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REMEDIAL ACTION CONTRACT (RAC)
CONTRACT NO. N62470-13-D-8007
CONTRACT TASK ORDER NO. WE03

INITIAL ABATEMENT ACTION REPORT
SITE 1932 – UST CLOSURE

UST DEMOLITION
MARINE CORPS INSTALLATIONS EAST – MARINE CORPS BASE CAMP LEJEUNE
JACKSONVILLE, NORTH CAROLINA

APRIL 2014

Prepared for

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ACRONYMS AND ABBREVIATIONS

BGS	Below Ground Surface
DRO	Diesel Range Organics
EMD	Environmental Management Division
GRO	Gasoline Range Organics
GPS	Global Positioning System
IPE	Isopropyl Ether
LEL	Lower Explosive Limit
LSA	Limited Site Assessment
MCIEAST-MCB CAMLEJ	Marine Corps Installations East-Marine Corps Base Camp Lejeune
mg/kg	Milligrams per Kilogram
MS	Matrix Spike
MSD	Matrix Spike Duplicate
MSCC	Maximum Soil Contaminant Concentration
MTBE	Methyl Tertiary Butyl Ether
NAVFAC	Naval Facilities Engineering Command
NCAC	North Carolina Administrative Code
NCDENR	North Carolina Department of Environment and Natural Resources
O_2	Oxygen
OICC	Officer In Charge of Construction
PCB	Polychlorinated Biphenyls
PG	Professional Geologist
PPM	Parts Per Million
Rhea	Rhea Engineers and Consultants, Inc.
SVOC	Semi-Volatile Organic Compound
TPH	Total Petroleum Hydrocarbons
TtEC	Tetra Tech EC, Inc.
UST	Underground Storage Tank
VOC	Volatile Organic Compound
µg/L	Micrograms per Liter

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A. SITE INFORMATION

Under Task Order WE03 of Contract N6270-13-D-8007, the Department of the Navy, Naval Facilities Engineering Command (NAVFAC) Atlantic, tasked Tetra Tech EC, Inc. (TtEC) with performing underground storage tank (UST) removals at Marine Corps Installations East – Marine Corps Base Camp Lejeune (MCIEAST-MCB CAMLEJ). This UST Closure and Initial Abatement Action Report was developed to document the removal, investigation, and abatement activities performed at Site 1932.

1. Site Identification

a. Date of Report: February 28, 2014

b. Facility ID: 08-0-0000002740

c. UST Incident No.: Pending

d. Site Name: 1932 – Paradise Point Golf Course Maintenance Area

e. Site Street Address: 1932 Brewster Boulevard

f. City/ State/Zip: Camp Lejeune/ NC/28542

g. County: Onslow

h. Description of Geographical Data Point

Approximate center of UST 1932

i. Location Method: Handheld global positioning system (GPS)

j. Latitude: 34.717304 degrees N

k. Longitude: 77.385866 degrees W

2. Information about Contacts Associated with the Leaking UST System

a. UST Property Owner:

Commanding General, MCIEAST-MCB CAMLEJ, G-F/EMD/EQB

12 Post Lane

Camp Lejeune, NC 28542

(910) 451-9017

b. UST Operator:

MCIEAST – MCB CAMLEJ, G-F/EMD/EQB

c. Property Occupant/Owner Point of Contact:

Ms. Jenni Reed

MCIEAST – MCB CAMLEJ, G-F/EMD/EQB

12 Post Lane

Camp Lejeune, NC 28542

(910) 451-9017

d. Consultant/Contractor:

Tetra Tech EC, Inc.

5250 Challedon Drive

Virginia Beach, Virginia 23462

(757) 518-8491 ext. 136

e. Analytical Laboratory

Accutest Laboratories Southeast, Inc.

4405 Vineland Road, Suite C15

Orlando, Florida 32811

(407) 425-6700

N.C. Certification No. 573

3. Information about Release

a. Date Discovered: 12/18/2013 During UST Removal

b. Estimated Quantity of Release: Unknown

c. Cause of Release: Unknown

d. Source of Release: Unknown

e. Sizes and contents of UST system from which the release occurred:

One 1,000 gallon gasoline UST

4. Professional Geologist Certification

I, Robert M Sok II, a Professional Geologist for Tetra Tech, do certify that the information contained in this report is correct and accurate to the best of my knowledge and the UST removal was conducted in accordance with good engineering practice and all applicable MCB and NCDENR regulations and guidelines.

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B. SITE HISTORY AND CHARACTERIZATION

1. UST Owner and Operator Information

Information about the owner/operator and other responsible party for the UST at 1932 is provided in **Table 1**.

2. UST information

UST 1932 was located approximately 40 feet west of the Land Use Control (LUC) boundary of Operable Unit 11 (Site 80) in the Paradise Point Golf Course Maintenance Area at Camp Lejeune. Site 80 encompasses an area approximately 3 acres in size. UST 1932 was a 1,000 gallon fiberglass tank that contained gasoline. The tank had reached its service life and will be replaced with a 500 gallon gasoline aboveground storage tank (AST) approximately 100 ft to the north of UST Site 1932. The site location is shown in **Figure 1**. A site layout showing the former UST location and other pertinent site features is presented in **Figure 2**. Additional information about the UST is provided in **Table 2**.

3. Non-UST information

OU No. 11 (Site 80) is referred to as the Paradise Point Golf Course Maintenance Area and is located just east of UST 1932. Site 80 encompasses approximately 3 acres centered on the rear of a machine shop (Building 1916) and included the former maintenance wash area south of Building 1916 consisting of a concrete wash pad and sump. Golf course maintenance equipment was cleaned on the wash pad. The sump was used to collect the water and oil runoff generated from the cleaning of the equipment, and the water and oil from the sump was discharged into an oil/water separator located a few feet to the southeast of the former wash pad.

Golf course maintenance operations included work at the machine shop (a potential source of waste oils), and the routine spraying of pesticides and herbicides may have contributed to potential contamination at this site. It was unknown when the wash pad was constructed, and what the exact procedure was for cleaning the maintenance equipment prior to the construction of the wash pad. The disposition of wash water may have been completely uncontrolled based on information collected during historical investigations at Site 80.

A Site Investigation was conducted at Site 80 (Halliburton NUS, 1991) and revealed the presence of pesticides and polychlorinated biphenyls (PCBs) in soil, volatile organic compounds (VOCs) in groundwater, and VOCs and petroleum hydrocarbons in surface water. A Remedial Investigation (Baker, 1995) was completed to characterize the nature and extent of contamination and potential impact to human health and the environment. Pesticides were detected in soil samples and low levels of pesticides, semi-volatile organic compounds (SVOCs), and metals were detected in groundwater. The Remedial Investigation determined that there was potential unacceptable risk for exposure to pesticide impacted soils but there was no unacceptable ecological risk. A Time Critical Removal Action was conducted (OHM, 1996) which removed approximately 988 tons of contaminated soil. In 2007, Land Use Controls were established to limit land activities to prohibit non-industrial use and intrusive activities. Land Use

Controls from Site 80 exist along western edge of the unnamed gravel access road and extend to the east. From UST 1932, the western boundary of Site 80 Land Use Controls (LUC) is approximately 40 feet east. The specific LUC boundary objectives are as follows:

- Prohibit the development and use of property for residential housing, elementary and secondary schools, day care facilities, and recreational areas within the site boundary.
- Prohibit intrusive activities within the site boundary.

Potential sources of contamination at Site 80 included management and application of herbicides and pesticides as well as machine shop operations supporting golf course maintenance.

The pesticide contamination at Site 80 is most likely related to past pesticide mixing and storage activities at the Golf Course Maintenance Area. VOCs, SVOCs, and petroleum hydrocarbons were likely related to minor spills from machinery and wash pad activities at Site 80.

4. Historical UST Release Information

Two former USTs associated with Building 1932 were removed in July 1993 by Jones and Frank and reported by Environmental & Regulatory Consultants, Inc. (ERC) (Tank Removal Reports, ERC, 1993). These tanks included one 500 gallon steel tank used for diesel fuel and one 1,000 gallon steel tank used for gasoline at the golf course maintenance area. These USTs were adjacent to one another and located approximately 10 feet south of Building 1932 and 20 feet north of the current 1,000 gallon UST. During the tank removal, elevated levels of Total Petroleum Hydrocarbons (TPH) were observed in the soil samples collected beneath the USTs in both the diesel and gasoline range. In June 1994, three soil borings and monitoring wells were installed for a Site Check by R.E. Wright Associates Inc., and the soil sampling indicated TPH-DRO at 440 mg/kg in the sample collected in the soil boring (2-4 feet bgs) associated with MW-1. Based on a letter dated June 8, 2000 from NCDENR, Catlin Engineers and Scientists completed a soil assessment in January 2001 and based on the results, requested no further action. Notice of no further action was issued by NCDENR on June 14, 2001 (Notice of No Further Action, NCDENR 2001). The two former USTs were replaced with a 1,000 gallon AST for diesel fuel and a 1,000 gallon UST for gasoline.

5. Brief Description of Site Characteristics

The UST 1932 was located in the Paradise Point Golf Course Maintenance area of MCIEAST-MCB CAMLEJ (**Figure 1**). The site is immediately surrounded by a gravel lot, access road, grass, and a wooded area. Building 1932 is located approximately 60 feet to the north of UST 1932. A 1,000 gallon diesel fuel AST was located adjacent and directly north of the UST. The area north of the AST and south of Building 1932 is where the former USTs were located.

A group of supply wells (S2006A, S2006B, S2006C, and S902) are located approximately 700 to 1200 feet northwest of the UST area. It is assumed that these wells are down-gradient of UST 1932 (based only on historical groundwater flow in the area near Site 80) and also assumed that these wells are used for irrigation purposes for the golf course. The closest potable water supply well is PSW-700 which is located approximately 3,400 feet southeast of the UST 1932 and is

assumed in an up-gradient direction. These supply wells would likely not be affected by any groundwater contamination from UST 1932 given the distance away from UST 1932. PSW-700 is currently waiting demolition. The list of public supply wells and other receptor information is provided in **Table 3**.

The following sections briefly discuss the site topography and hydrogeologic setting.

Topography

The project area has relatively flat topography and the nearest mapped body of surface water is Northeast Creek, located approximately 1,200 feet from the UST location.

Regional Geology and Hydrogeology

The site lies within the Tidewater region of Coastal Plain Physiographic Province of North Carolina, where large streams and many of their tributaries are affected by ocean tides. The site is underlain by Quaternary age sediments which can be characterized by sand, sandy silt, and silty clay with isolated silt lenses. The shallow (<50 feet below ground surface [bgs]) geology generally becomes much sandier with depth. The depth to the underlying Tertiary age Castle Hayne Formation is approximately 53 feet.

The nearest surface water body is Northeast Creek which is approximately 1,200 feet north of the UST location. Northeast Creek is a tributary of New River. During past investigations at Site 80, groundwater flow direction in the surficial aquifer was generally to the north towards Northeast Creek. However, the site well check conducted for the former USTs in 1994 showed shallow groundwater flowing to the south. All groundwater in project area is included in the CERCLA Operable Unit (OU) 11 with the Site 80 LUC boundary (>3 acres in size) located approximately 40 feet to the east of UST 1932.

C. UST CLOSURE

The following section describes the procedures and activities performed in order to complete the UST removal at Site 1932. A site layout showing the former UST location and other pertinent site features is presented in **Figure 2**. Photographs documenting the field activities are included in **Appendix A**.

1. Preparation

A Notification of Intent form (UST-3) to remove the UST was submitted to North Carolina Department of Environment and Natural Resources (NCDENR), Wilmington Regional Office by the MCB Camp Lejeune Environmental Management Division (EMD), and signed on November 25, 2013. A photocopy of the completed UST-3 form is provided in **Appendix B**. Upon completion of the removal, a Site Investigation Report (UST-2) was completed and is included in **Appendix C**.

A pre-construction meeting was held on November 12, 2013 with TtEC, Cape Environmental, EMD, Officer in Charge of Construction (OICC), and Base points of contact. Initial field activities began on December 11, 2013 with the removal of residual fuel from the UST. North Carolina 811 was notified in advance of ground penetrating activities to perform a utility locate. In addition, a third party utility locator was subcontracted to perform a utility mark-out of the area on November 18, 2013.

Cape Environmental was subcontracted to perform UST removal activities using heavy equipment, including a rubber tired backhoe, an excavator, and a dump truck. The initial site preparation activities included:

- Examining the site to determine access to the proposed excavation area
- Delineation of the job site perimeter and work zones
- Location of all utilities within the project area
- Construction of soil and tank staging areas
- Placement of temporary fence/barricades surrounding the work area
- Procurement of required equipment and materials

After initial setup, the remaining product was drained from the product lines into the tank. The residual fuel was then removed from the UST and transferred to a temporary fuel tank.

2. Closure Procedure

UST removal activities began on December 17, 2013 with the removal of over-lying concrete and excavation of overburden material. A North Carolina Licensed Professional Geologist (PG) was present to oversee the onsite removal activities. The overburden material was staged adjacent to the excavation area on poly-sheeting with a berm for containment. The top of the tank was encountered approximately 3 to 4 feet bgs.

Air monitoring via MultiRAE 4-gas meter was conducted for screening the overburden material, monitoring the work zone during the excavation process, and determining the oxygen content and lower explosive limit (O_2/LEL) of the tank interior. The tank was inerted using dry ice until MultiRAE 4-gas readings indicated that the flammable vapors had been adequately purged. After successfully inerting the tank, the UST was removed on December 18, 2013 by Cape Environmental. An excavator was used to remove the tank from the excavation and place the UST on poly-sheeting.

Following removal of the UST from the excavation, the outside of the tank was cleaned of excess soil, and the tank was visually inspected. The inspection did not identify any evidence of petroleum leakage. The UST interior was cleaned and flushed above ground on January 7, 2014. A pressure washer was used to clean the tank interior and the residual fuel/water mix was removed using a vacuum truck.

Groundwater was observed at approximately 9 feet bgs and no further excavation was completed beyond the water table. However, some visible staining and odors indicated potential soil

contamination in the sidewalls. In addition, organic vapor readings collected from the saturated soils in the excavation bottom indicated the presence of petroleum contamination (>100 ppm). Upon these observations, the base EMD was notified and a UST-61 form was completed (**Appendix D**).

Soil confirmation samples were collected along the excavation walls, pipe line trench (< 10 feet), and at the dispenser location. The first round of confirmation samples was collected on December 18, 2013. The soil sample results indicated contaminated soil was still present in the excavation sidewalls at three sample locations. The sidewalls where these three samples were collected were over-excavated and the second round of confirmation sampling was performed on January 8, 2014. The second round of confirmation sample results indicated contamination was still present in one sidewall sample location. Over-excavation continued in this area and an additional 8 feet was excavated to the east and stopped before the excavation got too close to the Land Use Control boundary of Site 80. However, visible staining and PID readings indicated impacted soil was still present in the east, north, and south sidewalls of the excavation. The soil samples were analyzed in accordance with the NCDENR UST Guidelines. The results of the analyses are discussed in **Section E**. The approximate final excavation extents are shown in **Figure 3**. The final excavation depth was to the depth of groundwater at approximately 9 feet below ground surface.

Due to encountering groundwater in the excavation, soil samples were not obtained in the excavation bottom. A monitoring well (1932-MW04) was therefore constructed to collect a groundwater sample. The monitoring well was constructed on February 10, 2014 in accordance with North Carolina Administrative Code (NCAC) Title 15A Subchapter 2C .0108. Well construction records are provided in **Appendix E** and summarized in **Table 4**. A groundwater sample was collected on February 13, 2014 and analyzed in accordance to NCDENR UST Guidelines. The results of the analysis are discussed in **Section F**.

Following receipt of the soil confirmation sampling results and completing the additional excavation to the east (short of the LUC boundary for Site 80), restoration activities commenced. Restoration in the location of the UST included common soil backfill topped with ABC stone. Backfill was placed in 6-inch thick compacted lifts. The area was graded to match existing topography. In addition, the excavation extents were physically marked to enable further investigation, delineation, and subsequent removal of remaining impacted soil.

3. Residual Material

The remaining product within the UST and associated product lines and dispensers was removed on December 11, 2013. Approximately 40 gallons of product was recovered and stored in a temporary fuel cell. Once above ground, the tank was triple-rinsed to ensure removal of residual material prior to disposal. Additionally, the brine solution was drained from the interstitial space of the tank. Approximately 85 gallons of residual fuel/water mix and brine solution was collected in a vacuum truck and disposed of offsite by FCC Environmental. .

The product lines and dispensers associated with UST 1932 were removed on December 18, 2013, along with the UST. The product lines consisted of one HDPE supply and one HDPE

return line, approximately 2 inches in diameter, encased in separate 3.5-inch fiberglass pipes. The product lines ran side-by-side a distance of 6 feet, for a total of 12 linear feet of piping. The UST was crushed to destroy its integrity, and then disposed of at the ES& J facility located in Autryville, North Carolina. Approximately 5,680 lbs of tank and product line material was disposed of and the weight ticket as certification of disposal of the tank is provided in **Appendix F**. The dispensers and scrap metal were sent to J&E Salvage for recycling.

The excavated soil was sampled and characterized as non-hazardous waste. The material was disposed of as petroleum contaminated soil at the ES&J Enterprises disposal facility. Approximately 62 tons of soil was loaded out for transportation and disposal as part of the 1932 UST removal.

D. INITIAL RESPONSE AND ABATEMENT ACTION

Removal activities did reveal some shallow soil staining and the presence of a strong petroleum odor in the bottom of the UST excavation, even though the UST itself showed no evidence of leaking. A UST-61 24-Hour Release form was completed and submitted on December 19, 2013. The completed form is included in **Appendix D**. No free product was observed in the excavation.

Confirmation samples were collected and analyzed in accordance with the NCDENR Guidelines. Confirmation soil sample results indicated exceedances in several locations. Over-excavation was completed and a second round of confirmation samples were collected and analyzed. The second round indicated that there were still MSCC exceedances in one sample location (1932-UST-SW09). Soil confirmation sample results are discussed further in **Section E**.

Per the request of the Navy, additional excavation was performed to the east of soil sample 1932-UST-SW09 that showed MSCC exceedances. Upon excavating an additional 8 feet to the east, the presence of odor and visible staining indicated potential soil contamination was still present in the east, south, and north sidewalls. Excavation activities were discontinued due to approaching the Site 80 Land Use Control area boundary and the area was backfilled, pending further investigation. A total of approximately 62 tons of soil were removed during UST removal activities. Excavation limits were marked with high visibility material and cut a few inches above ground surface for future reference. No soil samples were collected during the second over-excavation event. Visual observations were recorded. Due to the remaining undefined lateral extents of the contamination, the source and impact area of the release remains to be determined.

E. EXCAVATION OF CONTAMINATED SOIL

1. Extent of Soil Contamination

The source of the soil contamination is uncertain, but could potentially be from historical surface spills and former equipment washing activities in and around the maintenance area. The extent of soil contamination has been fairly well defined except to the east of UST 1932. TPH-

GRO/DRO, 1-Methylnaphthalene, and Naphthalene were observed at concentrations above the soil to groundwater MSCCs. The sample locations and depths, tank system location, and excavation dimensions are indicated in the following sections of this report.

Sampling was conducted in accordance with NC UST guidance and facility guidelines. Soil samples were collected using soil grabbers and sterile disposable trowels. Immediately after collection, the samples were placed into a cooler and preserved on ice. Chain-of-Custody forms were completed for each of the sampling events and custody seals were placed on each cooler. Quality control samples included duplicate samples, trip blanks, matrix spike/matrix spike duplicates (MS/MSD), and temperature blanks.

2. Excavation Process

UST removal activities began on December 17, 2013 with the removal of concrete and excavation of overburden material. A North Carolina Licensed PG was present to oversee the onsite removal activities. The overburden material was staged adjacent to the excavation area on poly-sheeting with a berm for containment.

The UST was removed on December 18, 2013 and staged on poly-sheeting separate from the overburden material. An excavator was used to remove the tank from the excavation. Groundwater was observed at approximately 9 feet bgs and no further excavation was completed beyond the water table. However, visible staining and odors indicated that the sidewalls were contaminated. Upon observation, the base EMD was notified and a UST-61 form was completed (**Appendix D**). The excavation continued laterally as directed by the PG. After two rounds of soil confirmation sampling, the results indicated exceedances of either 10 mg/kg TPH-DRO/GRO or soil to groundwater MSCCs. The south-eastern sidewall was completed to approximately 8 feet beyond the second round sample (1932-UST-SW09). The final excavation dimensions are shown in **Figure 3**. The excavated material was staged in a bermed lined area with poly-sheeting for waste characterization sampling and subsequent transportation and disposal.

3. Post-Excavation Confirmation Sampling

Comparison criteria for 1932 were based on NCDENR guidelines for tank closure and EMD tank management plan requirements. **Tables 5 and 6** summarize the samples collected, date and time collected, source areas, sampling methods, and analytical results. Following excavation activities, confirmation soil samples were collected from the excavation sidewalls, piping, and dispensers as well. Sample locations are shown on **Figure 3**. The locations of confirmation samples were mapped using a hand held GPS device and their coordinates are included in **Appendix G**. A sampling matrix, detailed analysis, and laboratory reports (with photocopies of chains-of-custody) are included in **Appendix H**. Quality control samples included one duplicate sample, a MS/MSD, and temperature blanks.

4. Soil Investigation

UST Excavation Samples

Eight soil samples were collected during the first round of confirmation sampling (1932-UST-SW01 through -SW06, -PL01, and -DS01). In addition, one duplicate sample (1932-UST-SW05A) was collected on December 18, 2013 as shown on **Table 6**. The samples were collected from the excavation sidewalls from approximately 8-8.5 feet bgs. No samples were collected from the excavation bottom because groundwater was encountered.

After over-excavation, the second round of confirmation samples (1932-UST-SW07 – SW09) were collected on January 8, 2014 in locations where sample results indicated TPH-DRO/GRO concentrations greater than 10 mg/kg.

First round samples were analyzed for TPH GRO, TPH DRO and VOCs (EPA SW846 8260B). Second round samples were analyzed for VOCs (EPA SW846 8260B), SVOCs (SW846 8270D and 3550C), MADEP EPH, and MADEP VPH. The soil sample results are included in **Table 6**.

Dispenser and Piping Excavation Samples

The initial sampling event included one sample (1932-UST-DS01) from beneath the dispenser at approximately 2 feet bgs and one sample (1932-UST-PL01) was collected from beneath the product piping at approximately 4-5 feet bgs. These samples were collected during the initial sampling on December 18, 2013. Sample results are included in **Table 6**.

Soil Sample Results

Confirmation samples were collected and analyzed in accordance with the NCDENR Guidelines. The results from the first round of soil confirmation samples indicated total petroleum hydrocarbons (TPH) diesel range organics (DRO)/gasoline range organics (GRO) concentrations ranging from non-detect to 279 milligrams per kilogram (mg/kg) for TPH-GRO and non-detect to 28.5 mg/kg for TPH-DRO with three of the eight soil samples exceeding 10 mg/kg TPH (sample ID No.s 1932-UST-SW01, 1932-UST-SW03, and 1932-UST-SW06). Results from the second round of soil samples indicated exceedances of the soil to groundwater maximum soil contaminant concentration (MSCC) levels in 1932-UST-SW09. The compounds exceeding the MSCC were 1-Methylnaphthalene (1.31 mg/kg) and naphthalene (0.773 mg/kg and 0.39 mg/kg). However, these concentrations were below the residential MSCCs. There were no other exceedances observed in second round over-excavation soil samples. The analytical reports for the soil samples are included in **Appendix H** and summarized in **Table 6**.

Additional Investigative Sampling

Additional sampling was performed by Rhea Engineers and Consultants, Inc. (Rhea) to delineate the lateral extent of residual contamination in the UST area. Fourteen hand auger locations were advanced and PID readings were recorded from 0-2 feet, 2-4 feet, and 4-6 feet bgs at each boring. Eight soil samples were also collected from these locations and sent to a laboratory for TPH-DRO, TPH-GRO, and VOC analysis. The results of the investigative sampling event

revealed one location (HA-3 from 2-4 feet bgs) with a TPH concentration of 16 mg/kg, which is above the screening level of 10 ppm. Acetone was only VOC detected in the soil samples and at very low levels well below both soil to groundwater and residential MSCCs. A copy of the Rhea Site Investigation Report is included in **Appendix I.**

5. Disposal of Contaminated Soil

One five-point composite soil sample, including a discrete grab for VOC analysis, was collected from the excavated soils on January 8, 2014 for disposal characterization. The composite sample 1932-UST-SP01 was analyzed for VOCs (EPA 8260B), TPH-GRO, TPH-DRO, SVOCs, herbicides, pesticides, metals, PCBs, and RCRA characteristics needed for disposal.

The results of the stockpiled excavation material sample indicated that the material was non-hazardous and suitable for disposal at ES&J Enterprises, Inc., located at 1555 Holland Road, Autryville, NC. The soil was shipped on January 24, and February 4, 2014. Photocopies of the completed waste transportation and disposal manifests are included in **Appendix J**. The fiberglass UST and piping were purged, cleaned, and disposed of at ES & J Enterprises, Inc. A photo copy of the completed tank disposal manifest is included in **Appendix F**.

F. GROUNDWATER INVESTIGATION

1. Investigative Actions

Groundwater was encountered in the 1932 excavation at approximately 9 feet bgs. No free product was observed. A groundwater monitoring well (1932-MW04) was constructed according to Title 15A NCAC 2C and was installed within the excavation footprint. Installation was performed on February 10, 2014, and well development was performed on February 11, 2014. On February 13, 2014, the well was sampled via low-flow methods and in accordance with NCDENR Guidelines.

Sampling techniques followed the procedures laid out in the Work Plan. Dedicated polyethylene and silicone tubing was used for groundwater sampling. Immediately after collection, the samples were placed into a cooler and preserved with double-bagged ice. Chain-of-Custody forms were completed for the sampling events and tamper seal tape was placed on each cooler. Quality control samples included a duplicate sample, trip blanks, a matrix spike/matrix spike duplicate (MS/MSD), and temperature blanks.

2. Groundwater Investigation

Groundwater Sampling Information

The permanent well was sampled using a peristaltic pump, low-flow sampling methods, and field parameters were collected using a Horiba multi-meter. Field parameters included temperature, specific conductivity, dissolved oxygen, oxidation-reduction potential, and pH. Well sampling records are included in **Appendix K**. The groundwater sample was analyzed using the following methods:

- VOCs EPA SM6200B (with ethanol, isopropyl ether [IPE], and methyl tertiary butyl ether [MTBE]),
- SVOCs EPA 625,
- EDB EPA 504.1,
- MADEP VPH Rev 1.1,
- MADEP EPH Rev 1.1 SW846 3510C, and
- Lead (SW846 6010C).

A trip blank was also included as a quality control measure.

Groundwater Investigation Results

The results of the groundwater sample (1932-MW4) indicated concentrations of C5-C8 Aliphatics, C9-C10 Aliphatics, 1-Methylnaphthalene, and Naphthalene exceeded the North Carolina Groundwater Quality Standards found in 15A NCAC 2L 0202. The sample contained 425 micrograms per liter (µg/L) C5-C8 Aliphatics, and 1,030 µg/L C9-C10 Aliphatics compared to the groundwater standards of 400 and 700 µg/L, respectively. 1-Methylnaphthalene (10.2 µg/L) and naphthalene (35.7 and 43.9 µg/L) were detected above the NC 2L groundwater standards of 1 and 6 µg/L, respectively. The sample results are summarized in **Table 5** and the laboratory analytical report is included in **Appendix L**.

G. CONCLUSIONS

Between December 18, 2013, and January 26, 2014, one 1,000 gallon UST (1932) and its associated piping and dispensers were removed and properly disposed of along with approximately 62 tons of soil during removal activities. The UST previously contained gasoline for use in golf course maintenance equipment. During the removal activities, no visual evidence of the tank leaking was observed, but some soil staining was observed in the sidewalls and the presence of a strong petroleum odor (> 100 ppm reading) originating from the excavation was evident following the UST removal. Initial excavation samples indicated levels above 10 mg/kg TPH in three of the six sidewall samples. Over-excavation was conducted and one of the three second round samples indicated concentrations above the soil to groundwater MSCCs and below residential MSCCs. Further excavation was conducted to the east and stopped short of the Site 80 LUC boundary. No additional soil samples were collected by TtEC. However, additional soil sampling was performed by Rhea to determine the lateral extent of residual contamination in the area. The results of the additional sampling revealed one location with a TPH concentration of 16 mg/kg, and no VOCs detected above the soil to groundwater and residential MSCCs. A copy of the Rhea Site Investigation Report is included in **Appendix I.**

Groundwater was encountered in the excavation at approximately 9 feet bgs and soil sampling was not possible below the UST. A groundwater monitoring well was installed within the excavation footprint and sampled. Sample results indicated concentrations above the NC 2L standards, but below the Gross Contaminant Levels (GCLs). A Risk Classification and Land Use Form is included in **Appendix M** which will allow NCDENR to formerly assign a Risk Classification and Land Use designation.

Based on the information provided in this report, it is believed that the intent and requirements of a Limited Site Assessment (LSA) have been met. The site should be considered Low Risk with soil concentrations below the residential MSCCs and GCLs for groundwater. Based on the recent soil and groundwater sampling results and the current and assumed future potential land use commercial/industrial classification, a Notice of Residual Petroleum (NRP) and Land Use Restrictions (LUR) are recommended for groundwater due to contaminants present above the NC 2L standards. Following NRP recordation, the site should meet the requirement for No Further Action.

H. REFERENCES

Catlin 2001. Leaking Underground Storage Tank (LUST) Soil Assessment Report and Request for "No Further Action" Status, Building 1932, Marine Corps Base Camp Lejeune, North Carolina. Prepared under Contract Number N62470-95-D-6009, Delivery Order No. 0115. April.

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Environmental & Regulatory Consultants, Inc. 1993. Tank Removal Reports, Marine Corps Base Building 1932 Camp Lejeune, North Carolina. Prepared under Contract Number N62470-91-B-7394, September.

NCDENR 2001. Notice of No Further Action 15A NCAC 2L .0115(h), USMC Camp Lejeune, Building 1932 Golf Course Area, Camp Lejeune, NC. Incident No. 21836. June.

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TABLES

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Reporting Tables

1. Table 1 Site History – UST/AST Owner/Operator and Other Responsible Party Information
2. Table 2 Site History- UST/AST System and Other Release Information
3. Table 3 Public and Private Water Supply Well and Other Receptor Information
4. Table 4 Monitoring and Remediation Well Construction Information
5. Table 5 Summary of Groundwater and Surface Water Sampling Results
6. Table 6 Summary of Soil Sampling Results

Table 1: Site History - UST/AST Owner/Operator and Other Responsible Party Information

Revision Date: 02/28/14 Incident Number and Name: 1932 UST Closure

UST ID Number	1932	Facility ID Number	08-0-0000002740
Name of Owner		Dates of Operation (mm/dd/yy to mm/dd/yy)	
Commanding General, MCIEAST-MCB CAMLEJ, G-F/EMD/EQB		12/15/1992 to 12/18/2013	
Street Address			
12 Post Lane			
City	State	Zip	Telephone Number
Camp Lejeune	NC	28542	910-451-9017
Name of Operator		Dates of Operation (mm/dd/yy to mm/dd/yy)	
MCIEAST – MCB CAMLEJ, G-F/EMD/EQB		Unknown to 12/18/14	
Street Address			
1932 Brewster Boulevard			
City	State	Zip	Telephone Number
Camp Lejeune	NC	28542	910-451-9017
Incident Number			
Name of Other Responsible Party		Dates of Release(s) (mm/dd/yy to mm/dd/yy)	
Jenni Reed		Unknown	
Street Address			
City	State	Zip	Telephone Number

Add additional records for all owners, operators and responsible parties as necessary.

Table 2: Site History – UST/AST System and Other Release Information

Revision Date: 02/28/14 Incident Number and Name: 1932 UST Closure

UST ID Number	Current/Last Contents *	Previous Contents *	Capacity (in gallons)	Construction Details **	Tank Dimensions	Description of Associated Piping and Pumps	Date Tank Installed	Status of UST ***	Was release associated with the UST System?
1932	Gasoline/ Gas Mix	Gasoline/ Gas Mix	1000	Double Walled Fiberglass	4'4" dia x 11'4" L	Underground product line and dispenser	12/15/1992	Permanently Closed by Removal (12/18/13)	Unknown

Add additional records as necessary

AST ID Number	Current/Last Contents *	Previous Contents *	Capacity (in gallons)	Construction Details **	Tank Dimensions	Description of Associated Piping and Pumps	Date Tank Installed	Status of AST ***	Was release associated with the AST System?

Add additional records as necessary

Incident Number	Material Released	Date of Release	Description of Release
Pending	Gasoline	12/18/13	Petroleum odor and visible staining present in excavation during UST 1932 removal

Add additional records as necessary

* Gasoline (unleaded or leaded), diesel, used oil, waste oil, aviation fuel, etc., or pesticides, non-halogenated or halogenated solvents, etc.

** Fiberglass (single- or double-walled), steel (single- or double-walled), steel with FRP (single- or double-walled), steel with liner, other, unknown.

*** Currently operational, not in use or temporarily closed (specify date), permanently closed in place (specify date), permanently closed by removal (specify date)

Table 3: Public and Private Water Supply Well and Other Receptor Information

Revision Date: 2/28/14 Incident Number and Name: 1932 UST Closure Facility ID#: 08-0-0000002740

Public and Private Water Supply Wells

Well #	Well Owner/ User (indicate which)	Address	Phone Number	Latitude/ Longitude * (decimal degrees)	Well Use	Well Depth (ft BGS) **	Type of Well	Well Casing Depth (ft. BGS)	Well Screen Interval (x to y ft. BGS)	Distance from source area of release (ft.)	Up or downgradient
S2006A	Camp Lejeune	N/A	N/A	N/A	Irrigation	N/A	Supply Well	N/A	N/A	700 NW	Down-gradient
S2006B	Camp Lejeune	N/A	N/A	N/A	Irrigation	N/A	Supply Well	N/A	N/A	700 NW	Down-gradient
S2006C	Camp Lejeune	N/A	N/A	N/A	Irrigation	N/A	Supply Well	N/A	N/A	700 NW	Down-gradient
S902	Camp Lejeune	N/A	N/A	N/A	Irrigation	N/A	Supply Well	N/A	N/A	700 NW	Down-gradient

Other Receptors

(Other public water supplies, reservoirs, supply lines, surface water bodies, wellhead protection areas, recharge areas for deep aquifers, subsurface structures)

Receptor ID	Description	Location	Latitude/ Longitude of any significant point(s)* *(describe to left)* (decimal degrees)	Contact	Phone Number	Usage	Up or down-gradient	Distance from source area of release (ft.)

* The location must be sufficiently accurate and precise to allow easy recovery of lost or damaged wells or replication of sampling points.

** Ft BGS = feet below ground surface

Table 4: Monitoring and Remediation Well Construction Information

Revision Date: 2/28/14 Incident Number and Name: 1932-MW-4 Construction Facility ID#: 08-0-0000002740

Well ID	**Date Installed** (m/dd/yy)	**Date Water Level Measured** (m/dd/yy)	**Well Casing Diameter (in.)**	**Well Casing Depth** (ft. BGS)	**Screened Interval** (x to y ft. BGS)	**Depth of Well** (ft. BGS)	**Top of Casing Elevation*** (ft.)	**Depth to Water from Top of Casing** (ft.)	**Free Product Thickness** ** (ft.)	**Groundwater Elevation*** (ft.)	**Latitude/ Longitude (decimal degrees)*****
1932-MW-4	2/10/14	2/10/14	2	16.5	6.5 to 16.5	20.5	N/A	9.4	N/A	N/A	34.4302325 N/ 77.230918 W

Ft BGS = feet below ground surface

* Reference Point for Elevation Measurements_____, Assumed Elevation: _____ ft.

** If free product is present in a well, groundwater elevation is calculated by: [Top of Casing Elevation - Depth to Water] + [free product thickness x 0.8581]

*** The location must be sufficiently accurate and precise to allow easy recovery of lost or damaged wells.

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Table 5: Summary of Groundwater and Surface Water Sampling Results

Revision Date: 2/28/14 Incident Number and Name: 1932 UST Closure Facility ID#: 08-0-0000002740

Analytical Method (e.g., VOC by SM6000B) or Field Measurement (FM) -->			EPA 504.1	6010C	MADEP VPH Rev 1.1			MADEP VPH Rev 1.1 SW846 3510C			EPA 625					SM6200B										
Contaminant of Concern -->																										
Well or SW ID	**Northing (feet)**	**Easting (feet)**	Ethyl dimobride (EOB) (ug/l)	Lead (ug/l)	C5-C8 Aliphatics (ug/l)	C9-C12 Aliphatics (ug/l)	C9-C10 Aromatics (ug/l)	C11-C22 Aromatics (ug/l)	C9-C18 Aliphatics (ug/l)	C19-C36 Aliphatics (ug/l)	1-Methylnaphthalene (ug/l)	2-Methylnaphthalene (ug/l)	Naphthalene (ug/l)	Total Tentatively Identified Compounds, Semi-Volatile ug/l)	All other EPA 625Target Analytes	n-Butylbenzene (ug/l)	Ethylbenzene (ug/l)	Isopropylbenzene (ug/l)	Naphthalene (ug/l)	n-Propylbenzene (ug/l)	1, 2, 4-Trimethylbenzene (ug/l)	1, 3, 5-Trimethylbenzene (ug/l)	Xylene (total) (ug/l)	m, p-Xylene (ug/l)	o-Xylene (ug/l)	All other 6200B Target Analytes
1932-MW4	3844286.6	718484.2	BMDL	4.0 J	425	288	1030	159	138	BMDL	10.2	21.6	35.7	841	BMDL	2.9	29.5	8.9	43.9	32.9	283	74.3	105	97.2	7.9	BMDL
Minimum Reporting Limit (ug/l)			0.0097	2	35	180	180	150	100	100	0.96	0.96	0.96	varies	varies	2	2	2	2	2	2	2	6	4	2	varies
Gross Contamination Levels (ug/l)			50	15000	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed	1000	12500	6000	varies	varies	6900	84500	25000	6000	30000	28500	25000	85500	85500	85500	varies
2L Standard (ug/l)			0.02	15	400	700	200	200	700	10000	1	30	6	varies	varies	70	600	70	6	70	400	400	500	500	500	varies

J=Indicates a result >= Limit of Detection but < Limits of Quantification
BMDL=Below Method Detection Limit

Field measurement parameters include temperature, pH, dissolved oxygen, specific conductivity, Eh, and alkalinity.
Include in the table all of the target analytes listed for the method in App. B of the *Guidelines for Sampling*, current version.
Results must be reported in ug/l
ug/l =micrograms per liter
GCL = gross contamination level
Highlighted items indicate a result >= 2L Standard

Table 6: Summary of Soil Sampling Results

Revision Date: 2/28/14 Incident Number and Name: 1932 UST Closure Facility ID#: 08-0-0000002740

Analytical Method (e.g., VOC by EPA 8260) -->					EPA 8015C	EPA 8015C	SW846 8270D & 3550C				MADEP EPH Rev 1.1 SW846 3546				
Contaminant of Concern -->					TPH DRO (mg/kg)	TPH GRO (mg/kg)	1-Methylnaphthalene (mg/kg)	2-Methylnaphthalene (mg/kg)	Naphthalene (mg/kg)	All Other SW846 8270D & 3550C Compounds	C9-C12 Aliphatics (mg/kg)	C9-C10 Aliphatics (mg/kg)	C9-C18 Aliphatics (mg/kg)	C19-C36 Aliphatics (mg/kg)	All Other MADEP EPH Rev 1.1 SW846 3546 Compounds
Sample ID	**Date Collected** (m/dd/yy)	**Source Area** (eg. Tank pit 1)	**Sample Depth** (ft BGS)	**Incident Phase** (Closure, 20Day, LSA, etc.)											
1932-UST-PL01	12/18/2013	Beneath Product Line	4-5	Closure	BMDL	BMDL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1932-UST-SW01	12/18/2013	Tank Pit Side Wall	8-8.5	Closure	28.5	46.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1932-UST-SW02	12/18/2013	Tank Pit Side Wall	8-8.5	Closure	BMDL	BMDL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1932-UST-SW03	12/18/2013	Tank Pit Side Wall	8-8.5	Closure	6.15	279	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1932-UST-SW04	12/18/2013	Tank Pit Side Wall	8-8.5	Closure	6.32	8.17	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1932-UST-SW05	12/18/2013	Tank Pit Side Wall	8-8.5	Closure	BMDL	BMDL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1932-UST-SW05A	12/18/2013	Side Wall Duplicate	8-8.5	Closure	8.75	BMDL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1932-UST-DS01	12/18/2013	Beneath Dispenser Pump	1.5-2	Closure	4.02	BMDL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1932-UST-SW06	12/18/2013	Tank Pit Side Wall	8-8.5	Closure	11.5	48.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1932-UST-SW07	1/8/2014	Tank Pit Side Wall	4-5	Closure - Rnd 2 sample	N/A	N/A	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL
1932-UST-SW08	1/8/2014	Tank Pit Side Wall	4-5	Closure - Rnd 2 sample	N/A	N/A	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL
1932-UST-SW08	1/8/2014	Tank Pit Side Wall	4-5	Closure - Rnd 2 sample	N/A	N/A	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL
1932-UST-SW09	1/8/2014	Tank Pit Side Wall	4-5	Closure - Rnd 2 sample	N/A	N/A	1.31	2.9	0.773	BMDL	4.18	16.6	7.22	5.84	BMDL
Minimum Reporting Limit (mg/kg)					10	10	0.039	0.039	0.039	Varies	1.1	2.2	5.8	5.8	Varies
Soil to groundwater MSCC (mg/kg)					Not Listed	Not Listed	0.004	3.6	0.16	Varies	540	540	540	Not Listed	Varies
Residential MSCC (mg/kg)					Not Listed	Not Listed	20	63	313	Varies	1500	1500	1500	31000	Varies
Industrial/Commercial MSCC (mg/kg)					Not Listed	Not Listed	100	1635	8176	Varies	40000	40000	40000	810000	Varies

MSCC = maximum soil contaminant concentration
ft. BGS = feet below ground surface
Results must be reported in mg/kg.
mg/kg =milligrams per kilogram
J=Indicates an estimated value
BMDL=Below Method Detection Limit
N/A = Not applicable. Sample not tested for this analyte.
Highlighted items indicate a result >= Soil to groundwater MSCC or NCDENR Action Limit

Table 6 (Continued): Summary of Soil Sampling Results

Analytical Method (e.g., VOC by EPA 8260) -->					EPA SW846 8260B													
Contaminant of Concern -->																		
Sample ID	**Date Collected** (m/dd/yy)	**Source Area** (eg. Tank pit 1)	**Sample Depth** (ft BGS)	**Incident Phase** (Closure, 20Day, LSA, etc.)	Acetone (mg/kg)	n-Butylbenzene (mg/kg)	sec-Butylbenzene (mg/kg)	Ethylbenzene (mg/kg)	Isopropylbenzene (mg/kg)	p-Isopropyltoluene (mg/kg)	n-Propylbenzene (mg/kg)	Naphthalene (mg/kg)	1,2,4-Trimethylbenzene (mg/kg)	1,3,5-Trimethylbenzene (mg/kg)	Xylene (mg/kg)	m,p-Xylene (mg/kg)	o-Xylene (mg/kg)	All Other SW846 8260B Compounds
1932-UST-PL01	12/18/2013	Beneath Product Line	4-5	Closure	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL
1932-UST-SW01	12/18/2013	Tank Pit Side Wall	8-8.5	Closure	0.153	0.0075	0.0169	BMDL	BMDL	0.0178	BMDL	0.0367	0.294	0.151	BMDL	BMDL	BMDL	BMDL
1932-UST-SW02	12/18/2013	Tank Pit Side Wall	8-8.5	Closure	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL
1932-UST-SW03	12/18/2013	Tank Pit Side Wall	8-8.5	Closure	0.137	0.0377	0.0191	0.008	0.0057	0.011	0.0284	BMDL	0.0665	0.0072	0.0074	0.0074	BMDL	BMDL
1932-UST-SW04	12/18/2013	Tank Pit Side Wall	8-8.5	Closure	0.171	0.0032	0.0045	0.0098	0.0019	0.0019	0.0106	BMDL	0.0022	0.0055	BMDL	BMDL	BMDL	BMDL
1932-UST-SW05	12/18/2013	Tank Pit Side Wall	8-8.5	Closure	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL
1932-UST-SW05A	12/18/2013	Side Wall Duplicate	8-8.5	Closure	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL
1932-UST-DS01	12/18/2013	Beneath Dispenser Pump	1.5-2	Closure	0.0293	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL
1932-UST-SW06	12/18/2013	Tank Pit Side Wall	8-8.5	Closure	0.0953	0.789	0.0251	BMDL	0.004	0.0227	0.0285	BMDL	2.03	0.556	BMDL	BMDL	BMDL	BMDL
1932-UST-SW07	1/8/2014	Tank Pit Side Wall	4-5	Closure - Rnd 2 sample	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL
1932-UST-SW08	1/8/2014	Tank Pit Side Wall	4-5	Closure - Rnd 2 sample	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL
1932-UST-SW08	1/8/2014	Tank Pit Side Wall	4-5	Closure - Rnd 2 sample	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL
1932-UST-SW09	1/8/2014	Tank Pit Side Wall	4-5	Closure - Rnd 2 sample	BMDL	0.125	BMDL	0.303	BMDL	BMDL	0.335	0.392	BMDL	0.89	1.1	1.01	0.0925	BMDL
Minimum Reporting Limit (mg/kg)					0.05	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.015	0.005	0.062	Varies
Soil to groundwater MSCC (mg/kg)					24	4.3	3.3	4.9	1.7	0.12	1.7	0.16	8.5	8.3	4.6	4.6	4.6	Varies
Residential MSCC (mg/kg)					14000	626	626	1560	1564	100	626	313	782	782	3129	3129	3129	Varies
Industrial/Commercial MSCC (mg/kg)					360000	16350	16350	40000	40880	4000	16350	8176	20440	20440	81760	81760	81760	Varies

MSCC = maximum soil contaminant concentration
ft. BGS = feet below ground surface
Results must be reported in mg/kg.
mg/kg =milligrams per kilogram
J=Indicates an estimated value
BMDL=Below Method Detection Limit
N/A = Not applicable. Sample not tested for this analyte.
Highlighted items indicate a result >= Soil to groundwater MSCC or NCDENR Action Limit

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FIGURES

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SOURCE: GOOGLE EARTH PRO

SOURCE: GOOGLE MAPS

BASE LOCATION MAP

CAD FILE: WE03-UST1932-FIGURE 1_REV0330314.DWG

TETRA TECH EC, INC.

MARINE CORPS BASE CAMP LEJEUNE JACKSONVILLE, NORTH CAROLINA

UST REMOVAL SITE 1932 LOCATION MAP

PREP	CHK	APPR	DATE
-	-	-	-

FIGURE 1

N

LEGEND

- wastewater_line
- underground_storage_tank_point
- slab_area
- structure_existing_area
- road_area (1)
- road_bridge_area
- storm_sewer_line
- fence_line
- ditch_aqueduct_centerline
- aboveground_storage_tank_point

0 20 40
SCALE IN FEET

SOURCE: MARINE CORP INSTALLATIONS EAST MARINE CORPS BASE CAMP LEJEUNE GIS

CAD FILE: WE03-UST1932-FIGURE-2 REV033014.DWG

TETRA TECH EC, INC.

MARINE CORPS INSTALLATIONS EAST MARINE CORPS BASE CAMP LEJEUNE JACKSONVILLE, NORTH CAROLINA

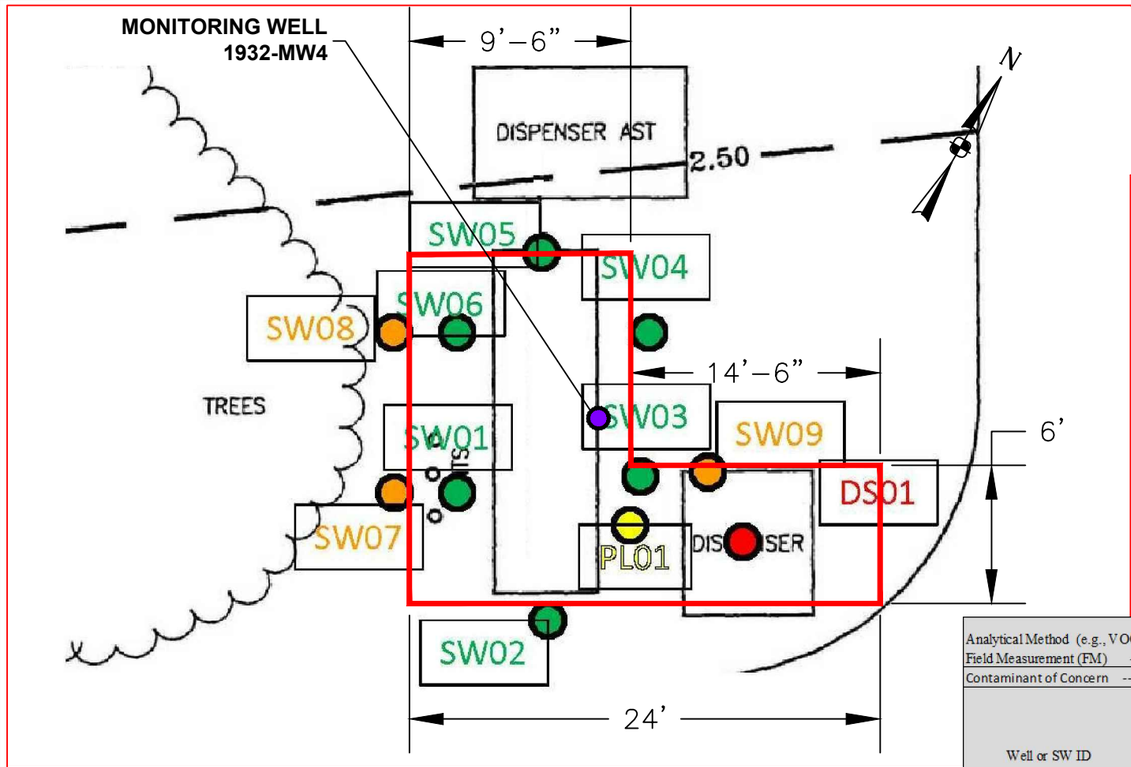
UST REMOVALS

PARADISE POINT 1932 UST AREA

SITE PLAN

PREP	CHK	APPR	DATE
-	-		-

FIGURE 2



UST 1932 EXCAVATION AREA
NOT TO SCALE

BMDL= Below Method Detection Limit
J= Indicates a result > = Limit of Detection but < Limits of Quantification
Highlighted items indicate a result >= 2L Standard

Analytical Method (e.g., VOC by SM6000B) or Field Measurement (FM) -->			EPA 504.1	6010C	MADEP VPH Rev 1.1			MADEP VPH Rev 1.1 SW846 3510C			EPA 625					SM6200B										
Contaminant of Concern -->																										
Well or SW ID	Northing (feet)	Easting (feet)	Ethyl dimobride (EOB) (ug/l)	Lead (ug/l)	C5-C8 Aliphatics (ug/l)	C9-C12 Aliphatics (ug/l)	C9-C10 Aromatics (ug/l)	C11-C22 Aromatics (ug/l)	C9-C18 Aliphatics (ug/l)	C19-C36 Aliphatics (ug/l)	1-Methylnaphthalene (ug/l)	2-Methylnaphthalene (ug/l)	Naphthalene (ug/l)	Total Tentatively Identified Compounds, Semi-Volatile ug/l)	All other EPA 625 Target Analytes	n-Butylbenzene (ug/l)	Ethylbenzene (ug/l)	Isopropylbenzene (ug/l)	Naphthalene (ug/l)	n-Propylbenzene (ug/l)	1, 2, 4-Trimethylbenzene (ug/l)	1, 3, 5-Trimethylbenzene (ug/l)	Xylene (total) (ug/l)	m, p-Xylene (ug/l)	o-Xylene (ug/l)	All other 6200B Target Analytes
1932-MW4	3844286.6	718484.2	BMDL	4.0 J	425	288	1030	159	138	BMDL	10.2	21.6	35.7	841	BMDL	2.9	29.5	8.9	43.9	32.9	283	74.3	105	97.2	7.9	BMDL
Minimum Reporting Limit (ug/l)			0.0097	2	35	180	180	150	100	100	0.96	0.96	0.96	varies	varies	2	2	2	2	2	2	2	6	4	2	varies
2L Standard (ug/l)			0.02	15	400	700	200	200	700	10000	1	30	6	varies	varies	70	600	70	6	70	400	400	500	500	500	varies

LEGEND:

- AREA OF EXCAVATION
- PRODUCT LINE (PL) SOIL SAMPLE LOCATION POINT
- FIRST ROUND SIDE WALL (SW) SOIL SAMPLE LOCATION POINT
- SECOND ROUND SIDE WALL (SW) SOIL SAMPLE LOCATION POINT
- DISPENSER (DS) SOII SAMPLE LOCATION POINT
- GROUNDWATER (GW) SAMPLE LOCATION POINT

NOTE: DEPTH OF EXCAVATION = 9 FEET.

Analytical Method (e.g., VOC by EPA 8260) -->					EPA 8015C	EPA 8015C	SW846 8270D & 3550C				MADEP EPH Rev 1.1 SW846 3546					EPA SW846 8260B													
Contaminant of Concern -->																													
Sample ID	Date Collected (m/dd/yy)	Source Area (eg. Tank pit 1)	Sample Depth (ft BGS)	Incident Phase (Closure, 20Day, LSA, etc.)	TPH DRO (mg/kg)	TPH GRO (mg/kg)	1-Methylnaphthalene (mg/kg)	2-Methylnaphthalene (mg/kg)	Naphthalene (mg/kg)	All Other SW846 8270D & 3550C Compounds	C9-C12 Aliphatics (mg/kg)	C9-C10 Aliphatics (mg/kg)	C9-C18 Aliphatics (mg/kg)	C19-C36 Aliphatics (mg/kg)	All Other MADEP EPH Rev 1.1 SW846 3546 Compounds	Acetone (mg/kg)	n-Butylbenzene (mg/kg)	sec-Butylbenzene (mg/kg)	Ethylbenzene (mg/kg)	Isopropylbenzene (mg/kg)	p-Isopropyltoluene (mg/kg)	n-Propylbenzene (mg/kg)	Naphthalene (mg/kg)	1,2,4-Trimethylbenzene (mg/kg)	1,3,5-Trimethylbenzene (mg/kg)	Xylene (mg/kg)	m,p-Xylene (mg/kg)	o-Xylene (mg/kg)	All Other SW846 8260B Compounds
1932-UST-PL01	12/18/2013	Beneath Product Line	4-5	Closure	BMDL	BMDL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL
1932-UST-SW01	12/18/2013	Tank Pit Side Wall	8-8.5	Closure	28.5	46.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.153	0.0075	0.0169	BMDL	BMDL	0.0178	BMDL	0.0367	0.294	0.151	BMDL	BMDL	BMDL	BMDL
1932-UST-SW02	12/18/2013	Tank Pit Side Wall	8-8.5	Closure	BMDL	BMDL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL
1932-UST-SW03	12/18/2013	Tank Pit Side Wall	8-8.5	Closure	6.15	279	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.137	0.0377	0.0191	0.008	0.0057	0.011	0.0284	BMDL	0.0665	0.0072	0.0074	0.0074	BMDL	BMDL
1932-UST-SW04	12/18/2013	Tank Pit Side Wall	8-8.5	Closure	6.32	8.17	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.171	0.0032	0.0045	0.0098	0.0019	0.0019	0.0106	BMDL	0.0022	0.0055	BMDL	BMDL	BMDL	BMDL
1932-UST-SW05	12/18/2013	Tank Pit Side Wall	8-8.5	Closure	BMDL	BMDL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL
1932-UST-SW05A	12/18/2013	Side Wall Duplicate	8-8.5	Closure	8.75	BMDL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL
1932-UST-DS01	12/18/2013	Beneath Dispenser Pump	1.5-2	Closure	4.02	BMDL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0293	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL
1932-UST-SW06	12/18/2013	Tank Pit Side Wall	8-8.5	Closure	11.5	48.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0953	0.789	0.0251	BMDL	0.004	0.0227	0.0285	BMDL	2.03	0.556	BMDL	BMDL	BMDL	BMDL
1932-UST-SW07	1/9/2014	Tank Pit Side Wall	4-5	Closure - Rnd 2 sample	N/A	N/A	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL
1932-UST-SW08	1/9/2014	Tank Pit Side Wall	4-5	Closure - Rnd 2 sample	N/A	N/A	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL
1932-UST-SW08	1/9/2014	Tank Pit Side Wall	4-5	Closure - Rnd 2 sample	N/A	N/A	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL	BMDL
1932-UST-SW09	1/9/2014	Tank Pit Side Wall	4-5	Closure - Rnd 2 sample	N/A	N/A	1.31	2.9	0.773	BMDL	4.18	16.6	7.22	5.84	BMDL	BMDL	0.125	BMDL	0.303	BMDL	BMDL	0.335	0.392	BMDL	0.89	1.1	1.01	0.0925	BMDL
NCDENR Action Limit (mg/kg)					10	10																							
Soil to groundwater MSCC (mg/kg)					Not Listed	Not Listed	0.004	1	0.16	Varies	540	540	540	#	Varies	24	4.3	3.3	4.9	1.7	0.12	1.7	0.16	8.5	8.3	4.6	4.6	4.6	Varies
Residential MSCC (mg/kg)					Not Listed	Not Listed	20	700	313	Varies	1500	1500	1500	31000	Varies	14000	626	626	1560	1564	100	626	313	782	782	3129	3129	3129	Varies
Industrial/Commercial MSCC (mg/kg)					Not Listed	Not Listed	100	20000	8176	Varies	40000	40000	40000	810000	Varies	360000	16350	16350	40000	40880	4000	16350	8176	20440	20440	81760	81760	81760	Varies

BMDL= Below Method Detection Limit
N/A= Not applicable: sample not tested for this analyte
Highlighted items indicate a result >= Soil to groundwater MSCC or NCDENR Action Limit

CAD FILE: WE03–UST1932–FIGURE 3–REV.DWG

TETRA TECH EC, INC.

MARINE CORPS INSTALLATIONS EAST MARINE CORPS BASE CAMP LEJEUNE JACKSONVILLE, NORTH CAROLINA

UST REMOVALS - SITE 1932

SAMPLE LOCATION AND EXCAVATION MAP

PREP	CHK	APPR	DATE
–	–		–

FIGURE 3

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APPENDIX A

PHOTOGRAPHIC LOG

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TETRA TECH	Photographic Log	Log No. 1932-1

Project: UST Demolition

Project No.: WE03

Location: Camp Lejeune - Site 1932

Photographer: Gary Phelps

Photo # : 1

Date Taken: 11/20/13

Time Taken: N/A

Location: Site 1932

Photographer facing: South-East

Description: Pre-construction condition

Photo # : 2

Date Taken: 12/17/13

Time Taken: N/A

Location: Site 1932

Photographer facing: South-West

Description: Breaking of concrete

Photo # : 3

Date Taken: 2013-12-18

Time Taken: N/A

Location: Site 1932

Photographer facing:

Description: Excavation of over-burden material.

only

TETRA TECH	Photographic Log	Log No. 1932-2

Project: UST Demolition

Project No.: WE03

Location: Camp Lejeune - Site 1932

Photographer: Gary Phelps

Photo # : 4

Date Taken: 12/18/13

Time Taken: N/A

Location: Site 1932

Photographer facing: South-East

Description: First round soil sampling

Photo # : 5

Date Taken: 1/24/14

Time Taken: N/A

Location: Site 1932

Photographer facing: South-East

Description: Open excavation. Shows over-excavation of side wall.

Photo # : 6

Date Taken: 1/30/14

Time Taken: N/A

Location: Site 1932

Photographer facing:

Description: Backfill of UST excavation. High visibility material is shown to bookmark edge of clean fill.

only

TETRA TECH	Photographic Log	Log No. 1932-3

Project: UST Demolition

Project No.: WE03

Location: Camp Lejeune - Site 1932

Photographer: Gary Phelps

Photo # : 7

Date Taken: 2014-2-25

Time Taken: N/A

Location: Site 1932

Photographer facing: North

Description: Restored site

Photo # :

Date Taken:

Time Taken:

Location:

Photographer facing:

Description:

Photo # :

Date Taken:

Time Taken:

Location:

Photographer facing:

Description:

Draft Only

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APPENDIX B

UST-3 NOTIFICATION OF INTENT: UST PERMANENT CLOSURE

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UST-3 Notice of Intent: UST Permanent Closure or Change-in-Service

Return completed form to:
The DWM Regional Office located in the area where the facility is located. Send a copy to the Central Office in Raleigh so that the status of the tank may be changed to "PERMANENTLY CLOSED" and your tank fee account can be closed out.
SEE MAP ON THE BACK OF THIS FORM FOR THE CENTRAL AND REGIONAL OFFICE ADDRESSES.

STATE USE ONLY
I.D. #_____
Date Received_____

INSTRUCTIONS (READ THIS FIRST)

Complete and return at least **thirty (30) days** prior to closure or change-in-service activities. If a Professional Engineer (P.E.) or a Licensed Geologist (L.G.) provides supervision for closure or change-in-service site assessment activities and signs and seals all closure reports then at least a **five (5) working days** notice is acceptable.

Completed UST closure or change-in-service site assessment reports, along with a copy of the UST-2 form, should be submitted to the appropriate Division of Waste Management (DWM) Regional Office within thirty (30) days following closure activities. The UST-2 form should also be submitted to the Central Office in Raleigh so that the status of the tanks may be changed to permanently closed and your tank fee account can be closed out.

UST closure and change-in-service site assessments must be completed in accordance with the latest version of the *Guidelines for Tank Closure*. The *Guidelines for Tank Closure* can be obtained at www.wastenotnc.org.

You must make sure that USTs removed from your property are disposed of properly. When choosing a closure contractor, ask where the tank(s) will be taken for disposal. Usually, USTs are cleaned and cut up for scrap metal. This is dangerous work and must be performed by a qualified company. Tanks disposed of illegally in fields or other dumpsites can leak petroleum products and sludge into the environment. If your tanks are disposed of improperly, you could be held responsible for the cleanup of any environmental damage that occurs.

I. OWNERSHIP OF TANKS		II. LOCATION		
Owner Name (Corporation, Individual, Public Agency, or Other Entity) Commanding General, MCIEAST-MCB CAMLEJ, G-F/EMD/EQB		Facility Name or Company Golf Course Maintenance		
Street Address 12 Post Lane		Facility ID # (If known) 08-0-0000002740		
City Camp Lejeune	County Onslow	Street Address 1932 Brewster Boulevard		
State NC	Zip Code 28542	City Camp Lejeune	County Onslow	Zip Code 28542
Phone Number (910) 451-9017		Phone Number		

III. CONTACT PERSONNEL

Name:	Company Name:	Job Title:	Phone Number:
Jenni Reed	MCIEAST-MCB CAMLJE, G-F/EMD/EQB	Environmental Engineer	(910) 451-9017

IV. TANK REMOVAL, CLOSURE IN PLACE, CHANGE-IN SERVICE

1. Contact local fire marshal.
2. Plan entire closure event.
3. Conduct Site Soil Assessment.
4. If removing tanks or closing in place, refer to API Publication 2015 *Cleaning Petroleum Storage Tanks* and 1604 *Removal and Disposal of Used Underground Petroleum Storage Tanks.*
5. Provide a sketch locating piping, tanks and soil sampling locations.
6. Submit a closure report in the format of UST-12 (including the form UST-2) within thirty (30) days following the site investigation.
7. If a release from the tanks has occurred, the site assessment portion of the tank closure must be conducted under the supervision of a P.E. or L.G., with all closure site assessment reports bearing the signature and seal of the P.E. or L.G. If a release has not occurred, the supervision, signature or seal of a P.E. or L.G. is not required.
8. Keep closure records for three (3) years.

V. WORK TO BE PERFORMED BY

Contractor Name:	Contractor Company Name:		
Tetra Tech EC, Inc.	Tetra Tech, Inc.		
Address: 5250 Challedon Drive	State: VA	Zip Code: 23462	Phone No: (757) 518-8491
Primary Consultant Name: Robert Sok, P.G.	Primary Consultant Company Name: Tetra Tech, Inc.		Consultant Phone No: (757) 466-4904

VI. TANKS SCHEDULED FOR CLOSURE OR CHANGE-IN-SERVICE

Tank ID No.	Size in Gallons	Last Contents	Proposed Activity: Closure: Removal	Closure: Abandonment in Place *	Change-In-Service: New Contents Stored
1932/S-1920	1000	Gasoline, Gas Mix	☒	☐	
			☐	☐	
			☐	☐	
			☐	☐	
			☐	☐	

* Prior written approval to abandon a tank in place must be received from a DWM Regional Office.

VII. OWNER OR OWNER'S AUTHORIZED REPRESENTATIVE

I understand that I can be held responsible for environmental damage resulting from the improper disposal of my USTs.

Print name and official title: John R. Townson, Director, Environmental Management

Signature	Date Signed	SCHEDULED REMOVAL DATE	Notify your DWM Regional Office 48 hours before this date if scheduled removal date changes
J. R. Townson	11/25/13	January 15, 2014 through January 29, 2014	

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APPENDIX C

UST-2 SITE INVESTIGATION REPORT FOR PERMANENT CLOSURE OF UST

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UST-2 Site Investigation Report for Permanent Closure or Change-in-Service of UST

Return completed form to:
The DWM Regional Office located in the area where the facility is located. Send a copy to the Central Office in Raleigh so that the status of the tank may be changed to "PERMANENTLY CLOSED" and your tank fee account can be closed out.
SEE MAP ON THE BACK OF THIS FORM FOR THE CENTRAL AND REGIONAL OFFICE ADDRESSES.

STATE USE ONLY:
I.D. #_____
Date Received_____

INSTRUCTIONS (READ THIS FIRST)

For more than five UST systems you may attach additional forms as needed.

Permanent closure – For permanent closure, complete all sections of this form.

Change-in-service – For change-in-service where UST systems will be converted from containing a regulated substance to storing a non-regulated substance, complete sections I, II, III, IV, and VIII

Effective February 1, 1995, all UST closure/change-in-service reports must be submitted in the format provided in the UST-12 form. UST closure and change-in-services must be completed in accordance with the latest version of the *Guidelines for Tank Closure*. A copy of the UST-12 form and the *Guidelines for Tank Closure* can be obtained at www.wastenotnc.org.

You must make sure that USTs removed from your property are disposed of properly. When choosing a closure contractor, ask where the tank(s) will be taken for disposal. Usually, USTs are cleaned and cut up for scrap metal. This is dangerous work and must be performed by a qualified company. Tanks disposed of illegally in fields or other dumpsites can leak petroleum products and sludge into the environment. If your tanks are disposed of improperly, you could be held responsible for the cleanup of any environmental damage that occurs.

NOTE: If a release from the tank(s) has occurred, the site assessment portion of the tank closure must be conducted under the supervision of a P.E. or L.G., with all closure site assessment reports bearing the signature and seal of the P.E. or L.G.

I. OWNERSHIP OF TANKS		II. LOCATION OF TANKS		
Owner Name (Corporation, Individual, Public Agency, or Other Entity) Commanding General, MCIEAST-MCB CAMLEJ, G-F/EMD/EQB		Facility Name or Company Golf Course Maintenance		
Street Address 12 Post Lane		Facility ID # (If known) 08-0-0000002740		
City Camp Lejeune	County Onslow	Street Address 1932 Brewster Boulevard		
State NC	Zip Code 28542	City Camp Lejeune	County Onslow	Zip Code 28542
Phone Number (910) 451-9017		Phone Number		

III. CONTACT PERSONNEL

Contact for Facility: Jenni Reed		Job Title: Environmental Engineer	Phone. No: (910) 451-9017
Closure Contractor Name: Tetra Tech EC, Inc.	Closure Contractor Company: Tetra Tech, Inc.	Address: 5250 Challedon Dr, Virginia Bch, VA	Phone. No: (757) 518-8491
Primary Consultant Name: Robert Sok, P.G.	Primary Consultant Company: Tetra Tech, Inc.	Address: 5700 Lakewright Dr,#309,Norfolk,VA	Phone. No: (757) 466-4904

IV. UST INFORMATION FOR REGISTERED UST SYSTEMS / V. EXCAVATION CONDITION

Tank ID No.	Size in Gallons	Tank Dimensions	Last Contents	Last Use Date	Permanent Close Date	Change-in-Service Date	Water in excavation		Free product		Notable odor or visible soil contamination	
							Yes	No	Yes	No	Yes	No
1932/ S-1920	1000		Gasoline, Ga	Unknown		N/A	☐	☒	☐	☒	☒	☐
							☐	☐	☐	☐	☐	☐
							☐	☐	☐	☐	☐	☐
							☐	☐	☐	☐	☐	☐
							☐	☐	☐	☐	☐	☐

VI. UST INFORMATION FOR UNREGISTERED UST SYSTEMS / VII. EXCAVATION CONDITION

Tank ID No.	Size in Gallons	Tank Dimensions	Last Contents	Last Use Date	Permanent Close Date	Tank Owner Name *	Water in excavation		Free product		Notable odor or visible soil contamination	
							Yes	No	Yes	No	Yes	No
							☐	☐	☐	☐	☐	☐
							☐	☐	☐	☐	☐	☐
							☐	☐	☐	☐	☐	☐
							☐	☐	☐	☐	☐	☐
							☐	☐	☐	☐	☐	☐

* If the tank owner address is different from the one listed in Section I., then enter the street address, city, state, zip code and telephone no. below:

VIII. CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true accurate and complete.

Print name and official title of owner or owner's authorized representative	Signature	Date Signed
John R. Townson, Director, Environmental Management		

North Carolina Department of Environment and Natural Resources

Division of Waste Management
UST Section Central Office
1637 Mail Service Center
Raleigh, NC 27699-1637
(919) 707-8171 FAX (919) 715-1117
portal.ncdenr.org/web/wm/

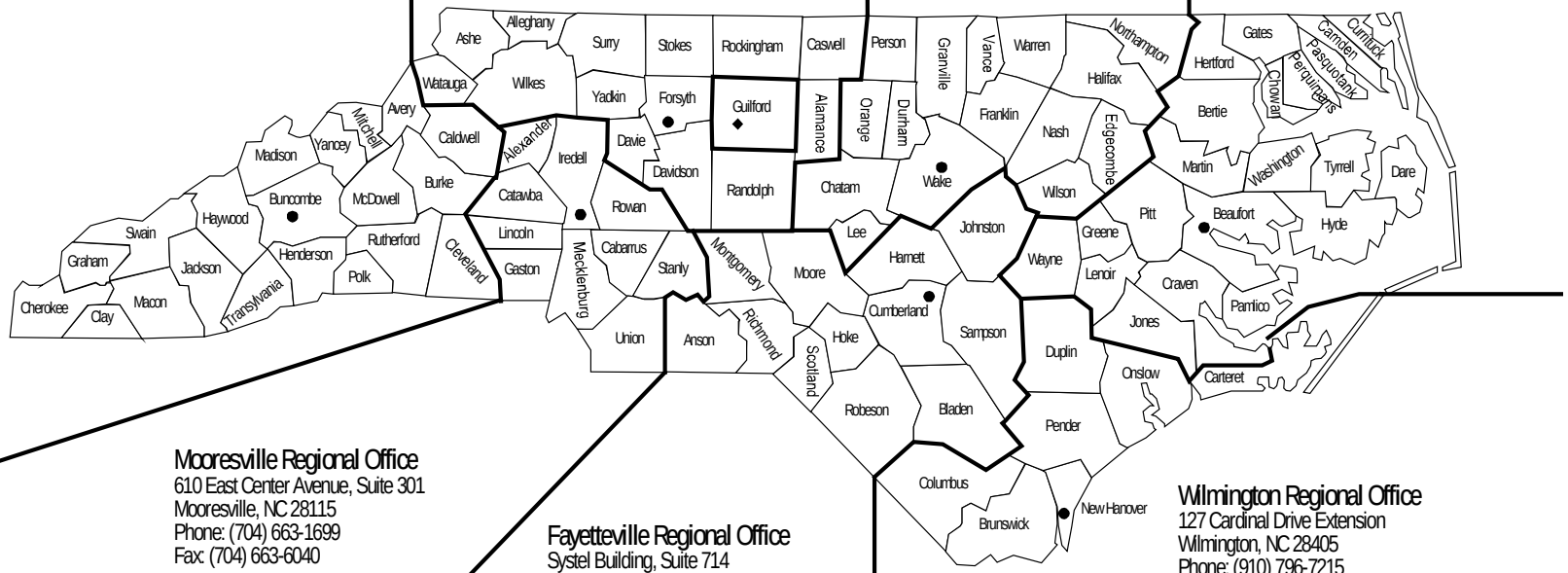
Asheville Regional Office
2090 U.S. Highway 70
Swannanoa, NC 28778
Phone: (828) 296-4500
Fax: (828) 299-7043

Winston-Salem Regional Office
585 Waughtown Street
Winston-Salem, NC 27107
Phone: (336) 771-5000
Fax: (336) 771-4632

Guilford County Dept. of Public Health
1203 Maple Street
Greensboro, NC 27405
Phone: (336) 641-3771
Fax: (336) 641-4812

Raleigh Regional Office
3800 Barrett Drive
Raleigh, NC 27609
Phone: (919) 791-4200
Fax: (919) 571-4718

Washington Regional Office
943 Washington Square Mall
Washington, NC 27889
Phone: (252) 946-6481
Fax: (252) 975-3716



Mooresville Regional Office
610 East Center Avenue, Suite 301
Mooresville, NC 28115
Phone: (704) 663-1699
Fax: (704) 663-6040

Fayetteville Regional Office
Systel Building, Suite 714
225 Green Street
Fayetteville, NC 28301
Phone: (910) 433-3300
Fax: (910) 486-0707

Wilmington Regional Office
127 Cardinal Drive Extension
Wilmington, NC 28405
Phone: (910) 796-7215
Fax: (910) 350-2004

● Regional Office

8/06

APPENDIX D

UST-61 24-HOUR RELEASE AND UST LEAK REPORTING FORM

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UST-61 — 24-Hour Release and UST Leak Reporting Form.

For Releases in NC

This form should be completed and submitted to the UST Section's regional office following a known or suspected release from an underground storage tank (UST) system. This form is required to be submitted within 24 hours of discovery of a known or suspected release

(DWM USE ONLY)
Incident # _____ Risk (H,I,L,U)_____
Received On _____ Received By _____
Reported by (*circle one*): Phone, Fax or Report
Region _____

Suspected Contamination? (Y/N) Y
Confirmed GW Contamination? (Y/N) N
Confirmed Soil Contamination ?(Y/N) N
Samples Taken?(Y/N) Y
Free Product? (Y/N) N If Yes, State Greatest Thickness _____

Facility ID Number 08-0-0000002740
Date Leak Discovered 12-18-2013
Comm/Non-Commercial? NON
Reg/Non-regulated? NON

INCIDENT DESCRIPTION

Incident Name: GOLF COURSE MAINTENANCE - UST 1932

Address: 1932 BREWSTER BOULEVARD — County: ONSLOW

City/Town: CAMP LEJEUNE — Zip Code: 28542 — Regional Office (*circle one*): Asheville, Mooresville, Fayetteville, Raleigh, Washington, (Wilmington), Winston-Salem

Latitude (decimal degrees): 34.717304 N — Longitude (decimal degrees): 77.385866 W

Obtained by:
- [x] GPS
- [ ] Topographic map
- [ ] GIS Address matching
- [ ] Other
- [ ] Unknown

Describe location: GOLF COURSE MAINTENANCE FACILITY

Briefly describe suspected or confirmed release: *(including but not limited to: nature of release, date of release, amount of release, amount of free product present and recovery efforts, initial responses conducted, impacts to receptors)*

UPON REMOVAL OF A 1,000 GALLON FRP UST AT THE GOLF COURSE MAINTENANCE FACILITY ON 12-18-13, SIGNIFICANT SOIL STAINING & PETROLEUM-LIKE ODORS WERE APPARENT AT THE FLOOR OF THE EXCAVATION WHICH IS APPROXIMATELY 9-10 FT bgs. THE EXCAVATION BOTTOM IS ALSO IMPACTED BY GROUNDWATER. EXCAVATION SIDE-WALL SAMPLES WERE COLLECTED ON 12-18-13 AS REQUIRED. NO OTHER ACTIONS TAKEN TO DATE.

HOW RELEASE WAS DISCOVERED (Release Code)

(Check one)

- [ ] Release Detection Equipment or Methods
- [x] During UST Closure/Removal
- [ ] Property Transfer
- [ ] Visual/Odor
- [ ] Water in Tank
- [ ] Water Supply Well Contamination
- [ ] Groundwater Contamination
- [ ] Surface Water Contamination
- [ ] Other (specify) _____

SOURCE OF CONTAMINATION

Source of Release *(Check one to indicate primary source)*
- [ ] Tank
- [ ] Piping
- [ ] Dispenser
- [ ] Submersible Turbine Pump
- [ ] Delivery Problem
- [ ] Other
- [x] Unknown

Definitions presented on reverse

Cause of Release *(Check one to indicate primary cause)*
- [ ] Spill
- [ ] Overfill
- [ ] Corrosion
- [ ] Physical or Mechanical Damage
- [ ] Install Problem
- [ ] Other
- [x] Unknown

Definitions presented on reverse

Type of Release *(Check one)*
- [x] Petroleum
- [ ] Non-Petroleum
- [ ] Both

Location *(Check one)*
- [x] Facility
- [ ] Residence
- [ ] Other

Product Type Released *(Check one to indicate primary product type released)*
- [x] Gasoline/ Diesel/ Kerosene
- [ ] Heating Oil
- [ ] Other Petroleum Products
- [ ] Metals
- [ ] Other Inorganics
- [ ] Other Organics
- [ ] Diesel/Veg. Oil Blend
- [ ] Vegetable Oil 100%
- [ ] E10 – E20
- [ ] E21 – E84
- [ ] E85 – E99
- [ ] Ethanol 100%
- [ ] E01 – E09

Ownership
1. Municipal 2. (Military) 3. Unknown 4. Private 5. Federal 6. County 7. State

Operation Type
(1. Public Service) 2. Agricultural 3. Residential 4. Education/Relig. 5. Industrial 6. Commercial 7. Mining

IMPACT ON DRINKING WATER SUPPLIES

Water Supply Wells Affected? 1. Yes (2. No) 3. Unknown

Number of Water Supply Wells Affected _____

Water Supply Wells Contaminated: (*Include Users Names, Addresses and Phone Numbers. Attach additional sheet if necessary*)

1. N/A
2.
3.

UST SYSTEM OWNER

UST Owner/Company			
COMMANDING GENERAL, MCIEAST-MCB CAMLEJ, G-F/EMD/EQB			
Point of Contact: JENNI Reed		Address: 12 POST LANE	
City: CAMP LeJeune	State: NC	Zip Code: 28542	Telephone Number: 910-451-9017

UST SYSTEM OPERATOR

UST Operator/Company			
COMMANDING GENERAL, MCIEAST-MCB CAMLEJ		Address: 12 POST LANE	
City: CAMP LeJeune	State: NC	Zip Code: 28542	Telephone Number: 910-451-9017

LANDOWNER AT LOCATION OF UST INCIDENT

Landowner			
COMMANDING GENERAL, MCIEAST-MCB CAMLEJ		Address: 12 POST LANE	
City: CAMP LeJeune	State: NC	Zip Code: 28542	Telephone Number: 910-451-9017

Draw Sketch of Area (showing two major road intersections) or Attach Map

SEE ATTACHED MAPS

Person Reporting Incident: JENNI Reed	Company: MCIEAST-MCBCAMLEJ G-F/EMD/EQB	Telephone Number: 910-451-9017
Title: ENV. ENGINEER	Address: 12 POST LANE, CAMP LeJeune, NC 28542	Date: 12-19-2013

UST Form 61 (02/08)

Definitions of Sources

Tank: means the tank that stores the product and is part of the underground storage tank system

Piping: means the piping and connectors running from the tank or submersible turbine pump to the dispenser or other end-use equipment (Vent, vapor recovery, or fill lines are excluded.)

Dispenser: includes the dispenser and the equipment used to connect the dispenser to the piping (e.g., a release from a suction pump or from components located above the shear valve)

Submersible Turbine Pump (STP) Area includes the submersible turbine pump head (typically located in the tank sump), the line leak detector, and the piping that connects the submersible turbine pump to the tank

Delivery Problem: identifies releases that occurred during product delivery to the tank. (Typical causes associated with this source are spills and overfills.)

Other: serves as the option to use when the release source is known but does not fit into one of the preceding categories (e.g., for releases from vent lines, vapor recovery lines, and fill lines)

Unknown: identifies releases for which the source has not been determined

Definitions of Causes

Spill: use this cause when a spill occurs (e.g., when the delivery hose is disconnected from the tank fill pipe or when the nozzle is removed from the dispenser)

Overfill: use when an overfill occurs (e.g., overfills may occur from the fill pipe at the tank or when the nozzle fails to shut off at the dispenser)

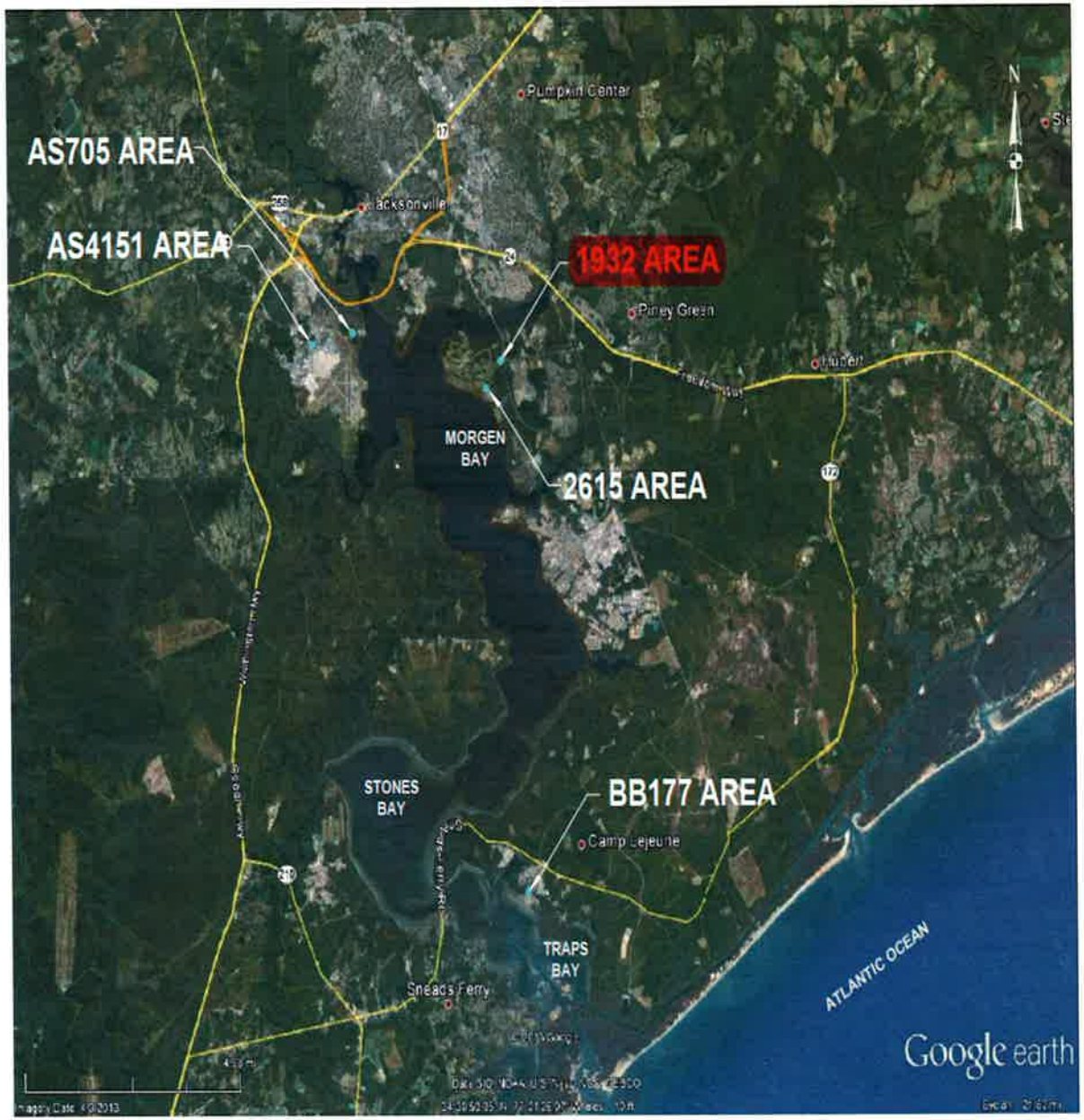
Physical or Mechanical Damage: use for all types of physical or mechanical damage, except corrosion (e.g., puncture of tank or piping, loose fittings, broken components, and components that have changed dimension)

Corrosion: use when a metal tank, piping, or other component has a release due to corrosion (e.g., for steel, corrosion takes the form of rust)

Installation Problem: use when the problem is determined to have occurred specifically because the UST system was not installed properly

Other: use this option when the cause is known but does not fit into one of the preceding categories (e.g., putting regulated substances into monitoring wells)

Unknown: use when the cause has not been determined

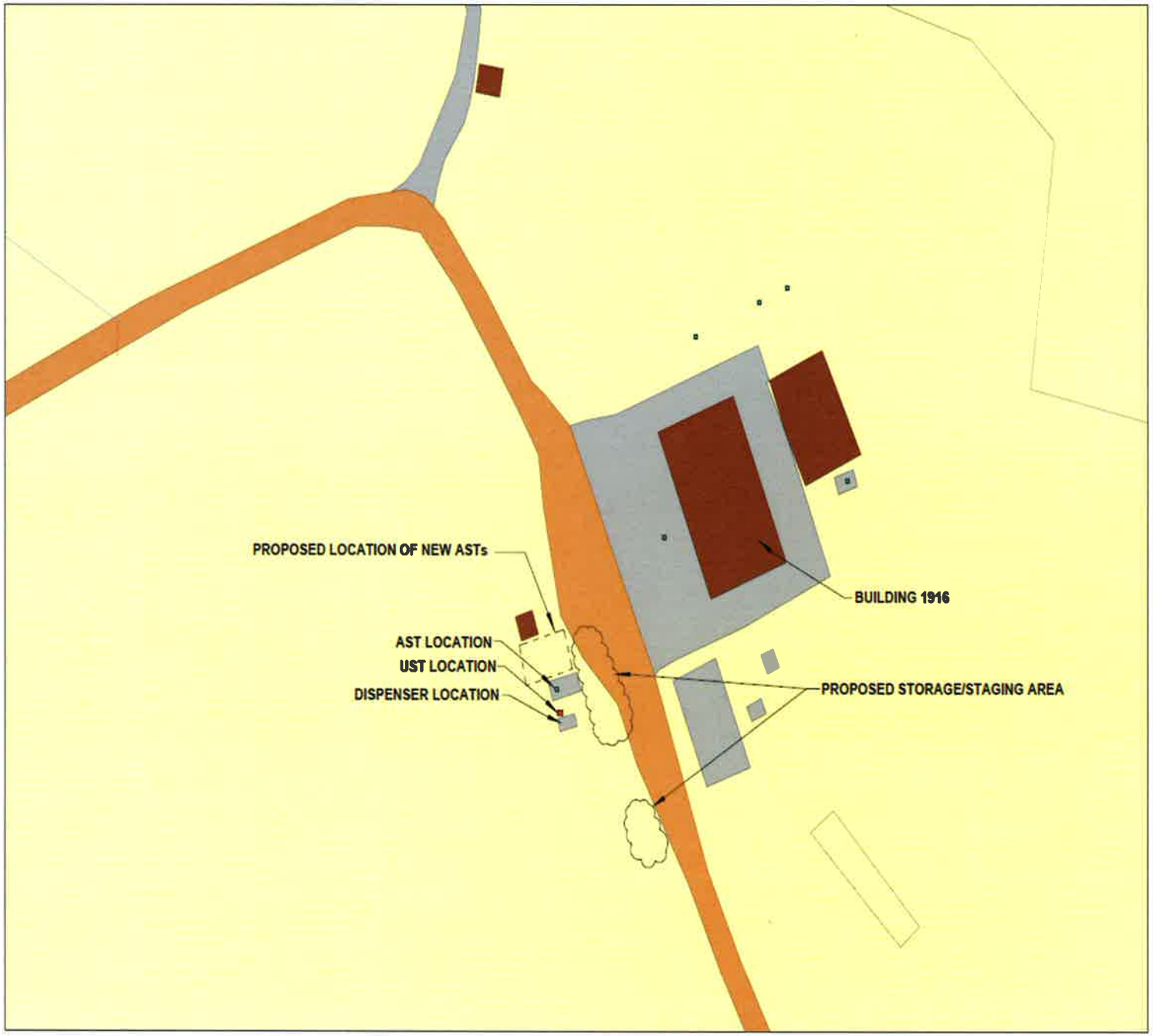


SOURCE: GOOGLE EARTH PRO

SOURCE: GOOGLE MAPS

BASE LOCATION MAP

CAD FILE: WE03-2615-FIGURE 1.DWG



N

LEGEND

- wstewat_oil_wat_separatr_point
- wastewater_line
- vehicle_parking_area
- vehicle_driveway_area
- underground_storage_tank_point
- surface_water_course_area
- surface_water_body_area
- slab_area
- structure_existing_area
- storm_sewer_reservoir_area
- road_area (1)
- road_bridge_area
- mooring_facility_area
- storm_sewer_line
- stmswr_drainage_basin_area
- railroad_centerline
- gwt_well_nonencroach_area
- fence_line
- ditch_aqueduct_centerline
- airfield_surface_area
- aboveground_storage_tank_point

0 20 40
SCALE IN FEET

SOURCE: MARINE CORP INSTALLATIONS EAST MARINE CORPS BASE CAMP LEJEUNE GIS

CAD FILE: WED3-1932-FIGURE-5.DWG

APPENDIX E

CERTIFICATE OF UST DISPOSAL

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ONSLOW COUNTY SOLID WASTE
415 MEADOWVIEW ROAD
JACKSONVILLE, NC 28540

000010 WASTE INDUSTRIES, INC.
21 EAST THOMPSON ST.
JACKSONVILLE NC 28540

SITE	TICKET	GRID	WEIGHMASTER
03	069494	LANDFILL	DONNA C/REBECCA

DATE IN	DATE OUT	TIME IN	TIME OUT	VEHICLE	ROLL OFF
01/15/14	01/15/14	11:27	11:40	610/2416	

REFERENCE	ORIGIN
CAPEENVIRO	ONSLOW COUNTY

Scale 1 Gross Wt. 39780 LB
Scale 2 Tare Wt. 36760 LB
Net Weight 3020 LB

Inbound - Charge ticket

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	FEE	TOTAL
1.51	TON	C&D	47.00	70.97	3.02	73.99

Cape Enviromental

0005294671

Operating hours 6:30 AM TO 5PM MON THRU SAT
This is to certify that this load does not contain any hazardous materials, medical waste or liquids of any type, and originated in Onslow County.

NET AMOUNT
73.99
TENDERED
CHANGE
CHECK NO.

.6T1 TO REORDER CONTACT CAROLINA SOFTWARE (910) 799-6767 SIGNATURE

1932 1,000 UST
AND OTHER
DEBRIS

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APPENDIX F

WELL CONSTRUCTION RECORDS

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CATLIN
Engineers and Scientists

Post Office Box 10279
Wilmington, North Carolina 28404-0279

Telephone: (910) 452-5861
Fax: (910) 452-7563

www.catlinusa.com

February 25, 2014

North Carolina Department of Environment and Natural Resources
Division of Water Quality
Information Processing
1617 Mail Service Center
Raleigh, North Carolina 27699-1617

Re: NC Well Construction and/or Abandonment Record(s)
Sites 1932 and AS705
Jacksonville, North Carolina
CATLIN Project No.: 213159

To Whom It May Concern:

CATLIN Engineers and Scientists (CATLIN) recently constructed and/or abandoned well(s) at the above referenced site. Attached to this letter are completed North Carolina Well Construction Records and/or North Carolina Well Abandonment Records with associated Attachment(s) for the above referenced sites located in the vicinity of Jacksonville, North Carolina.

If you have any questions or require any additional information, please feel free to contact us at (910) 452-5861.

Sincerely,

Jeffery K. Becken, P.E.
Project Manager

Enclosures

cc: Mark Piscarik - Tetra Tech

S:\GINT\PROJECTS\213159_TETRA_TECH.GPJ,S:\WPMKTG\PROJECT\2013\213159 TETRA TECH FIELD SERVICES AT CAMP LEJEUNE\BB177-GW01_LOG-WELLCON-TRANS.GDW

WELL CONSTRUCTION RECORD

This form can be used for single or multiple wells

1. Well Contractor Information:

William J. Miller
Well Contractor Name

2927A — 1932-MW-4
NC Well Contractor Certification Number — Well Identification:

CATLIN Engineers and Scientists
Company Name

2. Well Construction Permit #: N/A
List all applicable well permits (i.e. County, State, Variance, Injection, etc.) if known

3. Well use (check well use):

Water Supply Well:
- ☐ Agricultural
- ☐ Municipal/Public
- ☐ Geothermal (Heating/Cooling Supply)
- ☐ Residential Water Supply (single)
- ☐ Industrial/Commercial
- ☐ Residential Water Supply (shared)
- ☐ Irrigation

Non-Water Supply Well:
- ■ Monitoring
- ☐ Recovery

Injection Well:
- ☐ Aquifer Recharge
- ☐ Groundwater Remediation
- ☐ Aquifer Storage and Recovery
- ☐ Salinity Barrier
- ☐ Aquifer Test
- ☐ Stormwater Drainage
- ☐ Experimental Technology
- ☐ Subsidence Control
- ☐ Geothermal (Closed Loop)
- ☐ Tracer
- ☐ Geothermal (Heating/Cooling Return)
- ☐ Other (explain under #4 Remarks)

4. Date Well(s) Completed: 2/10/2014

5a. Well Location:

Building 1932 — N/A
Facility/Owner Name — Facility ID# (if applicable)

1932 ~~B[illegible]27~~, Jacksonville
Physical Address, City, and Zip

Onslow
County — Parcel Identification No. (PIN)

5b. Latitude and longitude in degrees/minutes/seconds or decimal degrees:
(if well field, one lat/long is sufficient)

34.4302325 N — 77.230918 W

6. Is (are) the well(s): ■ **Permanent** or ☐ **Temporary**

7. Is this a repair to an existing well: ☐ **Yes** or ■ **No**
If this is a repair, fill out known well construction information and explain the nature of the repair under #21 remarks section or on the back of this form.

8. Number of wells constructed: 1
*For multiple injection or non-water supply wells **ONLY** with the **same construction**, you can submit one form.*

9. Total well depth below land surface: 16.5 (ft.)
For multiple wells list all depths if different (example - 3@200' and 2@100')

10. Static water level below top of casing: 9.4 (ft.)
If water level is above use "+"

11. Borehole diameter: 8.25 (in.)

12. Well construction method: H.S.A.
(i.e. auger, rotary, cable, direct push, etc.)

FOR WATER SUPPLY WELLS ONLY:

13a. Yield (gpm): _____ **Method of test:** _____

13b. Disinfection type: _____ **Amount:** _____

For Internal Use ONLY:

14. WATER ZONES

FROM	TO	DESCRIPTION
ft.	ft.	
ft.	ft.	

15. OUTER CASING (for multi-cased wells) OR LINER (if applicable)

FROM	TO	DIAMETER	THICKNESS	MATERIAL
0 ft.	6.5 ft.	2 in.	Sch. 40	PVC
ft.	ft.	in.		

16. INNER CASING OR TUBING (geothermal closed-loop)

FROM	TO	DIAMETER	THICKNESS	MATERIAL
ft.	ft.	in.		
ft.	ft.	in.		

17. SCREEN

FROM	TO	DIAMETER	SLOT SIZE	THICKNESS	MATERIAL
6.5 ft.	16.5 ft.	2 in.	Slot .010	Sch. 40	PVC
ft.	ft.	in.			

18. GROUT

FROM	TO	MATERIAL	EMPLACEMENT METHOD & AMOUNT
ft.	ft.		
2 ft.	4 ft.	Bent. Pellets	Surface Pour
ft.	ft.		

19. SAND/GRAVEL PACK (if applicable)

FROM	TO	MATERIAL	EMPLACEMENT METHOD
ft.	ft.		Surface Pour
ft.	ft.		

20. DRILLING LOG (attach additional sheets if necessary)

FROM	TO	DESCRIPTION
ft.	ft.	
ft.	ft.	
ft.	ft.	
ft.	ft.	
ft.	ft.	
ft.	ft.	

SEE ATTACHED

21. REMARKS

22. Certification:

Signature of Certified Well Contractor — Date: 2-28-14

By signing this form I hereby certify that the well(s) was (were) constructed in accordance with 15A NCAC 02C .0100 or 2C Well Construction Standards and that a copy of this record has been provided to the well owner.

23. Site diagram or additional well details:
You may use the back of this page to provide additional well site details or well construction details. You may also attach additional pages if necessary.

SUBMITTAL INSTRUCTIONS

24a. For All Wells: Submit this form within 30 days of completion of well construction to the following:

Division of Water Resources, Information Processing Unit, 1617 Mail Service Center, Raleigh, NC 27699-1617

24b. For Injection Wells: In addition to sending the form to the address in 24a above, also submit one copy of this form within 30 days of completion of well construction to the following:

Division of Water Resources, Underground Injection Control Program, 1636 Mail Service Center, Raleigh, NC 27699-1636

24c. For Water Supply & Injection Wells:
Also submit one copy of this form within 30 days of completion of well construction to the county health department of the county where constructed.

WELL LOG

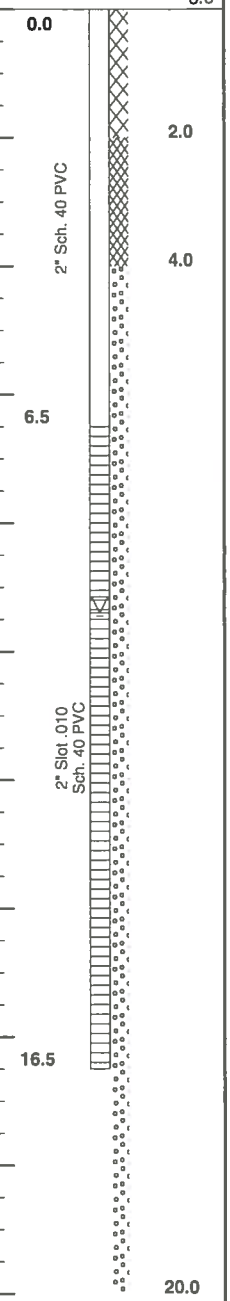
CATLIN Engineers and Scientists
213159 Wilmington, NC

SHEET 1 OF 1

PROJECT NO.: 213159	STATE: NC	COUNTY: Onslow	LOCATION: Jacksonville
PROJECT NAME: Building 1932		LOGGED BY: Tetra Tech	WELL ID: 1932-MW-4
		DRILLER: William J. Miller	
NORTHING:	EASTING:	CREW: Larry Wessell	
SYSTEM:	BORING LOCATION:		T.O.C. ELEV.:
DRILL MACHINE: CME-45B	METHOD: H.S.A.	0 HOUR DTW: 9.4	TOTAL DEPTH: 20.5
START DATE: 2/10/14	FINISH DATE: 2/10/14	24 HOUR DTW: N/A	WELL DEPTH: 16.5

DEPTH	BLOW COUNT 0.5ft	0.5ft	0.5ft	0.5ft	OVA (ppm)	LAB.	MOIS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION
									0.0	LAND SURFACE
3.5	WOH	WOH	1	2			D		3.5 / 5.5	(SP) - SAND. Fill.
8.5	1	2	3	5			W		8.5 / 10.5	(GW/GC) - GRAVEL and CLAY (Fill). Black staining and hydrocarbon odor.
13.5	WOH	WOH	1	10			W		13.5 / 15.5	(GW/GC) - Same As Above
									18.5 / 20.5	(SP/ML) - Gray, Sandy SILT w/interbedded orange Sand. Hydrocarbon odor in orange sands.
20.5										Boring Terminated at Depth 20.5 ft

WELL DETAIL



Bentonite Grout | Bentonite Pellets | Coarse Gravel Pack

CATLIN BORING LOG 213159 TETRA TECH.GPJ CATLIN.GDT 2/25/14

WELL CONSTRUCTION RECORD

This form can be used for single or multiple wells

1. Well Contractor Information:

William J. Miller
Well Contractor Name

2927A — AS705-MW01
NC Well Contractor Certification Number — Well Identification

CATLIN Engineers and Scientists
Company Name

2. Well Construction Permit #: N/A
List all applicable well permits (i.e. County, State, Variance, Injection, etc.) if known

3. Well use (check well use):

Water Supply Well:
- ☐ Agricultural
- ☐ Municipal/Public
- ☐ Geothermal (Heating/Cooling Supply)
- ☐ Residential Water Supply (single)
- ☐ Industrial/Commercial
- ☐ Residential Water Supply (shared)
- ☐ Irrigation

Non-Water Supply Well:
- ■ Monitoring
- ☐ Recovery

Injection Well:
- ☐ Aquifer Recharge
- ☐ Groundwater Remediation
- ☐ Aquifer Storage and Recovery
- ☐ Salinity Barrier
- ☐ Aquifer Test
- ☐ Stormwater Drainage
- ☐ Experimental Technology
- ☐ Subsidence Control
- ☐ Geothermal (Closed Loop)
- ☐ Tracer
- ☐ Geothermal (Heating/Cooling Return)
- ☐ Other (explain under #4 Remarks)

4. Date Well(s) Completed: 2/10/2014

5a. Well Location:

Building AS705 — N/A
Facility/Owner Name — Facility ID# (if applicable)

AS-705 ~~BB127~~, Jacksonville
Physical Address, City, and Zip

Onslow
County — Parcel Identification No. (PIN)

5b. Latitude and longitude in degrees/minutes/seconds or decimal degrees:
(if well field, one lat/long is sufficient)

34.4323516 N — -77.255497 W

6. Is (are) the well(s): ■ **Permanent** or ☐ **Temporary**

7. Is this a repair to an existing well: ☐ **Yes** or ■ **No**
If this is a repair, fill out known well construction information and explain the nature of the repair under #21 remarks section or on the back of this form.

8. Number of wells constructed: 1
*For multiple injection or non-water supply wells **ONLY** with the **same construction**, you can submit one form.*

9. Total well depth below land surface: 14 (ft.)
For multiple wells list all depths if different (example - 3@200' and 2@100')

10. Static water level below top of casing: 4.3 (ft.)
If water level is above use "+"

11. Borehole diameter: 8.25 (in.)

12. Well construction method: H.S.A.
(i.e. auger, rotary, cable, direct push, etc.)

FOR WATER SUPPLY WELLS ONLY:

13a. Yield (gpm): _____ **Method of test:** _____

13b. Disinfection type: _____ **Amount:** _____

For Internal Use ONLY:

14. WATER ZONES

FROM	TO	DESCRIPTION
ft.	ft.	
ft.	ft.	

15. OUTER CASING (for multi-cased wells) OR LINER (if applicable)

FROM	TO	DIAMETER	THICKNESS	MATERIAL
0 ft.	4 ft.	2 in.	Sch. 40	PVC
ft.	ft.	in.		

16. INNER CASING OR TUBING (geothermal closed-loop)

FROM	TO	DIAMETER	THICKNESS	MATERIAL
ft.	ft.	in.		
ft.	ft.	in.		

17. SCREEN

FROM	TO	DIAMETER	SLOT SIZE	THICKNESS	MATERIAL
4 ft.	14 ft.	2 in.	Slot .010	Sch. 40	PVC
ft.	ft.	in.			

18. GROUT

FROM	TO	MATERIAL	EMPLACEMENT METHOD & AMOUNT
ft.	ft.		
1.5 ft.	3.5 ft.	Bent. Pellets	Surface Pour
ft.	ft.		

19. SAND/GRAVEL PACK (if applicable)

FROM	TO	MATERIAL	EMPLACEMENT METHOD
ft.	ft.		Surface Pour
ft.	ft.		

20. DRILLING LOG (attach additional sheets if necessary)

FROM	TO	DESCRIPTION
ft.	ft.	
ft.	ft.	
ft.	ft.	
ft.	ft.	
ft.	ft.	
ft.	ft.	

SEE ATTACHED

21. REMARKS

22. Certification:

Signature of Certified Well Contractor — Date: 2-28-14

By signing this form I hereby certify that the well(s) was (were) constructed in accordance with 15A NCAC 02C .0100 or 2C Well Construction Standards and that a copy of this record has been provided to the well owner.

23. Site diagram or additional well details:
You may use the back of this page to provide additional well site details or well construction details. You may also attach additional pages if necessary.

SUBMITTAL INSTRUCTIONS

24a. For All Wells: Submit this form within 30 days of completion of well construction to the following:

Division of Water Resources, Information Processing Unit, 1617 Mail Service Center, Raleigh, NC 27699-1617

24b. For Injection Wells: In addition to sending the form to the address in 24a above, also submit one copy of this form within 30 days of completion of well construction to the following:

Division of Water Resources, Underground Injection Control Program, 1636 Mail Service Center, Raleigh, NC 27699-1636

24c. For Water Supply & Injection Wells:
Also submit one copy of this form within 30 days of completion of well construction to the county health department of the county where constructed.

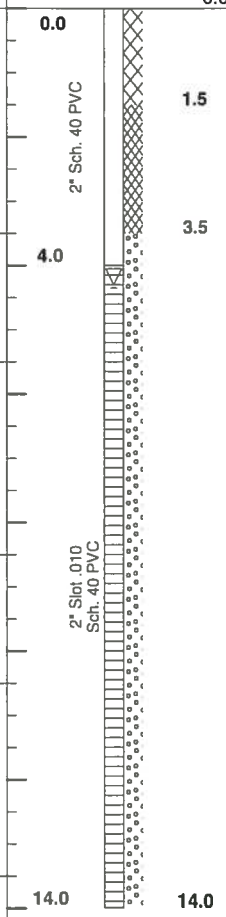
WELL LOG

CATLIN Engineers and Scientists
213159 Wilmington, NC

PROJECT NO.: 213159	STATE: NC	COUNTY: Onslow	LOCATION: Jacksonville
PROJECT NAME: Building AS705	LOGGED BY: Tetra Tech		WELL ID: AS705-MW01
	DRILLER: William J. Miller		
NORTHING:	EASTING:	CREW: Larry Wessell	
SYSTEM:	BORING LOCATION:		T.O.C. ELEV.:
DRILL MACHINE: CME-45B	METHOD: H.S.A.	0 HOUR DTW: 4.3	TOTAL DEPTH: 15.5
START DATE: 2/10/14	FINISH DATE: 2/10/14	24 HOUR DTW: N/A	WELL DEPTH: 14.0

DEPTH	BLOW COUNT 0.5ft	0.5ft	0.5ft	0.5ft	OVA (ppm)	LAB.	MOIS	LOG	DEPTH	SOIL AND ROCK DESCRIPTION
									0.0	LAND SURFACE
3.5	2	1	1	1			W		3.5	(SP/SC) - Gray, SAND to Clayey SAND. BACKFILL
8.5	1	1	1	1			W		5.5	
									8.5	(CL) - CLAY w/Gravel (backfill from tank) to Sandy SILT (Saturated). Root frags.
13.5	3	3	2	2			W		10.5	
									13.5	(SP/SM) - Gray, SAND to Silty SAND. Root frags.
15.5									15.2	
									15.5	(CL) - Gray CLAY.
									15.5	Boring Terminated at Depth 15.5 ft

WELL DETAIL



Bentonite Grout | Bentonite Pellets | Coarse Gravel Pack

CATLIN BORING LOG 213159 TETRA TECH.GPJ CATLIN.GDT 2/25/14

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APPENDIX G

SAMPLE LOGSHEETS AND GPS DATA

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Appendix I

Sample Location GPS Data

Sample ID	GPS_Date	Easting (feet)	Northing (feet)
ds01	12/18/2013	281520.442	3844284.864
pl01	12/18/2013	281519.5	3844285.866
sw01	12/18/2013	281515.408	3844285.285
sw02	12/18/2013	281518.007	3844283.679
sw03	12/18/2013	281519.986	3844286.284
sw04	12/18/2013	281518.711	3844287.628
sw05	12/18/2013	281516.336	3844288.562
sw06	12/18/2013	281515.069	3844286.423
sw07	1/9/2014	281513.9755	3844284.965
sw08	1/9/2014	281513.5424	3844286.048
sw09	1/9/2014	281520.9904	3844286.321

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Camp Lejeune UST Removal
Project No.: 112IG06199

[] Surface Soil
[X] Subsurface Soil Sidewall
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: 1932-UST-SW01
Sample Location: 1932-UST-SW01
Sampled By: R. Sok
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 12-18-13 Time: 1030 Method: Disp. Trowl Monitor Reading (ppm): 100.0	8-8.5' bgs	light brn w/ blk staining	Silty Clay some F. sand moist

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
GRO (8015C)	2 MeOH 40 mL vials each with 5g soil	yes	
VOCs (8260B)	2 DI H20 and 1 MeOH 40 mL vials each with 5g soil	yes	
DRO and % Moisture	1 4-oz jar	yes	

OBSERVATIONS / NOTES:

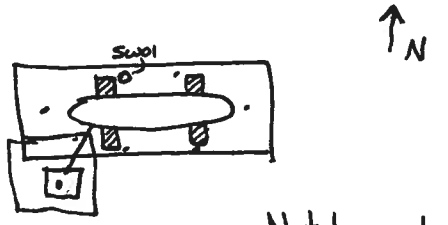
	Yes	No
Soil Staining	[X]	[ ]
Odors	[X]	[ ]

diesel

Tank 4'4" x 11'4" fiberglass w/brine 1,000gal

GW table at 9'bgs

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s): for RS

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Camp Lejeune UST Removal
Project No.: 112IG06199

[] Surface Soil
[X] Subsurface Soil Sidewall
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: 1932-UST-SW02
Sample Location: 1932-UST-SW02
Sampled By: R. Sok
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 12-18-13 Time: 1035 Method: Disp. Trowl Monitor Reading (ppm): 0.0	8-8.5' bgs	light brn	Silty clay some F sand moist

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
GRO (8015C)	2 MeOH 40 mL vials each with 5g soil	yes	
VOCs (8260B)	2 DI H20 and 1 MeOH 40 mL vials each with 5g soil	yes	
DRO and % Moisture	1 4-oz jar	yes	

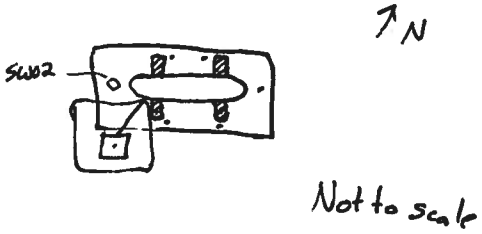
OBSERVATIONS / NOTES:

	Yes	No
Soil Staining	[ ]	[X]
Odors	[ ]	[X]

Tank 4'4" x 11'4" Fiberglass 1,000 gal

GW table at 9' bgs

MAP:



Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

for RS

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Camp Lejeune UST Removal
Project No.: 112IG06199

[] Surface Soil
[X] Subsurface Soil Sidewall
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: 1932-UST- SW03
Sample Location: 1932-UST- SW03
Sampled By: R. Sok
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 12-18-13 Time: 1040 Method: Disp. Trowl Monitor Reading (ppm): 0.0	light bra → ←	8-8.5 bgs	Silty Clay some F. sand moist

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
GRO (8015C)	2 MeOH 40 mL vials each with 5g soil	yes	
VOCs (8260B)	2 DI H20 and 1 MeOH 40 mL vials each with 5g soil	yes	
DRO and % Moisture	1 4-oz jar	yes	

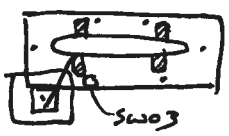
OBSERVATIONS / NOTES:

	Yes	No
Soil Staining	[ ]	[X]
Odors	[ ]	[X]

Tank 4'4"x11'4" fiberglass w/brine 1,000 gal

GW at 9' bgs

MAP:



↗N

Not to scale

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s): For RS

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Camp Lejeune UST Removal
Project No.: 112IG06199

[] Surface Soil
[X] Subsurface Soil Sidewall
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: 1932-UST-SW04
Sample Location: 1932-UST-SW04
Sampled By: R. Sok
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 12-18-13 Time: 1200 Method: Disp. Trowl Monitor Reading (ppm): 0.0	8-8.5' bgs	light brn	Silty clay some F. sand moist

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
GRO (8015C)	6 ~~2~~ MeOH 40 mL vials each with 5g soil	yes	
VOCs (8260B)	6 ~~2~~ DI H20 and ~~1~~ 3 MeOH 40 mL vials each with 5g soil	yes	
DRO and % Moisture	3 ~~1~~ 4-oz jar	yes	

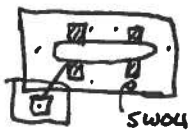
OBSERVATIONS / NOTES:

	Yes	No
Soil Staining	[ ]	[X]
Odors	[ ]	[X]

Tank 4'4" x 11'4" fiberglass w/brine 1,000 gal

GW table at 9' bgs

MAP:



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Not to scale

Circle if Applicable:

MS/MSD	Duplicate ID No.:
yes	—

Signature(s):

For RS

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Camp Lejeune UST Removal
Project No.: 112IG06199

[] Surface Soil
[X] Subsurface Soil Sidewall
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: 1932-UST-SW05
Sample Location: 1932-UST- SW05
Sampled By: R. Sok
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 12-18-13 Time: 1210 Method: Disp. Trowl Monitor Reading (ppm): 0.0	8-8.5' bgs	light bra	Silty Clay some F. sand moist

COMPOSITE SAMPLE DATA:

Date: ~~12-18-13~~	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
GRO (8015C)	2 MeOH 40 mL vials each with 5g soil	Yes	
VOCs (8260B)	2 DI H20 and 1 MeOH 40 mL vials each with 5g soil	Yes	
DRO and % Moisture	1 4-oz jar	Yes	

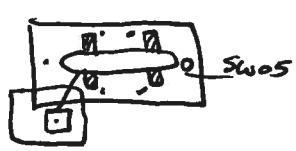
OBSERVATIONS / NOTES:

	Yes	No
Soil Staining	[ ]	[X]
Odors	[ ]	[X]

Tank 4'4" x 11'4" fiberglass w/ brine 1,000 gal

GW table at 9' bgs

MAP:



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Not to scale

Circle if Applicable:

MS/MSD —

Duplicate ID No.: 1210
1932-UST-SW05 A

Signature(s): [signature] for RS

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Camp Lejeune UST Removal
Project No.: 112IG06199

[] Surface Soil
[X] Subsurface Soil Sidewall
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: 1932-UST-SW06
Sample Location: 1932-UST-SW06
Sampled By: R. Sok
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 12-18-13 Time: 1215 Method: Disp. Trowl Monitor Reading (ppm): 100.0	8-8.5'bgs	light brn w/blk staining	Silty Clay some F. sand moist

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
GRO (8015C)	2 MeOH 40 mL vials each with 5g soil	yes	
VOCs (8260B)	2 DI H20 and 1 MeOH 40 mL vials each with 5g soil	yes	
DRO and % Moisture	1 4-oz jar	yes	

OBSERVATIONS / NOTES:

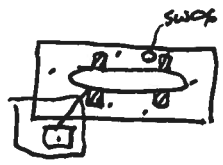
	Yes	No
Soil Staining	[X]	[ ]
Odors	[X]	[ ]

diesel

Tank 4'4" x 11'4" fiberglass w/brine 1,000gal

GW table at 9'bgs

MAP:



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Not to scale

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): for RS

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Camp Lejeune UST Removal
Project No.: 112IG06199

[] Surface Soil
[X] Subsurface Soil Product Line
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: 1932-UST-PL01
Sample Location: 1932-UST-PL01
Sampled By: R. Sok
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 12-18-13 Time: 0850 Method: Disp. Trowl Monitor Reading (ppm): 0.0	4-5'	lt brn	Silty clay tr. VF sand moist

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings				
(Range in ppm):				

SAMPLE COLLECTION INFORMATION:

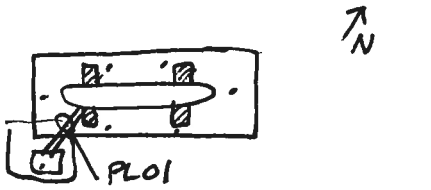
Analysis	Container Requirements	Collected	Other
GRO (8015C)	2 MeOH 40 mL vials each with 5g soil	yes	
VOCs (8260B)	2 DI H20 and 1 MeOH 40 mL vials each with 5g soil	yes	
DRO and % Moisture	1 4-oz jar	yes	

OBSERVATIONS / NOTES:

	Yes	No
Soil Staining	[ ]	[X]
Odors	[ ]	[X]

Collected 1.5' below product line

MAP:



Not to scale

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s): for RS

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Camp Lejeune UST Removal
Project No.: 112IG06199

[] Surface Soil
[X] Subsurface Soil Dispenser
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: 1932-UST- DS01
Sample Location: 1932-UST- DS01
Sampled By: R. Sok
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 12-18-13 Time: 1235 Method: Disp. Trowl Monitor Reading (ppm): 0.0	1.5-2'	light bra	Silty Clay some F. sand moist

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
GRO (8015C)	2 MeOH 40 mL vials each with 5g soil	yes	
VOCs (8260B)	2 DI H20 and 1 MeOH 40 mL vials each with 5g soil	yes	
DRO and % Moisture	1 4-oz jar	yes	

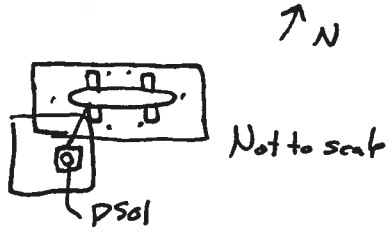
OBSERVATIONS / NOTES:

	Yes	No
Soil Staining	[ ]	[X]
Odors	[ ]	[X]

Tank 4'4" x 11'4" Fiberglass w/ brine 1,000gal

GW table at 9' bgs

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

For RS

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Camp Lejeune UST Removal
Project No.: 112IG06199

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: 1932-UST- SW07
Sample Location: 1932-UST- SW07
Sampled By: JG
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 01/08/2014 Time: 0920 Method: Disp. Trowel Monitor Reading (ppm): 0.0	4-5 bgs	tan	F-M Sand tr. silt and C. Sand

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

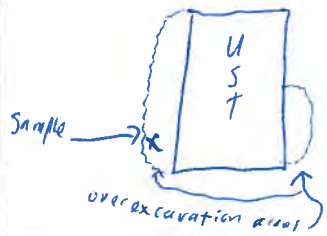
SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
MADEP VPH	2 MeOH 40 mL vials each with 5g soil	yes	
VOCs w/ IPE and MTBE (8260B)	2 DI H20 and 1 MeOH 40 mL vials each with 5g soil	yes	
MADEP EPH	1 8 oz jar	yes	
SVOCs (8270B)	1 8 oz jar	yes	

OBSERVATIONS / NOTES:

	Yes	No
Soil Staining	[ ]	[X]
Odors	[ ]	[X]

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s): John J. Gallo

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Camp Lejeune UST Removal
Project No.: 112IG06199

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: 1932-UST-SW08
Sample Location: 1932-UST-SW08
Sampled By: JG.
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 01/08/2019 Time: 0940 Method: Disp. Trowel Monitor Reading (ppm): 0.0	4-5' bgs	tan	F-M sand w/ trace silt and C. sand

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
MADEP VPH	2 MeOH 40 mL vials each with 5g soil	yes	
VOCs w/ IPE and MTBE (8260B)	2 DI H20 and 1 MeOH 40 mL vials each with 5g soil	yes	
MADEP EPH	1 8 oz jar	yes	
SVOCs (8270B)	1 8 oz jar	yes	

OBSERVATIONS / NOTES:

	Yes	No
Soil Staining	☐	☑
Odors	☐	☑

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
	1932-UST-SW084

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Camp Lejeune UST Removal
Project No.: 112IG06199

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: 1932-UST- SW09
Sample Location: 1932-UST- SW09
Sampled By: J. G.
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 01/08/2011 Time: 1000 Method: Disp. Trowel Monitor Reading (ppm): 0.0	4-5' bgs	tan	F-M sand w trace silt and C. sand

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

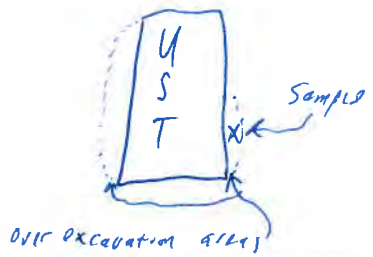
SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
MADEP VPH	2 MeOH 40 mL vials each with 5g soil	yes	
VOCs w/ IPE and MTBE (8260B)	2 DI H20 and 1 MeOH 40 mL vials each with 5g soil	Yes	
MADEP EPH	1 8 oz jar	yes	
SVOCs (8270B)	1 8 oz jar	yes	

OBSERVATIONS / NOTES:

	Yes	No
Soil Staining	[ ]	[X]
Odors	[ ]	[X]

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Camp Lejeune UST Removal
Project No.: 112IG06199

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: 1932-UST- SP01
Sample Location: 1932-UST- SP01
Sampled By: J.G.
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 01/08/2019			
Time: 1100			
Method: Disp. Trowel			
Monitor Reading (ppm): 0.0			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
01/08/2019	1100	0-0.5'	tan	F-M sand w/ trace silt
Method:	1100	0'-0.5'	brown	Silty clay
5 point composite	1101	0-0.5'	black	organic rich material, surface O.A layer
Monitor Readings	1101	0-0.5'	tan	F-M sand w/ trace silt
(Range in ppm):	1102	0-0.5'	tan	F-M sand w/ trace C sand
0-0				

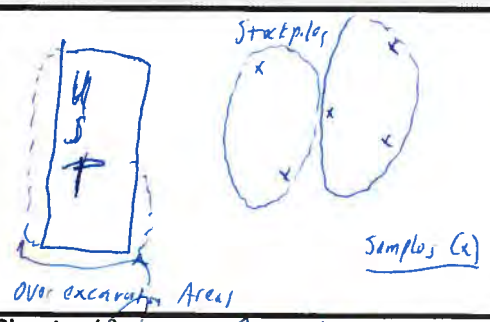
SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
~~MADEP VPH~~	~~2 MeOH 40 mL vials each with 5g soil~~	~~Y~~	
~~VOCs w/ IPE and MTBE (8260B)~~	~~2 DI H20 and 1 MeOH 40 mL vials each with 5g soil~~		
~~MADEP EPH~~	~~1 8 oz jar~~		
~~SVOCs (8270B)~~	~~1 8 oz jar~~		
TPH-GRO	2 Methanol vials	yes	
VOC (8260B)	4 oz jar	yes	
Sulf, Hard, Alk, Metals + Hg, PCBs, PRO, RCRA	3 8 oz jars	yes	

OBSERVATIONS / NOTES:

	Yes	No
Soil Staining	[ ]	[X]
Odors	[ ]	[X]

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:
–	

Signature(s):

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APPENDIX H

SOIL ANALYTICAL REPORT

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ROUND 1 SOIL SAMPLE ANALYTICAL REPORT

Sample Summary

Tetra Tech EC, Inc

Job No: FA11056

WE03, Camp Lejuene, NC
Project No: 4659WE03

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA11056-1	12/18/13	08:50	RS	12/19/13	SO	Soil	1932-UST-PL01
FA11056-2	12/18/13	10:30	RS	12/19/13	SO	Soil	1932-UST-SW01
FA11056-3	12/18/13	10:35	RS	12/19/13	SO	Soil	1932-UST-SW02
FA11056-4	12/18/13	10:40	RS	12/19/13	SO	Soil	1932-UST-SW03
FA11056-5	12/18/13	12:00	RS	12/19/13	SO	Soil	1932-UST-SW04
FA11056-5D	12/18/13	12:00	RS	12/19/13	SO	Soil Dup/MSD	1932-UST-SW04
FA11056-5S	12/18/13	12:00	RS	12/19/13	SO	Soil Matrix Spike	1932-UST-SW04
FA11056-6	12/18/13	12:10	RS	12/19/13	SO	Soil	1932-UST-SW05
FA11056-7	12/18/13	12:10	RS	12/19/13	SO	Soil	1932-UST-SW05A
FA11056-8	12/18/13	12:35	RS	12/19/13	SO	Soil	1932-UST-DS01
FA11056-9	12/18/13	12:15	RS	12/19/13	SO	Soil	1932-UST-SW06

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Report of Analysis

Client Sample ID:	1932-UST-PL01		
Lab Sample ID:	FA11056-1	**Date Sampled:**	12/18/13
Matrix:	SO - Soil	**Date Received:**	12/19/13
Method:	SW846 8260B	**Percent Solids:**	83.6
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y12301.D	1	12/20/13	EP	n/a	n/a	VY545
Run #2							

	Initial Weight
Run #1	6.13 g
Run #2	

VOA List for NC, May 2012

CAS No.	Compound	Result	LOQ	LOD	Units	Q
67-64-1	Acetone	24 U	49	24	ug/kg	
71-43-2	Benzene	2.0 U	4.9	2.0	ug/kg	
108-86-1	Bromobenzene	2.0 U	4.9	2.0	ug/kg	
74-97-5	Bromochloromethane	2.0 U	4.9	2.0	ug/kg	
75-27-4	Bromodichloromethane	2.0 U	4.9	2.0	ug/kg	
75-25-2	Bromoform	2.0 U	4.9	2.0	ug/kg	
104-51-8	n-Butylbenzene	2.0 U	4.9	2.0	ug/kg	
135-98-8	sec-Butylbenzene	2.0 U	4.9	2.0	ug/kg	
98-06-6	tert-Butylbenzene	2.0 U	4.9	2.0	ug/kg	
108-90-7	Chlorobenzene	2.0 U	4.9	2.0	ug/kg	
75-00-3	Chloroethane	3.9 U	4.9	3.9	ug/kg	
67-66-3	Chloroform	2.0 U	4.9	2.0	ug/kg	
95-49-8	o-Chlorotoluene	2.0 U	4.9	2.0	ug/kg	
106-43-4	p-Chlorotoluene	2.0 U	4.9	2.0	ug/kg	
56-23-5	Carbon tetrachloride	2.0 U	4.9	2.0	ug/kg	
75-34-3	1,1-Dichloroethane	2.0 U	4.9	2.0	ug/kg	
75-35-4	1,1-Dichloroethylene	2.0 U	4.9	2.0	ug/kg	
563-58-6	1,1-Dichloropropene	2.0 U	4.9	2.0	ug/kg	
106-93-4	1,2-Dibromoethane	2.0 U	4.9	2.0	ug/kg	
107-06-2	1,2-Dichloroethane	2.0 U	4.9	2.0	ug/kg	
78-87-5	1,2-Dichloropropane	2.0 U	4.9	2.0	ug/kg	
142-28-9	1,3-Dichloropropane	2.0 U	4.9	2.0	ug/kg	
108-20-3	Di-Isopropyl ether	2.0 U	4.9	2.0	ug/kg	
594-20-7	2,2-Dichloropropane	2.0 U	4.9	2.0	ug/kg	
124-48-1	Dibromochloromethane	2.0 U	4.9	2.0	ug/kg	
75-71-8	Dichlorodifluoromethane	2.0 U	4.9	2.0	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	2.0 U	4.9	2.0	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	2.0 U	4.9	2.0	ug/kg	
541-73-1	m-Dichlorobenzene	2.0 U	4.9	2.0	ug/kg	
95-50-1	o-Dichlorobenzene	2.0 U	4.9	2.0	ug/kg	
106-46-7	p-Dichlorobenzene	2.0 U	4.9	2.0	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	2.0 U	4.9	2.0	ug/kg	

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-PL01		
Lab Sample ID:	FA11056-1	**Date Sampled:**	12/18/13
Matrix:	SO - Soil	**Date Received:**	12/19/13
Method:	SW846 8260B	**Percent Solids:**	83.6
Project:	WE03, Camp Lejuene, NC		

VOA List for NC, May 2012

CAS No.	Compound	Result	LOQ	LOD	Units	Q
10061-02-6	trans-1,3-Dichloropropene	2.0 U	4.9	2.0	ug/kg	
64-17-5	Ethyl alcohol	200 U	390	200	ug/kg	
100-41-4	Ethylbenzene	2.0 U	4.9	2.0	ug/kg	
637-92-3	Ethyl tert-Butyl Ether	2.0 U	4.9	2.0	ug/kg	
591-78-6	2-Hexanone	9.8 U	24	9.8	ug/kg	
98-82-8	Isopropylbenzene	2.0 U	4.9	2.0	ug/kg	
99-87-6	p-Isopropyltoluene	2.0 U	4.9	2.0	ug/kg	
108-10-1	4-Methyl-2-pentanone	9.8 U	24	9.8	ug/kg	
74-83-9	Methyl bromide	3.9 U	4.9	3.9	ug/kg	
74-87-3	Methyl chloride	3.9 U	4.9	3.9	ug/kg	
75-09-2	Methylene chloride	4.9 U	9.8	4.9	ug/kg	
78-93-3	Methyl ethyl ketone	9.8 U	24	9.8	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	2.0 U	4.9	2.0	ug/kg	
91-20-3	Naphthalene	3.9 U	4.9	3.9	ug/kg	
103-65-1	n-Propylbenzene	2.0 U	4.9	2.0	ug/kg	
100-42-5	Styrene	2.0 U	4.9	2.0	ug/kg	
75-85-4	Tert-Amyl Alcohol	24 U	49	24	ug/kg	
994-05-8	Tert-Amyl Methyl Ether	2.0 U	4.9	2.0	ug/kg	
75-65-0	Tert-Butyl Alcohol	24 U	49	24	ug/kg	
762-75-4	tert-Butyl Formate	24 U	49	24	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	2.0 U	4.9	2.0	ug/kg	
71-55-6	1,1,1-Trichloroethane	2.0 U	4.9	2.0	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	2.0 U	4.9	2.0	ug/kg	
79-00-5	1,1,2-Trichloroethane	2.0 U	4.9	2.0	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	2.0 U	4.9	2.0	ug/kg	
96-18-4	1,2,3-Trichloropropane	2.0 U	4.9	2.0	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	2.0 U	4.9	2.0	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	2.0 U	4.9	2.0	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	2.0 U	4.9	2.0	ug/kg	
127-18-4	Tetrachloroethylene	2.0 U	4.9	2.0	ug/kg	
108-88-3	Toluene	2.0 U	4.9	2.0	ug/kg	
79-01-6	Trichloroethylene	2.0 U	4.9	2.0	ug/kg	
75-69-4	Trichlorofluoromethane	3.9 U	4.9	3.9	ug/kg	
75-01-4	Vinyl chloride	2.0 U	4.9	2.0	ug/kg	
108-05-4	Vinyl Acetate	20 U	24	20	ug/kg	
1330-20-7	Xylene (total)	5.9 U	15	5.9	ug/kg	
	m,p-Xylene	3.9 U	9.8	3.9	ug/kg	
95-47-6	o-Xylene	2.0 U	4.9	2.0	ug/kg	

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-PL01		
Lab Sample ID:	FA11056-1	**Date Sampled:**	12/18/13
Matrix:	SO - Soil	**Date Received:**	12/19/13
Method:	SW846 8260B	**Percent Solids:**	83.6
Project:	WE03, Camp Lejuene, NC		

VOA List for NC, May 2012

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		75-124%
2037-26-5	Toluene-D8	93%		75-126%
460-00-4	4-Bromofluorobenzene	101%		71-133%
17060-07-0	1,2-Dichloroethane-D4	101%		72-135%

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-PL01		
Lab Sample ID:	FA11056-1	**Date Sampled:**	12/18/13
Matrix:	SO - Soil	**Date Received:**	12/19/13
Method:	SW846 8015C	**Percent Solids:**	83.6
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QR080473.D	1	12/20/13	MM	n/a	n/a	GQR3425
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.27 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH-GRO (C6-C10)	3.3 U	6.7	3.3	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	114%		56-149%
98-08-8	aaa-Trifluorotoluene	108%		66-132%

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-PL01		
Lab Sample ID:	FA11056-1	**Date Sampled:**	12/18/13
Matrix:	SO - Soil	**Date Received:**	12/19/13
Method:	SW846 8015C SW846 3550C	**Percent Solids:**	83.6
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JJ000759.D	1	12/23/13	ME	12/21/13	OP49859	GJJ35
Run #2							

	Initial Weight	Final Volume
Run #1	30.4 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28)	3.9 U	4.9	3.9	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	69%		56-122%

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LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-SW01		
Lab Sample ID:	FA11056-2	**Date Sampled:**	12/18/13
Matrix:	SO - Soil	**Date Received:**	12/19/13
Method:	SW846 8260B	**Percent Solids:**	82.1
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y12302.D	1	12/20/13	EP	n/a	n/a	VY545
Run #2							

	Initial Weight
Run #1	3.28 g
Run #2	

VOA List for NC, May 2012

CAS No.	Compound	Result	LOQ	LOD	Units	Q
67-64-1	Acetone	153	93	46	ug/kg	
71-43-2	Benzene	3.7 U	9.3	3.7	ug/kg	
108-86-1	Bromobenzene	3.7 U	9.3	3.7	ug/kg	
74-97-5	Bromochloromethane	3.7 U	9.3	3.7	ug/kg	
75-27-4	Bromodichloromethane	3.7 U	9.3	3.7	ug/kg	
75-25-2	Bromoform	3.7 U	9.3	3.7	ug/kg	
104-51-8	n-Butylbenzene	7.5	9.3	3.7	ug/kg	J
135-98-8	sec-Butylbenzene	16.9	9.3	3.7	ug/kg	
98-06-6	tert-Butylbenzene	3.7 U	9.3	3.7	ug/kg	
108-90-7	Chlorobenzene	3.7 U	9.3	3.7	ug/kg	
75-00-3	Chloroethane	7.4 U	9.3	7.4	ug/kg	
67-66-3	Chloroform	3.7 U	9.3	3.7	ug/kg	
95-49-8	o-Chlorotoluene	3.7 U	9.3	3.7	ug/kg	
106-43-4	p-Chlorotoluene	3.7 U	9.3	3.7	ug/kg	
56-23-5	Carbon tetrachloride	3.7 U	9.3	3.7	ug/kg	
75-34-3	1,1-Dichloroethane	3.7 U	9.3	3.7	ug/kg	
75-35-4	1,1-Dichloroethylene	3.7 U	9.3	3.7	ug/kg	
563-58-6	1,1-Dichloropropene	3.7 U	9.3	3.7	ug/kg	
106-93-4	1,2-Dibromoethane	3.7 U	9.3	3.7	ug/kg	
107-06-2	1,2-Dichloroethane	3.7 U	9.3	3.7	ug/kg	
78-87-5	1,2-Dichloropropane	3.7 U	9.3	3.7	ug/kg	
142-28-9	1,3-Dichloropropane	3.7 U	9.3	3.7	ug/kg	
108-20-3	Di-Isopropyl ether	3.7 U	9.3	3.7	ug/kg	
594-20-7	2,2-Dichloropropane	3.7 U	9.3	3.7	ug/kg	
124-48-1	Dibromochloromethane	3.7 U	9.3	3.7	ug/kg	
75-71-8	Dichlorodifluoromethane	3.7 U	9.3	3.7	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	3.7 U	9.3	3.7	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	3.7 U	9.3	3.7	ug/kg	
541-73-1	m-Dichlorobenzene	3.7 U	9.3	3.7	ug/kg	
95-50-1	o-Dichlorobenzene	3.7 U	9.3	3.7	ug/kg	
106-46-7	p-Dichlorobenzene	3.7 U	9.3	3.7	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	3.7 U	9.3	3.7	ug/kg	

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Report of Analysis

Client Sample ID:	1932-UST-SW01		
Lab Sample ID:	FA11056-2	**Date Sampled:**	12/18/13
Matrix:	SO - Soil	**Date Received:**	12/19/13
Method:	SW846 8260B	**Percent Solids:**	82.1
Project:	WE03, Camp Lejuene, NC		

VOA List for NC, May 2012

CAS No.	Compound	Result	LOQ	LOD	Units	Q
10061-02-6	trans-1,3-Dichloropropene	3.7 U	9.3	3.7	ug/kg	
64-17-5	Ethyl alcohol	370 U	740	370	ug/kg	
100-41-4	Ethylbenzene	3.7 U	9.3	3.7	ug/kg	
637-92-3	Ethyl tert-Butyl Ether	3.7 U	9.3	3.7	ug/kg	
591-78-6	2-Hexanone	19 U	46	19	ug/kg	
98-82-8	Isopropylbenzene	3.7 U	9.3	3.7	ug/kg	
99-87-6	p-Isopropyltoluene	17.8	9.3	3.7	ug/kg	
108-10-1	4-Methyl-2-pentanone	19 U	46	19	ug/kg	
74-83-9	Methyl bromide	7.4 U	9.3	7.4	ug/kg	
74-87-3	Methyl chloride	7.4 U	9.3	7.4	ug/kg	
75-09-2	Methylene chloride	9.3 U	19	9.3	ug/kg	
78-93-3	Methyl ethyl ketone	19 U	46	19	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	3.7 U	9.3	3.7	ug/kg	
91-20-3	Naphthalene	36.7	9.3	7.4	ug/kg	
103-65-1	n-Propylbenzene	3.7 U	9.3	3.7	ug/kg	
100-42-5	Styrene	3.7 U	9.3	3.7	ug/kg	
75-85-4	Tert-Amyl Alcohol	46 U	93	46	ug/kg	
994-05-8	Tert-Amyl Methyl Ether	3.7 U	9.3	3.7	ug/kg	
75-65-0	Tert-Butyl Alcohol	46 U	93	46	ug/kg	
762-75-4	tert-Butyl Formate	46 U	93	46	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	3.7 U	9.3	3.7	ug/kg	
71-55-6	1,1,1-Trichloroethane	3.7 U	9.3	3.7	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	3.7 U	9.3	3.7	ug/kg	
79-00-5	1,1,2-Trichloroethane	3.7 U	9.3	3.7	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	3.7 U	9.3	3.7	ug/kg	
96-18-4	1,2,3-Trichloropropane	3.7 U	9.3	3.7	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	3.7 U	9.3	3.7	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	294	9.3	3.7	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	151	9.3	3.7	ug/kg	
127-18-4	Tetrachloroethylene	3.7 U	9.3	3.7	ug/kg	
108-88-3	Toluene	3.7 U	9.3	3.7	ug/kg	
79-01-6	Trichloroethylene	3.7 U	9.3	3.7	ug/kg	
75-69-4	Trichlorofluoromethane	7.4 U	9.3	7.4	ug/kg	
75-01-4	Vinyl chloride	3.7 U	9.3	3.7	ug/kg	
108-05-4	Vinyl Acetate	37 U	46	37	ug/kg	
1330-20-7	Xylene (total)	11 U	28	11	ug/kg	
	m,p-Xylene	7.4 U	19	7.4	ug/kg	
95-47-6	o-Xylene	3.7 U	9.3	3.7	ug/kg	

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LOQ = Limit of Quantitation
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B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	1932-UST-SW01		
Lab Sample ID:	FA11056-2	**Date Sampled:**	12/18/13
Matrix:	SO - Soil	**Date Received:**	12/19/13
Method:	SW846 8260B	**Percent Solids:**	82.1
Project:	WE03, Camp Lejuene, NC		

VOA List for NC, May 2012

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		75-124%
2037-26-5	Toluene-D8	87%		75-126%
460-00-4	4-Bromofluorobenzene	93%		71-133%
17060-07-0	1,2-Dichloroethane-D4	107%		72-135%

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J = Indicates an estimated value
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N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	1932-UST-SW01		
Lab Sample ID:	FA11056-2	**Date Sampled:**	12/18/13
Matrix:	SO - Soil	**Date Received:**	12/19/13
Method:	SW846 8015C	**Percent Solids:**	82.1
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QR080490.D	1	12/20/13	MM	n/a	n/a	GQR3425
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	4.80 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH-GRO (C6-C10)	46.5	7.4	3.7	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	145%		56-149%
98-08-8	aaa-Trifluorotoluene	105%		66-132%

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LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-SW01		
Lab Sample ID:	FA11056-2	**Date Sampled:**	12/18/13
Matrix:	SO - Soil	**Date Received:**	12/19/13
Method:	SW846 8015C SW846 3550C	**Percent Solids:**	82.1
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JJ000760.D	1	12/23/13	ME	12/21/13	OP49859	GJJ35
Run #2							

	Initial Weight	Final Volume
Run #1	30.5 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28)	28.5	5.0	4.0	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	72%		56-122%

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-SW02		
Lab Sample ID:	FA11056-3	**Date Sampled:**	12/18/13
Matrix:	SO - Soil	**Date Received:**	12/19/13
Method:	SW846 8260B	**Percent Solids:**	80.5
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y12310.D	1	12/20/13	EP	n/a	n/a	VY545
Run #2							

	Initial Weight
Run #1	6.72 g
Run #2	

VOA List for NC, May 2012

CAS No.	Compound	Result	LOQ	LOD	Units	Q
67-64-1	Acetone	23 U	46	23	ug/kg	
71-43-2	Benzene	1.8 U	4.6	1.8	ug/kg	
108-86-1	Bromobenzene	1.8 U	4.6	1.8	ug/kg	
74-97-5	Bromochloromethane	1.8 U	4.6	1.8	ug/kg	
75-27-4	Bromodichloromethane	1.8 U	4.6	1.8	ug/kg	
75-25-2	Bromoform	1.8 U	4.6	1.8	ug/kg	
104-51-8	n-Butylbenzene	1.8 U	4.6	1.8	ug/kg	
135-98-8	sec-Butylbenzene	1.8 U	4.6	1.8	ug/kg	
98-06-6	tert-Butylbenzene	1.8 U	4.6	1.8	ug/kg	
108-90-7	Chlorobenzene	1.8 U	4.6	1.8	ug/kg	
75-00-3	Chloroethane	3.7 U	4.6	3.7	ug/kg	
67-66-3	Chloroform	1.8 U	4.6	1.8	ug/kg	
95-49-8	o-Chlorotoluene	1.8 U	4.6	1.8	ug/kg	
106-43-4	p-Chlorotoluene	1.8 U	4.6	1.8	ug/kg	
56-23-5	Carbon tetrachloride	1.8 U	4.6	1.8	ug/kg	
75-34-3	1,1-Dichloroethane	1.8 U	4.6	1.8	ug/kg	
75-35-4	1,1-Dichloroethylene	1.8 U	4.6	1.8	ug/kg	
563-58-6	1,1-Dichloropropene	1.8 U	4.6	1.8	ug/kg	
106-93-4	1,2-Dibromoethane	1.8 U	4.6	1.8	ug/kg	
107-06-2	1,2-Dichloroethane	1.8 U	4.6	1.8	ug/kg	
78-87-5	1,2-Dichloropropane	1.8 U	4.6	1.8	ug/kg	
142-28-9	1,3-Dichloropropane	1.8 U	4.6	1.8	ug/kg	
108-20-3	Di-Isopropyl ether	1.8 U	4.6	1.8	ug/kg	
594-20-7	2,2-Dichloropropane	1.8 U	4.6	1.8	ug/kg	
124-48-1	Dibromochloromethane	1.8 U	4.6	1.8	ug/kg	
75-71-8	Dichlorodifluoromethane	1.8 U	4.6	1.8	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	1.8 U	4.6	1.8	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	1.8 U	4.6	1.8	ug/kg	
541-73-1	m-Dichlorobenzene	1.8 U	4.6	1.8	ug/kg	
95-50-1	o-Dichlorobenzene	1.8 U	4.6	1.8	ug/kg	
106-46-7	p-Dichlorobenzene	1.8 U	4.6	1.8	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	1.8 U	4.6	1.8	ug/kg	

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-SW02		
Lab Sample ID:	FA11056-3	**Date Sampled:**	12/18/13
Matrix:	SO - Soil	**Date Received:**	12/19/13
Method:	SW846 8260B	**Percent Solids:**	80.5
Project:	WE03, Camp Lejuene, NC		

VOA List for NC, May 2012

CAS No.	Compound	Result	LOQ	LOD	Units	Q
10061-02-6	trans-1,3-Dichloropropene	1.8 U	4.6	1.8	ug/kg	
64-17-5	Ethyl alcohol	180 U	370	180	ug/kg	
100-41-4	Ethylbenzene	1.8 U	4.6	1.8	ug/kg	
637-92-3	Ethyl tert-Butyl Ether	1.8 U	4.6	1.8	ug/kg	
591-78-6	2-Hexanone	9.2 U	23	9.2	ug/kg	
98-82-8	Isopropylbenzene	1.8 U	4.6	1.8	ug/kg	
99-87-6	p-Isopropyltoluene	1.8 U	4.6	1.8	ug/kg	
108-10-1	4-Methyl-2-pentanone	9.2 U	23	9.2	ug/kg	
74-83-9	Methyl bromide	3.7 U	4.6	3.7	ug/kg	
74-87-3	Methyl chloride	3.7 U	4.6	3.7	ug/kg	
75-09-2	Methylene chloride	4.6 U	9.2	4.6	ug/kg	
78-93-3	Methyl ethyl ketone	9.2 U	23	9.2	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	1.8 U	4.6	1.8	ug/kg	
91-20-3	Naphthalene	3.7 U	4.6	3.7	ug/kg	
103-65-1	n-Propylbenzene	1.8 U	4.6	1.8	ug/kg	
100-42-5	Styrene	1.8 U	4.6	1.8	ug/kg	
75-85-4	Tert-Amyl Alcohol	23 U	46	23	ug/kg	
994-05-8	Tert-Amyl Methyl Ether	1.8 U	4.6	1.8	ug/kg	
75-65-0	Tert-Butyl Alcohol	23 U	46	23	ug/kg	
762-75-4	tert-Butyl Formate	23 U	46	23	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	1.8 U	4.6	1.8	ug/kg	
71-55-6	1,1,1-Trichloroethane	1.8 U	4.6	1.8	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	1.8 U	4.6	1.8	ug/kg	
79-00-5	1,1,2-Trichloroethane	1.8 U	4.6	1.8	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	1.8 U	4.6	1.8	ug/kg	
96-18-4	1,2,3-Trichloropropane	1.8 U	4.6	1.8	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	1.8 U	4.6	1.8	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	1.8 U	4.6	1.8	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	1.8 U	4.6	1.8	ug/kg	
127-18-4	Tetrachloroethylene	1.8 U	4.6	1.8	ug/kg	
108-88-3	Toluene	1.8 U	4.6	1.8	ug/kg	
79-01-6	Trichloroethylene	1.8 U	4.6	1.8	ug/kg	
75-69-4	Trichlorofluoromethane	3.7 U	4.6	3.7	ug/kg	
75-01-4	Vinyl chloride	1.8 U	4.6	1.8	ug/kg	
108-05-4	Vinyl Acetate	18 U	23	18	ug/kg	
1330-20-7	Xylene (total)	5.5 U	14	5.5	ug/kg	
	m,p-Xylene	3.7 U	9.2	3.7	ug/kg	
95-47-6	o-Xylene	1.8 U	4.6	1.8	ug/kg	

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-SW02		
Lab Sample ID:	FA11056-3	**Date Sampled:**	12/18/13
Matrix:	SO - Soil	**Date Received:**	12/19/13
Method:	SW846 8260B	**Percent Solids:**	80.5
Project:	WE03, Camp Lejuene, NC		

VOA List for NC, May 2012

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		75-124%
2037-26-5	Toluene-D8	95%		75-126%
460-00-4	4-Bromofluorobenzene	98%		71-133%
17060-07-0	1,2-Dichloroethane-D4	93%		72-135%

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-SW02		
Lab Sample ID:	FA11056-3	**Date Sampled:**	12/18/13
Matrix:	SO - Soil	**Date Received:**	12/19/13
Method:	SW846 8015C	**Percent Solids:**	80.5
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QR080477.D	1	12/20/13	MM	n/a	n/a	GQR3425
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	6.58 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH-GRO (C6-C10)	3.0 U	5.9	3.0	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	117%		56-149%
98-08-8	aaa-Trifluorotoluene	106%		66-132%

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-SW02		
Lab Sample ID:	FA11056-3	**Date Sampled:**	12/18/13
Matrix:	SO - Soil	**Date Received:**	12/19/13
Method:	SW846 8015C SW846 3550C	**Percent Solids:**	80.5
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JJ000761.D	1	12/23/13	ME	12/21/13	OP49859	GJJ35
Run #2							

	Initial Weight	Final Volume
Run #1	29.9 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28)	4.2 U	5.2	4.2	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	71%		56-122%

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-SW03		
Lab Sample ID:	FA11056-4	**Date Sampled:**	12/18/13
Matrix:	SO - Soil	**Date Received:**	12/19/13
Method:	SW846 8260B	**Percent Solids:**	77.4
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y12304.D	1	12/20/13	EP	n/a	n/a	VY545
Run #2							

	Initial Weight
Run #1	6.05 g
Run #2	

VOA List for NC, May 2012

CAS No.	Compound	Result	LOQ	LOD	Units	Q
67-64-1	Acetone	137	53	27	ug/kg	
71-43-2	Benzene	2.1 U	5.3	2.1	ug/kg	
108-86-1	Bromobenzene	2.1 U	5.3	2.1	ug/kg	
74-97-5	Bromochloromethane	2.1 U	5.3	2.1	ug/kg	
75-27-4	Bromodichloromethane	2.1 U	5.3	2.1	ug/kg	
75-25-2	Bromoform	2.1 U	5.3	2.1	ug/kg	
104-51-8	n-Butylbenzene	37.7	5.3	2.1	ug/kg	
135-98-8	sec-Butylbenzene	19.1	5.3	2.1	ug/kg	
98-06-6	tert-Butylbenzene	2.1 U	5.3	2.1	ug/kg	
108-90-7	Chlorobenzene	2.1 U	5.3	2.1	ug/kg	
75-00-3	Chloroethane	4.3 U	5.3	4.3	ug/kg	
67-66-3	Chloroform	2.1 U	5.3	2.1	ug/kg	
95-49-8	o-Chlorotoluene	2.1 U	5.3	2.1	ug/kg	
106-43-4	p-Chlorotoluene	2.1 U	5.3	2.1	ug/kg	
56-23-5	Carbon tetrachloride	2.1 U	5.3	2.1	ug/kg	
75-34-3	1,1-Dichloroethane	2.1 U	5.3	2.1	ug/kg	
75-35-4	1,1-Dichloroethylene	2.1 U	5.3	2.1	ug/kg	
563-58-6	1,1-Dichloropropene	2.1 U	5.3	2.1	ug/kg	
106-93-4	1,2-Dibromoethane	2.1 U	5.3	2.1	ug/kg	
107-06-2	1,2-Dichloroethane	2.1 U	5.3	2.1	ug/kg	
78-87-5	1,2-Dichloropropane	2.1 U	5.3	2.1	ug/kg	
142-28-9	1,3-Dichloropropane	2.1 U	5.3	2.1	ug/kg	
108-20-3	Di-Isopropyl ether	2.1 U	5.3	2.1	ug/kg	
594-20-7	2,2-Dichloropropane	2.1 U	5.3	2.1	ug/kg	
124-48-1	Dibromochloromethane	2.1 U	5.3	2.1	ug/kg	
75-71-8	Dichlorodifluoromethane	2.1 U	5.3	2.1	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	2.1 U	5.3	2.1	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	2.1 U	5.3	2.1	ug/kg	
541-73-1	m-Dichlorobenzene	2.1 U	5.3	2.1	ug/kg	
95-50-1	o-Dichlorobenzene	2.1 U	5.3	2.1	ug/kg	
106-46-7	p-Dichlorobenzene	2.1 U	5.3	2.1	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	2.1 U	5.3	2.1	ug/kg	

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration range

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B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	1932-UST-SW03		
Lab Sample ID:	FA11056-4	**Date Sampled:**	12/18/13
Matrix:	SO - Soil	**Date Received:**	12/19/13
Method:	SW846 8260B	**Percent Solids:**	77.4
Project:	WE03, Camp Lejuene, NC		

VOA List for NC, May 2012

CAS No.	Compound	Result	LOQ	LOD	Units	Q
10061-02-6	trans-1,3-Dichloropropene	2.1 U	5.3	2.1	ug/kg	
64-17-5	Ethyl alcohol	210 U	430	210	ug/kg	
100-41-4	Ethylbenzene	8.0	5.3	2.1	ug/kg	
637-92-3	Ethyl tert-Butyl Ether	2.1 U	5.3	2.1	ug/kg	
591-78-6	2-Hexanone	11 U	27	11	ug/kg	
98-82-8	Isopropylbenzene	5.7	5.3	2.1	ug/kg	
99-87-6	p-Isopropyltoluene	11.0	5.3	2.1	ug/kg	
108-10-1	4-Methyl-2-pentanone	11 U	27	11	ug/kg	
74-83-9	Methyl bromide	4.3 U	5.3	4.3	ug/kg	
74-87-3	Methyl chloride	4.3 U	5.3	4.3	ug/kg	
75-09-2	Methylene chloride	5.3 U	11	5.3	ug/kg	
78-93-3	Methyl ethyl ketone	11 U	27	11	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	2.1 U	5.3	2.1	ug/kg	
91-20-3	Naphthalene	4.3 U	5.3	4.3	ug/kg	
103-65-1	n-Propylbenzene	28.4	5.3	2.1	ug/kg	
100-42-5	Styrene	2.1 U	5.3	2.1	ug/kg	
75-85-4	Tert-Amyl Alcohol	27 U	53	27	ug/kg	
994-05-8	Tert-Amyl Methyl Ether	2.1 U	5.3	2.1	ug/kg	
75-65-0	Tert-Butyl Alcohol	27 U	53	27	ug/kg	
762-75-4	tert-Butyl Formate	27 U	53	27	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	2.1 U	5.3	2.1	ug/kg	
71-55-6	1,1,1-Trichloroethane	2.1 U	5.3	2.1	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	2.1 U	5.3	2.1	ug/kg	
79-00-5	1,1,2-Trichloroethane	2.1 U	5.3	2.1	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	2.1 U	5.3	2.1	ug/kg	
96-18-4	1,2,3-Trichloropropane	2.1 U	5.3	2.1	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	2.1 U	5.3	2.1	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	66.5	5.3	2.1	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	7.2	5.3	2.1	ug/kg	
127-18-4	Tetrachloroethylene	2.1 U	5.3	2.1	ug/kg	
108-88-3	Toluene	2.1 U	5.3	2.1	ug/kg	
79-01-6	Trichloroethylene	2.1 U	5.3	2.1	ug/kg	
75-69-4	Trichlorofluoromethane	4.3 U	5.3	4.3	ug/kg	
75-01-4	Vinyl chloride	2.1 U	5.3	2.1	ug/kg	
108-05-4	Vinyl Acetate	21 U	27	21	ug/kg	
1330-20-7	Xylene (total)	7.4	16	6.4	ug/kg	J
	m,p-Xylene	7.4	11	4.3	ug/kg	J
95-47-6	o-Xylene	2.1 U	5.3	2.1	ug/kg	

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-SW03		
Lab Sample ID:	FA11056-4	**Date Sampled:**	12/18/13
Matrix:	SO - Soil	**Date Received:**	12/19/13
Method:	SW846 8260B	**Percent Solids:**	77.4
Project:	WE03, Camp Lejuene, NC		

VOA List for NC, May 2012

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		75-124%
2037-26-5	Toluene-D8	92%		75-126%
460-00-4	4-Bromofluorobenzene	96%		71-133%
17060-07-0	1,2-Dichloroethane-D4	109%		72-135%

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-SW03		
Lab Sample ID:	FA11056-4	**Date Sampled:**	12/18/13
Matrix:	SO - Soil	**Date Received:**	12/19/13
Method:	SW846 8015C	**Percent Solids:**	77.4
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QR080478.D	1	12/20/13	MM	n/a	n/a	GQR3425
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	4.38 g	5.0 ml	10.0 ul
Run #2			

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH-GRO (C6-C10)	279	88	44	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	142%		56-149%
98-08-8	aaa-Trifluorotoluene	99%		66-132%

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-SW03		
Lab Sample ID:	FA11056-4	**Date Sampled:**	12/18/13
Matrix:	SO - Soil	**Date Received:**	12/19/13
Method:	SW846 8015C SW846 3550C	**Percent Solids:**	77.4
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	LL52803.D	1	12/26/13	SJL	12/26/13	OP49895	GLL1985
Run #2							

	Initial Weight	Final Volume
Run #1	30.0 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28)	6.15	5.4	4.3	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	68%		56-122%

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-SW04		
Lab Sample ID:	FA11056-5	**Date Sampled:**	12/18/13
Matrix:	SO - Soil	**Date Received:**	12/19/13
Method:	SW846 8260B	**Percent Solids:**	84.6
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y12305.D	1	12/20/13	EP	n/a	n/a	VY545
Run #2							

	Initial Weight
Run #1	6.58 g
Run #2	

VOA List for NC, May 2012

CAS No.	Compound	Result	LOQ	LOD	Units	Q
67-64-1	Acetone	171	45	22	ug/kg	
71-43-2	Benzene	1.8 U	4.5	1.8	ug/kg	
108-86-1	Bromobenzene	1.8 U	4.5	1.8	ug/kg	
74-97-5	Bromochloromethane	1.8 U	4.5	1.8	ug/kg	
75-27-4	Bromodichloromethane	1.8 U	4.5	1.8	ug/kg	
75-25-2	Bromoform	1.8 U	4.5	1.8	ug/kg	
104-51-8	n-Butylbenzene	3.2	4.5	1.8	ug/kg	J
135-98-8	sec-Butylbenzene	4.5	4.5	1.8	ug/kg	
98-06-6	tert-Butylbenzene	1.8 U	4.5	1.8	ug/kg	
108-90-7	Chlorobenzene	1.8 U	4.5	1.8	ug/kg	
75-00-3	Chloroethane	3.6 U	4.5	3.6	ug/kg	
67-66-3	Chloroform	1.8 U	4.5	1.8	ug/kg	
95-49-8	o-Chlorotoluene	1.8 U	4.5	1.8	ug/kg	
106-43-4	p-Chlorotoluene	1.8 U	4.5	1.8	ug/kg	
56-23-5	Carbon tetrachloride	1.8 U	4.5	1.8	ug/kg	
75-34-3	1,1-Dichloroethane	1.8 U	4.5	1.8	ug/kg	
75-35-4	1,1-Dichloroethylene	1.8 U	4.5	1.8	ug/kg	
563-58-6	1,1-Dichloropropene	1.8 U	4.5	1.8	ug/kg	
106-93-4	1,2-Dibromoethane	1.8 U	4.5	1.8	ug/kg	
107-06-2	1,2-Dichloroethane	1.8 U	4.5	1.8	ug/kg	
78-87-5	1,2-Dichloropropane	1.8 U	4.5	1.8	ug/kg	
142-28-9	1,3-Dichloropropane	1.8 U	4.5	1.8	ug/kg	
108-20-3	Di-Isopropyl ether	1.8 U	4.5	1.8	ug/kg	
594-20-7	2,2-Dichloropropane	1.8 U	4.5	1.8	ug/kg	
124-48-1	Dibromochloromethane	1.8 U	4.5	1.8	ug/kg	
75-71-8	Dichlorodifluoromethane	1.8 U	4.5	1.8	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	1.8 U	4.5	1.8	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	1.8 U	4.5	1.8	ug/kg	
541-73-1	m-Dichlorobenzene	1.8 U	4.5	1.8	ug/kg	
95-50-1	o-Dichlorobenzene	1.8 U	4.5	1.8	ug/kg	
106-46-7	p-Dichlorobenzene	1.8 U	4.5	1.8	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	1.8 U	4.5	1.8	ug/kg	

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-SW04		
Lab Sample ID:	FA11056-5	**Date Sampled:**	12/18/13
Matrix:	SO - Soil	**Date Received:**	12/19/13
Method:	SW846 8260B	**Percent Solids:**	84.6
Project:	WE03, Camp Lejuene, NC		

VOA List for NC, May 2012

CAS No.	Compound	Result	LOQ	LOD	Units	Q
10061-02-6	trans-1,3-Dichloropropene	1.8 U	4.5	1.8	ug/kg	
64-17-5	Ethyl alcohol	180 U	360	180	ug/kg	
100-41-4	Ethylbenzene	9.8	4.5	1.8	ug/kg	
637-92-3	Ethyl tert-Butyl Ether	1.8 U	4.5	1.8	ug/kg	
591-78-6	2-Hexanone	9.0 U	22	9.0	ug/kg	
98-82-8	Isopropylbenzene	3.1	4.5	1.8	ug/kg	J
99-87-6	p-Isopropyltoluene	1.9	4.5	1.8	ug/kg	J
108-10-1	4-Methyl-2-pentanone	9.0 U	22	9.0	ug/kg	
74-83-9	Methyl bromide	3.6 U	4.5	3.6	ug/kg	
74-87-3	Methyl chloride	3.6 U	4.5	3.6	ug/kg	
75-09-2	Methylene chloride	4.5 U	9.0	4.5	ug/kg	
78-93-3	Methyl ethyl ketone	9.0 U	22	9.0	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	1.8 U	4.5	1.8	ug/kg	
91-20-3	Naphthalene	3.6 U	4.5	3.6	ug/kg	
103-65-1	n-Propylbenzene	10.6	4.5	1.8	ug/kg	
100-42-5	Styrene	1.8 U	4.5	1.8	ug/kg	
75-85-4	Tert-Amyl Alcohol	22 U	45	22	ug/kg	
994-05-8	Tert-Amyl Methyl Ether	1.8 U	4.5	1.8	ug/kg	
75-65-0	Tert-Butyl Alcohol	22 U	45	22	ug/kg	
762-75-4	tert-Butyl Formate	22 U	45	22	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	1.8 U	4.5	1.8	ug/kg	
71-55-6	1,1,1-Trichloroethane	1.8 U	4.5	1.8	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	1.8 U	4.5	1.8	ug/kg	
79-00-5	1,1,2-Trichloroethane	1.8 U	4.5	1.8	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	1.8 U	4.5	1.8	ug/kg	
96-18-4	1,2,3-Trichloropropane	1.8 U	4.5	1.8	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	1.8 U	4.5	1.8	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	2.2	4.5	1.8	ug/kg	J
108-67-8	1,3,5-Trimethylbenzene	5.5	4.5	1.8	ug/kg	
127-18-4	Tetrachloroethylene	1.8 U	4.5	1.8	ug/kg	
108-88-3	Toluene	1.8 U	4.5	1.8	ug/kg	
79-01-6	Trichloroethylene	1.8 U	4.5	1.8	ug/kg	
75-69-4	Trichlorofluoromethane	3.6 U	4.5	3.6	ug/kg	
75-01-4	Vinyl chloride	1.8 U	4.5	1.8	ug/kg	
108-05-4	Vinyl Acetate	18 U	22	18	ug/kg	
1330-20-7	Xylene (total)	5.4 U	13	5.4	ug/kg	
	m,p-Xylene	3.6 U	9.0	3.6	ug/kg	
95-47-6	o-Xylene	1.8 U	4.5	1.8	ug/kg	

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-SW04		
Lab Sample ID:	FA11056-5	**Date Sampled:**	12/18/13
Matrix:	SO - Soil	**Date Received:**	12/19/13
Method:	SW846 8260B	**Percent Solids:**	84.6
Project:	WE03, Camp Lejuene, NC		

VOA List for NC, May 2012

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		75-124%
2037-26-5	Toluene-D8	93%		75-126%
460-00-4	4-Bromofluorobenzene	100%		71-133%
17060-07-0	1,2-Dichloroethane-D4	107%		72-135%

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-SW04		
Lab Sample ID:	FA11056-5	**Date Sampled:**	12/18/13
Matrix:	SO - Soil	**Date Received:**	12/19/13
Method:	SW846 8015C	**Percent Solids:**	84.6
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QR080479.D	1	12/20/13	MM	n/a	n/a	GQR3425
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	6.23 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH-GRO (C6-C10)	8.17	5.7	2.8	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	119%		56-149%
98-08-8	aaa-Trifluorotoluene	105%		66-132%

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-SW04		
Lab Sample ID:	FA11056-5	**Date Sampled:**	12/18/13
Matrix:	SO - Soil	**Date Received:**	12/19/13
Method:	SW846 8015C SW846 3550C	**Percent Solids:**	84.6
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JJ000794.D	1	12/24/13	ME	12/21/13	OP49859	GJJ36
Run #2							

	Initial Weight	Final Volume
Run #1	29.9 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28) [a]	6.32	4.9	4.0	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	67%		56-122%

(a) Petroleum hydrocarbon pattern extends beyond C28.

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-SW05		
Lab Sample ID:	FA11056-6	**Date Sampled:**	12/18/13
Matrix:	SO - Soil	**Date Received:**	12/19/13
Method:	SW846 8260B	**Percent Solids:**	84.1
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y12313.D	1	12/20/13	EP	n/a	n/a	VY545
Run #2							

	Initial Weight
Run #1	8.00 g
Run #2	

VOA List for NC, May 2012

CAS No.	Compound	Result	LOQ	LOD	Units	Q
67-64-1	Acetone	19 U	37	19	ug/kg	
71-43-2	Benzene	1.5 U	3.7	1.5	ug/kg	
108-86-1	Bromobenzene	1.5 U	3.7	1.5	ug/kg	
74-97-5	Bromochloromethane	1.5 U	3.7	1.5	ug/kg	
75-27-4	Bromodichloromethane	1.5 U	3.7	1.5	ug/kg	
75-25-2	Bromoform	1.5 U	3.7	1.5	ug/kg	
104-51-8	n-Butylbenzene	1.5 U	3.7	1.5	ug/kg	
135-98-8	sec-Butylbenzene	1.5 U	3.7	1.5	ug/kg	
98-06-6	tert-Butylbenzene	1.5 U	3.7	1.5	ug/kg	
108-90-7	Chlorobenzene	1.5 U	3.7	1.5	ug/kg	
75-00-3	Chloroethane	3.0 U	3.7	3.0	ug/kg	
67-66-3	Chloroform	1.5 U	3.7	1.5	ug/kg	
95-49-8	o-Chlorotoluene	1.5 U	3.7	1.5	ug/kg	
106-43-4	p-Chlorotoluene	1.5 U	3.7	1.5	ug/kg	
56-23-5	Carbon tetrachloride	1.5 U	3.7	1.5	ug/kg	
75-34-3	1,1-Dichloroethane	1.5 U	3.7	1.5	ug/kg	
75-35-4	1,1-Dichloroethylene	1.5 U	3.7	1.5	ug/kg	
563-58-6	1,1-Dichloropropene	1.5 U	3.7	1.5	ug/kg	
106-93-4	1,2-Dibromoethane	1.5 U	3.7	1.5	ug/kg	
107-06-2	1,2-Dichloroethane	1.5 U	3.7	1.5	ug/kg	
78-87-5	1,2-Dichloropropane	1.5 U	3.7	1.5	ug/kg	
142-28-9	1,3-Dichloropropane	1.5 U	3.7	1.5	ug/kg	
108-20-3	Di-Isopropyl ether	1.5 U	3.7	1.5	ug/kg	
594-20-7	2,2-Dichloropropane	1.5 U	3.7	1.5	ug/kg	
124-48-1	Dibromochloromethane	1.5 U	3.7	1.5	ug/kg	
75-71-8	Dichlorodifluoromethane	1.5 U	3.7	1.5	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	1.5 U	3.7	1.5	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	1.5 U	3.7	1.5	ug/kg	
541-73-1	m-Dichlorobenzene	1.5 U	3.7	1.5	ug/kg	
95-50-1	o-Dichlorobenzene	1.5 U	3.7	1.5	ug/kg	
106-46-7	p-Dichlorobenzene	1.5 U	3.7	1.5	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	1.5 U	3.7	1.5	ug/kg	

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-SW05		
Lab Sample ID:	FA11056-6	**Date Sampled:**	12/18/13
Matrix:	SO - Soil	**Date Received:**	12/19/13
Method:	SW846 8260B	**Percent Solids:**	84.1
Project:	WE03, Camp Lejuene, NC		

VOA List for NC, May 2012

CAS No.	Compound	Result	LOQ	LOD	Units	Q
10061-02-6	trans-1,3-Dichloropropene	1.5 U	3.7	1.5	ug/kg	
64-17-5	Ethyl alcohol	150 U	300	150	ug/kg	
100-41-4	Ethylbenzene	1.5 U	3.7	1.5	ug/kg	
637-92-3	Ethyl tert-Butyl Ether	1.5 U	3.7	1.5	ug/kg	
591-78-6	2-Hexanone	7.4 U	19	7.4	ug/kg	
98-82-8	Isopropylbenzene	1.5 U	3.7	1.5	ug/kg	
99-87-6	p-Isopropyltoluene	1.5 U	3.7	1.5	ug/kg	
108-10-1	4-Methyl-2-pentanone	7.4 U	19	7.4	ug/kg	
74-83-9	Methyl bromide	3.0 U	3.7	3.0	ug/kg	
74-87-3	Methyl chloride	3.0 U	3.7	3.0	ug/kg	
75-09-2	Methylene chloride	3.7 U	7.4	3.7	ug/kg	
78-93-3	Methyl ethyl ketone	7.4 U	19	7.4	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	1.5 U	3.7	1.5	ug/kg	
91-20-3	Naphthalene	3.0 U	3.7	3.0	ug/kg	
103-65-1	n-Propylbenzene	1.5 U	3.7	1.5	ug/kg	
100-42-5	Styrene	1.5 U	3.7	1.5	ug/kg	
75-85-4	Tert-Amyl Alcohol	19 U	37	19	ug/kg	
994-05-8	Tert-Amyl Methyl Ether	1.5 U	3.7	1.5	ug/kg	
75-65-0	Tert-Butyl Alcohol	19 U	37	19	ug/kg	
762-75-4	tert-Butyl Formate	19 U	37	19	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	1.5 U	3.7	1.5	ug/kg	
71-55-6	1,1,1-Trichloroethane	1.5 U	3.7	1.5	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	1.5 U	3.7	1.5	ug/kg	
79-00-5	1,1,2-Trichloroethane	1.5 U	3.7	1.5	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	1.5 U	3.7	1.5	ug/kg	
96-18-4	1,2,3-Trichloropropane	1.5 U	3.7	1.5	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	1.5 U	3.7	1.5	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	1.5 U	3.7	1.5	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	1.5 U	3.7	1.5	ug/kg	
127-18-4	Tetrachloroethylene	1.5 U	3.7	1.5	ug/kg	
108-88-3	Toluene	1.5 U	3.7	1.5	ug/kg	
79-01-6	Trichloroethylene	1.5 U	3.7	1.5	ug/kg	
75-69-4	Trichlorofluoromethane	3.0 U	3.7	3.0	ug/kg	
75-01-4	Vinyl chloride	1.5 U	3.7	1.5	ug/kg	
108-05-4	Vinyl Acetate	15 U	19	15	ug/kg	
1330-20-7	Xylene (total)	4.5 U	11	4.5	ug/kg	
	m,p-Xylene	3.0 U	7.4	3.0	ug/kg	
95-47-6	o-Xylene	1.5 U	3.7	1.5	ug/kg	

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-SW05		
Lab Sample ID:	FA11056-6	**Date Sampled:**	12/18/13
Matrix:	SO - Soil	**Date Received:**	12/19/13
Method:	SW846 8260B	**Percent Solids:**	84.1
Project:	WE03, Camp Lejuene, NC		

VOA List for NC, May 2012

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		75-124%
2037-26-5	Toluene-D8	94%		75-126%
460-00-4	4-Bromofluorobenzene	101%		71-133%
17060-07-0	1,2-Dichloroethane-D4	102%		72-135%

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-SW05		
Lab Sample ID:	FA11056-6	**Date Sampled:**	12/18/13
Matrix:	SO - Soil	**Date Received:**	12/19/13
Method:	SW846 8015C	**Percent Solids:**	84.1
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QR080483.D	1	12/20/13	MM	n/a	n/a	GQR3425
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	6.29 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH-GRO (C6-C10)	2.8 U	5.7	2.8	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	121%		56-149%
98-08-8	aaa-Trifluorotoluene	103%		66-132%

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-SW05		
Lab Sample ID:	FA11056-6	**Date Sampled:**	12/18/13
Matrix:	SO - Soil	**Date Received:**	12/19/13
Method:	SW846 8015C SW846 3550C	**Percent Solids:**	84.1
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JJ000763.D	1	12/23/13	ME	12/21/13	OP49859	GJJ35
Run #2							

	Initial Weight	Final Volume
Run #1	30.2 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28)	3.9 U	4.9	3.9	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	72%		56-122%

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-SW05A		
Lab Sample ID:	FA11056-7	**Date Sampled:**	12/18/13
Matrix:	SO - Soil	**Date Received:**	12/19/13
Method:	SW846 8260B	**Percent Solids:**	85.3
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y12307.D	1	12/20/13	EP	n/a	n/a	VY545
Run #2							

	Initial Weight
Run #1	7.61 g
Run #2	

VOA List for NC, May 2012

CAS No.	Compound	Result	LOQ	LOD	Units	Q
67-64-1	Acetone	19 U	39	19	ug/kg	
71-43-2	Benzene	1.5 U	3.9	1.5	ug/kg	
108-86-1	Bromobenzene	1.5 U	3.9	1.5	ug/kg	
74-97-5	Bromochloromethane	1.5 U	3.9	1.5	ug/kg	
75-27-4	Bromodichloromethane	1.5 U	3.9	1.5	ug/kg	
75-25-2	Bromoform	1.5 U	3.9	1.5	ug/kg	
104-51-8	n-Butylbenzene	1.5 U	3.9	1.5	ug/kg	
135-98-8	sec-Butylbenzene	1.5 U	3.9	1.5	ug/kg	
98-06-6	tert-Butylbenzene	1.5 U	3.9	1.5	ug/kg	
108-90-7	Chlorobenzene	1.5 U	3.9	1.5	ug/kg	
75-00-3	Chloroethane	3.1 U	3.9	3.1	ug/kg	
67-66-3	Chloroform	1.5 U	3.9	1.5	ug/kg	
95-49-8	o-Chlorotoluene	1.5 U	3.9	1.5	ug/kg	
106-43-4	p-Chlorotoluene	1.5 U	3.9	1.5	ug/kg	
56-23-5	Carbon tetrachloride	1.5 U	3.9	1.5	ug/kg	
75-34-3	1,1-Dichloroethane	1.5 U	3.9	1.5	ug/kg	
75-35-4	1,1-Dichloroethylene	1.5 U	3.9	1.5	ug/kg	
563-58-6	1,1-Dichloropropene	1.5 U	3.9	1.5	ug/kg	
106-93-4	1,2-Dibromoethane	1.5 U	3.9	1.5	ug/kg	
107-06-2	1,2-Dichloroethane	1.5 U	3.9	1.5	ug/kg	
78-87-5	1,2-Dichloropropane	1.5 U	3.9	1.5	ug/kg	
142-28-9	1,3-Dichloropropane	1.5 U	3.9	1.5	ug/kg	
108-20-3	Di-Isopropyl ether	1.5 U	3.9	1.5	ug/kg	
594-20-7	2,2-Dichloropropane	1.5 U	3.9	1.5	ug/kg	
124-48-1	Dibromochloromethane	1.5 U	3.9	1.5	ug/kg	
75-71-8	Dichlorodifluoromethane	1.5 U	3.9	1.5	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	1.5 U	3.9	1.5	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	1.5 U	3.9	1.5	ug/kg	
541-73-1	m-Dichlorobenzene	1.5 U	3.9	1.5	ug/kg	
95-50-1	o-Dichlorobenzene	1.5 U	3.9	1.5	ug/kg	
106-46-7	p-Dichlorobenzene	1.5 U	3.9	1.5	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	1.5 U	3.9	1.5	ug/kg	

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-SW05A		
Lab Sample ID:	FA11056-7	**Date Sampled:**	12/18/13
Matrix:	SO - Soil	**Date Received:**	12/19/13
Method:	SW846 8260B	**Percent Solids:**	85.3
Project:	WE03, Camp Lejuene, NC		

VOA List for NC, May 2012

CAS No.	Compound	Result	LOQ	LOD	Units	Q
10061-02-6	trans-1,3-Dichloropropene	1.5 U	3.9	1.5	ug/kg	
64-17-5	Ethyl alcohol	150 U	310	150	ug/kg	
100-41-4	Ethylbenzene	1.5 U	3.9	1.5	ug/kg	
637-92-3	Ethyl tert-Butyl Ether	1.5 U	3.9	1.5	ug/kg	
591-78-6	2-Hexanone	7.7 U	19	7.7	ug/kg	
98-82-8	Isopropylbenzene	1.5 U	3.9	1.5	ug/kg	
99-87-6	p-Isopropyltoluene	1.5 U	3.9	1.5	ug/kg	
108-10-1	4-Methyl-2-pentanone	7.7 U	19	7.7	ug/kg	
74-83-9	Methyl bromide	3.1 U	3.9	3.1	ug/kg	
74-87-3	Methyl chloride	3.1 U	3.9	3.1	ug/kg	
75-09-2	Methylene chloride	3.9 U	7.7	3.9	ug/kg	
78-93-3	Methyl ethyl ketone	7.7 U	19	7.7	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	1.5 U	3.9	1.5	ug/kg	
91-20-3	Naphthalene	3.1 U	3.9	3.1	ug/kg	
103-65-1	n-Propylbenzene	1.5 U	3.9	1.5	ug/kg	
100-42-5	Styrene	1.5 U	3.9	1.5	ug/kg	
75-85-4	Tert-Amyl Alcohol	19 U	39	19	ug/kg	
994-05-8	Tert-Amyl Methyl Ether	1.5 U	3.9	1.5	ug/kg	
75-65-0	Tert-Butyl Alcohol	19 U	39	19	ug/kg	
762-75-4	tert-Butyl Formate	19 U	39	19	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	1.5 U	3.9	1.5	ug/kg	
71-55-6	1,1,1-Trichloroethane	1.5 U	3.9	1.5	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	1.5 U	3.9	1.5	ug/kg	
79-00-5	1,1,2-Trichloroethane	1.5 U	3.9	1.5	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	1.5 U	3.9	1.5	ug/kg	
96-18-4	1,2,3-Trichloropropane	1.5 U	3.9	1.5	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	1.5 U	3.9	1.5	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	1.5 U	3.9	1.5	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	1.5 U	3.9	1.5	ug/kg	
127-18-4	Tetrachloroethylene	1.5 U	3.9	1.5	ug/kg	
108-88-3	Toluene	1.5 U	3.9	1.5	ug/kg	
79-01-6	Trichloroethylene	1.5 U	3.9	1.5	ug/kg	
75-69-4	Trichlorofluoromethane	3.1 U	3.9	3.1	ug/kg	
75-01-4	Vinyl chloride	1.5 U	3.9	1.5	ug/kg	
108-05-4	Vinyl Acetate	15 U	19	15	ug/kg	
1330-20-7	Xylene (total)	4.6 U	12	4.6	ug/kg	
	m,p-Xylene	3.1 U	7.7	3.1	ug/kg	
95-47-6	o-Xylene	1.5 U	3.9	1.5	ug/kg	

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-SW05A		
Lab Sample ID:	FA11056-7	**Date Sampled:**	12/18/13
Matrix:	SO - Soil	**Date Received:**	12/19/13
Method:	SW846 8260B	**Percent Solids:**	85.3
Project:	WE03, Camp Lejuene, NC		

VOA List for NC, May 2012

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		75-124%
2037-26-5	Toluene-D8	98%		75-126%
460-00-4	4-Bromofluorobenzene	98%		71-133%
17060-07-0	1,2-Dichloroethane-D4	93%		72-135%

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-SW05A		
Lab Sample ID:	FA11056-7	**Date Sampled:**	12/18/13
Matrix:	SO - Soil	**Date Received:**	12/19/13
Method:	SW846 8015C	**Percent Solids:**	85.3
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QR080484.D	1	12/20/13	MM	n/a	n/a	GQR3425
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	6.41 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH-GRO (C6-C10)	2.7 U	5.4	2.7	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	119%		56-149%
98-08-8	aaa-Trifluorotoluene	101%		66-132%

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-SW05A		
Lab Sample ID:	FA11056-7	**Date Sampled:**	12/18/13
Matrix:	SO - Soil	**Date Received:**	12/19/13
Method:	SW846 8015C SW846 3550C	**Percent Solids:**	85.3
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JJ000764.D	1	12/23/13	ME	12/21/13	OP49859	GJJ35
Run #2							

	Initial Weight	Final Volume
Run #1	29.7 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28) [a]	8.75	4.9	3.9	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	72%		56-122%

(a) Petroleum hydrocarbon pattern extends beyond C28.

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-DS01		
Lab Sample ID:	FA11056-8	**Date Sampled:**	12/18/13
Matrix:	SO - Soil	**Date Received:**	12/19/13
Method:	SW846 8260B	**Percent Solids:**	83.7
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y12308.D	1	12/20/13	EP	n/a	n/a	VY545
Run #2							

	Initial Weight
Run #1	5.76 g
Run #2	

VOA List for NC, May 2012

CAS No.	Compound	Result	LOQ	LOD	Units	Q
67-64-1	Acetone	29.3	52	26	ug/kg	J
71-43-2	Benzene	2.1 U	5.2	2.1	ug/kg	
108-86-1	Bromobenzene	2.1 U	5.2	2.1	ug/kg	
74-97-5	Bromochloromethane	2.1 U	5.2	2.1	ug/kg	
75-27-4	Bromodichloromethane	2.1 U	5.2	2.1	ug/kg	
75-25-2	Bromoform	2.1 U	5.2	2.1	ug/kg	
104-51-8	n-Butylbenzene	2.1 U	5.2	2.1	ug/kg	
135-98-8	sec-Butylbenzene	2.1 U	5.2	2.1	ug/kg	
98-06-6	tert-Butylbenzene	2.1 U	5.2	2.1	ug/kg	
108-90-7	Chlorobenzene	2.1 U	5.2	2.1	ug/kg	
75-00-3	Chloroethane	4.1 U	5.2	4.1	ug/kg	
67-66-3	Chloroform	2.1 U	5.2	2.1	ug/kg	
95-49-8	o-Chlorotoluene	2.1 U	5.2	2.1	ug/kg	
106-43-4	p-Chlorotoluene	2.1 U	5.2	2.1	ug/kg	
56-23-5	Carbon tetrachloride	2.1 U	5.2	2.1	ug/kg	
75-34-3	1,1-Dichloroethane	2.1 U	5.2	2.1	ug/kg	
75-35-4	1,1-Dichloroethylene	2.1 U	5.2	2.1	ug/kg	
563-58-6	1,1-Dichloropropene	2.1 U	5.2	2.1	ug/kg	
106-93-4	1,2-Dibromoethane	2.1 U	5.2	2.1	ug/kg	
107-06-2	1,2-Dichloroethane	2.1 U	5.2	2.1	ug/kg	
78-87-5	1,2-Dichloropropane	2.1 U	5.2	2.1	ug/kg	
142-28-9	1,3-Dichloropropane	2.1 U	5.2	2.1	ug/kg	
108-20-3	Di-Isopropyl ether	2.1 U	5.2	2.1	ug/kg	
594-20-7	2,2-Dichloropropane	2.1 U	5.2	2.1	ug/kg	
124-48-1	Dibromochloromethane	2.1 U	5.2	2.1	ug/kg	
75-71-8	Dichlorodifluoromethane	2.1 U	5.2	2.1	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	2.1 U	5.2	2.1	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	2.1 U	5.2	2.1	ug/kg	
541-73-1	m-Dichlorobenzene	2.1 U	5.2	2.1	ug/kg	
95-50-1	o-Dichlorobenzene	2.1 U	5.2	2.1	ug/kg	
106-46-7	p-Dichlorobenzene	2.1 U	5.2	2.1	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	2.1 U	5.2	2.1	ug/kg	

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-DS01		
Lab Sample ID:	FA11056-8	**Date Sampled:**	12/18/13
Matrix:	SO - Soil	**Date Received:**	12/19/13
Method:	SW846 8260B	**Percent Solids:**	83.7
Project:	WE03, Camp Lejuene, NC		

VOA List for NC, May 2012

CAS No.	Compound	Result	LOQ	LOD	Units	Q
10061-02-6	trans-1,3-Dichloropropene	2.1 U	5.2	2.1	ug/kg	
64-17-5	Ethyl alcohol	210 U	410	210	ug/kg	
100-41-4	Ethylbenzene	2.1 U	5.2	2.1	ug/kg	
637-92-3	Ethyl tert-Butyl Ether	2.1 U	5.2	2.1	ug/kg	
591-78-6	2-Hexanone	10 U	26	10	ug/kg	
98-82-8	Isopropylbenzene	2.1 U	5.2	2.1	ug/kg	
99-87-6	p-Isopropyltoluene	2.1 U	5.2	2.1	ug/kg	
108-10-1	4-Methyl-2-pentanone	10 U	26	10	ug/kg	
74-83-9	Methyl bromide	4.1 U	5.2	4.1	ug/kg	
74-87-3	Methyl chloride	4.1 U	5.2	4.1	ug/kg	
75-09-2	Methylene chloride	5.2 U	10	5.2	ug/kg	
78-93-3	Methyl ethyl ketone	10 U	26	10	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	2.1 U	5.2	2.1	ug/kg	
91-20-3	Naphthalene	4.1 U	5.2	4.1	ug/kg	
103-65-1	n-Propylbenzene	2.1 U	5.2	2.1	ug/kg	
100-42-5	Styrene	2.1 U	5.2	2.1	ug/kg	
75-85-4	Tert-Amyl Alcohol	26 U	52	26	ug/kg	
994-05-8	Tert-Amyl Methyl Ether	2.1 U	5.2	2.1	ug/kg	
75-65-0	Tert-Butyl Alcohol	26 U	52	26	ug/kg	
762-75-4	tert-Butyl Formate	26 U	52	26	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	2.1 U	5.2	2.1	ug/kg	
71-55-6	1,1,1-Trichloroethane	2.1 U	5.2	2.1	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	2.1 U	5.2	2.1	ug/kg	
79-00-5	1,1,2-Trichloroethane	2.1 U	5.2	2.1	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	2.1 U	5.2	2.1	ug/kg	
96-18-4	1,2,3-Trichloropropane	2.1 U	5.2	2.1	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	2.1 U	5.2	2.1	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	2.1 U	5.2	2.1	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	2.1 U	5.2	2.1	ug/kg	
127-18-4	Tetrachloroethylene	2.1 U	5.2	2.1	ug/kg	
108-88-3	Toluene	2.1 U	5.2	2.1	ug/kg	
79-01-6	Trichloroethylene	2.1 U	5.2	2.1	ug/kg	
75-69-4	Trichlorofluoromethane	4.1 U	5.2	4.1	ug/kg	
75-01-4	Vinyl chloride	2.1 U	5.2	2.1	ug/kg	
108-05-4	Vinyl Acetate	21 U	26	21	ug/kg	
1330-20-7	Xylene (total)	6.2 U	16	6.2	ug/kg	
	m,p-Xylene	4.1 U	10	4.1	ug/kg	
95-47-6	o-Xylene	2.1 U	5.2	2.1	ug/kg	

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-DS01		
Lab Sample ID:	FA11056-8	**Date Sampled:**	12/18/13
Matrix:	SO - Soil	**Date Received:**	12/19/13
Method:	SW846 8260B	**Percent Solids:**	83.7
Project:	WE03, Camp Lejuene, NC		

VOA List for NC, May 2012

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		75-124%
2037-26-5	Toluene-D8	96%		75-126%
460-00-4	4-Bromofluorobenzene	110%		71-133%
17060-07-0	1,2-Dichloroethane-D4	108%		72-135%

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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:	1932-UST-DS01		
Lab Sample ID:	FA11056-8	**Date Sampled:**	12/18/13
Matrix:	SO - Soil	**Date Received:**	12/19/13
Method:	SW846 8015C	**Percent Solids:**	83.7
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QR080485.D	1	12/20/13	MM	n/a	n/a	GQR3425
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.63 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH-GRO (C6-C10)	3.1 U	6.3	3.1	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	128%		56-149%
98-08-8	aaa-Trifluorotoluene	98%		66-132%

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-DS01		
Lab Sample ID:	FA11056-8	**Date Sampled:**	12/18/13
Matrix:	SO - Soil	**Date Received:**	12/19/13
Method:	SW846 8015C SW846 3550C	**Percent Solids:**	83.7
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JJ000770.D	1	12/23/13	ME	12/21/13	OP49859	GJJ35
Run #2							

	Initial Weight	Final Volume
Run #1	30.4 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28) [a]	4.02	4.9	3.9	mg/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	71%		56-122%

(a) Petroleum hydrocarbon pattern extends beyond C28.

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-SW06		
Lab Sample ID:	FA11056-9	**Date Sampled:**	12/18/13
Matrix:	SO - Soil	**Date Received:**	12/19/13
Method:	SW846 8260B	**Percent Solids:**	83.5
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y12314.D	1	12/20/13	EP	n/a	n/a	VY545
Run #2	Y12315.D	1	12/20/13	EP	n/a	n/a	VY545

	Initial Weight	Methanol Aliquot
Run #1	6.03 g	
Run #2	5.76 g	100 ul

VOA List for NC, May 2012

CAS No.	Compound	Result	LOQ	LOD	Units	Q
67-64-1	Acetone	95.3	50	25	ug/kg	
71-43-2	Benzene	2.0 U	5.0	2.0	ug/kg	
108-86-1	Bromobenzene	2.0 U	5.0	2.0	ug/kg	
74-97-5	Bromochloromethane	2.0 U	5.0	2.0	ug/kg	
75-27-4	Bromodichloromethane	2.0 U	5.0	2.0	ug/kg	
75-25-2	Bromoform	2.0 U	5.0	2.0	ug/kg	
104-51-8	n-Butylbenzene	789 [a]	310	120	ug/kg	
135-98-8	sec-Butylbenzene	25.1	5.0	2.0	ug/kg	
98-06-6	tert-Butylbenzene	2.0 U	5.0	2.0	ug/kg	
108-90-7	Chlorobenzene	2.0 U	5.0	2.0	ug/kg	
75-00-3	Chloroethane	4.0 U	5.0	4.0	ug/kg	
67-66-3	Chloroform	2.0 U	5.0	2.0	ug/kg	
95-49-8	o-Chlorotoluene	2.0 U	5.0	2.0	ug/kg	
106-43-4	p-Chlorotoluene	2.0 U	5.0	2.0	ug/kg	
56-23-5	Carbon tetrachloride	2.0 U	5.0	2.0	ug/kg	
75-34-3	1,1-Dichloroethane	2.0 U	5.0	2.0	ug/kg	
75-35-4	1,1-Dichloroethylene	2.0 U	5.0	2.0	ug/kg	
563-58-6	1,1-Dichloropropene	2.0 U	5.0	2.0	ug/kg	
106-93-4	1,2-Dibromoethane	2.0 U	5.0	2.0	ug/kg	
107-06-2	1,2-Dichloroethane	2.0 U	5.0	2.0	ug/kg	
78-87-5	1,2-Dichloropropane	2.0 U	5.0	2.0	ug/kg	
142-28-9	1,3-Dichloropropane	2.0 U	5.0	2.0	ug/kg	
108-20-3	Di-Isopropyl ether	2.0 U	5.0	2.0	ug/kg	
594-20-7	2,2-Dichloropropane	2.0 U	5.0	2.0	ug/kg	
124-48-1	Dibromochloromethane	2.0 U	5.0	2.0	ug/kg	
75-71-8	Dichlorodifluoromethane	2.0 U	5.0	2.0	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	2.0 U	5.0	2.0	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	2.0 U	5.0	2.0	ug/kg	
541-73-1	m-Dichlorobenzene	2.0 U	5.0	2.0	ug/kg	
95-50-1	o-Dichlorobenzene	2.0 U	5.0	2.0	ug/kg	
106-46-7	p-Dichlorobenzene	2.0 U	5.0	2.0	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	2.0 U	5.0	2.0	ug/kg	

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-SW06		
Lab Sample ID:	FA11056-9	**Date Sampled:**	12/18/13
Matrix:	SO - Soil	**Date Received:**	12/19/13
Method:	SW846 8260B	**Percent Solids:**	83.5
Project:	WE03, Camp Lejuene, NC		

VOA List for NC, May 2012

CAS No.	Compound	Result	LOQ	LOD	Units	Q
10061-02-6	trans-1,3-Dichloropropene	2.0 U	5.0	2.0	ug/kg	
64-17-5	Ethyl alcohol	200 U	400	200	ug/kg	
100-41-4	Ethylbenzene	2.0 U	5.0	2.0	ug/kg	
637-92-3	Ethyl tert-Butyl Ether	2.0 U	5.0	2.0	ug/kg	
591-78-6	2-Hexanone	9.9 U	25	9.9	ug/kg	
98-82-8	Isopropylbenzene	4.0	5.0	2.0	ug/kg	J
99-87-6	p-Isopropyltoluene	22.7	5.0	2.0	ug/kg	
108-10-1	4-Methyl-2-pentanone	9.9 U	25	9.9	ug/kg	
74-83-9	Methyl bromide	4.0 U	5.0	4.0	ug/kg	
74-87-3	Methyl chloride	4.0 U	5.0	4.0	ug/kg	
75-09-2	Methylene chloride	5.0 U	9.9	5.0	ug/kg	
78-93-3	Methyl ethyl ketone	9.9 U	25	9.9	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	2.0 U	5.0	2.0	ug/kg	
91-20-3	Naphthalene	250 U [a]	310	250	ug/kg	
103-65-1	n-Propylbenzene	28.5	5.0	2.0	ug/kg	
100-42-5	Styrene	2.0 U	5.0	2.0	ug/kg	
75-85-4	Tert-Amyl Alcohol	25 U	50	25	ug/kg	
994-05-8	Tert-Amyl Methyl Ether	2.0 U	5.0	2.0	ug/kg	
75-65-0	Tert-Butyl Alcohol	25 U	50	25	ug/kg	
762-75-4	tert-Butyl Formate	25 U	50	25	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	2.0 U	5.0	2.0	ug/kg	
71-55-6	1,1,1-Trichloroethane	2.0 U	5.0	2.0	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	2.0 U	5.0	2.0	ug/kg	
79-00-5	1,1,2-Trichloroethane	2.0 U	5.0	2.0	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	2.0 U	5.0	2.0	ug/kg	
96-18-4	1,2,3-Trichloropropane	2.0 U	5.0	2.0	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	2.0 U	5.0	2.0	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	2030 [a]	310	120	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	556 [a]	310	120	ug/kg	
127-18-4	Tetrachloroethylene	2.0 U	5.0	2.0	ug/kg	
108-88-3	Toluene	2.0 U	5.0	2.0	ug/kg	
79-01-6	Trichloroethylene	2.0 U	5.0	2.0	ug/kg	
75-69-4	Trichlorofluoromethane	4.0 U	5.0	4.0	ug/kg	
75-01-4	Vinyl chloride	2.0 U	5.0	2.0	ug/kg	
108-05-4	Vinyl Acetate	20 U	25	20	ug/kg	
1330-20-7	Xylene (total)	6.0 U	15	6.0	ug/kg	
	m,p-Xylene	4.0 U	9.9	4.0	ug/kg	
95-47-6	o-Xylene	2.0 U	5.0	2.0	ug/kg	

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-SW06		
Lab Sample ID:	FA11056-9	**Date Sampled:**	12/18/13
Matrix:	SO - Soil	**Date Received:**	12/19/13
Method:	SW846 8260B	**Percent Solids:**	83.5
Project:	WE03, Camp Lejuene, NC		

VOA List for NC, May 2012

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%	99%	75-124%
2037-26-5	Toluene-D8	87%	91%	75-126%
460-00-4	4-Bromofluorobenzene	95%	95%	71-133%
17060-07-0	1,2-Dichloroethane-D4	105%	98%	72-135%

(a) Result is from Run# 2

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-SW06		
Lab Sample ID:	FA11056-9	**Date Sampled:**	12/18/13
Matrix:	SO - Soil	**Date Received:**	12/19/13
Method:	SW846 8015C	**Percent Solids:**	83.5
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QR080486.D	1	12/20/13	MM	n/a	n/a	GQR3425
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.82 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH-GRO (C6-C10)	48.4	6.1	3.1	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	122% [a]		56-149%
460-00-4	4-Bromofluorobenzene	168% [b]		56-149%
98-08-8	aaa-Trifluorotoluene	103%		66-132%

(a) Result reported from PID.
(b) Outside control limits due to matrix interference.

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-SW06		
Lab Sample ID:	FA11056-9	**Date Sampled:**	12/18/13
Matrix:	SO - Soil	**Date Received:**	12/19/13
Method:	SW846 8015C SW846 3550C	**Percent Solids:**	83.5
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JJ000771.D	1	12/23/13	ME	12/21/13	OP49859	GJJ35
Run #2							

	Initial Weight	Final Volume
Run #1	30.2 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28)	11.5	5.0	4.0	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	70%		56-122%

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N = Indicates presumptive evidence of a compound

Accutest Laboratories Southeast
Chain of Custody

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www.accutest.com

Accutest JOB # FA11056 PAGE 1 OF 1

Accutest Quote # | SKIFF#

Client / Reporting Information

Company Name: Tetra Tech
Address: 17885 Von Karman, Suite 500
City: Irvine State: CA Zip: 92614
Project Contact: Sidney Sedako E-mail:
Phone#: 949-859-5022
Sampler(s) Name(s) (Printed):

Project Information

Project Name: UST Demo Camp Lejeune
Street:
City: Jacksonville State: NC
Project #: 4659WE03
Fax #:
Client Purchase Order #: 1036773-20

Analytical Information / **Matrix Codes**

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe

Accutest Sample #	Field ID / Point of Collection	Collection DATE	Collection TIME	SAMPLED BY	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaOH+ZNAC	DI WATER	MEOH	GRO	DRO	8260 VOC	LAB USE ONLY
1	1932-UST-PL01	12/18	0850	RMS	SO	6		1						2	3	X	X	X	
2	1932-UST-SW01		1030			6		1						2	3				
3	1932-UST-SW02		0935			6		1						2	3				
4	1932-UST-SW03		1010			6		1						2	3				
5	1932-UST-SW04		1200			18		3						6	9				MS/MSD
6	1932-UST-SW05		1100			6		1						2	3				
7	1932-UST-SW05A		1210			6		1						2	3				
8	1932-UST-DS01		1335			6		1						2	3				
9	1932-UST-SW06	12/18	1215	RMS	SO	6		1						2	3				

TURNAROUND TIME (Business Days)

Approved By: / Rush Code

- [ ] 10 Days Standard
- [ ] 7 Day RUSH
- [x] 5 Day RUSH — 5 Day TAT
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] OTHER

Emergency or Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [x] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULT1 (EPA LEVEL 4)
- [x] EDD'S

Comments / Remarks

Fed Ex# 8047 2600 6840

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:
1	12/18 1700	2 FX	3 FX	12/19/13 1600	4 12/19/13 16:00
Relinquished by: 5	Date Time:	Received By: 6	Relinquished by: 7	Date Time:	Received By: 8

Lab Use Only: Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved where Applicable: Y N Total # of Coolers: Cooler Temperature (s) Celsius: 2.4

FA11056: Chain of Custody
Page 1 of 2

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: FA11056 CLIENT: Tetratech PROJECT: UST Demo

DATE/TIME RECEIVED: 12/19/13 10:00 (MM/DD/YY 24:00) NUMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: (FEDEX) UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS: 8047 2600 6840

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET
- [ ] WET ICE PRESENT

TRIP BLANK INFORMATION

- [x] TRIP BLANK PROVIDED
- [ ] TRIP BLANK NOT PROVIDED
- [ ] TRIP BLANK NOT ON COC
- [x] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [ ] RECEIVED WATER TRIP BLANK
- [x] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM ____ 5-GRAM ____

NUMBER OF 5035 FIELD KITS ? 11

NUMBER OF LAB FILTERED METALS ? ____

TEMPERATURE INFORMATION

- [ ] IR THERM ID 1 CORR. FACTOR -.04
- [ ] OBSERVED TEMPS: 3.3
- [ ] CORRECTED TEMPS: 2.9

SAMPLE INFORMATION

- [ ] SAMPLE LABELS PRESENT ON ALL BOTTLES
- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] 5035 FIELD KIT FROZEN WITHIN 48 HOUR'S
- [ ] RESIDUAL CHLORINE PRESENT

(APPICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS)

SUMMARY OF COMMENTS:

TECHNICIAN SIGNATURE/DATE [signature] 12/19/13 REVIEWER SIGNATURE/DATE [signature] 12/19/13

NF 12/10

receipt confirmation 122910.xls

FA11056: Chain of Custody

Page 2 of 2

ROUND 2 SOIL SAMPLE ANALYTICAL REPORT

Southeast ACCUTEST LABORATORIES

01/20/14

Technical Report for

Tetra Tech EC, Inc

WE03, Camp Lejuene, NC

4659 WEO3

Accutest Job Number: FA11487

Sampling Date: 01/08/14

Report to:

Tetra Tech EC, Inc
17885 Von Karman Ave Suite 500
Irvine, CA 92614
lisa.bienkowski@tetratech.com; sabina.sudoko@tetratech.com

ATTN: Lisa Bienkowski

Total number of pages in report: **121**

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

Harry Behzadi, Ph.D.
Laboratory Director

Client Service contact: Andrea Colby 407-425-6700

Certifications: FL (E83510), LA (03051), KS (E-10327), IA (366), IL (200063), NC (573), NJ (FL002), SC (96038001) DoD ELAP (L-A-B L2229), CA (04226CA), TX (T104704404), PA (68-03573), VA (460177), AK, AR, GA, KY, MA, NV, OK, UT, WA

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Test results relate only to samples analyzed.

Accutest Laboratories is the sole authority for authorizing edits or modifications to this document. Unauthorized modification of this report is strictly prohibited.

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Accutest Laboratories

Sample Summary

Tetra Tech EC, Inc

Job No: FA11487

WE03, Camp Lejuene, NC
Project No: 4659 WEO3

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA11487-1	01/08/14	09:20	JG	01/09/14	SO	Soil	1932-UST-SW07
FA11487-2	01/08/14	09:40	JG	01/09/14	SO	Soil	1932-UST-SW08
FA11487-3	01/08/14	09:40	JG	01/09/14	SO	Soil	1932-UST-SW08A
FA11487-4	01/08/14	10:00	JG	01/09/14	SO	Soil	1932-UST-SW09
FA11487-4D	01/08/14	10:00	JG	01/09/14	SO	Soil Dup/MSD	1932-UST-SW09
FA11487-4S	01/08/14	10:00	JG	01/09/14	SO	Soil Matrix Spike	1932-UST-SW09
FA11487-5	01/08/14	11:00	JG	01/09/14	SO	Soil	1932-UST-SP01
FA11487-5L	01/08/14	11:00	JG	01/09/14	SO	Soil	1932-UST-SP01

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Tetra Tech EC, Inc **Job No:** FA11487

Site: WE03, Camp Lejuene, NC **Report Date** 1/20/2014 2:48:27 PM

5 Samples were collected on 01/08/2014 and were received at Accutest SE on 01/09/2014 properly preserved, at 2.4 Deg. C and intact. These Samples received an Accutest job number of FA11487. 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 GCMS By Method SW846 8260B

Matrix: SO **Batch ID:** VY555

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) FA11487-4MS, FA11487-4MSD were used as the QC samples indicated.

Blank Spike Recovery(s) for 4-Methyl-2-pentanone, tert-Butyl Formate are outside control limits. Within DOD QSM control limits.

Matrix Spike Recovery(s) for 1,1-Dichloroethylene, Dichlorodifluoromethane, tert-Butyl Formate, Tetrachloroethylene, Vinyl chloride are outside control limits. Probable cause is due to matrix interference.

Matrix Spike Duplicate Recovery(s) for Ethyl tert-Butyl Ether, Methylene chloride, tert-Butyl Formate are outside control limits. Probable cause is due to matrix interference.

Matrix Spike / Matrix Spike Duplicate Recovery(s) for 1,2,4-Trimethylbenzene are outside control limits. Outside control limits due to high level in sample relative to spike amount.

RPD(s) for MSD for Tert-Amyl Methyl Ether are outside control limits for sample FA11487-4MSD. Probable cause is due to sample non-homogeneity.

Matrix: SO **Batch ID:** VN3204

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) FA11566-2LMS, FA11566-2LMSD, FA11517-1DUP were used as the QC samples indicated.

Extractables by GCMS By Method SW846 8270D

Matrix: LEACHATE **Batch ID:** OP50097

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) FA11487-5LDUP, FA11566-3LMS, FA11566-3LMSD were used as the QC samples indicated.

Sample(s) FA11487-2 has surrogates outside control limits. Probable cause is due to matrix interference.

Matrix: SO **Batch ID:** OP50033

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) FA11487-4MS, FA11487-4MSD were used as the QC samples indicated.

Blank Spike Recovery(s) for N-Nitroso-di-n-propylamine are outside control limits. Sporadic marginal failure.

Matrix Spike / Matrix Spike Duplicate Recovery(s) for 2-Methylnaphthalene, Hexachloroethane are outside control limits. Probable cause is due to matrix interference.

Sample(s) FA11487-2 has surrogates outside control limits. Probable cause is due to matrix interference.

FA11487-2 for Terphenyl-d14: Outside control limits. However, sample was ND.

Extractables by GCMS By Method SW846 8270D

Matrix: SO **Batch ID:** OP50033

FA11487-1 for N-Nitroso-di-n-propylamine: Associated BS recovery outside DOD QSM control limits.

FA11487-2 for N-Nitroso-di-n-propylamine: Associated BS recovery outside DOD QSM control limits.

FA11487-3 for N-Nitroso-di-n-propylamine: Associated BS recovery outside DOD QSM control limits.

FA11487-4 for N-Nitroso-di-n-propylamine: Associated BS recovery outside DOD QSM control limits.

Volatiles by GC By Method MADEP VPH REV 1.1

Matrix: SO **Batch ID:** GUU301

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) FA11487-4MS, FA11487-4MSD were used as the QC samples indicated.

Matrix Spike / Matrix Spike Duplicate Recovery(s) for C5- C8 Aliphatics (Unadj.), C9- C10 Aromatics (Unadj.), C9- C12 Aliphatics (Unadj.) are outside control limits. Probable cause is due to matrix interference. For method performance in a clean matrix, refer to Blank Spike.

Sample(s) FA11487-4MS, FA11487-4MSD, FA11487-4DUP, FA11487-1, FA11487-2, FA11487-3 have surrogates outside control limits. Probable cause is due to matrix interference.

FA11487-1 for BFB: Outside control limits; however, sample is ND.

FA11487-2 for BFB: Outside control limits; however, sample is ND.

FA11487-3 for BFB: Outside control limits; however, sample is ND.

FA11487-4 for BFB: Outside control limits.

FA11487-4: Confirmation run.

Matrix: SO **Batch ID:** GUU302

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) FA11487-4DUP were used as the QC samples indicated.

Sample(s) FA11487-4 has compounds reported with “E” qualifiers indicating estimated value exceeding calibration range.

Sample(s) FA11487-4MS, FA11487-4MSD, FA11487-4DUP, FA11487-1, FA11487-2, FA11487-3 have surrogates outside control limits. Probable cause is due to matrix interference.

FA11487-4 for BFB: Outside control limits.

FA11487-4DUP for BFB: Outside control limits.

FA11487-4 for C9- C12 Aliphatics (Unadj.): Result is below RL at higher dilution.

Matrix: SO **Batch ID:** GUU303

Sample(s) FA11487-4MS, FA11487-4MSD, FA11487-4DUP, FA11487-1, FA11487-2, FA11487-3 have surrogates outside control limits. Probable cause is due to matrix interference.

FA11487-4 for BFB: Outside control limits.

FA11487-4: Confirmation run.

Volatiles by GC By Method SW846 8015C

Matrix: SO **Batch ID:** GQR3434

All samples were analyzed within the recommended method holding time.

Sample(s) FA11487-5MS, FA11487-5MSD were used as the QC samples indicated.

All method blanks for this batch meet method specific criteria.

Extractables by GC By Method MADEP EPH REV 1.1

Matrix: SO **Batch ID:** OP50045

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) FA11487-4DUP was used as the QC samples indicated.

Extractables by GC By Method SW846 8015C

Matrix: SO **Batch ID:** OP50034

All samples were extracted within the recommended method holding time.
All samples were analyzed within the recommended method holding time.
All method blanks for this batch meet method specific criteria.
Sample(s) FA11486-5MS, FA11486-5MSD were used as the QC samples indicated.

Extractables by GC By Method SW846 8081B

Matrix: LEACHATE **Batch ID:** OP50095

All samples were extracted within the recommended method holding time.
All samples were analyzed within the recommended method holding time.
All method blanks for this batch meet method specific criteria.
Sample(s) FA11487-5LMS, FA11487-5LMSD, FA11566-1LDUP were used as the QC samples indicated.

Extractables by GC By Method SW846 8082A

Matrix: SO **Batch ID:** OP50052

All samples were extracted within the recommended method holding time.
All samples were analyzed within the recommended method holding time.
All method blanks for this batch meet method specific criteria.
Sample(s) FA11487-5MS, FA11487-5MSD were used as the QC samples indicated.

Extractables by GC By Method SW846 8151A

Matrix: LEACHATE **Batch ID:** OP50098

All samples were extracted within the recommended method holding time.
All samples were analyzed within the recommended method holding time.
All method blanks for this batch meet method specific criteria.
Sample(s) FA11487-5LMS, FA11487-5LMSD were used as the QC samples indicated.

Metals By Method SW846 6010C

Matrix: LEACHATE **Batch ID:** MP26678

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.
Sample(s) FA11487-5LDUP, FA11566-1LMS, FA11566-1LMSD, FA11566-1LSDL were used as the QC samples for metals.

Metals By Method SW846 7470A

Matrix: LEACHATE **Batch ID:** MP26677

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.
Sample(s) FA11487-5LDUP, FA11566-1LMS, FA11566-1LMSD, FA11566-1LSDL were used as the QC samples for metals.

Wet Chemistry By Method SM19 2540G

Matrix: SO **Batch ID:** GN59638

Sample(s) FA11487-4DUP was used as the QC samples for Solids, Percent.

Wet Chemistry By Method SW846 1010

Matrix: SO **Batch ID:** GN59675

Sample(s) FA11445-1DUP was used as the QC samples for Ignitability (Flashpoint).
FA11487-5 for Ignitability (Flashpoint): Not ignitable.

Wet Chemistry By Method SW846 CHAP7

Matrix: SO **Batch ID:** GN59751

Sample(s) FA11487-5DUP was used as the QC samples for Corrosivity as pH.

Matrix: SO **Batch ID:** GP23249

All samples were prepped within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) FA11487-5DUP was used as the QC samples for Cyanide Reactivity.

Matrix: SO **Batch ID:** GP23250

All samples were prepped within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) FA11487-5DUP was used as the QC samples for Sulfide Reactivity.

RPD(s) for Duplicate for Sulfide Reactivity are outside control limits for sample GP23250-D1. RPD acceptable due to low duplicate and sample concentrations.

Accutest Laboratories Southeast (ALSE) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALSE and as stated on the COC. ALSE certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALSE Quality Manual except as noted above. This report is to be used in its entirety. ALSE is not responsible for any assumptions of data quality if partial data packages are used

Narrative prepared by:

Date: January 20, 2014

_____

Lovelie Metzgar, QA Officer (signature on file)

Summary of Hits

Job Number: FA11487
Account: Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC
Collected: 01/08/14

3

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FA11487-1	**1932-UST-SW07**					
No hits reported in this sample.						
FA11487-2	**1932-UST-SW08**					
No hits reported in this sample.						
FA11487-3	**1932-UST-SW08A**					
No hits reported in this sample.						
FA11487-4	**1932-UST-SW09**					
n-Butylbenzene		125 J	160	62	ug/kg	SW846 8260B
Ethylbenzene		303	160	62	ug/kg	SW846 8260B
Naphthalene		392	160	120	ug/kg	SW846 8260B
n-Propylbenzene		335	160	62	ug/kg	SW846 8260B
1,2,4-Trimethylbenzene		3440	160	62	ug/kg	SW846 8260B
1,3,5-Trimethylbenzene		890	160	62	ug/kg	SW846 8260B
Xylene (total)		1100	470	190	ug/kg	SW846 8260B
m,p-Xylene		1010	310	120	ug/kg	SW846 8260B
o-Xylene		92.5 J	160	62	ug/kg	SW846 8260B
1-Methylnaphthalene		1310	190	39	ug/kg	SW846 8270D
2-Methylnaphthalene		2900	190	39	ug/kg	SW846 8270D
Naphthalene		773	190	39	ug/kg	SW846 8270D
C9- C12 Aliphatics (Unadj.) [a]		4180 E	3200	1100 [b]	ug/kg	MADEP VPH REV 1.1
C9- C10 Aromatics (Unadj.)		16600	6300	2200 [b]	ug/kg	MADEP VPH REV 1.1
C9-C18 Aliphatics		7220 J	12000	5800 [b]	ug/kg	MADEP EPH REV 1.1
C19-C36 Aliphatics		5840 J	12000	5800 [b]	ug/kg	MADEP EPH REV 1.1
FA11487-5	**1932-UST-SP01**					
Corrosivity as pH		7.4		[b]	su	SW846 CHAP7
Ignitability (Flashpoint) [c]		> 200		[b]	Deg. F	SW846 1010
FA11487-5L	**1932-UST-SP01**					
Barium		0.12 J	2.0	0.050	mg/l	SW846 6010C

(a) Result is below RL at higher dilution.
(b) Value reported is laboratory DL (MDL).
(c) Not ignitable.

Southeast ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	1932-UST-SW07		
Lab Sample ID:	FA11487-1	**Date Sampled:**	01/08/14
Matrix:	SO - Soil	**Date Received:**	01/09/14
Method:	SW846 8260B	**Percent Solids:**	83.4
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y12540.D	1	01/09/14	EP	n/a	n/a	VY555
Run #2							

	Initial Weight
Run #1	7.59 g
Run #2	

VOA List for NC, May 2012

CAS No.	Compound	Result	LOQ	LOD	Units	Q
67-64-1	Acetone	20 U	39	20	ug/kg	
71-43-2	Benzene	1.6 U	3.9	1.6	ug/kg	
108-86-1	Bromobenzene	1.6 U	3.9	1.6	ug/kg	
74-97-5	Bromochloromethane	2.0 U	3.9	2.0	ug/kg	
75-27-4	Bromodichloromethane	1.6 U	3.9	1.6	ug/kg	
75-25-2	Bromoform	1.6 U	3.9	1.6	ug/kg	
104-51-8	n-Butylbenzene	1.6 U	3.9	1.6	ug/kg	
135-98-8	sec-Butylbenzene	1.6 U	3.9	1.6	ug/kg	
98-06-6	tert-Butylbenzene	1.6 U	3.9	1.6	ug/kg	
108-90-7	Chlorobenzene	1.6 U	3.9	1.6	ug/kg	
75-00-3	Chloroethane	3.2 U	3.9	3.2	ug/kg	
67-66-3	Chloroform	1.6 U	3.9	1.6	ug/kg	
95-49-8	o-Chlorotoluene	1.6 U	3.9	1.6	ug/kg	
106-43-4	p-Chlorotoluene	1.6 U	3.9	1.6	ug/kg	
56-23-5	Carbon tetrachloride	1.6 U	3.9	1.6	ug/kg	
75-34-3	1,1-Dichloroethane	1.6 U	3.9	1.6	ug/kg	
75-35-4	1,1-Dichloroethylene	1.6 U	3.9	1.6	ug/kg	
563-58-6	1,1-Dichloropropene	1.6 U	3.9	1.6	ug/kg	
106-93-4	1,2-Dibromoethane	2.0 U	3.9	2.0	ug/kg	
107-06-2	1,2-Dichloroethane	1.6 U	3.9	1.6	ug/kg	
78-87-5	1,2-Dichloropropane	1.6 U	3.9	1.6	ug/kg	
142-28-9	1,3-Dichloropropane	1.6 U	3.9	1.6	ug/kg	
108-20-3	Di-Isopropyl ether	1.6 U	3.9	1.6	ug/kg	
594-20-7	2,2-Dichloropropane	1.6 U	3.9	1.6	ug/kg	
124-48-1	Dibromochloromethane	1.6 U	3.9	1.6	ug/kg	
75-71-8	Dichlorodifluoromethane	1.6 U	3.9	1.6	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	1.6 U	3.9	1.6	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	1.6 U	3.9	1.6	ug/kg	
541-73-1	m-Dichlorobenzene	1.6 U	3.9	1.6	ug/kg	
95-50-1	o-Dichlorobenzene	1.6 U	3.9	1.6	ug/kg	
106-46-7	p-Dichlorobenzene	1.6 U	3.9	1.6	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	1.6 U	3.9	1.6	ug/kg	

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-SW07		
Lab Sample ID:	FA11487-1	**Date Sampled:**	01/08/14
Matrix:	SO - Soil	**Date Received:**	01/09/14
Method:	SW846 8260B	**Percent Solids:**	83.4
Project:	WE03, Camp Lejuene, NC		

VOA List for NC, May 2012

CAS No.	Compound	Result	LOQ	LOD	Units	Q
10061-02-6	trans-1,3-Dichloropropene	1.6 U	3.9	1.6	ug/kg	
64-17-5	Ethyl alcohol	160 U	320	160	ug/kg	
100-41-4	Ethylbenzene	1.6 U	3.9	1.6	ug/kg	
637-92-3	Ethyl tert-Butyl Ether	1.6 U	3.9	1.6	ug/kg	
591-78-6	2-Hexanone	7.9 U	20	7.9	ug/kg	
98-82-8	Isopropylbenzene	1.6 U	3.9	1.6	ug/kg	
99-87-6	p-Isopropyltoluene	1.6 U	3.9	1.6	ug/kg	
108-10-1	4-Methyl-2-pentanone	7.9 U	20	7.9	ug/kg	
74-83-9	Methyl bromide	3.2 U	3.9	3.2	ug/kg	
74-87-3	Methyl chloride	3.2 U	3.9	3.2	ug/kg	
75-09-2	Methylene chloride	3.9 U	7.9	3.9	ug/kg	
78-93-3	Methyl ethyl ketone	7.9 U	20	7.9	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	1.6 U	3.9	1.6	ug/kg	
91-20-3	Naphthalene	3.2 U	3.9	3.2	ug/kg	
103-65-1	n-Propylbenzene	1.6 U	3.9	1.6	ug/kg	
100-42-5	Styrene	1.6 U	3.9	1.6	ug/kg	
75-85-4	Tert-Amyl Alcohol	20 U	39	20	ug/kg	
994-05-8	Tert-Amyl Methyl Ether	1.6 U	3.9	1.6	ug/kg	
75-65-0	Tert-Butyl Alcohol	20 U	39	20	ug/kg	
762-75-4	tert-Butyl Formate	20 U	39	20	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	1.6 U	3.9	1.6	ug/kg	
71-55-6	1,1,1-Trichloroethane	1.6 U	3.9	1.6	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	1.6 U	3.9	1.6	ug/kg	
79-00-5	1,1,2-Trichloroethane	2.0 U	3.9	2.0	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	1.6 U	3.9	1.6	ug/kg	
96-18-4	1,2,3-Trichloropropane	2.0 U	3.9	2.0	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	1.6 U	3.9	1.6	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	1.6 U	3.9	1.6	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	1.6 U	3.9	1.6	ug/kg	
127-18-4	Tetrachloroethylene	1.6 U	3.9	1.6	ug/kg	
108-88-3	Toluene	1.6 U	3.9	1.6	ug/kg	
79-01-6	Trichloroethylene	1.6 U	3.9	1.6	ug/kg	
75-69-4	Trichlorofluoromethane	3.2 U	3.9	3.2	ug/kg	
75-01-4	Vinyl chloride	1.6 U	3.9	1.6	ug/kg	
108-05-4	Vinyl Acetate	16 U	20	16	ug/kg	
1330-20-7	Xylene (total)	4.7 U	12	4.7	ug/kg	
	m,p-Xylene	3.2 U	7.9	3.2	ug/kg	
95-47-6	o-Xylene	1.6 U	3.9	1.6	ug/kg	

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-SW07		
Lab Sample ID:	FA11487-1	**Date Sampled:**	01/08/14
Matrix:	SO - Soil	**Date Received:**	01/09/14
Method:	SW846 8260B	**Percent Solids:**	83.4
Project:	WE03, Camp Lejuene, NC		

VOA List for NC, May 2012

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		75-124%
2037-26-5	Toluene-D8	101%		75-126%
460-00-4	4-Bromofluorobenzene	89%		71-133%
17060-07-0	1,2-Dichloroethane-D4	102%		72-135%

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LOQ = Limit of Quantitation
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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:	1932-UST-SW07		
Lab Sample ID:	FA11487-1	**Date Sampled:**	01/08/14
Matrix:	SO - Soil	**Date Received:**	01/09/14
Method:	SW846 8270D SW846 3550C	**Percent Solids:**	83.4
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X032658.D	1	01/10/14	FS	01/09/14	OP50033	SX1541
Run #2							

	Initial Weight	Final Volume
Run #1	29.6 g	1.0 ml
Run #2		

ABN List for NC, May 2012

CAS No.	Compound	Result	LOQ	LOD	Units	Q
65-85-0	Benzoic Acid	410 U	1000	410	ug/kg	
95-57-8	2-Chlorophenol	41 U	200	41	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	41 U	200	41	ug/kg	
120-83-2	2,4-Dichlorophenol	41 U	200	41	ug/kg	
105-67-9	2,4-Dimethylphenol	81 U	200	81	ug/kg	
51-28-5	2,4-Dinitrophenol	810 U	1000	810	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	160 U	410	160	ug/kg	
95-48-7	2-Methylphenol	41 U	200	41	ug/kg	
	3&4-Methylphenol	81 U	200	81	ug/kg	
88-75-5	2-Nitrophenol	41 U	200	41	ug/kg	
100-02-7	4-Nitrophenol	410 U	1000	410	ug/kg	
87-86-5	Pentachlorophenol	410 U	1000	410	ug/kg	
108-95-2	Phenol	41 U	200	41	ug/kg	
88-06-2	2,4,6-Trichlorophenol	41 U	200	41	ug/kg	
83-32-9	Acenaphthene	41 U	200	41	ug/kg	
208-96-8	Acenaphthylene	41 U	200	41	ug/kg	
120-12-7	Anthracene	41 U	200	41	ug/kg	
56-55-3	Benzo(a)anthracene	41 U	200	41	ug/kg	
50-32-8	Benzo(a)pyrene	41 U	200	41	ug/kg	
205-99-2	Benzo(b)fluoranthene	41 U	200	41	ug/kg	
191-24-2	Benzo(g,h,i)perylene	41 U	200	41	ug/kg	
207-08-9	Benzo(k)fluoranthene	41 U	200	41	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	41 U	200	41	ug/kg	
85-68-7	Butyl benzyl phthalate	81 U	200	81	ug/kg	
100-51-6	Benzyl Alcohol	81 U	200	81	ug/kg	
91-58-7	2-Chloronaphthalene	41 U	200	41	ug/kg	
106-47-8	4-Chloroaniline	41 U	200	41	ug/kg	
218-01-9	Chrysene	41 U	200	41	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	41 U	200	41	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	41 U	200	41	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	41 U	200	41	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	41 U	200	41	ug/kg	

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N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	1932-UST-SW07		
Lab Sample ID:	FA11487-1	**Date Sampled:**	01/08/14
Matrix:	SO - Soil	**Date Received:**	01/09/14
Method:	SW846 8270D SW846 3550C	**Percent Solids:**	83.4
Project:	WE03, Camp Lejuene, NC		

ABN List for NC, May 2012

CAS No.	Compound	Result	LOQ	LOD	Units	Q
95-50-1	1,2-Dichlorobenzene	81 U	200	81	ug/kg	
122-66-7	1,2-Diphenylhydrazine	41 U	200	41	ug/kg	
541-73-1	1,3-Dichlorobenzene	81 U	200	81	ug/kg	
106-46-7	1,4-Dichlorobenzene	81 U	200	81	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	81 U	200	81	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	41 U	200	41	ug/kg	
132-64-9	Dibenzofuran	41 U	200	41	ug/kg	
84-74-2	Di-n-butyl phthalate	160 U	410	160	ug/kg	
117-84-0	Di-n-octyl phthalate	81 U	200	81	ug/kg	
84-66-2	Diethyl phthalate	160 U	410	160	ug/kg	
131-11-3	Dimethyl phthalate	81 U	200	81	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	160 U	410	160	ug/kg	
206-44-0	Fluoranthene	41 U	200	41	ug/kg	
86-73-7	Fluorene	41 U	200	41	ug/kg	
118-74-1	Hexachlorobenzene	41 U	200	41	ug/kg	
87-68-3	Hexachlorobutadiene	81 U	200	81	ug/kg	
77-47-4	Hexachlorocyclopentadiene	81 U	200	81	ug/kg	
67-72-1	Hexachloroethane	81 U	200	81	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	41 U	200	41	ug/kg	
78-59-1	Isophorone	41 U	200	41	ug/kg	
90-12-0	1-Methylnaphthalene	41 U	200	41	ug/kg	
91-57-6	2-Methylnaphthalene	41 U	200	41	ug/kg	
91-20-3	Naphthalene	41 U	200	41	ug/kg	
98-95-3	Nitrobenzene	41 U	200	41	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine [a]	41 U	200	41	ug/kg	
86-30-6	N-Nitrosodiphenylamine	81 U	200	81	ug/kg	
85-01-8	Phenanthrene	41 U	200	41	ug/kg	
129-00-0	Pyrene	41 U	200	41	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	41 U	200	41	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	92%		40-102%
4165-62-2	Phenol-d5	90%		41-100%
118-79-6	2,4,6-Tribromophenol	97%		42-108%
4165-60-0	Nitrobenzene-d5	84%		40-105%
321-60-8	2-Fluorobiphenyl	88%		43-107%
1718-51-0	Terphenyl-d14	110%		45-119%

(a) Associated BS recovery outside DOD QSM control limits.

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N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	1932-UST-SW07		
Lab Sample ID:	FA11487-1	**Date Sampled:**	01/08/14
Matrix:	SO - Soil	**Date Received:**	01/09/14
Method:	MADEP VPH REV 1.1	**Percent Solids:**	83.4
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	UU006220.D	1	01/10/14	AH	n/a	n/a	GUU301
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	9.78 g	5.1 ml	100 ul
Run #2			

MADEP VPH List

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	C5- C8 Aliphatics (Unadj.)	1400 U	4100	1400 [a]	ug/kg	
	C9- C12 Aliphatics (Unadj.)	1400 U	4100	1400 [a]	ug/kg	
	C9- C10 Aromatics (Unadj.)	1400 U	4100	1400 [a]	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	BFB	205% [b]		70-130%
460-00-4	BFB	184% [b]		70-130%

(a) Value reported is laboratory DL (MDL).
(b) Outside control limits; however, sample is ND.

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LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-SW07		
Lab Sample ID:	FA11487-1	**Date Sampled:**	01/08/14
Matrix:	SO - Soil	**Date Received:**	01/09/14
Method:	MADEP EPH REV 1.1 SW846 3546	**Percent Solids:**	83.4
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	NN007295.D	1	01/15/14	NJ	01/10/14	OP50045	GNN317
Run #2							

	Initial Weight	Final Volume
Run #1	20.0 g	2.0 ml
Run #2		

MAEPH List

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	C11-C22 Aromatics (Unadj.)	9000 U	12000	9000 [a]	ug/kg	
	C9-C18 Aliphatics	6000 U	12000	6000 [a]	ug/kg	
	C19-C36 Aliphatics	6000 U	12000	6000 [a]	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
3386-33-2	1-Chlorooctadecane	73%		40-140%
580-13-2	2-Bromonaphthalene	72%		40-140%
84-15-1	o-Terphenyl	61%		40-140%
321-60-8	2-Fluorobiphenyl	82%		40-140%

(a) Value reported is laboratory DL (MDL).

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LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-SW08		
Lab Sample ID:	FA11487-2	**Date Sampled:**	01/08/14
Matrix:	SO - Soil	**Date Received:**	01/09/14
Method:	SW846 8260B	**Percent Solids:**	84.7
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y12541.D	1	01/09/14	EP	n/a	n/a	VY555
Run #2							

	Initial Weight
Run #1	7.77 g
Run #2	

VOA List for NC, May 2012

CAS No.	Compound	Result	LOQ	LOD	Units	Q
67-64-1	Acetone	19 U	38	19	ug/kg	
71-43-2	Benzene	1.5 U	3.8	1.5	ug/kg	
108-86-1	Bromobenzene	1.5 U	3.8	1.5	ug/kg	
74-97-5	Bromochloromethane	1.9 U	3.8	1.9	ug/kg	
75-27-4	Bromodichloromethane	1.5 U	3.8	1.5	ug/kg	
75-25-2	Bromoform	1.5 U	3.8	1.5	ug/kg	
104-51-8	n-Butylbenzene	1.5 U	3.8	1.5	ug/kg	
135-98-8	sec-Butylbenzene	1.5 U	3.8	1.5	ug/kg	
98-06-6	tert-Butylbenzene	1.5 U	3.8	1.5	ug/kg	
108-90-7	Chlorobenzene	1.5 U	3.8	1.5	ug/kg	
75-00-3	Chloroethane	3.0 U	3.8	3.0	ug/kg	
67-66-3	Chloroform	1.5 U	3.8	1.5	ug/kg	
95-49-8	o-Chlorotoluene	1.5 U	3.8	1.5	ug/kg	
106-43-4	p-Chlorotoluene	1.5 U	3.8	1.5	ug/kg	
56-23-5	Carbon tetrachloride	1.5 U	3.8	1.5	ug/kg	
75-34-3	1,1-Dichloroethane	1.5 U	3.8	1.5	ug/kg	
75-35-4	1,1-Dichloroethylene	1.5 U	3.8	1.5	ug/kg	
563-58-6	1,1-Dichloropropene	1.5 U	3.8	1.5	ug/kg	
106-93-4	1,2-Dibromoethane	1.9 U	3.8	1.9	ug/kg	
107-06-2	1,2-Dichloroethane	1.5 U	3.8	1.5	ug/kg	
78-87-5	1,2-Dichloropropane	1.5 U	3.8	1.5	ug/kg	
142-28-9	1,3-Dichloropropane	1.5 U	3.8	1.5	ug/kg	
108-20-3	Di-Isopropyl ether	1.5 U	3.8	1.5	ug/kg	
594-20-7	2,2-Dichloropropane	1.5 U	3.8	1.5	ug/kg	
124-48-1	Dibromochloromethane	1.5 U	3.8	1.5	ug/kg	
75-71-8	Dichlorodifluoromethane	1.5 U	3.8	1.5	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	1.5 U	3.8	1.5	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	1.5 U	3.8	1.5	ug/kg	
541-73-1	m-Dichlorobenzene	1.5 U	3.8	1.5	ug/kg	
95-50-1	o-Dichlorobenzene	1.5 U	3.8	1.5	ug/kg	
106-46-7	p-Dichlorobenzene	1.5 U	3.8	1.5	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	1.5 U	3.8	1.5	ug/kg	

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B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	1932-UST-SW08		
Lab Sample ID:	FA11487-2	**Date Sampled:**	01/08/14
Matrix:	SO - Soil	**Date Received:**	01/09/14
Method:	SW846 8260B	**Percent Solids:**	84.7
Project:	WE03, Camp Lejuene, NC		

VOA List for NC, May 2012

CAS No.	Compound	Result	LOQ	LOD	Units	Q
10061-02-6	trans-1,3-Dichloropropene	1.5 U	3.8	1.5	ug/kg	
64-17-5	Ethyl alcohol	150 U	300	150	ug/kg	
100-41-4	Ethylbenzene	1.5 U	3.8	1.5	ug/kg	
637-92-3	Ethyl tert-Butyl Ether	1.5 U	3.8	1.5	ug/kg	
591-78-6	2-Hexanone	7.6 U	19	7.6	ug/kg	
98-82-8	Isopropylbenzene	1.5 U	3.8	1.5	ug/kg	
99-87-6	p-Isopropyltoluene	1.5 U	3.8	1.5	ug/kg	
108-10-1	4-Methyl-2-pentanone	7.6 U	19	7.6	ug/kg	
74-83-9	Methyl bromide	3.0 U	3.8	3.0	ug/kg	
74-87-3	Methyl chloride	3.0 U	3.8	3.0	ug/kg	
75-09-2	Methylene chloride	3.8 U	7.6	3.8	ug/kg	
78-93-3	Methyl ethyl ketone	7.6 U	19	7.6	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	1.5 U	3.8	1.5	ug/kg	
91-20-3	Naphthalene	3.0 U	3.8	3.0	ug/kg	
103-65-1	n-Propylbenzene	1.5 U	3.8	1.5	ug/kg	
100-42-5	Styrene	1.5 U	3.8	1.5	ug/kg	
75-85-4	Tert-Amyl Alcohol	19 U	38	19	ug/kg	
994-05-8	Tert-Amyl Methyl Ether	1.5 U	3.8	1.5	ug/kg	
75-65-0	Tert-Butyl Alcohol	19 U	38	19	ug/kg	
762-75-4	tert-Butyl Formate	19 U	38	19	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	1.5 U	3.8	1.5	ug/kg	
71-55-6	1,1,1-Trichloroethane	1.5 U	3.8	1.5	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	1.5 U	3.8	1.5	ug/kg	
79-00-5	1,1,2-Trichloroethane	1.9 U	3.8	1.9	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	1.5 U	3.8	1.5	ug/kg	
96-18-4	1,2,3-Trichloropropane	1.9 U	3.8	1.9	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	1.5 U	3.8	1.5	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	1.5 U	3.8	1.5	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	1.5 U	3.8	1.5	ug/kg	
127-18-4	Tetrachloroethylene	1.5 U	3.8	1.5	ug/kg	
108-88-3	Toluene	1.5 U	3.8	1.5	ug/kg	
79-01-6	Trichloroethylene	1.5 U	3.8	1.5	ug/kg	
75-69-4	Trichlorofluoromethane	3.0 U	3.8	3.0	ug/kg	
75-01-4	Vinyl chloride	1.5 U	3.8	1.5	ug/kg	
108-05-4	Vinyl Acetate	15 U	19	15	ug/kg	
1330-20-7	Xylene (total)	4.6 U	11	4.6	ug/kg	
	m,p-Xylene	3.0 U	7.6	3.0	ug/kg	
95-47-6	o-Xylene	1.5 U	3.8	1.5	ug/kg	

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LOQ = Limit of Quantitation
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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:	1932-UST-SW08		
Lab Sample ID:	FA11487-2	**Date Sampled:**	01/08/14
Matrix:	SO - Soil	**Date Received:**	01/09/14
Method:	SW846 8260B	**Percent Solids:**	84.7
Project:	WE03, Camp Lejuene, NC		

VOA List for NC, May 2012

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		75-124%
2037-26-5	Toluene-D8	97%		75-126%
460-00-4	4-Bromofluorobenzene	109%		71-133%
17060-07-0	1,2-Dichloroethane-D4	111%		72-135%

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N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	1932-UST-SW08		
Lab Sample ID:	FA11487-2	**Date Sampled:**	01/08/14
Matrix:	SO - Soil	**Date Received:**	01/09/14
Method:	SW846 8270D SW846 3550C	**Percent Solids:**	84.7
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X032659.D	1	01/10/14	FS	01/09/14	OP50033	SX1541
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	1.0 ml
Run #2		

ABN List for NC, May 2012

CAS No.	Compound	Result	LOQ	LOD	Units	Q
65-85-0	Benzoic Acid	390 U	980	390	ug/kg	
95-57-8	2-Chlorophenol	39 U	200	39	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	39 U	200	39	ug/kg	
120-83-2	2,4-Dichlorophenol	39 U	200	39	ug/kg	
105-67-9	2,4-Dimethylphenol	78 U	200	78	ug/kg	
51-28-5	2,4-Dinitrophenol	780 U	980	780	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	160 U	390	160	ug/kg	
95-48-7	2-Methylphenol	39 U	200	39	ug/kg	
	3&4-Methylphenol	78 U	200	78	ug/kg	
88-75-5	2-Nitrophenol	39 U	200	39	ug/kg	
100-02-7	4-Nitrophenol	390 U	980	390	ug/kg	
87-86-5	Pentachlorophenol	390 U	980	390	ug/kg	
108-95-2	Phenol	39 U	200	39	ug/kg	
88-06-2	2,4,6-Trichlorophenol	39 U	200	39	ug/kg	
83-32-9	Acenaphthene	39 U	200	39	ug/kg	
208-96-8	Acenaphthylene	39 U	200	39	ug/kg	
120-12-7	Anthracene	39 U	200	39	ug/kg	
56-55-3	Benzo(a)anthracene	39 U	200	39	ug/kg	
50-32-8	Benzo(a)pyrene	39 U	200	39	ug/kg	
205-99-2	Benzo(b)fluoranthene	39 U	200	39	ug/kg	
191-24-2	Benzo(g,h,i)perylene	39 U	200	39	ug/kg	
207-08-9	Benzo(k)fluoranthene	39 U	200	39	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	39 U	200	39	ug/kg	
85-68-7	Butyl benzyl phthalate	78 U	200	78	ug/kg	
100-51-6	Benzyl Alcohol	78 U	200	78	ug/kg	
91-58-7	2-Chloronaphthalene	39 U	200	39	ug/kg	
106-47-8	4-Chloroaniline	39 U	200	39	ug/kg	
218-01-9	Chrysene	39 U	200	39	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	39 U	200	39	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	39 U	200	39	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	39 U	200	39	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	39 U	200	39	ug/kg	

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-SW08		
Lab Sample ID:	FA11487-2	**Date Sampled:**	01/08/14
Matrix:	SO - Soil	**Date Received:**	01/09/14
Method:	SW846 8270D SW846 3550C	**Percent Solids:**	84.7
Project:	WE03, Camp Lejuene, NC		

ABN List for NC, May 2012

CAS No.	Compound	Result	LOQ	LOD	Units	Q
95-50-1	1,2-Dichlorobenzene	78 U	200	78	ug/kg	
122-66-7	1,2-Diphenylhydrazine	39 U	200	39	ug/kg	
541-73-1	1,3-Dichlorobenzene	78 U	200	78	ug/kg	
106-46-7	1,4-Dichlorobenzene	78 U	200	78	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	78 U	200	78	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	39 U	200	39	ug/kg	
132-64-9	Dibenzofuran	39 U	200	39	ug/kg	
84-74-2	Di-n-butyl phthalate	160 U	390	160	ug/kg	
117-84-0	Di-n-octyl phthalate	78 U	200	78	ug/kg	
84-66-2	Diethyl phthalate	160 U	390	160	ug/kg	
131-11-3	Dimethyl phthalate	78 U	200	78	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	160 U	390	160	ug/kg	
206-44-0	Fluoranthene	39 U	200	39	ug/kg	
86-73-7	Fluorene	39 U	200	39	ug/kg	
118-74-1	Hexachlorobenzene	39 U	200	39	ug/kg	
87-68-3	Hexachlorobutadiene	78 U	200	78	ug/kg	
77-47-4	Hexachlorocyclopentadiene	78 U	200	78	ug/kg	
67-72-1	Hexachloroethane	78 U	200	78	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	39 U	200	39	ug/kg	
78-59-1	Isophorone	39 U	200	39	ug/kg	
90-12-0	1-Methylnaphthalene	39 U	200	39	ug/kg	
91-57-6	2-Methylnaphthalene	39 U	200	39	ug/kg	
91-20-3	Naphthalene	39 U	200	39	ug/kg	
98-95-3	Nitrobenzene	39 U	200	39	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine [a]	39 U	200	39	ug/kg	
86-30-6	N-Nitrosodiphenylamine	78 U	200	78	ug/kg	
85-01-8	Phenanthrene	39 U	200	39	ug/kg	
129-00-0	Pyrene	39 U	200	39	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	39 U	200	39	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	101%		40-102%
4165-62-2	Phenol-d5	99%		41-100%
118-79-6	2,4,6-Tribromophenol	104%		42-108%
4165-60-0	Nitrobenzene-d5	91%		40-105%
321-60-8	2-Fluorobiphenyl	94%		43-107%
1718-51-0	Terphenyl-d14	120% [b]		45-119%

(a) Associated BS recovery outside DOD QSM control limits.

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E = Indicates value exceeds calibration range

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B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	1932-UST-SW08		
Lab Sample ID:	FA11487-2	**Date Sampled:**	01/08/14
Matrix:	SO - Soil	**Date Received:**	01/09/14
Method:	SW846 8270D SW846 3550C	**Percent Solids:**	84.7
Project:	WE03, Camp Lejuene, NC		

ABN List for NC, May 2012

CAS No.	Compound	Result	LOQ	LOD	Units	Q

(b) Outside control limits. However, sample was ND.

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LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-SW08		
Lab Sample ID:	FA11487-2	**Date Sampled:**	01/08/14
Matrix:	SO - Soil	**Date Received:**	01/09/14
Method:	MADEP VPH REV 1.1	**Percent Solids:**	84.7
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	UU006221.D	1	01/10/14	AH	n/a	n/a	GUU301
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	11.0 g	5.1 ml	100 ul
Run #2			

MADEP VPH List

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	C5- C8 Aliphatics (Unadj.)	1300 U	3600	1300 [a]	ug/kg	
	C9- C12 Aliphatics (Unadj.)	1300 U	3600	1300 [a]	ug/kg	
	C9- C10 Aromatics (Unadj.)	1300 U	3600	1300 [a]	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	BFB	181% [b]		70-130%
460-00-4	BFB	162% [b]		70-130%

(a) Value reported is laboratory DL (MDL).
(b) Outside control limits; however, sample is ND.

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LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-SW08		
Lab Sample ID:	FA11487-2	**Date Sampled:**	01/08/14
Matrix:	SO - Soil	**Date Received:**	01/09/14
Method:	MADEP EPH REV 1.1 SW846 3546	**Percent Solids:**	84.7
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	NN007296.D	1	01/15/14	NJ	01/10/14	OP50045	GNN317
Run #2							

	Initial Weight	Final Volume
Run #1	20.0 g	2.0 ml
Run #2		

MAEPH List

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	C11-C22 Aromatics (Unadj.)	8900 U	12000	8900 [a]	ug/kg	
	C9-C18 Aliphatics	5900 U	12000	5900 [a]	ug/kg	
	C19-C36 Aliphatics	5900 U	12000	5900 [a]	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
3386-33-2	1-Chlorooctadecane	62%		40-140%
580-13-2	2-Bromonaphthalene	68%		40-140%
84-15-1	o-Terphenyl	59%		40-140%
321-60-8	2-Fluorobiphenyl	75%		40-140%

(a) Value reported is laboratory DL (MDL).

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B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	1932-UST-SW08A		
Lab Sample ID:	FA11487-3	**Date Sampled:**	01/08/14
Matrix:	SO - Soil	**Date Received:**	01/09/14
Method:	SW846 8260B	**Percent Solids:**	84.7
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y12542.D	1	01/09/14	EP	n/a	n/a	VY555
Run #2							

	Initial Weight
Run #1	9.22 g
Run #2	

VOA List for NC, May 2012

CAS No.	Compound	Result	LOQ	LOD	Units	Q
67-64-1	Acetone	16 U	32	16	ug/kg	
71-43-2	Benzene	1.3 U	3.2	1.3	ug/kg	
108-86-1	Bromobenzene	1.3 U	3.2	1.3	ug/kg	
74-97-5	Bromochloromethane	1.6 U	3.2	1.6	ug/kg	
75-27-4	Bromodichloromethane	1.3 U	3.2	1.3	ug/kg	
75-25-2	Bromoform	1.3 U	3.2	1.3	ug/kg	
104-51-8	n-Butylbenzene	1.3 U	3.2	1.3	ug/kg	
135-98-8	sec-Butylbenzene	1.3 U	3.2	1.3	ug/kg	
98-06-6	tert-Butylbenzene	1.3 U	3.2	1.3	ug/kg	
108-90-7	Chlorobenzene	1.3 U	3.2	1.3	ug/kg	
75-00-3	Chloroethane	2.6 U	3.2	2.6	ug/kg	
67-66-3	Chloroform	1.3 U	3.2	1.3	ug/kg	
95-49-8	o-Chlorotoluene	1.3 U	3.2	1.3	ug/kg	
106-43-4	p-Chlorotoluene	1.3 U	3.2	1.3	ug/kg	
56-23-5	Carbon tetrachloride	1.3 U	3.2	1.3	ug/kg	
75-34-3	1,1-Dichloroethane	1.3 U	3.2	1.3	ug/kg	
75-35-4	1,1-Dichloroethylene	1.3 U	3.2	1.3	ug/kg	
563-58-6	1,1-Dichloropropene	1.3 U	3.2	1.3	ug/kg	
106-93-4	1,2-Dibromoethane	1.6 U	3.2	1.6	ug/kg	
107-06-2	1,2-Dichloroethane	1.3 U	3.2	1.3	ug/kg	
78-87-5	1,2-Dichloropropane	1.3 U	3.2	1.3	ug/kg	
142-28-9	1,3-Dichloropropane	1.3 U	3.2	1.3	ug/kg	
108-20-3	Di-Isopropyl ether	1.3 U	3.2	1.3	ug/kg	
594-20-7	2,2-Dichloropropane	1.3 U	3.2	1.3	ug/kg	
124-48-1	Dibromochloromethane	1.3 U	3.2	1.3	ug/kg	
75-71-8	Dichlorodifluoromethane	1.3 U	3.2	1.3	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	1.3 U	3.2	1.3	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	1.3 U	3.2	1.3	ug/kg	
541-73-1	m-Dichlorobenzene	1.3 U	3.2	1.3	ug/kg	
95-50-1	o-Dichlorobenzene	1.3 U	3.2	1.3	ug/kg	
106-46-7	p-Dichlorobenzene	1.3 U	3.2	1.3	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	1.3 U	3.2	1.3	ug/kg	

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N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	1932-UST-SW08A		
Lab Sample ID:	FA11487-3	**Date Sampled:**	01/08/14
Matrix:	SO - Soil	**Date Received:**	01/09/14
Method:	SW846 8260B	**Percent Solids:**	84.7
Project:	WE03, Camp Lejuene, NC		

VOA List for NC, May 2012

CAS No.	Compound	Result	LOQ	LOD	Units	Q
10061-02-6	trans-1,3-Dichloropropene	1.3 U	3.2	1.3	ug/kg	
64-17-5	Ethyl alcohol	130 U	260	130	ug/kg	
100-41-4	Ethylbenzene	1.3 U	3.2	1.3	ug/kg	
637-92-3	Ethyl tert-Butyl Ether	1.3 U	3.2	1.3	ug/kg	
591-78-6	2-Hexanone	6.4 U	16	6.4	ug/kg	
98-82-8	Isopropylbenzene	1.3 U	3.2	1.3	ug/kg	
99-87-6	p-Isopropyltoluene	1.3 U	3.2	1.3	ug/kg	
108-10-1	4-Methyl-2-pentanone	6.4 U	16	6.4	ug/kg	
74-83-9	Methyl bromide	2.6 U	3.2	2.6	ug/kg	
74-87-3	Methyl chloride	2.6 U	3.2	2.6	ug/kg	
75-09-2	Methylene chloride	3.2 U	6.4	3.2	ug/kg	
78-93-3	Methyl ethyl ketone	6.4 U	16	6.4	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	1.3 U	3.2	1.3	ug/kg	
91-20-3	Naphthalene	2.6 U	3.2	2.6	ug/kg	
103-65-1	n-Propylbenzene	1.3 U	3.2	1.3	ug/kg	
100-42-5	Styrene	1.3 U	3.2	1.3	ug/kg	
75-85-4	Tert-Amyl Alcohol	16 U	32	16	ug/kg	
994-05-8	Tert-Amyl Methyl Ether	1.3 U	3.2	1.3	ug/kg	
75-65-0	Tert-Butyl Alcohol	16 U	32	16	ug/kg	
762-75-4	tert-Butyl Formate	16 U	32	16	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	1.3 U	3.2	1.3	ug/kg	
71-55-6	1,1,1-Trichloroethane	1.3 U	3.2	1.3	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	1.3 U	3.2	1.3	ug/kg	
79-00-5	1,1,2-Trichloroethane	1.6 U	3.2	1.6	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	1.3 U	3.2	1.3	ug/kg	
96-18-4	1,2,3-Trichloropropane	1.6 U	3.2	1.6	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	1.3 U	3.2	1.3	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	1.3 U	3.2	1.3	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	1.3 U	3.2	1.3	ug/kg	
127-18-4	Tetrachloroethylene	1.3 U	3.2	1.3	ug/kg	
108-88-3	Toluene	1.3 U	3.2	1.3	ug/kg	
79-01-6	Trichloroethylene	1.3 U	3.2	1.3	ug/kg	
75-69-4	Trichlorofluoromethane	2.6 U	3.2	2.6	ug/kg	
75-01-4	Vinyl chloride	1.3 U	3.2	1.3	ug/kg	
108-05-4	Vinyl Acetate	13 U	16	13	ug/kg	
1330-20-7	Xylene (total)	3.8 U	9.6	3.8	ug/kg	
	m,p-Xylene	2.6 U	6.4	2.6	ug/kg	
95-47-6	o-Xylene	1.3 U	3.2	1.3	ug/kg	

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LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-SW08A		
Lab Sample ID:	FA11487-3	**Date Sampled:**	01/08/14
Matrix:	SO - Soil	**Date Received:**	01/09/14
Method:	SW846 8260B	**Percent Solids:**	84.7
Project:	WE03, Camp Lejuene, NC		

VOA List for NC, May 2012

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		75-124%
2037-26-5	Toluene-D8	89%		75-126%
460-00-4	4-Bromofluorobenzene	103%		71-133%
17060-07-0	1,2-Dichloroethane-D4	107%		72-135%

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Report of Analysis

Client Sample ID:	1932-UST-SW08A		
Lab Sample ID:	FA11487-3	**Date Sampled:**	01/08/14
Matrix:	SO - Soil	**Date Received:**	01/09/14
Method:	SW846 8270D SW846 3550C	**Percent Solids:**	84.7
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X032660.D	1	01/10/14	FS	01/09/14	OP50033	SX1541
Run #2							

	Initial Weight	Final Volume
Run #1	29.6 g	1.0 ml
Run #2		

ABN List for NC, May 2012

CAS No.	Compound	Result	LOQ	LOD	Units	Q
65-85-0	Benzoic Acid	400 U	1000	400	ug/kg	
95-57-8	2-Chlorophenol	40 U	200	40	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	40 U	200	40	ug/kg	
120-83-2	2,4-Dichlorophenol	40 U	200	40	ug/kg	
105-67-9	2,4-Dimethylphenol	80 U	200	80	ug/kg	
51-28-5	2,4-Dinitrophenol	800 U	1000	800	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	160 U	400	160	ug/kg	
95-48-7	2-Methylphenol	40 U	200	40	ug/kg	
	3&4-Methylphenol	80 U	200	80	ug/kg	
88-75-5	2-Nitrophenol	40 U	200	40	ug/kg	
100-02-7	4-Nitrophenol	400 U	1000	400	ug/kg	
87-86-5	Pentachlorophenol	400 U	1000	400	ug/kg	
108-95-2	Phenol	40 U	200	40	ug/kg	
88-06-2	2,4,6-Trichlorophenol	40 U	200	40	ug/kg	
83-32-9	Acenaphthene	40 U	200	40	ug/kg	
208-96-8	Acenaphthylene	40 U	200	40	ug/kg	
120-12-7	Anthracene	40 U	200	40	ug/kg	
56-55-3	Benzo(a)anthracene	40 U	200	40	ug/kg	
50-32-8	Benzo(a)pyrene	40 U	200	40	ug/kg	
205-99-2	Benzo(b)fluoranthene	40 U	200	40	ug/kg	
191-24-2	Benzo(g,h,i)perylene	40 U	200	40	ug/kg	
207-08-9	Benzo(k)fluoranthene	40 U	200	40	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	40 U	200	40	ug/kg	
85-68-7	Butyl benzyl phthalate	80 U	200	80	ug/kg	
100-51-6	Benzyl Alcohol	80 U	200	80	ug/kg	
91-58-7	2-Chloronaphthalene	40 U	200	40	ug/kg	
106-47-8	4-Chloroaniline	40 U	200	40	ug/kg	
218-01-9	Chrysene	40 U	200	40	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	40 U	200	40	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	40 U	200	40	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	40 U	200	40	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	40 U	200	40	ug/kg	

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Report of Analysis

Client Sample ID:	1932-UST-SW08A		
Lab Sample ID:	FA11487-3	**Date Sampled:**	01/08/14
Matrix:	SO - Soil	**Date Received:**	01/09/14
Method:	SW846 8270D SW846 3550C	**Percent Solids:**	84.7
Project:	WE03, Camp Lejuene, NC		

ABN List for NC, May 2012

CAS No.	Compound	Result	LOQ	LOD	Units	Q
95-50-1	1,2-Dichlorobenzene	80 U	200	80	ug/kg	
122-66-7	1,2-Diphenylhydrazine	40 U	200	40	ug/kg	
541-73-1	1,3-Dichlorobenzene	80 U	200	80	ug/kg	
106-46-7	1,4-Dichlorobenzene	80 U	200	80	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	80 U	200	80	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	40 U	200	40	ug/kg	
132-64-9	Dibenzofuran	40 U	200	40	ug/kg	
84-74-2	Di-n-butyl phthalate	160 U	400	160	ug/kg	
117-84-0	Di-n-octyl phthalate	80 U	200	80	ug/kg	
84-66-2	Diethyl phthalate	160 U	400	160	ug/kg	
131-11-3	Dimethyl phthalate	80 U	200	80	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	160 U	400	160	ug/kg	
206-44-0	Fluoranthene	40 U	200	40	ug/kg	
86-73-7	Fluorene	40 U	200	40	ug/kg	
118-74-1	Hexachlorobenzene	40 U	200	40	ug/kg	
87-68-3	Hexachlorobutadiene	80 U	200	80	ug/kg	
77-47-4	Hexachlorocyclopentadiene	80 U	200	80	ug/kg	
67-72-1	Hexachloroethane	80 U	200	80	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	40 U	200	40	ug/kg	
78-59-1	Isophorone	40 U	200	40	ug/kg	
90-12-0	1-Methylnaphthalene	40 U	200	40	ug/kg	
91-57-6	2-Methylnaphthalene	40 U	200	40	ug/kg	
91-20-3	Naphthalene	40 U	200	40	ug/kg	
98-95-3	Nitrobenzene	40 U	200	40	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine [a]	40 U	200	40	ug/kg	
86-30-6	N-Nitrosodiphenylamine	80 U	200	80	ug/kg	
85-01-8	Phenanthrene	40 U	200	40	ug/kg	
129-00-0	Pyrene	40 U	200	40	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	40 U	200	40	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	89%		40-102%
4165-62-2	Phenol-d5	86%		41-100%
118-79-6	2,4,6-Tribromophenol	90%		42-108%
4165-60-0	Nitrobenzene-d5	81%		40-105%
321-60-8	2-Fluorobiphenyl	82%		43-107%
1718-51-0	Terphenyl-d14	105%		45-119%

(a) Associated BS recovery outside DOD QSM control limits.

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-SW08A		
Lab Sample ID:	FA11487-3	**Date Sampled:**	01/08/14
Matrix:	SO - Soil	**Date Received:**	01/09/14
Method:	MADEP VPH REV 1.1	**Percent Solids:**	84.7
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	UU006222.D	1	01/10/14	AH	n/a	n/a	GUU301
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	8.35 g	5.1 ml	100 ul
Run #2			

MADEP VPH List

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	C5- C8 Aliphatics (Unadj.)	1600 U	4500	1600 [a]	ug/kg	
	C9- C12 Aliphatics (Unadj.)	1600 U	4500	1600 [a]	ug/kg	
	C9- C10 Aromatics (Unadj.)	1600 U	4500	1600 [a]	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	BFB	199% [b]		70-130%
460-00-4	BFB	178% [b]		70-130%

(a) Value reported is laboratory DL (MDL).
(b) Outside control limits; however, sample is ND.

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-SW08A		
Lab Sample ID:	FA11487-3	**Date Sampled:**	01/08/14
Matrix:	SO - Soil	**Date Received:**	01/09/14
Method:	MADEP EPH REV 1.1 SW846 3546	**Percent Solids:**	84.7
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	NN007297.D	1	01/15/14	NJ	01/10/14	OP50045	GNN317
Run #2							

	Initial Weight	Final Volume
Run #1	20.0 g	2.0 ml
Run #2		

MAEPH List

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	C11-C22 Aromatics (Unadj.)	8900 U	12000	8900 [a]	ug/kg	
	C9-C18 Aliphatics	5900 U	12000	5900 [a]	ug/kg	
	C19-C36 Aliphatics	5900 U	12000	5900 [a]	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
3386-33-2	1-Chlorooctadecane	66%		40-140%
580-13-2	2-Bromonaphthalene	79%		40-140%
84-15-1	o-Terphenyl	70%		40-140%
321-60-8	2-Fluorobiphenyl	87%		40-140%

(a) Value reported is laboratory DL (MDL).

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-SW09		
Lab Sample ID:	FA11487-4	**Date Sampled:**	01/08/14
Matrix:	SO - Soil	**Date Received:**	01/09/14
Method:	SW846 8260B	**Percent Solids:**	85.0
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y12539.D	1	01/09/14	EP	n/a	n/a	VY555
Run #2							

	Initial Weight	Methanol Aliquot
Run #1	13.1 g	100 ul
Run #2		

VOA List for NC, May 2012

CAS No.	Compound	Result	LOQ	LOD	Units	Q
67-64-1	Acetone	780 U	1600	780	ug/kg	
71-43-2	Benzene	62 U	160	62	ug/kg	
108-86-1	Bromobenzene	62 U	160	62	ug/kg	
74-97-5	Bromochloromethane	78 U	160	78	ug/kg	
75-27-4	Bromodichloromethane	62 U	160	62	ug/kg	
75-25-2	Bromoform	62 U	160	62	ug/kg	
104-51-8	n-Butylbenzene	125	160	62	ug/kg	J
135-98-8	sec-Butylbenzene	62 U	160	62	ug/kg	
98-06-6	tert-Butylbenzene	62 U	160	62	ug/kg	
108-90-7	Chlorobenzene	62 U	160	62	ug/kg	
75-00-3	Chloroethane	120 U	160	120	ug/kg	
67-66-3	Chloroform	62 U	160	62	ug/kg	
95-49-8	o-Chlorotoluene	62 U	160	62	ug/kg	
106-43-4	p-Chlorotoluene	62 U	160	62	ug/kg	
56-23-5	Carbon tetrachloride	62 U	160	62	ug/kg	
75-34-3	1,1-Dichloroethane	62 U	160	62	ug/kg	
75-35-4	1,1-Dichloroethylene	62 U	160	62	ug/kg	
563-58-6	1,1-Dichloropropene	62 U	160	62	ug/kg	
106-93-4	1,2-Dibromoethane	78 U	160	78	ug/kg	
107-06-2	1,2-Dichloroethane	62 U	160	62	ug/kg	
78-87-5	1,2-Dichloropropane	62 U	160	62	ug/kg	
142-28-9	1,3-Dichloropropane	62 U	160	62	ug/kg	
108-20-3	Di-Isopropyl ether	62 U	160	62	ug/kg	
594-20-7	2,2-Dichloropropane	62 U	160	62	ug/kg	
124-48-1	Dibromochloromethane	62 U	160	62	ug/kg	
75-71-8	Dichlorodifluoromethane	62 U	160	62	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	62 U	160	62	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	62 U	160	62	ug/kg	
541-73-1	m-Dichlorobenzene	62 U	160	62	ug/kg	
95-50-1	o-Dichlorobenzene	62 U	160	62	ug/kg	
106-46-7	p-Dichlorobenzene	62 U	160	62	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	62 U	160	62	ug/kg	

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-SW09		
Lab Sample ID:	FA11487-4	**Date Sampled:**	01/08/14
Matrix:	SO - Soil	**Date Received:**	01/09/14
Method:	SW846 8260B	**Percent Solids:**	85.0
Project:	WE03, Camp Lejuene, NC		

VOA List for NC, May 2012

CAS No.	Compound	Result	LOQ	LOD	Units	Q
10061-02-6	trans-1,3-Dichloropropene	62 U	160	62	ug/kg	
64-17-5	Ethyl alcohol	6200 U	12000	6200	ug/kg	
100-41-4	Ethylbenzene	303	160	62	ug/kg	
637-92-3	Ethyl tert-Butyl Ether	62 U	160	62	ug/kg	
591-78-6	2-Hexanone	310 U	780	310	ug/kg	
98-82-8	Isopropylbenzene	62 U	160	62	ug/kg	
99-87-6	p-Isopropyltoluene	62 U	160	62	ug/kg	
108-10-1	4-Methyl-2-pentanone	310 U	780	310	ug/kg	
74-83-9	Methyl bromide	120 U	160	120	ug/kg	
74-87-3	Methyl chloride	120 U	160	120	ug/kg	
75-09-2	Methylene chloride	160 U	310	160	ug/kg	
78-93-3	Methyl ethyl ketone	310 U	780	310	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	62 U	160	62	ug/kg	
91-20-3	Naphthalene	392	160	120	ug/kg	
103-65-1	n-Propylbenzene	335	160	62	ug/kg	
100-42-5	Styrene	62 U	160	62	ug/kg	
75-85-4	Tert-Amyl Alcohol	780 U	1600	780	ug/kg	
994-05-8	Tert-Amyl Methyl Ether	62 U	160	62	ug/kg	
75-65-0	Tert-Butyl Alcohol	780 U	1600	780	ug/kg	
762-75-4	tert-Butyl Formate	780 U	1600	780	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	62 U	160	62	ug/kg	
71-55-6	1,1,1-Trichloroethane	62 U	160	62	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	62 U	160	62	ug/kg	
79-00-5	1,1,2-Trichloroethane	78 U	160	78	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	62 U	160	62	ug/kg	
96-18-4	1,2,3-Trichloropropane	78 U	160	78	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	62 U	160	62	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	3440	160	62	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	890	160	62	ug/kg	
127-18-4	Tetrachloroethylene	62 U	160	62	ug/kg	
108-88-3	Toluene	62 U	160	62	ug/kg	
79-01-6	Trichloroethylene	62 U	160	62	ug/kg	
75-69-4	Trichlorofluoromethane	120 U	160	120	ug/kg	
75-01-4	Vinyl chloride	62 U	160	62	ug/kg	
108-05-4	Vinyl Acetate	620 U	780	620	ug/kg	
1330-20-7	Xylene (total)	1100	470	190	ug/kg	
	m,p-Xylene	1010	310	120	ug/kg	
95-47-6	o-Xylene	92.5	160	62	ug/kg	J

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-SW09		
Lab Sample ID:	FA11487-4	**Date Sampled:**	01/08/14
Matrix:	SO - Soil	**Date Received:**	01/09/14
Method:	SW846 8260B	**Percent Solids:**	85.0
Project:	WE03, Camp Lejuene, NC		

VOA List for NC, May 2012

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		75-124%
2037-26-5	Toluene-D8	99%		75-126%
460-00-4	4-Bromofluorobenzene	98%		71-133%
17060-07-0	1,2-Dichloroethane-D4	98%		72-135%

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-SW09		
Lab Sample ID:	FA11487-4	**Date Sampled:**	01/08/14
Matrix:	SO - Soil	**Date Received:**	01/09/14
Method:	SW846 8270D SW846 3550C	**Percent Solids:**	85.0
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X032661.D	1	01/10/14	FS	01/09/14	OP50033	SX1541
Run #2							

	Initial Weight	Final Volume
Run #1	30.3 g	1.0 ml
Run #2		

ABN List for NC, May 2012

CAS No.	Compound	Result	LOQ	LOD	Units	Q
65-85-0	Benzoic Acid	390 U	970	390	ug/kg	
95-57-8	2-Chlorophenol	39 U	190	39	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	39 U	190	39	ug/kg	
120-83-2	2,4-Dichlorophenol	39 U	190	39	ug/kg	
105-67-9	2,4-Dimethylphenol	78 U	190	78	ug/kg	
51-28-5	2,4-Dinitrophenol	780 U	970	780	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	160 U	390	160	ug/kg	
95-48-7	2-Methylphenol	39 U	190	39	ug/kg	
	3&4-Methylphenol	78 U	190	78	ug/kg	
88-75-5	2-Nitrophenol	39 U	190	39	ug/kg	
100-02-7	4-Nitrophenol	390 U	970	390	ug/kg	
87-86-5	Pentachlorophenol	390 U	970	390	ug/kg	
108-95-2	Phenol	39 U	190	39	ug/kg	
88-06-2	2,4,6-Trichlorophenol	39 U	190	39	ug/kg	
83-32-9	Acenaphthene	39 U	190	39	ug/kg	
208-96-8	Acenaphthylene	39 U	190	39	ug/kg	
120-12-7	Anthracene	39 U	190	39	ug/kg	
56-55-3	Benzo(a)anthracene	39 U	190	39	ug/kg	
50-32-8	Benzo(a)pyrene	39 U	190	39	ug/kg	
205-99-2	Benzo(b)fluoranthene	39 U	190	39	ug/kg	
191-24-2	Benzo(g,h,i)perylene	39 U	190	39	ug/kg	
207-08-9	Benzo(k)fluoranthene	39 U	190	39	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	39 U	190	39	ug/kg	
85-68-7	Butyl benzyl phthalate	78 U	190	78	ug/kg	
100-51-6	Benzyl Alcohol	78 U	190	78	ug/kg	
91-58-7	2-Chloronaphthalene	39 U	190	39	ug/kg	
106-47-8	4-Chloroaniline	39 U	190	39	ug/kg	
218-01-9	Chrysene	39 U	190	39	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	39 U	190	39	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	39 U	190	39	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	39 U	190	39	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	39 U	190	39	ug/kg	

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-SW09		
Lab Sample ID:	FA11487-4	**Date Sampled:**	01/08/14
Matrix:	SO - Soil	**Date Received:**	01/09/14
Method:	SW846 8270D SW846 3550C	**Percent Solids:**	85.0
Project:	WE03, Camp Lejuene, NC		

ABN List for NC, May 2012

CAS No.	Compound	Result	LOQ	LOD	Units	Q
95-50-1	1,2-Dichlorobenzene	78 U	190	78	ug/kg	
122-66-7	1,2-Diphenylhydrazine	39 U	190	39	ug/kg	
541-73-1	1,3-Dichlorobenzene	78 U	190	78	ug/kg	
106-46-7	1,4-Dichlorobenzene	78 U	190	78	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	78 U	190	78	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	39 U	190	39	ug/kg	
132-64-9	Dibenzofuran	39 U	190	39	ug/kg	
84-74-2	Di-n-butyl phthalate	160 U	390	160	ug/kg	
117-84-0	Di-n-octyl phthalate	78 U	190	78	ug/kg	
84-66-2	Diethyl phthalate	160 U	390	160	ug/kg	
131-11-3	Dimethyl phthalate	78 U	190	78	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	160 U	390	160	ug/kg	
206-44-0	Fluoranthene	39 U	190	39	ug/kg	
86-73-7	Fluorene	39 U	190	39	ug/kg	
118-74-1	Hexachlorobenzene	39 U	190	39	ug/kg	
87-68-3	Hexachlorobutadiene	78 U	190	78	ug/kg	
77-47-4	Hexachlorocyclopentadiene	78 U	190	78	ug/kg	
67-72-1	Hexachloroethane	78 U	190	78	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	39 U	190	39	ug/kg	
78-59-1	Isophorone	39 U	190	39	ug/kg	
90-12-0	1-Methylnaphthalene	1310	190	39	ug/kg	
91-57-6	2-Methylnaphthalene	2900	190	39	ug/kg	
91-20-3	Naphthalene	773	190	39	ug/kg	
98-95-3	Nitrobenzene	39 U	190	39	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine [a]	39 U	190	39	ug/kg	
86-30-6	N-Nitrosodiphenylamine	78 U	190	78	ug/kg	
85-01-8	Phenanthrene	39 U	190	39	ug/kg	
129-00-0	Pyrene	39 U	190	39	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	39 U	190	39	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	95%		40-102%
4165-62-2	Phenol-d5	95%		41-100%
118-79-6	2,4,6-Tribromophenol	95%		42-108%
4165-60-0	Nitrobenzene-d5	85%		40-105%
321-60-8	2-Fluorobiphenyl	86%		43-107%
1718-51-0	Terphenyl-d14	110%		45-119%

(a) Associated BS recovery outside DOD QSM control limits.

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-SW09		
Lab Sample ID:	FA11487-4	**Date Sampled:**	01/08/14
Matrix:	SO - Soil	**Date Received:**	01/09/14
Method:	MADEP VPH REV 1.1	**Percent Solids:**	85.0
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	UU006235.D	1	01/13/14	AH	n/a	n/a	GUU302
Run #2	UU006240.D	1	01/13/14	AH	n/a	n/a	GUU302
Run #3 [a]	UU006223.D	1	01/10/14	AH	n/a	n/a	GUU301
Run #4 [a]	UU006250.D	1	01/15/14	AH	n/a	n/a	GUU303

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	13.1 g	5.1 ml	100 ul
Run #2	13.1 g	5.1 ml	50.0 ul
Run #3	13.1 g	5.1 ml	10.0 ul
Run #4	13.1 g	5.1 ml	50.0 ul

MADEP VPH List

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	C5- C8 Aliphatics (Unadj.)	1100 U	3200	1100 [b]	ug/kg	
	C9- C12 Aliphatics (Unadj.) [c]	4180	3200	1100 [b]	ug/kg	E
	C9- C10 Aromatics (Unadj.)	16600 [d]	6300	2200 [b]	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Run# 3	Limits
460-00-4	BFB	81%	64% [e]	175% [e]	70-130%
460-00-4	BFB	70%	57% [e]	152% [e]	70-130%

(a) Confirmation run.
(b) Value reported is laboratory DL (MDL).
(c) Result is below RL at higher dilution.
(d) Result is from Run# 2
(e) Outside control limits.

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-SW09		
Lab Sample ID:	FA11487-4	**Date Sampled:**	01/08/14
Matrix:	SO - Soil	**Date Received:**	01/09/14
Method:	MADEP EPH REV 1.1 SW846 3546	**Percent Solids:**	85.0
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	NN007298.D	1	01/15/14	NJ	01/10/14	OP50045	GNN317
Run #2							

	Initial Weight	Final Volume
Run #1	20.3 g	2.0 ml
Run #2		

MAEPH List

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	C11-C22 Aromatics (Unadj.)	8700 U	12000	8700 [a]	ug/kg	
	C9-C18 Aliphatics	7220	12000	5800 [a]	ug/kg	J
	C19-C36 Aliphatics	5840	12000	5800 [a]	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
3386-33-2	1-Chlorooctadecane	62%		40-140%
580-13-2	2-Bromonaphthalene	62%		40-140%
84-15-1	o-Terphenyl	56%		40-140%
321-60-8	2-Fluorobiphenyl	68%		40-140%

(a) Value reported is laboratory DL (MDL).

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-SP01		
Lab Sample ID:	FA11487-5	**Date Sampled:**	01/08/14
Matrix:	SO - Soil	**Date Received:**	01/09/14
Method:	SW846 8015C	**Percent Solids:**	84.4
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	QR080686.D	1	01/10/14	MM	n/a	n/a	GQR3434
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	11.5 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH-GRO (C6-C10)	1.8 U	3.5	1.8	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	110%		56-149%
98-08-8	aaa-Trifluorotoluene	109%		66-132%

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration range

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

Accutest Laboratories

Report of Analysis

Client Sample ID:	1932-UST-SP01		
Lab Sample ID:	FA11487-5	**Date Sampled:**	01/08/14
Matrix:	SO - Soil	**Date Received:**	01/09/14
Method:	SW846 8082A SW846 3550C	**Percent Solids:**	84.4
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	MM09486.D	1	01/14/14	MV	01/10/14	OP50052	GMM209
Run #2							

	Initial Weight	Final Volume
Run #1	29.9 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	LOQ	LOD	Units	Q
12674-11-2	Aroclor 1016	9.9 U	20	9.9	ug/kg	
11104-28-2	Aroclor 1221	16 U	20	16	ug/kg	
11141-16-5	Aroclor 1232	16 U	20	16	ug/kg	
53469-21-9	Aroclor 1242	9.9 U	20	9.9	ug/kg	
12672-29-6	Aroclor 1248	9.9 U	20	9.9	ug/kg	
11097-69-1	Aroclor 1254	9.9 U	20	9.9	ug/kg	
11096-82-5	Aroclor 1260	9.9 U	20	9.9	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	72%		44-126%
2051-24-3	Decachlorobiphenyl	75%		41-145%

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration range

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

Accutest Laboratories

Report of Analysis

Client Sample ID:	1932-UST-SP01		
Lab Sample ID:	FA11487-5	**Date Sampled:**	01/08/14
Matrix:	SO - Soil	**Date Received:**	01/09/14
Method:	SW846 8015C SW846 3550C	**Percent Solids:**	84.4
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JJ001032.D	1	01/11/14	SJL	01/09/14	OP50034	GJJ42
Run #2							

	Initial Weight	Final Volume
Run #1	29.6 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28)	4.0 U	5.0	4.0	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	85%		56-122%

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-UST-SP01		
Lab Sample ID:	FA11487-5	**Date Sampled:**	01/08/14
Matrix:	SO - Soil	**Date Received:**	01/09/14
		Percent Solids:	84.4
Project:	WE03, Camp Lejuene, NC		

General Chemistry

Analyte	Result	LOQ	LOD	Units	DF	Analyzed	By	Method
Corrosivity as pH	7.4			su	1	01/16/14 14:30	AA	SW846 CHAP7
Cyanide Reactivity	1.5 U	1.5	1.5 [a]	mg/kg	1	01/10/14 13:11	VK	SW846 CHAP7
Ignitability (Flashpoint) [b]	> 200			Deg. F	1	01/11/14 11:00	KC	SW846 1010
Solids, Percent	84.4			%	1	01/09/14 14:35	CH	SM19 2540G
Sulfide Reactivity	59 U	59	59 [a]	mg/kg	1	01/10/14 12:00	LE	SW846 CHAP7

(a) Value reported is laboratory DL (MDL).
(b) Not ignitable.

LOQ = Limit of Quantitation
LOD = Limit of Detection

U = Indicates a result < LOD
J = Indicates a result > = LOD but < LOQ

Accutest Laboratories

Report of Analysis

Client Sample ID:	1932-UST-SP01		
Lab Sample ID:	FA11487-5L	**Date Sampled:**	01/08/14
Matrix:	SO - Soil	**Date Received:**	01/09/14
Method:	SW846 8260B SW846 1311	**Percent Solids:**	84.4
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0073608.D	10	01/15/14	RB	01/14/14	OP50074	VN3204
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCLP List **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	LOQ	LOD	Units	Q
71-43-2	Benzene	0.0050 U	D018	0.50	0.010	0.0050	mg/l	
108-90-7	Chlorobenzene	0.0050 U	D021	100	0.010	0.0050	mg/l	
67-66-3	Chloroform	0.0050 U	D022	6.0	0.010	0.0050	mg/l	
56-23-5	Carbon tetrachloride	0.0050 U	D019	0.50	0.010	0.0050	mg/l	
75-35-4	1,1-Dichloroethylene	0.0050 U	D029	0.70	0.010	0.0050	mg/l	
107-06-2	1,2-Dichloroethane	0.0050 U	D028	0.50	0.010	0.0050	mg/l	
106-46-7	p-Dichlorobenzene	0.0050 U	D027	7.5	0.010	0.0050	mg/l	
78-93-3	Methyl ethyl ketone	0.040 U	D035	200	0.050	0.040	mg/l	
127-18-4	Tetrachloroethylene	0.0050 U	D039	0.70	0.010	0.0050	mg/l	
79-01-6	Trichloroethylene	0.0050 U	D040	0.50	0.010	0.0050	mg/l	
75-01-4	Vinyl chloride	0.0050 U	D043	0.20	0.010	0.0050	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		83-118%
17060-07-0	1,2-Dichloroethane-D4	98%		79-125%
2037-26-5	Toluene-D8	98%		85-112%
460-00-4	4-Bromofluorobenzene	99%		83-118%

U = Not detected LOD - Limit of Detection
MCL = Maximum Contamination Level (40 CFR 261 6/96)
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	1932-UST-SP01		
Lab Sample ID:	FA11487-5L	**Date Sampled:**	01/08/14
Matrix:	SO - Soil	**Date Received:**	01/09/14
Method:	SW846 8270D SW846 3510C	**Percent Solids:**	84.4
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X032730.D	1	01/16/14	FS	01/15/14	OP50097	SX1545
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	1.0 ml
Run #2		

ABN TCLP List **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	LOQ	LOD	Units	Q
95-48-7	2-Methylphenol	0.010 U	D023	200	0.050	0.010	mg/l	
	3&4-Methylphenol	0.020 U	D024	200	0.050	0.020	mg/l	
87-86-5	Pentachlorophenol	0.10 U	D037	100	0.25	0.10	mg/l	
95-95-4	2,4,5-Trichlorophenol	0.020 U	D041	400	0.050	0.020	mg/l	
88-06-2	2,4,6-Trichlorophenol	0.020 U	D042	2.0	0.050	0.020	mg/l	
106-46-7	1,4-Dichlorobenzene	0.020 U	D027	7.5	0.050	0.020	mg/l	
121-14-2	2,4-Dinitrotoluene	0.010 U	D030	0.13	0.050	0.010	mg/l	
118-74-1	Hexachlorobenzene	0.010 U	D032	0.13	0.050	0.010	mg/l	
87-68-3	Hexachlorobutadiene	0.010 U	D033	0.50	0.050	0.010	mg/l	
67-72-1	Hexachloroethane	0.020 U	D034	3.0	0.050	0.020	mg/l	
98-95-3	Nitrobenzene	0.010 U	D036	2.0	0.050	0.010	mg/l	
110-86-1	Pyridine	0.040 U	D038	5.0	0.10	0.040	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	29%		14-67%
4165-62-2	Phenol-d5	17%		10-50%
118-79-6	2,4,6-Tribromophenol	75%		33-118%
4165-60-0	Nitrobenzene-d5	62%		42-108%
321-60-8	2-Fluorobiphenyl	64%		40-106%
1718-51-0	Terphenyl-d14	94%		39-121%

U = Not detected LOD - Limit of Detection J = Indicates an estimated value
MCL = Maximum Contamination Level (40 CFR 261 6/96) B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	1932-UST-SP01		
Lab Sample ID:	FA11487-5L	**Date Sampled:**	01/08/14
Matrix:	SO - Soil	**Date Received:**	01/09/14
Method:	SW846 8151A SW846 3510C	**Percent Solids:**	84.4
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CC043037.D	1	01/17/14	NJ	01/15/14	OP50098	GCC623
Run #2							

	Initial Volume	Final Volume
Run #1	10.0 ml	10.0 ml
Run #2		

Herbicide TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	LOQ	LOD	Units	Q
94-75-7	2,4-D	0.050 U	D016	10	0.10	0.050	mg/l	
93-72-1	2,4,5-TP (Silvex)	0.0050 U	D017	1.0	0.010	0.0050	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	103%		33-145%

U = Not detected LOD - Limit of Detection
MCL = Maximum Contamination Level (40 CFR 261 6/96)
E = Indicates value exceeds calibration range

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

Accutest Laboratories

Report of Analysis

Client Sample ID:	1932-UST-SP01		
Lab Sample ID:	FA11487-5L	**Date Sampled:**	01/08/14
Matrix:	SO - Soil	**Date Received:**	01/09/14
Method:	SW846 8081B SW846 3510C	**Percent Solids:**	84.4
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK60962.D	1	01/17/14	EM	01/15/14	OP50095	GKK2046
Run #2							

	Initial Volume	Final Volume
Run #1	100 ml	10.0 ml
Run #2		

Pesticide TCLP Leachate **TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	LOQ	LOD	Units	Q
58-89-9	gamma-BHC (Lindane)	0.00010 U	D013	0.40	0.00050	0.00010	mg/l	
12789-03-6	Chlordane	0.0025 U	D020	0.030	0.0050	0.0025	mg/l	
72-20-8	Endrin	0.00020 U	D012	0.020	0.0010	0.00020	mg/l	
76-44-8	Heptachlor	0.00010 U	D031	0.0080	0.00050	0.00010	mg/l	
1024-57-3	Heptachlor epoxide	0.00010 U	D031	0.0080	0.00050	0.00010	mg/l	
72-43-5	Methoxychlor	0.00020 U	D014	10	0.0010	0.00020	mg/l	
8001-35-2	Toxaphene	0.013 U	D015	0.50	0.025	0.013	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	119%		42-127%
2051-24-3	Decachlorobiphenyl	106%		27-127%

U = Not detected LOD - Limit of Detection
MCL = Maximum Contamination Level (40 CFR 261 6/96)
E = Indicates value exceeds calibration 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:	1932-UST-SP01		
Lab Sample ID:	FA11487-5L	**Date Sampled:**	01/08/14
Matrix:	SO - Soil	**Date Received:**	01/09/14
		Percent Solids:	84.4
Project:	WE03, Camp Lejuene, NC		

Metals Analysis, TCLP Leachate SW846 1311

Analyte	Result	HW#	MCL	LOQ	LOD	Units	DF	Prep	Analyzed	By	Method
Arsenic	0.050 U	D004	5.0	0.10	0.050	mg/l	1	01/16/14	01/16/14	LM	SW846 6010C [2]
Barium	0.12 J	D005	100	2.0	0.050	mg/l	1	01/16/14	01/16/14	LM	SW846 6010C [2]
Cadmium	0.010 U	D006	1.0	0.050	0.010	mg/l	1	01/16/14	01/16/14	LM	SW846 6010C [2]
Chromium	0.050 U	D007	5.0	0.10	0.050	mg/l	1	01/16/14	01/16/14	LM	SW846 6010C [2]
Lead	0.020 U	D008	5.0	0.050	0.020	mg/l	1	01/16/14	01/16/14	LM	SW846 6010C [2]
Mercury	0.0010 U	D009	0.20	0.0050	0.0010	mg/l	1	01/16/14	01/16/14	JL	SW846 7470A [1]
Selenium	0.050 U	D010	1.0	0.10	0.050	mg/l	1	01/16/14	01/16/14	LM	SW846 6010C [2]
Silver	0.020 U	D011	5.0	0.10	0.020	mg/l	1	01/16/14	01/16/14	LM	SW846 6010C [2]

(1) Instrument QC Batch: MA11330
(2) Instrument QC Batch: MA11333
(3) Prep QC Batch: MP26677
(4) Prep QC Batch: MP26678

LOQ = Limit of Quantitation LOD = Limit of Detection U = Indicates a result < LOD
MCL = Maximum Contamination Level (40 CFR 261 6/96) J = Indicates a result > = LOD but < LOQ

Southeast ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

Accutest Laboratories Southeast
Chain of Custody

ACCUTEST LABORATORIES

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 • FAX: 407-425-0707
www.accutest.com

Accutest JOB # FA11487 PAGE 1 OF 1

Accutest Quote # | SKIFF#

Client / Reporting Information

Company Name: Tetra Tech
Address: 17885 Von Karman Suite 500
City: Irving State: CA Zip: 92614
Project Contact: Sabrina Sudako E-mail:
Phone#: 949-859-5022
Sampler(s) Name(s) (Printed):

Project Information

Project Name: UST Demo Camp Lejeune
Street:
City: Jacksonville State: NC
Project #: 4659 WE03
Fax #:
Client Purchase Order #: 10 36 773-20

Analytical Information / **Matrix Codes**

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe

Accutest Sample #	Field ID / Point of Collection	Date	Time	Sampled By	Matrix	Total # of Bottles	Other	None	HCl	MeOH	HNO3	H2SO4	NaOH+ZnAc	DI Water	NaOH	8260B w/ADE + MTBE	8270B	MADEP VPH	MADEP EPH	8260B	TPH-GRO	SVOC	Herbicides Pesticides	Metals + Hg	PCBs	TPH-DRO + RORA	LAB USE ONLY
1	1932-UST-SW07	1/8	0920	JTG	SO	7		2						2	3	X	X	X	X								
2	1932-UST-SW08		0940			7		2						2	3	X	X	X	X								
3	1932-UST-SW08A		0940			7		2						2	3	X	X	X	X								
4	1932-UST-SW09		1000			21		6						6	9	X	X	X	X								
5	1932-UST-SP01	1/8	1100	JTG	SO	6		4							2					X	X	X	X	X	X	X	MS/MSD

TURNAROUND TIME (Business Days)

Approved By: / Rush Code

- [ ] 10 Days Standard
- [ ] 7 Day RUSH
- [x] 5 Day RUSH — 5 DAY TAT
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] OTHER

Emergency or Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [x] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULT1 (EPA LEVEL 4)
- [x] EDD'S

Comments / Remarks

FedEx # 8049 2600 6840

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:
1	1/8 1300	2 FC	3 FC 01-09-14	945	4
Relinquished by:	Date Time:	Received By:	Relinquished by:	Date Time:	Received By:
5		6	7		8

Lab Use Only: Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved where Applicable: Y N Total # of Coolers: Cooler Temperature (s) Celsius: 2.4

FA11487: Chain of Custody
Page 1 of 3

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: FA11487 CLIENT: TetraTech PROJECT: UST Demo

DATE/TIME RECEIVED: 01-09-14 945 (MM/DD/YY 24:00) NIMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: (FEDEX) UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS: 8047 2600 5101

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET
- [ ] WET ICE PRESENT

TRIP BLANK INFORMATION

- [x] TRIP BLANK PROVIDED
- [ ] TRIP BLANK NOT PROVIDED
- [x] TRIP BLANK NOT ON COC
- [x] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [ ] RECEIVED WATER TRIP BLANK
- [x] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM _____ 5-GRAM _____

NUMBER OF 5035 FIELD KITS ? 67

NUMBER OF LAB FILTERED METALS ? _____

TEMPERATURE INFORMATION

- [ ] IR THERM ID 1 CORR. FACTOR -0.4
- [ ] OBSERVED TEMPS: 2.8
- [ ] CORRECTED TEMPS: 2.4

SAMPLE INFORMATION

- [ ] SAMPLE LABELS PRESENT ON ALL BOTTLES
- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] 5035 FIELD KIT FROZEN WITHIN 48 HOUR'S
- [ ] RESIDUAL CHLORINE PRESENT

(APPICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS)

SUMMARY OF COMMENTS: _____

TECHNICIAN SIGNATURE/DATE RWille 01-09-14 REVIEWER SIGNATURE/DATE [illegible] 01/09/14

NF 12/10 receipt confirmation 122910.xls

5.1 5

FA11487: Chain of Custody

Page 2 of 3

FedEx Express Package US Airbill — FedEx Tracking Number 8047 2600 5101

1 From
Date 01/28/2014
Sender's Name John Galler — Phone 757 461 4046
Company Texas Tech — Govt
Address Twin Oaks 1, Suite 309 — Dept./Floor/Suite/Room
City Norfolk — State VA — ZIP 23502

2 Your Internal Billing Reference

3 To
Recipient's Name SUPPLY RECV — Phone 407 425-6700
Company ACCUTEST LABORATORIES SE, INC
Address 4405 VINELAND RD STE C15 — Dept./Floor/Suite/Room
We cannot deliver to P.O. boxes or P.O. ZIP codes.
HOLD Weekday FedEx location address REQUIRED. NOT available for FedEx First Overnight.
HOLD Saturday FedEx location address REQUIRED. Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.
Address
Use this line for the HOLD location address or for continuation of your shipping address.
City ORLANDO — State FL — ZIP 32811-5803

0112015194

Recipient's Copy

4 Express Package Service
NOTE: Service order has changed. Please select carefully.
Packages up to 150 lbs. For packages over 150 lbs., see the FedEx Express Freight US Airbill.

Next Business Day
- [ ] FedEx First Overnight — Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [x] FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx Standard Overnight — Next business afternoon.* Saturday Delivery NOT available.

2 or 3 Business Days
- [ ] FedEx 2Day A.M. — Second business morning.* Saturday Delivery NOT available.
- [ ] FedEx 2Day — Second business afternoon.* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx Express Saver — Third business day.* Saturday Delivery NOT available.

5 Packaging
- [ ] FedEx Envelope*
- [ ] FedEx Pak*
- [ ] FedEx Box
- [ ] FedEx Tube
- [x] Other

6 Special Handling and Delivery Signature Options
- [ ] SATURDAY Delivery — NOT available for FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver
- [x] No Signature Required — Package may be left without obtaining a signature for delivery.
- [ ] Direct Signature — Someone at recipient's address may sign for delivery. Fee applies.
- [ ] Indirect Signature — If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential delivery only. Fee applies.

Does this shipment contain dangerous goods?
One box must be checked.
- [x] No
- [ ] Yes — As per attached Shipper's Declaration.
- [ ] Yes — Shipper's Declaration not required.
- [ ] Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg
- [ ] Cargo Aircraft Only

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box.

7 Payment Bill to:
Enter FedEx Acct. No. or Credit Card No. below.
Obtain recip. Acct. No. [ ]
- [x] Sender — Acct. No. in Section 1 will be billed.
- [ ] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check

Total Packages 1 — Total Weight 50 lbs. — Credit Card Auth.

Your liability is limited to US$100 unless you declare a higher value. See the current FedEx Service Guide for details.

611

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FA11487: Chain of Custody
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Southeast ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: FA11487
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VY555-MB	Y12538.D	1	01/09/14	EP	n/a	n/a	VY555

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA11487-1, FA11487-2, FA11487-3, FA11487-4

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	50	15	ug/kg	
71-43-2	Benzene	ND	5.0	1.0	ug/kg	
108-86-1	Bromobenzene	ND	5.0	1.1	ug/kg	
74-97-5	Bromochloromethane	ND	5.0	1.9	ug/kg	
75-27-4	Bromodichloromethane	ND	5.0	1.0	ug/kg	
75-25-2	Bromoform	ND	5.0	1.1	ug/kg	
104-51-8	n-Butylbenzene	ND	5.0	1.0	ug/kg	
135-98-8	sec-Butylbenzene	ND	5.0	1.0	ug/kg	
98-06-6	tert-Butylbenzene	ND	5.0	1.0	ug/kg	
108-90-7	Chlorobenzene	ND	5.0	1.0	ug/kg	
75-00-3	Chloroethane	ND	5.0	2.3	ug/kg	
67-66-3	Chloroform	ND	5.0	1.1	ug/kg	
95-49-8	o-Chlorotoluene	ND	5.0	1.0	ug/kg	
106-43-4	p-Chlorotoluene	ND	5.0	1.0	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.0	1.4	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.0	1.0	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.0	1.0	ug/kg	
563-58-6	1,1-Dichloropropene	ND	5.0	1.1	ug/kg	
106-93-4	1,2-Dibromoethane	ND	5.0	1.8	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.0	1.0	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.0	1.0	ug/kg	
142-28-9	1,3-Dichloropropane	ND	5.0	1.0	ug/kg	
108-20-3	Di-Isopropyl ether	ND	5.0	1.0	ug/kg	
594-20-7	2,2-Dichloropropane	ND	5.0	1.4	ug/kg	
124-48-1	Dibromochloromethane	ND	5.0	1.0	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	5.0	1.3	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.0	1.0	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	1.0	ug/kg	
541-73-1	m-Dichlorobenzene	ND	5.0	1.0	ug/kg	
95-50-1	o-Dichlorobenzene	ND	5.0	1.0	ug/kg	
106-46-7	p-Dichlorobenzene	ND	5.0	1.1	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	5.0	1.3	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	1.0	ug/kg	
64-17-5	Ethyl alcohol	ND	400	67	ug/kg	
100-41-4	Ethylbenzene	ND	5.0	1.0	ug/kg	
637-92-3	Ethyl tert-Butyl Ether	ND	5.0	1.0	ug/kg	

Method Blank Summary

Job Number: FA11487
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VY555-MB	Y12538.D	1	01/09/14	EP	n/a	n/a	VY555

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA11487-1, FA11487-2, FA11487-3, FA11487-4

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	25	4.9	ug/kg	
98-82-8	Isopropylbenzene	ND	5.0	1.0	ug/kg	
99-87-6	p-Isopropyltoluene	ND	5.0	1.0	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	25	5.0	ug/kg	
74-83-9	Methyl bromide	ND	5.0	1.9	ug/kg	
74-87-3	Methyl chloride	ND	5.0	2.0	ug/kg	
75-09-2	Methylene chloride	ND	10	4.0	ug/kg	
78-93-3	Methyl ethyl ketone	ND	25	7.5	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	5.0	1.0	ug/kg	
91-20-3	Naphthalene	ND	5.0	2.0	ug/kg	
103-65-1	n-Propylbenzene	ND	5.0	1.0	ug/kg	
100-42-5	Styrene	ND	5.0	1.0	ug/kg	
75-85-4	Tert-Amyl Alcohol	ND	50	18	ug/kg	
994-05-8	Tert-Amyl Methyl Ether	ND	5.0	1.0	ug/kg	
75-65-0	Tert-Butyl Alcohol	ND	50	18	ug/kg	
762-75-4	tert-Butyl Formate	ND	50	10	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	1.1	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.0	1.0	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	1.4	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.0	1.6	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	1.2	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	5.0	1.9	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.2	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	1.0	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	1.0	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.0	1.3	ug/kg	
108-88-3	Toluene	ND	5.0	1.0	ug/kg	
79-01-6	Trichloroethylene	ND	5.0	1.0	ug/kg	
75-69-4	Trichlorofluoromethane	ND	5.0	1.0	ug/kg	
75-01-4	Vinyl chloride	ND	5.0	1.0	ug/kg	
108-05-4	Vinyl Acetate	ND	25	8.0	ug/kg	
1330-20-7	Xylene (total)	ND	15	2.7	ug/kg	
	m,p-Xylene	ND	10	1.6	ug/kg	
95-47-6	o-Xylene	ND	5.0	1.1	ug/kg	

Method Blank Summary

Job Number: FA11487
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VY555-MB	Y12538.D	1	01/09/14	EP	n/a	n/a	VY555

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA11487-1, FA11487-2, FA11487-3, FA11487-4

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	102%	75-124%
2037-26-5	Toluene-D8	99%	75-126%
460-00-4	4-Bromofluorobenzene	98%	71-133%
17060-07-0	1,2-Dichloroethane-D4	94%	72-135%

Leachate Blank Summary

Job Number: FA11487
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50074-LB	N0073605.D	10	01/15/14	RB	01/14/14	OP50074	VN3204

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA11487-5L

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	10	2.4	ug/l	
108-90-7	Chlorobenzene	ND	10	2.4	ug/l	
67-66-3	Chloroform	ND	10	3.1	ug/l	
56-23-5	Carbon tetrachloride	ND	10	4.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	10	2.5	ug/l	
107-06-2	1,2-Dichloroethane	ND	10	2.4	ug/l	
106-46-7	p-Dichlorobenzene	ND	10	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	50	15	ug/l	
127-18-4	Tetrachloroethylene	ND	10	2.6	ug/l	
79-01-6	Trichloroethylene	ND	10	3.0	ug/l	
75-01-4	Vinyl chloride	ND	10	3.3	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	97%	83-118%
17060-07-0	1,2-Dichloroethane-D4	98%	79-125%
2037-26-5	Toluene-D8	99%	85-112%
460-00-4	4-Bromofluorobenzene	98%	83-118%

Blank Spike Summary

Job Number: FA11487
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VY555-BS	Y12537.D	1	01/09/14	EP	n/a	n/a	VY555

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA11487-1, FA11487-2, FA11487-3, FA11487-4

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
67-64-1	Acetone	250	208	83	61-152
71-43-2	Benzene	50	48.6	97	76-126
108-86-1	Bromobenzene	50	48.9	98	76-122
74-97-5	Bromochloromethane	50	47.7	95	77-120
75-27-4	Bromodichloromethane	50	44.2	88	74-130
75-25-2	Bromoform	50	46.5	93	76-127
104-51-8	n-Butylbenzene	50	43.1	86	71-128
135-98-8	sec-Butylbenzene	50	53.5	107	79-135
98-06-6	tert-Butylbenzene	50	49.4	99	77-133
108-90-7	Chlorobenzene	50	50.4	101	81-129
75-00-3	Chloroethane	50	48.9	98	68-133
67-66-3	Chloroform	50	45.7	91	72-123
95-49-8	o-Chlorotoluene	50	48.9	98	77-129
106-43-4	p-Chlorotoluene	50	54.8	110	80-134
56-23-5	Carbon tetrachloride	50	45.2	90	78-133
75-34-3	1,1-Dichloroethane	50	48.9	98	73-125
75-35-4	1,1-Dichloroethylene	50	43.6	87	81-136
563-58-6	1,1-Dichloropropene	50	50.3	101	75-130
106-93-4	1,2-Dibromoethane	50	49.9	100	77-126
107-06-2	1,2-Dichloroethane	50	49.9	100	74-128
78-87-5	1,2-Dichloropropane	50	43.5	87	74-125
142-28-9	1,3-Dichloropropane	50	48.2	96	76-122
108-20-3	Di-Isopropyl ether	50	50.6	101	75-122
594-20-7	2,2-Dichloropropane	50	50.4	101	77-133
124-48-1	Dibromochloromethane	50	47.4	95	76-127
75-71-8	Dichlorodifluoromethane	50	39.6	79	68-168
156-59-2	cis-1,2-Dichloroethylene	50	46.5	93	74-126
10061-01-5	cis-1,3-Dichloropropene	50	48.8	98	80-123
541-73-1	m-Dichlorobenzene	50	54.2	108	81-129
95-50-1	o-Dichlorobenzene	50	50.8	102	80-129
106-46-7	p-Dichlorobenzene	50	48.9	98	76-130
156-60-5	trans-1,2-Dichloroethylene	50	41.0	82	70-127
10061-02-6	trans-1,3-Dichloropropene	50	45.5	91	75-131
64-17-5	Ethyl alcohol	1000	851	85	53-154
100-41-4	Ethylbenzene	50	47.3	95	77-123
637-92-3	Ethyl tert-Butyl Ether	50	48.3	97	75-117

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA11487
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VY555-BS	Y12537.D	1	01/09/14	EP	n/a	n/a	VY555

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA11487-1, FA11487-2, FA11487-3, FA11487-4

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
591-78-6	2-Hexanone	250	205	82	72-133
98-82-8	Isopropylbenzene	50	51.1	102	80-136
99-87-6	p-Isopropyltoluene	50	53.6	107	77-131
108-10-1	4-Methyl-2-pentanone	250	182	73*	76-132
74-83-9	Methyl bromide	50	47.2	94	65-139
74-87-3	Methyl chloride	50	42.7	85	71-144
75-09-2	Methylene chloride	50	41.1	82	74-137
78-93-3	Methyl ethyl ketone	250	223	89	75-137
1634-04-4	Methyl Tert Butyl Ether	50	43.5	87	77-120
91-20-3	Naphthalene	50	50.9	102	79-129
103-65-1	n-Propylbenzene	50	52.5	105	80-135
100-42-5	Styrene	50	45.6	91	78-125
75-85-4	Tert-Amyl Alcohol	500	637	127	69-130
994-05-8	Tert-Amyl Methyl Ether	50	50.1	100	69-130
75-65-0	Tert-Butyl Alcohol	500	631	126	58-136
762-75-4	tert-Butyl Formate	500	ND	0*	65-135
630-20-6	1,1,1,2-Tetrachloroethane	50	48.5	97	78-126
71-55-6	1,1,1-Trichloroethane	50	48.8	98	70-129
79-34-5	1,1,2,2-Tetrachloroethane	50	48.5	97	71-126
79-00-5	1,1,2-Trichloroethane	50	44.8	90	74-124
87-61-6	1,2,3-Trichlorobenzene	50	50.2	100	77-128
96-18-4	1,2,3-Trichloropropane	50	48.8	98	74-127
120-82-1	1,2,4-Trichlorobenzene	50	52.5	105	78-130
95-63-6	1,2,4-Trimethylbenzene	50	49.7	99	74-123
108-67-8	1,3,5-Trimethylbenzene	50	48.0	96	73-122
127-18-4	Tetrachloroethylene	50	41.3	83	79-130
108-88-3	Toluene	50	45.4	91	76-124
79-01-6	Trichloroethylene	50	46.6	93	75-128
75-69-4	Trichlorofluoromethane	50	43.6	87	73-145
75-01-4	Vinyl chloride	50	40.6	81	76-141
108-05-4	Vinyl Acetate	250	285	114	48-164
1330-20-7	Xylene (total)	150	141	94	80-129
	m,p-Xylene	100	95.3	95	80-128
95-47-6	o-Xylene	50	46.1	92	80-132

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA11487
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VY555-BS	Y12537.D	1	01/09/14	EP	n/a	n/a	VY555

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA11487-1, FA11487-2, FA11487-3, FA11487-4

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	98%	75-124%
2037-26-5	Toluene-D8	96%	75-126%
460-00-4	4-Bromofluorobenzene	102%	71-133%
17060-07-0	1,2-Dichloroethane-D4	98%	72-135%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA11487
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VY555-BS	Y12546.D	1	01/09/14	EP	n/a	n/a	VY555

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA11487-1, FA11487-2, FA11487-3, FA11487-4

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
762-75-4	tert-Butyl Formate	500	454	91	65-135

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	105%	75-124%
2037-26-5	Toluene-D8	94%	75-126%
460-00-4	4-Bromofluorobenzene	97%	71-133%
17060-07-0	1,2-Dichloroethane-D4	91%	72-135%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA11487
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN3204-BS	N0073604.D	10	01/15/14	RB	n/a	n/a	VN3204

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA11487-5L

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	250	244	98	81-122
108-90-7	Chlorobenzene	250	271	108	82-124
67-66-3	Chloroform	250	240	96	80-124
56-23-5	Carbon tetrachloride	250	244	98	76-136
75-35-4	1,1-Dichloroethylene	250	289	116	78-137
107-06-2	1,2-Dichloroethane	250	239	96	75-125
106-46-7	p-Dichlorobenzene	250	247	99	78-120
78-93-3	Methyl ethyl ketone	1250	1060	85	56-143
127-18-4	Tetrachloroethylene	250	270	108	76-135
79-01-6	Trichloroethylene	250	247	99	81-126
75-01-4	Vinyl chloride	250	278	111	69-159

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	99%	83-118%
17060-07-0	1,2-Dichloroethane-D4	101%	79-125%
2037-26-5	Toluene-D8	101%	85-112%
460-00-4	4-Bromofluorobenzene	99%	83-118%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA11487
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA11487-4MS	Y12547.D	1	01/09/14	EP	n/a	n/a	VY555
FA11487-4MSD	Y12548.D	1	01/09/14	EP	n/a	n/a	VY555
FA11487-4	Y12539.D	1	01/09/14	EP	n/a	n/a	VY555

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA11487-1, FA11487-2, FA11487-3, FA11487-4

CAS No.	Compound	FA11487-4 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	1600 U		7810	6900	88	7840	100	13	61-152/27
71-43-2	Benzene	160 U		1560	1240	79	1570	101	23	76-126/26
108-86-1	Bromobenzene	160 U		1560	1380	88	1310	84	5	76-122/32
74-97-5	Bromochloromethane	160 U		1560	1600	102	1790	115	11	77-120/24
75-27-4	Bromodichloromethane	160 U		1560	1510	97	1630	104	8	74-130/25
75-25-2	Bromoform	160 U		1560	1410	90	1550	99	9	76-127/26
104-51-8	n-Butylbenzene	125	J	1560	1550	91	1590	94	3	71-128/35
135-98-8	sec-Butylbenzene	44.0		1560	1350	84	1510	94	11	79-135/34
98-06-6	tert-Butylbenzene	160 U		1560	1360	87	1460	94	7	77-133/34
108-90-7	Chlorobenzene	160 U		1560	1500	96	1540	99	3	81-129/29
75-00-3	Chloroethane	160 U		1560	1380	88	1630	104	17	68-133/29
67-66-3	Chloroform	160 U		1560	1440	92	1660	106	14	72-123/26
95-49-8	o-Chlorotoluene	160 U		1560	1520	97	1530	98	1	77-129/33
106-43-4	p-Chlorotoluene	160 U		1560	1450	93	1500	96	3	80-134/33
56-23-5	Carbon tetrachloride	160 U		1560	1310	84	1310	84	0	78-133/29
75-34-3	1,1-Dichloroethane	160 U		1560	1460	94	1680	108	14	73-125/27
75-35-4	1,1-Dichloroethylene	160 U		1560	1210	78*	1380	88	13	81-136/28
563-58-6	1,1-Dichloropropene	160 U		1560	1420	91	1340	86	6	75-130/28
106-93-4	1,2-Dibromoethane	160 U		1560	1350	86	1550	99	14	77-126/26
107-06-2	1,2-Dichloroethane	160 U		1560	1510	97	1770	113	16	74-128/23
78-87-5	1,2-Dichloropropane	160 U		1560	1510	97	1590	102	5	74-125/25
142-28-9	1,3-Dichloropropane	160 U		1560	1420	91	1540	99	8	76-122/26
108-20-3	Di-Isopropyl ether	160 U		1560	1640	105	1860	119	13	75-122/25
594-20-7	2,2-Dichloropropane	160 U		1560	1450	93	1580	101	9	77-133/28
124-48-1	Dibromochloromethane	160 U		1560	1410	90	1520	97	8	76-127/27
75-71-8	Dichlorodifluoromethane	160 U		1560	945	61*	1100	70	15	68-168/29
156-59-2	cis-1,2-Dichloroethylene	160 U		1560	1510	97	1680	108	11	74-126/26
10061-01-5	cis-1,3-Dichloropropene	160 U		1560	1370	88	1700	109	21	80-123/26
541-73-1	m-Dichlorobenzene	160 U		1560	1500	96	1580	101	5	81-129/33
95-50-1	o-Dichlorobenzene	160 U		1560	1500	96	1590	102	6	80-129/32
106-46-7	p-Dichlorobenzene	160 U		1560	1420	91	1460	94	3	76-130/32
156-60-5	trans-1,2-Dichloroethylene	160 U		1560	1200	77	1420	91	17	70-127/27
10061-02-6	trans-1,3-Dichloropropene	160 U		1560	1550	99	1680	108	8	75-131/28
64-17-5	Ethyl alcohol	12000 U		31200	25500	82	19600	63	26	53-154/42
100-41-4	Ethylbenzene	303		1560	1780	95	1860	100	4	77-123/31
637-92-3	Ethyl tert-Butyl Ether	160 U		1560	1640	105	1930	124*	16	75-117/24

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA11487
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA11487-4MS	Y12547.D	1	01/09/14	EP	n/a	n/a	VY555
FA11487-4MSD	Y12548.D	1	01/09/14	EP	n/a	n/a	VY555
FA11487-4	Y12539.D	1	01/09/14	EP	n/a	n/a	VY555

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA11487-1, FA11487-2, FA11487-3, FA11487-4

CAS No.	Compound	FA11487-4 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
591-78-6	2-Hexanone	780 U		7810	6420	82	6930	89	8	72-133/26
98-82-8	Isopropylbenzene	59.9		1560	1570	97	1640	101	4	80-136/32
99-87-6	p-Isopropyltoluene	42.8		1560	1410	88	1450	90	3	77-131/34
108-10-1	4-Methyl-2-pentanone	780 U		7810	6350	81	7180	92	12	76-132/26
74-83-9	Methyl bromide	160 U		1560	1440	92	1620	104	12	65-139/31
74-87-3	Methyl chloride	160 U		1560	1200	77	1380	88	14	71-144/27
75-09-2	Methylene chloride	310 U		1560	1730	111	2200	141*	24	74-137/28
78-93-3	Methyl ethyl ketone	780 U		7810	7300	94	7830	100	7	75-137/25
1634-04-4	Methyl Tert Butyl Ether	160 U		1560	1460	94	1760	113	19	77-120/24
91-20-3	Naphthalene	392		1560	1800	90	2000	103	11	79-129/33
103-65-1	n-Propylbenzene	335		1560	1840	96	1810	94	2	80-135/33
100-42-5	Styrene	160 U		1560	1420	91	1490	95	5	78-125/30
75-85-4	Tert-Amyl Alcohol	1600 U		15600	15300	98	16600	106	8	69-130/32
994-05-8	Tert-Amyl Methyl Ether	160 U		1560	1480	95	1960	126	28*	69-130/23
75-65-0	Tert-Butyl Alcohol	1600 U		15600	14800	95	14700	94	1	74-126/32
762-75-4	tert-Butyl Formate	1600 U		15600	ND	0*	ND	0*	nc	65-135/30
630-20-6	1,1,1,2-Tetrachloroethane	160 U		1560	1440	92	1490	95	3	78-126/27
71-55-6	1,1,1-Trichloroethane	160 U		1560	1440	92	1510	97	5	70-129/27
79-34-5	1,1,2,2-Tetrachloroethane	160 U		1560	1370	88	1400	90	2	71-126/30
79-00-5	1,1,2-Trichloroethane	160 U		1560	1420	91	1560	100	9	74-124/28
87-61-6	1,2,3-Trichlorobenzene	160 U		1560	1390	89	1420	91	2	77-128/35
96-18-4	1,2,3-Trichloropropane	160 U		1560	1370	88	1500	96	9	74-127/27
120-82-1	1,2,4-Trichlorobenzene	160 U		1560	1370	88	1420	91	4	78-130/34
95-63-6	1,2,4-Trimethylbenzene	3440		1560	5900	158* [a]	6600	202* [a]	11	74-123/34
108-67-8	1,3,5-Trimethylbenzene	890		1560	2510	104	2600	110	4	73-122/33
127-18-4	Tetrachloroethylene	160 U		1560	1220	78*	1350	86	10	79-130/31
108-88-3	Toluene	160 U		1560	1240	79	1310	84	5	76-124/30
79-01-6	Trichloroethylene	160 U		1560	1340	86	1340	86	0	75-128/27
75-69-4	Trichlorofluoromethane	160 U		1560	1220	78	1390	89	13	73-145/31
75-01-4	Vinyl chloride	160 U		1560	1070	69*	1180	76	10	76-141/27
108-05-4	Vinyl Acetate	780 U		7810	7230	93	5470	70	28	48-164/37
1330-20-7	Xylene (total)	1100		4680	5770	100	6130	107	6	80-129/30
	m,p-Xylene	1010		3120	4240	103	4460	110	5	80-128/30
95-47-6	o-Xylene	92.5	J	1560	1530	92	1670	101	9	80-132/30

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA11487
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA11487-4MS	Y12547.D	1	01/09/14	EP	n/a	n/a	VY555
FA11487-4MSD	Y12548.D	1	01/09/14	EP	n/a	n/a	VY555
FA11487-4	Y12539.D	1	01/09/14	EP	n/a	n/a	VY555

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA11487-1, FA11487-2, FA11487-3, FA11487-4

CAS No.	Surrogate Recoveries	MS	MSD	FA11487-4	Limits
1868-53-7	Dibromofluoromethane	106%	106%	98%	75-124%
2037-26-5	Toluene-D8	90%	91%	99%	75-126%
460-00-4	4-Bromofluorobenzene	93%	87%	98%	71-133%
17060-07-0	1,2-Dichloroethane-D4	92%	106%	98%	72-135%

(a) Outside control limits due to high level in sample relative to spike amount.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA11487
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA11566-2LMS	N0073613.D	10	01/15/14	RB	n/a	n/a	VN3204
FA11566-2LMSD	N0073614.D	10	01/15/14	RB	n/a	n/a	VN3204
FA11566-2L	N0073612.D	10	01/15/14	RB	01/14/14	OP50074	VN3204

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA11487-5L

CAS No.	Compound	FA11566-2L ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	10 U		250	238	95	223	89	7	81-122/14
108-90-7	Chlorobenzene	10 U		250	261	104	245	98	6	82-124/14
67-66-3	Chloroform	10 U		250	236	94	228	91	3	80-124/15
56-23-5	Carbon tetrachloride	10 U		250	233	93	227	91	3	76-136/23
75-35-4	1,1-Dichloroethylene	10 U		250	238	95	217	87	9	78-137/18
107-06-2	1,2-Dichloroethane	10 U		250	239	96	228	91	5	75-125/14
106-46-7	p-Dichlorobenzene	10 U		250	237	95	226	90	5	78-120/15
78-93-3	Methyl ethyl ketone	50 U		1250	1040	83	1020	82	2	56-143/18
127-18-4	Tetrachloroethylene	10 U		250	254	102	236	94	7	76-135/16
79-01-6	Trichloroethylene	10 U		250	246	98	224	90	9	81-126/15
75-01-4	Vinyl chloride	10 U		250	286	114	252	101	13	69-159/18

CAS No.	Surrogate Recoveries	MS	MSD	FA11566-2L	Limits
1868-53-7	Dibromofluoromethane	100%	100%	99%	83-118%
17060-07-0	1,2-Dichloroethane-D4	102%	98%	99%	79-125%
2037-26-5	Toluene-D8	100%	100%	98%	85-112%
460-00-4	4-Bromofluorobenzene	100%	101%	100%	83-118%

* = Outside of Control Limits.

Duplicate Summary

Job Number: FA11487
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA11517-1DUP	N0073610.D	10	01/15/14	RB	n/a	n/a	VN3204
FA11517-1	N0073609.D	10	01/15/14	RB	01/14/14	OP50074	VN3204

The QC reported here applies to the following samples: **Method:** SW846 8260B

FA11487-5L

CAS No.	Compound	FA11517-1 ug/l	Q	DUP ug/l	Q	RPD	Limits
71-43-2	Benzene	ND		ND		nc	14
108-90-7	Chlorobenzene	ND		ND		nc	14
67-66-3	Chloroform	ND		ND		nc	15
56-23-5	Carbon tetrachloride	ND		ND		nc	23
75-35-4	1,1-Dichloroethylene	ND		ND		nc	18
107-06-2	1,2-Dichloroethane	ND		ND		nc	14
106-46-7	p-Dichlorobenzene	ND		ND		nc	15
78-93-3	Methyl ethyl ketone	ND		ND		nc	18
127-18-4	Tetrachloroethylene	ND		ND		nc	16
79-01-6	Trichloroethylene	ND		ND		nc	15
75-01-4	Vinyl chloride	ND		ND		nc	18

CAS No.	Surrogate Recoveries	DUP	FA11517-1	Limits
1868-53-7	Dibromofluoromethane	95%	95%	83-118%
17060-07-0	1,2-Dichloroethane-D4	99%	97%	79-125%
2037-26-5	Toluene-D8	98%	98%	85-112%
460-00-4	4-Bromofluorobenzene	99%	97%	83-118%

* = Outside of Control Limits.

Southeast ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: FA11487
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50033-MB	X032650.D	1	01/10/14	FS	01/09/14	OP50033	SX1541

The QC reported here applies to the following samples: **Method:** SW846 8270D

FA11487-1, FA11487-2, FA11487-3, FA11487-4

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	830	170	ug/kg	
95-57-8	2-Chlorophenol	ND	170	17	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	170	17	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	170	17	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	170	18	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	830	170	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	330	67	ug/kg	
95-48-7	2-Methylphenol	ND	170	17	ug/kg	
	3&4-Methylphenol	ND	170	33	ug/kg	
88-75-5	2-Nitrophenol	ND	170	17	ug/kg	
100-02-7	4-Nitrophenol	ND	830	130	ug/kg	
87-86-5	Pentachlorophenol	ND	830	130	ug/kg	
108-95-2	Phenol	ND	170	17	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	170	17	ug/kg	
83-32-9	Acenaphthene	ND	170	21	ug/kg	
208-96-8	Acenaphthylene	ND	170	17	ug/kg	
120-12-7	Anthracene	ND	170	17	ug/kg	
56-55-3	Benzo(a)anthracene	ND	170	17	ug/kg	
50-32-8	Benzo(a)pyrene	ND	170	17	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	170	17	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	170	17	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	170	18	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	170	17	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	170	33	ug/kg	
100-51-6	Benzyl Alcohol	ND	170	17	ug/kg	
91-58-7	2-Chloronaphthalene	ND	170	20	ug/kg	
106-47-8	4-Chloroaniline	ND	170	17	ug/kg	
218-01-9	Chrysene	ND	170	17	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	170	17	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	170	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	170	17	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	170	25	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	170	17	ug/kg	
122-66-7	1,2-Diphenylhydrazine	ND	170	19	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	170	17	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	170	17	ug/kg	

Method Blank Summary

Job Number: FA11487
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50033-MB	X032650.D	1	01/10/14	FS	01/09/14	OP50033	SX1541

The QC reported here applies to the following samples: **Method:** SW846 8270D

FA11487-1, FA11487-2, FA11487-3, FA11487-4

CAS No.	Compound	Result	RL	MDL	Units	Q
91-94-1	3,3'-Dichlorobenzidine	ND	170	17	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	170	17	ug/kg	
132-64-9	Dibenzofuran	ND	170	17	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	330	33	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	170	33	ug/kg	
84-66-2	Diethyl phthalate	ND	330	33	ug/kg	
131-11-3	Dimethyl phthalate	ND	170	33	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	330	33	ug/kg	
206-44-0	Fluoranthene	ND	170	17	ug/kg	
86-73-7	Fluorene	ND	170	17	ug/kg	
118-74-1	Hexachlorobenzene	ND	170	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	170	17	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	170	17	ug/kg	
67-72-1	Hexachloroethane	ND	170	17	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	170	17	ug/kg	
78-59-1	Isophorone	ND	170	17	ug/kg	
90-12-0	1-Methylnaphthalene	ND	170	17	ug/kg	
91-57-6	2-Methylnaphthalene	ND	170	17	ug/kg	
91-20-3	Naphthalene	ND	170	17	ug/kg	
98-95-3	Nitrobenzene	ND	170	17	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	170	17	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	170	17	ug/kg	
85-01-8	Phenanthrene	ND	170	17	ug/kg	
129-00-0	Pyrene	ND	170	17	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	170	17	ug/kg	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	92%	40-102%
4165-62-2	Phenol-d5	90%	41-100%
118-79-6	2,4,6-Tribromophenol	87%	42-108%
4165-60-0	Nitrobenzene-d5	85%	40-105%
321-60-8	2-Fluorobiphenyl	85%	43-107%
1718-51-0	Terphenyl-d14	103%	45-119%

Leachate Blank Summary

Job Number: FA11487
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50097-LB	X032729.D	1	01/16/14	FS	01/15/14	OP50097	SX1545

The QC reported here applies to the following samples: **Method:** SW846 8270D

FA11487-5L

CAS No.	Compound	Result	RL	MDL	Units	Q
95-48-7	2-Methylphenol	ND	50	5.0	ug/l	
	3&4-Methylphenol	ND	50	12	ug/l	
87-86-5	Pentachlorophenol	ND	250	50	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	50	9.7	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	50	5.5	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	50	5.0	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	50	5.7	ug/l	
118-74-1	Hexachlorobenzene	ND	50	6.6	ug/l	
87-68-3	Hexachlorobutadiene	ND	50	5.0	ug/l	
67-72-1	Hexachloroethane	ND	50	5.0	ug/l	
98-95-3	Nitrobenzene	ND	50	5.0	ug/l	
110-86-1	Pyridine	ND	100	20	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	51%	14-67%
4165-62-2	Phenol-d5	35%	10-50%
118-79-6	2,4,6-Tribromophenol	81%	33-118%
4165-60-0	Nitrobenzene-d5	78%	42-108%
321-60-8	2-Fluorobiphenyl	77%	40-106%
1718-51-0	Terphenyl-d14	94%	39-121%

Blank Spike Summary

Job Number: FA11487
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50033-BS	X032649.D	1	01/10/14	FS	01/09/14	OP50033	SX1541

The QC reported here applies to the following samples: **Method:** SW846 8270D

FA11487-1, FA11487-2, FA11487-3, FA11487-4

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
65-85-0	Benzoic Acid	3330	2950	89	36-118
95-57-8	2-Chlorophenol	1670	1360	82	48-104
59-50-7	4-Chloro-3-methyl phenol	1670	1390	83	52-108
120-83-2	2,4-Dichlorophenol	1670	1350	81	51-105
105-67-9	2,4-Dimethylphenol	1670	1240	74	43-96
51-28-5	2,4-Dinitrophenol	3330	2740	82	40-119
534-52-1	4,6-Dinitro-o-cresol	3330	2950	89	64-121
95-48-7	2-Methylphenol	1670	1440	86	46-107
	3&4-Methylphenol	3330	3000	90	44-111
88-75-5	2-Nitrophenol	1670	1470	88	49-104
100-02-7	4-Nitrophenol	3330	2710	81	56-116
87-86-5	Pentachlorophenol	3330	3290	99	61-114
108-95-2	Phenol	1670	1470	88	45-110
88-06-2	2,4,6-Trichlorophenol	1670	1460	88	56-109
83-32-9	Acenaphthene	1670	1440	86	56-109
208-96-8	Acenaphthylene	1670	1450	87	56-106
120-12-7	Anthracene	1670	1420	85	61-110
56-55-3	Benzo(a)anthracene	1670	1440	86	66-111
50-32-8	Benzo(a)pyrene	1670	1390	83	59-104
205-99-2	Benzo(b)fluoranthene	1670	1440	86	67-113
191-24-2	Benzo(g,h,i)perylene	1670	1400	84	67-113
207-08-9	Benzo(k)fluoranthene	1670	1460	88	67-114
101-55-3	4-Bromophenyl phenyl ether	1670	1290	77	62-110
85-68-7	Butyl benzyl phthalate	1670	1500	90	65-113
100-51-6	Benzyl Alcohol	1670	1490	89	53-108
91-58-7	2-Chloronaphthalene	1670	1380	83	53-106
106-47-8	4-Chloroaniline	1670	551	33	30-115
218-01-9	Chrysene	1670	1460	88	65-112
111-91-1	bis(2-Chloroethoxy)methane	1670	1490	89	48-105
111-44-4	bis(2-Chloroethyl)ether	1670	1420	85	46-103
108-60-1	bis(2-Chloroisopropyl)ether	1670	1700	102	40-110
7005-72-3	4-Chlorophenyl phenyl ether	1670	1330	80	58-106
95-50-1	1,2-Dichlorobenzene	1670	1230	74	44-102
122-66-7	1,2-Diphenylhydrazine	1670	1460	88	58-112
541-73-1	1,3-Dichlorobenzene	1670	1240	74	42-100
106-46-7	1,4-Dichlorobenzene	1670	1290	77	40-106

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA11487
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50033-BS	X032649.D	1	01/10/14	FS	01/09/14	OP50033	SX1541

The QC reported here applies to the following samples: **Method:** SW846 8270D

FA11487-1, FA11487-2, FA11487-3, FA11487-4

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
53-70-3	Dibenzo(a,h)anthracene	1670	1420	85	68-115
132-64-9	Dibenzofuran	1670	1410	85	57-108
84-74-2	Di-n-butyl phthalate	1670	1400	84	63-108
117-84-0	Di-n-octyl phthalate	1670	1620	97	64-119
84-66-2	Diethyl phthalate	1670	1290	77	61-109
131-11-3	Dimethyl phthalate	1670	1340	80	59-108
117-81-7	bis(2-Ethylhexyl)phthalate	1670	1530	92	64-115
206-44-0	Fluoranthene	1670	1420	85	60-108
86-73-7	Fluorene	1670	1420	85	58-109
118-74-1	Hexachlorobenzene	1670	1420	85	59-111
87-68-3	Hexachlorobutadiene	1670	1390	83	41-108
77-47-4	Hexachlorocyclopentadiene	1670	1200	72	49-110
67-72-1	Hexachloroethane	1670	1270	76	40-105
193-39-5	Indeno(1,2,3-cd)pyrene	1670	1400	84	66-116
78-59-1	Isophorone	1670	1380	83	42-89
90-12-0	1-Methylnaphthalene	1670	1330	80	49-106
91-57-6	2-Methylnaphthalene	1670	1380	83	47-106
91-20-3	Naphthalene	1670	1460	88	44-104
98-95-3	Nitrobenzene	1670	1350	81	43-108
621-64-7	N-Nitroso-di-n-propylamine	1670	505	30* [a]	48-108
86-30-6	N-Nitrosodiphenylamine	1670	1430	86	62-110
85-01-8	Phenanthrene	1670	1470	88	63-111
129-00-0	Pyrene	1670	1460	88	65-115
120-82-1	1,2,4-Trichlorobenzene	1670	1260	76	45-100

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	90%	40-102%
4165-62-2	Phenol-d5	87%	41-100%
118-79-6	2,4,6-Tribromophenol	88%	42-108%
4165-60-0	Nitrobenzene-d5	84%	40-105%
321-60-8	2-Fluorobiphenyl	86%	43-107%
1718-51-0	Terphenyl-d14	99%	45-119%

(a) Sporadic marginal failure.

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA11487
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50097-LBS	X032728.D	1	01/16/14	FS	01/15/14	OP50097	SX1545

The QC reported here applies to the following samples: **Method:** SW846 8270D

FA11487-5L

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
95-48-7	2-Methylphenol	500	274	55	43-90
	3&4-Methylphenol	1000	536	54	36-88
87-86-5	Pentachlorophenol	1000	970	97	61-115
95-95-4	2,4,5-Trichlorophenol	500	401	80	62-109
88-06-2	2,4,6-Trichlorophenol	500	405	81	59-107
106-46-7	1,4-Dichlorobenzene	500	350	70	45-98
121-14-2	2,4-Dinitrotoluene	500	406	81	61-110
118-74-1	Hexachlorobenzene	500	412	82	63-108
87-68-3	Hexachlorobutadiene	500	368	74	42-102
67-72-1	Hexachloroethane	500	343	69	42-100
98-95-3	Nitrobenzene	500	355	71	50-104
110-86-1	Pyridine	500	216	43	23-74

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	38%	14-67%
4165-62-2	Phenol-d5	23%	10-50%
118-79-6	2,4,6-Tribromophenol	84%	33-118%
4165-60-0	Nitrobenzene-d5	75%	42-108%
321-60-8	2-Fluorobiphenyl	79%	40-106%
1718-51-0	Terphenyl-d14	97%	39-121%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA11487
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50033-MS	X032662.D	1	01/10/14	FS	01/09/14	OP50033	SX1541
OP50033-MSD	X032663.D	1	01/10/14	FS	01/09/14	OP50033	SX1541
FA11487-4	X032661.D	1	01/10/14	FS	01/09/14	OP50033	SX1541

The QC reported here applies to the following samples: **Method:** SW846 8270D

FA11487-1, FA11487-2, FA11487-3, FA11487-4

CAS No.	Compound	FA11487-4 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	970 U		3900	3220	83	3510	91	9	36-118/41
95-57-8	2-Chlorophenol	190 U		1950	1500	77	1510	78	1	48-104/26
59-50-7	4-Chloro-3-methyl phenol	190 U		1950	1600	82	1600	83	0	52-108/21
120-83-2	2,4-Dichlorophenol	190 U		1950	1510	78	1510	78	0	51-105/27
105-67-9	2,4-Dimethylphenol	190 U		1950	1560	80	1590	82	2	43-96/23
51-28-5	2,4-Dinitrophenol	970 U		3900	2210	57	2330	60	5	40-119/32
534-52-1	4,6-Dinitro-o-cresol	390 U		3900	2780	71	2870	74	3	64-121/29
95-48-7	2-Methylphenol	190 U		1950	1630	84	1670	86	2	46-107/24
	3&4-Methylphenol	190 U		3900	3420	88	3480	90	2	44-111/24
88-75-5	2-Nitrophenol	190 U		1950	1600	82	1610	83	1	49-104/27
100-02-7	4-Nitrophenol	970 U		3900	3090	79	3180	82	3	56-116/23
87-86-5	Pentachlorophenol	970 U		3900	3740	96	3860	100	3	61-114/23
108-95-2	Phenol	190 U		1950	1610	83	1650	85	2	45-110/24
88-06-2	2,4,6-Trichlorophenol	190 U		1950	1650	85	1680	87	2	56-109/25
83-32-9	Acenaphthene	190 U		1950	1630	84	1650	85	1	56-109/23
208-96-8	Acenaphthylene	190 U		1950	1660	85	1670	86	1	56-106/23
120-12-7	Anthracene	190 U		1950	1660	85	1700	88	2	61-110/21
56-55-3	Benzo(a)anthracene	190 U		1950	1670	86	1730	89	4	66-111/23
50-32-8	Benzo(a)pyrene	190 U		1950	1620	83	1670	86	3	59-104/23
205-99-2	Benzo(b)fluoranthene	190 U		1950	1710	88	1750	90	2	67-113/24
191-24-2	Benzo(g,h,i)perylene	190 U		1950	1630	84	1680	87	3	67-113/21
207-08-9	Benzo(k)fluoranthene	190 U		1950	1690	87	1760	91	4	67-114/22
101-55-3	4-Bromophenyl phenyl ether	190 U		1950	1450	74	1500	78	3	62-110/21
85-68-7	Butyl benzyl phthalate	190 U		1950	1770	91	1850	96	4	65-113/20
100-51-6	Benzyl Alcohol	190 U		1950	1770	91	1750	90	1	53-108/24
91-58-7	2-Chloronaphthalene	190 U		1950	1530	79	1530	79	0	53-106/23
106-47-8	4-Chloroaniline	190 U		1950	611	31	649	34	6	30-115/30
218-01-9	Chrysene	190 U		1950	1680	86	1750	90	4	65-112/25
111-91-1	bis(2-Chloroethoxy)methane	190 U		1950	1760	90	1770	91	1	48-105/24
111-44-4	bis(2-Chloroethyl)ether	190 U		1950	1500	77	1520	79	1	46-103/27
108-60-1	bis(2-Chloroisopropyl)ether	190 U		1950	1880	97	1960	101	4	40-110/25
7005-72-3	4-Chlorophenyl phenyl ether	190 U		1950	1540	79	1560	81	1	58-106/21
95-50-1	1,2-Dichlorobenzene	190 U		1950	1250	64	1260	65	1	44-102/28
122-66-7	1,2-Diphenylhydrazine	190 U		1950	1650	85	1690	87	2	58-112/22
541-73-1	1,3-Dichlorobenzene	190 U		1950	1210	62	1210	63	0	42-100/30
106-46-7	1,4-Dichlorobenzene	190 U		1950	1270	65	1290	67	2	40-106/29

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA11487
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50033-MS	X032662.D	1	01/10/14	FS	01/09/14	OP50033	SX1541
OP50033-MSD	X032663.D	1	01/10/14	FS	01/09/14	OP50033	SX1541
FA11487-4	X032661.D	1	01/10/14	FS	01/09/14	OP50033	SX1541

The QC reported here applies to the following samples: **Method:** SW846 8270D

FA11487-1, FA11487-2, FA11487-3, FA11487-4

CAS No.	Compound	FA11487-4 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
53-70-3	Dibenzo(a,h)anthracene	190 U		1950	1640	84	1710	88	4	68-115/23
132-64-9	Dibenzofuran	190 U		1950	1680	86	1670	86	1	57-108/22
84-74-2	Di-n-butyl phthalate	390 U		1950	1640	84	1680	87	2	63-108/19
117-84-0	Di-n-octyl phthalate	190 U		1950	1950	100	2030	105	4	64-119/21
84-66-2	Diethyl phthalate	390 U		1950	1520	78	1560	81	3	61-109/20
131-11-3	Dimethyl phthalate	190 U		1950	1550	80	1570	81	1	59-108/20
117-81-7	bis(2-Ethylhexyl)phthalate	390 U		1950	1790	92	1870	97	4	64-115/23
206-44-0	Fluoranthene	190 U		1950	1640	84	1670	86	2	60-108/25
86-73-7	Fluorene	190 U		1950	1640	84	1670	86	2	58-109/21
118-74-1	Hexachlorobenzene	190 U		1950	1630	84	1660	86	2	59-111/21
87-68-3	Hexachlorobutadiene	190 U		1950	1460	75	1470	76	1	41-108/27
77-47-4	Hexachlorocyclopentadiene	190 U		1950	1040	53	1110	57	7	49-110/31
67-72-1	Hexachloroethane	190 U		1950	2490	128*	2670	138*	7	40-105/32
193-39-5	Indeno(1,2,3-cd)pyrene	190 U		1950	1620	83	1660	86	2	66-116/22
78-59-1	Isophorone	190 U		1950	1490	76	1510	78	1	42-89/22
90-12-0	1-Methylnaphthalene	1310		1950	2350	53	2430	58	3	49-106/26
91-57-6	2-Methylnaphthalene	2900		1950	3540	33*	3680	40*	4	47-106/27
91-20-3	Naphthalene	773		1950	2090	68	2150	71	3	44-104/27
98-95-3	Nitrobenzene	190 U		1950	1480	76	1520	79	3	43-108/25
621-64-7	N-Nitroso-di-n-propylamine	190 U		1950	1030	53	981	51	5	48-108/27
86-30-6	N-Nitrosodiphenylamine	190 U		1950	1670	86	1700	88	2	62-110/21
85-01-8	Phenanthrene	190 U		1950	1680	86	1720	89	2	63-111/22
129-00-0	Pyrene	190 U		1950	1700	87	1770	91	4	65-115/25
120-82-1	1,2,4-Trichlorobenzene	190 U		1950	1330	68	1350	70	1	45-100/26

CAS No.	Surrogate Recoveries	MS	MSD	FA11487-4	Limits
367-12-4	2-Fluorophenol	85%	90%	95%	40-102%
4165-62-2	Phenol-d5	85%	89%	95%	41-100%
118-79-6	2,4,6-Tribromophenol	89%	93%	95%	42-108%
4165-60-0	Nitrobenzene-d5	80%	83%	85%	40-105%
321-60-8	2-Fluorobiphenyl	83%	85%	86%	43-107%
1718-51-0	Terphenyl-d14	100%	105%	110%	45-119%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA11487
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50097-MS	X032733.D	1	01/16/14	FS	01/15/14	OP50097	SX1545
OP50097-MSD	X032734.D	1	01/16/14	FS	01/15/14	OP50097	SX1545
FA11566-3L	X032732.D	1	01/16/14	FS	01/15/14	OP50097	SX1545

The QC reported here applies to the following samples: **Method:** SW846 8270D

FA11487-5L

CAS No.	Compound	FA11566-3L ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
95-48-7	2-Methylphenol	50 U		500	239	48	222	44	7	43-90/28
	3&4-Methylphenol	50 U		1000	468	47	437	44	7	36-88/28
87-86-5	Pentachlorophenol	250 U		1000	918	92	816	82	12	61-115/26
95-95-4	2,4,5-Trichlorophenol	50 U		500	374	75	327	65	13	62-109/22
88-06-2	2,4,6-Trichlorophenol	50 U		500	377	75	328	66	14	59-107/23
106-46-7	1,4-Dichlorobenzene	50 U		500	293	59	257	51	13	45-98/25
121-14-2	2,4-Dinitrotoluene	50 U		500	373	75	345	69	8	61-110/21
118-74-1	Hexachlorobenzene	50 U		500	394	79	342	68	14	63-108/22
87-68-3	Hexachlorobutadiene	50 U		500	318	64	272	54	16	42-102/28
67-72-1	Hexachloroethane	50 U		500	281	56	245	49	14	42-100/29
98-95-3	Nitrobenzene	50 U		500	318	64	274	55	15	50-104/28
110-86-1	Pyridine	100 U		500	156	31	151	30	3	23-74/34

CAS No.	Surrogate Recoveries	MS	MSD	FA11566-3L	Limits
367-12-4	2-Fluorophenol	31%	29%	34%	14-67%
4165-62-2	Phenol-d5	19%	18%	21%	10-50%
118-79-6	2,4,6-Tribromophenol	81%	69%	78%	33-118%
4165-60-0	Nitrobenzene-d5	67%	59%	71%	42-108%
321-60-8	2-Fluorobiphenyl	72%	63%	71%	40-106%
1718-51-0	Terphenyl-d14	94%	82%	99%	39-121%

* = Outside of Control Limits.

Duplicate Summary

Job Number: FA11487
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50097-DUP	X032731.D	1	01/16/14	FS	01/15/14	OP50097	SX1545
FA11487-5L	X032730.D	1	01/16/14	FS	01/15/14	OP50097	SX1545

The QC reported here applies to the following samples: **Method:** SW846 8270D

FA11487-5L

CAS No.	Compound	FA11487-5L ug/l	Q	DUP ug/l	Q	RPD	Limits
95-48-7	2-Methylphenol	50 U		ND		nc	28
	3&4-Methylphenol	50 U		ND		nc	28
87-86-5	Pentachlorophenol	250 U		ND		nc	26
95-95-4	2,4,5-Trichlorophenol	50 U		ND		nc	22
88-06-2	2,4,6-Trichlorophenol	50 U		ND		nc	23
106-46-7	1,4-Dichlorobenzene	50 U		ND		nc	25
121-14-2	2,4-Dinitrotoluene	50 U		ND		nc	21
118-74-1	Hexachlorobenzene	50 U		ND		nc	22
87-68-3	Hexachlorobutadiene	50 U		ND		nc	28
67-72-1	Hexachloroethane	50 U		ND		nc	29
98-95-3	Nitrobenzene	50 U		ND		nc	28
110-86-1	Pyridine	100 U		ND		nc	34

CAS No.	Surrogate Recoveries	DUP	FA11487-5L	Limits
367-12-4	2-Fluorophenol	35%	29%	14-67%
4165-62-2	Phenol-d5	22%	17%	10-50%
118-79-6	2,4,6-Tribromophenol	75%	75%	33-118%
4165-60-0	Nitrobenzene-d5	67%	62%	42-108%
321-60-8	2-Fluorobiphenyl	69%	64%	40-106%
1718-51-0	Terphenyl-d14	94%	94%	39-121%

* = Outside of Control Limits.

Southeast ACCUTEST LABORATORIES

GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: FA11487
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GUU301-MB	UU006216.D	1	01/10/14	AH	n/a	n/a	GUU301

The QC reported here applies to the following samples: **Method:** MADEP VPH REV 1.1

FA11487-1, FA11487-2, FA11487-3

CAS No.	Compound	Result	RL	MDL	Units	Q
	C5- C8 Aliphatics (Unadj.)	ND	5100	1800	ug/kg	
	C9- C12 Aliphatics (Unadj.)	ND	5100	1800	ug/kg	
	C9- C10 Aromatics (Unadj.)	ND	5100	1800	ug/kg	

CAS No.	Surrogate Recoveries		Limits
460-00-4	BFB	90%	70-130%
460-00-4	BFB	80%	70-130%

Method Blank Summary

Job Number: FA11487
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GUU302-MB	UU006234.D	1	01/13/14	AH	n/a	n/a	GUU302

The QC reported here applies to the following samples: **Method:** MADEP VPH REV 1.1

FA11487-4

CAS No.	Compound	Result	RL	MDL	Units	Q
	C5- C8 Aliphatics (Unadj.)	ND	5100	1800	ug/kg	
	C9- C12 Aliphatics (Unadj.)	ND	5100	1800	ug/kg	
	C9- C10 Aromatics (Unadj.)	ND	5100	1800	ug/kg	

CAS No.	Surrogate Recoveries		Limits
460-00-4	BFB	90%	70-130%
460-00-4	BFB	80%	70-130%

Method Blank Summary

Job Number: FA11487
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GQR3434-MB	QR080685.D	1	01/10/14	MM	n/a	n/a	GQR3434

The QC reported here applies to the following samples: **Method:** SW846 8015C

FA11487-5

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	5.0	2.5	mg/kg	

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	92%	56-149%
98-08-8	aaa-Trifluorotoluene	94%	66-132%

Blank Spike Summary

Job Number: FA11487
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GQR3434-BS	QR080684.D	1	01/10/14	MM	n/a	n/a	GQR3434

The QC reported here applies to the following samples: **Method:** SW846 8015C

FA11487-5

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-GRO (C6-C10)	20	19.6	98	74-128

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	93%	56-149%
98-08-8	aaa-Trifluorotoluene	98%	66-132%

8.2.1

8

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: FA11487
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GUU301-BS	UU006214.D	1	01/10/14	AH	n/a	n/a	GUU301
GUU301-BSD	UU006215.D	1	01/10/14	AH	n/a	n/a	GUU301

The QC reported here applies to the following samples: **Method:** MADEP VPH REV 1.1

FA11487-1, FA11487-2, FA11487-3

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
	C5- C8 Aliphatics (Unadj.)	12500	14000	112	13900	111	1	70-130/25
	C9- C12 Aliphatics (Unadj.)	8320	8570	103	8280	99	3	70-130/25
	C9- C10 Aromatics (Unadj.)	4160	3860	93	4390	105	13	70-130/25

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	BFB	94%	97%	70-130%
460-00-4	BFB	84%	87%	70-130%

8.3.1

8

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: FA11487
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GUU302-BS	UU006232.D	1	01/13/14	AH	n/a	n/a	GUU302
GUU302-BSD	UU006233.D	1	01/13/14	AH	n/a	n/a	GUU302

The QC reported here applies to the following samples: **Method:** MADEP VPH REV 1.1

FA11487-4

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
	C5- C8 Aliphatics (Unadj.)	12500	13000	104	13600	109	5	70-130/25
	C9- C12 Aliphatics (Unadj.)	8320	8300	100	7780	93	6	70-130/25
	C9- C10 Aromatics (Unadj.)	4160	4150	100	4100	99	1	70-130/25

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	BFB	93%	89%	70-130%
460-00-4	BFB	82%	80%	70-130%

8.3.2

8

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA11487
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA11487-4MS	UU006226.D	1	01/10/14	AH	n/a	n/a	GUU301
FA11487-4MSD	UU006227.D	1	01/10/14	AH	n/a	n/a	GUU301
FA11487-4 [a]	UU006223.D	1	01/10/14	AH	n/a	n/a	GUU301

The QC reported here applies to the following samples: **Method:** MADEP VPH REV 1.1

FA11487-1, FA11487-2, FA11487-3

CAS No.	Compound	FA11487-4 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
	C5- C8 Aliphatics (Unadj.)	32000	U	155000	64000	41*	69000	44*	8	70-130/50
	C9- C12 Aliphatics (Unadj.)	32000	U	129000	43300	34*	39600	31*	9	70-130/50
	C9- C10 Aromatics (Unadj.)	31900	J	77500	52100	26*	62900	40*	19	70-130/50

CAS No.	Surrogate Recoveries	MS	MSD	FA11487-4	Limits
460-00-4	BFB	197%*	188%*	175%* [b]	70-130%
460-00-4	BFB	176%*	169%*	152%* [b]	70-130%

(a) Confirmation run.
(b) Outside control limits.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA11487
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA11487-5MS	QR080703.D	1	01/10/14	MM	n/a	n/a	GQR3434
FA11487-5MSD	QR080704.D	1	01/10/14	MM	n/a	n/a	GQR3434
FA11487-5	QR080686.D	1	01/10/14	MM	n/a	n/a	GQR3434

The QC reported here applies to the following samples: **Method:** SW846 8015C

FA11487-5

CAS No.	Compound	FA11487-5 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	3.5	U	14	13.8	99	13.9	99	1	74-128/17

CAS No.	Surrogate Recoveries	MS	MSD	FA11487-5	Limits
460-00-4	4-Bromofluorobenzene	76%	73%	110%	56-149%
98-08-8	aaa-Trifluorotoluene	87%	87%	109%	66-132%

8.4.2

8

* = Outside of Control Limits.

Duplicate Summary

Job Number: FA11487
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA11487-4DUP	UU006241.D	1	01/13/14	AH	n/a	n/a	GUU302
FA11487-4	UU006235.D	1	01/13/14	AH	n/a	n/a	GUU302
FA11487-4	UU006240.D	1	01/13/14	AH	n/a	n/a	GUU302

The QC reported here applies to the following samples: **Method:** MADEP VPH REV 1.1

FA11487-4

CAS No.	Compound	FA11487-4 ug/kg	Q	DUP ug/kg	Q	RPD	Limits
	C5- C8 Aliphatics (Unadj.)	3200 U		ND		nc	50
	C9- C12 Aliphatics (Unadj.)	4180	E	3310	J	12	50
	C9- C10 Aromatics (Unadj.)	16600 [a]		15900		4	50

CAS No.	Surrogate Recoveries	DUP	FA11487-4	FA11487-4	Limits
460-00-4	BFB	63%* [b]	81%	64%* [b]	70-130%
460-00-4	BFB	55%* [b]	70%	57%* [b]	70-130%

(a) Result is from Run #2.
(b) Outside control limits.

* = Outside of Control Limits.

Southeast ACCUTEST LABORATORIES

GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: FA11487
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50045-MB	NN007293.D	1	01/15/14	NJ	01/10/14	OP50045	GNN317

The QC reported here applies to the following samples: **Method:** MADEP EPH REV 1.1

FA11487-1, FA11487-2, FA11487-3, FA11487-4

CAS No.	Compound	Result	RL	MDL	Units	Q
	C11-C22 Aromatics (Unadj.)	ND	10000	7500	ug/kg	
	C9-C18 Aliphatics	ND	10000	5000	ug/kg	
	C19-C36 Aliphatics	ND	10000	5000	ug/kg	

CAS No.	Surrogate Recoveries		Limits
3386-33-2	1-Chlorooctadecane	74%	40-140%
580-13-2	2-Bromonaphthalene	61%	40-140%
84-15-1	o-Terphenyl	67%	40-140%
321-60-8	2-Fluorobiphenyl	70%	40-140%

Method Blank Summary

Job Number: FA11487
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50052-MB	ST123430.D	1	01/13/14	MV	01/10/14	OP50052	GST2935

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA11487-5

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	17	6.7	ug/kg	
11104-28-2	Aroclor 1221	ND	17	8.3	ug/kg	
11141-16-5	Aroclor 1232	ND	17	8.3	ug/kg	
53469-21-9	Aroclor 1242	ND	17	6.7	ug/kg	
12672-29-6	Aroclor 1248	ND	17	6.7	ug/kg	
11097-69-1	Aroclor 1254	ND	17	6.7	ug/kg	
11096-82-5	Aroclor 1260	ND	17	6.7	ug/kg	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	77%	44-126%
2051-24-3	Decachlorobiphenyl	79%	41-145%

Method Blank Summary

Job Number: FA11487
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50052-MB	MM09485.D	1	01/14/14	MV	01/10/14	OP50052	GMM209

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA11487-5

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	17	6.7	ug/kg	
11104-28-2	Aroclor 1221	ND	17	8.3	ug/kg	
11141-16-5	Aroclor 1232	ND	17	8.3	ug/kg	
53469-21-9	Aroclor 1242	ND	17	6.7	ug/kg	
12672-29-6	Aroclor 1248	ND	17	6.7	ug/kg	
11097-69-1	Aroclor 1254	ND	17	6.7	ug/kg	
11096-82-5	Aroclor 1260	ND	17	6.7	ug/kg	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	71%	44-126%
2051-24-3	Decachlorobiphenyl	77%	41-145%

Method Blank Summary

Job Number: FA11487
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50034-MB	JJ001014.D	1	01/10/14	SJL	01/09/14	OP50034	GJJ42

The QC reported here applies to the following samples: **Method:** SW846 8015C

FA11487-5

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	4.2	2.5	mg/kg	

CAS No.	Surrogate Recoveries		Limits
84-15-1	o-Terphenyl	80%	56-122%

Leachate Blank Summary

Job Number: FA11487
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50098-LB	CC043036.D	1	01/17/14	NJ	01/15/14	OP50098	GCC623

The QC reported here applies to the following samples: **Method:** SW846 8151A

FA11487-5L

CAS No.	Compound	Result	RL	MDL	Units	Q
94-75-7	2,4-D	ND	100	18	ug/l	
93-72-1	2,4,5-TP (Silvex)	ND	10	3.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
19719-28-9	2,4-DCAA	111%	33-145%

Leachate Blank Summary

Job Number: FA11487
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50095-LB	KK60961.D	1	01/17/14	EM	01/15/14	OP50095	GKK2046

The QC reported here applies to the following samples: **Method:** SW846 8081B

FA11487-5L

CAS No.	Compound	Result	RL	MDL	Units	Q
58-89-9	gamma-BHC (Lindane)	ND	0.50	0.050	ug/l	
12789-03-6	Chlordane	ND	5.0	2.0	ug/l	
72-20-8	Endrin	ND	1.0	0.10	ug/l	
76-44-8	Heptachlor	ND	0.50	0.050	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.50	0.050	ug/l	
72-43-5	Methoxychlor	ND	1.0	0.10	ug/l	
8001-35-2	Toxaphene	ND	25	10	ug/l	

CAS No.	Surrogate Recoveries		Limits
877-09-8	Tetrachloro-m-xylene	124%	42-127%
2051-24-3	Decachlorobiphenyl	101%	27-127%

Blank Spike Summary

Job Number: FA11487
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50098-LBS	CC043035.D	1	01/17/14	NJ	01/15/14	OP50098	GCC623

The QC reported here applies to the following samples: **Method:** SW846 8151A

FA11487-5L

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
94-75-7	2,4-D	500	581	116	69-138
93-72-1	2,4,5-TP (Silvex)	50	53.0	106	76-142

CAS No.	Surrogate Recoveries	BSP	Limits
19719-28-9	2,4-DCAA	114%	33-145%

9.3.1

9

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA11487
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50095-LBS	KK60960.D	1	01/17/14	EM	01/15/14	OP50095	GKK2046

The QC reported here applies to the following samples: **Method:** SW846 8081B

FA11487-5L

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
58-89-9	gamma-BHC (Lindane)	5	5.4	108	68-132
72-20-8	Endrin	5	5.3	106	71-147
76-44-8	Heptachlor	5	5.1	102	63-130
1024-57-3	Heptachlor epoxide	5	5.3	106	67-129
72-43-5	Methoxychlor	5	4.9	98	60-136

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	115%	42-127%
2051-24-3	Decachlorobiphenyl	99%	27-127%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA11487
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50052-BS	ST123429.D	1	01/13/14	MV	01/10/14	OP50052	GST2935

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA11487-5

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
12674-11-2	Aroclor 1016	133	98.9	74	58-126
11096-82-5	Aroclor 1260	133	106	80	59-133

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	69%	44-126%
2051-24-3	Decachlorobiphenyl	73%	41-145%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA11487
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50052-BS	MM09484.D	1	01/14/14	MV	01/10/14	OP50052	GMM209

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA11487-5

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
12674-11-2	Aroclor 1016	133	98.2	74	58-126
11096-82-5	Aroclor 1260	133	107	80	59-133

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	69%	44-126%
2051-24-3	Decachlorobiphenyl	72%	41-145%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA11487
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50034-BS	JJ001013.D	1	01/10/14	SJL	01/09/14	OP50034	GJJ42

The QC reported here applies to the following samples: **Method:** SW846 8015C

FA11487-5

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH (C10-C28)	33.3	27.5	83	62-116

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	80%	56-122%

9.3.5

9

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: FA11487
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50045-BS	NN007291.D	1	01/15/14	NJ	01/10/14	OP50045	GNN317
OP50045-BSD	NN007292.D	1	01/15/14	NJ	01/10/14	OP50045	GNN317

The QC reported here applies to the following samples: **Method:** MADEP EPH REV 1.1

FA11487-1, FA11487-2, FA11487-3, FA11487-4

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
	C11-C22 Aromatics (Unadj.)	85000	69000	81	65200	77	6	40-140/30
	C9-C18 Aliphatics	30000	19000	63	15600	52	20	40-140/30
	C19-C36 Aliphatics	40000	39000	98	32500	81	18	40-140/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
3386-33-2	1-Chlorooctadecane	99%	80%	40-140%
580-13-2	2-Bromonaphthalene	66%	64%	40-140%
84-15-1	o-Terphenyl	74%	69%	40-140%
321-60-8	2-Fluorobiphenyl	71%	71%	40-140%

Sample	Compound	Col #1	Col #2	Breakthrough	Limit
OP50045-BS	2-Methylnaphthalene	2580	ND	0.0%	5.0
OP50045-BS	Naphthalene	2370	ND	0.0%	5.0
OP50045-BSD	2-Methylnaphthalene	2510	ND	0.0%	5.0
OP50045-BSD	Naphthalene	2330	ND	0.0%	5.0

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA11487
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50098-MS	CC043038.D	1	01/17/14	NJ	01/15/14	OP50098	GCC623
OP50098-MSD	CC043039.D	1	01/17/14	NJ	01/15/14	OP50098	GCC623
FA11487-5L	CC043037.D	1	01/17/14	NJ	01/15/14	OP50098	GCC623

The QC reported here applies to the following samples: **Method:** SW846 8151A

FA11487-5L

CAS No.	Compound	FA11487-5L ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
94-75-7	2,4-D	100	U	500	652	130	615	123	6	69-138/21
93-72-1	2,4,5-TP (Silvex)	10	U	50	61.0	122	59.8	120	2	76-142/27

CAS No.	Surrogate Recoveries	MS	MSD	FA11487-5L	Limits
19719-28-9	2,4-DCAA	119%	117%	103%	33-145%

9.5.1

9

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA11487
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50095-MS	KK60963.D	1	01/17/14	EM	01/15/14	OP50095	GKK2046
OP50095-MSD	KK60964.D	1	01/17/14	EM	01/15/14	OP50095	GKK2046
FA11487-5L	KK60962.D	1	01/17/14	EM	01/15/14	OP50095	GKK2046

The QC reported here applies to the following samples: **Method:** SW846 8081B

FA11487-5L

CAS No.	Compound	FA11487-5L ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
58-89-9	gamma-BHC (Lindane)	0.50 U		5	5.8	116	6.1	122	5	68-132/22
72-20-8	Endrin	1.0 U		5	5.8	116	5.8	116	0	71-147/23
76-44-8	Heptachlor	0.50 U		5	5.7	114	5.7	114	0	63-130/23
1024-57-3	Heptachlor epoxide	0.50 U		5	6.0	120	5.9	118	2	67-129/23
72-43-5	Methoxychlor	1.0 U		5	5.6	112	5.7	114	2	60-136/25

CAS No.	Surrogate Recoveries	MS	MSD	FA11487-5L	Limits
877-09-8	Tetrachloro-m-xylene	124%	122%	119%	42-127%
2051-24-3	Decachlorobiphenyl	112%	108%	106%	27-127%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA11487
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50052-MS	MM09487.D	1	01/14/14	MV	01/10/14	OP50052	GMM209
OP50052-MSD	MM09488.D	1	01/14/14	MV	01/10/14	OP50052	GMM209
FA11487-5	MM09486.D	1	01/14/14	MV	01/10/14	OP50052	GMM209

The QC reported here applies to the following samples: **Method:** SW846 8082A

FA11487-5

CAS No.	Compound	FA11487-5 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	20	U	155	123	79	141	91	14	58-126/25
11096-82-5	Aroclor 1260	20	U	155	143	92	154	99	7	59-133/31

CAS No.	Surrogate Recoveries	MS	MSD	FA11487-5	Limits
877-09-8	Tetrachloro-m-xylene	83%	90%	72%	44-126%
2051-24-3	Decachlorobiphenyl	78%	83%	75%	41-145%

9.5.3

9

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA11487
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50034-MS	JJ001020.D	1	01/10/14	SJL	01/09/14	OP50034	GJJ42
OP50034-MSD	JJ001021.D	1	01/10/14	SJL	01/09/14	OP50034	GJJ42
FA11486-5	JJ001019.D	1	01/10/14	SJL	01/09/14	OP50034	GJJ42

The QC reported here applies to the following samples: **Method:** SW846 8015C

FA11487-5

CAS No.	Compound	FA11486-5 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH (C10-C28)	4.6	U	36.2	32.4	90	28.3	78	14	62-116/35

CAS No.	Surrogate Recoveries	MS	MSD	FA11486-5	Limits
84-15-1	o-Terphenyl	85%	73%	68%	56-122%

* = Outside of Control Limits.

Duplicate Summary

Job Number: FA11487
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50045-DUP	NN007299.D	1	01/15/14	NJ	01/10/14	OP50045	GNN317
FA11487-4	NN007298.D	1	01/15/14	NJ	01/10/14	OP50045	GNN317

The QC reported here applies to the following samples: **Method:** MADEP EPH REV 1.1

FA11487-1, FA11487-2, FA11487-3, FA11487-4

CAS No.	Compound	FA11487-4 ug/kg	Q	DUP ug/kg	Q	RPD	Limits
	C11-C22 Aromatics (Unadj.)	12000	U	ND		nc	30 [a]
	C9-C18 Aliphatics	7220	J	10200	J	34*	30 [a]
	C19-C36 Aliphatics	5840	J	5960	J	2	30 [a]

CAS No.	Surrogate Recoveries	DUP	FA11487-4	Limits
3386-33-2	1-Chlorooctadecane	88%	62%	40-140%
580-13-2	2-Bromonaphthalene	60%	62%	40-140%
84-15-1	o-Terphenyl	62%	56%	40-140%
321-60-8	2-Fluorobiphenyl	68%	68%	40-140%

(a) Advisory control limits.

* = Outside of Control Limits.

Duplicate Summary

Job Number: FA11487
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50095-DUP	KK60976.D	1	01/18/14	EM	01/15/14	OP50095	GKK2046
FA11566-1L	KK60965.D	1	01/17/14	EM	01/15/14	OP50095	GKK2046

The QC reported here applies to the following samples: **Method:** SW846 8081B

FA11487-5L

CAS No.	Compound	FA11566-1L ug/l	Q	DUP ug/l	Q	RPD	Limits
58-89-9	gamma-BHC (Lindane)	0.50 U		ND		nc	22
12789-03-6	Chlordane	5.0 U		ND		nc	20
72-20-8	Endrin	1.0 U		ND		nc	23
76-44-8	Heptachlor	0.50 U		ND		nc	23
1024-57-3	Heptachlor epoxide	0.50 U		ND		nc	23
72-43-5	Methoxychlor	1.0 U		ND		nc	25
8001-35-2	Toxaphene	25 U		ND		nc	20

CAS No.	Surrogate Recoveries	DUP	FA11566-1L	Limits
877-09-8	Tetrachloro-m-xylene	123%	107%	42-127%
2051-24-3	Decachlorobiphenyl	126%	104%	27-127%

* = Outside of Control Limits.

Southeast ACCUTEST LABORATORIES

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FA11487
Account: TETRCAI - Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

QC Batch ID: MP26677 Methods: SW846 7470A
Matrix Type: LEACHATE Units: mg/l

Prep Date:				01/16/14		01/16/14	
Metal	RL	IDL	MDL	MB raw	final	MB raw	final
Mercury	0.00050	.00003	.00005	0.000034	<0.00050	0.00024	<0.0050

Associated samples MP26677: FA11487-5L

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: FA11487
Account: TETRCAI - Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

QC Batch ID: MP26677
Matrix Type: LEACHATE

Methods: SW846 7470A
Units: mg/l

Prep Date: 01/16/14

Metal	FA11566-1L Original	MS	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	0.0	0.033	0.030	110.0	80-120

Associated samples MP26677: FA11487-5L

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: FA11487
Account: TETRCAI - Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

QC Batch ID: MP26677
Matrix Type: LEACHATE

Methods: SW846 7470A
Units: mg/l

Prep Date:					01/16/14					01/16/14	
Metal	FA11566-1L Original	MSD	Spikelot HGFLWS1	% Rec	MSD RPD	QC Limit	FA11487-5L Original	DUP	RPD	QC Limits
Mercury	0.0	0.032	0.030	106.7	3.1	20	0.0	0.0	NC	0-20

Associated samples MP26677: FA11487-5L

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: FA11487
Account: TETRCAI - Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

QC Batch ID: MP26677
Matrix Type: LEACHATE

Methods: SW846 7470A
Units: mg/l

Prep Date: 01/16/14 01/16/14

Metal	BSP Result	Spikelot HGFLWS1	% Rec	QC Limits	BSP Result	Spikelot HGFLWS1	% Rec	QC Limits
Mercury	0.0032	0.0030	106.7	80-120	0.032	0.030	106.7	80-120

Associated samples MP26677: FA11487-5L

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FA11487
Account: TETRCAI - Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

QC Batch ID: MP26677
Matrix Type: LEACHATE

Methods: SW846 7470A
Units: ug/l

Prep Date: 01/16/14

Metal	FA11566-1L Original	SDL 1:5	%DIF	QC Limits
Mercury	0.00	0.00	NC	0-10

Associated samples MP26677: FA11487-5L

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FA11487
Account: TETRCAI - Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

QC Batch ID: MP26678
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date:					01/16/14		01/16/14
Metal	RL	IDL	MDL	MB raw	final	MB raw	final
Aluminum	0.20	.015	.015				
Antimony	0.0060	.002	.0023				
Arsenic	0.010	.002	.0024	-0.00040	<0.010	-0.0030	<0.10
Barium	0.20	.001	.005	-0.00010	<0.20	0.0060	<2.0
Beryllium	0.0040	.0005	.0005				
Cadmium	0.0050	.0005	.0005	0.0	<0.0050	0.0	<0.050
Calcium	1.0	.05	.05				
Chromium	0.010	.001	.002	0.0	<0.010	-0.0020	<0.10
Cobalt	0.050	.0005	.0005				
Copper	0.025	.001	.001				
Iron	0.30	.017	.017				
Lead	0.0050	.0011	.0011	0.00050	<0.0050	0.010	<0.050
Magnesium	5.0	.05	.056				
Manganese	0.015	.0005	.001				
Molybdenum	0.050	.0005	.0005				
Nickel	0.040	.0005	.0005				
Potassium	10	.2	.2				
Selenium	0.010	.0023	.0023	-0.00090	<0.010	-0.0070	<0.10
Silver	0.010	.00065	.00077	0.00030	<0.010	-0.0010	<0.10
Sodium	10	.5	.5				
Strontium	0.010	.0004	.0004				
Thallium	0.010	.0015	.002				
Tin	0.050	.0007	.001				
Titanium	0.010	.0009	.001				
Vanadium	0.050	.0005	.0005				
Zinc	0.020	.003	.01				

Associated samples MP26678: FA11487-5L

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: FA11487
Account: TETRCAI - Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

QC Batch ID: MP26678
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date: 01/16/14

Metal	FA11566-1L Original	MS	Spikelot MPFLICP2	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic	0.0	19.4	20.0	97.0	80-120
Barium	0.73	21.1	20.0	101.9	80-120
Beryllium					
Cadmium	0.0	0.50	0.50	100.0	80-120
Calcium					
Chromium	0.0	2.1	2.0	105.0	80-120
Cobalt					
Copper					
Iron					
Lead	0.0	5.0	5.0	100.0	80-120
Magnesium					
Manganese					
Molybdenum					
Nickel					
Potassium					
Selenium	0.0	19.3	20.0	96.5	80-120
Silver	0.0	0.48	0.50	96.0	80-120
Sodium					
Strontium					
Thallium					
Tin					
Titanium					
Vanadium					
Zinc					

Associated samples MP26678: FA11487-5L

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: FA11487
Account: TETRCAI - Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

QC Batch ID: MP26678
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date:					01/16/14				01/16/14	
Metal	FA11566-1L Original	MSD	Spikelot MPFLICP2	% Rec	MSD RPD	QC Limit	FA11487-5L Original	DUP	RPD	QC Limits
Aluminum										
Antimony										
Arsenic	0.0	19.9	20.0	99.5	2.5	20	0.0	0.0	NC	0-20
Barium	0.73	21.7	20.0	104.9	2.8	20	0.12	0.12	0.0	0-20
Beryllium										
Cadmium	0.0	0.51	0.50	102.0	2.0	20	0.0	0.0	NC	0-20
Calcium										
Chromium	0.0	2.1	2.0	105.0	0.0	20	0.0	0.0	NC	0-20
Cobalt										
Copper										
Iron										
Lead	0.0	5.2	5.0	104.0	3.9	20	0.012	0.012	0.0	0-20
Magnesium										
Manganese										
Molybdenum										
Nickel										
Potassium										
Selenium	0.0	19.8	20.0	99.0	2.6	20	0.0	0.0	NC	0-20
Silver	0.0	0.50	0.50	100.0	4.1	20	0.0	0.0	NC	0-20
Sodium										
Strontium										
Thallium										
Tin										
Titanium										
Vanadium										
Zinc										

Associated samples MP26678: FA11487-5L

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: FA11487
Account: TETRCAI - Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

QC Batch ID: MP26678
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: mg/l

Prep Date:			01/16/14				01/16/14	
Metal	BSP Result	Spikelot MPFLICP2	% Rec	QC Limits	BSP Result	Spikelot MPFLICP2	% Rec	QC Limits
Aluminum								
Antimony								
Arsenic	1.9	2.0	95.0	80-120	19.5	20.0	97.5	80-120
Barium	2.1	2.0	105.0	80-120	20.5	20.0	102.5	80-120
Beryllium								
Cadmium	0.050	0.050	100.0	80-120	0.50	0.50	100.0	80-120
Calcium								
Chromium	0.21	0.20	105.0	80-120	2.1	2.0	105.0	80-120
Cobalt								
Copper								
Iron								
Lead	0.50	0.50	100.0	80-120	5.0	5.0	100.0	80-120
Magnesium								
Manganese								
Molybdenum								
Nickel								
Potassium								
Selenium	1.9	2.0	95.0	80-120	19.4	20.0	97.0	80-120
Silver	0.048	0.050	96.0	80-120	0.48	0.50	96.0	80-120
Sodium								
Strontium								
Thallium								
Tin								
Titanium								
Vanadium								
Zinc								

Associated samples MP26678: FA11487-5L

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FA11487
Account: TETRCAI - Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

QC Batch ID: MP26678
Matrix Type: LEACHATE

Methods: SW846 6010C
Units: ug/l

Prep Date: 01/16/14

Metal	FA11566-1L Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	0.00	0.00	NC	0-10
Barium	72.5	73.3	1.1	0-10
Beryllium				
Cadmium	0.00	0.00	NC	0-10
Calcium				
Chromium	0.00	0.00	NC	0-10
Cobalt				
Copper				
Iron				
Lead	0.00	6.50	NC	0-10
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium	0.00	0.00	NC	0-10
Silver	0.00	0.00	NC	0-10
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP26678: FA11487-5L

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

Southeast ACCUTEST LABORATORIES

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA11487
Account: TETRCAI - Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Cyanide Reactivity	GP23249/GN59658	1.5	0.0	mg/kg	50	0.0	0.0	0-100%
Sulfide Reactivity	GP23250/GN59653	50	0.0	mg/kg	537	180	33.5	0-100%

Associated Samples:
Batch GP23249: FA11487-5
Batch GP23250: FA11487-5
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: FA11487
Account: TETRCAI - Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Corrosivity as pH	GN59751	FA11487-5	su	7.4	7.4	0.1	0-%
Cyanide Reactivity	GP23249/GN59658	FA11487-5	mg/kg	1.5 U	0.0	0.0	0-30%
Ignitability (Flashpoint)	GN59675	FA11445-1	Deg. F	>200	>200(a)	0.0	0-38%
Solids, Percent	GN59638	FA11487-4	%	85	85.4	0.5	0-5%
Sulfide Reactivity	GP23250/GN59653	FA11487-5	mg/kg	59 U	0.0	200.0(b)	0-30%

Associated Samples:
Batch GN59638: FA11487-1, FA11487-2, FA11487-3, FA11487-4, FA11487-5
Batch GN59675: FA11487-5
Batch GN59751: FA11487-5
Batch GP23249: FA11487-5
Batch GP23250: FA11487-5
(*) Outside of QC limits
(a) Not ignitable.
(b) RPD acceptable due to low duplicate and sample concentrations.

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APPENDIX I

RHEA SAMPLE INVESTIGATION REPORT

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RHĒA
ENGINEERS & CONSULTANTS, INC.

March 11, 2014
Project No. 454.03
Via Email

Mr. Jose Luis Parra, Jr. EIT
NAVFAC Mid-Atlantic USMC NC IPT
6506 Hampton Boulevard
Norfolk, Virginia 23508-1278
jose.l.parra@navy.mil

Re: Building 1932, Site Investigation Report
Marine Corps Installations East – Marine Corps Base
Camp Lejeune, North Carolina
Contract No. N40085-09-D-3214

Dear Mr. Parra:

Rhēa Engineers and Consultants, Inc. (Rhēa) was tasked by Naval Facilities Engineering Command (NAVFAC) Mid-Atlantic under Contract No. N40085-09-D-3214 to conduct a site investigation to delineate the horizontal and vertical extent of suspected soil contamination in the vicinity of Building 1932 at the Paradise Point Golf Course aboard Marine Corps Installations East, Marine Corps Base, Camp Lejeune.

This document serves as the Site Investigation Report (SIR) for field activities performed on February 5 and 6, 2014, and includes a Site Layout map depicting the location of the excavation area, hand-auger borings, and the approximate contaminant plume boundary (Figure 1). Hand-auger boring logs are included in Attachment 1. Photoionization detector (PID) results are included in Table 1. Laboratory analytical results are summarized in Table 2 and the lab reports are located in Attachment 2.

PROJECT DESCRIPTION

Tetra Tech was tasked with removing an underground storage tank (UST) and dispenser in the vicinity of Building 1932. During excavation, an initial round of eight soil samples were collected from the side walls of the excavation as PID screening indicated the presence of petroleum

hydrocarbons. These samples were analyzed for volatile organic compounds (VOCs), and total petroleum hydrocarbons (TPH) gasoline and diesel range organics (GRO/DRO). Laboratory analysis determined two of these samples on the western side of the excavation and one sample on the eastern side of the excavation contained TPH-DRO concentrations above the NCDENR Action Levels.

The western and eastern side walls were over excavated and additional soil samples were collected and analyzed for VOCs, semi volatile organic compounds (SVOCs), and Massachusetts Department of Environmental Protection (MADEP) extractable petroleum hydrocarbons (EPH) and volatile petroleum hydrocarbons (VPH). The over excavated soil samples on the western side of the excavation contained no contaminant concentration exceedances. One sample on the eastern side of the excavation, SW09, contained concentrations of naphthalene and 1-methnaphthanlene in excess of the soil-to-groundwater MSCCs. With the western portion of the soil contaminant plume delineated, Rhēa was tasked with evaluating the remaining area and delineating remaining boundaries of the suspected soil contamination.

SCOPE OF WORK

Rhēa's scope of work for this project included using a grid pattern of hand-auger borings with associated soil screening using a PID and collecting soil samples to delineate the horizontal and vertical extent of the suspected soil contamination.

SOIL SAMPLING AND SCREENING SUMMARY

On February 5 and 6, 2014, 14 hand-auger borings were advanced to a depth of six feet below ground surface (bgs) in the area surrounding the suspected source of contamination. Soil samples were collected in two foot intervals and classified according to the Unified Soil Classification System (USCS). The soils in the area of the former Building 1932 UST mainly consisted of grey or orange sand and clay. Samples were placed in resealable bags and screened using a PID. PID readings ranged from 0 to 88.8 ppm. PID results are documented on each hand-auger boring log (Attachment 1) and summarized on Table 1.

Soil samples from 11 borings were submitted to Prism Laboratories Inc. (Prism). Seven samples were initially analyzed for VOCs and TPH DRO/GRO. One exceedance of regulatory levels was detected; the concentration of TPH-DRO detected in HA-3 (16 mg/kg) was above the NCDENR Action Level (10 mg/kg). The soil sample from HA-13 was then pulled of hold and analyzed for VOCs and TPH DRO/GRO. The analyte concentrations of soil sample HA-13 and all other samples were less than soil-to-groundwater MSCCs or below the laboratory reporting limits. The analytical results are included in Attachment B and summarized on Table 2.

CONCLUSIONS AND RECOMMENDATIONS

Rhēa advanced 14 hand-auger borings, field screened and classified each boring, and submitted 11 soil samples for laboratory analysis. Based on field observations, PID readings, and laboratory analysis, Rhēa determined the soil contamination from the former Building 1932 UST is limited to the area shown on Figure 1.

Rhēa looks forward to providing continued environmental support services to the MCIEAST-MCB CAMLEJ and NAVFAC. If there are any questions please do not hesitate to contact me at 910-350-3156 or tim.price@rhea.us.

Respectfully Submitted,
Rhēa Engineers & Consultants, Inc.

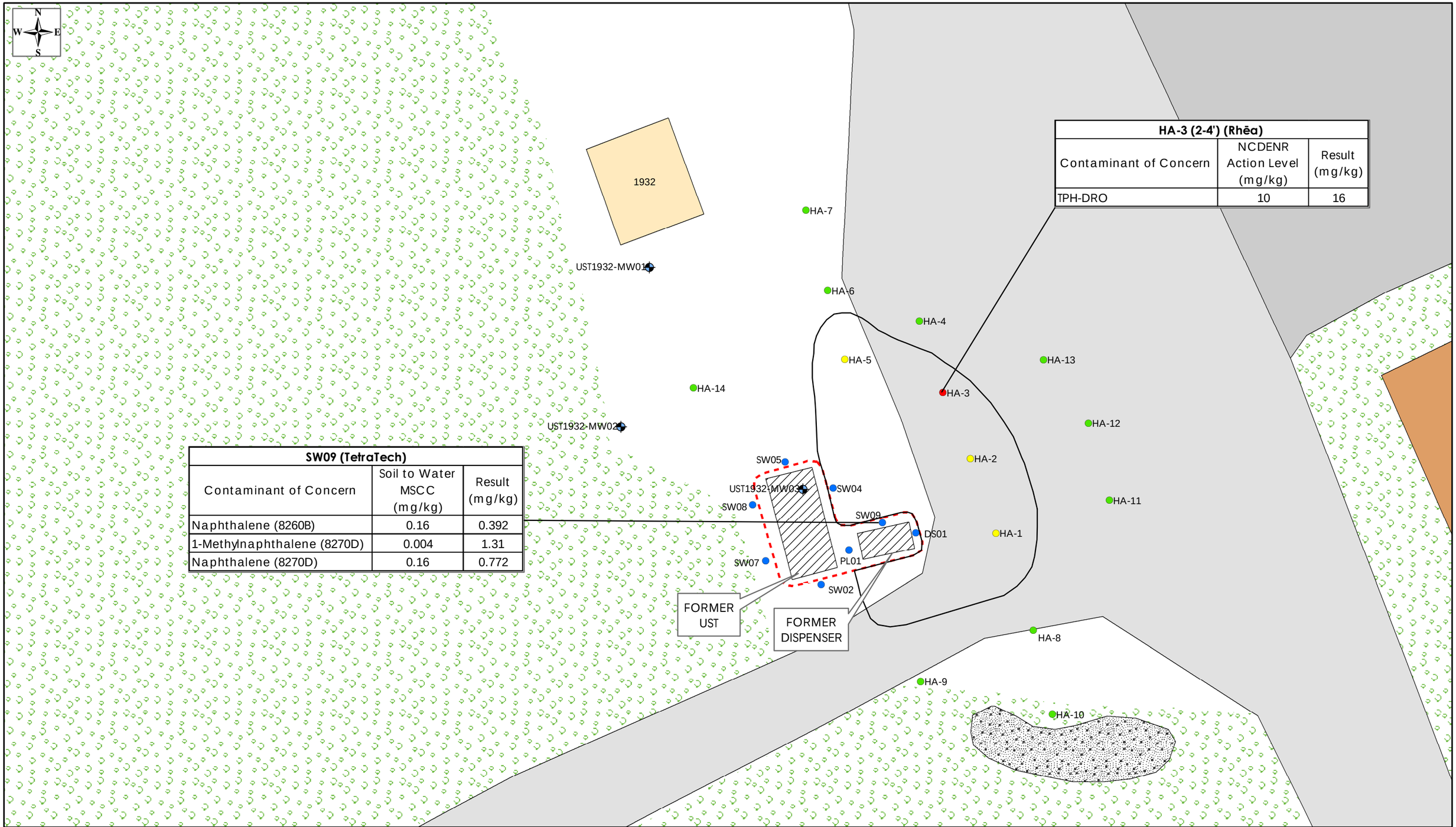
Timothy Price, PE
Project Manager

JE/TP

NORTH CAROLINA PROFESSIONAL SEAL 034386 3-11-14 ENGINEER TIMOTHY T. PRICE

Figure 1 – Site Layout
Table 1 – Photoionization Detector Results
Table 2 – Analytical Data Summary
Attachment 1 – Hand Auger Boring Logs
Attachment 2 – Laboratory Analytical Data

FIGURES



HA-3 (2-4') (Rhēa)		
Contaminant of Concern	NCDENR Action Level (mg/kg)	Result (mg/kg)
TPH-DRO	10	16

SW09 (TetraTech)		
Contaminant of Concern	Soil to Water MSCC (mg/kg)	Result (mg/kg)
Naphthalene (8260B)	0.16	0.392
1-Methylnaphthalene (8270D)	0.004	1.31
Naphthalene (8270D)	0.16	0.772

Legend

- Rhea Soil Boring Location (Clean)
- Rhea Soil Boring Location (Exceedance)
- Rhea Soil Boring Location (PID Hit)
- TetraTech Soil Sample Location
- Monitoring Well
- Gravel Stockpile
- Excavated Area
- Former UST and Dispenser
- Slab Area
- Road Area
- Parking Area
- Existing Structure
- Tree Line
- Approximate Contamination Plume Boundary

0 5 10 20 Feet

RHEA ENGINEERS & CONSULTANTS, INC.

3214/454/R8

FIGURE No. 1

Site Layout Map
Building 1932
MCIEAST-MCB CAMLEJ, NC

Drawn By	Checked By	Date	Project	Sheet No.
ZDW	JEE	3/5/14	454	1

TABLES

TABLE 1
Photoionization Detector Results
Building 1932 Site Investigation
MCIEAST-MCB CAMLEJ, North Carolina

Hand Auger Boring ID	Depth (ft bgs)	PID Result (ppm)	Sample Sent to Lab
HA-01	0 to 2	0.0	
	2 to 4	54.0	
	4 to 6	56.5	
HA-02	0 to 2	18.0	
	2 to 4	88.8	
	4 to 6	30.2	
HA-03	0 to 2	0.3	
	2 to 4	6.2	Yes
	4 to 6	3.5	
HA-04	0 to 2	0.0	
	2 to 4	0.0	
	4 to 6	0.0	Yes
HA-05	0 to 2	12.0	
	2 to 4	48.0	
	4 to 6	14.0	
HA-06	0 to 2	0.0	
	2 to 4	2.1	Yes
	4 to 6	1.2	
HA-07	0 to 2	0.0	
	2 to 4	0.0	
	4 to 6	0.0	Yes

Hand Auger Boring ID	Depth (ft bgs)	PID Result (ppm)	Sample Sent to Lab
HA-08	0 to 2	1.2	
	2 to 4	3.4	
	4 to 6	3.8	Yes
HA-09	0 to 2	0.0	
	2 to 4	1.2	
	4 to 6	1.4	Yes
HA-10	0 to 2	0.3	
	2 to 4	0.2	
	4 to 6	0.3	Yes
HA-11	0 to 2	0.0	
	2 to 4	0.8	
	4 to 6	3.4	Yes
HA-12	0 to 2	0.0	
	2 to 4	0.3	
	4 to 6	3.0	Yes
HA-13	0 to 2	0.0	
	2 to 4	0.0	
	4 to 6	0.0	Yes
HA-14	0 to 2	0.0	
	2 to 4	0.3	
	4 to 6	1.3	Yes

Legend:
All results in parts per million (ppm)
ft bgs = feet below ground surface
Data entered by: JE
Data checked by: TP

TABLE 2
Soil Analytical Results
Building 1932 Site Investigation
MCIEAST-MCB CAMLEJ, North Carolina

Analytical Method		8015C	5030B/8015C	8260B/5030B	
Sample ID	Contaminant of Concern / Date Collected	TPH - DRO	TPH - GRO	Acetone	All Other Analytes
NCDENR Action Levels (mg/kg)		10	10	-	-
NCDENR Soil-to-Water MSCC (mg/kg)		-	-	2.81	Varies
NCDENR - Residential MSCC (mg/kg)		-	-	630,000	Varies
NCDENR - Industrial/Commercial MSCC (mg/kg)		-	-	61,000	Varies
HA-3 (2-4)	2/5/2014	**16**	6.3	BRL	BRL
HA-6 (2-4)	2/5/2014	BRL	BRL	0.028	BRL
HA-8 (4-6)	2/6/2014	BRL	BRL	0.150	BRL
HA-9 (4-6)	2/6/2014	BRL	BRL	0.130	BRL
HA-11 (4-6)	2/6/2014	BRL	BRL	0.096	BRL
HA-12 (4-6)	2/6/2014	BRL	BRL	BRL	BRL
HA-13 (4-6)	2/6/2014	BRL	BRL	BRL	BRL
HA-14 (4-6)	2/6/2014	BRL	BRL	BRL	BRL

Legend:
All results in milligrams per kilogram (mg/kg)
Bold and Red = Regulatory level exceedance
BRL = Below Reporting Limit
NCDENR Action Level = North Carolina Department of Environment and Natural Resources Action Level
NCDENR Soil-to-Water MSCC = North Carolina Department of Environment and Natural Resources Soil-to-Water Maximum Soil Contaminant Concentration
NCDENR Residental MSCC = North Carolina Department of Environment and Natural Resources Residental Maximum Soil Contaminant Concentration
NCDENR Indusctrial/Commercial MSCC = North Carolina Department of Environment and Natural Resources Industrial/Commercial Maximum Soil Contaminant Concentration
Data entered by: JE
Data checked by: TP

ATTACHMENT 1

Hand Auger Boring Logs

RHEA ENGINEERS & CONSULTANTS, INC.

BORING NUMBER: HA-01

Termination Depth: 6' **Monitoring Well Installed?** No

Project Name: Building 1932 Site Investigation	Drilling Company: Not Applicable
Project Number: 45403	Driller (s): Not Applicable
Start/Finish Date: 2/5/14	Drilling Method: Hand augers
Weather: Cloudy, intermittent rain	Logged by: Tim Price

Depth (ft)	Sample Information: Sample Number	Soil Classification	Recovery (in.)	SPT	Soil Log	PID	Soil Description	Comments
0	NA	NA	NA	NA	NA	NA	Ground Surface	
1 2	NA	GW SM	24	NA		0.0 ppm	0 to 6-in, light grey, well-graded gravel, fine to coarse GRAVEL (GW), dry, no odor 6-in to 2-ft, light brown to orange-brown, silty fine-to-medium grained SAND (SM), with little clay, dry, no odors	
3 4	NA	SM	24	NA		54 ppm	2-ft to 4-ft, light grey, silty fine-to-medium grained SAND (SM), moderate petroleum odor, dry, becoming moist at 4-ft	
5 6	NA	CL	24	NA		56.5 ppm	4-ft to 6-ft, grey sandy CLAY (CL), moist, petroleum odor	
7 8								
9 10								
11 12								
13 14							Tiger Ion Pro PID field calibration log: 0 ppm = 0 ppm; 100 ppm isobutylene = 100.6 ppm	

RHEA ENGINEERS & CONSULTANTS, INC.

BORING NUMBER: HA-02

Termination Depth: 6' **Monitoring Well Installed?** No

Project Name: Building 1932 Site Investigation	Drilling Company: Not Applicable
Project Number: 45403	Driller (s): Not Applicable
Start/Finish Date: 2/5/14	Drilling Method: Hand augers
Weather: Cloudy, intermittent rain	Logged by: Tim Price

Depth (ft)	Sample Information: Sample Number	Soil Classification	Recovery (in.)	SPT	Soil Log	PID	Soil Description	Comments
0	NA	NA	NA	NA	NA	NA	Ground Surface	
1 2	NA	GW SM	24	NA		18.0 ppm	0 to 6-in, light grey, well-graded gravel, fine to coarse GRAVEL (GW), dry, no odor 6-in to 2-ft, light brown to orange-brown, silty fine-to-medium grained SAND (SM), moderate petroleum odor, dry	
3 4	NA	SM	24	NA		88.8 ppm	2-ft to 4-ft, light grey, silty fine-to-medium grained SAND (SM), moderate petroleum odor, dry, becoming moist at 4-ft	
5 6	NA	CL	24	NA		30.2 ppm	4-ft to 6-ft, grey sandy CLAY (CL), moist, moderate petroleum odor	
7 8								
9 10								
11 12								
13 14								

RHEA ENGINEERS & CONSULTANTS, INC.

BORING NUMBER: HA-03

Termination Depth: 5' **Monitoring Well Installed?** No

Project Name: Building 1932 Site Investigation	Drilling Company: Not Applicable
Project Number: 45403	Driller (s): Not Applicable
Start/Finish Date: 2/5/14	Drilling Method: Hand augers
Weather: Cloudy, intermittent rain	Logged by: Tim Price

Depth (ft)	Sample Information: Sample Number	Soil Classification	Recovery (in.)	SPT	Soil Log	PID	Soil Description	Comments
0	NA	NA	NA	NA	NA	NA	Ground Surface	
1 2	NA	GW SM	24	NA		0.3 ppm	0 to 6-in, light grey, well-graded gravel, fine to coarse GRAVEL (GW), dry, no odor 6-in to 2-ft, light brown to orange-brown, silty fine-to-medium grained SAND (SM), moderate petroleum odor, dry	
3 4	HA-3 (2-4)	SM	24	NA		6.2 ppm	2-ft to 4-ft, dark grey, silty fine-to-medium grained SAND (SM), moderate petroleum odor, dry, becoming moist at 4-ft	Sample taken.
5 6	NA	CL	12	NA		3.5 ppm	4-ft to 5-ft, grey sandy CLAY (CL), moist, moderate petroleum odor	Refusal at 5-ft
7 8								
9 10								
11 12								
13 14							Tiger Ion Pro PID field calibration log: 0 ppm = 0 ppm; 100 ppm isobutylene = 100.6 ppm	

RHEA ENGINEERS & CONSULTANTS, INC.

BORING NUMBER: HA-04

Termination Depth: 6' **Monitoring Well Installed?** No

Project Name: Building 1932 Site Investigation	Drilling Company: Not Applicable
Project Number: 45403	Driller (s): Not Applicable
Start/Finish Date: 2/5/14	Drilling Method: Hand augers
Weather: Cloudy, intermittent rain	Logged by: Tim Price

Depth (ft)	Sample Information						Soil Description	Comments
	Sample Number	Soil Classification	Recovery (in.)	SPT	Soil Log	PID		
0	NA	NA	NA	NA	NA	NA	Ground Surface	
1 2	NA	GW SM	24	NA		0.0 ppm	0 to 6-in, light grey, well-graded gravel, fine to coarse GRAVEL (GW), dry, no odors 6-in to 2-ft, light brown to orange-brown, silty fine-to-medium grained SAND (SM), dry, no odors	
3 4	NA	SM	24	NA		0.0 ppm	2-ft to 4-ft, orange, silty fine-to-medium grained SAND (SM), no odors, dry, becoming moist at 4-ft	
5 6	HA-4 (4-6)	CL	24	NA		0.0 ppm	4-ft to 6-ft, orange sandy CLAY (CL), moist, no odors	Sample taken.
7 8								
9 10								
11 12								
13 14								

RHEA ENGINEERS & CONSULTANTS, INC.

BORING NUMBER: HA-05

Termination Depth: 6' **Monitoring Well Installed?** No

Project Name: Building 1932 Site Investigation	Drilling Company: Not Applicable
Project Number: 45403	Driller (s): Not Applicable
Start/Finish Date: 2/5/14	Drilling Method: Hand augers
Weather: Cloudy, intermittent rain	Logged by: Tim Price

Depth (ft)	Sample Information: Sample Number	Soil Classification	Recovery (in.)	SPT	Soil Log	PID	Soil Description	Comments
0	NA	NA	NA	NA	NA	NA	Ground Surface	
1 2	NA	GW SM	24	NA		12.0 ppm	0 to 6-in, light grey, well-graded gravel, fine to coarse GRAVEL (GW), dry, no odor 6-in to 2-ft, light brown to orange-brown, silty fine-to-medium grained SAND (SM), moderate petroleum odor, dry	
3 4	NA	SM	24	NA		48.0 ppm	2-ft to 4-ft, light grey, silty fine-to-medium grained SAND (SM), moderate petroleum odor, dry, becoming moist at 4-ft	
5 6	NA	CL	24	NA		14.0 ppm	4-ft to 6-ft, grey sandy CLAY (CL), moist, moderate petroleum odor	
7 8								
9 10								
11 12								
13 14							Tiger Ion Pro PID field calibration log: 0 ppm = 0 ppm; 100 ppm isobutylene = 100.6 ppm	

RHEA ENGINEERS & CONSULTANTS, INC.

BORING NUMBER: HA-06

Termination Depth: 6' **Monitoring Well Installed?** No

Project Name: Building 1932 Site Investigation	Drilling Company: Not Applicable
Project Number: 45403	Driller (s): Not Applicable
Start/Finish Date: 2/5/14	Drilling Method: Hand augers
Weather: Cloudy, intermittent rain	Logged by: Tim Price

Depth (ft)	Sample Information: Sample Number	Soil Classification	Recovery (in.)	SPT	Soil Log	PID	Soil Description	Comments
0	NA	NA	NA	NA	NA	NA	Ground Surface	
1 2	NA	GW SM	24	NA		0.0 ppm	0 to 6-in, light grey, well-graded gravel, fine to coarse GRAVEL (GW), dry, no odor 6-in to 2-ft, dark grey, silty fine-to-medium grained SAND (SM), no odor, dry	
3 4	HA-06 (2-4)	SM	24	NA		2.1 ppm	2-ft to 4-ft, dark grey, silty fine-to-medium grained SAND (SM), moderate petroleum odor, dry, becoming moist at 4-ft	Sample taken.
5 6	NA	CL	24	NA		1.2 ppm	4-ft to 6-ft, grey sandy CLAY (CL), moist, moderate petroleum odor	
7 8								
9 10								
11 12								
13 14								

RHEA ENGINEERS & CONSULTANTS, INC.

BORING NUMBER: HA-07

Termination Depth:

Monitoring Well Installed? No

Project Name: Building 1932 Site Investigation	Drilling Company: Not Applicable
Project Number: 45403	Driller (s): Not Applicable
Start/Finish Date: 2/5/14	Drilling Method: Hand augers
Weather: Cloudy, intermittent rain	Logged by: Tim Price

Depth (ft)	Sample Information: Sample Number	Soil Classification	Recovery (in.)	SPT	Soil Log	PID	Soil Description	Comments
0	NA	NA	NA	NA	NA	NA	Ground Surface	
1 2	NA	SM SM	24	NA		0 ppm	0 to 3-in, dark brown, organic rich, silty fine-to-medium grained SAND (SM) dry, no odor 3-in to 2-ft, light brown silty fine-to-medium grained SAND (SM) dry, no odor	
3 4	NA	SM	24	NA		0 ppm	2-ft to 4-ft, orange silty fine-to-medium grained SAND (SM), dry, no odor	
5 6	HA-07 (4-6)	SM	24	NA		0 ppm	4-ft to 6-ft, same orange silty fine-to-medium grained SAND (SM) with trace clay, dry, no odor	Sample taken.
7 8								
9 10								
11 12								
13 14								

RHEA ENGINEERS & CONSULTANTS, INC.

BORING NUMBER: HA-08

Termination Depth: 6' **Monitoring Well Installed?** No

Project Name: Building 1932 Site Investigation	Drilling Company: Not Applicable
Project Number: 45403	Driller (s): Not Applicable
Start/Finish Date: 2/6/14	Drilling Method: Hand augers
Weather: Clear	Logged by: Tim Price

Depth (ft)	Sample Information: Sample Number	Soil Classification	Recovery (in.)	SPT	Soil Log	PID	Soil Description	Comments
0	NA	NA	NA	NA	NA	NA	Ground Surface	
1 2	NA	GW SM	24	NA		1.2 ppm	0 to 6-in, light grey, well-graded gravel, fine to coarse GRAVEL (GW), dry, no odor 6-in to 2-ft, grey, silty fine-to-medium grained SAND (SM), moderate petroleum odor, dry	
3 4	NA	SM	24	NA		3.4 ppm	2-ft to 4-ft, grey to dark grey, silty fine-to-medium grained SAND (SM), moderate petroleum odor, dry, becoming moist at 4-ft	
5 6	HA-08 (4-6)	CL	24	NA		3.8 ppm	4-ft to 6-ft, grey sandy CLAY (CL), moist, moderate petroleum odor	Sample taken.
7 8								
9 10								
11 12								
13 14							Tiger Ion Pro PID field calibration log: 0 ppm = 0 ppm; 100 ppm isobutylene = 100.6 ppm	

RHEA ENGINEERS & CONSULTANTS, INC.

BORING NUMBER: HA-09

Termination Depth:

Monitoring Well Installed? No

Project Name: Building 1932 Site Investigation	Drilling Company: Not Applicable
Project Number: 45403	Driller (s): Not Applicable
Start/Finish Date: 2/6/14	Drilling Method: Hand augers
Weather: Clear	Logged by: Tim Price

Depth (ft)	Sample Information: Sample Number	Soil Classification	Recovery (in.)	SPT	Soil Log	PID	Soil Description	Comments
0	NA	NA	NA	NA	NA	NA	Ground Surface	
1 2	NA	SM SM	24	NA		0 ppm	0 to 3-in, dark brown, organic rich, silty fine-to-medium grained SAND (SM) dry, no odor 3-in to 2-ft, light brown silty fine-to-medium grained SAND (SM) dry, no odor	
3 4	NA	SM	24	NA		1.2 ppm	2-ft to 4-ft, orange silty fine-to-medium grained SAND (SM), dry, moderate petroleum odor	
5 6	HA-09 (4-6)	CL	24	NA		1.4 ppm	4-ft to 6-ft, grey sandy CLAY (CL), moist, moderate petroleum odor	Sample taken.
7 8								
9 10								
11 12								
13 14								

RHEA ENGINEERS & CONSULTANTS, INC.

BORING NUMBER: HA-10

Termination Depth: 6' **Monitoring Well Installed?** No

Project Name: Building 1932 Site Investigation	Drilling Company: Not Applicable
Project Number: 45403	Driller (s): Not Applicable
Start/Finish Date: 2/6/14	Drilling Method: Hand augers
Weather: Clear	Logged by: Tim Price

Depth (ft)	Sample Information: Sample Number	Soil Classification	Recovery (in.)	SPT	Soil Log	PID	Soil Description	Comments
0	NA	NA	NA	NA	NA	NA	Ground Surface	
1 2	NA	GW SM	24	NA		0.3 ppm	0 to 6-in, light grey, well-graded gravel, fine to coarse GRAVEL (GW), dry, no odor 6-in to 2-ft, grey, silty fine-to-medium grained SAND (SM), no odor, dry	
3 4	NA	SM	24	NA		0.2 ppm	2-ft to 4-ft, grey to dark grey, silty fine-to-medium grained SAND (SM), slight petroleum odor, dry, becoming moist at 4-ft	
5 6	HA-10 (4-6)	CL	24	NA		0.3 ppm	4-ft to 6-ft, grey sandy CLAY (CL), moist, slight petroleum odor	Sample taken.
7 8								
9 10								
11 12								
13 14							Tiger Ion Pro PID field calibration log: 0 ppm = 0 ppm; 100 ppm isobutylene = 100.6 ppm	

RHEA ENGINEERS & CONSULTANTS, INC.

BORING NUMBER: HA-11

Termination Depth: 6' **Monitoring Well Installed?** No

Project Name: Building 1932 Site Investigation	Drilling Company: Not Applicable
Project Number: 45403	Driller (s): Not Applicable
Start/Finish Date: 2/6/14	Drilling Method: Hand augers
Weather: Clear	Logged by: Tim Price

Depth (ft)	Sample Information: Sample Number	Soil Classification	Recovery (in.)	SPT	Soil Log	PID	Soil Description	Comments
0	NA	NA	NA	NA	NA	NA	Ground Surface	
1 2	NA	GW SM	24	NA		0.0 ppm	0 to 6-in, light grey, well-graded gravel, fine to coarse GRAVEL (GW), dry, no odor 6-in to 2-ft, grey, silty fine-to-medium grained SAND (SM), no odor, dry	
3 4	NA	SM	24	NA		0.8 ppm	2-ft to 4-ft, orange, silty fine-to-medium grained SAND (SM) with trace clay, slight petroleum odor, dry, becoming moist at 4-ft	
5 6	HA-11 (4-6)	CL	24	NA		3.4 ppm	4-ft to 6-ft, grey sandy CLAY (CL), moist, slight petroleum odor	Sample taken.
7 8								
9 10								
11 12								
13 14								

RHEA ENGINEERS & CONSULTANTS, INC.

BORING NUMBER: HA-12

Termination Depth: 6' **Monitoring Well Installed?** No

Project Name: Building 1932 Site Investigation	Drilling Company: Not Applicable
Project Number: 45403	Driller (s): Not Applicable
Start/Finish Date: 2/6/14	Drilling Method: Hand augers
Weather: Clear	Logged by: Tim Price

Depth (ft)	Sample Information: Sample Number	Soil Classification	Recovery (in.)	SPT	Soil Log	PID	Soil Description	Comments
0	NA	NA	NA	NA	NA	NA	Ground Surface	
1 2	NA	GW SM	24	NA		0.0 ppm	0 to 6-in, light grey, well-graded gravel, fine to coarse GRAVEL (GW), dry, no odor 6-in to 2-ft, grey, silty fine-to-medium grained SAND (SM), no odor, dry	
3 4	NA	SM	24	NA		0.3 ppm	2-ft to 4-ft, grey to dark grey, silty fine-to-medium grained SAND (SM) with trace clay, slight petroleum odor, dry, becoming moist at 4-ft	
5 6	HA-12 (4-6)	CL	24	NA		3.0 ppm	4-ft to 6-ft, orange sandy CLAY (CL), moist, slight petroleum odor	Sample taken.
7 8								
9 10								
11 12								
13 14							Tiger Ion Pro PID field calibration log: 0 ppm = 0 ppm; 100 ppm isobutylene = 100.6 ppm	

RHEA ENGINEERS & CONSULTANTS, INC.

BORING NUMBER: HA-13

Termination Depth: 6' **Monitoring Well Installed?** No

Project Name: Building 1932 Site Investigation	Drilling Company: Not Applicable
Project Number: 45403	Driller (s): Not Applicable
Start/Finish Date: 2/6/14	Drilling Method: Hand augers
Weather: Clear	Logged by: Tim Price

Depth (ft)	Sample Information: Sample Number	Soil Classification	Recovery (in.)	SPT	Soil Log	PID	Soil Description	Comments
0	NA	NA	NA	NA	NA	NA	Ground Surface	
1 2	NA	GW SM	24	NA		0.0 ppm	0 to 6-in, light grey, well-graded gravel, fine to coarse GRAVEL (GW), dry, no odors 6-in to 2-ft, light brown to orange-brown, silty fine-to-medium grained SAND (SM), dry, no odors	
3 4	NA	SM	24	NA		0.0 ppm	2-ft to 4-ft, orange, silty fine-to-medium grained SAND (SM), no odors, dry, becoming moist at 4-ft	
5 6	HA-13 (4-6)	SM	24	NA		0.0 ppm	2-ft to 4-ft, orange, silty fine-to-medium grained SAND (SM) trace clay, no odors	Sample taken.
7 8								
9 10								
11 12								
13 14								

RHEA ENGINEERS & CONSULTANTS, INC.

BORING NUMBER: HA-14

Termination Depth:

Monitoring Well Installed? No

Project Name: Building 1932 Site Investigation	Drilling Company: Not Applicable
Project Number: 45403	Driller (s): Not Applicable
Start/Finish Date: 2/6/14	Drilling Method: Hand augers
Weather: Clear	Logged by: Tim Price

Depth (ft)	Sample Information: Sample Number	Soil Classification	Recovery (in.)	SPT	Soil Log	PID	Soil Description	Comments
0	NA	NA	NA	NA	NA	NA	Ground Surface	
1 2	NA	SM SM	24	NA		0 ppm	0 to 3-in, grey, organic rich, silty fine-to-medium grained SAND (SM) dry, no odor 3-in to 2-ft, orange silty fine-to-medium grained SAND (SM) dry, no odor	
3 4	NA	SM	24	NA		0.3 ppm	2-ft to 4-ft, grey silty fine-to-medium grained SAND (SM), dry, slight odor	
5 6	HA-14 (4-6)	SM	24	NA		1.3 ppm	4-ft to 6-ft, same grey silty fine-to-medium grained SAND (SM) with trace clay, dry, slight odor	Sample taken.
7 8								
9 10								
11 12								
13 14								

ATTACHMENT 2

Laboratory Analytical Data

NC Certification No. 402
SC Certification No. 99012
NC Drinking Water Cert No. 37735
VA Certification No. 460211
DoD ELAP: L-A-B Accredited Certificate No. L2307
ISO/IEC 17025: L-A-B Accredited Certificate No. L2307

Case Narrative

02/27/2014

Rhea Engineers and Consultants, Inc.
Tim Price
314 North Green Meadows Drive, Unit 100
Wilmington, NC 28405

Project: Building 1932

Lab Submittal Date: 02/08/2014
Prism Work Order: 4020149

This data package contains the analytical results for the project identified above and includes a Case Narrative, Sample Results and Chain of Custody. Unless otherwise noted, all samples were received in acceptable condition and processed according to the referenced methods.

Data qualifiers are flagged individually on each sample. A key reference for the data qualifiers appears at the end of this case narrative.

Please call if you have any questions relating to this analytical report.

Respectfully,

PRISM LABORATORIES, INC.

Angela D. Overcash
VP Laboratory Services

Reviewed By Robbi A. Jones For Angela D. Overcash
President/Project Manager

Data Qualifiers Key Reference:

A	CCV result was below established QC limits, Acceptable recovery was obtained in the LCS. No further action taken.
Aa	Sample was analyzed outside method recommended hold time per client request.
D	RPD value outside of the control limits.
L1	LCS recovery outside of the QC limits. LCSD recovery within the limits. No further action taken.
L2	LCSD recovery outside of the QC limits. LCS recovery within the limits. No further action taken.
MI	Matrix spike outside of the control limits. Matrix interference suspected.
BRL	Below Reporting Limit
MDL	Method Detection Limit
RPD	Relative Percent Difference
*	Results reported to the reporting limit. All other results are reported to the MDL with values between MDL and reporting limit indicated with a J.

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449 Springbrook Road - P.O. Box 240543 - Charlotte, NC 28224-0543
Phone: 704/529-6364 - Toll Free Number: 1-800/529-6364 - Fax: 704/525-0409

Sample Receipt Summary

02/27/2014

Prism Work Order: 4020149

Client Sample ID	Lab Sample ID	Matrix	Date Sampled	Date Received
HA-9 (4-6)	4020149-01	Solid	02/06/14	02/08/14
HA-8 (4-6)	4020149-02	Solid	02/06/14	02/08/14
HA-11 (4-6)	4020149-03	Solid	02/06/14	02/08/14
HA-12 (4-6)	4020149-04	Solid	02/06/14	02/08/14
HA-3 (2-4)	4020149-05	Solid	02/05/14	02/08/14
HA-6 (2-4)	4020149-06	Solid	02/05/14	02/08/14
HA-14 (4-6)	4020149-07	Solid	02/06/14	02/08/14
HA-10 (4-6)	4020149-08	Solid	02/06/14	02/08/14
HA-13 (4-6)	4020149-09	Solid	02/06/14	02/08/14
HA-4 (4-6)	4020149-10	Solid	02/05/14	02/08/14
HA-7 (4-6)	4020149-11	Solid	02/05/14	02/08/14

Samples were received in good condition at 1.3 degrees C unless otherwise noted.

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Summary of Detections

02/27/2014

Prism Work Order: 4020149

Prism ID	Client ID	Parameter	Method	Result	Units
4020149-01	HA-9 (4-6)	Acetone	*8260B/5030B	130	ug/kg dry
4020149-02	HA-8 (4-6)	Acetone	*8260B/5030B	150	ug/kg dry
4020149-03	HA-11 (4-6)	Acetone	*8260B/5030B	96	ug/kg dry
4020149-05	HA-3 (2-4)	Diesel Range Organics	*8015C	16	mg/kg dry
4020149-05	HA-3 (2-4)	Gasoline Range Organics	*5030B/8015C	6.3	mg/kg dry
4020149-06	HA-6 (2-4)	Acetone	*8260B/5030B	28	ug/kg dry

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Rhea Engineers and Consultants, Inc.
Attn: Tim Price
314 North Green Meadows Drive, Unit 100
Wilmington, NC 28405

Project: Building 1932

Sample Matrix: Solid

Client Sample ID: HA-9 (4-6)
Prism Sample ID: 4020149-01
Prism Work Order: 4020149
Time Collected: 02/06/14 10:00
Time Submitted: 02/08/14 09:40

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Diesel Range Organics by GC/FID									
Diesel Range Organics	BRL	mg/kg dry	8.3	1.7	1	*8015C	2/16/14 11:29	JMV	P4B0234
			Surrogate			Recovery		Control Limits	
			o-Terphenyl			*87 %*		*49-124*	
Gasoline Range Organics by GC/FID									
Gasoline Range Organics	BRL	mg/kg dry	5.9	0.50	50	*5030B/8015C	2/14/14 19:17	ANG	P4B0222
			Surrogate			Recovery		Control Limits	
			a,a,a-Trifluorotoluene			*115 %*		*42-148*	
General Chemistry Parameters									
% Solids	**84.3**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**2/11/14 17:30**	**JAB**	**P4B0199**
Volatile Organic Compounds by GC/MS									
1,1,1,2-Tetrachloroethane	BRL	ug/kg dry	5.4	0.33	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
1,1,1-Trichloroethane	BRL	ug/kg dry	5.4	0.18	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
1,1,2,2-Tetrachloroethane	BRL	ug/kg dry	5.4	0.89	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
1,1,2-Trichloroethane	BRL	ug/kg dry	5.4	0.46	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
1,1-Dichloroethane	BRL	ug/kg dry	5.4	0.46	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
1,1-Dichloroethylene	BRL	ug/kg dry	5.4	0.33	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
1,1-Dichloropropylene	BRL	ug/kg dry	5.4	0.57	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
1,2,3-Trichlorobenzene	BRL	ug/kg dry	11	0.40	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
1,2,3-Trichloropropane	BRL	ug/kg dry	5.4	0.81	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
1,2,4-Trichlorobenzene	BRL	ug/kg dry	11	0.32	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
1,2,4-Trimethylbenzene	BRL	ug/kg dry	11	1.1	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
1,2-Dibromo-3-chloropropane	BRL	ug/kg dry	5.4	1.7	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
1,2-Dibromoethane	BRL	ug/kg dry	5.4	0.62	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
1,2-Dichlorobenzene	BRL	ug/kg dry	11	0.24	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
1,2-Dichloroethane	BRL	ug/kg dry	5.4	0.87	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
1,2-Dichloropropane	BRL	ug/kg dry	5.4	0.34	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
1,3,5-Trimethylbenzene	BRL	ug/kg dry	11	0.26	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
1,3-Dichlorobenzene	BRL	ug/kg dry	11	0.074	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
1,3-Dichloropropane	BRL	ug/kg dry	5.4	0.58	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
1,4-Dichlorobenzene	BRL	ug/kg dry	11	0.39	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
2,2-Dichloropropane	BRL	ug/kg dry	5.4	0.34	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
2-Chlorotoluene	BRL	ug/kg dry	11	0.33	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
4-Chlorotoluene	BRL	ug/kg dry	11	0.25	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
4-Isopropyltoluene	BRL	ug/kg dry	16	0.34	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
Acetone	**130**	**ug/kg dry**	**22**	**2.9**	**1**	***8260B/5030B**	**2/19/14 16:10**	**MSC**	**P4B0305**
Acrolein	BRL	ug/kg dry	110	3.3	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
Acrylonitrile	BRL	ug/kg dry	110	2.7	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
Benzene	BRL	ug/kg dry	3.2	0.33	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
Bromobenzene	BRL	ug/kg dry	5.4	0.23	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
Bromochloromethane	BRL	ug/kg dry	5.4	0.79	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305

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314 North Green Meadows Drive, Unit 100
Wilmington, NC 28405

Project: Building 1932

Sample Matrix: Solid

Client Sample ID: HA-9 (4-6)
Prism Sample ID: 4020149-01
Prism Work Order: 4020149
Time Collected: 02/06/14 10:00
Time Submitted: 02/08/14 09:40

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Bromodichloromethane	BRL	ug/kg dry	5.4	0.25	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
Bromoform	BRL	ug/kg dry	5.4	0.95	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
Bromomethane	BRL	ug/kg dry	11	1.5	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
Carbon disulfide	BRL	ug/kg dry	11	0.45	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
Carbon Tetrachloride	BRL	ug/kg dry	5.4	0.29	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
Chlorobenzene	BRL	ug/kg dry	5.4	0.25	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
Chloroethane	BRL	ug/kg dry	11	4.1	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
Chloroform	BRL	ug/kg dry	5.4	0.23	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
Chloromethane	BRL	ug/kg dry	11	2.7	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
cis-1,2-Dichloroethylene	BRL	ug/kg dry	5.4	0.44	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
cis-1,3-Dichloropropylene	BRL	ug/kg dry	5.4	0.27	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
Dibromochloromethane	BRL	ug/kg dry	5.4	0.37	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
Dibromomethane	BRL	ug/kg dry	5.4	0.36	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
Dichlorodifluoromethane	BRL	ug/kg dry	11	0.58	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
Ethylbenzene	BRL	ug/kg dry	5.4	0.35	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
Hexachlorobutadiene	BRL	ug/kg dry	16	0.69	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
Isopropyl Ether	BRL	ug/kg dry	5.4	0.23	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
Isopropylbenzene (Cumene)	BRL	ug/kg dry	11	0.27	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
m,p-Xylenes	BRL	ug/kg dry	11	0.69	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
Methyl Butyl Ketone (2-Hexanone)	BRL	ug/kg dry	54	1.1	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
Methyl Ethyl Ketone (2-Butanone)	BRL	ug/kg dry	22	1.9	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
Methyl Isobutyl Ketone	BRL	ug/kg dry	11	1.4	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
Methylene Chloride	BRL	ug/kg dry	11	0.39	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
Methyl-tert-Butyl Ether	BRL	ug/kg dry	5.4	0.41	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
Naphthalene	BRL	ug/kg dry	5.4	0.40	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
n-Butylbenzene	BRL	ug/kg dry	16	0.24	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
n-Propylbenzene	BRL	ug/kg dry	11	0.31	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
o-Xylene	BRL	ug/kg dry	5.4	0.34	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
sec-Butylbenzene	BRL	ug/kg dry	16	0.22	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
Styrene	BRL	ug/kg dry	5.4	0.24	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
tert-Butylbenzene	BRL	ug/kg dry	22	0.28	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
Tetrachloroethylene	BRL	ug/kg dry	11	0.37	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
Toluene	BRL	ug/kg dry	5.4	0.32	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
trans-1,2-Dichloroethylene	BRL	ug/kg dry	5.4	0.62	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
trans-1,3-Dichloropropylene	BRL	ug/kg dry	5.4	0.26	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
Trichloroethylene	BRL	ug/kg dry	5.4	0.50	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
Trichlorofluoromethane	BRL	ug/kg dry	5.4	0.44	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
Vinyl acetate	BRL	ug/kg dry	11	1.5	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305
Vinyl chloride	BRL	ug/kg dry	11	0.70	1	*8260B/5030B	2/19/14 16:10	MSC	P4B0305

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	*84 %*	*70-130*
Dibromofluoromethane	*115 %*	*84-123*
Toluene-d8	*109 %*	*76-129*

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Rhea Engineers and Consultants, Inc.
Attn: Tim Price
314 North Green Meadows Drive, Unit 100
Wilmington, NC 28405

Project: Building 1932

Sample Matrix: Solid

Client Sample ID: HA-8 (4-6)
Prism Sample ID: 4020149-02
Prism Work Order: 4020149
Time Collected: 02/06/14 09:00
Time Submitted: 02/08/14 09:40

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Diesel Range Organics by GC/FID									
Diesel Range Organics	BRL	mg/kg dry	8.4	1.7	1	*8015C	2/16/14 12:05	JMV	P4B0234
			Surrogate			Recovery		Control Limits	
			o-Terphenyl			*84 %*		*49-124*	
Gasoline Range Organics by GC/FID									
Gasoline Range Organics	BRL	mg/kg dry	5.1	0.43	50	*5030B/8015C	2/14/14 19:48	ANG	P4B0222
			Surrogate			Recovery		Control Limits	
			a,a,a-Trifluorotoluene			*103 %*		*42-148*	
General Chemistry Parameters									
% Solids	**82.9**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**2/11/14 17:30**	**JAB**	**P4B0199**
Volatile Organic Compounds by GC/MS									
1,1,1,2-Tetrachloroethane	BRL	ug/kg dry	5.5	0.33	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
1,1,1-Trichloroethane	BRL	ug/kg dry	5.5	0.18	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
1,1,2,2-Tetrachloroethane	BRL	ug/kg dry	5.5	0.92	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
1,1,2-Trichloroethane	BRL	ug/kg dry	5.5	0.47	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
1,1-Dichloroethane	BRL	ug/kg dry	5.5	0.47	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
1,1-Dichloroethylene	BRL	ug/kg dry	5.5	0.34	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
1,1-Dichloropropylene	BRL	ug/kg dry	5.5	0.58	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
1,2,3-Trichlorobenzene	BRL	ug/kg dry	11	0.41	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
1,2,3-Trichloropropane	BRL	ug/kg dry	5.5	0.84	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
1,2,4-Trichlorobenzene	BRL	ug/kg dry	11	0.33	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
1,2,4-Trimethylbenzene	BRL	ug/kg dry	11	1.1	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
1,2-Dibromo-3-chloropropane	BRL	ug/kg dry	5.5	1.7	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
1,2-Dibromoethane	BRL	ug/kg dry	5.5	0.64	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
1,2-Dichlorobenzene	BRL	ug/kg dry	11	0.25	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
1,2-Dichloroethane	BRL	ug/kg dry	5.5	0.89	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
1,2-Dichloropropane	BRL	ug/kg dry	5.5	0.35	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
1,3,5-Trimethylbenzene	BRL	ug/kg dry	11	0.26	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
1,3-Dichlorobenzene	BRL	ug/kg dry	11	0.077	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
1,3-Dichloropropane	BRL	ug/kg dry	5.5	0.60	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
1,4-Dichlorobenzene	BRL	ug/kg dry	11	0.41	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
2,2-Dichloropropane	BRL	ug/kg dry	5.5	0.35	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
2-Chlorotoluene	BRL	ug/kg dry	11	0.34	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
4-Chlorotoluene	BRL	ug/kg dry	11	0.26	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
4-Isopropyltoluene	BRL	ug/kg dry	17	0.35	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
Acetone	**150**	**ug/kg dry**	**22**	**2.9**	**1**	***8260B/5030B**	**2/19/14 16:34**	**MSC**	**P4B0305**
Acrolein	BRL	ug/kg dry	110	3.4	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
Acrylonitrile	BRL	ug/kg dry	110	2.7	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
Benzene	BRL	ug/kg dry	3.3	0.34	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
Bromobenzene	BRL	ug/kg dry	5.5	0.24	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
Bromochloromethane	BRL	ug/kg dry	5.5	0.81	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305

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Laboratory Report

02/27/2014

Rhea Engineers and Consultants, Inc.
Attn: Tim Price
314 North Green Meadows Drive, Unit 100
Wilmington, NC 28405

Project: Building 1932

Sample Matrix: Solid

Client Sample ID: HA-8 (4-6)
Prism Sample ID: 4020149-02
Prism Work Order: 4020149
Time Collected: 02/06/14 09:00
Time Submitted: 02/08/14 09:40

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Bromodichloromethane	BRL	ug/kg dry	5.5	0.26	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
Bromoform	BRL	ug/kg dry	5.5	0.98	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
Bromomethane	BRL	ug/kg dry	11	1.6	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
Carbon disulfide	BRL	ug/kg dry	11	0.46	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
Carbon Tetrachloride	BRL	ug/kg dry	5.5	0.30	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
Chlorobenzene	BRL	ug/kg dry	5.5	0.26	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
Chloroethane	BRL	ug/kg dry	11	4.2	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
Chloroform	BRL	ug/kg dry	5.5	0.23	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
Chloromethane	BRL	ug/kg dry	11	2.8	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
cis-1,2-Dichloroethylene	BRL	ug/kg dry	5.5	0.45	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
cis-1,3-Dichloropropylene	BRL	ug/kg dry	5.5	0.27	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
Dibromochloromethane	BRL	ug/kg dry	5.5	0.38	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
Dibromomethane	BRL	ug/kg dry	5.5	0.37	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
Dichlorodifluoromethane	BRL	ug/kg dry	11	0.59	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
Ethylbenzene	BRL	ug/kg dry	5.5	0.36	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
Hexachlorobutadiene	BRL	ug/kg dry	17	0.71	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
Isopropyl Ether	BRL	ug/kg dry	5.5	0.24	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
Isopropylbenzene (Cumene)	BRL	ug/kg dry	11	0.28	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
m,p-Xylenes	BRL	ug/kg dry	11	0.71	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
Methyl Butyl Ketone (2-Hexanone)	BRL	ug/kg dry	55	1.1	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
Methyl Ethyl Ketone (2-Butanone)	BRL	ug/kg dry	22	2.0	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
Methyl Isobutyl Ketone	BRL	ug/kg dry	11	1.5	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
Methylene Chloride	BRL	ug/kg dry	11	0.40	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
Methyl-tert-Butyl Ether	BRL	ug/kg dry	5.5	0.43	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
Naphthalene	BRL	ug/kg dry	5.5	0.41	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
n-Butylbenzene	BRL	ug/kg dry	17	0.25	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
n-Propylbenzene	BRL	ug/kg dry	11	0.32	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
o-Xylene	BRL	ug/kg dry	5.5	0.35	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
sec-Butylbenzene	BRL	ug/kg dry	17	0.22	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
Styrene	BRL	ug/kg dry	5.5	0.24	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
tert-Butylbenzene	BRL	ug/kg dry	22	0.29	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
Tetrachloroethylene	BRL	ug/kg dry	11	0.38	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
Toluene	BRL	ug/kg dry	5.5	0.33	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
trans-1,2-Dichloroethylene	BRL	ug/kg dry	5.5	0.64	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
trans-1,3-Dichloropropylene	BRL	ug/kg dry	5.5	0.27	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
Trichloroethylene	BRL	ug/kg dry	5.5	0.51	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
Trichlorofluoromethane	BRL	ug/kg dry	5.5	0.45	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
Vinyl acetate	BRL	ug/kg dry	11	1.6	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305
Vinyl chloride	BRL	ug/kg dry	11	0.72	1	*8260B/5030B	2/19/14 16:34	MSC	P4B0305

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	*80 %*	*70-130*
Dibromofluoromethane	*107 %*	*84-123*
Toluene-d8	*107 %*	*76-129*

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449 Springbrook Road - P.O. Box 240543 - Charlotte, NC 28224-0543
Phone: 704/529-6364 - Toll Free Number: 1-800/529-6364 - Fax: 704/525-0409

Rhea Engineers and Consultants, Inc.
Attn: Tim Price
314 North Green Meadows Drive, Unit 100
Wilmington, NC 28405

Project: Building 1932

Sample Matrix: Solid

Client Sample ID: HA-11 (4-6)
Prism Sample ID: 4020149-03
Prism Work Order: 4020149
Time Collected: 02/06/14 11:00
Time Submitted: 02/08/14 09:40

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Diesel Range Organics by GC/FID									
Diesel Range Organics	BRL	mg/kg dry	8.2	1.7	1	*8015C	2/16/14 12:41	JMV	P4B0234
			Surrogate			Recovery		Control Limits	
			o-Terphenyl			*77 %*		*49-124*	
Gasoline Range Organics by GC/FID									
Gasoline Range Organics	BRL	mg/kg dry	5.6	0.47	50	*5030B/8015C	2/14/14 20:20	ANG	P4B0222
			Surrogate			Recovery		Control Limits	
			a,a,a-Trifluorotoluene			*121 %*		*42-148*	
General Chemistry Parameters									
% Solids	**85.0**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**2/12/14 12:15**	**JAB**	**P4B0204**
Volatile Organic Compounds by GC/MS									
1,1,1,2-Tetrachloroethane	BRL	ug/kg dry	5.3	0.32	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
1,1,1-Trichloroethane	BRL	ug/kg dry	5.3	0.18	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
1,1,2,2-Tetrachloroethane	BRL	ug/kg dry	5.3	0.88	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
1,1,2-Trichloroethane	BRL	ug/kg dry	5.3	0.45	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
1,1-Dichloroethane	BRL	ug/kg dry	5.3	0.45	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
1,1-Dichloroethylene	BRL	ug/kg dry	5.3	0.32	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
1,1-Dichloropropylene	BRL	ug/kg dry	5.3	0.56	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
1,2,3-Trichlorobenzene	BRL	ug/kg dry	11	0.40	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
1,2,3-Trichloropropane	BRL	ug/kg dry	5.3	0.81	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
1,2,4-Trichlorobenzene	BRL	ug/kg dry	11	0.31	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
1,2,4-Trimethylbenzene	BRL	ug/kg dry	11	1.0	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
1,2-Dibromo-3-chloropropane	BRL	ug/kg dry	5.3	1.7	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
1,2-Dibromoethane	BRL	ug/kg dry	5.3	0.61	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
1,2-Dichlorobenzene	BRL	ug/kg dry	11	0.24	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
1,2-Dichloroethane	BRL	ug/kg dry	5.3	0.86	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
1,2-Dichloropropane	BRL	ug/kg dry	5.3	0.34	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
1,3,5-Trimethylbenzene	BRL	ug/kg dry	11	0.26	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
1,3-Dichlorobenzene	BRL	ug/kg dry	11	0.074	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
1,3-Dichloropropane	BRL	ug/kg dry	5.3	0.58	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
1,4-Dichlorobenzene	BRL	ug/kg dry	11	0.39	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
2,2-Dichloropropane	BRL	ug/kg dry	5.3	0.34	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
2-Chlorotoluene	BRL	ug/kg dry	11	0.33	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
4-Chlorotoluene	BRL	ug/kg dry	11	0.25	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
4-Isopropyltoluene	BRL	ug/kg dry	16	0.34	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
Acetone	**96**	**ug/kg dry**	**21**	**2.8**	**1**	***8260B/5030B**	**2/19/14 16:58**	**MSC**	**P4B0305**
Acrolein	BRL	ug/kg dry	110	3.2	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
Acrylonitrile	BRL	ug/kg dry	110	2.6	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
Benzene	BRL	ug/kg dry	3.2	0.32	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
Bromobenzene	BRL	ug/kg dry	5.3	0.23	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
Bromochloromethane	BRL	ug/kg dry	5.3	0.78	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305

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Rhea Engineers and Consultants, Inc.
Attn: Tim Price
314 North Green Meadows Drive, Unit 100
Wilmington, NC 28405

Project: Building 1932

Sample Matrix: Solid

Client Sample ID: HA-11 (4-6)
Prism Sample ID: 4020149-03
Prism Work Order: 4020149
Time Collected: 02/06/14 11:00
Time Submitted: 02/08/14 09:40

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Bromodichloromethane	BRL	ug/kg dry	5.3	0.25	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
Bromoform	BRL	ug/kg dry	5.3	0.94	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
Bromomethane	BRL	ug/kg dry	11	1.5	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
Carbon disulfide	BRL	ug/kg dry	11	0.44	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
Carbon Tetrachloride	BRL	ug/kg dry	5.3	0.29	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
Chlorobenzene	BRL	ug/kg dry	5.3	0.25	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
Chloroethane	BRL	ug/kg dry	11	4.1	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
Chloroform	BRL	ug/kg dry	5.3	0.22	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
Chloromethane	BRL	ug/kg dry	11	2.7	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
cis-1,2-Dichloroethylene	BRL	ug/kg dry	5.3	0.43	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
cis-1,3-Dichloropropylene	BRL	ug/kg dry	5.3	0.26	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
Dibromochloromethane	BRL	ug/kg dry	5.3	0.36	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
Dibromomethane	BRL	ug/kg dry	5.3	0.36	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
Dichlorodifluoromethane	BRL	ug/kg dry	11	0.57	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
Ethylbenzene	BRL	ug/kg dry	5.3	0.34	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
Hexachlorobutadiene	BRL	ug/kg dry	16	0.69	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
Isopropyl Ether	BRL	ug/kg dry	5.3	0.23	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
Isopropylbenzene (Cumene)	BRL	ug/kg dry	11	0.27	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
m,p-Xylenes	BRL	ug/kg dry	11	0.69	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
Methyl Butyl Ketone (2-Hexanone)	BRL	ug/kg dry	53	1.1	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
Methyl Ethyl Ketone (2-Butanone)	BRL	ug/kg dry	21	1.9	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
Methyl Isobutyl Ketone	BRL	ug/kg dry	11	1.4	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
Methylene Chloride	BRL	ug/kg dry	11	0.39	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
Methyl-tert-Butyl Ether	BRL	ug/kg dry	5.3	0.41	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
Naphthalene	BRL	ug/kg dry	5.3	0.39	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
n-Butylbenzene	BRL	ug/kg dry	16	0.24	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
n-Propylbenzene	BRL	ug/kg dry	11	0.30	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
o-Xylene	BRL	ug/kg dry	5.3	0.34	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
sec-Butylbenzene	BRL	ug/kg dry	16	0.22	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
Styrene	BRL	ug/kg dry	5.3	0.23	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
tert-Butylbenzene	BRL	ug/kg dry	21	0.28	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
Tetrachloroethylene	BRL	ug/kg dry	11	0.37	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
Toluene	BRL	ug/kg dry	5.3	0.32	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
trans-1,2-Dichloroethylene	BRL	ug/kg dry	5.3	0.62	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
trans-1,3-Dichloropropylene	BRL	ug/kg dry	5.3	0.26	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
Trichloroethylene	BRL	ug/kg dry	5.3	0.49	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
Trichlorofluoromethane	BRL	ug/kg dry	5.3	0.43	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
Vinyl acetate	BRL	ug/kg dry	11	1.5	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305
Vinyl chloride	BRL	ug/kg dry	11	0.69	1	*8260B/5030B	2/19/14 16:58	MSC	P4B0305

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	*89 %*	*70-130*
Dibromofluoromethane	*117 %*	*84-123*
Toluene-d8	*116 %*	*76-129*

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Rhea Engineers and Consultants, Inc.
Attn: Tim Price
314 North Green Meadows Drive, Unit 100
Wilmington, NC 28405

Project: Building 1932

Sample Matrix: Solid

Client Sample ID: HA-12 (4-6)
Prism Sample ID: 4020149-04
Prism Work Order: 4020149
Time Collected: 02/06/14 12:00
Time Submitted: 02/08/14 09:40

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Diesel Range Organics by GC/FID									
Diesel Range Organics	BRL	mg/kg dry	8.0	1.7	1	*8015C	2/17/14 9:34	JMV	P4B0234
			Surrogate			Recovery		Control Limits	
			o-Terphenyl			*72 %*		*49-124*	
Gasoline Range Organics by GC/FID									
Gasoline Range Organics	BRL	mg/kg dry	5.2	0.44	50	*5030B/8015C	2/14/14 20:52	ANG	P4B0222
			Surrogate			Recovery		Control Limits	
			a,a,a-Trifluorotoluene			*145 %*		*42-148*	
General Chemistry Parameters									
% Solids	**87.8**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**2/12/14 12:15**	**JAB**	**P4B0204**
Volatile Organic Compounds by GC/MS									
1,1,1,2-Tetrachloroethane	BRL	ug/kg dry	5.5	0.33	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
1,1,1-Trichloroethane	BRL	ug/kg dry	5.5	0.18	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
1,1,2,2-Tetrachloroethane	BRL	ug/kg dry	5.5	0.92	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
1,1,2-Trichloroethane	BRL	ug/kg dry	5.5	0.47	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
1,1-Dichloroethane	BRL	ug/kg dry	5.5	0.47	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
1,1-Dichloroethylene	BRL	ug/kg dry	5.5	0.34	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
1,1-Dichloropropylene	BRL	ug/kg dry	5.5	0.58	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
1,2,3-Trichlorobenzene	BRL	ug/kg dry	11	0.41	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
1,2,3-Trichloropropane	BRL	ug/kg dry	5.5	0.84	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
1,2,4-Trichlorobenzene	BRL	ug/kg dry	11	0.33	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
1,2,4-Trimethylbenzene	BRL	ug/kg dry	11	1.1	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
1,2-Dibromo-3-chloropropane	BRL	ug/kg dry	5.5	1.7	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
1,2-Dibromoethane	BRL	ug/kg dry	5.5	0.64	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
1,2-Dichlorobenzene	BRL	ug/kg dry	11	0.25	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
1,2-Dichloroethane	BRL	ug/kg dry	5.5	0.89	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
1,2-Dichloropropane	BRL	ug/kg dry	5.5	0.35	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
1,3,5-Trimethylbenzene	BRL	ug/kg dry	11	0.26	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
1,3-Dichlorobenzene	BRL	ug/kg dry	11	0.076	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
1,3-Dichloropropane	BRL	ug/kg dry	5.5	0.60	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
1,4-Dichlorobenzene	BRL	ug/kg dry	11	0.41	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
2,2-Dichloropropane	BRL	ug/kg dry	5.5	0.35	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
2-Chlorotoluene	BRL	ug/kg dry	11	0.34	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
4-Chlorotoluene	BRL	ug/kg dry	11	0.26	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
4-Isopropyltoluene	BRL	ug/kg dry	17	0.35	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
Acetone	BRL	ug/kg dry	22	2.9	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
Acrolein	BRL	ug/kg dry	110	3.4	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
Acrylonitrile	BRL	ug/kg dry	110	2.7	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
Benzene	BRL	ug/kg dry	3.3	0.34	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
Bromobenzene	BRL	ug/kg dry	5.5	0.24	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
Bromochloromethane	BRL	ug/kg dry	5.5	0.81	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305

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Rhea Engineers and Consultants, Inc.
Attn: Tim Price
314 North Green Meadows Drive, Unit 100
Wilmington, NC 28405

Project: Building 1932

Sample Matrix: Solid

Client Sample ID: HA-12 (4-6)
Prism Sample ID: 4020149-04
Prism Work Order: 4020149
Time Collected: 02/06/14 12:00
Time Submitted: 02/08/14 09:40

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Bromodichloromethane	BRL	ug/kg dry	5.5	0.25	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
Bromoform	BRL	ug/kg dry	5.5	0.98	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
Bromomethane	BRL	ug/kg dry	11	1.6	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
Carbon disulfide	BRL	ug/kg dry	11	0.46	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
Carbon Tetrachloride	BRL	ug/kg dry	5.5	0.30	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
Chlorobenzene	BRL	ug/kg dry	5.5	0.26	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
Chloroethane	BRL	ug/kg dry	11	4.2	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
Chloroform	BRL	ug/kg dry	5.5	0.23	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
Chloromethane	BRL	ug/kg dry	11	2.8	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
cis-1,2-Dichloroethylene	BRL	ug/kg dry	5.5	0.45	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
cis-1,3-Dichloropropylene	BRL	ug/kg dry	5.5	0.27	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
Dibromochloromethane	BRL	ug/kg dry	5.5	0.38	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
Dibromomethane	BRL	ug/kg dry	5.5	0.37	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
Dichlorodifluoromethane	BRL	ug/kg dry	11	0.59	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
Ethylbenzene	BRL	ug/kg dry	5.5	0.36	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
Hexachlorobutadiene	BRL	ug/kg dry	17	0.71	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
Isopropyl Ether	BRL	ug/kg dry	5.5	0.24	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
Isopropylbenzene (Cumene)	BRL	ug/kg dry	11	0.28	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
m,p-Xylenes	BRL	ug/kg dry	11	0.71	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
Methyl Butyl Ketone (2-Hexanone)	BRL	ug/kg dry	55	1.1	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
Methyl Ethyl Ketone (2-Butanone)	BRL	ug/kg dry	22	2.0	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
Methyl Isobutyl Ketone	BRL	ug/kg dry	11	1.5	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
Methylene Chloride	BRL	ug/kg dry	11	0.40	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
Methyl-tert-Butyl Ether	BRL	ug/kg dry	5.5	0.43	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
Naphthalene	BRL	ug/kg dry	5.5	0.41	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
n-Butylbenzene	BRL	ug/kg dry	17	0.24	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
n-Propylbenzene	BRL	ug/kg dry	11	0.32	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
o-Xylene	BRL	ug/kg dry	5.5	0.35	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
sec-Butylbenzene	BRL	ug/kg dry	17	0.22	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
Styrene	BRL	ug/kg dry	5.5	0.24	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
tert-Butylbenzene	BRL	ug/kg dry	22	0.29	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
Tetrachloroethylene	BRL	ug/kg dry	11	0.38	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
Toluene	BRL	ug/kg dry	5.5	0.33	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
trans-1,2-Dichloroethylene	BRL	ug/kg dry	5.5	0.64	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
trans-1,3-Dichloropropylene	BRL	ug/kg dry	5.5	0.27	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
Trichloroethylene	BRL	ug/kg dry	5.5	0.51	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
Trichlorofluoromethane	BRL	ug/kg dry	5.5	0.45	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
Vinyl acetate	BRL	ug/kg dry	11	1.6	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305
Vinyl chloride	BRL	ug/kg dry	11	0.72	1	*8260B/5030B	2/19/14 17:21	MSC	P4B0305

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	*81 %*	*70-130*
Dibromofluoromethane	*112 %*	*84-123*
Toluene-d8	*110 %*	*76-129*

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Rhea Engineers and Consultants, Inc.
Attn: Tim Price
314 North Green Meadows Drive, Unit 100
Wilmington, NC 28405

Project: Building 1932

Sample Matrix: Solid

Client Sample ID: HA-3 (2-4)
Prism Sample ID: 4020149-05
Prism Work Order: 4020149
Time Collected: 02/05/14 10:00
Time Submitted: 02/08/14 09:40

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Diesel Range Organics by GC/FID									
Diesel Range Organics	**16**	**mg/kg dry**	**8.3**	**1.7**	**1**	***8015C**	**2/18/14 10:22**	**JMV**	**P4B0257**
			Surrogate			Recovery		Control Limits	
			o-Terphenyl			*86 %*		*49-124*	
Gasoline Range Organics by GC/FID									
Gasoline Range Organics	**6.3**	**mg/kg dry**	**5.7**	**0.48**	**50**	***5030B/8015C**	**2/14/14 21:24**	**ANG**	**P4B0222**
			Surrogate			Recovery		Control Limits	
			a,a,a-Trifluorotoluene			*126 %*		*42-148*	
General Chemistry Parameters									
% Solids	**84.6**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**2/11/14 14:50**	**JAB**	**P4B0186**
Volatile Organic Compounds by GC/MS									
1,1,1,2-Tetrachloroethane	BRL	ug/kg dry	5.0	0.30	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
1,1,1-Trichloroethane	BRL	ug/kg dry	5.0	0.16	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
1,1,2,2-Tetrachloroethane	BRL	ug/kg dry	5.0	0.83	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
1,1,2-Trichloroethane	BRL	ug/kg dry	5.0	0.42	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
1,1-Dichloroethane	BRL	ug/kg dry	5.0	0.42	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
1,1-Dichloroethylene	BRL	ug/kg dry	5.0	0.30	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
1,1-Dichloropropylene	BRL	ug/kg dry	5.0	0.53	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
1,2,3-Trichlorobenzene	BRL	ug/kg dry	10	0.37	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
1,2,3-Trichloropropane	BRL	ug/kg dry	5.0	0.76	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
1,2,4-Trichlorobenzene	BRL	ug/kg dry	10	0.29	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
1,2,4-Trimethylbenzene	BRL	ug/kg dry	10	0.98	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
1,2-Dibromo-3-chloropropane	BRL	ug/kg dry	5.0	1.6	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
1,2-Dibromoethane	BRL	ug/kg dry	5.0	0.58	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
1,2-Dichlorobenzene	BRL	ug/kg dry	10	0.23	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
1,2-Dichloroethane	BRL	ug/kg dry	5.0	0.81	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
1,2-Dichloropropane	BRL	ug/kg dry	5.0	0.32	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
1,3,5-Trimethylbenzene	BRL	ug/kg dry	10	0.24	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
1,3-Dichlorobenzene	BRL	ug/kg dry	10	0.069	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
1,3-Dichloropropane	BRL	ug/kg dry	5.0	0.54	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
1,4-Dichlorobenzene	BRL	ug/kg dry	10	0.37	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
2,2-Dichloropropane	BRL	ug/kg dry	5.0	0.32	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
2-Chlorotoluene	BRL	ug/kg dry	10	0.31	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
4-Chlorotoluene	BRL	ug/kg dry	10	0.24	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
4-Isopropyltoluene	BRL	ug/kg dry	15	0.32	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
Acetone	BRL	ug/kg dry	20	2.7	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
Acrolein	BRL	ug/kg dry	100	3.0	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
Acrylonitrile	BRL	ug/kg dry	100	2.5	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
Benzene	BRL	ug/kg dry	3.0	0.30	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
Bromobenzene	BRL	ug/kg dry	5.0	0.21	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
Bromochloromethane	BRL	ug/kg dry	5.0	0.73	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305

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Rhea Engineers and Consultants, Inc.
Attn: Tim Price
314 North Green Meadows Drive, Unit 100
Wilmington, NC 28405

Project: Building 1932

Sample Matrix: Solid

Client Sample ID: HA-3 (2-4)
Prism Sample ID: 4020149-05
Prism Work Order: 4020149
Time Collected: 02/05/14 10:00
Time Submitted: 02/08/14 09:40

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Bromodichloromethane	BRL	ug/kg dry	5.0	0.23	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
Bromoform	BRL	ug/kg dry	5.0	0.89	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
Bromomethane	BRL	ug/kg dry	10	1.4	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
Carbon disulfide	BRL	ug/kg dry	10	0.42	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
Carbon Tetrachloride	BRL	ug/kg dry	5.0	0.27	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
Chlorobenzene	BRL	ug/kg dry	5.0	0.23	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
Chloroethane	BRL	ug/kg dry	10	3.8	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
Chloroform	BRL	ug/kg dry	5.0	0.21	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
Chloromethane	BRL	ug/kg dry	10	2.5	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
cis-1,2-Dichloroethylene	BRL	ug/kg dry	5.0	0.40	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
cis-1,3-Dichloropropylene	BRL	ug/kg dry	5.0	0.25	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
Dibromochloromethane	BRL	ug/kg dry	5.0	0.34	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
Dibromomethane	BRL	ug/kg dry	5.0	0.34	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
Dichlorodifluoromethane	BRL	ug/kg dry	10	0.54	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
Ethylbenzene	BRL	ug/kg dry	5.0	0.32	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
Hexachlorobutadiene	BRL	ug/kg dry	15	0.64	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
Isopropyl Ether	BRL	ug/kg dry	5.0	0.21	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
Isopropylbenzene (Cumene)	BRL	ug/kg dry	10	0.25	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
m,p-Xylenes	BRL	ug/kg dry	10	0.64	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
Methyl Butyl Ketone (2-Hexanone)	BRL	ug/kg dry	50	1.0	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
Methyl Ethyl Ketone (2-Butanone)	BRL	ug/kg dry	20	1.8	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
Methyl Isobutyl Ketone	BRL	ug/kg dry	10	1.3	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
Methylene Chloride	BRL	ug/kg dry	10	0.36	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
Methyl-tert-Butyl Ether	BRL	ug/kg dry	5.0	0.38	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
Naphthalene	BRL	ug/kg dry	5.0	0.37	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
n-Butylbenzene	BRL	ug/kg dry	15	0.22	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
n-Propylbenzene	BRL	ug/kg dry	10	0.29	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
o-Xylene	BRL	ug/kg dry	5.0	0.32	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
sec-Butylbenzene	BRL	ug/kg dry	15	0.20	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
Styrene	BRL	ug/kg dry	5.0	0.22	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
tert-Butylbenzene	BRL	ug/kg dry	20	0.26	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
Tetrachloroethylene	BRL	ug/kg dry	10	0.35	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
Toluene	BRL	ug/kg dry	5.0	0.30	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
trans-1,2-Dichloroethylene	BRL	ug/kg dry	5.0	0.58	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
trans-1,3-Dichloropropylene	BRL	ug/kg dry	5.0	0.24	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
Trichloroethylene	BRL	ug/kg dry	5.0	0.46	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
Trichlorofluoromethane	BRL	ug/kg dry	5.0	0.41	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
Vinyl acetate	BRL	ug/kg dry	10	1.4	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305
Vinyl chloride	BRL	ug/kg dry	10	0.65	1	*8260B/5030B	2/19/14 15:22	MSC	P4B0305

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	*92 %*	*70-130*
Dibromofluoromethane	*108 %*	*84-123*
Toluene-d8	*110 %*	*76-129*

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Rhea Engineers and Consultants, Inc.
Attn: Tim Price
314 North Green Meadows Drive, Unit 100
Wilmington, NC 28405

Project: Building 1932

Sample Matrix: Solid

Client Sample ID: HA-6 (2-4)
Prism Sample ID: 4020149-06
Prism Work Order: 4020149
Time Collected: 02/05/14 12:00
Time Submitted: 02/08/14 09:40

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Diesel Range Organics by GC/FID									
Diesel Range Organics	BRL	mg/kg dry	7.7	1.6	1	*8015C	2/17/14 20:08	JMV	P4B0257
			Surrogate			Recovery		Control Limits	
			o-Terphenyl			*89 %*		*49-124*	
Gasoline Range Organics by GC/FID									
Gasoline Range Organics	BRL	mg/kg dry	5.4	0.46	50	*5030B/8015C	2/14/14 21:55	ANG	P4B0222
			Surrogate			Recovery		Control Limits	
			a,a,a-Trifluorotoluene			*106 %*		*42-148*	
General Chemistry Parameters									
% Solids	**90.6**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**2/11/14 14:50**	**JAB**	**P4B0186**
Volatile Organic Compounds by GC/MS									
1,1,1,2-Tetrachloroethane	BRL	ug/kg dry	5.0	0.30	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
1,1,1-Trichloroethane	BRL	ug/kg dry	5.0	0.16	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
1,1,2,2-Tetrachloroethane	BRL	ug/kg dry	5.0	0.83	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
1,1,2-Trichloroethane	BRL	ug/kg dry	5.0	0.42	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
1,1-Dichloroethane	BRL	ug/kg dry	5.0	0.42	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
1,1-Dichloroethylene	BRL	ug/kg dry	5.0	0.31	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
1,1-Dichloropropylene	BRL	ug/kg dry	5.0	0.53	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
1,2,3-Trichlorobenzene	BRL	ug/kg dry	10	0.37	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
1,2,3-Trichloropropane	BRL	ug/kg dry	5.0	0.76	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
1,2,4-Trichlorobenzene	BRL	ug/kg dry	10	0.30	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
1,2,4-Trimethylbenzene	BRL	ug/kg dry	10	0.99	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
1,2-Dibromo-3-chloropropane	BRL	ug/kg dry	5.0	1.6	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
1,2-Dibromoethane	BRL	ug/kg dry	5.0	0.58	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
1,2-Dichlorobenzene	BRL	ug/kg dry	10	0.23	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
1,2-Dichloroethane	BRL	ug/kg dry	5.0	0.81	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
1,2-Dichloropropane	BRL	ug/kg dry	5.0	0.32	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
1,3,5-Trimethylbenzene	BRL	ug/kg dry	10	0.24	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
1,3-Dichlorobenzene	BRL	ug/kg dry	10	0.069	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
1,3-Dichloropropane	BRL	ug/kg dry	5.0	0.54	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
1,4-Dichlorobenzene	BRL	ug/kg dry	10	0.37	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
2,2-Dichloropropane	BRL	ug/kg dry	5.0	0.32	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
2-Chlorotoluene	BRL	ug/kg dry	10	0.31	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
4-Chlorotoluene	BRL	ug/kg dry	10	0.24	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
4-Isopropyltoluene	BRL	ug/kg dry	15	0.32	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
Acetone	**28**	**ug/kg dry**	**20**	**2.7**	**1**	***8260B/5030B**	**2/19/14 15:46**	**MSC**	**P4B0305**
Acrolein	BRL	ug/kg dry	100	3.0	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
Acrylonitrile	BRL	ug/kg dry	100	2.5	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
Benzene	BRL	ug/kg dry	3.0	0.30	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
Bromobenzene	BRL	ug/kg dry	5.0	0.21	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
Bromochloromethane	BRL	ug/kg dry	5.0	0.73	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305

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Rhea Engineers and Consultants, Inc.
Attn: Tim Price
314 North Green Meadows Drive, Unit 100
Wilmington, NC 28405

Project: Building 1932

Sample Matrix: Solid

Client Sample ID: HA-6 (2-4)
Prism Sample ID: 4020149-06
Prism Work Order: 4020149
Time Collected: 02/05/14 12:00
Time Submitted: 02/08/14 09:40

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Bromodichloromethane	BRL	ug/kg dry	5.0	0.23	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
Bromoform	BRL	ug/kg dry	5.0	0.89	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
Bromomethane	BRL	ug/kg dry	10	1.4	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
Carbon disulfide	BRL	ug/kg dry	10	0.42	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
Carbon Tetrachloride	BRL	ug/kg dry	5.0	0.27	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
Chlorobenzene	BRL	ug/kg dry	5.0	0.23	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
Chloroethane	BRL	ug/kg dry	10	3.8	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
Chloroform	BRL	ug/kg dry	5.0	0.21	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
Chloromethane	BRL	ug/kg dry	10	2.5	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
cis-1,2-Dichloroethylene	BRL	ug/kg dry	5.0	0.41	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
cis-1,3-Dichloropropylene	BRL	ug/kg dry	5.0	0.25	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
Dibromochloromethane	BRL	ug/kg dry	5.0	0.34	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
Dibromomethane	BRL	ug/kg dry	5.0	0.34	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
Dichlorodifluoromethane	BRL	ug/kg dry	10	0.54	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
Ethylbenzene	BRL	ug/kg dry	5.0	0.32	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
Hexachlorobutadiene	BRL	ug/kg dry	15	0.65	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
Isopropyl Ether	BRL	ug/kg dry	5.0	0.21	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
Isopropylbenzene (Cumene)	BRL	ug/kg dry	10	0.25	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
m,p-Xylenes	BRL	ug/kg dry	10	0.65	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
Methyl Butyl Ketone (2-Hexanone)	BRL	ug/kg dry	50	1.0	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
Methyl Ethyl Ketone (2-Butanone)	BRL	ug/kg dry	20	1.8	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
Methyl Isobutyl Ketone	BRL	ug/kg dry	10	1.3	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
Methylene Chloride	BRL	ug/kg dry	10	0.37	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
Methyl-tert-Butyl Ether	BRL	ug/kg dry	5.0	0.39	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
Naphthalene	BRL	ug/kg dry	5.0	0.37	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
n-Butylbenzene	BRL	ug/kg dry	15	0.22	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
n-Propylbenzene	BRL	ug/kg dry	10	0.29	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
o-Xylene	BRL	ug/kg dry	5.0	0.32	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
sec-Butylbenzene	BRL	ug/kg dry	15	0.20	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
Styrene	BRL	ug/kg dry	5.0	0.22	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
tert-Butylbenzene	BRL	ug/kg dry	20	0.26	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
Tetrachloroethylene	BRL	ug/kg dry	10	0.35	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
Toluene	BRL	ug/kg dry	5.0	0.30	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
trans-1,2-Dichloroethylene	BRL	ug/kg dry	5.0	0.58	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
trans-1,3-Dichloropropylene	BRL	ug/kg dry	5.0	0.24	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
Trichloroethylene	BRL	ug/kg dry	5.0	0.46	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
Trichlorofluoromethane	BRL	ug/kg dry	5.0	0.41	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
Vinyl acetate	BRL	ug/kg dry	10	1.4	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305
Vinyl chloride	BRL	ug/kg dry	10	0.65	1	*8260B/5030B	2/19/14 15:46	MSC	P4B0305

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	*87 %*	*70-130*
Dibromofluoromethane	*110 %*	*84-123*
Toluene-d8	*106 %*	*76-129*

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Rhea Engineers and Consultants, Inc.
Attn: Tim Price
314 North Green Meadows Drive, Unit 100
Wilmington, NC 28405

Project: Building 1932

Sample Matrix: Solid

Client Sample ID: HA-14 (4-6)
Prism Sample ID: 4020149-07
Prism Work Order: 4020149
Time Collected: 02/06/14 14:00
Time Submitted: 02/08/14 09:40

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Diesel Range Organics by GC/FID									
Diesel Range Organics	BRL	mg/kg dry	8.2	1.7	1	*8015C	2/17/14 20:45	JMV	P4B0257
			Surrogate			Recovery		Control Limits	
			o-Terphenyl			*89 %*		*49-124*	
Gasoline Range Organics by GC/FID									
Gasoline Range Organics	BRL	mg/kg dry	5.1	0.43	50	*5030B/8015C	2/14/14 22:27	ANG	P4B0222
			Surrogate			Recovery		Control Limits	
			a,a,a-Trifluorotoluene			*117 %*		*42-148*	
General Chemistry Parameters									
% Solids	**85.5**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**2/12/14 12:15**	**JAB**	**P4B0204**
Volatile Organic Compounds by GC/MS									
1,1,1,2-Tetrachloroethane	BRL	ug/kg dry	5.3	0.32	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
1,1,1-Trichloroethane	BRL	ug/kg dry	5.3	0.17	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
1,1,2,2-Tetrachloroethane	BRL	ug/kg dry	5.3	0.87	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
1,1,2-Trichloroethane	BRL	ug/kg dry	5.3	0.44	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
1,1-Dichloroethane	BRL	ug/kg dry	5.3	0.44	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
1,1-Dichloroethylene	BRL	ug/kg dry	5.3	0.32	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
1,1-Dichloropropylene	BRL	ug/kg dry	5.3	0.55	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
1,2,3-Trichlorobenzene	BRL	ug/kg dry	11	0.39	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
1,2,3-Trichloropropane	BRL	ug/kg dry	5.3	0.79	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
1,2,4-Trichlorobenzene	BRL	ug/kg dry	11	0.31	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
1,2,4-Trimethylbenzene	BRL	ug/kg dry	11	1.0	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
1,2-Dibromo-3-chloropropane	BRL	ug/kg dry	5.3	1.6	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
1,2-Dibromoethane	BRL	ug/kg dry	5.3	0.60	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
1,2-Dichlorobenzene	BRL	ug/kg dry	11	0.24	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
1,2-Dichloroethane	BRL	ug/kg dry	5.3	0.85	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
1,2-Dichloropropane	BRL	ug/kg dry	5.3	0.33	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
1,3,5-Trimethylbenzene	BRL	ug/kg dry	11	0.25	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
1,3-Dichlorobenzene	BRL	ug/kg dry	11	0.073	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
1,3-Dichloropropane	BRL	ug/kg dry	5.3	0.57	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
1,4-Dichlorobenzene	BRL	ug/kg dry	11	0.38	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
2,2-Dichloropropane	BRL	ug/kg dry	5.3	0.33	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
2-Chlorotoluene	BRL	ug/kg dry	11	0.32	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
4-Chlorotoluene	BRL	ug/kg dry	11	0.25	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
4-Isopropyltoluene	BRL	ug/kg dry	16	0.33	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
Acetone	BRL	ug/kg dry	21	2.8	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
Acrolein	BRL	ug/kg dry	110	3.2	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
Acrylonitrile	BRL	ug/kg dry	110	2.6	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
Benzene	BRL	ug/kg dry	3.2	0.32	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
Bromobenzene	BRL	ug/kg dry	5.3	0.22	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
Bromochloromethane	BRL	ug/kg dry	5.3	0.77	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305

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Rhea Engineers and Consultants, Inc.
Attn: Tim Price
314 North Green Meadows Drive, Unit 100
Wilmington, NC 28405

Project: Building 1932

Sample Matrix: Solid

Client Sample ID: HA-14 (4-6)
Prism Sample ID: 4020149-07
Prism Work Order: 4020149
Time Collected: 02/06/14 14:00
Time Submitted: 02/08/14 09:40

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Bromodichloromethane	BRL	ug/kg dry	5.3	0.24	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
Bromoform	BRL	ug/kg dry	5.3	0.93	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
Bromomethane	BRL	ug/kg dry	11	1.5	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
Carbon disulfide	BRL	ug/kg dry	11	0.44	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
Carbon Tetrachloride	BRL	ug/kg dry	5.3	0.29	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
Chlorobenzene	BRL	ug/kg dry	5.3	0.25	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
Chloroethane	BRL	ug/kg dry	11	4.0	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
Chloroform	BRL	ug/kg dry	5.3	0.22	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
Chloromethane	BRL	ug/kg dry	11	2.7	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
cis-1,2-Dichloroethylene	BRL	ug/kg dry	5.3	0.42	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
cis-1,3-Dichloropropylene	BRL	ug/kg dry	5.3	0.26	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
Dibromochloromethane	BRL	ug/kg dry	5.3	0.36	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
Dibromomethane	BRL	ug/kg dry	5.3	0.36	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
Dichlorodifluoromethane	BRL	ug/kg dry	11	0.56	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
Ethylbenzene	BRL	ug/kg dry	5.3	0.34	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
Hexachlorobutadiene	BRL	ug/kg dry	16	0.68	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
Isopropyl Ether	BRL	ug/kg dry	5.3	0.23	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
Isopropylbenzene (Cumene)	BRL	ug/kg dry	11	0.26	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
m,p-Xylenes	BRL	ug/kg dry	11	0.68	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
Methyl Butyl Ketone (2-Hexanone)	BRL	ug/kg dry	53	1.1	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
Methyl Ethyl Ketone (2-Butanone)	BRL	ug/kg dry	21	1.9	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
Methyl Isobutyl Ketone	BRL	ug/kg dry	11	1.4	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
Methylene Chloride	BRL	ug/kg dry	11	0.38	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
Methyl-tert-Butyl Ether	BRL	ug/kg dry	5.3	0.40	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
Naphthalene	BRL	ug/kg dry	5.3	0.39	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
n-Butylbenzene	BRL	ug/kg dry	16	0.23	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
n-Propylbenzene	BRL	ug/kg dry	11	0.30	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
o-Xylene	BRL	ug/kg dry	5.3	0.33	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
sec-Butylbenzene	BRL	ug/kg dry	16	0.21	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
Styrene	BRL	ug/kg dry	5.3	0.23	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
tert-Butylbenzene	BRL	ug/kg dry	21	0.27	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
Tetrachloroethylene	BRL	ug/kg dry	11	0.36	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
Toluene	BRL	ug/kg dry	5.3	0.31	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
trans-1,2-Dichloroethylene	BRL	ug/kg dry	5.3	0.61	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
trans-1,3-Dichloropropylene	BRL	ug/kg dry	5.3	0.25	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
Trichloroethylene	BRL	ug/kg dry	5.3	0.49	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
Trichlorofluoromethane	BRL	ug/kg dry	5.3	0.43	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
Vinyl acetate	BRL	ug/kg dry	11	1.5	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305
Vinyl chloride	BRL	ug/kg dry	11	0.68	1	*8260B/5030B	2/19/14 17:45	MSC	P4B0305

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	*81 %*	*70-130*
Dibromofluoromethane	*108 %*	*84-123*
Toluene-d8	*107 %*	*76-129*

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Laboratory Report

02/27/2014

Rhea Engineers and Consultants, Inc.
Attn: Tim Price
314 North Green Meadows Drive, Unit 100
Wilmington, NC 28405

Project: Building 1932

Sample Matrix: Solid

Client Sample ID: HA-10 (4-6)
Prism Sample ID: 4020149-08
Prism Work Order: 4020149
Time Collected: 02/06/14 15:00
Time Submitted: 02/08/14 09:40

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	**83.5**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**2/12/14 12:15**	**JAB**	**P4B0204**

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449 Springbrook Road - P.O. Box 240543 - Charlotte, NC 28224-0543
Phone: 704/529-6364 - Toll Free Number: 1-800/529-6364 - Fax: 704/525-0409

Rhea Engineers and Consultants, Inc.
Attn: Tim Price
314 North Green Meadows Drive, Unit 100
Wilmington, NC 28405

Project: Building 1932

Sample Matrix: Solid

Client Sample ID: HA-13 (4-6)
Prism Sample ID: 4020149-09
Prism Work Order: 4020149
Time Collected: 02/06/14 16:00
Time Submitted: 02/08/14 09:40

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Diesel Range Organics by GC/FID									
Diesel Range Organics	BRL Aa	mg/kg dry	7.9	1.6	1	*8015C	2/25/14 0:38	JMV	P4B0372
			Surrogate			Recovery		Control Limits	
			o-Terphenyl			*63 %*		*49-124*	*Aa*
Gasoline Range Organics by GC/FID									
Gasoline Range Organics	BRL Aa	mg/kg dry	5.9	0.50	50	*5030B/8015C	2/21/14 20:46	ANG	P4B0374
			Surrogate			Recovery		Control Limits	
			a,a,a-Trifluorotoluene			*130 %*		*42-148*	*Aa*
General Chemistry Parameters									
% Solids	**88.7**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**2/12/14 12:15**	**JAB**	**P4B0204**
Volatile Organic Compounds by GC/MS									Aa
1,1,1,2-Tetrachloroethane	BRL	ug/kg dry	5.2	0.32	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
1,1,1-Trichloroethane	BRL	ug/kg dry	5.2	0.17	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
1,1,2,2-Tetrachloroethane	BRL	ug/kg dry	5.2	0.87	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
1,1,2-Trichloroethane	BRL	ug/kg dry	5.2	0.44	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
1,1-Dichloroethane	BRL	ug/kg dry	5.2	0.44	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
1,1-Dichloroethylene	BRL	ug/kg dry	5.2	0.32	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
1,1-Dichloropropylene	BRL	ug/kg dry	5.2	0.55	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
1,2,3-Trichlorobenzene	BRL	ug/kg dry	10	0.39	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
1,2,3-Trichloropropane	BRL	ug/kg dry	5.2	0.79	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
1,2,4-Trichlorobenzene	BRL	ug/kg dry	10	0.31	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
1,2,4-Trimethylbenzene	BRL	ug/kg dry	10	1.0	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
1,2-Dibromo-3-chloropropane	BRL	ug/kg dry	5.2	1.6	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
1,2-Dibromoethane	BRL	ug/kg dry	5.2	0.60	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
1,2-Dichlorobenzene	BRL	ug/kg dry	10	0.24	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
1,2-Dichloroethane	BRL	ug/kg dry	5.2	0.85	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
1,2-Dichloropropane	BRL	ug/kg dry	5.2	0.33	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
1,3,5-Trimethylbenzene	BRL	ug/kg dry	10	0.25	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
1,3-Dichlorobenzene	BRL	ug/kg dry	10	0.072	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
1,3-Dichloropropane	BRL	ug/kg dry	5.2	0.57	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
1,4-Dichlorobenzene	BRL	ug/kg dry	10	0.38	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
2,2-Dichloropropane	BRL	ug/kg dry	5.2	0.33	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
2-Chlorotoluene	BRL	ug/kg dry	10	0.32	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
4-Chlorotoluene	BRL	ug/kg dry	10	0.25	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
4-Isopropyltoluene	BRL	ug/kg dry	16	0.33	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
Acetone	BRL	ug/kg dry	21	2.8	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
Acrolein	BRL	ug/kg dry	100	3.2	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
Acrylonitrile	BRL	ug/kg dry	100	2.6	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
Benzene	BRL	ug/kg dry	3.1	0.32	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
Bromobenzene	BRL	ug/kg dry	5.2	0.22	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
Bromochloromethane	BRL	ug/kg dry	5.2	0.76	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378

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Rhea Engineers and Consultants, Inc.
Attn: Tim Price
314 North Green Meadows Drive, Unit 100
Wilmington, NC 28405

Project: Building 1932

Sample Matrix: Solid

Client Sample ID: HA-13 (4-6)
Prism Sample ID: 4020149-09
Prism Work Order: 4020149
Time Collected: 02/06/14 16:00
Time Submitted: 02/08/14 09:40

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
Bromodichloromethane	BRL	ug/kg dry	5.2	0.24	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
Bromoform	BRL	ug/kg dry	5.2	0.93	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
Bromomethane	BRL A	ug/kg dry	10	1.5	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
Carbon disulfide	BRL	ug/kg dry	10	0.44	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
Carbon Tetrachloride	BRL	ug/kg dry	5.2	0.29	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
Chlorobenzene	BRL	ug/kg dry	5.2	0.24	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
Chloroethane	BRL	ug/kg dry	10	4.0	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
Chloroform	BRL	ug/kg dry	5.2	0.22	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
Chloromethane	BRL	ug/kg dry	10	2.7	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
cis-1,2-Dichloroethylene	BRL	ug/kg dry	5.2	0.42	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
cis-1,3-Dichloropropylene	BRL	ug/kg dry	5.2	0.26	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
Dibromochloromethane	BRL	ug/kg dry	5.2	0.36	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
Dibromomethane	BRL	ug/kg dry	5.2	0.35	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
Dichlorodifluoromethane	BRL	ug/kg dry	10	0.56	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
Ethylbenzene	BRL	ug/kg dry	5.2	0.34	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
Hexachlorobutadiene	BRL	ug/kg dry	16	0.68	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
Isopropyl Ether	BRL	ug/kg dry	5.2	0.22	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
Isopropylbenzene (Cumene)	BRL	ug/kg dry	10	0.26	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
m,p-Xylenes	BRL	ug/kg dry	10	0.67	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
Methyl Butyl Ketone (2-Hexanone)	BRL	ug/kg dry	52	1.1	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
Methyl Ethyl Ketone (2-Butanone)	BRL	ug/kg dry	21	1.9	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
Methyl Isobutyl Ketone	BRL	ug/kg dry	10	1.4	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
Methylene Chloride	BRL	ug/kg dry	10	0.38	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
Methyl-tert-Butyl Ether	BRL	ug/kg dry	5.2	0.40	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
Naphthalene	BRL	ug/kg dry	5.2	0.39	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
n-Butylbenzene	BRL	ug/kg dry	16	0.23	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
n-Propylbenzene	BRL	ug/kg dry	10	0.30	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
o-Xylene	BRL	ug/kg dry	5.2	0.33	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
sec-Butylbenzene	BRL	ug/kg dry	16	0.21	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
Styrene	BRL	ug/kg dry	5.2	0.23	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
tert-Butylbenzene	BRL	ug/kg dry	21	0.27	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
Tetrachloroethylene	BRL	ug/kg dry	10	0.36	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
Toluene	BRL	ug/kg dry	5.2	0.31	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
trans-1,2-Dichloroethylene	BRL	ug/kg dry	5.2	0.61	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
trans-1,3-Dichloropropylene	BRL	ug/kg dry	5.2	0.25	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
Trichloroethylene	BRL	ug/kg dry	5.2	0.49	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
Trichlorofluoromethane	BRL	ug/kg dry	5.2	0.43	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
Vinyl acetate	BRL	ug/kg dry	10	1.5	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378
Vinyl chloride	BRL	ug/kg dry	10	0.68	1	*8260B/5030B	2/23/14 0:02	MSC	P4B0378

Surrogate	Recovery	Control Limits
4-Bromofluorobenzene	*77 %*	*70-130*
Dibromofluoromethane	*103 %*	*84-123*
Toluene-d8	*109 %*	*76-129*

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Rhea Engineers and Consultants, Inc.
Attn: Tim Price
314 North Green Meadows Drive, Unit 100
Wilmington, NC 28405

Project: Building 1932

Sample Matrix: Solid

Client Sample ID: HA-4 (4-6)
Prism Sample ID: 4020149-10
Prism Work Order: 4020149
Time Collected: 02/05/14 13:00
Time Submitted: 02/08/14 09:40

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	**86.1**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**2/11/14 14:50**	**JAB**	**P4B0186**

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Rhea Engineers and Consultants, Inc.
Attn: Tim Price
314 North Green Meadows Drive, Unit 100
Wilmington, NC 28405

Project: Building 1932

Sample Matrix: Solid

Client Sample ID: HA-7 (4-6)
Prism Sample ID: 4020149-11
Prism Work Order: 4020149
Time Collected: 02/05/14 14:00
Time Submitted: 02/08/14 09:40

Parameter	Result	Units	Report Limit	MDL	Dilution Factor	Method	Analysis Date/Time	Analyst	Batch ID
General Chemistry Parameters									
% Solids	**84.1**	**% by Weight**	**0.100**	**0.100**	**1**	***SM2540 G**	**2/11/14 14:50**	**JAB**	**P4B0186**

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Rhea Engineers and Consultants, Inc.
Attn: Tim Price
314 North Green Meadows Drive, Unit 100
Wilmington, NC 28405

Project: Building 1932

Prism Work Order: 4020149
Time Submitted: 2/8/2014 9:40:00AM

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P4B0305 - 5030B Soil										
Blank (P4B0305-BLK1)				Prepared & Analyzed: 02/19/14						
1,1,1,2-Tetrachloroethane	BRL	5.0	ug/kg wet							
1,1,1-Trichloroethane	BRL	5.0	ug/kg wet							
1,1,2,2-Tetrachloroethane	BRL	5.0	ug/kg wet							
1,1,2-Trichloroethane	BRL	5.0	ug/kg wet							
1,1-Dichloroethane	BRL	5.0	ug/kg wet							
1,1-Dichloroethylene	BRL	5.0	ug/kg wet							
1,1-Dichloropropylene	BRL	5.0	ug/kg wet							
1,2,3-Trichlorobenzene	BRL	10	ug/kg wet							
1,2,3-Trichloropropane	BRL	5.0	ug/kg wet							
1,2,4-Trichlorobenzene	BRL	10	ug/kg wet							
1,2,4-Trimethylbenzene	BRL	10	ug/kg wet							
1,2-Dibromo-3-chloropropane	BRL	5.0	ug/kg wet							
1,2-Dibromoethane	BRL	5.0	ug/kg wet							
1,2-Dichlorobenzene	BRL	10	ug/kg wet							
1,2-Dichloroethane	BRL	5.0	ug/kg wet							
1,2-Dichloropropane	BRL	5.0	ug/kg wet							
1,3,5-Trimethylbenzene	BRL	10	ug/kg wet							
1,3-Dichlorobenzene	BRL	10	ug/kg wet							
1,3-Dichloropropane	BRL	5.0	ug/kg wet							
1,4-Dichlorobenzene	BRL	10	ug/kg wet							
2,2-Dichloropropane	BRL	5.0	ug/kg wet							
2-Chlorotoluene	BRL	10	ug/kg wet							
4-Chlorotoluene	BRL	10	ug/kg wet							
4-Isopropyltoluene	BRL	15	ug/kg wet							
Acetone	BRL	20	ug/kg wet							
Acrolein	BRL	100	ug/kg wet							
Acrylonitrile	BRL	100	ug/kg wet							
Benzene	BRL	3.0	ug/kg wet							
Bromobenzene	BRL	5.0	ug/kg wet							
Bromochloromethane	BRL	5.0	ug/kg wet							
Bromodichloromethane	BRL	5.0	ug/kg wet							
Bromoform	BRL	5.0	ug/kg wet							
Bromomethane	BRL	10	ug/kg wet							
Carbon disulfide	BRL	10	ug/kg wet							
Carbon Tetrachloride	BRL	5.0	ug/kg wet							
Chlorobenzene	BRL	5.0	ug/kg wet							
Chloroethane	BRL	10	ug/kg wet							
Chloroform	BRL	5.0	ug/kg wet							
Chloromethane	BRL	10	ug/kg wet							
cis-1,2-Dichloroethylene	BRL	5.0	ug/kg wet							
cis-1,3-Dichloropropylene	BRL	5.0	ug/kg wet							
Dibromochloromethane	BRL	5.0	ug/kg wet							
Dibromomethane	BRL	5.0	ug/kg wet							
Dichlorodifluoromethane	BRL	10	ug/kg wet							
Ethylbenzene	BRL	5.0	ug/kg wet							
Hexachlorobutadiene	BRL	15	ug/kg wet							

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Project: Building 1932

Prism Work Order: 4020149
Time Submitted: 2/8/2014 9:40:00AM

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P4B0305 - 5030B Soil										
Blank (P4B0305-BLK1)				Prepared & Analyzed: 02/19/14						
Isopropyl Ether	BRL	5.0	ug/kg wet							
Isopropylbenzene (Cumene)	BRL	10	ug/kg wet							
m,p-Xylenes	BRL	10	ug/kg wet							
Methyl Butyl Ketone (2-Hexanone)	BRL	50	ug/kg wet							
Methyl Ethyl Ketone (2-Butanone)	BRL	20	ug/kg wet							
Methyl Isobutyl Ketone	BRL	10	ug/kg wet							
Methylene Chloride	BRL	10	ug/kg wet							
Methyl-tert-Butyl Ether	BRL	5.0	ug/kg wet							
Naphthalene	BRL	5.0	ug/kg wet							
n-Butylbenzene	BRL	15	ug/kg wet							
n-Propylbenzene	BRL	10	ug/kg wet							
o-Xylene	BRL	5.0	ug/kg wet							
sec-Butylbenzene	BRL	15	ug/kg wet							
Styrene	BRL	5.0	ug/kg wet							
tert-Butylbenzene	BRL	20	ug/kg wet							
Tetrachloroethylene	BRL	10	ug/kg wet							
Toluene	BRL	5.0	ug/kg wet							
trans-1,2-Dichloroethylene	BRL	5.0	ug/kg wet							
trans-1,3-Dichloropropylene	BRL	5.0	ug/kg wet							
Trichloroethylene	BRL	5.0	ug/kg wet							
Trichlorofluoromethane	BRL	5.0	ug/kg wet							
Vinyl acetate	BRL	10	ug/kg wet							
Vinyl chloride	BRL	10	ug/kg wet							
Surrogate: 4-Bromofluorobenzene	*45.5*		*ug/kg wet*	*50.00*		*91*	*70-130*			
Surrogate: Dibromofluoromethane	*51.7*		*ug/kg wet*	*50.00*		*103*	*84-123*			
Surrogate: Toluene-d8	*52.2*		*ug/kg wet*	*50.00*		*104*	*76-129*			
LCS (P4B0305-BS1)				Prepared & Analyzed: 02/19/14						
1,1-Dichloroethylene	45.3	5.0	ug/kg wet	50.00		91	67-149			
Benzene	47.6	3.0	ug/kg wet	50.00		95	74-127			
Chlorobenzene	45.4	5.0	ug/kg wet	50.00		91	74-118			
Toluene	47.4	5.0	ug/kg wet	50.00		95	71-129			
Trichloroethylene	45.2	5.0	ug/kg wet	50.00		90	75-133			
Surrogate: 4-Bromofluorobenzene	*47.1*		*ug/kg wet*	*50.00*		*94*	*70-130*			
Surrogate: Dibromofluoromethane	*53.7*		*ug/kg wet*	*50.00*		*107*	*84-123*			
Surrogate: Toluene-d8	*51.3*		*ug/kg wet*	*50.00*		*103*	*76-129*			

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Project: Building 1932

Prism Work Order: 4020149
Time Submitted: 2/8/2014 9:40:00AM

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P4B0305 - 5030B Soil										
LCS Dup (P4B0305-BSD1)				Prepared & Analyzed: 02/19/14						
1,1-Dichloroethylene	47.9	5.0	ug/kg wet	50.00		96	67-149	6	20	
Benzene	46.6	3.0	ug/kg wet	50.00		93	74-127	2	20	
Chlorobenzene	44.8	5.0	ug/kg wet	50.00		90	74-118	1	20	
Toluene	46.9	5.0	ug/kg wet	50.00		94	71-129	1	20	
Trichloroethylene	44.0	5.0	ug/kg wet	50.00		88	75-133	3	20	
Surrogate: 4-Bromofluorobenzene	*45.4*		*ug/kg wet*	*50.00*		*91*	*70-130*			
Surrogate: Dibromofluoromethane	*53.0*		*ug/kg wet*	*50.00*		*106*	*84-123*			
Surrogate: Toluene-d8	*51.4*		*ug/kg wet*	*50.00*		*103*	*76-129*			
Matrix Spike (P4B0305-MS1)		**Source: 4020149-04**		Prepared: 02/19/14	Analyzed: 02/20/14					
1,1-Dichloroethylene	46.0	5.2	ug/kg dry	52.25	BRL	88	54-162			
Benzene	46.0	3.1	ug/kg dry	52.25	BRL	88	60-135			
Chlorobenzene	41.6	5.2	ug/kg dry	52.25	BRL	80	57-125			
Toluene	45.2	5.2	ug/kg dry	52.25	BRL	87	57-135			
Trichloroethylene	44.4	5.2	ug/kg dry	52.25	BRL	85	38-164			
Surrogate: 4-Bromofluorobenzene	*38.9*		*ug/kg dry*	*52.25*		*74*	*70-130*			
Surrogate: Dibromofluoromethane	*64.5*		*ug/kg dry*	*52.25*		*123*	*84-123*			
Surrogate: Toluene-d8	*60.2*		*ug/kg dry*	*52.25*		*115*	*76-129*			
Matrix Spike Dup (P4B0305-MSD1)		**Source: 4020149-04**		Prepared: 02/19/14	Analyzed: 02/20/14					
1,1-Dichloroethylene	49.0	5.5	ug/kg dry	54.55	BRL	90	54-162	6	22	
Benzene	46.2	3.3	ug/kg dry	54.55	BRL	85	60-135	0.3	20	
Chlorobenzene	42.3	5.5	ug/kg dry	54.55	BRL	78	57-125	2	14	
Toluene	45.0	5.5	ug/kg dry	54.55	BRL	82	57-135	0.6	22	
Trichloroethylene	44.4	5.5	ug/kg dry	54.55	BRL	81	38-164	0.02	18	
Surrogate: 4-Bromofluorobenzene	*41.2*		*ug/kg dry*	*54.55*		*76*	*70-130*			
Surrogate: Dibromofluoromethane	*67.8*		*ug/kg dry*	*54.55*		*124*	*84-123*			*MI*
Surrogate: Toluene-d8	*62.8*		*ug/kg dry*	*54.55*		*115*	*76-129*			

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Project: Building 1932

Prism Work Order: 4020149
Time Submitted: 2/8/2014 9:40:00AM

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P4B0378 - 5030B Soil										
Blank (P4B0378-BLK1)				Prepared & Analyzed: 02/22/14						
1,1,1,2-Tetrachloroethane	BRL	5.0	ug/kg wet							
1,1,1-Trichloroethane	BRL	5.0	ug/kg wet							
1,1,2,2-Tetrachloroethane	BRL	5.0	ug/kg wet							
1,1,2-Trichloroethane	BRL	5.0	ug/kg wet							
1,1-Dichloroethane	BRL	5.0	ug/kg wet							
1,1-Dichloroethylene	BRL	5.0	ug/kg wet							
1,1-Dichloropropylene	BRL	5.0	ug/kg wet							
1,2,3-Trichlorobenzene	BRL	10	ug/kg wet							
1,2,3-Trichloropropane	BRL	5.0	ug/kg wet							
1,2,4-Trichlorobenzene	BRL	10	ug/kg wet							
1,2,4-Trimethylbenzene	BRL	10	ug/kg wet							
1,2-Dibromo-3-chloropropane	BRL	5.0	ug/kg wet							
1,2-Dibromoethane	BRL	5.0	ug/kg wet							
1,2-Dichlorobenzene	BRL	10	ug/kg wet							
1,2-Dichloroethane	BRL	5.0	ug/kg wet							
1,2-Dichloropropane	BRL	5.0	ug/kg wet							
1,3,5-Trimethylbenzene	BRL	10	ug/kg wet							
1,3-Dichlorobenzene	BRL	10	ug/kg wet							
1,3-Dichloropropane	BRL	5.0	ug/kg wet							
1,4-Dichlorobenzene	BRL	10	ug/kg wet							
2,2-Dichloropropane	BRL	5.0	ug/kg wet							
2-Chloroethyl Vinyl Ether	BRL	10	ug/kg wet							
2-Chlorotoluene	BRL	10	ug/kg wet							
4-Chlorotoluene	BRL	10	ug/kg wet							
4-Isopropyltoluene	BRL	15	ug/kg wet							
Acetone	BRL	20	ug/kg wet							
Acrolein	BRL	100	ug/kg wet							
Acrylonitrile	BRL	100	ug/kg wet							
Benzene	BRL	3.0	ug/kg wet							
Bromobenzene	BRL	5.0	ug/kg wet							
Bromochloromethane	BRL	5.0	ug/kg wet							
Bromodichloromethane	BRL	5.0	ug/kg wet							
Bromoform	BRL	5.0	ug/kg wet							
Bromomethane	BRL	10	ug/kg wet							
Carbon disulfide	BRL	10	ug/kg wet							
Carbon Tetrachloride	BRL	5.0	ug/kg wet							
Chlorobenzene	BRL	5.0	ug/kg wet							
Chloroethane	BRL	10	ug/kg wet							
Chloroform	BRL	5.0	ug/kg wet							
Chloromethane	BRL	10	ug/kg wet							
cis-1,2-Dichloroethylene	BRL	5.0	ug/kg wet							
cis-1,3-Dichloropropylene	BRL	5.0	ug/kg wet							
Dibromochloromethane	BRL	5.0	ug/kg wet							
Dibromomethane	BRL	5.0	ug/kg wet							
Dichlorodifluoromethane	BRL	10	ug/kg wet							
Ethylbenzene	BRL	5.0	ug/kg wet							

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Prism Work Order: 4020149
Time Submitted: 2/8/2014 9:40:00AM

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P4B0378 - 5030B Soil										
Blank (P4B0378-BLK1)				Prepared & Analyzed: 02/22/14						
Hexachlorobutadiene	BRL	15	ug/kg wet							
Isopropyl Ether	BRL	5.0	ug/kg wet							
Isopropylbenzene (Cumene)	BRL	10	ug/kg wet							
m,p-Xylenes	BRL	10	ug/kg wet							
Methyl Butyl Ketone (2-Hexanone)	BRL	50	ug/kg wet							
Methyl Ethyl Ketone (2-Butanone)	BRL	20	ug/kg wet							
Methyl Isobutyl Ketone	BRL	10	ug/kg wet							
Methylene Chloride	BRL	10	ug/kg wet							
Methyl-tert-Butyl Ether	BRL	5.0	ug/kg wet							
Naphthalene	BRL	5.0	ug/kg wet							
n-Butylbenzene	BRL	15	ug/kg wet							
n-Propylbenzene	BRL	10	ug/kg wet							
o-Xylene	BRL	5.0	ug/kg wet							
sec-Butylbenzene	BRL	15	ug/kg wet							
Styrene	BRL	5.0	ug/kg wet							
tert-Butylbenzene	BRL	20	ug/kg wet							
Tetrachloroethylene	BRL	10	ug/kg wet							
Toluene	BRL	5.0	ug/kg wet							
trans-1,2-Dichloroethylene	BRL	5.0	ug/kg wet							
trans-1,3-Dichloropropylene	BRL	5.0	ug/kg wet							
Trichloroethylene	BRL	5.0	ug/kg wet							
Trichlorofluoromethane	BRL	5.0	ug/kg wet							
Vinyl acetate	BRL	10	ug/kg wet							
Vinyl chloride	BRL	10	ug/kg wet							
Surrogate: 4-Bromofluorobenzene	*42.3*		*ug/kg wet*	*50.00*		*85*	*70-130*			
Surrogate: Dibromofluoromethane	*56.4*		*ug/kg wet*	*50.00*		*113*	*84-123*			
Surrogate: Toluene-d8	*58.8*		*ug/kg wet*	*50.00*		*118*	*76-129*			

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Prism Work Order: 4020149
Time Submitted: 2/8/2014 9:40:00AM

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P4B0378 - 5030B Soil										
LCS (P4B0378-BS1)				Prepared & Analyzed: 02/22/14						
1,1-Dichloroethylene	59.8	5.0	ug/kg wet	50.00		120	67-149			
Benzene	56.6	3.0	ug/kg wet	50.00		113	74-127			
Chlorobenzene	58.6	5.0	ug/kg wet	50.00		117	74-118			
Toluene	57.5	5.0	ug/kg wet	50.00		115	71-129			
Trichloroethylene	55.7	5.0	ug/kg wet	50.00		111	75-133			
Surrogate: 4-Bromofluorobenzene	*38.6*		*ug/kg wet*	*50.00*		*77*	*70-130*			
Surrogate: Dibromofluoromethane	*53.6*		*ug/kg wet*	*50.00*		*107*	*84-123*			
Surrogate: Toluene-d8	*55.2*		*ug/kg wet*	*50.00*		*110*	*76-129*			
LCS Dup (P4B0378-BSD1)				Prepared & Analyzed: 02/22/14						
1,1-Dichloroethylene	56.4	5.0	ug/kg wet	50.00		113	67-149	6	20	
Benzene	54.4	3.0	ug/kg wet	50.00		109	74-127	4	20	
Chlorobenzene	57.4	5.0	ug/kg wet	50.00		115	74-118	2	20	
Toluene	54.7	5.0	ug/kg wet	50.00		109	71-129	5	20	
Trichloroethylene	53.5	5.0	ug/kg wet	50.00		107	75-133	4	20	
Surrogate: 4-Bromofluorobenzene	*39.6*		*ug/kg wet*	*50.00*		*79*	*70-130*			
Surrogate: Dibromofluoromethane	*55.5*		*ug/kg wet*	*50.00*		*111*	*84-123*			
Surrogate: Toluene-d8	*56.8*		*ug/kg wet*	*50.00*		*114*	*76-129*			
Matrix Spike (P4B0378-MS1)		**Source: 4020149-09**		Prepared: 02/22/14 Analyzed: 02/23/14						
1,1-Dichloroethylene	40.9	5.3	ug/kg dry	53.38	BRL	77	54-162			
Benzene	36.3	3.2	ug/kg dry	53.38	BRL	68	60-135			
Chlorobenzene	36.9	5.3	ug/kg dry	53.38	BRL	69	57-125			
Toluene	35.9	5.3	ug/kg dry	53.38	BRL	67	57-135			
Trichloroethylene	35.8	5.3	ug/kg dry	53.38	BRL	67	38-164			
Surrogate: 4-Bromofluorobenzene	*39.1*		*ug/kg dry*	*53.38*		*73*	*70-130*			
Surrogate: Dibromofluoromethane	*51.2*		*ug/kg dry*	*53.38*		*96*	*84-123*			
Surrogate: Toluene-d8	*55.5*		*ug/kg dry*	*53.38*		*104*	*76-129*			

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Project: Building 1932

Prism Work Order: 4020149
Time Submitted: 2/8/2014 9:40:00AM

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P4B0378 - 5030B Soil										
Matrix Spike Dup (P4B0378-MSD1)		**Source: 4020149-09**		Prepared: 02/22/14	Analyzed: 02/23/14					
1,1-Dichloroethylene	46.7	5.5	ug/kg dry	54.62	BRL	85	54-162	13	22	
Benzene	43.6	3.3	ug/kg dry	54.62	BRL	80	60-135	18	20	
Chlorobenzene	44.3	5.5	ug/kg dry	54.62	BRL	81	57-125	18	14	D
Toluene	42.7	5.5	ug/kg dry	54.62	BRL	78	57-135	17	22	
Trichloroethylene	41.8	5.5	ug/kg dry	54.62	BRL	77	38-164	15	18	
Surrogate: 4-Bromofluorobenzene	*43.7*		*ug/kg dry*	*54.62*		*80*	*70-130*			
Surrogate: Dibromofluoromethane	*58.6*		*ug/kg dry*	*54.62*		*107*	*84-123*			
Surrogate: Toluene-d8	*61.9*		*ug/kg dry*	*54.62*		*113*	*76-129*			

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Rhea Engineers and Consultants, Inc.
Attn: Tim Price
314 North Green Meadows Drive, Unit 100
Wilmington, NC 28405

Project: Building 1932

Prism Work Order: 4020149
Time Submitted: 2/8/2014 9:40:00AM

Gasoline Range Organics by GC/FID - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P4B0222 - 5030B Soil										
Blank (P4B0222-BLK1)				Prepared & Analyzed: 02/14/14						
Gasoline Range Organics	BRL	5.0	mg/kg wet							
Surrogate: a,a,a-Trifluorotoluene	*4.70*		*mg/kg wet*	*5.000*		*94*	*42-148*			
LCS (P4B0222-BS1)				Prepared & Analyzed: 02/14/14						
Gasoline Range Organics	55.2	5.0	mg/kg wet	50.00		110	41-138			
Surrogate: a,a,a-Trifluorotoluene	*5.15*		*mg/kg wet*	*5.000*		*103*	*42-148*			
LCS Dup (P4B0222-BSD1)				Prepared & Analyzed: 02/14/14						
Gasoline Range Organics	55.3	5.0	mg/kg wet	50.00		111	41-138	0.2	20	
Surrogate: a,a,a-Trifluorotoluene	*5.20*		*mg/kg wet*	*5.000*		*104*	*42-148*			
Matrix Spike (P4B0222-MS1)		**Source: 4020149-01**		Prepared & Analyzed: 02/14/14						
Gasoline Range Organics	63.3	5.8	mg/kg dry	58.38	0.710	107	41-138			
Surrogate: a,a,a-Trifluorotoluene	*5.37*		*mg/kg dry*	*5.838*		*92*	*42-148*			
Matrix Spike Dup (P4B0222-MSD1)		**Source: 4020149-01**		Prepared & Analyzed: 02/14/14						
Gasoline Range Organics	64.1	5.8	mg/kg dry	57.81	0.710	110	41-138	1	34	
Surrogate: a,a,a-Trifluorotoluene	*5.90*		*mg/kg dry*	*5.781*		*102*	*42-148*			
Batch P4B0374 - 5030B Soil										
Blank (P4B0374-BLK1)				Prepared & Analyzed: 02/21/14						
Gasoline Range Organics	BRL	5.0	mg/kg wet							
Surrogate: a,a,a-Trifluorotoluene	*5.10*		*mg/kg wet*	*5.000*		*102*	*42-148*			
LCS (P4B0374-BS1)				Prepared & Analyzed: 02/21/14						
Gasoline Range Organics	53.2	5.0	mg/kg wet	50.00		106	41-138			
Surrogate: a,a,a-Trifluorotoluene	*5.40*		*mg/kg wet*	*5.000*		*108*	*42-148*			

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Rhea Engineers and Consultants, Inc.
Attn: Tim Price
314 North Green Meadows Drive, Unit 100
Wilmington, NC 28405

Project: Building 1932

Prism Work Order: 4020149
Time Submitted: 2/8/2014 9:40:00AM

Gasoline Range Organics by GC/FID - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P4B0374 - 5030B Soil										
LCS Dup (P4B0374-BSD1)				Prepared & Analyzed: 02/21/14						
Gasoline Range Organics	59.4	5.0	mg/kg wet	50.00		119	41-138	11	20	
Surrogate: a,a,a-Trifluorotoluene	*5.55*		*mg/kg wet*	*5.000*		*111*	*42-148*			

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449 Springbrook Road - P.O. Box 240543 - Charlotte, NC 28224-0543
Phone: 704/529-6364 - Toll Free Number: 1-800/529-6364 - Fax: 704/525-0409

Rhea Engineers and Consultants, Inc.
Attn: Tim Price
314 North Green Meadows Drive, Unit 100
Wilmington, NC 28405

Project: Building 1932

Prism Work Order: 4020149
Time Submitted: 2/8/2014 9:40:00AM

Diesel Range Organics by GC/FID - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P4B0234 - 3545A										
Blank (P4B0234-BLK1)				Prepared: 02/14/14		Analyzed: 02/15/14				
Diesel Range Organics	BRL	7.0	mg/kg wet							
Surrogate: o-Terphenyl	*1.47*		*mg/kg wet*	*1.600*		*92*	*49-124*			
LCS (P4B0234-BS1)				Prepared: 02/14/14		Analyzed: 02/15/14				
Diesel Range Organics	82.7	7.0	mg/kg wet	80.00		103	55-109			
Surrogate: o-Terphenyl	*1.65*		*mg/kg wet*	*1.600*		*103*	*49-124*			
LCS Dup (P4B0234-BSD1)				Prepared: 02/14/14		Analyzed: 02/15/14				
Diesel Range Organics	76.3	7.0	mg/kg wet	80.00		95	55-109	8	20	
Surrogate: o-Terphenyl	*1.57*		*mg/kg wet*	*1.600*		*98*	*49-124*			
Batch P4B0257 - 3545A										
Blank (P4B0257-BLK1)				Prepared & Analyzed: 02/17/14						
Diesel Range Organics	BRL	7.0	mg/kg wet							
Surrogate: o-Terphenyl	*1.61*		*mg/kg wet*	*1.600*		*101*	*49-124*			
LCS (P4B0257-BS1)				Prepared & Analyzed: 02/17/14						
Diesel Range Organics	85.3	7.0	mg/kg wet	80.00		107	55-109			
Surrogate: o-Terphenyl	*1.69*		*mg/kg wet*	*1.600*		*106*	*49-124*			
LCS Dup (P4B0257-BSD1)				Prepared & Analyzed: 02/17/14						
Diesel Range Organics	88.1	7.0	mg/kg wet	80.00		110	55-109	3	20	L2
Surrogate: o-Terphenyl	*1.74*		*mg/kg wet*	*1.600*		*109*	*49-124*			
Matrix Spike (P4B0257-MS1)		**Source: 4020149-06**		Prepared & Analyzed: 02/17/14						
Diesel Range Organics	83.1	7.7	mg/kg dry	88.26	2.08	92	50-117			
Surrogate: o-Terphenyl	*1.72*		*mg/kg dry*	*1.765*		*98*	*49-124*			

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Rhea Engineers and Consultants, Inc.
Attn: Tim Price
314 North Green Meadows Drive, Unit 100
Wilmington, NC 28405

Project: Building 1932

Prism Work Order: 4020149
Time Submitted: 2/8/2014 9:40:00AM

Diesel Range Organics by GC/FID - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P4B0257 - 3545A										
Matrix Spike Dup (P4B0257-MSD1)		**Source: 4020149-06**		Prepared & Analyzed: 02/17/14						
Diesel Range Organics	85.5	7.7	mg/kg dry	88.26	2.08	94	50-117	3	24	
Surrogate: o-Terphenyl	*1.66*		*mg/kg dry*	*1.765*		*94*	*49-124*			
Batch P4B0372 - 3545A										
Blank (P4B0372-BLK1)				Prepared: 02/21/14	Analyzed: 02/24/14					
Diesel Range Organics	BRL	7.0	mg/kg wet							
Surrogate: o-Terphenyl	*1.09*		*mg/kg wet*	*1.600*		*68*	*49-124*			
LCS (P4B0372-BS1)				Prepared: 02/21/14	Analyzed: 02/24/14					
Diesel Range Organics	43.9	7.0	mg/kg wet	4.000		NR	55-109			L1
Surrogate: o-Terphenyl	*1.64*		*mg/kg wet*	*1.600*		*102*	*49-124*			
LCS Dup (P4B0372-BSD1)				Prepared: 02/21/14	Analyzed: 02/24/14					
Diesel Range Organics	36.0	7.0	mg/kg wet	40.00		90	55-109	20	20	
Surrogate: o-Terphenyl	*1.25*		*mg/kg wet*	*1.600*		*78*	*49-124*			

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Rhea Engineers and Consultants, Inc.
Attn: Tim Price
314 North Green Meadows Drive, Unit 100
Wilmington, NC 28405

Project: Building 1932

Prism Work Order: 4020149
Time Submitted: 2/8/2014 9:40:00AM

General Chemistry Parameters - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P4B0186 - NO PREP										
Blank (P4B0186-BLK1)				Prepared & Analyzed: 02/11/14						
% Solids	100	0.100	% by Weight							
Batch P4B0204 - NO PREP										
Blank (P4B0204-BLK1)				Prepared & Analyzed: 02/12/14						
% Solids	100	0.100	% by Weight							

Sample Extraction Data

Prep Method: 3545A

Lab Number	Batch	Initial	Final	Date/Time
4020149-01	P4B0234	25.04 g	1 mL	02/15/14 11:00
4020149-02	P4B0234	25.01 g	1 mL	02/15/14 11:00
4020149-03	P4B0234	25.08 g	1 mL	02/15/14 11:00
4020149-04	P4B0234	25.01 g	1 mL	02/15/14 11:00
4020149-05	P4B0257	25.07 g	1 mL	02/17/14 10:00
4020149-06	P4B0257	25 g	1 mL	02/17/14 10:00
4020149-07	P4B0257	25.05 g	1 mL	02/17/14 10:00
4020149-09	P4B0372	25 g	1 mL	02/21/14 10:00

Prep Method: 5030B Soil

Lab Number	Batch	Initial	Final	Date/Time
4020149-01	P4B0222	5.01 g	5 mL	02/14/14 14:17
4020149-02	P4B0222	5.87 g	5 mL	02/14/14 14:17
4020149-03	P4B0222	5.26 g	5 mL	02/14/14 14:17
4020149-04	P4B0222	5.48 g	5 mL	02/14/14 14:17
4020149-05	P4B0222	5.2 g	5 mL	02/14/14 14:17
4020149-06	P4B0222	5.1 g	5 mL	02/14/14 14:17
4020149-07	P4B0222	5.76 g	5 mL	02/14/14 14:17
4020149-09	P4B0374	4.81 g	5 mL	02/21/14 16:27

Prep Method: 5030B Soil

Lab Number	Batch	Initial	Final	Date/Time
4020149-01	P4B0305	5.5 g	5 mL	02/19/14 9:23
4020149-02	P4B0305	5.44 g	5 mL	02/19/14 9:23
4020149-03	P4B0305	5.51 g	5 mL	02/19/14 9:23
4020149-04	P4B0305	5.14 g	5 mL	02/19/14 9:23
4020149-05	P4B0305	5.91 g	5 mL	02/19/14 9:23
4020149-06	P4B0305	5.5 g	5 mL	02/19/14 9:23
4020149-07	P4B0305	5.56 g	5 mL	02/19/14 9:23
4020149-09	P4B0378	5.37 g	5 mL	02/22/14 10:41

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PRISM LABORATORIES, INC. | Full-Service Analytical & Environmental Solutions

449 Springbrook Road • P.O. Box 240543 • Charlotte, NC 28224-0543
Phone: 704/529-6364 • Fax: 704/525-0409

CHAIN OF CUSTODY RECORD

PAGE 1 OF 2 QUOTE # TO ENSURE PROPER BILLING: 454-03

Project Name: BLDG 1932
Short Hold Analysis: (Yes) (No) UST Project: (Yes) (No)
*Please ATTACH any project specific reporting (QC LEVEL I II III IV) provisions and/or QC Requirements
Invoice To: Anna Marie whitehair
Address: 4975 William Flynn Hwy Gibsonia, PA 15044
Purchase Order No./Billing Reference 454-03

Client Company Name: Rhen Engineers & Consultants
Report To/Contact Name: Jim Price
Reporting Address: 314 W Green Meadows Dr. Wilmington, NC 28405
Phone: 910 350-3156 Fax (Yes) (No): N
Email (Yes) (No) Email Address timarhea.us
EDD Type: PDF X Excel ___ Other ___
Site Location Name: BLDG. 1932
Site Location Physical Address: Camp Lejeune PP Golf Course

Requested Due Date ☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 4 Days ☐ 5 Days
"Working Days" ☐ 6-9 Days ☒ Standard 10 days ☐ Rush Work Must Be Pre-Approved
Samples received after 15:00 will be processed next business day.
Turnaround time is based on business days, excluding weekends and holidays.
(SEE REVERSE FOR TERMS & CONDITIONS REGARDING SERVICES RENDERED BY PRISM LABORATORIES, INC. TO CLIENT)

LAB USE ONLY

	YES	NO	N/A
Samples INTACT upon arrival? 1.3	✓		
Received ON WET ICE? Temp 0.9	✓		
PROPER PRESERVATIVES indicated?	✓		
Received WITHIN HOLDING TIMES?	✓		
CUSTODY SEALS INTACT?			✓
VOLATILES rec'd W/OUT HEADSPACE?			✓
PROPER CONTAINERS used?	✓		

TO BE FILLED IN BY CLIENT/SAMPLING PERSONNEL

Certification: NELAC ___ USACE ___ FL ___ NC ___ SC ___ OTHER ___ N/A ___
Water Chlorinated: YES ___ NO ___
Sample Iced Upon Collection: YES ___ NO ___

CLIENT SAMPLE DESCRIPTION	DATE COLLECTED	TIME COLLECTED MILITARY HOURS	MATRIX (SOIL, WATER OR SLUDGE)	SAMPLE CONTAINER *TYPE SEE BELOW	NO.	SIZE	PRESERVATIVES	8260B	DRO/GRO					REMARKS	PRISM LAB ID NO.
HA-9 (4-6)	2/6/14	10:00	Soil	G			N/A	X	X						01
HA-8 (4-6)	2/6/14	09:00	Soil	G			N/A	X	X						02
HA-11 (4-6)	2/6/14	11:00	Soil	G			N/A	X	X						03
HA-12 (4-6)	2/6/14	12:00	Soil	G			N/A	X	X						04
HA-3 (~~4-6~~ 2-4)	2/5/14	10:00	Soil	G			N/A	X	X						05
HA-6 (~~4-6~~ 2-4)	2/5/14	12:00	Soil	G			N/A	X	X						06
HA-14 (4-6)	2/6/14	14:00	Soil	G			N/A	X	X						07
HA-10 (4-6)	2/6/14	15:00	Soil	G			N/A	X	X					HOLD	08
HA-13 (4-6)	2/6/14	16:00	Soil	G			N/A	X	X					HOLD	09
HA-4 (4-6)	2/5/14	13:00	Soil	G			N/A	X	X					HOLD	10

PRESS DOWN FIRMLY - 3 COPIES

Sampler's Signature ___ Sampled By (Print Name) ___ Affiliation ___

Upon relinquishing, this Chain of Custody is your authorization for Prism to proceed with the analyses as requested above. Any changes must be submitted in writing to the Prism Project Manager. There will be charges for any changes after analyses have been initialized.

Relinquished By: (Signature)	Received By: (Signature)	Date	Military/Hours
[signature]		2/7/14	14:00
Relinquished By: (Signature)	Received By: (Signature)	2/8/14	0700
Relinquished By: (Signature)	Received For Prism Laboratories By:	2-8-14	0940

Method of Shipment: NOTE: ALL SAMPLE COOLERS SHOULD BE TAPED SHUT WITH CUSTODY SEALS FOR TRANSPORTATION TO THE LABORATORY. SAMPLES ARE NOT ACCEPTED AND VERIFIED AGAINST COC UNTIL RECEIVED AT THE LABORATORY.
☐ Fed Ex ☐ UPS ☐ Hand-delivered ☐ Prism Field Service ☐ Other ___

COC Group No. 4020149

Additional Comments:

PRISM USE ONLY

Site Arrival Time:
Site Departure Time:
Field Tech Fee:
Mileage:

NPDES:	UST:	GROUNDWATER:	DRINKING WATER:	SOLID WASTE:	RCRA:	CERCLA	LANDFILL	OTHER:
☐ NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC
☐ ___	☐ ___	☐ ___	☐ ___	☐ ___	☐ ___	☐ ___	☐ ___	☐ ___

*CONTAINER TYPE CODES: A = Amber C = Clear G = Glass P = Plastic; TL = Teflon-Lined Cap VOA = Volatile Organics Analysis (Zero Head Space)

SEE REVERSE FOR TERMS & CONDITIONS

ORIGINAL

DRT-CO

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Phone: 704/529-6364 • Fax: 704/525-0409

CHAIN OF CUSTODY RECORD

PAGE 2 OF 2 QUOTE # TO ENSURE PROPER BILLING: 454-03

Client Company Name: Rhea Engineers
Report To/Contact Name: Tim Price
Reporting Address: 314 N Green Meadows Dr. Wilmington NC 28405
Phone: 910-350-3156 Fax (Yes) (No): ____
Email (Yes) (No) Email Address tim@rhea.us
EDD Type: PDF X Excel ____ Other ____
Site Location Name: BLDG 1932
Site Location Physical Address: Camp Lejeune PP Golf Course

Project Name: BLDG. 1932
Short Hold Analysis: (Yes) (No) UST Project: (Yes) (No)
*Please ATTACH any project specific reporting (QC LEVEL I II III IV) provisions and/or QC Requirements
Invoice To: ANNA MARIE WHITEHAIR
Address: 4975 WILLIAM ELLIS Hwy Gibsonia, PA 15044
Purchase Order No./Billing Reference ____
Requested Due Date ☐ 1 Day ☐ 2 Days ☐ 3 Days ☐ 4 Days ☐ 5 Days
"Working Days" ☐ 6-9 Days ☒ Standard 10 days ☐ Rush Work Must Be Pre-Approved
Samples received after 15:00 will be processed next business day.
Turnaround time is based on business days, excluding weekends and holidays.
(SEE REVERSE FOR TERMS & CONDITIONS REGARDING SERVICES RENDERED BY PRISM LABORATORIES, INC. TO CLIENT)

LAB USE ONLY

		YES	NO	N/A
Samples INTACT upon arrival?	1.3	✓		
Received ON WET ICE? Temp	0.9	✓		
PROPER PRESERVATIVES indicated?		✓		
Received WITHIN HOLDING TIMES?		✓		
CUSTODY SEALS INTACT?				✓
VOLATILES rec'd W/OUT HEADSPACE?				✓
PROPER CONTAINERS used?		✓		

TO BE FILLED IN BY CLIENT/SAMPLING PERSONNEL
Certification: NELAC ____ USACE ____ FL ____ NC ____ SC ____ OTHER ____ N/A ____
Water Chlorinated: YES ____ NO ____
Sample Iced Upon Collection: YES ____ NO ____

CLIENT SAMPLE DESCRIPTION	DATE COLLECTED	TIME COLLECTED MILITARY HOURS	MATRIX (SOIL, WATER OR SLUDGE)	SAMPLE CONTAINER *TYPE SEE BELOW	NO.	SIZE	PRESERVATIVES	ANALYSES REQUESTED: 8260B	PRO/LEO					REMARKS	PRISM LAB ID NO.
HA-7 (4-6)	2/5/14	14:00	Soil	G			N/A	X	X					HOLD	11

PRESS DOWN FIRMLY - 3 COPIES

Sampler's Signature ____ Sampled By (Print Name) ____ Affiliation ____

Upon relinquishing, this Chain of Custody is your authorization for Prism to proceed with the analyses as requested above. Any changes must be submitted in writing to the Prism Project Manager. There will be charges for any changes after analyses have been initialized.

Relinquished By: (Signature)	Received By: (Signature)	Date	Military/Hours
Timothy L. Price		2/7/14	14:00
Relinquished By: (Signature)	Received By: (Signature)	2/8/14	0700
Relinquished By: (Signature)	Received For Prism Laboratories By:	2-8-14	0940

Method of Shipment: NOTE: ALL SAMPLE COOLERS SHOULD BE TAPED SHUT WITH CUSTODY SEALS FOR TRANSPORTATION TO THE LABORATORY. SAMPLES ARE NOT ACCEPTED AND VERIFIED AGAINST COC UNTIL RECEIVED AT THE LABORATORY.
☐ Fed Ex ☐ UPS ☐ Hand-delivered ☐ Prism Field Service ☐ Other ____
COC Group No. 4020149

Additional Comments:

PRISM USE ONLY
Site Arrival Time:
Site Departure Time:
Field Tech Fee:
Mileage:

NPDES:	UST:	GROUNDWATER:	DRINKING WATER:	SOLID WASTE:	RCRA:	CERCLA	LANDFILL	OTHER:
☐ NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC	☐ NC ☐ SC
☐ ____	☐ ____	☐ ____	☐ ____	☐ ____	☐ ____	☐ ____	☐ ____	☐ ____

SEE REVERSE FOR TERMS & CONDITIONS

*CONTAINER TYPE CODES: A = Amber C = Clear G = Glass P = Plastic; TL = Teflon-Lined Cap VOA = Volatile Organics Analysis (Zero Head Space)

ORIGINAL

APPENDIX J

SOIL WASTE MANIFESTS

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THIS FORM IS SUBJECT TO THE PRIVACY ACT (NAVMC 11000)

WEIGHT CERTIFICATE

TRAFFIC MANAGEMENT OFFICE
MARINE CORPS BASE
CAMP LEJEUNE

11:14 AM 01-24-14
G 78960 lb
T 33060 lb
N 45900 lb

Glenn dale Logistics

CUSTOMER RANK

SSN AGENCY

CARRIER/VEHICLE TYPE

VEHICLE #

VEHICLE ID # 410

DESTINATION/BLDG. #

GBL/DOC # P.O. #

COMMODITY

SHIPPER

WEIGHMASTER Charles S Higgins

MCBCL 4600/2 (REV 2-95)

THIS FORM IS SUBJECT TO THE PRIVACY ACT (NAVMC 11000)

WEIGHT CERTIFICATE

DISTRIBUTION MANAGEMENT OFFICE
MARINE CORPS INSTALLATIONS EAST
MCB CAMP LEJEUNE

CUSTOMER RANK

SSN AGENCY

CARRIER/VEHICLE TYPE 8

VEHICLE #

VEHICLE ID#

DESTINATION/BLDG#

GBL/DOC# P.O.#

COMMODITY

SHIPPER

WEIGHMASTER

11:41 AM 01-24-14
G 63100 lb
T 00 lb
N 63100 lb

11:41 AM 01-24-14
G 63100 lb
T 30500 lb
N 32600 lb

MCBCL 4600/2 (REV 2-95)

1 2 3 4 5 6 7 8 9

South River Trucking
PO Box 372
Autryville, NC 28318

TRUCK NO. 3037 DATE 1-24-14

DRIVER Larry Tanner

JOB NO.

MATERIAL Dirt YARDS

FROM Jacksonville NC TO Autryville NC

TIME IN 8:30 OUT

RECEIVED BY

DOWNTIME FROM TO

10 11 12 13 14 15 16 17 18

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number: NC6170022580
2. Page 1 of 1
3. Emergency Response Phone:
4. Waste Tracking Number: 14014

5. Generator's Name and Mailing Address
COMMANDING GENERAL, MCIEAST MCB CAMPE J
12 POST LANE, MCB CAMP LEJEUNE NC 28542
Generator's Phone: 910 451 9017
Generator's Site Address (if different than mailing address):

6. Transporter 1 Company Name
SOUTH RIVER TRUCKING, PO BOX 372, AUTRYVILLE NC 28318
U.S. EPA ID Number:

7. Transporter 2 Company Name
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
E S & J ENTERPRISES, INC.
1555 HOLLAND RD. - AUTRYVILLE, NC 28318
Facility's Phone: (910) 567-6138
U.S. EPA ID Number: SR0600035

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.
1.	PETROLEUM CONTAMINATED SOIL	01	PT	76740 TONS 32300 TONS 44440 NET	LBS.
2.					
3.					
4.					

13. Special Handling Instructions and Additional Information

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: LYDENE JONES
Signature: Lydene Jones
Month 02 Day 04 Year 14

15. International Shipments ☐ Import to U.S. ☐ Export from U.S.
Port of entry/exit:
Transporter Signature (for exports only):
Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: LARRY TURNER
Signature: Larry Turner
Month 2 Day 4 Year 14
Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
17b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:
17c. Signature of Alternate Facility (or Generator)
Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name:
Signature:
Month Day Year

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

DESIGNATED FACILITY'S COPY

THIS FORM IS SUBJECT TO THE PRIVACY ACT (NAVMC 11000)

WEIGHT CERTIFICATE

DISTRIBUTION MANAGEMENT OFFICE
MARINE CORPS INSTALLATIONS EAST
MCB CAMP LEJEUNE

CUSTOMER _____ RANK _____

SSN _____ AGENCY _____

CARRIER/VEHICLE TYPE _____

VEHICLE # _____

VEHICLE ID# _____

DESTINATION/BLDG# _____

GBL/DOC# P.O.# _____

COMMODITY _____

SHIPPER _____

WEIGHMASTER _____

10:19 AM 02-04-14
G 76760 lb
T 00 lb
N 76760 lb

10:19 AM 02-04-14
G 76740 lb
T 32300 lb
N 44440 lb

MCBCL 4600/2 (REV 2-95)

WASTE MANIFEST

NC 61 100 22580 1 14012

5. Generator's Name and Mailing Address
COMMANDING GENERAL, MCIEAST-MCBCAMLEJ
12 POST LANE, MCB CAMP LEJEUNE, NC 28542

Generator's Site Address (if different than mailing address)

Generator's Phone: 910 451 9017

6. Transporter 1 Company Name
GLENNDALE LOGISTICS, AUTRYVILLE NC.

U.S. EPA ID Number

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address
E S & J ENTERPRISES, INC.
1555 HOLLAND RD. - AUTRYVILLE, NC 28318

U.S. EPA ID Number
SR0600035

Facility's Phone: (910) 567-6138

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
	1. PETROLEUM CONTAMINATED SOIL			45,900	LBS.	
	2.					
	3.					
	4.					

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: EUGENE JONES | Signature: Eugene Jones | Month 01 | Day 24 | Year 14

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Greg Marlborough | Signature | Month | Day 24 | Year 14

Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) | U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) | Month | Day | Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name | Signature | Month | Day | Year

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

169-BLS-C 5 11979 (Rev. 9/09)

DESIGNATED FACILITY'S COPY

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number

2. Page 1 of

3. Emergency Response Phone

4. Waste Tracking Number 14013

5. Generator's Name and Mailing Address
COMMANDING GENERAL, MCI EAST MCB CAMP LEJ
12 POST LANE, MCB CAMP LEJEUNE, NC 28542
Generator's Phone: 910 451 9017

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name
SOUTH RIVER TRUCKING, PO BOX 372, AUTRYVILLE NC 28318

U.S. EPA ID Number

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address
E S & J ENTERPRISES, INC.
1556 HOLLAND RD. - AUTRYVILLE, NC 28318
Facility's Phone: (910) 567-6138

U.S. EPA ID Number
SR0600035

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.
1.	PETROLEUM CONTAMINATED SOIL	01	PT	32,600	LBS.
2.					
3.					
4.					

13. Special Handling Instructions and Additional Information

14. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: EUGENE JONES
Signature:
Month Day Year: 4 24 14

15. International Shipments ☐ Import to U.S. ☐ Export from U.S.
Port of entry/exit:
Transporter Signature (for exports only):
Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: LARRY TANNER
Signature:
Month Day Year: 1 24 14

Transporter 2 Printed/Typed Name
Signature
Month Day Year

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

17c. Signature of Alternate Facility (or Generator)
Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name
Signature
Month Day Year

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

APPENDIX K

GROUNDWATER SAMPLING RECORDS

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Tetra Tech

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: MCB Camp Lejeune UST 1932
Project No.: 112IG6199

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: 1932-MW-4
Sample Location: 1932-MW-4
Sampled By: J. Birkett
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 2-13-14	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (^{0}C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	ORP (mV)
Time: 1152								
Method: Low Flow - Peristaltic	clear	5.00	0.442	14.93	1.22	0.00	0.2	175

PURGE DATA:

Date: 2-13-14	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method: Low Flow - Peristaltic								
Monitor Reading (ppm): --								
Well Casing Diameter & Material								
Type: 2" PVC								
Total Well Depth (TD): —		See low flow purge sheet for detail						
Static Water Level (WL): 9.07								
One Casing Volume(gal/L):								
Start Purge (hrs): 1050								
End Purge (hrs): 1152								
Total Purge Time (min): 62								
Total Vol. Purged (gal/L): 3½ gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC ~~(8260B)~~ (6200 B)	HCL	3 40-mL glass vials	yes
EDB (EPA 504)	Na2S2O3	3 40-mL glass vials	yes
TRPH MAVPH	HCL	3 40-mL glass vials	yes
TRPH MAEPH	H2SO4	2 1-L Amber Bottle	yes
Metals (no Hg) (SM 3030C)	HNO3	1 250-mL poly bottle	yes
SVOCs (EPA 625)	none	2 1-L Amber Bottle	yes
IRC	—	2 1-L Amber bottles	yes
PCBs	—	2 1-L Amber bottles	yes
Total Metals	HNO_3	1 250mL poly bottle	yes

OBSERVATIONS / NOTES:

1152
Sample Nomenclature 1932-AQIDW-20140213
Petroleum odor

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s):

LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: Camp Lejeune UST 1932
PROJECT NUMBER: 112IG06199

WELL ID.: 1932-MW-4
DATE: 2-13-14

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	S. Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	ORP mV	Salinity % or ppt	Comments
1050	9.07									
1055	9.21	300	5.65	0.502	—	0.00	14.13	136	0.2	clear
1100	9.30	300	5.11	0.463	4.26	0.00	14.62	155	0.2	clear
1105	9.30	300	5.06	0.459	3.57	0.00	14.71	160	0.2	clear
1110	9.30	300	5.03	0.450	2.31	0.00	14.81	165	0.2	clear 1 gal
1115	9.30	300	5.05	0.450	2.21	0.00	14.82	168	0.2	" "
1120	9.30	300	5.04	0.451	2.03	0.00	14.76	169	0.2	" "
1125	9.30	300	5.03	0.453	1.64	0.00	14.71	171	0.2	" "
1130	9.30	300	5.03	0.455	1.21	0.00	14.69	172	0.2	clear 2 1/2 gal
1135	9.30	300	5.02	0.449	1.53	0.00	14.74	173	0.2	clear
1140	9.30	300	5.01	0.444	1.41	0.00	14.85	173	0.2	clear
1145	9.30	300	5.00	0.442	1.21	0.00	14.87	174	0.2	clear
1150	9.30	300	5.00	0.442	1.22	0.00	14.93	175	0.2	clear 3 1/2 gal
1152	Collect	sample								

SIGNATURE(S):

PAGE 1 OF 1

APPENDIX L

GROUNDWATER ANALYTICAL REPORT

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Accutest Laboratories Southeast
Chain of Custody

ACCUTEST LABORATORIES

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 • FAX: 407-425-0707
www.accutest.com

Accutest JOB # FA12483

PAGE 1 OF 1

Accutest Quote #

SKIFF#

Client / Reporting Information

Company Name: Tetra Tech
Address: 17885 Von Karman Av Suite 500
City: Irvine State: CA Zip: 92614
Project Contact: Sabina Sidoko E-mail:
Phone#: 949-839-5022
Sampler(s) Name(s) (Printed): Jacob Birkett

Project Information

Project Name: UST 1932 MCB Camp Lejeune UST 1932
Street:
City: Jacksonville State: NC
Project #: 4659WE03
Fax #:
Client Purchase Order #: 1036773-20

Analytical Information

Accutest Sample #	Field ID / Point of Collection	Date	Time	Sampled By	Matrix	Total # of Bottles	Other	None	HCl	HNO3	H2SO4	NaOH/ZnAc	DI Water	MeOH	SM6200B w/ethanol TPE/BATRE	MADEP VPH	MADEP EPH	Lead (SM 3030C)	EPA 625 base/neutral/acids + EDB + 10 largest non-target peaks	IRC	PCBs	TAL Total Metals	EDB EPA 504			Matrix Codes / LAB USE ONLY
1	1932-MW-4	2-13-14	1152	JB	GW	19		8	6		2	2			3	3	2	1	2	02	04	10	3			
2	1932-TB01	2-13-14	1100	Lab	QC	2			2																	
	1932-AGIDW-20140213	2-13-14	1152	JB	GW	5		4			1									2	2	1			2	
																						2-13-14				

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL - Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe

TURNAROUND TIME (Business Days)

Approved By: / Rush Code

- [ ] 10 Days Standard
- [ ] 7 Day RUSH
- [x] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] OTHER

Emergency or Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [x] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULT1 (EPA LEVEL 4)
- [x] EDD'S

Comments / Remarks

FedEx Airbill #8047-3475-2722

Report IDW parameters seperately

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:
1 Jacob Birkett	2-13-14 1530	2 FedEx	3 FC 02-14-14	1015	4
Relinquished by: 5	Date Time:	Received By: 6	Relinquished by: 7	Date Time:	Received By: 8

Lab Use Only: Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved where Applicable: Y N Total # of Coolers: Cooler Temperature (s) Celsius: 2.0

Southeast ACCUTEST LABORATORIES

02/24/14

Technical Report for

Tetra Tech EC, Inc

WE03, Camp Lejuene, NC

4659WE03

Accutest Job Number: FA12483

Sampling Date: 02/13/14

Report to:

Tetra Tech EC, Inc
17885 Von Karman Ave Suite 500
Irvine, CA 92614
lisa.bienkowski@tetratech.com; sabina.sudoko@tetratech.com

ATTN: Lisa Bienkowski

Total number of pages in report: **65**

NELAP ACCREDITED TNI LABORATORY

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

Harry Behzadi, Ph.D.
Laboratory Director

Client Service contact: Andrea Colby 407-425-6700

Certifications: FL (E83510), LA (03051), KS (E-10327), IA (366), IL (200063), NC (573), NJ (FL002), SC (96038001) DoD ELAP (L-A-B L2229), CA (04226CA), TX (T104704404), PA (68-03573), VA (460177), AK, AR, GA, KY, MA, NV, OK, UT, WA

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Test results relate only to samples analyzed.

Accutest Laboratories is the sole authority for authorizing edits or modifications to this document. Unauthorized modification of this report is strictly prohibited.

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Accutest Laboratories

Sample Summary

Tetra Tech EC, Inc

Job No: FA12483

WE03, Camp Lejuene, NC
Project No: 4659WE03

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA12483-1	02/13/14	11:52	JB	02/14/14	AQ	Ground Water	1932-MW-4
FA12483-2	02/13/14	11:00	JB	02/14/14	AQ	Trip Blank Water	1932-TB01

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Tetra Tech EC, Inc **Job No:** FA12483

Site: WE03, Camp Lejuene, NC **Report Date** 2/24/2014 8:45:57 PM

1 Sample and 1 Trip Blank were collected on 02/13/2014 and were received at Accutest SE on 02/14/2014 properly preserved, at 2 Deg. C and intact. These Samples received an Accutest job number of FA12483. 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 GCMS By Method SM 6200B

Matrix: AQ **Batch ID:** VA1428

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) FA12393-4MS, FA12393-4MSD were used as the QC samples indicated.

Matrix Spike Recovery(s) for Acetone, Bromoform, Methyl ethyl ketone, Tert-Butyl Formate are outside control limits. Probable cause is due to matrix interference. For method performance in a clean matrix, refer to Blank Spike.

Matrix Spike Duplicate Recovery(s) for Bromoform, Methyl ethyl ketone, Tert-Butyl Alcohol, Tert-Butyl Formate are outside control limits. Probable cause is due to matrix interference. For method performance in a clean matrix, refer to Blank Spike.

Extractables by GCMS By Method EPA 625

Matrix: AQ **Batch ID:** OP50554

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) FA12584-1MS, FA12584-1MSD were used as the QC samples indicated.

Matrix Spike / Matrix Spike Duplicate Recovery(s) for 4,6-Dinitro-o-cresol, 4-Nitrophenol, Benzoic Acid, Di-n-octyl phthalate are outside control limits. Probable cause is due to matrix interference. For method performance in a clean matrix, refer to Blank Spike.

OP50554-MS: Dilution required due to matrix interference.

OP50554-MSD: Dilution required due to matrix interference.

Volatiles by GC By Method EPA 504.1

Matrix: AQ **Batch ID:** OP50494

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) FA12480-1MS, FA12480-1MSD were used as the QC samples indicated.

Volatiles by GC By Method MADEP VPH REV 1.1

Matrix: AQ **Batch ID:** GUV3349

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) FA12483-1DUP was used as the QC samples indicated.

Extractables by GC By Method MADEP EPH REV 1.1

Matrix: AQ **Batch ID:** OP50527

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) FA12480-1DUP was used as the QC samples indicated.

Metals By Method SW846 6010C

Matrix: AQ **Batch ID:** MP26820

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.

Sample(s) FA12483-1MS, FA12483-1MSD, FA12483-1PS, FA12483-1SDL, FA12483-1DUP were used as the QC samples for metals.

RPD(s) for Duplicate for Lead are outside control limits for sample MP26820-D1. RPD acceptable due to low duplicate and sample concentrations.

RPD(s) for Serial Dilution for Lead are outside control limits for sample MP26820-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

Accutest Laboratories Southeast (ALSE) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALSE and as stated on the COC. ALSE certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALSE Quality Manual except as noted above. This report is to be used in its entirety. ALSE is not responsible for any assumptions of data quality if partial data packages are used

Narrative prepared by:

_____ Date: February 24, 2014

Lovelie Metzgar, QA Officer (signature on file)

Summary of Hits

Job Number: FA12483
Account: Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC
Collected: 02/13/14

3

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FA12483-1	**1932-MW-4**					
n-Butylbenzene		2.9 J	5.0	2.0	ug/l	SM 6200B
Ethylbenzene		29.5	5.0	2.0	ug/l	SM 6200B
Isopropylbenzene		8.9	5.0	2.0	ug/l	SM 6200B
Naphthalene		43.9	5.0	2.0	ug/l	SM 6200B
n-Propylbenzene		32.9	5.0	2.0	ug/l	SM 6200B
1,2,4-Trimethylbenzene		283	5.0	2.0	ug/l	SM 6200B
1,3,5-Trimethylbenzene		74.3	5.0	2.0	ug/l	SM 6200B
Xylene (total)		105	15	6.0	ug/l	SM 6200B
m,p-Xylene		97.2	10	4.0	ug/l	SM 6200B
o-Xylene		7.9	5.0	2.0	ug/l	SM 6200B
1-Methylnaphthalene		10.2	4.8	0.96	ug/l	EPA 625
2-Methylnaphthalene		21.6	4.8	0.96	ug/l	EPA 625
Naphthalene		35.7	4.8	0.96	ug/l	EPA 625
Total TIC, Semi-Volatile		841 J		[a]	ug/l	
C5- C8 Aliphatics (Unadj.)		425	100	35 [a]	ug/l	MADEP VPH REV 1.1
C9- C12 Aliphatics (Unadj.)		288 J	500	180 [a]	ug/l	MADEP VPH REV 1.1
C9- C10 Aromatics (Unadj.)		1030	500	180 [a]	ug/l	MADEP VPH REV 1.1
C11-C22 Aromatics (Unadj.)		159 J	200	150 [a]	ug/l	MADEP EPH REV 1.1
C9-C18 Aliphatics		138 J	200	100 [a]	ug/l	MADEP EPH REV 1.1
Lead		4.0 J	5.0	2.0	ug/l	SW846 6010C
FA12483-2	**1932-TB01**					
Acetone		2.4 J	10	2.0	ug/l	SM 6200B
Toluene		0.30 J	0.50	0.20	ug/l	SM 6200B

(a) Value reported is laboratory DL (MDL).

Southeast ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	1932-MW-4		
Lab Sample ID:	FA12483-1	**Date Sampled:**	02/13/14
Matrix:	AQ - Ground Water	**Date Received:**	02/14/14
Method:	SM 6200B	**Percent Solids:**	n/a
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A0185677.D	10	02/17/14	TD	n/a	n/a	VA1428
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

VOA List for NC, May 2012

CAS No.	Compound	Result	LOQ	LOD	Units	Q
67-64-1	Acetone	20 U	100	20	ug/l	
71-43-2	Benzene	2.0 U	5.0	2.0	ug/l	
108-86-1	Bromobenzene	2.0 U	5.0	2.0	ug/l	
74-97-5	Bromochloromethane	2.0 U	5.0	2.0	ug/l	
75-27-4	Bromodichloromethane	2.0 U	5.0	2.0	ug/l	
75-25-2	Bromoform	2.0 U	5.0	2.0	ug/l	
104-51-8	n-Butylbenzene	2.9	5.0	2.0	ug/l	J
135-98-8	sec-Butylbenzene	2.0 U	5.0	2.0	ug/l	
98-06-6	tert-Butylbenzene	2.0 U	5.0	2.0	ug/l	
108-90-7	Chlorobenzene	2.0 U	5.0	2.0	ug/l	
75-00-3	Chloroethane	2.0 U	5.0	2.0	ug/l	
67-66-3	Chloroform	2.0 U	5.0	2.0	ug/l	
95-49-8	o-Chlorotoluene	2.0 U	5.0	2.0	ug/l	
106-43-4	p-Chlorotoluene	2.0 U	5.0	2.0	ug/l	
56-23-5	Carbon tetrachloride	2.0 U	5.0	2.0	ug/l	
75-34-3	1,1-Dichloroethane	2.0 U	5.0	2.0	ug/l	
75-35-4	1,1-Dichloroethylene	2.0 U	5.0	2.0	ug/l	
563-58-6	1,1-Dichloropropene	2.0 U	5.0	2.0	ug/l	
106-93-4	1,2-Dibromoethane	2.0 U	5.0	2.0	ug/l	
107-06-2	1,2-Dichloroethane	2.0 U	5.0	2.0	ug/l	
78-87-5	1,2-Dichloropropane	2.0 U	5.0	2.0	ug/l	
142-28-9	1,3-Dichloropropane	2.0 U	5.0	2.0	ug/l	
108-20-3	Di-Isopropyl ether	2.0 U	5.0	2.0	ug/l	
594-20-7	2,2-Dichloropropane	2.0 U	5.0	2.0	ug/l	
124-48-1	Dibromochloromethane	2.0 U	5.0	2.0	ug/l	
75-71-8	Dichlorodifluoromethane	2.0 U	5.0	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	2.0 U	5.0	2.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	2.0 U	5.0	2.0	ug/l	
541-73-1	m-Dichlorobenzene	2.0 U	5.0	2.0	ug/l	
95-50-1	o-Dichlorobenzene	2.0 U	5.0	2.0	ug/l	
106-46-7	p-Dichlorobenzene	2.0 U	5.0	2.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	2.0 U	5.0	2.0	ug/l	

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-MW-4		
Lab Sample ID:	FA12483-1	**Date Sampled:**	02/13/14
Matrix:	AQ - Ground Water	**Date Received:**	02/14/14
Method:	SM 6200B	**Percent Solids:**	n/a
Project:	WE03, Camp Lejuene, NC		

VOA List for NC, May 2012

CAS No.	Compound	Result	LOQ	LOD	Units	Q
10061-02-6	trans-1,3-Dichloropropene	2.0 U	5.0	2.0	ug/l	
100-41-4	Ethylbenzene	29.5	5.0	2.0	ug/l	
64-17-5	Ethyl Alcohol	500 U	1000	500	ug/l	
637-92-3	Ethyl Tert Butyl Ether	2.0 U	5.0	2.0	ug/l	
591-78-6	2-Hexanone	10 U	50	10	ug/l	
98-82-8	Isopropylbenzene	8.9	5.0	2.0	ug/l	
99-87-6	p-Isopropyltoluene	2.0 U	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	10 U	25	10	ug/l	
74-83-9	Methyl bromide	2.0 U	5.0	2.0	ug/l	
74-87-3	Methyl chloride	2.0 U	5.0	2.0	ug/l	
75-09-2	Methylene chloride	10 U	20	10	ug/l	
78-93-3	Methyl ethyl ketone	10 U	25	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	2.0 U	5.0	2.0	ug/l	
91-20-3	Naphthalene	43.9	5.0	2.0	ug/l	
103-65-1	n-Propylbenzene	32.9	5.0	2.0	ug/l	
100-42-5	Styrene	2.0 U	5.0	2.0	ug/l	
75-85-4	Tert-Amyl Alcohol	50 U	100	50	ug/l	
994-05-8	Tert-Amyl Methyl Ether	5.0 U	10	5.0	ug/l	
75-65-0	Tert-Butyl Alcohol	50 U	100	50	ug/l	
762-75-4	Tert-Butyl Formate	50 U	100	50	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	2.0 U	5.0	2.0	ug/l	
71-55-6	1,1,1-Trichloroethane	2.0 U	5.0	2.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	2.0 U	5.0	2.0	ug/l	
79-00-5	1,1,2-Trichloroethane	2.0 U	5.0	2.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	2.0 U	5.0	2.0	ug/l	
96-18-4	1,2,3-Trichloropropane	2.0 U	5.0	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	2.0 U	5.0	2.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	283	5.0	2.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	74.3	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	2.0 U	5.0	2.0	ug/l	
108-88-3	Toluene	2.0 U	5.0	2.0	ug/l	
79-01-6	Trichloroethylene	2.0 U	5.0	2.0	ug/l	
75-69-4	Trichlorofluoromethane	2.0 U	5.0	2.0	ug/l	
75-01-4	Vinyl chloride	2.0 U	5.0	2.0	ug/l	
108-05-4	Vinyl Acetate	10 U	50	10	ug/l	
1330-20-7	Xylene (total)	105	15	6.0	ug/l	
	m,p-Xylene	97.2	10	4.0	ug/l	
95-47-6	o-Xylene	7.9	5.0	2.0	ug/l	

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B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	1932-MW-4		
Lab Sample ID:	FA12483-1	**Date Sampled:**	02/13/14
Matrix:	AQ - Ground Water	**Date Received:**	02/14/14
Method:	SM 6200B	**Percent Solids:**	n/a
Project:	WE03, Camp Lejuene, NC		

VOA List for NC, May 2012

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		70-130%
17060-07-0	1,2-Dichloroethane-D4	97%		70-130%
2037-26-5	Toluene-D8	99%		70-130%
460-00-4	4-Bromofluorobenzene	100%		70-130%

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N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	1932-MW-4		
Lab Sample ID:	FA12483-1	**Date Sampled:**	02/13/14
Matrix:	AQ - Ground Water	**Date Received:**	02/14/14
Method:	EPA 625 EPA 625	**Percent Solids:**	n/a
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	T011670.D	1	02/21/14	FS	02/20/14	OP50554	ST554
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

ABN List for NC, May 2012

CAS No.	Compound	Result	LOQ	LOD	Units	Q
65-85-0	Benzoic Acid	24 U	48	24	ug/l	
95-57-8	2-Chlorophenol	0.96 U	4.8	0.96	ug/l	
59-50-7	4-Chloro-3-methyl phenol	0.96 U	4.8	0.96	ug/l	
120-83-2	2,4-Dichlorophenol	0.96 U	4.8	0.96	ug/l	
105-67-9	2,4-Dimethylphenol	1.9 U	4.8	1.9	ug/l	
51-28-5	2,4-Dinitrophenol	19 U	24	19	ug/l	
534-52-1	4,6-Dinitro-o-cresol	3.8 U	9.6	3.8	ug/l	
95-48-7	2-Methylphenol	0.96 U	4.8	0.96	ug/l	
	3&4-Methylphenol	1.9 U	4.8	1.9	ug/l	
88-75-5	2-Nitrophenol	0.96 U	4.8	0.96	ug/l	
100-02-7	4-Nitrophenol	9.6 U	24	9.6	ug/l	
87-86-5	Pentachlorophenol	9.6 U	24	9.6	ug/l	
108-95-2	Phenol	1.9 U	4.8	1.9	ug/l	
88-06-2	2,4,6-Trichlorophenol	1.9 U	4.8	1.9	ug/l	
83-32-9	Acenaphthene	0.96 U	4.8	0.96	ug/l	
208-96-8	Acenaphthylene	0.96 U	4.8	0.96	ug/l	
120-12-7	Anthracene	0.96 U	4.8	0.96	ug/l	
56-55-3	Benzo(a)anthracene	0.96 U	4.8	0.96	ug/l	
50-32-8	Benzo(a)pyrene	0.96 U	4.8	0.96	ug/l	
205-99-2	Benzo(b)fluoranthene	0.96 U	4.8	0.96	ug/l	
191-24-2	Benzo(g,h,i)perylene	0.96 U	4.8	0.96	ug/l	
207-08-9	Benzo(k)fluoranthene	0.96 U	4.8	0.96	ug/l	
101-55-3	4-Bromophenyl phenyl ether	0.96 U	4.8	0.96	ug/l	
85-68-7	Butyl benzyl phthalate	1.9 U	4.8	1.9	ug/l	
100-51-6	Benzyl Alcohol	1.9 U	4.8	1.9	ug/l	
91-58-7	2-Chloronaphthalene	0.96 U	4.8	0.96	ug/l	
106-47-8	4-Chloroaniline	0.96 U	4.8	0.96	ug/l	
218-01-9	Chrysene	0.96 U	4.8	0.96	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	0.96 U	4.8	0.96	ug/l	
111-44-4	bis(2-Chloroethyl)ether	0.96 U	4.8	0.96	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	0.96 U	4.8	0.96	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	0.96 U	4.8	0.96	ug/l	

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Report of Analysis

Client Sample ID:	1932-MW-4		
Lab Sample ID:	FA12483-1	**Date Sampled:**	02/13/14
Matrix:	AQ - Ground Water	**Date Received:**	02/14/14
Method:	EPA 625 EPA 625	**Percent Solids:**	n/a
Project:	WE03, Camp Lejuene, NC		

ABN List for NC, May 2012

CAS No.	Compound	Result	LOQ	LOD	Units	Q
95-50-1	1,2-Dichlorobenzene	1.9 U	4.8	1.9	ug/l	
122-66-7	1,2-Diphenylhydrazine	0.96 U	4.8	0.96	ug/l	
541-73-1	1,3-Dichlorobenzene	1.9 U	4.8	1.9	ug/l	
106-46-7	1,4-Dichlorobenzene	1.9 U	4.8	1.9	ug/l	
91-94-1	3,3'-Dichlorobenzidine	1.9 U	4.8	1.9	ug/l	
53-70-3	Dibenzo(a,h)anthracene	0.96 U	4.8	0.96	ug/l	
132-64-9	Dibenzofuran	0.96 U	4.8	0.96	ug/l	
84-74-2	Di-n-butyl phthalate	1.9 U	4.8	1.9	ug/l	
117-84-0	Di-n-octyl phthalate	1.9 U	4.8	1.9	ug/l	
84-66-2	Diethyl phthalate	1.9 U	4.8	1.9	ug/l	
131-11-3	Dimethyl phthalate	0.96 U	4.8	0.96	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	1.9 U	4.8	1.9	ug/l	
206-44-0	Fluoranthene	0.96 U	4.8	0.96	ug/l	
86-73-7	Fluorene	0.96 U	4.8	0.96	ug/l	
118-74-1	Hexachlorobenzene	0.96 U	4.8	0.96	ug/l	
87-68-3	Hexachlorobutadiene	0.96 U	4.8	0.96	ug/l	
77-47-4	Hexachlorocyclopentadiene	1.9 U	4.8	1.9	ug/l	
67-72-1	Hexachloroethane	1.9 U	4.8	1.9	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	0.96 U	4.8	0.96	ug/l	
78-59-1	Isophorone	0.96 U	4.8	0.96	ug/l	
90-12-0	1-Methylnaphthalene	10.2	4.8	0.96	ug/l	
91-57-6	2-Methylnaphthalene	21.6	4.8	0.96	ug/l	
91-20-3	Naphthalene	35.7	4.8	0.96	ug/l	
98-95-3	Nitrobenzene	0.96 U	4.8	0.96	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	0.96 U	4.8	0.96	ug/l	
86-30-6	N-Nitrosodiphenylamine	1.9 U	4.8	1.9	ug/l	
85-01-8	Phenanthrene	0.96 U	4.8	0.96	ug/l	
129-00-0	Pyrene	0.96 U	4.8	0.96	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.96 U	4.8	0.96	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	39%		14-67%
4165-62-2	Phenol-d5	23%		10-50%
118-79-6	2,4,6-Tribromophenol	86%		33-118%
4165-60-0	Nitrobenzene-d5	78%		42-108%
321-60-8	2-Fluorobiphenyl	79%		40-106%
1718-51-0	Terphenyl-d14	96%		39-121%

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N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	1932-MW-4		
Lab Sample ID:	FA12483-1	**Date Sampled:**	02/13/14
Matrix:	AQ - Ground Water	**Date Received:**	02/14/14
Method:	EPA 625 EPA 625	**Percent Solids:**	n/a
Project:	WE03, Camp Lejuene, NC		

ABN List for NC, May 2012

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
103-65-1	Benzene, propyl-	4.93	30	ug/l	JN
611-14-3	Benzene, 1-ethyl-2-methyl-	4.98	200	ug/l	JN
108-67-8	Benzene, 1,3,5-trimethyl-	5.11	65	ug/l	JN
526-73-8	Benzene, 1,2,3-trimethyl-	5.21	290	ug/l	JN
95-63-6	Benzene, 1,2,4-trimethyl-	5.41	77	ug/l	JN
	alkane	5.51	40	ug/l	J
1074-43-7	Benzene, 1-methyl-3-propyl-	5.57	30	ug/l	JN
934-74-7	Benzene, 1-ethyl-3,5-dimethyl-	5.61	37	ug/l	JN
934-80-5	Benzene, 4-ethyl-1,2-dimethyl-	5.75	38	ug/l	JN
768-49-0	Benzene, (2-methyl-1-propenyl)-	6.28	34	ug/l	JN
	Total TIC, Semi-Volatile		841	ug/l	J

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E = Indicates value exceeds calibration 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:	1932-MW-4		
Lab Sample ID:	FA12483-1	**Date Sampled:**	02/13/14
Matrix:	AQ - Ground Water	**Date Received:**	02/14/14
Method:	EPA 504.1 EPA 504.1	**Percent Solids:**	n/a
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	DD74187.D	1	02/17/14	NG	02/17/14	OP50494	GDD2224
Run #2							

	Initial Volume	Final Volume
Run #1	36.2 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
106-93-4	1,2-Dibromoethane	0.0097 U	0.019	0.0097	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	107%		63-137%

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B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	1932-MW-4		
Lab Sample ID:	FA12483-1	**Date Sampled:**	02/13/14
Matrix:	AQ - Ground Water	**Date Received:**	02/14/14
Method:	MADEP VPH REV 1.1	**Percent Solids:**	n/a
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	UV062878.D	1	02/19/14	MM	n/a	n/a	GUV3349
Run #2	UV062880.D	5	02/19/14	MM	n/a	n/a	GUV3349

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

MADEP VPH List

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	C5- C8 Aliphatics (Unadj.)	425	100	35 [a]	ug/l	
	C9- C12 Aliphatics (Unadj.)	288 [b]	500	180 [a]	ug/l	J
	C9- C10 Aromatics (Unadj.)	1030 [b]	500	180 [a]	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	BFB	119%	113%	70-130%
460-00-4	BFB	119%	113%	70-130%

(a) Value reported is laboratory DL (MDL).
(b) Result is from Run# 2

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-MW-4		
Lab Sample ID:	FA12483-1	**Date Sampled:**	02/13/14
Matrix:	AQ - Ground Water	**Date Received:**	02/14/14
Method:	MADEP EPH REV 1.1 SW846 3510C	**Percent Solids:**	n/a
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	NN007744.D	1	02/21/14	NAF	02/19/14	OP50527	GNN338
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	2.0 ml
Run #2		

MAEPH List

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	C11-C22 Aromatics (Unadj.)	159	200	150 [a]	ug/l	J
	C9-C18 Aliphatics	138	200	100 [a]	ug/l	J
	C19-C36 Aliphatics	100 U	200	100 [a]	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
3386-33-2	1-Chlorooctadecane	63%		40-140%
580-13-2	2-Bromonaphthalene	98%		40-140%
84-15-1	o-Terphenyl	72%		40-140%
321-60-8	2-Fluorobiphenyl	89%		40-140%

(a) Value reported is laboratory DL (MDL).

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-MW-4		
Lab Sample ID:	FA12483-1	**Date Sampled:**	02/13/14
Matrix:	AQ - Ground Water	**Date Received:**	02/14/14
		Percent Solids:	n/a
Project:	WE03, Camp Lejuene, NC		

Total Metals Analysis

Analyte	Result	LOQ	LOD	Units	DF	Prep	Analyzed	By	Method	Prep Method
Lead	4.0 J	5.0	2.0	ug/l	1	02/14/14	02/14/14	LM	SW846 6010C [1]	SM 3030C [2]

(1) Instrument QC Batch: MA11397
(2) Prep QC Batch: MP26820

LOQ = Limit of Quantitation
LOD = Limit of Detection

U = Indicates a result < LOD
J = Indicates a result > = LOD but < LOQ

Report of Analysis

Client Sample ID:	1932-TB01		
Lab Sample ID:	FA12483-2	**Date Sampled:**	02/13/14
Matrix:	AQ - Trip Blank Water	**Date Received:**	02/14/14
Method:	SM 6200B	**Percent Solids:**	n/a
Project:	WE03, Camp Lejuene, NC		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A0185665.D	1	02/17/14	TD	n/a	n/a	VA1428
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

VOA List for NC, May 2012

CAS No.	Compound	Result	LOQ	LOD	Units	Q
67-64-1	Acetone	2.4	10	2.0	ug/l	J
71-43-2	Benzene	0.20 U	0.50	0.20	ug/l	
108-86-1	Bromobenzene	0.20 U	0.50	0.20	ug/l	
74-97-5	Bromochloromethane	0.20 U	0.50	0.20	ug/l	
75-27-4	Bromodichloromethane	0.20 U	0.50	0.20	ug/l	
75-25-2	Bromoform	0.20 U	0.50	0.20	ug/l	
104-51-8	n-Butylbenzene	0.20 U	0.50	0.20	ug/l	
135-98-8	sec-Butylbenzene	0.20 U	0.50	0.20	ug/l	
98-06-6	tert-Butylbenzene	0.20 U	0.50	0.20	ug/l	
108-90-7	Chlorobenzene	0.20 U	0.50	0.20	ug/l	
75-00-3	Chloroethane	0.20 U	0.50	0.20	ug/l	
67-66-3	Chloroform	0.20 U	0.50	0.20	ug/l	
95-49-8	o-Chlorotoluene	0.20 U	0.50	0.20	ug/l	
106-43-4	p-Chlorotoluene	0.20 U	0.50	0.20	ug/l	
56-23-5	Carbon tetrachloride	0.20 U	0.50	0.20	ug/l	
75-34-3	1,1-Dichloroethane	0.20 U	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethylene	0.20 U	0.50	0.20	ug/l	
563-58-6	1,1-Dichloropropene	0.20 U	0.50	0.20	ug/l	
106-93-4	1,2-Dibromoethane	0.20 U	0.50	0.20	ug/l	
107-06-2	1,2-Dichloroethane	0.20 U	0.50	0.20	ug/l	
78-87-5	1,2-Dichloropropane	0.20 U	0.50	0.20	ug/l	
142-28-9	1,3-Dichloropropane	0.20 U	0.50	0.20	ug/l	
108-20-3	Di-Isopropyl ether	0.20 U	0.50	0.20	ug/l	
594-20-7	2,2-Dichloropropane	0.20 U	0.50	0.20	ug/l	
124-48-1	Dibromochloromethane	0.20 U	0.50	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	0.20 U	0.50	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.20 U	0.50	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.20 U	0.50	0.20	ug/l	
541-73-1	m-Dichlorobenzene	0.20 U	0.50	0.20	ug/l	
95-50-1	o-Dichlorobenzene	0.20 U	0.50	0.20	ug/l	
106-46-7	p-Dichlorobenzene	0.20 U	0.50	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	0.20 U	0.50	0.20	ug/l	

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-TB01		
Lab Sample ID:	FA12483-2	**Date Sampled:**	02/13/14
Matrix:	AQ - Trip Blank Water	**Date Received:**	02/14/14
Method:	SM 6200B	**Percent Solids:**	n/a
Project:	WE03, Camp Lejuene, NC		

VOA List for NC, May 2012

CAS No.	Compound	Result	LOQ	LOD	Units	Q
10061-02-6	trans-1,3-Dichloropropene	0.20 U	0.50	0.20	ug/l	
100-41-4	Ethylbenzene	0.20 U	0.50	0.20	ug/l	
64-17-5	Ethyl Alcohol	50 U	100	50	ug/l	
637-92-3	Ethyl Tert Butyl Ether	0.20 U	0.50	0.20	ug/l	
591-78-6	2-Hexanone	1.0 U	5.0	1.0	ug/l	
98-82-8	Isopropylbenzene	0.20 U	0.50	0.20	ug/l	
99-87-6	p-Isopropyltoluene	0.20 U	0.50	0.20	ug/l	
108-10-1	4-Methyl-2-pentanone	1.0 U	2.5	1.0	ug/l	
74-83-9	Methyl bromide	0.20 U	0.50	0.20	ug/l	
74-87-3	Methyl chloride	0.20 U	0.50	0.20	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	ug/l	
78-93-3	Methyl ethyl ketone	1.0 U	2.5	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.20 U	0.50	0.20	ug/l	
91-20-3	Naphthalene	0.20 U	0.50	0.20	ug/l	
103-65-1	n-Propylbenzene	0.20 U	0.50	0.20	ug/l	
100-42-5	Styrene	0.20 U	0.50	0.20	ug/l	
75-85-4	Tert-Amyl Alcohol	5.0 U	10	5.0	ug/l	
994-05-8	Tert-Amyl Methyl Ether	0.50 U	1.0	0.50	ug/l	
75-65-0	Tert-Butyl Alcohol	5.0 U	10	5.0	ug/l	
762-75-4	Tert-Butyl Formate	5.0 U	10	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	0.20 U	0.50	0.20	ug/l	
71-55-6	1,1,1-Trichloroethane	0.20 U	0.50	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.20 U	0.50	0.20	ug/l	
79-00-5	1,1,2-Trichloroethane	0.20 U	0.50	0.20	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.20 U	0.50	0.20	ug/l	
96-18-4	1,2,3-Trichloropropane	0.20 U	0.50	0.20	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.20 U	0.50	0.20	ug/l	
95-63-6	1,2,4-Trimethylbenzene	0.20 U	0.50	0.20	ug/l	
108-67-8	1,3,5-Trimethylbenzene	0.20 U	0.50	0.20	ug/l	
127-18-4	Tetrachloroethylene	0.20 U	0.50	0.20	ug/l	
108-88-3	Toluene	0.30	0.50	0.20	ug/l	J
79-01-6	Trichloroethylene	0.20 U	0.50	0.20	ug/l	
75-69-4	Trichlorofluoromethane	0.20 U	0.50	0.20	ug/l	
75-01-4	Vinyl chloride	0.20 U	0.50	0.20	ug/l	
108-05-4	Vinyl Acetate	1.0 U	5.0	1.0	ug/l	
1330-20-7	Xylene (total)	0.60 U	1.5	0.60	ug/l	
	m,p-Xylene	0.40 U	1.0	0.40	ug/l	
95-47-6	o-Xylene	0.20 U	0.50	0.20	ug/l	

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration 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:	1932-TB01		
Lab Sample ID:	FA12483-2	**Date Sampled:**	02/13/14
Matrix:	AQ - Trip Blank Water	**Date Received:**	02/14/14
Method:	SM 6200B	**Percent Solids:**	n/a
Project:	WE03, Camp Lejuene, NC		

VOA List for NC, May 2012

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		70-130%
17060-07-0	1,2-Dichloroethane-D4	98%		70-130%
2037-26-5	Toluene-D8	99%		70-130%
460-00-4	4-Bromofluorobenzene	101%		70-130%

U = Not detected LOD - Limit of Detection
LOQ = Limit of Quantitation
E = Indicates value exceeds calibration range

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

Southeast ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions (DOD)
- Chain of Custody

Parameter Certification Exceptions

Job Number: FA12483
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

The following parameters included in this report are exceptions to DOD certification.
The certification status of each is indicated below.

Parameter	CAS#	Method	Mat	Certification Status
Acetone	67-64-1	SM 6200B	AQ	Accutest is not certified for this parameter.
Benzene	71-43-2	SM 6200B	AQ	Accutest is not certified for this parameter.
Bromobenzene	108-86-1	SM 6200B	AQ	Accutest is not certified for this parameter.
Bromochloromethane	74-97-5	SM 6200B	AQ	Accutest is not certified for this parameter.
Bromodichloromethane	75-27-4	SM 6200B	AQ	Accutest is not certified for this parameter.
Bromoform	75-25-2	SM 6200B	AQ	Accutest is not certified for this parameter.
n-Butylbenzene	104-51-8	SM 6200B	AQ	Accutest is not certified for this parameter.
sec-Butylbenzene	135-98-8	SM 6200B	AQ	Accutest is not certified for this parameter.
tert-Butylbenzene	98-06-6	SM 6200B	AQ	Accutest is not certified for this parameter.
Carbon tetrachloride	56-23-5	SM 6200B	AQ	Accutest is not certified for this parameter.
Chlorobenzene	108-90-7	SM 6200B	AQ	Accutest is not certified for this parameter.
Chloroethane	75-00-3	SM 6200B	AQ	Accutest is not certified for this parameter.
Chloroform	67-66-3	SM 6200B	AQ	Accutest is not certified for this parameter.
o-Chlorotoluene	95-49-8	SM 6200B	AQ	Accutest is not certified for this parameter.
p-Chlorotoluene	106-43-4	SM 6200B	AQ	Accutest is not certified for this parameter.
1,1-Dichloroethane	75-34-3	SM 6200B	AQ	Accutest is not certified for this parameter.
1,1-Dichloroethylene	75-35-4	SM 6200B	AQ	Accutest is not certified for this parameter.
1,1-Dichloropropene	563-58-6	SM 6200B	AQ	Accutest is not certified for this parameter.
1,2-Dibromoethane	106-93-4	SM 6200B	AQ	Accutest is not certified for this parameter.
1,2-Dichloroethane	107-06-2	SM 6200B	AQ	Accutest is not certified for this parameter.
1,2-Dichloropropane	78-87-5	SM 6200B	AQ	Accutest is not certified for this parameter.
1,3-Dichloropropane	142-28-9	SM 6200B	AQ	Accutest is not certified for this parameter.
2,2-Dichloropropane	594-20-7	SM 6200B	AQ	Accutest is not certified for this parameter.
Di-Isopropyl ether	108-20-3	SM 6200B	AQ	Accutest is not certified for this parameter.
Dibromochloromethane	124-48-1	SM 6200B	AQ	Accutest is not certified for this parameter.
Dichlorodifluoromethane	75-71-8	SM 6200B	AQ	Accutest is not certified for this parameter.
cis-1,2-Dichloroethylene	156-59-2	SM 6200B	AQ	Accutest is not certified for this parameter.
cis-1,3-Dichloropropene	10061-01-5	SM 6200B	AQ	Accutest is not certified for this parameter.
m-Dichlorobenzene	541-73-1	SM 6200B	AQ	Accutest is not certified for this parameter.
o-Dichlorobenzene	95-50-1	SM 6200B	AQ	Accutest is not certified for this parameter.
p-Dichlorobenzene	106-46-7	SM 6200B	AQ	Accutest is not certified for this parameter.
trans-1,2-Dichloroethylene	156-60-5	SM 6200B	AQ	Accutest is not certified for this parameter.
trans-1,3-Dichloropropene	10061-02-6	SM 6200B	AQ	Accutest is not certified for this parameter.
Ethyl Alcohol	64-17-5	SM 6200B	AQ	Accutest is not certified for this parameter.
Ethyl Tert Butyl Ether	637-92-3	SM 6200B	AQ	Accutest is not certified for this parameter.
Ethylbenzene	100-41-4	SM 6200B	AQ	Accutest is not certified for this parameter.
2-Hexanone	591-78-6	SM 6200B	AQ	Accutest is not certified for this parameter.
Isopropylbenzene	98-82-8	SM 6200B	AQ	Accutest is not certified for this parameter.
p-Isopropyltoluene	99-87-6	SM 6200B	AQ	Accutest is not certified for this parameter.
4-Methyl-2-pentanone	108-10-1	SM 6200B	AQ	Accutest is not certified for this parameter.
Methyl Tert Butyl Ether	1634-04-4	SM 6200B	AQ	Accutest is not certified for this parameter.
Methyl bromide	74-83-9	SM 6200B	AQ	Accutest is not certified for this parameter.

Parameter Certification Exceptions

Job Number: FA12483
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

The following parameters included in this report are exceptions to DOD certification.
The certification status of each is indicated below.

Parameter	CAS#	Method	Mat	Certification Status
Methyl chloride	74-87-3	SM 6200B	AQ	Accutest is not certified for this parameter.
Methyl ethyl ketone	78-93-3	SM 6200B	AQ	Accutest is not certified for this parameter.
Methylene chloride	75-09-2	SM 6200B	AQ	Accutest is not certified for this parameter.
Naphthalene	91-20-3	SM 6200B	AQ	Accutest is not certified for this parameter.
n-Propylbenzene	103-65-1	SM 6200B	AQ	Accutest is not certified for this parameter.
Styrene	100-42-5	SM 6200B	AQ	Accutest is not certified for this parameter.
1,1,1,2-Tetrachloroethane	630-20-6	SM 6200B	AQ	Accutest is not certified for this parameter.
1,1,1-Trichloroethane	71-55-6	SM 6200B	AQ	Accutest is not certified for this parameter.
1,1,2,2-Tetrachloroethane	79-34-5	SM 6200B	AQ	Accutest is not certified for this parameter.
1,1,2-Trichloroethane	79-00-5	SM 6200B	AQ	Accutest is not certified for this parameter.
1,2,3-Trichlorobenzene	87-61-6	SM 6200B	AQ	Accutest is not certified for this parameter.
1,2,3-Trichloropropane	96-18-4	SM 6200B	AQ	Accutest is not certified for this parameter.
1,2,4-Trichlorobenzene	120-82-1	SM 6200B	AQ	Accutest is not certified for this parameter.
1,2,4-Trimethylbenzene	95-63-6	SM 6200B	AQ	Accutest is not certified for this parameter.
1,3,5-Trimethylbenzene	108-67-8	SM 6200B	AQ	Accutest is not certified for this parameter.
Tert-Amyl Alcohol	75-85-4	SM 6200B	AQ	Accutest is not certified for this parameter.
Tert-Amyl Methyl Ether	994-05-8	SM 6200B	AQ	Accutest is not certified for this parameter.
Tert-Butyl Alcohol	75-65-0	SM 6200B	AQ	Accutest is not certified for this parameter.
Tert-Butyl Formate	762-75-4	SM 6200B	AQ	Accutest is not certified for this parameter.
Tetrachloroethylene	127-18-4	SM 6200B	AQ	Accutest is not certified for this parameter.
Toluene	108-88-3	SM 6200B	AQ	Accutest is not certified for this parameter.
Trichloroethylene	79-01-6	SM 6200B	AQ	Accutest is not certified for this parameter.
Trichlorofluoromethane	75-69-4	SM 6200B	AQ	Accutest is not certified for this parameter.
Vinyl Acetate	108-05-4	SM 6200B	AQ	Accutest is not certified for this parameter.
Vinyl chloride	75-01-4	SM 6200B	AQ	Accutest is not certified for this parameter.
Xylene (total)	1330-20-7	SM 6200B	AQ	Accutest is not certified for this parameter.
m,p-Xylene		SM 6200B	AQ	Accutest is not certified for this parameter.
o-Xylene	95-47-6	SM 6200B	AQ	Accutest is not certified for this parameter.
Acenaphthene	83-32-9	EPA 625	AQ	Accutest is not certified for this parameter.
Acenaphthylene	208-96-8	EPA 625	AQ	Accutest is not certified for this parameter.
Anthracene	120-12-7	EPA 625	AQ	Accutest is not certified for this parameter.
4-Bromophenyl phenyl ether	101-55-3	EPA 625	AQ	Accutest is not certified for this parameter.
Benzo(a)anthracene	56-55-3	EPA 625	AQ	Accutest is not certified for this parameter.
Benzo(a)pyrene	50-32-8	EPA 625	AQ	Accutest is not certified for this parameter.
Benzo(b)fluoranthene	205-99-2	EPA 625	AQ	Accutest is not certified for this parameter.
Benzo(g,h,i)perylene	191-24-2	EPA 625	AQ	Accutest is not certified for this parameter.
Benzo(k)fluoranthene	207-08-9	EPA 625	AQ	Accutest is not certified for this parameter.
Benzoic Acid	65-85-0	EPA 625	AQ	Accutest is not certified for this parameter.
Benzyl Alcohol	100-51-6	EPA 625	AQ	Accutest is not certified for this parameter.
Butyl benzyl phthalate	85-68-7	EPA 625	AQ	Accutest is not certified for this parameter.
2-Chloronaphthalene	91-58-7	EPA 625	AQ	Accutest is not certified for this parameter.
2-Chlorophenol	95-57-8	EPA 625	AQ	Accutest is not certified for this parameter.

Parameter Certification Exceptions

Job Number: FA12483
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

The following parameters included in this report are exceptions to DOD certification.
The certification status of each is indicated below.

Parameter	CAS#	Method	Mat	Certification Status
4-Chloro-3-methyl phenol	59-50-7	EPA 625	AQ	Accutest is not certified for this parameter.
4-Chloroaniline	106-47-8	EPA 625	AQ	Accutest is not certified for this parameter.
4-Chlorophenyl phenyl ether	7005-72-3	EPA 625	AQ	Accutest is not certified for this parameter.
Chrysene	218-01-9	EPA 625	AQ	Accutest is not certified for this parameter.
bis(2-Chloroethoxy)methane	111-91-1	EPA 625	AQ	Accutest is not certified for this parameter.
bis(2-Chloroethyl)ether	111-44-4	EPA 625	AQ	Accutest is not certified for this parameter.
bis(2-Chloroisopropyl)ether	108-60-1	EPA 625	AQ	Accutest is not certified for this parameter.
1,2-Dichlorobenzene	95-50-1	EPA 625	AQ	Accutest is not certified for this parameter.
1,2-Diphenylhydrazine	122-66-7	EPA 625	AQ	Accutest is not certified for this parameter.
1,3-Dichlorobenzene	541-73-1	EPA 625	AQ	Accutest is not certified for this parameter.
1,4-Dichlorobenzene	106-46-7	EPA 625	AQ	Accutest is not certified for this parameter.
2,4-Dichlorophenol	120-83-2	EPA 625	AQ	Accutest is not certified for this parameter.
2,4-Dimethylphenol	105-67-9	EPA 625	AQ	Accutest is not certified for this parameter.
2,4-Dinitrophenol	51-28-5	EPA 625	AQ	Accutest is not certified for this parameter.
3,3'-Dichlorobenzidine	91-94-1	EPA 625	AQ	Accutest is not certified for this parameter.
4,6-Dinitro-o-cresol	534-52-1	EPA 625	AQ	Accutest is not certified for this parameter.
Di-n-butyl phthalate	84-74-2	EPA 625	AQ	Accutest is not certified for this parameter.
Di-n-octyl phthalate	117-84-0	EPA 625	AQ	Accutest is not certified for this parameter.
Dibenzo(a,h)anthracene	53-70-3	EPA 625	AQ	Accutest is not certified for this parameter.
Dibenzofuran	132-64-9	EPA 625	AQ	Accutest is not certified for this parameter.
Diethyl phthalate	84-66-2	EPA 625	AQ	Accutest is not certified for this parameter.
Dimethyl phthalate	131-11-3	EPA 625	AQ	Accutest is not certified for this parameter.
bis(2-Ethylhexyl)phthalate	117-81-7	EPA 625	AQ	Accutest is not certified for this parameter.
Fluoranthene	206-44-0	EPA 625	AQ	Accutest is not certified for this parameter.
Fluorene	86-73-7	EPA 625	AQ	Accutest is not certified for this parameter.
Hexachlorobenzene	118-74-1	EPA 625	AQ	Accutest is not certified for this parameter.
Hexachlorobutadiene	87-68-3	EPA 625	AQ	Accutest is not certified for this parameter.
Hexachlorocyclopentadiene	77-47-4	EPA 625	AQ	Accutest is not certified for this parameter.
Hexachloroethane	67-72-1	EPA 625	AQ	Accutest is not certified for this parameter.
Indeno(1,2,3-cd)pyrene	193-39-5	EPA 625	AQ	Accutest is not certified for this parameter.
Isophorone	78-59-1	EPA 625	AQ	Accutest is not certified for this parameter.
1-Methylnaphthalene	90-12-0	EPA 625	AQ	Accutest is not certified for this parameter.
2-Methylnaphthalene	91-57-6	EPA 625	AQ	Accutest is not certified for this parameter.
2-Methylphenol	95-48-7	EPA 625	AQ	Accutest is not certified for this parameter.
3&4-Methylphenol		EPA 625	AQ	Accutest is not certified for this parameter.
2-Nitrophenol	88-75-5	EPA 625	AQ	Accutest is not certified for this parameter.
4-Nitrophenol	100-02-7	EPA 625	AQ	Accutest is not certified for this parameter.
N-Nitroso-di-n-propylamine	621-64-7	EPA 625	AQ	Accutest is not certified for this parameter.
N-Nitrosodiphenylamine	86-30-6	EPA 625	AQ	Accutest is not certified for this parameter.
Naphthalene	91-20-3	EPA 625	AQ	Accutest is not certified for this parameter.
Nitrobenzene	98-95-3	EPA 625	AQ	Accutest is not certified for this parameter.
Pentachlorophenol	87-86-5	EPA 625	AQ	Accutest is not certified for this parameter.

Parameter Certification Exceptions

Job Number: FA12483
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

The following parameters included in this report are exceptions to DOD certification.
The certification status of each is indicated below.

Parameter	CAS#	Method	Mat	Certification Status
Phenanthrene	85-01-8	**EPA 625**	AQ	Accutest is not certified for this parameter.
Phenol	108-95-2	**EPA 625**	AQ	Accutest is not certified for this parameter.
Pyrene	129-00-0	**EPA 625**	AQ	Accutest is not certified for this parameter.
1,2,4-Trichlorobenzene	120-82-1	**EPA 625**	AQ	Accutest is not certified for this parameter.
2,4,6-Trichlorophenol	88-06-2	**EPA 625**	AQ	Accutest is not certified for this parameter.
1,2-Dibromoethane	106-93-4	**EPA 504.1**	AQ	Accutest is not certified for this parameter.

Accutest Laboratories Southeast
Chain of Custody

ACCUTEST LABORATORIES

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 • FAX: 407-425-0707
www.accutest.com

Accutest JOB # FA12483

PAGE 1 OF 1

Accutest Quote #

SKIFF#

Client / Reporting Information

Company Name: Tetra Tech
Address: 15375 Von Karman Av Suite 500
City: Irvine State: CA Zip: 92614
Project Contact: Sabina Sidoko E-mail:
Phone#: 949-839-5022
Sampler(s) Name(s) (Printed): Jacob Birkett

Project Information

Project Name: UST 1932 MCB Camp Lejeune UST 1932
Street:
City: Jacksonville State: NC
Project #: 4659WE03
Fax #:
Client Purchase Order #: 1636773-20

Analytical Information

Accutest Sample #	Field ID / Point of Collection	Date	Time	Sampled By	Matrix	Total # of Bottles	Other	None	HCl	HNO3	H2SO4	NaOH	NaOH-ZnAc	Na Water	HCl	SM6200B w/dilution TPE TBE	MADEP VPH	MADEP EPH	Lead (SW 3050C)	EPA 625 base/neutral fraction 1,4-Dioxane	IDW Disposal Analysis TRC	PCBs	TAL Total Metals	EPA 504 EDB				Lab Use Only
1	1932-MW-4	2-13-14	1152	JB	GW	19			6				2				3	2	1	2	02	54	90	3				
2	1932-TB01	2-13-14	1100	Lab	QC	2			2							2												
	1932-AGIDW-20140213	2-13-14	1152	JB	GW	5			4				1								2	2	1					

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe

TURNAROUND TIME (Business Days)

Approved By: / Rush Code

- [ ] 10 Days Standard
- [ ] 7 Day RUSH
- [x] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY
- [ ] OTHER

Emergency or Rush T/A Data Available VIA Email or Lablink

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [x] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULT1 (EPA LEVEL 4)
- [x] EDD'S

Comments / Remarks

FedEx Airbill #8047-3475-2722
Report IDW parameters seperately

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:
1 Jacob Birkett	2-13-14 1530	2 FedEx	3 FC 02-14-14	10:15	4
Relinquished by: 5	Date Time:	Received By: 6	Relinquished by: 7	Date Time:	Received By: 8

Lab Use Only: Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved where Applicable: Y N Total # of Coolers: Cooler Temperature (s) Celsius: 2.0

FA12483: Chain of Custody
Page 1 of 3

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: FA12483 CLIENT: Tetra Tech PROJECT: USTS MCB UST 1932

DATE/TIME RECEIVED: 02-14-14 1015 {MM/DD/YY 24:00} NUMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS: 8047 3475 2722

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET
- [ ] WET ICE PRESENT

TRIP BLANK INFORMATION

- [x] TRIP BLANK PROVIDED
- [ ] TRIP BLANK NOT PROVIDED
- [ ] TRIP BLANK NOT ON COC
- [x] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [x] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM _____ 5-GRAM _____

NUMBER OF 5035 FIELD KITS ? _____

NUMBER OF LAB FILTERED METALS ? _____

TEMPERATURE INFORMATION

- [ ] IR THERM ID 1 CORR. FACTOR -0.4
- [ ] OBSERVED TEMPS: 2.4
- [ ] CORRECTED TEMPS: 2.0

SAMPLE INFORMATION

- [ ] SAMPLE LABELS PRESENT ON ALL BOTTLES
- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] 5035 FIELD KIT FROZEN WITHIN 48 HOUR'S
- [ ] RESIDUAL CHLORINE PRESENT

{APPICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

SUMMARY OF COMMENTS:

TECHNICIAN SIGNATURE/DATE RW 021414 REVIEWER SIGNATURE/DATE 2-14-14

NF 12/10

receipt confirmation 122910.xls

5.2 5

FA12483: Chain of Custody
Page 2 of 3

ORIGIN ID:ORFA

SHIP DATE: 13FEB14
ACTWGT: 70.9 LB
CAD: 7P091424
DIMS: 22x12x14 IN

BILL RECIPIENT

UNITED STATES US

TO SUPPLY RCVG
ACCUTEST LABORATORIES SE INC
4405 VINELAND RD
STE C15
ORLANDO FL 32811
(407) 425-6700

REF:
INV:
PO:
DEPT:

FedEx Express

2 of 2
MPS# 0681 7979 1651 5311
Mstr# 8047 3475 2722

FRI - 14 FEB 10:30A
PRIORITY OVERNIGHT

0215

XH TIXA

20

32811
FL-US MCO

FA12483: Chain of Custody
Page 3 of 3

Southeast ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: FA12483
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VA1428-MB	A0185664.D	1	02/17/14	TD	n/a	n/a	VA1428

The QC reported here applies to the following samples: **Method:** SM 6200B

FA12483-1, FA12483-2

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	1.0	ug/l	
71-43-2	Benzene	ND	0.50	0.10	ug/l	
108-86-1	Bromobenzene	ND	0.50	0.10	ug/l	
74-97-5	Bromochloromethane	ND	0.50	0.10	ug/l	
75-27-4	Bromodichloromethane	ND	0.50	0.10	ug/l	
75-25-2	Bromoform	ND	0.50	0.10	ug/l	
104-51-8	n-Butylbenzene	ND	0.50	0.10	ug/l	
135-98-8	sec-Butylbenzene	ND	0.50	0.10	ug/l	
98-06-6	tert-Butylbenzene	ND	0.50	0.10	ug/l	
108-90-7	Chlorobenzene	ND	0.50	0.10	ug/l	
75-00-3	Chloroethane	ND	0.50	0.12	ug/l	
67-66-3	Chloroform	ND	0.50	0.10	ug/l	
95-49-8	o-Chlorotoluene	ND	0.50	0.10	ug/l	
106-43-4	p-Chlorotoluene	ND	0.50	0.10	ug/l	
56-23-5	Carbon tetrachloride	ND	0.50	0.10	ug/l	
75-34-3	1,1-Dichloroethane	ND	0.50	0.10	ug/l	
75-35-4	1,1-Dichloroethylene	ND	0.50	0.10	ug/l	
563-58-6	1,1-Dichloropropene	ND	0.50	0.10	ug/l	
106-93-4	1,2-Dibromoethane	ND	0.50	0.10	ug/l	
107-06-2	1,2-Dichloroethane	ND	0.50	0.10	ug/l	
78-87-5	1,2-Dichloropropane	ND	0.50	0.10	ug/l	
142-28-9	1,3-Dichloropropane	ND	0.50	0.10	ug/l	
108-20-3	Di-Isopropyl ether	ND	0.50	0.10	ug/l	
594-20-7	2,2-Dichloropropane	ND	0.50	0.10	ug/l	
124-48-1	Dibromochloromethane	ND	0.50	0.10	ug/l	
75-71-8	Dichlorodifluoromethane	ND	0.50	0.10	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.50	0.10	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.10	ug/l	
541-73-1	m-Dichlorobenzene	ND	0.50	0.10	ug/l	
95-50-1	o-Dichlorobenzene	ND	0.50	0.10	ug/l	
106-46-7	p-Dichlorobenzene	ND	0.50	0.10	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	0.50	0.10	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.10	ug/l	
100-41-4	Ethylbenzene	ND	0.50	0.10	ug/l	
64-17-5	Ethyl Alcohol	ND	100	26	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	0.50	0.10	ug/l	

Method Blank Summary

Job Number: FA12483
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VA1428-MB	A0185664.D	1	02/17/14	TD	n/a	n/a	VA1428

The QC reported here applies to the following samples: **Method:** SM 6200B

FA12483-1, FA12483-2

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	0.50	ug/l	
98-82-8	Isopropylbenzene	ND	0.50	0.10	ug/l	
99-87-6	p-Isopropyltoluene	ND	0.50	0.10	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	2.5	0.50	ug/l	
74-83-9	Methyl bromide	ND	0.50	0.10	ug/l	
74-87-3	Methyl chloride	ND	0.50	0.10	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	2.5	0.68	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	0.50	0.10	ug/l	
91-20-3	Naphthalene	ND	0.50	0.10	ug/l	
103-65-1	n-Propylbenzene	ND	0.50	0.10	ug/l	
100-42-5	Styrene	ND	0.50	0.10	ug/l	
75-85-4	Tert-Amyl Alcohol	ND	10	3.3	ug/l	
994-05-8	Tert-Amyl Methyl Ether	ND	1.0	0.17	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	2.0	ug/l	
762-75-4	Tert-Butyl Formate	ND	10	2.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	0.50	0.10	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	0.50	0.10	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.10	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	0.50	0.11	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	0.50	0.10	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	0.50	0.12	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	0.50	0.10	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	0.50	0.10	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	0.50	0.10	ug/l	
127-18-4	Tetrachloroethylene	ND	0.50	0.10	ug/l	
108-88-3	Toluene	ND	0.50	0.10	ug/l	
79-01-6	Trichloroethylene	ND	0.50	0.10	ug/l	
75-69-4	Trichlorofluoromethane	ND	0.50	0.10	ug/l	
75-01-4	Vinyl chloride	ND	0.50	0.10	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	0.18	ug/l	
1330-20-7	Xylene (total)	ND	1.5	0.20	ug/l	
	m,p-Xylene	ND	1.0	0.10	ug/l	
95-47-6	o-Xylene	ND	0.50	0.10	ug/l	

Method Blank Summary

Job Number: FA12483
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VA1428-MB	A0185664.D	1	02/17/14	TD	n/a	n/a	VA1428

The QC reported here applies to the following samples: **Method:** SM 6200B

FA12483-1, FA12483-2

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	97%	70-130%
17060-07-0	1,2-Dichloroethane-D4	97%	70-130%
2037-26-5	Toluene-D8	99%	70-130%
460-00-4	4-Bromofluorobenzene	100%	70-130%

Blank Spike Summary

Job Number: FA12483
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VA1428-BS	A0185662.D	1	02/17/14	TD	n/a	n/a	VA1428

The QC reported here applies to the following samples: **Method:** SM 6200B

FA12483-1, FA12483-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	50	50.1	100	70-130
71-43-2	Benzene	10	10.3	103	70-130
108-86-1	Bromobenzene	10	10.5	105	70-130
74-97-5	Bromochloromethane	10	10.3	103	70-130
75-27-4	Bromodichloromethane	10	9.8	98	70-130
75-25-2	Bromoform	10	9.0	90	70-130
104-51-8	n-Butylbenzene	10	10.4	104	70-130
135-98-8	sec-Butylbenzene	10	10.3	103	70-130
98-06-6	tert-Butylbenzene	10	10.2	102	70-130
108-90-7	Chlorobenzene	10	10.5	105	70-130
75-00-3	Chloroethane	10	11.2	112	60-140
67-66-3	Chloroform	10	10.4	104	70-130
95-49-8	o-Chlorotoluene	10	10.6	106	70-130
106-43-4	p-Chlorotoluene	10	10.3	103	70-130
56-23-5	Carbon tetrachloride	10	10.1	101	70-130
75-34-3	1,1-Dichloroethane	10	10.3	103	70-130
75-35-4	1,1-Dichloroethylene	10	10.2	102	70-130
563-58-6	1,1-Dichloropropene	10	10.1	101	70-130
106-93-4	1,2-Dibromoethane	10	10.1	101	70-130
107-06-2	1,2-Dichloroethane	10	10.2	102	70-130
78-87-5	1,2-Dichloropropane	10	10.1	101	70-130
142-28-9	1,3-Dichloropropane	10	10.2	102	70-130
108-20-3	Di-Isopropyl ether	10	10.3	103	70-130
594-20-7	2,2-Dichloropropane	10	10.2	102	70-130
124-48-1	Dibromochloromethane	10	9.3	93	70-130
75-71-8	Dichlorodifluoromethane	10	9.8	98	60-140
156-59-2	cis-1,2-Dichloroethylene	10	10.4	104	70-130
10061-01-5	cis-1,3-Dichloropropene	10	9.8	98	70-130
541-73-1	m-Dichlorobenzene	10	10.2	102	70-130
95-50-1	o-Dichlorobenzene	10	10.2	102	70-130
106-46-7	p-Dichlorobenzene	10	10.2	102	70-130
156-60-5	trans-1,2-Dichloroethylene	10	10.3	103	70-130
10061-02-6	trans-1,3-Dichloropropene	10	9.9	99	70-130
100-41-4	Ethylbenzene	10	10.5	105	70-130
64-17-5	Ethyl Alcohol	500	474	95	70-130
637-92-3	Ethyl Tert Butyl Ether	10	10.6	106	70-130

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA12483
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VA1428-BS	A0185662.D	1	02/17/14	TD	n/a	n/a	VA1428

The QC reported here applies to the following samples: **Method:** SM 6200B

FA12483-1, FA12483-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
591-78-6	2-Hexanone	50	52.2	104	70-130
98-82-8	Isopropylbenzene	10	10.4	104	70-130
99-87-6	p-Isopropyltoluene	10	10.3	103	70-130
108-10-1	4-Methyl-2-pentanone	50	55.5	111	70-130
74-83-9	Methyl bromide	10	11.8	118	60-140
74-87-3	Methyl chloride	10	10.1	101	60-140
75-09-2	Methylene chloride	10	11.3	113	70-130
78-93-3	Methyl ethyl ketone	50	51.6	103	70-130
1634-04-4	Methyl Tert Butyl Ether	10	10.3	103	70-130
91-20-3	Naphthalene	10	10.3	103	70-130
103-65-1	n-Propylbenzene	10	10.5	105	70-130
100-42-5	Styrene	10	10.2	102	70-130
75-85-4	Tert-Amyl Alcohol	100	104	104	70-130
994-05-8	Tert-Amyl Methyl Ether	10	10.3	103	70-130
75-65-0	Tert-Butyl Alcohol	100	122	122	70-130
762-75-4	Tert-Butyl Formate	100	80.9	81	70-130
630-20-6	1,1,1,2-Tetrachloroethane	10	9.9	99	70-130
71-55-6	1,1,1-Trichloroethane	10	10.4	104	70-130
79-34-5	1,1,2,2-Tetrachloroethane	10	10.2	102	70-130
79-00-5	1,1,2-Trichloroethane	10	10.3	103	70-130
87-61-6	1,2,3-Trichlorobenzene	10	10.2	102	70-130
96-18-4	1,2,3-Trichloropropane	10	10.4	104	70-130
120-82-1	1,2,4-Trichlorobenzene	10	10.1	101	70-130
95-63-6	1,2,4-Trimethylbenzene	10	10.2	102	70-130
108-67-8	1,3,5-Trimethylbenzene	10	10.4	104	70-130
127-18-4	Tetrachloroethylene	10	10.2	102	70-130
108-88-3	Toluene	10	10.2	102	70-130
79-01-6	Trichloroethylene	10	10.2	102	70-130
75-69-4	Trichlorofluoromethane	10	9.8	98	60-140
75-01-4	Vinyl chloride	10	9.9	99	60-140
108-05-4	Vinyl Acetate	50	61.6	123	70-130
1330-20-7	Xylene (total)	30	31.6	105	70-130
	m,p-Xylene	20	21.4	107	70-130
95-47-6	o-Xylene	10	10.3	103	70-130

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA12483
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VA1428-BS	A0185662.D	1	02/17/14	TD	n/a	n/a	VA1428

The QC reported here applies to the following samples: **Method:** SM 6200B

FA12483-1, FA12483-2

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	99%	70-130%
17060-07-0	1,2-Dichloroethane-D4	100%	70-130%
2037-26-5	Toluene-D8	100%	70-130%
460-00-4	4-Bromofluorobenzene	99%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA12483
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA12393-4MS	A0185670.D	1	02/17/14	TD	n/a	n/a	VA1428
FA12393-4MSD	A0185671.D	1	02/17/14	TD	n/a	n/a	VA1428
FA12393-4	A0185679.D	1	02/17/14	TD	n/a	n/a	VA1428

The QC reported here applies to the following samples: **Method:** SM 6200B

FA12483-1, FA12483-2

CAS No.	Compound	FA12393-4 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		50	34.7	69*	36.6	73	5	70-130/20
71-43-2	Benzene	ND		10	9.2	92	9.6	96	4	70-130/20
108-86-1	Bromobenzene	ND		10	8.9	89	9.5	95	7	70-130/20
74-97-5	Bromochloromethane	ND		10	8.4	84	8.6	86	2	70-130/20
75-27-4	Bromodichloromethane	ND		10	8.6	86	8.6	86	0	70-130/20
75-25-2	Bromoform	ND		10	6.6	66*	6.8	68*	3	70-130/20
104-51-8	n-Butylbenzene	ND		10	8.6	86	9.2	92	7	70-130/20
135-98-8	sec-Butylbenzene	ND		10	9.5	95	10.4	104	9	70-130/20
98-06-6	tert-Butylbenzene	ND		10	9.3	93	10.1	101	8	70-130/20
108-90-7	Chlorobenzene	ND		10	9.7	97	10.4	104	7	70-130/20
75-00-3	Chloroethane	ND		10	10.1	101	11.1	111	9	60-140/20
67-66-3	Chloroform	0.22	J	10	9.6	94	9.8	96	2	70-130/20
95-49-8	o-Chlorotoluene	ND		10	9.6	96	10.4	104	8	70-130/20
106-43-4	p-Chlorotoluene	ND		10	9.7	97	10.4	104	7	70-130/20
56-23-5	Carbon tetrachloride	ND		10	8.6	86	8.9	89	3	70-130/20
75-34-3	1,1-Dichloroethane	ND		10	9.4	94	9.7	97	3	70-130/20
75-35-4	1,1-Dichloroethylene	ND		10	9.7	97	10.1	101	4	70-130/20
563-58-6	1,1-Dichloropropene	ND		10	9.5	95	9.9	99	4	70-130/20
106-93-4	1,2-Dibromoethane	ND		10	8.8	88	9.2	92	4	70-130/20
107-06-2	1,2-Dichloroethane	ND		10	9.4	94	9.8	98	4	70-130/20
78-87-5	1,2-Dichloropropane	ND		10	9.3	93	9.5	95	2	70-130/20
142-28-9	1,3-Dichloropropane	ND		10	9.0	90	9.5	95	5	70-130/20
108-20-3	Di-Isopropyl ether	ND		10	8.6	86	8.9	89	3	70-130/20
594-20-7	2,2-Dichloropropane	ND		10	9.1	91	9.5	95	4	70-130/20
124-48-1	Dibromochloromethane	ND		10	7.5	75	7.7	77	3	70-130/20
75-71-8	Dichlorodifluoromethane	ND		10	10.4	104	10.9	109	5	60-140/20
156-59-2	cis-1,2-Dichloroethylene	ND		10	9.1	91	9.4	94	3	70-130/20
10061-01-5	cis-1,3-Dichloropropene	ND		10	8.2	82	8.2	82	0	70-130/20
541-73-1	m-Dichlorobenzene	ND		10	9.6	96	10.2	102	6	70-130/20
95-50-1	o-Dichlorobenzene	ND		10	9.6	96	10.1	101	5	70-130/20
106-46-7	p-Dichlorobenzene	ND		10	8.9	89	9.4	94	5	70-130/20
156-60-5	trans-1,2-Dichloroethylene	ND		10	9.4	94	9.6	96	2	70-130/20
10061-02-6	trans-1,3-Dichloropropene	ND		10	8.9	89	9.1	91	2	70-130/20
100-41-4	Ethylbenzene	ND		10	9.0	90	9.7	97	7	70-130/20
64-17-5	Ethyl Alcohol	ND		500	464	93	446	89	4	70-130/20
637-92-3	Ethyl Tert Butyl Ether	ND		10	8.6	86	8.9	89	3	70-130/20

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA12483
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA12393-4MS	A0185670.D	1	02/17/14	TD	n/a	n/a	VA1428
FA12393-4MSD	A0185671.D	1	02/17/14	TD	n/a	n/a	VA1428
FA12393-4	A0185679.D	1	02/17/14	TD	n/a	n/a	VA1428

The QC reported here applies to the following samples: **Method:** SM 6200B

FA12483-1, FA12483-2

CAS No.	Compound	FA12393-4 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
591-78-6	2-Hexanone	ND		50	40.3	81	43.3	87	7	70-130/20
98-82-8	Isopropylbenzene	ND		10	9.5	95	10.2	102	7	70-130/20
99-87-6	p-Isopropyltoluene	ND		10	9.2	92	10	100	8	70-130/20
108-10-1	4-Methyl-2-pentanone	ND		50	45.3	91	48.7	97	7	70-130/20
74-83-9	Methyl bromide	ND		10	11.9	119	12.2	122	2	60-140/20
74-87-3	Methyl chloride	ND		10	11.0	110	11.4	114	4	60-140/20
75-09-2	Methylene chloride	ND		10	9.8	98	10.1	101	3	70-130/20
78-93-3	Methyl ethyl ketone	ND		50	30.2	60*	32.1	64*	6	70-130/20
1634-04-4	Methyl Tert Butyl Ether	ND		10	8.3	83	8.6	86	4	70-130/20
91-20-3	Naphthalene	ND		10	8.4	84	9.0	90	7	70-130/20
103-65-1	n-Propylbenzene	ND		10	9.7	97	10.5	105	8	70-130/20
100-42-5	Styrene	ND		10	8.3	83	8.5	85	2	70-130/20
75-85-4	Tert-Amyl Alcohol	ND		100	75.7	76	81.9	82	8	70-130/20
994-05-8	Tert-Amyl Methyl Ether	ND		10	7.5	75	8.1	81	8	70-130/20
75-65-0	Tert-Butyl Alcohol	7.4	J	100	125	118	139	132*	11	70-130/20
762-75-4	Tert-Butyl Formate	ND		100	50.5	51*	45.2	45*	11	70-130/20
630-20-6	1,1,1,2-Tetrachloroethane	ND		10	8.5	85	8.9	89	5	70-130/20
71-55-6	1,1,1-Trichloroethane	ND		10	9.1	91	9.6	96	5	70-130/20
79-34-5	1,1,2,2-Tetrachloroethane	ND		10	8.9	89	9.6	96	8	70-130/20
79-00-5	1,1,2-Trichloroethane	ND		10	9.0	90	9.3	93	3	70-130/20
87-61-6	1,2,3-Trichlorobenzene	ND		10	8.8	88	9.2	92	4	70-130/20
96-18-4	1,2,3-Trichloropropane	ND		10	8.9	89	9.6	96	8	70-130/20
120-82-1	1,2,4-Trichlorobenzene	ND		10	8.6	86	9.1	91	6	70-130/20
95-63-6	1,2,4-Trimethylbenzene	ND		10	8.5	85	9.1	91	7	70-130/20
108-67-8	1,3,5-Trimethylbenzene	ND		10	8.5	85	9.2	92	8	70-130/20
127-18-4	Tetrachloroethylene	0.19	J	10	9.0	88	9.5	93	5	70-130/20
108-88-3	Toluene	ND		10	8.7	87	9.4	94	8	70-130/20
79-01-6	Trichloroethylene	ND		10	8.9	89	9.3	93	4	70-130/20
75-69-4	Trichlorofluoromethane	ND		10	9.9	99	10.1	101	2	60-140/20
75-01-4	Vinyl chloride	ND		10	10.0	100	10.6	106	6	60-140/20
108-05-4	Vinyl Acetate	ND		50	38.6	77	39.7	79	3	70-130/20
1330-20-7	Xylene (total)	ND		30	28.4	95	30.2	101	6	70-130/20
	m,p-Xylene	ND		20	19.1	96	20.2	101	6	70-130/20
95-47-6	o-Xylene	ND		10	9.4	94	10	100	6	70-130/20

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA12483
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA12393-4MS	A0185670.D	1	02/17/14	TD	n/a	n/a	VA1428
FA12393-4MSD	A0185671.D	1	02/17/14	TD	n/a	n/a	VA1428
FA12393-4	A0185679.D	1	02/17/14	TD	n/a	n/a	VA1428

The QC reported here applies to the following samples: **Method:** SM 6200B

FA12483-1, FA12483-2

CAS No.	Surrogate Recoveries	MS	MSD	FA12393-4	Limits
1868-53-7	Dibromofluoromethane	103%	101%	98%	70-130%
17060-07-0	1,2-Dichloroethane-D4	106%	104%	97%	70-130%
2037-26-5	Toluene-D8	97%	99%	99%	70-130%
460-00-4	4-Bromofluorobenzene	98%	99%	100%	70-130%

* = Outside of Control Limits.

Southeast ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: FA12483
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50554-MB	T011668.D	1	02/21/14	FS	02/20/14	OP50554	ST554

The QC reported here applies to the following samples: **Method:** EPA 625

FA12483-1

CAS No.	Compound	Result	RL	MDL	Units	Q
65-85-0	Benzoic Acid	ND	50	10	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	0.52	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	0.50	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.0	0.58	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	0.50	ug/l	
51-28-5	2,4-Dinitrophenol	ND	25	5.4	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	2.0	ug/l	
95-48-7	2-Methylphenol	ND	5.0	0.50	ug/l	
	3&4-Methylphenol	ND	5.0	1.2	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	0.60	ug/l	
100-02-7	4-Nitrophenol	ND	25	5.0	ug/l	
87-86-5	Pentachlorophenol	ND	25	5.0	ug/l	
108-95-2	Phenol	ND	5.0	0.50	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	0.55	ug/l	
83-32-9	Acenaphthene	ND	5.0	0.50	ug/l	
208-96-8	Acenaphthylene	ND	5.0	0.50	ug/l	
120-12-7	Anthracene	ND	5.0	0.62	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	0.64	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	0.65	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	0.72	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	0.81	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	0.51	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	0.67	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.81	ug/l	
100-51-6	Benzyl Alcohol	ND	5.0	1.0	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	0.56	ug/l	
106-47-8	4-Chloroaniline	ND	5.0	0.50	ug/l	
218-01-9	Chrysene	ND	5.0	0.72	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	0.55	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	0.69	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	0.58	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	5.0	0.54	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	5.0	0.50	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	0.68	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	5.0	0.50	ug/l	

Method Blank Summary

Job Number: FA12483
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50554-MB	T011668.D	1	02/21/14	FS	02/20/14	OP50554	ST554

The QC reported here applies to the following samples: **Method:** EPA 625

FA12483-1

CAS No.	Compound	Result	RL	MDL	Units	Q
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	0.90	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	0.81	ug/l	
132-64-9	Dibenzofuran	ND	5.0	0.53	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	1.0	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	1.0	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	1.0	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.63	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	5.0	1.6	ug/l	
206-44-0	Fluoranthene	ND	5.0	0.70	ug/l	
86-73-7	Fluorene	ND	5.0	0.50	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	0.66	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	0.50	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	5.0	1.0	ug/l	
67-72-1	Hexachloroethane	ND	5.0	0.50	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	0.63	ug/l	
78-59-1	Isophorone	ND	5.0	0.50	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	0.50	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	0.53	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
98-95-3	Nitrobenzene	ND	5.0	0.50	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	0.50	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	0.53	ug/l	
85-01-8	Phenanthrene	ND	5.0	0.60	ug/l	
129-00-0	Pyrene	ND	5.0	0.82	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	0.50	ug/l	

CAS No.	Surrogate Recoveries		Limits
367-12-4	2-Fluorophenol	43%	14-67%
4165-62-2	Phenol-d5	25%	10-50%
118-79-6	2,4,6-Tribromophenol	86%	33-118%
4165-60-0	Nitrobenzene-d5	87%	42-108%
321-60-8	2-Fluorobiphenyl	85%	40-106%
1718-51-0	Terphenyl-d14	102%	39-121%

Method Blank Summary

Job Number: FA12483
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50554-MB	T011668.D	1	02/21/14	FS	02/20/14	OP50554	ST554

The QC reported here applies to the following samples: **Method:**

FA12483-1

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Semi-Volatile [a]		0	ug/l	

(a) No TICs detected.

Blank Spike Summary

Job Number: FA12483
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50554-BS	T011667.D	1	02/21/14	FS	02/20/14	OP50554	ST554

The QC reported here applies to the following samples: **Method:** EPA 625

FA12483-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
65-85-0	Benzoic Acid	100	15.0	15	10-69
95-57-8	2-Chlorophenol	50	34.1	68	52-98
59-50-7	4-Chloro-3-methyl phenol	50	34.2	68	54-103
120-83-2	2,4-Dichlorophenol	50	34.9	70	53-103
105-67-9	2,4-Dimethylphenol	50	31.8	64	43-90
51-28-5	2,4-Dinitrophenol	100	67.9	68	44-112
534-52-1	4,6-Dinitro-o-cresol	100	76.7	77	66-121
95-48-7	2-Methylphenol	50	31.1	62	43-90
	3&4-Methylphenol	100	59.6	60	36-88
88-75-5	2-Nitrophenol	50	36.0	72	53-102
100-02-7	4-Nitrophenol	100	26.3	26	18-62
87-86-5	Pentachlorophenol	100	82.3	82	61-115
108-95-2	Phenol	50	13.5	27	19-56
88-06-2	2,4,6-Trichlorophenol	50	38.9	78	59-107
83-32-9	Acenaphthene	50	39.7	79	61-107
208-96-8	Acenaphthylene	50	40.7	81	60-104
120-12-7	Anthracene	50	40.4	81	65-108
56-55-3	Benzo(a)anthracene	50	40.0	80	66-111
50-32-8	Benzo(a)pyrene	50	39.2	78	62-107
205-99-2	Benzo(b)fluoranthene	50	40.4	81	65-114
191-24-2	Benzo(g,h,i)perylene	50	40.4	81	66-116
207-08-9	Benzo(k)fluoranthene	50	40.4	81	65-114
101-55-3	4-Bromophenyl phenyl ether	50	33.1	66	65-109
85-68-7	Butyl benzyl phthalate	50	39.3	79	65-112
100-51-6	Benzyl Alcohol	50	31.9	64	46-94
91-58-7	2-Chloronaphthalene	50	38.6	77	57-103
106-47-8	4-Chloroaniline	50	35.6	71	49-105
218-01-9	Chrysene	50	42.2	84	66-111
111-91-1	bis(2-Chloroethoxy)methane	50	34.8	70	51-102
111-44-4	bis(2-Chloroethyl)ether	50	36.6	73	53-100
108-60-1	bis(2-Chloroisopropyl)ether	50	37.5	75	45-106
7005-72-3	4-Chlorophenyl phenyl ether	50	37.7	75	62-105
95-50-1	1,2-Dichlorobenzene	50	34.3	69	48-97
122-66-7	1,2-Diphenylhydrazine	50	38.5	77	61-110
541-73-1	1,3-Dichlorobenzene	50	34.2	68	45-95
106-46-7	1,4-Dichlorobenzene	50	36.2	72	45-98

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA12483
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50554-BS	T011667.D	1	02/21/14	FS	02/20/14	OP50554	ST554

The QC reported here applies to the following samples: **Method:** EPA 625

FA12483-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
91-94-1	3,3'-Dichlorobenzidine	50	41.3	83	46-117
53-70-3	Dibenzo(a,h)anthracene	50	40.3	81	66-119
132-64-9	Dibenzofuran	50	39.6	79	61-106
84-74-2	Di-n-butyl phthalate	50	39.9	80	65-107
117-84-0	Di-n-octyl phthalate	50	34.2	68	62-118
84-66-2	Diethyl phthalate	50	39.0	78	64-108
131-11-3	Dimethyl phthalate	50	38.4	77	63-106
117-81-7	bis(2-Ethylhexyl)phthalate	50	35.4	71	61-117
206-44-0	Fluoranthene	50	41.8	84	63-106
86-73-7	Fluorene	50	41.5	83	62-108
118-74-1	Hexachlorobenzene	50	39.3	79	63-108
87-68-3	Hexachlorobutadiene	50	35.3	71	42-102
77-47-4	Hexachlorocyclopentadiene	50	30.0	60	39-102
67-72-1	Hexachloroethane	50	35.9	72	42-100
193-39-5	Indeno(1,2,3-cd)pyrene	50	35.2	70	64-119
78-59-1	Isophorone	50	34.2	68	43-87
90-12-0	1-Methylnaphthalene	50	34.2	68	53-102
91-57-6	2-Methylnaphthalene	50	35.0	70	51-102
91-20-3	Naphthalene	50	35.7	71	47-100
98-95-3	Nitrobenzene	50	34.1	68	50-104
621-64-7	N-Nitroso-di-n-propylamine	50	37.3	75	52-104
86-30-6	N-Nitrosodiphenylamine	50	38.8	78	64-108
85-01-8	Phenanthrene	50	40.9	82	66-110
129-00-0	Pyrene	50	37.5	75	64-113
120-82-1	1,2,4-Trichlorobenzene	50	32.6	65	45-97

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	43%	14-67%
4165-62-2	Phenol-d5	28%	10-50%
118-79-6	2,4,6-Tribromophenol	81%	33-118%
4165-60-0	Nitrobenzene-d5	73%	42-108%
321-60-8	2-Fluorobiphenyl	78%	40-106%
1718-51-0	Terphenyl-d14	87%	39-121%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA12483
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50554-MS [a]	T011682.D	10	02/24/14	FS	02/20/14	OP50554	ST555
OP50554-MSD [a]	T011683.D	10	02/24/14	FS	02/20/14	OP50554	ST555
FA12584-1 [a]	T011681.D	10	02/24/14	FS	02/20/14	OP50554	ST555

The QC reported here applies to the following samples: **Method:** EPA 625

FA12483-1

CAS No.	Compound	FA12584-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
65-85-0	Benzoic Acid	ND		189	ND	0*	ND	0*	nc	10-69/39
95-57-8	2-Chlorophenol	ND		94.3	65.3	69	61.6	65	6	52-98/25
59-50-7	4-Chloro-3-methyl phenol	ND		94.3	76.0	81	70.9	75	7	54-103/23
120-83-2	2,4-Dichlorophenol	ND		94.3	73.0	77	72.1	76	1	53-103/26
105-67-9	2,4-Dimethylphenol	ND		94.3	74.0	78	73.4	78	1	43-90/27
51-28-5	2,4-Dinitrophenol	ND		189	133	70	132	70	1	44-112/25
534-52-1	4,6-Dinitro-o-cresol	ND		189	123	65*	121	64*	2	66-121/23
95-48-7	2-Methylphenol	ND		94.3	63.4	67	65.6	70	3	43-90/28
	3&4-Methylphenol	ND		189	127	67	128	68	1	36-88/28
88-75-5	2-Nitrophenol	ND		94.3	69.4	74	72.7	77	5	53-102/29
100-02-7	4-Nitrophenol	ND		189	139	74*	144	76*	4	18-62/33
87-86-5	Pentachlorophenol	ND		189	155	82	143	76	8	61-115/26
108-95-2	Phenol	ND		94.3	33.7	36	36.8	39	9	19-56/35
88-06-2	2,4,6-Trichlorophenol	ND		94.3	76.9	82	74.8	79	3	59-107/23
83-32-9	Acenaphthene	ND		94.3	82.4	87	81.3	86	1	61-107/22
208-96-8	Acenaphthylene	ND		94.3	82.6	88	78.2	83	5	60-104/22
120-12-7	Anthracene	ND		94.3	81.8	87	78.1	83	5	65-108/20
56-55-3	Benzo(a)anthracene	ND		94.3	76.9	82	72.6	77	6	66-111/22
50-32-8	Benzo(a)pyrene	ND		94.3	70.9	75	69.5	74	2	62-107/23
205-99-2	Benzo(b)fluoranthene	ND		94.3	72.2	77	70.1	74	3	65-114/23
191-24-2	Benzo(g,h,i)perylene	ND		94.3	77.3	82	74.2	79	4	66-116/23
207-08-9	Benzo(k)fluoranthene	ND		94.3	71.6	76	68.1	72	5	65-114/24
101-55-3	4-Bromophenyl phenyl ether	ND		94.3	64.2	68	64.1	68	0	65-109/23
85-68-7	Butyl benzyl phthalate	ND		94.3	75.3	80	72.4	77	4	65-112/24
100-51-6	Benzyl Alcohol	ND		94.3	68.6	73	68.3	72	0	46-94/27
91-58-7	2-Chloronaphthalene	ND		94.3	76.5	81	73.3	78	4	57-103/23
106-47-8	4-Chloroaniline	ND		94.3	69.4	74	69.6	74	0	49-105/27
218-01-9	Chrysene	ND		94.3	77.0	82	76.9	82	0	66-111/22
111-91-1	bis(2-Chloroethoxy)methane	ND		94.3	75.9	80	73.6	78	3	51-102/28
111-44-4	bis(2-Chloroethyl)ether	ND		94.3	71.6	76	70.1	74	2	53-100/27
108-60-1	bis(2-Chloroisopropyl)ether	ND		94.3	71.3	76	69.7	74	2	45-106/26
7005-72-3	4-Chlorophenyl phenyl ether	ND		94.3	76.7	81	76.3	81	1	62-105/20
95-50-1	1,2-Dichlorobenzene	ND		94.3	66.8	71	65.0	69	3	48-97/24
122-66-7	1,2-Diphenylhydrazine	ND		94.3	72.8	77	71.9	76	1	61-110/24
541-73-1	1,3-Dichlorobenzene	ND		94.3	67.4	71	66.2	70	2	45-95/25
106-46-7	1,4-Dichlorobenzene	ND		94.3	72.2	77	70.4	75	3	45-98/25

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA12483
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50554-MS [a]	T011682.D	10	02/24/14	FS	02/20/14	OP50554	ST555
OP50554-MSD [a]	T011683.D	10	02/24/14	FS	02/20/14	OP50554	ST555
FA12584-1 [a]	T011681.D	10	02/24/14	FS	02/20/14	OP50554	ST555

The QC reported here applies to the following samples: **Method:** EPA 625

FA12483-1

CAS No.	Compound	FA12584-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
91-94-1	3,3'-Dichlorobenzidine	ND		94.3	51.6	55	51.6	55	0	46-117/29
53-70-3	Dibenzo(a,h)anthracene	ND		94.3	75.0	80	67.8	72	10	66-119/24
132-64-9	Dibenzofuran	ND		94.3	84.7	90	81.4	86	4	61-106/21
84-74-2	Di-n-butyl phthalate	ND		94.3	77.5	82	76.0	81	2	65-107/21
117-84-0	Di-n-octyl phthalate	ND		94.3	55.2	59*	53.2	56*	4	62-118/24
84-66-2	Diethyl phthalate	ND		94.3	77.3	82	76.1	81	2	64-108/21
131-11-3	Dimethyl phthalate	ND		94.3	71.7	76	70.5	75	2	63-106/22
117-81-7	bis(2-Ethylhexyl)phthalate	ND		94.3	81.7	87	74.6	79	9	61-117/23
206-44-0	Fluoranthene	ND		94.3	81.6	86	80.0	85	2	63-106/21
86-73-7	Fluorene	20.7	J	94.3	95.8	80	95.0	79	1	62-108/20
118-74-1	Hexachlorobenzene	ND		94.3	75.2	80	70.4	75	7	63-108/22
87-68-3	Hexachlorobutadiene	ND		94.3	75.9	80	72.7	77	4	42-102/28
77-47-4	Hexachlorocyclopentadiene	ND		94.3	50.7	54	49.7	53	2	39-102/29
67-72-1	Hexachloroethane	ND		94.3	67.7	72	68.0	72	0	42-100/29
193-39-5	Indeno(1,2,3-cd)pyrene	ND		94.3	64.9	69	63.1	67	3	64-119/24
78-59-1	Isophorone	ND		94.3	74.1	79	67.7	72	9	43-87/25
90-12-0	1-Methylnaphthalene	21.1	J	94.3	92.1	75	86.9	70	6	53-102/27
91-57-6	2-Methylnaphthalene	5.5	J	94.3	79.4	78	77.8	77	2	51-102/26
91-20-3	Naphthalene	ND		94.3	83.3	88	81.6	86	2	47-100/29
98-95-3	Nitrobenzene	ND		94.3	72.2	77	69.2	73	4	50-104/28
621-64-7	N-Nitroso-di-n-propylamine	ND		94.3	73.2	78	69.8	74	5	52-104/25
86-30-6	N-Nitrosodiphenylamine	9.7	J	94.3	80.2	75	79.1	74	1	64-108/23
85-01-8	Phenanthrene	11.4	J	94.3	88.5	82	84.9	78	4	66-110/21
129-00-0	Pyrene	ND		94.3	74.2	79	69.2	73	7	64-113/23
120-82-1	1,2,4-Trichlorobenzene	ND		94.3	72.6	77	69.5	74	4	45-97/28

CAS No.	Surrogate Recoveries	MS	MSD	FA12584-1	Limits
367-12-4	2-Fluorophenol	55%	53%	38%	14-67%
4165-62-2	Phenol-d5	40%	39%	26%	10-50%
118-79-6	2,4,6-Tribromophenol	84%	78%	86%	33-118%
4165-60-0	Nitrobenzene-d5	80%	75%	83%	42-108%
321-60-8	2-Fluorobiphenyl	82%	79%	86%	40-106%
1718-51-0	Terphenyl-d14	89%	81%	88%	39-121%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA12483
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50554-MS [a]	T011682.D	10	02/24/14	FS	02/20/14	OP50554	ST555
OP50554-MSD [a]	T011683.D	10	02/24/14	FS	02/20/14	OP50554	ST555
FA12584-1 [a]	T011681.D	10	02/24/14	FS	02/20/14	OP50554	ST555

The QC reported here applies to the following samples: **Method:** EPA 625

FA12483-1

(a) Dilution required due to matrix interference.

* = Outside of Control Limits.

Southeast ACCUTEST LABORATORIES

GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: FA12483
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GUV3349-MB	UV062877.D	1	02/19/14	MM	n/a	n/a	GUV3349

The QC reported here applies to the following samples: **Method:** MADEP VPH REV 1.1

FA12483-1

CAS No.	Compound	Result	RL	MDL	Units	Q
	C5- C8 Aliphatics (Unadj.)	ND	100	35	ug/l	
	C9- C12 Aliphatics (Unadj.)	ND	100	35	ug/l	
	C9- C10 Aromatics (Unadj.)	ND	100	35	ug/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	BFB	111%	70-130%
460-00-4	BFB	111%	70-130%

Method Blank Summary

Job Number: FA12483
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50494-MB	DD74182.D	1	02/17/14	NG	02/17/14	OP50494	GDD2224

The QC reported here applies to the following samples: **Method:** EPA 504.1

FA12483-1

CAS No.	Compound	Result	RL	MDL	Units	Q
106-93-4	1,2-Dibromoethane	ND	0.020	0.010	ug/l	

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	90%	63-137%

Blank Spike Summary

Job Number: FA12483
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50494-BS	DD74181.D	1	02/17/14	NG	02/17/14	OP50494	GDD2224

The QC reported here applies to the following samples: **Method:** EPA 504.1

FA12483-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
106-93-4	1,2-Dibromoethane	0.25	0.22	88	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	92%	63-137%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: FA12483
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GUV3349-BS	UV062875.D	1	02/19/14	MM	n/a	n/a	GUV3349
GUV3349-BSD	UV062876.D	1	02/19/14	MM	n/a	n/a	GUV3349

The QC reported here applies to the following samples: **Method:** MADEP VPH REV 1.1

FA12483-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
	C5- C8 Aliphatics (Unadj.)	240	280	117	284	118	1	70-130/25
	C9- C12 Aliphatics (Unadj.)	160	164	103	165	103	1	70-130/25
	C9- C10 Aromatics (Unadj.)	80	84.8	106	82.4	103	3	70-130/25

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	BFB	118%	118%	70-130%
460-00-4	BFB	115%	117%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA12483
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50494-MS	DD74185.D	1	02/17/14	NG	02/17/14	OP50494	GDD2224
OP50494-MSD	DD74186.D	1	02/17/14	NG	02/17/14	OP50494	GDD2224
FA12480-1	DD74184.D	1	02/17/14	NG	02/17/14	OP50494	GDD2224

The QC reported here applies to the following samples: **Method:** EPA 504.1

FA12483-1

CAS No.	Compound	FA12480-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
106-93-4	1,2-Dibromoethane	0.019	U	0.243	0.21	86	0.21	88	0	70-130/25

CAS No.	Surrogate Recoveries	MS	MSD	FA12480-1	Limits
460-00-4	4-Bromofluorobenzene	87%	88%	87%	63-137%

8.4.1

8

* = Outside of Control Limits.

Duplicate Summary

Job Number: FA12483
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA12483-1DUP	UV062881.D	5	02/19/14	MM	n/a	n/a	GUV3349
FA12483-1	UV062878.D	1	02/19/14	MM	n/a	n/a	GUV3349
FA12483-1	UV062880.D	5	02/19/14	MM	n/a	n/a	GUV3349

The QC reported here applies to the following samples: **Method:** MADEP VPH REV 1.1

FA12483-1

CAS No.	Compound	FA12483-1 ug/l	Q	DUP ug/l	Q	RPD	Limits
	C5- C8 Aliphatics (Unadj.)	425		353	J	19	50
	C9- C12 Aliphatics (Unadj.)	288 [a]	J	284	J	1	50
	C9- C10 Aromatics (Unadj.)	1030 [a]		914		12	50

CAS No.	Surrogate Recoveries	DUP	FA12483-1	FA12483-1	Limits
460-00-4	BFB	116%	119%	113%	70-130%
460-00-4	BFB	117%	119%	113%	70-130%

(a) Result is from Run #2.

* = Outside of Control Limits.

Southeast ACCUTEST LABORATORIES

GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: FA12483
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50527-MB	NN007736.D	1	02/21/14	NAF	02/19/14	OP50527	GNN338

The QC reported here applies to the following samples: **Method:** MADEP EPH REV 1.1

FA12483-1

CAS No.	Compound	Result	RL	MDL	Units	Q
	C11-C22 Aromatics (Unadj.)	ND	200	150	ug/l	
	C9-C18 Aliphatics	ND	200	100	ug/l	
	C19-C36 Aliphatics	ND	200	100	ug/l	

CAS No.	Surrogate Recoveries		Limits
3386-33-2	1-Chlorooctadecane	69%	40-140%
580-13-2	2-Bromonaphthalene	91%	40-140%
84-15-1	o-Terphenyl	75%	40-140%
321-60-8	2-Fluorobiphenyl	88%	40-140%

Blank Spike/Blank Spike Duplicate Summary

Job Number: FA12483
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50527-BS	NN007734.D	1	02/21/14	NAF	02/19/14	OP50527	GNN338
OP50527-BSD	NN007735.D	1	02/21/14	NAF	02/19/14	OP50527	GNN338

The QC reported here applies to the following samples: **Method:** MADEP EPH REV 1.1

FA12483-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
	C11-C22 Aromatics (Unadj.)	1700	1210	71	1250	74	3	40-140/30
	C9-C18 Aliphatics	600	287	48	296	49	3	40-140/30
	C19-C36 Aliphatics	800	627	78	661	83	5	40-140/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
3386-33-2	1-Chlorooctadecane	76%	80%	40-140%
580-13-2	2-Bromonaphthalene	82%	84%	40-140%
84-15-1	o-Terphenyl	69%	69%	40-140%
321-60-8	2-Fluorobiphenyl	75%	79%	40-140%

Sample	Compound	Col #1	Col #2	Breakthrough	Limit
OP50527-BS	2-Methylnaphthalene	41.6	ND	0.0%	5.0
OP50527-BS	Naphthalene	35.8	ND	0.0%	5.0
OP50527-BSD	2-Methylnaphthalene	43.0	ND	0.0%	5.0
OP50527-BSD	Naphthalene	37.8	ND	0.0%	5.0

* = Outside of Control Limits.

Duplicate Summary

Job Number: FA12483
Account: TETRCAI Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP50527-DUP	NN007743.D	1	02/21/14	NAF	02/19/14	OP50527	GNN338
FA12480-1	NN007742.D	1	02/21/14	NAF	02/19/14	OP50527	GNN338

The QC reported here applies to the following samples: **Method:** MADEP EPH REV 1.1

FA12483-1

CAS No.	Compound	FA12480-1 ug/l	Q	DUP ug/l	Q	RPD	Limits
	C11-C22 Aromatics (Unadj.)	367		394		7	30 [a]
	C9-C18 Aliphatics	190 U		ND		nc	30 [a]
	C19-C36 Aliphatics	190 U		ND		nc	30 [a]

CAS No.	Surrogate Recoveries	DUP	FA12480-1	Limits
3386-33-2	1-Chlorooctadecane	56%	50%	40-140%
580-13-2	2-Bromonaphthalene	112%	92%	40-140%
84-15-1	o-Terphenyl	69%	65%	40-140%
321-60-8	2-Fluorobiphenyl	96%	85%	40-140%

(a) Advisory control limits.

9.3.1

9

* = Outside of Control Limits.

Southeast ACCUTEST LABORATORIES

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: FA12483
Account: TETRCAI - Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

QC Batch ID: MP26820
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 02/14/14

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	15	15		
Antimony	6.0	2	2.3		
Arsenic	10	2	2.4		
Barium	200	1	1		
Beryllium	4.0	.5	.5		
Cadmium	5.0	.5	.5		
Calcium	1000	50	50		
Chromium	10	1	2		
Cobalt	50	.5	.5		
Copper	25	1	1		
Iron	300	17	17		
Lead	5.0	1.1	1.1	0.10	<5.0
Magnesium	5000	50	56		
Manganese	15	.5	1		
Molybdenum	50	.5	.5		
Nickel	40	.5	.5		
Potassium	10000	200	200		
Selenium	10	2.3	2.3		
Silver	10	.65	.77		
Sodium	10000	500	500		
Strontium	10	.4	.4		
Thallium	10	1.5	2		
Tin	50	.7	1		
Titanium	10	.9	1		
Vanadium	50	.5	.5		
Zinc	20	3	3		

Associated samples MP26820: FA12483-1

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: FA12483
Account: TETRCAI - Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

QC Batch ID: MP26820
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:			02/14/14					02/14/14	
Metal	FA12483-1 Original	DUP	RPD	QC Limits	FA12483-1 Original	MS	Spikelot MPFLICP2	% Rec	QC Limits
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead	4.0	3.0	28.6 (a)	0-20	4.0	474	500	94.0	80-120
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

Associated samples MP26820: FA12483-1

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.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA12483
Account: TETRCAI - Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

QC Batch ID: MP26820
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 02/14/14

Metal	FA12483-1 Original	MSD	Spikelot MPFLICP2	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic						
Barium						
Beryllium						
Cadmium						
Calcium						
Chromium						
Cobalt						
Copper						
Iron						
Lead	4.0	460	500	91.2	3.0	20
Magnesium						
Manganese						
Molybdenum						
Nickel						
Potassium						
Selenium						
Silver						
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

Associated samples MP26820: FA12483-1

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: FA12483
Account: TETRCAI - Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

QC Batch ID: MP26820
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 02/14/14

Metal	BSP Result	Spikelot MPFLICP2	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead	448	500	89.6	80-120
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP26820: FA12483-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: FA12483
Account: TETRCAI - Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

QC Batch ID: MP26820
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 02/14/14

Metal	FA12483-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead	4.00	5.70	42.5 (a)	0-10
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP26820: FA12483-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

POST DIGESTATE SPIKE SUMMARY

Login Number: FA12483
Account: TETRCAI - Tetra Tech EC, Inc
Project: WE03, Camp Lejuene, NC

QC Batch ID: MP26820
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 02/14/14

Metal	Sample ml	Final ml	FA12483-1 Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic										
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper										
Iron										
Lead	9.8	10	4	3.92	52.2	0.2	2.5	50	96.6	80-120
Magnesium										
Manganese										
Molybdenum										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Strontium										
Thallium										
Tin										
Titanium										
Vanadium										
Zinc										

Associated samples MP26820: FA12483-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested

APPENDIX M

RISK CLASSIFICATION AND LAND USE FORM

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Limited Site Assessment Risk Classification and Land Use Form

Part I – Groundwater/Surface Water/Vapor Impacts

High Risk

1. Has the release contaminated any water supply well including any well used for non-drinking purposes? YES/**NO**
2. Is a water supply well used for drinking water located within 1,000 feet of the source area of the release? YES/**NO**
3. Is a water supply well not used for drinking water (e.g., irrigation, washing cars, industrial cooling water, filling swimming pools) located within 250 feet of the source area of the release? YES/**NO**
4. Does groundwater within 500 feet of the source area of the release have the potential for future use (there is no other source of water supply other than the groundwater)? YES/**NO**
5. Do vapors from the release pose a threat of explosion because of accumulation of the vapors in a confined space or pose any other serious threat to public health, public safety or the environment? YES/**NO**
   If yes, describe.
   _____
6. Are there any other factors that would cause the release to pose an imminent danger to public health, public safety, or the environment? YES/**NO**
   If yes, describe.
   _____

Intermediate Risk

7. Is a surface water body located within 500 feet of the source area of the release? YES/**NO**

   Only some intermittent drainage ditches/channels on the golf course are within 500 feet, with a couple golf course ponds just outside of 500 feet.

   If **YES**, does the maximum groundwater contaminant concentration exceed the surface water quality standards and criteria found in 15A NCAC 2B .0200 by a factor of 10? YES/**NO**

8. Is the source area of the release located within an approved or planned wellhead protection area as defined in 42 USC 300h-7(e)? YES/**NO**
   If yes, describe.
   _____
9. Is the release located in the Coastal Plain physiographic region as designated on a map entitled "Geology of North Carolina" published by the Department in 1985? **YES**/NO

If **YES**, is the source area of the release located in an area in which there is recharge to an unconfined or semi-confined deeper aquifer that is being used or may be used as a source of drinking water? If YES, describe. **YES**/NO

The potential source area is located just above the unconfined surficial aquifer. However, the surficial aquifer is not used for the potable water supply at MCB Camp Lejeune. The deeper Castle Hayne aquifer is the water source for potable water treatment facilities.

10. Do the levels of groundwater contamination for any contaminant exceed the gross contamination levels (See Table 2.) established by the Department? YES/**NO**

Part II - Land Use

Property Containing Source Area of Release

The questions below pertain to the property containing the source area of the release.

1. Does the property contain one or more primary or secondary residences (permanent or temporary)? Describe. YES/**NO**

   No residences in site area. An active golf course maintenance facility is in immediate area surrounded by the golf course itself.

2. Does the property contain a school, daycare center, hospital, playground, park, recreation area, church, nursing home, or other place of public assembly? Describe. YES/**NO**

   Golf course could be considered a recreation area for base personnel and guests at MCB Camp Lejeune. However, other than occasional golfers and maintenance crews, the immediate site area should not be considered a true place of public assembly.

3. Does the property contain a commercial (e.g., retail, warehouse, office/business space, etc.) or industrial (e.g., manufacturing, utilities, industrial research and development, chemical/petroleum bulk storage, etc.) enterprise, an inactive commercial or industrial enterprise, or is the land undeveloped? Describe. **YES**/NO

   As mentioned above, an active golf course maintenance shop is in close proximity to the site and new ASTs will provide fuel storage to support future course maintenance activities the area.

4. Do children visit the property? Explain. YES/**NO**

   Although it could be possible for a child to visit the property, it can be assumed this would not be a typical or regular place for a child to visit.

Is access to the property reliably restricted consistent with its use (e.g., by fences, security personnel or both)? Explain. **YES**/NO

The site is located on MCB Camp Lejeune which restricts access to base personnel and their families. However, there are no other restrictions to access the site area.

5. Does pavement, buildings, or other structures cap the contaminated soil? YES/**NO**

   Describe. *Only gravel, grass, and wooded areas near the site except for maintenance shop 60 feet to the northeast of the UST.*

   If yes, what mechanisms are in place or can be put into place to ensure that the contaminated soil will remain capped in the foreseeable future?

6. What is the zoning status of the property?

   MCB Camp Lejeune is no subject to county zoning requirements.

7. Is the use of the property likely to change in the next 20 years? Explain. YES/**NO**

   The current use of the MCB Camp Lejeune area is not likely to change in the near future.

Property Surrounding Source Area of Release

The questions below pertain to the area within 1,500 feet of the source area of the release (excludes property containing source area of the release):

1. What is the distance from the source area of the release to the **nearest** primary or secondary residence (permanent or temporary)?

   > 1,500 feet

2. What is the distance from the source area of the release to the **nearest** school, daycare center, hospital, playground, park, recreation area, church, nursing home or other place of public assembly?

   Besides the golf course area itself (recreation area?), > 1,500 feet.

3. What is the zoning status of properties in the surrounding area?

   MCB Camp Lejeune is no subject to county zoning requirements.

4. Briefly characterize the use and activities of the land in the surrounding area.

   As mentioned above, the site it associated with a golf course maintenance shop and completely surrounded by the golf course.

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