	Caprolactam	0.117	0.119	-1.7	112	-0.01	6.79
37 C	4-Chloro-3-methylphenol	0.291	0.304	-4.5	112	0.00	6.93
38	2-Methylnaphthalene	0.696	0.718	-3.2	110	0.00	7.14
39	1-Methylnaphthalene	0.672	0.686	-2.1	110	0.00	7.26
40	1,2,4,5-Tetrachlorobenzen	0.284	0.287	-1.1	109	0.00	7.35
41 I	Acenaphthene-d10	1.000	1.000	0.0	111	0.00	8.61
42 P	Hexachlorocyclopentadiene	0.296	0.314	-6.1	112	0.00	7.34
43 C	2,4,6-Trichlorophenol	0.382	0.401	-5.0	115	0.00	7.50
44	2,4,5-Trichlorophenol	0.406	0.428	-5.4	114	0.00	7.54
45 S	2-Fluorobiphenyl	1.427	1.447	-1.4	110	0.00	7.63
46	1,1'-Biphenyl	1.573	1.603	-1.9	112	0.00	7.77
47	2-Chloronaphthalene	1.210	1.212	-0.2	110	0.00	7.78
48	2-Nitroaniline	0.319	0.341	-6.9	115	0.00	7.93
49	Acenaphthylene	2.020	2.043	-1.1	111	0.00	8.39
50	Dimethylphthalate	1.390	1.379	0.8	110	0.00	8.24
51	2,6-Dinitrotoluene	0.318	0.348	-9.4	118	0.00	8.32
52 C	Acenaphthene	1.205	1.211	-0.5	112	0.00	8.66
53	3-Nitroaniline	0.372	0.395	-6.2	117	0.00	8.56
----- Amount Calc. %Drift -----							
54 P	2,4-Dinitrophenol	50.000	56.029	-12.1	135	0.00	8.72
----- AvgRF CCRF %Dev -----							
55	Dibenzofuran	1.714	1.719	-0.3	111	0.00	8.94
----- Amount Calc. %Drift -----							
56	2,4-Dinitrotoluene	50.000	50.109	-0.2	116	0.00	8.94
----- AvgRF CCRF %Dev -----							
57 P	4-Nitrophenol	0.171	0.169	1.2	117	0.00	8.84
58	2,3,4,6-Tetrachlorophenol	0.304	0.323	-6.3	116	0.00	9.14
59	Fluorene	1.429	1.410	1.3	110	0.00	9.50
60	4-Chlorophenyl-phenylethe	0.603	0.602	0.2	114	0.00	9.53
61	Diethylphthalate	1.359	1.371	-0.9	113	0.00	9.39
62	4-Nitroaniline	0.376	0.390	-3.7	115	-0.01	9.56
63 I	Phenanthrene-d10	1.000	1.000	0.0	114	0.00	11.11
----- Amount Calc. %Drift -----							
64	4,6-Dinitro-2-methylpheno	50.000	47.449	5.1	130	0.00	9.61
----- AvgRF CCRF %Dev -----							
65 C	n-Nitrosodiphenylamine	0.661	0.678	-2.6	113	0.00	9.74
66	1,2-Diphenylhydrazine	0.756	0.767	-1.5	112	0.00	9.80
67 S	2,4,6-Tribromophenol	0.085	0.093	-9.4	116	0.00	9.90
68	4-Bromophenyl-phenylether	0.215	0.220	-2.3	112	0.00	10.37
69	Hexachlorobenzene	0.208	0.215	-3.4	114	0.00	10.42
70	Atrazine	0.234	0.238	-1.7	113	0.00	10.73
71 C	Pentachlorophenol	0.137	0.143	-4.4	117	0.00	10.78
72	Phenanthrene	1.264	1.272	-0.6	112	0.00	11.16
73	Anthracene	1.286	1.297	-0.9	111	0.00	11.25
74	Carbazole	1.288	1.298	-0.8	112	0.00	11.58
75	Di-n-butylphthalate	1.457	1.493	-2.5	114	0.00	12.37
76 C	Fluoranthene	1.266	1.284	-1.4	111	0.00	13.34
77 I	Chrysene-d12	1.000	1.000	0.0	113	0.00	16.05
78	Benzidine	1.077	1.190	-10.5	112	0.00	13.69

Continuing Calibration Summary

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Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: SL1506-CC1505
Lab FileID: L028827.D

79	Pyrene	1.669	1.694	-1.5	111	0.00	13.75
80 S	Terphenyl-d14	0.988	1.028	-4.0	113	0.00	14.16
81	Butylbenzylphthalate	0.804	0.847	-5.3	114	0.00	15.20
82	3,3'-Dichlorobenzidine	0.512	0.542	-5.9	114	0.00	16.07
83	Benzo[a]anthracene	1.448	1.489	-2.8	114	0.00	16.04
84	Chrysene	1.345	1.372	-2.0	114	0.00	16.11
85	bis(2-Ethylhexyl)phthalat	1.064	1.128	-6.0	113	0.00	16.38
86 I	Perylene-d12	1.000	1.000	0.0	111	0.00	18.55
87 C	Di-n-octylphthalate	1.710	1.829	-7.0	112	0.00	17.58
88	Benzo[b]fluoranthene	1.334	1.373	-2.9	111	0.00	17.94
89	Benzo[k]fluoranthene	1.331	1.391	-4.5	115	0.00	18.00
90 C	Benzo[a]pyrene	1.287	1.360	-5.7	114	-0.01	18.46
91	Indeno[1,2,3-cd]pyrene	1.138	1.186	-4.2	114	0.00	20.16
92	Dibenz[a,h]anthracene	1.142	1.133	0.8	107	-0.01	20.21
93	Benzo[g,h,i]perylene	1.286	1.340	-4.2	114	-0.01	20.52

(#) = Out of Range
 L028820.D 8270C.M

SPCC's out = 0 CCC's out = 0
 Sat Nov 19 11:50:03 2005

5.7
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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: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GEF3847-MB	EF056440.D	1	11/16/05	TD	n/a	n/a	GEF3847

The QC reported here applies to the following samples:

Method: EPA 601/602

F36623-1, F36623-2, F36623-3, F36623-4, F36623-5

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	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	91% 71-130%
98-08-8	aaa-Trifluorotoluene	91% 71-124%

Method Blank Summary

Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GEF3852-MB	EF056565.D	1	11/21/05	TD	n/a	n/a	GEF3852

The QC reported here applies to the following samples:

Method: EPA 601/602

F36623-2, F36623-3, F36623-4, F36623-5

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Limits
460-00-4	4-Bromofluorobenzene	93% 71-130%
98-08-8	aaa-Trifluorotoluene	97% 71-124%

Method Blank Summary

Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GEF3857-MB	EF056696.D	1	11/28/05	TD	n/a	n/a	GEF3857

The QC reported here applies to the following samples: Method: EPA 601/602

F36623-1

CAS No.	Compound	Result	RL	MDL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	

CAS No.	Surrogate Recoveries	Limits
460-00-4	4-Bromofluorobenzene	98% 71-130%
98-08-8	aaa-Trifluorotoluene	98% 71-124%

Blank Spike Summary

Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GEF3847-BS	EF056439.D	1	11/16/05	TD	n/a	n/a	GEF3847

The QC reported here applies to the following samples: Method: EPA 601/602
F36623-1, F36623-2, F36623-3, F36623-4, F36623-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	18.4	92	81-121
108-90-7	Chlorobenzene	20	18.1	91	76-120
100-41-4	Ethylbenzene	20	18.4	92	79-124
1634-04-4	Methyl Tert Butyl Ether	20	17.5	88	73-118
108-88-3	Toluene	20	18.5	93	79-122
1330-20-7	Xylenes (total)	60	54.3	91	79-121

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	97%	71-130%
98-08-8	aaa-Trifluorotoluene	96%	71-124%

Blank Spike Summary

Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GEF3852-BS	EF056564.D	1	11/21/05	TD	n/a	n/a	GEF3852

The QC reported here applies to the following samples:

Method: EPA 601/602

F36623-2, F36623-3, F36623-4, F36623-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
95-50-1	1,2-Dichlorobenzene	20	15.3	77	63-127
541-73-1	1,3-Dichlorobenzene	20	18.9	95	70-124
106-46-7	1,4-Dichlorobenzene	20	18.2	91	68-121

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	95%	71-130%
98-08-8	aaa-Trifluorotoluene	98%	71-124%

Blank Spike Summary

Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GEF3857-BS	EF056695.D	1	11/28/05	TD	n/a	n/a	GEF3857

The QC reported here applies to the following samples:

Method: EPA 601/602

F36623-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
95-50-1	1,2-Dichlorobenzene	20	16.6	83	63-127
541-73-1	1,3-Dichlorobenzene	20	20.2	101	70-124
106-46-7	1,4-Dichlorobenzene	20	19.3	97	68-121
100-41-4	Ethylbenzene	20	21.2	106	79-124
1330-20-7	Xylenes (total)	60	62.9	105	79-121

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	99%	71-130%
98-08-8	aaa-Trifluorotoluene	97%	71-124%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F36623-4MS	EF056456.D	1	11/17/05	TD	n/a	n/a	GEF3847
F36623-4MSD	EF056457.D	1	11/17/05	TD	n/a	n/a	GEF3847
F36623-4	EF056453.D	1	11/17/05	TD	n/a	n/a	GEF3847

The QC reported here applies to the following samples:

Method: EPA 601/602

F36623-1, F36623-2, F36623-3, F36623-4, F36623-5

CAS No.	Compound	F36623-4 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	20	19.4	97	19.5	98	1	74-126/11
108-90-7	Chlorobenzene	ND	20	18.9	95	19.0	95	1	72-124/8
100-41-4	Ethylbenzene	ND	20	19.3	97	19.4	97	1	71-131/8
1634-04-4	Methyl Tert Butyl Ether	ND	20	18.9	95	19.3	97	2	63-130/11
108-88-3	Toluene	ND	20	19.7	99	19.9	100	1	69-132/7
1330-20-7	Xylenes (total)	ND	60	57.7	96	57.8	96	0	71-127/8

CAS No.	Surrogate Recoveries	MS	MSD	F36623-4	Limits
460-00-4	4-Bromofluorobenzene	96%	96%	90%	71-130%
98-08-8	aaa-Trifluorotoluene	95%	95%	90%	71-124%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F36740-1MS	EF056584.D	1	11/22/05	TD	n/a	n/a	GEF3852
F36740-1MSD	EF056585.D	1	11/22/05	TD	n/a	n/a	GEF3852
F36740-1	EF056581.D	1	11/21/05	TD	n/a	n/a	GEF3852

The QC reported here applies to the following samples: Method: EPA 601/602

F36623-2, F36623-3, F36623-4, F36623-5

CAS No.	Compound	F36740-1 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
95-50-1	1,2-Dichlorobenzene	1.0 U	20	13.2	66	11.9	60	10	55-136/13
541-73-1	1,3-Dichlorobenzene	1.0 U	20	16.9	85	15.1	76	11	65-132/16
106-46-7	1,4-Dichlorobenzene	1.0 U	20	15.1	76	14.5	73	4	61-133/11

CAS No.	Surrogate Recoveries	MS	MSD	F36740-1	Limits
460-00-4	4-Bromofluorobenzene	95%	93%	93%	71-130%
98-08-8	aaa-Trifluorotoluene	93%	98%	97%	71-124%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F36896-2MS	EF056709.D	1	11/28/05	TD	n/a	n/a	GEF3857
F36896-2MSD	EF056710.D	1	11/28/05	TD	n/a	n/a	GEF3857
F36896-2	EF056703.D	1	11/28/05	TD	n/a	n/a	GEF3857

The QC reported here applies to the following samples:

Method: EPA 601/602

F36623-1

CAS No.	Compound	F36896-2 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
95-50-1	1,2-Dichlorobenzene	1.0 U	20	15.5	78	15.7	79	1	55-136/13
541-73-1	1,3-Dichlorobenzene	1.0 U	20	17.9	90	17.9	90	0	65-132/16
106-46-7	1,4-Dichlorobenzene	1.0 U	20	17.0	85	17.2	86	1	61-133/11
100-41-4	Ethylbenzene	1.0 U	20	18.7	94	18.6	93	1	71-131/8
1330-20-7	Xylenes (total)	3.0 U	60	55.5	93	54.6	91	2	71-127/8

CAS No.	Surrogate Recoveries	MS	MSD	F36896-2	Limits
460-00-4	4-Bromofluorobenzene	73%	100%	96%	71-130%
98-08-8	aaa-Trifluorotoluene	72%	100%	96%	71-124%

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GC Surrogate Retention Time Summary

Page 1 of 1

Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GEF3847-CC3810	Injection Date:	11/17/05
Lab File ID:	EF056445.D	Injection Time:	00:46
Instrument ID:	GCEF	Method:	EPA 601/602

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	10.68	10.88	5.72	5.85

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
ZZZZZZ	EF056447.D	11/17/05	01:35		10.88		5.86
ZZZZZZ	EF056448.D	11/17/05	02:00		10.89		5.85
ZZZZZZ	EF056449.D	11/17/05	02:24		10.88		5.86
F36623-1	EF056450.D	11/17/05	02:49		10.89		5.86
F36623-2	EF056451.D	11/17/05	03:13		10.88		5.86
F36623-3	EF056452.D	11/17/05	03:37		10.88		5.86
F36623-4	EF056453.D	11/17/05	04:02		10.88		5.86
F36623-5	EF056454.D	11/17/05	04:26		10.88		5.86
F36623-4MS	EF056456.D	11/17/05	05:15		10.89		5.85
F36623-4MSD	EF056457.D	11/17/05	05:39		10.89		5.86
GEF3847-ECC3810	EF056460.D	11/17/05	09:20	10.70	10.90	5.73	5.86

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: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GEF3852-CC3810	Injection Date:	11/21/05
Lab File ID:	EF056563.D	Injection Time:	13:18
Instrument ID:	GCEF	Method:	EPA 601/602

S1^a	S2^a
RT	RT

Check Std	10.87	5.84

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
GEF3852-BS	EF056564.D	11/21/05	14:06	10.87	5.84
GEF3852-MB	EF056565.D	11/21/05	14:31	10.87	5.84
F36623-2	EF056566.D	11/21/05	16:13	10.87	5.84
F36623-3	EF056567.D	11/21/05	16:42	10.87	5.84
F36623-4	EF056568.D	11/21/05	17:06	10.87	5.84
F36623-5	EF056569.D	11/21/05	17:31	10.87	5.84
ZZZZZZ	EF056571.D	11/21/05	18:20	10.87	5.84
ZZZZZZ	EF056572.D	11/21/05	18:44	10.87	5.84
ZZZZZZ	EF056573.D	11/21/05	19:09	10.87	5.84

Surrogate Compounds

S1 = 4-Bromofluorobenzene

S2 = aaa-Trifluorotoluene

(a) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GEF3852-CC3810	Injection Date:	11/21/05
Lab File ID:	EF056574.D	Injection Time:	19:33
Instrument ID:	GCEF	Method:	EPA 601/602

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	10.67	10.87	5.71	5.84

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
ZZZZZZ	EF056576.D	11/21/05	20:23		10.87		5.84
F36740-1	EF056581.D	11/21/05	22:25		10.87		5.84
ZZZZZZ	EF056582.D	11/21/05	22:49		10.87		5.84
F36740-1MS	EF056584.D	11/22/05	08:23		10.88		5.85
F36740-1MSD	EF056585.D	11/22/05	08:48		10.88		5.85
GEF3852-ECC3810	EF056587.D	11/22/05	09:37	10.68	10.88	5.72	5.85

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: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GEF3857-CC3810	Injection Date:	11/28/05
Lab File ID:	EF056694.D	Injection Time:	08:52
Instrument ID:	GCEF	Method:	EPA 601/602

S1^a	S2^a
RT	RT

Check Std	10.82	5.79

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
GEF3857-BS	EF056695.D	11/28/05	09:35	10.82	5.80
GEF3858-BS	EF056695.D	11/28/05	09:35	10.82	5.80
GEF3857-MB	EF056696.D	11/28/05	09:59	10.84	5.80
GEF3858-MB	EF056696.D	11/28/05	09:59	10.84	5.80
ZZZZZZ	EF056697.D	11/28/05	10:34	10.83	5.81
ZZZZZZ	EF056698.D	11/28/05	11:01	10.83	5.81
ZZZZZZ	EF056699.D	11/28/05	11:30	10.84	5.81
F36623-1	EF056700.D	11/28/05	11:57	10.84	5.81
ZZZZZZ	EF056701.D	11/28/05	12:21	10.84	5.81
ZZZZZZ	EF056702.D	11/28/05	12:46	10.84	5.81
F36896-2	EF056703.D	11/28/05	13:11	10.84	5.82
ZZZZZZ	EF056704.D	11/28/05	13:36	10.84	5.81

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: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GEF3857-CC3810	Injection Date:	11/28/05
Lab File ID:	EF056705.D	Injection Time:	14:01
Instrument ID:	GCEF	Method:	EPA 601/602

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	10.65	10.85	5.68	5.82

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
ZZZZZZ	EF056707.D	11/28/05	15:02		10.84		5.82
ZZZZZZ	EF056708.D	11/28/05	15:26		10.84		5.82
F36896-2MS	EF056709.D	11/28/05	15:51		10.84		5.82
F36896-2MSD	EF056710.D	11/28/05	16:15		10.84		5.82
ZZZZZZ	EF056711.D	11/28/05	16:40		10.84		5.82
ZZZZZZ	EF056712.D	11/28/05	17:05		10.84		5.82
ZZZZZZ	EF056713.D	11/28/05	17:29		10.84		5.82
ZZZZZZ	EF056715.D	11/28/05	18:22		10.84		5.82
ZZZZZZ	EF056716.D	11/28/05	18:49	10.64		5.69	
GEF3857-ECC3810	EF056717.D	11/28/05	19:13	10.64	10.85	5.69	5.82

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: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GEF3846-CC3810	Injection Date:	11/16/05
Lab File ID:	EF056433.D	Injection Time:	19:40
Instrument ID:	GCEF	Method:	EPA 601/602

S1^a	S2^a
RT	RT

Check Std	10.88	5.85

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
ZZZZZZ	EF056435.D	11/16/05	20:29	10.88	5.85
F36548-10	EF056436.D	11/16/05	20:54	10.88	5.86
F36548-10MS	EF056437.D	11/16/05	21:18	10.88	5.86
F36548-10MSD	EF056438.D	11/16/05	21:43	10.88	5.86
GEF3847-BS	EF056439.D	11/16/05	22:08	10.88	5.86
GEF3847-MB	EF056440.D	11/16/05	22:32	10.88	5.85
ZZZZZZ	EF056441.D	11/16/05	22:59	10.88	5.85
ZZZZZZ	EF056442.D	11/16/05	23:27	10.88	5.85
ZZZZZZ	EF056443.D	11/16/05	23:54	10.88	5.85
ZZZZZZ	EF056444.D	11/17/05	00:22	10.88	5.85

Surrogate Compounds

S1 = 4-Bromofluorobenzene
S2 = aaa-Trifluorotoluene

(a) Retention time from GC signal #2

Initial Calibration Summary

Page 1 of 2

Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3810-ICC3810
Lab FileID: EF055442.D

Response Factor Report VOA1

Method : C:\HPCHEM\1\METHODS\DUAL1017.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Wed Oct 19 10:44:46 2005
Response via : Initial Calibration

Calibration Files

1 =EF055439.D 5 =EF055440.D 20 =EF055441.D 40 =EF055442.D
70 =EF055443.D 100 =EF055444.D

	Compound	1	5	20	40	70	100	Avg	%RSD
1)	Methyl tert Butyl E	1.226	1.608	1.306	1.337	1.321	1.303	1.350	E3 9.76
2)	Di-Isopropyl ether	1.770	2.637	2.203	2.189	2.099	2.080	2.163	E3 12.96
	---- Linear regr., Force(0,0) ----	Coefficient = 0.9995							
	Response Ratio = 0.00000 + 2099.39967 *A								
3)	Benzene	3.847	6.369	5.397	5.329	5.174	5.102	5.203	E3 15.53
	---- Linear regr., Force(0,0) ----	Coefficient = 0.9996							
	Response Ratio = 0.00000 + 5153.25579 *A								
4) S	a,a,a-TFT(S)	1.645	1.652	1.589	1.671	1.542	1.685	1.631	E3 3.34
5)	Toluene	3.761	5.729	4.893	4.788	4.657	4.598	4.738	E3 13.32
	---- Linear regr., Force(0,0) ----	Coefficient = 0.9997							
	Response Ratio = 0.00000 + 4641.69685 *A								
6)	Chlorobenzene	3.545	5.543	4.699	4.670	4.565	4.468	4.582	E3 13.92
	---- Linear regr., Force(0,0) ----	Coefficient = 0.9996							
	Response Ratio = 0.00000 + 4521.91795 *A								
7)	Ethylbenzene	3.054	4.879	4.203	4.088	3.986	3.869	4.013	E3 14.67
	---- Linear regr., Force(0,0) ----	Coefficient = 0.9993							
	Response Ratio = 0.00000 + 3933.01670 *A								
8)	m,p-Xylene	3.553	5.390	4.561	4.515	4.392	4.290	4.450	E3 13.23
	---- Linear regr., Force(0,0) ----	Coefficient = 0.9995							
	Response Ratio = 0.00000 + 4348.65525 *A								
9)	o-Xylene	3.088	4.672	4.001	3.991	3.850	3.741	3.890	E3 13.12
	---- Linear regr., Force(0,0) ----	Coefficient = 0.9992							
	Response Ratio = 0.00000 + 3803.44630 *A								
10) S	BFB(S)	3.744	3.717	3.712	3.856	3.680	3.914	3.770	E3 2.46
11)	1,3-Dichlorobenzene	3.017	3.997	3.445	3.483	3.369	3.197	3.418	E3 9.73
12)	1,4-Dichlorobenzene	3.432	4.536	3.832	3.893	3.841	3.662	3.866	E3 9.55
13)	1,2-Dichlorobenzene	2.010	2.332	2.008	2.048	2.082	1.887	2.061	E3 7.19

Signal #2

1)	Methyl tert Butyl E	1.172	1.606	1.322	1.354	1.336	1.318	1.351	E3 10.43
	---- Linear regr., Force(0,0) ----	Coefficient = 0.9998							
	Response Ratio = 0.00000 + 1327.15364 *A								
2)	Di-Isopropyl ether	1.662	2.527	2.143	2.128	2.021	1.996	2.080	E3 13.46
	---- Linear regr., Force(0,0) ----	Coefficient = 0.9993							
	Response Ratio = 0.00000 + 2019.94736 *A								
3)	Benzene	3.743	6.314	5.413	5.254	5.094	5.016	5.139	E3 16.13
	---- Linear regr., Force(0,0) ----	Coefficient = 0.9995							

Initial Calibration Summary

Page 2 of 2

Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3810-ICC3810
Lab FileID: EF055442.D

Response Ratio = 0.00000 + 5072.05214 *A

4) S	a,a,a-TFT(S)	1.586	1.603	1.546	1.622	1.488	1.636	1.580	E3	3.48
5)	Toluene	3.739	5.689	4.858	4.727	4.596	4.516	4.687	E3	13.39
---- Linear regr., Force(0,0) ---- Coefficient = 0.9995										
Response Ratio = 0.00000 + 4568.74142 *A										
6)	Chlorobenzene	3.587	5.598	4.853	4.652	4.538	4.425	4.609	E3	14.14
---- Linear regr., Force(0,0) ---- Coefficient = 0.9993										
Response Ratio = 0.00000 + 4490.96809 *A										
7)	Ethylbenzene	3.214	5.089	4.332	4.199	4.096	3.995	4.154	E3	14.53
---- Linear regr., Force(0,0) ---- Coefficient = 0.9994										
Response Ratio = 0.00000 + 4053.05728 *A										
8)	m,p-Xylene	3.706	5.544	4.679	4.617	4.524	4.398	4.578	E3	12.89
---- Linear regr., Force(0,0) ---- Coefficient = 0.9994										
Response Ratio = 0.00000 + 4463.24752 *A										
9)	o-Xylene	3.044	4.619	3.949	3.916	3.778	3.683	3.831	E3	13.23
---- Linear regr., Force(0,0) ---- Coefficient = 0.9993										
Response Ratio = 0.00000 + 3740.06978 *A										
10) S	BFB(S)	3.950	3.950	3.892	4.056	3.859	4.104	3.969	E3	2.37
11)	1,3-Dichlorobenzene	2.890	3.899	3.382	3.393	3.327	3.152	3.341	E3	9.97
---- Linear regr., Force(0,0) ---- Coefficient = 0.9984										
Response Ratio = 0.00000 + 3232.25470 *A										
12)	1,4-Dichlorobenzene	3.228	4.198	3.637	3.626	3.588	3.393	3.612	E3	9.10
13)	1,2-Dichlorobenzene	2.036	2.366	2.028	2.059	2.108	1.910	2.084	E3	7.32

(#) = Out of Range

DUAL1017.M

Wed Oct 19 14:06:27 2005

Initial Calibration Verification

Page 1 of 2

Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3810-ICV3810
Lab FileID: EF055445.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\101705\EF055445.D\FID1A.CH Vial: 8
Signal #2 : C:\HPCHEM\1\DATA\101705\EF055445.D\FID2B.CH
Acq On : 17 Oct 2005 3:32 pm Operator: Trangd
Sample : ICV3810-20 Inst : VOA1
Misc : gc5510,gef3810,,,,, Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL1017.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Wed Oct 19 10:44:46 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	19.962	0.2	103	0.00	2.86- 3.06
	----- Amount Calc. %Drift -----						
2	Di-Isopropyl ether	20.000	20.693	-3.5	99	0.00	3.31- 3.51
3	Benzene	20.000	20.260	-1.3	97	0.00	4.58- 4.78
	----- Amount Calc. %Drift -----						
4 S	a, a, a-TFT(S)	20.000	20.490	-2.4	105	0.00	5.60- 5.80
	----- Amount Calc. %Drift -----						
5	Toluene	20.000	20.531	-2.7	97	0.00	7.00- 7.20
6	Chlorobenzene	20.000	20.892	-4.5	101	0.00	8.81- 9.01
7	Ethylbenzene	20.000	20.642	-3.2	97	0.00	9.15- 9.35
8	m,p-Xylene	40.000	41.485	-3.7	99	0.00	9.46- 9.66
9	o-Xylene	20.000	20.628	-3.1	98	0.00	9.99-10.20
	----- Amount Calc. %Drift -----						
10 S	BFB(S)	20.000	20.683	-3.4	105	0.00	10.50-10.80
11	1,3-Dichlorobenzene	20.000	22.007	-10.0	109	0.00	12.42-12.62
12	1,4-Dichlorobenzene	20.000	20.451	-2.3	103	0.00	12.54-12.74
13	1,2-Dichlorobenzene	20.000	22.493	-12.5	115	0.00	13.05-13.25

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

	----- Amount Calc. %Drift -----						
1	Methyl tert Butyl EtHe	20.000	19.625	1.9	99	0.00	2.82- 3.02
2	Di-Isopropyl ether	20.000	20.405	-2.0	96	0.00	3.24- 3.44
3	Benzene	20.000	20.313	-1.6	95	0.00	4.61- 4.81
	----- Amount Calc. %Drift -----						
4 S	a, a, a-TFT(S)	20.000	20.020	-0.1	102	0.00	5.73- 5.93
	----- Amount Calc. %Drift -----						
5	Toluene	20.000	20.534	-2.7	97	0.00	6.97- 7.17
6	Chlorobenzene	20.000	21.130	-5.6	98	0.00	8.94- 9.14
7	Ethylbenzene	20.000	20.775	-3.9	97	0.00	9.13- 9.34
8	m,p-Xylene	40.000	41.475	-3.7	99	0.00	9.32- 9.52
9	o-Xylene	20.000	20.943	-4.7	99	0.00	9.92-10.12
	----- Amount Calc. %Drift -----						

Initial Calibration Verification

Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3810-ICV3810
Lab FileID: EF055445.D

10	S	BFB(S)	20.000	20.753	-3.8	106	0.00	10.70-11.00
----- Amount Calc. %Drift -----								
11		1,3-Dichlorobenzene	20.000	22.955	-14.8	110	0.00	12.52-12.72
----- Amount Calc. %Drift -----								
12		1,4-Dichlorobenzene	20.000	20.682	-3.4	103	0.00	12.67-12.87
13		1,2-Dichlorobenzene	20.000	22.556	-12.8	116	0.00	13.27-13.47

(#) = Out of Range SPCC's out = 0 CCC's out = 0
EF055441.D DUAL1017.M Wed Oct 19 12:39:09 2005

6.6
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Continuing Calibration Summary

Page 1 of 2

Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3846-CC3810
Lab FileID: EF056433.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\111605\EF056433.D\FID1A.CH Vial: 24
Signal #2 : C:\HPCHEM\1\DATA\111605\EF056433.D\FID2B.CH
Acq On : 16 Nov 2005 7:40 pm Operator: Trangd
Sample : CC3810-20 Inst : VOA1
Misc : gc5631,gef3846,,,,, Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL1017.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Wed Oct 19 10:44:46 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	18.898	5.5	98	0.01	2.86- 3.06
	----- Amount Calc. %Drift -----						
2	Di-Isopropyl ether	20.000	19.465	2.7	93	0.01	3.31- 3.51
3	Benzene	20.000	19.768	1.2	94	0.02	4.58- 4.78
	----- Amount Calc. %Drift -----						
4 S	a, a, a-TFT(S)	20.000	20.003	-0.0	103	0.02	5.60- 5.80
	----- Amount Calc. %Drift -----						
5	Toluene	20.000	19.765	1.2	94	0.02	7.00- 7.20
6	Chlorobenzene	20.000	19.181	4.1	92	0.03	8.81- 9.01
7	Ethylbenzene	20.000	19.834	0.8	93	0.03	9.15- 9.35
8	m,p-Xylene	40.000	39.314	1.7	94	0.03	9.46- 9.66
9	o-Xylene	20.000	19.590	2.1	93	0.03	9.99-10.20
	----- Amount Calc. %Drift -----						
10 S	BFB(S)	20.000	20.006	-0.0	102	0.03	10.50-10.80
11	1,3-Dichlorobenzene	20.000	18.352	8.2	91	0.03	12.42-12.62
12	1,4-Dichlorobenzene	20.000	17.878	10.6	90	0.03	12.54-12.74
13	1,2-Dichlorobenzene	20.000	16.412	17.9#	84	0.03	13.05-13.25

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

	----- Amount Calc. %Drift -----						
1	Methyl tert Butyl Ethe	20.000	17.973	10.1	90	0.01	2.82- 3.02
2	Di-Isopropyl ether	20.000	18.121	9.4	85	0.02	3.24- 3.44
3	Benzene	20.000	18.591	7.0	87	0.02	4.61- 4.81
	----- Amount Calc. %Drift -----						
4 S	a, a, a-TFT(S)	20.000	18.717	6.4	96	0.03	5.73- 5.93
	----- Amount Calc. %Drift -----						
5	Toluene	20.000	18.628	6.9	88	0.03	6.97- 7.17
6	Chlorobenzene	20.000	18.327	8.4	85	0.03	8.94- 9.14
7	Ethylbenzene	20.000	18.653	6.7	87	0.03	9.13- 9.34
8	m,p-Xylene	40.000	36.711	8.2	88	0.03	9.32- 9.52
9	o-Xylene	20.000	18.670	6.6	88	0.03	9.92-10.12
	----- Amount Calc. %Drift -----						

Continuing Calibration Summary

Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3846-CC3810
Lab FileID: EF056433.D

10	S	BFB(S)	20.000	19.106	4.5	97	0.03	10.70-11.00
----- Amount Calc. %Drift -----								
11		1,3-Dichlorobenzene	20.000	17.828	10.9	85	0.04	12.52-12.72
----- Amount Calc. %Drift -----								
12		1,4-Dichlorobenzene	20.000	16.913	15.4#	84	0.03	12.67-12.87
13		1,2-Dichlorobenzene	20.000	15.574	22.1#	80	0.03	13.27-13.47

(#) = Out of Range SPCC's out = 0 CCC's out = 0
EF055441.D DUAL1017.M Thu Nov 17 10:40:22 2005

6.6
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Continuing Calibration Summary

Page 1 of 2

Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3847-CC3810
Lab FileID: EF056445.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\111605\EF056445.D\FID1A.CH Vial: 35
Signal #2 : C:\HPCHEM\1\DATA\111605\EF056445.D\FID2B.CH
Acq On : 17 Nov 2005 12:46 am Operator: Trangd
Sample : CC3810-20 Inst : VOA1
Misc : gc5646,gef3847,,,,, Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL1017.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Wed Oct 19 10:44:46 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	20.656	-3.3	107	0.01	2.86- 3.06
----- Amount Calc. %Drift -----							
2	Di-Isopropyl ether	20.000	20.914	-4.6	100	0.01	3.31- 3.51
3	Benzene	20.000	20.933	-4.7	100	0.02	4.58- 4.78
----- Amount Calc. %Drift -----							
4 S	a, a, a-TFT(S)	20.000	19.054	4.7	98	0.02	5.60- 5.80
----- Amount Calc. %Drift -----							
5	Toluene	20.000	20.672	-3.4	98	0.03	7.00- 7.20
6	Chlorobenzene	20.000	20.149	-0.7	97	0.03	8.81- 9.01
7	Ethylbenzene	20.000	20.469	-2.3	96	0.03	9.15- 9.35
8	m,p-Xylene	40.000	40.911	-2.3	98	0.03	9.46- 9.66
9	o-Xylene	20.000	20.434	-2.2	97	0.03	9.99-10.20
----- Amount Calc. %Drift -----							
10 S	BFB(S)	20.000	19.417	2.9	99	0.03	10.50-10.80
11	1,3-Dichlorobenzene	20.000	19.187	4.1	95	0.03	12.42-12.62
12	1,4-Dichlorobenzene	20.000	18.668	6.7	94	0.03	12.54-12.74
13	1,2-Dichlorobenzene	20.000	17.144	14.3	88	0.03	13.05-13.25

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

----- Amount Calc. %Drift -----							
1	Methyl tert Butyl EtHe	20.000	19.567	2.2	98	0.01	2.82- 3.02
2	Di-Isopropyl ether	20.000	19.589	2.1	92	0.02	3.24- 3.44
3	Benzene	20.000	19.857	0.7	93	0.02	4.61- 4.81
----- Amount Calc. %Drift -----							
4 S	a, a, a-TFT(S)	20.000	17.745	11.3	91	0.03	5.73- 5.93
----- Amount Calc. %Drift -----							
5	Toluene	20.000	19.538	2.3	92	0.03	6.97- 7.17
6	Chlorobenzene	20.000	19.415	2.9	90	0.03	8.94- 9.14
7	Ethylbenzene	20.000	19.411	2.9	91	0.03	9.13- 9.34
8	m,p-Xylene	40.000	37.893	5.3	90	0.03	9.32- 9.52
9	o-Xylene	20.000	19.292	3.5	91	0.03	9.92-10.12
----- Amount Calc. %Drift -----							

Continuing Calibration Summary

Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3847-CC3810
Lab FileID: EF056445.D

10	S	BFB(S)	20.000	18.193	9.0	93	0.03	10.70-11.00
----- Amount Calc. %Drift -----								
11		1,3-Dichlorobenzene	20.000	18.460	7.7	88	0.03	12.52-12.72
----- Amount Calc. %Drift -----								
12		1,4-Dichlorobenzene	20.000	17.740	11.3	88	0.03	12.67-12.87
13		1,2-Dichlorobenzene	20.000	16.142	19.3#	83	0.03	13.27-13.47

(#) = Out of Range SPCC's out = 0 CCC's out = 0
EF055441.D DUAL1017.M Thu Nov 17 10:40:22 2005

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Continuing Calibration Summary

Page 1 of 2

Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3847-ECC3810
Lab FileID: EF056460.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\111605\EF056460.D\FID1A.CH Vial: 49
Signal #2 : C:\HPCHEM\1\DATA\111605\EF056460.D\FID2B.CH
Acq On : 17 Nov 2005 9:20 am Operator: Trangd
Sample : ECC3810-20 Inst : VOA1
Misc : gc5646,gef3847,,,,, Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL1017.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Wed Oct 19 10:44:46 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	19.454	2.7	101	0.02	2.86- 3.06
	----- Amount	Calc.	%Drift	-----			
2	Di-Isopropyl ether	20.000	21.140	-5.7	101	0.02	3.31- 3.51
3	Benzene	20.000	22.115	-10.6	106	0.02	4.58- 4.78
	----- Amount	Calc.	%Drift	-----			
4 S	a, a, a-TFT(S)	20.000	20.279	-1.4	104	0.03	5.60- 5.80
	----- Amount	Calc.	%Drift	-----			
5	Toluene	20.000	22.143	-10.7	105	0.03	7.00- 7.20
6	Chlorobenzene	20.000	21.447	-7.2	103	0.04	8.81- 9.01
7	Ethylbenzene	20.000	22.352	-11.8	105	0.04	9.15- 9.35
8	m,p-Xylene	40.000	44.983	-12.5	107	0.04	9.46- 9.66
9	o-Xylene	20.000	22.337	-11.7	106	0.04	9.99-10.20
	----- Amount	Calc.	%Drift	-----			
10 S	BFB(S)	20.000	20.645	-3.2	105	0.04	10.50-10.80
11	1,3-Dichlorobenzene	20.000	20.216	-1.1	100	0.04	12.42-12.62
12	1,4-Dichlorobenzene	20.000	19.984	0.1	101	0.04	12.54-12.74
13	1,2-Dichlorobenzene	20.000	16.908	15.5#	87	0.04	13.05-13.25

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

	----- Amount	Calc.	%Drift	-----			
1	Methyl tert Butyl EtHe	20.000	17.963	10.2	90	0.02	2.82- 3.02
2	Di-Isopropyl ether	20.000	18.993	5.0	90	0.02	3.24- 3.44
3	Benzene	20.000	20.154	-0.8	94	0.03	4.61- 4.81
	----- Amount	Calc.	%Drift	-----			
4 S	a, a, a-TFT(S)	20.000	18.287	8.6	93	0.03	5.73- 5.93
	----- Amount	Calc.	%Drift	-----			
5	Toluene	20.000	20.464	-2.3	96	0.03	6.97- 7.17
6	Chlorobenzene	20.000	20.058	-0.3	93	0.04	8.94- 9.14
7	Ethylbenzene	20.000	20.723	-3.6	97	0.04	9.13- 9.34
8	m,p-Xylene	40.000	41.408	-3.5	99	0.05	9.32- 9.52
9	o-Xylene	20.000	20.803	-4.0	99	0.05	9.92-10.12
	----- Amount	Calc.	%Drift	-----			

Continuing Calibration Summary

Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3847-ECC3810
Lab FileID: EF056460.D

10	S	BFB(S)	20.000	19.373	3.1	99	0.04	10.70-11.00
----- Amount Calc. %Drift -----								
11		1,3-Dichlorobenzene	20.000	19.335	3.3	92	0.04	12.52-12.72
----- Amount Calc. %Drift -----								
12		1,4-Dichlorobenzene	20.000	18.516	7.4	92	0.04	12.67-12.87
13		1,2-Dichlorobenzene	20.000	15.467	22.7#	79	0.04	13.27-13.47

(#) = Out of Range SPCC's out = 0 CCC's out = 0
EF055441.D DUAL1017.M Thu Nov 17 10:40:23 2005

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Continuing Calibration Summary

Page 1 of 2

Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3852-CC3810
Lab FileID: EF056563.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\112105\EF056563.D\FID1A.CH Vial: 3
Signal #2 : C:\HPCHEM\1\DATA\112105\EF056563.D\FID2B.CH
Acq On : 21 Nov 2005 1:18 pm Operator: Trangd
Sample : CC3810-20 Inst : VOA1
Misc : gc5646,gef3852,,,,, Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL1017.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Wed Oct 19 10:44:46 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	21.925	-9.6	113	0.00	2.86- 3.06
	----- Amount Calc. %Drift -----						
2	Di-Isopropyl ether	20.000	21.769	-8.8	104	0.00	3.31- 3.51
3	Benzene	20.000	21.773	-8.9	104	0.00	4.58- 4.78
	----- Amount Calc. %Drift -----						
4 S	a, a, a-TFT(S)	20.000	21.070	-5.4	108	0.00	5.60- 5.80
	----- Amount Calc. %Drift -----						
5	Toluene	20.000	21.864	-9.3	104	0.01	7.00- 7.20
6	Chlorobenzene	20.000	21.599	-8.0	104	0.01	8.81- 9.01
7	Ethylbenzene	20.000	22.119	-10.6	103	0.01	9.15- 9.35
8	m,p-Xylene	40.000	43.811	-9.5	104	0.01	9.46- 9.66
9	o-Xylene	20.000	21.748	-8.7	103	0.01	9.99-10.20
	----- Amount Calc. %Drift -----						
10 S	BFB(S)	20.000	20.415	-2.1	104	0.01	10.50-10.80
11	1,3-Dichlorobenzene	20.000	21.204	-6.0	105	0.02	12.42-12.62
12	1,4-Dichlorobenzene	20.000	20.627	-3.1	104	0.02	12.54-12.74
13	1,2-Dichlorobenzene	20.000	18.892	5.5	97	0.02	13.05-13.25

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

	----- Amount Calc. %Drift -----						
1	Methyl tert Butyl EtHe	20.000	20.553	-2.8	103	0.00	2.82- 3.02
2	Di-Isopropyl ether	20.000	20.349	-1.7	96	0.00	3.24- 3.44
3	Benzene	20.000	20.446	-2.2	96	0.00	4.61- 4.81
	----- Amount Calc. %Drift -----						
4 S	a, a, a-TFT(S)	20.000	19.557	2.2	100	0.01	5.73- 5.93
	----- Amount Calc. %Drift -----						
5	Toluene	20.000	20.415	-2.1	96	0.02	6.97- 7.17
6	Chlorobenzene	20.000	20.325	-1.6	94	0.02	8.94- 9.14
7	Ethylbenzene	20.000	20.696	-3.5	97	0.02	9.13- 9.34
8	m,p-Xylene	40.000	40.682	-1.7	97	0.02	9.32- 9.52
9	o-Xylene	20.000	20.496	-2.5	97	0.02	9.92-10.12
	----- Amount Calc. %Drift -----						

Continuing Calibration Summary

Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3852-CC3810
Lab FileID: EF056563.D

10	S	BFB(S)	20.000	19.294	3.5	98	0.02	10.70-11.00
----- Amount Calc. %Drift -----								
11		1,3-Dichlorobenzene	20.000	20.269	-1.3	97	0.02	12.52-12.72
----- Amount Calc. %Drift -----								
12		1,4-Dichlorobenzene	20.000	19.516	2.4	97	0.02	12.67-12.87
13		1,2-Dichlorobenzene	20.000	17.383	13.1	89	0.02	13.27-13.47

(#) = Out of Range SPCC's out = 0 CCC's out = 0
EF055441.D DUAL1017.M Tue Nov 22 15:53:55 2005

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Continuing Calibration Summary

Page 1 of 2

Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3852-CC3810
Lab FileID: EF056574.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\112105\EF056574.D\FID1A.CH Vial: 14
Signal #2 : C:\HPCHEM\1\DATA\112105\EF056574.D\FID2B.CH
Acq On : 21 Nov 2005 7:33 pm Operator: Trangd
Sample : CC3810-20 Inst : VOA1
Misc : gc5646,gef3852,,,, Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL1017.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Wed Oct 19 10:44:46 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	21.569	-7.8	112	0.00	2.86-	3.06
	----- Amount	Calc.	%Drift	-----				
2	Di-Isopropyl ether	20.000	21.793	-9.0	104	0.00	3.31-	3.51
3	Benzene	20.000	21.982	-9.9	105	0.00	4.58-	4.78
	----- Amount	Calc.	%Drift	-----				
4 S	a, a, a-TFT(S)	20.000	19.838	0.8	102	0.01	5.60-	5.80
	----- Amount	Calc.	%Drift	-----				
5	Toluene	20.000	21.892	-9.5	104	0.01	7.00-	7.20
6	Chlorobenzene	20.000	21.560	-7.8	104	0.02	8.81-	9.01
7	Ethylbenzene	20.000	22.129	-10.6	104	0.02	9.15-	9.35
8	m, p-Xylene	40.000	43.716	-9.3	104	0.02	9.46-	9.66
9	o-Xylene	20.000	21.820	-9.1	104	0.02	9.99-	10.20
	----- Amount	Calc.	%Drift	-----				
10 S	BFB(S)	20.000	19.323	3.4	98	0.02	10.50-	10.80
11	1,3-Dichlorobenzene	20.000	20.206	-1.0	100	0.02	12.42-	12.62
12	1,4-Dichlorobenzene	20.000	19.832	0.8	100	0.02	12.54-	12.74
13	1,2-Dichlorobenzene	20.000	17.984	10.1	92	0.02	13.05-	13.25

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

	----- Amount	Calc.	%Drift	-----				
1	Methyl tert Butyl Ethe	20.000	20.400	-2.0	102	0.00	2.82-	3.02
2	Di-Isopropyl ether	20.000	20.322	-1.6	96	0.00	3.24-	3.44
3	Benzene	20.000	20.660	-3.3	97	0.01	4.61-	4.81
	----- Amount	Calc.	%Drift	-----				
4 S	a, a, a-TFT(S)	20.000	18.334	8.3	94	0.02	5.73-	5.93
	----- Amount	Calc.	%Drift	-----				
5	Toluene	20.000	20.709	-3.5	97	0.02	6.97-	7.17
6	Chlorobenzene	20.000	20.274	-1.4	94	0.02	8.94-	9.14
7	Ethylbenzene	20.000	20.538	-2.7	96	0.02	9.13-	9.34
8	m, p-Xylene	40.000	40.674	-1.7	97	0.02	9.32-	9.52
9	o-Xylene	20.000	20.545	-2.7	97	0.02	9.92-	10.12
	----- Amount	Calc.	%Drift	-----				

Continuing Calibration Summary

Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3852-CC3810
Lab FileID: EF056574.D

10	S	BFB(S)	20.000	18.165	9.2	93	0.02	10.70-11.00
----- Amount Calc. %Drift -----								
11		1,3-Dichlorobenzene	20.000	19.269	3.7	92	0.02	12.52-12.72
----- Amount Calc. %Drift -----								
12		1,4-Dichlorobenzene	20.000	18.469	7.7	92	0.02	12.67-12.87
13		1,2-Dichlorobenzene	20.000	15.871	20.6#	82	0.02	13.27-13.47

(#) = Out of Range SPCC's out = 0 CCC's out = 0
EF055441.D DUAL1017.M Tue Nov 22 15:53:56 2005

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Continuing Calibration Summary

Page 1 of 2

Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3852-ECC3810
Lab FileID: EF056587.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\112105\EF056587.D\FID1A.CH Vial: 27
Signal #2 : C:\HPCHEM\1\DATA\112105\EF056587.D\FID2B.CH
Acq On : 22 Nov 2005 9:37 am Operator: Trangd
Sample : ECC3810-40 Inst : VOA1
Misc : gc5664,gef3852,,,, Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL1017.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Wed Oct 19 10:44:46 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	38.999	2.5	98	0.01	2.86- 3.06
----- Amount Calc. %Drift -----							
2	Di-Isopropyl ether	40.000	38.862	2.8	93	0.01	3.31- 3.51
3	Benzene	40.000	38.343	4.1	93	0.02	4.58- 4.78
----- Amount Calc. %Drift -----							
4 S	a, a, a-TFT(S)	20.000	21.428	-7.1	105	0.02	5.60- 5.80
----- Amount Calc. %Drift -----							
5	Toluene	40.000	38.694	3.3	94	0.02	7.00- 7.20
6	Chlorobenzene	40.000	37.857	5.4	92	0.04	8.81- 9.01
7	Ethylbenzene	40.000	39.859	0.4	96	0.03	9.15- 9.35
8	m,p-Xylene	80.000	78.341	2.1	94	0.03	9.46- 9.66
9	o-Xylene	40.000	38.746	3.1	92	0.03	9.99-10.20
----- Amount Calc. %Drift -----							
10 S	BFB(S)	20.000	20.531	-2.7	100	0.03	10.50-10.80
11	1,3-Dichlorobenzene	40.000	36.191	9.5	89	0.03	12.42-12.62
12	1,4-Dichlorobenzene	40.000	35.768	10.6	89	0.03	12.54-12.74
13	1,2-Dichlorobenzene	40.000	31.303	21.7#	79	0.03	13.05-13.25

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

----- Amount Calc. %Drift -----							
1	Methyl tert Butyl EtHe	40.000	37.174	7.1	91	0.01	2.82- 3.02
2	Di-Isopropyl ether	40.000	36.324	9.2	86	0.02	3.24- 3.44
3	Benzene	40.000	35.448	11.4	86	0.02	4.61- 4.81
----- Amount Calc. %Drift -----							
4 S	a, a, a-TFT(S)	20.000	19.915	0.4	97	0.03	5.73- 5.93
----- Amount Calc. %Drift -----							
5	Toluene	40.000	35.966	10.1	87	0.03	6.97- 7.17
6	Chlorobenzene	40.000	35.954	10.1	87	0.04	8.94- 9.14
7	Ethylbenzene	40.000	36.877	7.8	89	0.04	9.13- 9.34
8	m,p-Xylene	80.000	72.778	9.0	88	0.04	9.32- 9.52
9	o-Xylene	40.000	36.113	9.7	86	0.03	9.92-10.12
----- Amount Calc. %Drift -----							

Continuing Calibration Summary

Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3852-ECC3810
Lab FileID: EF056587.D

10	S	BFB(S)	20.000	19.237	3.8	94	0.03	10.70-11.00
		----- Amount	Calc.	%Drift	-----			
11		1,3-Dichlorobenzene	40.000	34.766	13.1	83	0.03	12.52-12.72
		----- Amount	Calc.	%Drift	-----			
12		1,4-Dichlorobenzene	40.000	33.175	17.1#	83	0.03	12.67-12.87
13		1,2-Dichlorobenzene	40.000	28.917	27.7#	73	0.03	13.27-13.47

(#) = Out of Range SPCC's out = 0 CCC's out = 0
EF055442.D DUAL1017.M Tue Nov 22 15:52:27 2005

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Continuing Calibration Summary

Page 1 of 2

Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3857-CC3810
Lab FileID: EF056694.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\112705\EF056694.D\FID1A.CH Vial: 1
Signal #2 : C:\HPCHEM\1\DATA\112705\EF056694.D\FID2B.CH
Acq On : 28 Nov 2005 8:52 am Operator: Trangd
Sample : CC3810-20 Inst : VOA1
Misc : gc5646,gef3857,,,,, Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL1017.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Wed Oct 19 10:44:46 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	18.101	9.5	94	-0.03	2.86- 3.06
	----- Amount Calc.			%Drift	-----		
2	Di-Isopropyl ether	20.000	20.442	-2.2	97	-0.03	3.31- 3.51
3	Benzene	20.000	21.162	-5.8	101	-0.04	4.58- 4.78
	----- Amount Calc.			%Drift	-----		
4 S	a, a, a-TFT(S)	20.000	19.718	1.4	101	-0.04	5.60- 5.80
	----- Amount Calc.			%Drift	-----		
5	Toluene	20.000	21.418	-7.1	102	-0.04	7.00- 7.20
6	Chlorobenzene	20.000	20.495	-2.5	99	-0.03	8.81- 9.01
7	Ethylbenzene	20.000	21.344	-6.7	100	-0.03	9.15- 9.35
8	m,p-Xylene	40.000	42.676	-6.7	102	-0.03	9.46- 9.66
9	o-Xylene	20.000	21.178	-5.9	101	-0.03	9.99-10.20
	----- Amount Calc.			%Drift	-----		
10 S	BFB(S)	20.000	20.975	-4.9	107	-0.03	10.50-10.80
11	1,3-Dichlorobenzene	20.000	19.740	1.3	98	-0.04	12.42-12.62
12	1,4-Dichlorobenzene	20.000	19.717	1.4	99	-0.04	12.54-12.74
13	1,2-Dichlorobenzene	20.000	17.509	12.5	90	-0.04	13.05-13.25

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

	----- Amount Calc.			%Drift	-----		
1	Methyl tert Butyl EtHe	20.000	17.368	13.2	87	-0.03	2.82- 3.02
2	Di-Isopropyl ether	20.000	19.152	4.2	90	-0.03	3.24- 3.44
3	Benzene	20.000	20.142	-0.7	94	-0.04	4.61- 4.81
	----- Amount Calc.			%Drift	-----		
4 S	a, a, a-TFT(S)	20.000	18.781	6.1	96	-0.04	5.73- 5.93
	----- Amount Calc.			%Drift	-----		
5	Toluene	20.000	20.610	-3.0	97	-0.04	6.97- 7.17
6	Chlorobenzene	20.000	20.008	-0.0	93	-0.03	8.94- 9.14
7	Ethylbenzene	20.000	20.462	-2.3	96	-0.03	9.13- 9.34
8	m,p-Xylene	40.000	40.985	-2.5	98	-0.03	9.32- 9.52
9	o-Xylene	20.000	20.326	-1.6	96	-0.03	9.92-10.12
	----- Amount Calc.			%Drift	-----		

Continuing Calibration Summary

Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3857-CC3810
Lab FileID: EF056694.D

10	S	BFB(S)	20.000	20.128	-0.6	103	-0.03	10.70-11.00
----- Amount Calc. %Drift -----								
11		1,3-Dichlorobenzene	20.000	19.775	1.1	94	-0.04	12.52-12.72
----- Amount Calc. %Drift -----								
12		1,4-Dichlorobenzene	20.000	18.932	5.3	94	-0.04	12.67-12.87
13		1,2-Dichlorobenzene	20.000	16.678	16.6#	86	-0.04	13.27-13.47

(#) = Out of Range SPCC's out = 0 CCC's out = 0
EF055441.D DUAL1017.M Tue Nov 29 11:38:36 2005

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Continuing Calibration Summary

Page 1 of 2

Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3857-CC3810
Lab FileID: EF056705.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\112705\EF056705.D\FID1A.CH Vial: 12
Signal #2 : C:\HPCHEM\1\DATA\112705\EF056705.D\FID2B.CH
Acq On : 28 Nov 2005 2:01 pm Operator: Trangd
Sample : CC3810-20 Inst : VOA1
Misc : gc5664,gef3857,,,,, Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL1017.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Wed Oct 19 10:44:46 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	22.406	-12.0	116	-0.02	2.86-	3.06
	----- Amount	Calc.	%Drift	-----				
2	Di-Isopropyl ether	20.000	23.357	-16.8#	111	-0.02	3.31-	3.51
3	Benzene	20.000	23.086	-15.4#	110	-0.02	4.58-	4.78
	----- Amount	Calc.	%Drift	-----				
4 S	a, a, a-TFT(S)	20.000	18.846	5.8	97	-0.02	5.60-	5.80
	----- Amount	Calc.	%Drift	-----				
5	Toluene	20.000	23.037	-15.2#	109	-0.02	7.00-	7.20
6	Chlorobenzene	20.000	22.210	-11.1	107	0.00	8.81-	9.01
7	Ethylbenzene	20.000	23.061	-15.3#	108	0.00	9.15-	9.35
8	m,p-Xylene	40.000	46.058	-15.1#	110	0.00	9.46-	9.66
9	o-Xylene	20.000	22.787	-13.9	108	0.00	9.99-	10.20
	----- Amount	Calc.	%Drift	-----				
10 S	BFB(S)	20.000	19.050	4.7	97	0.00	10.50-	10.80
11	1,3-Dichlorobenzene	20.000	21.047	-5.2	104	0.00	12.42-	12.62
12	1,4-Dichlorobenzene	20.000	20.925	-4.6	106	0.00	12.54-	12.74
13	1,2-Dichlorobenzene	20.000	17.988	10.1	92	-0.01	13.05-	13.25

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

	----- Amount	Calc.	%Drift	-----				
1	Methyl tert Butyl EtHe	20.000	21.696	-8.5	109	-0.02	2.82-	3.02
2	Di-Isopropyl ether	20.000	22.452	-12.3	106	-0.02	3.24-	3.44
3	Benzene	20.000	22.470	-12.3	105	-0.01	4.61-	4.81
	----- Amount	Calc.	%Drift	-----				
4 S	a, a, a-TFT(S)	20.000	18.303	8.5	94	-0.01	5.73-	5.93
	----- Amount	Calc.	%Drift	-----				
5	Toluene	20.000	22.555	-12.8	106	-0.01	6.97-	7.17
6	Chlorobenzene	20.000	22.010	-10.1	102	0.00	8.94-	9.14
7	Ethylbenzene	20.000	22.495	-12.5	105	0.00	9.13-	9.34
8	m,p-Xylene	40.000	44.848	-12.1	107	0.00	9.32-	9.52
9	o-Xylene	20.000	22.528	-12.6	107	0.00	9.92-	10.12
	----- Amount	Calc.	%Drift	-----				

Continuing Calibration Summary

Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3857-CC3810
Lab FileID: EF056705.D

10	S	BFB(S)	20.000	18.689	6.6	95	0.00	10.70-11.00
----- Amount Calc. %Drift -----								
11		1,3-Dichlorobenzene	20.000	21.392	-7.0	102	0.00	12.52-12.72
----- Amount Calc. %Drift -----								
12		1,4-Dichlorobenzene	20.000	20.177	-0.9	100	0.00	12.67-12.87
13		1,2-Dichlorobenzene	20.000	17.537	12.3	90	0.00	13.27-13.47

(#) = Out of Range SPCC's out = 0 CCC's out = 0
EF055441.D DUAL1017.M Tue Nov 29 11:38:36 2005

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Continuing Calibration Summary

Page 1 of 2

Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3857-ECC3810
Lab FileID: EF056717.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\112705\EF056717.D\FID1A.CH Vial: 23
Signal #2 : C:\HPCHEM\1\DATA\112705\EF056717.D\FID2B.CH
Acq On : 28 Nov 2005 7:13 pm Operator: Trangd
Sample : ECC3810-20 Inst : VOA1
Misc : gc5676,gef3857,,,,, Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL1017.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Wed Oct 19 10:44:46 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	20.739	-3.7	107	-0.01	2.86- 3.06
----- Amount Calc. %Drift -----							
2	Di-Isopropyl ether	20.000	21.327	-6.6	102	-0.01	3.31- 3.51
3	Benzene	20.000	21.128	-5.6	101	-0.01	4.58- 4.78
----- Amount Calc. %Drift -----							
4 S	a, a, a-TFT(S)	20.000	19.516	2.4	100	-0.01	5.60- 5.80
----- Amount Calc. %Drift -----							
5	Toluene	20.000	21.087	-5.4	100	-0.01	7.00- 7.20
6	Chlorobenzene	20.000	20.503	-2.5	99	-0.01	8.81- 9.01
7	Ethylbenzene	20.000	21.177	-5.9	99	-0.01	9.15- 9.35
8	m,p-Xylene	40.000	42.333	-5.8	101	0.00	9.46- 9.66
9	o-Xylene	20.000	20.976	-4.9	100	0.00	9.99-10.20
----- Amount Calc. %Drift -----							
10 S	BFB(S)	20.000	19.975	0.1	101	0.00	10.50-10.80
11	1,3-Dichlorobenzene	20.000	19.432	2.8	96	0.00	12.42-12.62
12	1,4-Dichlorobenzene	20.000	19.268	3.7	97	0.00	12.54-12.74
13	1,2-Dichlorobenzene	20.000	17.223	13.9	88	0.00	13.05-13.25

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

----- Amount Calc. %Drift -----							
1	Methyl tert Butyl EtHe	20.000	20.224	-1.1	102	-0.01	2.82- 3.02
2	Di-Isopropyl ether	20.000	20.636	-3.2	97	-0.01	3.24- 3.44
3	Benzene	20.000	20.733	-3.7	97	-0.01	4.61- 4.81
----- Amount Calc. %Drift -----							
4 S	a, a, a-TFT(S)	20.000	18.876	5.6	96	0.00	5.73- 5.93
----- Amount Calc. %Drift -----							
5	Toluene	20.000	20.611	-3.1	97	0.00	6.97- 7.17
6	Chlorobenzene	20.000	20.218	-1.1	94	0.00	8.94- 9.14
7	Ethylbenzene	20.000	20.405	-2.0	95	0.00	9.13- 9.34
8	m,p-Xylene	40.000	40.347	-0.9	96	0.00	9.32- 9.52
9	o-Xylene	20.000	20.313	-1.6	96	0.00	9.92-10.12
----- Amount Calc. %Drift -----							

Continuing Calibration Summary

Job Number: F36623
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3857-ECC3810
Lab FileID: EF056717.D

10	S	BFB(S)	20.000	19.313	3.4	98	0.00	10.70-11.00
----- Amount Calc. %Drift -----								
11		1,3-Dichlorobenzene	20.000	19.445	2.8	93	0.00	12.52-12.72
----- Amount Calc. %Drift -----								
12		1,4-Dichlorobenzene	20.000	18.528	7.4	92	0.00	12.67-12.87
13		1,2-Dichlorobenzene	20.000	16.534	17.3#	85	0.00	13.27-13.47

(#) = Out of Range SPCC's out = 0 CCC's out = 0
EF055441.D DUAL1017.M Tue Nov 29 11:39:06 2005

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Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F36623
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IP111606.ASC
Analyst: RS
Parameters: Pb

Date Analyzed: 11/16/05 Methods: SW846 6010B
Run ID: MA4672

Time	Sample Description	Dilution Factor	PS Recov	Comments
08:28	MA4672-HSTD1	1		
08:30	MA4672-ICV1	1		
08:33	MA4672-ICB1	1		
08:37	MA4672-CRIA1	1		
08:39	MA4672-CRI1	1		
08:45	MA4672-ICSA1	1		
08:46	MA4672-ICSAB1	1		
08:48	MA4672-CCV1	1		
08:51	MA4672-CCB1	1		
08:54	MP8916-MB1	1		
08:58	MP8916-B1	1		
09:01	F36431-3	1		(sample used for QC only; not part of login F36623)
09:04	MP8916-D1	1		
09:08	MP8916-SD1	5		
09:11	MP8916-S1	1		
09:14	ZZZZZZ	1		
09:17	ZZZZZZ	1		
09:24	MP8916-MB2	1		
09:27	MA4672-CCV2	1		
09:31	MA4672-CCB2	1		
09:34	MP8916-B2	1		
09:37	MP8919-MB1	1		
09:41	MP8919-B1	1		
09:44	MP8919-B2	1		
09:47	ZZZZZZ	1		
09:50	ZZZZZZ	1		
09:54	ZZZZZZ	1		
09:57	ZZZZZZ	1		
10:00	ZZZZZZ	1		
10:04	ZZZZZZ	1		
10:07	MA4672-CCV3	1		
10:10	MA4672-CCB3	1		
10:14	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F36623
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IP111606.ASC
Analyst: RS
Parameters: Pb

Date Analyzed: 11/16/05 Methods: SW846 6010B
Run ID: MA4672

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:17	MP8918-MB1	1		
10:20	MP8918-B1	1		
10:23	F36383-5	1		(sample used for QC only; not part of login F36623)
10:27	MP8918-D1	1		
10:30	MP8918-SD1	5		
10:35	MP8918-S1	1		
10:39	MP8918-S2	1		
10:42	ZZZZZZ	1		
10:45	ZZZZZZ	1		
10:48	MA4672-CCV4	1		
10:52	MA4672-CCB4	1		
10:55	ZZZZZZ	1		
10:58	ZZZZZZ	1		
11:02	ZZZZZZ	1		
11:05	ZZZZZZ	1		
11:08	ZZZZZZ	1		
11:12	ZZZZZZ	1		
11:15	ZZZZZZ	1		
11:18	ZZZZZZ	1		
11:21	ZZZZZZ	1		
11:25	ZZZZZZ	1		
11:28	MA4672-CCV5	1		
11:31	MA4672-CCB5	1		
11:35	ZZZZZZ	1		
11:38	ZZZZZZ	1		
11:41	ZZZZZZ	1		
11:58	MP8914-MB1	1		
12:01	MP8914-B1	1		
12:04	F36623-1	1		
12:08	MA4672-CCV6	1		
12:11	MA4672-CCB6	1		
12:14	MP8914-D1	5		
12:18	MP8914-SD1	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F36623
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IP111606.ASC
Analyst: RS
Parameters: Pb

Date Analyzed: 11/16/05 Methods: SW846 6010B
Run ID: MA4672

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:21	MP8914-S1	1		
12:24	F36623-2	1		
12:27	F36623-3	1		
12:31	F36623-4	1		
12:34	F36623-5	1		
----->	Last reportable sample/			prep for job F36623
12:37	ZZZZZZ	1		
12:41	ZZZZZZ	1		
12:44	MA4672-CCV7	1		
12:47	MA4672-CCB7	1		
13:09	MA4672-CCV8	1		
13:12	MA4672-CCB8	1		
13:21	ZZZZZZ	1		
13:24	ZZZZZZ	1		
13:27	ZZZZZZ	1		
13:30	ZZZZZZ	1		
13:34	ZZZZZZ	1		
13:37	ZZZZZZ	1		
13:40	ZZZZZZ	1		
13:44	ZZZZZZ	1		
13:47	ZZZZZZ	1		
13:50	ZZZZZZ	1		
13:54	MA4672-CCV9	1		
13:57	MA4672-CCB9	1		
14:00	ZZZZZZ	1		
14:03	MP8915-MB2A	1		
14:07	MP8913-MB1	1		
14:10	MP8913-B1	1		
14:13	F36407-8	1		(sample used for QC only; not part of login F36623)
14:17	MP8913-D1	1		
14:20	MP8913-SD1	5		
14:23	MP8913-S1	1		
14:27	MP8913-S2	1		
14:30	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F36623
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IP111606.ASC
Analyst: RS
Parameters: Pb

Date Analyzed: 11/16/05 Methods: SW846 6010B
Run ID: MA4672

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:33	MA4672-CCV10	1		
14:36	MA4672-CCB10	1		
14:48	MA4672-CCB11	1		
14:51	ZZZZZZ	1		
14:55	ZZZZZZ	1		
14:58	ZZZZZZ	1		
15:01	ZZZZZZ	1		
15:05	ZZZZZZ	1		
15:08	ZZZZZZ	1		
15:11	ZZZZZZ	1		
15:14	ZZZZZZ	1		
15:18	ZZZZZZ	1		
15:21	ZZZZZZ	1		
15:24	MA4672-CCV11	1		
15:28	MA4672-CCB12	1		
15:31	ZZZZZZ	1		
15:34	ZZZZZZ	1		
15:38	ZZZZZZ	1		
15:41	ZZZZZZ	1		
15:57	ZZZZZZ	1		
16:00	ZZZZZZ	1		
16:04	ZZZZZZ	1		
16:07	ZZZZZZ	1		
16:17	MA4672-CCV12	1		
16:20	MA4672-CCB13	1		
16:27	MP8927-MB1	1		
16:30	MP8927-B1	1		
16:33	MP8927-B2	1		
16:37	ZZZZZZ	1		
16:40	ZZZZZZ	1		
16:43	MP8925-MB1	1		
16:47	MP8925-B1	1		
16:50	F36533-1B	1		(sample used for QC only; not part of login F36623)

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F36623
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IP111606.ASC
Analyst: RS
Parameters: Pb

Date Analyzed: 11/16/05 Methods: SW846 6010B
Run ID: MA4672

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:53	MP8925-D1	1		
16:56	MA4672-CCV13	1		
17:00	MA4672-CCB14	1		
17:03	MP8925-SD1	5		
17:06	MP8925-S1	1		
17:10	ZZZZZZ	1		
17:13	ZZZZZZ	1		
17:16	ZZZZZZ	1		
17:20	MP8925-LCS	1		
17:23	MP8925-MB2	1		
17:36	MA4672-CCV14	1		
17:39	MA4672-CCB15	1		
18:16	MA4672-CCV15	1		
18:19	MA4672-CCB16	1		
18:39	MA4672-CRIA2	1		
18:42	MA4672-CRI2	1		
18:45	MA4672-ICSA2	1		
18:49	MA4672-ICSAB2	1		
18:52	MA4672-CCV16	1		
18:55	MA4672-CCB17	1		
-----> Last reportable CCB for job F36623				
Refer to raw data for calibration curve and standards.				

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INTERNAL STANDARD SUMMARY

Login Number: F36623
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IP111606.ASC
Analyst: RS
Parameters: Pb

Date Analyzed: 11/16/05 Methods: SW846 6010B
Run ID: MA4672

Time	Sample Description	Istd#1
08:28	MA4672-HSTD1	1664
08:30	MA4672-ICV1	1692
08:33	MA4672-ICB1	1752 R
08:37	MA4672-CRIA1	1757
08:39	MA4672-CRI1	1746
08:45	MA4672-ICSA1	1526
08:46	MA4672-ICSAB1	1522
08:48	MA4672-CCV1	1670
08:51	MA4672-CCB1	1739
08:54	MP8916-MB1	1756
08:58	MP8916-B1	1682
09:01	F36431-3	1721
09:04	MP8916-D1	1713
09:08	MP8916-SD1	1739
09:11	MP8916-S1	1668
09:14	ZZZZZZ	1738
09:17	ZZZZZZ	1640
09:24	MP8916-MB2	1744
09:27	MA4672-CCV2	1674
09:31	MA4672-CCB2	1738
09:34	MP8916-B2	1689
09:37	MP8919-MB1	1714
09:41	MP8919-B1	1726
09:44	MP8919-B2	1711
09:47	ZZZZZZ	1741
09:50	ZZZZZZ	1727
09:54	ZZZZZZ	1718
09:57	ZZZZZZ	1727
10:00	ZZZZZZ	1728
10:04	ZZZZZZ	1718
10:07	MA4672-CCV3	1688
10:10	MA4672-CCB3	1742
10:14	ZZZZZZ	1709

INTERNAL STANDARD SUMMARY

Login Number: F36623
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IP111606.ASC
Analyst: RS
Parameters: Pb

Date Analyzed: 11/16/05 Methods: SW846 6010B
Run ID: MA4672

Time	Sample Description	Istd#1
10:17	MP8918-MB1	1705
10:20	MP8918-B1	1682
10:23	F36383-5	1727
10:27	MP8918-D1	1713
10:30	MP8918-SD1	1759
10:35	MP8918-S1	1684
10:39	MP8918-S2	1681
10:42	ZZZZZZ	1726
10:45	ZZZZZZ	1717
10:48	MA4672-CCV4	1703
10:52	MA4672-CCB4	1761
10:55	ZZZZZZ	1718
10:58	ZZZZZZ	1723
11:02	ZZZZZZ	1741
11:05	ZZZZZZ	1734
11:08	ZZZZZZ	1628
11:12	ZZZZZZ	1783
11:15	ZZZZZZ	1726
11:18	ZZZZZZ	1733
11:21	ZZZZZZ	1713
11:25	ZZZZZZ	1734
11:28	MA4672-CCV5	1702
11:31	MA4672-CCB5	1738
11:35	ZZZZZZ	1660
11:38	ZZZZZZ	1726
11:41	ZZZZZZ	1738
11:58	MP8914-MB1	1776
12:01	MP8914-B1	1775
12:04	F36623-1	1716
12:08	MA4672-CCV6	1699
12:11	MA4672-CCB6	1740
12:14	MP8914-D1	1630
12:18	MP8914-SD1	1740

INTERNAL STANDARD SUMMARY

Login Number: F36623
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IP111606.ASC
Analyst: RS
Parameters: Pb

Date Analyzed: 11/16/05 Methods: SW846 6010B
Run ID: MA4672

Time	Sample Description	Istd#1
12:21	MP8914-S1	1718
12:24	F36623-2	1766
12:27	F36623-3	1866
12:31	F36623-4	1830
12:34	F36623-5	1851
12:37	ZZZZZZ	1852
12:41	ZZZZZZ	1870
12:44	MA4672-CCV7	1804
12:47	MA4672-CCB7	1886
13:09	MA4672-CCV8	1758
13:12	MA4672-CCB8	1833
13:21	ZZZZZZ	1772
13:24	ZZZZZZ	1808
13:27	ZZZZZZ	1811
13:30	ZZZZZZ	1734
13:34	ZZZZZZ	1826
13:37	ZZZZZZ	1812
13:40	ZZZZZZ	1810
13:44	ZZZZZZ	1827
13:47	ZZZZZZ	1816
13:50	ZZZZZZ	1759
13:54	MA4672-CCV9	1737
13:57	MA4672-CCB9	1814
14:00	ZZZZZZ	1697
14:03	MP8915-MB2A	1826
14:07	MP8913-MB1	1823
14:10	MP8913-B1	1773
14:13	F36407-8	1831
14:17	MP8913-D1	1821
14:20	MP8913-SD1	1837
14:23	MP8913-S1	1776
14:27	MP8913-S2	1780
14:30	ZZZZZZ	1722

INTERNAL STANDARD SUMMARY

Login Number: F36623
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IP111606.ASC
Analyst: RS
Parameters: Pb

Date Analyzed: 11/16/05 Methods: SW846 6010B
Run ID: MA4672

Time	Sample Description	Istd#1
14:33	MA4672-CCV10	1765
14:36	MA4672-CCB10	1845
14:48	MA4672-CCB11	1878
14:51	ZZZZZZ	1736
14:55	ZZZZZZ	1729
14:58	ZZZZZZ	1777
15:01	ZZZZZZ	1786
15:05	ZZZZZZ	1773
15:08	ZZZZZZ	1809
15:11	ZZZZZZ	1827
15:14	ZZZZZZ	1770
15:18	ZZZZZZ	1773
15:21	ZZZZZZ	1849
15:24	MA4672-CCV11	1775
15:28	MA4672-CCB12	1857
15:31	ZZZZZZ	1905
15:34	ZZZZZZ	1902
15:38	ZZZZZZ	1818
15:41	ZZZZZZ	1823
15:57	ZZZZZZ	1817
16:00	ZZZZZZ	1909
16:04	ZZZZZZ	1908
16:07	ZZZZZZ	1869
16:17	MA4672-CCV12	1784
16:20	MA4672-CCB13	1855
16:27	MP8927-MB1	1807
16:30	MP8927-B1	1791
16:33	MP8927-B2	1825
16:37	ZZZZZZ	1819
16:40	ZZZZZZ	1823
16:43	MP8925-MB1	1850
16:47	MP8925-B1	1844
16:50	F36533-1B	1856

INTERNAL STANDARD SUMMARY

Login Number: F36623
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IP111606.ASC
Analyst: RS
Parameters: Pb

Date Analyzed: 11/16/05 Methods: SW846 6010B
Run ID: MA4672

Time	Sample Description	Istd#1
16:53	MP8925-D1	1809
16:56	MA4672-CCV13	1806
17:00	MA4672-CCB14	1868
17:03	MP8925-SD1	1848
17:06	MP8925-S1	1813
17:10	ZZZZZZ	1857
17:13	ZZZZZZ	1872
17:16	ZZZZZZ	1864
17:20	MP8925-LCS	2054
17:23	MP8925-MB2	1860
17:36	MA4672-CCV14	1841
17:39	MA4672-CCB15	1895
18:16	MA4672-CCV15	1827
18:19	MA4672-CCB16	1919
18:39	MA4672-CRIA2	1903
18:42	MA4672-CRI2	1894
18:45	MA4672-ICSA2	1641
18:49	MA4672-ICSAB2	1641
18:52	MA4672-CCV16	1814
18:55	MA4672-CCB17	1889

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium	60-125 %

7.1.1

7

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F36623
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IP111606.ASC
QC Limits: result < RL

Date Analyzed: 11/16/05
Run ID: MA4672

Methods: SW846 6010B
Units: ug/l

Time: Sample ID:			08:33 ICB1		08:51 CCB1		09:31 CCB2		10:10 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	13	anr							
Antimony	5.0	1.5								
Arsenic	10	2.1	anr							
Barium	200	.5								
Beryllium	4.0	.2	anr							
Cadmium	5.0	.5	anr							
Calcium	1000	16								
Chromium	10	.5	anr							
Cobalt	50	.5								
Copper	25	.4								
Iron	300	16	anr							
Lead	5.0	1.2	0.73	<5.0	0.96	<5.0	-0.32	<5.0	1.4	<5.0
Magnesium	5000	9.9								
Manganese	15	.2	anr							
Molybdenum	50	.8								
Nickel	40	.6								
Potassium	5000	16								
Selenium	10	1.6								
Silver	10	.6	anr							
Sodium	5000	65								
Thallium	10	1.8								
Tin	50	1.4								
Vanadium	50	.6								
Zinc	20	1.1								

(*) Outside of QC limits
(anr) Analyte not requested

7.1.2
7

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F36623
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IP111606.ASC
QC Limits: result < RL

Date Analyzed: 11/16/05
Run ID: MA4672

Methods: SW846 6010B
Units: ug/l

Time: Sample ID:			10:52 CCB4		11:31 CCB5		12:11 CCB6		12:47 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	13	anr							
Antimony	5.0	1.5								
Arsenic	10	2.1	anr							
Barium	200	.5								
Beryllium	4.0	.2	anr							
Cadmium	5.0	.5	anr							
Calcium	1000	16								
Chromium	10	.5	anr							
Cobalt	50	.5								
Copper	25	.4								
Iron	300	16	anr							
Lead	5.0	1.2	0.88	<5.0	2.5	<5.0	1.0	<5.0	-0.31	<5.0
Magnesium	5000	9.9								
Manganese	15	.2	anr							
Molybdenum	50	.8								
Nickel	40	.6								
Potassium	5000	16								
Selenium	10	1.6								
Silver	10	.6	anr							
Sodium	5000	65								
Thallium	10	1.8								
Tin	50	1.4								
Vanadium	50	.6								
Zinc	20	1.1								

(*) Outside of QC limits
(anr) Analyte not requested

7.1.2
7

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F36623
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IP111606.ASC
QC Limits: result < RL

Date Analyzed: 11/16/05
Run ID: MA4672

Methods: SW846 6010B
Units: ug/l

Time: Sample ID:			13:12 CCB8		13:57 CCB9		14:36 CCB10		14:48 CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	13	anr							
Antimony	5.0	1.5								
Arsenic	10	2.1	anr							
Barium	200	.5								
Beryllium	4.0	.2	anr							
Cadmium	5.0	.5	anr							
Calcium	1000	16								
Chromium	10	.5	anr							
Cobalt	50	.5								
Copper	25	.4								
Iron	300	16	anr							
Lead	5.0	1.2	0.67	<5.0	0.48	<5.0	1.7	<5.0	0.75	<5.0
Magnesium	5000	9.9								
Manganese	15	.2	anr							
Molybdenum	50	.8								
Nickel	40	.6								
Potassium	5000	16								
Selenium	10	1.6								
Silver	10	.6	anr							
Sodium	5000	65								
Thallium	10	1.8								
Tin	50	1.4								
Vanadium	50	.6								
Zinc	20	1.1								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F36623
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IP111606.ASC
QC Limits: result < RL

Date Analyzed: 11/16/05
Run ID: MA4672

Methods: SW846 6010B
Units: ug/l

Time: Sample ID:			15:28 CCB12		16:20 CCB13		17:00 CCB14		17:39 CCB15	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	13	anr							
Antimony	5.0	1.5								
Arsenic	10	2.1	anr							
Barium	200	.5								
Beryllium	4.0	.2	anr							
Cadmium	5.0	.5	anr							
Calcium	1000	16								
Chromium	10	.5	anr							
Cobalt	50	.5								
Copper	25	.4								
Iron	300	16	anr							
Lead	5.0	1.2	1.5	<5.0	1.5	<5.0	2.0	<5.0	2.5	<5.0
Magnesium	5000	9.9								
Manganese	15	.2	anr							
Molybdenum	50	.8								
Nickel	40	.6								
Potassium	5000	16								
Selenium	10	1.6								
Silver	10	.6	anr							
Sodium	5000	65								
Thallium	10	1.8								
Tin	50	1.4								
Vanadium	50	.6								
Zinc	20	1.1								

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F36623
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IP111606.ASC
QC Limits: result < RL

Date Analyzed: 11/16/05
Run ID: MA4672

Methods: SW846 6010B
Units: ug/l

Time: Sample ID:		18:19 CCB16		18:55 CCB17					
Metal	RL	IDL	raw	final	raw	final			
Aluminum	200	13	anr						
Antimony	5.0	1.5							
Arsenic	10	2.1	anr						
Barium	200	.5							
Beryllium	4.0	.2	anr						
Cadmium	5.0	.5	anr						
Calcium	1000	16							
Chromium	10	.5	anr						
Cobalt	50	.5							
Copper	25	.4							
Iron	300	16	anr						
Lead	5.0	1.2	1.3				<5.0	1.7	<5.0
Magnesium	5000	9.9							
Manganese	15	.2	anr						
Molybdenum	50	.8							
Nickel	40	.6							
Potassium	5000	16							
Selenium	10	1.6							
Silver	10	.6	anr						
Sodium	5000	65							
Thallium	10	1.8							
Tin	50	1.4							
Vanadium	50	.6							
Zinc	20	1.1							

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F36623
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IP111606.ASC
QC Limits: 90 to 110 % Recovery

Date Analyzed: 11/16/05
Run ID: MA4672

Methods: SW846 6010B
Units: ug/l

Time: Sample ID:		08:30 ICV1		08:48 CCV1		09:27 CCV2			
Metal	ICV	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony									
Arsenic	anr								
Barium									
Beryllium	anr								
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt									
Copper									
Iron	anr								
Lead	2000	2010	100.5	2000	2020	101.0	2000	2050	102.5
Magnesium									
Manganese	anr								
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver	anr								
Sodium									
Thallium									
Tin									
Vanadium									
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

7.1.3
7

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F36623
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IP111606.ASC Date Analyzed: 11/16/05 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA4672 Units: ug/l

Time: Sample ID:	CCV	10:07 CCV3		CCV	10:48 CCV4		CCV	11:28 CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony									
Arsenic	anr								
Barium									
Beryllium	anr								
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt									
Copper									
Iron	anr								
Lead	2000	2100	105.0	2000	2100	105.0	2000	2110	105.5
Magnesium									
Manganese	anr								
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver	anr								
Sodium									
Thallium									
Tin									
Vanadium									
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

7.1.3
7

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F36623
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IP111606.ASC Date Analyzed: 11/16/05 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA4672 Units: ug/l

Time: Sample ID:		12:08 CCV6		12:44 CCV7		13:09 CCV8			
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony									
Arsenic	anr								
Barium									
Beryllium	anr								
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt									
Copper									
Iron	anr								
Lead	2000	2110	105.5	2000	2170	108.5	2000	2160	108.0
Magnesium									
Manganese	anr								
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver	anr								
Sodium									
Thallium									
Tin									
Vanadium									
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

7.1.3
7

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F36623
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IP111606.ASC Date Analyzed: 11/16/05 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA4672 Units: ug/l

Time: Sample ID:		13:54 CCV9		14:33 CCV10		15:24 CCV11			
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony									
Arsenic	anr								
Barium									
Beryllium	anr								
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt									
Copper									
Iron	anr								
Lead	2000	2180	109.0	2000	2150	107.5	2000	2150	107.5
Magnesium									
Manganese	anr								
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver	anr								
Sodium									
Thallium									
Tin									
Vanadium									
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

7.1.3
7

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F36623
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IP111606.ASC Date Analyzed: 11/16/05 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA4672 Units: ug/l

Time: Sample ID:		16:17 CCV12		16:56 CCV13		17:36 CCV14			
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony									
Arsenic	anr								
Barium									
Beryllium	anr								
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt									
Copper									
Iron	anr								
Lead	2000	2140	107.0	2000	2140	107.0	2000	2030	101.5
Magnesium									
Manganese	anr								
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver	anr								
Sodium									
Thallium									
Tin									
Vanadium									
Zinc									

(*) Outside of QC limits
(anr) Analyte not requested

7.1.3
7

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F36623
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IP111606.ASC Date Analyzed: 11/16/05 Methods: SW846 6010B
QC Limits: 90 to 110 % Recovery Run ID: MA4672 Units: ug/l

Time:		18:16		18:52			
Sample ID:	CCV	CCV15		CCV	CCV16		
Metal	True	Results	% Rec	True	Results	% Rec	
Aluminum	anr						
Antimony							
Arsenic	anr						
Barium							
Beryllium							
Cadmium	anr						
Calcium							
Chromium	anr						
Cobalt							
Copper							
Iron	anr						
Lead	2000	2070	103.5	2000	2150	107.5	
Magnesium							
Manganese	anr						
Molybdenum							
Nickel							
Potassium							
Selenium							
Silver	anr						
Sodium							
Thallium							
Tin							
Vanadium							
Zinc							

(*) Outside of QC limits
(anr) Analyte not requested

HIGH STANDARD CHECK SUMMARY

Login Number: F36623
 Account: EEINCJX - EEI
 Project: Camp Lejeune-LCH 4015

File ID: IP111606.ASC
 QC Limits: 95 to 105 % Recovery

Date Analyzed: 11/16/05
 Run ID: MA4672

Methods: SW846 6010B
 Units: ug/l

Time:		08:28	
Sample ID:		HSTD1	
Metal	HSTD	Results	% Rec
Aluminum	anr		
Antimony			
Arsenic	anr		
Barium			
Beryllium	anr		
Cadmium	anr		
Calcium			
Chromium	anr		
Cobalt			
Copper			
Iron	anr		
Lead	4000	3960	99.0
Magnesium			
Manganese	anr		
Molybdenum			
Nickel			
Potassium			
Selenium			
Silver	anr		
Sodium			
Thallium			
Tin			
Vanadium			
Zinc			

(*) Outside of QC limits
 (anr) Analyte not requested

7.1.4
7

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: F36623
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IP111606.ASC
QC Limits: 70 to 130 % Recovery

Date Analyzed: 11/16/05
Run ID: MA4672

Methods: SW846 6010B
Units: ug/l

Time: Sample ID:	CRI	CRIA	08:37 CRIA1	% Rec	08:39 CRI1	% Rec	18:39 CRIA2	% Rec	18:42 CRI2	% Rec
Metal	True	True	Results		Results		Results		Results	
Aluminum	400	200	anr							
Antimony	10	5.0								
Arsenic	20	10	anr							
Barium	400	200								
Beryllium	10	5.0	anr							
Cadmium	10	5.0	anr							
Calcium	2000	1000								
Chromium	20	10	anr							
Cobalt	100	50								
Copper	50	25								
Iron	600	300	anr							
Lead	10	5.0	4.3	86.0	10.4	104.0			10	100.0
Magnesium	10000	5000								
Manganese	30	15	anr							
Molybdenum	100	50								
Nickel	80	40								
Potassium	10000	5000								
Selenium	10	5.0								
Silver	20	10	anr							
Sodium	10000	5000								
Thallium	20	10								
Tin	100	50								
Vanadium	100	50								
Zinc	40	20								

(*) Outside of QC limits
(anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: F36623
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IP111606.ASC
QC Limits: 80 to 120 % Recovery

Date Analyzed: 11/16/05
Run ID: MA4672

Methods: SW846 6010B
Units: ug/l

Time: Sample ID:	ICSA True	ICSAB True	08:45 ICSA1 Results	% Rec	08:46 ICSAB1 Results	% Rec	18:45 ICSA2 Results	% Rec	18:49 ICSAB2 Results	% Rec
Metal										
Aluminum	500000	500000	477000	95.4	479000	95.8	470000	94.0	473000	94.6
Antimony		1000	1.5		1030	103.0	-2.3		958	95.8
Arsenic		1000	-0.40		1050	105.0	-2.3		1080	108.0
Barium		500	1.5		548	109.6	1.2		521	104.2
Beryllium		500	-1.5		498	99.6	0.72		532	106.4
Cadmium		1000	0.10		983	98.3	0.83		1060	106.0
Calcium	500000	500000	440000	88.0	439000	87.8	471000	94.2	472000	94.4
Chromium		500	-2.4		465	93.0	-1.9		490	98.0
Cobalt		500	0.97		491	98.2	0.73		505	101.0
Copper		500	1.0		593	118.6	-0.32		573	114.6
Iron	200000	200000	181000	90.5	184000	92.0	190000	95.0	192000	96.0
Lead		1000	-0.060		1010	101.0	0.65		1080	108.0
Magnesium	500000	500000	502000	100.4	507000	101.4	511000	102.2	514000	102.8
Manganese		500	2.1		501	100.2	2.2		521	104.2
Molybdenum		1000	5.1		958	95.8	4.5		999	99.9
Nickel		1000	2.4		1000	100.0	2.6		1060	106.0
Potassium			46.5		36.3		51.9		34.5	
Selenium		1000	0.17		1040	104.0	13.8		1080	108.0
Silver		1000	1.1		1090	109.0	1.1		1120	112.0
Sodium			113		56.1		49.0		69.7	
Thallium		1000	0.17		1020	102.0	5.8		1040	104.0
Tin		1000	4.7		952	95.2	4.6		852	85.2
Vanadium		500	-5.9		483	96.6	-2.7		492	98.4
Zinc		1000	6.8		1090	109.0	10.4		1160	116.0

(*) Outside of QC limits
(anr) Analyte not requested

7.1.6
7

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F36623
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

QC Batch ID: MP8914
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 11/15/05

Metal	RL	IDL	MB raw	final
Aluminum	200	13		
Antimony	5.0	1.5		
Arsenic	10	2.1		
Barium	200	.5		
Beryllium	4.0	.2		
Cadmium	5.0	.5		
Calcium	1000	16		
Chromium	10	.5		
Cobalt	50	.5		
Copper	25	.4		
Iron	300	16		
Lead	5.0	1.2	-0.15	<5.0
Magnesium	5000	9.9		
Manganese	15	.2		
Molybdenum	50	.8		
Nickel	40	.6		
Potassium	5000	16		
Selenium	10	1.6		
Silver	10	.6		
Sodium	5000	65		
Thallium	10	1.8		
Tin	50	1.4		
Vanadium	50	.6		
Zinc	20	1.1		

Associated samples MP8914: F36623-1, F36623-2, F36623-3, F36623-4, F36623-5

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F36623
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

QC Batch ID: MP8914
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 11/15/05 11/15/05

Metal	F36623-1 Original	DUP	RPD	QC Limits	F36623-1 Original	MS	Spikelot MPFLICP	% Rec	QC Limits
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead	0.0	7.2	200.0(a)	0-10	0.0	1040	1000	104.0	84-118
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Tin									
Vanadium									
Zinc									

Associated samples MP8914: F36623-1, F36623-2, F36623-3, F36623-4, F36623-5

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) RPD acceptable due to low duplicate and sample concentrations.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F36623
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

QC Batch ID: MP8914
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 11/15/05

Metal	BSP Result	Spike lot MPFLICP	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead	1050	1000	105.0	80-120
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Thallium				
Tin				
Vanadium				
Zinc				

Associated samples MP8914: F36623-1, F36623-2, F36623-3, F36623-4, F36623-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: F36623
 Account: EEINCJX - EEI
 Project: Camp Lejeune-LCH 4015

QC Batch ID: MP8914
 Matrix Type: AQUEOUS

Methods: SW846 6010B
 Units: ug/l

Prep Date: 11/15/05

Metal	F36623-1 Original	SDL 1:1	RPD	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead	0.00	1.63		0-10
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Thallium				
Tin				
Vanadium				
Zinc				

Associated samples MP8914: F36623-1, F36623-2, F36623-3, F36623-4, F36623-5

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

7.2.4
7



01/16/06

Technical Report for

EEI

Camp Lejeune-LCH 4015

844271

Accutest Job Number: F36670

Sampling Date: 11/15/05

Report to:

EEI

bmorris@eeimail.com

ATTN: Bill Morris

Total number of pages in report: **127**



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: F36670

Camp Lejeune-LCH 4015
Project No: 844271

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
F36670-1	11/15/05	09:10 JT	11/16/05	AQ	Ground Water	USTLCH4015-MW 22
F36670-2	11/15/05	10:00 JT	11/16/05	AQ	Ground Water	USTLCH4015-MW 24
F36670-3	11/15/05	10:35 JT	11/16/05	AQ	Ground Water	USTLCH4015-MW 3
F36670-4	11/15/05	11:25 JT	11/16/05	AQ	Ground Water	USTLCH4015-MW 13
F36670-5	11/15/05	12:15 JT	11/16/05	AQ	Ground Water	USTLCH4015-MW 21
F36670-6	11/15/05	12:45 JT	11/16/05	AQ	Ground Water	USTLCH4015-MW 19
F36670-7	11/15/05	13:15 JT	11/16/05	AQ	Ground Water	USTLCH4015-MW 18

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: EEI

Job No: F36670

Site: Camp Lejeune-LCH 4015

Report Date: 12/5/2005 11:44:37

7 Samples were collected on 11/15/2005 and were received at Accutest on 11/16/2005 properly preserved, at 3.8 Deg. C and intact. These Samples received an Accutest job number of F36670. 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.

Extractables by GCMS by Method EPA 625

Matrix: AQ

Batch ID: OP15045

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

Samples F36623-3MS, F36623-3MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

Matrix Spike and Matrix Spike Duplicate Recoverys for Benzidine are outside control limits. Probable cause due to matrix interference.

Volatiles by GC by Method EPA 601/602

Matrix: AQ

Batch ID: GEF3851

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F36670-4MS, F36670-4MSD were used as the QC samples indicated.

Matrix: AQ

Batch ID: GEF3852

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F36740-1MS, F36740-1MSD were used as the QC samples indicated.

RPDs for MSD for Benzene, Methyl Tert Butyl Ether are outside control limits for sample F36740-1MSD. Probable cause due to sample non-homogeneity.

F36670-4: All hits confirmed by dual column analysis.

F36670-4 for 1,2-Dichlorobenzene: CCV outside of control limits; results may be biased low. No sample available for reanalysis.

F36670-2, F36670-3 for 1,2-Dichlorobenzene: Elevated reporting limits due to matrix interference.

Matrix: AQ

Batch ID: GEF3857

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F36896-2MS, F36896-2MSD were used as the QC samples indicated.

F36670-5: All hits confirmed by GC/MS.

F36670-6, F36670-7: All hits confirmed by dual column analysis.

F36670-5, F36670-7 for 1,2-Dichlorobenzene: Elevated reporting limits due to matrix interference.

Metals by Method SW846 6010B

Matrix: AQ

Batch ID: MP8932

All samples were digested 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 F36670-1DUP, F36670-1MS, F36670-1SDL were used as the QC samples for metals.

Monday, December 05, 2005

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: December 4, 2005

Monday, December 05, 2005

Report of Analysis

Page 1 of 2

Client Sample ID:	USTLCH4015-MW 22	Date Sampled:	11/15/05
Lab Sample ID:	F36670-1	Date Received:	11/16/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 625 EPA 625		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L028863.D	1	11/19/05	NJ	11/17/05	OP15045	SL1506
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

ABN PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.3	2.1	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.3	2.1	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.3	2.1	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.3	2.1	ug/l	
51-28-5	2,4-Dinitrophenol	ND	26	11	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	5.3	ug/l	
88-75-5	2-Nitrophenol	ND	5.3	2.1	ug/l	
100-02-7	4-Nitrophenol	ND	26	11	ug/l	
87-86-5	Pentachlorophenol	ND	26	11	ug/l	
108-95-2	Phenol	ND	5.3	2.1	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.3	2.1	ug/l	
83-32-9	Acenaphthene	ND	5.3	1.1	ug/l	
208-96-8	Acenaphthylene	ND	5.3	1.1	ug/l	
120-12-7	Anthracene	ND	5.3	1.1	ug/l	
92-87-5	Benzidine	ND	26	16	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.3	1.1	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.3	1.1	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.3	1.1	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.3	2.1	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.3	1.1	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.3	1.1	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.3	2.1	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.3	1.1	ug/l	
106-47-8	4-Chloroaniline	ND	11	4.2	ug/l	
218-01-9	Chrysene	ND	5.3	1.1	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.3	1.1	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.3	2.1	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.3	1.1	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.3	1.1	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	5.3	1.1	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.3	1.1	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.3	1.1	ug/l	

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:	USTLCH4015-MW 22	Date Sampled:	11/15/05
Lab Sample ID:	F36670-1	Date Received:	11/16/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 625 EPA 625		
Project:	Camp Lejeune-LCH 4015		

ABN PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	5.3	1.1	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	5.3	2.1	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	5.3	2.1	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	11	5.3	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.3	2.1	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.3	2.1	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.3	2.6	ug/l	
84-66-2	Diethyl phthalate	ND	5.3	2.1	ug/l	
131-11-3	Dimethyl phthalate	ND	5.3	2.1	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	5.3	2.6	ug/l	
206-44-0	Fluoranthene	ND	5.3	1.1	ug/l	
86-73-7	Fluorene	ND	5.3	1.1	ug/l	
118-74-1	Hexachlorobenzene	ND	5.3	1.1	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.3	2.1	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	5.3	2.1	ug/l	
67-72-1	Hexachloroethane	ND	5.3	2.1	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.3	2.1	ug/l	
78-59-1	Isophorone	ND	5.3	1.1	ug/l	
91-20-3	Naphthalene	ND	5.3	1.1	ug/l	
98-95-3	Nitrobenzene	ND	5.3	1.1	ug/l	
62-75-9	N-Nitrosodimethylamine	ND	5.3	2.1	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.3	2.1	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	2.1	ug/l	
85-01-8	Phenanthrene	ND	5.3	1.1	ug/l	
129-00-0	Pyrene	ND	5.3	1.1	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.3	1.1	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	48%		19-90%
4165-62-2	Phenol-d5	28%		10-68%
118-79-6	2,4,6-Tribromophenol	91%		36-137%
4165-60-0	Nitrobenzene-d5	82%		49-119%
321-60-8	2-Fluorobiphenyl	84%		45-118%
1718-51-0	Terphenyl-d14	82%		46-135%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
994-05-8	Butane, 2-methoxy-2-methyl-	2.42	9.9	ug/l	JNB
	Total TIC, Semi-Volatile		0	ug/l	

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:	USTLCH4015-MW 22	Date Sampled:	11/15/05
Lab Sample ID:	F36670-1	Date Received:	11/16/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF056547.D	1	11/19/05	TD	n/a	n/a	GEF3851
Run #2	EF056571.D	1	11/21/05	TD	n/a	n/a	GEF3852

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

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND ^a	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND ^a	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND ^a	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1634-04-4	Methyl Tert Butyl Ether	1.9	1.0	0.50	ug/l	
108-88-3	Toluene	0.89	1.0	0.50	ug/l	J
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	88%	93%	71-130%
98-08-8	aaa-Trifluorotoluene	89%	96%	71-124%

(a) Result is from Run# 2

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

3.1
3

Client Sample ID:	USTLCH4015-MW 22	Date Sampled:	11/15/05
Lab Sample ID:	F36670-1	Date Received:	11/16/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-LCH 4015		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	< 5.0	5.0	ug/l	1	11/17/05	11/18/05 RS	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA4678
(2) Prep QC Batch: MP8932

RL = Reporting Limit

Report of Analysis

Page 1 of 3

Client Sample ID:	USTLCH4015-MW 24	Date Sampled:	11/15/05
Lab Sample ID:	F36670-2	Date Received:	11/16/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 625 EPA 625		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L028864.D	1	11/19/05	NJ	11/17/05	OP15045	SL1506
Run #2							

	Initial Volume	Final Volume
Run #1	900 ml	1.0 ml
Run #2		

ABN PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.6	2.2	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.6	2.2	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.6	2.2	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.6	2.2	ug/l	
51-28-5	2,4-Dinitrophenol	ND	28	11	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	5.6	ug/l	
88-75-5	2-Nitrophenol	ND	5.6	2.2	ug/l	
100-02-7	4-Nitrophenol	ND	28	11	ug/l	
87-86-5	Pentachlorophenol	ND	28	11	ug/l	
108-95-2	Phenol	ND	5.6	2.2	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.6	2.2	ug/l	
83-32-9	Acenaphthene	1.9	5.6	1.1	ug/l	J
208-96-8	Acenaphthylene	ND	5.6	1.1	ug/l	
120-12-7	Anthracene	ND	5.6	1.1	ug/l	
92-87-5	Benzidine	ND	28	17	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.6	1.1	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.6	1.1	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.6	1.1	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.6	2.2	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.6	1.1	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.6	1.1	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.6	2.2	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.6	1.1	ug/l	
106-47-8	4-Chloroaniline	ND	11	4.4	ug/l	
218-01-9	Chrysene	ND	5.6	1.1	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.6	1.1	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.6	2.2	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.6	1.1	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.6	1.1	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	5.6	1.1	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.6	1.1	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.6	1.1	ug/l	

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: USTLCH4015-MW 24
Lab Sample ID: F36670-2
Matrix: AQ - Ground Water
Method: EPA 625 EPA 625
Project: Camp Lejeune-LCH 4015

Date Sampled: 11/15/05**Date Received:** 11/16/05**Percent Solids:** n/a

ABN PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	5.6	1.1	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	5.6	2.2	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	5.6	2.2	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	11	5.6	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.6	2.2	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.6	2.2	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.6	2.8	ug/l	
84-66-2	Diethyl phthalate	ND	5.6	2.2	ug/l	
131-11-3	Dimethyl phthalate	ND	5.6	2.2	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	5.6	2.8	ug/l	
206-44-0	Fluoranthene	ND	5.6	1.1	ug/l	
86-73-7	Fluorene	2.1	5.6	1.1	ug/l	J
118-74-1	Hexachlorobenzene	ND	5.6	1.1	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.6	2.2	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	5.6	2.2	ug/l	
67-72-1	Hexachloroethane	ND	5.6	2.2	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.6	2.2	ug/l	
78-59-1	Isophorone	ND	5.6	1.1	ug/l	
91-20-3	Naphthalene	4.4	5.6	1.1	ug/l	J
98-95-3	Nitrobenzene	ND	5.6	1.1	ug/l	
62-75-9	N-Nitrosodimethylamine	ND	5.6	2.2	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.6	2.2	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.6	2.2	ug/l	
85-01-8	Phenanthrene	ND	5.6	1.1	ug/l	
129-00-0	Pyrene	ND	5.6	1.1	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.6	1.1	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	48%		19-90%
4165-62-2	Phenol-d5	30%		10-68%
118-79-6	2,4,6-Tribromophenol	91%		36-137%
4165-60-0	Nitrobenzene-d5	80%		49-119%
321-60-8	2-Fluorobiphenyl	81%		45-118%
1718-51-0	Terphenyl-d14	73%		46-135%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
994-05-8	Butane, 2-methoxy-2-methyl-	2.41	8.1	ug/l	JNB
496-11-7	Indane	5.28	99	ug/l	JN

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: USTLCH4015-MW 24
Lab Sample ID: F36670-2
Matrix: AQ - Ground Water
Method: EPA 625 EPA 625
Project: Camp Lejeune-LCH 4015

Date Sampled: 11/15/05
Date Received: 11/16/05
Percent Solids: n/a

ABN PPL List

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
141-93-5	Benzene, 1,3-diethyl-	5.34	11	ug/l	JN
105-05-5	Benzene, 1,4-diethyl-	5.40	9.2	ug/l	JN
135-01-3	Benzene, 1,2-diethyl-	5.42	7.9	ug/l	JN
527-53-7	Benzene, 1,2,3,5-tetramethyl-	5.80	11	ug/l	JN
824-22-6	1H-Indene, 2,3-dihydro-4-methyl-	6.04	37	ug/l	JN
56147-63-8	2-Ethyl-2,3-dihydro-1H-indene	6.61	6.7	ug/l	JN
17057-82-8	1H-Indene, 2,3-dihydro-1,2-dimethyl-	6.84	5.9	ug/l	JN
1680-51-9	Naphthalene, 1,2,3,4-tetrahydro-6-methyl	7.07	8.4	ug/l	JN
582-16-1	Naphthalene, 2,7-dimethyl-	8.10	5.7	ug/l	JN
60829-58-5	1-Hydroxy-4-(1-hydroxyiminoethyl)-2,2,5,	9.60	7.2	ug/l	JN
613-33-2	4,4'-Dimethylbiphenyl	10.50	9.6	ug/l	JN
1000129-70-32	3,2H-Benzofuran-2-one, 4,6-dimethyl-	10.65	7.2	ug/l	JN
90-43-7	o-Hydroxybiphenyl	11.36	7.6	ug/l	JN
10544-50-0	Cyclic octaatomic sulfur	13.35	9.4	ug/l	JN
84-66-2	Diethyl Phthalate	16.38	12	ug/l	JN
541-05-9	Cyclotrisiloxane, hexamethyl-	20.33	9.4	ug/l	JN
	Total TIC, Semi-Volatile		264.2	ug/l	J

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:	USTLCH4015-MW 24	Date Sampled:	11/15/05
Lab Sample ID:	F36670-2	Date Received:	11/16/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF056548.D	1	11/19/05	TD	n/a	n/a	GEF3851
Run #2	EF056572.D	1	11/21/05	TD	n/a	n/a	GEF3852

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

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	1.8	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene ^a	ND ^b	15	15	ug/l	
541-73-1	1,3-Dichlorobenzene	ND ^b	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND ^b	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1634-04-4	Methyl Tert Butyl Ether	1.7	1.0	0.50	ug/l	
108-88-3	Toluene	0.57	1.0	0.50	ug/l	J
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	96%	96%	71-130%
98-08-8	aaa-Trifluorotoluene	100%	101%	71-124%

(a) Elevated reporting limits due to matrix interference.

(b) Result is from Run# 2

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:	USTLCH4015-MW 24	Date Sampled:	11/15/05
Lab Sample ID:	F36670-2	Date Received:	11/16/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-LCH 4015		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	< 5.0	5.0	ug/l	1	11/17/05	11/18/05 RS	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA4678
(2) Prep QC Batch: MP8932

RL = Reporting Limit

Report of Analysis

Page 1 of 3

Client Sample ID:	USTLCH4015-MW 3	Date Sampled:	11/15/05
Lab Sample ID:	F36670-3	Date Received:	11/16/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 625 EPA 625		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L028865.D	1	11/19/05	NJ	11/17/05	OP15045	SL1506
Run #2							

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

ABN PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.0	2.0	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	2.0	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.0	2.0	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	2.0	ug/l	
51-28-5	2,4-Dinitrophenol	ND	25	10	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	5.0	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	2.0	ug/l	
100-02-7	4-Nitrophenol	ND	25	10	ug/l	
87-86-5	Pentachlorophenol	ND	25	10	ug/l	
108-95-2	Phenol	ND	5.0	2.0	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	2.0	ug/l	
83-32-9	Acenaphthene	1.6	5.0	1.0	ug/l	J
208-96-8	Acenaphthylene	ND	5.0	1.0	ug/l	
120-12-7	Anthracene	ND	5.0	1.0	ug/l	
92-87-5	Benzidine	ND	25	15	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	1.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	1.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	1.0	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	1.0	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	1.0	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	2.0	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	10	4.0	ug/l	
218-01-9	Chrysene	ND	5.0	1.0	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	1.0	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	2.0	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	1.0	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	5.0	1.0	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.0	1.0	ug/l	

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: USTLCH4015-MW 3
Lab Sample ID: F36670-3
Matrix: AQ - Ground Water
Method: EPA 625 EPA 625
Project: Camp Lejeune-LCH 4015

Date Sampled: 11/15/05**Date Received:** 11/16/05**Percent Solids:** n/a

ABN PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	5.0	1.0	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	5.0	2.0	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	5.0	2.0	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	10	5.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	2.0	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	2.0	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	2.5	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	2.0	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	2.0	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	5.0	2.5	ug/l	
206-44-0	Fluoranthene	ND	5.0	1.0	ug/l	
86-73-7	Fluorene	1.6	5.0	1.0	ug/l	J
118-74-1	Hexachlorobenzene	ND	5.0	1.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.0	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	5.0	2.0	ug/l	
67-72-1	Hexachloroethane	ND	5.0	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	2.0	ug/l	
78-59-1	Isophorone	ND	5.0	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
98-95-3	Nitrobenzene	ND	5.0	1.0	ug/l	
62-75-9	N-Nitrosodimethylamine	ND	5.0	2.0	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	2.0	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	2.0	ug/l	
85-01-8	Phenanthrene	ND	5.0	1.0	ug/l	
129-00-0	Pyrene	ND	5.0	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	46%		19-90%
4165-62-2	Phenol-d5	27%		10-68%
118-79-6	2,4,6-Tribromophenol	91%		36-137%
4165-60-0	Nitrobenzene-d5	83%		49-119%
321-60-8	2-Fluorobiphenyl	84%		45-118%
1718-51-0	Terphenyl-d14	78%		46-135%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
994-05-8	Butane, 2-methoxy-2-methyl-	2.42	9.6	ug/l	JNB
594-60-5	2-Butanol, 2,3-dimethyl-	2.89	5.3	ug/l	JN

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: USTLCH4015-MW 3
Lab Sample ID: F36670-3
Matrix: AQ - Ground Water
Method: EPA 625 EPA 625
Project: Camp Lejeune-LCH 4015

Date Sampled: 11/15/05
Date Received: 11/16/05
Percent Solids: n/a

ABN PPL List

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
496-11-7	Indane	5.28	51	ug/l	JN
141-93-5	Benzene, 1,3-diethyl-	5.34	5.4	ug/l	JN
824-22-6	1H-Indene, 2,3-dihydro-4-methyl-	6.04	20	ug/l	JN
1559-81-5	Naphthalene, 1,2,3,4-tetrahydro-1-methyl	6.58	5.2	ug/l	JN
1680-51-9	Naphthalene, 1,2,3,4-tetrahydro-6-methyl	7.07	7.9	ug/l	JN
14944-23-1	1(2H)-Naphthalenone, 3,4-dihydro-3-methy	8.11	6.1	ug/l	JN
1855-47-6	1-Isopropenylnaphthalene	9.60	5.1	ug/l	JN
57-10-3	n-Hexadecanoic acid	12.37	13	ug/l	JN
10544-50-0	Cyclic octaatomic sulfur	13.36	13	ug/l	JN
	Total TIC, Semi-Volatile		132	ug/l	J

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:	USTLCH4015-MW 3	Date Sampled:	11/15/05
Lab Sample ID:	F36670-3	Date Received:	11/16/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EF056549.D	1	11/19/05	TD	n/a	n/a	GEF3851
Run #2	EF056573.D	1	11/21/05	TD	n/a	n/a	GEF3852

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

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene ^a	ND ^b	10	10	ug/l	
541-73-1	1,3-Dichlorobenzene	ND ^b	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND ^b	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.50	ug/l	
1634-04-4	Methyl Tert Butyl Ether	1.1	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	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	95%	96%	71-130%
98-08-8	aaa-Trifluorotoluene	100%	100%	71-124%

(a) Elevated reporting limits due to matrix interference.

(b) Result is from Run# 2

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:	USTLCH4015-MW 3	Date Sampled:	11/15/05
Lab Sample ID:	F36670-3	Date Received:	11/16/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-LCH 4015		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	< 5.0	5.0	ug/l	1	11/17/05	11/18/05 RS	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA4678
(2) Prep QC Batch: MP8932

RL = Reporting Limit

Report of Analysis

Page 1 of 2

Client Sample ID:	USTLCH4015-MW 13	Date Sampled:	11/15/05
Lab Sample ID:	F36670-4	Date Received:	11/16/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 625 EPA 625		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L028866.D	1	11/19/05	NJ	11/17/05	OP15045	SL1506
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

ABN PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.3	2.1	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.3	2.1	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.3	2.1	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.3	2.1	ug/l	
51-28-5	2,4-Dinitrophenol	ND	26	11	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	5.3	ug/l	
88-75-5	2-Nitrophenol	ND	5.3	2.1	ug/l	
100-02-7	4-Nitrophenol	ND	26	11	ug/l	
87-86-5	Pentachlorophenol	ND	26	11	ug/l	
108-95-2	Phenol	ND	5.3	2.1	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.3	2.1	ug/l	
83-32-9	Acenaphthene	ND	5.3	1.1	ug/l	
208-96-8	Acenaphthylene	ND	5.3	1.1	ug/l	
120-12-7	Anthracene	ND	5.3	1.1	ug/l	
92-87-5	Benzidine	ND	26	16	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.3	1.1	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.3	1.1	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.3	1.1	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.3	2.1	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.3	1.1	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.3	1.1	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.3	2.1	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.3	1.1	ug/l	
106-47-8	4-Chloroaniline	ND	11	4.2	ug/l	
218-01-9	Chrysene	ND	5.3	1.1	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.3	1.1	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.3	2.1	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.3	1.1	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.3	1.1	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	5.3	1.1	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.3	1.1	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.3	1.1	ug/l	

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: USTLCH4015-MW 13
Lab Sample ID: F36670-4
Matrix: AQ - Ground Water
Method: EPA 625 EPA 625
Project: Camp Lejeune-LCH 4015

Date Sampled: 11/15/05**Date Received:** 11/16/05**Percent Solids:** n/a

ABN PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	5.3	1.1	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	5.3	2.1	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	5.3	2.1	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	11	5.3	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.3	2.1	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.3	2.1	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.3	2.6	ug/l	
84-66-2	Diethyl phthalate	ND	5.3	2.1	ug/l	
131-11-3	Dimethyl phthalate	ND	5.3	2.1	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	5.3	2.6	ug/l	
206-44-0	Fluoranthene	ND	5.3	1.1	ug/l	
86-73-7	Fluorene	ND	5.3	1.1	ug/l	
118-74-1	Hexachlorobenzene	ND	5.3	1.1	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.3	2.1	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	5.3	2.1	ug/l	
67-72-1	Hexachloroethane	ND	5.3	2.1	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.3	2.1	ug/l	
78-59-1	Isophorone	ND	5.3	1.1	ug/l	
91-20-3	Naphthalene	ND	5.3	1.1	ug/l	
98-95-3	Nitrobenzene	ND	5.3	1.1	ug/l	
62-75-9	N-Nitrosodimethylamine	ND	5.3	2.1	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.3	2.1	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	2.1	ug/l	
85-01-8	Phenanthrene	ND	5.3	1.1	ug/l	
129-00-0	Pyrene	ND	5.3	1.1	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.3	1.1	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	45%		19-90%
4165-62-2	Phenol-d5	27%		10-68%
118-79-6	2,4,6-Tribromophenol	88%		36-137%
4165-60-0	Nitrobenzene-d5	78%		49-119%
321-60-8	2-Fluorobiphenyl	80%		45-118%
1718-51-0	Terphenyl-d14	79%		46-135%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
994-05-8	Butane, 2-methoxy-2-methyl-	2.42	10	ug/l	JNB
	Total TIC, Semi-Volatile		0	ug/l	

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:	USTLCH4015-MW 13	Date Sampled:	11/15/05
Lab Sample ID:	F36670-4	Date Received:	11/16/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EF056576.D	1	11/21/05	TD	n/a	n/a	GEF3852
Run #2	EF056550.D	1	11/19/05	TD	n/a	n/a	GEF3851

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

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene ^b	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	0.54	1.0	0.50	ug/l	J
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	93%	93%	71-130%
98-08-8	aaa-Trifluorotoluene	96%	97%	71-124%

(a) All hits confirmed by dual column analysis.

(b) CCV outside of control limits; results may be biased low. No sample available for reanalysis.

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:	USTLCH4015-MW 13	Date Sampled:	11/15/05
Lab Sample ID:	F36670-4	Date Received:	11/16/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-LCH 4015		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	< 5.0	5.0	ug/l	1	11/17/05	11/18/05 RS	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA4678
(2) Prep QC Batch: MP8932

RL = Reporting Limit

Report of Analysis

Page 1 of 3

Client Sample ID:	USTLCH4015-MW 21	Date Sampled:	11/15/05
Lab Sample ID:	F36670-5	Date Received:	11/16/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 625 EPA 625		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L028867.D	1	11/19/05	NJ	11/17/05	OP15045	SL1506
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

ABN PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.3	2.1	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.3	2.1	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.3	2.1	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.3	2.1	ug/l	
51-28-5	2,4-Dinitrophenol	ND	26	11	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	5.3	ug/l	
88-75-5	2-Nitrophenol	ND	5.3	2.1	ug/l	
100-02-7	4-Nitrophenol	ND	26	11	ug/l	
87-86-5	Pentachlorophenol	ND	26	11	ug/l	
108-95-2	Phenol	ND	5.3	2.1	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.3	2.1	ug/l	
83-32-9	Acenaphthene	ND	5.3	1.1	ug/l	
208-96-8	Acenaphthylene	ND	5.3	1.1	ug/l	
120-12-7	Anthracene	ND	5.3	1.1	ug/l	
92-87-5	Benzidine	ND	26	16	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.3	1.1	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.3	1.1	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.3	1.1	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.3	2.1	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.3	1.1	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.3	1.1	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.3	2.1	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.3	1.1	ug/l	
106-47-8	4-Chloroaniline	ND	11	4.2	ug/l	
218-01-9	Chrysene	ND	5.3	1.1	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.3	1.1	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.3	2.1	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.3	1.1	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.3	1.1	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	5.3	1.1	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.3	1.1	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.3	1.1	ug/l	

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: USTLCH4015-MW 21
Lab Sample ID: F36670-5
Matrix: AQ - Ground Water
Method: EPA 625 EPA 625
Project: Camp Lejeune-LCH 4015

Date Sampled: 11/15/05**Date Received:** 11/16/05**Percent Solids:** n/a

ABN PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	5.3	1.1	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	5.3	2.1	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	5.3	2.1	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	11	5.3	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.3	2.1	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.3	2.1	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.3	2.6	ug/l	
84-66-2	Diethyl phthalate	ND	5.3	2.1	ug/l	
131-11-3	Dimethyl phthalate	ND	5.3	2.1	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	5.3	2.6	ug/l	
206-44-0	Fluoranthene	ND	5.3	1.1	ug/l	
86-73-7	Fluorene	ND	5.3	1.1	ug/l	
118-74-1	Hexachlorobenzene	ND	5.3	1.1	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.3	2.1	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	5.3	2.1	ug/l	
67-72-1	Hexachloroethane	ND	5.3	2.1	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.3	2.1	ug/l	
78-59-1	Isophorone	ND	5.3	1.1	ug/l	
91-20-3	Naphthalene	32.3	5.3	1.1	ug/l	
98-95-3	Nitrobenzene	ND	5.3	1.1	ug/l	
62-75-9	N-Nitrosodimethylamine	ND	5.3	2.1	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.3	2.1	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	2.1	ug/l	
85-01-8	Phenanthrene	ND	5.3	1.1	ug/l	
129-00-0	Pyrene	ND	5.3	1.1	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.3	1.1	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	64%		19-90%
4165-62-2	Phenol-d5	44%		10-68%
118-79-6	2,4,6-Tribromophenol	94%		36-137%
4165-60-0	Nitrobenzene-d5	82%		49-119%
321-60-8	2-Fluorobiphenyl	84%		45-118%
1718-51-0	Terphenyl-d14	78%		46-135%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
994-05-8	Butane, 2-methoxy-2-methyl-	2.42	11	ug/l	JNB
590-36-3	2-Pentanol, 2-methyl-	2.90	23	ug/l	JN

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:	USTLCH4015-MW 21	Date Sampled:	11/15/05
Lab Sample ID:	F36670-5	Date Received:	11/16/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 625 EPA 625		
Project:	Camp Lejeune-LCH 4015		

ABN PPL List

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
77-74-7	3-Pentanol, 3-methyl-	3.10	18	ug/l	JN
1462-03-9	Cyclopentanol, 1-methyl-	3.44	11	ug/l	JN
496-11-7	Indane	5.28	94	ug/l	JN
	Total TIC, Semi-Volatile		146	ug/l	J

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:	USTLCH4015-MW 21	Date Sampled:	11/15/05
Lab Sample ID:	F36670-5	Date Received:	11/16/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EF056711.D	1	11/28/05	TD	n/a	n/a	GEF3857
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	10.9	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene ^b	ND	2.0	2.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	1.9	1.0	0.50	ug/l	
1634-04-4	Methyl Tert Butyl Ether	26.1	1.0	0.50	ug/l	
108-88-3	Toluene	0.66	1.0	0.50	ug/l	J
1330-20-7	Xylenes (total)	1.3	3.0	1.0	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	99%		71-130%
98-08-8	aaa-Trifluorotoluene	99%		71-124%

(a) All hits confirmed by GC/MS.

(b) Elevated reporting 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:	USTLCH4015-MW 21	Date Sampled:	11/15/05
Lab Sample ID:	F36670-5	Date Received:	11/16/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-LCH 4015		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	18.8	5.0	ug/l	1	11/17/05	11/18/05 RS	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA4678
(2) Prep QC Batch: MP8932

RL = Reporting Limit

Report of Analysis

Page 1 of 2

Client Sample ID:	USTLCH4015-MW 19	Date Sampled:	11/15/05
Lab Sample ID:	F36670-6	Date Received:	11/16/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 625 EPA 625		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L028868.D	1	11/19/05	NJ	11/17/05	OP15045	SL1506
Run #2							

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

ABN PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.0	2.0	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	2.0	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.0	2.0	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	2.0	ug/l	
51-28-5	2,4-Dinitrophenol	ND	25	10	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	5.0	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	2.0	ug/l	
100-02-7	4-Nitrophenol	ND	25	10	ug/l	
87-86-5	Pentachlorophenol	ND	25	10	ug/l	
108-95-2	Phenol	ND	5.0	2.0	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	2.0	ug/l	
83-32-9	Acenaphthene	2.4	5.0	1.0	ug/l	J
208-96-8	Acenaphthylene	ND	5.0	1.0	ug/l	
120-12-7	Anthracene	ND	5.0	1.0	ug/l	
92-87-5	Benzidine	ND	25	15	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	1.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	1.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	1.0	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	1.0	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	1.0	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	2.0	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	10	4.0	ug/l	
218-01-9	Chrysene	ND	5.0	1.0	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	1.0	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	2.0	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	1.0	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	5.0	1.0	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.0	1.0	ug/l	

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: USTLCH4015-MW 19
Lab Sample ID: F36670-6
Matrix: AQ - Ground Water
Method: EPA 625 EPA 625
Project: Camp Lejeune-LCH 4015

Date Sampled: 11/15/05
Date Received: 11/16/05
Percent Solids: n/a

ABN PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	5.0	1.0	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	5.0	2.0	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	5.0	2.0	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	10	5.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	2.0	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	2.0	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	2.5	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	2.0	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	2.0	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	5.0	2.5	ug/l	
206-44-0	Fluoranthene	ND	5.0	1.0	ug/l	
86-73-7	Fluorene	ND	5.0	1.0	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	1.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.0	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	5.0	2.0	ug/l	
67-72-1	Hexachloroethane	ND	5.0	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	2.0	ug/l	
78-59-1	Isophorone	ND	5.0	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
98-95-3	Nitrobenzene	ND	5.0	1.0	ug/l	
62-75-9	N-Nitrosodimethylamine	ND	5.0	2.0	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	2.0	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	2.0	ug/l	
85-01-8	Phenanthrene	ND	5.0	1.0	ug/l	
129-00-0	Pyrene	ND	5.0	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	47%		19-90%
4165-62-2	Phenol-d5	29%		10-68%
118-79-6	2,4,6-Tribromophenol	89%		36-137%
4165-60-0	Nitrobenzene-d5	81%		49-119%
321-60-8	2-Fluorobiphenyl	83%		45-118%
1718-51-0	Terphenyl-d14	80%		46-135%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
994-05-8	Butane, 2-methoxy-2-methyl-	2.42	8.5	ug/l	JNB
	Total TIC, Semi-Volatile		0	ug/l	

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:	USTLCH4015-MW 19	Date Sampled:	11/15/05
Lab Sample ID:	F36670-6	Date Received:	11/16/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EF056712.D	1	11/28/05	TD	n/a	n/a	GEF3857
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	0.63	1.0	0.50	ug/l	J
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	92%		71-130%
98-08-8	aaa-Trifluorotoluene	90%		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:	USTLCH4015-MW 19	Date Sampled:	11/15/05
Lab Sample ID:	F36670-6	Date Received:	11/16/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-LCH 4015		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	< 5.0	5.0	ug/l	1	11/17/05	11/18/05 RS	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA4678
(2) Prep QC Batch: MP8932

RL = Reporting Limit

Report of Analysis

Page 1 of 3

Client Sample ID:	USTLCH4015-MW 18	Date Sampled:	11/15/05
Lab Sample ID:	F36670-7	Date Received:	11/16/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 625 EPA 625		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L028869.D	1	11/19/05	NJ	11/17/05	OP15045	SL1506
Run #2							

	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

ABN PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.3	2.1	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.3	2.1	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.3	2.1	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.3	2.1	ug/l	
51-28-5	2,4-Dinitrophenol	ND	26	11	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	11	5.3	ug/l	
88-75-5	2-Nitrophenol	ND	5.3	2.1	ug/l	
100-02-7	4-Nitrophenol	ND	26	11	ug/l	
87-86-5	Pentachlorophenol	ND	26	11	ug/l	
108-95-2	Phenol	ND	5.3	2.1	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.3	2.1	ug/l	
83-32-9	Acenaphthene	3.0	5.3	1.1	ug/l	J
208-96-8	Acenaphthylene	ND	5.3	1.1	ug/l	
120-12-7	Anthracene	ND	5.3	1.1	ug/l	
92-87-5	Benzidine	ND	26	16	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.3	1.1	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.3	1.1	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.3	1.1	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.3	2.1	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.3	1.1	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.3	1.1	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.3	2.1	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.3	1.1	ug/l	
106-47-8	4-Chloroaniline	ND	11	4.2	ug/l	
218-01-9	Chrysene	ND	5.3	1.1	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.3	1.1	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.3	2.1	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.3	1.1	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.3	1.1	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	5.3	1.1	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.3	1.1	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.3	1.1	ug/l	

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: USTLCH4015-MW 18
Lab Sample ID: F36670-7
Matrix: AQ - Ground Water
Method: EPA 625 EPA 625
Project: Camp Lejeune-LCH 4015

Date Sampled: 11/15/05
Date Received: 11/16/05
Percent Solids: n/a

ABN PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	5.3	1.1	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	5.3	2.1	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	5.3	2.1	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	11	5.3	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.3	2.1	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.3	2.1	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.3	2.6	ug/l	
84-66-2	Diethyl phthalate	ND	5.3	2.1	ug/l	
131-11-3	Dimethyl phthalate	ND	5.3	2.1	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	5.3	2.6	ug/l	
206-44-0	Fluoranthene	ND	5.3	1.1	ug/l	
86-73-7	Fluorene	4.3	5.3	1.1	ug/l	J
118-74-1	Hexachlorobenzene	ND	5.3	1.1	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.3	2.1	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	5.3	2.1	ug/l	
67-72-1	Hexachloroethane	ND	5.3	2.1	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.3	2.1	ug/l	
78-59-1	Isophorone	ND	5.3	1.1	ug/l	
91-20-3	Naphthalene	ND	5.3	1.1	ug/l	
98-95-3	Nitrobenzene	ND	5.3	1.1	ug/l	
62-75-9	N-Nitrosodimethylamine	ND	5.3	2.1	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.3	2.1	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	2.1	ug/l	
85-01-8	Phenanthrene	ND	5.3	1.1	ug/l	
129-00-0	Pyrene	ND	5.3	1.1	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.3	1.1	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	48%		19-90%
4165-62-2	Phenol-d5	29%		10-68%
118-79-6	2,4,6-Tribromophenol	92%		36-137%
4165-60-0	Nitrobenzene-d5	80%		49-119%
321-60-8	2-Fluorobiphenyl	82%		45-118%
1718-51-0	Terphenyl-d14	79%		46-135%

CAS No.	Tentatively Identified Compounds	R. T.	Est. Conc.	Units	Q
994-05-8	Butane, 2-methoxy-2-methyl-	2.42	11	ug/l	JNB
1127-76-0	Naphthalene, 1-ethyl-	7.91	5.6	ug/l	JN

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: USTLCH4015-MW 18
Lab Sample ID: F36670-7
Matrix: AQ - Ground Water
Method: EPA 625 EPA 625
Project: Camp Lejeune-LCH 4015

Date Sampled: 11/15/05
Date Received: 11/16/05
Percent Solids: n/a

ABN PPL List

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
54385-63-6	Benzo[b]thiophene, ethyl-	8.15	6.7	ug/l	JN
575-41-7	Naphthalene, 1,3-dimethyl-	8.40	13	ug/l	JN
2245-38-7	Naphthalene, 1,6,7-trimethyl-	9.13	12	ug/l	JN
1000146-07-52	Acetoxytetralin	10.03	5.3	ug/l	JN
1000128-38-5	Acenaphthenone	10.11	7.8	ug/l	JN
1000131-87-22	H-1-Benzopyran-2-one, 7-ethoxy-4-methy	10.34	8.5	ug/l	JN
1430-97-3	9H-Fluorene, 2-methyl-	10.49	5.4	ug/l	JN
	unknown	11.39	33	ug/l	J
32865-79-5	9H-Purine, 6-methyl-9-(trimethylsilyl)-	12.38	40	ug/l	JN
10544-50-0	Cyclic octaatomic sulfur	13.44	180	ug/l	JN
295-17-0	Cyclotetradecane	16.14	27	ug/l	JN
	Total TIC, Semi-Volatile		344.3	ug/l	J

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:	USTLCH4015-MW 18	Date Sampled:	11/15/05
Lab Sample ID:	F36670-7	Date Received:	11/16/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	EPA 601/602		
Project:	Camp Lejeune-LCH 4015		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	EF056713.D	1	11/28/05	TD	n/a	n/a	GEF3857
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, Full List

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene ^b	ND	3.0	3.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	0.59	1.0	0.50	ug/l	J
1330-20-7	Xylenes (total)	ND	3.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	98%		71-130%
98-08-8	aaa-Trifluorotoluene	96%		71-124%

(a) All hits confirmed by dual column analysis.

(b) Elevated reporting 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:	USTLCH4015-MW 18	Date Sampled:	11/15/05
Lab Sample ID:	F36670-7	Date Received:	11/16/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	Camp Lejeune-LCH 4015		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Lead	< 5.0	5.0	ug/l	1	11/17/05	11/18/05 RS	SW846 6010B ¹	SM 3030C ²

(1) Instrument QC Batch: MA4678
(2) Prep QC Batch: MP8932

RL = Reporting Limit

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

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ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: F36670 CLIENT: EET PROJECT: 144 4015
 DATE/TIME RECEIVED: 11/16/05 - 1000 # OF COOLERS RECEIVED: 2 COOLER TEMPS: 3.8, 2.4
 METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER
 AIRBILL NUMBERS: 8530 7647 5709

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:

Received 1 TB Pen Cooler

TECHNICIAN SIGNATURE/DATE

[Signature]

TECHNICIAN SIGNATURE/DATE

ASD002/00/05

F36670: Chain of Custody

Page 2 of 2

GC/MS Semi-volatiles

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QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (DFTPP)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Page 1 of 3

Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP15045-MB	L028853.D	1	11/19/05	NJ	11/17/05	OP15045	SL1506

The QC reported here applies to the following samples:

Method: EPA 625

F36670-1, F36670-2, F36670-3, F36670-4, F36670-5, F36670-6, F36670-7

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.0	2.0	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	2.0	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.0	2.0	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	2.0	ug/l	
51-28-5	2,4-Dinitrophenol	ND	25	10	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	5.0	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	2.0	ug/l	
100-02-7	4-Nitrophenol	ND	25	10	ug/l	
87-86-5	Pentachlorophenol	ND	25	10	ug/l	
108-95-2	Phenol	ND	5.0	2.0	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	2.0	ug/l	
83-32-9	Acenaphthene	ND	5.0	1.0	ug/l	
208-96-8	Acenaphthylene	ND	5.0	1.0	ug/l	
120-12-7	Anthracene	ND	5.0	1.0	ug/l	
92-87-5	Benzidine	ND	25	15	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	1.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	1.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	1.0	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	1.0	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	1.0	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	2.0	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	10	4.0	ug/l	
218-01-9	Chrysene	ND	5.0	1.0	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	1.0	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	2.0	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	1.0	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	5.0	1.0	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.0	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	5.0	1.0	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	5.0	2.0	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	5.0	2.0	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	10	5.0	ug/l	

Method Blank Summary

Page 2 of 3

Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP15045-MB	L028853.D	1	11/19/05	NJ	11/17/05	OP15045	SL1506

The QC reported here applies to the following samples:

Method: EPA 625

F36670-1, F36670-2, F36670-3, F36670-4, F36670-5, F36670-6, F36670-7

CAS No.	Compound	Result	RL	MDL	Units	Q
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	2.0	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	2.0	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	2.5	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	2.0	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	2.0	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	5.0	2.5	ug/l	
206-44-0	Fluoranthene	ND	5.0	1.0	ug/l	
86-73-7	Fluorene	ND	5.0	1.0	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	1.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	2.0	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	5.0	2.0	ug/l	
67-72-1	Hexachloroethane	ND	5.0	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	2.0	ug/l	
78-59-1	Isophorone	ND	5.0	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	1.0	ug/l	
98-95-3	Nitrobenzene	ND	5.0	1.0	ug/l	
62-75-9	N-Nitrosodimethylamine	ND	5.0	2.0	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	2.0	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	2.0	ug/l	
85-01-8	Phenanthrene	ND	5.0	1.0	ug/l	
129-00-0	Pyrene	ND	5.0	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Limits
367-12-4	2-Fluorophenol	56% 19-90%
4165-62-2	Phenol-d5	37% 10-68%
118-79-6	2,4,6-Tribromophenol	95% 36-137%
4165-60-0	Nitrobenzene-d5	85% 49-119%
321-60-8	2-Fluorobiphenyl	87% 45-118%
1718-51-0	Terphenyl-d14	87% 46-135%

Method Blank Summary

Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP15045-MB	L028853.D	1	11/19/05	NJ	11/17/05	OP15045	SL1506

The QC reported here applies to the following samples:

Method:

F36670-1, F36670-2, F36670-3, F36670-4, F36670-5, F36670-6, F36670-7

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
994-05-8	Butane, 2-methoxy-2-methyl-	2.41	9.1	ug/l	JN
	Total TIC, Semi-Volatile		9.1	ug/l	J

Blank Spike Summary

Page 1 of 2

Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP15045-BS	L028852.D	1	11/19/05	NJ	11/17/05	OP15045	SL1506

The QC reported here applies to the following samples:

Method: EPA 625

F36670-1, F36670-2, F36670-3, F36670-4, F36670-5, F36670-6, F36670-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
95-57-8	2-Chlorophenol	50	41.1	82	62-103
59-50-7	4-Chloro-3-methyl phenol	50	44.3	89	64-103
120-83-2	2,4-Dichlorophenol	50	45.9	92	59-103
105-67-9	2,4-Dimethylphenol	50	34.2	68	43-94
51-28-5	2,4-Dinitrophenol	100	82.1	82	12-125
534-52-1	4,6-Dinitro-o-cresol	100	86.8	87	47-119
88-75-5	2-Nitrophenol	50	50.7	101	64-104
100-02-7	4-Nitrophenol	100	39.4	39	22-50
87-86-5	Pentachlorophenol	100	92.9	93	50-111
108-95-2	Phenol	50	20.1	40	25-53
88-06-2	2,4,6-Trichlorophenol	50	47.0	94	60-103
83-32-9	Acenaphthene	50	42.8	86	62-101
208-96-8	Acenaphthylene	50	41.8	84	65-113
120-12-7	Anthracene	50	43.4	87	69-107
92-87-5	Benzidine	50	30.8	62	10-125
56-55-3	Benzo(a)anthracene	50	44.5	89	68-106
50-32-8	Benzo(a)pyrene	50	45.4	91	70-114
205-99-2	Benzo(b)fluoranthene	50	46.2	92	68-110
191-24-2	Benzo(g,h,i)perylene	50	44.3	89	63-115
207-08-9	Benzo(k)fluoranthene	50	46.1	92	68-112
101-55-3	4-Bromophenyl phenyl ether	50	48.0	96	73-103
85-68-7	Butyl benzyl phthalate	50	49.1	98	69-108
91-58-7	2-Chloronaphthalene	50	41.4	83	64-102
106-47-8	4-Chloroaniline	50	40.6	81	57-104
218-01-9	Chrysene	50	43.7	87	68-103
111-91-1	bis(2-Chloroethoxy)methane	50	43.2	86	57-103
111-44-4	bis(2-Chloroethyl)ether	50	45.5	91	64-106
108-60-1	bis(2-Chloroisopropyl)ether	50	40.3	81	52-120
7005-72-3	4-Chlorophenyl phenyl ether	50	45.8	92	71-104
95-50-1	1,2-Dichlorobenzene	50	38.8	78	62-100
122-66-7	1,2-Diphenylhydrazine	50	43.6	87	65-105
541-73-1	1,3-Dichlorobenzene	50	37.6	75	59-99
106-46-7	1,4-Dichlorobenzene	50	37.4	75	60-101
121-14-2	2,4-Dinitrotoluene	50	42.6	85	65-111
606-20-2	2,6-Dinitrotoluene	50	44.5	89	77-111
91-94-1	3,3'-Dichlorobenzidine	50	42.5	85	42-110

Blank Spike Summary

Page 2 of 2

Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP15045-BS	L028852.D	1	11/19/05	NJ	11/17/05	OP15045	SL1506

The QC reported here applies to the following samples:

Method: EPA 625

F36670-1, F36670-2, F36670-3, F36670-4, F36670-5, F36670-6, F36670-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
53-70-3	Dibenzo(a,h)anthracene	50	43.3	87	62-115
84-74-2	Di-n-butyl phthalate	50	46.1	92	68-109
117-84-0	Di-n-octyl phthalate	50	56.7	113	63-120
84-66-2	Diethyl phthalate	50	46.2	92	64-110
131-11-3	Dimethyl phthalate	50	46.8	94	44-120
117-81-7	bis(2-Ethylhexyl)phthalate	50	50.2	100	64-115
206-44-0	Fluoranthene	50	42.6	85	68-111
86-73-7	Fluorene	50	42.7	85	66-105
118-74-1	Hexachlorobenzene	50	43.3	87	69-103
87-68-3	Hexachlorobutadiene	50	41.2	82	55-90
77-47-4	Hexachlorocyclopentadiene	50	20.5	41	26-95
67-72-1	Hexachloroethane	50	36.3	73	59-104
193-39-5	Indeno(1,2,3-cd)pyrene	50	46.1	92	63-118
78-59-1	Isophorone	50	42.8	86	64-107
91-20-3	Naphthalene	50	40.4	81	62-101
98-95-3	Nitrobenzene	50	42.9	86	61-106
62-75-9	N-Nitrosodimethylamine	50	22.9	46	12-78
621-64-7	N-Nitroso-di-n-propylamine	50	37.1	74	64-109
86-30-6	N-Nitrosodiphenylamine	50	45.2	90	69-114
85-01-8	Phenanthrene	50	43.3	87	68-104
129-00-0	Pyrene	50	46.7	93	64-105
120-82-1	1,2,4-Trichlorobenzene	50	40.8	82	64-101

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	57%	19-90%
4165-62-2	Phenol-d5	36%	10-68%
118-79-6	2,4,6-Tribromophenol	89%	36-137%
4165-60-0	Nitrobenzene-d5	83%	49-119%
321-60-8	2-Fluorobiphenyl	86%	45-118%
1718-51-0	Terphenyl-d14	88%	46-135%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 2

Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP15045-MS	L028858.D	1	11/19/05	NJ	11/17/05	OP15045	SL1506
OP15045-MSD	L028859.D	1	11/19/05	NJ	11/17/05	OP15045	SL1506
F36623-3	L028857.D	1	11/19/05	NJ	11/17/05	OP15045	SL1506

The QC reported here applies to the following samples:

Method: EPA 625

F36670-1, F36670-2, F36670-3, F36670-4, F36670-5, F36670-6, F36670-7

CAS No.	Compound	F36623-3 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
95-57-8	2-Chlorophenol	ND	100	81.0	81	81.0	81	0	53-102/24
59-50-7	4-Chloro-3-methyl phenol	ND	100	87.5	88	86.4	86	1	60-101/18
120-83-2	2,4-Dichlorophenol	ND	100	90.2	90	88.7	89	2	55-100/24
105-67-9	2,4-Dimethylphenol	ND	100	78.5	79	77.8	78	1	36-98/26
51-28-5	2,4-Dinitrophenol	ND	200	176	88	180	90	2	14-135/39
534-52-1	4,6-Dinitro-o-cresol	ND	200	184	92	186	93	1	40-127/24
88-75-5	2-Nitrophenol	ND	100	100	100	101	101	1	53-104/25
100-02-7	4-Nitrophenol	ND	200	111	56	112	56	1	32-81/28
87-86-5	Pentachlorophenol	ND	200	193	97	199	100	3	44-118/16
108-95-2	Phenol	ND	100	53.8	54	53.2	53	1	31-77/26
88-06-2	2,4,6-Trichlorophenol	ND	100	92.2	92	92.8	93	1	55-103/21
83-32-9	Acenaphthene	ND	100	84.3	84	85.1	85	1	55-103/20
208-96-8	Acenaphthylene	ND	100	82.2	82	82.1	82	0	55-113/20
120-12-7	Anthracene	ND	100	86.9	87	86.5	87	0	66-105/14
92-87-5	Benzidine	ND	100	ND	0*	ND	0*	nc	10-125/50
56-55-3	Benzo(a)anthracene	ND	100	85.7	86	86.7	87	1	65-103/16
50-32-8	Benzo(a)pyrene	ND	100	89.4	89	88.2	88	1	65-113/16
205-99-2	Benzo(b)fluoranthene	ND	100	89.8	90	87.5	88	3	62-110/17
191-24-2	Benzo(g,h,i)perylene	ND	100	92.7	93	90.0	90	3	58-111/17
207-08-9	Benzo(k)fluoranthene	ND	100	89.3	89	87.6	88	2	63-110/17
101-55-3	4-Bromophenyl phenyl ether	ND	100	94.4	94	93.9	94	1	68-102/16
85-68-7	Butyl benzyl phthalate	ND	100	92.1	92	92.6	93	1	65-108/17
91-58-7	2-Chloronaphthalene	ND	100	83.3	83	82.9	83	0	58-101/22
106-47-8	4-Chloroaniline	ND	100	75.6	76	72.7	73	4	39-101/21
218-01-9	Chrysene	ND	100	86.0	86	86.7	87	1	65-100/18
111-91-1	bis(2-Chloroethoxy)methane	ND	100	83.9	84	83.7	84	0	49-100/24
111-44-4	bis(2-Chloroethyl)ether	ND	100	88.2	88	86.5	87	2	54-103/24
108-60-1	bis(2-Chloroisopropyl)ether	ND	100	77.7	78	76.6	77	1	49-109/22
7005-72-3	4-Chlorophenyl phenyl ether	ND	100	88.4	88	90.0	90	2	65-103/18
95-50-1	1,2-Dichlorobenzene	ND	100	80.5	81	79.3	79	2	50-101/22
122-66-7	1,2-Diphenylhydrazine	ND	100	88.0	88	87.1	87	1	61-101/17
541-73-1	1,3-Dichlorobenzene	ND	100	79.0	79	78.8	79	0	50-100/23
106-46-7	1,4-Dichlorobenzene	ND	100	78.8	79	79.1	79	0	51-101/23
121-14-2	2,4-Dinitrotoluene	ND	100	80.1	80	82.7	83	3	60-110/16
606-20-2	2,6-Dinitrotoluene	ND	100	85.8	86	86.2	86	0	60-111/19
91-94-1	3,3'-Dichlorobenzidine	ND	100	52.8	53	53.2	53	1	18-112/22

Matrix Spike/Matrix Spike Duplicate Summary

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Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP15045-MS	L028858.D	1	11/19/05	NJ	11/17/05	OP15045	SL1506
OP15045-MSD	L028859.D	1	11/19/05	NJ	11/17/05	OP15045	SL1506
F36623-3	L028857.D	1	11/19/05	NJ	11/17/05	OP15045	SL1506

The QC reported here applies to the following samples:

Method: EPA 625

F36670-1, F36670-2, F36670-3, F36670-4, F36670-5, F36670-6, F36670-7

CAS No.	Compound	F36623-3 ug/l	Spike Q	ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
53-70-3	Dibenzo(a,h)anthracene	ND		100	91.2	91	87.9	88	4	57-111/20
84-74-2	Di-n-butyl phthalate	ND		100	87.4	87	88.9	89	2	63-107/17
117-84-0	Di-n-octyl phthalate	ND		100	102	102	101	101	1	58-126/23
84-66-2	Diethyl phthalate	ND		100	87.3	87	87.2	87	0	59-110/18
131-11-3	Dimethyl phthalate	ND		100	89.8	90	89.4	89	0	40-116/25
117-81-7	bis(2-Ethylhexyl)phthalate	ND		100	94.4	94	94.9	95	1	55-120/22
206-44-0	Fluoranthene	ND		100	83.6	84	82.8	83	1	62-108/17
86-73-7	Fluorene	ND		100	84.2	84	83.0	83	1	60-105/17
118-74-1	Hexachlorobenzene	ND		100	87.5	88	85.9	86	2	64-102/16
87-68-3	Hexachlorobutadiene	ND		100	84.9	85	85.8	86	1	45-93/26
77-47-4	Hexachlorocyclopentadiene	ND		100	49.7	50	47.2	47	5	20-92/34
67-72-1	Hexachloroethane	ND		100	87.3	87	89.4	89	2	51-105/26
193-39-5	Indeno(1,2,3-cd)pyrene	ND		100	95.4	95	92.4	92	3	61-111/19
78-59-1	Isophorone	ND		100	83.6	84	84.3	84	1	59-103/23
91-20-3	Naphthalene	2.3	J	100	84.1	82	85.0	83	1	52-102/23
98-95-3	Nitrobenzene	ND		100	84.1	84	85.4	85	2	51-103/25
62-75-9	N-Nitrosodimethylamine	ND		100	60.1	60	59.1	59	2	20-91/29
621-64-7	N-Nitroso-di-n-propylamine	ND		100	70.9	71	72.2	72	2	57-103/24
86-30-6	N-Nitrosodiphenylamine	ND		100	88.8	89	89.6	90	1	62-112/16
85-01-8	Phenanthrene	ND		100	85.1	85	87.2	87	2	64-103/15
129-00-0	Pyrene	ND		100	90.3	90	90.6	91	0	59-107/21
120-82-1	1,2,4-Trichlorobenzene	ND		100	84.4	84	83.9	84	1	54-102/24

CAS No.	Surrogate Recoveries	MS	MSD	F36623-3	Limits
367-12-4	2-Fluorophenol	68%	66%	47%	19-90%
4165-62-2	Phenol-d5	49%	48%	30%	10-68%
118-79-6	2,4,6-Tribromophenol	91%	92%	93%	36-137%
4165-60-0	Nitrobenzene-d5	82%	83%	79%	49-119%
321-60-8	2-Fluorobiphenyl	84%	85%	82%	45-118%
1718-51-0	Terphenyl-d14	90%	80%	70%	46-135%

Instrument Performance Check (DFTPP)

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Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: SL1505-DFTPP
Lab File ID: L028816.D
Instrument ID: GCMSL
Injection Date: 11/18/05
Injection Time: 11:27

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	89884	44.9	Pass
68	Less than 2.0% of mass 69	0	0.0 (0.0) ^a	Pass
69	Mass 69 relative abundance	76038	38.0	Pass
70	Less than 2.0% of mass 69	491	0.25 (0.65) ^a	Pass
127	40.0 - 60.0% of mass 198	101296	50.6	Pass
197	Less than 1.0% of mass 198	238	0.12	Pass
198	Base peak, 100% relative abundance	200112	100.0	Pass
199	5.0 - 9.0% of mass 198	13899	6.9	Pass
275	10.0 - 30.0% of mass 198	41677	20.8	Pass
365	1.0 - 100.0% of mass 198	3611	1.8	Pass
441	Present, but less than mass 443	19855	9.9 (75.8) ^b	Pass
442	40.0 - 100.0% of mass 198	137339	68.6	Pass
443	17.0 - 23.0% of mass 442	26178	13.1 (19.1) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
SL1505-IC1505	L028818.D	11/18/05	12:16	00:49	Initial cal 5
SL1505-IC1505	L028819.D	11/18/05	12:46	01:19	Initial cal 25
SL1505-IC1505	L028820.D	11/18/05	13:16	01:49	Initial cal 50
SL1505-ICC1505	L028821.D	11/18/05	13:46	02:19	Initial cal 75
SL1505-IC1505	L028822.D	11/18/05	14:17	02:50	Initial cal 100
SL1505-IC1505	L028823.D	11/18/05	14:48	03:21	Initial cal 125
SL1505-ICV1505	L028824.D	11/18/05	15:23	03:56	Initial cal verification 50
SL1505-ICV1505	L028825.D	11/18/05	15:53	04:26	Initial cal verification 50

Instrument Performance Check (DFTPP)

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Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: SL1506-DFTPP
Lab File ID: L028826.D
Instrument ID: GCMSL
Injection Date: 11/18/05
Injection Time: 16:23

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
51	30.0 - 60.0% of mass 198	82509	41.4	Pass
68	Less than 2.0% of mass 69	0	0.0 (0.0) ^a	Pass
69	Mass 69 relative abundance	70818	35.6	Pass
70	Less than 2.0% of mass 69	395	0.2 (0.56) ^a	Pass
127	40.0 - 60.0% of mass 198	96360	48.4	Pass
197	Less than 1.0% of mass 198	0	0.0	Pass
198	Base peak, 100% relative abundance	199155	100.0	Pass
199	5.0 - 9.0% of mass 198	13931	7.0	Pass
275	10.0 - 30.0% of mass 198	42581	21.4	Pass
365	1.0 - 100.0% of mass 198	3869	1.9	Pass
441	Present, but less than mass 443	20464	10.3 (71.5) ^b	Pass
442	40.0 - 100.0% of mass 198	144787	72.7	Pass
443	17.0 - 23.0% of mass 442	28637	14.4 (19.8) ^c	Pass

(a) Value is % of mass 69

(b) Value is % of mass 443

(c) Value is % of mass 442

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
SL1506-CC1505	L028827.D	11/18/05	16:43	00:20	Continuing cal 50
OP15037-BS	L028828.D	11/18/05	17:13	00:50	Blank Spike
OP15037-MB	L028829.D	11/18/05	17:44	01:21	Method Blank
ZZZZZZ	L028830.D	11/18/05	18:13	01:50	(unrelated sample)
T11857-1	L028831.D	11/18/05	18:43	02:20	(used for QC only; not part of job F36670)
OP15037-MS	L028832.D	11/18/05	19:13	02:50	Matrix Spike
OP15037-MSD	L028833.D	11/18/05	19:43	03:20	Matrix Spike Duplicate
ZZZZZZ	L028834.D	11/18/05	20:13	03:50	(unrelated sample)
ZZZZZZ	L028835.D	11/18/05	20:43	04:20	(unrelated sample)
ZZZZZZ	L028836.D	11/18/05	21:13	04:50	(unrelated sample)
ZZZZZZ	L028837.D	11/18/05	21:43	05:20	(unrelated sample)
ZZZZZZ	L028838.D	11/18/05	22:13	05:50	(unrelated sample)
OP14996-MB	L028839.D	11/18/05	22:43	06:20	Method Blank
ZZZZZZ	L028840.D	11/18/05	23:13	06:50	(unrelated sample)
ZZZZZZ	L028841.D	11/18/05	23:43	07:20	(unrelated sample)
ZZZZZZ	L028842.D	11/19/05	00:13	07:50	(unrelated sample)
ZZZZZZ	L028843.D	11/19/05	00:43	08:20	(unrelated sample)
ZZZZZZ	L028844.D	11/19/05	01:13	08:50	(unrelated sample)
ZZZZZZ	L028845.D	11/19/05	01:43	09:20	(unrelated sample)

Instrument Performance Check (DFTPP)

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Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: SL1506-DFTPP
Lab File ID: L028826.D
Instrument ID: GCMSL
Injection Date: 11/18/05
Injection Time: 16:23

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	L028846.D	11/19/05	02:13	09:50	(unrelated sample)
ZZZZZZ	L028847.D	11/19/05	02:43	10:20	(unrelated sample)
OP15045-BS	L028852.D	11/19/05	05:13	12:50	Blank Spike
OP15045-MB	L028853.D	11/19/05	05:43	13:20	Method Blank
ZZZZZZ	L028854.D	11/19/05	06:13	13:50	(unrelated sample)
ZZZZZZ	L028855.D	11/19/05	06:43	14:20	(unrelated sample)
ZZZZZZ	L028856.D	11/19/05	07:13	14:50	(unrelated sample)
F36623-3	L028857.D	11/19/05	07:43	15:20	(used for QC only; not part of job F36670)
OP15045-MS	L028858.D	11/19/05	08:14	15:51	Matrix Spike
OP15045-MSD	L028859.D	11/19/05	08:45	16:22	Matrix Spike Duplicate
ZZZZZZ	L028860.D	11/19/05	09:15	16:52	(unrelated sample)
ZZZZZZ	L028861.D	11/19/05	09:45	17:22	(unrelated sample)
ZZZZZZ	L028862.D	11/19/05	10:15	17:52	(unrelated sample)
F36670-1	L028863.D	11/19/05	10:45	18:22	USTLCH4015-MW 22
F36670-2	L028864.D	11/19/05	11:16	18:53	USTLCH4015-MW 24
F36670-3	L028865.D	11/19/05	11:46	19:23	USTLCH4015-MW 3
F36670-4	L028866.D	11/19/05	12:16	19:53	USTLCH4015-MW 13
F36670-5	L028867.D	11/19/05	12:45	20:22	USTLCH4015-MW 21
F36670-6	L028868.D	11/19/05	13:15	20:52	USTLCH4015-MW 19
F36670-7	L028869.D	11/19/05	13:45	21:22	USTLCH4015-MW 18

Semivolatile Internal Standard Area Summary

Page 1 of 2

Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std: SL1506-CC1505	Injection Date: 11/18/05
Lab File ID: L028827.D	Injection Time: 16:43
Instrument ID: GCMSL	Method: EPA 625

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	195270	5.13	730513	6.31	384682	8.61	576343	11.11	460129	16.05	475064	18.55
Upper Limit ^a	390540	5.63	1461026	6.81	769364	9.11	1152686	11.61	920258	16.55	950128	19.05
Lower Limit ^b	97635	4.63	365257	5.81	192341	8.11	288172	10.61	230065	15.55	237532	18.05

Lab Sample ID	IS 1 AREA	IS 1 RT	IS 2 AREA	IS 2 RT	IS 3 AREA	IS 3 RT	IS 4 AREA	IS 4 RT	IS 5 AREA	IS 5 RT	IS 6 AREA	IS 6 RT
OP15037-BS	182874	5.13	669991	6.31	353189	8.61	515101	11.11	380331	16.05	350109	18.55
OP15037-MB	184843	5.14	669512	6.31	334230	8.60	474955	11.11	365666	16.04	320782	18.55
ZZZZZZ	195250	5.14	707728	6.31	356553	8.60	501067	11.11	379644	16.04	346861	18.54
T11857-1	186884	5.14	684333	6.31	347002	8.60	503304	11.11	388811	16.04	356789	18.55
OP15037-MS	191425	5.13	695373	6.31	352489	8.61	520463	11.11	381167	16.05	366328	18.55
OP15037-MSD	190331	5.13	706332	6.31	360712	8.61	519203	11.11	376407	16.05	363777	18.55
ZZZZZZ	200362	5.14	725418	6.31	371687	8.60	528859	11.11	399168	16.04	358340	18.55
ZZZZZZ	199103	5.13	730472	6.31	369012	8.60	524471	11.11	396423	16.04	371588	18.55
ZZZZZZ	205437	5.14	745841	6.31	377723	8.60	550815	11.11	409353	16.05	375783	18.55
ZZZZZZ	206281	5.13	742343	6.31	373443	8.61	542480	11.11	414329	16.04	384801	18.55
ZZZZZZ	210725	5.13	752614	6.31	382510	8.61	547630	11.11	419072	16.04	383853	18.55
OP14996-MB	219440	5.13	782244	6.31	409817	8.61	602375	11.11	472605	16.05	434896	18.55
ZZZZZZ	193831	5.14	705923	6.31	363171	8.60	534983	11.11	428562	16.05	400607	18.55
ZZZZZZ	205785	5.13	730914	6.31	376363	8.61	539014	11.12	405691	16.05	383392	18.55
ZZZZZZ	187331	5.13	672701	6.31	345348	8.61	495188	11.11	397358	16.05	381154	18.55
ZZZZZZ	186505	5.14	665413	6.32	344586	8.61	515792	11.11	410604	16.05	387277	18.55
ZZZZZZ	195651	5.14	693133	6.32	367068	8.61	539337	11.11	436852	16.05	410744	18.55
ZZZZZZ	208380	5.14	762780	6.32	410024	8.61	618493	11.11	513908	16.05	458258	18.56
ZZZZZZ	171333	5.14	627195	6.31	325392	8.60	472228	11.11	386841	16.04	370751	18.55
ZZZZZZ	212606	5.13	761308	6.31	399953	8.61	598963	11.11	472803	16.05	425379	18.55
OP15045-BS	206822	5.13	754165	6.31	394513	8.61	589399	11.12	435061	16.06	405883	18.55
OP15045-MB	201314	5.13	737406	6.31	388187	8.61	563397	11.11	444974	16.05	401795	18.55
ZZZZZZ	195183	5.13	697047	6.31	356660	8.61	522073	11.11	431543	16.04	409953	18.55
ZZZZZZ	224430	5.14	823338	6.32	422660	8.61	657730	11.12	562200	16.05	520426	18.56
ZZZZZZ	188635	5.13	657622	6.31	348102	8.60	515552	11.12	413171	16.05	400448	18.55
F36623-3	219699	5.14	801691	6.31	408126	8.61	597597	11.11	474042	16.05	444412	18.56
OP15045-MS	185923	5.13	657404	6.31	340404	8.61	492837	11.12	370598	16.05	362425	18.55
OP15045-MSD	185429	5.13	653923	6.31	334359	8.61	485566	11.12	367227	16.05	362255	18.55
ZZZZZZ	189114	5.13	664991	6.31	345739	8.61	511737	11.11	409065	16.05	389419	18.55
ZZZZZZ	224143	5.14	800952	6.31	411366	8.61	588549	11.11	470535	16.05	417227	18.56
ZZZZZZ	186822	5.13	668179	6.31	348525	8.61	507496	11.11	396412	16.04	373773	18.55
F36670-1	191234	5.14	685742	6.31	353556	8.60	516681	11.11	408187	16.04	393094	18.55
F36670-2	187831	5.13	678624	6.31	361275	8.61	535345	11.12	478204	16.05	481279	18.56
F36670-3	199264	5.13	706030	6.31	363916	8.61	535129	11.11	438306	16.05	422274	18.55
F36670-4	202817	5.13	730137	6.31	373296	8.61	546509	11.11	431235	16.05	411629	18.55

Semivolatile Internal Standard Area Summary

Page 2 of 2

Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std: SL1506-CC1505	Injection Date: 11/18/05
Lab File ID: L028827.D	Injection Time: 16:43
Instrument ID: GCMSL	Method: EPA 625

Lab Sample ID	IS 1 AREA	IS 1 RT	IS 2 AREA	IS 2 RT	IS 3 AREA	IS 3 RT	IS 4 AREA	IS 4 RT	IS 5 AREA	IS 5 RT	IS 6 AREA	IS 6 RT
F36670-5	198177	5.14	700532	6.31	367371	8.60	532970	11.11	433124	16.04	410179	18.55
F36670-6	222287	5.13	805219	6.31	425359	8.60	631039	11.11	492172	16.05	439740	18.55
F36670-7	202861	5.13	718438	6.31	369286	8.61	527600	11.12	436582	16.05	408547	18.55

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Surrogate Recovery Summary

Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Method: EPA 625	Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
F36670-1	L028863.D	48.0	28.0	91.0	82.0	84.0	82.0
F36670-2	L028864.D	48.0	30.0	91.0	80.0	81.0	73.0
F36670-3	L028865.D	46.0	27.0	91.0	83.0	84.0	78.0
F36670-4	L028866.D	45.0	27.0	88.0	78.0	80.0	79.0
F36670-5	L028867.D	64.0	44.0	94.0	82.0	84.0	78.0
F36670-6	L028868.D	47.0	29.0	89.0	81.0	83.0	80.0
F36670-7	L028869.D	48.0	29.0	92.0	80.0	82.0	79.0
OP15045-BS	L028852.D	57.0	36.0	89.0	83.0	86.0	88.0
OP15045-MB	L028853.D	56.0	37.0	95.0	85.0	87.0	87.0
OP15045-MS	L028858.D	68.0	49.0	91.0	82.0	84.0	90.0
OP15045-MSD	L028859.D	66.0	48.0	92.0	83.0	85.0	80.0

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	19-90%
S2 = Phenol-d5	10-68%
S3 = 2,4,6-Tribromophenol	36-137%
S4 = Nitrobenzene-d5	49-119%
S5 = 2-Fluorobiphenyl	45-118%
S6 = Terphenyl-d14	46-135%

Initial Calibration Summary

Page 1 of 3

Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: SL1505-ICC1505
Lab FileID: L028821.D

Response Factor Report MSBNA02

Method : C:\HPCHEM\1\METHODS\8270C.M (RTE Integrator)
Title : SW846 8270C OR EPA 625
Last Update : Fri Nov 18 16:03:08 2005
Response via : Initial Calibration

Calibration Files

5 =L028818.D 25 =L028819.D 50 =L028820.D 75 =L028821.D
100 =L028822.D 125 =L028823.D icv =L028824.D

Compound	5	25	50	75	100	125	icv	Avg	%RSD
1) I 1,4-Dichlorobenzene-d	-----ISTD-----								
2) 1,4-Dioxane	0.389	0.451	0.442	0.455	0.451	0.448		0.439	5.71
3) N-nitrosodimethyl	0.457	0.675	0.723	0.747	0.733	0.712		0.675	16.22
---- Linear regr., Force(0,0) ---- Coefficient = 0.9986									
Response Ratio = 0.00000 + 0.72397 *A									
4) Pyridine	1.014	1.275	1.285	1.323	1.306	1.306		1.251	9.41
5) Benzaldehyde	0.989	1.122	1.029	0.852	0.636	0.466		0.849	29.73
6) Aniline	1.942	2.012	2.001	2.000	1.986	1.952		1.982	1.44
7)S 2-Fluorophenol	1.154	1.278	1.182	1.213	1.199	1.173		1.200	3.63
8) bis(2-Chloroethyl	1.116	1.190	1.153	1.150	1.108	1.112		1.138	2.80
9)S Phenol-d5	1.558	1.667	1.577	1.571	1.531	1.507		1.568	3.50
10)C Phenol	1.595	1.677	1.591	1.596	1.554	1.553		1.594	2.84
11) 2-Chlorophenol	1.408	1.517	1.473	1.464	1.437	1.421		1.453	2.74
12) 1,3-Dichlorobenze	1.557	1.631	1.568	1.533	1.492	1.478		1.543	3.61
13)C 1,4-Dichlorobenze	1.553	1.617	1.553	1.526	1.494	1.460		1.534	3.55
14) 1,2-Dichlorobenze	1.447	1.533	1.428	1.429	1.405	1.359		1.434	4.00
15) Benzyl alcohol	0.828	0.917	0.891	0.937	0.909	0.891		0.895	4.14
16) bis(2-chloroisopr	2.245	2.340	2.230	2.227	2.184	2.113		2.223	3.36
17) 2-Methylphenol	1.175	1.250	1.227	1.241	1.240	1.203		1.223	2.31
18) Acetophenone	1.667	1.755	1.626	1.590	1.549	1.543		1.621	4.95
19) Hexachloroethane	0.509	0.547	0.548	0.541	0.538	0.522		0.534	2.87
20)P N-Nitroso-di-n-pr	0.867	0.883	0.832	0.836	0.815	0.794		0.838	3.89
21) 3&4-Methylphenol	1.264	1.321	1.310	1.321	1.277	1.248		1.290	2.44
22) I Naphthalene-d8	-----ISTD-----								
23)S Nitrobenzene-d5	0.289	0.310	0.327	0.327	0.330	0.323		0.317	4.91
24) Nitrobenzene	0.291	0.313	0.320	0.321	0.317	0.313		0.312	3.50
25) Isophorone	0.560	0.574	0.580	0.585	0.582	0.571		0.575	1.60
26)C 2-Nitrophenol	0.142	0.171	0.190	0.198	0.200	0.198		0.183	12.51
27) 2,4-Dimethylpheno	0.327	0.339	0.341	0.332	0.326	0.323		0.331	2.20
28) bis(2-Chloroethox	0.372	0.374	0.369	0.362	0.359	0.345		0.363	2.96
29) Benzoic Acid	0.116	0.182	0.216	0.235	0.260	0.251		0.210	25.66
---- Linear regr., Force(0,0) ---- Coefficient = 0.9955									
Response Ratio = 0.00000 + 0.24731 *A									
30)C 2,4-Dichloropheno	0.300	0.312	0.319	0.317	0.318	0.307		0.312	2.41
31) 1,2,4-Trichlorobe	0.321	0.322	0.313	0.307	0.298	0.294		0.309	3.73
32) Naphthalene	1.073	1.087	1.051	1.029	1.011	0.975		1.038	3.98
33) 4-Chloroaniline	0.466	0.466	0.458	0.444	0.431	0.412		0.446	4.76
34) 2,6-Dichloropheno	0.293	0.298	0.294	0.291	0.285	0.274		0.289	2.96
35)C Hexachlorobutadie	0.151	0.152	0.151	0.149	0.147	0.141		0.148	2.78
36) Caprolactam	0.098	0.113	0.117	0.122	0.126	0.125		0.117	8.78
37)C 4-Chloro-3-methyl	0.278	0.281	0.298	0.296	0.299	0.292		0.291	3.15
38) 2-Methylnaphthale	0.702	0.713	0.721	0.699	0.687	0.657		0.696	3.26
39) 1-Methylnaphthale	0.683	0.686	0.687	0.669	0.670	0.638		0.672	2.72

Initial Calibration Summary

Job Number: F36670
 Account: EEINCJX EEI
 Project: Camp Lejeune-LCH 4015

Sample: SL1505-ICC1505
 Lab FileID: L028821.D

40)	1,2,4,5-Tetrachlo	0.300	0.298	0.290	0.276	0.278	0.262	0.284	5.13
41)	I Acenaphthene-d10	-----ISTD-----							
42)	P Hexachlorocyclope	0.241	0.291	0.313	0.316	0.306	0.309	0.296	9.55
43)	C 2,4,6-Trichloroph	0.350	0.387	0.388	0.393	0.388	0.387	0.382	4.18
44)	2,4,5-Trichloroph	0.368	0.404	0.416	0.427	0.408	0.413	0.406	4.97
45)	S 2-Fluorobiphenyl	1.472	1.486	1.457	1.437	1.369	1.339	1.427	4.15
46)	1,1'-Biphenyl	1.534	1.609	1.595	1.582	1.548	1.568	1.573	1.80
47)	2-Chloronaphthale	1.256	1.272	1.226	1.196	1.165	1.145	1.210	4.16
48)	2-Nitroaniline	0.249	0.298	0.330	0.344	0.347	0.347	0.319	12.23
49)	Acenaphthylene	2.054	2.142	2.049	2.009	1.952	1.914	2.020	4.02
50)	Dimethylphthalate	1.375	1.443	1.391	1.402	1.369	1.357	1.390	2.22
51)	2,6-Dinitrotoluen	0.238	0.311	0.330	0.338	0.343	0.346	0.318	12.93
52)	C Acenaphthene	1.238	1.265	1.198	1.199	1.166	1.164	1.205	3.31
53)	3-Nitroaniline	0.284	0.359	0.375	0.402	0.402	0.409	0.372	12.63
54)	P 2,4-Dinitrophenol	0.041	0.074	0.104	0.132	0.143	0.156	0.108	40.69
---- Quadratic regr., Force(0,0) ---- Coefficient = 0.9976									
Response Ratio = 0.00000 + 0.07711 *A + 0.02563 *A^2									
55)	Dibenzofuran	1.741	1.796	1.721	1.722	1.664	1.641	1.714	3.24
56)	2,4-Dinitrotoluen	0.238	0.370	0.391	0.405	0.401	0.416	0.370	17.95
---- Linear regr., Force(0,0) ---- Coefficient = 0.9994									
Response Ratio = 0.00000 + 0.40719 *A									
57)	P 4-Nitrophenol	0.158	0.161	0.174	0.178	0.181	0.171	5.98	
58)	2,3,4,6-Tetrachlo	0.247	0.302	0.309	0.325	0.321	0.320	0.304	9.55
59)	Fluorene	1.418	1.506	1.430	1.445	1.393	1.385	1.429	3.05
60)	4-Chlorophenyl-ph	0.630	0.635	0.589	0.605	0.582	0.576	0.603	4.14
61)	Diethylphthalate	1.302	1.425	1.349	1.361	1.367	1.348	1.359	2.91
62)	4-Nitroaniline	0.283	0.370	0.377	0.407	0.403	0.417	0.376	12.99
63)	I Phenanthrene-d10	-----ISTD-----							
64)	4,6-Dinitro-2-met	0.083	0.113	0.131	0.138	0.145	0.122	20.22	
---- Linear regr., Force(0,0) ---- Coefficient = 0.9989									
Response Ratio = 0.00000 + 0.13721 *A									
65)	C n-Nitrosodiphenyl	0.650	0.697	0.683	0.661	0.639	0.635	0.661	3.76
66)	1,2-Diphenylhydra	0.754	0.777	0.780	0.765	0.734	0.725	0.756	3.02
67)	S 2,4,6-Tribromophe	0.077	0.089	0.090	0.088	0.085	0.085	0.085	5.74
68)	4-Bromophenyl-phe	0.211	0.222	0.224	0.216	0.210	0.205	0.215	3.39
69)	Hexachlorobenzene	0.216	0.219	0.214	0.205	0.199	0.196	0.208	4.66
70)	Atrazine	0.205	0.239	0.239	0.245	0.236	0.237	0.234	6.14
71)	C Pentachlorophenol	0.120	0.139	0.141	0.141	0.143	0.137	6.91	
72)	Phenanthrene	1.306	1.334	1.287	1.242	1.220	1.192	1.264	4.30
73)	Anthracene	1.298	1.355	1.322	1.292	1.234	1.215	1.286	4.12
74)	Carbazole	1.232	1.380	1.316	1.299	1.249	1.251	1.288	4.32
75)	Di-n-butylphthala	1.395	1.548	1.491	1.493	1.419	1.398	1.457	4.30
76)	C Fluoranthene	1.217	1.337	1.310	1.289	1.225	1.216	1.266	4.19
77)	I Chrysene-d12	-----ISTD-----							
78)	Benzidine	0.937	1.133	1.205	1.118	1.066	1.003	1.077	8.95
79)	Pyrene	1.631	1.750	1.722	1.652	1.646	1.614	1.669	3.24
80)	S Terphenyl-d14	0.945	1.032	1.026	0.982	0.988	0.956	0.988	3.58
81)	Butylbenzylphthal	0.666	0.811	0.843	0.822	0.849	0.835	0.804	8.59
82)	3,3'-Dichlorobenz	0.462	0.528	0.538	0.522	0.518	0.501	0.512	5.30
83)	Benzo[a]anthracen	1.348	1.461	1.475	1.474	1.467	1.466	1.448	3.41
84)	Chrysene	1.290	1.411	1.367	1.349	1.327	1.325	1.345	3.08
85)	bis(2-Ethylhexyl)	0.862	1.070	1.128	1.111	1.121	1.092	1.064	9.53
86)	I Perylene-d12	-----ISTD-----							

Initial Calibration Summary

Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: SL1505-ICC1505
Lab FileID: L028821.D

87)C	Di-n-octylphthala	1.384	1.746	1.812	1.797	1.789	1.733	1.710	9.51
	---- Linear regr., Force(0,0) ----	Coefficient = 0.9989							
		Response Ratio = 0.00000 + 1.76574 *A							
88)	Benzo[b]fluoranth	1.187	1.408	1.371	1.329	1.362	1.345	1.334	5.74
89)	Benzo[k]fluoranth	1.303	1.474	1.344	1.321	1.272	1.272	1.331	5.67
90)C	Benzo[a]pyrene	1.155	1.359	1.324	1.289	1.302	1.292	1.287	5.42
91)	Indeno[1,2,3-cd]p	0.931	1.127	1.157	1.181	1.187	1.243	1.138	9.52
92)	Dibenz[a,h]anthra	0.989	1.174	1.182	1.153	1.181	1.169	1.142	6.62
93)	Benzo[g,h,i]peryl	1.141	1.323	1.311	1.315	1.292	1.333	1.286	5.62

(#) = Out of Range

8270C.M Fri Nov 18 16:35:21 2005

5.7
5

Initial Calibration Verification

Page 1 of 3

Job Number: F36670
 Account: EEINCJX EEI
 Project: Camp Lejeune-LCH 4015

Sample: SL1505-ICV1505
 Lab FileID: L028824.D

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\111805\L028824.D Vial: 11
 Acq On : 18 Nov 2005 3:23 pm Operator: nareshj
 Sample : icv1505-50 Inst : MSBNA02
 Misc : op15016,sl1505,30.0,,,1,1,soil Multiplr: 1.00
 MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\8270C.M (RTE Integrator)
 Title : SW846 8270C OR EPA 625
 Last Update : Fri Nov 18 16:03:08 2005
 Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	Amount	Calc.	%Drift	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	40.000	40.000	0.0	109	0.00	5.13
2	1,4-Dioxane	50.000	49.705	0.6	0	0.02	2.69

3	N-nitrosodimethylamine	50.000	45.008	10.0	0	0.00	2.96

4	Pyridine	50.000	47.841	4.3	0	0.01	2.99
5	Benzaldehyde	50.000	58.052	-16.1	0	0.00	4.79
6	Aniline	50.000	46.150	7.7	0	0.00	4.87
7 S	2-Fluorophenol	-----NA-----					
8	bis(2-Chloroethyl)ether	50.000	51.942	-3.9	0	0.00	4.92
9 S	Phenol-d5	-----NA-----					
10 C	Phenol	50.000	50.887	-1.8	0	0.00	4.84
11	2-Chlorophenol	50.000	49.357	1.3	0	0.00	4.96
12	1,3-Dichlorobenzene	50.000	47.531	4.9	0	0.00	5.09
13 C	1,4-Dichlorobenzene	50.000	47.899	4.2	0	0.00	5.15
14	1,2-Dichlorobenzene	50.000	48.993	2.0	0	0.00	5.27
15	Benzyl alcohol	50.000	49.290	1.4	0	0.00	5.25
16	bis(2-chloroisopropyl)eth	50.000	48.378	3.2	0	0.00	5.36
17	2-Methylphenol	50.000	46.466	7.1	0	0.00	5.34
18	Acetophenone	50.000	46.461	7.1	0	0.00	5.48
19	Hexachloroethane	50.000	49.781	0.4	0	0.00	5.57
20 P	N-Nitroso-di-n-propylamin	50.000	45.053	9.9	0	0.00	5.48
21	3&4-Methylphenol	100.000	89.658	10.3	0	0.00	5.47

22 I	Naphthalene-d8	40.000	40.000	0.0	106	0.00	6.31
23 S	Nitrobenzene-d5	-----NA-----					
24	Nitrobenzene	50.000	49.285	1.4	0	0.00	5.63
25	Isophorone	50.000	50.338	-0.7	0	0.00	5.85
26 C	2-Nitrophenol	50.000	54.205	-8.4	0	0.00	5.92
27	2,4-Dimethylphenol	50.000	43.572	12.9	0	0.00	5.96
28	bis(2-Chloroethoxy)methan	50.000	49.634	0.7	0	0.00	6.06

29	Benzoic Acid	100.000	104.829	-4.8	0	0.01	6.09

30 C	2,4-Dichlorophenol	50.000	51.010	-2.0	0	0.00	6.16
31	1,2,4-Trichlorobenzene	50.000	48.500	3.0	0	0.00	6.25
32	Naphthalene	50.000	47.678	4.6	0	0.00	6.34
33	4-Chloroaniline	50.000	32.340	35.3#	0	0.00	6.39

Initial Calibration Verification

Job Number: F36670
 Account: EEINCJX EEI
 Project: Camp Lejeune-LCH 4015

Sample: SL1505-ICV1505
 Lab FileID: L028824.D

34	2,6-Dichlorophenol	50.000	49.047	1.9	0	0.00	6.39
35 C	Hexachlorobutadiene	50.000	48.816	2.4	0	0.00	6.46
36	Caprolactam	50.000	49.850	0.3	0	0.00	6.80
37 C	4-Chloro-3-methylphenol	50.000	49.879	0.2	0	0.00	6.93
38	2-Methylnaphthalene	50.000	50.278	-0.6	0	0.00	7.14
39	1-Methylnaphthalene	50.000	47.466	5.1	0	0.00	7.26
40	1,2,4,5-Tetrachlorobenzen	50.000	48.036	3.9	0	0.00	7.34
41 I	Acenaphthene-d10	40.000	40.000	0.0	106	0.00	8.61
42 P	Hexachlorocyclopentadiene	50.000	49.851	0.3	0	0.00	7.33
43 C	2,4,6-Trichlorophenol	50.000	51.465	-2.9	0	0.00	7.50
44	2,4,5-Trichlorophenol	50.000	49.768	0.5	0	0.00	7.54
45 S	2-Fluorobiphenyl			-----NA-----			
46	1,1'-Biphenyl	50.000	48.920	2.2	0	0.00	7.77
47	2-Chloronaphthalene	50.000	47.793	4.4	0	0.00	7.78
48	2-Nitroaniline	50.000	50.669	-1.3	0	0.00	7.93
49	Acenaphthylene	50.000	47.574	4.9	0	0.00	8.39
50	Dimethylphthalate	50.000	52.431	-4.9	0	0.00	8.24
51	2,6-Dinitrotoluene	50.000	47.561	4.9	0	0.00	8.31
52 C	Acenaphthene	50.000	48.306	3.4	0	0.00	8.66
53	3-Nitroaniline	50.000	32.394	35.2#	0	0.00	8.56
	----- Amount Calc. %Drift -----						
54 P	2,4-Dinitrophenol	100.000	97.850	2.2	0	0.00	8.73
	----- Amount Calc. %Drift -----						
55	Dibenzofuran	50.000	48.580	2.8	0	0.00	8.94
	----- Amount Calc. %Drift -----						
56	2,4-Dinitrotoluene	50.000	45.350	9.3	0	0.00	8.94
	----- Amount Calc. %Drift -----						
57 P	4-Nitrophenol	100.000	91.755	8.2	0	0.00	8.84
58	2,3,4,6-Tetrachlorophenol	50.000	48.157	3.7	0	0.00	9.13
59	Fluorene	50.000	47.392	5.2	0	0.00	9.50
60	4-Chlorophenyl-phenylethe	50.000	51.612	-3.2	0	0.00	9.54
61	Diethylphthalate	50.000	51.294	-2.6	0	0.00	9.39
62	4-Nitroaniline	50.000	43.163	13.7	0	0.00	9.56
63 I	Phenanthrene-d10	40.000	40.000	0.0	101	0.00	11.12
	----- Amount Calc. %Drift -----						
64	4,6-Dinitro-2-methylpheno	100.000	104.526	-4.5	0	0.00	9.61
	----- Amount Calc. %Drift -----						
65 C	n-Nitrosodiphenylamine	50.000	49.950	0.1	0	0.00	9.74
66	1,2-Diphenylhydrazine	50.000	51.176	-2.4	0	0.00	9.80
67 S	2,4,6-Tribromophenol			-----NA-----			
68	4-Bromophenyl-phenylether	50.000	52.976	-6.0	0	0.00	10.37
69	Hexachlorobenzene	50.000	48.405	3.2	0	0.00	10.42
70	Atrazine	50.000	51.574	-3.1	0	0.00	10.74
71 C	Pentachlorophenol	100.000	104.404	-4.4	0	0.00	10.79
72	Phenanthrene	50.000	48.623	2.8	0	0.00	11.16
73	Anthracene	50.000	49.078	1.8	0	0.00	11.25
74	Carbazole	50.000	47.985	4.0	0	0.00	11.58
75	Di-n-butylphthalate	50.000	50.938	-1.9	0	0.00	12.37
76 C	Fluoranthene	50.000	47.248	5.5	0	0.00	13.34
77 I	Chrysene-d12	40.000	40.000	0.0	89	0.00	16.05
78	Benzidine			-----NA-----			

Initial Calibration Verification

Page 3 of 3

Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: SL1505-ICV1505
Lab FileID: L028824.D

79	Pyrene	50.000	52.091	-4.2	0	0.00	13.74
80 S	Terphenyl-d14		-----NA-----				
81	Butylbenzylphthalate	50.000	52.971	-5.9	0	0.00	15.20
82	3,3'-Dichlorobenzidine		-----NA-----				
83	Benzo[a]anthracene	50.000	49.280	1.4	0	0.00	16.04
84	Chrysene	50.000	50.105	-0.2	0	0.00	16.10
85	bis(2-Ethylhexyl)phthalat	50.000	54.876	-9.8	0	0.00	16.38
86 I	Perylene-d12	40.000	40.000	0.0	78	0.00	18.55
	----- Amount Calc. %Drift -----						
87 C	Di-n-octylphthalate	50.000	58.750	-17.5	0	0.00	17.58
	----- Amount Calc. %Drift -----						
88	Benzo[b]fluoranthene	50.000	51.127	-2.3	0	0.00	17.94
89	Benzo[k]fluoranthene	50.000	51.667	-3.3	0	0.00	17.99
90 C	Benzo[a]pyrene	50.000	50.535	-1.1	0	0.00	18.46
91	Indeno[1,2,3-cd]pyrene	50.000	48.121	3.8	0	0.00	20.15
92	Dibenz[a,h]anthracene	50.000	46.658	6.7	0	-0.01	20.20
93	Benzo[g,h,i]perylene	50.000	46.905	6.2	0	-0.02	20.51

(#) = Out of Range
L028824.D 8270C.M

SPCC's out = 0 CCC's out = 0
Fri Nov 18 16:35:40 2005

5.7
5

Continuing Calibration Summary

Page 1 of 3

Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: SL1506-CC1505
Lab FileID: L028827.D

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\111805\L028827.D Vial: 14
Acq On : 18 Nov 2005 4:43 pm Operator: nareshj
Sample : cc1505-50 Inst : MSBNA02
Misc : op15016,sl1506,30.0,,,1,1,soil Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\8270C.M (RTE Integrator)
Title : SW846 8270C OR EPA 625
Last Update : Fri Nov 18 15:22:17 2005
Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	108	0.00	5.13
2	1,4-Dioxane	0.439	0.468	-6.6	115	0.00	2.67
----- Amount Calc. %Drift -----							
3	N-nitrosodimethylamine	50.000	49.683	0.6	108	0.00	2.95
----- AvgRF CCRF %Dev -----							
4	Pyridine	1.251	1.334	-6.6	113	0.00	2.98
5	Benzaldehyde	0.849	1.048	-23.4#	110	0.00	4.79
6	Aniline	1.982	2.037	-2.8	110	0.00	4.87
7 S	2-Fluorophenol	1.200	1.251	-4.2	115	0.00	4.10
8	bis(2-Chloroethyl)ether	1.138	1.172	-3.0	110	0.00	4.93
9 S	Phenol-d5	1.568	1.582	-0.9	109	0.00	4.83
10 C	Phenol	1.594	1.612	-1.1	110	0.00	4.84
11	2-Chlorophenol	1.453	1.501	-3.3	110	0.00	4.96
12	1,3-Dichlorobenzene	1.543	1.611	-4.4	111	0.00	5.09
13 C	1,4-Dichlorobenzene	1.534	1.555	-1.4	109	0.00	5.15
14	1,2-Dichlorobenzene	1.434	1.487	-3.7	113	0.00	5.27
15	Benzyl alcohol	0.895	0.935	-4.5	114	0.00	5.25
16	bis(2-chloroisopropyl)eth	2.223	2.285	-2.8	111	0.00	5.36
17	2-Methylphenol	1.223	1.246	-1.9	110	0.00	5.33
18	Acetophenone	1.621	1.630	-0.6	109	0.00	5.48
19	Hexachloroethane	0.534	0.562	-5.2	111	0.00	5.57
20 P	N-Nitroso-di-n-propylamin	0.838	0.834	0.5	109	0.00	5.48
21	3&4-Methylphenol	1.290	1.325	-2.7	110	0.00	5.47
----- Amount Calc. %Drift -----							
29	Benzoic Acid	50.000	50.002	-0.0	126	-0.02	6.06
----- AvgRF CCRF %Dev -----							
30 C	2,4-Dichlorophenol	0.312	0.322	-3.2	111	0.00	6.15
31	1,2,4-Trichlorobenzene	0.309	0.322	-4.2	113	0.00	6.25
32	Naphthalene	1.038	1.046	-0.8	109	0.00	6.34
33	4-Chloroaniline	0.446	0.451	-1.1	108	0.00	6.39

Continuing Calibration Summary

Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: SL1506-CC1505
Lab FileID: L028827.D

Page 2 of 3

34	2,6-Dichlorophenol	0.289	0.295	-2.1	111	0.00	6.39
35 C	Hexachlorobutadiene	0.148	0.152	-2.7	111	0.00	6.46
36	Caprolactam	0.117	0.119	-1.7	112	-0.01	6.79
37 C	4-Chloro-3-methylphenol	0.291	0.304	-4.5	112	0.00	6.93
38	2-Methylnaphthalene	0.696	0.718	-3.2	110	0.00	7.14
39	1-Methylnaphthalene	0.672	0.686	-2.1	110	0.00	7.26
40	1,2,4,5-Tetrachlorobenzen	0.284	0.287	-1.1	109	0.00	7.35
41 I	Acenaphthene-d10	1.000	1.000	0.0	111	0.00	8.61
42 P	Hexachlorocyclopentadiene	0.296	0.314	-6.1	112	0.00	7.34
43 C	2,4,6-Trichlorophenol	0.382	0.401	-5.0	115	0.00	7.50
44	2,4,5-Trichlorophenol	0.406	0.428	-5.4	114	0.00	7.54
45 S	2-Fluorobiphenyl	1.427	1.447	-1.4	110	0.00	7.63
46	1,1'-Biphenyl	1.573	1.603	-1.9	112	0.00	7.77
47	2-Chloronaphthalene	1.210	1.212	-0.2	110	0.00	7.78
48	2-Nitroaniline	0.319	0.341	-6.9	115	0.00	7.93
49	Acenaphthylene	2.020	2.043	-1.1	111	0.00	8.39
50	Dimethylphthalate	1.390	1.379	0.8	110	0.00	8.24
51	2,6-Dinitrotoluene	0.318	0.348	-9.4	118	0.00	8.32
52 C	Acenaphthene	1.205	1.211	-0.5	112	0.00	8.66
53	3-Nitroaniline	0.372	0.395	-6.2	117	0.00	8.56
----- Amount Calc. %Drift -----							
54 P	2,4-Dinitrophenol	50.000	56.029	-12.1	135	0.00	8.72
----- AvgRF CCRF %Dev -----							
55	Dibenzofuran	1.714	1.719	-0.3	111	0.00	8.94
----- Amount Calc. %Drift -----							
56	2,4-Dinitrotoluene	50.000	50.109	-0.2	116	0.00	8.94
----- AvgRF CCRF %Dev -----							
57 P	4-Nitrophenol	0.171	0.169	1.2	117	0.00	8.84
58	2,3,4,6-Tetrachlorophenol	0.304	0.323	-6.3	116	0.00	9.14
59	Fluorene	1.429	1.410	1.3	110	0.00	9.50
60	4-Chlorophenyl-phenylethe	0.603	0.602	0.2	114	0.00	9.53
61	Diethylphthalate	1.359	1.371	-0.9	113	0.00	9.39
62	4-Nitroaniline	0.376	0.390	-3.7	115	-0.01	9.56
63 I	Phenanthrene-d10	1.000	1.000	0.0	114	0.00	11.11
----- Amount Calc. %Drift -----							
64	4,6-Dinitro-2-methylpheno	50.000	47.449	5.1	130	0.00	9.61
----- AvgRF CCRF %Dev -----							
65 C	n-Nitrosodiphenylamine	0.661	0.678	-2.6	113	0.00	9.74
66	1,2-Diphenylhydrazine	0.756	0.767	-1.5	112	0.00	9.80
67 S	2,4,6-Tribromophenol	0.085	0.093	-9.4	116	0.00	9.90
68	4-Bromophenyl-phenylether	0.215	0.220	-2.3	112	0.00	10.37
69	Hexachlorobenzene	0.208	0.215	-3.4	114	0.00	10.42
70	Atrazine	0.234	0.238	-1.7	113	0.00	10.73
71 C	Pentachlorophenol	0.137	0.143	-4.4	117	0.00	10.78
72	Phenanthrene	1.264	1.272	-0.6	112	0.00	11.16
73	Anthracene	1.286	1.297	-0.9	111	0.00	11.25
74	Carbazole	1.288	1.298	-0.8	112	0.00	11.58
75	Di-n-butylphthalate	1.457	1.493	-2.5	114	0.00	12.37
76 C	Fluoranthene	1.266	1.284	-1.4	111	0.00	13.34
77 I	Chrysene-d12	1.000	1.000	0.0	113	0.00	16.05
78	Benzidine	1.077	1.190	-10.5	112	0.00	13.69

Continuing Calibration Summary

Page 3 of 3

Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: SL1506-CC1505
Lab FileID: L028827.D

79	Pyrene	1.669	1.694	-1.5	111	0.00	13.75
80 S	Terphenyl-d14	0.988	1.028	-4.0	113	0.00	14.16
81	Butylbenzylphthalate	0.804	0.847	-5.3	114	0.00	15.20
82	3,3'-Dichlorobenzidine	0.512	0.542	-5.9	114	0.00	16.07
83	Benzo[a]anthracene	1.448	1.489	-2.8	114	0.00	16.04
84	Chrysene	1.345	1.372	-2.0	114	0.00	16.11
85	bis(2-Ethylhexyl)phthalat	1.064	1.128	-6.0	113	0.00	16.38
86 I	Perylene-d12	1.000	1.000	0.0	111	0.00	18.55
87 C	Di-n-octylphthalate	1.710	1.829	-7.0	112	0.00	17.58
88	Benzo[b]fluoranthene	1.334	1.373	-2.9	111	0.00	17.94
89	Benzo[k]fluoranthene	1.331	1.391	-4.5	115	0.00	18.00
90 C	Benzo[a]pyrene	1.287	1.360	-5.7	114	-0.01	18.46
91	Indeno[1,2,3-cd]pyrene	1.138	1.186	-4.2	114	0.00	20.16
92	Dibenz[a,h]anthracene	1.142	1.133	0.8	107	-0.01	20.21
93	Benzo[g,h,i]perylene	1.286	1.340	-4.2	114	-0.01	20.52

(#) = Out of Range
L028820.D 8270C.M

SPCC's out = 0 CCC's out = 0
Sat Nov 19 11:50:03 2005

5.7
5

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: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GEF3851-MB	EF056546.D	1	11/18/05	TD	n/a	n/a	GEF3851

The QC reported here applies to the following samples:

Method: EPA 601/602

F36670-1, F36670-2, F36670-3, F36670-4

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	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% 71-130%
98-08-8	aaa-Trifluorotoluene	89% 71-124%

Method Blank Summary

Page 1 of 1

Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GEF3852-MB	EF056565.D	1	11/21/05	TD	n/a	n/a	GEF3852

The QC reported here applies to the following samples:

Method: EPA 601/602

F36670-1, F36670-2, F36670-3, F36670-4

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	93% 71-130%
98-08-8	aaa-Trifluorotoluene	97% 71-124%

Method Blank Summary

Page 1 of 1

Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GEF3857-MB	EF056696.D	1	11/28/05	TD	n/a	n/a	GEF3857

The QC reported here applies to the following samples:

Method: EPA 601/602

F36670-5, F36670-6, F36670-7

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	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	98% 71-130%
98-08-8	aaa-Trifluorotoluene	98% 71-124%

Blank Spike Summary

Page 1 of 1

Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GEF3851-BS	EF056545.D	1	11/18/05	TD	n/a	n/a	GEF3851

The QC reported here applies to the following samples:

Method: EPA 601/602

F36670-1, F36670-2, F36670-3, F36670-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	17.4	87	81-121
108-90-7	Chlorobenzene	20	18.1	91	76-120
100-41-4	Ethylbenzene	20	17.6	88	79-124
1634-04-4	Methyl Tert Butyl Ether	20	18.2	91	73-118
108-88-3	Toluene	20	17.6	88	79-122
1330-20-7	Xylenes (total)	60	52.2	87	79-121

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	92%	71-130%
98-08-8	aaa-Trifluorotoluene	93%	71-124%

Blank Spike Summary

Page 1 of 1

Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GEF3852-BS	EF056564.D	1	11/21/05	TD	n/a	n/a	GEF3852

The QC reported here applies to the following samples:

Method: EPA 601/602

F36670-1, F36670-2, F36670-3, F36670-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	19.6	98	81-121
108-90-7	Chlorobenzene	20	19.4	97	76-120
95-50-1	1,2-Dichlorobenzene	20	15.3	77	63-127
541-73-1	1,3-Dichlorobenzene	20	18.9	95	70-124
106-46-7	1,4-Dichlorobenzene	20	18.2	91	68-121
100-41-4	Ethylbenzene	20	19.7	99	79-124
1634-04-4	Methyl Tert Butyl Ether	20	19.4	97	73-118
108-88-3	Toluene	20	19.6	98	79-122
1330-20-7	Xylenes (total)	60	58.5	98	79-121

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	95%	71-130%
98-08-8	aaa-Trifluorotoluene	98%	71-124%

Blank Spike Summary

Page 1 of 1

Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GEF3857-BS	EF056695.D	1	11/28/05	TD	n/a	n/a	GEF3857

The QC reported here applies to the following samples:

Method: EPA 601/602

F36670-5, F36670-6, F36670-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	21.0	105	81-121
108-90-7	Chlorobenzene	20	21.0	105	76-120
95-50-1	1,2-Dichlorobenzene	20	16.6	83	63-127
541-73-1	1,3-Dichlorobenzene	20	20.2	101	70-124
106-46-7	1,4-Dichlorobenzene	20	19.3	97	68-121
100-41-4	Ethylbenzene	20	21.2	106	79-124
1634-04-4	Methyl Tert Butyl Ether	20	20.2	101	73-118
108-88-3	Toluene	20	21.2	106	79-122
1330-20-7	Xylenes (total)	60	62.9	105	79-121

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	99%	71-130%
98-08-8	aaa-Trifluorotoluene	97%	71-124%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F36670-4MS	EF056557.D	1	11/19/05	TD	n/a	n/a	GEF3851
F36670-4MSD	EF056558.D	1	11/19/05	TD	n/a	n/a	GEF3851
F36670-4	EF056550.D	1	11/19/05	TD	n/a	n/a	GEF3851

The QC reported here applies to the following samples:

Method: EPA 601/602

F36670-1, F36670-2, F36670-3, F36670-4

CAS No.	Compound	F36670-4 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	20	16.4	82	16.7	84	2	74-126/11
108-90-7	Chlorobenzene	ND	20	16.7	84	17.0	85	2	72-124/8
100-41-4	Ethylbenzene	ND	20	16.0	80	16.3	82	2	71-131/8
1634-04-4	Methyl Tert Butyl Ether	ND	20	17.1	86	17.7	89	3	63-130/11
108-88-3	Toluene	0.54	J 20	16.8	81	17.0	82	1	69-132/7
1330-20-7	Xylenes (total)	ND	60	48.2	80	48.5	81	1	71-127/8

CAS No.	Surrogate Recoveries	MS	MSD	F36670-4	Limits
460-00-4	4-Bromofluorobenzene	93%	95%	93%	71-130%
98-08-8	aaa-Trifluorotoluene	97%	97%	97%	71-124%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F36740-1MS	EF056584.D	1	11/22/05	TD	n/a	n/a	GEF3852
F36740-1MSD	EF056585.D	1	11/22/05	TD	n/a	n/a	GEF3852
F36740-1	EF056581.D	1	11/21/05	TD	n/a	n/a	GEF3852

The QC reported here applies to the following samples:

Method: EPA 601/602

F36670-1, F36670-2, F36670-3, F36670-4

CAS No.	Compound	F36740-1 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	1.0 U	20	16.5	83	18.6	93	12*	74-126/11
108-90-7	Chlorobenzene	1.0 U	20	17.6	88	17.5	88	1	72-124/8
95-50-1	1,2-Dichlorobenzene	1.0 U	20	13.2	66	11.9	60	10	55-136/13
541-73-1	1,3-Dichlorobenzene	1.0 U	20	16.9	85	15.1	76	11	65-132/16
106-46-7	1,4-Dichlorobenzene	1.0 U	20	15.1	76	14.5	73	4	61-133/11
100-41-4	Ethylbenzene	1.0 U	20	16.9	85	16.8	84	1	71-131/8
1634-04-4	Methyl Tert Butyl Ether	1.0 U	20	15.5	78	19.1	96	21*	63-130/11
108-88-3	Toluene	1.0 U	20	16.8	84	17.5	88	4	69-132/7
1330-20-7	Xylenes (total)	3.0 U	60	50.7	85	49.5	83	2	71-127/8

CAS No.	Surrogate Recoveries	MS	MSD	F36740-1	Limits
460-00-4	4-Bromofluorobenzene	95%	93%	93%	71-130%
98-08-8	aaa-Trifluorotoluene	93%	98%	97%	71-124%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F36896-2MS	EF056709.D	1	11/28/05	TD	n/a	n/a	GEF3857
F36896-2MSD	EF056710.D	1	11/28/05	TD	n/a	n/a	GEF3857
F36896-2	EF056703.D	1	11/28/05	TD	n/a	n/a	GEF3857

The QC reported here applies to the following samples:

Method: EPA 601/602

F36670-5, F36670-6, F36670-7

CAS No.	Compound	F36896-2 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	1.0 U	20	18.1	91	17.9	90	1	74-126/11
108-90-7	Chlorobenzene	1.0 U	20	18.6	93	18.4	92	1	72-124/8
95-50-1	1,2-Dichlorobenzene	1.0 U	20	15.5	78	15.7	79	1	55-136/13
541-73-1	1,3-Dichlorobenzene	1.0 U	20	17.9	90	17.9	90	0	65-132/16
106-46-7	1,4-Dichlorobenzene	1.0 U	20	17.0	85	17.2	86	1	61-133/11
100-41-4	Ethylbenzene	1.0 U	20	18.7	94	18.6	93	1	71-131/8
1634-04-4	Methyl Tert Butyl Ether	1.0 U	20	17.9	90	17.9	90	0	63-130/11
108-88-3	Toluene	1.0 U	20	18.4	92	18.4	92	0	69-132/7
1330-20-7	Xylenes (total)	3.0 U	60	55.5	93	54.6	91	2	71-127/8

CAS No.	Surrogate Recoveries	MS	MSD	F36896-2	Limits
460-00-4	4-Bromofluorobenzene	73%	100%	96%	71-130%
98-08-8	aaa-Trifluorotoluene	72%	100%	96%	71-124%

Volatile Surrogate Recovery Summary

Page 1 of 1

Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

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
F36670-1	EF056571.D	93.0	96.0
F36670-1	EF056547.D	88.0	89.0
F36670-2	EF056572.D	96.0	101.0
F36670-2	EF056548.D	96.0	100.0
F36670-3	EF056573.D	96.0	100.0
F36670-3	EF056549.D	95.0	100.0
F36670-4	EF056576.D	93.0	96.0
F36670-4	EF056550.D	93.0	97.0
F36670-5	EF056711.D	99.0	99.0
F36670-6	EF056712.D	92.0	90.0
F36670-7	EF056713.D	98.0	96.0
F36670-4MS	EF056557.D	93.0	97.0
F36670-4MSD	EF056558.D	95.0	97.0
F36740-1MS	EF056584.D	95.0	93.0
F36740-1MSD	EF056585.D	93.0	98.0
F36896-2MS	EF056709.D	73.0	72.0
F36896-2MSD	EF056710.D	100.0	100.0
GEF3851-BS	EF056545.D	92.0	93.0
GEF3851-MB	EF056546.D	88.0	89.0
GEF3852-BS	EF056564.D	95.0	98.0
GEF3852-MB	EF056565.D	93.0	97.0
GEF3857-BS	EF056695.D	99.0	97.0
GEF3857-MB	EF056696.D	98.0	98.0

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

Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GEF3851-CC3810	Injection Date:	11/19/05
Lab File ID:	EF056551.D	Injection Time:	01:48
Instrument ID:	GCEF	Method:	EPA 601/602

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	10.69	10.89	5.73	5.86

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
F36670-4MS	EF056557.D	11/19/05	04:14		10.89		5.86
F36670-4MSD	EF056558.D	11/19/05	04:38		10.89		5.86
GEF3851-ECC3810	EF056560.D	11/19/05	05:27	10.71	10.91	5.73	5.86

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: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GEF3852-CC3810	Injection Date:	11/21/05
Lab File ID:	EF056563.D	Injection Time:	13:18
Instrument ID:	GCEF	Method:	EPA 601/602

S1^a	S2^a
RT	RT

Check Std	10.87	5.84

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
GEF3852-BS	EF056564.D	11/21/05	14:06	10.87	5.84
GEF3852-MB	EF056565.D	11/21/05	14:31	10.87	5.84
ZZZZZZ	EF056566.D	11/21/05	16:13	10.87	5.84
ZZZZZZ	EF056567.D	11/21/05	16:42	10.87	5.84
ZZZZZZ	EF056568.D	11/21/05	17:06	10.87	5.84
ZZZZZZ	EF056569.D	11/21/05	17:31	10.87	5.84
F36670-1	EF056571.D	11/21/05	18:20	10.87	5.84
F36670-2	EF056572.D	11/21/05	18:44	10.87	5.84
F36670-3	EF056573.D	11/21/05	19:09	10.87	5.84

Surrogate Compounds

S1 = 4-Bromofluorobenzene

S2 = aaa-Trifluorotoluene

(a) Retention time from GC signal #2

GC Surrogate Retention Time Summary

Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GEF3852-CC3810	Injection Date:	11/21/05
Lab File ID:	EF056574.D	Injection Time:	19:33
Instrument ID:	GCEF	Method:	EPA 601/602

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	10.67	10.87	5.71	5.84

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
F36670-4	EF056576.D	11/21/05	20:23		10.87		5.84
F36740-1	EF056581.D	11/21/05	22:25		10.87		5.84
ZZZZZZ	EF056582.D	11/21/05	22:49		10.87		5.84
F36740-1MS	EF056584.D	11/22/05	08:23		10.88		5.85
F36740-1MSD	EF056585.D	11/22/05	08:48		10.88		5.85
GEF3852-ECC3810	EF056587.D	11/22/05	09:37	10.68	10.88	5.72	5.85

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: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GEF3857-CC3810	Injection Date:	11/28/05
Lab File ID:	EF056694.D	Injection Time:	08:52
Instrument ID:	GCEF	Method:	EPA 601/602

S1^a	S2^a
RT	RT

Check Std	10.82	5.79

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
GEF3857-BS	EF056695.D	11/28/05	09:35	10.82	5.80
GEF3858-BS	EF056695.D	11/28/05	09:35	10.82	5.80
GEF3857-MB	EF056696.D	11/28/05	09:59	10.84	5.80
GEF3858-MB	EF056696.D	11/28/05	09:59	10.84	5.80
ZZZZZZ	EF056697.D	11/28/05	10:34	10.83	5.81
ZZZZZZ	EF056698.D	11/28/05	11:01	10.83	5.81
ZZZZZZ	EF056699.D	11/28/05	11:30	10.84	5.81
ZZZZZZ	EF056700.D	11/28/05	11:57	10.84	5.81
ZZZZZZ	EF056701.D	11/28/05	12:21	10.84	5.81
ZZZZZZ	EF056702.D	11/28/05	12:46	10.84	5.81
F36896-2	EF056703.D	11/28/05	13:11	10.84	5.82
ZZZZZZ	EF056704.D	11/28/05	13:36	10.84	5.81

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: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GEF3857-CC3810	Injection Date:	11/28/05
Lab File ID:	EF056705.D	Injection Time:	14:01
Instrument ID:	GCEF	Method:	EPA 601/602

	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
Check Std	10.65	10.85	5.68	5.82

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S1 ^b RT	S2 ^a RT	S2 ^b RT
ZZZZZZ	EF056707.D	11/28/05	15:02		10.84		5.82
ZZZZZZ	EF056708.D	11/28/05	15:26		10.84		5.82
F36896-2MS	EF056709.D	11/28/05	15:51		10.84		5.82
F36896-2MSD	EF056710.D	11/28/05	16:15		10.84		5.82
F36670-5	EF056711.D	11/28/05	16:40		10.84		5.82
F36670-6	EF056712.D	11/28/05	17:05		10.84		5.82
F36670-7	EF056713.D	11/28/05	17:29		10.84		5.82
ZZZZZZ	EF056715.D	11/28/05	18:22		10.84		5.82
ZZZZZZ	EF056716.D	11/28/05	18:49	10.64		5.69	
GEF3857-ECC3810	EF056717.D	11/28/05	19:13	10.64	10.85	5.69	5.82

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: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Check Std:	GEF3850-CC3810	Injection Date:	11/18/05
Lab File ID:	EF056538.D	Injection Time:	20:15
Instrument ID:	GCEF	Method:	EPA 601/602

S1^a	S2^a
RT	RT

Check Std	10.90	5.86

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	S1 ^a RT	S2 ^a RT
ZZZZZZ	EF056540.D	11/18/05	21:07	10.90	5.86
ZZZZZZ	EF056541.D	11/18/05	21:34	10.90	5.86
ZZZZZZ	EF056542.D	11/18/05	22:01	10.90	5.86
ZZZZZZ	EF056543.D	11/18/05	22:29	10.90	5.86
ZZZZZZ	EF056544.D	11/18/05	22:56	10.90	5.86
GEF3851-BS	EF056545.D	11/18/05	23:20	10.90	5.87
GEF3851-MB	EF056546.D	11/18/05	23:45	10.90	5.86
F36670-1	EF056547.D	11/19/05	00:09	10.90	5.86
F36670-2	EF056548.D	11/19/05	00:34	10.90	5.86
F36670-3	EF056549.D	11/19/05	00:58	10.90	5.86
F36670-4	EF056550.D	11/19/05	01:23	10.89	5.86

Surrogate Compounds

S1 = 4-Bromofluorobenzene

S2 = aaa-Trifluorotoluene

(a) Retention time from GC signal #2

Initial Calibration Summary

Page 1 of 2

Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3810-ICC3810
Lab FileID: EF055442.D

Response Factor Report VOA1

Method : C:\HPCHEM\1\METHODS\DUAL1017.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Wed Oct 19 10:44:46 2005
Response via : Initial Calibration

Calibration Files

1 =EF055439.D 5 =EF055440.D 20 =EF055441.D 40 =EF055442.D
70 =EF055443.D 100 =EF055444.D

	Compound	1	5	20	40	70	100	Avg	%RSD
1)	Methyl tert Butyl E	1.226	1.608	1.306	1.337	1.321	1.303	1.350	E3 9.76
2)	Di-Isopropyl ether	1.770	2.637	2.203	2.189	2.099	2.080	2.163	E3 12.96
	---- Linear regr., Force(0,0) ----	Coefficient = 0.9995							
	Response Ratio = 0.00000 + 2099.39967 *A								
3)	Benzene	3.847	6.369	5.397	5.329	5.174	5.102	5.203	E3 15.53
	---- Linear regr., Force(0,0) ----	Coefficient = 0.9996							
	Response Ratio = 0.00000 + 5153.25579 *A								
4) S	a,a,a-TFT(S)	1.645	1.652	1.589	1.671	1.542	1.685	1.631	E3 3.34
5)	Toluene	3.761	5.729	4.893	4.788	4.657	4.598	4.738	E3 13.32
	---- Linear regr., Force(0,0) ----	Coefficient = 0.9997							
	Response Ratio = 0.00000 + 4641.69685 *A								
6)	Chlorobenzene	3.545	5.543	4.699	4.670	4.565	4.468	4.582	E3 13.92
	---- Linear regr., Force(0,0) ----	Coefficient = 0.9996							
	Response Ratio = 0.00000 + 4521.91795 *A								
7)	Ethylbenzene	3.054	4.879	4.203	4.088	3.986	3.869	4.013	E3 14.67
	---- Linear regr., Force(0,0) ----	Coefficient = 0.9993							
	Response Ratio = 0.00000 + 3933.01670 *A								
8)	m,p-Xylene	3.553	5.390	4.561	4.515	4.392	4.290	4.450	E3 13.23
	---- Linear regr., Force(0,0) ----	Coefficient = 0.9995							
	Response Ratio = 0.00000 + 4348.65525 *A								
9)	o-Xylene	3.088	4.672	4.001	3.991	3.850	3.741	3.890	E3 13.12
	---- Linear regr., Force(0,0) ----	Coefficient = 0.9992							
	Response Ratio = 0.00000 + 3803.44630 *A								
10) S	BFB(S)	3.744	3.717	3.712	3.856	3.680	3.914	3.770	E3 2.46
11)	1,3-Dichlorobenzene	3.017	3.997	3.445	3.483	3.369	3.197	3.418	E3 9.73
12)	1,4-Dichlorobenzene	3.432	4.536	3.832	3.893	3.841	3.662	3.866	E3 9.55
13)	1,2-Dichlorobenzene	2.010	2.332	2.008	2.048	2.082	1.887	2.061	E3 7.19

Signal #2

1)	Methyl tert Butyl E	1.172	1.606	1.322	1.354	1.336	1.318	1.351	E3 10.43
	---- Linear regr., Force(0,0) ----	Coefficient = 0.9998							
	Response Ratio = 0.00000 + 1327.15364 *A								
2)	Di-Isopropyl ether	1.662	2.527	2.143	2.128	2.021	1.996	2.080	E3 13.46
	---- Linear regr., Force(0,0) ----	Coefficient = 0.9993							
	Response Ratio = 0.00000 + 2019.94736 *A								
3)	Benzene	3.743	6.314	5.413	5.254	5.094	5.016	5.139	E3 16.13
	---- Linear regr., Force(0,0) ----	Coefficient = 0.9995							

Initial Calibration Summary

Page 2 of 2

Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3810-ICC3810
Lab FileID: EF055442.D

Response Ratio = 0.00000 + 5072.05214 *A

4) S	a,a,a-TFT(S)	1.586	1.603	1.546	1.622	1.488	1.636	1.580	E3	3.48
5)	Toluene	3.739	5.689	4.858	4.727	4.596	4.516	4.687	E3	13.39
---- Linear regr., Force(0,0) ---- Coefficient = 0.9995										
Response Ratio = 0.00000 + 4568.74142 *A										
6)	Chlorobenzene	3.587	5.598	4.853	4.652	4.538	4.425	4.609	E3	14.14
---- Linear regr., Force(0,0) ---- Coefficient = 0.9993										
Response Ratio = 0.00000 + 4490.96809 *A										
7)	Ethylbenzene	3.214	5.089	4.332	4.199	4.096	3.995	4.154	E3	14.53
---- Linear regr., Force(0,0) ---- Coefficient = 0.9994										
Response Ratio = 0.00000 + 4053.05728 *A										
8)	m,p-Xylene	3.706	5.544	4.679	4.617	4.524	4.398	4.578	E3	12.89
---- Linear regr., Force(0,0) ---- Coefficient = 0.9994										
Response Ratio = 0.00000 + 4463.24752 *A										
9)	o-Xylene	3.044	4.619	3.949	3.916	3.778	3.683	3.831	E3	13.23
---- Linear regr., Force(0,0) ---- Coefficient = 0.9993										
Response Ratio = 0.00000 + 3740.06978 *A										
10) S	BFB(S)	3.950	3.950	3.892	4.056	3.859	4.104	3.969	E3	2.37
11)	1,3-Dichlorobenzene	2.890	3.899	3.382	3.393	3.327	3.152	3.341	E3	9.97
---- Linear regr., Force(0,0) ---- Coefficient = 0.9984										
Response Ratio = 0.00000 + 3232.25470 *A										
12)	1,4-Dichlorobenzene	3.228	4.198	3.637	3.626	3.588	3.393	3.612	E3	9.10
13)	1,2-Dichlorobenzene	2.036	2.366	2.028	2.059	2.108	1.910	2.084	E3	7.32

(#) = Out of Range

DUAL1017.M

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Initial Calibration Verification

Page 1 of 2

Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3810-ICV3810
Lab FileID: EF055445.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\101705\EF055445.D\FID1A.CH Vial: 8
Signal #2 : C:\HPCHEM\1\DATA\101705\EF055445.D\FID2B.CH
Acq On : 17 Oct 2005 3:32 pm Operator: Trangd
Sample : ICV3810-20 Inst : VOA1
Misc : gc5510,gef3810,,,,, Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL1017.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Wed Oct 19 10:44:46 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	19.962	0.2	103	0.00	2.86- 3.06
	----- Amount Calc. %Drift -----						
2	Di-Isopropyl ether	20.000	20.693	-3.5	99	0.00	3.31- 3.51
3	Benzene	20.000	20.260	-1.3	97	0.00	4.58- 4.78
	----- Amount Calc. %Drift -----						
4 S	a, a, a-TFT(S)	20.000	20.490	-2.4	105	0.00	5.60- 5.80
	----- Amount Calc. %Drift -----						
5	Toluene	20.000	20.531	-2.7	97	0.00	7.00- 7.20
6	Chlorobenzene	20.000	20.892	-4.5	101	0.00	8.81- 9.01
7	Ethylbenzene	20.000	20.642	-3.2	97	0.00	9.15- 9.35
8	m,p-Xylene	40.000	41.485	-3.7	99	0.00	9.46- 9.66
9	o-Xylene	20.000	20.628	-3.1	98	0.00	9.99-10.20
	----- Amount Calc. %Drift -----						
10 S	BFB(S)	20.000	20.683	-3.4	105	0.00	10.50-10.80
11	1,3-Dichlorobenzene	20.000	22.007	-10.0	109	0.00	12.42-12.62
12	1,4-Dichlorobenzene	20.000	20.451	-2.3	103	0.00	12.54-12.74
13	1,2-Dichlorobenzene	20.000	22.493	-12.5	115	0.00	13.05-13.25

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

	----- Amount Calc. %Drift -----						
1	Methyl tert Butyl EtHe	20.000	19.625	1.9	99	0.00	2.82- 3.02
2	Di-Isopropyl ether	20.000	20.405	-2.0	96	0.00	3.24- 3.44
3	Benzene	20.000	20.313	-1.6	95	0.00	4.61- 4.81
	----- Amount Calc. %Drift -----						
4 S	a, a, a-TFT(S)	20.000	20.020	-0.1	102	0.00	5.73- 5.93
	----- Amount Calc. %Drift -----						
5	Toluene	20.000	20.534	-2.7	97	0.00	6.97- 7.17
6	Chlorobenzene	20.000	21.130	-5.6	98	0.00	8.94- 9.14
7	Ethylbenzene	20.000	20.775	-3.9	97	0.00	9.13- 9.34
8	m,p-Xylene	40.000	41.475	-3.7	99	0.00	9.32- 9.52
9	o-Xylene	20.000	20.943	-4.7	99	0.00	9.92-10.12
	----- Amount Calc. %Drift -----						

Initial Calibration Verification

Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3810-ICV3810
Lab FileID: EF055445.D

10	S	BFB(S)	20.000	20.753	-3.8	106	0.00	10.70-11.00
----- Amount Calc. %Drift -----								
11		1,3-Dichlorobenzene	20.000	22.955	-14.8	110	0.00	12.52-12.72
----- Amount Calc. %Drift -----								
12		1,4-Dichlorobenzene	20.000	20.682	-3.4	103	0.00	12.67-12.87
13		1,2-Dichlorobenzene	20.000	22.556	-12.8	116	0.00	13.27-13.47

(#) = Out of Range SPCC's out = 0 CCC's out = 0
EF055441.D DUAL1017.M Wed Oct 19 12:39:09 2005

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Continuing Calibration Summary

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Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3850-CC3810
Lab FileID: EF056538.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\111805\EF056538.D\FID1A.CH Vial: 22
Signal #2 : C:\HPCHEM\1\DATA\111805\EF056538.D\FID2B.CH
Acq On : 18 Nov 2005 8:15 pm Operator: Trangd
Sample : CC3810-20 Inst : VOA1
Misc : gc5642,gef3850,,,,, Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL1017.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Wed Oct 19 10:44:46 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	20.494	-2.5	106	0.02	2.86- 3.06
	----- Amount Calc. %Drift -----						
2	Di-Isopropyl ether	20.000	21.109	-5.5	101	0.02	3.31- 3.51
3	Benzene	20.000	21.288	-6.4	102	0.03	4.58- 4.78
	----- Amount Calc. %Drift -----						
4 S	a, a, a-TFT(S)	20.000	20.002	-0.0	103	0.03	5.60- 5.80
	----- Amount Calc. %Drift -----						
5	Toluene	20.000	21.333	-6.7	101	0.04	7.00- 7.20
6	Chlorobenzene	20.000	20.902	-4.5	101	0.04	8.81- 9.01
7	Ethylbenzene	20.000	21.404	-7.0	100	0.04	9.15- 9.35
8	m,p-Xylene	40.000	42.728	-6.8	102	0.04	9.46- 9.66
9	o-Xylene	20.000	21.348	-6.7	101	0.04	9.99-10.20
	----- Amount Calc. %Drift -----						
10 S	BFB(S)	20.000	19.378	3.1	98	0.04	10.50-10.80
11	1,3-Dichlorobenzene	20.000	19.601	2.0	97	0.04	12.42-12.62
12	1,4-Dichlorobenzene	20.000	19.232	3.8	97	0.04	12.54-12.74
13	1,2-Dichlorobenzene	20.000	16.748	16.3#	86	0.04	13.05-13.25

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

	----- Amount Calc. %Drift -----						
1	Methyl tert Butyl EtHe	20.000	19.426	2.9	98	0.02	2.82- 3.02
2	Di-Isopropyl ether	20.000	19.579	2.1	92	0.02	3.24- 3.44
3	Benzene	20.000	19.981	0.1	94	0.03	4.61- 4.81
	----- Amount Calc. %Drift -----						
4 S	a, a, a-TFT(S)	20.000	18.523	7.4	95	0.04	5.73- 5.93
	----- Amount Calc. %Drift -----						
5	Toluene	20.000	20.136	-0.7	95	0.04	6.97- 7.17
6	Chlorobenzene	20.000	19.944	0.3	92	0.04	8.94- 9.14
7	Ethylbenzene	20.000	20.093	-0.5	94	0.04	9.13- 9.34
8	m,p-Xylene	40.000	39.689	0.8	95	0.04	9.32- 9.52
9	o-Xylene	20.000	20.136	-0.7	95	0.04	9.92-10.12
	----- Amount Calc. %Drift -----						

Continuing Calibration Summary

Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3850-CC3810
Lab FileID: EF056538.D

10	S	BFB(S)	20.000	18.310	8.5	93	0.04	10.70-11.00
----- Amount Calc. %Drift -----								
11		1,3-Dichlorobenzene	20.000	18.972	5.1	91	0.05	12.52-12.72
----- Amount Calc. %Drift -----								
12		1,4-Dichlorobenzene	20.000	18.146	9.3	90	0.04	12.67-12.87
13		1,2-Dichlorobenzene	20.000	15.656	21.7#	80	0.04	13.27-13.47

(#) = Out of Range SPCC's out = 0 CCC's out = 0
EF055441.D DUAL1017.M Tue Nov 22 12:38:33 2005

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Continuing Calibration Summary

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Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3851-CC3810
Lab FileID: EF056551.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\111805\EF056551.D\FID1A.CH Vial: 35
Signal #2 : C:\HPCHEM\1\DATA\111805\EF056551.D\FID2B.CH
Acq On : 19 Nov 2005 1:48 am Operator: Trangd
Sample : CC3810-20 Inst : VOA1
Misc : gc5646,gef3851,,,,, Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL1017.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Wed Oct 19 10:44:46 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	19.988	0.1	103	0.02	2.86- 3.06
	----- Amount	Calc.	%Drift	-----			
2	Di-Isopropyl ether	20.000	20.746	-3.7	99	0.02	3.31- 3.51
3	Benzene	20.000	21.094	-5.5	101	0.03	4.58- 4.78
	----- Amount	Calc.	%Drift	-----			
4 S	a, a, a-TFT(S)	20.000	20.864	-4.3	107	0.03	5.60- 5.80
	----- Amount	Calc.	%Drift	-----			
5	Toluene	20.000	21.085	-5.4	100	0.03	7.00- 7.20
6	Chlorobenzene	20.000	20.441	-2.2	98	0.04	8.81- 9.01
7	Ethylbenzene	20.000	21.063	-5.3	99	0.04	9.15- 9.35
8	m,p-Xylene	40.000	41.999	-5.0	100	0.04	9.46- 9.66
9	o-Xylene	20.000	20.848	-4.2	99	0.04	9.99-10.20
	----- Amount	Calc.	%Drift	-----			
10 S	BFB(S)	20.000	19.908	0.5	101	0.04	10.50-10.80
11	1,3-Dichlorobenzene	20.000	18.896	5.5	94	0.04	12.42-12.62
12	1,4-Dichlorobenzene	20.000	18.399	8.0	93	0.04	12.54-12.74
13	1,2-Dichlorobenzene	20.000	15.696	21.5#	81	0.04	13.05-13.25

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

	----- Amount	Calc.	%Drift	-----			
1	Methyl tert Butyl EtHe	20.000	19.098	4.5	96	0.02	2.82- 3.02
2	Di-Isopropyl ether	20.000	19.431	2.8	92	0.02	3.24- 3.44
3	Benzene	20.000	19.778	1.1	93	0.03	4.61- 4.81
	----- Amount	Calc.	%Drift	-----			
4 S	a, a, a-TFT(S)	20.000	19.540	2.3	100	0.03	5.73- 5.93
	----- Amount	Calc.	%Drift	-----			
5	Toluene	20.000	19.861	0.7	93	0.04	6.97- 7.17
6	Chlorobenzene	20.000	19.505	2.5	90	0.04	8.94- 9.14
7	Ethylbenzene	20.000	19.738	1.3	92	0.04	9.13- 9.34
8	m,p-Xylene	40.000	38.577	3.6	92	0.04	9.32- 9.52
9	o-Xylene	20.000	19.716	1.4	93	0.04	9.92-10.12
	----- Amount	Calc.	%Drift	-----			

Continuing Calibration Summary

Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3851-CC3810
Lab FileID: EF056551.D

10	S	BFB(S)	20.000	18.895	5.5	96	0.04	10.70-11.00
----- Amount Calc. %Drift -----								
11		1,3-Dichlorobenzene	20.000	18.298	8.5	87	0.05	12.52-12.72
----- Amount Calc. %Drift -----								
12		1,4-Dichlorobenzene	20.000	17.384	13.1	86	0.04	12.67-12.87
13		1,2-Dichlorobenzene	20.000	14.779	26.1#	76	0.04	13.27-13.47

(#) = Out of Range SPCC's out = 0 CCC's out = 0
EF055441.D DUAL1017.M Tue Nov 22 12:38:33 2005

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Continuing Calibration Summary

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Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3851-ECC3810
Lab FileID: EF056560.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\111805\EF056560.D\FID1A.CH Vial: 43
Signal #2 : C:\HPCHEM\1\DATA\111805\EF056560.D\FID2B.CH
Acq On : 19 Nov 2005 5:27 am Operator: Trangd
Sample : ECC3810-20 Inst : VOA1
Misc : gc5646,gef3851,,,,, Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL1017.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Wed Oct 19 10:44:46 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	20.381	-1.9	105	0.02	2.86- 3.06
	----- Amount Calc. %Drift -----						
2	Di-Isopropyl ether	20.000	21.239	-6.2	101	0.02	3.31- 3.51
3	Benzene	20.000	21.386	-6.9	102	0.02	4.58- 4.78
	----- Amount Calc. %Drift -----						
4 S	a, a, a-TFT(S)	20.000	20.841	-4.2	107	0.03	5.60- 5.80
	----- Amount Calc. %Drift -----						
5	Toluene	20.000	21.260	-6.3	101	0.03	7.00- 7.20
6	Chlorobenzene	20.000	20.544	-2.7	99	0.05	8.81- 9.01
7	Ethylbenzene	20.000	21.252	-6.3	99	0.06	9.15- 9.35
8	m,p-Xylene	40.000	42.080	-5.2	100	0.06	9.46- 9.66
9	o-Xylene	20.000	21.138	-5.7	100	0.06	9.99-10.20
	----- Amount Calc. %Drift -----						
10 S	BFB(S)	20.000	20.037	-0.2	102	0.06	10.50-10.80
11	1,3-Dichlorobenzene	20.000	19.216	3.9	95	0.06	12.42-12.62
12	1,4-Dichlorobenzene	20.000	18.661	6.7	94	0.05	12.54-12.74
13	1,2-Dichlorobenzene	20.000	16.204	19.0#	83	0.05	13.05-13.25

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

	----- Amount Calc. %Drift -----						
1	Methyl tert Butyl EtHe	20.000	19.408	3.0	97	0.02	2.82- 3.02
2	Di-Isopropyl ether	20.000	19.866	0.7	94	0.02	3.24- 3.44
3	Benzene	20.000	20.166	-0.8	94	0.03	4.61- 4.81
	----- Amount Calc. %Drift -----						
4 S	a, a, a-TFT(S)	20.000	19.414	2.9	99	0.03	5.73- 5.93
	----- Amount Calc. %Drift -----						
5	Toluene	20.000	20.032	-0.2	94	0.04	6.97- 7.17
6	Chlorobenzene	20.000	19.569	2.2	91	0.06	8.94- 9.14
7	Ethylbenzene	20.000	19.909	0.5	93	0.06	9.13- 9.34
8	m,p-Xylene	40.000	38.869	2.8	93	0.06	9.32- 9.52
9	o-Xylene	20.000	19.970	0.2	95	0.06	9.92-10.12
	----- Amount Calc. %Drift -----						

Continuing Calibration Summary

Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3851-ECC3810
Lab FileID: EF056560.D

10	S	BFB(S)	20.000	18.914	5.4	96	0.06	10.70-11.00
----- Amount Calc. %Drift -----								
11		1,3-Dichlorobenzene	20.000	18.489	7.6	88	0.06	12.52-12.72
----- Amount Calc. %Drift -----								
12		1,4-Dichlorobenzene	20.000	17.834	10.8	89	0.06	12.67-12.87
13		1,2-Dichlorobenzene	20.000	14.996	25.0#	77	0.05	13.27-13.47

(#) = Out of Range SPCC's out = 0 CCC's out = 0
EF055441.D DUAL1017.M Tue Nov 22 12:38:34 2005

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Continuing Calibration Summary

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Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3852-CC3810
Lab FileID: EF056563.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\112105\EF056563.D\FID1A.CH Vial: 3
Signal #2 : C:\HPCHEM\1\DATA\112105\EF056563.D\FID2B.CH
Acq On : 21 Nov 2005 1:18 pm Operator: Trangd
Sample : CC3810-20 Inst : VOA1
Misc : gc5646,gef3852,,,, Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL1017.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Wed Oct 19 10:44:46 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	21.925	-9.6	113	0.00	2.86- 3.06
----- Amount Calc. %Drift -----							
2	Di-Isopropyl ether	20.000	21.769	-8.8	104	0.00	3.31- 3.51
3	Benzene	20.000	21.773	-8.9	104	0.00	4.58- 4.78
----- Amount Calc. %Drift -----							
4 S	a, a, a-TFT(S)	20.000	21.070	-5.4	108	0.00	5.60- 5.80
----- Amount Calc. %Drift -----							
5	Toluene	20.000	21.864	-9.3	104	0.01	7.00- 7.20
6	Chlorobenzene	20.000	21.599	-8.0	104	0.01	8.81- 9.01
7	Ethylbenzene	20.000	22.119	-10.6	103	0.01	9.15- 9.35
8	m,p-Xylene	40.000	43.811	-9.5	104	0.01	9.46- 9.66
9	o-Xylene	20.000	21.748	-8.7	103	0.01	9.99-10.20
----- Amount Calc. %Drift -----							
10 S	BFB(S)	20.000	20.415	-2.1	104	0.01	10.50-10.80
11	1,3-Dichlorobenzene	20.000	21.204	-6.0	105	0.02	12.42-12.62
12	1,4-Dichlorobenzene	20.000	20.627	-3.1	104	0.02	12.54-12.74
13	1,2-Dichlorobenzene	20.000	18.892	5.5	97	0.02	13.05-13.25

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

----- Amount Calc. %Drift -----							
1	Methyl tert Butyl Ethe	20.000	20.553	-2.8	103	0.00	2.82- 3.02
2	Di-Isopropyl ether	20.000	20.349	-1.7	96	0.00	3.24- 3.44
3	Benzene	20.000	20.446	-2.2	96	0.00	4.61- 4.81
----- Amount Calc. %Drift -----							
4 S	a, a, a-TFT(S)	20.000	19.557	2.2	100	0.01	5.73- 5.93
----- Amount Calc. %Drift -----							
5	Toluene	20.000	20.415	-2.1	96	0.02	6.97- 7.17
6	Chlorobenzene	20.000	20.325	-1.6	94	0.02	8.94- 9.14
7	Ethylbenzene	20.000	20.696	-3.5	97	0.02	9.13- 9.34
8	m,p-Xylene	40.000	40.682	-1.7	97	0.02	9.32- 9.52
9	o-Xylene	20.000	20.496	-2.5	97	0.02	9.92-10.12
----- Amount Calc. %Drift -----							

Continuing Calibration Summary

Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3852-CC3810
Lab FileID: EF056563.D

10	S	BFB(S)	20.000	19.294	3.5	98	0.02	10.70-11.00
----- Amount Calc. %Drift -----								
11		1,3-Dichlorobenzene	20.000	20.269	-1.3	97	0.02	12.52-12.72
----- Amount Calc. %Drift -----								
12		1,4-Dichlorobenzene	20.000	19.516	2.4	97	0.02	12.67-12.87
13		1,2-Dichlorobenzene	20.000	17.383	13.1	89	0.02	13.27-13.47

(#) = Out of Range SPCC's out = 0 CCC's out = 0
EF055441.D DUAL1017.M Tue Nov 22 15:53:55 2005

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Continuing Calibration Summary

Page 1 of 2

Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3852-CC3810
Lab FileID: EF056574.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\112105\EF056574.D\FID1A.CH Vial: 14
Signal #2 : C:\HPCHEM\1\DATA\112105\EF056574.D\FID2B.CH
Acq On : 21 Nov 2005 7:33 pm Operator: Trangd
Sample : CC3810-20 Inst : VOA1
Misc : gc5646,gef3852,,,,, Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL1017.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Wed Oct 19 10:44:46 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	21.569	-7.8	112	0.00	2.86- 3.06
----- Amount Calc. %Drift -----							
2	Di-Isopropyl ether	20.000	21.793	-9.0	104	0.00	3.31- 3.51
3	Benzene	20.000	21.982	-9.9	105	0.00	4.58- 4.78
----- Amount Calc. %Drift -----							
4 S	a, a, a-TFT(S)	20.000	19.838	0.8	102	0.01	5.60- 5.80
----- Amount Calc. %Drift -----							
5	Toluene	20.000	21.892	-9.5	104	0.01	7.00- 7.20
6	Chlorobenzene	20.000	21.560	-7.8	104	0.02	8.81- 9.01
7	Ethylbenzene	20.000	22.129	-10.6	104	0.02	9.15- 9.35
8	m, p-Xylene	40.000	43.716	-9.3	104	0.02	9.46- 9.66
9	o-Xylene	20.000	21.820	-9.1	104	0.02	9.99-10.20
----- Amount Calc. %Drift -----							
10 S	BFB(S)	20.000	19.323	3.4	98	0.02	10.50-10.80
11	1,3-Dichlorobenzene	20.000	20.206	-1.0	100	0.02	12.42-12.62
12	1,4-Dichlorobenzene	20.000	19.832	0.8	100	0.02	12.54-12.74
13	1,2-Dichlorobenzene	20.000	17.984	10.1	92	0.02	13.05-13.25

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

----- Amount Calc. %Drift -----							
1	Methyl tert Butyl EtHe	20.000	20.400	-2.0	102	0.00	2.82- 3.02
2	Di-Isopropyl ether	20.000	20.322	-1.6	96	0.00	3.24- 3.44
3	Benzene	20.000	20.660	-3.3	97	0.01	4.61- 4.81
----- Amount Calc. %Drift -----							
4 S	a, a, a-TFT(S)	20.000	18.334	8.3	94	0.02	5.73- 5.93
----- Amount Calc. %Drift -----							
5	Toluene	20.000	20.709	-3.5	97	0.02	6.97- 7.17
6	Chlorobenzene	20.000	20.274	-1.4	94	0.02	8.94- 9.14
7	Ethylbenzene	20.000	20.538	-2.7	96	0.02	9.13- 9.34
8	m, p-Xylene	40.000	40.674	-1.7	97	0.02	9.32- 9.52
9	o-Xylene	20.000	20.545	-2.7	97	0.02	9.92-10.12
----- Amount Calc. %Drift -----							

Continuing Calibration Summary

Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3852-CC3810
Lab FileID: EF056574.D

10	S	BFB(S)	20.000	18.165	9.2	93	0.02	10.70-11.00
----- Amount Calc. %Drift -----								
11		1,3-Dichlorobenzene	20.000	19.269	3.7	92	0.02	12.52-12.72
----- Amount Calc. %Drift -----								
12		1,4-Dichlorobenzene	20.000	18.469	7.7	92	0.02	12.67-12.87
13		1,2-Dichlorobenzene	20.000	15.871	20.6#	82	0.02	13.27-13.47

(#) = Out of Range SPCC's out = 0 CCC's out = 0
EF055441.D DUAL1017.M Tue Nov 22 15:53:56 2005

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Continuing Calibration Summary

Page 1 of 2

Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3852-ECC3810
Lab FileID: EF056587.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\112105\EF056587.D\FID1A.CH Vial: 27
Signal #2 : C:\HPCHEM\1\DATA\112105\EF056587.D\FID2B.CH
Acq On : 22 Nov 2005 9:37 am Operator: Trangd
Sample : ECC3810-40 Inst : VOA1
Misc : gc5664,gef3852,,,,, Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL1017.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Wed Oct 19 10:44:46 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	38.999	2.5	98	0.01	2.86- 3.06
	----- Amount Calc. %Drift -----						
2	Di-Isopropyl ether	40.000	38.862	2.8	93	0.01	3.31- 3.51
3	Benzene	40.000	38.343	4.1	93	0.02	4.58- 4.78
	----- Amount Calc. %Drift -----						
4 S	a, a, a-TFT(S)	20.000	21.428	-7.1	105	0.02	5.60- 5.80
	----- Amount Calc. %Drift -----						
5	Toluene	40.000	38.694	3.3	94	0.02	7.00- 7.20
6	Chlorobenzene	40.000	37.857	5.4	92	0.04	8.81- 9.01
7	Ethylbenzene	40.000	39.859	0.4	96	0.03	9.15- 9.35
8	m,p-Xylene	80.000	78.341	2.1	94	0.03	9.46- 9.66
9	o-Xylene	40.000	38.746	3.1	92	0.03	9.99-10.20
	----- Amount Calc. %Drift -----						
10 S	BFB(S)	20.000	20.531	-2.7	100	0.03	10.50-10.80
11	1,3-Dichlorobenzene	40.000	36.191	9.5	89	0.03	12.42-12.62
12	1,4-Dichlorobenzene	40.000	35.768	10.6	89	0.03	12.54-12.74
13	1,2-Dichlorobenzene	40.000	31.303	21.7#	79	0.03	13.05-13.25

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

	----- Amount Calc. %Drift -----						
1	Methyl tert Butyl EtHe	40.000	37.174	7.1	91	0.01	2.82- 3.02
2	Di-Isopropyl ether	40.000	36.324	9.2	86	0.02	3.24- 3.44
3	Benzene	40.000	35.448	11.4	86	0.02	4.61- 4.81
	----- Amount Calc. %Drift -----						
4 S	a, a, a-TFT(S)	20.000	19.915	0.4	97	0.03	5.73- 5.93
	----- Amount Calc. %Drift -----						
5	Toluene	40.000	35.966	10.1	87	0.03	6.97- 7.17
6	Chlorobenzene	40.000	35.954	10.1	87	0.04	8.94- 9.14
7	Ethylbenzene	40.000	36.877	7.8	89	0.04	9.13- 9.34
8	m,p-Xylene	80.000	72.778	9.0	88	0.04	9.32- 9.52
9	o-Xylene	40.000	36.113	9.7	86	0.03	9.92-10.12
	----- Amount Calc. %Drift -----						

Continuing Calibration Summary

Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3852-ECC3810
Lab FileID: EF056587.D

10	S	BFB(S)	20.000	19.237	3.8	94	0.03	10.70-11.00
----- Amount Calc. %Drift -----								
11		1,3-Dichlorobenzene	40.000	34.766	13.1	83	0.03	12.52-12.72
----- Amount Calc. %Drift -----								
12		1,4-Dichlorobenzene	40.000	33.175	17.1#	83	0.03	12.67-12.87
13		1,2-Dichlorobenzene	40.000	28.917	27.7#	73	0.03	13.27-13.47

(#) = Out of Range SPCC's out = 0 CCC's out = 0
EF055442.D DUAL1017.M Tue Nov 22 15:52:27 2005

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Continuing Calibration Summary

Page 1 of 2

Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3857-CC3810
Lab FileID: EF056694.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\112705\EF056694.D\FID1A.CH Vial: 1
Signal #2 : C:\HPCHEM\1\DATA\112705\EF056694.D\FID2B.CH
Acq On : 28 Nov 2005 8:52 am Operator: Trangd
Sample : CC3810-20 Inst : VOA1
Misc : gc5646,gef3857,,,,, Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL1017.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Wed Oct 19 10:44:46 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	18.101	9.5	94	-0.03	2.86- 3.06
	----- Amount Calc.			%Drift	-----		
2	Di-Isopropyl ether	20.000	20.442	-2.2	97	-0.03	3.31- 3.51
3	Benzene	20.000	21.162	-5.8	101	-0.04	4.58- 4.78
	----- Amount Calc.			%Drift	-----		
4 S	a, a, a-TFT(S)	20.000	19.718	1.4	101	-0.04	5.60- 5.80
	----- Amount Calc.			%Drift	-----		
5	Toluene	20.000	21.418	-7.1	102	-0.04	7.00- 7.20
6	Chlorobenzene	20.000	20.495	-2.5	99	-0.03	8.81- 9.01
7	Ethylbenzene	20.000	21.344	-6.7	100	-0.03	9.15- 9.35
8	m,p-Xylene	40.000	42.676	-6.7	102	-0.03	9.46- 9.66
9	o-Xylene	20.000	21.178	-5.9	101	-0.03	9.99-10.20
	----- Amount Calc.			%Drift	-----		
10 S	BFB(S)	20.000	20.975	-4.9	107	-0.03	10.50-10.80
11	1,3-Dichlorobenzene	20.000	19.740	1.3	98	-0.04	12.42-12.62
12	1,4-Dichlorobenzene	20.000	19.717	1.4	99	-0.04	12.54-12.74
13	1,2-Dichlorobenzene	20.000	17.509	12.5	90	-0.04	13.05-13.25

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

	----- Amount Calc.			%Drift	-----		
1	Methyl tert Butyl EtHe	20.000	17.368	13.2	87	-0.03	2.82- 3.02
2	Di-Isopropyl ether	20.000	19.152	4.2	90	-0.03	3.24- 3.44
3	Benzene	20.000	20.142	-0.7	94	-0.04	4.61- 4.81
	----- Amount Calc.			%Drift	-----		
4 S	a, a, a-TFT(S)	20.000	18.781	6.1	96	-0.04	5.73- 5.93
	----- Amount Calc.			%Drift	-----		
5	Toluene	20.000	20.610	-3.0	97	-0.04	6.97- 7.17
6	Chlorobenzene	20.000	20.008	-0.0	93	-0.03	8.94- 9.14
7	Ethylbenzene	20.000	20.462	-2.3	96	-0.03	9.13- 9.34
8	m,p-Xylene	40.000	40.985	-2.5	98	-0.03	9.32- 9.52
9	o-Xylene	20.000	20.326	-1.6	96	-0.03	9.92-10.12
	----- Amount Calc.			%Drift	-----		

Continuing Calibration Summary

Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3857-CC3810
Lab FileID: EF056694.D

10	S	BFB(S)	20.000	20.128	-0.6	103	-0.03	10.70-11.00
----- Amount Calc. %Drift -----								
11		1,3-Dichlorobenzene	20.000	19.775	1.1	94	-0.04	12.52-12.72
----- Amount Calc. %Drift -----								
12		1,4-Dichlorobenzene	20.000	18.932	5.3	94	-0.04	12.67-12.87
13		1,2-Dichlorobenzene	20.000	16.678	16.6#	86	-0.04	13.27-13.47

(#) = Out of Range SPCC's out = 0 CCC's out = 0
EF055441.D DUAL1017.M Tue Nov 29 11:38:36 2005

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Continuing Calibration Summary

Page 1 of 2

Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3857-CC3810
Lab FileID: EF056705.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\112705\EF056705.D\FID1A.CH Vial: 12
Signal #2 : C:\HPCHEM\1\DATA\112705\EF056705.D\FID2B.CH
Acq On : 28 Nov 2005 2:01 pm Operator: Trangd
Sample : CC3810-20 Inst : VOA1
Misc : gc5664,gef3857,,,,, Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL1017.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Wed Oct 19 10:44:46 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	22.406	-12.0	116	-0.02	2.86-	3.06
	----- Amount	Calc.	%Drift	-----				
2	Di-Isopropyl ether	20.000	23.357	-16.8#	111	-0.02	3.31-	3.51
3	Benzene	20.000	23.086	-15.4#	110	-0.02	4.58-	4.78
	----- Amount	Calc.	%Drift	-----				
4 S	a, a, a-TFT(S)	20.000	18.846	5.8	97	-0.02	5.60-	5.80
	----- Amount	Calc.	%Drift	-----				
5	Toluene	20.000	23.037	-15.2#	109	-0.02	7.00-	7.20
6	Chlorobenzene	20.000	22.210	-11.1	107	0.00	8.81-	9.01
7	Ethylbenzene	20.000	23.061	-15.3#	108	0.00	9.15-	9.35
8	m,p-Xylene	40.000	46.058	-15.1#	110	0.00	9.46-	9.66
9	o-Xylene	20.000	22.787	-13.9	108	0.00	9.99-	10.20
	----- Amount	Calc.	%Drift	-----				
10 S	BFB(S)	20.000	19.050	4.7	97	0.00	10.50-	10.80
11	1,3-Dichlorobenzene	20.000	21.047	-5.2	104	0.00	12.42-	12.62
12	1,4-Dichlorobenzene	20.000	20.925	-4.6	106	0.00	12.54-	12.74
13	1,2-Dichlorobenzene	20.000	17.988	10.1	92	-0.01	13.05-	13.25

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

	----- Amount	Calc.	%Drift	-----				
1	Methyl tert Butyl EtHe	20.000	21.696	-8.5	109	-0.02	2.82-	3.02
2	Di-Isopropyl ether	20.000	22.452	-12.3	106	-0.02	3.24-	3.44
3	Benzene	20.000	22.470	-12.3	105	-0.01	4.61-	4.81
	----- Amount	Calc.	%Drift	-----				
4 S	a, a, a-TFT(S)	20.000	18.303	8.5	94	-0.01	5.73-	5.93
	----- Amount	Calc.	%Drift	-----				
5	Toluene	20.000	22.555	-12.8	106	-0.01	6.97-	7.17
6	Chlorobenzene	20.000	22.010	-10.1	102	0.00	8.94-	9.14
7	Ethylbenzene	20.000	22.495	-12.5	105	0.00	9.13-	9.34
8	m,p-Xylene	40.000	44.848	-12.1	107	0.00	9.32-	9.52
9	o-Xylene	20.000	22.528	-12.6	107	0.00	9.92-	10.12
	----- Amount	Calc.	%Drift	-----				

Continuing Calibration Summary

Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3857-CC3810
Lab FileID: EF056705.D

10	S	BFB(S)	20.000	18.689	6.6	95	0.00	10.70-11.00
----- Amount Calc. %Drift -----								
11		1,3-Dichlorobenzene	20.000	21.392	-7.0	102	0.00	12.52-12.72
----- Amount Calc. %Drift -----								
12		1,4-Dichlorobenzene	20.000	20.177	-0.9	100	0.00	12.67-12.87
13		1,2-Dichlorobenzene	20.000	17.537	12.3	90	0.00	13.27-13.47

(#) = Out of Range SPCC's out = 0 CCC's out = 0
EF055441.D DUAL1017.M Tue Nov 29 11:38:36 2005

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Continuing Calibration Summary

Page 1 of 2

Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3857-ECC3810
Lab FileID: EF056717.D

Evaluate Continuing Calibration Report

Signal #1 : C:\HPCHEM\1\DATA\112705\EF056717.D\FID1A.CH Vial: 23
Signal #2 : C:\HPCHEM\1\DATA\112705\EF056717.D\FID2B.CH
Acq On : 28 Nov 2005 7:13 pm Operator: Trangd
Sample : ECC3810-20 Inst : VOA1
Misc : gc5676,gef3857,,,,, Multiplr: 1.00
IntFile Signal #1: AUTOINT1.E IntFile Signal #2: autoint2.e

Method : C:\HPCHEM\1\METHODS\DUAL1017.M (Chemstation Integrator)
Title : EPA 602 & 5030B/8021B
Last Update : Wed Oct 19 10:44:46 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	20.739	-3.7	107	-0.01	2.86- 3.06
	----- Amount Calc. %Drift -----						
2	Di-Isopropyl ether	20.000	21.327	-6.6	102	-0.01	3.31- 3.51
3	Benzene	20.000	21.128	-5.6	101	-0.01	4.58- 4.78
	----- Amount Calc. %Drift -----						
4 S	a, a, a-TFT(S)	20.000	19.516	2.4	100	-0.01	5.60- 5.80
	----- Amount Calc. %Drift -----						
5	Toluene	20.000	21.087	-5.4	100	-0.01	7.00- 7.20
6	Chlorobenzene	20.000	20.503	-2.5	99	-0.01	8.81- 9.01
7	Ethylbenzene	20.000	21.177	-5.9	99	-0.01	9.15- 9.35
8	m,p-Xylene	40.000	42.333	-5.8	101	0.00	9.46- 9.66
9	o-Xylene	20.000	20.976	-4.9	100	0.00	9.99-10.20
	----- Amount Calc. %Drift -----						
10 S	BFB(S)	20.000	19.975	0.1	101	0.00	10.50-10.80
11	1,3-Dichlorobenzene	20.000	19.432	2.8	96	0.00	12.42-12.62
12	1,4-Dichlorobenzene	20.000	19.268	3.7	97	0.00	12.54-12.74
13	1,2-Dichlorobenzene	20.000	17.223	13.9	88	0.00	13.05-13.25

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

	----- Amount Calc. %Drift -----						
1	Methyl tert Butyl EtHe	20.000	20.224	-1.1	102	-0.01	2.82- 3.02
2	Di-Isopropyl ether	20.000	20.636	-3.2	97	-0.01	3.24- 3.44
3	Benzene	20.000	20.733	-3.7	97	-0.01	4.61- 4.81
	----- Amount Calc. %Drift -----						
4 S	a, a, a-TFT(S)	20.000	18.876	5.6	96	0.00	5.73- 5.93
	----- Amount Calc. %Drift -----						
5	Toluene	20.000	20.611	-3.1	97	0.00	6.97- 7.17
6	Chlorobenzene	20.000	20.218	-1.1	94	0.00	8.94- 9.14
7	Ethylbenzene	20.000	20.405	-2.0	95	0.00	9.13- 9.34
8	m,p-Xylene	40.000	40.347	-0.9	96	0.00	9.32- 9.52
9	o-Xylene	20.000	20.313	-1.6	96	0.00	9.92-10.12
	----- Amount Calc. %Drift -----						

Continuing Calibration Summary

Job Number: F36670
Account: EEINCJX EEI
Project: Camp Lejeune-LCH 4015

Sample: GEF3857-ECC3810
Lab FileID: EF056717.D

10	S	BFB(S)	20.000	19.313	3.4	98	0.00	10.70-11.00
----- Amount Calc. %Drift -----								
11		1,3-Dichlorobenzene	20.000	19.445	2.8	93	0.00	12.52-12.72
----- Amount Calc. %Drift -----								
12		1,4-Dichlorobenzene	20.000	18.528	7.4	92	0.00	12.67-12.87
13		1,2-Dichlorobenzene	20.000	16.534	17.3#	85	0.00	13.27-13.47

(#) = Out of Range SPCC's out = 0 CCC's out = 0
EF055441.D DUAL1017.M Tue Nov 29 11:39:06 2005

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Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F36670
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IP111806.ASC
Analyst: RS
Parameters: Pb

Date Analyzed: 11/18/05 Methods: SW846 6010B
Run ID: MA4678

Time	Sample Description	Dilution Factor	PS Recov	Comments
09:30	MA4678-HSTD1	1		
09:34	MA4678-ICV1	1		
09:42	MA4678-ICB1	1		
09:45	MA4678-CRIA1	1		
09:48	MA4678-CRI1	1		
09:55	MA4678-ICSA1	1		
09:59	MA4678-ICSAB1	1		
10:03	MA4678-CCV1	1		
10:06	MA4678-CCB1	1		
10:10	MP8934-MB1	1		
10:13	MP8934-B1	1		
10:16	MP8934-B2	1		
10:19	ZZZZZZ	1		
10:23	ZZZZZZ	1		
10:26	MP8929-MB1	1		
10:29	MP8929-B1	1		
10:33	F36529-4	1		(sample used for QC only; not part of login F36670)
10:36	MP8929-D1	1		
10:39	MP8929-SD1	5		
10:42	MA4678-CCV2	1		
10:46	MA4678-CCB2	1		
12:07	MA4678-CCV3	1		
12:11	MA4678-CCB3	1		
12:15	MP8929-S1	1		
12:18	MP8929-S2	1		
12:21	ZZZZZZ	1		
12:24	ZZZZZZ	1		
12:28	ZZZZZZ	1		
12:34	ZZZZZZ	1		
12:38	ZZZZZZ	1		
12:41	ZZZZZZ	1		
12:44	ZZZZZZ	1		
12:47	MA4678-CCV4	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F36670
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IP111806.ASC
Analyst: RS
Parameters: Pb

Date Analyzed: 11/18/05 Methods: SW846 6010B
Run ID: MA4678

Time	Sample Description	Dilution Factor	PS Recov	Comments
12:52	MA4678-CCB4	1		
12:55	ZZZZZZ	1		
12:58	ZZZZZZ	1		
13:01	ZZZZZZ	1		
13:05	ZZZZZZ	1		
13:08	ZZZZZZ	1		
13:11	ZZZZZZ	1		
13:15	ZZZZZZ	1		
13:18	ZZZZZZ	1		
13:21	ZZZZZZ	1		
13:24	ZZZZZZ	1		
13:28	MA4678-CCV5	1		
13:32	MA4678-CCB5	1		
13:35	ZZZZZZ	1		
13:38	MP8931-MB1	1		
13:42	MP8931-B1	1		
13:46	F36539-2	1		(sample used for QC only; not part of login F36670)
13:49	MP8931-D1	1		
13:52	MP8931-SD1	5		
13:56	MP8931-S1	1		
13:59	MP8931-S2	1		
14:03	ZZZZZZ	1		
14:06	ZZZZZZ	1		
14:10	MA4678-CCV6	1		
14:14	MA4678-CCB6	1		
14:17	ZZZZZZ	1		
14:21	ZZZZZZ	1		
14:24	ZZZZZZ	1		
14:27	ZZZZZZ	1		
14:30	ZZZZZZ	1		
14:34	ZZZZZZ	1		
14:37	ZZZZZZ	1		
14:40	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F36670
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IP111806.ASC
Analyst: RS
Parameters: Pb

Date Analyzed: 11/18/05 Methods: SW846 6010B
Run ID: MA4678

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:44	ZZZZZZ	1		
14:47	ZZZZZZ	1		
14:50	MA4678-CCV7	1		
14:54	MA4678-CCB7	1		
14:58	ZZZZZZ	1		
15:01	ZZZZZZ	1		
15:04	ZZZZZZ	1		
15:07	ZZZZZZ	1		
15:11	ZZZZZZ	1		
15:14	ZZZZZZ	1		
15:17	ZZZZZZ	1		
15:21	MP8933-MB1	1		
15:24	MP8933-B1	1		
15:28	F36600-1	1		(sample used for QC only; not part of login F36670)
15:31	MA4678-CCV8	1		
15:35	MA4678-CCB8	1		
15:39	MP8933-D1	1		
15:42	MP8933-SD1	5		
15:45	MP8933-S1	1		
15:49	MP8933-S2	1		
15:53	ZZZZZZ	1		
15:56	ZZZZZZ	1		
15:59	ZZZZZZ	1		
16:03	ZZZZZZ	1		
16:06	ZZZZZZ	1		
16:09	ZZZZZZ	1		
16:12	MA4678-CCV9	1		
16:17	MA4678-CCB9	1		
16:20	ZZZZZZ	1		
16:23	ZZZZZZ	1		
16:27	ZZZZZZ	1		
16:30	ZZZZZZ	1		
16:33	ZZZZZZ	1		

Accutest Laboratories Instrument Runlog
Inorganics Analyses

Login Number: F36670
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IP111806.ASC
Analyst: RS
Parameters: Pb

Date Analyzed: 11/18/05 Methods: SW846 6010B
Run ID: MA4678

Time	Sample Description	Dilution Factor	PS Recov	Comments
16:36	ZZZZZZ	1		
16:40	ZZZZZZ	1		
16:43	ZZZZZZ	1		
16:46	ZZZZZZ	1		
16:50	ZZZZZZ	1		
16:53	MA4678-CCV10	1		
16:57	MA4678-CCB10	1		
17:00	ZZZZZZ	1		
17:04	ZZZZZZ	1		
17:07	ZZZZZZ	1		
17:10	MP8932-MB1	1		
17:13	MP8932-B1	1		
17:18	F36670-1	1		
17:21	MP8932-D1	1		
17:24	MP8932-SD1	5		
17:28	MP8932-S1	1		
17:32	F36670-2	1		
17:35	MA4678-CCV11	1		
17:39	MA4678-CCB11	1		
17:42	F36670-3	1		
17:46	F36670-4	1		
17:49	F36670-5	1		
17:52	F36670-6	1		
17:56	F36670-7	1		
----->	Last reportable sample/prep for job F36670			
18:15	MA4678-CCV12	1		
18:20	MA4678-CCB12	1		
----->	Last reportable CCB for job F36670			
	Refer to raw data for calibration curve and standards.			

INTERNAL STANDARD SUMMARY

Login Number: F36670
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IP111806.ASC
Analyst: RS
Parameters: Pb

Date Analyzed: 11/18/05 Methods: SW846 6010B
Run ID: MA4678

Time	Sample Description	Istd#1
09:30	MA4678-HSTD1	1640
09:34	MA4678-ICV1	1686
09:42	MA4678-ICB1	1739 R
09:45	MA4678-CRIA1	1747
09:48	MA4678-CRI1	1741
09:55	MA4678-ICSA1	1578
09:59	MA4678-ICSAB1	1578
10:03	MA4678-CCV1	1690
10:06	MA4678-CCB1	1785
10:10	MP8934-MB1	1711
10:13	MP8934-B1	1674
10:16	MP8934-B2	1673
10:19	ZZZZZZ	1683
10:23	ZZZZZZ	1679
10:26	MP8929-MB1	1698
10:29	MP8929-B1	1677
10:33	F36529-4	1699
10:36	MP8929-D1	1727
10:39	MP8929-SD1	1732
10:42	MA4678-CCV2	1678
10:46	MA4678-CCB2	1718
12:07	MA4678-CCV3	1892
12:11	MA4678-CCB3	1962
12:15	MP8929-S1	1869
12:18	MP8929-S2	1844
12:21	ZZZZZZ	1894
12:24	ZZZZZZ	1910
12:28	ZZZZZZ	1925
12:34	ZZZZZZ	1968
12:38	ZZZZZZ	1877
12:41	ZZZZZZ	1987
12:44	ZZZZZZ	1644
12:47	MA4678-CCV4	1962

INTERNAL STANDARD SUMMARY

Login Number: F36670
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IP111806.ASC
Analyst: RS
Parameters: Pb

Date Analyzed: 11/18/05 Methods: SW846 6010B
Run ID: MA4678

Time	Sample Description	Istd#1
12:52	MA4678-CCB4	2019
12:55	ZZZZZZ	1936
12:58	ZZZZZZ	1722
13:01	ZZZZZZ	2008
13:05	ZZZZZZ	2005
13:08	ZZZZZZ	2002
13:11	ZZZZZZ	1948
13:15	ZZZZZZ	1966
13:18	ZZZZZZ	1991
13:21	ZZZZZZ	1784
13:24	ZZZZZZ	1894
13:28	MA4678-CCV5	1959
13:32	MA4678-CCB5	2031
13:35	ZZZZZZ	1877
13:38	MP8931-MB1	2042
13:42	MP8931-B1	1995
13:46	F36539-2	1976
13:49	MP8931-D1	1999
13:52	MP8931-SD1	2021
13:56	MP8931-S1	1945
13:59	MP8931-S2	1945
14:03	ZZZZZZ	1974
14:06	ZZZZZZ	1965
14:10	MA4678-CCV6	1981
14:14	MA4678-CCB6	2047
14:17	ZZZZZZ	1978
14:21	ZZZZZZ	1976
14:24	ZZZZZZ	2003
14:27	ZZZZZZ	1955
14:30	ZZZZZZ	2025
14:34	ZZZZZZ	1966
14:37	ZZZZZZ	2010
14:40	ZZZZZZ	2041

INTERNAL STANDARD SUMMARY

Login Number: F36670
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IP111806.ASC
Analyst: RS
Parameters: Pb

Date Analyzed: 11/18/05 Methods: SW846 6010B
Run ID: MA4678

Time	Sample Description	Istd#1
14:44	ZZZZZZ	1906
14:47	ZZZZZZ	2007
14:50	MA4678-CCV7	1979
14:54	MA4678-CCB7	2064
14:58	ZZZZZZ	1979
15:01	ZZZZZZ	1988
15:04	ZZZZZZ	1954
15:07	ZZZZZZ	2045
15:11	ZZZZZZ	2005
15:14	ZZZZZZ	1985
15:17	ZZZZZZ	1969
15:21	MP8933-MB1	2085
15:24	MP8933-B1	2007
15:28	F36600-1	2030
15:31	MA4678-CCV8	1985
15:35	MA4678-CCB8	2109
15:39	MP8933-D1	2041
15:42	MP8933-SD1	2062
15:45	MP8933-S1	1972
15:49	MP8933-S2	1984
15:53	ZZZZZZ	2066
15:56	ZZZZZZ	1764
15:59	ZZZZZZ	2050
16:03	ZZZZZZ	2054
16:06	ZZZZZZ	2104
16:09	ZZZZZZ	2107
16:12	MA4678-CCV9	1988
16:17	MA4678-CCB9	2029
16:20	ZZZZZZ	2141
16:23	ZZZZZZ	2077
16:27	ZZZZZZ	2032
16:30	ZZZZZZ	2055
16:33	ZZZZZZ	2255 !

INTERNAL STANDARD SUMMARY

Login Number: F36670
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IP111806.ASC
Analyst: RS
Parameters: Pb

Date Analyzed: 11/18/05 Methods: SW846 6010B
Run ID: MA4678

Time	Sample Description	Istd#1
16:36	ZZZZZZ	2178 !
16:40	ZZZZZZ	2090
16:43	ZZZZZZ	2068
16:46	ZZZZZZ	2099
16:50	ZZZZZZ	2068
16:53	MA4678-CCV10	2023
16:57	MA4678-CCB10	2058
17:00	ZZZZZZ	2140
17:04	ZZZZZZ	2070
17:07	ZZZZZZ	2064
17:10	MP8932-MB1	2084
17:13	MP8932-B1	2075
17:18	F36670-1	2022
17:21	MP8932-D1	2023
17:24	MP8932-SD1	2047
17:28	MP8932-S1	2014
17:32	F36670-2	1989
17:35	MA4678-CCV11	1987
17:39	MA4678-CCB11	2045
17:42	F36670-3	1994
17:46	F36670-4	2007
17:49	F36670-5	3842 !
17:52	F36670-6	2169
17:56	F36670-7	2315 !
18:15	MA4678-CCV12	2107
18:20	MA4678-CCB12	2208 !

R = Reference for ISTD limits. ! = Outside limits.

LEGEND:

Istd#	Parameter	Limits
Istd#1	Yttrium	60-125 %

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F36670
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IP111806.ASC
QC Limits: result < RL

Date Analyzed: 11/18/05
Run ID: MA4678

Methods: SW846 6010B
Units: ug/l

Time: Sample ID:			09:42 ICB1		10:06 CCB1		10:46 CCB2		12:11 CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	13	anr							
Antimony	5.0	1.5	anr							
Arsenic	10	2.1	anr							
Barium	200	.5	anr							
Beryllium	4.0	.2	anr							
Cadmium	5.0	.5	anr							
Calcium	1000	16	anr							
Chromium	10	.5	anr							
Cobalt	50	.5	anr							
Copper	25	.4	anr							
Iron	300	16	anr							
Lead	5.0	1.2	1.9	<5.0	0.35	<5.0	2.1	<5.0	0.44	<5.0
Magnesium	5000	9.9	anr							
Manganese	15	.2	anr							
Molybdenum	50	.8	anr							
Nickel	40	.6	anr							
Potassium	5000	16	anr							
Selenium	10	1.6	anr							
Silver	10	.6	anr							
Sodium	5000	65	anr							
Thallium	10	1.8	anr							
Tin	50	1.4	anr							
Vanadium	50	.6	anr							
Zinc	20	1.1	anr							

(*) Outside of QC limits
(anr) Analyte not requested

7.1.2
7

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F36670
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IP111806.ASC
QC Limits: result < RL

Date Analyzed: 11/18/05
Run ID: MA4678

Methods: SW846 6010B
Units: ug/l

Time: Sample ID:			12:52 CCB4		13:32 CCB5		14:14 CCB6		14:54 CCB7	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	13	anr							
Antimony	5.0	1.5	anr							
Arsenic	10	2.1	anr							
Barium	200	.5	anr							
Beryllium	4.0	.2	anr							
Cadmium	5.0	.5	anr							
Calcium	1000	16	anr							
Chromium	10	.5	anr							
Cobalt	50	.5	anr							
Copper	25	.4	anr							
Iron	300	16	anr							
Lead	5.0	1.2	0.74	<5.0	0.33	<5.0	1.2	<5.0	-1.4	<5.0
Magnesium	5000	9.9	anr							
Manganese	15	.2	anr							
Molybdenum	50	.8	anr							
Nickel	40	.6	anr							
Potassium	5000	16	anr							
Selenium	10	1.6	anr							
Silver	10	.6	anr							
Sodium	5000	65	anr							
Thallium	10	1.8	anr							
Tin	50	1.4	anr							
Vanadium	50	.6	anr							
Zinc	20	1.1	anr							

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F36670
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IP111806.ASC
QC Limits: result < RL

Date Analyzed: 11/18/05
Run ID: MA4678

Methods: SW846 6010B
Units: ug/l

Time: Sample ID:			15:35 CCB8		16:17 CCB9		16:57 CCB10		17:39 CCB11	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final
Aluminum	200	13	anr							
Antimony	5.0	1.5	anr							
Arsenic	10	2.1	anr							
Barium	200	.5	anr							
Beryllium	4.0	.2	anr							
Cadmium	5.0	.5	anr							
Calcium	1000	16	anr							
Chromium	10	.5	anr							
Cobalt	50	.5	anr							
Copper	25	.4	anr							
Iron	300	16	anr							
Lead	5.0	1.2	0.34	<5.0	2.4	<5.0	0.70	<5.0	0.91	<5.0
Magnesium	5000	9.9	anr							
Manganese	15	.2	anr							
Molybdenum	50	.8	anr							
Nickel	40	.6	anr							
Potassium	5000	16	anr							
Selenium	10	1.6	anr							
Silver	10	.6	anr							
Sodium	5000	65	anr							
Thallium	10	1.8	anr							
Tin	50	1.4	anr							
Vanadium	50	.6	anr							
Zinc	20	1.1	anr							

(*) Outside of QC limits
(anr) Analyte not requested

7.1.2

7

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: F36670
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IP111806.ASC
QC Limits: result < RL

Date Analyzed: 11/18/05
Run ID: MA4678
Methods: SW846 6010B
Units: ug/l

Time: Sample ID:		18:20 CCB12			
Metal	RL	IDL	raw	final	
Aluminum	200	13	anr		
Antimony	5.0	1.5	anr		
Arsenic	10	2.1	anr		
Barium	200	.5	anr		
Beryllium	4.0	.2			
Cadmium	5.0	.5	anr		
Calcium	1000	16	anr		
Chromium	10	.5	anr		
Cobalt	50	.5	anr		
Copper	25	.4	anr		
Iron	300	16	anr		
Lead	5.0	1.2	1.3	<5.0	
Magnesium	5000	9.9	anr		
Manganese	15	.2	anr		
Molybdenum	50	.8	anr		
Nickel	40	.6	anr		
Potassium	5000	16	anr		
Selenium	10	1.6	anr		
Silver	10	.6	anr		
Sodium	5000	65	anr		
Thallium	10	1.8	anr		
Tin	50	1.4	anr		
Vanadium	50	.6	anr		
Zinc	20	1.1	anr		

(*) Outside of QC limits
(anr) Analyte not requested

7.1.2
7

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F36670
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IP111806.ASC
QC Limits: 90 to 110 % Recovery

Date Analyzed: 11/18/05
Run ID: MA4678

Methods: SW846 6010B
Units: ug/l

Time: Sample ID:		09:34 ICV1		10:03 CCV1		10:42 CCV2			
Metal	ICV True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2040	102.0	2000	2050	102.5	2000	2060	103.0
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Thallium	anr								
Tin	anr								
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F36670
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IP111806.ASC
QC Limits: 90 to 110 % Recovery

Date Analyzed: 11/18/05
Run ID: MA4678

Methods: SW846 6010B
Units: ug/l

Time: Sample ID:	CCV	12:07 CCV3		CCV	12:47 CCV4		CCV	13:28 CCV5	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2020	101.0	2000	2090	104.5	2000	2060	103.0
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Thallium	anr								
Tin	anr								
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F36670
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IP111806.ASC
QC Limits: 90 to 110 % Recovery

Date Analyzed: 11/18/05
Run ID: MA4678

Methods: SW846 6010B
Units: ug/l

Time: Sample ID:	CCV	14:10 CCV6		CCV	14:50 CCV7		CCV	15:31 CCV8	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2050	102.5	2000	2070	103.5	2000	2060	103.0
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Thallium	anr								
Tin	anr								
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F36670
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IP111806.ASC
QC Limits: 90 to 110 % Recovery

Date Analyzed: 11/18/05
Run ID: MA4678

Methods: SW846 6010B
Units: ug/l

Time: Sample ID:		16:12 CCV9		16:53 CCV10		17:35 CCV11			
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec
Aluminum	anr								
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium	anr								
Chromium	anr								
Cobalt	anr								
Copper	anr								
Iron	anr								
Lead	2000	2070	103.5	2000	2040	102.0	2000	2080	104.0
Magnesium	anr								
Manganese	anr								
Molybdenum	anr								
Nickel	anr								
Potassium	anr								
Selenium	anr								
Silver	anr								
Sodium	anr								
Thallium	anr								
Tin	anr								
Vanadium	anr								
Zinc	anr								

(*) Outside of QC limits
(anr) Analyte not requested

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: F36670
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IP111806.ASC
QC Limits: 90 to 110 % Recovery

Date Analyzed: 11/18/05
Run ID: MA4678

Methods: SW846 6010B
Units: ug/l

Time: Sample ID: CCV		18:15 CCV12		
Metal	True	Results	% Rec	
Aluminum	anr			
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium				
Cadmium				
Calcium				
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron				
Lead	2000	2200	110.0	
Magnesium	anr			
Manganese	anr			
Molybdenum	anr			
Nickel				
Potassium	anr			
Selenium	anr			
Silver	anr			
Sodium	anr			
Thallium	anr			
Tin	anr			
Vanadium	anr			
Zinc				

(*) Outside of QC limits
(anr) Analyte not requested

7.1.3
7

HIGH STANDARD CHECK SUMMARY

Login Number: F36670
 Account: EEINCJX - EEI
 Project: Camp Lejeune-LCH 4015

File ID: IP111806.ASC
 QC Limits: 95 to 105 % Recovery

Date Analyzed: 11/18/05
 Run ID: MA4678

Methods: SW846 6010B
 Units: ug/l

Time:		09:30	
Sample ID:		HSTD1	
Metal	HSTD	Results	% Rec
Aluminum	anr		
Antimony	anr		
Arsenic	anr		
Barium	anr		
Beryllium	anr		
Cadmium	anr		
Calcium	anr		
Chromium	anr		
Cobalt	anr		
Copper	anr		
Iron	anr		
Lead	4000	4020	100.5
Magnesium	anr		
Manganese	anr		
Molybdenum	anr		
Nickel	anr		
Potassium	anr		
Selenium	anr		
Silver	anr		
Sodium	anr		
Thallium	anr		
Tin	anr		
Vanadium	anr		
Zinc	anr		

(*) Outside of QC limits
 (anr) Analyte not requested

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: F36670
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IP111806.ASC
QC Limits: 70 to 130 % Recovery

Date Analyzed: 11/18/05
Run ID: MA4678

Methods: SW846 6010B
Units: ug/l

Time: Sample ID:	CRI	CRIA	09:45 CRIA1	% Rec	09:48 CRI1	% Rec
Metal	True	True	Results		Results	
Aluminum	400	200	anr			
Antimony	10	5.0	anr			
Arsenic	20	10	anr			
Barium	400	200	anr			
Beryllium	10	5.0	anr			
Cadmium	10	5.0	anr			
Calcium	2000	1000	anr			
Chromium	20	10	anr			
Cobalt	100	50	anr			
Copper	50	25	anr			
Iron	600	300	anr			
Lead	10	5.0	5.4	108.0	11.1	111.0
Magnesium	10000	5000	anr			
Manganese	30	15	anr			
Molybdenum	100	50	anr			
Nickel	80	40	anr			
Potassium	10000	5000	anr			
Selenium	10	5.0	anr			
Silver	20	10	anr			
Sodium	10000	5000	anr			
Thallium	20	10	anr			
Tin	100	50	anr			
Vanadium	100	50	anr			
Zinc	40	20	anr			

(*) Outside of QC limits
(anr) Analyte not requested

7.1.5

7

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: F36670
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

File ID: IP111806.ASC Date Analyzed: 11/18/05 Methods: SW846 6010B
QC Limits: 80 to 120 % Recovery Run ID: MA4678 Units: ug/l

Time: Sample ID:	ICSA True	ICSAB True	09:55 ICSA1 Results	% Rec	09:59 ICSAB1 Results	% Rec
Metal						
Aluminum	500000	500000	473000	94.6	474000	94.8
Antimony		1000	-2.0		1050	105.0
Arsenic		1000	2.3		1070	107.0
Barium		500	0.67		535	107.0
Beryllium		500	-1.9		521	104.2
Cadmium		1000	-0.54		1040	104.0
Calcium	500000	500000	463000	92.6	464000	92.8
Chromium		500	-2.6		486	97.2
Cobalt		500	0.38		509	101.8
Copper		500	-3.3		570	114.0
Iron	200000	200000	190000	95.0	192000	96.0
Lead		1000	0.89		1030	103.0
Magnesium	500000	500000	518000	103.6	519000	103.8
Manganese		500	1.9		520	104.0
Molybdenum		1000	2.7		983	98.3
Nickel		1000	1.4		1040	104.0
Potassium			42.7		27.9	
Selenium		1000	9.5		1060	106.0
Silver		1000	0.91		1100	110.0
Sodium			95.5		139	
Thallium		1000	9.1		1060	106.0
Tin		1000	7.8		1010	101.0
Vanadium		500	-3.5		502	100.4
Zinc		1000	3.9		1120	112.0

(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F36670
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

QC Batch ID: MP8932
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 11/17/05

Metal	RL	IDL	MB raw	final
Aluminum	200	13		
Antimony	5.0	1.5		
Arsenic	10	2.1		
Barium	200	.5		
Beryllium	4.0	.2		
Cadmium	5.0	.5		
Calcium	1000	16		
Chromium	10	.5		
Cobalt	50	.5		
Copper	25	.4		
Iron	300	16		
Lead	5.0	1.2	1.3	<5.0
Magnesium	5000	9.9		
Manganese	15	.2		
Molybdenum	50	.8		
Nickel	40	.6		
Potassium	5000	16		
Selenium	10	1.6		
Silver	10	.6		
Sodium	5000	65		
Thallium	10	1.8		
Tin	50	1.4		
Vanadium	50	.6		
Zinc	20	1.1		

Associated samples MP8932: F36670-1, F36670-2, F36670-3, F36670-4, F36670-5, F36670-6, F36670-7

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F36670
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

QC Batch ID: MP8932
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 11/17/05 11/17/05

Metal	F36670-1 Original	DUP	RPD	QC Limits	F36670-1 Original	MS	Spikelot MPFLICP	% Rec	QC Limits
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead	0.0	0.0	NC	0-10	0.0	1030	1000	103.0	84-118
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Tin									
Vanadium									
Zinc									

Associated samples MP8932: F36670-1, F36670-2, F36670-3, F36670-4, F36670-5, F36670-6, F36670-7

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F36670
Account: EEINCJX - EEI
Project: Camp Lejeune-LCH 4015

QC Batch ID: MP8932
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 11/17/05

Metal	BSP Result	Spike lot MPFLICP	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead	1050	1000	105.0	80-120
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Thallium				
Tin				
Vanadium				
Zinc				

Associated samples MP8932: F36670-1, F36670-2, F36670-3, F36670-4, F36670-5, F36670-6, F36670-7

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: F36670
 Account: EEINCJX - EEI
 Project: Camp Lejeune-LCH 4015

QC Batch ID: MP8932
 Matrix Type: AQUEOUS

Methods: SW846 6010B
 Units: ug/l

Prep Date: 11/17/05

Metal	F36670-1 Original	SDL 1:5	RPD	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead	0.00	0.00	NC	0-10
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Thallium				
Tin				
Vanadium				
Zinc				

Associated samples MP8932: F36670-1, F36670-2, F36670-3, F36670-4, F36670-5, F36670-6, F36670-7

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

7.2.4

7

Soil Vapor Laboratory Reports

PARADIGM ANALYTICAL LABORATORIES, INC.

Bid LCH-4015

Results for Volatile Air Samples
by GC/MS

Client Sample ID: F19842-2
Client Project ID: F19842
Lab Sample ID: 81442
Lab Project ID: G383-241
Matrix: Air

Date Collected: 9/30/03
Date Received: 10/2/02
Date Analyzed: 10/15/03
Analyzed By: MRC

Compound	Dilution	Quantitation		
		Limit	Result	Units
Benzene	1	0.13	BQL	mg/m3
Ethylbenzene	1	0.13	BQL	mg/m3
Toluene	1	0.13	BQL	mg/m3
m-,p-Xylene	1	0.13	BQL	mg/m3
o-Xylene	1	0.13	BQL	mg/m3

Comments:

Quantitation at 25°C and 1 atm.

Flags:

BQL = Below quantitation limit.

Reviewed By: MRC

COC Number:
844271-Stack-093003

CHAIN-OF-CUSTODY RECORD

F19842

Engineering & Environment Inc. - Piney Green Rd. Lot 203 - 910-539-5606										Receiving LAB: Accutest									
Project Name CAMP LEJEUNE - Bldg 900, 545, 45, LCH4015					Project Location CAMP LEJEUNE, NC					Analysis Desired									
Project Number 824603					Contact Bill Morris					P.O. Number					Reviewed by				
Client Rep US NAVY - LANTDIV					Project Manager Mike Slade														
Item No.	Sample Number	Date	Time	Comp	Grab	Sample Description	Number of Containers	Method 18 BTEX											
1	CLJ-900-EFFA-012	8/30/03	1030		X	Effluent Air Sample 15 L of Air through Tube Bldg 900	1	X											
2	CLJ-845-EFFA-012	9/30/03	1115		X	Effluent Air Sample 15 L of Air through Tube Bldg 645	1	X											
3	CLJ-45-EFFA-001	9/30/03	1145		X	Effluent Air Sample 15 L of Air through Tube Bldg 45	1	X											
4	CLJ-LCH4015-EFFA-001	9/30/03	1230		X	Effluent Air Sample 15 L of Air through Tube LCH4015	1	X											
5																			
6																			
7																			
8																			
9																			

Transfer Number	Item Number	Transfers Relinquished By	Transfers Accepted By	Date	Time	Remarks
1	1-4	<i>[Signature]</i>	FedEx 8369 1400 3069	9/30/03	16:00	14 Day TAT
2		Fed Ex	Munna Mohammed	10/1/03	0900	
3						

AMB°C.

PARADIGM ANALYTICAL LABORATORIES, INC.

Bld LCH 4015

Results for Volatiles in Air
by GC/MS

Client Sample ID: F20396-4
Client Project ID: F20396
Lab Sample ID: 83011
Lab Project ID: G383-244
Matrix: Air

Date Collected: 10/31/03
Date Received: 11/4/03
Date Analyzed: 11/10/03
Analyzed By: MRC

Compound	Dilution	Quantitation		
		Limit	Result	Units
Benzene	1	0.13	BQL	mg/m3
Ethylbenzene	1	0.13	BQL	mg/m3
Methyl-tertbutyl ether	1	0.13	BQL	mg/m3
Toluene	1	0.13	BQL	mg/m3
m,p-Xylene	1	0.13	BQL	mg/m3
o-Xylene	1	0.13	BQL	mg/m3

Comments:

Quantitation at 25°C and 1 atm.

Flags:

BQL = Below quantitation limit.

Reviewed By: ure

COC Number:
844271-Stack-103103

CHAIN-OF-CUSTODY RECORD

F-20396

Engineering & Environment Inc. - Piney Green Rd. Lot 203 - 910-539-5606										Receiving LAB: Accutest			
Project Name		Project Location		Project Manager		Sample Description		Number of Containers		Method 18 BTEX		Analysis Desired	
CAMP LEJEUNE - Bldg 900, 645, 45, LCH4015		CAMP LEJEUNE, NC		Mike Slade									
Project Number		Contact		Comp		Grab		Time		Date		Reviewed by	
824603		Bill Morris											
Client Rep		US NAVY - LANTDIV		Project Manager		Mike Slade							
Item No.	Sample Number	Date	Time	Comp	Grab	Sample Description		Number of Containers					
1	CLJ-900-EFFA-013	10/31/03	1510		X	Effluent Air Sample 15 L of Air through Tube		1		X			
2	CLJ-645-EFFA-013	10/31/03	1500		X	Effluent Air Sample 15 L of Air through Tube		1		X			
3	CLJ-45-EFFA-002	10/31/03	1540		X	Effluent Air Sample 15 L of Air through Tube		1		X			
4	CLJ-LCH4015-EFFA-002	10/31/03	1550		X	Effluent Air Sample 15 L of Air through Tube		1		X			
5													
6													
7													
8													
9													

Transfer Number	Item Number	Transfers Relinquished By	Transfers Accepted By	Date	Time	Remarks
1	1-4		FedEx 8369 1400 3210	10/31/03	16:00	14 Day TAT
2		FedEx	Nunamond	11/1/03	0830	
3						

AnnB.

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Volatiles in Air

by GC/MS

Client Sample ID: 4015-0205-AIR

Analyzed By: MRC

Client Project ID: CTO 018

Date Collected: 2/28/2005 10:20

Lab Sample ID: G546-23-2F

Date Received: 3/1/2005

Lab Project ID: G546-23

Matrix: Air

Compound	Result ng/tube	Quantitation Limit ng/tube	Dilution Factor	Date Analyzed
Benzene	BQL	6000	1	3/15/2005
Ethylbenzene	BQL	6000	1	3/15/2005
Toluene	BQL	6000	1	3/15/2005
m-,p-Xylene	BQL	6000	1	3/15/2005
o-Xylene	BQL	6000	1	3/15/2005

Comments:

Quantitation at 25°C and 1 atm.

Flags:

BQL = Below quantitation limit.

Reviewed By: 

Page 1 of 1

P.O. Number:

NC _____ SC _____ Other _____
SEE REVERSE FOR
TERMS AND CONDITIONS

ORIGINAL

PARADIGM ANALYTICAL LABORATORIES, INC.

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Volatiles in Air

by GC/MS

Client Sample ID: UST645-Primary Tube

Analyzed By: MRC

Client Project ID: UST645 and UST LCH4015

Date Collected: 3/30/2005 11:59

Lab Sample ID: G546-28-1

Date Received: 3/31/2005

Lab Project ID: G546-28

Matrix: Air

Compound	Result ng/tube	Quantitation Limit ng/tube	Dilution Factor	Date Analyzed
Benzene	BQL	6000	1	4/21/2005
Bromochloromethane	BQL	6000	1	4/21/2005
Bromodichloromethane	BQL	6000	1	4/21/2005
Bromoform	BQL	6000	1	4/21/2005
Carbon tetrachloride	BQL	6000	1	4/21/2005
Chlorobenzene	BQL	6000	1	4/21/2005
Chloroform	BQL	6000	1	4/21/2005
Dibromochloromethane	BQL	6000	1	4/21/2005
1,2-Dibromoethane (EDB)	BQL	6000	1	4/21/2005
1,2-Dichlorobenzene	BQL	6000	1	4/21/2005
1,3-Dichlorobenzene	BQL	6000	1	4/21/2005
1,4-Dichlorobenzene	BQL	6000	1	4/21/2005
1,1-Dichloroethane	BQL	6000	1	4/21/2005
1,1-Dichloroethene	BQL	6000	1	4/21/2005
1,2-Dichloroethane	BQL	6000	1	4/21/2005
cis-1,2-Dichloroethene	BQL	6000	1	4/21/2005
trans-1,2-dichloroethene	BQL	6000	1	4/21/2005
1,2-Dichloropropane	BQL	6000	1	4/21/2005
cis-1,3-Dichloropropene	BQL	6000	1	4/21/2005
trans-1,3-Dichloropropene	BQL	6000	1	4/21/2005
Diisopropyl ether	BQL	6000	1	4/21/2005
Ethylbenzene	BQL	6000	1	4/21/2005
Methyl-tert-butyl ether	BQL	6000	1	4/21/2005
Styrene	BQL	6000	1	4/21/2005
1,1,2,2-Tetrachloroethane	BQL	6000	1	4/21/2005
Tetrachloroethene	BQL	6000	1	4/21/2005
Toluene	BQL	6000	1	4/21/2005
Trichloroethene	BQL	6000	1	4/21/2005
1,1,1-Trichloroethane	BQL	6000	1	4/21/2005
1,1,2-Trichloroethane	BQL	6000	1	4/21/2005
m-,p-Xylene	BQL	6000	1	4/21/2005
o-Xylene	BQL	6000	1	4/21/2005

Comments:

Quantitation at 25°C and 1 atm.

Flags:

BQL = Below quantitation limit.

Reviewed By: MRC

Phone: (910)-350-1903 FAX: (910)-350-1557

Chain-of-Custody Record & Analytical Request

COC# 50473

6 of 47

Client: Engineering & Environment Inc. Project ID: 467 LCH 4016

Date: 3/30/05

Report To:

Address: 824 Grandbrach road Suite 5

Contact: Bill Morris

Turnaround:

Address: Jackmanville N.C. 28540

Phone: 910-999-3214

Job Number:

Quote #:

Fax: 410-989-3341

P.O. Number:

Invoice To:

PARADIGM ANALYTICAL LABORATORIES, INC												
Sample ID	Date	Time	Matrix	Preservatives			Analyses					Comments: Please specify any special reporting requirements
457645-Primary Tube	3/30/05	11:59	Air	None			Modified EPA 18					G546-28
457645-Secondary Tube	3/30/05	11:59	Air	X								
457645-Primary Tube	3/30/05	14:30	Air	X								
457645-Secondary Tube	3/30/05	14:30	Air	X								
												2 samples total Primary is fast like Secondary is back tube per Britton 4/13/10
Relinquished By	Date	Time		Received By	Date	Time	Temperature	State Certification Requested				
Bob Sellers	3/30/05	15:00		[Signature]	3/31/05	1020	Ambric	NC SC Other				SEE REVERSE FOR TERMS AND CONDITIONS

ORIGINAL

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Volatiles in Air

by GC/MS

Client Sample ID: USTLCH4015-Primary Tube

Analyzed By: MRC

Client Project ID: UST 645

Date Collected: 4/29/2005 13:15

Lab Sample ID: g546-29-3

Date Received: 5/5/2005

Lab Project ID: G546-29

Matrix: Air

Compound	Result mg/m3	Quantitation Limit mg/m3	Dilution Factor	Date Analyzed
Benzene	BQL	0.040	1	6/2/2005
Ethylbenzene	BQL	0.040	1	6/2/2005
Toluene	BQL	0.040	1	6/2/2005
m-,p-Xylene	BQL	0.040	1	6/2/2005
o-Xylene	BQL	0.040	1	6/2/2005

Comments:

Quantitation at 25°C and 1 atm.

Flags:

BQL = Below quantitation limit.

Reviewed By: EW

PARADIGM ANALYTICAL LABORATORIES, INC.

5500 Business Drive, Wilmington, NC 28405

Phone: (910)-350-1903 FAX: (910)-350-1557

Chain-of Custody Record & Analytical Request

COC# 46578

Page ____ of ____

Client: Engineering & Environment Project ID: UST 645 Date: 4/29/05 Report To: _____
 Address: 214 Camborough - Suite 5 Contact: Bill Morris Turnaround: Fast
 Address: Jacksonville NC 28540 Phone: 910-999-3214 Job Number: _____
 Quote #: _____ Fax: 910-999-3214 P.O. Number: _____ Invoice To: _____

Sample ID	Date	Time	Matrix	Preservatives		Analyses										Comments: Please specify any special reporting requirements		
				1	2	1	2	3	4	5	6	7	8	9	10		11	12
USTC46-Primary Tube	4/29/05	12:10	Air	✓	✓													150 minutes @ 1 LPM
USTC46-Secondary Tube	4/29/05	12:10	Air	✓	✓													150 minutes @ 1 LPM
USTLC440N-Primary Tube	5/19/05	13:15	Air	✓	✓													165 minutes @ 1 LPM
USTLC440N-Secondary Tube	5/19/05	13:15	Air	✓	✓													

Relinquished By	Date	Time	Received By	Date	Time	Temperature	State Certification Requested
Bab5-11620	5/14/05	13:45	<i>[Signature]</i>	5/15/05	10:35	Ambient	NC SC Other

ORIGINAL

SEE REVERSE FOR
TERMS AND CONDITIONS

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Volatiles in Air

by GC/MS

Client Sample ID: USTLCH4015-Primary

Analyzed By: MRC

Client Project ID: 645 and LCH 4015

Date Collected: 6/2/2005 16:45

Lab Sample ID: G546-35-3

Date Received: 6/4/2005

Lab Project ID: G546-35

Matrix: Air

Compound	Result mg/m3	Quantitation Limit mg/m3	Dilution Factor	Date Analyzed
Benzene	BQL	0.033	1	6/23/2005
Ethylbenzene	BQL	0.033	1	6/23/2005
Toluene	BQL	0.033	1	6/23/2005
m-,p-Xylene	BQL	0.033	1	6/23/2005
o-Xylene	BQL	0.033	1	6/23/2005

Comments:

Quantitation at 25°C and 1 atm.

Flags:

BQL = Below quantitation limit.

Reviewed By: 

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Volatiles in Air

by GC/MS

Client Sample ID: USTLCH4015-Secondary

Analyzed By: MRC

Client Project ID: 645 and LCH 4015

Date Collected: 6/2/2005 16:45

Lab Sample ID: G546-35-4

Date Received: 6/4/2005

Lab Project ID: G546-35

Matrix: Air

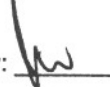
Compound	Result mg/m3	Quantitation Limit mg/m3	Dilution Factor	Date Analyzed
Benzene	BQL	0.033	1	6/23/2005
Ethylbenzene	BQL	0.033	1	6/23/2005
Toluene	BQL	0.033	1	6/23/2005
m-,p-Xylene	BQL	0.033	1	6/23/2005
o-Xylene	BQL	0.033	1	6/23/2005

Comments:

Quantitation at 25°C and 1 atm.

Flags:

BQL = Below quantitation limit.

Reviewed By: 

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Volatiles in Air

by GC/FID

Client Sample ID: USTLCH4015-Primary

Analyzed By: EEF

Client Project ID: 645 and LCH4015

Date Collected: 6/2/2005 16:45

Lab Sample ID: G546-35-3

Date Received: 6/4/2005

Lab Project ID: G546-35

Matrix: Air

Compound	Result mg/m3	Quantitation Limit mg/m3	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	0.667	1	6/23/2005

Comments:

Quantitation at 25°C and 1 atm.

Flags:

BQL = Below quantitation limit.

Reviewed By: 

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Volatiles in Air

by GC/FID

Client Sample ID: USTLCH4015-Secondary

Analyzed By: EEF

Client Project ID: 645 and LCH4015

Date Collected: 6/2/2005 16:45

Lab Sample ID: G546-35-4

Date Received: 6/4/2005

Lab Project ID: G546-35

Matrix: Air

Compound	Result mg/m3	Quantitation Limit mg/m3	Dilution Factor	Date Analyzed
Gasoline Range Organics	BQL	0.667	1	6/23/2005

Comments:

Quantitation at 25°C and 1 atm.

Flags:

BQL = Below quantitation limit.

Reviewed By: 

PARADIGM ANALYTICAL LABORATORIES, INC.

5500 Business Drive, Wilmington, NC 28405

Phone: (910)-350-1903 FAX: (910)-350-1557

Chain-of Custody Record & Analytical Request

COC# 50470

Page ____ of ____

Client: Engineering & Environment Project ID: 645 and LCH 4015 Date: 6/24/05

Address: 824 Commercial and Suite 5 Contact: Bill Morris Turnaround: Standard

Address: Jackmanville NC 28670 Phone: 910-997-3214 Job Number: _____

Quote #: _____ Fax: 910-997-3341 P.O. Number: _____

Report To: _____

Invoice To: _____

Sample ID	Date	Time	Matrix	Preservatives		Analyses				Comments Please specify any special reporting requirements
645-Primary	6/2/05	14:30	Air	X	1					120 min. @ 1 LPM
645-Secondary	6/2/05	14:30	Air	X	1					120 min. @ 1 LPM
LCH 4015-Primary	6/2/05	16:45	Air	X	1					110 min. @ 1 LPM
LCH 4015-Secondary	6/2/05	16:45	Air	X	1					120 min. @ 1 LPM
										6546-35

Relinquished By	Date	Time	Received By	Date	Time	Temperature	State Certification Requested
Bob Seller	6/3/05	14:40	Julie Johnson	6/4/05	1000	5.8°C	NC ____ SC ____ Other ____

SEE REVERSE FOR
TERMS AND CONDITIONS

ORIGINAL

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Volatiles in Air

by GC/MS

Client Sample ID: UST4015-Primary

Analyzed By: MRC

Client Project ID: 645 & 4015

Date Collected: 7/1/2005 14:15

Lab Sample ID: g546-39-3

Date Received: 7/2/2005

Lab Project ID: G546-39

Matrix: Air

Compound	Result mg/m3	Quantitation Limit mg/m3	Dilution Factor	Date Analyzed
Benzene	BQL	0.050	1	7/26/2005
Ethylbenzene	BQL	0.050	1	7/26/2005
Toluene	BQL	0.050	1	7/26/2005
m-,p-Xylene	BQL	0.050	1	7/26/2005
o-Xylene	BQL	0.050	1	7/26/2005

Comments:

Quantitation at 25°C and 1 atm.

Flags:

BQL = Below quantitation limit.

Reviewed By: RND

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Volatiles in Air

by GC/FID

Client Sample ID: UST4015-Primary

Analyzed By: MRC

Client Project ID: 645 & 4015

Date Collected: 7/1/2005 12:05

Lab Sample ID: G546-39-3 FH

Date Received: 7/2/2005

Lab Project ID: G546-39

Matrix: Air

Compound	Result mg/m3	Quantitation Limit mg/m3	Dilution Factor	Date Analyzed
Gasoline	121	1.33	1	7/27/2005

Comments:

Quantitation at 25°C and 1 atm.

The detected compounds eluted in the range of gasoline, but do not match a gasoline pattern

Flags:

BQL = Below quantitation limit.

Reviewed By:

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Volatiles in Air

by GC/FID

Client Sample ID: UST4015-Secondary

Analyzed By: MRC

Client Project ID: 645 & 4015

Date Collected: 7/1/2005 12:05

Lab Sample ID: G546-39-3 BH

Date Received: 7/2/2005

Lab Project ID: G546-39

Matrix: Air

Compound	Result mg/m3	Quantitation Limit mg/m3	Dilution Factor	Date Analyzed
Gasoline	BQL	1.33	1	7/27/2005

Comments:

Quantitation at 25°C and 1 atm.

The detected compounds eluted in the range of gasoline, but do not match a gasoline pattern

Flags:

BQL = Below quantitation limit.

Reviewed By: RV

PARADIGM ANALYTICAL LABORATORIES, INC.

5500 Business Drive, Wilmington, NC 28405

Phone: (910)-350-1903 FAX: (910)-350-1557

Chain-of-Custody Record & Analytical Request

Client: Engineering & Environment Project ID: 645+4018

Address: 9246unbranc h rd, Swifts Contact:

Address: Jacksonville, NC 28540 Phone: 910-985-3214

Quote #:

Fax: 910.989-8341

P.O. Number:

Date: 7/1/05

Turnaround: standard

Job Number:

Report To: 2:11 Morris

Invoice To:

N.C. Certification #481 S.C. Certification #99029

[illegible]

ORIGINAL

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Volatiles in Air

by GC/MS

Client Sample ID: USTLCH4015-Primary

Analyzed By: MRC

Client Project ID: 645 & LCH4015

Date Collected: 8/1/2005 11:30

Lab Sample ID: G546-46-3

Date Received: 8/2/2005

Lab Project ID: G546-46

Matrix: Air

Compound	Result mg/m3	Quantitation Limit mg/m3	Dilution Factor	Date Analyzed
Benzene	BQL	0.0250	1	8/22/2005
Ethylbenzene	BQL	0.0250	1	8/22/2005
Toluene	BQL	0.0250	1	8/22/2005
m-,p-Xylene	BQL	0.0250	1	8/22/2005
o-Xylene	BQL	0.0250	1	8/22/2005

Comments:

Quantitation at 25°C and 1 atm.

Flags:

BQL = Below quantitation limit.

Reviewed By: 

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Volatiles in Air

by GC/FID

Client Sample ID: USTLCH40154 - Primary

Analyzed By: EEF

Client Project ID: 645 & LCH4015

Date Collected: 7/29/2005 0:00

Lab Sample ID: G546-46-2

Date Received: 8/2/2005

Lab Project ID: G546-46

Matrix: Air

Compound	Result mg/m3	Quantitation Limit mg/m3	Dilution Factor	Date Analyzed
Gasoline	BQL	0.667	1	8/22/2005

Comments:

Quantitation at 25°C and 1 atm.

Flags:

BQL = Below quantitation limit.

Reviewed By: 

Client: Engineering & Environment Project ID: 6457 Ech4015

Date: 8/1/05

Report To:

Address: 924 Gumbrecht rd Suite 5 Contact: Bill Morris

Turnaround: Standard

Address: Jacksonv. 112 NL 29540
Phone: 910-989-3214

Job Number:

Quote #:

Fax: 910-989-3391

P.O. Number:

Sample ID	Date	Time	Matrix	Preservatives			Analyses					Comments: Please specify any special reporting requirements								
				None	Modified	Other														
T645-Primary	7/19/05	13:40	a.i.r.	X																240 min @ 1 LPM
T645-Secondary	7/19/05	13:40	a.i.r.	X																" " " "
LCH4015-Primary	8/1/05	11:30	a.i.r.	X																" " " "
LCH4015-Secondary	8/1/05	11:30	a.i.r.	X																" " " "

ORIGINAL

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Volatiles in Air

by GC/MS

Client Sample ID: USTLCH4015 Primary

Analyzed By: MRC

Client Project ID: 645 & LCH 4015

Date Collected: 8/30/2005 13:30

Lab Sample ID: G546-53-3

Date Received: 9/2/2005

Lab Project ID: G546-53

Matrix: Air

Compound	Result mg/m3	Quantitation Limit mg/m3	Dilution Factor	Date Analyzed
Benzene	BQL	0.250	1	9/13/2005
Ethylbenzene	BQL	0.250	1	9/13/2005
Toluene	BQL	0.250	1	9/13/2005
m-,p-Xylene	BQL	0.500	1	9/13/2005
o-Xylene	BQL	0.250	1	9/13/2005

Comments:

Quantitation at 25°C and 1 atm.

Flags:

BQL = Below quantitation limit.

Reviewed By:

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Volatiles in Air

by GC/MS

Client Sample ID: USTLCH4015 Primary

Analyzed By: EEF

Client Project ID: 645 & LCH 4015

Date Collected: 8/30/2005 13:30

Lab Sample ID: G546-53-3

Date Received: 9/2/2005

Lab Project ID: G546-53

Matrix: Air

Compound	Result mg/m3	Quantitation Limit mg/m3	Dilution Factor	Date Analyzed
Gasoline	BQL	1.000	1	9/21/2005

Comments:

Quantitation at 25°C and 1 atm.

Flags:

BQL = Below quantitation limit.

Reviewed By:

Phone: (910)-350-1903 FAX: (910)-350-1557

Client: Engineering & Environment
Project ID: 645+LC#4015

Address: 844 Gumbanchod Saites

Address: 824 Gumbbranch rd Suite 5 Contact: Bill Morris

Address: Jacksonville, NC. 28540 Phone: 910-889-3214

Quote #:

Fax: 910-989-3341

P.O. Number:

Date: 9/1/05

Turnaround: stand!

Job Number:

P.O. Number:

Report To: Bill Morris

Invoice To:

PARADIGM ANALYTICAL LABORATORIES, INC.											
Sample ID	Date	Time	Matrix	Preservatives		Analyses					Comments: Please specify any special reporting requirements
				None	Mod. Fricol 8TEX+CR0						
AST645 primary	9/30/05	11:15	Air	X	X						120 min @ 1 LPM
AST645 Secondary	8/30/05	11:15	Air	X	X						11 11
AST LCH4015 primary	8/30/05	13:30	Air	X	X						11 11
AST LCH4015 Secondary	8/30/05	13:30	Air	X	X						11 11
								</			

ORIGINAL

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Volatiles in Air

by GC/MS

Client Sample ID: USTLCH4015-Primary,Secondary Analyzed By: MRC

Client Project ID: Bldg 645 & LCH 4015

Date Collected: 9/30/2005 11:10

Lab Sample ID: g546-58-2

Date Received: 10/3/2005

Lab Project ID: G546-58

Matrix: Air

Compound	Result mg/m3	Quantitation Limit mg/m3	Dilution Factor	Date Analyzed
Benzene	BQL	0.046	1	10/19/2005
Ethylbenzene	BQL	0.046	1	10/19/2005
Toluene	BQL	0.046	1	10/19/2005
m-,p-Xylene	BQL	0.092	1	10/19/2005
o-Xylene	BQL	0.046	1	10/19/2005

Comments:

Quantitation at 25°C and 1 atm.

Flags:

BQL = Below quantitation limit.

Reviewed By: mc

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Volatiles in Air

by GC/MS

Client Sample ID: USTLC4015-Primary, Secondary Analyzed By: EEF
Client Project ID: 645 & LCH 4015 Date Collected: 9/30/2005 11:10
Lab Sample ID: G546-58-2 Date Received: 10/3/2005
Lab Project ID: G546-58 Matrix: Air

Compound	Result mg/m3	Quantitation Limit mg/m3	Dilution Factor	Date Analyzed
Gasoline	BQL	0.92	1	10/24/2005

Comments:

Quantitation at 25°C and 1 atm.

Flags:

BQL = Below quantitation limit.

Reviewed By: 

PARADIGM ANALYTICAL LABORATORIES, INC.

5500 Business Drive, Wilmington, NC 28405

Phone: (910)-350-1903 FAX: (910)-350-1557

Chain-of Custody Record & Analytical Request

COC# 50618

Page 1 of 1

Client: Engineering & Environment Project ID: BLD 645 + LCH 4015 Date: 9/30/05

Report To: Bill Morris

Address: 614 Cumberland rd Suite 5 Contact: _____
Turnaround: Standard

Address: Vacationville MC 29540 Phone: 910-999-3214 Job Number: _____

Quote #: _____
Fax: 910-999-8341 P.O. Number: _____

Invoice To:[illegible]

ORIGINAL

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Volatiles in Air

by GC/MS

Client Sample ID: USTLCH4015
Client Project ID: 645 & LCH 4015
Lab Sample ID: g546-65-1
Lab Project ID: G546-65

Analyzed By: MRC
Date Collected: 10/31/2005 13:00
Date Received: 11/1/2005
Matrix: Air

Compound	Result mg/m3	Quantitation Limit mg/m3	Dilution Factor	Date Analyzed
Benzene	BQL	0.0250	1	11/11/2005
Ethylbenzene	BQL	0.0250	1	11/11/2005
Toluene	BQL	0.0250	1	11/11/2005
m-,p-Xylene	BQL	0.0500	1	11/11/2005
o-Xylene	BQL	0.0250	1	11/11/2005

Comments:

Quantitation at 25°C and 1 atm.

Flags:

BQL = Below quantitation limit.

Reviewed By: 

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Volatiles in Air

by GC/MS

Client Sample ID: USTLCH4015
Client Project ID: 645 & LCH 4015
Lab Sample ID: G546-65-1
Lab Project ID: G546-65

Analyzed By: MRC
Date Collected: 10/31/2005 13:00
Date Received: 11/1/2005
Matrix: Air

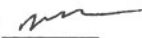
Compound	Result mg/m3	Quantitation Limit mg/m3	Dilution Factor	Date Analyzed
Gasoline	BQL	0.500	1	11/14/2005

Comments:

Quantitation at 25°C and 1 atm.

Flags:

BQL = Below quantitation limit.

Reviewed By: 

Phone: (910)-350-1903 FAX: (910)-350-1557

Chain-of Custody Record & Analytical Request

COC# 51532

Page 1 of 1

Client: Engineering & Environmental Project ID: 645 + LCH4015

Date: 10/31/05

Report To: Bill Morris

Address: 914 Sun Branch & Suites
Contact: J. I. Morris

Turnaround: 5 days

Address: Jack Johnson, LLC MC 28340 Phone: 910-585-3214

Job Number:Fax: 910-985-3341 P.O. Number:**Invoice To:**[illegible]

ORIGINAL

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Volatiles in Air

by GC/MS

Client Sample ID: LCH4015

Client Project ID: LCH 4015

Lab Sample ID: G546-66-2

Lab Project ID: G546-66

Analyzed By: DCS

Date Collected: 11/28/2005 15:00

Date Received: 11/29/2005

Matrix: Air

Compound	Result mg/m3	Quantitation Limit mg/m3	Dilution Factor	Date Analyzed
Gasoline	BQL	1.000	1	12/23/2005

Comments:

Quantitation at 25°C and 1 atm.

Flags:

BQL = Below quantitation limit.

Reviewed By: 

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Volatiles in Air

by GC/MS

Client Sample ID: LCH4015-Primary,Secondary

Analyzed By: MRC

Client Project ID: LCH 4015

Date Collected: 11/28/2005 15:00

Lab Sample ID: G546-66-2

Date Received: 11/29/2005

Lab Project ID: G546-66

Matrix: Air

Compound	Result mg/m3	Quantitation Limit mg/m3	Dilution Factor	Date Analyzed
Benzene	BQL	0.0500	1	12/6/2005
Ethylbenzene	BQL	0.0500	1	12/6/2005
Toluene	BQL	0.0500	1	12/6/2005
m-,p-Xylene	BQL	0.100	1	12/6/2005
o-Xylene	BQL	0.0500	1	12/6/2005

Comments:

Quantitation at 25°C and 1 atm.

Flags:

BQL = Below quantitation limit.

Reviewed By: 

Page 1 of 1**Invoice To:**ORIGINALSEE REVERSE FOR
TERMS AND CONDITIONS